US EPA RECORDS CENTER REGION 5
490499

DRAFT FINAL
REMEDIAL INVESTIGATION REPORT
FOR THE
FORMER ARMCO HAMILTON PLANT SITE
401 Augspurger Road, New Miami, Ohio

AOC 1 – AOC 20
Tables 2.7.1 – 4.17.5

Volume 2 of 10

KEMRON
ENVIRONMENTAL SERVICES

November 2008

Table 2.7.1
Year 2000 Census data for area within 800 feet of the Site
AK Steel - Former Armco Hamilton Facility, New Miami, OH

Tract #	Block #	Population
10500	1000	0
10500	1001	0
10500	2000	0
10500	2001	0
10500	2002	3
10500	2003	36
10500	2010	38
10500	2014	57
10500	2015	65
10500	2016	40
10500	2017	0
10500	2018	6
10500	2998	0
10500	2999	0
10600	2013	195
10600	2014	74
10600	2015	5
10600	2016	30
10600	2017	0
10600	2018	4
10600	2038	4
10600	2037	8
10600	2040	9
10600	2041	0
10600	2042	15
10600	2043	3
10600	2046	6
10600	2047	0
10600	2996	0
10600	3018	55
10600	3022	10
10600	3023	0
11002	9995	0
11002	9996	0
11002	9997	0
Total		**663**

Table 2.7.2
Year 2000 Census data for area within 200 feet of the Off-Site COG Pipeline
AK Steel - Former Armco Hamilton Facility, New Miami, OH

Tract #	Block #	Population
010600	2015	5
010600	3015	55
10600	3014	16
10600	3010	16
10600	3013	14
10600	3006	1
10600	3005	41
11801	1014	3
11801	1015	60
11801	1027	178
11801	1016	4
11801	1025	15
11801	1026	1
11801	1001	36
11801	2007	71
11801	2005	30
11801	2004	34
11802	3001	41
14000	9005	14
14000	1013	40
14000	1017	85
14000	1014	19
14000	1016	50
14000	1015	29
13900	1008	1
14100	2008	136
Total		**995**

Table 3.2.1
Local Climatological Data from June 1997 through December 2005
Butler County Regional Airport, OH

Year Month	Year	Month	Maximum Temperature (F)	Minimum Temperature (F)	Total Precipitation (inches)	Average wind speed (mph)	Average Maximum Temperature (F)	Average Minimum Temperature (F)
199706	1997	6	91	49	5.1	25.95	80	58
199707	1997	7	97	51	2.26	16.82	85	64
199708	1997	8	92	48	2.04	21.79	85	62
199709	1997	9	77	44	0.55	21.26	76	55
199710	1997	10	86	21	1.63	27.14	73	37
199711	1997	11	67	13	2.97	33.3	58	26
199712	1997	12	58	8	1.83	36.51	47	19
199801	1998	1	66	5	1.66	32.1	57	23
199802	1998	2	66	13	0.41	36.43	51	27
199803	1998	3	84	11	1.56	47.19	73	21
199804	1998	4	77	26	6.67	37.91	64	42
199805	1998	5	90	43	4.46	21.87	78	56
199806	1998	6	94	41	5.89	24.26	86	53
199807	1998	7	92	58	3.86	19.39	83	69
199808	1998	8	95	53	1.17	19.37	81	70
199809	1998	9	96	43	2.07	17.99	80	59
199810	1998	10	84	29	1.68	22.91	74	46
199811	1998	11	62	22	1.43	31.55	60	34
199812	1998	12	70	8	2.14	25.07	58	18
199901	1999	1	69	-8	2.51	41.84	59	6
199902	1999	2	76	15	2.1	37.12	60	23
199903	1999	3	73	8	1.13	41.56	53	21
199904	1999	4	81	33	3.27	44.62	68	43
199905	1999	5	87	40	2.06	24.14	75	55
199906	1999	6	97	48	3.05	20.59	83	63
199907	1999	7	104	61	2.17	19.87	90	67
199908	1999	8	96	47	0.86	24.5	83	65
199909	1999	9	95	34	0.76	21.19	78	53
199910	1999	10	79	25	2.13	29.32	66	41
199911	1999	11	80	19	0.69	29.64	61	29
199912	1999	12	65	-1	3.12	33.44	56	12
200001	2000	1	63	-12	3.81	38.41	56	3
200002	2000	2	76	7	2.04	35.41	67	21
200003	2000	3	80	22	1.7	39.12	62	33
200004	2000	4	82	25	2.98	35.9	68	41
200005	2000	5	87	41	2.52	27.66	79	54
200006	2000	6	87	46	3.31	23.37	80	61
200007	2000	7	89	53	3.14	19.89	81	66
200008	2000	8	90	51	2.99	19.13	80	63
200009	2000	9	91	37	4.24	24.96	79	52
200010	2000	10	83	30	2.71	21.43	71	40
200011	2000	11	78	11	2.41	34.27	63	20
200012	2000	12	52	-3	3.15	37.34	44	6
200101	2001	1	54	-1	1.56	32.82	44	13
200102	2001	2	68	13	1.76	37.64	52	23
200103	2001	3	60	13	1.29	42.31	48	22
200104	2001	4	87	24	3.04	41.77	74	36
200105	2001	5	86	40	6.45	21.05	73	53
200106	2001	6	90	47	3.62	16.78	79	57
200107	2001	7	91	53	6.77	18.69	82	64
200108	2001	8	93	54	3.02	16.39	82	69
200109	2001	9	88	37	3.25	21.93	78	48
200110	2001	10	80	27	6.06	33.11	72	39
200111	2001	11	74	22	3.12	27.89	61	35
200112	2001	12	71	13	4.43	33	58	19
200201	2002	1	68	7	1.91	31.61	61	18
200202	2002	2	66	12	1.66	37.82	52	21
200203	2002	3	73	8	4.55	42.21	59	16
200204	2002	4	92	25	6.91	37.46	79	35
200205	2002	5	84	31	7.19	29	75	44
200206	2002	6	92	49	4.03	15.68	80	63
200207	2002	7	95	58	1.1	18.2	86	70
200208	2002	8	97	53	2.91	21.58	84	68
200209	2002	9	96	41	5.5	19.19	80	57
200210	2002	10	85	31	3.72	25.59	75	41
200211	2002	11	75	19	1.71	38.04	65	27
200212	2002	12	57	12	4.49	38.65	49	23
200301	2003	1	54	-16	1.32	40.83	45	0
200302	2003	2	57	6	3.02	39.52	47	14
200303	2003	3	75	11	2.66	34.28	62	22
200304	2003	4	84	27	1.98	37.94	69	36
200305	2003	5	84	35	6.37	28.96	73	50
200306	2003	6	89	40	4.43	18.65	76	54
200307	2003	7	92	56	7.28	17.34	81	69
200308	2003	8	92	55	3.72	14.21	80	67
200309	2003	9	84	36	6.81	16.84	76	50
200310	2003	10	81	29	1.85	23.08	68	42

Table 3.2.1
Local Climatological Data from June 1997 through December 2005
Butler County Regional Airport, OH

Month	Year	Month	Maximum Temperature (F)	Minimum Temperature (F)	Total Precipitation (inches)	Average wind speed (mph)	Average Maximum Temperature (F)	Average Minimum Temperature (F)
200311	2003	11	81	20	3.67	33.72	65	32
200312	2003	12	63	16	2.36	33.29	49	25
200401	2004	1	70	-18	5.1	43.46	59	0
200402	2004	2	66	-2	1.29	34.82	47	13
200403	2004	3	78	16	3.12	40.4	66	28
200404	2004	4	84	24	4.68	45.12	70	38
200405	2004	5	86	37	4.65	35.16	79	45
200406	2004	6	88	48	2.36	28.13	81	63
200407	2004	7	91	54	5.53	31.3	81	64
200408	2004	8	91	47	2.48	26.46	80	59
200409	2004	9	88	41	0.55	27.86	76	54
200410	2004	10	80	30	3.57	30.35	72	43
200411	2004	11	70	23	4.14	34.12	60	33
200412	2004	12	66	-19	2.14	43.07	56	0
200501	2005	1	68	-5	6.12	41.59	65	8
200502	2005	2	68	14	1.56	35.95	50	27
200503	2005	3	78	13	4.04	44.41	61	25
200504	2005	4	81	32	3.41	45.77	67	40
200505	2005	5	87	31	3.43	31.79	72	42
200506	2005	6	94	51	3.35	28.54	82	63
200507	2005	7	96	55	3.08	25.21	86	69
200508	2005	8	97	53	4.6	23.22	83	68
200509	2005	9	88	38	2.96	19.86	74	55
200510	2005	10	86	24	1.87	27.41	72	40
200511	2005	11	76	10	3.93	42.61	66	21
200512	2005	12	62	2	1.98	36.99	51	15

Source: National Climactic Data Center, U.S. Dept. of Commerce.
Location: Butler County Regional Airport, Hamilton, OH.

Table 3.7.1
Groundwater Elevations
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Well ID	Surface Elevation	TOC Elevation	Screen Elevation	Screen Length (feet)	Well Depth (feet bgs)	Site Wide Groundwater Elevation Gauging Events							
						12/29/2006	1/30/2006	2/17/2006	3/20/2006	4/14/2006	5/19/2006	6/16/2006	8/12/2008
MW-1D	600.97	602.41	521.97	20	100.37	574.98	573.76	573.16	575	574.27	575.70	574.73	563.93
MW-1S	601.09	603.64	581.09	15	35.16	574.73	575.81	575.48	577.7	575.29	575.62	576.01	573.23
MW-2D	599.03	600.86	526.03	20	96.5	574.9	573.74	573.06	575.08	574.49	575.79	574.98	563.56
MW-2S	598.76	601.2	582.76	10	29.13	574.92	575.56	575.26	577.06	575.11	575.72	575.72	573.45
MW-3D	599.49	601.19	521.49	21	100.15	574.87	573.8	573.27	575.21	574.47	575.73	574.94	564.26
MW-3S	599.73	602	572.73	10	40.1	575.09	575.61	575.28	577.49	575.15	575.79	575.83	573.02
MW-4M	600.25	602.55	542.25	10	70.8	–	–	–	–	574.28	575.64	574.72	563.23
MW-4S	600.3	602.61	576.8	10	36.63	575.88	573.83	577.57	574.81	573.66	576.08	574.11	567.56
MW-5S	597.83	600.23	561.83	10	30.2	576.91	574.62	574.5	575.69	574.26	576.75	574.82	572.65
MW-6M	602.47	604.77	547.47	10	67.4	–	–	–	–	577.23	577.95	577.78	573.37
MW-6S	602.56	605.58	581.56	10	34.45	576.32	577.18	578.28	578.91	575.87	576.42	576.48	573.08
MW-7M	599.23	601.53	539.23	10	69.4	–	–	–	–	576.38	577.28	576.98	571.17
MW-7S	598.76	601.61	577.76	10	35.2	576.98	575.94	575.64	577.29	575.72	577.36	576.22	571.99
MW-8M	599.19	601.49	549.19	10	63.8	–	–	–	–	576.53	577.47	577.12	572.49
MW-8S	599.06	601.81	585.06	10	26.93	578.16	577.87	577.75	578.88	577.69	578.06	578.10	577.4
MW-9M	600.61	602.91	555.61	5	52.1	–	–	–	–	576.02	578.77	576.48	573.95
MW-9S	600.46	602.91	583.46	15	35	579.72	577.97	577.87	578.79	578.79	579.74	577.96	576.27
MW-10M	607.29	609.59	569.29	6	45.95	–	–	–	–	582.19	583.14	582.70	581.66
MW-10S	605.42	607.6	587.42	10	30.67	579.56	580.6	580.49	581.92	580.83	581.36	581.33	580.69
MW-11S	607.95	610.19	590.95	10	30.12	581.93	582.29	582.15	582.28	582.14	582.21	582.14	582.02
MW-12S	609.79	611.94	592.29	10	30.05	582.95	584.88	584.45	586.34	584.79	584.83	583.73	583.87
MW-13M	619.13	621.38	572.13	10	59.1	–	–	–	–	583.80	585.07	583.93	582.96
MW-13S	618.98	621.2	596.98	10	35	Dry	588.47003	588.01	588.2	587.85	589.45	589.02	588.93
MW-14M	630.26	632.56	581.26	8	39.35	–	–	–	–	600.26	600.51	599.86	601.11
MW-14S	630.34	632.28	604.34	10	39.35	596.05005	597.62006	597.82	599.23004	599.59	599.80	599.16	600.19
MW-15S	614.48	617.22	600.48	10	30.06	595.19	596.12	595.72	591.12	597.53	596.44	595.31	595.03
MW-16S	612.61	614.81	594.61	10	30.13	588.62	590.5	589.17	591.21	590.70	590.56	589.61	588.72
MW-17M	610.36	613.43				–	–	–	–	–	–	–	589.56
MW-17S	610.66	612.95	596.66	10	27.38	588.98	589.92	589.92	590.47	590.04	590.17	589.83	582.53
MW-18S	615.99	618.14	587.99	10	40.2	581.71	582.97	582.93	585.13	583.98	584.71	584.38	583.56
MW-19S	599.71	602.23	582.71	10	30.2	575.37	575.32	575.02	577.1	574.92	575.93	575.52	573.44
MW-20M	599.17	601.47	549.17	10	62.77	–	–	–	–	576.91	577.71	577.51	572.36
MW-20S	598.83	601.1	585.83	10	25.62	579.2	578.6	578.55	578.86	578.66	579.03	578.72	578.47
MW-21M	599.43	601.73	559.43	10	47.49	–	–	–	–	576.34	578.61	576.79	578.69
MW-21S	599.49	601.98	585.49	10	27.32	578.85	580.51	580.27	583.69	580.81	581.55	580.57	574.08
MW-22S	604.79	606.6	580.79	12	39.08	–	–	–	–	580.49	575.78	576.14	573.78
MW-23S	599.32	602.47		10	30	–	–	–	–	–	–	–	573.07
MW-24S	599.50	602.49		10	30	–	–	–	–	–	–	–	573.2
MW-25S	599.75	602.36		10	22	–	–	–	–	–	–	–	585.37
MW-26S	598.95	601.57		10	22	–	–	–	–	–	–	–	581.96
MW-27M	599.01	602.04		10	18	–	–	–	–	–	–	–	573.95
MW-27S	598.96	602.11		10	18	–	–	–	–	–	–	–	586.01
MW-28S	599.28	602.22		10	20	–	–	–	–	–	–	–	579.73
MW-29S	600.32	602.17		10	21	–	–	–	–	–	–	–	581.55
MW-30S	602.74	605.02		10	22	–	–	–	–	–	–	–	584.73
MW-31S	598.89	601.8		10	20	–	–	–	–	–	–	–	579.49
MW-32S	596.41	598.89		10	28	–	–	–	–	–	–	–	572.74
SG-1*	–	–	–	–	–	–	–	–	–	–	4.40	Destroyed	–
SG-2 *	–	580.25	–	–	–	–	574.25	575.32	–	–	–	–	–
SG-3 *	–	–	–	–	–	–	574.25	575.32	–	–	7.11	Dry	–

Notes:
All elevations given in feet above mean sea level.
feet bgs= feet below ground surface
TOC = Top of casing
– = no data
* Stream Gauge
Elevation data not available for steam gauges SG-1 and SG-3

Table 3.7.2
Vertical Hydraulic Gradients
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Well Cluster		MW-4M/S		MW-6M/S		MW-7M/S		MW-8M/S		MW-9M/S		MW-10M/S		MW-14M/S		MW-20M/S		MW-21M/S	
Well ID		MW-4M	MW-4S	MW-6M	MW-6S	MW-7M	MW-7S	MW-8M	MW-8S	MW-9M	MW-9S	MW-10M	MW-10S	MW-14M	MW-14S	MW-20M	MW-20S	MW-21M	MW-21S
Surface Elevation		600.25	600.3	602.47	602.56	599.23	598.78	599.19	599.06	600.61	600.46	607.29	605.42	630.26	630.34	599.17	598.83	599.43	599.49
Top of Casing Elevation		602.55	602.61	604.77	605.58	601.53	601.61	601.49	601.81	602.91	602.91	609.59	607.6	632.56	632.28	601.47	601.1	601.73	601.98
Well Screen Elevation		542.25	576.8	547.47	581.56	539.23	577.78	549.19	585.06	555.61	583.46	569.29	587.42	581.26	604.34	549.17	585.83	559.43	585.49
Bottom of Screen Elevation		532.25	566.80	537.47	571.56	529.23	567.78	539.19	575.06	550.61	568.46	563.29	577.42	573.26	594.34	539.17	575.83	549.43	575.49
Screen Length (feet)		10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	5.00	15.00	6.00	10.00	8.00	10.00	10.00	10.00	10.00	10.00
4/14/2006 Vertical Gradients	GW Elev	574.28	573.66	577.23	575.87	576.38	575.72	576.53	577.69	576.02	578.79	582.19	580.83	600.26	599.59	576.91	578.66	576.34	580.81
	Submerged (feet)	10.00	6.86	10.00	4.31	10.00	7.94	10.00	2.63	5.00	10.33	6.00	3.41	8.00	5.25	10.00	2.83	10.00	5.32
	Screen Midpoint	537.25	573.37	542.47	579.405	534.23	573.81	544.19	583.745	553.11	578.295	566.29	585.715	577.26	601.715	544.17	584.415	554.43	582.83
	Low to High	-0.0139	up	-0.0308	up	-0.0136	up	0.0253	down	0.0843	down	-0.0564	up	-0.0216	up	0.0375	down	0.1240	down
	High to High	-0.0179	up	-0.0399	up	-0.0171	up	0.0323	down	0.0995	down	-0.0750	up	-0.0290	up	0.0477	down	0.1715	down
	Mid to Mid	-0.0172	up	-0.0368	up	-0.0167	up	0.0293	down	0.1100	down	-0.0700	up	-0.0274	up	0.0435	down	0.1574	down
	Low to Low	-0.0164	up	-0.0342	up	-0.0163	up	0.0268	down	0.1230	down	-0.0656	up	-0.0259	up	0.0399	down	0.1454	down
	High to Low	-0.0224	up	-0.0457	up	-0.0216	up	0.0349	down	0.1581	down	-0.0924	up	-0.0376	up	0.0517	down	0.2155	down
	Flow Direction	up		up		up		down		down		up		up		down		down	
5/19/2006 Vertical Gradients	GW Elev	575.64	576.08	577.95	576.42	577.28	577.36	577.47	578.06	578.77	579.74	583.14	581.36	600.51	599.80	577.71	579.03	578.61	581.55
	Submerged (feet)	10.00	9.28	10.00	4.86	10.00	9.58	10.00	3.00	5.00	11.28	6.00	3.94	8.00	5.46	10.00	3.20	10.00	6.06
	Screen Midpoint	537.25	572.16	542.47	579.13	534.23	572.99	544.19	583.56	553.11	577.82	566.29	585.45	577.26	601.61	544.17	584.23	554.43	582.46
	Low to High	0.0099	down	-0.0347	up	0.0016	down	0.0129	down	0.0295	down	-0.0738	up	-0.0228	up	0.0283	down	0.0815	down
	High to High	0.0127	down	-0.0449	up	0.0021	down	0.0164	down	0.0348	down	-0.0982	up	-0.0308	up	0.0360	down	0.1128	down
	Mid to Mid	0.0126	down	-0.0417	up	0.0021	down	0.0150	down	0.0393	down	-0.0929	up	-0.0292	up	0.0330	down	0.1049	down
	Low to Low	0.0125	down	-0.0390	up	0.0021	down	0.0138	down	0.0450	down	-0.0882	up	-0.0277	up	0.0304	down	0.0980	down
	High to Low	0.0174	down	-0.0523	up	0.0028	down	0.0179	down	0.0585	down	-0.1254	up	-0.0403	up	0.0395	down	0.1470	down
	Flow Direction	down		up		down		down		down		up		up		down		down	
6/16/2006 Vertical Gradients	GW Elev	574.72	574.11	577.78	576.48	576.96	576.22	577.12	578.10	576.48	577.96	582.70	581.33	599.86	599.16	577.51	578.72	576.79	580.57
	Submerged (feet)	10.00	7.31	10.00	4.92	10.00	8.44	10.00	3.04	5.00	9.50	6.00	3.91	8.00	4.82	10.00	2.89	10.00	5.08
	Screen Midpoint	537.25	573.145	542.47	579.1	534.23	573.56	544.19	583.54	553.11	578.71	566.29	585.465	577.26	601.93	544.17	584.385	554.43	582.95
	Low to High	-0.0137	up	-0.0295	up	-0.0152	up	0.0214	down	0.0451	down	-0.0568	up	-0.0225	up	0.0259	down	0.1048	down
	High to High	-0.0177	up	-0.0381	up	-0.0192	up	0.0273	down	0.0531	down	-0.0756	up	-0.0303	up	0.0330	down	0.1450	down
	Mid to Mid	-0.0170	up	-0.0355	up	-0.0188	up	0.0249	down	0.0578	down	-0.0714	up	-0.0284	up	0.0301	down	0.1325	down
	Low to Low	-0.0164	up	-0.0332	up	-0.0184	up	0.0229	down	0.0634	down	-0.0678	up	-0.0267	up	0.0276	down	0.1220	down
	High to Low	-0.0224	up	-0.0446	up	-0.0246	up	0.0299	down	0.0807	down	-0.0963	up	-0.0383	up	0.0358	down	0.1802	down
	Flow Direction	up		up		up		down		down		up		up		down		down	

Formula for vertical gradients is equal to the difference in groundwater elevations divided by the diference in the screen elevations.
GW Elev = Groundwater Elevation in feet above mean sea level
All elevations are given in feet above mean sea level.
Submerged = Submerged length of screen

Table 3.7.3
Hydraulic Conductivity Results
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Well ID		Hydraulic Conductivity (Falling Head Test) (ft/day)	Hydraulic Conductivity (Rising Head Test) (ft/day)	Geometric Mean for Well Location (ft/day)	Soil Classification within Screened Interval
SHALLOW WELLS					
MW-1S	Test 1	158.1	60.21	90.85	CL (wet silty clay) and GP/GW/GM (coarse grained sand)
	Test 2	99.81	71.69		
MW-3S	Test 1	121.5	66.55	79.7	GM - silty gravels, gravel-sand-silt mixtures
	Test 2	78.43	63.57		
MW-4S	Test 1	NA*	NA*	47.67	GW - medium grained sand to coarse grained sand and gravel, well rounded to sub-angular
	Test 2	45.77	57.82		
	Test 3	58.76	33.20		
MW-6S	Test 1	163.0	91.55	110.0	GM - silty gravels, gravel-sand-silt mixtures
	Test 2	136.0	89.27		
	Test 3	105.0	93.30		
MW-7S	Test 1	NA*	50.82	83.34	Wet sand and gravel
	Test 2	714.7	96.27		
	Test 3	38.73	83.90		
	Test 4	49.67	49.46		
MW-9S	Test 1	5.466	2.882	4.089	Coarse gravel-sized slag; medium/coarse sand; clay lens
	Test 2	5.448	2.559		
	Test 3	8.600	2.474		
MW-10S	Test 1	173.9	92.68	127.0	Medium/coarse sand with rounded gravel
MW-11S	Test 1	309.8	303.3	306.5	Sand with rounded well graded gravel, some silt
MW-12S	Test 1	203.8	127.0	160.9	Fine sand with silt, well graded, larger gravel
MW-14S	Test 1	32.74	75.26	80.62	Fine sand, well graded, moist, with large rounded gravel
	Test 2	84.43	99.95		
	Test 3	196.9	67.05		
MW-15S	Test 1	55.06	38.16	39.76	SW - fine sand, well graded, moist, some rounded gravel
	Test 2	32.25	36.87		
MW-16S	Test 1	35.19	18.09	26.72	SW - medium sand with rounded gravel, well graded, moist
	Test 2	41.10	19.47		
MW-18S	Test 1	143.3	168.5	151.9	SW - medium well graded sand, moist to wet
	Test 2	171.3	65.85		
	Test 3	289.6	145.0		
	Test 4	209.3	118.6		
MW-21S	Test 1	NA*	64.23	308.7	FILL - coarse grained slag, wet SW/CL - coarse sand with gravel; very stiff clay, wet to moist
	Test 2	1,577	111.9		
	Test 3	1,577	344.9		
	Test 4	147.0	294.9		
INTERMEDIATE WELLS					
MW-4M	Test 1	1.127	0.8984	1.074	SW/SP - sand, some gravel, large cobbles
	Test 2	1.129	1.162		
MW-6M	Test 1	266.1	264.4	251.9	SW - well graded medium sand
	Test 2	228.7	265.4		
	Test 3	200.2	298.5		
MW-7M	Test 1	62.98	69.07	71.34	SP - medium to coarse grained sand, poorly graded, some gravel, wet
	Test 2	83.37	62.41		
	Test 3	72.79	74.30		
	Test 4	76.76	71.38		
MW-9M	Test 1	13.21	9.826	10.88	SW/SP - sand, trace silt, some gravel
	Test 2	10.34	10.44		
MW-10M	Test 1	70.07	73.07	76.40	SP - coarse gravel, poorly graded sand
	Test 2	91.95	72.38		
MW-14M	Test 1	0.3168	0.3144	0.3269	Limestone
	Test 2	0.3351	0.3421		
MW-21M	Test 1	20.49	NA*	17.13	SP/SW/GW - sand, some gravel, large cobbles
	Test 2	NA*	13.24		
	Test 3	15.48	21.19		
	Test 4	20.23	16.47		
	Test 5	17.93	13.95		
DEEP WELLS					
MW-1D	Test 1	16.86	15.36	16.94	Sand and gravel
	Test 2	20.30	15.67		
MW-3D	Test 1	114.3	66.55	76.64	Coarse sand and gravel
	Test 2	86.77	79.87		
	Test 3	77.39	83.96		
	Test 4	64.19	44.71		
	Test 5	83.36	85.36		

Notes:

* - Data not analyzed due an undeterminable response in water level recorded at this well.

CL - Clay with Low Plasticity
CH - Clay with High Plasticity
SM - Silty Sand
SP - Poorly Graded Sand
GM - Silty Gravel
GP - Poorly Graded Gravel
ML - Silt with Low Plasticity

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA10SB2	AOC1CA10SB2	AOC1CA10SB3	AOC1CA10SB3	AOC1CA10SB4	AOC1CA10SB4	AOC1CA11SB2	AOC1CA11SB2	AOC1CA11SB2	AOC1CA12SB4	AOC1CA12SB4	AOC1CA12SB4
					Sample Top (ft below ground surface):	4	30	0	4	18	26	0	4	24	0	4	20
					Sample Bottom (ft below ground surface):	6	31.2	2	6	19.5	28	2	6	26	1.7	5.4	21.3
					Sample Date:	01/12/2006	01/12/2006	01/11/2006	01/11/2006	01/11/2006	01/11/2006	01/25/2006	01/25/2006	01/25/2006	01/10/2006	01/10/2006	01/10/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJ
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		13	<9.6 U	18	13	<8.6 U	<10 U	<12 U	<1200 U	<13 U	<12 U	<870000 UJ	3.1 J
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<10 U	<9.6 U	1.6 J	<13 U	<8.6 U	<10 U	<12 U	<1200 U	<13 U	<12 U	<870000 UJ	<10 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<10 U	<9.6 U	<10 U	<13 U	<8.6 U	<10 U	<12 U	<1200 U	<13 U	<12 U	<870000 UJ	<10 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		65	<19 U	56	56	4.0 J	3.8 J	<23 U	<2500 U	<26 U	8.9 J	<1700000 UJ	28
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		1.0 J	<4.8 U	6.1	0.67 J	0.47 J	0.45 J	0.63 J	**47000** J	2.8 J	0.89 J	<440000 UJ	3.1 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		0.97 J	<9.6 U	1.4 J	0.78 J	<8.6 U	<10 U	<12 U	**610** JB	<13 U	0.45 J	<870000 UJB	1.6 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<10 U	<9.6 U	<10 U	<13 U	<8.6 U	<10 U	<12 U	<1200 U	<13 U	<12 U	<870000 UJ	<10 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<5 U	0.36 J	<5 U	<6.4 U	0.92 J	0.87 J	<5.8 U	85 J	1.1 J	<6 U	<440000 UJ	<5.1 U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<5 U	<4.8 U	1.6 J	<6.4 U	0.82 J	0.73 J	<5.8 U	1000	<6.5 U	2.1 J	<440000 UJ	<5.1 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	0.89 J	2300	<6.5 U	0.50 J	<440000 UJ	<5.1 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<10 U	<9.6 U	<10 U	<13 U	<8.6 U	<10 U	<12 U	220 J	<13 U	<12 U	<870000 UJ	<10 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<5 U	0.57 J	<5 U	<6.4 U	1.5 J	1.6 J	0.59 J	260 J	1.6 J	<6 U	<440000 UJ	<5.1 U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 UB	0.61 J	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 UJB
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<5 U	<4.8 U	0.93 J	<6.4 U	1.4 J	1.0 J	1.2 J	**23000**	2.0 J	1.6 J	**74000** J	<5.1 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<5 U	<4.8 U	0.60 J	<6.4 U	0.66 J	0.43 J	0.46 J	**5900**	0.81 J	0.88 J	**27000** J	<5.1 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		0.45 J	0.46 J	4.7 J	0.50 J	1.9 J	1.6 J	0.53 J	**45000** J	2.7 J	2.1 J	<440000 UJ	<5.1 U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<5 U	<4.8 U	<5 U	<6.4 U	<4.3 U	<5.2 U	<5.8 U	<610 U	<6.5 U	<6 U	<440000 UJ	<5.1 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04													

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA13SB1	AOC1CA13SB1	AOC1CA13SB4	AOC1CA1SB1	AOC1CA1SB2	AOC1CA1SB2	AOC1CA1SB6	AOC1CA2SB1	AOC1CA2SB1	AOC1CA2SB1	AOC1CA2SB2	AOC1CA2SB3
					Sample Top (ft below ground surface):	0	6	20	2	0	4	22	0	4	24	24	4
					Sample Bottom (ft below ground surface):	1.3	8	21.3	4	1.7	5.8	23.7	2	6	26	25.3	5
					Sample Date:	01/11/2006	01/11/2006	01/11/2006	01/04/2006	01/03/2006	01/03/2006	01/03/2006	01/04/2006	01/04/2006	01/04/2006	01/05/2006	01/05/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 UJ	<5.6 UJ	<5.2 U	<4.6 U	1.3 JB
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	0.34 J
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	0.31 J
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<13 U	<14 U	4.2 J	<13 UJ	<9.6 U	<10 U	<10 U	4.6 J	<11 UJ	<10 U	<9.3 U	<9.7 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<13 U	<14 U	<13 U	<13 UJ	<9.6 U	<10 U	<10 U	<12 U	<11 UJ	<10 U	<9.3 U	<9.7 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<13 U	<14 U	<13 U	<13 UJ	<9.6 U	<10 U	<10 U	<12 U	<11 UJ	<10 U	<9.3 U	<9.7 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		<25 U	<28 U	27	19 J	51	<20 U	<20 U	11 J	<22 UJ	<21 U	<19 U	<19 U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	0.48 J	0.55 J	3.6 J	0.88 J	<2.6 U	2.5 J	4.1 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		<13 U	<14 U	2.4 J	<13 UJ	0.34 J	<10 U	<10 U	<9.3 U	<11 UJ	<10 U	0.29 J	<9.7 U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<13 U	<14 U	<13 U	<13 UJ	<9.6 U	<10 U	<10 U	<12 U	<11 UJ	<10 U	<9.3 U	<9.7 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<6.3 U	<7.1 U	0.47 J	0.66 J	0.65 J	0.92 J	1.4 J	1.4 J	7.3 J	5.3	4.6 J	8.4
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	0.37 J	0.84 J	0.52 J	<5.6 UJ	<2.7 U	2.4 J	4.9 J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<3.8 U	3.3 J	3.8 J
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<13 U	<14 U	<13 U	<13 UJ	<9.6 U	<10 U	<10 U	<12 U	<11 UJ	<10 U	<9.3 U	<9.7 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<6.3 U	<7.1 U	0.70 J	0.73 J	1.3 J	1.4 J	2.1 J	0.91 J	5.9 J	10	8.2	14
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<6.3 UB	<7.1 U	0.49 J	<6.7 UJ	<4.8 U	<5.1 UB	<5.0 UB	<6.1 UB	<5.6 UJ	<0.48 U	<4.6 UB	0.52 J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	0.61 J	1.4 J	<6.1 U	<5.6 UJ	<4.2 U	3.5 J	6.5
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	0.62 J	<6.1 U	<5.6 UJ	<1.8 U	1.6 J	2.9 J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	0.42 J	1.0 J	2.0 J	1.8 J	0.74 J	7.2	6.5	14
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 UB
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<6.3 U	<7.1 U	<6.4 U	<6.7 UJ	<4.8 U	<5.1 U	<5 U	<6.1 U	<5.6 UJ	<5.2 U	<4.6 U	<4.9 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04													

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:				AOC1CA2SB5		AOC1CA3SB1		AOC1CA3SB4		AOC1CA3SB7		AOC1CA3SB7		AOC1CA3SB7		AOC1CA4SB3		AOC1CA4SB3		AOC1CA4SB3		AOC1CA5SB2		AOC1CA5SB2		AOC1CA5SB3	
Sample Top (ft below ground surface):				0		30		28		0		4		26		0		4		24		0		24.7		2	
Sample Bottom (ft below ground surface):				1.7		32		29.7		1.4		5.3		26.5		1.8		5.6		29.9		1		25.5		3.8	
Sample Date:				01/05/2006		12/21/2005		12/20/2005		12/19/2005		12/19/2005		12/19/2005		01/05/2006		01/05/2006		01/05/2006		01/12/2006		01/12/2006		01/12/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																							
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<14	U	5.2	J	2.3	J	<8.8	U	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	3.9	J	40	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<14	U	<8.3	U	<7.3	UJ	<8.8	U	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	<8.3	U	12	J
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<14	U	<8.3	U	0.56	J	<8.8	U	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	<8.3	U	2.6	J
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	25	J	16	J	8.5	J	15	J	3.9	J	5.3	J	12	J	<19	U	<18	U	<18	U	21		93	J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	**21**		0.82	J	**33**	J	0.65	J	1.3	J	1.8	J	0.37	J	2.5	J	2.8	J	<4.6	U	0.40	J	**1500**	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	36	J	8.7	J	1.1	J	0.41	J	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	4.3	J	0.81	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	1.9	J
Chloroethane	6.5E+03	3.0E+03	NE	NE	<14	U	<8.3	U	<7.3	UJ	<8.8	U	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	<8.3	U	<16	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	4.1	J	0.92	J	1.0	J	0.79	J	2.6	J	4.2	J	1.0	J	6.1		6.1		0.33	J	0.29	J	6.4	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	2.7	J	0.78	J	3.9	J	0.36	J	0.98	J	1.8	J	<5.3	U	2.5	J	2.5	J	<4.6	U	<4.1	U	260	J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<7.1	U	4.5	J	18	J	<4.4	U	<4.5	U	<5	U	<5.3	U	3.4	J	3.2	J	<4.6	U	0.32	J	26	J
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<14	U	<8.3	U	<7.3	UJ	<8.8	U	<9	U	<10	U	<11	U	<9.4	U	<8.8	U	<9.1	U	<8.3	U	<16	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<7.1	U	1.1	J	1.7	J	1.1	J	3.4	J	5.9		1.3	J	11		9.4		0.52	J	0.39	J	12	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	1.1	J	<4.2	U	<3.7	UJ	0.36	J	<4.5	U	<5	U	<5.3	U	0.46	J	0.49	J	<4.6	U	<4.1	U	<8.1	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	1.5	J	<4.2	U	18	J	0.73	J	1.6	J	2.6	J	<5.3	U	3.7	J	4.0	J	<4.6	U	<4.1	U	2900	J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	1.0	J	0.27	J	1.3	J	0.28	J	0.60	J	1.1	J	<5.3	U	1.5	J	1.5	J	<4.6	U	<4.1	U	1400	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<7.1	U	0.33	J	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	950	J
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	12		1.0	J	1.0	J	1.1	J	3.2	J	4.7	J	0.36	J	7.5		7.4		0.27	J	0.31	J	1800	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<7.1	U	<4.2	U	<3.7	UJ	<4.4	U	<4.5	U	<5	U	<5.3	U	<4.7	U	<4.4	U	<4.6	U	<4.1	U	<8.1	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																							

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC1CA5SB3		AOC1CA6SB1		AOC1CA6SB1		AOC1CA6SB1		AOC1CA6SB1		AOC1CA6SB1		AOC1CA7SB1		AOC1CA7SB2		AOC1CA7SB2		AOC1CA8SB3		AOC1CA8SB3		AOC1CA8SB5	
					Sample Top (ft below ground surface): 4		0		2		4		6		22		26		0		6		18		0		6		22	
					Sample Bottom (ft below ground surface): 5.7		2		4		6		23.1		27.6		0.7		6.9		19		0.8		7.3		23.8	
					Sample Date: 01/12/2006		01/16/2006		01/16/2006		01/16/2006		01/16/2006		01/16/2006		01/10/2006		01/09/2006		01/09/2006		01/05/2006		01/05/2006		01/05/2006	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	0.50	J	<7.1	U	1.5	J	<6.3	U	<4.9	UJ
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	0.40	J	<6.3	U	<4.9	UJ
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<9.4	U	2.9	J	<2100	UB	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	<12	U	3.6	J	2.6	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<9.4	U	<12	U	<2100	U	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	1.7	J	<13	U	<9.9	UJ
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<9.4	U	<12	U	<2100	U	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	<12	U	<13	U	<9.9	UJ
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	4.7	J	11	J	<4200	U	<25	U	5.2	J	<20	U	52		<22	U	<29	U	51		33		16	J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	0.45	J	4.3	J	**1000**	J	1.9	J	1.1	J	0.40	J	0.36	J	4.6	J	8.9		0.89	J	<6.3	U	0.55	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<9.4	U	3.1	J	<2100	U	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	1.1	J	0.45	J	1.3	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Chloroethane	6.5E+03	3.0E+03	NE	NE	<9.4	U	<12	U	<2100	U	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	<12	U	<13	U	<9.9	UJ
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.90	J	<5.8	U	<1000	U	1.9	J	0.68	J	0.41	J	0.68	J	8.8		20		2.3	J	<6.3	U	2.2	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<4.7	U	0.54	J	950	J	2.6	J	0.41	J	<5.1	U	<6	U	4.7	J	6.7	J	0.45	J	<6.3	U	<4.9	UJ
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<4.7	U	<5.8	U	4500		6.6		<5.3	U	<5.1	U	<6	U	0.53	J	0.94	J	4.2	J	<6.3	U	<4.9	UJ
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<9.4	U	<12	U	260	J	<12	U	<11	U	<10	U	<12	U	<11	U	<14	U	<12	U	<13	U	<9.9	UJ
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	1.0	J	<5.8	U	190	J	2.7	J	0.68	J	0.60	J	1.1	J	17		28		3.3	J	<6.3	U	2.4	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	0.34	J	0.35	J	0.65	J	0.88	J	1.4	J	<6.2	UB	0.65	J	0.57	JB
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.7	U	<5.8	U	**28000**		37		0.85	J	1.0	J	<6	U	7.8		10		<6.2	U	<6.3	U	<4.9	UJ
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.7	U	<5.8	U	**9000**		14		<5.3	U	0.49	J	<6	U	3.5	J	4.4	J	<6.2	U	<6.3	U	<4.9	UJ
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.82	J	2.5	J	**7500**		12		0.97	J	1.2	J	0.79	J	14		22		1.0	J	<6.3	U	0.99	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.7	U	<5.8	U	<1000	U	<6.1	U	<5.3	U	<5.1	U	<6	U	<5.4	U	<7.1	U	<6.2	U	<6.3	U	<4.9	UJ
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																								

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA9SB1	AOC1CA9SB1	AOC1CA9SB1	AOC1CA9SB3	AOC1CA9SB3	AOC1CA9SB3	AOC1CA9SB3	AOC1CA9SB4	MW-11S	MW-11S	MW-11S	MW-12S
					Sample Top (ft below ground surface):	4	8	28	0	4	10	28	10	0	6	22	0
					Sample Bottom (ft below ground surface):	6	10	29.9	1.4	5.6	11.4	29.7	11.2	2	8	24	2
					Sample Date:	01/10/2006	01/10/2006	01/10/2006	01/09/2006	01/09/2006	01/09/2006	01/09/2006	01/10/2006	11/30/2005	11/30/2005	11/30/2005	11/30/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<960 U	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 UJ	<5.4 UJ	<4.2 UJ	<9.6 UJ
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<960 U	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<960 U	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<960 U	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<960 U	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<960 U	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		140 J	45	5.7 J	<11 U	<8.9 U	<10 U	<9.5 U	<9 U	<7.9 U	<11 UJ	<8.5 UJ	<19 UJ
2-Hexanone	NE	5.3E+06	NE	1.3E+04		6.5 J	<15 UJ	<9.2 U	<11 U	<8.9 U	<10 U	<9.5 U	<9 U	<7.9 U	<11 U	<8.5 U	<19 UJ
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		5.4 J	<15 U	<9.2 U	<11 U	<8.9 U	<10 U	<9.5 U	<9 U	<7.9 U	<11 U	1.3 J	<19 UJ
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		670 J	210	28	41	<18 U	<20 U	<19 U	3.6 J	<16 UJ	22 J	<17 U	40 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		9.1 J	3.0 J	2.9 J	0.35 J	3.6 J	7.3	2.0 J	1.0 J	0.24 J	0.41 J	1.7 J	1.4 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		1.2 J	2.1 J	1.00 J	29	0.30 J	0.66 J	<9.5 U	<9 U	<7.9 U	0.72 J	0.30 J	3.4 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Chloroethane	6.5E+03	3.0E+03	NE	NE		<18 UJ	<15 U	<9.2 U	<11 U	<8.9 U	<10 U	<9.5 U	<9 U	<7.9 U	<11 U	<8.5 U	<19 UJ
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	0.32 J	<9.6 UJ
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		1.1 J	<7.3 U	5.1	0.74 J	7.2	16	5.6	1.7 J	0.62 J	3.0 J	3.1 J	2.6 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		2.3 J	<7.3 UJ	3.3 J	<5.7 U	3.2 J	5.7	1.2 J	1.0 J	<3.9 U	<5.4 U	1.1 J	<9.6 UJ
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<8.8 UJ	0.63 J	<4.6 U	<5.7 U	0.37 J	0.70 J	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<18 UJ	<15 U	<9.2 U	<11 U	<8.9 U	<10 U	<9.5 U	<9 U	<7.9 U	<11 U	<8.5 U	<19 UJ
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		2.2 J	<7.3 U	6.5	1.8 J	15	27	7.2	2.3 J	1.1 J	3.1 J	5.0 J	2.4 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		1.3 J	<7.3 U	0.53 J	0.50 J	0.77 J	0.60 J	0.67 J	0.37 J	<3.9 UB	1.3 J	2.2 J	<9.6 UB
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		4.4 J	1.2 J	5.7	<5.7 U	3.6 J	8.1	1.8 J	1.6 J	<3.9 U	<5.4 U	1.5 J	<9.6 UJ
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		2.5 J	2.1 J	2.4 J	<5.7 U	2.0 J	3.6 J	0.63 J	0.74 J	<3.9 U	<5.4 U	0.82 J	<9.6 UJ
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		13 J	2.2 J	9.7	<5.7 U	9.8	18	4.2 J	2.6 J	0.39 J	0.40 J	3.7 J	0.79 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		8.8 J	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<8.8 UJ	<7.3 UJ	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<8.8 UJ	<7.3 U	<4.6 U	<5.7 U	<4.5 U	<5.1 U	<4.7 U	<4.5 U	<3.9 U	<5.4 U	<4.2 U	<9.6 UJ
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04													

Table 4.1-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					MW-12S		MW-12S		MW-16S		MW-16S		MW-16S		MW-17S		MW-17S		MW-17S		AOC1CA6SB5		AOC1CA6SB5		AOC1CA6SB5	
Sample Top (ft below ground surface):					4		24		0		4		22		0		6		20		0		4		20	
Sample Bottom (ft below ground surface):					6		26		2		6		24		2		8		22		2		6		22	
Sample Date:					11/30/2005		11/30/2005		12/05/2005		12/05/2005		12/06/2005		12/07/2005		12/07/2005		12/07/2005		6/12/2008		6/12/2008		6/12/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																						
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,1,2-Trichloro-1,2,2-trifluoroetha	5.6E+06	5.6E+06	NE	NE	<5.1	UJ	<4.5	UJ	<4.2	U	<4.8	UJ	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.949	U	<0.963	U	<0.959	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<1.93	U	<1.92	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<10	U	<9	U	<8.5	UJ	<9.5	U	<9.3	UJ	<9	U	3.8	J	<9.1	U	<2.37	U	<2.41	U	<2.4	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<10	U	<9	U	<8.5	U	<9.5	U	<9.3	U	<9	UJ	<13	U	<9.1	U	<2.37	U	<2.41	U	<2.4	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<10	U	<9	U	<8.5	U	<9.5	U	<9.3	U	<9	U	<13	U	<9.1	U	<2.37	U	<2.41	U	<2.4	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	21		<18	U	5.3	J	<19	U	<19	UJ	34		29		<18	U	<4.75	U	4.85	J	<4.8	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<5.1	U	1.5	J	0.33	J	5.0	J	4.3	J	0.29	J	0.69	J	6.4		<0.475	U	<0.481	U	<0.48	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.949	U	<0.963	U	<0.959	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.70	J	<9	U	<8.5	U	0.32	J	0.30	J	0.74	J	2.3	J	0.50	J	<0.475	U	<0.481	U	<0.48	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<10	U	<9	U	<8.5	UJ	<9.5	U	<9.3	UJ	<9	U	<13	U	<9.1	U	<0.949	U	<0.963	U	<0.959	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.1	U	<4.5	U	<4.2	UJ	<4.8	U	<4.6	UJ	0.48	J	<6.5	U	0.34	J	<1.9	U	<1.93	U	<1.92	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.55	J	3.5	J	<4.2	U	12		7.7		0.59	J	2.5	J	8.7		<0.475	U	<0.481	U	<0.48	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.237	U	<0.241	U	<0.24	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<5.1	U	0.92	J	<4.2	U	4.6	J	3.0	J	0.31	J	<6.5	U	5.0	J	<0.475	U	<0.481	U	<0.48	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<5.1	U	<4.5	U	<4.2	U	0.52	J	0.30	J	<4.5	UJ	<6.5	U	0.48	J	<0.475	U	<0.481	U	<0.48	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<10	U	<9	U	<8.5	U	<9.5	U	<9.3	U	<9	U	<13	U	<9.1	U	<0.949	U	<0.963	U	<0.959	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	0.50	J	6.1		<4.2	U	16		13		0.65	J	2.8	J	15		<0.949	U	<0.963	U	<0.959	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.1	UB	<4.5	UB	<4.2	UB	<4.8	UB	<4.6	UB	1.0	J	0.94	J	1.1	J	5	U	4.75	U	4.81	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.949	U	<0.963	U	<0.959	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.1	U	2.2	J	<4.2	U	5.8		4.6	J	0.50	J	<6.5	U	6.0							
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.1	U	0.81	J	<4.2	U	2.9	J	2.0	J	<4.5	UJ	<6.5	U	2.8	J						
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	0.39	J	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.44	J	4.0	J	<4.2	U	13		10		0.88	J	1.1	J	15		<0.475	U	<0.481	U	<0.48	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	UJ	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	0.43	J	<6.5	U	<4.6	U	<0.475	U	<0.481	U	<0.48	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	0.65	J	<6.5	U	<4.6	U	<0.237	U	<0.241	U	<0.24	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.1	U	<4.5	U	<4.2	U	<4.8	U	<4.6	U	<4.5	U	<6.5	U	<4.6	U	<0.949	U	<0.963	U	<0.959	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																	<0.475	U	<0.481	U	<0.48	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is
U - The sample was analyzed for, but was not detected above the sample
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

NE - Screening value not established. DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.1-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA1	AOC1CA1	AOC1CA1	AOC1CA10	AOC1CA10	AOC1CA10	AOC1CA11	AOC1CA11	AOC1CA11	AOC1CA12	AOC1CA12	AOC1CA12	AOC1CA13	AOC1CA13	AOC1CA13
					Sample Top (ft below ground surface):	0	2	10	0	2	10	0	2	10	0	2	10	0	2	10
					Sample Bottom (ft below ground surface):	2	10	10	2	10	10	2	10	10	2	10	10	2	10	10
					Sample Date:	01/03/2006	01/03/2006	01/03/2006	01/12/2006	01/12/2006	01/12/2006	01/25/2006	01/25/2006	01/25/2006	01/11/2006	01/11/2006	01/11/2006	01/11/2006	01/11/2006	01/11/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<390 U	<390 U	<350 U	<410 U	250 J	<350 U	<1100 U	220 J	<340 U	41 J	27000 J	<360 U	<400 U	99 J	<360 U
1-Methylnaphthalene	NE	NE	NE	NE																
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<390 U	<390 U	<350 U	<410 U	**97** J	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		140 J	86 J	<350 U	94 J	330 J	<350 U	190 J	1300	<340 U	160 J	**130000**	<360 U	<400 U	120 J	<360 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
4-Bromophenyl-phenylether	NE	NE																		
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE																
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<390 U	<390 U	<350 U	<410 U	58 J	<350 U	<1100 U	<1100 U	<340 U	<410 U	11000 J	<360 U	<400 U	<420 U	<360 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		71 J	<390 U	<350 U	190 J	67 J	<350 U	400 J	460 J	<340 U	170 J	160000	<360 U	51 J	<420 U	<360 U
Acetophenone	NE	NE	NE	3.0E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	240 J	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		93 J	70 J	<350 U	310 J	700	<350 U	620 J	980 J	<340 U	150 J	230000	<360 U	<400 U	220 J	<360 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 UJ	<410000 UJ	<1900 UJ	<2100 U	<2200 U	<1900 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		340 J	100 J	<350 U	**690**	**780**	<350 U	**1300**	**1600**	<340 U	360 J	**210000**	<360 U	110 J	280 J	<360 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**340** J	**110** J	<350 U	**610**	**440** J	<350 U	**1100** J	**1300**	<340 U	**360** J	**180000**	<360 U	**140** J	**160** J	<360 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		430	110 J	<350 U	620	**640**	<350 U	**1100** J	**1300**	<340 U	450	**140000**	<360 U	170 J	230 J	<360 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		330 J	100 J	<350 U	500	370 J	<350 U	850 J	810 J	<340 U	410	110000	<360 U	130 J	160 J	<360 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		330 J	90 J	<350 U	**560**	290 J	<350 U	**1100**	**1200**	<340 U	370 J	**170000**	<360 U	130 J	130 J	<360 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Bis(Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<390 U	54 J	76 J	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<390 U	<390 U	<350 U	95 J	<450 U	<350 U	160 J	**420** J	<340 U	46 J	**69000** J	<360 U	<400 U	<420 U	<360 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		430	170 J	<350 U	760	1400	<350 U	1300	1600	<340 U	460	**200000**	40 J	160 J	560	<360 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**110** J	<390 U	<350 U	**120** J	**110** J	<350 U	**220** J	**310** J	<340 U	**140** J	**35000** J	<360 U	<400 U	52 J	<360 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		56 J	40 J	<350 U	85 J	180 J	<350 U	250 J	750 J	<340 U	71 J	120000	<360 U	<400 U	81 J	<360 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		490	210 J	<350 U	1600	1900	<350 U	3000	3500	<340 U	600	**550000**	73 J	140 J	610	<360 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<390 U	<390 U	<350 U	120 J	560	<350 U	340 J	1100 J	<340 U	<410 U	**190000**	<360 U	<400 U	150 J	<360 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		260 J	67 J	<350 U	400 J	220 J	<350 U	**710** J	**720** J	<340 U	310 J	**100000**	<360 U	110 J	100 J	<360 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		**120** J	**150** J	<350 U	**200** J	**300** J	<350 U	**610** J	**10000**	<340 U	**170** J	**1100000**	**250** J	<400 U	**200** J	<360 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<390 U	<390 U	<350 U	<410 U	49 J	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<390 U	<390 U	<350 U	<410 U	120 J	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U	<360 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<2000 U	<2000 U	<1800 U	<2100 U	<2300 U	<1800 U	<5800 U	<5900 U	<1800 U	<2100 U	<410000 U	<1900 U	<2100 U	<2200 U	<1900 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		360 J	260 J	<350 U	1400	2600	<350 U	2500	3900	<340 U	570	**620000**	86 J	51 J	630	<360 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<390 U	<390 U	<350 U	<410 U	52 J	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	67 J	<360 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		440	200 J	<350 U	1400	1500	<350 U	2400	2900	<340 U	490	**380000**	52 J	190 J	550	<360 U

Table 4.1-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA2	AOC1CA2	AOC1CA2	AOC1CA3	AOC1CA3	AOC1CA3	AOC1CA4	AOC1CA4	AOC1CA4	AOC1CA5	AOC1CA5	AOC1CA5	AOC1CA6	AOC1CA6	AOC1CA6
					Sample Top (ft below ground surface):	0	2	10	0	2	10	0	2	10	0	2	10	0	2	10
					Sample Bottom (ft below ground surface):	2	10		2	10		2	10		2	10		2	10	
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	12/21/2005	12/21/2005	12/21/2005	01/06/2006	01/06/2006	01/06/2006	01/16/2006	01/16/2006	01/16/2006	01/16/2006	01/16/2006	01/16/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		45 J	<380 U	<350 U	<370 U	<380 U	<340 U	42 J	<360 U	<350 U	46 J	<400 U	<350 U	57 J	92 J	<350 U
1-Methylnaphthalene	NE	NE	NE	NE																
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	57 J	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<1900 U	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		250 J	<380 U	<350 U	98 J	71 J	<340 U	340 J	42 J	<350 U	140 J	150 J	<350 U	190 J	180 J	<350 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<1900 UJ	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<1900 UJ	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<1900 UJ	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
4-Bromophenyl-phenylether	NE	NE																		
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<380 U	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE																
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<1900 U	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<1900 U	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	54 J	48 J	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	47 J	<350 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		38 J	<380 U	<350 U	120 J	<380 U	160 J	45 J	<360 U	<350 U	110 J	<400 U	<350 U	60 J	120 J	<350 U
Acetophenone	NE	NE	NE	3.0E+05		<380 U	<380 U	<350 U	<370 U	<380 U	93 J	<380 U	<360 U	<350 U	<380 U	130 J	<350 U	<390 U	<390 U	<350 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		110 J	<380 U	<350 U	220 J	<380 U	<340 U	180 J	<360 U	<350 U	170 J	55 J	<350 U	150 J	450	<350 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<380 U	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		38 J	<2000 U	<1800 U	<1900 U	<2000 U	74 J	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		360 J	<380 U	<350 U	700	<380 U	100 J	540	<360 U	<350 U	420	80 J	<350 U	350 J	630	<350 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		370 J	<380 U	<350 U	770	41 J	78 J	530	<360 U	<350 U	390	<400 U	<350 U	390 J	530	<350 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		440 J	<380 U	<350 U	800	56 J	81 J	480	<360 U	<350 U	420	66 J	<350 U	530	510	<350 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		310 J	<380 U	<350 U	640	84 J	62 J	450	<360 U	<350 U	310 J	52 J	<350 U	400	300 J	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		330 J	<380 U	<350 U	650	<380 U	80 J	440	<360 U	<350 U	330 J	48 J	<350 U	300 J	450	<350 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Bis(Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		45 J	87 J	38 J	45 J	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	50 J	<390 U	<390 U	<350 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<380 U	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<380 UJ	<380 U	<350 U	73 J	<380 U	<340 U	65 J	<360 U	<350 U	41 J	<400 U	<350 U	40 J	87 J	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		550 J	<380 U	<350 U	960	89 J	86 J	660	<360 U	<350 U	560	130 J	<350 U	540	870	<350 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		110 J	<380 U	<350 U	200 J	<380 U	<340 U	140 J	<360 U	<350 U	100 J	<400 U	<350 U	120 J	110 J	<350 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		95 J	<380 U	<350 U	63 J	<380 U	50 J	100 J	<360 U	<350 U	62 J	84 J	<350 U	89 J	170 J	<350 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		540 J	<380 U	<350 U	1300	44 J	340 J	560	<360 U	<350 U	790	220 J	<350 U	570	1400	<350 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		44 J	<380 U	<350 U	41 J	<380 U	320 J	78 J	<360 U	<350 U	91 J	<400 U	<350 U	48 J	380 J	<350 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		250 J	<380 U	<350 U	510	44 J	58 J	320 J	<360 U	<350 U	260 J	<400 U	<350 U	300 J	250 J	<350 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		160 J	<380 U	<350 U	150 J	49 J	440	210 J	<360 U	<350 U	160 J	410	<350 U	190 J	560	<350 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	68 J	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<1900 UJ	<2000 U	<1800 U	<1900 U	<2000 U	<1800 U	<1900 U	<1900 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U	<2000 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		500 J	<380 U	<350 U	790	190 J	<340 U	720	<360 U	<350 U	600	540	<350 U	610	1600	<350 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	<390 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		450 J	<380 U	<350 U	1100	52 J	200 J	570	<360 U	<350 U	590	150 J	<350 U	490	1000	<350 U

Table 4.1-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC1CA7	AOC1CA7	AOC1CA7	AOC1CA8	AOC1CA8	AOC1CA8	AOC1CA9	AOC1CA9	AOC1CA9	MW-11S	MW-11S	MW-11S	MW-12S	MW-12S	MW-12S
					Sample Top (ft below ground surface):	0	2	10	0	2	10	0	2	10	0	6	22	0	4	24
					Sample Bottom (ft below ground surface):	2	10		2	10		2	10		2	8	24	2	6	26
					Sample Date:	01/10/2006	01/10/2006	01/10/2006	01/06/2006	01/06/2006	01/06/2006	01/09/2006	01/10/2006	01/10/2006	11/30/2005	11/30/2005	11/30/2005	11/30/2005	11/30/2005	11/30/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
1-Methylnaphthalene	NE	NE	NE	NE																
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		71 J	74 J	<350 U	240 J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	320 J	<400 U	<360 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
4-Bromophenyl-phenylether	NE	NE																		
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE																
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 UJ	<2000 UJ	<1800 UJ	<6000 UJ	<2100 UJ	<1800 UJ
4-Nitrophenol	NE	NE	NE	5.1E+03		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	140 J	<400 U	<360 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		52 J	<360 U	<350 U	100 J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	910 J	<400 U	<360 U
Acetophenone	NE	NE	NE	3.0E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		100 J	95 J	<350 U	230 J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	930 J	<400 U	<360 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<1900 UJ	<1900 UJ	<1800 UJ	100 J	<1800 U	<1900 U	<110000 UJ	<22000 UJ	<1800 UJ	<1900 UJ	<2000 UJ	<1800 UJ	1700 J	<2100 UJ	<1800 UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		330 J	290 J	<350 U	**740**	<350 U	<360 U	<22000 U	<4300 U	<350 U	46 J	<400 U	<350 U	**1300**	<400 U	<360 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**450**	**450**	<350 U	**860**	<350 U	<360 U	<22000 U	<4300 U	<350 U	52 J	<400 U	<350 U	**1400**	<400 U	<360 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		480	350 J	<350 U	**800**	<350 U	<360 U	<22000 U	<4300 U	<350 U	47 J	<400 U	<350 U	**1400**	<400 U	<360 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		450	410	<350 U	700	<350 U	<360 U	<22000 U	470 J	<350 U	54 J	<400 U	<350 U	1000 J	<400 U	<360 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		**410**	330 J	<350 U	**700**	<350 U	<360 U	<22000 U	<4300 U	<350 U	48 J	<400 U	<350 U	**1300**	<400 U	<360 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Bis(Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	220 J	<360 U	<400 U	<350 U	150 J	<400 U	<360 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<1900 U	<2000 U	<1800 U	<1700 U	<2100 U	<1800 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		40 J	39 J	<350 U	83 J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	240 J	<400 U	<360 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		420	360	<350 U	920	<350 U	<360 U	<22000 U	690 J	<350 U	58 J	<400 U	<350 U	1700	<400 U	<360 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**140** J	**110** J	<350 U	**220** J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	**350** J	<400 U	<360 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<370 U	<360 U	<350 U	92 J	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	220 J	<400 U	<360 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		450	390	<350 U	950	<350 U	<360 U	<22000 U	450 J	<350 U	85 J	<400 U	<350 U	1400	<400 U	<360 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		360 J	320 J	<350 U	570	<350 U	<360 U	<22000 U	<4300 U	<350 U	44 J	<400 U	<350 U	**900** J	<400 U	<360 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		59 J	56 J	<350 U	**180** J	<350 U	<360 U	<22000 U	<4300 U	**120** J	<360 U	<400 U	<350 U	**210** J	<400 U	<360 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	170 J	<400 U	<360 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<1900 U	<1900 U	<1800 U	<2100 U	<1800 U	<1900 U	<110000 U	<22000 U	<1800 U	<1900 U	<2000 U	<1800 U	<6000 U	<2100 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		350 J	340 J	<350 U	800	36 J	<360 U	<22000 U	630 J	<350 U	<360 U	<400 U	<350 U	1400	<400 U	<360 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U	<360 U	<400 U	<350 U	<1200 U	<400 U	<360 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		420	370	<350 U	920	<350 U	<360 U	<22000 U	500 J	<350 U	64 J	<400 U	<350 U	1700 J	<400 U	<360 U

Table 4.1-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: MW-16S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 12/05/2005		Sample Location: MW-16S Sample Top (ft below ground surface): 4 Sample Bottom (ft below ground surface): 6 Sample Date: 12/05/2005		Sample Location: MW-16S Sample Top (ft below ground surface): 22 Sample Bottom (ft below ground surface): 24 Sample Date: 12/06/2005		Sample Location: MW-17S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 12/07/2005		Sample Location: MW-17S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 12/07/2005		Sample Location: MW-17S Sample Top (ft below ground surface): 20 Sample Bottom (ft below ground surface): 22 Sample Date: 12/07/2005		Sample Location: AOC1CA6SB5 Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 6/12/2008		Sample Location: AOC1CA6SB5 Sample Top (ft below ground surface): 4 Sample Bottom (ft below ground surface): 6 Sample Date: 6/12/2008		Sample Location: AOC1CA6SB5 Sample Top (ft below ground surface): 20 Sample Bottom (ft below ground surface): 22 Sample Date: 6/12/2008	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	110	J	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
1-Methylnaphthalene	NE	NE	NE	NE													<5.48	U	<5.01	U	<5	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U						
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<2000	U	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	190	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE													<88.5	U	<82.9	U	<83	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<2000	UJ	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<177	U	<166	U	<166	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE													<88.5	U	<82.9	U	<83	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<2000	UJ	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<2000	U	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
4-Bromophenyl-phenylether	NE	NE															<88.5	U	<82.9	U	<83	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE													<88.5	U	<82.9	U	<83	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<2000	UJ	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<2000	U	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Acetophenone	NE	NE	NE	3.0E+05	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	140	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<390	UJ	<350	UJ	<350	UJ	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<2000	UJ	<1800	UJ	<1800	UJ	<2000	U	<2500	U	<1900	U	<5.48	U	<5.01	U	<83	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	140	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	120	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	280	J	<350	U	<350	U	52	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	190	J	<350	U	<350	U	55	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	140	J	<350	U	<350	U	56	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Bis(Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE													<88.5	U	<82.9	U	<83	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<390	UJ	36	J	<350	U	<390	U	<480	U	120	J	<88.5	U	<82.9	U	<83	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<390	UJ	<1800	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<390	UJ	<350	U	<1800	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	330	J	<350	U	<350	U	50	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	71	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	100	J	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<390	UJ	52	J	37	J	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	250	J	<350	U	<350	U	59	J	<480	U	<370	U	<5.48	U	5.4	J	<83	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	50	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<390	UJ	<350	UJ	<350	UJ	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	120	J	<350	U	<350	U	42	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<5.01	U	<83	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	2200	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	<5.01	U	<83	U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U						
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<390	U	<350	U	<350	U	<390	U	<480	U	<370	U						
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<2000	U	<1800	U	<1800	U	<2000	U	<2500	U	<1900	U	<354	U	<332	U	<332	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	500	J	<350	U	<350	U	<390	U	<480	U	<370	U	<5.48	U	5.26	J	<83	U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<390	UJ	<350	U	<350	U	<390	U	<480	U	<370	U	<88.5	U	<82.9	U	<83	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	220	J	<350	U	<350	U	54	J	<480	U	<370	U	<5.48	U	<5.01	U	<83	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

R - *The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.*
U - The sample was analyzed for, but was not detected above the sample detection limit.

NE - Screening value not established. IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the *Ecological Screening Values: Low Effects* table.

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC1CA1		AOC1CA1		AOC1CA1		AOC1CA10		AOC1CA10		AOC1CA10		AOC1CA11		AOC1CA11		AOC1CA11	
					Sample Top (ft below ground surface):		0		2		10		0		2		10		0		2		10	
					Sample Bottom (ft below ground surface):		2		10				2		10				2		10			
					Sample Date:		01/03/2006		01/03/2006		01/03/2006		01/12/2006		01/12/2006		01/12/2006		01/25/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																				
Aluminum	1.0E+05	7.6E+04	NE	NE	11800	J	8900	J	2500	J	14400		7100		3190		20600		6030		3150			
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7.1	UJ	<6.9	UJ	<6.1	UJ	<7.3	UJ	<8.0	UJ	<6.0	UJ	<6.8	U	<6.7	U	<6.1	U		
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**5.7**	J	**6.7**	J	**3.1**	J	**12.9**	J	**24.0**	J	**3.3**	J	**18.0**	J	**14.0**	J	**4.4**	J		
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	121		39.2		15.2		112	J	88.5	J	13.8	J	193		59.8		11.6			
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	3.0		<0.58	U	<0.51	U	2.2		1.1		<0.5	U	2.8		0.73		<0.51	U		
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**3.0**		<0.58	U	<0.51	U	**2.0**		**14.0**		<0.5	U	**5.1**		**3.3**		<0.51	U		
Calcium	NE	NE	NE	NE																				
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**59.4**	J	12.2	J	4.6	J	**65.9**		**63.3**		5.6		**50.6**		**24.5**		8.5			
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.9	U	<5.8	U	<5.1	U	6.6		10.1		<5	U	7.2		**14.4**		<5.1	U		
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**35.7**	J	10.5	J	5.9	J	**39.7**		**73.8**		6.8		**66.1**		**51.5**		10.0			
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**4.56**		<1.19	U	<1.07	U	**6.46**		**11.2**		<1.05	U	**2.31**		**4.45**		<1.04	U		
Iron	1.0E+05	2.3E+04	NE	NE	**103000**	J	13500	J	5770	J	**188000**		**253000**	J	7100	J	**101000**		**66800**		7040			
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**144**	J	6.5	J	<5.1	UJ	**316**		**1660**		<5.2	U	**101**		**157**		3.3			
Maganesium	NE	NE	NE	NE																				
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**3360**		**504**		219		**4250**	J	**3550**	J	483	J	**3260**		**1090**		251			
Mercury	NE	NE	NE	3.0E-01	<0.04	U	<0.04	U	<0.03	U	0.04		0.09		<0.03	U	0.19		0.08		<0.03	U		
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	22.0		11.7		4.8		**29.6**		**37.1**		6.5		**33.3**		**39.7**		8.6			
Potassium	NE	NE	NE	NE																				
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<2.4	U	<2.3	U	<2	U	<1.2	U	<1.3	U	<1	U	<1.1	U	**3.1**		<1	U		
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	**4.6**		<1.2	U	<1	U	<3.6	U	<1.3	U	<1	U	<1.1	U	<1.1	U	<1	U		
Sodium	NE	NE	NE	NE																				
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<1.2	UJ	<1.2	UJ	<1.0	UJ	<12.1	U	<13.3	U	<10	U	<11.3	U	<11.1	U	<10.2	U		
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**42.2**		**20.6**		6.4		**39.9**		**42.1**		**12.6**		**28.7**		**23.2**		**10.8**			
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**670**	J	35.0	J	13.6	J	**1630**	J	**10700**	J	17.2	J	**525**		**1110**		18.2			

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: AOC1CA12 / Sample Top (ft below ground surface): 0 / Sample Bottom (ft below ground surface): 2 / Sample Date: 01/11/2006		Sample Location: AOC1CA12 / Sample Top (ft below ground surface): 2 / Sample Bottom (ft below ground surface): 10 / Sample Date: 01/11/2006		Sample Location: AOC1CA12 / Sample Top (ft below ground surface): 10 / Sample Date: 01/11/2006		Sample Location: AOC1CA13 / Sample Top (ft below ground surface): 0 / Sample Bottom (ft below ground surface): 2 / Sample Date: 01/11/2006		Sample Location: AOC1CA13 / Sample Top (ft below ground surface): 2 / Sample Bottom (ft below ground surface): 10 / Sample Date: 01/11/2006		Sample Location: AOC1CA13 / Sample Top (ft below ground surface): 10 / Sample Date: 01/11/2006		Sample Location: AOC1CA2 / Sample Top (ft below ground surface): 0 / Sample Bottom (ft below ground surface): 2 / Sample Date: 01/05/2006		Sample Location: AOC1CA2 / Sample Top (ft below ground surface): 2 / Sample Bottom (ft below ground surface): 10 / Sample Date: 01/05/2006		Sample Location: AOC1CA2 / Sample Top (ft below ground surface): 10 / Sample Date: 01/05/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE	20100		10500		6900		13300		14200		7750		27200	J	15700	J	2520	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7.3	UJ	<6.8	UJ	<6.6	UJ	<6.9	UJ	<7.5	UJ	<6.3	UJ	<6.7	UJ	<6.9	U	<6.1	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**14**	J	**14.1**	J	**5.3**	J	**6.6**	J	**7.5**	J	**5.2**	J	<1.1	UJ	**8.8**	J	**5.6**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	151	J	82.7	J	69.3	J	153	J	113	J	42.6	J	216		69.7		**720**	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	3.0		<0.57	U	<0.55	U	0.82		<0.63	U	<0.52	U	6.6		0.88		<0.51	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**0.61**		<0.57	U	<0.55	U	<0.57	U	<0.63	U	<0.52	U	**1.9**		<0.57	U	<0.51	U
Calcium	NE	NE	NE	NE																		
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**66.7**		16.9		11.2		19.7		**20.5**		12.0		**29.7**	J	19.3	J	6.5	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<6	U	7.5		5.6		7.2		11.1		6.3		<5.6	U	7.3		<5.1	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	23.2		**34.4**		13.8		16.0		17.8		13.0		15.2	J	12.5	J	9.0	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.25	U	**3.31**		<1.1	U	<1.21	U	**3.62**		<1.1	U	**1.97**		<1.16	U	<1.05	U
Iron	1.0E+05	2.3E+04	NE	NE	**129000**	J	**32300**	J	15500	J	**27300**	J	**36200**	J	17200	J	**70900**	J	20500	J	5970	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**233**		**393**		8.4		**27.4**		**153**		7.9		**72.1**	J	10.8	J	<5.1	UJ
Maganesium	NE	NE	NE	NE																		
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**4730**	J	**611**	J	352	J	**960**	J	**1720**	J	372	J	**3380**		**888**		**4340**	
Mercury	NE	NE	NE	3.0E-01	0.07		**1.2**		<0.03	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.03	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	13.6		13.7		13.7		16.2		19.9		15.1		9.5		19.2		8.3	
Potassium	NE	NE	NE	NE																		
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**6.3**		**4.7**		<1.1	U	**3.1**		**4.1**		<1	U	<11.2	U	<2.3	U	<2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<3.6	U	<1.1	U	<1.1	U	<1.1	U	<1.3	U	<1	U	3.3		<1.1	U	<1	U
Sodium	NE	NE	NE	NE																		
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<12.1	U	<11.4	U	<11	U	<11.5	U	<12.6	U	<10.5	U	<1.1	UJ	<1.1	UJ	<1.0	UJ
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**45.1**		**29.8**		**16.1**		**23.8**		**30.7**		**16.3**		**28.9**		**32.8**		7.8	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**942**	J	**161**	J	29.2	J	**73.5**	J	**228**	J	35.0	J	**481**	J	**53.8**	J	17.7	J

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: AOC1CA3 Top: 0 Bottom: 2 Date: 12/21/2005		Sample Location: AOC1CA3 Top: 2 Bottom: 10 Date: 12/21/2005		Sample Location: AOC1CA3 Top: 10 Date: 12/21/2005		Sample Location: AOC1CA4 Top: 0 Bottom: 2 Date: 01/06/2006		Sample Location: AOC1CA4 Top: 2 Bottom: 10 Date: 01/06/2006		Sample Location: AOC1CA4 Top: 10 Date: 01/06/2006		Sample Location: AOC1CA5 Top: 0 Bottom: 2 Date: 01/16/2006		Sample Location: AOC1CA5 Top: 2 Bottom: 10 Date: 01/16/2006		Sample Location: AOC1CA5 Top: 10 Date: 01/16/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE	25900		5460		3400		19200	J	4060	J	3510	J	15100		14000		7840	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.7	U	<7	U	<6.2	U	<6.8	UJ	<6.4	UJ	<6.1	UJ	<6.8	U	<7.2	U	<6.2	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**7.4**		**8.3**		**5.2**		**8.1**	J	**4.7**	J	**6.0**	J	**12.4**		**10.0**		**4.9**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	249		39.6		267		152		20.9		14.9		143		72.9		33.8	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	3.5		<0.58	U	<0.52	U	3.5		<0.53	U	<0.51	U	2.4		<0.6	U	<0.52	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**2.7**		**3.1**		<0.52	U	**1.6**		<0.53	U	<0.51	U	**1.2**		<0.6	U	<0.52	U
Calcium	NE	NE	NE	NE																		
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**29.9**		**24.2**		6.8		**41.5**	J	6.9	J	9.5	J	**30.2**		**20.2**		12.7	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.6	U	<5.8	U	<5.2	U	5.8		<5.3	U	<5.1	U	6.0		11.5		5.7	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	27.8		**37.5**		10.2		**51.9**	J	7.4	J	8.1	J	22.5		**54.7**		13.4	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**3.86**		**2.65**		<1.04	U	**1.76**		<1.1	U	<1.05	U	<1.14	U	<1.22	U	<1.07	U
Iron	1.0E+05	2.3E+04	NE	NE	**57100**		**38700**		8280		**57000**	J	8740	J	10400	J	**88400**		**23700**		15600	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**33.1**		**361**		<5.2	U	**57.0**	J	<5.3	UJ	<5.1	UJ	**108**		**12.8**		6.1	
Maganesium	NE	NE	NE	NE																		
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**3740**		**715**		**1760**		**2110**		471		312		**2740**		433		319	
Mercury	NE	NE	NE	3.0E-01	<0.03	U	0.05		<0.03	U	<0.04	U	<0.04	U	<0.03	U	<0.04	U	<0.04	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	12.0		18.7		6.8		**36.3**		11.4		8.8		15.5		20.1		13.8	
Potassium	NE	NE	NE	NE																		
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**4.7**		**3.9**		**3.1**		<2.3	U	<2.1	U	<2	U	**6.2**		**3.3**		**1.3**	
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	1.9		<1	U	3.0		<1.1	U	<1	U	<1.1	U	<1.2	U	<1	U
Sodium	NE	NE	NE	NE																		
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<11.2	U	<11.6	U	<10.3	U	<1.1	UJ	**1.3**	J	**1.1**	J-	<5.7	U	<6	U	<5.2	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**21.0**		**19.5**		**9.8**		**27.6**		**13.9**		**10.5**		**25.5**		**35.4**		**16.9**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**124**		**2430**		22.7		**222**	J	42	J	23.9	J	**514**		**74.0**		35.6	

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: AOC1CA6 Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 01/16/2006		Sample Location: AOC1CA6 Sample Top (ft below ground surface): 2 Sample Bottom (ft below ground surface): 10 Sample Date: 01/16/2006		Sample Location: AOC1CA6 Sample Top (ft below ground surface): 10 Sample Date: 01/16/2006		Sample Location: AOC1CA7 Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 01/10/2006		Sample Location: AOC1CA7 Sample Top (ft below ground surface): 2 Sample Bottom (ft below ground surface): 10 Sample Date: 01/10/2006		Sample Location: AOC1CA7 Sample Top (ft below ground surface): 10 Sample Date: 01/10/2006		Sample Location: AOC1CA8 Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 01/06/2006		Sample Location: AOC1CA8 Sample Top (ft below ground surface): 2 Sample Bottom (ft below ground surface): 10 Sample Date: 01/06/2006		Sample Location: AOC1CA8 Sample Top (ft below ground surface): 10 Sample Date: 01/06/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE	12700		25800		3580		13200		3430		2940		13000	J	6130	J	8300	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7	U	<6.8	U	<6.4	U	<6.6	UJ	<6.2	UJ	<6.3	UJ	<7.1	UJ	<6.4	UJ	<6.5	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**11.9**		**13.7**		**4.9**		**5.4**	J	**2.9**	J	**4.0**	J	<1.2	UJ	**5.0**	J	**6.4**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	125		114		16.0		158	J	12.0	J	12.8	J	134		42.3		64.2	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	1.9		<0.57	U	<0.53	U	1.3		<0.52	U	<0.52	U	2.4		<0.53	U	<0.54	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**0.84**		<0.57	U	<0.53	U	<0.55	U	<0.52	U	<0.52	U	**5.1**		**0.68**		<0.54	U
Calcium	NE	NE	NE	NE																		
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**48.0**		**29.9**		6.1		16.1		6.7		5.1		**86.6**	J	9.9	J	12.6	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.8	U	7.0		<5.3	U	<5.5	U	<5.2	U	<5.2	U	<5.9	U	<5.3	U	5.8	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	17.9		18.7		8.3		12.6		5.3		9.4		**93.7**	J	9.8	J	14.0	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**2.30**		<1.19	U	<1.07	U	<1.13	U	<1.09	U	<1.05	U	**1.36**		<1.06	U	<1.1	U
Iron	1.0E+05	2.3E+04	NE	NE	**142000**		**36300**		10500		**30200**	J	8220	J	8600	J	**190000**	J	13200	J	15700	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**119**		**14.9**		4.0		**43.0**		5.9		5.3		**47.5**	J	**33.8**	J	6.5	J
Maganesium	NE	NE	NE	NE																		
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**2980**		258		326		**1870**	J	350	J	266	J	**3250**		**512**		386	
Mercury	NE	NE	NE	3.0E-01	<0.04	U	<0.04	U	<0.03	U	0.05		<0.03	U	<0.03	U	0.05		<0.04	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	13.0		24.6		7.2		11.3		5.7		7.3		**38.7**		10.9		16.5	
Potassium	NE	NE	NE	NE																		
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**3.4**		**3.7**		<1.1	U	**4.1**		<1	U	<1	U	<23.7	U	<2.1	U	<2.2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1	U	<1	U	**4.7**		<1.1	U	<1.1	U
Sodium	NE	NE	NE	NE																		
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<5.8	U	<5.7	U	<5.3	U	<11	U	<10.4	U	<10.4	U	<1.2	UJ	<1.1	U	<1.1	UJ
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**36.8**		**52.3**		**11.3**		**17.4**		**9.7**		**9.9**		**38.1**		**16.2**		**17.7**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**748**		**91.1**		23.9		39.4	J	28.2	J	22.7	J	**294**	J	**169**	J	40.7	J

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: MW-16S		Sample Location: MW-16S		Sample Location: MW-16S		Sample Location: MW-17S		Sample Location: MW-17S		Sample Location: MW-17S		Sample Location: AOC1CA6SB5		Sample Location: AOC1CA6SB5		Sample Location: AOC1CA6SB5	
					Sample Top (ft below ground surface): 0		Sample Top (ft below ground surface): 4		Sample Top (ft below ground surface): 22		Sample Top (ft below ground surface): 0		Sample Top (ft below ground surface): 6		Sample Top (ft below ground surface): 20		Sample Top (ft below ground surface): 0		Sample Top (ft below ground surface): 4		Sample Top (ft below ground surface): 20	
					Sample Bottom (ft below ground surface): 2		Sample Bottom (ft below ground surface): 6		Sample Bottom (ft below ground surface): 24		Sample Bottom (ft below ground surface): 2		Sample Bottom (ft below ground surface): 8		Sample Bottom (ft below ground surface): 22		Sample Bottom (ft below ground surface): 2		Sample Bottom (ft below ground surface): 6		Sample Bottom (ft below ground surface): 22	
					Sample Date: 12/05/2005		Sample Date: 12/05/2005		Sample Date: 12/06/2005		Sample Date: 12/07/2005		Sample Date: 12/07/2005		Sample Date: 12/07/2005		Sample Date: 6/12/2008		Sample Date: 6/12/2008		Sample Date: 6/12/2008	
Aluminum	1.0E+05	7.6E+04	NE	NE	4900		3030		2080		14900		10900		3430		7620		1960		1490	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7	U	<6.2	U	<6.2	U	<6.9	UJ	<8.8	UJ	<6.6	UJ	<0.272	U	<0.26	U	<0.249	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**11.3**	J-	**2.2**	J-	**2.2**	J-	**8.8**	J	**23.6**	J	**6.6**	J	**5.55**		**2.41**		**2.82**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	104		9.4		11.6		116		146		18.8		60.2		12.3		7	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	1.4	J	<0.52	UJ	<0.51	UJ	1.2		2.0		<0.55	U	0.55		0.0607		0.0472	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**10.1**		<0.52	U	<0.51	U	**0.79**		**50.2**		<0.55	U	<0.136	U	<0.13	U	<0.125	U
Calcium	NE	NE	NE	NE													1580		103000		107000	
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**51.4**	J	5.6	J	4.7	J	**20.7**		**39.8**		8.9		12		4.55		4.09	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	**14.5**		<5.2	U	<5.1	U	7.6		12.4		<5.5	U	6.99		2.83		2.54	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**44.0**	J	7.0	J	8.8	J	22.9	J	**39.6**	J	14.5	J	9.8	J+	7.41	J+	6.31	J+
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**1.65**		<1.05	U	<1.07	U	<1.19	U	**8.72**		<1.13	U						
Iron	1.0E+05	2.3E+04	NE	NE	**186000**	J	6880	J	9100	J	22900		**426000**		12100		17000		4760		4820	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**194**	J	2.8	J+	5.4	J	**22.7**		**1880**		6.4		10.2	J	2.72	J	2.78	J
Maganesium	NE	NE	NE	NE													1500		39300		30300	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**5230**	J	218	J	385	J	**1260**	J	**4160**	J	310	J	**582**		241		148	
Mercury	NE	NE	NE	3.0E-01	0.14		<0.03	U	<0.03	U	<0.04	U	0.09		<0.04	U	<0.0106	U	<0.0099	U	<0.01	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	21.7		6.8		5.3		18.4		27.2		9.2		11.7		10.4		10.6	
Potassium	NE	NE	NE	NE													547		194		179	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<11.7	U	**1.8**		<1	U	<1.2	U	<73.3	U	<1.1	U	<0.544	U	<0.521	U	<0.498	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.2	U	<1	U	<1	U	<1.2	U	1.6		<1.1	U	<0.272	UJ	<0.26	UJ	<0.249	UJ
Sodium	NE	NE	NE	NE													29		114		109	
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<58.6	U	<5.2	U	<5.1	U	<28.9	U	<367	U	<5.5	U	0.141		<0.0521	U	<0.0498	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**47.9**		**10.5**		**8.2**		**22.3**		**54.1**		**14.7**		**19.8**		5.82		4.26	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**1020**	J+	18.3	J+	26.9	J+	**58.1**	J	**6110**	J	43.9	J	39.7		18.6		18.9	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ - The result is an estimated quantity, but the

J- - The result is an estimated quantity, but the

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.1-3

Soil Metals Analytical Results - AOC 1

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:		AOC1CA9		AOC1CA9		AOC1CA9		MW-11S		MW-11S		MW-11S		MW-12S		MW-12S		MW-12S	
					Sample Top (ft below ground surface):		0		2		10		0		6		22		0		4		24	
					Sample Bottom (ft below ground surface):		2		10				2		8		24		2		6		26	
					Sample Date:		01/09/2006		01/10/2006		01/10/2006		11/30/2005		11/30/2005		11/30/2005		11/30/2005		11/30/2005		11/30/2005	
Aluminum	1.0E+05	7.6E+04	NE	NE			16300		5810		3090		31300		12700		2710		5400		17800		2800	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01			<7.5	UJ	<7.9	UJ	<6.1	UJ	<6.2	U	<6.9	U	<6.2	U	<6.8	U	<7	U	<6.3	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01			**9.6**	J	**13.5**	J	**4.5**	J	<1.0	UJ	**6.1**	J-	**1.8**	J-	**5.7**	J-	**10.3**	J-	**2.3**	J-
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02			174	J	79.8	J	19.9	J	294		64.5		11.3		62.1		152		13.2	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01			1.6		0.67		<0.51	U	7.5		0.65	J	<0.52	UJ	1.3	J	0.94	J	<0.53	UJ
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01			**6.1**		**9.4**		<0.51	U	**1.3**		**0.61**		<0.52	U	**0.61**		**1.1**		<0.53	U
Calcium	NE	NE	NE	NE																				
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01			**32.2**		**41.9**		6.5		17.4	J	13.6	J	4.0	J	7.4	J	18.8	J	4.1	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01			8.1		<6.6	U	<5.1	U	<5.2	U	11.4		<5.2	U	<5.7	U	12.3		<5.3	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01			**35.6**		**42.6**		9.3		8.1		12.4	J	10.2	J	17.7	J	24.1	J	7.8	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00			**10.8**		**7.77**		<1.06	U	1.13		<1.2	U	<1.06	U	<1.18	U	<1.22	U	<1.08	U
Iron	1.0E+05	2.3E+04	NE	NE			**67900**	J	**118000**	J	9510	J	**42000**	J	19700	J	6910	J	14400	J	**30600**	J	7360	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01			**3430**		**3840**		5.2		4.1	J+	**12.2**	J	2.5	J+	**19.6**	J	**15.3**	J	3.5	J+
Maganesium	NE	NE	NE	NE																				
Manganese	1.9E+04	1.8E+03	NE	5.0E+02			**1620**	J	**988**	J	453	J	**4400**	J	**881**	J	295	J	**717**	J	**1220**	J	324	J
Mercury	NE	NE	NE	3.0E-01			0.13		0.13		<0.03	U	0.04		<0.04	U	<0.03	U	<0.04	U	<0.04	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01			21.7		22.4		6.4		4.6		12.2		7.1		5.2		21.3		7.4	
Potassium	NE	NE	NE	NE																				
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00			**6.9**		**5.7**		<1	U	**3.2**		<1.1	U	**1.7**		<1.1	U	<1.2	U	**1.9**	
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00			1.5		**5.6**		<1	U	<1	U	<1.1	U	<1	U	<1.1	U	<1.2	U	<1.1	U
Sodium	NE	NE	NE	NE																				
Thallium	6.7E+01	5.2E+00	NE	1.0E+00			<12.5	U	<13.2	U	<10.2	U	<52	U	<5.7	U	<5.2	U	<5.7	U	<5.8	U	<5.3	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00			**29.8**		**23.9**		**9.7**		**21.4**		**28.4**		7.8		7.1		**39.7**		**9.5**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01			**4610**	J	**21400**	J	30.9	J	12.3	J+	**50.2**	J+	18.4	J+	**51.4**	J+	**79.7**	J+	18.2	J+

Table 4.1-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC1CA1		AOC1CA1		AOC1CA1		AOC1CA10		AOC1CA10		AOC1CA10		AOC1CA11		AOC1CA11		AOC1CA11		AOC1CA12		AOC1CA12		AOC1CA12		AOC1CA13		AOC1CA13	
Sample Top (ft below ground surface):					0		2		10		0		2		10		0		2		10		0		2		10		0		2	
Sample Bottom (ft below ground surface):					2		10				2		10				2		10				2		10				2		10	
Sample Date:					01/03/2006		01/03/2006		01/03/2006		01/12/2006		01/12/2006		01/12/2006		01/25/2006		01/25/2006		01/25/2006		01/11/2006		01/11/2006		01/11/2006		01/11/2006		01/11/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																												
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<39	U	<39	U	<35	U	<210	U	<4500	U	<35	U	<190	U	<190	U	<34	U	<41	U	<39	UJ	<36	U	<40	U	<84	U
Aroclor 1221	NE	NE	NE	4.0E+04	<79	U	<80	U	<72	U	<420	U	<9200	U	<70	U	<380	U	<390	U	<70	U	<83	U	<80	UJ	<74	U	<81	U	<170	U
Aroclor 1232	NE	NE	NE	4.0E+04	<39	U	<39	U	<35	U	<210	U	<4500	U	<35	U	<190	U	<190	U	<34	U	<41	U	<39	UJ	<36	U	<40	U	<84	U
Aroclor 1242	NE	NE	NE	4.0E+04	<39	U	<39	U	<35	U	<210	U	<4500	U	<35	U	<190	U	<190	U	<34	U	<41	U	<39	UJ	<36	U	<40	U	<84	U
Aroclor 1248	NE	NE	NE	4.0E+04	<39	U	<39	U	<35	U	480		39000		<35	U	<190	U	560		<34	U	34	J	<39	UJ	<36	U	<40	U	840	
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	50		<39	U	<35	U	1100		<4500	U	<35	U	480		550		<34	U	<41	U	<39	UJ	<36	U	<40	U	<84	U
Aroclor 1260	NE	NE	NE	4.0E+04	<39	U	<39	U	<35	U	<210	U	<4500	U	<35	U	<190	U	300		<34	U	<41	U	<39	UJ	<36	U	<40	U	<84	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	187		157		141		2210		54850		140		1145		1990		137		178		157		145		160.5		1135	

Table 4.1-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC1CA13	AOC1CA2	AOC1CA2	AOC1CA2	AOC1CA3	AOC1CA3	AOC1CA3	AOC1CA4	AOC1CA4	AOC1CA4	AOC1CA5	AOC1CA5	AOC1CA5	AOC1CA6
					Sample Top (ft below ground surface):	10	0	2	10	0	2	10	0	2	10	0	2	10	0
					Sample Bottom (ft below ground surface):		2	10		2	10		2	10		2	10		2
					Sample Date:	01/11/2006	01/05/2006	01/05/2006	01/05/2006	12/21/2005	12/21/2005	12/21/2005	01/06/2006	01/06/2006	01/06/2006	01/16/2006	01/16/2006	01/16/2006	01/16/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<36 U	<76 U	<38 U	<35 U	<37 U	<38 U	<170 U	<38 U	<36 U	<35 U	<190 U	<40 U	<35 U	<39 U
Aroclor 1221	NE	NE	NE	4.0E+04	<74 U	<150 U	<78 U	<70 U	<75 U	<78 U	<350 U	<77 U	<73 U	<71 U	<380 U	<82 U	<72 U	<78 U
Aroclor 1232	NE	NE	NE	4.0E+04	<36 U	<76 U	<38 U	<35 U	<37 U	<38 U	<170 U	<38 U	<36 U	<35 U	<190 U	<40 U	<35 U	<39 U
Aroclor 1242	NE	NE	NE	4.0E+04	<36 U	<76 U	<38 U	<35 U	<37 U	<38 U	<170 U	<38 U	<36 U	<35 U	<190 U	<40 U	<35 U	<39 U
Aroclor 1248	NE	NE	NE	4.0E+04	<36 U	310	<38 U	<35 U	<37 U	<38 U	<170 U	<38 U	<36 U	<35 U	840	<40 U	<35 U	78
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<36 U	520	<38 U	<35 U	77	<38 U	1000	<38 U	<36 U	<35 U	<190 U	<40 U	<35 U	<39 U
Aroclor 1260	NE	NE	NE	4.0E+04	<36 U	<76 U	<38 U	<35 U	<37 U	<38 U	<170 U	52	<36 U	<35 U	<190 U	<40 U	<35 U	<39 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	145	1057	153	140	207	153	1600	185.5	144.5	140.5	1505	161	141	214.5

Table 4.1-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC1CA6	AOC1CA6	AOC1CA7	AOC1CA7	AOC1CA7	AOC1CA8	AOC1CA8	AOC1CA8	AOC1CA9	AOC1CA9	AOC1CA9	MW-11S	MW-11S	MW-11S
Sample Top (ft below ground surface):					2	10	0	2	10	0	2	10	0	2	10	0	6	22
Sample Bottom (ft below ground surface):					10		2	10		2	10		2	10		2	8	24
Sample Date:					01/16/2006	01/16/2006	01/10/2006	01/10/2006	01/10/2006	01/06/2006	01/06/2006	01/06/2006	01/09/2006	01/10/2006	01/10/2006	11/30/2005	11/30/2005	11/30/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<200 U	<35 U	<37 U	<36 U	<35 U	<40 U	<35 U	<36 U	<22000 U	<4300 U	<35 U	<36 U	<40 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<400 U	<71 U	<76 U	<73 U	<71 U	<81 U	<71 U	<74 U	<44000 U	<8800 U	<71 U	<73 U	<81 U	<71 U
Aroclor 1232	NE	NE	NE	4.0E+04	<200 U	<35 U	<37 U	<36 U	<35 U	<40 U	<35 U	<36 U	<22000 U	<4300 U	<35 U	<36 U	<40 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<200 U	<35 U	<37 U	<36 U	<35 U	<40 U	<35 U	<36 U	<22000 U	<4300 U	<35 U	<36 U	<40 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	620	<35 U	<37 U	<36 U	<35 U	<40 U	<35 U	<36 U	<22000 U	<4300 U	<35 U	<36 U	<40 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<200 U	<35 U	<37 U	<36 U	<35 U	<40 U	<35 U	<36 U	**110000**	**19000**	34 J	<36 U	<40 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<200 U	<35 U	<37 U	<36 U	<35 U	33 J	<35 U	<36 U	<22000 U	<4300 U	<35 U	<36 U	<40 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**1320**	140.5	149	144.5	140.5	173.5	140.5	145	**187000**	**34150**	157	144.5	160.5	140.5

Table 4.1-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:				MW-12S		MW-12S		MW-12S		MW-16S		MW-16S		MW-16S		MW-17S		MW-17S		MW-17S		AOC1CA6SB5		AOC1CA6SB5		AOC1CA6SB5	
Sample Top (ft below ground surface):				0		4		24		0		4		22		0		6		20		0		4		20	
Sample Bottom (ft below ground surface):				2		6		26		2		6		24		2		8		22		2		6		22	
Sample Date:				11/30/2005		11/30/2005		11/30/2005		12/05/2005		12/05/2005		12/06/2005		12/07/2005		12/07/2005		12/07/2005		6/12/2008		6/12/2008		6/12/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																							
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<39	U	<40	U	<36	U	<39	U	<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Aroclor 1221	NE	NE	NE	4.0E+04	<79	U	<82	U	<73	U	<80	U	<70	U	<71	U	<80	U	<98	U	<76	U	<9	U	<8.64	U	<8.39	U
Aroclor 1232	NE	NE	NE	4.0E+04	<39	U	<40	U	<36	U	<39	U	<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Aroclor 1242	NE	NE	NE	4.0E+04	<39	U	<40	U	<36	U	<39	U	<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Aroclor 1248	NE	NE	NE	4.0E+04	<39	U	<40	U	<36	U	<39	U	<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<39	U	<40	U	<36	U	150		<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Aroclor 1260	NE	NE	NE	4.0E+04	<39	U	<40	U	<36	U	<39	U	<35	U	<35	U	<39	U	<48	U	<37	U	<9	U	<8.64	U	<8.39	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	156.5		161		144.5		**287.5**		140		140.5		157		193		149		31.5		30.2		29.4	

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample detection limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.1-5
Soil Dioxins Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)	Sample Location: AOC1CA1		AOC1CA10		AOC1CA11		AOC1CA12		AOC1CA2		AOC1CA3		AOC1CA4		AOC1CA5		AOC1CA6		AOC1CA7		AOC1CA8		AOC1CA9		MW-11S		MW-12S		MW-16S	
					Sample Top (ft below ground surface): 0		0		2		10		2		0		0		2		0		10		2		10		22		4		22	
					Sample Bottom (ft below ground surface): 2		2		10				10		2		2		10		2				10				24		6		24	
					Sample Date: 01/03/2006		01/12/2006		01/25/2006		01/11/2006		01/05/2006		12/21/2005		01/06/2006		01/16/2006		01/16/2006		01/10/2006		01/06/2006		01/10/2006		11/30/2005		11/30/2005		12/06/2005	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**4.692**		**2.996**		<2.273	UB	**0.364**	J	<0.039	U	**27.235**		**4.6**		<0.153	UJBK	<0.061	U	**5.335**		**1.802**	J	0.126	J	0.089	J	<0.044	U	**5.447**	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**23.726**	B	**15.209**	B	**9.509**	B	<0.726	UB	<0.571	UB	**20.431**	B	**59.021**	B	<1.261	UB	<0.345	UB	**30.298**	B	**9.9**	B	<0.383	UB	<0.205	UJBK	<0.349	UJBK	**4.724**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.344**	J	**0.684**	J	**0.527**	JK	<0.051	U	<0.054	U	**0.677**	JK	**0.623**	J	<0.079	U	<0.085	U	**0.564**	JK	<0.058	U	<0.035	U	<0.031	U	<0.061	U	**3.339**	
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.478**	J	<1.826	UB	**1.112**	J	<0.179	UB	<0.017	U	**1.886**	J	**0.477**	J	0.041	JK	<0.014	U	<0.978	UJBK	**0.228**	JK	<0.084	UB	<0.014	U	<0.03	U	**2.626**	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.22**	JK	**0.424**	JK	**0.428**	JK	<0.026	U	<0.032	U	**0.545**	J	0.16	J	<0.042	U	<0.038	U	**0.205**	JK	0.098	JK	<0.027	U	<0.018	U	<0.043	U	<0.032	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.324**	J	**1.084**	J	**0.656**	JK	<0.021	U	<0.018	U	**1.269**	J	**0.262**	J	0.049	JK	<0.015	U	**0.257**	J	0.18	JK	0.058	J	<0.015	U	<0.032	U	**0.892**	J
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.812**	J	**2.097**	J	**2.105**	J	<0.025	U	<0.031	U	**1.923**	J	**1.061**	J	0.091	JK	<0.037	U	**0.946**	J	**0.734**	J	<0.026	U	<0.017	U	<0.041	U	0.129	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.063	U	**0.283**	J	<0.124	U	<0.026	U	<0.022	U	**0.288**	JK	<0.034	U	<0.046	U	<0.019	U	<0.072	U	<0.04	U	<0.019	U	<0.018	U	<0.039	U	**0.204**	JK
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.035**	J	**1.369**	J	**1.45**	JK	<0.025	U	<0.031	U	**1.483**	J	**0.78**	JK	0.162	JK	<0.036	U	**0.842**	J	**0.64**	J	<0.026	U	<0.017	U	<0.041	U	0.156	J
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.463**	J	**1.653**	J	**1.427**	J	<0.035	U	<0.023	U	**1.205**	J	**0.213**	JK	<0.033	U	<0.028	U	<0.039	U	**0.489**	J	<0.03	U	<0.016	U	<0.045	U	<0.022	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.227	J	0.348	J	0.546	J	<0.023	U	<0.019	U	0.891	J	0.433	J	<0.04	U	0.035	J	0.217	J	0.103	JK	<0.016	U	<0.016	U	<0.034	U	2.34	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.359	J	1.455	J	1.042	J	<0.023	U	<0.028	U	1.365	J	0.348	J	<0.027	U	<0.02	U	0.339	J	0.14	J	<0.017	U	<0.013	U	<0.033	U	0.524	J
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	0.58	J	3.587		1.9945		<0.048	U	<0.043	U	1.637		0.688	J	<0.047	U	<0.024	U	<1.859	U	<0.407	U	<0.052	U	<0.033	U	<0.063	U	<0.212	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	**0.452**	J	<0.018	U	**1**	J	<0.017	U	<0.022	U	**0.718**	J	**0.216**	JK	0.072	JK	0.109	JK	<0.026	U	**0.438**	J	0.178	JK	0.076	JK	<0.018	U	<0.017	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	12.094	B	<3.729	UB	<4.174	UB	<0.862	UB	<0.199	UJBK	15.656	B	31.684	B	<0.114	UJ	<0.071	U	18.905	B	<3.897	UB	<0.225	UJBK	<0.217	UJBK	<0.249	UB	48.072	B
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	193.512	B	67.322	B	34.914	B	<7.65	UB	<3.902	UB	79.499	B	556.219	B	10.448	JB	<2.183	UB	165.214	B	54.031	B	<1.829	UB	<2.179	UB	<2.227	UB	22.221	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**1.8498**		**3.3465**		NA		NA		NA		**3.8709**		**1.7478**		NA		0.141758		NA		NA		NA		NA		NA		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.2-1

Soil Volatile Organic Compound Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC2SB1	AOC2SB1	AOC2SB1	AOC2SB10	AOC2SB10	AOC2SB10	AOC2SB13	AOC2SB13	AOC2SB13	AOC2SB14	AOC2SB14	AOC2SB15	AOC2SB15
					Sample Top (ft below ground surface):	0	4	24.9	0	4	18	10	14	34	10	20	12	20
					Sample Bottom (ft below ground surface):	1.2	5.2	26	2	5.4	18.6	11.1	15.6	36	11	21.6	13.7	21
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/04/2006	01/04/2006	01/04/2006	01/09/2006	01/09/2006	01/09/2006	01/06/2006	01/06/2006	01/05/2006	01/05/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<33 UJ	<11 U	<8.6 U	<11 UJ	<11 UJ	<19 UJ	<13 UJ	<12 U	<8.8 U	<13 U	<11 U	<17 UJ	<9.9 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<33 UJ	<11 UJ	<8.6 UJ	<11 UJ	<11 U	<19 U	<13 UJ	<12 UJ	<8.8 UJ	<13 UJ	<11 UJ	<17 UJ	<9.9 UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		1.5 J	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	<6.4 UJ	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		1.8 J	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	<6.4 UJ	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		2.5 J	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	2.7 J	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<33 U	<11 U	<8.6 U	<11 U	<11 U	<19 U	19 J	14	<8.8 U	<13 U	5.8 J	7.7 J	<9.9 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<33 U	<11 U	<8.6 U	<11 U	<11 U	<19 U	<13 U	<12 U	<8.8 U	<13 U	<11 U	<17 UJ	<9.9 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<33 U	<11 U	<8.6 U	<11 U	<11 U	<19 U	<13 U	<12 U	<8.8 U	1.0 J	4.3 J	1.5 J	<9.9 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		<410 U	4.8 J	3.8 J	<130 U	3.4 J	6.2 J	48 J	37 J	9.2 J	<170 U	<140 U	19 J	9.8 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	**93** J	**47**	<4.4 U	**59000**	**46000**	**53000**	**90** J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		<33 U	<11 U	<8.6 U	<11 UJ	<11 UJ	<19 UJ	19 J	4.2 J	<8.8 U	3.6 J	<11 UJ	<17 UJ	<9.9 U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	<6.4 U	<5.9 U	<4.4 U	0.78 J	<5.3 U	1.2 J	0.81 J
Chloroethane	6.5E+03	3.0E+03	NE	NE		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<33 U	<11 U	<8.6 U	<11 U	<11 U	<19 U	<13 U	<12 U	<8.8 U	<13 U	<11 U	<17 UJ	<9.9 U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	5.2 J	4.4 J	<4.4 U	42 J	20 J	190	630
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<17 UJ	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	0.71 J	0.88 J	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<33 UJ	<11 UJ	<8.6 UJ	<11 U	<11 U	<19 U	<13 UJ	<12 UJ	<8.8 UJ	<13 UJ	<11 UJ	<17 UJ	<9.9 UJ
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<33 UJ	<11 U	<8.6 U	<11 UJ	<11 UJ	<19 UJ	2.5 J	2.1 J	<8.8 U	0.68 J	<11 U	4.9 J	0.74 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<65 U	<21 U	<18 U	<21 U	<22 U	<38 U	<26 U	<24 U	<18 U	<26 U	<22 U	3.9 J	<20 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<33 U	<11 U	<8.6 U	<11 UJ	<11 UJ	<19 UJ	29 J	13	<8.8 U	**8900**	**8800**	**23000**	**8100**
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	13 J	16	<4.4 U	**2900**	**2900**	**8100**	**3500**
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	19 J	3.1 J	<4.4 U	**6900**	**3000**	**16000**	**2300**
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<17 U	<5.3 U	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	1.5 J
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<17 U	0.97 J	<4.3 U	<5.1 UJ	<5.5 UJ	<9.5 UJ	52 J	12	<4.4 U	**20000**	**18000**	**30000**	1400
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<17 U	<5.3 U	<4.3 U	<5.1 U	<5.5 U	<9.5 U	<6.4 U	<5.9 U	<4.4 U	<6.5 U	<5.3 U	<8.1 UJ	<5.0 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04														

Table 4.2-1

Soil Volatile Organic Compound Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC2SB15	Sample Top (ft below ground surface): 34	Sample Bottom (ft below ground surface): 36	Sample Date: 01/05/2006	AOC2SB2 0 2 01/05/2006	AOC2SB2 4 4.6 01/05/2006	AOC2SB2 22.3 24 01/05/2006	AOC2SB3 0 2 01/03/2006	AOC2SB3 4 6 01/03/2006	AOC2SB3 32 34 01/03/2006	AOC2SB4 0 1.1 01/03/2006	AOC2SB4 4 6 01/03/2006	AOC2SB4 33.7 34 01/03/2006	AOC2SB5 0 1.1 01/03/2006	AOC2SB5 4 6 01/03/2006	AOC2SB5 32 34 01/03/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	--	--	--	--	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<8.7 UJ	<11 U	<14 U	<8.6 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<8.7 UJ	<11 UJ	<14 UJ	<8.6 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 UJ	<5.8 U	<6.1 U	<4.3 UJ
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<8.7 UJ	<11 U	<14 U	2.1 J	1.9 J	1.6 J	1.7 J	2.9 J	1.7 J	<9.1 U	1.6 J	1.6 J	2.5 J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<8.7 UJ	16	<14 U	<8.6 UJ	<12 U	<12 U	<8.1 U	<9.7 U	<11 U	<9.1 U	<12 U	<12 U	<8.6 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<8.7 UJ	<11 U	<14 U	<8.6 UJ	<12 U	<12 U	<8.1 U	<9.7 U	<11 U	<9.1 U	<12 U	<12 U	<8.6 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<110 UJ	18 J	6.1 J	18 J	7.9 J	6.8 J	11 J	48	6.2 J	5.3 J	7.2 J	7.5 J	18
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<4.4 UJ	<5.2 U	1.0 J	<4.3 U	1.4 J	0.62 J	0.50 J	1.6 J	0.49 J	**790**	<5.8 U	<6.1 U	0.44 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<8.7 UJ	<11 U	<14 U	<8.6 UJ	2.7 J	3.3 J	0.74 J	0.72 J	4.9 J	<9.1 U	10 J	3.8 J	1.1 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<12 U	<12 U	<8.1 U	<9.7 U	<11 U	<9.1 U	<12 U	<12 U	<8.6 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<8.7 UJ	<11 U	<14 U	<8.6 U	<6 U	<6 U	0.45 J	4.1 J	<5.3 U	1.3 J	<5.8 U	<6.1 U	1.1 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	2.0 J	<5.3 U	0.70 J	<5.8 U	<6.1 U	<4.3 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<8.7 UJ	<11 UJ	<14 UJ	<8.6 UJ	<12 U	<12 U	<8.1 U	<9.7 U	<11 U	<9.1 U	<12 U	<12 U	<8.6 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<8.7 UJ	<11 U	<14 U	<8.6 UJ	<6 U	<6 U	0.59 J	4.7 J	<5.3 U	1.5 J	<5.8 U	<6.1 U	1.5 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<18 UJ	<21 U	<27 U	<18 U	0.45 J	0.47 J	<4.1 U	0.30 J	0.44 J	0.35 J	0.43 J	<6.1 U	<4.3 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<8.7 UJ	<11 U	<14 U	<8.6 UJ	<6 U	<6 U	<4.1 U	2.8 J	<5.3 U	1.9 J	<5.8 U	<6.1 U	0.55 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	1.3 J	<5.3 U	0.62 J	<5.8 U	<6.1 U	<4.3 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<4.4 UJ	<5.2 U	1.0 J	<4.3 UJ	<6 U	0.39 J	<4.1 U	4.7 J	<5.3 U	11	<5.8 U	<6.1 U	1.0 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 UJ	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.4 UJ	<5.2 U	<6.6 U	<4.3 U	<6 U	<6 U	<4.1 U	<4.8 U	<5.3 U	<4.5 U	<5.8 U	<6.1 U	<4.3 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04													

Table 4.2-1

Soil Volatile Organic Compound Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC2SB6	AOC2SB6	AOC2SB6	AOC2SB7	AOC2SB7	AOC2SB7	AOC2SB8	AOC2SB8	AOC2SB8	AOC2SB9	AOC2SB9	AOC2SB9	MW-17M
					Sample Top (ft below ground surface):	0	4	32	0	4	28	0	4	24	0	4	30	34
					Sample Bottom (ft below ground surface):	0.7	5.8	34	1.4	5.6	28.6	0.9	6	26	0.6	6	32	36
					Sample Date:	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	07/01/2008
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		--	--	--	--	--	--	--	--	--	--	--	--	<0.432 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.863 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<10 UJ	<12 UJ	<9.5 UJ	<9.7 UJ	<12 UJ	<9.8 UJ	<11 UJ	<11 UJ	<11 UJ	<9.9 UJ	<30 UJ	<9.0 UJ	<0.432 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<10 U	<12 UJ	<9.5 U	<9.7 U	<12 U	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<1.73 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<10 U	<12 UJ	<9.5 U	<9.7 U	32	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<2.16 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<10 U	<12 UJ	<9.5 U	<9.7 U	<12 U	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<2.16 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<10 U	<12 UJ	<9.5 U	<9.7 U	<12 U	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<2.13 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		3.7 J	8.1 J	8.3 J	<130 U	150 J	11 J	<130 U	5.4 J	4.6 J	R	16 J	11 J	6.73 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	7.1 J	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.863 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		<10 UJ	3.9 J	<9.5 UJ	<9.7 UJ	5.1 J	<9.8 UJ	<11 UJ	<11 UJ	<11 UJ	<9.9 UJ	<30 UJ	<9.0 UJ	<0.432 U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.863 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<1.73 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<10 U	<12 UJ	<9.5 U	<9.7 U	<12 U	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<0.432 U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.432 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.216 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	4.5 J	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	2.6 J	<4.5 UJ	<0.432 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<10 U	<12 UJ	<9.5 U	<9.7 U	<12 U	<9.8 U	<11 U	<11 U	<11 U	<9.9 UJ	<30 U	<9.0 U	<0.863 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<10 UJ	<12 UJ	<9.5 UJ	<9.7 UJ	<12 UJ	<9.8 UJ	<11 UJ	<11 UJ	<11 UJ	<9.9 UJ	1.8 J	<9.0 UJ	<0.863 U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<20 U	<2.3 UJ	<19 U	<20 U	<24 U	<20 U	<21 U	<21 U	<22 U	<20 UJ	<60 U	<18 U	<0.863 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 U	<15 U	<4.5 U	<0.863 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<10 UJ	<12 UJ	<9.5 UJ	<9.7 UJ	3.0 J	<9.8 UJ	<11 UJ	<11 UJ	<11 UJ	<9.9 UJ	3.3 J	<9.0 UJ	
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	1.8 J	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	1.5 J	<4.5 UJ	
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	<5.8 UJ	<4.9 UJ	<5.1 UJ	<5.2 UJ	<5.4 UJ	<5.0 UJ	<15 UJ	<4.5 UJ	<0.432 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<5.0 UJ	<5.7 UJ	<4.8 UJ	<4.9 UJ	11 J	<4.9 UJ	<5.1 UJ	1.0 J	0.64 J	<5.0 UJ	5.2 J	<4.5 UJ	<0.432 U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.432 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<5.0 U	<5.7 UJ	<4.8 U	<4.9 U	<5.8 U	<4.9 U	<5.1 U	<5.2 U	<5.4 U	<5.0 UJ	<15 U	<4.5 U	<0.863 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04														<0.432 U

Notes:

B - Indicates method blank contamination.

-- Analyte was not analyzed.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times *DAF 1, U.S. EPA Region 9 PRG Table, October 2004*

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.2-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC2SB1	AOC2SB1	AOC2SB1	AOC2SB10	AOC2SB10	AOC2SB10	AOC2SB13	AOC2SB13	AOC2SB13	AOC2SB14	AOC2SB14	AOC2SB15	AOC2SB15	AOC2SB15
					Sample Top (ft below ground surface):	0	4	24.9	0	4	18	10	14	34	10	20	12	20	34
					Sample Bottom (ft below ground surface):	1.2	5.2	26	2	5.4	18.6	11.1	15.6	36	11	21.6	13.7	21	36
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/04/2006	01/04/2006	01/04/2006	01/09/2006	01/09/2006	01/09/2006	01/06/2006	01/06/2006	01/05/2006	01/05/2006	01/05/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	3000 J	<370 U	710000	120000 J	320000	<18000 U	<360 U
1-Methylnaphthalene	NE	NE	NE	NE															
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	200000 J	<18000 U	<360 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	160000 J	<190000 U	71000 J	<18000 U	<360 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<800 UJ	<720 UJ	<740 UJ	<800 UJ	<720 UJ	<950 UJ	<39000 UJ	<8400 UJ	<740 UJ	<480000 UJ	<380000 UJ	<410000 UJ	<35000 UJ	<730 UJ
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		78 J	<360 U	<370 U	<400 U	<350 U	<470 U	19000 J	9400	<370 U	2400000	340000	1100000	42000	<360 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE															
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE															
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<800 U	<720 U	<740 U	<800 U	<720 U	<950 U	<39000 U	<8400 U	<740 U	<480000 U	<380000 U	<410000 U	<35000 U	<730 U
4-Bromophenyl-phenylether	NE	NE	NE	NE															
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<390 U	<390 U	<350 U	<410 U	<450 U	<350 U	<1100 U	<1100 U	<340 U	<410 U	<79000 U	<360 U	<400 U	<420 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE															
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<800 U	<720 U	<740 U	<800 U	<720 U	<950 U	<39000 UJ	<8400 UJ	<740 U	<480000 UJ	<380000 UJ	<410000 UJ	<35000 UJ	<730 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	5600 J	14000	<370 U	210000 J	38000 J	120000 J	2500 J	<360 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		1000	<360 U	<370 U	<400 U	<350 U	<470 U	12000 J	8800	<370 U	4800000	780000	2000000	18000	<360 U
Acetophenone	NE	NE	NE	3.0E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		1500 J	16 J	<370 U	<400 U	<350 U	<470 U	12000 J	33000	38 J	3700000	800000	1600000	13000 J	19 J
Atrazine	7.8E+03	2.2E+03	NE	NE		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		3800 J	70 J	<370 U	21 J	<350 U	<470 U	15000 J	28000	24 J	3200000	590000	1600000	9200 J	16 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		5600	120 J	<370 U	<400 U	<350 U	<470 U	14000 J	22000	<370 U	2700000	520000	1400000	7000 J	<360 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		9300 J	140 J	<370 U	<400 U	<350 U	<470 U	9700 J	16000	<370 U	2600000	320000	1000000	3800 J	<360 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		2800 J	99 J	21 J	22 J	<350 U	<470 U	11000 J	12000	<370 U	1600000	330000	860000	4300 J	<360 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		2400 J	160 J	19 J	22 J	<350 U	<470 U	12000 J	16000	<370 U	1200000	440000	890000	6100 J	<360 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<400 U	<360 U	<370 UJ	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 UJ	<18000 UJ	<360 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE															
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		360 J	<360 U	<370 U	<400 U	<350 U	<470 U	3200 J	9400	<370 U	1600000	290000	680000	3500 J	<360 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		5400	110 J	32 J	<400 U	<350 U	<470 U	14000 J	25000	35 J	2700000	510000	1300000	9300 J	30 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		1400	38 J	<370 U	<400 U	<350 U	<470 U	4200 J	4900	<370 U	610000	120000 J	320000	2000 J	<360 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		54 J	<360 U	<370 U	<400 U	<350 U	<470 U	8900 J	16000	<370 U	2700000	500000	1200000	11000 J	<360 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<400 U	<360 U	<370 U	<400 U	<350 U	87 J	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		3200 J	62 J	<370 U	<400 U	<350 U	<470 U	35000	91000	<370 U	9300000	1600000	4200000	22000	38 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	14000 J	27000	<370 U	3600000	710000	1900000	15000 J	18 J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<400 UJ	<360 UJ	<370 UJ	<400 UJ	<350 UJ	<470 UJ	<19000 UJ	<4200 UJ	<370 UJ	<240000 UJ	<190000 UJ	<200000 UJ	<18000 UJ	<360 UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		2800	83 J	<370 U	<400 U	<350 U	<470 U	9800 J	12000	<370 U	1500000	290000	790000	3900 J	<360 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		94 J	<360 U	<370 U	<400 U	<350 U	<470 U	28000	20000	87 J	15000000	2200000	9600000	860000	<360 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 UJ	<4200 UJ	<370 U	<240000 UJ	<190000 UJ	<200000 UJ	<18000 UJ	<360 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	<240000 U	<190000 U	<200000 U	<18000 U	<360 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	160000 J	25000 J	74000 J	4000 J	<360 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		34 J	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	480000	73000 J	170000 J	<18000 U	<360 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<800 U	<720 U	<740 U	<800 U	<720 U	<950 U	<39000 U	<8400 U	<740 U	<480000 U	<380000 U	<410000 U	<35000 U	<730 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		680	<360 U	<370 U	25 J	<350 U	<470 U	38000	130000	84 J	14000000	2400000	6700000	45000	73 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<400 U	<360 U	<370 U	<400 U	<350 U	<470 U	<19000 U	<4200 U	<370 U	780000	110000 J	170000 J	<18000 U	<360 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		4000 J	100 J	22 J	37 J	<350 U	<470 U	40000	65000	51 J	7500000	1400000	3100000	20000	39 J

Table 4.2-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC2SB2	AOC2SB2	AOC2SB2	AOC2SB3	AOC2SB3	AOC2SB3	AOC2SB4	AOC2SB4	AOC2SB4	AOC2SB5	AOC2SB5	AOC2SB5	AOC2SB6	AOC2SB6
					Sample Top (ft below ground surface):	0	4	22.3	0	4	32	0	4	33.7	0	4	32	0	4
					Sample Bottom (ft below ground surface):	2	4.6	24	2	6	34	1.1	6	34	1.1	6	34	0.7	5.8
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/04/2006	01/04/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	290 J	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
1-Methylnaphthalene	NE	NE	NE	NE															
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<880 UJ	<720 UJ	<740 UJ	<790 UJ	<780 UJ	<740 UJ	<820 UJ	<790 UJ	<730 UJ	<780 UJ	<800 UJ	<740 U	<770 UJ		R
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	350 J	<360 U	<370 U	220 J	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2-Methylphenol	3.1E+04	3.1E+03	NE	NE															
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
2-Nitrophenol	NE	NE	NE	5.1E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
3-, 4-Methylphenol	6.2E+02	6.1E+01	NE	NE															
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<880 U	<720 U	<740 U	<790 U	<780 U	<740 U	<820 U	<790 U	<730 U	<780 U	<800 U	<740 U	<770 U		R
4-Bromophenyl-phenylether	NE	NE	NE	NE															
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<360 U	<380 UJ	<380 U	<350 U	<370 U	<380 U	<340 U	<380 U	<360 U	<350 U	<380 U	<400 U	<350 U	<390 U	
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE															
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
4-Nitrophenol	NE	NE	NE	5.1E+03	<880 U	<720 U	<740 U	<790 U	<780 U	<740 U	<820 UJ	<790 U	<730 U	<780 U	<800 U	<740 U	<770 U		R
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	500	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	37 J	<360 U	<370 U	<390 U	<390 U	<370 U	120 J	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Acetophenone	NE	NE	NE	3.0E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	410 J	<360 U	<370 U	<390 U	<390 U	<370 U	730	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Atrazine	7.8E+03	2.2E+03	NE	NE	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	470	<360 U	<370 U	91 J	<390 U	<370 U	2700	<390 U	<360 U	<390 U	19 J	<370 U	110 J	<420 U	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	380 J	<360 U	<370 U	98 J	<390 U	<370 U	3500	<390 U	<360 U	<390 U	<400 U	<370 U	110 J	<420 U	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	870	<360 U	<370 U	98 J	<390 U	<370 U	3000	<390 U	<360 U	<390 U	<400 U	<370 U	110 J	<420 U	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	400 J	<360 U	<370 U	86 J	<390 U	<370 U	1900	<390 U	<360 U	<390 U	<400 U	<370 U	130 J	<420 U	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	470	<360 U	<370 U	88 J	<390 U	<370 U	1700	<390 U	<360 U	<390 U	25 J	<370 U	100 J	<420 U	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 UJ	<360 UJ	<390 U	<400 U	<370 UJ	<380 U	<420 U	
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE															
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Caprolactam	1.0E+08	3.1E+07	NE	NE	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	60 J	<360 U	<370 U	<390 U	<390 U	<370 U	320 J	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	1000	<360 U	<370 U	110 J	<390 U	<370 U	2400	<390 U	<360 U	<390 U	31 J	<370 U	120 J	<420 U	
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	170 J	<360 U	<370 U	33 J	<390 U	<370 U	890	<390 U	<360 U	<390 U	<400 U	<370 U	34 J	<420 U	
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	250 J	<360 U	<370 U	<390 U	<390 U	<370 U	140 J	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	730	<360 U	<370 U	140 J	<390 U	<370 U	3700	<390 U	<360 U	<390 U	46 J	<370 U	170 J	<420 U	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	130 J	<360 U	<370 U	<390 U	<390 U	<370 U	240 J	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 UJ	<370 U	<380 U	<420 U	
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<430 UJ	<360 UJ	<370 UJ	<390 UJ	<390 UJ	<370 UJ	<410 UJ	<390 UJ	<360 UJ	<390 UJ	<400 U	<370 UJ	<380 UJ	<420 UJ	
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 UJ	<420 UJ	
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	260 J	<360 U	<370 U	79 J	<390 U	<370 U	2000	<390 U	<360 U	<390 U	<400 U	<370 U	100 J	<420 U	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	410 J	<360 U	<370 U	130 J	<390 U	15 J	160 J	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 UJ	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<880 U	<720 U	<740 U	<790 U	<780 U	<740 U	<820 U	<790 U	<730 U	<780 U	<800 U	<740 U	<770 U		R
Phenanthrene	NE	2.2E+07	NE	4.6E+04	1500	<360 U	<370 U	33 J	<390 U	<370 U	2400	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U	<420 U	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<430 U	<360 U	<370 U	<390 U	<390 U	<370 U	<410 U	<390 U	<360 U	<390 U	<400 U	<370 U	<380 U		R
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	610	<360 U	<370 U	130 J	<390 U	<370 U	3700	<390 U	<360 U	<390 U	42 J	<370 U	210 J	<420 U	

Table 4.2-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC2SB6	AOC2SB7	AOC2SB7	AOC2SB7	AOC2SB8	AOC2SB8	AOC2SB8	AOC2SB9	AOC2SB9	AOC2SB9	MW-17M
Sample Top (ft below ground surface):					32	0	4	28	0	4	24	0	4	30	34
Sample Bottom (ft below ground surface):					34	1.4	5.6	28.6	0.9	6	26	0.6	6	32	36
Sample Date:					01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	07/01/2008
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
1-Methylnaphthalene	NE	NE	NE	NE											
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<357 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<810 UJ	<810 UJ	<820 UJ	<760 UJ	<780 UJ	<710 UJ	<730 UJ	<750 UJ	<690 UJ	<740 UJ	<89.1 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE											
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<357 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<178 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE											<89.1
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<810 U	<810 U	<820 U	<760 U	<780 U	<710 U	<730 U	<750 U	<690 U	<740 U	<357 U
4-Bromophenyl-phenylether	NE	NE	NE	NE											<89.1
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<390 U	<350 U	<370 U	<360 U	<350 U	<400 U	<350 U	<360 U	<22000 U	<4300 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
4-Chlorophenyl-phenyl-ether	NE	NE	NE	NE											<89.1
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<357 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<810 U	<810 U	<820 U	<760 U	<780 U	<710 U	<730 U	<750 U	<690 U	<740 U	<357 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<400 U	130 J	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Acetophenone	NE	NE	NE	3.0E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<400 U	510	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	6.61 J
Atrazine	7.8E+03	2.2E+03	NE	NE	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<400 U	**1300**	31 J	<380 U	54 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<400 U	**1100**	<410 U	<380 U	**68** J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<400 U	**990**	26 J	<380 U	53 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<400 U	830	<410 U	<380 U	63 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<400 U	**900**	37 J	<380 U	72 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE											<89.1
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<400 U	48 J	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<400 U	1200	36 J	<380 U	67 J	<350 U	<360 U	<370 U	<340 U	<370 U	7.93 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<400 U	**260** J	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<400 U	31 J	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<400 U	3600	51 J	<380 U	120 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<400 U	130 J	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<400 UJ	<400 UJ	<410 UJ	<380 UJ	<390 UJ	<350 UJ	<360 UJ	<370 UJ	<340 UJ	<370 UJ	<89.1 UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<400 UJ	<400 UJ	<410 UJ	<380 UJ	<390 U	<350 U	<360 U	<370 UJ	<340 U	<370 U	<89.1 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<400 U	**670**	<410 U	<380 U	53 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<810 U	<810 U	<820 U	<760 U	<780 U	<710 U	<730 U	<750 U	<690 U	<740 U	<357 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<400 U	2100	<410 U	<380 U	65 J	<350 U	<360 U	<370 U	<340 U	<370 U	7.16 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<400 U	<400 U	<410 U	<380 U	<390 U	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<400 U	3100	68 J	<380 U	110 J	<350 U	<360 U	<370 U	<340 U	<370 U	<89.1 U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.2-3
Soil Metals Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC2SB1	AOC2SB1	AOC2SB1	AOC2SB10	AOC2SB10	AOC2SB10	AOC2SB13	AOC2SB13	AOC2SB13	AOC2SB14	AOC2SB14	AOC2SB15	AOC2SB15
					Sample Top (ft below ground surface):	0	4	24.9	0	4	18	10	14	34	10	20	12	20
					Sample Bottom (ft below ground surface):	1.2	5.2	26	2	5.4	18.6	11.1	15.6	36	11	21.6	13.7	21
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/04/2006	01/04/2006	01/04/2006	01/09/2006	01/09/2006	01/09/2006	01/06/2006	01/06/2006	01/05/2006	01/05/2006
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)														
Aluminum	1.0E+05	7.6E+04	NE	NE		7790	2160	8460	11700	11800	5970	32700	33700	7590	29500	24600	9280	2040
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		R	R	R	R	<0.283 UJ	R	R	**2.96** J-	**0.329** J-	R	R	R	R
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**4.55**	**2.24**	**3.88**	**4.97**	**5.93**	**4.04**	**3.68**	**2.63**	**4.77**	**1.34**	**3.82**	**8.87**	**3.06**
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		50.5 J+	11.6 J+	45.8 J+	85.6 J+	66.1 J+	25.8 J+	**334** J+	**343** J+	58.8 J+	271 J+	196 J+	33.5 J+	8.54 J+
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		0.433 J-	<0.215 UJ	0.362 J-	<0.637 U	<0.583 U	<0.258 U	5.65	5.76	0.35 J-	5.7	4.12	<0.485 UJ	<0.214 UJ
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**1.72**	<0.18 U	<0.191 U	<0.209 U	0.212 J	<0.242 U	<0.206 U	<0.22 U	<0.188 U	<0.19 U	<0.188 U	**0.427**	<0.179 U
Calcium	NE	NE	NE	NE														
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		12.4	<4.04 U	11.9	14.5	14.8	12.9	**24.8**	19.1	10.9	11.7	13.4	**20.5**	<4.79 U
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		3.29	1.96	6.27	8.23	5.9	5.13	2.36	2.44	6.05	0.477 J	2.53	3.66	1.74
Copper	4.1E+04	3.1E+03	NE	2.8E+01		16.7	6.16	12.3	13.5	14.4	11.4	15.4	12.5	12.3	3.09	7.44	17.4	6.44
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		**2.86**	0.16 J	<0.53 U	0.18 J	<0.5 U	<0.71 U	0.89	0.31 J	<0.54 U	0.71	0.11 J	**49**	<0.51 U
Iron	1.0E+05	2.3E+04	NE	NE		22200	5550	15200	17300	18400	12800	17400	22300	13900	3640	13800	19000	5740
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**147** J	8.01 J	7.29 J	**12.9** J	10.3 J	5.99 J	**22.9** J	**20** J	7.05 J	**29.4** J	**16.1** J	**31.9** J	3.57 J
Magnesium	NE	NE	NE	NE														
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**707** J+	215 J+	368 J+	**1230** J+	440 J+	434 J+	**4850** J+	**3440** J+	389 J+	**4460** J+	**2140** J+	310 J+	219 J+
Mercury	NE	NE	NE	3.0E-01		0.074	0.012 J	0.014 J	0.032 J	0.024 J	<0.016 U	**16.3**	<0.015 U	<0.019 UB	0.025 J	0.088	**1.08**	0.037 J
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		12.2	7.7	17.7	14.3	17.9	14.3	26.4	10.3	17	3.31	8.79	12.3	7.76
Potassium	NE	NE	NE	NE														
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<0.892 U	<0.749 U	<0.798 U	<0.872 U	<0.787 U	<1.01 U	**3.26** J+	**5.15** J+	<0.784 U	**4.81** J+	**2.06** J+	**1.35** J+	<0.747 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<0.321 U	<0.27 U	<0.287 U	<0.314 UJ	<0.283 UJ	<0.362 UJ	<0.309 U	<0.329 UJ	<0.282 UJ	<0.286 U	<0.283 U	<0.304 U	<0.269 U
Sodium	NE	NE	NE	NE														
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		0.44 J	<0.23 U	<0.245 U	<0.268 U	<0.241 U	<0.309 U	<0.264 U	0.34 J	0.242 J	**1.94**	0.576 J	**1.02** J	<0.229 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**13.3** J-	7.29 J-	**17** J-	**27.6**	**26.1**	**19.1**	**13.6** J-	**12.4**	**16.3**	6.94 J-	**17** J-	**29.5**	6.95 J-
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**714**	49.1	41.2	**55.5**	**60.7**	38.7	**88.2**	42.8	42.6	36.1	32.3	**83.5**	22.1

Table 4.2-3
Soil Metals Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC2SB15		AOC2SB2		AOC2SB2		AOC2SB2		AOC2SB3		AOC2SB3		AOC2SB3		AOC2SB4		AOC2SB4		AOC2SB4		AOC2SB5		AOC2SB5		AOC2SB5	
					Sample Top (ft below ground surface):	34		0		4		22.3		0		4		32		0		4		33.7		0		4		32	
					Sample Bottom (ft below ground surface):	36		2		4.6		24		2		6		34		1.1		6		34		1.1		6		34	
					Sample Date:	01/05/2006		01/05/2006		01/05/2006		01/05/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																									
Aluminum	1.0E+05	7.6E+04	NE	NE		8240		5970		3280		8960		30400		31800		8870		18100		30600		9810		31200		32600		7240	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01			R	**0.685**	J-		R		R		R		R		R		R		R	**3.61**	J-		R		R
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**5.16**		**23.7**		**3.3**		**4.35**		**0.515**		0.353		**4.68**		**9.69**		**0.695**		**6.06**		<0.181	U	**0.84**		**8.34**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		72.7	J+	89.6	J+	18.2	J+	56.6	J+	281	J+	272	J+	76.8	J+	116	J+	317	J+	66.5	J+	303	J+	**343**	J+	175	J+
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		0.314	J-	0.983	J-	<0.226	UJ	0.33	J-	6.74		7.2		0.36	J-	1.34	J-	6.7		0.376	J-	6.43		7.09		0.281	J-
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.189	U	**5.64**		<0.19	U	<0.191	U	<0.206	U	<0.206	U	<0.199	U	<0.214	U	<0.202	U	<0.194	U	<0.204	U	<0.212	U	<0.195	U
Calcium	NE	NE	NE	NE																									
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		11.2		**33.2**		10.7		12.1		16.2		13.3		12.1		19.1		17.4		13.6		13.7		**25.8**		10.1	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		6.15		8.44		3.56		6.85		0.8		0.822		6.46		7.28		1.43		6.71		0.736		1.46		5.47	
Copper	4.1E+04	3.1E+03	NE	2.8E+01		12.2		**49.1**		8.15		13.6		5.71		5.85		13.3		17.4		9.78		14.5		4.55		9.19		12.8	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<0.55	U	**9.5**		<0.52	U	<0.55	U	0.4	J	0.31	J	<0.48	U	0.125	J	0.29	J	<0.54	U	0.78		0.41	J	0.15	J
Iron	1.0E+05	2.3E+04	NE	NE		14700		**213000**		8360		16500		17200		11300		15600		23300		**28100**		17800		10800		**28000**		16200	
Lead	8.0E+02	4.0E+02	NE	1.1E+01		7	J	**336**	J	5.85	J	7.82	J	2.54	J	2.43	J	7.79	J	**19.3**	J	1.52	J	8.43	J	1.34	J	3.91	J	8.95	J
Magnesium	NE	NE	NE	NE																									
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		356	J+	**2820**	J+	350	J+	376	J+	**2270**	J+	**2100**	J+	355	J+	**1390**	J+	**2610**	J+	419	J+	**3430**	J+	**3360**	J+	403	J+
Mercury	NE	NE	NE	3.0E-01		0.015	J	0.038	J	<0.01	U	0.014	J	<0.05	U	<0.05	U	<0.01	U	0.117		<0.05	U	<0.011	U	<0.06	U	<0.06	U	<0.009	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		17		25.1		13.2		18.9		4.72		5.08		17		19.1		7.16		19.6		5.17		8.55		15	
Potassium	NE	NE	NE	NE																									
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<0.786	U	<0.922	U	<0.79	U	<0.798	U	**5.04**	J+	**4.92**	J+	<0.831	U	**1.19**	J+	**4.87**	J+	<0.808	U	**4.12**	J+	**5.27**	J+	<0.813	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<0.283	U	1.03		<0.284	U	<0.287	U	<0.31	UJ	<0.309	UJ	<0.299	UJ	<0.321	U	<0.303	U	<0.291	U	<0.306	U	<0.318	U	<0.293	U
Sodium	NE	NE	NE	NE																									
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<0.241	U	**2.47**		<0.242	U	<0.245	U	<0.264	U	<0.263	U	<0.255	U	0.318	J	<0.258	U	<0.248	U	<0.26	U	<0.271	U	<0.249	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**16.4**	J-	**29.5**		**13.3**	J-	**17.2**	J-	**12.6**		**10**		**17.8**		**34.9**		**14.4**	J-	**20.3**		**10.7**	J-	**17.9**	J-	**16.2**	J-
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		40		**1390**		22.9		44.1		17.4		7.39		38.3		**86**		5.14	J	44.6		7.86		13		36.2	

Table 4.2-3
Soil Metals Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC2SB6		AOC2SB6		AOC2SB6		AOC2SB7		AOC2SB7		AOC2SB7		AOC2SB8		AOC2SB8		AOC2SB8		AOC2SB9		AOC2SB9		AOC2SB9		MW-17M	
					Sample Top (ft below ground surface):		0		4		32		0		4		28		0		4		24		0		4		30		34	
					Sample Bottom (ft below ground surface):		0.7		5.8		34		1.4		5.6		28.6		0.9		6		26		0.6		6		32		36	
					Sample Date:		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006		07/01/2008	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																										
Aluminum	1.0E+05	7.6E+04	NE	NE	26100		43800		7960		17300		29900		8880		10500		3570		6460		5110		2710		8520		2850	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	**0.461**	J-		R		R		R		R		R	**0.333**	J-		R		R		R		R		R	<0.278	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**2.64**		<0.2	U	**7.92**		**10.2**		**0.76**		**4.96**		**16.6**		**3.97**		**4.83**		**6.12**		**4.01**		**4.25**		**3.85**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	217	J+	**420**	J+	59.5	J+	87.9	J+	272	J+	65.7	J+	87	J+	16.8	J+	38	J+	27	J+	10.6	J+	80.2	J+	28.3	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	5.09		9.19		<0.519	UJ	0.941		5.65		<0.455	UJ	0.86	J-	<0.22	UJ	<0.326	U	<0.347	U	<0.211	UJ	<0.232	UJ	0.115	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<0.203	UJ	<0.225	U	<0.217	U	**0.806**		<0.213	U	<0.191	U	0.318		<0.184	U	<0.186	U	<0.185	U	<0.176	U	<0.195	U	<0.139	U
Calcium	NE	NE	NE	NE																									156000	
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	14.3		**24.1**		10.9		19.3		<5.53	U	12.3		15.9		12		12.6		<7.34	U	<5.91	U	11.6		6.16	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	1.95		0.442	J	5.91		8.01		0.87		6.65		9.17		3.79		4.26		3.85		2.81		7.26		4.19	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	12.3		4.69		13.9		20.1		3.92		15		14.6		8.37		10.4		12.5		7.94		14.1		14.6	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**1.7**		**3.1**		0.17	J	0.16	J	**2.4**		<0.51	U	<0.58	U	<0.50	U	<0.54	U	0.29	J	<0.51	U	<0.55	U		
Iron	1.0E+05	2.3E+04	NE	NE	12300		4410		17100		22600		6480		15900		**56400**		7210		10800		10300		6410		15400		6840	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	7.72	J	0.303	J	7.15	J	**13.5**	J	2.94	J	7.86	J	**14.2**	J	3.87	J	9.13	J	8.16	J	4.14	J	7.56	J	5.94	
Magnesium	NE	NE	NE	NE																									49100	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**2360**	J+	**3450**	J+	365	J+	**627**	J+	**2090**	J+	375	J+	**1360**	J+	346	J+	493	J+	402	J+	219	J+	376	J+	256	
Mercury	NE	NE	NE	3.0E-01	<0.004	U	<0.001	U	<0.01	U	0.03	J	<0.06	U	<0.008	U	0.033	J	0.016	J	<0.013	U	0.019	J	<0.01	U	<0.014	U	<0.0106	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	7.31		3.74		15.8		19.1		3.82		17.4		18.8		14.5		11.2		11.7		9.82		18.1		13.9	
Potassium	NE	NE	NE	NE																									733	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**2.66**	J+	**5.73**	J+	<0.905	U	<0.879	U	**3.84**	J+	<0.794	U	<0.838	U	<0.768	U	<0.776	U	<0.771	U	<0.735	U	<0.811	U	<0.557	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<0.304	UJ	<0.338	UJ	<0.326	UJ	<0.317	UJ	<0.319	UJ	<0.286	UJ	<0.302	UJ	<0.276	UJ	<0.279	UJ	<0.278	UJ	<0.265	UJ	<0.292	UJ	<0.278	U
Sodium	NE	NE	NE	NE																									152	
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	0.628	J	<0.288	U	<0.277	U	0.3	J	<0.272	U	<0.243	U	<0.257	U	<0.236	U	<0.238	U	<0.237	U	<0.225	U	<0.249	U	0.12	
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**19.4**		**19.8**		**16.1**		**37**		7.05		**17.9**		**46.3**		**12.8**		**17.9**		**15.8**		**10.6**		**17.6**		7.15	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	29.2		1.82	J	37.7		**65.3**		9.18		42.8		**65.8**		26.6		40.7		34.8		26		43.6		32.9	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level: 1) Jones, Hull, et al., 1997 Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.2-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC2SB1		AOC2SB1		AOC2SB1		AOC2SB10		AOC2SB10		AOC2SB10		AOC2SB13		AOC2SB13		AOC2SB13		AOC2SB14		AOC2SB14		AOC2SB15		AOC2SB15	
Sample Top (ft below ground surface):					0		4		24.9		0		4		18		10		14		34		10		20		12		20	
Sample Bottom (ft below ground surface):					1.2		5.2		26		2		5.4		18.6		11.1		15.6		36		11		21.6		13.7		21	
Sample Date:					01/05/2006		01/05/2006		01/05/2006		01/04/2006		01/04/2006		01/04/2006		01/09/2006		01/09/2006		01/09/2006		01/06/2006		01/06/2006		01/05/2006		01/05/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1221	NE	NE	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1232	NE	NE	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1242	NE	NE	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1248	NE	NE	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<40	U	<36	U	<37	U	<40	U	<35	U	<47	U	<380	U	<42	U	<37	U	<2400	U	<380	U	<780	U	<350	U
Aroclor 1260	NE	NE	NE	4.0E+04	5.4	J	<36	U	<37	U	<40	U	<35	U	<47	U	240	J	440		<37	U	<2400	U	<380	U	<780	U	<350	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	125.4		126		129.5		140		122.5		164.5		**1380**		**566**		129.5		8400		1330		2730		1225	

Table 4.2-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	AOC2SB15	AOC2SB2	AOC2SB2	AOC2SB2	AOC2SB3	AOC2SB3	AOC2SB3	AOC2SB4	AOC2SB4	AOC2SB4	AOC2SB5	AOC2SB5	AOC2SB5
Sample Top (ft below ground surface):					34	0	4	22.3	0	4	32	0	4	33.7	0	4	32
Sample Bottom (ft below ground surface):					36	2	4.6	24	2	6	34	1.1	6	34	1.1	6	34
Sample Date:					01/05/2006	01/05/2006	01/05/2006	01/05/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1221	NE	NE	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1232	NE	NE	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1242	NE	NE	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1248	NE	NE	NE	4.0E+04	<36 U	2700	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	<39 U	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	<40 U	<37 U
Aroclor 1260	NE	NE	NE	4.0E+04	<36 U	<43 U	<36 U	<37 U	17 J	<39 U	<37 U	<41 U	<39 U	<39 U	<39 U	3.5 J	14 J
Total PCBs*	NE	2.2E+02	NE	4.0E+04	126	**2829**	126	129.5	134	136.5	129.5	143.5	136.5	136.5	136.5	123.5	125

Table 4.2-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 2

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC2SB6	AOC2SB6	AOC2SB6	AOC2SB7	AOC2SB7	AOC2SB7	AOC2SB8	AOC2SB8	AOC2SB8	AOC2SB9	AOC2SB9	AOC2SB9	MW-17M
					Sample Top (ft below ground surface): 0	4	32	0	4	28	0	4	24	0	4	30	34
					Sample Bottom (ft below ground surface): 0.7	5.8	34	1.4	5.6	28.6	0.9	6	26	0.6	6	32	36
					Sample Date: 01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	01/04/2006	07/01/2008
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1221	NE	NE	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1232	NE	NE	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1242	NE	NE	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1248	NE	NE	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<39 U	<42 U	<41 U	<40 U	<41 U	<38 U	<39 U	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Aroclor 1260	NE	NE	NE	4.0E+04	8.7 J	<42 U	<41 U	<40 U	<41 U	<38 U	3.7 J	<36 U	<36 U	<37 U	<34 U	<36 U	<9.08 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	125.7	147	143.5	140	143.5	133	120.7	126	126	129.5	119	126	31.78

Notes:

PCB - Polychlorinated biphenyl

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.2-5
Soil Dioxins Analytical Results - AOC 2
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC2SB1		AOC2SB13		AOC2SB14		AOC2SB2		AOC2SB3		AOC2SB4		AOC2SB5		AOC2SB6		AOC2SB7		AOC2SB8		AOC2SB9	
Sample Top (ft below ground surface):					4		14		20		0		0		4		4		32		4		0		30	
Sample Bottom (ft below ground surface):					5.2		15.6		21.6		2		2		6		6		34		5.6		0.9		32	
Sample Date:					01/05/2006		01/09/2006		01/06/2006		01/05/2006		01/03/2006		01/03/2006		01/03/2006		01/04/2006		01/04/2006		01/04/2006		01/04/2006	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																						
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.6**	J	**106.928**		<3.599	UJB	**3.803**		**1.878**	J	**1.06**	J	**0.657**	J	**6.472**	J	**25.181**		**4.911**		**2.525**	J
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<1.622	UB	**3160.748**	B	**32.918**	JB	**24.347**	B	**5.203**	JB	**27.651**	JB	**3.3**	JB	**34.028**	JB	**131.918**	JB	**15.735**	JB	**14.885**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.06	U	**8.609**	JK	<0.592	U	**0.703**	JK	<0.216	U	<0.29	UJ	<0.192	U	<0.583	UJ	**2.692**		**0.609**	J	<0.885	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.204**	J	**4.756**	J	**1.581**	J	**2.882**	J	**0.458**	JK	**0.223**	JK	<0.045	U	<0.241	U	**1.982**	J	**0.938**	J	<0.114	U
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.042	U	**7.367**	J	**40.245**		**0.509**	JK	<0.068	U	<0.127	U	<0.069	U	**0.363**	J	**0.744**	J	**0.257**	JK	<0.088	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.03	U	**2.498**	JK	**1.273**	J	**1.318**	J	<0.095	U	<0.06	U	<0.047	U	<0.252	U	**1.835**	J	**0.534**	J	<0.119	U
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.124	JK	**27.563**		<0.774	U	**1.799**	J	**0.269**	JK	<0.122	U	<0.067	U	**1.836**	J	**6.014**		**0.977**	J	**0.837**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.036	U	<0.922	U	<0.245	U	0.104	JK	<0.116	U	<0.074	U	<0.058	U	<0.31	U	<0.437	U	<0.133	U	<0.147	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.04	U	**36.419**		<0.764	U	**2.413**	J	<0.065	U	<0.121	U	<0.066	U	**1.23**	J	**2.923**		0.198	JK	<0.084	U
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.044	U	**1.351**	JK	<0.245	U	**1.176**	J	<0.068	U	<0.067	U	<0.076	U	<0.087	U	**0.775**	J	<0.091	U	<0.075	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.032	U	1.173	JK	0.592	JK	0.847	J	0.442	JK	<0.064	U	<0.051	U	<0.269	U	1.739	J	0.445	JK	<0.128	U
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.023	U	1.464	J	0.177	JK	3.263		<0.059	U	<0.037	UJ	<0.026	U	<0.092	U	0.527	J	0.46	J	<0.058	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.065	U	<0.238	U	<0.446	U	6.124		<0.058	UJ	<0.119	UJ	<0.1	U	<0.086	UJ	<0.091	UJ	1.514		<0.078	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.024	U	<0.295	U	<0.45	UJ	**0.61**	J	<0.039	U	<0.05	U	<0.032	U	**0.665**	JK	**0.269**	JK	<0.053	U	**0.265**	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.588	UB	918.607	B	5.924	J	<4.666	UB	<5.038	UJB	<1.69	UJBK	<0.984	UJBK	9.387	JB	43.539	JB	7.247	JB	<5.195	UB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	<10.254	UB	12320.38	JB	157.13	JB	109.968	B	43.396	JB	207.934	JB	17.593	B	220.67	JB	955.464	JB	108.533	JB	131.743	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		NA		NA		**4.748**		**0.2859**		NA		NA		NA		NA		**0.9509**		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.4-1

Sediment Volatile Organic Compound Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SD10		AOC7SD11		AOC7SD12		AOC7SD13	
Sample Top (ft below ground surface):		0.083		0.083		0.083		0.167	
Sample Bottom (ft below ground surface):		0.5		0.5		0.5		0.5	
Sample Date:		11/14/2005		11/14/2005		11/14/2005		11/14/2005	
Analyte	SE_ESL_SEVERE_AOC7 (ug/kg)								
1,1,1-Trichloroethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,1,2,2-Tetrachloroethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,1,2-Trichloroethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,1-Dichloroethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,1-Dichloroethene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,2,4-Trichlorobenzene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,2-Dichlorobenzene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,2-Dichloroethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,2-Dichloropropane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,3-Dichlorobenzene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
1,4-Dichlorobenzene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
2-Butanone	9.4E+03	<13	U	<11	U	<11	U	<13	U
2-Hexanone	4.4E+03	<13	U	<11	U	<11	U	<13	U
4-Methyl-2-pentanone	NE	<13	U	<11	U	<11	U	<13	U
Acetone	2.8E+05	<25	U	<22	U	10	J	28	J
Benzene	3.3E+04	<6.3	U	<5.5	U	0.52	J	1.0	J
Bromoform	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Bromomethane	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Carbon disulfide	7.8E+00	0.76	J	<11	U	<11	U	0.70	J
Carbon tetrachloride	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Chlorobenzene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Chloroform	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
cis-1,2-Dichloroethene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
cis-1,3-Dichloropropene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Ethylbenzene	5.3E+02	<6.3	U	<5.5	U	0.46	J	0.66	J
m+p-Xylene	1.3E+02	<6.3	U	<5.5	U	<5.4	U	0.93	J
Methylene chloride	1.0E+03	<6.3	U	<5.5	U	<5.4	U	<6.4	U
o-Xylene	1.3E+02	<6.3	U	<5.5	U	0.39	J	0.42	J
Styrene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Tetrachloroethene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Toluene	3.4E+02	0.52	J	<5.5	U	1.2	J	1.9	J
trans-1,2-Dichloroethene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
trans-1,3-Dichloropropene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Trichloroethene	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U
Vinyl chloride	NE	<6.3	U	<5.5	U	<5.4	U	<6.4	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the sediment screening criteria.

NE - Screening value not established.

SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.

Table 4.4-2

Sediment Semi-Volatile Organic Compound Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

	Sample Location:	AOC7SD10		AOC7SD11		AOC7SD12		AOC7SD13	
	Sample Top (ft below ground surface):	0.083		0.083		0.083		0.167	
	Sample Bottom (ft below ground surface):	0.5		0.5		0.5		0.5	
	Sample Date:	11/14/2005		11/14/2005		11/14/2005		11/14/2005	
Analyte	SE_ESL_SEVERE_AOC7 (ug/kg)								
2,4,6-Trichlorophenol	NE	<430	U	<1200	U	<400	U	<2400	U
2,4-Dichlorophenol	NE	<430	U	<1200	U	<400	U	<2400	U
2,4-Dimethylphenol	NE	<430	U	<1200	U	<400	U	<2400	U
2,4-Dinitrophenol	NE	<2200	U	<6000	U	<2100	U	<12000	U
2,4-Dinitrotoluene	NE	<430	U	<1200	U	<400	U	<2400	U
2,6-Dinitrotoluene	NE	<430	U	<1200	U	<400	U	<2400	U
2-Chloronaphthalene	NE	<430	U	<1200	U	<400	U	<2400	U
2-Chlorophenol	NE	<430	U	<1200	U	<400	U	<2400	U
2-Methylnaphthalene	NE	<430	U	<1200	U	<400	U	310	J
2-Nitrophenol	NE	<430	U	<1200	U	<400	U	<2400	U
3,3'-Dichlorobenzidine	NE	<430	U	<1200	U	<400	U	<2400	U
4,6-Dinitro-2-methylphenol	NE	<2200	U	<6000	U	<2100	U	<12000	U
4-Bromophenylphenyl ether	NE	<430	U	<1200	U	<400	U	<2400	U
4-Chloro-3-methylphenol	NE	<430	U	<1200	U	<400	U	<2400	U
4-Chloroaniline	NE	<430	U	<1200	U	<400	U	<2400	U
4-Nitrophenol	1.0E+04	<2200	U	<6000	U	<2100	U	<12000	U
Acenaphthene	NE	<430	U	<40	U	<39	U	<2400	U
Acenaphthylene	NE	67	J	21	J	26	J	4500	
Anthracene	8.5E+02	44	J	25	J	31	J	**15000**	
Benzo(a)anthracene	1.1E+03	180	J	120	J	110	J	**17000**	
Benzo(a)pyrene	1.5E+03	220	J	140	J	120	J	**14000**	
Benzo(b)fluoranthene	2.7E+04	210	J	130	J	160	J	12000	
Benzo(g,h,i)perylene	6.4E+03	180	J	65		100	J	**9000**	
Benzo(k)fluoranthene	2.7E+04	180	J	140	J	110	J	13000	
Bis(2-Chloroethyl)ether	NE	<430	U	<1200	U	<400	U	<2400	U
Bis(2-Ethylhexyl)phthalate	1.6E+07	<430	U	170	J	<400	U	<2400	U
Butylbenzylphthalate	NE	<430	U	<1200	U	<400	U	<2400	U
Chrysene	1.3E+03	220	J	190	J	140	J	**17000**	
Dibenz(a,h)anthracene	2.6E+05	50	J	18	J	20	J	2600	
Dibenzofuran	1.5E+04	<430	U	<1200	U	<400	U	1500	J
Diethylphthalate	1.4E+04	<430	U	<1200	U	<400	U	<2400	U
Dimethylphthalate	NE	<430	U	<1200	U	<400	U	<2400	U
Di-n-butylphthalate	NE	<430	U	<1200	U	<400	U	<2400	U
Di-n-octylphthalate	NE	<430	U	<1200	U	<400	U	<2400	U
Fluoranthene	2.2E+03	420	J	400	J	230	J	**38000**	
Fluorene	5.4E+02	<430	U	<40	U	<39	U	**5000**	
Hexachlorobenzene	NE	<430	U	<1200	U	<400	U	<2400	U
Hexachlorobutadiene	NE	<430	U	<1200	U	<400	U	<2400	U
Hexachlorocyclopentadiene	NE	<430	U	<1200	U	<400	U	<2400	U
Hexachloroethane	NE	<430	U	<1200	U	<400	U	<2400	U
Indeno(1,2,3-cd)pyrene	6.4E+03	160	J	54		89	J	**8300**	
Isophorone	NE	<430	U	<1200	U	<400	U	<2400	U
Naphthalene	5.6E+02	<430	U	<40	U	24	J	**580**	J
Nitrobenzene	NE	<430	U	<1200	U	<400	U	<2400	U
o-Cresol (2-Methylphenol)	4.2E+02	<430	U	<1200	U	<400	U	<2400	U
p-Cresol (4-Methylphenol)	4.2E+02	<430	U	<1200	U	<400	U	<2400	U
Pentachlorophenol	NE	<2200	U	<6000	U	<2100	U	<12000	U
Phenanthrene	1.2E+02	**170**	J	**400**	J	110	J	**29000**	
Phenol	NE	<430	U	<1200	U	<400	U	<2400	U
Pyrene	1.5E+02	**330**	J	**320**	J	**170**	J	**31000**	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the sediment screening criteria.

NE - Screening value not established.

SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.

Table 4.4-3

Sediment Metals Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SD10		AOC7SD11		AOC7SD12		AOC7SD13	
Sample Top (ft below ground surface):		0.083		0.083		0.083		0.167	
Sample Bottom (ft below ground surface):		0.5		0.5		0.5		0.5	
Sample Date:		11/14/2005		11/14/2005		11/14/2005		11/14/2005	
Analyte	SE_ESL_SEVERE_AOC7 (ug/kg)								
Aluminum	6.6E+04	**17900000**		**6030000**		**9470000**		**8820000**	
Arsenic	3.3E+04	7600		6100		6700		7200	
Barium	NE	200000		63600		83800		95700	
Cadmium	5.0E+03	<650	U	<590	U	<600	U	<710	U
Chromium (total)	1.1E+05	23000		14500		15200		14000	
Cobalt	NE	6800		<5900	U	6200		<7100	U
Copper	1.5E+05	22200		12900		14800		17900	
Iron	8.0E+03	**18000000**	J	**12200000**	J	**16400000**	J	**19200000**	J
Lead	1.3E+05	35300		16200		18700		25400	
Manganese	2.2E+06	**2660000**		541000		653000		796000	
Mercury	1.1E+03	90		<40	U	40		<50	U
Nickel	4.9E+04	14500		13700		15100		15400	
Silver	2.2E+03	<1300	U	<1200	U	<1200	U	<1400	U
Zinc	4.6E+05	99900		66400		76800		93700	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the sediment screening criteria.

NE - Screening value not established.

SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.

Table 4.4-4

Sediment Polychlorinated Biphenyls Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SD10		AOC7SD11		AOC7SD12		AOC7SD13	
Sample Top (ft below ground surface):		0.083		0.083		0.083		0.167	
Sample Bottom (ft below ground surface):		0.5		0.5		0.5		0.5	
Sample Date:		11/14/2005		11/14/2005		11/14/2005		11/14/2005	
Analyte	SE_ESL_SEVERE_AOC7 (ug/kg)								
Aroclor 1016	6.8E+02	<43	U	<39	U	<40	U	<48	U
Aroclor 1221	6.8E+02	<88	U	<79	U	<81	U	<98	U
Aroclor 1232	6.8E+02	<43	U	<39	U	<40	U	<48	U
Aroclor 1242	6.8E+02	<43	U	<39	U	<40	U	<48	U
Aroclor 1248	6.8E+02	<43	U	<39	U	<40	U	<48	U
Aroclor 1254	6.8E+02	<43	U	<39	U	<40	U	<48	U
Aroclor 1260	6.8E+02	30	J	<39	U	<40	U	<48	U
Total PCBs*	6.8E+02	181.5		156.5		160.5		193	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the sediment screening criteria.

* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.

NE - Screening value not established.

SE_ESL_SEVERE - Sediment Ecological Screening Level. The effect-based sediment screening benchmarks included the following ecotoxicological screening values: 1) If a consensus-based Probable Effect Concentration (PEC) was available for a constituent, this value was preferentially selected; 2) If no PEC was available for a constituent, then severe effect levels (SELs) from the Ontario Ministry of the Environment (OMOE) were selected. Organic carbon-dependent SELs were adjusted to either the average TOC of the AOC 7 sediment (2%) or the Great Miami River sediment (1.6%); or, 3) If neither a PEC nor an OMOE SEL was available, then effects range-medium (ER-M) values from NOAA were selected.

Table 4.4-5

Surface Water Volatile Organic Compound Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SW6		AOC7SW7		AOC7SW8		AOC7SW9	
Sample Top (ft below ground surface):		0.098		0.098		0.333		0.098	
Sample Bottom (ft below ground surface):		0.197		0.197		0.333		0.197	
Sample Date:		01/24/2006		01/23/2006		11/10/2005		01/24/2006	
Analyte	WS_ESL_ACUTE_AOC7 (ug/l)								
1,1,1-Trichloroethane	2.0E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,1,2,2-Tetrachloroethane	2.1E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,1,2-Trichloroethane	5.2E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,1-Dichloroethane	8.3E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,1-Dichloroethene	4.5E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,2,4-Trichlorobenzene	7.0E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,2-Dichlorobenzene	2.6E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,2-Dichloroethane	8.8E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,2-Dichloropropane	NE	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,3-Dichlorobenzene	6.3E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
1,4-Dichlorobenzene	1.8E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
2-Butanone	2.4E+05	<5.0	U	<5.0	U	<5.0	U	<5.0	U
2-Hexanone	1.8E+03	<5.0	U	<5.0	U	<5.0	U	<5.0	U
4-Methyl-2-pentanone	NE	<5.0	U	<5.0	U	<5.0	U	<5.0	U
Acetone	2.8E+04	<10	U	<10	U	2.4	J	<10	U
Benzene	2.3E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Bromoform	NE	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Bromomethane	NE	<2.0	U	<2.0	U	<2.0	U	<2.0	U
Carbon disulfide	1.7E+01	<1.0	UB	<1.0	UB	<1.0	U	<1.0	UB
Carbon tetrachloride	1.8E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Chlorobenzene	1.1E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Chloroform	4.9E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
cis-1,2-Dichloroethene	1.1E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Ethylbenzene	1.3E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
m+p-Xylene	3.2E+01	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Methylene chloride	2.6E+04	<1.0	U	<1.0	U	<1.0	U	<1.0	U
o-Xylene	3.2E+01	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Styrene	NE	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Tetrachloroethene	8.3E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Toluene	1.2E+02	<1.0	U	<1.0	U	<1.0	U	<1.0	U
trans-1,2-Dichloroethene	1.1E+03	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Trichloroethene	NE	<1.0	U	<1.0	U	<1.0	U	<1.0	U
Vinyl chloride	NE	<1.0	U	<1.0	U	<1.0	U	<1.0	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the surface water screening criteria.

NE - Screening value not established.

screening values: 1) Data were screened against the federal acute ambient water quality criteria for the protection of aquatic life. Where appropriate, criteria were adjusted to reflect the average hardness value of the receiving waterbody. Hardness-dependent surface water criteria were adjusted to either the average hardness of the AOC 7 water (264 mg/L as $CaCO_3$) or the Great Miami River water (322 mg/L as $CaCO_3$), as appropriate; or, 2) If federal water quality criteria were not available, then alternative sources such as Oak Ridge National Laboratories (ORNL) secondary acute values were used.

Table 4.4-6

Surface Water Semi-Volatile Organic Compound Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SW6		AOC7SW7		AOC7SW8		AOC7SW9	
Sample Top (ft below ground surface):		0.098		0.098		0.333		0.098	
Sample Bottom (ft below ground surface):		0.197		0.197		0.333		0.197	
Sample Date:		01/24/2006		01/23/2006		11/10/2005		01/24/2006	
Analyte	WS_ESL_ACUTE_AOC7 (ug/l)								
2,4,6-Trichlorophenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2,4-Dichlorophenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2,4-Dimethylphenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2,4-Dinitrophenol	NE	<48	U	<48	U	<47	U	<47	U
2,4-Dinitrotoluene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2,6-Dinitrotoluene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2-Chloronaphthalene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2-Chlorophenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2-Methylnaphthalene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
2-Nitrophenol	1.2E+03	<9.6	U	<9.6	U	<9.3	U	<9.3	U
3,3'-Dichlorobenzidine	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
4,6-Dinitro-2-methylphenol	NE	<48	U	<48	U	<47	U	<47	U
4-Bromophenylphenyl ether	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
4-Chloro-3-methylphenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
4-Chloroaniline	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
4-Nitrophenol	1.2E+03	<48	U	<48	U	<47	U	<47	U
Acenaphthene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	U
Acenaphthylene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	U
Anthracene	1.3E+01	<0.19	U	<0.20	U	<0.19	U	<0.20	U
Benzo(a)anthracene	4.9E-01	<0.097	U	<0.098	U	<0.093	U	<0.10	U
Benzo(a)pyrene	2.4E-01	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Benzo(b)fluoranthene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Benzo(g,h,i)perylene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Benzo(k)fluoranthene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Bis(2-Chloroethyl)ether	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Bis(2-Ethylhexyl)phthalate	2.7E+01	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Butylbenzylphthalate	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Dibenz(a,h)anthracene	4.9E-01	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Dibenzofuran	6.6E+01	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Diethylphthalate	1.8E+03	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Dimethylphthalate	1.8E+03	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Di-n-butylphthalate	1.9E+02	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Di-n-octylphthalate	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Fluoranthene	NE	<0.19	U	<0.20	U	0.056	J	<0.20	U
Fluorene	7.0E+01	<0.19	U	<0.20	U	<0.19	U	<0.20	U
Hexachlorobenzene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Hexachlorobutadiene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Hexachlorocyclopentadiene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Hexachloroethane	2.1E+02	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Indeno(1,2,3-cd)pyrene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	UJ
Isophorone	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Naphthalene	1.9E+02	<0.19	U	<0.20	UB	<0.19	U	0.75	J
Nitrobenzene	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
N-Nitrosodiphenylamine	3.8E+03	<9.6	U	<9.6	U	<9.3	U	<9.3	U
o-Cresol (2-Methylphenol)	2.3E+02	<9.6	U	<9.6	U	<9.3	U	<9.3	U
p-Cresol (4-Methylphenol)	2.3E+02	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Pentachlorophenol	1.9E+01	<48	U	<48	U	<47	U	<47	U
Phenanthrene	NE	<0.19	U	<0.20	UB	<0.19	U	<0.20	U
Phenol	NE	<9.6	U	<9.6	U	<9.3	U	<9.3	U
Pyrene	NE	<0.19	U	<0.20	U	<0.19	U	<0.20	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the surface water screening criteria.

NE - Screening value not established.

WS_ESL_ACUTE - Surface Water Ecological Screening Level. The acute surface water screening benchmarks included the following ecotoxicological screening values: 1) Data were screened against the federal acute ambient water quality criteria for the protection of aquatic life. Where appropriate, criteria were adjusted to reflect the average hardness value of the receiving waterbody. Hardness-dependent surface water criteria were adjusted to either the average hardness of the AOC 7 water (264 mg/L as $CaCO_3$) or the Great Miami River water (322 mg/L as $CaCO_3$), as appropriate; or, 2) If federal water quality criteria were not available, then alternative sources such as Oak Ridge National Laboratories (ORNL) secondary acute values were used.

Table 4.4-7

Surface Water Metals Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SW6		AOC7SW7		AOC7SW8		AOC7SW9	
Sample Top (ft below ground surface):		0.098		0.098		0.333		0.098	
Sample Bottom (ft below ground surface):		0.197		0.197		0.333		0.197	
Sample Date:		01/24/2006		01/23/2006		11/10/2005		01/24/2006	
Analyte	WS_ESL_ACUTE_AOC7 (ug/l)								
Aluminum	7.5E+02	**1160**		**3790**		**1900**		**866**	
Antimony	1.8E+02	<7.6	U	<7.6	U	<8.1	U	<7.6	U
Arsenic	3.4E+02	<4.7	U	<4.7	U	<2.4	UJ	<4.7	U
Barium	1.1E+02	<9.6	U	<9.6	U	102		<9.6	U
Beryllium	3.5E+01	<0.21	U	<0.21	U	<0.27	U	<0.21	U
Cadmium	5.7E+00	<0.43	U	<0.43	U	<0.42	U	<0.43	U
Calcium	NE	71100		54900		77400		68300	
Chromium (total)	4.0E+03	<0.86	U	<0.86	U	<0.38	U	<0.86	U
Cobalt	1.5E+03	<3.7	U	<3.7	U	1.5		<3.7	U
Copper	3.5E+01	<5.4	U	<5.4	U	<4.7	U	<5.4	U
Iron	NE	745		2650		1860		616	
Lead	2.8E+02	<2.4	UJ	2.4	J	3.3		<2.4	UJ
Magnesium	NE	22900		17400		30500		21800	
Manganese	2.3E+03	15.6		33.6		49.5		17.4	
Mercury	1.7E+00	<0.02	UJ	<0.02	UJ	<0.02	U	<0.02	UJ
Nickel	1.1E+03	<3.3	U	<3.3	U	3.7		<3.3	U
Potassium	NE	1420	J	2220		4880		1320	J
Selenium	2.4E+01	<6.0	U	<6.0	U	<4.0	U	<6.0	U
Silver	2.0E+01	<0.80	U	<0.80	U	<1.1	U	<0.80	U
Sodium	NE	16700		12600		25400		16400	
Thallium	1.1E+02	<4.1	U	<4.1	U	<3.3	U	<4.1	U
Vanadium	2.8E+02	<1.4	U	<1.4	U	4.7		<4.1	U
Zinc	2.7E+02	7.7	J	14.1	J	13.9		5.8	J

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the surface water screening criteria.

NE - Screening value not established.

WS_ESL_ACUTE - Surface Water Ecological Screening Level. The acute surface water screening benchmarks included the following ecotoxicological screening values: 1) Data were screened against the federal acute ambient water quality criteria for the protection of aquatic life. Where appropriate, criteria were adjusted to reflect the average hardness value of the receiving waterbody. Hardness-dependent surface water criteria were adjusted to either the average hardness of the AOC 7 water (264 mg/L as $CaCO_3$) or the Great Miami River water (322 mg/L as $CaCO_3$), as appropriate; or, 2) If federal water quality criteria were not available, then alternative sources such as Oak Ridge National Laboratories (ORNL) secondary acute values were used.

Table 4.4-8

Surface Water Polychlorinated Biphenyl Analytical Results - AOC 7

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:		AOC7SW6		AOC7SW7		AOC7SW8		AOC7SW9	
Sample Top (ft below ground surface):		0.098		0.098		0.333		0.098	
Sample Bottom (ft below ground surface):		0.197		0.197		0.333		0.197	
Sample Date:		01/24/2006		01/23/2006		11/10/2005		01/24/2006	
Analyte	WS_ESL_ACUTE_AOC7 (ug/l)								
Aroclor 1016	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U
Aroclor 1221	NE	<1.9	U	<2.0	U	<2.0	U	<2.0	U
Aroclor 1232	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U
Aroclor 1242	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U
Aroclor 1248	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U
Aroclor 1254	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U
Aroclor 1260	NE	<0.97	U	<1.0	U	<1.0	U	<1.0	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed the surface water screening criteria.

NE - Screening value not established.

WS_ESL_ACUTE - Surface Water Ecological Screening Level. The acute surface water screening benchmarks included the following ecotoxicological screening values: 1) Data were screened against the federal acute ambient water quality criteria for the protection of aquatic life. Where appropriate, criteria were adjusted to reflect the average hardness value of the receiving waterbody. Hardness-dependent surface water criteria were adjusted to either the average hardness of the AOC 7 water (264 mg/L as $CaCO_3$) or the Great Miami River water (322 mg/L as $CaCO_3$), as appropriate; or, 2) If federal water quality criteria were not available, then alternative sources such as Oak Ridge National Laboratories (ORNL) secondary acute values were used.

Table 4.5-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC8SB1		AOC8SB1		AOC8SB1		AOC8SB10**		AOC8SB10**		AOC8SB10**		AOC8SB10**		AOC8SB10**		AOC8SB11		AOC8SB12		AOC8SB13		AOC8SB2		AOC8SB2	
				Sample ID:	AOC8SB1AA		AOC8SB1BA		AOC8SB1CA		AOC8SB10AA-10		AOC8SB10AA-11		AOC8SB10AA-7		AOC8SB10AA-8		AOC8SB10AA-9		AOC8SB11AA		AOC8SB12AA		AOC8SB13AA		AOC8SB2AA		AOC8SB2BA	
				Sample Top (ft below ground surface):	0		4		16		6		6		6		6		6		6		6		6		0		14	
				Sample Bottom (ft below ground surface):	0.5		5		16.5		7.6		7.6		7.6		7.6		7.6		7.1		8		7.7		1.5		14.9	
				Sample Date:	10/18/2005		10/18/2005		10/18/2005		11/01/2005		11/01/2005		11/01/2005		11/01/2005		11/01/2005		11/01/2005		11/02/2005		11/03/2005		10/19/2005		10/19/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<22	U	<16	U	<8.8	U	6.1	J	270	J	11	J	9.2	J	4.9	J	190	J	<10	U	<10	U	<17	UJ	<1500	UB
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<22	U	<16	U	<8.8	U	<11	U	<1100	U	<12	U	<11	U	<11	U	<1200	U	<10	U	<10	U	<17	UJ	<1500	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<22	U	<16	U	<8.8	U	<11	U	<1100	U	<12	U	<11	U	<11	U	<1200	U	<10	U	<10	U	<17	UJ	<1500	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<44	UB	<32	UB	<18	UB	53		<2300	U	49		44		56		<2400	U	24		63	J	<34	UB	<3000	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	0.82	J	1.6	J	2.3	J	0.55	J	<560	U	4.1	J	1.1	J	0.50	J	<590	U	<5	U	1.3	J	2.9	J	<750	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.3	J	0.80	J	2.9	J	0.89	J	<1100	U	2.6	J	3.6	J	0.62	J	<1200	U	2.9	J	0.93	J	2.1	J	<1500	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<22	U	<16	U	<8.8	U	<11	U	<1100	U	<12	U	<11	U	<11	U	<1200	U	<10	U	<10	U	<17	UJ	<1500	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<11	U	<8.1	U	<8.8	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	61	J	<5	U	<5.1	U	<8.7	UJ	<750	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	3.1	J	5.7	J	1.2	J	<5.7	U	<560	UJ	18		6.2	B	<5.6	U	<590	UJ	<5	U	<8.5	UB	3.0	J	<750	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	1.0	J	2.0	J	1.3	J	0.39	J	<560	U	7.0		1.2	J	<5.6	U	<590	U	<5	U	1.0	J	<8.7	UJ	<750	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	26		4.5	J	<5.6	U	<590	U	<5	U	19		<8.7	UJ	230	J
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.2	J	2.7	J	2.2	J	<5.7	U	<560	U	8.6		2.1	J	<5.6	U	<590	U	<5	U	1.7	J	1.4	J	<750	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.91	J	1.4	J	0.62	J	<5.7	U	<560	U	5.5	J	1.2	J	<5.6	U	<590	U	<5	U	0.81	J	1.0	J	<750	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<22	U	<16	U	<8.8	U	<11	U	<1100	U	<12	U	<11	U	<11	U	150	J	<10	U	<10	U	<17	UJ	<1500	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	4.3	J	7.6	J	2.1	J	5.3	J	<560	U	29		10		3.8	J	<590	U	<5	U	9.5		5.9	J	52	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	2.8	J	2.4	J	3.2	J	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	1.1	J	<750	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	3.1	J	4.8	J	0.95	J	<5.7	U	<560	U	13	B	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	1.4	J	<750	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	0.37	J	<5.1	U	<8.7	UJ	<750	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<11	U	<8.1	U	<4.4	U	<5.7	U	<560	U	<6.1	U	<5.4	U	<5.6	U	<590	U	<5	U	<5.1	U	<8.7	UJ	<750	U

Table 4.5-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC8SB2		AOC8SB3		AOC8SB3		AOC8SB3		AOC8SB4		AOC8SB4		AOC8SB4		AOC8SB5		AOC8SB5		AOC8SB5		AOC8SB6		AOC8SB7**		AOC8SB7**		AOC8SB7**	
					Sample ID:	AOC8SB2CA		AOC8SB3AA		AOC8SB3BA		AOC8SB3CA		AOC8SB4AA		AOC8SB4BA		AOC8SB4CA		AOC8SB5AA		AOC8SB5BA		AOC8SB5CA		AOC8SB6AA		AOC8SB7AA-1		AOC8SB7AA-2		AOC8SB7AA-3	
					Sample Top (ft below ground surface):	18		0		6		12		0		10		18		0		4		12		3		6		6		6	
					Sample Bottom (ft below ground surface):	20		1		7.5		13.3		1.5		11.5		19.9		1.5		5.8		13.2		3.8		7.6		7.6		7.6	
					Sample Date:	10/19/2005		10/20/2005		11/02/2005		11/02/2005		10/20/2005		11/02/2005		11/02/2005		10/20/2005		11/02/2005		11/02/2005		10/18/2005		11/01/2005		11/01/2005		11/01/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																											
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	≤5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<8.3	U	<11	U	<11	U	<11	U	5.7	J	230	J	2.2	J	<11	U	<10	U	<13	U	3.5	J	<9.1	U	<8.7	U	110	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<8.3	U	<11	U	<11	U	<11	U	<19	U	<1300	U	<9.5	U	<11	U	<10	U	<13	U	<12	U	<9.1	U	<8.7	U	<960	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<8.3	U	<11	U	<11	U	<11	U	<19	U	<1300	U	<9.5	U	<11	U	<10	U	<13	U	<12	U	<9.1	U	<8.7	U	<960	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<17	UB	<23	UB	<23	U	<22	U	67	B	<2600	U	15	J	<22	UB	7.7	J	<25	U	48		<18	U	<17	U	<1900	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<4.1	U	0.55	J	4.4	J	1.9	J	0.96	J	<660	U	<4.8	U	0.35	J	<5.2	U	1.9	J	1.2	J	4.3	J	2.3	J	63	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.55	J	0.40	J	<11	U	<11	U	0.62	J	<1300	U	1.7	J	<11	U	0.36	J	0.42	J	0.36	J	0.28	J	<8.7	U	<960	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<8.3	U	<11	U	<11	U	<11	U	<19	U	<1300	U	<9.5	U	<11	U	<10	U	<13	U	<12	U	<9.1	U	<8.7	U	<960	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.46	J	0.78	J	17		<7.2	UB	3.6	J	<660	UJ	<4.8	U	1.3	J	<5.2	U	<8.6	UB	2.0	J	<6.5	UB	<4.4	U	<480	UJ
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<4.1	U	<5.7	U	5.4	J	1.7	J	1.1	J	79	J	<4.8	U	<5.4	U	0.89	J	2.4	J	<5.8	U	0.65	J	<4.4	U	<480	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<4.1	U	<5.7	U	0.68	J	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.1	U	<5.7	U	6.9	J	2.8	J	1.5	J	<660	U	<4.8	U	<5.4	U	1.2	J	3.5	J	<5.8	U	1.2	J	<4.4	U	<480	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.1	U	<5.7	U	3.3	J	1.1	J	0.64	J	<660	U	<4.8	U	<5.4	U	0.42	J	1.5	J	<5.8	U	0.74	J	<4.4	U	<480	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<8.3	U	<11	U	<11	U	<11	U	<19	U	<1300	U	<9.5	U	<11	U	<10	U	<13	U	<12	U	<9.1	U	<8.7	U	190	J
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	0.53	J	0.88	J	20		9.0		4.4	J	<660	U	1.3	J	1.5	J	<5.2	U	10		2.3	J	8.1		4.8	J	49	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	0.61	J	1.00	J	<5.7	U	<5.4	U	18		<660	U	<4.8	U	1.8	J	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<4.1	U	0.42	J	14		<5.7	UB	3.0	J	<660	U	<4.8	U	0.81	J	<5.2	U	<6.3	U	0.63	J	<4.5	U	<4.4	U	<480	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	47	J
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.1	U	<5.7	U	<5.7	U	<5.4	U	<9.4	U	<660	U	<4.8	U	<5.4	U	<5.2	U	<6.3	U	<5.8	U	<4.5	U	<4.4	U	<480	U

Table 4.5-1
Soil Volatile Organic Compound Analytical Results - AOC 1
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC8SB8		AOC8SB9**		AOC8SB9**		AOC8SB9**	
Sample ID:					AOC8SB8AA		AOC8SB9AA-4		AOC8SB9AA-5		AOC8SB9AA-6	
Sample Top (ft below ground surface):					7		6		6		6	
Sample Bottom (ft below ground surface):					8.2		7.3		7.3		7.3	
Sample Date:					10/19/2005		11/01/2005		11/01/2005		11/01/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)								
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<8.6	U	<5.2	U	<4.9	U	<530	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<17	U	<10	U	<9.9	U	180	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<17	U	<10	U	<9.9	U	<1100	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<17	U	<10	U	<9.9	U	<1100	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<34	UB	16	J	26	J	<2100	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	1.0	J	0.52	J	1.6	J	<530	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	3.3	J	<10	U	2.6	J	<1100	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<17	U	<10	U	<9.9	U	<1100	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	3.2	J	<6.1	UB	<8.0	UB	<530	UJ
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	1.5	J	0.41	J	2.6	J	<530	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	4.2	J	<5.2	U	11	J	100	J
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.8	J	0.72	J	2.7	J	<530	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	1.4	J	<5.2	U	2.0	J	<530	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<17	U	<10	U	<9.9	U	86	J
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	4.4	J	5.8	J	12	J	<530	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	2.0	J	<5.2	U	<4.9	U	<530	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<8.6	U	<5.2	U	<4.9	U	<530	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<8.6	U	<5.2	U	<4.9	U	<530	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	3.5	J	<5.2	U	<4.9	U	<530	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<8.6	U	<5.2	U	<4.9	U	<530	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<8.6	U	<5.2	U	<4.9	U	<530	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<8.6	U	<5.2	U	<4.9	U	<530	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in BOLD indicate detected concentrations exceed one or more screening criteria.
* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
** - Due to heterogeneous nature of soil material, multiple samples were analyzed from the same depth interval.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.5-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOCBSB1	AOCBSB1	AOCBSB1	AOCBSB10	AOCBSB11	AOCBSB12	AOCBSB13	AOCBSB2	AOCBSB2	AOCBSB2	AOCBSB3	AOCBSB3	AOCBSB3	AOCBSB4
					Sample Top (ft below ground surface):	0	4	16	6	6	6	6	0	14	18	0	6	12	0
					Sample Bottom (ft below ground surface):	0.5	5	16.5	7.6	7.1	8	7.7	1.5	14.9	20	1	7.5	13.3	1.5
					Sample Date:	10/18/2005	10/18/2005	10/18/2005	11/01/2005	11/01/2005	11/02/2005	11/03/2005	10/19/2005	10/19/2005	10/19/2005	10/20/2005	11/02/2005	11/02/2005	10/20/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		60 J	<350 UJ	<360 U	<400 U	<450 U	<390 U	55 J	140 J	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		380	300 J	<360 U	400 J	<450 U	50 J	180 J	940	810	<350 U	<380 U	<410 U	<350 U	<390 U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		42 J	46 J	210 J	58 J	350 J	<390 U	280 J	140 J	360	<350 U	<380 U	<410 U	480	<390 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		160 J	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	180 J	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Acetophenone	NE	NE	NE	3.0E+05		<370 U	<350 UJ	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		170 J	<350 U	<360 U	<400 U	<450 U	<390 U	170 J	350 J	<350 U	<350 U	42 J	<410 U	<350 U	<390 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<370 U	<350 UJ	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<370 UJ	<350 UJ	<360 UJ	<400 U	<450 U	<390 U	<400 U	<360 UJ	<350 UJ	<350 UJ	<380 UJ	<410 U	<350 U	<390 UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		310 J	<350 U	<360 U	<400 U	<450 U	45 J	130 J	750	<350 U	<350 U	210 J	100 J	<350 U	60 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		390	<350 U	<360 U	<400 U	<450 U	41 J	110 J	730	<350 U	<350 U	220 J	100 J	<350 U	67 J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		530	<350 U	<360 U	<400 U	<450 U	48 J	110 J	870	<350 U	<350 U	240 J	120 J	<350 U	60 J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		600	<350 U	<360 U	<400 U	<450 U	<390 U	71 J	660	<350 U	<350 U	180 J	89 J	<350 U	56 J
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		480	<350 U	<360 U	<400 U	<450 U	51 J	110 J	700	<350 U	<350 U	250 J	110 J	<350 U	60 J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<370 U	180 J	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<1900 U	<1800 UJ	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		57 J	<350 U	<360 U	<400 U	<450 U	<390 U	41 J	150 J	180 J	<350 U	<380 U	<410 U	<350 U	<390 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		430	<350 U	<360 U	<400 U	67 J	57 J	170 J	940	<350 U	<350 U	250 J	140 J	<350 U	68 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		150 J	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	180 J	<350 U	<350 U	46 J	<410 U	<350 U	<390 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		120 J	39 J	<360 U	<400 U	200 J	<390 U	250 J	350 J	180 J	<350 U	<380 U	<410 U	<350 U	<390 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<370 U	76 J	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		740	65 J	70 J	55 J	120 J	100 J	720	1800	46 J	<350 U	460	230 J	100 J	140 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<370 U	79 J	370	86 J	940	<390 U	320 J	120 J	610	<350 U	<380 U	<410 U	900	<390 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		490	<350 U	<360 U	<400 U	<450 U	<390 U	67 J	570	<350 U	<350 U	160 J	82 J	<350 U	49 J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<370 U	<350 U	<360 U	120 J	<450 U	<390 U	430 J	1000	<430	<350 U	<380 U	<410 U	<350 U	<390 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<1900 U	<1800 U	<1900 U	<2100 U	<2300 U	<2000 U	<2000 U	<1900 U	<1800 U	<1800 U	<1900 U	<2100 U	<1800 U	<2000 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		550	160 J	<360 U	180 J	<450 U	67 J	920 J	1500	1500	67 J	240 J	190 J	1700	120 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<370 U	<350 U	<360 U	<400 U	<450 U	<390 U	<400 U	<360 U	<350 U	<350 U	<380 U	<410 U	<350 U	<390 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		490	54 J	57 J	49 J	160 J	94 J	550	1100	77 J	<350 U	390	190 J	150 J	130 J

Table 4.5-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC8SB4		AOC8SB4		AOC8SB5		AOC8SB5		AOC8SB5		AOC8SB6		AOC8SB7		AOC8SB8		AOC8SB9	
					Sample Top (ft below ground surface): 10		18		0		4		12		3		6		7		6	
					Sample Bottom (ft below ground surface): 11.5		19.9		1.5		5.8		13.2		3.8		7.6		8.2		7.3	
					Sample Date: 11/02/2005		11/02/2005		10/20/2005		11/02/2005		11/02/2005		10/18/2005		11/01/2005		10/19/2005		11/01/2005	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<4200	U	<380	U	<390	U	<390	U	<400	U	76	J	<350	U	<350	U	<390	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<4200	U	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<4200	U	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<22000	U	<2000	U	<2000	U	<2000	U	<2100	U		R	<1800	U	<1800	U	<2000	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<4200	U	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	**44000**	J	<380	U	44	J	100	J	<400	U	880		<350	U	300	J	2100	
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U	<1700	U	<1800	U	<1800	U	<2000	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U	<1700	U	<1800	U	<1800	U	<2000	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U		R	<1800	U	<1800	U	<2000	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U	<1700	U	<1800	U	<1800	U	<2000	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U		R	<1800	U	<1800	U	<2000	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	3200	J	<380	U	<390	U	<390	U	<400	U	57	J	<350	U	54	J	340	J
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<4200	UJ	<380	U	60	J	90	J	<400	U	<340	U	<350	U	<350	U	<390	U
Acetophenone	NE	NE	NE	3.0E+05	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<4200	UJ	<380	U	58	J	100	J	<400	U	<340	U	<350	U	<350	U	<390	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<4200	U	<380	U	<390	UJ	<390	U	<400	U	<340	UJ	<350	U	<350	UJ	<390	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<4200	UJ	<380	U	130	J	340	J	<400	U	<340	U	<350	U	<350	U	<390	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<4200	UJ	<380	U	**180**	J	**360**	J	<400	U	<340	U	<350	U	<350	U	<390	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<4200	UJ	<380	U	180	J	410		<400	U	<340	U	<350	U	<350	U	<390	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<4200	UJ	<380	U	130	J	300	J	<400	U	<340	U	<350	U	<350	U	<390	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<4200	UJ	<380	U	170	J	**400**		<400	U	<340	U	<350	U	<350	U	<390	U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	75	J
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U	<1700	U	<1800	U	<1800	U	<2000	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<4200	U	<380	U	<390	U	48	J	<400	U	<340	U	<350	U	<350	U	<390	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<4200	UJ	<380	U	170	J	450		<400	U	<340	U	<350	U	<350	U	<390	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<4200	UJ	<380	U	<390	U	**83**	J	<400	U	<340	U	<350	U	<350	U	<390	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	1700	J	<380	U	<390	U	52	J	<400	U	82	J	<350	U	<350	U	150	J
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<4200	U	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<4200	U	<380	U	<390	U	<390	U	<400	U	38	J	<350	U	<350	U	<390	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<4200	UJ	<380	U	270	J	670		<400	U	38	J	<350	U	<350	U	54	J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	5400	J	<380	U	54	J	<390	U	<400	U	<340	U	<350	U	83	J	470	
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<4200	UJ	<380	U	120	J	280	J	<400	U	<340	U	<350	U	<350	U	<390	U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**8200**	J	<380	U	<390	U	**120**	J	<400	U	<340	U	<350	U	<350	U	**330**	J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<4200	UJ	<380	U	<390	U	<390	U	<400	U	<340	U	<350	U	<350	U	<390	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<22000	UJ	<2000	U	<2000	U	<2000	U	<2100	U		R	<1800	U	<1800	U	<2000	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	11000	J	<380	U	290	J	400		<400	U	480		<350	U	130	J	590	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<4200	UJ	<380	U	<390	U	<390	U	<400	U		R	<350	U	<350	U	<390	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<4200	UJ	<380	U	290	J	530		<400	U	<340	U	<350	U	<350	U	76	J

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.5-3
Soil Metals Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC8SB1	AOC8SB1	AOC8SB1	AOC8SB10	AOC8SB11	AOC8SB12	AOC8SB13	AOC8SB2	AOC8SB2	AOC8SB2	AOC8SB3	AOC8SB3	AOC8SB3	AOC8SB4
					Sample Top (ft below ground surface):	0	4	16	6	6	6	6	0	14	18	0	6	12	0
					Sample Bottom (ft below ground surface):	0.5	5	16.5	7.6	7.1	8	7.7	1.5	14.9	20	1	7.5	13.3	1.5
					Sample Date:	10/18/2005	10/18/2005	10/18/2005	11/01/2005	11/01/2005	11/02/2005	11/03/2005	10/19/2005	10/19/2005	10/19/2005	10/20/2005	11/02/2005	11/02/2005	10/20/2005
Aluminum	1.0E+05	7.6E+04	NE	NE		17900	5880	5680	6180	17700	15200	14400	17200	7190	8080	21600	16300	2680	15400
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.5 U	<6.3 U	<6.4 U	<7.1 UJ	<8.0 UJ	<6.7 UJ	<7.1 UJ	<6.5 U	<6.2 U	<6.4 U	<6.6 U	<7.4 UJ	<6.1 UJ	<6.9 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**11.2**	**3.2**	**7.5**	**4.1** J	**8.2** J	**8.7** J	**13.4** J	**8.6**	**9.6**	**5.4**	**9.6**	**10.6** J	**3.4** J	**11.3**
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		130 J	41.1 J	39.3 J	38.2 J	151 J	102 J	91.6 J	176 J	56.3 J	65.8 J	175 J	107 J	13.7 J	117 J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		<0.55 U	<0.52 U	<0.54 U	<0.59 U	<0.67 U	<0.56 U	<0.59 U	<0.54 U	<0.52 U	<0.54 U	1.5	<0.62 U	<0.51 U	<0.57 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**0.91** J+	<0.52 U	<0.54 U	<1.2 UJ	<1.3 UJ	<1.1 UJ	<1.2 UJ	**0.83** J+	**0.61** J+	**0.57** J+	**0.87** J+	<1.2 UJ	<10.2 UJ	**0.89** J+
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		**20.3**	5.8	8.7	12.1	19.7	19.7	15.7	16.5	11.3	10.6	18.5	**20.3**	7.0	19.3
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		9.4	<5.2 U	<5.4 U	<5.9 U	10.6	8.2	7.5	<5.4 U	6.4	6.6	8.1	10.7	<5.1 U	**14.9**
Copper	4.1E+04	3.1E+03	NE	2.8E+01		19.6	7.3	13.7	9.3	17.2	15.7	18.5	20.9	15.9	22.2	17.2	17.3	8.4	18.0
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.12 U	<1.05 U	<1.09 U	<1.22 U	<1.36 U	<1.18 U	<1.2 U	**2.26**	<1.07 U	<1.07 U	<1.15 U	<1.24 U	<1.07 U	<1.17 U
Iron	1.0E+05	2.3E+04	NE	NE		**25000**	5980	12200	10300	22600	**23900**	**24800**	17200	16000	14700	19700	**23600**	6950	**25300**
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**24.6**	3.1	6.5	**16.3**	**19.8**	**13.3**	**14.7**	**27.7**	6.3	7.2	**22.0**	**20.2**	**20.3**	**24.8**
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**929**	427	284	402 J	**1530** J	**680** J	**797** J	**1950**	327	341	**1650**	**783** J	277 J	**1020**
Mercury	NE	NE	NE	3.0E-01		0.04	<0.03 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.04 U	<0.03 U	0.04	<0.04 U	<0.04 U	0.04
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		19.2	5.9	12.8	10.7	18.1	18.9	17.5	13.1	16.6	17.2	15.4	19.4	6.3	20.5
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<1.1 UJ	**1.6** J-	<1.1 U	<1.2 U	<1.3 U	<1.1 U	<1.2 U	**3.3**	**1.2**	**1.3**	**1.7** J-	<1.2 U	<1 U	<1.1 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1 U	<1 U	<1.1 U	<1.2 U	<1.3 U	<1.1 U	<1.2 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<1.2 U	<1 U	<1.1 U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<1.1 U	<1 U	<1.1 U	<5.9 U	<8 U	<5.6 U	<5.9 U	<10.9 U	<1 U	<1.1 U	<11 U	<6.2 U	<5.1 U	<1.1 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**32.5**	**10.7**	**13.0**	**17.2**	**31.6**	**31.3**	**28.1**	**16.4**	**17.3**	**16.7**	**30.4**	**36.2**	**9.3**	**34.4**
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**70.8** J	13.2 J	30.2 J	26.1	**67.1**	**73.5**	**59.1**	**58.1** J	39.8 J	35.1 J	**56.9** J	**67.0**	17.5	**65.3** J

Table 4.5-3
Soil Metals Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: AOC8SB4		Sample Location: AOC8SB4		Sample Location: AOC8SB5		Sample Location: AOC8SB5		Sample Location: AOC8SB5		Sample Location: AOC8SB6		Sample Location: AOC8SB7		Sample Location: AOC8SB8		Sample Location: AOC8SB9	
					Sample Top (ft below ground surface): 10		Sample Top (ft below ground surface): 18		Sample Top (ft below ground surface): 0		Sample Top (ft below ground surface): 4		Sample Top (ft below ground surface): 12		Sample Top (ft below ground surface): 3		Sample Top (ft below ground surface): 6		Sample Top (ft below ground surface): 7		Sample Top (ft below ground surface): 6	
					Sample Bottom (ft below ground surface): 11.5		Sample Bottom (ft below ground surface): 19.9		Sample Bottom (ft below ground surface): 1.5		Sample Bottom (ft below ground surface): 5.8		Sample Bottom (ft below ground surface): 13.2		Sample Bottom (ft below ground surface): 3.8		Sample Bottom (ft below ground surface): 7.6		Sample Bottom (ft below ground surface): 8.2		Sample Bottom (ft below ground surface): 7.3	
					Sample Date: 11/02/2005		Sample Date: 11/02/2005		Sample Date: 10/20/2005		Sample Date: 11/02/2005		Sample Date: 11/02/2005		Sample Date: 10/18/2005		Sample Date: 11/01/2005		Sample Date: 10/19/2005		Sample Date: 11/01/2005	
Aluminum	1.0E+05	7.6E+04	NE	NE	4940		8460		15800		17500		4820		5740		2450		2940		12800	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7.7	UJ	<6.7	UJ	<7.1	U	<7.0	UJ	<6.9	UJ	<5.9	U	<6.3	UJ	<6.3	U	<6.8	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**4.6**	J	**6.1**	J	**11.1**		**9.6**	J	**3.8**	J	**2.8**		**2.3**	J	**2.8**		**7.0**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	31.5	J	76.8	J	114	J	142	J	28.5	J	50.2	J	13.0	J	20.5	J	74.0	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	<0.64	U	<0.56	U	<0.59	U	0.92		<0.58	U	<0.49	U	<0.53	U	<0.53	U	<0.57	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<1.3	UJ	<1.1	UJ	**0.84**	J+	<1.2	UJ	<11.5	UJ	**0.92**	J+	<10.5	UJ	<0.53	U	<1.1	UJ
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	11.8		12.4		19.2		**21.3**		12.6		7.6		5.9		5.5		18.9	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<6.4	U	6.9		10.3		9.0		<5.8	U	<4.9	U	<5.3	U	<5.3	U	8.8	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	9.5		15.8		17.8		22.4		10.7		5.0		5.8		4.8		15.7	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.28	U	<1.16	U	<1.19	U	<1.17	U	<1.21	U	<1.03	U	<1.05	U	<1.05	U	<1.18	U
Iron	1.0E+05	2.3E+04	NE	NE	10500		16800		23400		**25000**		9380		5630		5610		5780		20300	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	8.4		**20.6**		**19.7**		**33.9**		**23.6**		2.3		**21.0**		2.8		**15.5**	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	428	J	360	J	**634**		**1440**	J	363	J	**637**		357	J	276		**625**	J
Mercury	NE	NE	NE	3.0E-01	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.03	U	<0.03	U	<0.03	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	12.6		16.8		21.0		17.6		12.1		5.2		5.4		6.7		18.0	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<1.3	U	<1.1	U	<1.2	U	<1.2	U	<1.2	U	**2.5**		<1.1	U	**2.2**	J-	<1.1	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.3	U	<1.1	U	<1.2	U	<1.2	U	<1.2	U	<0.98	U	<1.1	U	<1.1	U	<1.1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<6.4	U	<5.6	U	<1.2	U	<7	U	<5.8	U	<0.98	U	<5.3	U	<1.1	U	<5.7	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**16.4**		**17.9**		**34.4**		**30.1**		**15.5**		**10.4**		**9.4**		**11.2**		**29.1**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	26.0		39.1		**64.7**	J	**103**		22.5		9.4	J	10.7		10.5	J	**54.0**	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.5-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC8SB1	AOC8SB1	AOC8SB1	AOC8SB10	AOC8SB11	AOC8SB12	AOC8SB13	AOC8SB2	AOC8SB2	AOC8SB2	AOC8SB3	AOC8SB3	AOC8SB3	AOC8SB4
					Sample Top (ft below ground surface):	0	4	16	6	6	6	6	0	14	18	0	6	12	0
					Sample Bottom (ft below ground surface):	0.5	5	16.5	7.6	7.1	8	7.7	1.5	14.9	20	1	7.5	13.3	1.5
					Sample Date:	10/18/2005	10/18/2005	10/18/2005	11/01/2005	11/01/2005	11/02/2005	11/03/2005	10/19/2005	10/19/2005	10/19/2005	10/20/2005	11/02/2005	11/02/2005	10/20/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	<36 U	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Aroclor 1221	NE	NE	NE	4.0E+04	<75 U	<70 U	<73 U	<81 U	<91 U	<79 U	<80 U	<73 U	<71 U	<72 U	<77 U	<83 U	<72 U	<78 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	<36 U	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	<36 U	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	<36 U	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	<36 U	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Aroclor 1260	NE	NE	NE	4.0E+04	39	<35 U	<36 U	<40 U	<45 U	<39 U	<40 U	52	<35 U	<35 U	<38 U	<41 U	<35 U	<39 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	169	140	144.5	160.5	180.5	156.5	160	178.5	140.5	141	152.5	164.5	141	156

Table 4.5-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC8SB4		AOC8SB5		AOC8SB5		AOC8SB5		AOC8SB6		AOC8SB7		AOC8SB8		AOC8SB9	
					Sample Top (ft below ground surface):		10		18		0		4		12		3		6		7		6	
					Sample Bottom (ft below ground surface):		11.5		19.9		1.5		5.8		13.2		3.8		7.6		8.2		7.3	
					Sample Date:		11/02/2005		11/02/2005		10/20/2005		11/02/2005		11/02/2005		10/18/2005		11/01/2005		10/19/2005		11/01/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																		
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Aroclor 1221	NE	NE	NE	4.0E+04	<86	U	<78	U	<80	U	<79	U	<81	U	<69	U	<71	U	<71	U	<79	U
Aroclor 1232	NE	NE	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Aroclor 1242	NE	NE	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Aroclor 1248	NE	NE	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Aroclor 1260	NE	NE	NE	4.0E+04	<42	U	<38	U	<39	U	<39	U	<40	U	<34	U	<35	U	<35	U	<39	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	169		153		157		156.5		160.5		136.5		140.5		140.5		156.5	

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.5-5
Soil Dioxins Analytical Results - AOC 8
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC8SB1		AOC8SB10		AOC8SB13		AOC8SB2		AOC8SB3		AOC8SB5		AOC8SB7	
					Sample Top (ft below ground surface):	0		6		6		14		12		0		6	
					Sample Bottom (ft below ground surface):	0.5		7.6		7.7		14.9		13.3		1.5		7.6	
					Sample Date:	10/18/2005		11/01/2005		11/03/2005		10/19/2005		11/02/2005		10/20/2005		11/01/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)															
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		**28.458**	B	**3.918**	B	<1.049	U	<1.756	UB	<1.249	UB	<0.848	UB	<0.554	UB
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		**226.341**	B	**20.677**	B	**8.723**		**13.189**	JB	**5.042**	JB	**4.933**	B	**2.989**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		**3.802**		<0.096	U	<0.096	U	<0.443	UJ	<0.081	U	<0.219	U	<0.057	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		**3.168**	J	**0.372**	JK	**0.346**	JK	<0.098	UJ	**0.375**	JK	<0.071	U	**0.351**	J
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		**0.711**	J	**0.219**	JK	0.111	J	<0.106	U	**0.25**	J	<0.062	U	0.126	JK
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		**1.047**	J	<0.049	U	**0.323**	J	<0.103	UJ	**0.39**	J	<0.074	U	**0.328**	J
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		**5.516**	J	**0.739**	J	**0.291**	J	<0.102	U	**0.383**	J	<0.06	U	**0.208**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		**0.238**	J	<0.06	U	<0.051	U	<0.126	UJ	<0.054	U	<0.091	U	<0.019	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		**2.187**	J	**0.759**	J	**0.253**	J	<0.101	U	<0.046	U	<0.059	U	0.114	JK
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		**0.296**	JK	<0.045	U	<0.043	U	<0.078	U	**0.338**	J	<0.068	U	**0.368**	J
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE		0.796	J	<0.053	U	<0.044	U	<0.11	UJ	<0.047	U	<0.079	U	0.181	J
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE		0.585	J	<0.023	U	0.218	JK	<0.08	UJ	0.519	J	<0.04	U	0.444	J
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01		<1.252	U	<0.492	U	<0.096	U	<0.211	UJ	<0.088	U	<0.113	U	<0.298	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01		<0.075	U	<0.035	U	<0.036	U	**0.917**		<0.029	U	<0.051	U	**0.24**	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE		158.447	B	14.431	B	<4.012	UB	11.112	JB	<3.248	UJB	<4.998	UB	<1.737	UB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE		1762.954	JB	142.229	B	78.845	J	112.128	JB	30.901	JB	37.09	B	22.076	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01		**5.1202**		NA		NA		NA		NA		0.163107		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.6-1

Soil Volatile Organic Compound Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC9SB1		AOC9SB1		AOC9SB1		AOC9SB2		AOC9SB2		AOC9SB2		AOC9SB3		AOC9SB3		AOC9SB3		AOC9SB4		AOC9SB4		AOC9SB4		MW-23S-A		MW-23S-A	
Sample Top (ft below ground surface):					0		4		22		0		4		18		0		8		16		0		6		22		3		10	
Sample Bottom (ft below ground surface):					1.5		5.3		24		1.8		5.1		20		1:8		9.5		18		1.4		7		23		5		13	
Sample Date:					12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		6/5/2008		6/5/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<1.21	U	<1.01	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	1.0	J	<5.4	UJ	2.4	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<2.43	U	<2.02	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<6.4	U	<5.4	UJ	2.1	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	0.40	J	<5.4	UJ	1.2	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<6.4	U	<5.4	UJ	2.0	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	7.2	J	<11	UJ	13	J	25		<12	U	<1200	U	<11	U	9.4	J	<9.7	U	<13	UJ	30	J	<11	U	<3.03	U	2.83	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<13	U	<11	UJ	<10	UJ	<14	U	<12	U	<1200	U	<11	U	<12	U	<9.7	U	<13	UJ	<11	UJ	<11	U	<3.03	U	<2.52	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<13	U	<11	UJ	<10	UJ	<14	U	<12	U	<1200	U	<11	U	<12	U	<9.7	U	<13	UJ	<11	UJ	<11	U	<3.03	U	<2.52	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	16	J	<22	UJ	73	J	63		8.8	J	<2400	U	<23	U	44		<19	U	13	J	120	J	<21	U	<0.607	U	14.9	
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	2.5	J	0.48	J	0.81	J	3.8	J	<5.9	U	4200		<5.6	U	8.6		0.99	J	<6.7	UJ	0.85	J	2.1	J	2	J	<0.505	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<1.21	U	<1.01	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	7.1	J	0.54	J	6.8	J	17		0.45	J	47	J	0.53	J	18		0.34	J	1.4	J	5.0	J	5.7	J	<0.607	U	<0.505	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<2.43	U	<2.02	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<13	U	<11	UJ	<10	UJ	<14	U	<12	U	<1200	U	<11	U	<12	U	<9.7	U	<13	UJ	<11	UJ	<11	U	<1.21	U	<1.01	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	0.94	J	<5.4	UJ	1.8	J	<6.9	U	<5.9	U	<610	U	<5.6	U	0.69	J	<4.9	U	1.3	J	0.76	J	<5.3	U	<2.43	U	<2.02	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<6.4	U	<5.4	UJ	0.31	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<6.4	U	1.2	J	0.48	J	<6.9	U	0.97	J	52	J	<5.6	U	2.6	J	0.70	J	0.78	J	1.2	J	5.4		<0.607	U	<0.505	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<6.4	UJ	<5.4	UJ	<5.2	UJ	<6.9	UJ	<5.9	UJ	<610	U	<5.6	UJ	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.303	U	<0.252	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<6.4	U	<5.4	UJ	2.3	J	1.8	J	<5.9	U	960		<5.6	U	1.7	J	<4.9	U	<6.7	UJ	0.70	J	3.1	J	<0.607	U	<0.505	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<6.4	U	<5.4	UJ	4.6	J	1.3	J	<5.9	U	1600		<5.6	U	0.62	J	<4.9	U	<6.7	UJ	<5.3	UJ	0.36	J	<0.607	U	<0.505	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<13	U	<11	UJ	<10	UJ	<14	U	<12	U	120	J	<11	U	<12	U	<9.7	U	<13	UJ	<11	UJ	<11	U	<1.21	U	<1.01	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<6.4	U	2.4	J	1.2	J	<6.9	U	0.90	J	220	J	<5.6	U	2.6	J	0.77	J	1.5	J	1.2	J	8.7		<1.21	U	<1.01	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.0	UB	<5.4	UJ	<5.0	UJB	<6.9	U	<5.9	U	<610	U	<5.0	UB	<5.0	UB	<4.9	U	<6.7	UJ	<5.0	UJB	<5.0	UB	<1.21	U	<1.01	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<1.21	U	<1.01	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4	U	1.4	J	1.8	J	1.1	J	<5.9	U	4300		<5.6	U	5.8	J	<4.9	U	<6.7	UJ	1.2	J	4.3	J				
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4	U	0.46	J	0.94	J	0.73	J	<5.9	U	<610	U	<5.6	U	3.0	J	<4.9	U	<6.7	UJ	0.65	J	2.0	J				
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<6.4	U	<5.4	UJ	1.1	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<6.4	U	0.33	J	<5.2	UJ	<6.9	U	1.8	J	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	1.5	J	0.84	J	3.2	J	2.7	J	1.2	J	61	J	<5.6	U	6.8		1.3	J	<6.7	UJ	1.9	J	7.7		3.14	J	<0.505	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<6.4	U	<5.4	UJ	0.37	J	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<0.607	U	<0.505	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	0.51	J	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	0.56	J	<5.3	UJ	<5.3	U	<0.303	U	<0.505	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<6.4	U	<5.4	UJ	<5.2	UJ	<6.9	U	<5.9	U	<610	U	<5.6	U	<6.1	U	<4.9	U	<6.7	UJ	<5.3	UJ	<5.3	U	<1.21	U	<1.01	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																									2.46	J	<0.505	U

Table 4.6-1

Soil Volatile Organic Compound Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: MW-23S-A Sample Top (ft below ground surface): 20 Sample Bottom (ft below ground surface): 22 Sample Date: 6/5/2008		Sample Location: MW-23S-B Sample Top (ft below ground surface): 4 Sample Bottom (ft below ground surface): 6 Sample Date: 6/5/2008		Sample Location: MW-23S-B Sample Top (ft below ground surface): 10 Sample Bottom (ft below ground surface): 12 Sample Date: 6/5/2008		Sample Location: MW-23S-B Sample Top (ft below ground surface): 19 Sample Bottom (ft below ground surface): 20 Sample Date: 6/5/2008		Sample Location: MW-24S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 6/4/2008		Sample Location: MW-24S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 6/4/2008		Sample Location: MW-24S Sample Top (ft below ground surface): 20 Sample Bottom (ft below ground surface): 22 Sample Date: 6/4/2008	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<1.15	U	<1.3	U	<1.1	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<0.577	U	<0.648	U	<0.551	U	<0.485	U	<0.624	UJ	<0.494	U	<0.485	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<0.577	U	<0.648	U	<0.551	U	<0.485	U	<0.624	UJ	<0.494	U	<0.485	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<2.31	U	<2.59	U	<2.2	U	<1.94	U	<2.5	UJ	<1.97	U	<1.94	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<2.89	U	<3.24	U	<2.75	U	<2.42	U	<3.12	UJ	<2.47	U	<2.43	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<2.89	U	<3.24	U	<2.75	U	<2.42	U	<3.12	UJ	<2.47	U	<2.43	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<2.89	U	<3.24	U	<2.75	U	<2.42	U	<3.12	UJ	<2.47	U	<2.43	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<5.77	U	<6.48	U	13.2		<4.85	U	<6.24	UJ	8.58	J	<4.85	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<1.25	UJ	<0.494	U	<0.97	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<1.15	U	1.28	J	1.35	J	<0.969	U	3.03	J	0.557	J	0.947	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<1.15	U	<0.648	U	<0.551	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<2.31	U	<2.59	U	<2.2	U	<1.94	U	<2.5	UJ	<1.97	U	<1.94	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<0.289	U	<0.324	U	<0.551	U	<0.242	U	<0.312	UJ	<0.247	U	<0.243	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<0.577	U	<0.648	U	<0.551	U	<0.485	U	<0.624	UJ	<0.494	U	0.489	J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<0.577	U	<0.648	U	<0.551	U	<0.485	U	<0.624	UJ	<0.494	U	<0.243	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<1.15	U	<1.3	U	<1.1	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<1.15	U	<1.3	U	<1.1	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<1.15	U	<1.3	U	<1.1	U	<0.969	U	<1.25	UJ	5.5	U	1.12	J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<1.15	U	<1.3	U	<1.1	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04														
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04														
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<0.577	U	<0.648	U	<0.551	U	<0.969	U	1.26	J	<0.494	U	<0.485	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<0.624	UJ	<0.494	U	<0.485	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<0.289	U	<0.324	U	<0.275	U	<0.242	U	<0.312	UJ	<0.247	U	<0.243	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<0.577	U	<0.648	U	<0.551	U	<0.969	U	<1.25	UJ	<0.987	U	<0.97	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.671	J	<0.648	U	1.35	J	0.51	J	1.65	J	0.517	J	1.63	J

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.6-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 9
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC9SB1	AOC9SB1	AOC9SB1	AOC9SB2	AOC9SB2	AOC9SB2	AOC9SB3	AOC9SB3	AOC9SB3	AOC9SB4	AOC9SB4	AOC9SB4	MW-23S-A	MW-23S-A
					Sample Top (ft below ground surface): 0	4	22	0	4	18	0	8	16	0	6	22	3	10
					Sample Bottom (ft below ground surface): 1.5	5.3	24	1.8	5.1	20	1.8	9.5	18	1.4	7	23	5	13
					Sample Date: 12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	6/5/2008	6/5/2008
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
1-Methylnaphthalene	NE	NE	NE	NE													258	<94.5 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U		
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 UJ
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<1100 U	<780 UJ	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 UJ
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	190 J	660 J	890 J	<370 U	<2000 U	32000	260 J	97 J	<400 U	<39000 U	<8400 U	<350 U	625	<94.5 U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 UJ
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<178 U	<189 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE													<89.1 U	<94.5 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE													<89.1 U	<94.5 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<1100 U	<780 U	470 J	<370 U	<2000 U	<25000 U	<1900 U	51 J	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	2000	160 J	960 J	38 J	<2000 U	<25000 U	730 J	100 J	<400 U	<39000 U	<8400 U	<350 U	6.22 J	<94.5 U
Acetophenone	NE	NE	NE	3.0E+05	<1100 U	<780 U	260 J	<370 U	230 J	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	138 J	<94.5 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	1100	330 J	1800 J	81 J	<2000 U	9700 J	2000	110 J	<400 U	<39000 U	<8400 U	<350 U	179	<94.5 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<5700 U	<4000 U	290 J	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<89.1 U	<94.5 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	4400	670 J	1000 J	380	290 J	<25000 U	5900	230 J	<400 U	<39000 U	1100 J	20.8		<94.5 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	4300	690 J	1100 J	420	340 J	<25000 U	5100	240 J	<400 U	<39000 U	1100 J	44 J	11.7	<94.5 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	3600	660 J	780 J	420	290 J	<25000 U	4400	200 J	<400 U	<39000 U	<8400 U	<350 U	9.04 J	<94.5 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	2700	530 J	880 J	350 J	390 J	<25000 U	3300	200 J	<400 U	14000 J	1700 J	110 J	7.94 J	<94.5 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	3300	680 J	750 J	400	270 J	<25000 U	4400	200 J	<400 U	<39000 U	<8400 U	<350 U	8.02 J	<94.5 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 UJ
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	180 J	<89.1 U	<94.5 U
(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE													<89.1 U	<94.5 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	240 J	<780 U	<2500 U	<370 U	<2000 U	<25000 U	540 J	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	4400	750 J	1400 J	490	430 J	<25000 U	5700	260 J	<400 U	<39000 U	1900 J	<350 U	24	<94.5 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	780 J	160 J	<2500 U	98 J	<2000 U	<25000 U	920 J	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	150 J	<780 U	570 J	<370 U	<2000 U	<25000 U	440 J	<390 U	<400 U	<39000 U	<8400 U	<350 U	131 J	<94.5 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	8900	1200	2500 J	620	670 J	2900 J	13000	690	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	260 J	<780 U	1800 J	<370 U	<2000 U	2700 J	550 J	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<1100 U	<780 UJ	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<1100 U	<780 UJ	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<1100 U	<780 UJ	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	2600	480 J	520 J	300 J	<2000 U	<25000 U	2900	150 J	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<1100 UB	4900 J	<7300 U	<40 UB370	<2000 UB	370000	<1900 UB	<390 UB	<400 U	<39000 U	<8400 U	<350 U	297	<94.5 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	78 J	<400 U	<39000 U	<8400 U	<350 U		U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U		U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<5700 U	<4000 U	<13000 U	<1900 U	<10000 U	<130000 U	<9800 U	<2000 U	<2000 U	<200000 U	<43000 U	<1800 U	<356 U	<378 UJ
Phenanthrene	NE	2.2E+07	NE	4.6E+04	3700	470 J	1200 J	270 J	690 J	10000 J	8300	390	<400 U	<39000 U	<8400 U	<350 U	239	<94.5 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<1100 U	<780 U	<2500 U	<370 U	<2000 U	<25000 U	<1900 U	<390 U	<400 U	<39000 U	<8400 U	<350 U	<89.1 U	<94.5 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	6700	1000	3600	540	1100 J	5200 J	9800	620	<400 U	<39000 U	7800 J	130 J	20.4	<94.5 U

Table 4.6-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 9
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	MW-23S-A		MW-23S-B		MW-23S-B		MW-23S-B		MW-24S		MW-24S		MW-24S	
				Sample Top (ft below ground surface):	20		4		10		19		0		6		20	
				Sample Bottom (ft below ground surface):	22		6		12		20		2		8		22	
				Sample Date:	6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/4/2008		6/4/2008		6/4/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
1-Methylnaphthalene	NE	NE	NE	NE	<86.1	U	18.5		<5.99	U	<86.1	U	116		<98.4	U	<86.6	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04														
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<346	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<86.1	U	17.8		<98.2	U	<86.1	U	211		<98.4	U	<86.6	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<346	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<172	U	<183	U	<196	U	<172	U	<3690	U	<197	U	<173	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<346	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<346	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<394	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<394	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	192		<98.4	U	<86.6	U
Acetophenone	NE	NE	NE	3.0E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<86.1	U	<91.6	U	<98.2	U	<86.1	U	218		<98.4	U	<86.6	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	393		<98.4	U	<86.6	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<86.1	U	5.9	J	<98.2	U	<86.1	U	378		<98.4	U	<86.6	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	430		<98.4	U	<86.6	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	642		<98.4	U	<86.6	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<86.1	U	5.66	J	<98.2	U	<86.1	U	289		<98.4	U	<86.6	U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	440		<98.4	U	<86.6	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<86.1	U	9.36	J	<98.2	U	<86.1	U	112		<98.4	U	<86.6	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<86.1	U	11.7		<98.2	U	<86.1	U	718		<98.4	U	<86.6	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	292		<98.4	U	<86.6	U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<86.1	U	16.2		<98.2	U	<86.1	U	290		<98.4	U	<86.6	U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04														
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05														
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<344	U	<366	U	<393	U	<344	U	<7380	U	<394	U	<346	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<86.1	U	30.1		12	U	<86.1	U	605		<98.4	U	<86.6	U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<86.1	U	<91.6	U	<98.2	U	<86.1	U	<1850	U	<98.4	U	<86.6	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<86.1	U	16.3		7.24	J	<86.1	U	643		<98.4	U	<86.6	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample detection
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.6-3

Soil Metals Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:		AOC9SB1		AOC9SB1		AOC9SB1		AOC9SB2		AOC9SB2		AOC9SB2		AOC9SB3		AOC9SB3		AOC9SB3	
					Sample Top (ft below ground surface):		0		4		22		0		4		18		0		8		16	
					Sample Bottom (ft below ground surface):		1.5		5.3		24		1.8		5.1		20		1.8		9.5		18	
					Sample Date:		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005		12/12/2005	
Aluminum	1.0E+05	7.6E+04	NE	NE			27700		18100		2700		27800		10200		13000		30300		42200		4920	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01				R	**7.7**	J-		R	**8.7**	J-		R		R		R		R		R
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01			**1.1**		**10.8**		**4.2**		<1.1	U	**6.9**		**8.7**		<1.1	U	**2.4**		**2.8**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02			264		163		20.5		230		82.2		88.5		301		321		40.3	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01			6.0		2.6		<0.52	U	4.7		<0.61	U	<0.59	U	7.0		5.9		<0.58	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01			**2.1**		**7.0**		<0.52	U	**6.9**		**0.77**		**0.87**		**0.88**		<0.59	U	<0.58	U
Calcium	NE	NE	NE	NE																				
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01			**29.2**	J	**61.9**	J	7.1	J	**47.2**	J	14.6	J	14.5	J	**26.1**	J	5.4	J	6.3	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01			<5.6	U	<5.8	U	<5.2	U	<5.6	U	<6.1	U	8.1		<5.5	U	<5.9	U	<5.8	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01			12.8	J	**130**	J	4.8	J	11.3	J	17.6	J	19.4	J	11.7	J	12.5	J	4.6	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00			1.26		**1.80**		<1.1	U	**2.65**		<1.23	U	<1.24	U	**2.09**		<1.19	U	<1.2	U
Iron	1.0E+05	2.3E+04	NE	NE			**70600**	J	**169000**	J	6250	J	**110000**	J	18600	J	20900	J	**31900**	J	8890	J	9320	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01			10.7	J	**201**	J	4.2	J	11.0	J	9.7	J	10.6	J	10.5	J	10.8	J	3.5	J
Magnesium	NE	NE	NE	NE																				
Manganese	1.9E+04	1.8E+03	NE	5.0E+02			**4560**		**4160**		282		**5040**		**695**		**750**		**4540**		**2000**		176	
Mercury	NE	NE	NE	NE																				
Nickel	NE	NE	NE	2.8E+01			0.06		0.19		<0.03	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U
Potassium	2.0E+04	1.6E+03	7.0E+01	2.8E+01			<4.5	U	20.5		5.4		4.8		13.6		19.1		<4.4	U	<4.8	U	5.2	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00			**2.4**		<5.8	U	**2.9**		<11.2	U	**1.6**		**1.8**		**5.3**		**4.6**		<1.2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00			<1.1	U	<1.2	U	<1	U	<1.1	U	<1.2	U	<1.2	U	<1.1	U	<1.2	U	<1.2	U
Sodium	NE	NE	NE	NE																				
Thallium	6.7E+01	5.2E+00	NE	1.0E+00			<22.3	UJ	<23.1	UJ	<21	UJ	<22.4	UJ	<24.3	UJ	<23.6	UJ	<22.1	UJ	<23.8	UJ	<23.3	UJ
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00			**28.1**		**31.7**		**9.2**		**44.6**		**18.3**		**23.6**		**20.7**		**9.5**		**9.1**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01			44.0	J	**973**	J	15.4	J	36.2	J	**55.3**	J	**60.7**	J	37.8	J	**53.2**	J	24.4	J

Table 4.6-3

Soil Metals Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC9SB4		AOC9SB4		AOC9SB4		MW-23S-A		MW-23S-A		MW-23S-A		MW-23S-B		MW-23S-B		MW-23S-B	
					Sample Top (ft below ground surface):	0		6		22		3		10		20		4		10		19	
					Sample Bottom (ft below ground surface):	1.4		7		23		5		13		22		6		12		20	
					Sample Date:	12/12/2005		12/12/2005		12/12/2005		6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/5/2008	
Aluminum	1.0E+05	7.6E+04	NE	NE		17200		12100		2840		30500	J	9900	J	2240		13100	J	11500	J	1760	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01			R	<7.4	U		R	<0.269	U	<0.296	U	<0.271	UJ	<0.282	U	<0.298	U	<0.252	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**10.1**		**7.8**		**3.7**		1.49	J-	**20.8**	J-	**2.75**		**48.2**	J-	**5.07**	J-	**3.14**	J-
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		122		125		18.2		**341**		115		16.3		90.6		82.2		13.7	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		1.2		1.3		<0.52	U	5.38	J-	0.438	J-	0.0742		3.18	J-	0.552	J-	0.0703	J-
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**6.8**		**1.6**		<0.52	U	0.135	J	0.311	J	<0.136	U	<0.141	U	0.349	J	<0.126	U
Calcium	NE	NE	NE	NE								191000	J	54700	J	104000		66300	J	38100	J	112000	J
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		**50.3**	J	13.4	J	4.5	J	17.7		9.77		5.24		**31.4**		11		5.87	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.8	U	<6.2	U	<5.2	U	0.845	J	6.1		2.2	J	10.1		7.14		2.31	J
Copper	4.1E+04	3.1E+03	NE	2.8E+01		**96.6**	J	19.7	J	4.7	J	6.81	J+	12.3	J+	4.98		**49.9**	J	17.3	J	4.08	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		**2.57**		<1.27	U	<1.07	U												
Iron	1.0E+05	2.3E+04	NE	NE		**127000**	J	22800	J	6680	J	**24600**	J	14600	J	4670		**249000**	J	16500	J	4710	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**220**	J	**33.9**	J	2.4	J	**14**		8.46		2.45		**15.8**		10.3		2.22	
Magnesium	NE	NE	NE	NE								29700		25400		30800		13600		19000		37600	J
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**4450**		**838**		237		**4460**	J	400	J	164		**2330**	J	408	J	141	
Mercury	NE	NE	NE	NE								<0.0108	U	0.264	J	<0.0104	U	<0.0112	U	0.0267	J	<0.00999	U
Nickel	NE	NE	NE	2.8E+01		0.14		0.06		<0.03	U	7.32		15.9		8.38		**34**		17.8		7.9	
Potassium	2.0E+04	1.6E+03	7.0E+01	2.8E+01		19.9		13.6		4.4		**1990**	J+	**2040**	J+	**415**		**1400**	J	**2480**	J	**306**	J
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<5.8	U	**2.1**		**3.4**		3.64	J-	4.26	J-	<0.542	U	3.04	J-	<0.596	UJ	<0.504	UJ
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.2	U	<1.2	U	<1	U	<0.269	UJ	<0.296	UJ	<0.271	U	0.333	J	<0.298	UJ	<0.252	UJ
Sodium	NE	NE	NE	NE								869		114		142		327	J	113		125	
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<23.3	UJ	<24.7	UJ	<20.6	UJ	0.0647	J	0.194		0.0555	J	0.258		0.189		<0.0504	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**22.8**		**21.4**		**13.5**		**8.92**	J+	**21.2**	J+	6.42		**99.6**	J+	**23.7**	J+	5.09	J+
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**830**	J	**108**	J	16.9	J	45.4	J	47.8	J	15.1		**391**	J	**56.2**	J	14	J

Table 4.6-3

Soil Metals Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	MW-24S		MW-24S		MW-24S	
				Sample Top (ft below ground surface):	0		6		20	
				Sample Bottom (ft below ground surface):	2		8		22	
				Sample Date:	6/4/2008		6/4/2008		6/4/2008	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)						
Aluminum	1.0E+05	7.6E+04	NE	NE	15700		10400		1190	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	0.426	J	<0.303	U	<0.263	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**17.9**		**5.3**		**4.49**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	172		72.8		25.4	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	3.39		0.522		0.0303	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**2.18**		0.258	J	<0.132	U
Calcium	NE	NE	NE	NE	99400		36900		143000	
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**27.6**		9.91		5.5	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	4.72		6.41		2.18	J
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**46.1**		16.8		7.88	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00						
Iron	1.0E+05	2.3E+04	NE	NE	**73000**		16200		3640	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**166**		10.6		4.35	
Magnesium	NE	NE	NE	NE	16500		15100		60700	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**3420**		276		205	
Mercury	NE	NE	NE	NE	0.0559	J	0.0368	J	<0.0102	U
Nickel	NE	NE	NE	2.8E+01	16.7		16.2		7.98	
Potassium	2.0E+04	1.6E+03	7.0E+01	2.8E+01	**1370**		**1940**		**221**	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	1.29		<0.606	U	<0.527	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	0.692	J	<0.303	U	<0.263	U
Sodium	NE	NE	NE	NE	515		77.4		138	
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	0.398		0.144		0.172	
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**16**		**21.1**		4.24	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**533**	J+	**55.7**	J+	**68.1**	J+

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ - The result is an estimated quantity, but the result may be biased high.

J- - The result is an estimated quantity, but the result may be biased low.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.6-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 9
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC9SB1	AOC9SB1	AOC9SB1	AOC9SB2	AOC9SB2	AOC9SB2	AOC9SB3	AOC9SB3	AOC9SB3	AOC9SB4	AOC9SB4
				Sample Top (ft below ground surface):	0	4	22	0	4	18	0	8	16	0	6
				Sample Bottom (ft below ground surface):	1.5	5.3	24	1.8	5.1	20	1.8	9.5	18	1.4	7
				Sample Date:	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)											
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<39 U	<36 U	<37 U	<40 U	<41 U	<38 U	<39 U	<40 U	<39 U	<42 U
Aroclor 1221	NE	NE	NE	4.0E+04	<75 U	<79 U	<74 U	<75 U	<82 U	<83 U	<77 U	<80 U	<81 U	<78 U	<85 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<39 U	<36 U	<37 U	<40 U	<41 U	<38 U	<39 U	<40 U	<39 U	<42 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<39 U	<36 U	<37 U	<40 U	<41 U	<38 U	<39 U	<40 U	<39 U	<42 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	<39 U	<36 U	130	<40 U	<41 U	<38 U	<39 U	<40 U	<39 U	<42 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<39 U	<36 U	<37 U	<40 U	<41 U	<38 U	<39 U	<40 U	<39 U	<42 U
Aroclor 1260	NE	NE	NE	4.0E+04	120	230	<36 U	<37 U	83	<41 U	150	<39 U	<40 U	57	<42 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**250**	**367**	145	**260**	**224**	164.5	**283.5**	157	160.5	193.5	168.5

Table 4.6-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 9

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC9SB4		MW-23S-A		MW-23S-A		MW-23S-A		MW-23S-B		MW-23S-B		MW-23S-B		MW-24S		MW-24S		MW-24S	
Sample Top (ft below ground surface):					22		3		10		20		4		10		19		0		6		20	
Sample Bottom (ft below ground surface):					23		5		13		22		6		12		20		2		8		22	
Sample Date:					12/12/2005		6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/5/2008		6/4/2008		6/4/2008		6/4/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																				
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35	U	<8.89	U	<9.52	UJ	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1221	NE	NE	NE	4.0E+04	<72	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1232	NE	NE	NE	4.0E+04	<35	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1242	NE	NE	NE	4.0E+04	<35	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1248	NE	NE	NE	4.0E+04	<35	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Aroclor 1260	NE	NE	NE	4.0E+04	<35	U	<8.89	U	<9.52	U	<8.71	U	<9.4	U	<9.95	U	<8.53	U	<9.21	U	<9.94	U	<8.43	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	141		31.1		33.3		30.5		32.9		34.8		29.8		32.2		34.8		29.5	

Notes:

PCB - Polychlorinated biphenyl

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample detection criteria.

quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.6-5
Soil Dioxins Analytical Results - AOC 9
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC9SB1		AOC9SB2		AOC9SB3		AOC9SB4	
					Sample Top (ft below ground surface):		0		18		8		0	
					Sample Bottom (ft below ground surface):		1.5		20		9.5		1.4	
					Sample Date:		12/12/2005		12/12/2005		12/12/2005		12/12/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)										
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**5.996**	B	**166.813**	B	**2707.614**		**18.019**	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**12.063**	B	**4.491**	B	**21.214**	B	**49.305**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.309	U	<0.998	U	**72.306**		**1.226**	J
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**2.371**		**60.226**		**630.706**		**8.311**	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.281**	J	<0.588	U	**2.851**		**1.501**	J
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.872**	J	<0.408	U	**187.443**		**3.369**	
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.97**	J	<0.566	U	**5.187**		**3.392**	
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.195	U	<0.502	U	<0.137	U	0.093	J
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.018**	J	<0.559	U	**3.307**		**3.889**	
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.62**	J	<0.429	U	**4.527**		**1.86**	J
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.764	J	2.203	J	43.656		2.352	
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.914	J	<0.442	U	66.7		3.212	
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	1.368		<0.898	U	18.931		4.155	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.072	U	<0.156	U	**3.171**		**0.294**	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	6.454	B	240.115	B	5007.76	JB	17.644	B
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	72.536	B	<11.661	UB	44.373	B	224.027	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**1.9301**		NA		NA		**6.6397**	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.7-1

Soil Volatile Organic Compound Analytical Results - AOC 10

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC10SB1	AOC10SB1	AOC10SB1	AOC10SB2	AOC10SB2	AOC10SB3	AOC10SB3	AOC10SB3	AOC10SB4	AOC10SB4	AOC10SB4	MW-4M	MW-4S	MW-4S	MW-4S
					Sample Top (ft below ground surface):	0	16	24	0	12	0	16	24	0	4	24	42	0	14	22
					Sample Bottom (ft below ground surface):	1.6	17.6	25.2	0.9	12.9	1.7	18	25	1	5.2	25.3	43.2	2	16	23.4
					Sample Date:	12/13/2005	12/13/2005	12/13/2005	10/31/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	10/31/2005	12/13/2005	12/13/2005	02/28/2006	11/16/2005	11/17/2005	11/18/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 UJ	<5.3 U	<4.9 U	<5.9 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<14 U	<100000 U	<11 U	<10 U	<35000 U	<17 U	16 J	<13 U	<11 U	3.6 J	<13 U	3.9 J	<11 U	27	<12 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<14 U	<100000 U	<11 U	<10 U	<35000 U	<17 U	<16 U	<13 U	<11 U	<12 U	<13 U	<8.2 U	<11 U	<9.9 U	<12 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<14 U	<100000 U	<11 U	<10 U	<35000 U	<17 U	<16 U	<13 U	<11 U	<12 U	<13 U	<8.2 U	<11 U	<9.9 U	<12 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		6.2 J	<200000 U	<23 U	31	<69000 U	8.6 J	59	5.3 J	35	16 J	4.9 J	23	<22 UB	130 B	<24 UB
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		<6.8 U	**5900000** J	**59**	1.0 J	**1500000** J	<8.5 U	1.9 J	6.2 J	0.71 J	1.5 J	3.5 J	0.28 J	0.54 J	1.9 J	<5.9 U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		2.1 J	**5400** J	<11 U	0.57 J	**7400** J	5.7 J	3.8 J	0.43 J	4.7 J	4.7 J	0.62 J	2.5 J	1.3 J	2.1 J	0.40 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		0.46 J	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<14 U	<100000 U	<11 U	<10 U	<35000 U	<17 U	<16 U	<13 U	<11 U	<12 U	<13 U	<8.2 U	<11 U	<9.9 U	<12 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		0.70 J	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<6.8 U	**7400** J	10	5.9 J	**3500** J	<8.5 U	<8.2 U	4.3 J	4.3 J	<6.1 U	6.9	0.81 J	2.6 J	2.1 J	1.2 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<6.8 U	**190000**	4.7 J	0.62 J	**74000**	<8.5 U	1.3 J	1.6 J	0.49 J	<6.1 U	2.8 J	<4.1 U	0.38 J	0.80 J	<5.9 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<6.8 U	510000	2.2 J	<5.2 U	260000	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	81	<5.9 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<14 U	<100000 U	<11 U	<10 U	<35000 U	<17 U	<16 U	<13 U	<11 U	<12 U	<13 U	<8.2 U	<11 U	<9.9 U	<12 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<6.8 U	18000 J	14	6.4	9600 J	<8.5 U	<8.2 U	5.5 J	4.3 J	<6.1 U	9.1	0.84 J	2.9 J	5.0	1.6 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<6.8 UB	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 UB
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<6.8 U	**5100000** J	27	0.79 J	**1100000**	<8.5 U	<8.2 U	2.8 J	0.58 J	<6.1 U	4.7 J	<4.1 U	<5.3 U	1.4 J	<5.9 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<6.8 U	**1300000**	9.1	<5.2 U	**460000**	<8.5 U	0.57 J	1.2 J	<5.3 U	<6.1 U	2.1 J	<4.1 U	<5.3 U	1.9 J	<5.9 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	**15000** J	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<6.8 U	**5200000** J	48	2.1 J	**480000**	<8.5 U	2.0 J	5.0 J	1.7 J	0.80 J	9.2	0.77 J	1.2 J	1.3 J	0.53 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<6.8 U	<49000 U	<5.7 U	<5.2 U	<17000 U	<8.5 U	<8.2 U	<6.6 U	<5.3 U	<6.1 U	<6.7 U	<4.1 U	<5.3 U	<4.9 U	<5.9 U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.7-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 10
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:				AOC10581		AOC10581		AOC10581		AOC10582		AOC10582		AOC10582		AOC10583		AOC10583		AOC10583		AOC10584		AOC10584		AOC10584		MW-4M		MW-4S		MW-4S		MW-4S	
Sample Top (ft below ground surface):				0		16		24		0		12		24		0		16		24		0		4		24		42		0		14		22	
Sample Bottom (ft below ground surface):				1.6		17.6		25.2		0.9		12.9		25.2		1.7		18		25		1		5.2		25.3		43.2		2		16		23.4	
Sample Date:				12/13/2005		12/13/2005		12/13/2005		10/31/2005		12/13/2005		12/13/2005		12/13/2005		12/13/2005		12/13/2005		10/31/2005		12/13/2005		12/13/2005		02/28/2006		11/16/2005		11/17/2005		11/18/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																													
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<1100	U	47000	J	430	J	<2000	U	22000	J	65	J	<810	U	<370	U	<360	U	<400	U	<360	U	67	J	<360	U	<400	U	4300	J	<410	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<1100	U	12000	J	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	160	J	200000		1800		<2000	U	83000		240	J	<810	U	<370	U	<360	U	<400	U	73	J	270	J	<360	U	<400	U	3200	J	<410	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<1100	U	<84000	U	<1000	U	<2000	UJ	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	UJ	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	140	J	23000	J	200	J	<2000	U	39000		65	J	120	J	<370	U	<360	U	<400	U	<360	U	87	J	<360	U	<400	U	21000		<410	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	1200		220000		2000		<2000	U	65000		190	J	<810	U	<370	U	63	J	<400	U	78	J	210	J	<360	U	<400	U	31000		110	J
Acetophenone	NE	NE	NE	3.0E+05	<1100	U	<84000	U	180	J	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	1200		310000		3500		<2000	U	180000		490		160	J	<370	U	100	J	<400	U	250	J	670		<360	U	<400	U	63000		83	J
Atrazine	7.8E+03	2.2E+03	NE	NE	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<5700	U	<430000	U	<5400	U	<10000	UJ	<180000	U	<1800	U	<4200	U	39	J	<1900	U	<2100	UJ	<1800	U	<2200	U	<1900	UJ	<400	U	<20000	U	<410	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	4700		220000		5000		270	J	220000		690		490	J	66	J	210	J	70	J	730		820		<360	U	100	J	93000		360	J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	4100		180000		5100		320	J	180000		620		540	J	68	J	230	J	86	J	660		580		<360	U	150	J	87000		580	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	3900		130000		2000		280	J	160000		400		500	J	56	J	150	J	88	J	610		490		<360	U	150	J	67000		300	J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	2800		100000		3200		250	J	110000		340	J	420	J	50	J	170	J	81	J	530		340	J	<360	U	110	J	45000		430	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	3600		140000		3700		280	J	170000		450		450	J	65	J	190	J	74	J	650		510		<360	U	130	J	67000		350	J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	NE	NE	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	69	J	<20000	U	<410	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<1100	U	<84000	U	<1000	U	<10000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<2100	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	300	J	140000		1200		<2000	U	76000		190	J	160	J	<370	U	<360	U	<400	U	62	J	220	J	<360	U	<400	U	7300	J	<410	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	4600		220000		4900		370	J	220000		640		640	J	78	J	220	J	100	J	850		760		<360	U	150	J	86000		380	J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	880	J	31000	J	650	J	<2000	U	37000		80	J	150	J	40	J	<370	U	<400	U	150	J	110	J	<360	U	<400	U	13000	J	83	J
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	240	J	190000		1700		<2000	U	89000		250	J	84	J	<370	U	45	J	<400	U	88	J	390	J	<360	U	<400	U	32000		<410	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	41	J
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	8300		630000		9300		630	J	520000		1300		1500		130	J	330	J	160	J	1300		1900		<360	U	280	J	210000		460	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	420	J	310000		2800		<2000	U	140000		410		170	J	<370	U	77	J	<400	U	110	J	440		<360	U	<400	U	57000		53	J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	2600		92000		2400		210	J	100000		270	J	370	J	47	J	130	J	66	J	500		300	J	<360	U	93	J	43000		300	J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	400	J	1300000		13000		<2000	U	460000		1400		<810	U	61	J	240	J	<400	U	330	J	4000		<360	U	<400	U	8200	J	66	J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<1100	U	<84000	U	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<1100	U	13000	J	<1000	U	<2000	U	<36000	U	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<1100	U	36000	J	<1000	U	<2000	U	12000	J	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<5700	U	<430000	U	<5400	U	<10000	U	<180000	U	<1800	U	<4200	U	<1900	U	<1900	U	<2100	U	<1800	U	<2200	U	<1900	U	<2100	U	<100000	U	<2100	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	4000		920000		10000		230	J	540000		1400		1400		74	J	310	J	59	J	770		2500		<360	U	150	J	210000		280	J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<1100	U	24000	J	130	J	<2000	U	19000	J	<360	U	<810	U	<370	U	<360	U	<400	U	<360	U	<430	U	<360	U	<400	U	<20000	U	<410	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	6800		450000		10000		490	J	390000		2100		1100		120	J	350	J	130	J	1200		1400		<360	U	240	J	180000		640	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.7-3
Soil Metals Analytical Results - AOC 10
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC10SB1		AOC10SB1		AOC10SB1		AOC10SB2		AOC10SB2		AOC10SB2		AOC10SB3		AOC10SB3		AOC10SB3		AOC10SB4		AOC10SB4		AOC10SB4		MW-4M		MW-4S		MW-4S		MW-4S	
				Sample Top (ft below ground surface):	0		16		24		0		12		24		0		16		24		0		4		24		42		0		14		22	
				Sample Bottom (ft below ground surface):	1.6		17.6		25.2		0.9		12.9		25.2		1.7		18		25		1		5.2		25.3		43.2		2		16		23.4	
				Sample Date:	12/13/2005		12/13/2005		12/13/2005		10/31/2005		12/13/2005		12/13/2005		12/13/2005		12/13/2005		12/13/2005		10/31/2005		12/13/2005		12/13/2005		02/28/2006		11/16/2005		11/17/2005		11/18/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																														
Aluminum	1.0E+05	7.6E+04	NE	NE	31000	J	7980	J	2910	J	14800		13200	J	2430	J	19400	J	9460	J	2430	J	18600		35100	J	3010	J	6650		13500		8620		7400	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.5	UJ	<7.6	UJ	<6.2	UJ	<6.8	UJ	<12.5	UJ	<6.2	UJ	<7.4	UJ	<6.5	UJ	<6.5	UJ	<7.1	UJ	<6.4	UJ	<7.5	UJ	<6.6	U	<7.2	U	<7	U	<7.4	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**2.6**		**7.7**		**2.2**		**8.8**		**11.6**		<1	U	**7.0**		**16.9**		<1.1	U	**7.7**		<1.1	U	**3.8**		**6.3**		**7.6**	J+	**6.7**	J+	**8.0**	J+
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	291		98.2		18.4		114		113		15.6		154		96.3		9.1		144		**331**		17.0		61.9	J	83.0	J	76.5	J	71.6	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	7.7		<0.63	U	<0.51	U	<0.57	U	<1	U	<0.52	U	2.5		<5.4	U	<0.54	U	<0.59	U	9.1		<0.63	U	<0.55	U	0.67		<0.58	U	<0.62	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**0.99**		**1.1**		<0.51	U	<0.57	U	<1	U	<0.52	U	<0.61	U	**7.0**		<0.54	U	<0.59	U	<0.54	U	<0.63	U	<0.55	U	<1.2	UJ	<1.2	UJ	<1.2	UJ
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**23.7**		12.1		7.0		18.2	J	16.5		5.4		16.7		**215**		6.9		18.9	J	**34.0**		7.9		11.3		17.1	J	13.7	J	11.5	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.4	U	<6.3	U	<5.1	U	11.0		<10.5	U	<5.2	U	7.6		12.4		<5.4	U	9.1		<5.4	U	<6.3	U	5.9		9.2		5.9		<6.2	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	20.2		23.4		7.2		19.4		**45.2**		3.8		14.3		**214**		3.6		15.9		2.8		6.3		15.5		16.2		25.7		18.7	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**1.81**	J+	<1.28	U	<1.06	U	<1.19	U	<2.17	U	<1.08	U	<1.23	U	<1.12	U	<1.09	U	<1.21	U	**1.69**	J+	<1.3	U	<1.1	U	<1.22	U	<1.19	U	**2.60**	
Iron	1.0E+05	2.3E+04	NE	NE	**25300**	J	**28100**	J	8240	J	20700		19400	J	6190	J	20400	J	**273000**	J	6250	J	19100		10600	J	7550	J	13700		19000		22700		21500	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**39.0**	J+	**40.3**	J+	4.0	J+	**25.8**	J	**87.2**	J+	3.2	J+	**18.6**	J+	9.6	J+	2.9	J+	**20.4**	J	3.6	J+	3.6	J+	6.3		**28.4**	J	**76.0**	J	**30.0**	J
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**4190**		**941**		478		**806**		**1280**		336		**1600**		**6570**		246		**1420**		**4710**		230		357		**871**	J	477	J	**555**	J
Mercury	NE	NE	NE	3.0E-01	**2.5**	J	0.23	J	<0.03	UJ	0.04	J	**3.8**	J	<0.03	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.03	UJ	<0.04	UJ	<0.04	U	<0.04	U	0.06		0.10	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	5.7		13.4		8.0		17.5		11.7		4.8		13.7		**66.7**		5.6		15.0		10.1		6.5		14.7		16.8		13.4		11.6	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**5.5**		<1.3	U	<1	U	<1.1	U	**8.8**		**1.6**		**1.3**		<10.8	U	**1.8**		<1.2	U	**8.3**		<1.3	U	<1.1	U	<2.4	U	<2.3	U	<2.5	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	<1.3	U	<1	U	<1.1	U	<2.1	U	<1	U	<1.2	U	<10.8	U	<1.1	U	<1.2	U	<1.1	U	<1.3	U	<1.1	U	<1.2	U	<1.2	U	<1.2	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<27.2	U	<6.3	U	<5.1	U	<5.7	U	<10.5	U	<5.2	U	<6.1	U	<53.9	U	<5.4	U	<5.9	U	<26.8	U	<6.3	U	<5.5	U	<6	U	<5.8	U	<6.2	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**22.5**		**18.7**		**9.4**		**36.6**		**23.2**		7.6		**27.0**		**82.2**		7.1		**37.3**		**19.2**		**8.7**		**15.2**		**25.7**		**21.7**		**18.9**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**74.5**	J+	**123**	J+	19.6	J+	**62.5**		**63.0**	J+	12.6	J+	47.0	J+	22.5	J+	11.7	J+	**54.3**		7.2	J+	19.1	J+	33.8		**55.0**		**140**		**199**	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.7-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 10
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC10SB1	AOC10SB1	AOC10SB1	AOC10SB2	AOC10SB2	AOC10SB2	AOC10SB3	AOC10SB3	AOC10SB3	AOC10SB4	AOC10SB4	AOC10SB4	MW-4M	MW-4S	MW-4S	MW-4S
					Sample Top (ft below ground surface):	0	16	24	0	12	24	0	16	24	0	4	24	42	0	14	22
					Sample Bottom (ft below ground surface):	1.6	17.6	25.2	0.9	12.9	25.2	1.7	18	25	1	5.2	25.3	43.2	2	16	23.4
					Sample Date:	12/13/2005	12/13/2005	12/13/2005	10/31/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	10/31/2005	12/13/2005	12/13/2005	02/28/2006	11/16/2005	11/17/2005	11/18/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																	
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Aroclor 1221	NE	NE	NE	4.0E+04	<74 U	<86 UJ	<71 U	<79 U	<150 UJ	<72 U	<82 U	<75 U	<73 U	<81 U	<73 U	<87 U	<74 U	<82 U	<80 U	<84 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Aroclor 1260	NE	NE	NE	4.0E+04	<37 U	<42 UJ	<35 U	<39 U	<72 UJ	<36 U	<41 U	<37 U	<36 U	<40 U	<36 U	<43 U	<36 U	<40 U	<39 U	<41 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	148	169	140.5	156.5	291	144	164	148.5	144.5	160.5	144.5	172.5	145	161	157	165

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.7-5

Soil Dioxins Analytical Results - AOC 10

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC10SB1		AOC10SB2		AOC10SB4		AOC10SB4		MW-4M		MW-4S			
Sample Top (ft below ground surface):					24		24		0		0		42		0			
Sample Bottom (ft below ground surface):					25.2		25.2		1		1.9		43.2		2			
Sample Date:					12/13/2005		12/13/2005		10/31/2005		12/13/2005		02/28/2006		11/16/2005			
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)														
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.17	JK	<0.043	U	**2.681**	B	**0.475**	J	<0.031	U	**1.278**	J		
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.574	UB	<1.081	UB	**16.981**	B	<2.647	UB	<0.325	UB	**7.527**	JB		
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.069	JK	<0.06	U	<0.075	U	<0.04	U	<0.039	U	<0.068	U		
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.084	JK	<0.02	U	**0.304**	J	0.148	JK	<0.024	U	0.123	JK		
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.021	JK	<0.021	U	<0.046	U	0.064	J	<0.028	U	<0.03	U		
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.053	JK	<0.021	U	**0.206**	J	0.069	JK	<0.024	U	<0.033	U		
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.072	J	<0.02	U	**0.45**	JK	0.158	JK	<0.025	U	0.184	JK		
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.03	JK	<0.026	U	<0.046	U	<0.021	U	<0.029	U	<0.041	U		
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.097	JK	<0.02	U	**0.583**	J	**0.307**	JK	<0.026	U	0.176	JK		
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.043	JK	<0.025	U	<0.036	U	<0.023	U	<0.025	U	<0.031	U		
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.047	JK	<0.022	U	<0.04	U	0.087	J	<0.026	U	<0.035	U		
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.09	J	<0.016	U	<0.033	U	<0.015	U	<0.015	U	<0.024	U		
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.353	U	<0.026	U	<0.447	U	<0.334	U	<0.047	U	<0.69	U		
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	0.139	JK	<0.011	U	**1.059**		<0.01	U	<0.02	U	**0.532**	JK		
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.288	UJK	<0.206	UJBK	8.229	B	<0.706	UB	<0.066	UB	<4.602	UB		
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	<9.305	UB	<9.28	UB	312.826	B	<27.121	UB	7.349	B	81.691	JB		
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		NA		**1.559**		0.142399		NA		**0.3941**			

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).

Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.8-1
Soil Volatile Organic Compound Analytical Results - AOC 11
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC11TP1BN		AOC11TP1BS		AOC11TP1EWN		AOC11TP1NW		AOC11TP1SW		AOC11TP1WW	
Sample Top (ft below ground surface):					8		8		4		3		5		4	
Sample Bottom (ft below ground surface):					8		8		4		3		5		4	
Sample Date:					01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)												
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	1.1	J	2.5	J	<14	U	<14	U	<11	U	<12	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<13	U	<10	U	<14	U	<14	U	<11	U	<12	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<13	U	<10	U	<14	U	<14	U	<11	U	<12	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	6.9	J	18	J	7.0	J	7.7	J	3.3	J	<24	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<6.4	U	<5	U	<7	U	<7.2	U	1.9	J	2.6	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.9	J	3.6	J	1.7	J	1.8	J	0.69	J	0.50	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<13	U	<10	U	<14	U	<14	U	<11	U	<12	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<13	U	<10	U	<14	U	<14	U	<11	U	<12	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<6.4	U	0.36	J	<7	U	<7.2	U	<5.4	U	0.54	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<6.4	U	0.42	J	<7	U	1.2	J	4.5	J	0.50	J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<6.4	U	0.31	J	<7	U	<7.2	U	0.68	J	0.94	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<6.4	U	<5	U	<7	U	<7.2	U	<5.4	U	<5.9	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.8-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 11

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC11TP1BN		AOC11TP1BS		AOC11TP1EWN		AOC11TP1NW		AOC11TP1SW		AOC11TP1WW	
Sample Top (ft below ground surface):					8		8		4		3		5		4	
Sample Bottom (ft below ground surface):					8		8		4		3		5		4	
Sample Date:					01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)												
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<910	U	<790	U	<410	U	<380	UJ	<1800	U	<810	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<4700	U	<4100	U	<2100	U		R	<9300	U	<4200	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<4700	U	<4100	U	<2100	U	<2000	U	<9300	U	<4200	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<910	U	<790	U	<410	U	<380	UJ	<1800	U	<810	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<4700	U	<4100	U	<2100	U	<2000	UJ	<9300	U	<4200	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<4700	U	<4100	U	<2100	U		R	<9300	U	<4200	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<910	U	<790	U	<410	U	<380	UJ	<1800	U	<810	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<4700	U	<4100	U	<2100	U	<2000	U	<9300	U	<4200	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<4700	U	<4100	U	<2100	U	<2000	UJ	<9300	U	<4200	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	670	J	260	J	<410	U	39	J	1300	J	440	J
Acetophenone	NE	NE	NE	3.0E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	880	J	300	J	<410	U	55	J	1000	J	390	J
Atrazine	7.8E+03	2.2E+03	NE	NE	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<4700	U	<4100	U	<2100	U	<2000	U	<9300	U	<4200	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**4800**		**1800**		<410	U	230	J	**4900**		**2900**	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**5100**		**2200**		<410	U	**230**	J	**6200**		**3700**	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**4400**		**1900**		<410	U	180	J	**5300**		**3500**	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	3900		1800		<410	U	180	J	5100		3200	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**4400**		**1700**		<410	U	180	J	**4800**		**3400**	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	290	J	180	J	<410	U	<380	U	**460**	J	**330**	J
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	4700		1900		<410	U	230	J	**5100**		3100	
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**960**		**390**	J	<410	U	53	J	**1200**	J	**770**	J
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	7800		2000		<410	U	400		6500		2700	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	180	J	<790	U	<410	U	<380	U	210	J	<810	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	**3400**		**1600**		<410	U	160	J	**4600**		**2800**	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**170**	J	89	J	<410	U	<380	U	**470**	J	**120**	J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<910	U	<790	U	<410	U	<380	U	<1800	U	<810	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<910	U	93	J	<410	U	<380	U	<1800	U	<810	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<910	U	990		<410	U	<380	U	<1800	U	93	J
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<4700	U	<4100	U	<2100	U		R	<9300	U	<4200	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	2300		800		<410	U	200	J	2200		830	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	170	J	8100		<410	U	<380	U	240	J	240	J
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	6500		1800		<410	U	320	J	5100		2400	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.8-3
Soil Metals Analytical Results - AOC 11
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC11TP1BN		AOC11TP1BS		AOC11TP1EWN		AOC11TP1NW		AOC11TP1SW		AOC11TP1WW	
					Sample Top (ft below ground surface):		8		8		4		3		5		4	
					Sample Bottom (ft below ground surface):		8		8		4		3		5		4	
					Sample Date:		01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)														
Aluminum	1.0E+05	7.6E+04	NE	NE	32500		20000		38700		38600		20300		18900			
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7.9	UJ	<7.2	UJ	**7.3**	J	<6.7	UJ	<6.3	UJ	<7.3	UJ		
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**5.2**		**4.8**		<1.2	U	<1.1	U	**2.6**		**4.6**			
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	**342**		217		**453**		**422**		195		190			
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	3.6		1.7		5.4		5.1		2.7		2.5			
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**1.1**	J-	**1.2**	J-	**0.61**	J	**0.97**	J-	**0.88**	J-	**1.2**	J-		
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**60.8**	J	**31.4**	J	**44.2**	J	**82.3**	J	15.8	J	16.5	J		
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<6.6	U	<6	U	<6.1	U	<5.6	U	<5.2	U	<6.1	U		
Copper	4.1E+04	3.1E+03	NE	2.8E+01	26.3	J	**34.5**	J	13.7	J	**40.6**	J	**45.8**	J	**34.7**	J		
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.38	U	**3.48**		**1.57**		**3.27**		**2.37**		**1.55**			
Iron	1.0E+05	2.3E+04	NE	NE	**35100**	J	**24500**	J	8610	J	**26900**	J	13300	J	21000	J		
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**79.4**		**290**		4.5		4.1		**63.5**		**88.8**			
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**5910**		**2090**		**8790**		**8860**		**2610**		**2330**			
Mercury	NE	NE	NE	3.0E-01		R	**1.2**	J-		R		R		R		R		
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	17.0		18.6		<4.9	U	6.9		16.0		17.1			
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**6.6**		**5.1**		**9.2**		**6.8**		**8.0**		**8.8**			
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.3	U	<1.2	U	<1.2	U	<1.1	U	<1	U	<1.2	U		
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<26.2	UJ	<23.9	UJ	<24.4	UJ	<22.4	UJ	<20.9	UJ	<24.4	UJ		
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**25.5**		**20.9**		**11.6**		**19.5**		**10.1**		**10.8**			
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	38.8	J-	**54.9**	J-	6.6	J-	5.1	J-	**139**	J-	**104**	J-		

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.8-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 11
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC11TP1BN		AOC11TP1BS		AOC11TP1EWN		AOC11TP1NW		AOC11TP1SW		AOC11TP1WW	
					Sample Top (ft below ground surface):	8		8		4		3		5		4	
					Sample Bottom (ft below ground surface):	8		8		4		3		5		4	
					Sample Date:	01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)													
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<45	U	<39	U	<41	U	<38	U	<72	U	<40	U
Aroclor 1221	NE	NE	NE	4.0E+04	<92	U	<80	U	<83	U	<77	U	<150	U	<82	U
Aroclor 1232	NE	NE	NE	4.0E+04	<45	U	<39	U	<41	U	<38	U	<72	U	<40	U
Aroclor 1242	NE	NE	NE	4.0E+04	<45	U	<39	U	<41	U	<38	U	<72	U	<40	U
Aroclor 1248	NE	NE	NE	4.0E+04	<45	U	<39	U	<41	U	<38	U	<72	U	<40	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<45	U	<39	U	<41	U	<38	U	<72	U	<40	U
Aroclor 1260	NE	NE	NE	4.0E+04	170		170		<41	U	34	J	500		370	
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**328.5**		**307.5**		164.5		167.5		**755**		**511**	

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.8-5

Soil Dioxins Analytical Results - AOC 11

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC11TP1BN		AOC11TP1WW	
				Sample Top (ft below ground surface):	8		4	
				Sample Bottom (ft below ground surface):	8		4	
				Sample Date:	01/25/2006		01/25/2006	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)				
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**3.721**	B	**12.409**	J
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**16.659**	B	**62.672**	J
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.632**	J	<2.921	UJ
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.828**	J	**4.658**	J
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.158	JK	<0.814	UJ
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.381**	JK	<1.69	UJ
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.66**	JK	**2.991**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.056	U	<2.08	UJ
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.275**	JK	<0.775	UJ
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.044	U	<0.507	UJ
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.255	JK	<1.806	UJ
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.318	JK	<0.197	UJ
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.898	U	<0.525	UJ
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	**0.292**	JK	<0.38	UJ
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	10.517	B	<42.477	UJB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	92.673	B	390.036	JB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		NA	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).

Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.9-1
Soil Volatile Organic Compound Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC12SB1		AOC12SB1		AOC12SB1		AOC12SB2		AOC12SB2		AOC12SB2		AOC12SB3		AOC12SB3		AOC12SB3		AOC12SB4		AOC12SB4		AOC12SB4		AOC12SB5		AOC12SB5		AOC12SB5		AOC12SB6		AOC12SB6		AOC12SB6	
Sample Top (ft below ground surface):					0		18		22		0		4		20		0		4		22		0		4		24		0		16		20		0		4		10	
Sample Bottom (ft below ground surface):					0.4		19.3		23.2		1.3		5.2		21.3		0.9		5.1		23.3		1.9		5.1		26		1.8		17.6		21.6		1.6		5.3		11	
Sample Date:					12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/13/2005		12/13/2005		12/13/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																																		
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	0.79	J	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	0.63	J	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	24		<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	4.9	J	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	4.2	J	4.7	J	7.8	J	2.5	J	6.2	J	6.7	J	11	J	17		4.2	J	2.7	J	8.7	J	6.7	J	3.8	J	10	J	4.7	J	5.1	J	19		9.1	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<14	U	<15	UJ	<15	U	<16	U	<12	U	<21	U	<14	U	<15	U	<12	U	<12	U	<10	U	<9.8	U	<12	U	<13	U	<15	U	<11	U	<13	U	<9.7	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<14	U	<15	UJ	<15	U	<16	U	<12	U	<21	U	<14	U	<15	U	<12	U	<12	U	<10	U	<9.8	U	<12	U	<13	U	<15	U	<11	U	<13	U	<9.7	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	31		22	J	33		11	J	27		24	J	78		88		21	J	11	J	49		40		35		36		18	J	25		96		52	
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	1.2	J	<7.6	UJ	1.3	J	3.2	J	1.4	J	<10	U	6.4	J	1.2	J	5.0	J	1.2	J	1300		2.0	J	1.3	J	0.63	J	0.61	J	1.6	J	1.3	J	1.1	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	6.0	J	6.0	J	9.6	J	2.6	J	5.9	J	4.4	J	35		6.8	J	3.2	J	<12	U	11		4.4	J	3.0	J	11	J	14	J	4.0	J	3.9	J	3.6	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	34		<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	23		<6.3	U	<4.8	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<14	U	<15	U	<15	U	<16	U	<12	U	<21	U	<14	U	<15	U	<12	U	<12	U	<10	U	<9.8	U	<12	U	<13	U	<15	U	<11	U	<13	U	<9.7	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	1.1	J	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.97	J	<7.6	UJ	<7.5	U	1.6	J	3.3	J	2.6	J	<6.8	U	0.95	J	2.8	J	0.63	J	13		0.86	J	0.92	J	<6.4	U	<7.3	U	2.1	J	2.1	J	1.9	J
Dibromochloromethane	2.0E+03	1.1E+03	2.0E+02	2.1E+03	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	1.1	J	<7.6	UJ	0.67	J	1.9	J	1.00	J	1.8	J	4.2	J	<7.3	U	2.8	J	<5.9	U	14		<4.9	U	0.43	J	<6.4	U	0.67	J	0.41	J	0.53	J	<4.8	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	0.68	J	<7.3	U	<5.8	U	<5.9	U	29		<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	2.4	J	<15	U	<15	U	<16	U	<12	U	<21	U	<14	U	1.3	J	<12	U	<12	U	<10	U	1.0	J	1.5	J	<13	U	<15	U	<11	U	<13	U	<9.7	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	1.6	J	<7.6	UJ	0.80	J	1.9	J	4.3	J	3.4	J	8.7		1.2	J	4.1	J	0.74	J	24		1.0	J	1.5	J	0.48	J	<7.3	U	3.1	J	2.5	J	2.8	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	0.69	J	0.68	J	0.89	J	0.85	J	<5.8	U	1.8	J	<6.8	U	0.91	J	1.1	J	<5.9	U	<5.2	U	0.41	J	0.97	J	0.86	J	1.2	J	0.57	J	0.86	J	0.39	J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	1.9	J	<7.6	UJ	<7.5	U	<7.9	U	1.4	J	2.5	J	4.0	J	<7.3	U	6.2		<5.9	U	270		1.3	J	<5.8	U	<6.4	U	<7.3	U	1.1	J	<6.3	U	0.72	J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.93	J	<7.6	UJ	<7.5	U	0.49	J	0.65	J	1.3	J	2.0	J	<7.3	U	2.4	J	<5.9	U	110		0.62	J	0.35	J	<6.4	U	<7.3	U	0.57	J	0.48	J	0.49	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	2.5	J	<7.6	UJ	1.7	J	1.9	J	2.6	J	4.2	J	9.3		1.4	J	17		<5.9	U	1500		2.3	J	1.4	J	0.46	J	0.74	J	1.6	J	1.9	J	1.9	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<7	U	<7.6	UJ	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<7	U	<7.6	U	<7.5	U	<7.9	U	<5.8	U	<10	U	<6.8	U	<7.3	U	<5.8	U	<5.9	U	<5.2	U	<4.9	U	<5.8	U	<6.4	U	<7.3	U	<5.3	U	<6.3	U	<4.8	U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in BOLD indicate detected concentrations exceed one or more screening criteria.
* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.9-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC12SB1	AOC12SB1	AOC12SB1	AOC12SB2	AOC12SB2	AOC12SB2	AOC12SB3	AOC12SB3	AOC12SB3	AOC12SB4	AOC12SB4	AOC12SB4	AOC12SB5	AOC12SB5
					Sample Top (ft below ground surface):	0	18	22	0	4	20	0	4	22	0	9	24	0	16
					Sample Bottom (ft below ground surface):	0.4	19.3	23.2	1.3	5.2	21.3	0.9	5.1	23.3	1.9	5.1	26	1.8	17.6
					Sample Date:	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	41 J	<380 U	<390 U	<2100 U	39 J	<360 U	<360 U	<1100 U	<380 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<9800 U	R	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	370 J	<360 U	190 J	260 J	<370 U	76 J	64 J	<390 U	<2100 U	210 J	100 J	<360 U	<1100 U	46 J
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<9800 U	<1900 U	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<9800 U	<1900 U	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<9800 U	<1900 UJ	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<9800 U	<1900 U	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<9800 U	<1900 U	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	200 J	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	3600	<360 U	<1100 U	4500	56 J	<340 U	190 J	<390 U	<2100 U	640	130 J	<360 U	400 J	<380 U
Acetophenone	NE	NE	NE	3.0E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	5100	<360 U	170 J	4700	81 J	150 J	140 J	<390 U	<2100 U	470	120 J	<360 U	310 J	47 J
Atrazine	7.8E+03	2.2E+03	NE	NE	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<9800 U	<1900 U	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**8800**	80 J	470 J	**10000**	200 J	130 J	510	<390 U	<2100 U	**1700**	400	<360 U	**5400**	140 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**8400**	**82** J	**720** J	**10000**	**190** J	**87** J	**540**	<390 U	<2100 U	**1900**	**440**	<360 U	**3300**	**160** J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**7000**	71 J	510 J	**8200**	190 J	100 J	440	<390 U	<2100 U	**1700**	500	<360 U	**4200**	180 J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	5000	<360 U	440 J	6000	120 J	47 J	330 J	<390 U	<2100 U	1300	300 J	<360 U	1400	150 J
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**7000**	73 J	220 J	**8400**	190 J	86 J	**500**	<390 U	<2100 U	**1600**	**480**	<360 U	**3900**	150 J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	**1400** J	<360 U	<1100 U	**890** J	<370 U	<340 U	<380 U	<390 U	<2100 U	130 J	<360 U	<360 U	160 J	<380 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	**8800**	95 J	1300	**10000**	230 J	150 J	490	<390 U	240 J	1900	500	<360 U	**6400**	180 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**1500** J	<360 U	**160** J	**1900** J	<370 U	<340 U	**98** J	<390 U	<2100 U	**410**	**100** J	<360 U	**590** J	46 J
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	1200 J	<360 U	<1100 U	780 J	<370 U	160 J	<380 U	<390 U	<2100 U	120 J	37 J	<360 U	<1100 U	<380 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<1900 U	96 J	<1100 U	<1900 U	66 J	56 J	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	52 J
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	18000	150 J	400 J	20000	420	450	960	<390 U	620 J	2900	530	<360 U	11000	270 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	2200	<360 U	<1100 U	1600 J	<370 U	210 J	<380 U	<390 U	<2100 U	110 J	<360 U	<360 U	<1100 U	<380 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<1900 U	<360 UJ	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	**4700**	52 J	240 J	**5600**	120 J	46 J	300 J	<390 U	<2100 U	**1200**	290 J	<360 U	**1600**	130 J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**1300** J	<360 U	**200** J	**840** J	<370 U	97 J	70 J	<390 U	<2100 U	<830 U	<360 U	<360 U	<1100 U	41 J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<9800 U	R	<5800 U	<10000 U	<1900 U	<1800 U	<2000 U	<2000 U	<11000 U	<1900 U	<1900 U	<1800 U	<5800 U	<1900 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	14000	89 J	400 J	12000	250 J	600	340 J	<390 U	410 J	1300	210 J	<360 U	430 J	140 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<1900 U	<360 U	<1100 U	<1900 U	<370 U	<340 U	<380 U	<390 U	<2100 U	<370 U	<360 U	<360 U	<1100 U	<380 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	15000	130 J	930 J	16000	340 J	300 J	780	<390 U	460 J	2300	500	<360 U	10000	230 J

Table 4.9-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC12SB5		AOC12SB6		AOC12SB6		AOC12SB6		
				Sample Top (ft below ground surface):	20		0		4		10		
				Sample Bottom (ft below ground surface):	21.6		1.6		5.3		11		
				Sample Date:	12/14/2005		12/14/2005		12/14/2005		12/14/2005		
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)									
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<760	U	<380	U	<390	U	39	J	
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<760	U	<380	U	<390	U	<380	U	
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<760	U	<380	U	<390	U	<380	U	
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<760	U	<380	U	<390	U	<380	U	
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<760	U	<380	U	<390	U	<380	U	
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<760	U	<380	U	<390	U	<380	U	
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<3900	U	<1900	U	<2000	U	<2000	U	
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<760	U	<380	U	<390	U	<380	U	
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<760	U	<380	U	<390	U	<380	U	
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<760	U	<380	U	<390	U	<380	U	
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<760	U	<380	U	<390	U	<380	U	
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	180	J	130	J	74	J	210	J	
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<3900	U	<1900	U	<2000	U	<2000	U	
2-Nitrophenol	NE	NE	NE	5.1E+03	<760	U	<380	U	<390	U	<380	U	
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<760	U	<380	U	<390	U	<380	U	
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<3900	U	<1900	U	<2000	U	<2000	U	
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<3900	U	<1900	U	<2000	U	<2000	U	
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<760	U	<380	U	<390	U	<380	U	
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<760	U	<380	U	<390	U	<380	U	
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<3900	U	<1900	U	<2000	U	<2000	U	
4-Nitrophenol	NE	NE	NE	5.1E+03	<3900	U	<1900	U	<2000	U	<2000	U	
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<760	U	<380	U	<390	U	91	J	
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<760	U	110	J	140	J	230	J	
Acetophenone	NE	NE	NE	3.0E+05	<760	U	<380	U	<390	U	<380	U	
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	360	J	110	J	190	J	370	J	
Atrazine	7.8E+03	2.2E+03	NE	NE	<760	U	<380	U	<390	U	<380	U	
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<3900	U	<1900	U	<2000	U	<2000	U	
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**750**	J	390		**630**		**770**		
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**800**		**420**		**560**		**720**		
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**810**		490		610		**660**		
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	580	J	330	J	350	J	460		
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**610**	J	**440**		**600**		**730**		
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<760	U	<380	U	<390	U	<380	U	
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<760	U	<380	U	<390	U	<380	U	
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	160	J	<380	U	<390	U	<380	U	
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<760	U	<380	U	<390	U	<380	U	
Caprolactam	1.0E+08	3.1E+07	NE	NE	<760	U	<380	U	<390	U	<380	U	
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<760	U	<380	U	<390	U	130	J	
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	1000		440		680		810		
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**220**	J	**100**	J	**120**	J	**140**	J	
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	100	J	43	J	43	J	170	J	
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<760	U	<380	U	<390	U	<380	U	
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<760	U	<380	U	<390	U	<380	U	
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<760	U	<380	U	<390	U	<380	U	
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<760	U	<380	U	<390	U	<380	U	
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	1000		640		990		1600		
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	160	J	<380	U	41	J	230	J	
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<760	U	<380	U	<390	U	<380	U	
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<760	U	<380	U	<390	U	<380	U	
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<760	U	<380	U	<390	U	<380	U	
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<760	U	<380	U	<390	U	<380	U	
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	390	J	300	J	350	J	430		
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<760	U	<380	U	<390	U	<380	U	
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**3100**		**110**	J	94	J	**370**	J	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<760	U	<380	U	<390	U	<380	U	
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<760	U	<380	U	<390	U	<380	U	
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<760	U	<380	U	<390	U	<380	U	
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<760	U	<380	U	<390	U	<380	U	
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<760	U	<380	U	<390	U	<380	U	
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<3900	U	<1900	U	<2000	U	<2000	U	
Phenanthrene	NE	2.2E+07	NE	4.6E+04	880		300	J	340	J	1400		
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<760	U	<380	U	<390	U	<380	U	
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	930		570		830		1200		

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.9-3
Soil Metals Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC12SB1		AOC12SB1		AOC12SB1		AOC12SB2		AOC12SB2		AOC12SB2		AOC12SB3		AOC12SB3		AOC12SB3		AOC12SB4		AOC12SB4		AOC12SB4		AOC12SB5	
					Sample Top (ft below ground surface):		0		18		22		0		4		20		0		4		22		0		4		24		0	
					Sample Bottom (ft below ground surface):		0.4		19.3		23.2		1.3		5.2		21.3		0.9		5.1		23.3		1.9		5.1		26		1.8	
					Sample Date:		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/13/2005		12/13/2005		12/13/2005		12/14/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																										
Aluminum	1.0E+05	7.6E+04	NE	NE	14600		31800		40400		28300		7690		1980		12500		12300		3070		11900		11400		7300		16100	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		R		R		R		R		R		R		R		R		R		R		R		R	
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**9.1**		**1.1**		**3.0**		**6.2**		**10.4**		**4.9**		**12.9**		**11.0**		**5.9**		**15.5**		**11.4**		**5.7**		**5.8**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	84.2		321		**395**		209		87.0		30.4		84.9		81.9		37.0		125		74.9		77.9		300	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	0.71	J-	9.9	J-	7.8	J-	2.7	J-	0.59	J-	<0.52	UJ	0.61	J-	<0.59	UJ	<0.53	UJ	1.3	J-	0.76	J-	<0.54	UJ	2.0	J-
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<0.6	U	<0.54	U	<0.54	U	<0.56	U	<0.56	U	<0.52	U	<0.58	U	<0.59	U	<0.53	U	**2.4**		<0.53	U	<0.54	U	<0.57	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	14.7		**24.6**		**21.4**		13.8		16.5		4.2		**54.9**		**25.6**		14.2		**40.5**		**20.4**		10.9		14.7	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<6	U	<5.4	U	<5.4	U	<5.6	U	7.5		<5.2	U	<5.8	U	8.9		<5.3	U	5.6		<5.3	U	5.7		<5.7	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	24.2		4.7		7.5		**96.9**		18.4		18.3		**31.0**		**28.2**		17.2		**128**		23.8		15.5		**363**	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**2.54**		**2.81**		1.25		<1.18	U	<1.14	U	**4.34**		**2.42**		**1.41**		1.10		**4.63**		**2.34**		<1.08	U	<1.14	U
Iron	1.0E+05	2.3E+04	NE	NE	**27600**		13200		8490		16000		19700		6690		**38600**		**32000**		8180		**90400**		**48300**		14900		20100	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**25.6**		**12.0**		**42.0**		**58.2**		**25.0**		**20.7**		**37.0**		**25.9**		2.6		**256**		**28.7**		6.7		**137**	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**999**		**4570**		**5300**		**1460**		**841**		686		**917**		**932**		437		**1950**		**1360**		352		**1530**	
Mercury	NE	NE	NE	3.0E-01	0.04		<0.04	U	0.04		<0.04	U	<0.04	U	<0.03	U	0.05		<0.04	U	<0.03	U	0.24		0.05		<0.03	U	0.08	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	13.4		<4.3	U	<4.3	U	7.6		14.5		5.8		24.5		14.0		11.4		22.3		11.5		15.3		8.1	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<1.2	UJ	**7.0**	J	**6.4**	J	**2.7**	J	<1.1	UJ	**5.7**	J	**5.0**	J	<1.2	UJ	**2.1**	J	**6.4**	J	<1.1	UJ	**1.5**	J	**2.6**	J
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<6	U	<5.4	U	<5.4	U	<5.6	U	<5.6	U	<5.2	U	<5.8	U	<5.9	U	<5.3	U	<5.4	U	<5.3	U	<5.4	U	<5.7	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**19.2**		**26.3**		**18.8**		**14.8**		**22.8**		7.3		**64.4**		**27.2**		**13.9**		**24.8**		**23.3**		**13.4**		**15.9**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**84.6**	J	23.8	J	**66.8**	J	**108**	J	**53.9**	J	**616**	J	**177**	J	**166**	J	37.0	J	**926**	J	**123**	J	37.0	J	**357**	J

Table 4.9-3
Soil Metals Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC12SB5		AOC12SB5		AOC12SB6		AOC12SB6		AOC12SB6	
Sample Top (ft below ground surface):					16		20		0		4		10	
Sample Bottom (ft below ground surface):					17.6		21.6		1.6		5.3		11	
Sample Date:					12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)										
Aluminum	1.0E+05	7.6E+04	NE	NE	24600		6750		12400		12700		11700	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		R		R		R		R		R
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**9.1**		**15.4**		**11.5**		**12.1**		**13.7**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	70.3		87.9		76.8		85.5		97.0	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	0.77	J-	1.9	J-	0.59	J-	<0.56	UJ	0.90	J-
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<0.56	U	<0.58	U	<0.56	U	<0.56	U	<0.57	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**20.8**		**47.7**		14.8		16.8		**27.9**	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.6	U	<5.8	U	<5.6	U	8.2		<5.7	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	21.7		15.4		24.3		**28.6**		**32.9**	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**3.10**		**1.73**		**3.10**		<1.18	U	<1.16	U
Iron	1.0E+05	2.3E+04	NE	NE	21400		**73700**		**47200**		**33300**		**24800**	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**31.8**		**290**		**31.2**		**25.9**		**40.4**	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**3610**		**2370**		**1200**		**979**		**1370**	
Mercury	NE	NE	NE	3.0E-01	0.05		<0.04	U	0.04		<0.04	U	0.04	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	18.6		7.0		12.1		18.0		15.5	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<1.1	UJ	**6.3**	J	<1.1	UJ	<1.1	UJ	<3.4	UJ
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	<1.2	U	<1.1	U	<1.1	U	<1.1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<5.6	U	<5.8	U	<5.6	U	<5.6	U	<5.7	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**17.9**		**38.6**		**17.7**		**23.8**		**26.2**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**133**	J	**1190**	J	**97.5**	J	**111**	J	**96.2**	J

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.9-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC12SB1	AOC12SB1	AOC12SB1	AOC12SB2	AOC12SB2	AOC12SB2	AOC12SB3	AOC12SB3	AOC12SB3	AOC12SB4	AOC12SB4	AOC12SB4	AOC12SB5
					Sample Top (ft below ground surface):	0	18	22	0	4	20	0	4	22	0	4	24	0
					Sample Bottom (ft below ground surface):	0.4	19.3	23.2	1.3	5.2	21.3	0.9	5.1	23.3	1.9	5.1	26	1.8
					Sample Date:	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<38 U	<36 U	<38 U	<39 U	<37 U	<34 U	<38 U	<39 U	<35 U	<37 U	<36 U	<36 U	<38 U
Aroclor 1221	NE	NE	NE	4.0E+04	<77 U	<73 U	<76 U	<79 U	<76 U	<70 U	<78 U	<79 U	<72 U	<74 U	<74 U	<72 U	<76 U
Aroclor 1232	NE	NE	NE	4.0E+04	<38 U	<36 U	<38 U	<39 U	<37 U	<34 U	<38 U	<39 U	<35 U	<37 U	<36 U	<36 U	<38 U
Aroclor 1242	NE	NE	NE	4.0E+04	<38 U	<36 U	<38 U	<39 U	<37 U	<34 U	<38 U	<39 U	<35 U	<37 U	<36 U	<36 U	<38 U
Aroclor 1248	NE	NE	NE	4.0E+04	150	<36 U	49	140	<37 U	58	<38 U	70	36	<37 U	<36 U	<36 U	<38 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<38 U	<36 U	<38 U	<39 U	97	<34 U	<38 U	<39 U	<35 U	<37 U	<36 U	<36 U	<38 U
Aroclor 1260	NE	NE	NE	4.0E+04	200	<36 U	<38 U	96	<37 U	39	47	110	<35 U	360	<36 U	<36 U	50
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**464.5**	144.5	182	**353.5**	**227.5**	200	181	**297.5**	159.5	**489.5**	145	144	183

Table 4.9-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 12
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC12SB5		AOC12SB5		AOC12SB6		AOC12SB6		AOC12SB6	
					Sample Top (ft below ground surface):		16		20		0		4		10	
					Sample Bottom (ft below ground surface):		17.6		21.6		1.6		5.3		11	
					Sample Date:		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)												
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<38	U	<38	U	<38	U	<39	U	<38	U		
Aroclor 1221	NE	NE	NE	4.0E+04	<76	U	<77	U	<76	U	<79	U	<78	U		
Aroclor 1232	NE	NE	NE	4.0E+04	<38	U	<38	U	<38	U	<39	U	<38	U		
Aroclor 1242	NE	NE	NE	4.0E+04	<38	U	<38	U	<38	U	<39	U	<38	U		
Aroclor 1248	NE	NE	NE	4.0E+04	19	J	50		23	J	21	J	<38	U		
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<38	U	<38	U	<38	U	<39	U	<38	U		
Aroclor 1260	NE	NE	NE	4.0E+04	49		<38	U	82		94		50			
Total PCBs*	NE	2.2E+02	NE	4.0E+04	182		183.5		219		**232.5**		184			

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.9-5

Soil Dioxins Analytical Results - AOC 12

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC12SB1		AOC12SB2		AOC12SB3		AOC12SB5		AOC12SB6	
					Sample Top (ft below ground surface):		0		4		22		0		4	
					Sample Bottom (ft below ground surface):		0.4		5.2		23.3		1.8		5.3	
					Sample Date:		12/14/2005		12/14/2005		12/14/2005		12/14/2005		12/14/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)												
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**8.008**	B	**3.707**	B	<0.042	U	**12.515**		**11.82**	B
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**5.829**	B	**3.918**	B	<0.272	UJBK	**13.647**	B	**13.816**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.187	U	**0.351**	JK	<0.059	U	**0.713**	J	**0.908**	J
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**2.353**	J	**1.051**	J	<0.024	U	**3.097**		**3.381**	
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.146	J	0.074	JK	<0.025	U	**0.246**	J	0.192	J
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.662**	J	**0.401**	J	<0.025	U	**1.293**	J	**1.476**	JK
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.323**	JK	**0.248**	JK	<0.024	U	**0.882**	J	**0.845**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.138	U	<0.038	U	<0.031	U	0.079	J	0.099	J
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.294**	J	**0.4**	J	<0.024	U	**0.833**	J	**0.388**	J
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.082	U	<0.044	U	<0.026	U	**0.407**	J	**0.366**	J
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.591	J	0.321	JK	<0.027	U	1.154	J	0.437	JK
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.497	J	0.281	J	<0.019	U	1.572	J	1.666	J
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.973	U	<0.621	U	<0.041	U	1.578		1.711	
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.038	U	<0.02	U	<0.018	U	**0.214**	JK	0.174	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	<7.995	UB	<3.335	U	<0.061	U	12.853	B	13.914	B
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	<26.54	UB	<20.608	UB	<0.52	UB	88.96	B	82.798	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**0.8569**		NA		NA		**2.3448**		NA	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).

Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.10-1
Soil Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC13SB1		AOC13SB1		AOC13SB1		AOC13SB10		AOC13SB10		AOC13SB10		AOC13SB11		AOC13SB11		AOC13SB11		AOC13SB12		AOC13SB12		AOC13SB12		AOC13SB13		AOC13SB13		AOC13SB13	
Sample Top (ft below ground surface):					0		4		18		0		4		18		0		12		18		0		19		24		0		16		17	
Sample Bottom (ft below ground surface):					2		5.4		19.5		1.9		5		20		1.5		14		19.8		2		20		26		1		17		19	
Sample Date:					01/05/2006		01/05/2006		01/05/2006		01/12/2006		01/12/2006		01/12/2006		01/18/2006		01/18/2006		01/18/2006		01/19/2006		01/19/2006		01/19/2006		01/19/2006		01/19/2006		01/19/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																												
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5	U	<5.4	U	<5.8	UJ	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	UJ	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<10	U	<11	U	<12	U	<10	U	<9.4	U	<9.2	U	<9.5	U	12		2.6	J	<12	U	<2500	U	<11	U	<12	U	<1100	U	<4200	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<10	U	<11	U	<12	U	<10	U	<9.4	U	<9.2	U	<9.5	U	<12	U	<9.1	U	<12	U	<2500	U	<11	U	<12	U	<1100	U	<4200	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<10	U	<11	U	<12	U	<10	U	1.1	J	<9.2	U	<9.5	U	<12	U	<9.1	U	<12	U	<2500	U	<11	U	<12	U	<1100	U	<4200	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	26	J	13	J	19	J	<20	UJ	13	J	6.8	J	<19	U	46		15	J	160		<5000	U	11	J	44		<2200	U	1400	J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	4.0	J	1.1	J	3.3	J	<5	U	2.7	J	1.1	J	0.55	J	0.41	J	2.6	J	5.4	J	**840**	J	**14**	J	3.9	J	**400**	J	**46000**	
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.3	J	2.1	J	1.6	J	<10	U	4.9	J	1.9	J	<9.5	U	2.6	J	<9.1	U	1.1	J	<1300	UB	2.2	J	1.5	J	<540	UB	<2100	UB
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<10	U	<11	U	<12	U	<10	U	<9.4	U	<9.2	U	<9.5	U	<12	U	<9.1	U	<12	U	<2500	U	<11	U	<12	U	<1100	U	<4200	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	11	J	0.99	J	4.1	J	0.74	J	3.0	J	0.70	J	0.38	J	<5.9	U	0.88	J	6.2		<1300	U	1.2	J	2.0	J	<540	U	<2100	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	3.4	J	<5.4	U	0.90	J	<5	UJ	0.35	J	1.1	J	<4.7	U	<5.9	U	0.53	J	2.2	J	5100		<5.3	U	0.72	J	270	J	<2100	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	0.49	J	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	0.92	J	<6.1	U	370	J	<5.3	U	<6.1	U	290	J	<2100	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<10	U	<11	U	<12	U	<10	U	<9.4	U	<9.2	U	<9.5	U	<12	U	<9.1	U	<12	U	<2500	U	<11	U	<12	U	<1100	U	<4200	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	19	J	1.9	J	5.1	J	0.92	J	6.1		1.2	J	0.34	J	<5.9	U	1.3	J	8.5		<1300	U	1.8	J	3.5	J	<540	U	<2100	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.0	U	<5.4	U	0.54	J	0.37	J	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	4.7	J	<5.4	U	1.2	J	<5	UJ	1.7	J	2.6	J	<4.7	U	<5.9	U	0.92	J	4.1	J	5200		<5.3	U	2.1	J	210	J	<2100	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.4	J	<5.4	U	0.59	J	<5	UJ	1.5	J	1.3	J	<4.7	U	<5.9	U	<4.6	U	1.8	J	1900		<5.3	U	1.1	J	170	J	<2100	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	9.9	J	0.47	J	4.1	J	<5	U	2.6	J	2.7	J	0.52	J	<5.9	U	1.9	J	7.5		150	J	0.34	J	4.4	J	74	J	1200	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5	U	<5.4	U	<5.8	U	<5	UJ	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	0.40	J	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5	U	<5.4	U	<5.8	U	<5	U	0.38	J	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5	U	<5.4	U	<5.8	U	<5	U	<4.7	U	<4.6	U	<4.7	U	<5.9	U	<4.6	U	<6.1	U	<1300	U	<5.3	U	<6.1	U	<540	U	<2100	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																												

Table 4.10-1
Soil Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	AOC13SB14 12 13 01/05/2006	AOC13SB15 8 9.2 01/05/2006	AOC13SB16 4 5 01/05/2006	AOC13SB17 4 4.9 01/06/2006	AOC13SB18 6 7.4 01/06/2006	AOC13SB19 8 9.6 01/06/2006	AOC13SB2 0 0.6 01/12/2006	AOC13SB2 4 4.6 01/12/2006	AOC13SB2 16 18 01/12/2006	AOC13SB20 10 11.4 01/06/2006	AOC13SB21 6 7.8 01/06/2006	AOC13SB22 8 8.9 01/10/2006	AOC13SB23 6 6.8 01/10/2006	AOC13SB24 8 9.2 01/09/2006	AOC13SB25 4 5.8 01/09/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5.3 U	<5.6 UJ	<4.3 U	<5 UJ	<4.5 U	<4.7 UJ	<6 U	<19000 U	<6.2 U	<5.6 UJ	<4.6 U	<4.3 U	<5 U	<5.2 UJ	<5.2 UJ
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 UJ	<5.6 U	<4.6 UJ	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	26	<11 U	2.8 J	<10 U	<8.9 U	<9.4 U	<12 U	<37000 U	<12 U	<11 U	<9.2 U	<8.5 U	6.9 J	<10 U	<10 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<11 U	<11 U	<8.7 U	<10 U	<8.9 U	<9.4 U	<12 U	<37000 U	<12 U	<11 U	<9.2 U	<8.5 U	<10 U	<10 U	<10 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<11 U	<11 U	<8.7 U	<10 U	<8.9 U	<9.4 U	<12 U	<37000 U	<12 U	<11 U	<9.2 U	<8.5 U	<10 U	<10 U	<10 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	110	16 J	25	21 J	<18 U	12 J	<24 U	<74000 U	13 J	<22 U	<18 U	<17 U	21	7.0 J	13 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	**180**	5.9	1.2 J	<5 U	5.3	4.0 J	0.46 J	**150000**	18	7.9	5.0 J	7.0	7.1	5.1 J	<5.2 U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<11 U	0.86 J	0.99 J	0.47 J	1.00 J	2.4 J	0.52 J	<37000 UB	0.66 J	0.44 J	0.80 J	3.0 J	3.2 J	1.5 J	<10 U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<11 U	<11 U	<8.7 U	<10 U	<8.9 U	<9.4 U	<12 U	<37000 U	<12 U	<11 U	<9.2 U	<8.5 U	<10 U	<10 U	<10 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	3.4 J	9.5	3.9 J	0.33 J	7.8	7.6	0.62 J	<19000 U	<6.2 U	12	13	10	11	11	<5.2 U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	160	5.6	0.37 J	<5 U	6.4	2.6 J	<6 U	**10000** J	1.6 J	8.3	5.4	6.8	7.6	3.4 J	<5.2 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	28	0.78 J	<4.3 U	<5 U	0.64 J	0.33 J	<6 U	1200 J	<6.2 U	1.1 J	0.67 J	0.88 J	1.2 J	0.37 J	<5.2 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<11 U	<11 U	<8.7 U	<10 U	<8.9 U	<9.4 U	<12 U	<37000 U	<12 U	<11 U	<9.2 U	<8.5 U	<10 U	<10 U	<10 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	5.2 J	20	4.6 J	<5 U	15	13	0.98 J	<19000 U	0.57 J	27	21	21	24	12	<5.2 U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	0.57 J	0.51 J	<4.3 UB	0.48 J	0.72 J	0.62 J	<6.0 UB	<19000 U	<6.2 U	0.82 J	0.75 J	0.60 J	0.95 J	0.88 J	1.2 J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	270	5.6	<4.3 U	<5 U	7.0	2.8 J	<6 U	**250000**	31 J	10	7.0	8.2	9.1	5.7	<5.2 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	150	3.6 J	<4.3 U	<5 U	3.9 J	1.6 J	<6 U	**100000**	13	5.0 J	3.6 J	4.4 J	4.9 J	2.9 J	<5.2 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	6.9 J	<5.6 U	<4.6 U	<4.3 U	<5 U	4.2 J	<5.2 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	55	15	1.4 J	<5 U	17	6.6	0.51 J	**190000**	25 J	21	15	17	19	13	<5.2 U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	0.32 J
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	3.8 J	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	3.0 J	<5 U	0.41 J	<5.2 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.3 U	<5.6 U	<4.3 U	<5 U	<4.5 U	<4.7 U	<6 U	<19000 U	<6.2 U	<5.6 U	<4.6 U	<4.3 U	<5 U	<5.2 U	<5.2 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04															

Table 4.10-1
Soil Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC13SB26		AOC13SB27		AOC13SB28		AOC13SB29		AOC13SB3		AOC13SB3		AOC13SB3		AOC13SB30		AOC13SB31		AOC13SB32		AOC13SB33		AOC13SB34		AOC13SB35		AOC13SB36		AOC13SB37	
Sample Top (ft below ground surface):					8		4		8		14		0		4		14		4		8		13		4		4		4		8		10	
Sample Bottom (ft below ground surface):					9.2		5.2		9.6		15.2		1		5.2		16		5.9		9		14		5.5		5.2		4.7		9.8		11.3	
Sample Date:					01/09/2006		01/09/2006		01/09/2006		01/09/2006		01/12/2006		01/12/2006		01/12/2006		01/09/2006		01/11/2006		01/09/2006		01/10/2006		01/10/2006		01/10/2006		01/10/2006		01/11/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																												
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<4.5	UJ	<4.5	U	<5.3	U	<4.4	UJ	<4.7	U	<5.2	U	<5.8	U	<4.7	UJ	<5.7	U	<4.6	UJ	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<9	U	<9	U	<11	U	<8.7	U	<9.4	U	<10	U	15		1.4	J	<11	U	<9.1	U	<9.1	U	<8.5	U	<11	U	<9.5	U	<39000	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<9	U	<9	U	<11	U	<8.7	U	<9.4	U	<10	U	<12	U	<9.4	U	<11	U	<9.1	U	<9.1	U	<8.5	U	<11	U	<9.5	U	<39000	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<9	U	<9	U	<11	U	<8.7	U	<9.4	U	<10	U	<12	U	<9.4	U	<11	U	<9.1	U	<9.1	U	<8.5	U	<11	U	<9.5	U	<39000	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<18	U	<18	U	13	J	<17	U	7.4	J	<21	U	80		9.2	J	<23	U	14	J	8.7	J	69		<21	U	<19	U	<78000	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	6.1		2.8	J	4.2	J	4.3	J	0.46	J	0.59	J	<5.8	U	0.55	J	0.61	J	3.6	J	1.7	J	8.5		8.3	J	1.1	J	3300	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.1	J	0.32	J	0.57	J	0.29	J	0.48	J	<10	U	1.5	J	0.52	J	<11	U	3.9	J	2.5	J	10	J	<11	U	<9.5	U	<39000	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<9	U	<9	U	<11	U	<8.7	U	<9.4	U	<10	U	<12	U	<9.4	U	<11	U	<9.1	U	<9.1	U	<8.5	U	<11	U	<9.5	U	<39000	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	15		4.5	J	5.9		8.9		0.78	J	0.95	J	<5.8	U	<4.7	U	1.3	J	6.7		3.3	J	2.9	J	9.5		3.2	J	<19000	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	5.5		2.1	J	2.5	J	4.8	J	0.58	J	0.45	J	<5.8	U	<4.7	U	0.92	J	3.5	J	1.7	J	1.8	J	10	J	1.4	J	<19000	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	0.81	J	0.28	J	<5.3	U	0.64	J	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	0.59	J	<4.5	U	0.67	J	1.1	J	<4.7	U	<19000	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<9	U	<9	U	<11	U	<8.7	U	<9.4	U	<10	U	<12	U	<9.4	U	<11	U	<9.1	U	<9.1	U	<8.5	U	<11	U	<9.5	U	<39000	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	27		9.5		9.1		18		1.4	J	1.9	J	0.38	J	<4.7	U	1.7	J	15		6.3		4.2	J	17		6.9		<19000	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	0.63	J	0.60	J	0.73	J	0.66	J	<4.7	UB	<5.2	UB	<5.8	U	0.52	J	<5.7	U	0.77	J	0.62	J	0.69	J	0.73	J	0.72	J	<19000	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	6.6		2.9	J	3.4	J	7.8		0.53	J	0.59	J	<5.8	U	<4.7	U	1.2	J	4.8	J	1.8	J	2.4	J	9.6		2.5	J	<19000	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	3.5	J	1.3	J	1.6	J	3.4	J	<4.7	U	<5.2	U	<5.8	U	<4.7	U	0.63	J	2.6	J	0.92	J	1.5	J	5.9	J	1.1	J	1300	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	3.8	J	<5.3	U	<4.7	U	<19000	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	15		6.4		9.7	J	14		1.4	J	1.2	J	<5.8	U	0.29	J	2.3	J	9.5		4.4	J	4.3	J	23	J	4.0	J	1700	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.5	U	<4.5	U	<5.3	U	<4.4	U	<4.7	U	<5.2	U	<5.8	U	<4.7	U	<5.7	U	<4.6	U	<4.5	U	<4.2	U	<5.3	U	<4.7	U	<19000	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																												

Table 4.10-1

Soil Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB37	AOC13SB38	AOC13SB39	AOC13SB4	AOC13SB4	AOC13SB4	AOC13SB40	AOC13SB41	AOC13SB42	AOC13SB43	AOC13SB44	AOC13SB45	AOC13SB46	AOC13SB47	AOC13SB48
					Sample Top (ft below ground surface):	22	6	4	0	4	14	12	6	8	6	8	4	12	18	5
					Sample Bottom (ft below ground surface):	23.4	7.6	6	1.5	4.8	16	13.4	7.2	9.4	7.3	9.4	5.2	13.9	19.4	7
					Sample Date:	01/11/2006	01/18/2006	01/11/2006	01/12/2006	01/12/2006	01/12/2006	01/16/2006	01/11/2006	01/11/2006	01/16/2006	01/18/2006	01/11/2006	01/18/2006	01/17/2006	01/19/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 UJ	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<4400 U	<11 U	16 J	<9.3 U	<9 U	4.6 J	<9 U	<9.2 U	<9.2 U	<11 U	1.8 J	<9.1 U	<1000 U	<8.6 U	<13 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<4400 U	<11 U	<11 UJ	<9.3 U	<9 U	<10 U	<9 U	<9.2 U	<9.2 U	<11 U	<9.3 U	<9.1 U	<1000 U	<8.6 U	<13 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<4400 U	<11 U	<11 UJ	<9.3 U	<9 U	<10 U	<9 U	<9.2 U	<9.2 U	<11 U	<9.3 U	<9.1 U	<1000 U	<8.6 U	<13 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		<8800 U	4.4 J	69 J	<19 U	3.3 J	29	16 J	<18 U	<18 U	<21 U	10 J	<18 U	<2000 U	2.6 J	21 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		**4400**	4.1 J	**1400** J	0.50 J	3.1 J	**1600**	**130** J	0.59 J	0.83 J	1.2 J	0.52 J	0.66 J	<500 U	3.7 J	3.0 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		<4400 U	<11 U	3.4 J	<9.3 U	0.79 J	16	8.5 J	<9.2 U	<9.2 U	<11 U	0.31 J	<9.1 U	<500 UB	0.58 J	2.0 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<4400 U	<11 U	<11 U	<9.3 U	<9 U	<10 U	<9 U	<9.2 U	<9.2 U	<11 U	<9.3 U	<9.1 U	<1000 U	<8.6 U	<13 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<2200 U	0.52 J	1.4 J	1.0 J	1.1 J	1.4 J	2.8 J	0.54 J	1.0 J	1.6 J	0.60 J	1.8 J	<500 U	0.72 J	3.2 J
Dichlorodichloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		1100 J	<5.7 U	4.2 J	0.46 J	0.58 J	14	38	0.83 J	0.89 J	0.87 J	0.65 J	0.62 J	210 J	0.36 J	1.4 J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		150 J	<5.7 U	0.36 J	<4.6 U	<4.5 U	4.6 J	2.6 J	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	0.46 J
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<4400 U	<11 U	<11 UJ	<9.3 U	<9 U	<10 U	<9 U	<9.2 U	<9.2 U	<11 U	<9.3 U	<9.1 U	280 J	<8.6 U	<13 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		<2200 U	0.68 J	3.4 J	2.0 J	1.5 J	2.2 J	3.4 J	1.9 J	2.2 J	2.3 J	0.98 J	2.1 J	<500 U	0.87 J	5.4 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<2200 U	<5.7 U	<5.5 U	<4.6 U	0.33 J	0.34 J	<4.5 U	0.42 J	0.52 J	<5.3 U	<4.6 U	0.48 J	<500 U	<4.3 U	<6.6 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		450 J	<5.7 U	28 J	0.85 J	1.1 J	170	96 J	1.2 J	1.3 J	1.3 J	0.96 J	1.4 J	290 J	<4.3 U	2.4 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		330 J	<5.7 U	13 J	0.42 J	0.47 J	65	210 J	0.55 J	0.63 J	0.68 J	0.48 J	0.57 J	410 J	0.32 J	0.96 J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<2200 U	<5.7 U	15 J	<4.6 U	<4.5 U	12	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	47 J	0.26 J	<6.6 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		280 J	0.73 J	50 J	1.0 J	1.9 J	750	100	2.1 J	2.2 J	2.1 J	1.5 J	2.2 J	64 J	1.3 J	3.9 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<2200 U	<5.7 U	<5.5 UJ	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	0.68 J	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<2200 U	<5.7 U	<5.5 U	<4.6 U	<4.5 U	<5.2 U	<4.5 U	<4.6 U	<4.6 U	<5.3 U	<4.6 U	<4.5 U	<500 U	<4.3 U	<6.6 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																

Table 4.10-1

Soil Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC13SB49 / Sample Top (ft below ground surface): 2 / Sample Bottom (ft below ground surface): 4 / Sample Date: 01/19/2006		AOC13SB5 / 0 / 0.9 / 01/10/2006		AOC13SB5 / 14 / 15.5 / 01/10/2006		AOC13SB5 / 20 / 21.7 / 01/10/2006		AOC13SB50 / 8 / 9.6 / 01/16/2006		AOC13SB51 / 9 / 10 / 01/19/2006		AOC13SB52 / 0 / 2 / 01/11/2006		AOC13SB52 / 2 / 4 / 01/11/2006		AOC13SB52 / 8 / 9.8 / 01/11/2006		AOC13SB53 / 0 / 1.7 / 01/12/2006		AOC13SB53 / 4 / 5.3 / 01/12/2006		AOC13SB53 / 16 / 17.2 / 01/12/2006		AOC13SB54 / 0 / 1.6 / 01/17/2006		AOC13SB54 / 8 / 10 / 01/17/2006		AOC13SB54 / 18 / 19.1 / 01/17/2006	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<11	U	5.8	J	<12	U	<7.9	U	<11	U	<14	U	<8.8	U	18	J	13	J	<9	U	<10	U	<9.2	U	<8.5	U	<11	U	7.2	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<11	U	<12	U	<12	U	<7.9	U	<11	U	<14	U	<8.8	U	<11	U	<10	U	<9	U	<10	U	<9.2	U	<8.5	U	<11	U	<12	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<11	U	<12	U	<12	U	<7.9	U	<11	U	<14	U	<8.8	U	<11	U	<10	U	<9	U	<10	U	1.0	J	<8.5	U	<11	U	<12	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	28		100		<23	U	13	J	3.7	J	<27	U	<18	U	83		73		<18	U	2.6	J	12	J	<17	U	18	J	24	
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	2.7	J	3.0	J	3.5	J	0.57	J	1.4	J	1.9	J	<4.4	U	1.8	J	4.4	J	0.35	J	0.39	J	0.96	J	<4.3	U	<5.3	U	6.1	
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	6.0	J	0.63	J	0.57	J	1.4	J	0.42	J	0.55	J	<8.8	U	4.1	J	27		0.33	J	0.40	J	2.4	J	<8.5	U	0.33	J	5.0	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<11	U	<12	U	<12	U	<7.9	U	<11	U	<14	U	<8.8	U	<11	U	<10	U	<9	U	<10	U	<9.2	U	<8.5	U	<11	U	<12	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	1.4	J	6.2		7.2		3.3	J	2.0	J	2.2	J	<4.4	U	0.85	J	<5.1	U	<4.5	U	0.69	J	1.5	J	0.32	J	<5.3	U	1.4	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<5.7	U	2.4	J	1.3	J	0.29	J	1.6	J	1.6	J	<4.4	U	0.59	J	5.0	J	0.35	J	<5.1	U	1.8	J	<4.3	U	<5.3	U	1.5	J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	0.35	J	0.70	J	<4.5	U	<5.1	U	0.38	J	<4.3	U	<5.3	U	<5.9	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<11	U	<12	U	<12	U	<7.9	U	<11	U	<14	U	<8.8	U	<11	U	<10	U	<9	U	<10	U	<9.2	U	<8.5	U	<11	U	<12	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	2.9	J	12		13		3.5	J	3.0	J	5.1	J	<4.4	U	1.2	J	<5.1	U	3.0	J	1.3	J	2.4	J	0.49	J	<5.3	U	2.1	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.7	U	0.74	J	0.53	J	0.37	J	<5.5	U	0.50	J	0.32	J	<5.3	U	0.31	J	<4.5	U	<5.1	U	<4.6	UB	<4.3	U	<5.3	U	<5.9	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.7	U	3.0	J	1.7	J	0.56	J	2.8	J	2.8	J	<4.4	U	1.5	J	0.59	J	1.0	J	<5.1	U	2.4	J	<4.3	U	<5.3	U	6.6	
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.7	U	1.5	J	0.92	J	<4	U	1.4	J	1.1	J	<4.4	U	0.80	J	1.1	J	0.32	J	<5.1	U	1.8	J	<4.3	U	<5.3	U	3.1	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	4.4	J	<5.1	U	<4.5	U	<5.1	U	4.2	J	<4.3	U	<5.3	U	<5.9	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.87	J	7.2		5.8	J	1.2	J	4.3	J	5.1	J	<4.4	U	1.1	J	0.36	J	4.8	J	0.82	J	2.4	J	0.40	J	<5.3	U	8.1	
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	32		<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	0.73	J	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.7	U	<5.8	U	<5.8	U	<4	U	<5.5	U	<6.8	U	<4.4	U	<5.3	U	<5.1	U	<4.5	U	<5.1	U	<4.6	U	<4.3	U	<5.3	U	<5.9	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04																														

Table 4.10-1

Soil Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB55	AOC13SB55	AOC13SB55	AOC13SB56	AOC13SB56	AOC13SB56	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB7	AOC13SB7	AOC13SB7	AOC13SB8	AOC13SB8
					Sample Top (ft below ground surface):	0	5	14	0	16	24	0	4	20	22	0	4	14	0	4
					Sample Bottom (ft below ground surface):	2	6	16	2	18	26	1.1	5.3	21.6	23.2	1	5.1	15.1	1.4	5.6
					Sample Date:	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 UJ	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 UJ	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 UJ	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<6.4 U	<5.4 U	<5.8 UJ	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 UJ	<4.7 U	<8.5 UJ	<4.2 UJ	<4.9 U	<5.4 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<13 U	2.5 J	5.1 J	<14 U	<21000 U	<4200 U	<9.6 U	<13 U	76 J	4.0 J	4.4 J	<17 U	6.7 J	2.4 J	4.2 J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<13 U	<11 U	<12 U	<14 U	<21000 U	<4200 U	<9.6 U	<13 U	<850 UJ	<8.3 U	<9.4 U	<17 U	<8.5 U	<9.8 U	<11 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<13 U	<11 U	<12 U	<14 U	<21000 U	<4200 U	<9.6 U	<13 U	<850 U	<8.3 U	<9.4 U	<17 U	<8.5 U	<9.8 U	<11 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<25 U	14 J	140 J	55	<42000 U	<8500 U	7.0 J	4.6 J	<1700 UJ	19	19 J	19 J	40	42	27
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<6.4 U	1.4 J	19	1.8 J	**94000**	**41000** J	0.30 J	<6.7 U	**380** J	**500**	2.2 J	0.61 J	3.0 J	1.4 J	12
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<13 U	0.85 J	10 J	<14 U	<21000 U	<4200 U	<9.6 U	2.0 J	<850 U	2.6 J	3.4 J	3.5 J	8.3 J	1.9 J	3.7 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<13 U	<11 U	<12 U	<14 U	<21000 U	<4200 U	<9.6 U	<13 U	<850 U	<8.3 U	<9.4 U	<17 U	<8.5 U	<9.8 U	<11 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	**340** J	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.90 J	1.9 J	<5.8 U	<6.8 U	<10000 U	<2100 U	0.73 J	<6.7 U	<430 U	<4.1 U	6.0	1.3 J	4.6 J	2.2 J	2.3 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<6.4 U	0.61 J	<5.8 U	<6.8 U	**27000**	<2100 U	<4.8 U	<6.7 U	810	1.0 J	1.9 J	<8.5 U	2.0 J	0.63 J	1.2 J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<6.4 U	<5.4 U	<5.8 U	<6.8 U	6400 J	<2100 U	<4.8 U	<6.7 U	710	0.61 J	0.35 J	<8.5 U	0.26 J	<4.9 U	<5.4 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<13 U	<11 U	<12 U	<14 U	<21000 U	<4200 U	<9.6 U	<13 U	<850 U	<8.3 U	<9.4 U	<17 U	<8.5 U	<9.8 U	<11 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	0.99 J	3.0 J	0.40 J	<6.8 U	1100 J	<2100 U	0.90 J	<6.7 U	58 J	0.34 J	12	1.9 J	6.8	3.2 J	3.8 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	0.30 J	0.53 J	<8.5 U	0.56 J	0.35 JB	0.48 J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4 U	0.86 J	<5.8 U	1.3 J	**290000**	590 J	<4.8 U	<6.7 U	**17000**	22	2.5 J	<8.5 U	4.3 J	0.99 J	4.7 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.4 U	0.63 J	<5.8 U	0.45 J	**62000**	320 J	<4.8 U	<6.7 U	**2200**	5.6	1.1 J	<8.5 U	1.8 J	0.66 J	4.0 J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.48 J	1.8 J	<5.8 U	1.8 J	**65000**	**7600**	0.77 J	<6.7 U	1500	71	4.3 J	<8.5 U	6.4	2.2 J	7.1
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<6.4 U	<5.4 U	<5.8 U	<6.8 U	<10000 U	<2100 U	<4.8 U	<6.7 U	<430 U	<4.1 U	<4.7 U	<8.5 U	<4.2 U	<4.9 U	<5.4 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04															

Table 4.10-1
Soil Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC13SB8	AOC13SB9	AOC13SB9	AOC13SB9	MW-20M	MW-20S	MW-20S	MW-20S	MW-20S	MW-21M	MW-21S	MW-21S	MW-21S	MW-8M	MW-8S
					Sample Top (ft below ground surface): 14	0	4	14	24	0	8	14	18	22	0	6	22	24	0
					Sample Bottom (ft below ground surface): 15.1	1.4	5.4	16	26	1.6	9.2	15.5	19.1	24	2	8	24	26	2
					Sample Date: 01/05/2006	01/12/2006	01/12/2006	01/12/2006	03/01/2006	11/28/2005	11/28/2005	11/28/2005	11/28/2005	03/07/2006	11/29/2005	11/29/2005	11/29/2005	03/06/2006	11/29/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 UJ	<6.1 U	<480 U	<100000 U	<4.9 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 UJ	<6.1 U	<480 U	<100000 U	<4.9 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 UJ	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 UJ	<6.1 U	<480 U	<100000 U	0.38 J
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	0.41 J
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	0.37 J
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<8.5 U	<8.8 U	<11 U	<11 U	2.3 J	<10 U	<150000 U	<11 U	<10 U	2.1 J	<9 U	<12 U	<960 U	<190000 U	<9.8 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<8.5 U	<8.8 U	<11 U	<11 U	<8.9 U	<10 U	<150000 U	<11 U	<10 U	<8.8 U	<9 UJ	<12 U	<960 U	<190000 U	<9.8 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<8.5 U	<8.8 U	<11 U	<11 U	<8.9 U	<10 U	<150000 U	<11 U	<10 U	<8.8 U	<9 U	<12 U	<960 U	<190000 U	<9.8 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<17 U	<18 U	<21 U	<23 U	15 J	10 J	<300000 U	15 J	8.9 J	13 J	21 J	9.2 J	<1900 U	**22000** J	15 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	3.2 J	<4.4 U	<5.3 U	0.43 J	0.33 J	1.6 J	**68000** J	**87**	5.9 J	**21000**	0.94 J	0.48 J	**12000**	**150000**	2.1 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	14	<8.8 U	5.8 J	<11 U	0.67 J	2.1 J	<150000 U	0.95 J	1.2 J	1.9 J	0.4 J	14	<960 U	<190000 U	0.50 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<8.5 U	<8.8 U	<11 U	<11 U	<8.9 U	<10 U	<150000 U	<11 U	<10 U	<8.8 U	<9 U	<12 U	<960 U	<190000 U	<9.8 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	6.2	0.45 J	<5.3 U	1.5 J	0.32 J	0.59 J	<76000 U	<5.5 U	1.6 J	0.74 J	2.2 J	<6.1 U	<480 U	<100000 U	6.6 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	0.60 J
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	3.4 J	<4.4 U	<5.3 U	1.3 J	<4.5 U	0.57 J	<76000 U	6.1	0.78 J	0.31 J	1 J	<6.1 U	400 J	**100000**	2.5 J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	0.44 J	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	0.54 J	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	13000 J	0.44 J
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<8.5 U	<8.8 U	<11 U	<11 U	<8.9 U	<10 U	<150000 U	<11 U	<10 U	<8.8 U	<9 UJ	<12 U	<960 U	<190000 U	<9.8 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	14	<4.4 U	<5.3 U	1.6 J	0.39 J	1.1 J	<76000 U	0.82 J	2.9 J	1.00 J	3.7 J	<6.1 U	<480 U	<100000 U	10
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	0.58 J	<4.4 U	<5.3 U	<5.7 UB	<4.5 U	<5.2 UB	<76000 U	<5.5 UB	<5 UB	<4.4 U	<4.5 UB	<6.1 UB	<480 U	<100000 U	2.0 J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	6.2	<4.4 U	<5.3 U	1.4 J	<4.5 U	1.5 J	**84000**	130	2.7 J	1.9 J	1.3 J	<6.1 U	6700	**460000**	3.6 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.6 J	<4.4 U	<5.3 U	0.65 J	<4.5 U	1.2 J	**35000** J	55	0.94 J	0.80 J	0.61 J	<6.1 U	2200	**180000**	1.4 J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	570	**120000**	<4.9 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	0.54 J
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	9.5	<4.4 U	<5.3 U	1.7 J	0.29 J	1.2 J	**73000** J	100	6	**7000**	2.7 J	<6.1 U	**8000**	**360000**	6.3
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.2 U	<4.4 U	0.87 J	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.2 U	<4.4 U	1.9 J	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	0.37 J
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.2 U	<4.4 U	<5.3 U	<5.7 U	<4.5 U	<5.2 U	<76000 U	<5.5 U	<5 U	<4.4 U	<4.5 U	<6.1 U	<480 U	<100000 U	<4.9 U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04															

Table 4.10-1

Soil Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: MW-8S; Sample Top (ft below ground surface): 6; Sample Bottom (ft below ground surface): 8; Sample Date: 11/29/2005		MW-8S; 20; 22; 11/29/2005		MW-9S; 0; 2; 11/29/2005		MW-9S; 6; 8; 11/29/2005		MW-9S; 32; 34; 11/29/2005		AOC13SB57; 8; 10; 5/30/2008		AOC13SB57; 10; 12; 5/30/2008		AOC13SB57; 14; 16; 5/30/2008		MW25S; 0; 2; 6/2/2008		MW25S; 14; 16; 6/2/2008		MW25S; 15; 16; 6/2/2008		MW27S; 0; 2; 5/30/2008		MW27M; 20; 22; 6/13/2008		MW28S; 0; 2; 5/28/2008		MW29S; 0; 2; 5/28/2008	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.487	U	<1.22	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<1.88	U	<2.24	U	<2.05	U	<1.75	U	<2.14	U	<1.62	U	<1.95	U	<1.86	U	<1.95	U	<2.43	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	7.1	J	<9900	U	<9.5	U	<15	UJ	<9.1	UJ	<2.35	U	3.9	J	<2.56	U	<2.19	U	<2.68	U	<2.02	U	<2.44	U	<2.32	U	<2.43	U	<3.04	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<9.6	U	<9900	U	<9.5	U	<15	UJ	<9.1	UJ	<2.35	U	<2.81	U	<2.56	U	<2.19	U	<2.68	U	<2.02	U	<2.44	U	<2.32	U	<2.43	U	<3.04	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<9.6	U	<9900	U	<9.5	U	<15	UJ	<9.1	UJ	<2.35	U	<2.81	U	<2.56	U	<2.19	U	<2.68	U	<2.02	U	<2.44	U	<2.32	U	<2.43	U	<3.04	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	28		<20000	U	13	J	21	J	20	J	<4.71	U	<5.61	U	<5.11	U	<4.37	U	<5.36	U	16.7		<4.88	U	19.6	J	<4.87	U	<6.08	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	3.9	J	<4900	U	1.7	J	6.8	J	**27000**	J	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	0.806	J	<0.488	U	1.25	J	<0.487	U	<0.608	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	6.2	J	<9900	U	0.62	J	6	J	4.2	J	1.43	J	1.29	J	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	0.567	J	0.567	J	<0.608	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<9.6	U	<9900	U	<9.5	U	<15	UJ	<9.1	UJ	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<4.04	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<1.88	U	<2.24	U	<2.05	U	<1.75	U	<2.14	U	<1.62	U	<1.95	U	<1.89	U	<1.95	U	<2.43	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	4.7	J	<4900	U	2	J	3	J	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.235	U	<0.281	U	<0.256	U	<0.219	U	<0.268	U	<0.202	U	<0.244	U	<0.232	U	<0.243	U	<0.304	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	370	J	1300	J	0.82	J	<7.6	UJ	1.5	J	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	0.663	J	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	49		460	J	<4.8	U	<7.6	UJ	0.5	J	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<9.6	U	<9900	U	<9.5	U	<15	UJ	<9.1	U	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.973	U	<1.22	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	7.2		<4900	U	3.3	J	0.5	J	1.5	J	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.973	U	<1.22	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<4.8	UB	<4900	U	<4.8	UB	<7.6	UJB	<4.6	UB	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.973	U	<1.22	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.973	U	<1.22	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	150		3800	J	1.5	J	<7.6	UJ	12	J																				
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	250	J	2000	J	0.56	J	<7.6	UJ	3.1	J																				
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.8	U	<4900	U	0.29	J	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	19		<4900	U	2.7	J	<7.6	UJ	63	J	<0.471	U	0.975	J	<0.511	U	<0.437	U	<0.536	U	0.525	J	<0.488	U	0.637	J	<0.487	U	<0.608	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.471	U	<0.561	U	<0.511	U	<0.437	U	<0.536	U	<0.404	U	<0.488	U	<0.465	U	<0.487	U	<0.608	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.235	U	<0.281	U	<0.256	U	<0.219	U	<0.268	U	<0.202	U	<0.244	U	<0.232	U	<0.243	U	<0.304	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.8	U	<4900	U	<4.8	U	<7.6	UJ	<4.6	UJ	<0.942	U	<1.12	U	<1.02	U	<0.875	U	<1.07	U	<0.809	U	<0.976	U	<0.93	U	<0.973	U	<1.22	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04											4.71	U	1.52	J	0.594	J	1.07	J	<0.536	U	2.53	J	<0.488	J	0.485	J	<0.487	U	<0.608	U

Table 4.10-1

Soil Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					MW29S		MW29S		MW31S		MW31S		MW31S	
Sample Top (ft below ground surface):					6		14		0		2		6	
Sample Bottom (ft below ground surface):					8		16		2		4		8	
Sample Date:					5/28/2008		5/28/2008		5/28/2008		5/28/2008		5/28/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<1.99	U	<1.79	U	<1.84	U	<2.75	U	<3.3	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	3.26	J	6.33	J	<2.3	U	3.93	J	9.26	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<2.38	U	<2.23	U	<2.3	U	<3.44	U	<4.13	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<2.38	U	<2.23	U	<2.3	U	<3.44	U	<4.13	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<4.75	U	<0.446	U	<4.61	U	<6.88	U	<8.26	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<0.475	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	<0.475	U	<0.446	U	<0.461	U	<0.688	U	1.66	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<0.475	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<1.9	U	<1.79	U	<1.84	U	<2.75	U	<3.3	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<0.238	U	<0.223	U	<0.23	U	<0.344	U	<0.413	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04										
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04										
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<0.475	U	1.03	J	<0.461	U	<0.688	U	<0.826	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.475	U	<0.446	U	<0.461	U	<0.688	U	<0.826	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<0.475	U	<0.446	U	1.33	J	<0.688	U	<0.826	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<0.238	U	<0.223	U	<0.23	U	<0.344	U	<0.413	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<0.95	U	<0.893	U	<0.922	U	<1.38	U	<1.65	U
Xylene	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.507	J	1.31	J	<0.461	U	<0.688	U	<0.826	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

É - Estimated concentration due to sample matrix

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.10-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB1	AOC13SB1	AOC13SB1	AOC13SB10	AOC13SB10	AOC13SB10	AOC13SB11	AOC13SB11	AOC13SB11	AOC13SB12	AOC13SB12	AOC13SB12	AOC13SB13	AOC13SB13
					Sample Top (ft below ground surface):	0	4	18	0	4	18	0	12	18	0	19	24	0	16
					Sample Bottom (ft below ground surface):	2	5.4	19.5	1.9	5	20	1.5	14	19.8	2	20	26	1	17
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/12/2006	01/12/2006	01/12/2006	01/18/2006	01/18/2006	01/18/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	68 J	<390 U	<420 U	<360 U	<390 U	2300 J	<350 U	<380 U	110 J
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
1-Methylnaphthalene																			
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		<2300 U	630 J	<410 U	<1600 U	340 J	130 J	<390 U	<420 U	<360 U	<390 U	9100 J	<350 U	60 J	67 J
2-Methylphenol	3.1E+04	3.1E+03	NE	NE															
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE															
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
4-Bromophenyl-phenylether	NE	NE	NE	NE															
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE															
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<2300 U	1000 J	<410 U	<1600 U	220 J	46 J	45 J	<420 U	<360 U	<390 U	7900 J	<350 U	<380 U	2000
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		3200	890 J	<410 U	1500 J	2300	570	<390 U	<420 U	<360 U	<390 U	3100 J	<350 U	90 J	500
Acetophenone	NE	NE	NE	3.0E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	79 J
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		4000 J	4600	<410 U	1100 J	2300	680	160 J	<420 U	<360 U	<390 U	<10000 U	<350 U	93 J	720
Atrazine	7.8E+03	2.2E+03	NE	NE		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 UJ	<420 UJ	<360 UJ	<390 U	<10000 U	<350 U	<380 U	<350 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<12000 UJ	<19000 UJ	<2100 UJ	<8400 U	<7700 U	<1800 U	<2000 UJ	<2200 UJ	<1800 UJ	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		**13000** J	**11000**	<410 U	**3700** J	**7800**	**1600**	390 J	<420 U	<360 U	76 J	<10000 U	<350 U	300 J	110 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**17000** J	**10000**	<410 U	**4100** J	**8500**	**1500**	**320** J	<420 U	<360 U	**71** J	<10000 U	<350 U	**330** J	50 J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		**15000** J	**8700**	<410 U	**3700** J	**7800**	**1300**	290 J	<420 U	<360 U	66 J	<10000 U	<350 U	320 J	<350 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		14000 J	7000	<410 U	3300 J	7400	910	210 J	<420 U	<360 U	53 J	<10000 U	<350 U	280 J	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		**13000** J	**9400**	<410 U	**3300** J	**7400**	**1300**	290 J	<420 U	<360 U	66 J	<10000 U	<350 U	300 J	70 J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE															
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	68 J	<10000 U	<350 U	<380 U	<350 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		**780** J	**2100** J	<410 U	**860** J	**750** J	170 J	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		**13000** J	**11000**	<410 U	3700 J	**8300**	1500	390 J	<420 U	<360 U	80 J	<10000 U	<350 U	310 J	280 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**3700** J	**2200** J	<410 U	**840** J	**2200**	**270** J	**75** J	<420 U	<360 U	<390 U	<10000 U	<350 U	**80** J	<350 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		480 J	1300 J	<410 U	260 J	570 J	350	<390 U	<420 U	<360 U	<390 U	3000 J	<350 U	<380 U	940
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+05	2.0E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		7200 J	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		25000 J	26000	<410 U	9200 J	15000	3900	960	<420 U	<360 U	160 J	<10000 U	<350 U	520	390
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		810 J	2100 J	<410 U	370 J	940 J	610	53 J	<420 U	<360 U	<390 U	1800 J	<350 U	<380 U	1300
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 UJ	<420 U	<360 UJ	<390 U	<10000 U	<350 U	<380 U	<350 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		**13000** J	**6200**	<410 U	**2800** J	**6400**	**840**	190 J	<420 U	<360 U	41 J	<10000 U	<350 U	230 J	<350 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<2300 U	**1100** J	<410 U	**330** J	**1100** J	**510**	<390 U	**430**	60 J	**250** J	**130000**	75 J	**1100**	**2200**
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<12000 U	<19000 U	<2100 U	<8400 U	<7700 U	<1800 U	<2000 U	<2200 U	<1800 U	<2000 U	<53000 U	<1800 U	<2000 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		11000 J	19000	<410 U	5500 J	8600	2900	620	<420 U	<360 U	110 J	1700 J	<350 U	270 J	120 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<2300 U	<3800 U	<410 U	<1600 U	<1500 U	<350 U	<390 U	<420 U	<360 U	<390 U	<10000 U	<350 U	<380 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		19000 J	19000	<410 U	7600 J	14000	3300	760	<420 U	<360 U	140 J	<10000 U	<350 U	500	300 J

Table 4.10-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB13		AOC13SB14		AOC13SB15		AOC13SB16		AOC13SB17		AOC13SB18		AOC13SB19		AOC13SB2		AOC13SB2		AOC13SB2		AOC13SB20		AOC13SB21		AOC13SB22		AOC13SB23	
					Sample Top (ft below ground surface):	17		12		8		4		4		6		8		0		4		16		10		6		8		6	
					Sample Bottom (ft below ground surface):	19		13		9.2		5		4.9		7.4		9.6		0.6		4.6		18		11.4		7.8		8.9		6.8	
					Sample Date:	01/19/2006		01/05/2006		01/05/2006		01/05/2006		01/06/2006		01/06/2006		01/06/2006		01/12/2006		01/12/2006		01/12/2006		01/06/2006		01/06/2006		01/10/2006		01/10/2006	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<350	U	19000		<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	30000	J	<430	U	<350	U	<350	U	<350	U	<350	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
1-Methylnaphthalene																																	
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<1800	U	<29000	UJ	<1800	UJ	<2000	U	<2100	UJ	<1800	UJ	<2000	UJ	<10000	U	<410000	U	<2200	U	<1800	UJ	<1800	UJ	<1800	U	<1800	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		<350	U	110000		<360	U	<380	U	<400	U	<350	U	75	J	460	J	130000		<430	U	<350	U	<350	U	53	J	<350	U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																													
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	U	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
2-Nitrophenol	NE	NE	NE	5.1E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																													
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	U	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	UJ	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
4-Bromophenyl-phenylether	NE	NE	NE	NE																													
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	UJ	<350	UJ
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE																													
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	U	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
4-Nitrophenol	NE	NE	NE	5.1E+03		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	U	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<350	U	79000		<360	U	<380	U	<400	U	<350	U	78	J	330	J	13000	J	<430	U	<350	U	<350	U	36	J	<350	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		<350	U	13000		<360	U	120	J	<400	U	40	J	480		3100		73000	J	<430	U	<350	U	<350	U	510		<350	U
Acetophenone	NE	NE	NE	3.0E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		<350	U	62000		<360	U	88	J	<400	U	60	J	610		3000		160000		<430	U	<350	U	<350	U	610		<350	U
Atrazine	7.8E+03	2.2E+03	NE	NE		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<1800	U	<29000	UJ	<1800	UJ	<2000	UJ	<2100	UJ	<1800	UJ	<2000	UJ	<10000	U	<410000	U	<2200	U	<1800	UJ	<1800	UJ	<1800	UJ	<1800	UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		<350	U	36000		<360	U	230	J	<400	U	120	J	1900		7200		120000		<430	U	<350	U	<350	U	2000		63	J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		<350	U	26000		<360	U	270	J	<400	U	100	J	1900		7500		91000		<430	U	<350	U	<350	U	2000		57	J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		<350	U	16000		<360	U	230	J	<400	U	84	J	1600		6300		64000	J	<430	U	<350	U	<350	U	1800		54	J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		<350	U	10000		<360	U	300	J	<400	U	73	J	1300		5000		48000	J	<430	U	<350	U	<350	U	1500		43	J
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		<350	U	15000		<360	U	200	J	<400	U	86	J	1600		6600		91000		<430	U	<350	U	<350	U	1800		53	J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																													
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	170	J	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<350	U	4900	J	<360	U	<380	U	<400	U	<350	U	130	J	1900	J	64000	J	<430	U	<350	U	<350	U	170	J	<350	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		<350	U	34000		<360	U	240	J	<400	U	120	J	1800		7200		100000		<430	U	<350	U	<350	U	2000		68	J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		<350	U	3500	J	<360	U	69	J	<400	U	<350	U	360	J	1400	J	16000	J	<430	U	<350	U	<350	U	440		<350	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<350	U	31000		<360	U	<380	U	<400	U	<350	U	140	J	990	J	120000		<430	U	<350	U	<350	U	180	J	<350	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		<350	U	87000		<360	U	450	J	<400	U	340	J	4100		17000		320000		<430	U	<350	U	<350	U	3900		160	J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<350	U	100000		<360	U	<380	U	<400	U	51	J	340	J	2100		190000		<430	U	<350	U	<350	U	320	J	<350	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		<350	U	8400		<360	U	220	J	<400	U	62	J	1200		4500		45000	J	<430	U	<350	U	<350	U	1300		36	J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<350	U	63000		<360	U	<380	U	<400	U	44	J	1400		2600		720000		450		<350	U	<350	U	220	J	320	J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<350	U	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		77	J	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	<79000	U	<430	U	<350	U	<350	U	<350	U	<350	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		150	J	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	11000	J	<430	U	<350	U	<350	U	<350	U	<350	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<1800	U	<29000	U	<1800	U	<2000	U	<2100	U	<1800	U	<2000	U	<10000	U	<410000	U	<2200	U	<1800	U	<1800	U	<1800	U	<1800	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		<350	U	270000		<360	U	210	J	<400	U	310	J	1900		13000		490000		<430	U	<350	U	<350	U	2500		150	J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		140	J	<5600	U	<360	U	<380	U	<400	U	<350	U	<390	U	<2000	U	19000	J	<430	U	<350	U	<350	U	<350	U	<350	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		<350	U	110000		<360	U	370	J	<400	U	290	J	3100		13000		250000		<430	U	<350	U	<350	U	3200		140	J

Table 4.10-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC13SB24 / Sample Top (ft below ground surface): 8 / Sample Bottom (ft below ground surface): 9.2 / Sample Date: 01/09/2006	AOC13SB25 / 4 / 5.8 / 01/09/2006	AOC13SB26 / 8 / 9.2 / 01/09/2006	AOC13SB27 / 4 / 5.2 / 01/09/2006	AOC13SB28 / 8 / 9.6 / 01/09/2006	AOC13SB29 / 14 / 15.2 / 01/09/2006	AOC13SB3 / 0 / 1 / 01/12/2006	AOC13SB3 / 4 / 5.2 / 01/12/2006	AOC13SB3 / 14 / 16 / 01/12/2006	AOC13SB30 / 4 / 5.9 / 01/09/2006	AOC13SB31 / 8 / 9 / 01/11/2006	AOC13SB32 / 13 / 14 / 01/09/2006	AOG13SB33 / 4 / 5.5 / 01/10/2006	AOC13SB34 / 4 / 5.2 / 01/10/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<360 U	<400 U	<360 U	60 J	<380 U	810 J	<390 U	<410 U	<420 U	820 J	<350 U	<350 U	45 J	<350 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
1-Methylnaphthalene																		
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1800 UJ	<2100 UJ	<1900 UJ	<1800 UJ	<1900 UJ	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 UJ	<1900 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	100 J	<400 U	<360 U	250 J	<380 U	1900 J	<390 U	<410 U	<420 U	1800 J	<350 U	<350 U	62 J	<350 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1800 U	<2100 U	<1900 U	<1800 U	<1900 U	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 U	<1900 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1800 U	<2100 U	<1900 U	<1800 U	<1900 U	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 U	<1900 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1800 UJ	<2100 UJ	<1900 UJ	<1800 UJ	<1900 UJ	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 UJ	<1900 U	<1800 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 UJ	<350 U	<370 UJ	<350 UJ
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1800 U	<2100 U	<1900 U	<1800 U	<1900 U	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 U	<1900 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1800 U	<2100 U	<1900 U	<1800 U	<1900 U	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1600 U	<1800 U	<1900 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	41 J	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	44 J	<350 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	390	110 J	<360 U	500	150 J	3900 J	57 J	<410 U	<420 U	9600	<350 U	100 J	380	<350 U
Acetophenone	NE	NE	NE	3.0E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	570	110 J	<360 U	43 J	75 J	6200	44 J	<410 U	<420 U	7600	<350 U	150 J	1200	<350 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1800 UJ	<2100 UJ	<1900 UJ	<1800 UJ	<1900 UJ	<27000 UJ	<2000 U	<2100 U	<2100 U	<30000 UJ	<1800 UJ	<1800 UJ	<1900 UJ	<1800 UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**1800**	**710**	<360 U	66 J	390	**13000**	160 J	<410 U	<420 U	**16000**	<350 U	250 J	**2700**	<350 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**1600**	**700**	<360 U	**90** J	**500**	**11000**	**180** J	<410 U	<420 U	**16000**	<350 U	**210** J	**2100**	<350 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**1400**	**740**	<360 U	88 J	470	**8400**	160 J	<410 U	<420 U	**13000**	<350 U	180 J	**1800**	<350 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	1000	540	<360 U	130 J	360 J	5900	150 J	<410 U	<420 U	11000	<350 U	150 J	1100	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**1600**	**720**	<360 U	74 J	**450**	**8800**	180 J	<410 U	<420 U	**15000**	<350 U	220 J	**1900**	<350 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	41 J	<370 U	<350 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	170 J	62 J	<360 U	<350 U	43 J	**1500** J	<390 U	<410 U	<420 U	**2600** J	<350 U	48 J	250 J	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	1700	900	<360 U	74 J	440	**12000**	180 J	<410 U	<420 U	**16000**	<350 U	250 J	2400	<350 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**330** J	**160** J	<360 U	<350 U	**86** J	**1700** J	42 J	<410 U	<420 U	**2700** J	<350 U	<350 U	**400**	<350 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	180 J	49 J	<360 U	63 J	<380 U	4900 J	<390 U	<410 U	<420 U	4000 J	<350 U	60 J	320 J	<350 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	3600	1500	<360 U	130 J	250 J	33000	380 J	<410 U	<420 U	41000	<350 U	650	5500	<350 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	380	44 J	<360 U	50 J	<380 U	8200	<390 U	<410 U	<420 U	5600 J	<350 U	98 J	600	<350 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	**1000**	510	<360 U	74 J	330 J	**5500**	130 J	<410 U	<420 U	**10000**	<350 U	140 J	**1100**	<350 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**340** J	**110** J	<360 U	**2500**	**84** J	**3400** J	<390 U	94 J	<420 U	**14000**	**420** J	**120** J	71 J	<350 UJ
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<360 U	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	51 J	<400 U	<360 U	<350 U	180 J	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1800 U	<2100 U	<1900 U	<1800 U	<1900 U	<27000 U	<2000 U	<2100 U	<2100 U	<30000 U	<1800 U	<1800 U	<1900 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	2200	610	<360 U	130 J	44 J	37000	210 J	<410 U	<420 U	26000	<350 U	550	4400	<350 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	110 J	<400 U	<360 U	<350 U	<380 U	<5300 U	<390 U	<410 U	<420 U	<5800 U	<350 U	<350 U	<370 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	2600	1200	<360 U	92 J	230 J	27000	320 J	<410 U	<420 U	32000	<350 U	500	4200	<350 U

Table 4.10-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	AOC13SB35 4 4.7 01/10/2006	AOC13SB36 8 9.8 01/10/2006	AOC13SB37 10 11.3 01/11/2006	AOC13SB37 22 23.4 01/11/2006	AOC13SB38 6 7.6 01/18/2006	AOC13SB39 4 6 01/11/2006	AOC13SB4 0 1.5 01/12/2006	AOC13SB4 4 4.8 01/12/2006	AOC13SB4 14 16 01/12/2006	AOC13SB40 12 13.4 01/16/2006	AOC13SB41 6 7.2 01/11/2006	AOC13SB42 8 9.4 01/11/2006	AOC13SB43 6 7.3 01/16/2006	AOC13SB44 8 9.4 01/18/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<350 U	<340 U	16000 J	2000 J	<480 U	<1900 U	<390 U	<360 U	4900 J	2200 J	<350 U	<360 U	<350 U	<340 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
1-Methylnaphthalene																		
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	R	<2000 U	<1900 U	<110000 U	R	<1800 U	<1800 U	R	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<350 U	<340 U	**130000**	**14000**	<480 U	690 J	<390 U	40 J	**27000**	**9200**	<350 U	<360 U	130 J	<340 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	<9900 U	<2000 U	<1900 U	<110000 U	<13000 U	<1800 U	<1800 U	<1800 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	<9900 U	<2000 U	<1900 U	<110000 U	<13000 U	<1800 U	<1800 U	<1800 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	R	<2000 U	<1900 U	<110000 U	R	<1800 U	<1800 U	R	<1800 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<350 UJ	<340 UJ	<77000 UJ	<3800 UJ	<480 U	<1900 UJ	<390 U	<360 U	<21000 U	<2600 U	<350 UJ	<360 UJ	<350 U	<340 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	<9900 U	<2000 U	<1900 U	<110000 U	<13000 U	<1800 U	<1800 U	<1800 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	<9900 U	<2000 U	<1900 U	<110000 U	R	<1800 U	<1800 U	R	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	670 J	<390 U	44 J	13000 J	980 J	<350 U	<360 U	61 J	<340 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<350 U	<340 U	15000 J	3700 J	110 J	4300	<390 U	270 J	<21000 U	21000	<350 U	390	150 J	<340 U
Acetophenone	NE	NE	NE	3.0E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	50 J	<350 U	<340 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<350 U	<340 U	<77000 U	800 J	<480 U	4600 J	<390 U	320 J	3800 J	<2600 U	<350 U	<360 U	410	<340 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<350 U	<340 U	<77000 U	<3800 U	<480 UJ	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 UJ
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1800 UJ	<1800 UJ	<400000 UJ	<20000 UJ	<2500 UJ	<9900 UJ	<2000 U	<1900 U	<110000 U	<13000 UJ	<1800 UJ	<1800 UJ	<1800 UJ	<1800 UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	68 J	<340 U	<77000 U	**990** J	71 J	**14000** J	<390 U	**1000**	<21000 U	**910** J	<350 U	<360 U	470	<340 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**65** J	<340 U	<77000 U	**990** J	**78** J	**14000** J	<390 U	**990**	<21000 U	**1200** J	<350 U	<360 U	**420**	<340 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	57 J	<340 U	<77000 U	**1000** J	81 J	**13000** J	<390 U	**1000**	<21000 U	**1200** J	<350 U	<360 U	400	<340 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	45 J	<340 U	<77000 U	700 J	94 J	9700 J	<390 U	840	<21000 U	1000 J	<350 U	<360 U	320 J	<340 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	54 J	<340 U	<77000 U	**890** J	78 J	**13000** J	<390 U	**1200**	<21000 U	**1300** J	<350 U	<360 U	340 J	<340 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
2,2'-Oxybis(1-Chloropropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<350 U	<340 U	<77000 U	<3800 U	67 J	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<350 U	<340 U	<77000 U	<3800 U	<480 U	**1600** J	<390 U	69 J	**34000**	300 J	<350 U	<360 U	140 J	<340 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	71 J	<340 U	<77000 U	990 J	89 J	**14000** J	<390 U	990	<21000 U	890 J	<350 U	<360 U	470	<340 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	**3200**	<390 U	**240** J	<21000 U	**350** J	<350 U	<360 U	**92** J	<340 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<350 U	<340 U	20000 J	2600 J	<480 U	1400 J	<390 U	83 J	13000 J	5300	<350 U	<360 U	150 J	<340 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	320 J	<340 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	68 J	53 J	<77000 U	2500 J	130 J	27000	<390 U	1400	3300 J	4000	<350 U	<360 U	1300	<340 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<350 U	<340 U	13000 J	2000 J	<480 U	2000 J	<390 U	150 J	16000 J	6800	<350 U	<360 U	220 J	<340 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 UJ	<340 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<350 U	<340 U	<77000 U	<3800 U	<480 UJ	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	<350 U	<340 UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	40 J	<340 U	<77000 U	**690** J	75 J	**8900** J	<390 U	**780**	<21000 U	**980** J	<350 U	<360 U	270 J	<340 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<350 UJ	**970** J	**3000000** J	**790000** J	**160** J	**3200** J	<390 U	**400**	**250000**	**6500**	**320** J	**180** J	**270** J	<340 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	<2600 U	<350 U	<360 U	<350 U	<340 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<350 U	<340 U	<77000 U	<3800 U	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1800 U	<1800 U	<400000 U	<20000 U	<2500 U	<9900 UJ	<2000 U	<1900 U	<110000 U	R	<1800 U	<1800 U	R	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	37 J	65 J	16000 J	3800 J	100 J	15000 J	<390 U	730	18000 J	9300	<350 U	<360 U	1300	<340 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<350 U	<340 U	<77000 U	410 J	<480 U	<1900 U	<390 U	<360 U	<21000 U	R	<350 U	<360 U	R	<340 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	67 J	43 J	<77000 U	2000 J	100 J	22000	<390 U	1300	2200 J	2800	<350 U	<360 U	1000	<340 U

Table 4.10-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC13SB45		AOC13SB46		AOC13SB47		AOC13SB48		AOC13SB49		AOC13SB5		AOC13SB5		AOC13SB5		AOC13SB50		AOC13SB51		AOC13SB52		AOC13SB52		AOC13SB52		AOC13SB53	
Sample Top (ft below ground surface):					4		12		18		5		2		0		14		20		8		9		0		2		8		0	
Sample Bottom (ft below ground surface):					5.2		13.9		19.4		7		4		0.9		15.5		21.7		9.6		10		2		4		9.8		1.7	
Sample Date:					01/11/2006		01/18/2006		01/17/2006		01/19/2006		01/19/2006		01/10/2006		01/10/2006		01/10/2006		01/16/2006		01/19/2006		01/11/2006		01/11/2006		01/11/2006		01/12/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																												
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<350	U	<1400	U	230	J	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	310	J	<400	U	<3800	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
1-Methylnaphthalene																																
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<350	U	<1400	UJ	230	J	<340	U	370	J	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	570	J	80	J	700	J
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																												
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																												
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1800	U	<7300	U	<5600	UJ	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
4-Bromophenyl-phenylether	NE	NE	NE	NE																												
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<350	UJ	<1400	U	<1100	U	<340	U	<1100	U	<410	UJ	<430	UJ	<390	UJ	<350	U	<380	U	<370	UJ	<2500	UJ	<400	UJ	<3800	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE																												
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<350	U	<1400	U	200	J	<340	U	130	J	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	960	J
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<350	U	<1400	U	6400		<340	U	730	J	<410	U	<430	U	<390	U	<350	U	40	J	40	J	5300		<400	U	5100	
Acetophenone	NE	NE	NE	3.0E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<350	U	<1400	U	890	J	<340	U	1000	J	<410	U	<430	U	<390	U	<350	U	<380	U	63	J	8300		<400	U	7400	
Atrazine	7.8E+03	2.2E+03	NE	NE	<350	U	<1400	UJ	<1100	UJ	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1800	UJ	<7300	UJ	<5600	UJ	<1800	U	<5700	U	<2100	UJ	<2200	UJ	<2000	UJ	<1800	UJ	<1900	U	<1900	UJ	<13000	UJ	<2100	UJ	<19000	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<350	U	<1400	U	330	J	<340	U	**2000**		<410	U	<430	U	<390	U	<350	U	<380	U	220	J	**15000**		<400	U	**22000**	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<350	U	**680**	J	**260**	J	<340	U	**2100**		<410	U	<430	U	<390	U	<350	U	<380	U	**220**	J	**14000**		<400	U	**19000**	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<350	U	**850**	J	250	J	<340	U	**1800**		<410	U	<430	U	<390	U	<350	U	<380	U	200	J	**13000**		<400	U	**18000**	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<350	U	680	J	150	J	<340	U	1800		<410	U	<430	U	<390	U	<350	U	<380	U	120	J	9600		<400	U	14000	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<350	U	**640**	J	230	J	<340	U	**1900**		<410	U	<430	U	<390	U	<350	U	<380	U	190	J	**12000**		<400	U	**18000**	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																												
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<350	U	<1400	U	260	J	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<350	U	<1400	U	110	J	<340	U	**450**	J	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	**2800**		<400	U	**1800**	J
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<350	U	<1400	U	330	J	<340	U	2000		<410	U	<430	U	<390	U	<350	U	<380	U	230	J	**14000**		<400	U	**22000**	
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<350	U	**220**	J	<1100	U	<340	U	**410**	J	<410	U	<430	U	<390	U	<350	U	<380	U	45	J	**2900**		<400	U	**4100**	
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<350	U	<1400	U	2200		<340	U	580	J	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	2400	J	<400	U	1900	J
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	UJ	<370	U	<2500	U	<400	U	<3800	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<350	U	<1400	U	2100		<340	U	4800		<410	U	<430	U	<390	U	<350	U	<380	U	510		33000		<400	U	48000	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<350	U	<1400	U	660	J	<340	U	680	J	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	4500		<400	U	3100	J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<350	U	<1400	UJ	<1100	UJ	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	UJ	<380	U	<370	U	<2500	U	<400	U	<3800	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<350	U	**680**	J	150	J	<340	U	**1400**		<410	U	<430	U	<390	U	<350	U	<380	U	120	J	**8900**		<400	U	**13000**	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**180**	J	**1700**	J	**1500**		<340	U	**2300**		<410	UJ	**470**	J	**160**	J	<350	U	<380	U	**110**	J	**2300**	J	**640**	J	**1700**	J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	<400	U	<3800	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<350	U	<1400	U	<1100	U	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	<2500	U	160	J	<3800	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1800	U	<7300	U	<5600	U	<1800	U	<5700	U	<2100	U	<2200	U	<2000	U	<1800	U	<1900	U	<1900	U	<13000	U	<2100	U	<19000	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<350	U	<1400	U	2800		<340	U	4600		<410	U	<430	U	<390	U	<350	U	<380	U	270	J	22000		<400	U	27000	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<350	U	<1400	U	440	J	<340	U	<1100	U	<410	U	<430	U	<390	U	<350	U	<380	U	<370	U	350	J	180	J	<3800	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<350	U	<1400	U	1400		<340	U	4100		<410	U	<430	U	<390	U	<350	U	<380	U	400		25000		<400	U	35000	

Table 4.10-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB53	AOC13SB53	AOC13SB54	AOC13SB54	AOC13SB54	AOC13SB55	AOC13SB55	AOC13SB55	AOC13SB56	AOC13SB56	AOC13SB56	AOC13SB6	AOC13SB6	AOC13SB6
					Sample Top (ft below ground surface):	4	16	0	8	18	0	5	14	0	16	24	0	4	20
					Sample Bottom (ft below ground surface):	5.3	17.2	1.6	10	19.1	2	6	16	2	18	26	1.1	5.3	21:6
					Sample Date:	01/12/2006	01/12/2006	01/17/2006	01/17/2006	01/17/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<2000 U	300 J	<370 U	<400 U	730 J	<390 U	110 J	<350 U	<1100 U	4000 J	<360 U	<400 U	<360 U	540 J
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
1-Methylnaphthalene																			
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	**100** J	<1100 U	<7400 U	**89** J	<400 U	<360 U	<3800 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		<2000 U	670 J	<370 U	<400 U	1700 J	<390 U	320 J	<350 U	<1100 U	**57000**	<360 U	120 J	<360 U	2500 J
2-Methylphenol	3.1E+04	3.1E+03	NE	NE															
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE															
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
4-Bromophenyl-phenylether	NE	NE	NE	NE															
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE															
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<2000 U	630 J	<370 U	<400 U	<2500 U	<390 U	97 J	<350 U	<1100 U	19000	<360 U	<400 U	<360 U	<3800 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		480 J	4100	<370 U	47 J	370 J	<390 U	520	<350 U	1300	5600 J	<360 U	230 J	<360 U	810 J
Acetophenone	NE	NE	NE	3.0E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		1200 J	6200	<370 U	<400 U	<2500 U	<390 UJ	820	<350 U	1700	2000 J	<360 U	79 J	<360 U	<3800 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<2000 UJ	<380 UJ	<350 UJ	<1100 UJ	<7400 UJ	<360 UJ	<400 UJ	<360 UJ	<3800 UJ
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<10000 U	<9000 U	<1900 UJ	<2100 UJ	<13000 UJ	<390 U	<1900 UJ	<1800 UJ	<5700 UJ	<38000 UJ	<1800 UJ	<2100 UJ	<1900 UJ	<20000 UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		**8700**	**11000**	150 J	90 J	<2500 U	85 J	**2100**	<350 U	**5300**	<7400 U	<360 U	430	<360 U	<3800 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**6700**	**9800**	**170** J	**93** J	<2500 U	**94** J	**2200**	<350 U	**5000**	<7400 U	<360 U	**500**	42 J	<3800 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		**5600**	**7100**	150 J	87 J	<2500 U	77 J	**1800**	<350 U	**4500**	<7400 U	<360 U	510	45 J	<3800 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		4400	5500	120 J	69 J	<2500 U	60 J	1100	<350 U	2300	<7400 U	<360 U	450	46 J	<3800 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		**5900**	**8000**	160 J	69 J	<2500 U	90 J	**1800**	<350 U	**4600**	<7400 U	<360 U	**560**	47 J	<3800 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE															
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	230 J	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<2000 U	**780** J	<370 U	<400 U	**2100** J	<390 U	**310** J	<350 U	**480** J	<7400 U	<360 U	<400 U	<360 U	<3800 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		**8100**	**9700**	160 J	97 J	<2500 U	93 J	2100	<350 U	**5100**	<7400 U	<360 U	480	39 J	<3800 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**1500** J	**1700** J	39 J	<400 U	<2500 U	<390 U	**380** J	<350 U	**750** J	<7400 U	<360 U	**150** J	<360 U	<3800 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<2000 U	1700 J	<370 U	<400 U	1300 J	<390 U	500	<350 U	280 J	3900 J	<360 U	55 J	<360 U	590 J
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	84 J	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		15000	23000	330 J	210 J	410 J	150 J	4700	<350 U	12000	1100 J	<360 U	660	<360 U	<3800 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<2000 U	3900	<370 U	<400 U	970 J	<390 U	<380 U	<350 U	660 J	2400 J	<360 U	<400 U	<360 U	<3800 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<2000 U	<1700 U	<370 UJ	<400 UJ	<2500 UJ	<390 UJ	<380 UJ	<350 UJ	<1100 UJ	<7400 UJ	<360 UJ	<400 UJ	<360 UJ	<3800 UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		**4300**	**4900**	100 J	63 J	<2500 U	53 J	**1100**	<350 U	**2300**	<7400 U	<360 U	410	38 J	<3800 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<2000 U	**980** J	<370 U	**190** J	**15000**	**540**	**950**	77 J	**680** J	**1100000**	**250** J	**450**	<360 U	**28000**
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	<350 U	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	1300	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	1800	<1100 U	<7400 U	<360 U	<400 U	<360 U	<3800 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<10000 U	<9000 U	<1900 U	<2100 U	<13000 U	<2000 U	<1900 U	<1800 U	<5700 U	<38000 U	<1800 U	<2100 U	<1900 U	<20000 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		5100	18000	160 J	150 J	850 J	64 J	4000	<350 U	6300	9600	<360 U	380 J	<360 U	910 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<2000 U	<1700 U	<370 U	<400 U	<2500 U	<390 U	<380 U	540	<1100 U	<7400 U	<360 U	<400 U	<360 U	1600 J
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		13000	21000	280 J	170 J	320 J	130 J	3400	<350 U	8800	<7400 U	<360 U	500	<360 U	<3800 U

Table 4.10-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC13SB6		AOC13SB7		AOC13SB7		AOC13SB7		AOC13SB8		AOC13SB8		AOC13SB8		AOC13SB9		AOC13SB9		AOC13SB9		MW-20M		MW-20S		MW-20S		MW-20S	
					Sample Top (ft below ground surface):	22		0		4		14		0		4		14		0		4		14		24		0		8		14	
					Sample Bottom (ft below ground surface):	23.2		1		5.1		15.1		1.4		5.6		15.1		1.4		5.4		16		26		1.6		9.2		15.5	
					Sample Date:	01/18/2006		01/05/2006		01/05/2006		01/05/2006		01/05/2006		01/05/2006		01/05/2006		01/12/2006		01/12/2006		01/12/2006		03/01/2006		11/28/2005		11/28/2005		11/28/2005	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	**1200000**	J	<390	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
1-Methylnaphthalene																																	
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<380	U	<370	U	<400	U	<1800	U	<3900	U	**52**	J	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	**440000**	J	<390	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<1900	UJ	<1900	UJ	<2100	UJ	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		40	J	150	J	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	41	J	**6000**	J	**5500000**		83	J
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																													
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
2-Nitrophenol	NE	NE	NE	5.1E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																													
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
4-Bromophenyl-phenylether	NE	NE	NE	NE																													
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE																													
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
4-Nitrophenol	NE	NE	NE	5.1E+03		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<380	U	110	J	<400	U	3000		<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	9800	J	**450000**	J	<390	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		<380	U	<370	U	<400	U	<1800	U	6000		<400	U	<350	U	<380	U	<420	U	230	J	<360	U	22000	J	**5600000**		81	J
Acetophenone	NE	NE	NE	3.0E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		<380	U	220	J	<400	U	860	J	6300		<400	U	<350	U	56	J	<420	U	<340	U	59	J	42000	J	**4700000**		190	J
Atrazine	7.8E+03	2.2E+03	NE	NE		<380	UJ	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<1900	UJ	<1900	UJ	<2100	UJ	<9300	UJ	<20000	UJ	<2100	UJ	<1800	UJ	<1900	U	<2100	U	<1700	U		R	<160000	U	<16000000	U	<2000	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		<380	U	**1000**		<400	U	**810**	J	**26000**		<400	U	39	J	180	J	<420	U	<340	U	60	J	**82000**	J	**3600000**		190	J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		<380	U	**1100**		<400	U	**600**	J	**22000**		<400	U	<350	U	**170**	J	<420	U	<340	U	43	J	**73000**	J	**2900000**	J	**150**	J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		<380	U	**1000**		<400	U	410	J	**20000**		<400	U	<350	U	160	J	<420	U	<340	U	40	J	**61000**	J	**2300000**	J	120	J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		<380	U	960		<400	U	340	J	18000		<400	U	<350	U	110	J	<420	U	<340	U	<360	U	47000	J	**1400000**	J	80	J
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		<380	U	**1000**		<400	U	**410**	J	**22000**		<400	U	<350	U	170	J	<420	U	<340	U	42	J	**69000**	J	**2400000**	J	140	J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																													
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		43	J	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	84	J
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<380	U	110	J	<400	U	<1800	U	**930**	J	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	**14000**	J	**2400000**	J	74	J
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		<380	U	1100		<400	U	750	J	**25000**		<400	U	37	J	210	J	<420	U	<340	U	59	J	**83000**	J	**3300000**		180	J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		<380	U	**200**	J	<400	U	<1800	U	**4500**		<400	U	<350	U	40	J	<420	U	<340	U	<360	U	**13000**	J	**510000**	J	<390	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<380	U	88	J	<400	U	330	J	730	J	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	15000	J	**4000000**		97	J
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		<380	U	2600		61	J	2200		57000		<400	U	95	J	420		<420	U	<340	U	150	J	**160000**	J	**9800000**		470	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<380	U	150	J	<400	U	3300		800	J	<400	U	<350	U	<380	U	<420	U	<340	U	51	J	31000	J	**6500000**		160	J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<380	UJ	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		<380	U	**750**		<400	U	240	J	**16000**		<400	U	<350	U	110	J	<420	U	<340	U	<360	U	**42000**	J	**1400000**	J	81	J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		**400**		**120**	J	<400	U	<1800	U	**590**	J	**1500**		41	J	<380	U	<420	U	<340	U	**380**		**17000**	J	**31000000**		**420**	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	<3100000	U	<390	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<380	U	<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<350	U	<18000	U	<3100000	U	<390	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		41	J	<370	U	<400	U	<1800	U	<3900	U	43	J	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	**610000**	J	<390	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		110	J	<370	U	<400	U	<1800	U	<3900	U	150	J	<350	U	<380	U	<420	U	<340	U	<350	U	<18000	U	**1600000**	J	<390	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<1900	U	<1900	U	<2100	U	<9300	U	<20000	U	<2100	U	<1800	U	<1900	U	<2100	U	<1700	U	<1900	U	<93000	U	<16000000	U	<2000	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		47	J	1600		93	J	470	J	19000		<400	U	92	J	210	J	<420	U	<340	U	200	J	**150000**	J	**15000000**		630	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		470		<370	U	<400	U	<1800	U	<3900	U	<400	U	<350	U	<380	U	<420	U	<340	U	<360	U	<18000	U	**2200000**	J	<390	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		<380	U	2400		56	J	2500		45000		<400	U	72	J	340	J	<420	U	<340	U	110	J	**140000**	J	**7500000**		370	J

Table 4.10-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: MW-20S Sample Top (ft below ground surface): 18 Sample Bottom (ft below ground surface): 19.1 Sample Date: 11/28/2005		Sample Location: MW-21M Sample Top (ft below ground surface): 22 Sample Bottom (ft below ground surface): 24 Sample Date: 03/07/2006		Sample Location: MW-21S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 11/29/2005		Sample Location: MW-21S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 11/29/2005		Sample Location: MW-21S Sample Top (ft below ground surface): 22 Sample Bottom (ft below ground surface): 24 Sample Date: 11/29/2005		Sample Location: MW-8M Sample Top (ft below ground surface): 24 Sample Bottom (ft below ground surface): 26 Sample Date: 03/06/2006		Sample Location: MW-8S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 11/29/2005		Sample Location: MW-8S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 11/29/2005		Sample Location: MW-8S Sample Top (ft below ground surface): 20 Sample Bottom (ft below ground surface): 22 Sample Date: 11/29/2005		Sample Location: MW-9S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 11/29/2005		Sample Location: MW-9S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 11/29/2005		Sample Location: MW-9S Sample Top (ft below ground surface): 32 Sample Bottom (ft below ground surface): 34 Sample Date: 11/29/2005		Sample Location: AOC13SB57 Sample Top (ft below ground surface): 8 Sample Bottom (ft below ground surface): 10 Sample Date: 5/30/2008		Sample Location: AOC13SB57 Sample Top (ft below ground surface): 10 Sample Bottom (ft below ground surface): 12 Sample Date: 5/30/2008	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<400	U	<370	U	<390	U	<380	U	<370	U	**78000**	J	<390	U	7600		15000	J	<370	U	<370	U	<360	U	90.2	U	<115	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U				
1-Methylnaphthalene																													44.6		<6.78	U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<400	U	**380**		<390	U		R	**400**		<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<2000	U	<1900	U	<2000	U		R	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<400	U	97	J	<390	U	<380	U	130	J	**460000**		76	J	**23000**		**74000**		<370	U	60	J	<360	U	70.7		<115	U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																									90.2	U	<115	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<2000	U	<1900	U	<2000	U	<2000	U	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<230	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																									90.2	U	<115	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<2000	U	<1900	U	<2000	U	<2000	U	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<2000	U	<1900	U	<2000	U		R	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
4-Bromophenyl-phenylether	NE	NE	NE	NE																									90.2	U	<115	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<400	U	<370	U	<390	U		R	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE																									90.2	U	<115	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<2000	U	<1900	U	<2000	U	<2000	U	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<2000	U	<1900	U	<2000	U		R	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	90.2	U	<460	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<400	U	53	J	<390	U	<380	U	<370	U	**210000**		180	J	15000		**44000**		<370	U	<370	U	<360	U	17.1	J	<115	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<400	U	<370	U	<390	U	<380	U	<370	U	86000	J	130	J	1800	J	7300	J	<370	U	<370	U	<360	U	130		<115	U
Acetophenone	NE	NE	NE	3.0E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	51	J	58	J	<390	U	<380	U	<370	U	200000		390	J	6400		36000		<370	U	39	J	<360	U	108		10.3	
Atrazine	7.8E+03	2.2E+03	NE	NE	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	90.2	U	<115	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<2000	U		R	<2000	U	<2000	U	<1900	U		R	<390	U	<3900	U	<35000	U	<1900	U	<1900	U	<1900	U	90.2	U	<115	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<400	U	43	J	66	J	<380	U	<370	U	**110000**	J	**880**		**3700**	J	**20000**	J	130	J	96	J	<360	U	618		35.1	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<400	U	<370	U	**68**	J	<380	U	<370	U	**72000**	J	**780**		**3100**	J	**14000**	J	**150**	J	**110**	J	<360	U	**659**		30.6	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<400	U	<370	U	67	J	<380	U	<370	U	**56000**	J	**690**		**2300**	J	**11000**	J	120	J	100	J	<360	U	576		15.4	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<400	U	<370	U	49	J	<380	U	<370	U	31000	J	510		1700	J	6200	J	100	J	96	J	<360	U	427		19.2	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<400	U	<370	U	66	J	<380	U	<370	U	**55000**	J	**780**		**2400**	J	**12000**	J	130	J	91	J	<360	U	**586**		26	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																									<90.2	U	<115	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	48	J	<370	U	<390	U	<380	U	<370	U	<140000	U	92	J	<3900	U	<35000	U	71	J	480		71	J	151	J	<115	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<2000	U	<20000	U	<180000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<400	U	<370	U	<390	U	<380	U	<370	U	**81000**	J	80	J	**1900**	J	**16000**	J	<370	U	<370	U	<360	U	<90.2	U	<115	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<400	U	48	J	76	J	<380	U	<370	U	**110000**	J	840		3400	J	**18000**	J	160	J	110	J	<360	U	625		<115	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	**140**	J	<3900	U	<35000	U	<370	U	<370	U	<360	U	**164**		34.3	
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<400	U	61	J	<390	U	<380	U	<370	U	**220000**		180	J	12000		46000		<370	U	<370	U	<360	U	<90.2	U	<115	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	67	J	140	J	120	J	<380	U	<370	U	**390000**		2100		13000		79000		290	J	160	J	<360	U	1030		69.9	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<400	U	72	J	<390	U	<380	U	<370	U	**290000**		140	J	13000		59000		<370	U	<370	U	<360	U	26.5	J	<115	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<400	U	<370	U	44	J	<380	U	<370	U	**30000**	J	500		**1400**	J	**5700**	J	91	J	81	J	<360	U	417		18.5	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**280**	J	**1000**		<390	U	<380	U	**2500**		**2300000**		71	J	**45000**		**420000**		56	J	83	J	**570**		242		29.8	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<400	U	<370	U	<390	U	<380	U	<370	U	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<400	U	480		<390	U		R	41	J	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U				
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<400	U	1100		<390	U		R	290	J	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U				
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<2000	U	<1900	U	<2000	U		R	<1900	U	<750000	U	<2000	U	<20000	U	<180000	U	<1900	U	<1900	U	<1900	U	<361	U	<460	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	110	J	220	J	71	J	<380	U	<370	U	**720000**		1500		27000		**150000**		160	J	180	J	37	J	429		41.8	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<400	U	290	J	<390	U		R	48	J	<140000	U	<390	U	<3900	U	<35000	U	<370	U	<370	U	<360	U	<90.2	U	<115	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	48	J	100	J	110	J	<380	U	<370	U	**320000**		1700		9600		49000		250	J	150	J	<360	U	844		58.4	

Table 4.10-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:				AOC13SB57	MW25S	MW25S	MW25S	MW27S	MW27M	MW28S	MW29S	MW29S	MW29S	MW31S	MW31S	MW31S
Sample Top (ft below ground surface):				14	0	14	15	0	20	0	0	6	14	0	2	6
Sample Bottom (ft below ground surface):				16	2	16	16	2	22	2	2	8	16	2	4	8
Sample Date:				5/30/2008	6/2/2008	6/2/2008	6/2/2008	5/30/2008	6/13/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)												
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04									U				
1-Methylnaphthalene					<5.06 U	<182 U	<99.8 U	<88.8 U	31.8	5.95 J	70.8	63.9 J	<5.73 U	<5.9 U	59.9	<5.68 U	<3.65 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	64.6	11.7	80.7	66.6	<5.73 U	<5.95 U	<474 U	<5.68 U	<122 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<171 U	<365 U	<200 U	<178 U	<184 U	<177 U	<184 U	<1080 U	<194 U	<200 U	<947 U	<187 U	<245 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
4-Bromophenyl-phenylether	NE	NE	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<342 U	<730 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<5.36 U	<92.1 U	151	<5.73 U	<5.9 U	<28.4 U	<5.68 U	<122 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<85.4 U	382	<99.8 U	<88.8 U	11.7	<88.4 U	211	373	<5.73 U	12 U	163	13.2	<122 U
Acetophenone	NE	NE	NE	3.0E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	46.6	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<85.4 U	560	<99.8 U	<88.8 U	<92 U	<88.4 U	98.3	690	<5.73 U	<5.9 U	115	13.6	<122 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	53.5	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<85.4 U	**1100**	<99.8 U	<88.8 U	274	<88.4 U	209	**2320**	<5.73 U	<5.9 U	**709**	49	<122 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<85.4 U	**842**	<99.8 U	<88.8 U	**285**	<88.4 U	**211**	**1640**	<5.73 U	<100 U	**640**	40.8	<122 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<85.4 U	**1130**	<99.8 U	<88.8 U	267	<88.4 U	220 J	**1260**	7.1 J	<100 U	590	37.9	<122 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<85.4 U	446	<99.8 U	<88.8 U	193	<88.4 U	183 J	897	<5.73 U	<5.9 U	451	30.7	<122 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<85.4 U	437	<99.8 U	<88.8 U	237	<88.4 U	204	**1650**	8.76 J	<5.9 U	575	34.4	<122 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	96.3 J	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<85.4 U	**376**	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<85.4 U	1190	<99.8 U	<88.8 U	267	<88.4 U	212	2040	6.75 J	<100 U	702	51.6	<122 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	64.5	7.99 J	28.1	**314**	<5.73 U	<5.9 U	155	<5.68 U	<122 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<85.4 U	290 J	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<85.4 U	3240	<99.8 U	<88.8 U	483	<88.4 U	242	1870	7.6 J	<5.9 U	1180	94.5	<122 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<85.4 U	343 J	<99.8 U	<88.8 U	24.9	<88.4 U	36.4	291	<5.73 U	<5.9 U	33.8 J	<5.68 U	<122 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<85.4 U	440	<99.8 U	<88.8 U	190	<88.4 U	163	**880**	21.1	<5.9 U	423	38.1	<122 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<85.4 U	<182 U	<99.8 U	<88.8 U	**1590** J	52.3	**190**	**140**	6.84 J	10.2 J	114	9.22 J	5.3 J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04						U							
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05						U							
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<730 U	<399 U	<399 U	<355 U	<368 U	<354 U	<368 U	<2170 U	<389 U	<400 U	<1890 U	<375 U	<490 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<85.4 U	3320	<99.8 U	<88.8 U	292	8.31 J	334	1090	6.38 J	<5.9 U	482	49.8	<122 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<85.4 U	<182 U	<99.8 U	<88.8 U	<92 U	<88.4 U	<92.1 U	<542 U	<97.2 U	<100 U	<474 U	<93.7 U	<122 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<85.4 U	2320	<99.8 U	<88.8 U	358	<88.4 U	244	1450	<5.73 U	<5.9 U	997	80	<122 U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.10-3

Soil Metals Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB1	AOC13SB1	AOC13SB1	AOC13SB10	AOC13SB10	AOC13SB10	AOC13SB11	AOC13SB11	AOC13SB11	AOC13SB12	AOC13SB12	AOC13SB12	AOC13SB13	AOC13SB13	AOC13SB13
					Sample Top (ft below ground surface):	0	4	18	0	4	18	0	12	18	0	19	24	0	16	17
					Sample Bottom (ft below ground surface):	2	5.4	19.5	1.9	5	20	1.5	14	19.8	2	20	26	1	17	19
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/12/2006	01/12/2006	01/12/2006	01/18/2006	01/18/2006	01/18/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006
Aluminum	1.0E+05	7.6E+04	NE	NE		17700	22700	10200	7490	21300	2740	6800	17100	11500	8370	2630	8490	6860	3130	8360
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.7 U	<6.7 U	<7.4 U	<7.2 UJ	<6.5 UJ	<6.3 UJ	<6.8 U	<7.3 U	<6.2 U	<6.8 U	<6.1 U	<6.3 U	<6.9 U	<6.2 U	<6.4 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**13.9** J	**9.9** J	**7.2** J	**6.3**	**38.7**	**3.2**	**5.8** J-	**7.4** J-	**7.0** J-	**6.9**	**2.6**	**6.7**	**6.4**	**2.5**	**6.3**
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		274 J	**357** J	93.9 J	66.5	301	21.7	65.6 J	207 J	67.9 J	64.6	16.4	76.5	58.2	36.3	85.6
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		3.5	4.9	<0.62 U	<0.6 U	5.4	<0.53 U	<0.56 U	<0.61 U	<0.52 U	<0.56 U	<0.51 U	<0.52 U	<0.57 U	<0.52 U	<0.53 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**2.1**	**2.3**	<0.62 U	**0.80**	**1.3**	<0.53 U	<0.56 U	<0.61 U	<0.52 U	**0.63**	<0.51 U	<0.52 U	<0.57 U	<0.52 U	<0.53 U
Calcium	NE	NE	NE	NE																
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		**32.5** J	**33.0** J	15.3 J	18.5	**68.2**	7.2	19.6	**23.4**	16.8	12.0 J	2.5 J	8.7 J	9.0 J	4.3 J	10.2 J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.6 U	<5.6 U	<6.2 U	<6 U	8.0	<5.3 U	<5.6 U	**13.7**	5.4	<5.6 U	<5.1 U	6.7	<5.7 U	<5.2 U	7.4
Copper	4.1E+04	3.1E+03	NE	2.8E+01		**48.2** J	**88.4** J	14.8 J	17.5	**28.9**	6.4	16.3	24.0	11.8	16.4	9.0	15.7	17.1	5.0	15.2
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.15 UJ	**3.96** J	<1.24 UJ	**3.99** J-	**1.49** J-	<1.05 UJ	<1.18 UJ	<1.28 UJ	**3.50** J	1.21	**14.0**	<1.08 U	<1.15 U	**10.2**	<1.07 U
Iron	1.0E+05	2.3E+04	NE	NE		**30300** J	**39900** J	16600 J	15000	**52300**	6360	14000 J	**26800** J	20300 J	14600	5680	16200	12600	7990	16200
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**626** J	**341** J	10.2 J	**20.3**	**43.4**	<5.3 U	**24.0**	**16.1**	**11.6**	**14.0**	<5.1 U	7.8	**11.2**	<5.2 U	7.7
Magnesium	NE	NE	NE	NE																
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**2400** J	**3540** J	491 J	414	**7950**	302	419 J	406 J	**529** J	435	258	391	392	269	316
Mercury	NE	NE	NE	3.0E-01		**4.3** J	**7.5** J	<0.04 UJ	0.10 J-	<0.04 UJ	<0.03 UJ	0.08	<0.04 U	0.05	0.04	**0.31**	<0.04 U	0.17	0.06	<0.03 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		16.2	18.6	15.4	14.1	20.2	6.4	13.5	26.8	18.8	13.5	5.0	16.3	27.1	10.8	19.4
Potassium	NE	NE	NE	NE																
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		**2.6**	**2.7**	<2.5 U	<2.4 U	**4.9**	<2.1 U	<1.1 U	**2.8**	<1 U	<2.3 U	<2 U	<2.1 U	<2.3 U	<2.1 U	<2.1 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		1.8	2.2	<1.2 U	<1.2 U	<1.1 U	<1.1 U	<1.1 UJ	<1.2 UJ	<1.0 UJ	<1.1 U	<1 U	<1 U	<1.1 U	<1 U	<1.1 U
Sodium	NE	NE	NE	NE																
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<1.1 U	<1.1 U	<1.2 U	<17.9 U	<16.3 U	<15.8 U	<5.6 U	<6.1 U	<5.2 U	<11.3 U	<10.2 U	<10.4 U	<11.4 U	<10.4 U	<10.7 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**18.9** J	**14.7** J	**25.9** J	**20.5**	**52.3**	**11.4**	**17.9**	**34.7**	**24.2**	**21.2**	**9.0**	**18.0**	**17.4**	**9.8**	**17.7**
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**636** J	**205** J	48.3 J	**69.7**	**95.3** J	13.1 J	**95.2**	**109**	**60.0**	**54.2**	17.2	37.0	42.1	17.9	36.1

Table 4.10-3

Soil Metals Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	AOC13SB14	AOC13SB15	AOC13SB16	AOC13SB17	AOC13SB18	AOC13SB19	AOC13SB2	AOC13SB2	AOC13SB2	AOC13SB20	AOC13SB21	AOC13SB22	AOC13SB23	AOC13SB24	AOC13SB25
Sample Location:					AOC13SB14	AOC13SB15	AOC13SB16	AOC13SB17	AOC13SB18	AOC13SB19	AOC13SB2	AOC13SB2	AOC13SB2	AOC13SB20	AOC13SB21	AOC13SB22	AOC13SB23	AOC13SB24	AOC13SB25
Sample Top (ft below ground surface):					12	8	4	4	6	8	0	4	16	10	6	8	6	8	4
Sample Bottom (ft below ground surface):					13	9.2	5	4.9	7.4	9.6	0.6	4.6	18	11.4	7.8	8.9	6.8	9.2	5.8
Sample Date:					01/05/2006	01/05/2006	01/05/2006	01/06/2006	01/06/2006	01/06/2006	01/12/2006	01/12/2006	01/12/2006	01/06/2006	01/06/2006	01/10/2006	01/10/2006	01/09/2006	01/09/2006
Aluminum	1.0E+05	7.6E+04	NE	NE	13400	5070	13300	23300	3780	13800	14200	13600	10700	2310	2710	3800 J	3280 J	2820	17900
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.6 U	<6.3 U	<6.8 U	<7.1 U	<6.2 U	<7 U	<6.8 UJ	<9.5 UJ	<7.7 UJ	<6.4 U	<6.2 U	<6.4 UJ	<6.1 UJ	<6.2 U	<7.3 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**8.8** J	**4.6** J	**6.8**	**13.3** J	**2.1** J	**9.0** J	**7.4**	**17.1**	**8.0**	**4.2** J	**3.5** J	**6.6** J	**3.2** J	**8.4** J	**7.8** J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	101 J	29.5 J	67.0	124 J	12.1 J	160 J	83.1	**372**	111	30.4 J	26.4 J	45.9 J	48.9 J	46.4 J	162 J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	1.0	<0:53 U	0.67	1.3	<0.51 U	1.4	1.4	3.7	0.67	<0.53 U	<0.51 U	0.59	<0.51 U	<0.51 U	2.3
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**0.65**	<0.53 U	**0.57**	**0.76**	<0.51 U	**0.63**	**0.64**	<0.79 U	<0.64 U	<0.53 U	<0.51 U	<0.53 U	<0.51 U	<0.51 U	**0.65**
Calcium	NE	NE	NE	NE															
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	18.6 J	8.3 J	**25.3** J	**29.0** J	9.4 J	14.5 J	**24.9**	**21.4**	15.3	4.9 J	7.9 J	5.3 J	6.1 J	8.7 J	**21.4** J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	7.2	<5.3 U	7.3	**13.4**	<5.1 U	9.1	7.7	7.9	<6.4 U	<5.3 U	<5.1 U	<5.3 U	<5.1 U	<5.1 U	<6.1 U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	17.2 J	6.8 J	**44.1** J	**28.3** J	8.7 J	14.3 J	15.2	**95.8**	15.8	6.2 J	5.4 J	6.9 J+	4.6 J+	6.9 J	14.7 J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.14 UJ	<1.08 UJ	<1.16 UJ	<1.23 UJ	<1.05 UJ	<1.18 UJ	<1.18 UJ	**55.9** J-	<1.3 U	<1.06 UJ	<1.05 U	<1.07 U	<1.05 U	**2.61** J	<1.22 UJ
Iron	1.0E+05	2.3E+04	NE	NE	19200 J	8620 J	19100 J	**34800** J	7620 J	19100 J	**26400**	13300	18800	8390 J	8770 J	8670 J	6440 J	6920 J	16500 J
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**67.7**	<5.3 UJ	**69.0**	**19.1** J	<5.1 UJ	**18.4** J	**43.2**	**296**	8.2	<5.3 UJ	<5.1 UJ	<5.3 UJ	11.0 J	<5.1 UJ	**16.3** J
Magnesium	NE	NE	NE	NE															
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**766** J	383 J	467	**803** J	364 J	**2120** J	**816**	475	**538**	434 J	308 J	340 J	374 J	**865** J	**1990** J
Mercury	NE	NE	NE	3.0E-01	<0.04 UJ	<0.03 UJ	<0.04 U	<0.04 UJ	<0.03 UJ	<0.04 UJ	<0.04 UJ	<0.05 UJ	<0.04 U	<0.03 UJ	<0.03 UJ	<0.03 U	<0.03 U	**2.6** J	<0.04 UJ
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	17.2	8.3	22.9	**31.8**	8.4	15.6	21.8	25.4	16.8	6.6	5.7	7.7	6.4	8.2	14.6
Potassium	NE	NE	NE	NE															
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<2.2 U	<2.1 U	<2.3 U	<2.4 U	<2.1 U	<2.3 U	<2.3 U	<3.2 U	<2.6 U	<2.1 U	<2.1 U	<1.1 U	<1 U	<2.1 U	<2.4 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1 U	<1.1 U	<1.1 U	2.0	<1 U	<1.2 U	<1.1 U	<1.6 U	<1.3 U	<1.1 U	<1 U	<1.1 UJ-	<1.0 UJ-	<1 U	<1.2 U
Sodium	NE	NE	NE	NE															
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<1.1 U	**1.5**	<1.1 U	<1.2 U	<1 U	<1.2 U	<17.1 U	<23.6 U	<19.3 U	**1.2**	**1.5**	**1.1**	<1 U	<1.0 U	<1.2 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**28.7** J	**16.6** J	**27.5**	**48.9** J	**12.7** J	**26.3** J	**29.2**	**36.3**	**26.4**	**10.1** J	**10.2** J	**15.9**	**9.8**	**12.7** J	**25.6** J
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**85.5** J	18.4 J	**111**	**106** J	17.2 J	**99.7** J	**75.7** J	**136** J	**59.9** J	11.7 J	12.7 J	23.8 J	13.1 J	37.0 J	**67.6** J

Table 4.10-3

Soil Metals Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB26		AOC13SB27		AOC13SB28		AOC13SB29		AOC13SB3		AOC13SB3		AOC13SB3		AOC13SB30		AOC13SB31		AOC13SB32		AOC13SB33		AOC13SB34		AOC13SB35		AOC13SB36		AOC13SB37	
					Sample Top (ft below ground surface):	8		4		8		14		0		4		14		4		8		13		4		4		4		8		10	
					Sample Bottom (ft below ground surface):	9.2		5.2		9.6		15.2		1		5.2		16		5.9		9		14		5:5		5.2		4.7		9.8		11.3	
					Sample Date:	01/09/2006		01/09/2006		01/09/2006		01/09/2006		01/12/2006		01/12/2006		01/12/2006		01/09/2006		01/11/2006		01/09/2006		01/10/2006		01/10/2006		01/10/2006		01/10/2006		01/11/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE		17300		3070		4960		2240		12600		12700		6940		15500		2550	J	3160		11800	J	13100	J	1850	J	3160	J	13400	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.6	U	<6.2	U	<6.6	U	<6.1	U	<6.9	UJ	<7.3	UJ	<7.3	UJ	<6.7	U	<6.2	UJ	<6.1	U	<6.6	UJ	<6.4	UJ	<6.0	UJ	<5.9	UJ	<6.7	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**9.2**	J	**3.9**	J	**3.2**	J	**6.5**	J	**7.6**		**7.8**		**4.9**		**8.3**	J	**3.3**	J	**3.6**		**5.8**	J	**6.3**	J	**3.5**	J	**4.7**	J	**9.4**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		115	J	17.7	J	44.3	J	45.2		56.1		102		87.3		149	J	49.6	J	29.7		72.7	J	98.0	J	15.3	J	19.0	J	181	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		1.2		<0.51	U	<0.55	U	0.51	J	0.66		0.85		<0.61	U	1.2		<0.51	U	<0.51	U	0.73		1.4		<0.5	U	<0.5	U	2.4	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**0.58**		<0.51	U	<0.55	U	<0.51	U	<0.58	U	<0.61	U	<0.61	U	**0.65**		<0.51	U	<0.51	U	<0.55	U	<0.54	U	<0.5	U	<0.5	U	**1.7**	
Calcium	NE	NE	NE	NE																														
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		**20.2**	J	7.0	J	8.1	J	5.0	J	15.9		18.3		11.4		17.8	J	4.8	J	6.7	J	**20.3**	J	18.1	J	4.8	J	8.4	J	**36.4**	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		6.4		<5.1	U	<5.5	U	<5.1	U	<5.8	U	8.2		<6.1	U	**15.3**		<5.1	U	<5.1	U	6.5		6.6		<5	U	<5	U	6.1	
Copper	4.1E+04	3.1E+03	NE	2.8E+01		15.6	J	9.3	J	5.2	J	10.1	J	11.5		18.3		9.7		26.2	J	3.9	J+	7.4		12.9	J+	24.0	J+	3.9	J+	7.9	J+	**31.7**	J+
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.09	UJ	<1.07	UJ	<1.14	UJ	<1.06	UJ	<1.18	UJ	**3.04**	J-	<1.26	UJ	**1.67**	J	<1.05	U	<1.05	UJ	<1.11	U	<1.07	U	<1.06	U	<1.03	U	**29.7**	
Iron	1.0E+05	2.3E+04	NE	NE		21700	J	7950	J	9530	J	5100	J	16200		22600		13800		21100	J	4550	J	6120	J	19000	J	18500	J	4510	J	7500	J	**25700**	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**18.8**	J	<5.1	UJ	8.7	J	<5.1	UJ	8.9		**11.1**		<6.1	U	**23.7**	J	<5.1	UJ	<5.1	U	<5.5	UJ	**14.9**	J	**16.9**	J	**12.4**	J	**191**	J
Magnesium	NE	NE	NE	NE																														
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**758**	J	252	J	410	J	**671**	J	472		**545**		428		**636**	J	340	J	304		**509**	J	**698**	J	236	J	448	J	**1560**	J
Mercury	NE	NE	NE	3.0E-01		<0.03	UJ	0.10	J	0.05	J	0.04	J	<0.04	UJ	<0.04	UJ	0.07	J-	0.08	J	<0.03	U	<0.03	U	<0.03	U	0.19		<0.04	U	0.09		**0.58**	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		19.0		5.8		6.3		8.4		13.9		19.9		11.2		21		5.5		6.0		14.7		14.2		4.8		8.4		17.1	
Potassium	NE	NE	NE	NE																														
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<2.2	U	<2.1	U	<2.2	U	**2.4**		<2.3	U	<2.4	U	<2.4	U	**2.6**		<1	U	<2	U	**2.3**		**2.0**		<1	U	**10.3**		**2.3**	
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		1.3		<1	U	<1.1	U	<1	U	<1.2	U	<1.2	U	<1.2	U	1.3		<1.0	UJ-	<1	U	<1.1	UJ-	<1.1	UJ-	2.8	J-	0.99	J-	<1.1	UJ-
Sodium	NE	NE	NE	NE																														
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<1.1	U	<1.0	U	<1.1	UJ	**1.5**		<17.3	U	<18.3	U	<18.2	U	<1.1	U	<1	U	**1.1**		<1.1	U	<1.1	U	**1.4**		<0.99	U	<1.1	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**32.5**	J	**12.5**	J	**12.0**		**8.3**	J	**30.0**		**30.9**		**19.1**		**28.8**	J	**8.3**		**9.9**		**32.8**		**24.3**		6.9		**11.9**		**22.2**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**60.7**	J	17.9	J	25.8	J	11.1	J	34.8	J	**52.6**	J	32.1	J	**70.1**	J	15.4	J	15.6	J	48.3	J	47.6	J	10.1	J	20.2	J	**209**	J

Table 4.10-3

Soil Metals Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB37		AOC13SB38		AOC13SB39		AOC13SB4		AOC13SB4		AOC13SB4		AOC13SB40		AOC13SB41		AOC13SB42		AOC13SB43		AOC13SB44		AOC13SB45		AOC13SB46		AOC13SB47		AOC13SB48	
					Sample Top (ft below ground surface):	22		6		4		0		4		14		12		6		8		6		8		4		12		18		5	
					Sample Bottom (ft below ground surface):	23.4		7.6		6		1.5		4.8		16		13.4		7.2		9.4		7.3		9.4		5.2		13.9		19.4		7	
					Sample Date:	01/11/2006		01/18/2006		01/11/2006		01/12/2006		01/12/2006		01/12/2006		01/16/2006		01/11/2006		01/11/2006		01/16/2006		01/18/2006		01/11/2006		01/18/2006		01/17/2006		01/19/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE		10100	J	8970		22100	J	6170		5540		11100		2320		2660	J	5610	J	3630		3230		3430	J	2250		2240		3220	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		**6.6**	J	<8.5	U	<6.9	UJ	<7.0	UJ	<6.4	UJ	<7.4	UJ	<6.7	U	<6.1	UJ	<6.3	UJ	<6.3	U	<6.2	U	<6.1	UJ	<6.3	U	<6.3	U	<6.2	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**7.2**	J	**6.0**	J-	**12.9**	J	**9.9**		**4.6**		**5.0**		**2.0**	J-	**3.6**	J	**4.5**	J	**3.7**	J-	**2.2**	J-	**2.9**	J	**1.3**	J-	**1.2**	J-	**2.9**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		89.6	J	189	J	258	J	44.5		43.6		92.3		23.1	J	14.2	J	25.6	J	15.5	J	11.0	J	21.7	J	7.5	J	11.0	J	12.2	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		1.0		<0.71	U	5.5		0.64		<0.54	U	0.76		<0.53	U	<0.51	U	<0.53	U	<0.51	U	<0.51	U	<0.51	U	<0.52	U	<0.55	U	<0.52	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.55	U	<0.71	U	**1.4**		<0.58	U	<0.54	U	**0.69**		<0.53	U	<0.51	UJ	<0.53	U	<0.51	U	<0.51	U	<0.51	U	<0.52	U	<0.55	U	<0.52	U
Calcium	NE	NE	NE	NE																															
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		**20.1**	J	**126**		**23.0**	J	**28.1**		11.9		15.1		6.2	J+	6.4	J	18.4	J	14.4	J+	7.4	J+	7.8	J	5.0	J+	7.1	J+	4.4	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.5	U	<7.1	U	<5.7	U	<5.8	U	<5.4	U	7.9		<5.3	U	<5.1	U	<5.3	U	<5.1	U	<5.1	U	<5.1	U	<5.2	U	<5.5	U	<5.2	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01		22.4	J+	27.1		**31.3**	J+	18.3		8.3		21.1		6.8		5.2	J+	7.3	J+	4.3		3.8		5.8	J+	3.9		13.3		4.3	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		**8.71**		**23.8**	J	**4.32**	J	<1.17	UJ	**1.95**	J-	<1.3	UJ	**235**	J	<1.07	U	<1.08	U	**3.74**	J	<1.04	UJ	<1.05	U	**25.4**	J	**18.3**	J	<1.04	U
Iron	1.0E+05	2.3E+04	NE	NE		15900	J	**96700**	J	**30400**	J	12500		9060		17100		3850	J	5920	J	8740	J	7880	J	6840		5610	J	5320	J	4610	J	7640	
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**50.6**	J	**71.3**		**170**	J	**55.0**		<5.4	U	**18.1**		<5.3	U	5.1	J	<5.3	UJ	<5.1	U	<5.1	U	<5.1	UJ	<5.2	U	<5.5	U	<5.2	U
Magnesium	NE	NE	NE	NE																															
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**715**	J	**669**	J	**3250**	J	**526**		426		429		204	J	255	J	290	J	320	J	234		329	J	211	J	262	J	242	
Mercury	NE	NE	NE	3.0E-01		**0.44**		0.30		**3.1**		<0.04	UJ	0.14	J-	0.17	J-	0.14		<0.03	U	<0.03	U	<0.04	U	<0.03	U	<0.03	U	0.13		**0.55**		<0.03	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		20.2		<5.7	U	9.4		10.3		9.5		18.1		<4.3	U	7.5		12.6		9.4		7.2		6.9		<4.1	U	<4.4	U	6.7	
Potassium	NE	NE	NE	NE																															
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		**1.4**		**1.9**		**4.9**		<2.3	U	<2.1	U	**17.1**		<1.1	U	<1	U	<1.1	U	<1	U	<1	U	<1	U	<1	U	<1.1	U	<2.1	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1	UJ-	<1.4	UJ	1.2	J-	<1.2	U	<1.1	U	<1.2	U	<1.1	UJ	<1.0	UJ-	<1.1	UJ-	<1.0	UJ	<1.0	UJ	<1.0	UJ-	<1.0	UJ	<1.1	UJ	<1	U
Sodium	NE	NE	NE	NE																															
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<1.1	U	<7.1	U	<1.1	U	<17.4	U	<16.1	U	<18.6	U	<5.3	U	<1	U	<1.1	U	<5.1	U	<5.1	U	**1.2**		<5.2	U	<5.5	U	<10.3	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**24.6**		**19.8**		**15.6**		**14.8**		**12.9**		**30.5**		7.4		**9.8**		**18.2**		**11.3**		**10.8**		**10.4**		**8.0**		7.0		**12.5**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		46.5	J	**50.6**		**256**	J	48.8	J	18.7	J	**50.9**	J	12.1		14.0	J	20.4	J	12.4		15.5		10.8	J	11.9		13.2		14.5	

Table 4.10-3
Soil Metals Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB49	AOC13SB5	AOC13SB5	AOC13SB5	AOC13SB50	AOC13SB51	AOC13SB52	AOC13SB52	AOC13SB52	AOC13SB53	AOC13SB53	AOC13SB53	AOC13SB54	AOC13SB54	AOC13SB54
					Sample Top (ft below ground surface):	2	0	14	20	8	9	0	2	8	0	4	16	0	8	18
					Sample Bottom (ft below ground surface):	4	0.9	15.5	21.7	9.6	10	2	4	9.8	1.7	5.3	17.2	1.6	10	19.1
					Sample Date:	01/19/2006	01/10/2006	01/10/2006	01/10/2006	01/16/2006	01/19/2006	01/11/2006	01/11/2006	01/11/2006	01/12/2006	01/12/2006	01/12/2006	01/17/2006	01/17/2006	01/17/2006
Aluminum	1.0E+05	7.6E+04	NE	NE		23200	16800 J	11300 J	9240 J	2770	10800	5530 J	17500 J	15700 J	18400	11600	2500	4930	25500	6060
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.6 U	<7.4 UJ	<7.5 UJ	<7.0 UJ	<6.2 U	<6.5 U	<6.5 UJ	<6.3 UJ	<7.0 UJ	<6.5 UJ	<7.0 UJ	<6.2 UJ	<6.5 U	<7.3 U	<6.5 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**3.6**	**11.3** J	**8.7** J	**5.9** J	**3.2** J-	**8.3**	**5.3** J	**8.8** J	**3.5** J	**7.0**	**7.8**	**2.0**	**4.9** J-	**13.5** J-	**4.0** J-
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		185	95.7 J	109 J	83.5 J	13.3 J	37.2	49.6 J	216 J	86.8 J	162	145	23	44.8 J	140 J	14.9 J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		3.1	1.0	0.74	0.59	<0.51 U	<0.54 U	<0.54 U	3.7	0.88	3.7	1.1	<0.51 U	<0.54 U	0.68	<0.55 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.55 U	<0.61 U	<0.63 U	<0.58 U	<0.51 U	<0.54 U	**0.72**	**1.1**	<0.59 U	<0.54 U	<0.58 U	<0.51 U	<0.54 U	<0.6 U	<0.55 U
Calcium	NE	NE	NE	NE																
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		10.0 J	**24.4** J	17.4 J	14.9 J	6.9 J+	11.0 J	15.8 J	**26.2** J	**21.0** J	16.2	18.3	7.4	13.2 J+	**30.4** J+	**29.7**
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.5 U	7.3	7.2	6.4	<5.1 U	<5.4 U	<5.4 U	<5.2 U	6.5	<5.4 U	10.6	<5.1 U	<5.4 U	**14.0**	6.2
Copper	4.1E+04	3.1E+03	NE	2.8E+01		12.8	21.2 J+	17.3 J+	15.0 J+	3.4	11.8	14.7 J+	**68.3** J+	12.8 J+	14.9	21.2	4.7	10.9	25.0	**298**
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		**4.83**	<1.24 U	<1.31 U	<1.17 U	<1.05 UJ	<1.14 U	<1.13 U	**19.3**	**4.45**	<1.14 UJ	<1.19 UJ	**2.36** J-	<1.12 UJ	<1.21 U	**15.1** J
Iron	1.0E+05	2.3E+04	NE	NE		12200	21900 J	17600 J	14700 J	5290 J	17300	10800 J	**31500** J	21300 J	16100	22300	5570	10400 J	**37500** J	4730 J
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**27.7**	**18.1** J	<6.3 UJ	7.0 J	<5.1 U	7.9	**15.3** J	**115** J	<5.9 UJ	**34.0**	**15.6**	<5.1 U	**14.0**	**21.6**	**79.1**
Magnesium	NE	NE	NE	NE																
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**2780**	**755** J	389 J	348 J	325 J	365	318 J	**1910** J	**1010** J	**1600**	**600**	203	337 J	**941** J	148 J
Mercury	NE	NE	NE	3.0E-01		<0.04 U	0.04	<0.04 U	<0.04 U	<0.03 U	<0.04 U	0.07	**18.1**	<0.04 U	0.10 J-	**0.77** J-	0.13 J-	0.04	0.09	<0.04 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		6.0	20.1	15.9	17.1	6.9	13.8	11.3	13.3	16.5	10.2	21.1	5.4	10.5	**33.4**	**37.9**
Potassium	NE	NE	NE	NE																
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		**3.9**	**1.6**	**2.3**	<1.2 U	<1 U	<2.2 U	<1.1 U	**4.0**	**2.5**	**2.3**	**3.2**	<2.1 U	<1.1 U	**4.4**	<1.1 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1 U	<1.2 UJ-	<1.3 UJ-	<1.2 UJ-	<1.0 UJ	<1.1 U	<1.1 UJ-	1.5 J-	<1.2 UJ-	<1.1 U	<1.2 U	<1 U	<1.1 UJ	<1.2 UJ	<1.1 UJ
Sodium	NE	NE	NE	NE																
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<11 U	<1.2 U	<1.3 U	<1.2 U	<5.1 U	<10.8 U	<1.1 U	<1 U	<1.2 U	<16.3 U	<17.5 U	<15.4 U	<5.4 U	<6 U	<5.5 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**13.6**	**44.1**	**32.4**	**21.8**	**8.6**	**26.8**	**16.4**	**19.1**	**32.5**	**16.3**	**27.3**	**9.6**	**14.7**	**49.6**	**18.7**
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		42.5	**63.9** J	46 J	36.3 J	10.9	40.7	**56.7** J	**70.5** J	**55.1** J	**61.7** J	**64.4** J	9.5 J	**55.1**	**111**	40.7

Table 4.10-3
Soil Metals Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB55	AOC13SB55	AOC13SB55	AOC13SB56	AOC13SB56	AOC13SB56	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB7	AOC13SB7	AOC13SB7	AOC13SB8	AOC13SB8
					Sample Top (ft below ground surface):	0	5	14	0	16	24	0	4	20	22	0	4	14	0	4
					Sample Bottom (ft below ground surface):	2	6	16	2	18	26	1.1	5.3	21.6	23.2	1	5.1	15.1	1.4	5.6
					Sample Date:	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006
Aluminum	1.0E+05	7.6E+04	NE	NE		6940	9250	5720	12600	4150	7900	15300	44300	26600	8530	9490	11700	7970	16500	18900
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.9 U	<6.7 U	<6.2 U	<6.5 U	<6.7 U	<6.4 U	<3.5 U	<3.1 U	<3.3 U	<3.4 U	<6.7 U	<7.3 U	<6.3 U	<6.8 U	<7.4 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**5.9** J-	**6.4** J-	**5.4** J-	**4.8** J-	**3.5** J-	**4.5** J-	**10.7**	**12.0**	**4.1**	**5.2**	**6.4** J	**11.9** J	**1.6** J	**9.4** J	**12.4** J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		60.2 J	89.4 J	46.4 J	117 J	13.7 J	58.4 J	86.5 J	263 J	254 J	75.3 J	96.8 J	114 J	31.9 J	75.7 J	129 J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		<0.57 U	0.61	<0.5 U	1.6	<0.55 U	<0.51 U	<0.59 U	4.0	2.7	<0.57 U	1.6	1.4	<0.52 U	1.0	1.4
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.57 U	<0.55 U	<0.5 U	<0.55 U	<0.55 U	<0.51 U	<0.59 U	**5.6**	<0.55 U	<0.57 U	**4.1**	**4.7**	<0.52 U	<0.57 U	**0.94**
Calcium	NE	NE	NE	NE																
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		13.6 J+	16.6	9.4 J+	15.2 J+	12.1 J+	12.1 J+	17.2	3.5 J-	4.7 J-	7.6 J-	19.8 J	18.8 J	**23.1** J	**20.8** J	**22.8** J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.7 U	<5.5 U	<5 U	<5.5 U	<5.5 U	6.1	8.8	<5.2 U	<5.5 U	<5.7 U	8.6	6.5	<5.2 U	7.0	10.0
Copper	4.1E+04	3.1E+03	NE	2.8E+01		13.2	20.4	11.5	**29.4**	7.7	11.9	24.1	26.6	9.1	12.8	**56.6** J	**76.6** J	6.5 J	22.5 J	**85.3** J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.18 UJ	**3.52** J	<1.06 UJ	<1.12 UJ	**2.63** J	<1.08 UJ	**3.39** J	**2.86** J	**10.8** J	**1.56** J	<1.12 UJ	**1.63** J	1.27 J	<1.19 UJ	<1.23 UJ
Iron	1.0E+05	2.3E+04	NE	NE		12700 J	17000 J	11600 J	13300 J	9750 J	14500 J	21800 J	**125000** J	9360 J	12900 J	**185000** J	**190000** J	8310 J	22900 J	**40400** J
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**13.3**	**59.3**	6.1	**35.1**	<5.5 U	5.8	**23.4**	<5.2 U	<5.5 U	<5.7 U	**30.3** J	**30.8** J	<5.2 UJ	**16.3** J	**38.4** J
Magnesium	NE	NE	NE	NE																
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		416 J	**949** J	308 J	**1590** J	355 J	349 J	**873** J	**3240** J	**681** J	394 J	**2280** J	**2700** J	183 J	**767** J	**647** J
Mercury	NE	NE	NE	3.0E-01		0.06	**0.41**	<0.03 U	**0.50**	<0.04 U	<0.04 U	**2.2**	0.04	<0.04 U	<0.04 U	<0.04 U	<0.04 UJ	<0.04 UJ	0.06 J	<0.04 UJ
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		11.6	10.5	12.5	12.5	8.5	15.1	15.0	<4.2 U	9.1	13.1	21.1	15.2	10.2	19.5	25.0
Potassium	NE	NE	NE	NE																
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<1.1 U	**2.2**	1.0	**2.1**	**1.4**	<1 U	<1.2 U	<10.4 U	**2.0**	<1.1 U	<22.5 U	<24.3 U	<2.1 U	<2.3 U	<2.5 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1 UJ	<1.1 UJ	<1.0 UJ	<1.1 UJ	<1.1 UJ	<1.0 UJ	<1.2 UJ	<1 UJ	<1.1 UJ	<1.1 UJ	**5.3**	**6.0**	<1 U	1.2	2.4
Sodium	NE	NE	NE	NE																
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<5.7 U	<5.5 U	<5 U	<5.5 U	<5.5 U	<5.1 U	<5.9 U	<15.6 U	<5.5 U	<5.7 U	<1.1 U	<1.2 U	<1 U	<1.1 U	<1.2 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**18.1**	**16.5**	**13.3**	**17.1**	**12.0**	**17.0**	**35.3**	**16.6**	**11.1**	**13.3**	**35.9** J	**39.5** J	**22.9** J	**37.7** J	**39.3** J
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**53.2**	**75.0**	28.3	**78.9**	27.3	35.0	**68.3**	<2.3 U	<18.2 U	38.3	**75.6** J	**59.3** J	20.3 J	**60.9** J	**87.8** J

Table 4.10-3
Soil Metals Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC13SB8		AOC13SB9		AOC13SB9		AOC13SB9		MW-20M		MW-20S		MW-20S		MW-20S		MW-20S		MW-21M		MW-21S		MW-21S		MW-21S		MW-8M		MW-8S	
					Sample Top (ft below ground surface):	14		0		4		14		24		0		8		14		18		22		0		6		22		24		0	
					Sample Bottom (ft below ground surface):	15.1		1.4		5.4		16		26		1.6		9.2		15.5		19.1		24		2		8		24		26		2	
					Sample Date:	01/05/2006		01/12/2006		01/12/2006		01/12/2006		03/01/2006		11/28/2005		11/28/2005		11/28/2005		11/28/2005		03/07/2006		11/29/2005		11/29/2005		11/29/2005		03/06/2006		11/29/2005	
Aluminum	1.0E+05	7.6E+04	NE	NE		5050		5850		27300		2550		8350		24100	J	20100	J	7030	J	3550	J	8440		22500	J	50800	J	8030	J	8080		12800	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<6.4	U	<6.5	UJ	<7.3	UJ	<6.0	UJ	<6.6	UJ	<6.3	UJ	<6.8	UJ	<6.7	UJ	<7	UJ	<6.6	UJ	<6.8	UJ	<6.8	UJ	<6.5	UJ	<6.4	UJ		R
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**3.4**	J	**5.6**		**18.4**		**2.4**		**7.5**		**5.9**	J	**24.5**	J	**4.3**	J	<1.2	UJ	**7.2**		**10.5**	J	**1.9**	J	**4.4**	J	**7.3**		**8.1**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		22.0	J	56.8		172		22.9		178	J	264	J	223	J	71.7	J	23.6	J	73.3	J	115	J	**437**	J	79.8	J	87.3	J	69.0	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		<0.53	U	<0.54	U	1.6		<0.5	U	<0.55	U	3.5		3.3		<0.56	U	<0.58	U	<0.55	U	0.67		3.9		<0.54	U	<0.54	U	<0.59	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.53	U	<0.54	U	<0.61	U	<0.5	U	<0.55	U	**1.3**		**2.1**		<0.56	U	<0.58	U	<0.55	U	<0.56	U	<0.57	U	**1.9**		<0.54	U	<0.59	U
Calcium	NE	NE	NE	NE																														
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		11.3	J	13.6		**35.6**		6.2		13.1		**27.1**		15.2		10.2		10.1		14.8		**25.8**		3.7		13		13.1		15.0	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<5.3	U	<5.4	U	**13.8**		<5	U	6.6		<5.2	U	<5.7	U	<5.6	U	<5.8	U	7.0		8.6		<5.7	U	6.8		6.2		<5.9	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01		6.7	J	14.7		**31.6**		4.3		17.0		**43.5**	J	10.1	J	8.7	J	3	J	16.5		18.8	J	<2.3	UJ	16.7	J	15.7		27.5	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		**9.63**	J	<1.14	UJ	<1.26	UJ	<1.03	UJ	<1.1	U	**4.96**		**33.4**		<1.17	U	<1.2	U	1.21		<1.17	U	**11.2**		**5.62**		<1.1	U	<1.18	U
Iron	1.0E+05	2.3E+04	NE	NE		9220	J	12200		**45000**		5290		15400		**24700**		8000		13200		9570		15600		**29400**		4220		17100		15000		15700	J
Lead	8.0E+02	4.0E+02	NE	1.1E+01		<5.3	UJ	**12.0**		**19.8**		<5	U	7.2		**206**	J	**147**	J	6.7	J	4.3	J	6.9		**16.4**	J	2.1	J	7.5	J	7.0		**14.3**	J
Magnesium	NE	NE	NE	NE																														
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		311	J	371		**868**		282		386		**3570**	J	**2280**	J	425	J	217	J	349		**1080**	J	**3830**	J	382	J	394		**613**	J
Mercury	NE	NE	NE	3.0E-01		<0.03	UJ	0.05	J-	0.04	J-	<0.03	UJ-	<0.04	U	**2.8**	J	**0.39**	J	<0.04	UJ	<0.04	UJ	<0.04	U	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.04	U	0.04	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		9.3		11.1		**37.6**		5.8		16.6		8.7		<4.5	U	10.6		6.5		18.0		20.8		<4.5	U	17.8		15.9		13.6	J
Potassium	NE	NE	NE	NE																														
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		<2.1	U	<2.2	U	**3.7**		<2	U	<2.2	U	**5.7**		**11.3**		<1.1	U	<1.2	U	<2.2	U	**2.5**		**6.3**		<1.1	U	<2.1	U	<1.2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1	U	<1.1	U	1.3		<1	U	<1.1	U	<1	U	<1.1	U	<1.1	U	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1.2	U
Sodium	NE	NE	NE	NE																														
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<1.1	U	<16.3	U	<18.3	U	<15	U	<2.2	U	<26.2	U	**6**		<5.6	U	<5.8	U	<2.2	U	<5.6	U	<28.3	U	<5.4	U	<2.1	U	<11.8	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**13.0**	J	**17.3**		**59.5**		**11.1**		**17.2**		**12**		7.1		**18.5**		**17.4**		**18.4**		**45**		7.6		**15.9**		**17.5**		**29.0**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		17.7	J	46.8	J	**105**	J	15.1	J	34.2		**231**	J	**258**	J	33.8	J	17.1	J	44.1		**72**	J	2.3	J	**484**	J	33.8		**54.1**	J

Table 4.10-3
Soil Metals Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	MW-8S	MW-8S	MW-9S	MW-9S	MW-9S	AOC13SB57	AOC13SB57	AOC13SB57	MW25S	MW25S	MW25S	MW27S	MW27M	MW27M
					Sample Top (ft below ground surface):	6	20	0	6	32	8	10	14	0	14	15	0	20	34
					Sample Bottom (ft below ground surface):	8	22	2	8	34	10	12	16	2	16	16	2	22	36
					Sample Date:	11/29/2005	11/29/2005	11/29/2005	11/29/2005	11/29/2005	5/30/2008	5/30/2008	5/30/2008	6/2/2008	6/2/2008	6/2/2008	5/30/2008	6/13/2008	6/13/2008
Aluminum	1.0E+05	7.6E+04	NE	NE		11900 J	2570 J	4920 J	32500 J	6960 J	7590	5540	2100	13600	12600	5930	8400	6990 J	1490
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		R	R	<6.5 UJ	<6.5 UJ	<6.6 UJ	0.51 J	<0.343 U	<0.256 U	0.495 J	<0.297 U	<0.237 U	0.579 J	<0.266 U	0.612 J
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**7.0** J	**6.1** J	**3.1** J	**6.8** J	**3.7** J	**14.5**	**4.1**	**2.54**	**10.2**	**9.63**	**3.45**	**5.07**	**4.72**	**1.73**
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		99.3	14.5	45.8 J	299 J	77.2 J	97.8	40	23.3	146	78.4	41.8	104	60.6 J	11.4
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		<0.56 U	<0.51 U	<0.54 U	2.7	<0.55 U	1	0.235	<0.0488 U	2.07	0.597	0.244	1.37	0.301 J-	0.0513
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		<0.56 U	<0.51 U	<0.54 U	**0.57**	<0.55 U	0.529 J	<0.171 U	<0.128 U	1.08	0.171 J	<0.133 U	0.144 J	<0.133 U	<0.14 U
Calcium	NE	NE	NE	NE							91400	175000	114000	69500	28600	157000	71100	110000 J	154000
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		15.3 J	5.4 J	11.4	5.9	10.5	12.9	9.33	5.37	16.1	12.2	7.22	10.5	7.62	17.6
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		7.5	<5.1 U	<5.4 U	<5.4 U	5.6	4.96	4.69	2.33 J	5.04	7.71	4.14	5.26	5.39	2.4 J
Copper	4.1E+04	3.1E+03	NE	2.8E+01		14.9 J	5.7 J	11.8 J	24.9 J	13.9 J	20.8	12.8	4.61	21.9	15.5	9.73	19.1	12	4.86
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.19 U	<2.12 U	<1.12 U	**1.98**	<1.1 U									
Iron	1.0E+05	2.3E+04	NE	NE		18800 J	8330 J	11100	18200	15400	13800	9930	6020	20100	**49700**	11400	13100	13200	5190
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**11.7** J	3.3 J	**12.5** J	**27** J	7 J	**21.8**	4.47	4.07	**497**	**11.6**	4.6	**31.7**	7.05	2.59
Magnesium	NE	NE	NE	NE							23600	76600	44900	15900	11900	35800	15800	34900 J	38200
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		342 J	267 J	331 J	**1370** J	377 J	**1560**	452	236	**1430**	**681**	215	**800**	268	222
Mercury	NE	NE	NE	3.0E-01		<0.04 U	0.04	0.04 J	**2** J	<0.04 UJ	0.158 J	<0.0138 UJ	<0.0106 UJ	1.03	<0.0902 U	<0.0107 U	0.322 J	0.0139 J+	<0.0014 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		16.2 J	6.5 J	9.2	9.2	14.2	11.5	15.7	7.87	10.8	18.8	13.9	12.3	18.4	9.7
Potassium	NE	NE	NE	NE							752	658	403	1240	1410	1480	758	1750 J	294
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		**1.8**	**31.3**	<1.1 U	**3.3**	<1.1 U	<0.553 U	<0.685 U	<0.512 U	**1.14**	<0.594 U	<0.533 U	<0.571 U	<0.532 U	**11.2**
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.1 U	<1 U	<1.1 U	<1.1 U	<1.1 U	<0.276 U	<0.343 U	<0.256 U	<0.261 U	<0.297 U	<0.267 U	<0.286 U	<0.266 U	<0.281 U
Sodium	NE	NE	NE	NE							271	215	144	4430	62.1	132	233	159	131
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<11.3 U	<10.1 U	<5.4 U	<5.4 U	<5.5 U	0.304	0.554	0.145	0.194	0.217	0.108	0.165	0.16	0.0683 J
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**23.9**	7.4	**14.2**	**9.4**	**14**	**10.8**	**13.2**	6.47	**9.82**	**31.1**	**11.3**	**9.38**	**12.9** J	5.27
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**55.1** J	14.3 J	46.9 J	**102** J	34.4 J	**125**	30.5	25	**546**	**59**	23.3	36.7	31.6	13.3 J

Table 4.10-3

Soil Metals Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location: MW28S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 5/28/2008		Sample Location: MW29S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 5/28/2008		Sample Location: MW29S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 5/28/2008		Sample Location: MW29S Sample Top (ft below ground surface): 14 Sample Bottom (ft below ground surface): 16 Sample Date: 5/28/2008		Sample Location: MW31S Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 5/28/2008		Sample Location: MW31S Sample Top (ft below ground surface): 2 Sample Bottom (ft below ground surface): 4 Sample Date: 5/28/2008		Sample Location: MW31S Sample Top (ft below ground surface): 6 Sample Bottom (ft below ground surface): 8 Sample Date: 5/28/2008	
Aluminum	1.0E+05	7.6E+04	NE	NE	12600		6740	J	2100	J	1350	J	36100	J	12400	J	38700	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	0.554	J	0.974	J	0.801	J	0.673	J	0.646	J	1.1	J	0.936	J
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**7.9**		**4.68**		**1.81**		**2.03**		**0.178**	J	**4.17**		<0.0954	U
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	77.3		74.1	J	17.6	J	8.75	J	310	J	132	J	267	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	0.58		0.512	J-	0.0692	J-	0.0164	J-	4.5	J-	1.91	J-	2.91	J-
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	0.257	J	1.14		0.059	J	0.059	J	<0.0292	U	0.359		<0.0318	U
Calcium	NE	NE	NE	NE	48600		98600	J	132000	J	12500	J	220000	J	10700	J	190000	J
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	15.7		16.2		6.47		5.4		5.65		12.1		1.77	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	8.43		4.65		2.17	J	2.35	J	<0.729	U	3.81		<0.795	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	17.2		17		4.41		6.04		2.97		13.2		1.64	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00														
Iron	1.0E+05	2.3E+04	NE	NE	16100	J	13100		6040		3710		2200		1400		1150	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**25.7**		**26.7**		5.1		2.72		1.53		**22.3**		<0.127	U
Magnesium	NE	NE	NE	NE	20200		27800		57400		55600		21800		19400		14200	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**792**		**537**	J	288	J	139	J	**4200**	J	**824**	J	**679**	J
Mercury	NE	NE	NE	3.0E-01	0.0201	J	0.0157	J	<0.0106	U	<0.0104	U	<0.0144	U	0.0598	J	<0.0125	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	16.4		13.4		7.43		8		4.71		10.8		3.97	
Potassium	NE	NE	NE	NE	1110		908		255		336		3460		1150		1440	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<0.561	U	0.415		0.181	J	0.207		**3.5**		**1.05**		**2.35**	J
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<0.28	U	0.0896	J	<0.0521	U	<0.0507	U	0.187	J	0.131	J	0.228	
Sodium	NE	NE	NE	NE	78.8		154		164		158		1340		371		585	
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	0.172		0.114		0.466		0.0753		0.0141	J	0.0992		<0.0127	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**25.5**		**15.6**		6.02		5.48		5.24		**8.47**		1.57	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**71.5**		**185**		12.8		14.8		4.8		**64**		9.48	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ - The result is an estimated quantity, but the result may be biased high.

J- - The result is an estimated quantity, but the result may be biased low.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

NA - Screening value not available.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.10-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC13SB1	AOC13SB1	AOC13SB1	AOC13SB10	AOC13SB10	AOC13SB10	AOC13SB11	AOC13SB11	AOC13SB11	AOC13SB12	AOC13SB12	AOC13SB12	AOC13SB13
					Sample Top (ft below ground surface):	0	4	18	0	4	18	0	12	18	0	19	24	0
					Sample Bottom (ft below ground surface):	2	5.4	19.5	1.9	5	20	1.5	14	19.8	2	20	26	1
					Sample Date:	01/05/2006	01/05/2006	01/05/2006	01/12/2006	01/12/2006	01/12/2006	01/18/2006	01/18/2006	01/18/2006	01/19/2006	01/19/2006	01/19/2006	01/19/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04		<380 U	<38 U	<41 U	<2000 U	<380 U	<35 U	<39 U	<42 U	<36 U	<39 U	<35 U	<35 U	<38 U
Aroclor 1221	NE	NE	NE	4.0E+04		<770 U	<77 U	<83 U	<4100 U	<760 U	<70 U	<79 U	<86 U	<73 U	<78 U	<70 U	<72 U	<77 U
Aroclor 1232	NE	NE	NE	4.0E+04		<380 U	<38 U	<41 U	<2000 U	<380 U	<35 U	<39 U	<42 U	<36 U	<39 U	<35 U	<35 U	<38 U
Aroclor 1242	NE	NE	NE	4.0E+04		<380 U	<38 U	<41 U	<2000 U	<380 U	<35 U	<39 U	<42 U	<36 U	<39 U	<35 U	<35 U	<38 U
Aroclor 1248	NE	NE	NE	4.0E+04		<380 U	<38 U	<41 U	<2000 U	<380 U	<35 U	<39 U	<42 U	<36 U	<39 U	<35 U	<35 U	<38 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04		<380 U	<38 U	<41 U	<2000 U	<380 U	<35 U	<39 U	<42 U	<36 U	<39 U	<35 U	<35 U	<38 U
Aroclor 1260	NE	NE	NE	4.0E+04		2200	55	<41 U	8200	2200	<35 U	<39 U	210	<36 U	<39 U	<35 U	<35 U	<38 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04		**3535**	188.5	164.5	**15250**	**3530**	140	156.5	**358**	144.5	156	140	141	152.5

Table 4.10-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC13SB13	AOC13SB13	AOC13SB14	AOC13SB15	AOC13SB16	AOC13SB17	AOC13SB18	AOC13SB19	AOC13SB2	AOC13SB2	AOC13SB2	AOC13SB20	AOC13SB21
					Sample Top (ft below ground surface):	16	17	12	8	4	4	6	8	0	4	16	10	6
					Sample Bottom (ft below ground surface):	17	19	13	9.2	5	4.9	7.4	9.6	0.6	4.6	18	11.4	7.8
					Sample Date:	01/19/2006	01/19/2006	01/05/2006	01/05/2006	01/05/2006	01/06/2006	01/06/2006	01/06/2006	01/12/2006	01/12/2006	01/12/2006	01/06/2006	01/06/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35	U	<35 U	<38 U	<36 U	<380 U	<40 U	<35 U	<39 U	<39 U	<260 U	<43 U	<35 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<71	U	<72 U	<76 U	<73 U	<770 U	<82 U	<70 U	<79 U	<79 U	<530 U	<87 U	<71 U	<70 U
Aroclor 1232	NE	NE	NE	4.0E+04	<35	U	<35 U	<38 U	<36 U	<380 U	<40 U	<35 U	<39 U	<39 U	<260 U	<43 U	<35 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<35	U	<35 U	<38 U	<36 U	<380 U	<40 U	<35 U	<39 U	<39 U	<260 U	<43 U	<35 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<35	U	<35 U	<38 U	<36 U	<380 U	<40 U	<35 U	<39 U	<39 U	<260 U	<43 U	<35 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35	U	<35 U	<38 U	<36 U	<380 U	<40 U	<35 U	<39 U	<39 U	<260 U	<43 U	<35 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<35	U	<35 U	320	<36 U	2200	<40 U	<35 U	<39 U	150	<260 U	<43 U	<35 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	140.5		141	**453**	144.5	**3535**	161	140	156.5	**287**	1045	172.5	140.5	140

Table 4.10-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC13SB22	AOC13SB23	AOC13SB24	AOC13SB25	AOC13SB26	AOC13SB27	AOC13SB28	AOC13SB29	AOC13SB3	AOC13SB3	AOC13SB3	AOC13SB30	AOC13SB31
					Sample Top (ft below ground surface):	8	6	8	4	8	4	8	14	0	4	14	4	8
					Sample Bottom (ft below ground surface):	8.9	6.8	9.2	5.8	9.2	5.2	9.6	15.2	1	5.2	16	5.9	9
					Sample Date:	01/10/2006	01/10/2006	01/09/2006	01/09/2006	01/09/2006	01/09/2006	01/09/2006	01/09/2006	01/12/2006	01/12/2006	01/12/2006	01/09/2006	01/11/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	<39 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<71 U	<71 U	<72 U	<82 U	<73 U	<72 U	<76 U	<71 U	<79 U	<84 U	<85 U	<79 U	<70 U
Aroclor 1232	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	<39 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	<39 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	100	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	<39 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	100	<35 U	130	<40 U	<36 U	<35 U	<38 U	<35 U	<39 U	<41 U	<42 U	170	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**223**	140.5	**256**	161	144.5	141	152	140.5	156.5	165	168.5	**387.5**	140

Table 4.10-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC13SB32	AOC13SB33	AOC13SB34	AOC13SB35	AOC13SB36	AOC13SB37	AOC13SB37	AOC13SB38	AOC13SB39	AOC13SB4	AOC13SB4	AOC13SB4	AOC13SB40
				Sample Top (ft below ground surface):	13	4	4	4	8	10	22	6	4	0	4	14	12
				Sample Bottom (ft below ground surface):	14	5.5	5.2	4.7	9.8	11.3	23.4	7.6	6	1.5	4.8	16	13.4
				Sample Date:	01/09/2006	01/10/2006	01/10/2006	01/10/2006	01/10/2006	01/11/2006	01/11/2006	01/18/2006	01/11/2006	01/12/2006	01/12/2006	01/12/2006	01/16/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)													
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35 U	<37 U	<35 U	<35 U	<34 U	<77 U	<38 U	<4800 U	<39 U	<39 U	<36 U	<43 U	<37 U
Aroclor 1221	NE	NE	NE	4.0E+04	<70 U	<74 U	<72 U	<71 U	<69 U	<160 U	<77 U	<9700 U	<78 U	<79 U	<73 U	<87 U	<75 U
Aroclor 1232	NE	NE	NE	4.0E+04	<35 U	<37 U	<35 U	<35 U	<34 U	<77 U	<38 U	<4800 U	<39 U	<39 U	<36 U	<43 U	<37 U
Aroclor 1242	NE	NE	NE	4.0E+04	<35 U	<37 U	<35 U	<35 U	<34 U	<77 U	<38 U	<4800 U	<39 U	<39 U	<36 U	<43 U	<37 U
Aroclor 1248	NE	NE	NE	4.0E+04	<35 U	<37 U	<35 U	<35 U	<34 U	<77 U	<38 U	<4800 U	110 J	<39 U	<36 U	<43 U	<37 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35 U	<37 U	<35 U	<35 U	<34 U	<77 U	<38 U	<4800 U	<39 U	<39 U	<36 U	<43 U	<37 U
Aroclor 1260	NE	NE	NE	4.0E+04	28 J	<37 U	<35 U	<35 U	<34 U	550	340	24000	360 J	<39 U	29 J	<43 U	55
Total PCBs*	NE	2.2E+02	NE	4.0E+04	150.5	148	141	140.5	136.5	**822.5**	**473.5**	**40850**	**587**	156.5	155.5	172.5	185

Table 4.10-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC13SB41	AOC13SB42	AOC13SB43	AOC13SB44	AOC13SB45	AOC13SB46	AOC13SB47	AOC13SB48	AOC13SB49	AOC13SB5	AOC13SB5	AOC13SB5	AOC13SB50
					Sample Top (ft below ground surface):	6	8	6	8	4	12	18	5	2	0	14	20	8
					Sample Bottom (ft below ground surface):	7.2	9.4	7.3	9.4	5.2	13.9	19.4	7	4	0.9	15.5	21.7	9.6
					Sample Date:	01/11/2006	01/11/2006	01/16/2006	01/18/2006	01/11/2006	01/18/2006	01/17/2006	01/19/2006	01/19/2006	01/10/2006	01/10/2006	01/10/2006	01/16/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	<37 U	<41 U	<43 U	<39 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<72 U	<73 U	<71 U	<70 U	<71 U	<72 U	<74 U	<70 U	<75 U	<83 U	<88 U	<78 U	<70 U
Aroclor 1232	NE	NE	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	<37 U	<41 U	<43 U	<39 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	<37 U	<41 U	<43 U	<39 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	<37 U	<41 U	<43 U	<39 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	<37 U	<41 U	<43 U	<39 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<35 U	<36 U	<35 U	<34 U	<35 U	<35 U	<36 U	<34 U	270	<41 U	<43 U	<39 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	141	144.5	140.5	137	140.5	141	145	137	**400**	164.5	173	156	140

Table 4.10-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC13SB51	AOC13SB52	AOC13SB52	AOC13SB52	AOC13SB53	AOC13SB53	AOC13SB53	AOC13SB54	AOC13SB54	AOC13SB54	AOC13SB55	AOC13SB55	AOC13SB55
				Sample Top (ft below ground surface):	9	0	2	8	0	4	16	0	8	18	0	5	14
				Sample Bottom (ft below ground surface):	10	2	4	9.8	1.7	5.3	17.2	1.6	10	19.1	2	6	16
				Sample Date:	01/19/2006	01/11/2006	01/11/2006	01/11/2006	01/12/2006	01/12/2006	01/12/2006	01/17/2006	01/17/2006	01/17/2006	01/18/2006	01/18/2006	01/18/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)													
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<38 U	<37 U	<180 U	<40 U	<380 U	<39 U	<35 U	<37 U	<40 U	<36 U	<39 U	<38 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<76 U	<76 U	<370 U	<81 U	<760 U	<80 U	<71 U	<75 U	<81 U	<74 U	<79 U	<77 U	<71 U
Aroclor 1232	NE	NE	NE	4.0E+04	<38 U	<37 U	<180 U	<40 U	<380 U	<39 U	<35 U	<37 U	<40 U	<36 U	<39 U	<38 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<38 U	<37 U	<180 U	<40 U	<380 U	<39 U	<35 U	<37 U	<40 U	<36 U	<39 U	<38 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<38 U	59	<180 U	<40 U	<380 U	<39 U	<35 U	68	<40 U	<36 U	<39 U	98	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<38 U	<37 U	<180 U	<40 U	<380 U	<39 U	<35 U	93	<40 U	<36 U	34 J	<38 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<38 U	110	1200	350	1000	<39 U	<35 U	<37 U	<40 U	<36 U	<39 U	85	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	152	**281**	**1835**	**490.5**	**2330**	157	140.5	**272.5**	160.5	145	171	**297.5**	140.5

Table 4.10-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC13SB56	AOC13SB56	AOC13SB56	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB6	AOC13SB7	AOC13SB7	AOC13SB7	AOC13SB8	AOC13SB8	AOC13SB8
				Sample Top (ft below ground surface):	0	16	24	0	4	20	22	0	4	14	0	4	14
				Sample Bottom (ft below ground surface):	2	18	26	1.1	5.3	21.6	23.2	1	5.1	15.1	1.4	5.6	15.1
				Sample Date:	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/18/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006	01/05/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)													
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<37 U	<36 U	<40 U	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	<39 U	<40 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<75 U	<75 U	<72 U	<82 U	<73 U	<77 U	<77 U	<75 U	<81 U	<74 U	<80 U	<82 U	<72 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<37 U	<36 U	<40 U	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	<39 U	<40 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<37 U	<36 U	<40 U	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	<39 U	<40 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	<37 U	<36 U	<40 U	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	<39 U	<40 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<37 U	<36 U	<40 U	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	<39 U	<40 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	100	<37 U	<36 U	99	<36 U	<38 U	<38 U	<37 U	<40 U	<36 U	350	<40 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**230**	148.5	144	**240**	144.5	152.5	152.5	148.5	160.5	145	**487.5**	161	141

Table 4.10-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC13SB9		AOC13SB9		AOC13SB9		MW-20M		MW-20S		MW-20S		MW-20S		MW-20S		MW-21M		MW-21S		MW-21S		MW-21S		MW-8M	
				Sample Top (ft below ground surface):	0		4		14		24		0		8		14		18		22		0		6		22		24	
				Sample Bottom (ft below ground surface):	1.4		5.4		16		26		1.6		9.2		15.5		19.1		24		2		8		24		26	
				Sample Date:	01/12/2006		01/12/2006		01/12/2006		03/01/2006		11/28/2005		11/28/2005		11/28/2005		11/28/2005		03/07/2006		11/29/2005		11/29/2005		11/29/2005		03/06/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																								
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	<36	UJ	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Aroclor 1221	NE	NE	NE	4.0E+04	<76	U	<84	U	<69	U	<74	U	<73	UJ	<23000	U	<78	U	<81	U	<74	U	<78	U	<77	U	<75	U	<73	U
Aroclor 1232	NE	NE	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	<36	UJ	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Aroclor 1242	NE	NE	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	<36	UJ	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Aroclor 1248	NE	NE	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	<36	UJ	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	<36	UJ	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Aroclor 1260	NE	NE	NE	4.0E+04	<38	U	<42	U	<34	U	<36	U	210	J	<12000	U	<39	U	<40	U	<37	U	<39	U	<38	U	<37	U	<36	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	152		168		136.5		145		336.5		47500		156		160.5		148		156		152.5		148.5		144.5	

Table 4.10-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: MW-8S; Sample Top (ft below ground surface): 0; Sample Bottom (ft below ground surface): 2; Sample Date: 11/29/2005	MW-8S; 6; 8; 11/29/2005	MW-8S; 20; 22; 11/29/2005	MW-9S; 0; 2; 11/29/2005	MW-9S; 6; 8; 11/29/2005	MW-9S; 32; 34; 11/29/2005	AOC13SB57; 8; 10; 5/30/2008	AOC13SB57; 10; 12; 5/30/2008	AOC13SB57; 14; 16; 5/30/2008	MW25S; 0; 2; 6/2/2008	MW25S; 14; 16; 6/2/2008	MW25S; 15; 16; 6/2/2008
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<39 U	<39 U	<35 U	<37 U	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1221	NE	NE	NE	4.0E+04	<79 U	<79 U	<71 U	<75 U	<76 U	<74 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1232	NE	NE	NE	4.0E+04	<39 U	<39 U	<35 U	<37 U	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1242	NE	NE	NE	4.0E+04	<39 U	<39 U	<35 U	<37 U	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1248	NE	NE	NE	4.0E+04	<39 U	<39 U	<35 U	<37 U	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<39 U	<39 U	<35 U	48	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Aroclor 1260	NE	NE	NE	4.0E+04	<39 U	<39 U	<35 U	<37 U	<37 U	<36 U	<9.01 U	<11.2 U	<8.65 U	<45.5 U	<9.89 U	<9.02 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	156.5	156.5	140.5	178	149	145	15.8	39.2	30.3	159.2	34.6	31.6

Table 4.10-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

	Sample Location:	MW27S	MW27M	MW28S	MW29S	MW29S	MW29S	MW31S	MW31S	MW31S
	Sample Top (ft below ground surface):	0	20	0	0	6	14	0	2	6
	Sample Bottom (ft below ground surface):	2	22	2	2	8	16	2	4	8
	Sample Date:	5/30/2008	6/13/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)						
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1221	NE	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1232	NE	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1242	NE	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1248	NE	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Aroclor 1260	NE	NE	NE	4.0E+04	<9.23 U	<8.87 U	<9.12 U	<10.9 U	<9.51 U	<9.29 U	<9.6 U	<9.66 U	<11.6 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	32.3	31	31.9	38.1	33.3	32.5	33.6	33.8	40.6

Notes:

PCB - Polychlorinated biphenyl

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.10-5
Soil Dioxins Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC13SB1		AOC13SB10		AOC13SB11		AOC13SB12		AOC13SB13		AOC13SB15		AOC13SB17		AOC13SB2		AOC13SB20		AOC13SB23		AOC13SB25		AOC13SB28		AOC13SB3	
					Sample Top (ft below ground surface):		4		18		12		24		0		8		4		16		10		6		4		8		0	
					Sample Bottom (ft below ground surface):		5.4		20		14		26		1		9.2		4.9		18		11.4		6.8		5.8		9.6		1	
					Sample Date:		01/05/2006		01/12/2006		01/18/2006		01/19/2006		01/19/2006		01/05/2006		01/06/2006		01/12/2006		01/06/2006		01/10/2006		01/09/2006		01/09/2006		01/12/2006	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																										
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**19.116**		<3.77	UJB	<0.807	UJB	<0.049	U	**4.927**	JB	**0.407**	J	0.122	J	<0.064	U	0.095	JK	<0.167	UJBK	**3.574**		**1.663**	J	**2.698**	B
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**17.525**	B	<0.636	UJB	<2.056	UB	<1.15	UJ	**18.128**	B	<2.223	UB	<0.285	UB	<1.257	UJB	<0.233	UJBK	<0.908	UB	**19.66**	B	**3.365**	B	<8.982	UB
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**2.212**	J	0.146	JK	<0.08	UJ	<0.069	U	**0.272**	J	<0.066	U	<0.066	U	<0.089	U	<0.045	U	<0.034	U	**0.373**	J	**0.226**	JK	<0.105	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**7.52**		**1.245**	J	**0.518**	J	0.054	JK	**0.784**	J	0.082	JK	<0.023	U	<0.032	U	<0.019	U	0.101	J	**0.92**	J	**0.395**	JK	**0.408**	J
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.715**	JK	<0.036	U	<0.033	U	<0.03	U	0.198	J	<0.027	U	<0.04	U	<0.05	U	<0.023	U	<0.019	U	<0.058	U	<0.044	U	<0.052	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**6.988**		**0.352**	J	0.177	JK	<0.021	U	**0.33**	J	<0.026	U	<0.024	U	<0.033	U	<0.02	U	<0.018	U	**0.475**	J	0.178	J	**0.321**	J
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.689**	JK	0.156	J	**0.352**	J	0.052	JK	**0.62**	J	0.054	JK	<0.038	U	<0.048	U	<0.023	U	<0.018	U	**0.22**	JK	0.124	JK	**0.382**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.213	U	<0.046	U	<0.02	U	<0.026	U	<0.034	U	<0.031	U	<0.03	U	<0.041	U	<0.024	U	<0.022	U	<0.091	U	0.061	JK	<0.052	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.285**	J	0.067	JK	**0.245**	J	**0.227**	JK	**0.579**	J	0.075	J	<0.038	U	<0.047	U	<0.022	U	<0.018	U	**0.35**	JK	0.09	JK	**0.51**	J
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.56**	J	<0.053	U	<0.028	U	0.079	J	0.182	J	<0.028	U	<0.038	U	<0.04	U	<0.031	U	<0.02	U	<0.08	UJ	<0.02	U	0.154	JK
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	8.692		<0.04	U	0.144	JK	<0.022	U	0.321	J	<0.027	U	<0.026	U	<0.035	U	<0.021	U	<0.019	U	0.153	JK	0.084	JK	0.203	J
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	5.399		<0.016	U	0.305	J	0.022	JK	0.332	J	0.046	J	<0.02	U	<0.027	U	<0.018	U	<0.017	U	0.395	JK	0.195	J	<0.051	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	2.498		<0.04	U	<1.464	U	<0.02	U	<0.817	UJ	<0.039	U	<0.049	U	<0.065	UJ	<0.036	U	<0.033	U	<1.348	UJ	<0.898	U	<0.458	UJ
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.066	U	<0.02	U	<0.019	U	**0.323**	JK	**0.295**	JK	<0.022	U	<0.021	U	**0.206**	JK	<0.02	U	<0.022	U	<0.058	UJ	<0.027	U	<0.05	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	9.675	B	7.244	JB	2.129	J	0.161	JK	7.409	J	<0.799	UJB	<0.155	UB	<0.102	U	<0.203	UJB	<0.374	UB	<5.209	UB	5.334	JB	<6.372	UB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	81.195	B	<5.52	UJB	14.07	JB	28.108	B	190.864	B	15.047	JB	<2.773	UB	24.918	B	<2.114	UJB	<3.947	UB	153.177	B	15.69	JB	51.136	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		NA		NA		NA		**1.2067**		NA		NA		NA		NA		NA		NA		NA		**0.4867**	

Table 4.10-5

Soil Dioxins Analytical Results - AOC 13

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)	Sample Location:	AOC13SB31		AOC13SB34		AOC13SB37		AOC13SB4		AOC13SB40		AOC13SB42		AOC13SB46		AOC13SB47		AOC13SB49		AOC13SB5		AOC13SB52		AOC13SB53		AOC13SB6	
					Sample Top (ft below ground surface):	8		4		10		4		12		8		12		18		2		20		0		4		4	
					Sample Bottom (ft below ground surface):	9		5.2		11.3		4:8		13.4		9.4		13.9		19.4		4		21.7		2		5.3		5.3	
					Sample Date:	01/11/2006		01/10/2006		01/11/2006		01/12/2006		01/16/2006		01/11/2006		01/18/2006		01/17/2006		01/19/2006		01/10/2006		01/11/2006		01/12/2006		01/18/2006	
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		<0.13	U	<1.254	UB	**21.53**	B	<1.051	UB	<1.14	UB	<0.142	UJK	**0.497**	JB	<0.54	UB	<3.418	UJBK	<0.038	U	**37.185**	B	<0.297	UJBK	<0.504	U
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		<0.304	UB	**3.691**	B	**21.37**	B	**3.13**	B	**5.529**	B	<1.621	UB	<2.22	UB	<0.872	UB	<16.808	UB	<0.542	UJBK	**67.321**	B	<1.28	UJBK	<2.179	UJBK
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		<0.041	U	<0.06	U	**2.617**	J	0.174	JK	**0.213**	J	<0.03	U	<0.031	U	<0.026	U	<0.522	U	<0.054	U	**2.412**	J	<0.067	U	<0.707	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		<0.017	U	**0.365**	J	**4.42**	J	**0.433**	J	**0.323**	J	0.042	JK	**0.208**	J	0.176	JK	**1.405**	JK	<0.018	U	**6.38**		0.143	J	<0.07	U
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		<0.015	U	0.059	JK	<0.147	U	**0.302**	J	0.11	J	<0.016	U	<0.017	U	<0.013	U	<0.201	U	<0.022	U	**0.473**	J	<0.027	U	<0.126	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		<0.017	U	0.17	J	**1.953**	JK	**0.467**	JK	0.151	J	<0.012	U	0.127	J	0.071	J	<0.109	U	<0.019	U	**2.685**		<0.046	U	<0.073	U
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		<0.014	U	0.144	JK	**1.761**	J	**0.408**	J	**0.247**	J	0.115	JK	**0.32**	J	0.083	J	**0.648**	JK	<0.021	U	**2.009**	J	0.144	JK	<0.121	U
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01		<0.021	U	<0.045	U	<0.217	U	**0.205**	J	<0.013	U	<0.015	U	<0.018	U	<0.009	U	<0.135	U	<0.024	U	<0.128	U	<0.056	U	<0.09	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		<0.014	U	0.185	JK	**1.099**	J	**0.322**	J	0.168	J	0.18	J	0.084	JK	0.1	J	<0.191	U	<0.021	U	**1.402**	J	**0.285**	J	<0.12	U
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01		<0.026	U	<0.032	U	**0.879**	JK	**0.263**	JK	<0.024	U	<0.014	U	<0.022	U	0.059	JK	<0.129	U	<0.028	U	**0.359**	JK	<0.038	U	**0.233**	JK
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE		<0.018	U	0.132	J	0.819	JK	0.295	J	<0.012	U	<0.013	U	0.065	JK	0.058	J	<0.117	U	<0.02	U	1.192	J	<0.049	U	<0.078	U
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE		<0.013	U	0.215	J	1.122	JK	0.356	J	0.104	JK	<0.012	U	<0.011	U	0.056	J	0.957	J	<0.018	U	1.314	J	<0.033	U	<0.034	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01		<0.039	U	<0.586	U	<3.514	U	<0.063	UJ	<0.925	U	<0.021	U	<0.976	U	<0.012	U	<8.126	U	<0.042	U	<1.614	U	<1.325	U	<0.13	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01		<0.017	U	<0.025	U	<0.113	U	<0.024	U	<0.017	U	<0.011	U	<0.015	U	0.104	JK	<0.105	U	<0.021	U	**0.344**	JK	<0.026	U	<0.063	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE		<0.262	UB	<2.673	UB	32.42		<3.087	UB	2.516	J	<0.587	UB	1.017	J	1.076	J	<9.902	UB	<0.312	UJBK	50.055	B	<0.399	UB	<0.431	U
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE		<1.577	UB	23.403	B	200.359	B	16.439	B	22.812	B	<4.972	UB	9.351	B	<5.02	UB	<89.907	UB	11.347	B	508.719	B	12.903	B	<14.332	UB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		**3.8737**		NA		NA	

Table 4.10-5
Soil Dioxins Analytical Results - AOC 13
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC13SB7		AOC13SB8		AOC13SB9		MW-20S		MW-21S		MW-8M		MW-8S		MW-9S	
					Sample Top (ft below ground surface):		4		0		4		18		0		24		0		0	
					Sample Bottom (ft below ground surface):		5.1		1.4		5.4		19.1		2		26		2		2	
					Sample Date:		01/05/2006		01/05/2006		01/12/2006		11/28/2005		11/29/2005		03/06/2006		11/29/2005		11/29/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																		
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**14.585**	J	**2.386**	J	<0.063	U	<0.173	U	<1.833	UB	0.187	JK	**4.358**	B	**9.051**	
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**5.683**	JB	**8.616**	B	<0.376	UJBK	<0.906	UB	**8.766**	B	**0.83**	J	**11.748**	B	**34.353**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**2.834**	J	<0.062	U	<0.089	U	<0.066	U	0.187	J	<0.102	U	**0.358**	J	**0.845**	J
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**9.859**		**0.576**	JK	<0.022	U	<0.014	U	**0.297**	J	0.137	JK	<0.539	UB	**0.855**	JK
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.339**	JK	<0.024	U	<0.046	U	<0.024	U	0.141	JK	0.188	J	0.185	JK	**0.247**	J
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**4.741**		0.197	JK	<0.023	U	<0.015	U	**0.275**	J	0.136	J	<0.328	UJBK	**0.456**	J
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.765**	J	**0.353**	J	<0.044	U	<0.023	U	**0.367**	J	0.159	J	**0.405**	J	**1.038**	J
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.249**	JK	<0.059	U	<0.028	U	<0.018	U	<0.052	U	<0.038	U	<0.074	U	<0.053	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.876**	J	**0.248**	JK	<0.043	U	<0.022	U	**0.324**	J	**0.27**	JK	**0.441**	JK	**0.694**	J
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.391**	JK	0.123	JK	<0.029	U	<0.017	U	<0.044	U	<0.073	U	<0.023	U	0.173	JK
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	1.366	J	<0.051	U	<0.025	U	<0.016	U	0.404	J	<0.032	U	0.297	J	0.663	J
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	1.971	J	0.303	J	<0.023	U	<0.013	U	0.244	J	<0.026	U	0.221	J	0.323	JK
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	1.058	J	<0.06	U	<0.062	U	<0.035	U	<0.362	U	<0.121	U	<1.052	U	0.813	J
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	0.124	JK	0.126	JK	<0.018	U	0.051	JK	**0.526**	JK	<0.037	U	**0.295**	JK	**0.245**	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	12.127	JB	<4.458	UB	<0.095	U	<0.511	UB	4.731	J	<0.559	UB	20.848	B	17.018	B
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	12.521	JB	53.882	B	<3.277	UB	<8.832	UB	44.205	B	23.642	B	70.541	B	260.997	B
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		**0.617**		NA		NA		**0.941**		NA		**0.8037**		**1.5311**	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.11-1
Soil Volatile Organic Compound Analytical Results - AOC 14
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	AOC14SB1 0 1.8 12/15/2005	AOC14SB1 4 5.6 12/15/2005	AOC14SB1 20 21.4 12/15/2005	AOC14SB2 0 1.5 12/15/2005	AOC14SB2 2 3.4 12/15/2005	AOC14SB2 16 17.4 12/15/2005	AOC14SB3 0 1.6 12/16/2005	AOC14SB3 4 5.3 12/16/2005	AOC14SB3 18 20 12/16/2005	AOC14SB4 0 1.4 12/15/2005	AOC14SB4 4 5.5 12/15/2005	AOC14SB4 20 22 12/15/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.4 U	<5 UJ	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.4 U	<5 UJ	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.4 U	<5 UJ	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	4.9 J	<5 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.4 U	<5 UJ	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	1.0 J	<5 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<11 U	<10 U	2.6 J	4.3 J	3.4 J	12	<13 U	<12 U	<8.8 U	<9.7 U	3.0 J	2.0 J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<11 U	<10 U	<8.4 U	<10 U	<10 UJ	<11 U	<13 U	<12 U	<8.8 U	<9.7 U	<11 U	<10 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<11 U	<10 U	<8.4 U	<10 U	<10 UJ	<11 U	<13 U	<12 U	<8.8 U	<9.7 U	<11 U	<10 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	8.4 J	9.4 J	22	26	23 J	71	7.8 J	8.1 J	35	18 J	20 J	13 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	0.41 J	1.1 J	**27**	0.46 J	2.1 J	<5.5 U	2.0 J	<6 U	**100**	0.64 J	2.4 J	0.41 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.86 J	0.67 J	1.3 J	2.5 J	5.9 J	2.2 J	2.7 J	3.8 J	1.1 J	0.42 J	5.4 J	1.3 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	31	<5 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<11 U	<10 U	<8.4 U	<10 U	<10 UJ	<11 U	<13 U	<12 U	<8.8 U	<9.7 U	<11 U	<10 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.4 U	<5 U	<4.2 U	1.1 J	<5 UJ	1.3 J	<6.4 U	<6 U	<4.4 U	1.4 J	0.80 J	<5 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	0.37 J	<5.5 U	<5 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	1.3 J	3.3 J	1.1 J	0.79 J	3.8 J	<5.5 U	0.61 J	<6 U	1.1 J	0.96 J	<5.5 U	2.4 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<5.4 U	0.66 J	<4.2 U	<5.1 U	0.90 J	<5.5 U	<6.4 U	<6 U	<4.4 U	0.83 J	<5.5 U	<5 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<11 U	<10 U	<8.4 U	<10 U	<10 UJ	<11 U	<13 U	<12 U	<8.8 U	<9.7 U	<11 U	<10 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	2.0 J	6.1	1.3 J	0.94 J	6.1 J	0.92 J	0.61 J	<6 U	1.6 J	1.2 J	<5.5 U	2.4 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.4 U	<5 U	<4.2 U	0.37 J	<5 UJ	0.61 J	<6.4 U	<6 U	<4.4 U	0.79 J	0.40 J	<5 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.4 U	0.84 J	<4.2 U	<5.1 U	1.2 J	<5.5 U	<6.4 U	<6 U	0.65 J	1.3 J	1.5 J	<5 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.4 U	0.34 J	<4.2 U	<5.1 U	0.61 J	<5.5 U	<6.4 U	<6 U	<4.4 U	0.56 J	0.49 J	<5 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.4 U	<5 UJ	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.41 J	1.9 J	0.38 J	0.77 J	3.1 J	0.92 J	<6.4 U	<6 U	0.76 J	2.1 J	5.9	0.58 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	0.39 J	<6.4 U	<6 U	<4.4 U	0.37 J	<5.5 U	<5 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.4 U	<5 U	<4.2 U	0.74 J	<5 UJ	0.94 J	<6.4 U	<6 U	<4.4 U	1.1 J	0.54 J	<5 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.4 U	<5 U	<4.2 U	<5.1 U	<5 UJ	<5.5 U	<6.4 U	<6 U	<4.4 U	<4.8 U	<5.5 U	<5 U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.11-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 14
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC14SB1	AOC14SB1	AOC14SB1	AOC14SB2	AOC14SB2	AOC14SB2	AOC14SB3	AOC14SB3	AOC14SB3	AOC14SB4	AOC14SB4	AOC14SB4
					Sample Top (ft below ground surface):	0	4	20	0	2	16	0	4	18	0	4	20
					Sample Bottom (ft below ground surface):	1.8	5.6	21.4	1.5	3.4	17.4	1.6	5.3	20	1.4	5.5	22
					Sample Date:	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/16/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/15/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	180 J
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		880	<390 U	<370 U	<7200 U	380 J	<400 U	580 J	<380 U	<370 U	97 J	<360 U	<350 U
Acetophenone	NE	NE	NE	3.0E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		240 J	<390 U	<370 U	<7200 U	210 J	<400 U	520 J	<380 U	<370 U	140 J	<360 U	110 J
Atrazine	7.8E+03	2.2E+03	NE	NE		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		**1800**	<390 U	<370 U	**1100** J	**850**	<400 U	**3200**	52 J	<370 U	430	90 J	81 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**2100**	<390 U	<370 U	**1400** J	**940**	<400 U	**3200**	53 J	<370 U	**350** J	**110** J	61 J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		**1800**	<390 U	<370 U	**1200** J	**900**	<400 U	**3100**	55 J	<370 U	320 J	82 J	46 J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		1300	<390 U	<370 U	1200 J	770	<400 U	2500	47 J	<370 U	260 J	95 J	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		**1800**	<390 U	<370 U	**1300** J	**870**	<400 U	**3200**	63 J	<370 U	**390** J	69 J	45 J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<430 U	<390 U	<370 U	<7200 U	90 J	<400 U	92 J	<380 U	<370 U	77 J	43 J	<350 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	200 J	<380 U	<370 U	<390 U	<360 U	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		1800	<390 U	<370 U	1400 J	890	<400 U	3400	74 J	<370 U	430	120 J	98 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**350** J	<390 U	<370 U	<7200 U	**210** J	<400 U	**670** J	<380 U	<370 U	**82** J	<360 U	<350 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		3000	<390 U	<370 U	1900 J	1300	<400 U	6500	120 J	<370 U	990	150 J	190 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	82 J	<380 U	<370 U	42 J	<360 U	170 J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		**1200**	<390 U	<370 U	**1200** J	**690** J	<400 U	**2200**	42 J	<370 U	230 J	64 J	<350 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		71 J	<390 U	<370 U	<7200 U	<770 U	<400 U	**130** J	<380 U	<370 U	<390 U	<360 U	<350 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<2200 U	<2000 U	<1900 U	<37000 U	<4000 U	<2100 U	<4000 U	<2000 U	<1900 U	<2000 U	<1800 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		350 J	<390 U	<370 U	<7200 U	340 J	<400 U	2100	47 J	<370 U	500	57 J	<350 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<430 U	<390 U	<370 U	<7200 U	<770 U	<400 U	<780 U	<380 U	<370 U	<390 U	<360 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		2400	<390 U	<370 U	1500 J	1200	<400 U	5800	92 J	<370 U	750	120 J	190 J

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf).
Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.11-3
Soil Metals Analytical Results - AOC 14
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC14SB1	AOC14SB1	AOC14SB1	AOC14SB2	AOC14SB2	AOC14SB2	AOC14SB3	AOC14SB3	AOC14SB3	AOC14SB4	AOC14SB4	AOC14SB4
					Sample Top (ft below ground surface):	0	4	20	0	2	16	0	4	18	0	4	20
					Sample Bottom (ft below ground surface):	1.8	5.6	21.4	1.5	3.4	17.4	1.6	5.3	20	1.4	5.5	22
					Sample Date:	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/16/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/15/2005
Aluminum	1.0E+05	7.6E+04	NE	NE		18400	8370	7240	18800	12000	13400	47100	43300	7830	14800	32000	7610
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01		<7.5 UJ-	<6.9 UJ-	<6.6 UJ-	<6.4 UJ-	<6.7 UJ-	<7.0 UJ-	<7.1 UJ-	<6.7 UJ-	<6.4 UJ-	<6.7 UJ-	<6.2 UJ-	<6.1 UJ-
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01		**6.2**	**8.2**	**4.4**	**4.0**	**6.7**	**9.6**	**1.3**	<1.1 U	**6.7**	**7.5**	<1 U	**4.3**
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02		175	76.0	50.6	192	109	97.2	**476**	**539**	65.1	83.5	288	66.1
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01		2.7	<0.58 U	<0.55 U	2.7	1.1	<0.58 U	7.3	8.1	<0.54 U	0.82	7.3	<0.51 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01		**1.9**	**1.6**	<0.55 U	**1.3**	**1.0**	**0.85**	<0.59 U	**0.89**	**0.69**	**0.69**	<0.52 U	**0.60**
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01		14.9	11.5	10.7	**57.4**	12.2	16.2	13.9	**29.2**	11.3	15.2	12.2	10.7
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01		<6.2 U	<5.8 U	6.2	<5.3 U	<5.6 U	10.2	<5.9 U	<5.6 U	6.1	<5.6 U	<5.2 U	5.8
Copper	4.1E+04	3.1E+03	NE	2.8E+01		**30.9** J	12.2 J	15.2 J	22.6 J	18.6 J	18.2 J	13.0 J	9.0 J	15.8 J	15.2 J	21.2 J	15.8 J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00		<1.31 U	<1.18 U	<1.12 U	<1.1 U	<1.17 U	<1.22 U	1.20	<1.16 U	<1.12 U	<1.17 U	**2.69**	<1.07 U
Iron	1.0E+05	2.3E+04	NE	NE		**24700**	**43500**	13100	**29700**	19800	21000	6860	10100	15600	15400	7460	13900
Lead	8.0E+02	4.0E+02	NE	1.1E+01		**66.8**	**13.4**	7.0	**61.9**	**43.1**	**17.1**	**16.5**	**22.0**	8.2	**13.5**	6.7	7.3
Manganese	1.9E+04	1.8E+03	NE	5.0E+02		**2310** J	**803** J	362 J	**3330** J	**1100** J	**672** J	**6670** J	**8490** J	389 J	**1020** J	**4020** J	392 J
Mercury	NE	NE	NE	3.0E-01		**0.34** J+	<0.04 U	<0.04 U	**0.88** J+	0.14 J+	<0.04 U	0.19 J+	<0.04 U	<0.03 U	0.04 J+	0.15 J+	<0.03 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		7.0	10.3	16.0	7.8	10.2	19.4	<4.7 U	<4.5 U	14.9	13.1	<4.1 U	15.6
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00		**3.1**	<1.2 U	**3.0**	**2.6**	**2.0**	<1.2 U	**7.0**	**7.8**	**3.0**	**1.2**	**6.4**	**1.5**
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00		<1.2 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U	<1 U	<1 U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00		<12.4 U	<11.6 U	<11 U	<10.7 U	<11.2 U	<11.7 U	<11.8 U	<11.2 U	<10.7 U	<11.1 U	<10.3 U	<10.2 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00		**13.5**	**21.0**	**13.7**	**60.2**	**15.7**	**26.6**	**8.4**	**12.5**	**14.6**	**27.9**	**14.5**	**14.0**
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01		**117**	46.7	31.6	**67.2**	**65.4**	**67.5**	47.3	**58.1**	39.3	40.6	12.0	32.9

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.11-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 14

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC14SB1		AOC14SB1		AOC14SB1		AOC14SB2		AOC14SB2		AOC14SB2		AOC14SB3		AOC14SB3		AOC14SB3		AOC14SB4		AOC14SB4		AOC14SB4	
					Sample Top (ft below ground surface):		0		4		20		0		2		16		0		4		18		0		4		20	
					Sample Bottom (ft below ground surface):		1.8		5.6		21.4		1.5		3.4		17.4		1.6		5.3		20		1.4		5.5		22	
					Sample Date:		12/15/2005		12/15/2005		12/15/2005		12/15/2005		12/15/2005		12/15/2005		12/16/2005		12/16/2005		12/16/2005		12/15/2005		12/15/2005		12/15/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																								
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<43	U	<39	U	<37	U	<36	U	<39	U	<40	U	<39	U	<38	U	<37	U	<39	U	<36	U	<35	U
Aroclor 1221	NE	NE	NE	4.0E+04	<88	U	<79	U	<75	U	<74	U	<79	U	<82	U	<79	U	<78	U	<75	U	<78	U	<73	U	<72	U
Aroclor 1232	NE	NE	NE	4.0E+04	<43	U	<39	U	<37	U	<36	U	<39	U	<40	U	<39	U	<38	U	<37	U	<39	U	<36	U	<35	U
Aroclor 1242	NE	NE	NE	4.0E+04	<43	U	<39	U	<37	U	<36	U	<39	U	<40	U	<39	U	<38	U	<37	U	<39	U	<36	U	<35	U
Aroclor 1248	NE	NE	NE	4.0E+04	<43	U	<39	U	<37	U	<36	U	<39	U	<40	U	<39	U	<38	U	<37	U	<39	U	<36	U	<35	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<43	U	<39	U	<37	U	<36	U	<39	U	<40	U	<39	U	<38	U	<37	U	<39	U	<36	U	<35	U
Aroclor 1260	NE	NE	NE	4.0E+04	67		<39	U	<37	U	360		120		<40	U	120		<38	U	<37	U	21	J	22	J	<35	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	218.5		156.5		148.5		**487**		**257**		161		**257**		153		148.5		157.5		148.5		141	

Notes:

PCB - Polychlorinated biphenyl

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.11-5
Soil Dioxins Analytical Results - AOC 14
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC14SB1		AOC14SB3		AOC14SB4		
					Sample Top (ft below ground surface):	0		0		0		
					Sample Bottom (ft below ground surface):	1.8		1.6		1.4		
					Sample Date:	12/15/2005		12/16/2005		12/15/2005		
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)								
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**108.756**	J	**688.833**	B	**6**	B		
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**83.322**	JB	**343.385**	B	**7.312**	B		
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**4.948**	J	**42.781**		**0.432**	J		
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**24.019**	J	**318.806**		**1.613**	J		
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.786**	JK	**5.518**		0.093	JK		
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**7.13**	JK	**82.939**		**0.462**	J		
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**2.652**	J	**11.223**		**0.273**	JK		
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.222**	JK	**0.803**	J	<0.049	U		
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**2.114**	JK	**8.857**		**0.335**	J		
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.968**	J	**4.926**		<0.036	U		
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	3.075	J	7.372		0.22	JK		
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	3.653	JK	30.234		0.268	JK		
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<7.625	UJ			<0.405	U		
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.115	UJ	**1.552**		<0.016	U		
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	164.033	JB	929.071	B	12.318	B		
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	596.006	JB	1541.259	B	57.606	B		
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**8.8265**		**71.958**		**0.5949**			

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.12-1
Soil Volatile Organic Compound Analytical Results - AOC 15
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC15SB1		AOC15SB1		AOC15SB1		AOC15SB2		AOC15SB2		AOC15SB2		AOC15SB3		AOC15SB3		AOC15SB3		AOC15SB4		AOC15SB4		AOC15SB4	
					Sample Top (ft below ground surface): 0		4		16		0		4		16		0		14		18		0		16		18	
					Sample Bottom (ft below ground surface): 0.5		5		17.3		0.8		5		18		0.5		15.5		20		1		18		19.3	
					Sample Date: 10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<12	U	2.5	J	170	J	<14	U	1.3	J	3.9	J	<12	UJ	<9.3	U	<950	U	<11	U	17		5.1	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<12	U	<9.5	U	<870	U	<14	U	<10	U	<12	U	<12	UJ	<9.3	U	<950	U	<11	U	<10	U	<10	UJ
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<12	U	<9.5	U	<870	U	<14	U	<10	U	<12	U	<12	UJ	<9.3	U	<950	U	<11	U	<10	U	<10	UJ
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	48		16	J	420	J	13	J	7.9	J	17	J	27	J	3.6	J	<1900	U	<21	U	73		29	J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	1.3	J	**25**		**250**	J	0.78	J	4.7	J	14		1.2	J	3.6	J	**160**	J	1.2	J	5.0	J	**6400**	
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.39	J	2.3	J	<870	U	0.49	J	2.2	J	4.3	J	<12	UJ	0.54	J	62	J	0.32	J	13		6.2	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	1.0	J	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Chloroethane	6.5E+03	3.0E+03	NE	NE	<12	U	<9.5	U	<870	U	<14	U	<10	U	<12	U	<12	UJ	<9.3	U	<950	U	<11	U	<10	U	<10	UJ
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	0.89	J	3.3	J	<440	U	0.62	J	4.4	J	1.2	J	0.40	J	3.4	J	<480	U	4.2	J	4.4	J	1.8	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	0.34	J	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<6.2	U	1.3	J	520		<7	U	0.86	J	3.4	J	<6.2	UJ	1.8	J	1900		0.50	J	1.5	J	<5.2	UJ
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<6.2	U	<4.8	U	1200		<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	4900		<5.3	U	<5.1	U	<5.2	UJ
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<12	U	<9.5	U	<870	U	<14	U	<10	U	<12	U	<12	UJ	<9.3	U	<950	U	<11	U	<10	U	<10	UJ
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	0.92	J	5.4		95	J	0.71	J	6.2		1.7	J	0.66	J	4.8	J	300	J	6.3	J	5.8		2.5	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.2	U	3.2	J	85	J	<7	U	1.6	J	14		<6.2	UJ	3.0	J	110	J	0.78	J	3.6	J	<5.2	UJ
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<6.2	U	1.5	J	110	J	<7	U	0.98	J	4.1	J	<6.2	UJ	1.3	J	160	J	<5.3	U	1.5	J	0.36	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	0.50	J	<5.2	UJ
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.40	J	9.4		28	J	<7	U	2.6	J	5.3	J	<6.2	UJ	4.4	J	<480	U	2.1	J	5.3	J	8.6	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	0.42	J	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<6.2	U	<4.8	U	<440	U	<7	U	<5	U	<6	U	<6.2	UJ	<4.7	U	<480	U	<5.3	U	<5.1	U	<5.2	UJ

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.12-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 15
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC15SB1	AOC15SB1	AOC15SB1	AOC15SB2	AOC15SB2	AOC15SB2	AOC15SB3	AOC15SB3	AOC15SB3	AOC15SB4	AOC15SB4	AOC15SB4
					Sample Top (ft below ground surface):	0	4	16	0	4	16	0	14	18	0	16	18
					Sample Bottom (ft below ground surface):	0.5	5	17.3	0.8	5	18	0.5	15.5	20	1	18	19.3
					Sample Date:	10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04		<2000 U	<360 U	130 J	<390 U	<360 U	<400 U	<400 U	<350 U	140 J	<420 U	<380 U	<400 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03		<2000 U	<360 U	<1100 U	110 J	<360 U	<400 U	150 J	<350 U	550 J	<420 U	<380 U	<400 U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
2-Nitrophenol	NE	NE	NE	5.1E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02		<2000 UJ	<360 U	<1100 U	<390 UJ	<360 U	<400 U	<400 UJ	<350 U	<1200 U	<420 UJ	<380 U	<400 U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
4-Nitrophenol	NE	NE	NE	5.1E+03		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<2000 U	<360 U	1300	<390 U	<360 U	<400 U	<400 U	<350 U	270 J	<420 U	1000	<400 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		860 J	<360 U	1900	190 J	<360 U	<400 U	210 J	230 J	230 J	<420 U	390	<400 U
Acetophenone	NE	NE	NE	3.0E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	190 J	<1200 U	<420 U	42 J	<400 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		750 J	<360 U	<1100 U	110 J	<360 U	<400 U	160 J	<350 U	<1200 U	94 J	<380 U	<400 U
Atrazine	7.8E+03	2.2E+03	NE	NE		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE		<10000 UJ	<1800 U	<5600 U	<2000 UJ	<1900 U	<2000 U	<2100 UJ	120 J	<6000 U	<2200 UJ	<2000 U	<2100 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		**3500**	<360 U	380 J	620	<360 U	<400 U	**790**	<350 U	<1200 U	310 J	<380 U	<400 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		**3700**	<360 U	**200** J	**760**	<360 U	<400 U	**950**	<350 U	<1200 U	**260** J	<380 U	<400 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		**3500**	<360 U	210 J	**720**	<360 U	<400 U	**930**	<350 U	<1200 U	230 J	<380 U	<400 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		3500	<360 U	130 J	820	<360 U	<400 U	960	<350 U	<1200 U	220 J	<380 U	<400 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		**3600**	<360 U	210 J	**690**	<360 U	<400 U	**850**	<350 U	<1200 U	260 J	<380 U	<400 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Caprolactam	1.0E+08	3.1E+07	NE	NE		<10000 U	<360 U	<1100 U	<2000 U	<360 U	<400 U	<2100 U	<350 U	<1200 U	<2200 U	<380 U	<400 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE		240 J	<360 U	<1100 U	71 J	<360 U	<400 U	100 J	<350 U	<1200 U	<420 U	<380 U	<400 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		3800	<360 U	510 J	770	<360 U	<400 U	1000	<350 U	<1200 U	350 J	81 J	<400 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		**850** J	<360 U	<1100 U	**160** J	<360 U	<400 U	**220** J	<350 U	<1200 U	58 J	<380 U	<400 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE		<2000 U	<360 U	960 J	56 J	<360 U	<400 U	78 J	<350 U	150 J	<420 U	<380 U	<400 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05		<2000 U	<360 U	<1100 U	<390 U	47 J	<400 U	<400 U	37 J	<1200 U	<420 U	<380 U	<400 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		6500	<360 U	1700	1300	<360 U	<400 U	1700	<350 U	190 J	600	260 J	<400 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<2000 U	<360 U	1100 J	<390 U	<360 U	<400 U	<400 U	<350 U	130 J	<420 U	130 J	<400 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		**2900**	<360 U	130 J	**630**	<360 U	<400 U	**760**	<350 U	<1200 U	190 J	<380 U	<400 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<2000 U	<360 U	**440** J	**220** J	<360 U	<400 U	**410**	<350 U	**14000**	<420 U	39 J	<400 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03		<10000 U	<1800 U	<5600 U	<2000 U	<1900 U	<2000 U	<2100 U	<1800 U	<6000 U	<2200 U	<2000 U	<2100 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		2100	44 J	960 J	570	<360 U	<400 U	800	47 J	200 J	420	<380 U	<400 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04		<2000 U	<360 U	<1100 U	<390 U	<360 U	<400 U	<400 U	<350 U	<1200 U	<420 U	<380 U	<400 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		6100	<360 U	970 J	1100	<360 U	<400 U	1300	<350 U	120 J	530	210 J	<400 U

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.12-3
Soil Metals Analytical Results - AOC 15
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC15SB1		AOC15SB1		AOC15SB1		AOC15SB2		AOC15SB2		AOC15SB2		AOC15SB3		AOC15SB3		AOC15SB3		AOC15SB4		AOC15SB4		AOC15SB4	
					Sample Top (ft below ground surface):		0		4		16		0		4		16		0		14		18		0		16		18	
					Sample Bottom (ft below ground surface):		0.5		5		17.3		0.8		5		18		0.5		15.5		20		1		18		19.3	
					Sample Date:		10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005		10/31/2005		12/19/2005		12/19/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																								
Aluminum	1.0E+05	7.6E+04	NE	NE	24800		2750		3000		27800		5500		5860		26200		2550		2730		16200		7610		7130	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<7.0	UJ	<6.3	UJ	<6.3	UJ	<6.9	UJ	<6.5	UJ	<7.1	UJ	<7.2	UJ	<6.1	UJ	<7.0	UJ	<7.5	UJ	<6.7	UJ	<6.9	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**10.8**		**2.2**		<1.1	U	**11.8**		**4.5**		**6.4**		**9.6**		**2.0**		**3.4**		**4.5**		**5.7**		**6.4**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	237		11.4		12.9		262		35.9		66.3		242		12.7		15.3		170		58.6		88.8	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	<0.58	U	<0.52	U	<0.53	U	<0.58	U	<0.54	U	<0.6	U	1.5		<0.51	U	<0.59	U	<0.62	U	<0.56	U	<0.58	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**4.9**		<0.52	U	<0.53	U	**0.71**		<0.54	U	<0.6	U	**2.4**		<0.51	U	<0.59	U	<0.62	U	<0.56	U	<0.58	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**48.7**	J	5.2		6.7		**280**	J	8.1		9.1		**57.5**	J	6.1		4.1		13.0	J	12.9		10.9	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.8	U	<5.2	U	<5.3	U	6.2		<5.4	U	6.4		<6	U	<5.1	U	<5.9	U	<6.2	U	6.0		6.7	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**1360**		17.0		5.1		**44.6**		6.9		17.5		**339**		4.3		8.2		12.5		14.4		17.7	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**4.49**		<1.08	U	**20.0**		**3.63**		<1.09	U	<1.2	U	**3.46**		1.07		<1.17	U	<1.28	U	**8.33**		<1.21	U
Iron	1.0E+05	2.3E+04	NE	NE	16500		6430		6570		**30600**		20500		15700		15400		5070		7720		10900		13800		15500	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**88.5**	J	2.8	J	2.4	J	**2620**	J	7.1		8.0		**65.5**	J	2.9	J	3.3	J	**14.6**	J	7.9		8.8	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**4610**		215		251		**5210**		**647**		411		**4900**		199		259		**1700**		373		370	
Mercury	NE	NE	NE	3.0E-01	0.24	J	0.06		<0.04	U	0.14		<0.04	U	<0.04	U	**0.98**	J	<0.03	U	<0.04	U	0.08	J	<0.04	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	11.0		5.6		6.7		10.5		6.5		15.3		7.2		5.6		6.3		8.6		16.0		17.1	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**2.8**		<1	U	**2.5**		**3.1**		<1.1	U	**1.2**		**2.6**		**1.4**		**4.3**		<1.2	U	<1.1	U	<1.2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	**35.8**		<1	U	<1.1	U	<1.2	U	<1.1	U	<1.2	U	**17.7**		<1	U	<1.2	U	<1.2	U	<1.1	U	<1.2	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<5.8	U	<5.2	U	<5.3	U	<5.8	U	<5.4	U	<6	U	<6	U	<5.1	U	<5.9	U	<6.2	U	<5.6	U	<5.8	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**27.7**		**7.9**		**7.9**		**27.7**		**11.8**		**13.6**		**29.7**		7.0		**8.0**		**15.1**		**15.7**		**15.2**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**7240**		14.7		12.3		**539**		20.3		31.8		**2900**		12.9		24.6		**51.9**		34.1		33.9	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.12-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 15
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC15SB1	AOC15SB1	AOC15SB1	AOC15SB2	AOC15SB2	AOC15SB2	AOC15SB3	AOC15SB3	AOC15SB3	AOC15SB4	AOC15SB4	AOC15SB4
					Sample Top (ft below ground surface): 0	4	16	0	4	16	0	14	18	0	16	18
					Sample Bottom (ft below ground surface): 0.5	5	17.3	0.8	5	18	0.5	15.5	20	1	18	19.3
					Sample Date: 10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005	10/31/2005	12/19/2005	12/19/2005
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<200 U	<36 U	<36 U	<190 U	<36 U	<40 U	<200 U	<35 U	<39 U	<42 U	<38 U	<40 U
Aroclor 1221	NE	NE	NE	4.0E+04	<400 U	<72 U	<73 U	<390 U	<73 U	<81 U	<410 U	<71 U	<78 U	<86 U	<78 U	<81 U
Aroclor 1232	NE	NE	NE	4.0E+04	<200 U	<36 U	<36 U	<190 U	<36 U	<40 U	<200 U	<35 U	<39 U	<42 U	<38 U	<40 U
Aroclor 1242	NE	NE	NE	4.0E+04	<200 U	<36 U	<36 U	<190 U	<36 U	<40 U	<200 U	<35 U	<39 U	<42 U	<38 U	<40 U
Aroclor 1248	NE	NE	NE	4.0E+04	<200 U	<36 U	<36 U	<190 U	<36 U	<40 U	<200 U	<35 U	<39 U	83	<38 U	<40 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<200 U	<36 U	<36 U	<190 U	<36 U	<40 U	<200 U	<35 U	<39 U	<42 U	<38 U	<40 U
Aroclor 1260	NE	NE	NE	4.0E+04	1200	<36 U	<36 U	1100 J	<36 U	<40 U	550	<35 U	<39 U	67 J	<38 U	<40 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**1900**	144	144.5	**1770**	144.5	160.5	**1255**	140.5	156	**277**	153	160.5

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.12-5
Soil Dioxins Analytical Results - AOC 15
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC15SB1		AOC15SB1		AOC15SB2		AOC15SB3	
				Sample Top (ft below ground surface):	0		0		16		14	
				Sample Bottom (ft below ground surface):	0.5		1.2		18		15.5	
				Sample Date:	10/31/2005		12/19/2005		12/19/2005		12/19/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)								
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**29.767**	B	**17.341**	B	<0.202	UB	<0.606	UB
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**164.298**	B	**80.757**	B	<0.689	UB	**9.868**	B
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**3.222**		**0.918**	J	<0.055	U	**0.233**	J
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**3.639**		**1.595**	J	0.117	J	**0.232**	J
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**2.145**	J	**0.503**	J	<0.05	U	**0.358**	J
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**1.759**	J	**0.644**	J	0.127	J	**0.208**	J
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**5.355**		**2.23**	B	<0.048	U	<0.886	UB
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.087	U	<0.104	U	0.127	JK	0.185	JK
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**5.427**		**1.347**	J	0.189	JK	**1.036**	J
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**1.592**	J	**0.319**	JK	<0.052	U	**0.341**	J
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	1.205	J	0.518	J	0.084	JK	0.202	J
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	1.808	J	0.639	JK	<0.036	U	0.221	JK
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	2.921		1.377		<0.097	U	<0.218	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	**0.31**	JK	**0.359**	JK	<0.041	U	0.195	JK
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	87.952	B	26.272	B	<0.389	UB	<1.087	UJBK
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	869.753	B	574.221	B	<4.421	UB	<25.86	UB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**6.9891**		**2.8858**		NA		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.13.1-1
VOCs Detected in Surface Soil
AOC 16 - Off-site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
2-Butanone	AOC20CA1SB1	0	2	0.0025	mg/kg	J	22311	NA	NA
Acetone	AOC20CA1SB1	0	2	0.012	mg/kg	J	14127	8	NA
	AOC20CA2SB2	0	1.5	0.017	mg/kg	J			
	BBSB2	0	1.9	0.01	mg/kg	J			
	MW-6S	0	2	0.02	mg/kg	J			
Benzene	AOC20CA1SB1	0	2	0.00044	mg/kg	J	0.64	0.02	NA
	AOC20CA2SB2	0	1.5	0.0022	mg/kg	J			
Carbon disulfide	AOC20CA2SB2	0	1.5	0.0014	mg/kg	J	355	20	NA
	AOC20CA3SB1	0	1.3	0.0066	mg/kg	J			
	BBSB2	0	1.9	0.0061	mg/kg	J			
	MW-6S	0	2	0.01	mg/kg	J			
Chloromethane	BBSB2	0	1.9	0.00092	mg/kg	J	47	NA	NA
Cyclohexane	AOC20CA1SB1	0	2	0.00039	mg/kg	J	140	NA	NA
	AOC20CA2SB2	0	1.5	0.0025	mg/kg	J			
	BBSB2	0	1.9	0.001	mg/kg	J			
Methylcyclohexane	AOC20CA1SB1	0	2	0.00087	mg/kg	J	2591	NA	NA
	AOC20CA2SB2	0	1.5	0.0036	mg/kg	J			
	AOC20CA3SB1	0	1.3	0.0014	mg/kg	J			
	BBSB2	0	1.9	0.00097	mg/kg	J			
	MW-6S	0	2	0.00068	mg/kg	J			
Toluene	AOC20CA2SB2	0	1.5	0.0011	mg/kg	J	520	6	NA
	BBSB2	0	1.9	0.0011	mg/kg	J			
Trichloroethene	BBSB2	0	1.9	0.0013	mg/kg	J	0.05	0.03	NA

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004
[b] Soil SSL (DAF10) values were obtained from EPA Region 9 PRG Table, October 2004

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-2
SVOCs Detected in Surface Soil
AOC 18 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
2-Methylnaphthalene	AOC20CA1	0	2	0.049	mg/kg	J	55.92	NA	NA
	AOC20CA3	0	2	0.27	mg/kg	J			
Acenaphthene	AOC20CA3	0	2	0.1	mg/kg	J	3681.71	290	NA
	BGRR2	0	1	0.3	mg/kg	J			
	BGRR3	0	1	0.18	mg/kg	J			
Acenaphthylene	AOC20CA3	0	2	0.21	mg/kg	J	3681.71	NA	NA
	BGPRK5	0	1	0.052	mg/kg	J			
	BGRR2	0	1	1.7	mg/kg	J			
	BGRR3	0	1	0.36	mg/kg	J			
	BGVNW7	0	1	0.26	mg/kg	J			
Anthracene	AOC20CA1	0	2	0.067	mg/kg	J	21896.12	5900	0.1205 - 3.8
	AOC20CA3	0	2	0.17	mg/kg	J			
	BGRR2	0	1	3.8	mg/kg				
	BGRR3	0	1	0.55	mg/kg	J			
	BGVNW7	0	1	0.15	mg/kg	J			
Benzo(a)anthracene	AOC20CA1	0	2	0.19	mg/kg	J	0.62	0.8	0.052 - 8.6
	AOC20CA2	0	2	0.38	mg/kg	J			
	AOC20CA3	0	2	0.56	mg/kg				
	BGPRK5	0	1	0.17	mg/kg	J			
	BGRR2	0	1	**8.6**	mg/kg				
	BGRR3	0	1	**2.4**	mg/kg				
	BGVNW7	0	1	0.77	mg/kg	J			
Benzo(a)pyrene	AOC20CA1	0	2	0.11	mg/kg	J	0.06	4	0.053 - 7.2
	AOC20CA2	0	2	0.44	mg/kg	J			
	AOC20CA3	0	2	0.71	mg/kg				
	BBSB2	0	1.9	0.043	mg/kg	J			
	BGPRK5	0	1	0.19	mg/kg	J			
	BGRR2	0	1	7.2	mg/kg				
	BGRR3	0	1	2.5	mg/kg				
	BGVNW7	0	1	0.78	mg/kg	J			
Benzo(b)fluoranthene	AOC20CA1	0	2	0.19	mg/kg	J	0.62	2	0.055 - 6.3
	AOC20CA2	0	2	0.44	mg/kg	J			
	AOC20CA3	0	2	0.77	mg/kg				
	BGPRK5	0	1	0.17	mg/kg	J			
	BGRR2	0	1	**6.3**	mg/kg				
	BGRR3	0	1	2.3	mg/kg				
	BGVNW7	0	1	0.73	mg/kg	J			
Benzo(g,h,i)perylene	AOC20CA1	0	2	0.11	mg/kg	J	2315.95	NA	0.04 - 3.6
	AOC20CA2	0	2	0.32	mg/kg	J			
	AOC20CA3	0	2	0.61	mg/kg				
	BGPRK5	0	1	0.14	mg/kg	J			
	BGRR2	0	1	3.6	mg/kg				
	BGRR3	0	1	1.7	mg/kg				
	BGVNW7	0	1	0.69	mg/kg	J			
Benzo(k)fluoranthene	AOC20CA1	0	2	0.13	mg/kg	J	0.38	20	0.053 - 6.5
	AOC20CA2	0	2	0.37	mg/kg	J			
	AOC20CA3	0	2	0.73	mg/kg				
	BGPRK5	0	1	0.16	mg/kg	J			
	BGRR2	0	1	6.5	mg/kg				
	BGRR3	0	1	2.3	mg/kg				
	BGVNW7	0	1	0.68	mg/kg	J			
Carbazole	AOC20CA3	0	2	0.086	mg/kg	J	24.32	0.3	NA
Chrysene	AOC20CA1	0	2	0.35	mg/kg	J	62.15	80	0.07 - 7.5
	AOC20CA2	0	2	0.45	mg/kg	J			
	AOC20CA3	0	2	0.73	mg/kg				
	BBSB2	0	1.9	0.043	mg/kg	J			
	BGPRK5	0	1	0.19	mg/kg	J			
	BGRR2	0	1	7.5	mg/kg				
	BGRR3	0	1	2.7	mg/kg				
	BGVNW7	0	1	0.79	mg/kg	J			
Dibenz(a,h)anthracene	BGPRK5	0	1	0.044	mg/kg	J	0.06	0.8	NA
	BGRR2	0	1	1.3	mg/kg	J			
	BGRR3	0	1	0.48	mg/kg	J			
	BGVNW7	0	1	0.19	mg/kg	J			
	AOC20CA3	0	2	0.16	mg/kg	J			
Dibenzofuran	AOC20CA3	0	2	0.13	mg/kg	J	145.26	NA	NA
Fluoranthene	AOC20CA1	0	2	0.45	mg/kg		2293.61	2100	0.13 - 16
	AOC20CA2	0	2	0.66	mg/kg	J			
	AOC20CA3	0	2	1	mg/kg				
	BBSB2	0	1.9	0.076	mg/kg	J			
	BGPRK5	0	1	0.36	mg/kg	J			
	BGRR2	0	1	16	mg/kg				
	BGRR3	0	1	5.3	mg/kg				
Fluoranthene	BGVNW7	0	1	1.6	mg/kg				
Fluorene	AOC20CA3	0	2	0.14	mg/kg	J	2747.11	280	NA
	BGRR2	0	1	1.2	mg/kg	J			
	BGRR3	0	1	0.16	mg/kg	J			
Indeno(1,2,3-cd)pyrene	AOC20CA1	0	2	0.077	mg/kg	J	0.62	7	0.13 - 3.7
	AOC20CA2	0	2	0.29	mg/kg	J			
	AOC20CA3	0	2	0.51	mg/kg				
	BGPRK5	0	1	0.13	mg/kg	J			
	BGRR2	0	1	3.7	mg/kg				
	BGRR3	0	1	1.6	mg/kg				
	BGVNW7	0	1	0.54	mg/kg	J			
Naphthalene	AOC20CA1	0	2	0.058	mg/kg	J	55.92	40	0.11 - 1.5
	AOC20CA3	0	2	0.24	mg/kg	J			
	BGRR2	0	1	1.5	mg/kg	J			
	BGRR3	0	1	0.11	mg/kg	J			
Phenanthrene	AOC20CA1	0	2	0.22	mg/kg	J	21896.12	NA	0.083 - 11
	AOC20CA2	0	2	0.31	mg/kg	J			
	AOC20CA3	0	2	0.64	mg/kg				
	BGPRK5	0	1	0.15	mg/kg	J			
	BGRR2	0	1	11	mg/kg				
	BGRR3	0	1	2.7	mg/kg				
	BGVNW7	0	1	0.61	mg/kg	J			
Pyrene	AOC20CA1	0	2	0.49	mg/kg		2315.95	2100	0.12 - 12
	AOC20CA2	0	2	0.55	mg/kg	J			
	AOC20CA3	0	2	0.92	mg/kg				
	BBSB2	0	1.9	0.059	mg/kg	J			
	BGPRK5	0	1	0.3	mg/kg	J			
	BGRR2	0	1	12	mg/kg				
	BGRR3	0	1	4.4	mg/kg				
	BGVNW7	0	1	1.4	mg/kg				

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-3
Metals Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Aluminum	AOC20CA1	0	2	4730	mg/kg		76141.95085	NA	4,390 - 13,050
	AOC20CA2	0	2	26900	mg/kg	J			
	AOC20CA3	0	2	13400	mg/kg	J			
	BBSB2	0	1.9	25600	mg/kg				
	BGPRK5	0	1	7260	mg/kg				
	BGRR2	0	1	7620	mg/kg				
	BGRR3	0	1	6390	mg/kg				
	BGRR3	1.2	1.5	4560	mg/kg				
	BGVNW7	0	1	3910	mg/kg				
	MW-6S	0	2	17500	mg/kg	J			
Antimony	BBSB2	0	1.9	7	mg/kg	J	31.28571233	3	NA
Arsenic	AOC20CA1	0	2	7.3	mg/kg		0.38962391	10	5.9 - 68.5
	AOC20CA2	0	2	8.7	mg/kg	J			
	AOC20CA3	0	2	9.4	mg/kg	J			
	BBSB2	0	1.9	2.5	mg/kg				
	BGPRK5	0	1	5.9	mg/kg				
	BGRR2	0	1	31.8	mg/kg				
	BGRR3	0	1	14.8	mg/kg				
	BGRR3	1.2	1.5	40.6	mg/kg				
	BGVNW7	0	1	6.2	mg/kg				
	MW-6S	0	2	25.8	mg/kg	J			
Barium	AOC20CA1	0	2	46.9	mg/kg		5374.905836	820	50.4 - 126
	AOC20CA2	0	2	229	mg/kg	J			
	AOC20CA3	0	2	145	mg/kg	J			
	BBSB2	0	1.9	238	mg/kg	J			
	BGPRK5	0	1	54.6	mg/kg	J-			
	BGRR2	0	1	107	mg/kg	J-			
	BGRR3	0	1	65.2	mg/kg	J-			
	BGRR3	1.2	1.5	50.4	mg/kg	J-			
	BGVNW7	0	1	29.2	mg/kg	J-			
	MW-6S	0	2	425	mg/kg				
Beryllium	AOC20CA2	0	2	3.3	mg/kg		154.3741586	30	0.64 - 1.1
	AOC20CA3	0	2	1.3	mg/kg				
	BBSB2	0	1.9	4.4	mg/kg				
	BGRR2	0	1	1.1	mg/kg				
	BGRR3	0	1	0.98	mg/kg				
	BGRR3	1.2	1.5	0.64	mg/kg				
	MW-6S	0	2	2.6	mg/kg				
Cadmium	AOC20CA1	0	2	4.8	mg/kg	J-	37.03327785	4	3 - 3
	AOC20CA2	0	2	2.6	mg/kg	J-			
	AOC20CA3	0	2	1.3	mg/kg	J-			
	BGRR2	0	1	3	mg/kg				
	MW-6S	0	2	1.7	mg/kg				
Calcium	AOC20CA1	0	2	92400	mg/kg		NA	NA	4,140 - 120,000
	AOC20CA2	0	2	143000	mg/kg				
	AOC20CA3	0	2	104000	mg/kg				
	BBSB2	0	1.9	209000	mg/kg				
	BGPRK5	0	1	75600	mg/kg				
	BGRR2	0	1	34900	mg/kg				
	BGRR3	0	1	120000	mg/kg				
	BGRR3	1.2	1.5	106000	mg/kg				
	BGVNW7	0	1	158000	mg/kg				
	MW-6S	0	2	114000	mg/kg	J			
Chromium (total)	AOC20CA1	0	2	61.4	mg/kg	J-	30.09648942	20	11.3 - 50.7
	AOC20CA2	0	2	19.6	mg/kg				
	AOC20CA3	0	2	16.8	mg/kg				
	BBSB2	0	1.9	18.5	mg/kg				
	BGPRK5	0	1	13.1	mg/kg				
	BGRR2	0	1	50.7	mg/kg				
	BGRR3	0	1	16.2	mg/kg				
	BGRR3	1.2	1.5	11.9	mg/kg				
	BGVNW7	0	1	10.1	mg/kg				
	MW-6S	0	2	132	mg/kg	J			
Cobalt	AOC20CA1	0	2	6.8	mg/kg		902.8931064	NA	5.8 - 21.65
	BGRR2	0	1	9.5	mg/kg				
	MW-6S	0	2	13.8	mg/kg				
Copper	AOC20CA1	0	2	35.9	mg/kg		3128.551853	NA	10.9 - 122
	AOC20CA2	0	2	35.5	mg/kg	J			
	AOC20CA3	0	2	46.5	mg/kg	J			
	BBSB2	0	1.9	6.8	mg/kg				
	BGPRK5	0	1	14.3	mg/kg				
	BGRR2	0	1	85.7	mg/kg				
	BGRR3	0	1	16.5	mg/kg				
	BGRR3	1.2	1.5	30.2	mg/kg				
Copper	BGVNW7	0	1	16.4	mg/kg				
	MW-6S	0	2	222	mg/kg	J			
Iron	AOC20CA1	0	2	103000	mg/kg		23463.18462	NA	14,300 - 132,000
	AOC20CA2	0	2	29500	mg/kg				
	AOC20CA3	0	2	37100	mg/kg	J			
	BBSB2	0	1.9	7920	mg/kg				
	BGPRK5	0	1	14300	mg/kg	J			
	BGRR2	0	1	132000	mg/kg	J			
	BGRR3	0	1	17000	mg/kg	J			
	BGRR3	1.2	1.5	18300	mg/kg	J			
	BGVNW7	0	1	13600	mg/kg	J			
	MW-6S	0	2	131000	mg/kg	J			
Lead	AOC20CA1	0	2	438	mg/kg		400	NA	13.25 - 227
	AOC20CA2	0	2	117	mg/kg	J			
	AOC20CA3	0	2	50	mg/kg	J			
	BBSB2	0	1.9	5	mg/kg				
	BGPRK5	0	1	23.9	mg/kg				
	BGRR2	0	1	227	mg/kg				
	BGRR3	0	1	81.7	mg/kg				
	BGRR3	1.2	1.5	57	mg/kg				
	BGVNW7	0	1	42.5	mg/kg				
	MW-6S	0	2	117	mg/kg	J			

Table 4.13.1-3
Metals Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

		Sample Depth (ft bgs)							
Chemical	Location	Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Magnesium	AOC20CA1	0	2	33600	mg/kg	J	NA	NA	1,630 - 42,400
	AOC20CA2	0	2	29000	mg/kg				
	AOC20CA3	0	2	50100	mg/kg				
	BBSB2	0	1.9	47300	mg/kg				
	BGPRK5	0	1	25900	mg/kg				
	BGRR2	0	1	15100	mg/kg				
	BGRR3	0	1	42400	mg/kg				
	BGRR3	1.2	1.5	34900	mg/kg				
	BGVNW7	0	1	52800	mg/kg				
	MW-6S	0	2	24500	mg/kg	J			
Manganese	AOC20CA1	0	2	2510	mg/kg	J	1762.353193	NA	278 - 2,270
	AOC20CA2	0	2	2290	mg/kg				
	AOC20CA3	0	2	1860	mg/kg				
	BBSB2	0	1.9	3510	mg/kg				
	BGPRK5	0	1	485	mg/kg				
	BGRR2	0	1	2270	mg/kg				
	BGRR3	0	1	820	mg/kg				
	BGRR3	1.2	1.5	611	mg/kg				
	BGVNW7	0	1	504	mg/kg				
	MW-6S	0	2	12600	mg/kg	J			
Mercury	AOC20CA2	0	2	0.15	mg/kg		NA	NA	0.04 - 0.4
	AOC20CA3	0	2	0.06	mg/kg				
	BGPRK5	0	1	0.04	mg/kg	J-			
	BGRR2	0	1	0.23	mg/kg	J-			
	BGVNW7	0	1	0.06	mg/kg	J-			
	MW-6S	0	2	0.14	mg/kg				
Nickel	AOC20CA1	0	2	17.3	mg/kg	J	1564.28082	70	8.6 - 30.8
	AOC20CA2	0	2	14.3	mg/kg				
	AOC20CA3	0	2	11.4	mg/kg				
	BBSB2	0	1.9	4.9	mg/kg				
	BGPRK5	0	1	11.6	mg/kg				
	BGRR2	0	1	30.8	mg/kg				
	BGRR3	0	1	8.6	mg/kg				
	BGRR3	1.2	1.5	9.7	mg/kg				
	BGVNW7	0	1	8.8	mg/kg				
	MW-6S	0	2	**138**	mg/kg	J			
Potassium	AOC20CA1	0	2	777	mg/kg		NA	NA	637 - 2,080
	AOC20CA2	0	2	2580	mg/kg	J			
	AOC20CA3	0	2	1360	mg/kg	J			
	BGPRK5	0	1	1290	mg/kg				
	BGRR2	0	1	954	mg/kg				
	BGRR3	0	1	771	mg/kg				
	BGRR3	1.2	1.5	713	mg/kg				
	BGVNW7	0	1	670	mg/kg				
	MW-6S	0	2	1480	mg/kg				
Selenium	AOC20CA2	0	2	**5.1**	mg/kg	J	391.0711227	3	2 - 14.8
	AOC20CA3	0	2	2.3	mg/kg	J			
	BBSB2	0	1.9	**5.3**	mg/kg				
	BGPRK5	0	1	2	mg/kg				
	BGRR2	0	1	**14.8**	mg/kg				
	BGRR3	1.2	1.5	2.2	mg/kg				
Silver	AOC20CA1	0	2	2.1	mg/kg		391.0711227	20	NA
Sodium	AOC20CA1	0	2	152	mg/kg		NA	NA	118 - 282
	AOC20CA2	0	2	845	mg/kg	J			
	AOC20CA3	0	2	674	mg/kg	J			
	BBSB2	0	1.9	918	mg/kg	J+			
	BGPRK5	0	1	118	mg/kg				
	BGRR3	0	1	282	mg/kg				
	BGRR3	1.2	1.5	184	mg/kg				
	BGVNW7	0	1	248	mg/kg				
	MW-6S	0	2	904	mg/kg	J			
Vanadium	AOC20CA1	0	2	31.4	mg/kg		78.21427348	3000	10.7 - 30.8
	AOC20CA2	0	2	18.6	mg/kg				
	AOC20CA3	0	2	13.9	mg/kg				
	BBSB2	0	1.9	17.1	mg/kg				
	BGPRK5	0	1	17.4	mg/kg				
	BGRR2	0	1	26.7	mg/kg				
	BGRR3	0	1	12.2	mg/kg				
	BGRR3	1.2	1.5	10.7	mg/kg				
	BGVNW7	0	1	11.4	mg/kg				
	MW-6S	0	2	34.2	mg/kg				
Zinc	AOC20CA1	0	2	1800	mg/kg		23463.18462	6200	37.3 - 903
	AOC20CA2	0	2	427	mg/kg	J			
	AOC20CA3	0	2	80.7	mg/kg	J			
	BBSB2	0	1.9	20.3	mg/kg				
	BGPRK5	0	1	196	mg/kg				
	BGRR2	0	1	903	mg/kg				
	BGRR3	0	1	109	mg/kg				
	BGRR3	1.2	1.5	81.6	mg/kg				
	BGVNW7	0	1	109	mg/kg				
	MW-6S	0	2	356	mg/kg	J			

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-4
PCBs Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Aroclor 1254	AOC20CA1			1.1	mg/kg		NA	NA	NA
Total PCBs	AOC20CA1	0.00000	2.00000	1.28	mg/kg		0.22	NA	NA

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-5
Dioxins Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.03E-05	mg/kg		NA	NA	3.32E-06 - 2.97E-05
	BGPRK5	0	1	3.75E-05	mg/kg	B			
	BGRR2	0	1	8.39E-05	mg/kg	JB			
	BGRR3	0	1	2.30E-05	mg/kg	JB			
	BGVNW7	0	1	1.14E-05	mg/kg	B			
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.55E-05	mg/kg	B	NA	NA	1.06E-05 - 7.82E-05
	BGPRK5	0	1	9.67E-05	mg/kg	B			
	BGRR2	0	1	1.00E-04	mg/kg	JB			
	BGRR3	0	1	3.11E-05	mg/kg	B			
	BGVNW7	0	1	2.64E-05	mg/kg	B			
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	AOC20CA1	0	2	7.44E-07	mg/kg	JK	NA	NA	3.92E-07 - 7.73E-06
	BGPRK5	0	1	6.37E-06	mg/kg	B			
	BGRR2	0	1	7.01E-06	mg/kg	JB			
	BGRR3	0	1	2.88E-06	mg/kg	JB			
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	2.07E-06	mg/kg		NA	NA	2.04E-07 - 9.36E-06
	BGPRK5	0	1	3.47E-06	mg/kg				
	BGRR2	0	1	3.05E-05	mg/kg	J			
	BGRR3	0	1	6.56E-06	mg/kg	J			
	BGVNW7	0	1	1.87E-06	mg/kg	J			
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	8.83E-07	mg/kg	J	NA	NA	2.27E-07 - 1.02E-05
	BGPRK5	0	1	1.37E-06	mg/kg	J			
	BGRR2	0	1	2.13E-06	mg/kg	J			
	BGRR3	0	1	1.23E-06	mg/kg	J			
	BGVNW7	0	1	8.33E-07	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.59E-06	mg/kg	J	NA	NA	2.12E-07 - 1.07E-05
	BGPRK5	0	1	2.00E-06	mg/kg	J			
	BGRR2	0	1	1.25E-05	mg/kg	J			
	BGRR3	0	1	8.49E-06	mg/kg	J			
	BGVNW7	0	1	1.33E-06	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	2.70E-05	mg/kg		NA	NA	5.52E-07 - 1.2E-05
	BGPRK5	0	1	4.34E-06	mg/kg				
	BGRR2	0	1	6.71E-06	mg/kg	J			
	BGRR3	0	1	4.30E-06	mg/kg	J			
	BGVNW7	0	1	1.90E-06	mg/kg	J			
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.40E-07	mg/kg	JK	NA	NA	7.52E-06 - 7.52E-06
	BGRR2	0	1	6.59E-07	mg/kg	J			
	BGVNW7	0	1	3.94E-07	mg/kg	J			
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	1.28E-05	mg/kg		NA	NA	6.92E-07 - 7.31E-06
	BGPRK5	0	1	3.84E-06	mg/kg				
	BGRR2	0	1	2.69E-06	mg/kg	J			
	BGRR3	0	1	1.26E-06	mg/kg	J			
	BGVNW7	0	1	1.20E-06	mg/kg	J			
1,2,3,7,8-PENTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.15E-06	mg/kg	J	NA	NA	1.09E-05 - 1.09E-05
	BGRR2	0	1	1.37E-05	mg/kg	J			
	BGRR3	0	1	1.78E-06	mg/kg	J			
	BGVNW7	0	1	8.61E-07	mg/kg	J			
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.08E-06	mg/kg		NA	NA	7.93E-07 - 5.24E-05
	BGPRK5	0	1	9.40E-07	mg/kg	J			
	BGRR2	0	1	3.24E-06	mg/kg	J			
	BGRR3	0	1	2.34E-06	mg/kg	J			
	BGVNW7	0	1	7.46E-07	mg/kg	J			
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.66E-06	mg/kg	J	NA	NA	2.68E07 - 9.31E-06
	BGRR2	0	1	1.54E-05	mg/kg	JB			
	BGRR3	0	1	3.34E-05	mg/kg	JB			
2,3,4,7,8-PENTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.69E-06	mg/kg	J	NA	NA	1.07E05 - 1.07E-05
	BGPRK5	0	1	9.05E-07	mg/kg	J			
	BGRR2	0	1	1.89E-05	mg/kg				
	BGRR3	0	1	7.91E-06	mg/kg				
	BGVNW7	0	1	1.09E-06	mg/kg	J			
2,3,7,8-TETRACHLORODIBENZOFURAN	AOC20CA1	0	2	1.47E-06	mg/kg	J	NA	NA	5.07E-06 - 5.07E-06
	BGRR2	0	1	1.80E-05	mg/kg				
	BGRR3	0	1	3.61E-06	mg/kg				
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	4.90E-06	mg/kg		3.90E-06	NA	1.06E-07 - 3.15E-05
	BGPRK5	0	1	2.69E-07	mg/kg	JK			
	BGRR2	0	1	8.56E-07	mg/kg	JK			
	BGRR3	0	1	3.89E-06	mg/kg				
	BGVNW7	0	1	2.03E-07	mg/kg	JK			
Dioxin TEQ-HH	AOC20CA1	0	2	1.85153E-05	mg/kg		3.90E-06	NA	3.32E-06 - 2.97E-05
	BGPRK5	0	2	4.88991E-06	mg/kg				
	BGRR2	0	2	2.50721E-05	mg/kg				
	BGRR3	0	2	1.67732E-05	mg/kg				
	MW-10S	0	2	7.75942E-07	mg/kg				
OCTACHLORODIBENZOFURAN	AOC20CA1	0	2	6.93E-06	mg/kg		NA	NA	7.73E-06 - 5.3E-05
	BGPRK5	0	1	1.24E-04	mg/kg	B			
	BGRR2	0	1	1.17E-04	mg/kg	B			
	BGRR3	0	1	3.30E-05	mg/kg	B			
	BGVNW7	0	1	2.40E-05	mg/kg	B			
OCTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.81E-05	mg/kg	B	NA	NA	7.7E-05 - 4.55E-04
	BGPRK5	0	1	5.44E-04	mg/kg	B			
	BGRR2	0	1	6.32E-04	mg/kg	B			
	BGRR3	0	1	2.14E-04	mg/kg	JB			
	BGVNW7	0	1	1.82E-04	mg/kg	B			

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004
[c] Dioxin-TEQ is the sum of the individual dioxin congeners using the respective TEFs.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-5
Dioxins Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.03E-05	mg/kg		NA	NA	3.32E-06 - 2.97E-05
	BGPRK5	0	1	3.75E-05	mg/kg	B			
	BGRR2	0	1	8.39E-05	mg/kg	JB			
	BGRR3	0	1	2.30E-05	mg/kg	JB			
	BGVNW7	0	1	1.14E-05	mg/kg	B			
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.55E-05	mg/kg	B	NA	NA	1.06E-05 - 7.82E-05
	BGPRK5	0	1	9.67E-05	mg/kg	B			
	BGRR2	0	1	1.00E-04	mg/kg	JB			
	BGRR3	0	1	3.11E-05	mg/kg	B			
	BGVNW7	0	1	2.64E-05	mg/kg	B			
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	AOC20CA1	0	2	7.44E-07	mg/kg	JK	NA	NA	3.92E-07 - 7.73E-06
	BGPRK5	0	1	6.37E-06	mg/kg	B			
	BGRR2	0	1	7.01E-06	mg/kg	JB			
	BGRR3	0	1	2.88E-06	mg/kg	JB			
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	2.07E-06	mg/kg		NA	NA	2.04E-07 - 9.36E-06
	BGPRK5	0	1	3.47E-06	mg/kg				
	BGRR2	0	1	3.05E-05	mg/kg	J			
	BGRR3	0	1	6.56E-06	mg/kg	J			
	BGVNW7	0	1	1.87E-06	mg/kg	J			
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	8.83E-07	mg/kg	J	NA	NA	2.27E-07 - 1.02E-05
	BGPRK5	0	1	1.37E-06	mg/kg	J			
	BGRR2	0	1	2.13E-06	mg/kg	J			
	BGRR3	0	1	1.23E-06	mg/kg	J			
	BGVNW7	0	1	8.33E-07	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.59E-06	mg/kg	J	NA	NA	2.12E-07 - 1.07E-05
	BGPRK5	0	1	2.00E-06	mg/kg	J			
	BGRR2	0	1	1.25E-05	mg/kg	J			
	BGRR3	0	1	8.49E-06	mg/kg	J			
	BGVNW7	0	1	1.33E-06	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	2.70E-05	mg/kg		NA	NA	5.52E-07 - 1.2E-05
	BGPRK5	0	1	4.34E-06	mg/kg				
	BGRR2	0	1	6.71E-06	mg/kg	J			
	BGRR3	0	1	4.30E-06	mg/kg	J			
	BGVNW7	0	1	1.90E-06	mg/kg	J			
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.40E-07	mg/kg	JK	NA	NA	7.52E-06 - 7.52E-06
	BGRR2	0	1	6.59E-07	mg/kg	J			
	BGVNW7	0	1	3.94E-07	mg/kg	J			
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	1.28E-05	mg/kg		NA	NA	6.92E-07 - 7.31E-06
	BGPRK5	0	1	3.84E-06	mg/kg				
	BGRR2	0	1	2.69E-06	mg/kg	J			
	BGRR3	0	1	1.26E-06	mg/kg	J			
	BGVNW7	0	1	1.20E-06	mg/kg	J			
1,2,3,7,8-PENTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.15E-06	mg/kg	J	NA	NA	1.09E-05 - 1.09E-05
	BGRR2	0	1	1.37E-05	mg/kg	J			
	BGRR3	0	1	1.78E-06	mg/kg	J			
	BGVNW7	0	1	8.61E-07	mg/kg	J			
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.08E-06	mg/kg		NA	NA	7.93E-07 - 5.24E-05
	BGPRK5	0	1	9.40E-07	mg/kg	J			
	BGRR2	0	1	3.24E-06	mg/kg	J			
	BGRR3	0	1	2.34E-06	mg/kg	J			
	BGVNW7	0	1	7.46E-07	mg/kg	J			
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	AOC20CA1	0	2	1.66E-06	mg/kg	J	NA	NA	2.68E07 - 9.31E-06
	BGRR2	0	1	1.54E-05	mg/kg	JB			
	BGRR3	0	1	3.34E-05	mg/kg	JB			
2,3,4,7,8-PENTACHLORODIBENZOFURAN	AOC20CA1	0	2	1.69E-06	mg/kg	J	NA	NA	1.07E05 - 1.07E-05
	BGPRK5	0	1	9.05E-07	mg/kg	J			
	BGRR2	0	1	1.89E-05	mg/kg				
	BGRR3	0	1	7.91E-06	mg/kg				
	BGVNW7	0	1	1.09E-06	mg/kg	J			
2,3,7,8-TETRACHLORODIBENZOFURAN	AOC20CA1	0	2	1.47E-06	mg/kg	J	NA	NA	5.07E-06 - 5.07E-06
	BGRR2	0	1	1.80E-05	mg/kg				
	BGRR3	0	1	3.61E-06	mg/kg				
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	4.90E-06	mg/kg		3.90E-06	NA	1.06E-07 - 3.15E-05
	BGPRK5	0	1	2.69E-07	mg/kg	JK			
	BGRR2	0	1	8.56E-07	mg/kg	JK			
	BGRR3	0	1	3.89E-06	mg/kg				
	BGVNW7	0	1	2.03E-07	mg/kg	JK			
Dioxin TEQ-HH	AOC20CA1	0	2	1.85153E-05	mg/kg		3.90E-06	NA	3.32E-06 - 2.97E-05
	BGPRK5	0	2	4.88991E-06	mg/kg				
	BGRR2	0	2	2.50721E-05	mg/kg				
	BGRR3	0	2	1.67732E-05	mg/kg				
	MW-10S	0	2	7.75942E-07	mg/kg				
OCTACHLORODIBENZOFURAN	AOC20CA1	0	2	6.93E-06	mg/kg		NA	NA	7.73E-06 - 5.3E-05
	BGPRK5	0	1	1.24E-04	mg/kg	B			
	BGRR2	0	1	1.17E-04	mg/kg	B			
	BGRR3	0	1	3.30E-05	mg/kg	B			
	BGVNW7	0	1	2.40E-05	mg/kg	B			
OCTACHLORODIBENZO-P-DIOXIN	AOC20CA1	0	2	7.81E-05	mg/kg	B	NA	NA	7.7E-05 - 4.55E-04
	BGPRK5	0	1	5.44E-04	mg/kg	B			
	BGRR2	0	1	6.32E-04	mg/kg	B			
	BGRR3	0	1	2.14E-04	mg/kg	JB			
	BGVNW7	0	1	1.82E-04	mg/kg	B			

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004
[c] Dioxin-TEQ is the sum of the individual dioxin congeners using the respective TEFs.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.13.1-6
Cyanide Detected in Surface Soil
AOC 16 - Off site concerns (Southern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

		Sample Depth (ft bgs)							
Chemical	Location	Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Cyanide	AOC20CA1	0	2	1.13	mg/kg		1,222	NA	NA
	AOC20CA2	0	2	12.6	mg/kg	J-			
	AOC1CA3	0	2	3.86	mg/kg				
	BBSB2	0	1.9	1.5	mg/kg				
	MW-6S	0	2	1.61	mg/kg				

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ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-1
VOCs Detected in Surface Soil
AOC 17 - Off-site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
2-Butanone	MW-14S	0	2	0.021	mg/kg		22,311	NA	NA
Acetone	AOC21SB10	0	0.9	0.017	mg/kg	J	14,127	8	NA
	MW-10S	0	2	0.019	mg/kg	J			
	MW-14S	0	2	0.15	mg/kg				
Benzene	AOC21SB10	0	0.9	0.00083	mg/kg	J	0.64	0.02	NA
	MW-14S	0	2	0.00038	mg/kg	J			
Bromomethane	MW-14S	0	2	0.00038	mg/kg	J	3.90	0.1	NA
Carbon disulfide	AOC21SB10	0	0.9	0.0033	mg/kg	J	355	20	NA
	MW-10S	0	2	0.00079	mg/kg	J			
Cyclohexane	AOC21SB10	0	0.9	0.0027	mg/kg	J	140	NA	NA
	MW-10S	0	2	0.00068	mg/kg	J			
Ethylbenzene	AOC21SB10	0	0.9	0.00054	mg/kg	J	395	7	NA
m+p-Xylene	AOC21SB10	0	0.9	0.00069	mg/kg	J	NA	NA	NA
	MW-10S	0	2	0.00037	mg/kg	J			
Methylcyclohexane	AOC21SB10	0	0.9	0.004	mg/kg	J	2,591	NA	NA
	MW-10S	0	2	0.0011	mg/kg	J			
Methylene chloride	AOC21SB10	0	0.9	0.00031	mg/kg	J	9.11	0.01	NA
	MW-10S	0	2	0.0015	mg/kg	J			
o-Xylene	AOC21SB10	0	0.9	0.00029	mg/kg	J	NA	NA	NA
Toluene	AOC21SB10	0	0.9	0.0017	mg/kg	J	520	6	NA
	MW-14S	0	2	0.00038	mg/kg	J			
Total Xylene [c]	AOC21SB10	0	0.9	0.00098	mg/kg		271	10	NA
	MW-10S	0	2	0.00037	mg/kg				

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[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[c] Total Xylenes is the sum of m+p-Xylene and o-Xylene.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-2
SVOCs Detected in Surface Soil
AOC 17 - Off site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
2-Methylnaphthalene	MW-10S	0	2	0.27	mg/kg	J	55.92	NA	NA
Acenaphthene	BGVNW6	0	1	0.58	mg/kg	J	3681.71	290	0.18 - 0.3
Acenaphthylene	BGVNW6	0	1	0.35	mg/kg	J	3681.71	NA	0.046 - 1.7
	MW-10S	0	2	1.8	mg/kg	J			
Anthracene	BGRR4	0	1	0.046	mg/kg	J	21896.12	5900	0.1205 - 3.8
	BGVNW6	0	1	2.3	mg/kg	J			
	MW-10S	0	2	1.1	mg/kg	J			
Benzo(a)anthracene	BGRR4	0	1	0.21	mg/kg	J	0.62	0.8	0.052 - 8.6
	BGVNW6	0	1	**3.6**	mg/kg				
	MW-10S	0	2	**6.6**	mg/kg				
Benzo(a)pyrene	BGRR4	0	1	0.22	mg/kg	J	0.06	4	0.053 - 7.2
	BGVNW6	0	1	2.6	mg/kg				
	MW-10S	0	2	**10**	mg/kg				
Benzo(b)fluoranthene	BGRR4	0	1	0.23	mg/kg	J	0.62	2	0.055 - 6.3
	BGVNW6	0	1	1.7	mg/kg	J			
	MW-10S	0	2	**7.6**	mg/kg				
Benzo(g,h,i)perylene	BGRR4	0	1	0.17	mg/kg	J	2315.95	NA	0.04 - 3.6
	BGVNW6	0	1	1.4	mg/kg	J			
	MW-10S	0	2	7.8	mg/kg				
Benzo(k)fluoranthene	BGRR4	0	1	0.22	mg/kg	J	0.38	20	0.053 - 6.5
	BGVNW6	0	1	2.3	mg/kg	J			
	MW-10S	0	2	7.9	mg/kg				
Bis(2-Ethylhexyl)phthalate	AOC21SB10	0	0.9	0.04	mg/kg	J	34.74	NA	NA
Chrysene	AOC21SB10	0	0.9	0.038	mg/kg	J	62.15	80	0.07 - 7.5
	BGRR4	0	1	0.25	mg/kg	J			
	BGVNW6	0	1	3.2	mg/kg				
	MW-10S	0	2	6.9	mg/kg				
Dibenz(a,h)anthracene	BGRR4	0	1	0.058	mg/kg	J	0.06	0.8	0.044 - 1.3
	BGVNW6	0	1	0.41	mg/kg	J			
	MW-10S	0	2	1.7	mg/kg	J			
Dibenzofuran	MW-10S	0	2	0.23	mg/kg	J	145.26	NA	NA
Fluoranthene	AOC21SB10	0	0.9	0.056	mg/kg	J	2293.61	2100	0.13 - 16
	BGRR4	0	1	0.5	mg/kg	J			
	BGVNW6	0	1	6.7	mg/kg				
	MW-10S	0	2	8.9	mg/kg				
Fluorene	BGVNW6	0	1	1.1	mg/kg	J	2747.11	280	0.098 - 1.2
	MW-10S	0	2	0.21	mg/kg	J			
Indeno(1,2,3-cd)pyrene	BGRR4	0	1	0.16	mg/kg	J	0.62	7	0.13 - 3.7
	BGVNW6	0	1	1.1	mg/kg	J			
	MW-10S	0	2	6.7	mg/kg				
Naphthalene	BGRR4	0	1	0.056	mg/kg	J	55.92	40	0.11 - 1.5
	MW-10S	0	2	0.38	mg/kg	J			
Phenanthrene	BGRR4	0	1	0.29	mg/kg	J	21896.12	NA	0.083 - 11
	BGVNW6	0	1	6.1	mg/kg				
	MW-10S	0	2	2.3	mg/kg				
Pyrene	AOC21SB10	0	0.9	0.05	mg/kg	J	2315.95	2100	0.12 - 12
	BGRR4	0	1	0.46	mg/kg	J			
	BGVNW6	0	1	5.6	mg/kg				
	MW-10S	0	2	9	mg/kg				

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[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-3
Metals Detected in Surface Soil
AOC 17 - Off site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Aluminum	AOC21SB10	0	0.9	13000	mg/kg	J	76141.95	NA	4,390 - 13,050
	BGRR4	0	1	13400	mg/kg				
	BGSLAG	0	2	34400	mg/kg				
	BGVNW6	0	1	17400	mg/kg				
	MW-10S	0	2	24400	mg/kg				
	MW-14S	0	2	10100	mg/kg				
Arsenic	AOC21SB10	0	0.9	4.9	mg/kg		0.39	10	5.9 - 68.5
	BGRR4	0	1	7.5	mg/kg				
	BGVNW6	0	1	10.1	mg/kg				
	MW-10S	0	2	7.2	mg/kg	J-			
	MW-14S	0	2	8.5	mg/kg	J			
Barium	AOC21SB10	0	0.9	85	mg/kg	JJ	5374.91	820	50.4 - 126
	BGRR4	0	1	71.5	mg/kg				
	BGSLAG	0	2	390	mg/kg	J-			
	BGVNW6	0	1	128	mg/kg	J-			
	MW-10S	0	2	274	mg/kg				
	MW-14S	0	2	99.5	mg/kg				
Beryllium	AOC21SB10	0	0.9	1.7	mg/kg		154.37	30	0.64 - 1.1
	BGSLAG	0	2	13	mg/kg				
	BGSLAG	0	2	11.8	mg/kg				
	BGSLAG	0	2	12.3	mg/kg				
	BGVNW6	0	1	1.1	mg/kg				
	MW-10S	0	2	4.4	mg/kg	J			
Cadmium	AOC21SB10	0	0.9	0.59	mg/kg		37.03	4	3 - 3
	MW-10S	0	2	1.1	mg/kg				
Calcium	AOC21SB10	0	0.9	120000	mg/kg	J	NA	NA	4,140 - 120,000
	BGRR4	0	1	3360	mg/kg	J			
	BGSLAG	0	2	250000	mg/kg				
	BGSLAG	0	2	251000	mg/kg				
	BGSLAG	0	2	240000	mg/kg				
	BGVNW6	0	1	19000	mg/kg				
	MW-10S	0	2	163000	mg/kg	J			
	MW-14S	0	2	4280	mg/kg				
Chromium (total)	AOC21SB10	0	0.9	10.9	mg/kg	J	30.10	20	11.3 - 50.7
	BGRR4	0	1	15.8	mg/kg				
	BGSLAG	0	2	20	mg/kg				
	BGSLAG	0	2	17.5	mg/kg				
	BGSLAG	0	2	20.2	mg/kg				
	BGVNW6	0	1	22	mg/kg				
	MW-10S	0	2	8.5	mg/kg	J			
	MW-14S	0	2	14	mg/kg				
Cobalt	BGRR4	0	1	11	mg/kg		902.89	NA	5.8 - 21.65
	BGVNW6	0	1	11.5	mg/kg				
	MW-14S	0	2	9.9	mg/kg				
Copper	BGRR4	0	1	12.4	mg/kg		3128.55	NA	10.9 - 122
	BGSLAG	0	2	3.1	mg/kg				
	BGVNW6	0	1	22.4	mg/kg				
	MW-10S	0	2	15.4	mg/kg	J			
	MW-14S	0	2	12	mg/kg	J			
Iron	AOC21SB10	0	0.9	9680	mg/kg		23463.18	NA	14,300 - 132,000
	BGRR4	0	1	17400	mg/kg				
	BGSLAG	0	2	7350	mg/kg	J			
	BGSLAG	0	2	7770	mg/kg	J			
	BGSLAG	0	2	6650	mg/kg	J			
	BGVNW6	0	1	25300	mg/kg	J			
	MW-10S	0	2	22700	mg/kg	J			
	MW-14S	0	2	17500	mg/kg				
Lead	AOC21SB10	0	0.9	6.4	mg/kg		400.00	NA	13.25 - 227
	BGRR4	0	1	13	mg/kg	J			
	BGVNW6	0	1	2230	mg/kg				
	MW-10S	0	2	20.8	mg/kg	J			
	MW-14S	0	2	17	mg/kg				
Magnesium	AOC21SB10	0	0.9	45900	mg/kg	J	NA	NA	1,630 - 42,400
	BGRR4	0	1	2780	mg/kg	J			
	BGSLAG	0	2	49200	mg/kg				
	BGSLAG	0	2	51900	mg/kg				
	BGSLAG	0	2	46400	mg/kg				
	BGVNW6	0	1	9370	mg/kg				
	MW-10S	0	2	52500	mg/kg	J			
	MW-14S	0	2	2580	mg/kg				
Manganese	AOC21SB10	0	0.9	1330	mg/kg	J	1762.35	NA	278 - 2,270
	BGRR4	0	1	916	mg/kg				
	BGSLAG	0	2	4640	mg/kg				
	BGSLAG	0	2	4520	mg/kg				
Manganese	BGSLAG	0	2	4560	mg/kg		1762.35	NA	278 - 2,270
	BGVNW6	0	1	877	mg/kg				
	MW-10S	0	2	2450	mg/kg	J			
	MW-14S	0	2	1080	mg/kg	J			
Mercury	BGVNW6	0	1	0.04	mg/kg	J-	NA	NA	0.04 - 0.4
Nickel	AOC21SB10	0	0.9	8.7	mg/kg		1564.28	70	8.6 - 30.8
	BGVNW6	0	1	24.4	mg/kg				
	MW-10S	0	2	5.7	mg/kg				
	MW-14S	0	2	12.7	mg/kg				
Potassium	AOC21SB10	0	0.9	1200	mg/kg		NA	NA	637 - 2,080
	BGRR4	0	1	1070	mg/kg				
	BGSLAG	0	2	2430	mg/kg				
	BGSLAG	0	2	2230	mg/kg				
	BGSLAG	0	2	2150	mg/kg				
	BGVNW6	0	1	1660	mg/kg				
	MW-10S	0	2	1280	mg/kg				
	MW-14S	0	2	792	mg/kg	J			

Table 4.14.1-3
Metals Detected in Surface Soil
AOC 17 - Off site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Selenium	AOC21SB10	0	0.9	3.2	mg/kg		391.07	3	2 - 14.8
	BGRR4	0	1	2.3	mg/kg				
	BGSLAG	0	2	2.4	mg/kg				
	BGSLAG	0	2	**6.5**	mg/kg				
	BGSLAG	0	2	1.9	mg/kg				
	BGVNW6	0	1	**6.6**	mg/kg				
	MW-10S	0	2	3.9	mg/kg				
Sodium	AOC21SB10	0	0.9	420	mg/kg		NA	NA	118 - 282
	BGSLAG	0	2	1840	mg/kg				
	BGSLAG	0	2	1840	mg/kg				
	BGSLAG	0	2	1770	mg/kg				
	MW-10S	0	2	1160	mg/kg	J			
Vanadium	AOC21SB10	0	0.9	19	mg/kg	J	78.21	3000	10.7 - 30.8
	BGRR4	0	1	30.9	mg/kg				
	BGSLAG	0	2	20.4	mg/kg				
	BGSLAG	0	2	18.9	mg/kg				
	BGSLAG	0	2	21	mg/kg				
	BGVNW6	0	1	35	mg/kg				
	MW-10S	0	2	15.3	mg/kg				
	MW-14S	0	2	27	mg/kg				
Zinc	AOC21SB10	0	0.9	23.9	mg/kg	J	23463.18	6200	37.3 - 903
	BGRR4	0	1	41.8	mg/kg	J-			
	BGSLAG	0	2	5	mg/kg				
	BGSLAG	0	2	8.7	mg/kg				
	BGSLAG	0	2	6.8	mg/kg				
	BGVNW6	0	1	66.2	mg/kg				
	MW-10S	0	2	91.9	mg/kg	J+			
	MW-14S	0	2	45.1	mg/kg	J			

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-4
PCBs Detected in Surface Soil
AOC 17 - Off site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

		Sample Depth (ft bgs)					Region 9 Residential Soil	Region 9 SSL	Surface Soil Background
Chemical	Location	Start	End	Concentration	Units	Qualifier	PRG [a]	(DAF 10) [b]	Concentration Range
Aroclor 1254	MW-10S	0	2	0.04	mg/kg		NA	NA	NA
Total PCBs	MW-10S	0	2	0.0585	mg/kg		0.22	NA	NA
	MW-14S	0	2	0.039	mg/kg				

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for

ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-5
Dioxins Detected in Surface Soil
AOC 17 - Off site concern (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	BGRR4	0	1	4.73E-06	mg/kg		NA	NA	3.32E-06 - 2.97E-05
	MW10SAA	0	2	1.33E-06	mg/kg	J			
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	1.60E-05	mg/kg	JB	NA	NA	1.06E-05 - 7.82E-05
	MW10SAA	0	2	3.47E-06	mg/kg	B			
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	MW10SAA	0	2	1.24E-07	mg/kg	J	NA	NA	3.92E-07 - 7.73E-06
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	BGRR4	0	1	3.89E-07	mg/kg	J	NA	NA	2.04E-07 - 9.36E-06
	MW10SAA	0	2	5.28E-07	mg/kg	JK			
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	3.55E-07	mg/kg	J	NA	NA	2.27E-07 - 1.02E-05
	BGVNW6	0	1	5.40E-08	mg/kg	J			
	MW10SAA	0	2	1.70E-07	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	BGVNW6	0	1	3.21E-07	mg/kg	J	NA	NA	2.12E-07 - 1.07E-05
	MW10SAA	0	2	3.47E-07	mg/kg	J			
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	6.77E-07	mg/kg	JK	NA	NA	5.52E-07 - 1.2E-05
	BGVNW6	0	1	2.03E-07	mg/kg	J			
	MW10SAA	0	2	3.31E-07	mg/kg	J			
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	BGVNW6	0	1	1.51E-07	mg/kg	J	NA	NA	7.52E-08 - 7.52E-06
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	8.48E-07	mg/kg	JK	NA	NA	6.92E-07 - 7.31E-06
	BGVNW6	0	1	1.36E-07	mg/kg	J			
	MW10SAA	0	2	3.43E-07	mg/kg	J			
1,2,3,7,8-PENTACHLORODIBENZOFURAN	MW10SAA	0	2	2.10E-07	mg/kg	JK	NA	NA	1.09E-05 - 1.09E-05
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	MW10SAA	0	2	2.34E-07	mg/kg	JK	NA	NA	7.93E-07 - 5.24E-05
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	BGRR4	0	1	5.16E-07	mg/kg	J	NA	NA	2.68E07 - 9.31E-06
	MW10SAA	0	2	5.07E-07	mg/kg	J			
2,3,4,7,8-PENTACHLORODIBENZOFURAN	BGVNW6	0	1	2.38E-07	mg/kg	J	NA	NA	1.07E05 - 1.07E-05
	MW10SAA	0	2	4.55E-07	mg/kg	J			
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	1.92E-07	mg/kg	JK	NA	3.90E-06	1.06E-07 - 3.15E-05
Dioxin TEQ-HH [c]	MW-10S	0	2	7.76E-07	mg/kg		3.90E-06	NA	NA
	BGRR4	0	2	5.22E-07	mg/kg				
OCTACHLORODIBENZOFURAN	BGRR4	0	1	1.07E-05	mg/kg	B	NA	NA	7.73E-06 - 5.3E-05
OCTACHLORODIBENZO-P-DIOXIN	BGRR4	0	1	1.22E-04	mg/kg	JB	NA	NA	7.7E-05 - 4.55E-04
	BGVNW6	0	1	2.60E-05	mg/kg	B			
	MW10SAA	0	2	1.98E-05	mg/kg	B			

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004
[c] Dioxin-TEQ is the sum of the individual dioxin congeners using the respective TEFs.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.14.1-6
Cyanide Detected in Surface Soil
AOC 17 - Off site concerns (Northern parcel)
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Chemical	Location	Sample Depth (ft bgs) Start	End	Concentration	Units	Qualifier	Region 9 Residential Soil PRG [a]	Region 9 SSL (DAF 10) [b]	Surface Soil Background Concentration Range
Cyanide	MW-10S	0	2	1.57	mg/kg		1,222.10	NA	NA

PRG - Preliminary Remediation Goal
SSL - Soil Screening Level
DAF - Dilution Attenuation Factor
NA - Not Available/Not Applicable/Not Analyzed for
ft bgs - feet below ground surface

[a] Residential Soil PRGs were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.
[b] Soil SSL (DAF 10) values were obtained from EPA Region 9 PRG Table, October 2004 (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf) unless otherwise noted.

Concentrations outlined exceed the Region 9 PRG.
Concentrations in bold exceed the Region 9 DAF 10 SSL.

Table 4.15-1

Soil Volatile Organic Compound Analytical Results - AOC 18

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC18SB1	AOC18SB1	AOC18SB1	AOC18SB2	AOC18SB2	AOC18SB3	AOC18SB3	AOC18SB4	AOC18SB4	AOC18SB5	AOC18SB5	AOC18SB6	AOC18SB6
					Sample Top (ft below ground surface):	0	2	4	0	12	0	4	0	4	0	6	0	6
					Sample Bottom (ft below ground surface):	1	3.6	5.2	1	13.8	0.5	6	1	6	1	8	1	8
					Sample Date:	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/25/2006	01/25/2006	01/25/2006	01/25/2006
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		<5 U	**27** J	<5.9 U	3.5 J	0.70 J	0.65 J	1.9 J	<5.4 U	<4.7 U	0.82 J	0.97 J	<5.1 U	0.58 J
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<5 U	<12 UJ	<5.9 U	1.4 J	0.55 J	<6.3 U	<4.8 U	<5.4 U	<4.7 UJ	<7.3 U	<6 U	0.47 J	0.76 J
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<5 U	<12 UJ	<5.9 U	1.1 J	0.73 J	<6.3 U	<4.8 U	<5.4 U	<4.7 UJ	<7.3 U	0.86 J	6.5	1.2 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<5 U	<12 UJ	<5.9 U	0.68 J	0.46 J	<6.3 U	<4.8 U	<5.4 U	<4.7 UJ	<7.3 U	<6 U	0.64 J	0.54 J
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<5 U	1.3 J	0.71 J	3.5 J	1.3 J	0.81 J	0.43 J	<5.4 U	<4.7 U	0.61 J	1.2 J	0.95 J	2.0 J

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

*Ind*PRG - *Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004*

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.15-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 18

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC18SB1	AOC18SB1	AOC18SB1	AOC18SB2	AOC18SB2	AOC18SB3	AOC18SB3	AOC18SB4	AOC18SB4	AOC18SB5	AOC18SB5	AOC18SB6	AOC18SB6
					Sample Top (ft below ground surface): 0	2	4	0	12	0	4	0	4	0	6	0	6
					Sample Bottom (ft below ground surface): 1	3.6	5.2	1	13.8	0.5	6	1	6	1	8	1	8
					Sample Date: 01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/25/2006	01/25/2006	01/25/2006	01/25/2006
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<1100 U	<1200 U	<450 U	<360 U	<400 U	<1500 U	<380 U	<370 U	<380 U	<380 U	<400 U	<360 U	<350 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	880 J	<1200 U	<450 U	<360 U	<400 U	2400	<380 U	<370 U	<380 U	<380 U	<400 U	<360 U	<350 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	590 J	180 J	<450 U	<360 U	<400 U	880 J	<380 U	<370 U	<380 U	<380 U	<400 U	<360 U	<350 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**1800**	300 J	<450 U	<360 U	<400 U	**7500**	<380 U	160 J	<380 U	45 J	<400 U	<360 U	<350 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**1900**	**250** J	<450 U	<360 U	<400 U	**6600**	<380 U	**160** J	<380 U	47 J	<400 U	<360 U	<350 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**2300**	250 J	<450 U	40 J	<400 U	**7400**	<380 U	200 J	<380 U	48 J	<400 U	<360 U	<350 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	2600	220 J	<450 U	37 J	<400 U	5900	<380 U	150 J	<380 U	43 J	<400 U	<360 U	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**2100**	210 J	<450 U	<360 U	<400 U	**7700**	<380 U	150 J	<380 U	51 J	<400 U	<360 U	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	2200	460 J	<450 U	52 J	<400 U	**9100**	<380 U	220 J	<380 U	57 J	<400 U	<360 U	<350 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**630** J	<1200 U	<450 U	<360 U	<400 U	**1900**	<380 U	51 J	<380 U	<380 U	<400 U	<360 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	3400	500 J	<450 U	58 J	<400 U	11000	<380 U	220 J	<380 U	90 J	<400 U	<360 U	<350 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	160 J	<1200 U	<450 U	<360 U	<400 U	<1500 U	<380 U	<370 U	<380 U	<380 U	<400 U	<360 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	**2200**	150 J	<450 U	<360 U	<400 U	**5400**	<380 U	130 J	<380 U	<380 U	<400 U	<360 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	**490** J	<1200 U	<450 U	<360 U	<400 U	<1500 U	<380 U	<370 U	<380 U	65 J	<400 U	<360 U	<350 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	1900	900 J	<450 U	<360 U	<400 U	3500	<380 U	100 J	<380 U	70 J	<400 U	<360 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	2600	520 J	<450 U	45 J	<400 U	14000	<380 U	290 J	<380 U	88 J	<400 U	<360 U	<350 U

Notes:

B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.15-3

Soil Metals Analytical Results - AOC 18

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	AOC18SB1 0 1 01/17/2006		AOC18SB1 2 3.6 01/17/2006		AOC18SB1 4 5.2 01/17/2006		AOC18SB2 0 1 01/17/2006		AOC18SB2 12 13.8 01/17/2006		AOC18SB3 0 0.5 01/17/2006		AOC18SB3 4 6 01/17/2006		AOC18SB4 0 1 01/17/2006		AOC18SB4 4 6 01/17/2006		AOC18SB5 0 1 01/25/2006		AOC18SB5 6 8 01/25/2006		AOC18SB6 0 1 01/25/2006		AOC18SB6 6 8 01/25/2006	
Sample Location:					AOC18SB1		AOC18SB1		AOC18SB1		AOC18SB2		AOC18SB2		AOC18SB3		AOC18SB3		AOC18SB4		AOC18SB4		AOC18SB5		AOC18SB5		AOC18SB6		AOC18SB6		
Sample Top (ft below ground surface):					0		2		4		0		12		0		4		0		4		0		6		0		6		
Sample Bottom (ft below ground surface):					1		3.6		5.2		1		13.8		0.5		6		1		6		1		8		1		8	
Sample Date:					01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/17/2006		01/25/2006		01/25/2006		01/25/2006		01/25/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE	29100		2280		15300		50100		4260		42200		14000		41800		17200		28700		24200		3810		2540	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.6	UJ	<7.2	UJ	<8.0	UJ	<6.4	UJ	<7.2	UJ	<6.9	UJ	<6.7	UJ	<6.4	UJ	<6.7	UJ	<6.8	U	<7.1	U	<6.5	U	<6	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**6.4**		**9.0**		**7.1**		**3.0**		**4.2**		<1.1	U	**7.6**		**3.5**		**9.0**		**4.0**		**13.8**		**6.1**		**4.9**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	312		38.7		188		**399**		21.3		**343**		71.6		298		100		268		82.8		23.6		9.0	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	4.2		<0.6	U	<0.66	U	6.5		<0.6	U	4.6		<0.56	U	8.2		<0.56	U	2.6		<0.59	U	<0.54	U	<0.5	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**1.7**		<0.6	U	**0.82**		**0.88**		<0.6	U	<0.57	U	<0.56	U	**1.1**		<0.56	U	**0.82**		**0.77**		<0.54	U	<0.5	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**24.3**		10.6		18.5		**34.1**		9.1		**50.6**		17.5		**34.5**		**20.4**		**51.0**		**30.8**		6.9		5.1	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	5.9		<6	U	8.3		<5.4	U	<6	U	<5.7	U	9.6		<5.4	U	12.0		<5.6	U	7.8		<5.4	U	<5	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**34.1**		**29.3**		19.5		14.4		7.0		6.4		12.5		4.1		15.0		9.3		22.8		10.0		7.6	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	**6.70**		<1.22	U	<1.37	U	**1.58**		<1.2	U	**3.14**		<1.16	U	<1.13	U	<1.16	U	<1.15	U	<1.23	U	<1.09	U	<1.05	U
Iron	1.0E+05	2.3E+04	NE	NE	**47700**		**24500**		17300		21600		9230		6350		16400		**31500**		22700		16600		**27500**		8260		5880	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**93.5**		7.6		**11.8**		6.8		<6	U	<5.7	U	**14.3**		<5.4	U	**13.0**		8.4		**14.1**		3.6		3.5	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**3600**		290		**2130**		**6070**		323		**7570**		**594**		**5830**		**1010**		**5310**		494		332		195	
Mercury	NE	NE	NE	3.0E-01	0.16		<0.04	U	<0.05	U	<0.03	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.03	U	<0.03	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	8.3		11.7		23.0		6.8		7.1		<4.6	U	12.7		<4.3	U	17.4		4.6		25.2		8.5		5.8	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	**5.4**		**4.8**		**3.5**		**7.7**		<1.2	U	**6.4**		**3.1**		**6.6**		**4.4**		**5.6**		**4.8**		<1.1	U	<1	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	<1.2	U	<1.3	U	<1.1	U	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1.2	U	<1.1	U	<1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<16.6	U	<18	U	<19.9	U	<16.1	U	<18.1	U	<17.2	U	<16.8	U	<16.1	U	<16.8	U	<16.9	U	<17.7	U	<16.3	U	<15	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**15.7**		**8.0**		**27.2**		**12.2**		**17.0**		**17.1**		**32**		**36.0**		**35.8**		**22.5**		**53.4**		**12.7**		**9.4**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**386**		21.6		**59.6**		20.9		20.0		5.4		44.7		8.7		**69.6**		20.2		**89.9**		19.8		15.5	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ - The result is an estimated quantity, but the result may be biased high.

J- - The result is an estimated quantity, but the result may be biased low.

R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.15-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 18
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC18SB1	AOC18SB1	AOC18SB1	AOC18SB2	AOC18SB2	AOC18SB3	AOC18SB3	AOC18SB4	AOC18SB4	AOC18SB5	AOC18SB5	AOC18SB6	AOC18SB6
					Sample Top (ft below ground surface):	0	2	4	0	12	0	4	0	4	0	6	0	6
					Sample Bottom (ft below ground surface):	1	3.6	5.2	1	13.8	0.5	6	1	6	1	8	1	8
					Sample Date:	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/17/2006	01/25/2006	01/25/2006	01/25/2006	01/25/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<190 U	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	<37 UJ	<38 U	<38 U	<40 U	<36 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<380 U	<82 U	<92 U	<73 U	<81 U	<78 UJ	<78 U	<76 UJ	<78 U	<77 U	<82 U	<73 U	<70 U
Aroclor 1232	NE	NE	NE	4.0E+04	<190 U	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	<37 UJ	<38 U	<38 U	<40 U	<36 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<190 U	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	<37 UJ	<38 U	<38 U	<40 U	<36 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	300	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	76 J	<38 U	<38 U	<40 U	<36 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	**1000**	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	<37 UJ	<38 U	<38 U	<40 U	<36 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<190 U	<40 U	<45 U	<36 U	<40 U	<38 UJ	<38 U	<37 UJ	<38 U	<38 U	<40 U	<36 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**1870**	161	181	144.5	160.5	153	153	206.5	153	152.5	161	144.5	140

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** Indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.15-5

Soil Dioxins Analytical Results - AOC 18

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC18SB3		AOC18SB5		AOC18SB6	
					Sample Top (ft below ground surface):	0		0		0	
					Sample Bottom (ft below ground surface):	0.5		1		1	
					Sample Date:	01/17/2006		01/25/2006		01/25/2006	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)							
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<1.031	UJBK	<0.756	UB	<0.223	UJBK
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**5.507**	B	<2.122	UJBK	<0.39	UB
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.177	J	**0.346**	J	<0.058	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.292**	JK	0.174	JK	<0.024	U
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.029	U	<0.041	U	<0.037	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.242**	J	**0.281**	J	0.117	JK
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.078	JK	<0.039	U	<0.035	U
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.087	U	<0.051	U	<0.031	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	0.169	JK	**0.204**	JK	0.105	JK
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.032	U	0.07	JK	<0.028	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	0.231	J	<0.044	U	<0.027	U
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	0.161	JK	<0.03	U	<0.014	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.385	U	<0.063	U	<0.038	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.024	U	**0.472**	JK	<0.022	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	2.044	J	<2.286	UJB	<0.678	UJB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	24.885	B	<11.532	UJB	<3.056	UJB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**0.2495**		**0.639**		0.05959	

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample reporting limit.

K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).

Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.16-1

Soil Volatile Organic Compound Analytical Results - AOC 19

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC19SB1		AOC19SB1		AOC19SB10		AOC19SB10		AOC19SB10		AOC19SB11		AOC19SB11		AOC19SB12		AOC19SB12		AOC19SB12		AOC19SB13	
				Sample Top (ft below ground surface):	0		6		0		4		5.7		0		6		0		1.5		4		0	
				Sample Bottom (ft below ground surface):	1		6.6		1		5.7		8		1		8		1		4		5.4		1	
				Sample Date:	02/07/2006		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																						
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<5.6	U	0.54	J	0.50	J	0.85	J	<5.3	U	2.2	J	2.9	J	1.1	J	<4.9	U	<4.9	U	<5.6	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<5.6	U	<5	U	<6.4	U	<6.6	U	<5.3	U	0.57	J	1.6	J	<5.7	U	<4.9	U	<4.9	U	0.65	J
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.6	U	<5	U	<6.4	U	<6.6	U	<5.3	U	0.97	J	2.6	J	<5.7	U	<4.9	U	<4.9	U	<5.6	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.6	U	<5	U	<6.4	U	<6.6	U	<5.3	U	0.41	J	1.0	J	<5.7	U	<4.9	U	<4.9	U	<5.6	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.40	J	1.3	J	1.0	J	1.2	J	<5.3	U	2.2	J	5.3	J	0.75	J	<4.9	U	<4.9	U	0.84	J

				Sample Location:	AOC19SB13		AOC19SB13		AOC19SB13		AOC19SB2													
				Sample Top (ft below ground surface):	4		5.4		8		0													
				Sample Bottom (ft below ground surface):	9		1																	
				Sample Date:	02/08/2006		02/08/2006		02/08/2006		02/07/2006													
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																				
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<5.3	U	0.76	J	0.39	J														
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<5.3	U	0.68	J	<4.3	U														
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.3	U	1.0	J	<4.3	U														
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.3	U	0.50	J	<4.3	U														
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.81	J	1.8	J	0.47	J														

Table 4.16-1
Soil Volatile Organic Compound Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB2		AOC19SB2		AOC19SB3		AOC19SB3		AOC19SB4		AOC19SB4		AOC19SB4		AOC19SB5		AOC19SB5		AOC19SB5		AOC19SB6		AOC19SB6		AOC19SB7		AOC19SB7	
Sample Top (ft below ground surface):					2		6		0		6		0		4		5.3		0		4		5.5		0		7.5		0		6.9	
Sample Bottom (ft below ground surface):					3.5		7.4		1		7.1		1		5.3		8		1		5.5		7		1		8		1		7.5	
Sample Date:					02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																											
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	0.55	J	0.45	J	<5.1	U	0.69	J	<5.5	U	0.50	J	0.57	J	<6.2	U	0.34	J	<5.2	U	<5.6	U	<5.9	U	0.53	J	0.71	J
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	0.45	J	<5.2	U	<5.1	U	0.64	J	<5.5	U	0.63	J	0.54	J	<6.2	U	0.33	J	<5.2	U	<5.6	U	<5.9	U	0.42	J	0.62	J
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.71	J	<5.2	U	<5.1	U	1.3	J	<5.5	U	1.2	J	1.0	J	<6.2	U	<4.9	U	<5.2	U	<5.6	U	<5.9	U	0.89	J	1.3	J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.32	J	<5.2	U	<5.1	U	0.50	J	<5.5	U	0.55	J	0.43	J	<6.2	U	<4.9	U	<5.2	U	<5.6	U	<5.9	U	<5.6	U	0.51	J
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	1.3	J	0.99	J	<5.1	U	2.1	J	0.54	J	1.7	J	1.7	J	<6.2	U	0.89	J	0.58	J	<5.6	U	<5.9	U	1.1	J	2.0	J

Table 4.16-1

Soil Volatile Organic Compound Analytical Results - AOC 19

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB8		AOC19SB8		AOC19SB8		AOC19SB9		AOC19SB9	
Sample Top (ft below ground surface):					0		4		6		0		8.5	
Sample Bottom (ft below ground surface):					1		6		8		1		10.5	
Sample Date:					02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)										
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<4.9	U	0.45	J	0.39	J	1.5	J	<4.9	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<4.9	U	0.42	J	0.40	J	<6.1	U	<4.9	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.9	U	0.94	J	0.82	J	<6.1	U	<4.9	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.9	U	0.35	J	<5.1	U	<6.1	U	<4.9	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	0.63	J	1.5	J	1.0	J	0.77	J	<4.9	U

Notes:

B - Indicates method blank contamination.

J - The result is an estimated quantity; the associated numerical value is

U - The sample was analyzed for, but was not detected above the sample reporting limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* - Screening value for Total Xylenes, sum of m+p-Xylene and o-Xylene used for screening.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.16-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC19SB1	AOC19SB1	AOC19SB10	AOC19SB10	AOC19SB10	AOC19SB11	AOC19SB11	AOC19SB12	AOC19SB12	AOC19SB12	AOC19SB13	AOC19SB13	AOC19SB13
					Sample Top (ft below ground surface):	0	6	0	4	5.7	0	6	0	1.5	4	0	4	8
					Sample Bottom (ft below ground surface):	1	6.6	1	5.7	8	1	8	1	4	5.4	1	5.4	9
					Sample Date:	02/07/2006	02/07/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04		<400 U	<380 U	<390 U	<3000 U	<1200 U	<380 U	<350 U	<400 U	<390 U	<360 U	<1300 U	<760 U	<360 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05		<400 U	79 J	<390 U	<3000 U	<1200 U	360 J	<350 U	59 J	<390 U	<360 U	<1300 U	<760 U	<360 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06		<400 UJ	70 J	130 J	370 J	130 J	<380 U	<350 U	67 J	<390 U	<360 U	<1300 U	<760 U	<360 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03		<400 UJ	340 J	480 B	<3000 UB	<1200 UB	<380 UB	<350 U	400 JB	<390 U	<360 U	<1300 UB	<760 UB	<360 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03		<400 UJ	**450**	**470** B	<3000 UB	<1200 UB	<380 UB	<350 U	**350** JB	<390 U	<360 U	<1300 UB	<760 UB	<360 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04		<400 UJ	440	460 B	<3000 UB	<1200 UB	<380 UB	<350 U	330 JB	<390 U	<360 U	<1300 UB	<760 UB	<360 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05		<400 UJ	380	380 JB	<3000 UB	<1200 UB	<380 UB	<350 U	<400 UB	<390 U	<360 U	<1300 UB	<760 U	<360 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05		<400 UJ	370 J	**430** B	<3000 UB	<1200 UB	<380 UB	<350 U	370 JB	<390 U	<360 U	<1300 UB	<760 UB	<360 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03		<400 UJ	460	530 B	<3000 UB	<1200 UB	<380 UB	<350 U	350 JB	<390 U	<360 U	<1300 UB	<760 UB	<360 UB
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04		<400 U	**90** J	<390 UB	<3000 U	<1200 U	<380 UB	<350 U	<400 UB	<390 U	<360 U	<1300 U	<760 U	<360 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05		<400 UJ	730	1200	2500 J	750 J	180 J	<350 U	520	<390 U	<360 U	340 J	190 J	68 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05		<400 U	<380 U	40 J	<3000 U	<1200 U	<380 U	<350 U	<400 U	<390 U	<360 U	<1300 U	<760 U	<360 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05		<400 UJ	320 J	320 JB	<3000 UB	<1200 UB	<380 UB	<350 U	<400 UB	<390 U	<360 U	<1300 U	<760 U	<360 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01		<400 U	44 J	<390 U	<3000 U	<1200 U	**530**	<350 U	**890**	<390 U	<360 U	<1300 U	<760 U	<360 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04		<400 UJ	330 J	590 J	1500 J	520 J	93 J	<350 U	270 J	<390 U	<360 U	<1300 U	83 J	<360 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04		<400 UJ	530	900	2000 J	570 J	180 J	<350 U	430	<390 U	<360 U	320 J	160 J	52 J

Table 4.16-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC19SB2		AOC19SB2		AOC19SB2		AOC19SB3		AOC19SB3		AOC19SB4		AOC19SB4		AOC19SB4		AOC19SB5		AOC19SB5		AOC19SB5		AOC19SB6		AOC19SB6	
					Sample Top (ft below ground surface):		0		2		6		0		6		0		4		5.3		0		4		5.5		0		7.5	
					Sample Bottom (ft below ground surface):		1		3.5		7.4		1		7.1		1		5.3		8		1		5.5		7		1		8	
					Sample Date:		02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<380	U	<370	U	<350	U	<400	U	<350	U	<400	U	<350	U	<350	U	<420	U	<380	U	<360	U	<420	U	<420	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	130	J	<370	U	<350	U	<400	U	<350	U	<400	U	86	J	<350	U	200	J	<380	U	<360	U	88	J	<420	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	140	J	<370	U	<350	U	<400	U	<350	U	<400	U	69	J	<350	U	170	J	<380	U	<360	U	80	J	<420	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	620		<370	U	<350	U	<400	U	<350	U	<400	UB	240	JB	<350	U	**730**	B	<380	U	<360	U	290	JB	<420	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**630**		<370	U	<350	U	<400	U	<350	U	<400	UB	**280**	JB	<350	U	**740**	B	<380	U	<360	U	**300**	JB	<420	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	540		<370	U	<350	U	<400	U	<350	U	<400	UB	280	JB	<350	U	**630**	B	<380	U	<360	U	<420	UB	<420	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	370	J	<370	U	<350	U	<400	U	<350	U	<400	UB	<350	UB	<350	U	540	B	<380	U	<360	U	<420	UB	<420	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**590**		<370	U	<350	U	<400	U	<350	U	<400	UB	270	JB	<350	U	**730**	B	<380	U	<360	U	300	JB	<420	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	730		<370	U	<350	U	<400	U	<350	U	<400	UB	330	JB	<350	U	830	B	<380	U	<360	U	310	JB	<420	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**100**	J	<370	U	<350	U	<400	U	<350	U	<400	U	<350	UB	<350	U	<420	UB	<380	U	<360	U	<420	UB	<420	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	1600		<370	U	<350	U	<400	U	<350	U	170	J	540		<350	U	1600		52	J	<360	U	720		<420	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	74	J	<370	U	<350	U	<400	U	<350	U	<400	U	<350	U	<350	U	65	J	<380	U	<360	U	<420	U	<420	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	340	J	<370	U	<350	U	<400	U	<350	U	<400	UB	<350	UB	<350	U	470	B	<380	U	<360	U	<420	UB	<420	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	63	J	<370	U	<350	U	<400	U	39	J	<400	U	**190**	J	<350	U	**200**	J	<380	U	<360	U	<420	U	<420	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	970		<370	U	<350	U	<400	U	<350	U	100	J	370		<350	U	990		<380	U	<360	U	370	J	<420	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	1400		<370	U	<350	U	<400	U	<350	U	150	J	490		<350	U	1400		46	J	<360	U	590		<420	U

Table 4.16-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB7		AOC19SB7		AOC19SB8		AOC19SB8		AOC19SB8		AOC19SB9		AOC19SB9	
Sample Top (ft below ground surface):					0		6.9		0		4		6		0		8.5	
Sample Bottom (ft below ground surface):					1		7.5		1		6		8		1		10.5	
Sample Date:					02/08/2006		02/08/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<380	U	<350	U	<370	U	<350	U	<350	U	<2100	U	<400	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<380	U	<350	U	<370	U	<350	U	<350	U	370	J	<400	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<380	U	<350	U	<370	U	<350	U	<350	U	260	J	<400	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<380	UB	<350	U	89	J	<350	U	<350	U	**1800**	J	<400	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<380	UB	<350	U	**92**	J	<350	U	<350	U	**2100**		<400	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<380	UB	<350	U	87	J	<350	U	<350	U	**2000**	J	<400	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<380	UB	<350	U	70	J	<350	U	<350	U	1700	J	<400	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<380	UB	<350	U	100	J	<350	U	<350	U	**2000**	J	<400	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<380	UB	<350	U	120	J	<350	U	<350	U	2000	J	<400	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<380	U	<350	U	<370	U	<350	U	<350	U	**430**	J	<400	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	140	J	<350	U	200	J	<350	U	<350	U	3300		<400	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<380	U	<350	U	<370	U	<350	U	<350	U	<2100	U	<400	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<380	UB	<350	U	63	J	<350	U	<350	U	**1500**	J	<400	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	77	J	<350	U	<370	U	38	J	36	J	<2100	U	71	J
Phenanthrene	NE	2.2E+07	NE	4.6E+04	110	J	<350	U	100	J	<350	U	<350	U	1300	J	<400	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	130	J	<350	U	190	J	<350	U	<350	U	3100		<400	U

Notes:

B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in BOLD indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.

IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.16-3
Soil Metals Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC19SB1		AOC19SB10		AOC19SB10		AOC19SB10		AOC19SB11		AOC19SB11		AOC19SB12		AOC19SB12		AOC19SB12		AOC19SB13		AOC19SB13		AOC19SB13		AOC19SB2	
					Sample Top (ft below ground surface):		0		0		4		5.7		0		6		0		1.5		4		0		4		8		0	
					Sample Bottom (ft below ground surface):		1		1		5.7		8		1		8		1		4		5.4		1		5.4		9		1	
					Sample Date:		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/07/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																										
Aluminum	1.0E+05	7.6E+04	NE	NE	18600		9150		5600		5740		7600		8270		2260		9540		14500		13800		21300		12800		10500		8040	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.9	UJ	<6.8	UJ	<7.1	UJ	<8.9	UJ	<6.9	UJ	<6.7	UJ	<6.2	UJ	<7.0	UJ	<6.9	UJ	<6.4	UJ	<7.6	UJ	<6.7	UJ	<6.2	UJ	<6.8	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**10.7**		**9.6**		**5.0**		**5.9**		**6.1**		**8.4**		**4.5**		**10.3**		**12.8**		**13.7**		**19.0**		**8.5**		**8.3**		**11.6**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	167	J	61.4	J	60.4		77.2		93.6		106		24.4		129		77.1		67.8		122		90.2		67.6		49.3	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	1.9		0.63		<0.59	U	<0.74	U	0.61		0.57		<0.52	U	1.0		1.1		0.98		1.4		0.82		0.68		0.67	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	**0.63**		<0.57	U	<0.59	U	<0.74	U	**0.72**		**0.78**		<0.52	U	**1.1**		<0.57	U	<0.54	U	<0.63	U	**0.58**		<0.52	U	<0.56	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	**28.3**	J	12.8	J	14.4		19.1		**84.8**		**21.6**		6.2		**24.8**		19.5		17.4		**30.4**		**126**		**21.1**		18.2	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	10.2		<5.7	U	<5.9	U	<7.4	U	<5.7	U	<5.6	U	<5.2	U	9.4		10.1		8.7		10.8		6.5		6.0		5.7	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	21.5	J	15.3	J	15.2		20.9		21.5		19.1		6.3		**57.7**		24.0		27.0		**32.3**		21.6		15.4		**30.4**	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.21	U	<1.14	U	<1.18	U	<1.49	U	<1.2	U	**11.2**		<1.07	U	<1.22	U	<1.19	U	<1.08	U	<1.31	U	<1.16	U	<1.09	U	<1.14	U
Iron	1.0E+05	2.3E+04	NE	NE	**27600**		16200		13200		14500		21500		18900		7110		21000		**26100**		**25900**		**37300**		**32400**		17600		16400	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**19.8**		**16.4**		**16.1**		**25.4**		**22.7**		**27.4**		<5.2	U	**97.2**		**14.2**		**12.3**		**22.6**		**21.0**		**18.6**		**21.3**	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	**1490**	J	**570**	J	343		347		**1070**		409		236		**822**		**1040**		**671**		**839**		**3680**		**787**		432	J
Mercury	NE	NE	NE	3.0E-01	<0.04	U	0.05		0.05		0.07		0.11		**2.7**		<0.04	U	0.12		<0.04	U	<0.04	U	0.06		<0.04	U	<0.03	U	**0.49**	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	21.4		13.3		10.3		15.5		18.4		14.6		5.4		19.8		22.2		**28.7**		21.4		15.3		12.1		15.4	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<2.3	U	<2.3	U	**2.1**		**2.2**		**2.7**		**3.0**		<1	U	<2.3	U	**5.2**		<2.1	U	**3.7**		**4.4**		**2.1**		<2.3	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.2	U	<1.1	U	<1.2	U	<1.5	U	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.1	U	<1.1	U	<1.3	U	<1.1	U	<1	U	<1.1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<1.2	U	<1.1	U	<1.2	U	<1.5	U	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.1	U	<1.1	U	<1.3	U	<1.1	U	<1	U	<1.1	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**39.2**		**24.2**		**18.8**		**18.2**		**29.1**		**22.6**		**9.5**		**28.6**		**38.1**		**35.9**		**56.2**		**67.0**		**29.6**		**21.6**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**76.2**	J-	45.2	J-	**50.8**		**126**		**65.9**		**83.9**		15.5		**307**		**73.9**		**73.9**		**82.3**		**73.1**		**58.6**		**57.4**	J-

Table 4.16-3
Soil Metals Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC19SB2		AOC19SB2		AOC19SB3		AOC19SB3		AOC19SB4		AOC19SB4		AOC19SB4		AOC19SB5		AOC19SB5		AOC19SB5		AOC19SB6		AOC19SB6		AOC19SB7		AOC19SB7	
					Sample Top (ft below ground surface):		2		6		0		6		0		4		5.3		0		4		5.5		0		7.5		0		6.9	
					Sample Bottom (ft below ground surface):		3.5		7.4		1		7.1		1		5.3		8		1		5.5		7		1		8		1		7.5	
					Sample Date:		02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																												
Aluminum	1.0E+05	7.6E+04	NE	NE	5510		2060		10800		2710		14000		3170		2500		12800		6590		3760		12000		22600		13600		2370	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.4	UJ	<6.4	UJ	<7.2	UJ	<6.0	UJU	<7.0	UJ	<6.4	UJ	<6.1	UJ	<7.5	UJ	<6.5	UJ	<6.3	UJ	<7.4	UJ	<7.5	UJ	<7.0	UJ	<6.2	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**8.2**		**4.3**		**8.9**		**5.1**		**10.0**		**6.4**		**4.5**		**13.2**		**6.0**		**5.5**		**8.3**		**12.8**		**14.4**		**4.8**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	26.4	J	10.3	J	104	J	12.0	J	94.3		26.7		11.2		127		35.5		19.9		101		127		72.4		11.4	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	<0.53	U	<0.53	U	0.98		<0.5	U	1.0		<0.53	U	<0.51	U	1.2		<0.54	U	<0.52	U	0.94		1.3		0.84		<0.52	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<0.53	U	<0.53	U	<0.6	U	<0.5	U	<0.58	U	<0.53	U	<0.51	U	<0.62	U	<0.54	U	<0.52	U	**1.5**		<0.63	U	<0.58	U	<0.52	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	9.5	J	4.5	J	15.5	J	6.3	J	20.0		6.8		5.5		19.3		10.9		7.0		19.1		**27.2**		18.9		4.8	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	<5.3	U	<5.3	U	10.4		<5	U	8.7		<5.3	U	<5.1	U	9.8		<5.4	U	<5.2	U	10.0		11.5		6.1		<5.2	U
Copper	4.1E+04	3.1E+03	NE	2.8E+01	15.3	J	6.2	J	**28.6**	J	8.1	J	17.4		18.1		9.1		**42.3**		19.5		10.6		21.1		25.3		26.7		7.6	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.12	U	<1.06	U	<1.21	U	<1.06	U	<1.22	U	<1.07	U	<1.07	U	<1.29	U	<1.14	U	<1.08	U	<1.26	U	<1.27	U	<1.16	U	<1.06	U
Iron	1.0E+05	2.3E+04	NE	NE	11100		6110		17600		7210		21500		9440		7160		**25100**		13300		8500		21700		**35000**		20500		6330	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	5.8		<5.3	U	**12.5**		<5	U	**19.2**		**19.7**		<5.1	U	**34.6**		6.2		5.3		**23.7**		**16.7**		**13.9**		<5.2	U
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	315	J	193	J	**981**	J	193	J	**703**		456		216		**890**		414		242		**1090**		**697**		**591**		215	
Mercury	NE	NE	NE	3.0E-01	<0.04	U	<0.03	U	<0.04	U	<0.03	U	0.05		0.04		<0.03	U	0.05		<0.04	U	<0.03	U	**0.44**		<0.04	U	<0.04	U	<0.03	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	9.5		6.0		13.9		6.5		14.5		8.5		6.4		17.0		11.9		7.6		16.1		24.5		15.2		6.1	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<2.1	U	<2.1	U	<2.4	U	<2	U	**4.0**		<1.1	U	<1	U	**4.6**		<1.1	U	<1	U	**3.7**		**5.9**		**2.0**		<1	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	<1.1	U	<1.2	U	<1	U	<1.2	U	<1.1	U	<1	U	<1.2	U	<1.1	U	<1	U	<1.2	U	<1.3	U	<1.2	U	<1	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<1.1	U	<1.1	U	<1.2	U	<1	U	<1.2	U	<1.1	U	<1	U	<1.2	U	<1.1	U	<1	U	<1.2	U	**1.3**		<1.2	U	<1	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**16.3**		7.3		**29.4**		**9.9**		**41.3**		**10.8**		**10.4**		**33.7**		**18.1**		**11.7**		**29.3**		**51.4**		**34.5**		**8.5**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	25.9	J-	17.1	J-	42.4	J-	17.2	J-	**51.1**		30.6		19.1		**92.2**		34.2		21.4		**78.3**		**84.4**		**53.1**		20.0	

Table 4.16-3
Soil Metals Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB8		AOC19SB8		AOC19SB8		AOC19SB9		AOC19SB9	
Sample Top (ft below ground surface):					0		4		6		0		8.5	
Sample Bottom (ft below ground surface):					1		6		8		1		10.5	
Sample Date:					02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)										
Aluminum	1.0E+05	7.6E+04	NE	NE	8690		2680		1970		12200		15700	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E-01	<6.5	UJ	<6.4	UJ	<6.0	UJ	<7.4	UJ	<7.2	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+01	**101**		**5.0**		**6.8**		**13.0**		**10.2**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+02	73.3	J	13.0	J	10.3	J	287	J	78.4	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+01	0.8		<0.53	U	<0.5	U	1.2		1.1	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E-01	<0.54	U	<0.53	U	<0.5	U	**7.4**		<0.6	U
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+01	15.3	J	6.6	J	4.6	J	**34.2**	J	**24.6**	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+01	5.5		<5.3	U	<5	U	7.4		11.1	
Copper	4.1E+04	3.1E+03	NE	2.8E+01	**52.5**	J	8.9	J	9.4	J	**540**	J	26.2	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+00	<1.12	U	<1.07	U	<1.05	U	<1.29	U	<1.22	U
Iron	1.0E+05	2.3E+04	NE	NE	17300		7070		8590		**27700**		**28800**	
Lead	8.0E+02	4.0E+02	NE	1.1E+01	**44.7**		<5.3	U	5.0		**435**		**15.5**	
Manganese	1.9E+04	1.8E+03	NE	5.0E+02	470	J	211	J	221	J	**1050**	J	**741**	J
Mercury	NE	NE	NE	3.0E-01	0.04		<0.03	U	<0.03	U	0.27		<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	13.3		6.5		5.5		**28.4**		22.9	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+00	<2.2	U	<2.1	U	<2	U	<2.5	U	<2.4	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+00	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.2	U
Thallium	6.7E+01	5.2E+00	NE	1.0E+00	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.2	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+00	**23.9**		**10.3**		**9.5**		**26.8**		**36.0**	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+01	**64.7**	J-	32.9	J-	22.2	J-	**942**	J-	**74.0**	J-

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate
J+ - The result is an estimated quantity, but the
J- - The result is an estimated quantity, but the
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.16-4

Soil Polychlorinated Biphenyl Analytical Results - AOC 19

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC19SB1	AOC19SB1	AOC19SB10	AOC19SB10	AOC19SB10	AOC19SB11	AOC19SB11	AOC19SB12	AOC19SB12	AOC19SB12	AOC19SB13	AOC19SB13	AOC19SB13	AOC19SB2
					Sample Top (ft below ground surface):	0	6	0	4	5.7	0	6	0	1.5	4	0	4	8	0
					Sample Bottom (ft below ground surface):	1	6.6	1	5.7	8	1	8	1	4	5.4	1	5.4	9	1
					Sample Date:	02/07/2006	02/07/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/07/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04		<40 U	<38 U	<39 U	<49 U	<40 U	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Aroclor 1221	NE	NE	NE	4.0E+04		<81 U	<76 U	<79 U	<100 U	<80 U	<77 U	<72 U	<82 U	<80 U	<72 U	<88 U	<78 U	<73 U	<76 U
Aroclor 1232	NE	NE	NE	4.0E+04		<40 U	<38 U	<39 U	<49 U	<40 U	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Aroclor 1242	NE	NE	NE	4.0E+04		<40 U	<38 U	<39 U	<49 U	<40 U	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Aroclor 1248	NE	NE	NE	4.0E+04		<40 U	<38 U	100	290	59	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04		<40 U	<38 U	100	<49 U	110	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Aroclor 1260	NE	NE	NE	4.0E+04		<40 U	<38 U	<39 U	<49 U	<40 U	<38 U	<35 U	<40 U	<39 U	<36 U	<43 U	<38 U	<36 U	<38 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04		160.5	152	**317.5**	**462.5**	**289**	152.5	141	161	157	144	173	153	144.5	152

Table 4.16-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB2	AOC19SB2	AOC19SB3	AOC19SB3	AOC19SB4	AOC19SB4	AOC19SB4	AOC19SB5	AOC19SB5	AOC19SB5	AOC19SB6	AOC19SB6	AOC19SB7	AOC19SB7
Sample Top (ft below ground surface):					2	6	0	6	0	4	5.3	0	4	5.5	0	7.5	0	6.9
Sample Bottom (ft below ground surface):					3.5	7.4	1	7.1	1	5.3	8	1	5.5	7	1	8	1	7.5
Sample Date:					02/07/2006	02/07/2006	02/07/2006	02/07/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006	02/08/2006
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Aroclor 1221	NE	NE	NE	4.0E+04	<75 U	<71 U	<81 U	<71 U	<82 U	<72 U	<72 U	<86 U	<77 U	<72 U	<84 U	<85 U	<78 U	<71 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Aroclor 1260	NE	NE	NE	4.0E+04	<37 U	<35 U	<40 U	<35 U	<40 U	<35 U	<35 U	<42 U	<38 U	<36 U	<42 U	<42 U	<38 U	<35 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	148.5	140.5	160.5	140.5	161	141	141	169	152.5	144	168	168.5	153	140.5

Table 4.16-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB8		AOC19SB8		AOC19SB8		AOC19SB9		AOC19SB9	
Sample Top (ft below ground surface):					0		4		6		0		8.5	
Sample Bottom (ft below ground surface):					1		6		8		1		10.5	
Sample Date:					02/07/2006		02/07/2006		02/07/2006		02/07/2006		02/07/2006	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)										
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Aroclor 1221	NE	NE	NE	4.0E+04	<75	U	<72	U	<70	U	<86	U	<82	U
Aroclor 1232	NE	NE	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Aroclor 1242	NE	NE	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Aroclor 1248	NE	NE	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Aroclor 1260	NE	NE	NE	4.0E+04	<37	U	<35	U	<35	U	<42	U	<40	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	148.5		141		140		169		161	

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.16-5
Soil Dioxins Analytical Results - AOC 19
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC19SB1		AOC19SB10		AOC19SB11		AOC19SB12		AOC19SB13		AOC19SB2		AOC19SB3		AOC19SB4		AOC19SB4		AOC19SB5		AOC19SB6		AOC19SB7		AOC19SB7		AOC19SB8		AOC19SB9	
Sample Top (ft below ground surface):					0		4		0		0		4		2		0		0		5.3		4		0		1		6.9		4		8.5	
Sample Bottom (ft below ground surface):					1		5.7		1		1		5.4		3.5		1		1		8		5.5		1		1		7.5		6		10.5	
Sample Date:					02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/07/2006		02/07/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/08/2006		02/07/2006		02/07/2006	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																												
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**1.013**	J	**23.776**		**25.592**		**49.787**		**29.529**		<0.066	U	<0.072	U	<0.047	U	0.108	JK	0.126	J	**8.005**	J	**2.239**	J	0.147	JK	<0.036	U	<0.051	U
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**4.754**	JB	**161.319**	B	**70.694**	B	**118.983**	B	**106.414**	B	<0.662	UB	<0.162	UBK	<0.311	UB	<0.204	UB	<0.769	UB	**25.855**		**8.201**	B	<0.461	UB	<0.372	UBK	<0.196	UB
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.063	UJ	**2.14**	J	**1.606**	J	**5.695**		**4.991**		<0.085	U	<0.093	U	<0.06	U	<0.074	U	<0.081	U	<2.537	U	<0.064	U	<0.102	U	<0.047	U	<0.066	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.024	UJ	**3.812**		**3.071**		**6.092**		**3.293**		<0.042	U	<0.047	U	<0.025	U	<0.019	U	<0.029	U	<0.719	U	**0.206**	J	<0.023	U	<0.027	U	<0.037	U
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.06	UJ	**1.84**	JK	**0.62**	J	**1**	JK	**0.78**	JK	<0.059	U	<0.061	U	<0.044	U	<0.058	U	<0.044	U	<0.957	U	**0.144**	J	<0.03	U	<0.038	U	<0.05	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.024	UJ	**2.054**	J	**1.104**	JK	**3.52**		**2.449**	J	<0.042	U	<0.046	U	<0.025	U	<0.018	U	<0.028	U	<0.676	U	0.151	JK	<0.024	U	<0.027	U	<0.037	U
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.054	UJ	**6.758**		**3.05**		**7.492**		**4.185**		<0.053	U	<0.055	U	<0.04	U	<0.052	U	<0.04	U	<0.844	U	**0.321**	J	<0.028	U	<0.034	U	<0.045	U
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.029	UJ	**0.387**	JK	<0.07	U	<0.154	U	**0.243**	J	<0.05	U	<0.055	U	<0.03	U	<0.022	U	<0.034	U	<0.96	U	<0.052	U	<0.029	U	<0.032	U	<0.044	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.259**	J	**4.82**		**2.201**	J	**3.941**		**2.895**		<0.055	U	<0.057	U	<0.041	U	<0.054	U	<0.041	U	<0.951	U	**0.435**	J	<0.028	U	0.142	J	<0.046	U
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.05	UJ	**1.876**	J	**0.878**	J	**0.94**	J	**0.542**	J	<0.043	U	<0.057	U	<0.043	U	<0.031	U	<0.034	U	<0.546	U	<0.041	U	<0.023	U	<0.039	U	<0.041	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.026	UJ	1.03	J	0.986	J	3.268		3.077		<0.045	U	<0.049	U	<0.027	U	<0.02	U	<0.03	U	<0.761	U	0.19	J	<0.026	U	<0.029	U	<0.039	U
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.033	UJ	2.171	J	1.153	J	1.622	J	0.626	J	<0.029	U	<0.045	U	<0.022	U	<0.026	U	<0.02	U	0.516	JK	<0.025	U	<0.031	U	<0.019	U	<0.033	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.062	UJ	3.018		1.892	JK	<0.811	U	<0.78	U	<0.139	U	<0.062	U	<0.044	U	<0.033	U	<0.033	U	<0.518	U	<0.04	U	<0.039	U	<0.048	U	<0.053	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.053	UJ	**0.956**	J	**0.641**	JK	<0.033	U	**0.248**	J	<0.06	U	<0.064	U	<0.037	U	<0.039	U	<0.037	U	**1.452**	J	<0.036	U	<0.029	U	<0.032	U	<0.052	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	2.433	J	43.524		42.488		85.17		65.107		<0.11	U	<0.134	U	<0.121	U	<0.08	U	<0.095	U	<22.822	UB	4.858	J	0.525	JK	<0.078	U	<0.072	U
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	48.707	JB	1343.344	B	697.157	B	653.532	B	631.794	B	<4.178	UB	<1.202	UB	<1.48	UB	<1.506	UB	<5.98	UB	305.682	B	62.137	JB	<2.967	UB	<2.498	UB	<1.618	UB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**8.8339**		NA		**4.1812**		**6.0179**		NA		NA		0.088655		0.05829		0.05829		NA		**2.6128**		**0.3142**		**0.3142**		NA		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.17-1

Soil Volatile Organic Compound Analytical Results - AOC 20

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC20CA10SB2	AOC20CA10SB2	AOC20CA10SB3	AOC20CA10SB3	AOC20CA11SB2	AOC20CA11SB2	AOC20CA11SB2	AOC20CA11SB2	AOC20CA12SB1	AOC20CA12SB1	AOC20CA12SB1	AOC20CA12SB2	AOC20CA13SB1	AOC20CA13SB1
					Sample Top (ft below ground surface):	0	18	4	16	0	2	4	16	0	4	22	0	4	14
					Sample Bottom (ft below ground surface):	1.2	18.9	5	17.4	0.6	3.3	5.4	17.3	1.9	4.8	23.8	1.7	5	15.1
					Sample Date:	11/21/2005	11/21/2005	11/21/2005	11/21/2005	11/16/2005	11/16/2005	11/16/2005	11/16/2005	12/07/2005	12/07/2005	12/07/2005	12/08/2005	12/01/2005	12/01/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		<14 UJ	<1000 UB	<11 U	3.7 J	<11 U	4.9 J	<17 U	<10 U	<10 U	<15 U	<8.8 U	45	<19 U	<27 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<14 UJ	<1000 U	<11 U	<11 UJ	<11 U	<16 U	<17 U	<10 UJ	<10 U	<15 U	<8.8 U	<8.7 U	<19 U	<27 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<14 UJ	<1000 U	<11 U	<11 UJ	<11 U	<16 U	<17 U	<10 UJ	<10 U	<15 U	<8.8 U	<8.7 U	<19 U	<27 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		9.5 J	<2000 U	23 J	24 J	<22 UB	<32 UB	<34 UB	<20 UB	6.8 J	5.5 J	7.4 J	170	26 J	16 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		0.50 J	<510 U	<5.7 U	0.60 J	0.38 J	0.84 J	2.2 J	<5.1 U	<5.2 U	<7.6 U	3.4 J	12	0.61 J	<14 U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		1.8 J	<1000 U	<11 U	5.2 J	<11 U	8.8 J	6.3 J	1.3 J	3.1 J	2.3 J	0.40 J	0.94 J	20	12 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<14 UJ	<1000 U	<11 U	<11 UJ	<11 U	<16 U	<17 U	<10 U	<10 U	<15 U	<8.8 U	<8.7 U	<19 U	<27 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<7.2 UJ	<510 U	<5.7 U	2.3 J	1.3 J	<7.9 U	<8.4 U	1.8 J	<5.2 U	<7.6 U	6.6	<4.4 U	<9.3 U	<14 U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 UJ	<9.3 U	<14 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		<7.2 UJ	<510 U	<5.7 U	0.38 J	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	4.5 J	9.5	0.84 J	<14 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		<7.2 UJ	61 J	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	0.40 J	<4.4 U	<9.3 U	<14 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<14 UJ	<1000 U	<11 U	<11 UJ	<11 U	<16 U	<17 U	<10 U	<10 U	<15 U	<8.8 U	<8.7 U	<19 U	<27 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		1.8 J	<510 U	<5.7 U	2.6 J	1.8 J	0.48 J	<8.4 U	1.7 J	<5.2 U	<7.6 U	9.7	<4.4 U	<9.3 U	<14 U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<7.2 UJ	49 J	<5.7 U	<5.6 UJ	<5.4 U	<7.9 UB	<8.4 UB	<5.1 U	<5.0 UB	<5.0 UB	<4.4 U	<4.4 U	6.3 J	8.5 J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	28	6.4	<9.3 U	<14 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	3.7 J	3.5 J	<9.3 U	<14 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	1.2 J	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		<7.2 UJ	<510 U	<5.7 U	1.2 J	0.75 J	0.69 J	0.96 J	0.32 J	<5.2 U	<7.6 U	9.5	14	1.5 J	<14 U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 UJ	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<7.2 UJ	<510 U	<5.7 U	<5.6 UJ	<5.4 U	<7.9 U	<8.4 U	<5.1 U	<5.2 U	<7.6 U	<4.4 U	<4.4 U	<9.3 U	<14 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04															

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA13SB1		AOC20CA13SB2		AOC20CA1SB1		AOC20CA1SB1		AOC20CA1SB1		AOC20CA2SB2		AOC20CA2SB2		AOC20CA2SB2		AOC20CA3SB1		AOC20CA3SB1		AOC20CA3SB2		AOC20CA3SB2		AOC20CA4SB1		AOC20CA4SB1	
Sample Top (ft below ground surface):					20		0		0		4		14		0		8		24		0		6		18		20		0		6	
Sample Bottom (ft below ground surface):					21.2		2		2		6		16		1.5		9.5		24.9		1.3		7.6		19.2		21.6		1.5		7	
Sample Date:					12/01/2005		12/02/2005		12/08/2005		12/08/2005		12/08/2005		11/18/2005		11/18/2005		11/18/2005		11/17/2005		11/17/2005		11/17/2005		11/17/2005		12/07/2005		12/07/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	0.36	J	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<12	U	<19	U	2.5	J	20		<10	U	<19	UJ	<13	U	<13	U	<15	UJ	<9.8	U	4.6	J	<9.7	U	4.5	J	6.0	J
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<12	U	<19	U	<7.8	U	<11	U	<10	U	<19	UJ	<13	U	<13	U	<15	UJ	<9.8	U	<15	U	<9.7	U	<12	U	<11	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<12	U	<19	U	<7.8	U	<11	U	<10	U	<19	UJ	<13	U	<13	U	<15	UJ	<9.8	U	<15	U	<9.7	U	<12	U	<11	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<24	U	35	J	12	J	96		6.6	J	17	J	<27	U	<26	U	<30	UB	<20	U	<38	UB	<23	UB	16	J	32	
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	6.7		2.7	J	0.44	J	5.5	J	<5	U	2.2	J	5.0	J	1.1	J	<7.5	UJ	4.9	J	3.7	J	**1500**		1.2	J	0.44	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.42	J	1.9	J	<7.8	U	0.49	J	0.31	J	1.4	J	0.63	J	<13	U	6.6	J	0.32	J	<15	U	3.9	J	5.0	J	1.5	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<12	U	<19	U	<7.8	U	<11	U	<10	U	<19	UJ	<13	U	<13	U	<15	UJ	<9.8	U	<15	UJ	<9.7	U	<12	U	<11	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	13		<9.4	U	0.39	J	9.3		4.8	J	2.5	J	15		3.2	J	<7.5	UJ	24		9.5	J	1.3	J	<6.1	U	<5.4	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.9	U	<9.4	U	<3.9	UJ	<5.6	UJ	<5	UJ	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	UJ	<5.4	UJ
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	5.0	J	<9.4	U	<3.9	U	4.6	J	1.4	J	<9.6	UJ	5.1	J	1.4	J	<7.5	UJ	6.2		5.1	J	<4.8	U	<6.1	U	<5.4	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	0.60	J	<9.4	U	<3.9	U	0.54	J	<5	U	<9.6	UJ	0.63	J	<6.6	U	<7.5	UJ	0.69	J	5.4	J	<4.8	U	<6.1	U	<5.4	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<12	U	<19	U	<7.8	U	3.1	J	<10	U	<19	UJ	<13	U	<13	U	<15	UJ	<9.8	U	<15	U	<9.7	U	<12	U	<11	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	18		<9.4	U	0.87	J	13		6.6		3.6	J	33		6.8		1.4	J	30		18	J	1.7	J	0.44	J	4.0	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	4.1	J	2.7	J	<3.9	U	<5.0	UB	<5	U	<9.6	UB	<6.7	UB	<6.6	UB	<7.5	UJ	<4.9	U	<7.4	UB	<4.8	U	<5.0	UB	<5.4	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	6.4		<9.4	U	<3.9	U	5.8	J	2.5	J	<9.6	UJ	9.5		1.9	J	<7.5	UJ	6.6		5.7	J	<4.8	U	<6.1	U	<5.4	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.9	J	<9.4	U	<3.9	U	2.5	J	1.1	J	<9.6	UJ	3.9	J	0.71	J	<7.5	UJ	3.2	J	3.2	J	<4.8	U	<6.1	U	<5.4	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	0.40	J	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	16		1.8	J	<3.9	U	13		5.1	J	1.1	J	17		4.4	J	<7.5	UJ	16		9.5	J	0.77	J	0.61	J	0.56	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	0.44	J	<5.4	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.9	U	<9.4	U	<3.9	U	<5.6	U	<5	U	<9.6	UJ	<6.7	U	<6.6	U	<7.5	UJ	<4.9	U	<7.4	U	<4.8	U	<6.1	U	<5.4	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04																										

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC20CA4SB1		AOC20CA5SB1		AOC20CA5SB2		AOC20CA5SB2		AOC20CA5SB2		AOC20CA5SB3		AOC20CA5SB3		AOC20CA5SB3		AOC20CA5SB4		AOC20CA5SB4		AOC20CA5SB4		AOC20CA6SB1		AOC20CA6SB1		AOC20CA6SB1	
					Sample Top (ft below ground surface): 22		2		0		4		22		0		4		20		0		4		18		0		6		24	
					Sample Bottom (ft below ground surface): 23.2		3.4		1.4		5.1		23.6		1.7		4.7		21.6		2		5.4		19.2		0.9		6.6		25.5	
					Sample Date: 12/07/2005		12/07/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		12/06/2005		11/30/2005		11/30/2005		11/30/2005	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2-Dichlorobenzene	6.0E+05	5.0E+05	9.0E+03	3.0E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<10	U	4.7	J	<9.6	U	8.0	J	<8.3	U	<9.3	U	<8.9	U	<11	U	<8.8	UJ	<9.2	U	<9.7	U	<17	UJ	<12	U	<12	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<10	U	<13	U	<9.6	U	<9	U	<8.3	U	<9.3	U	<8.9	U	<11	U	<8.8	UJ	<9.2	U	<9.7	U	<17	UJ	<12	U	<12	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<10	U	<13	U	<9.6	U	<9	U	<8.3	U	<9.3	U	<8.9	U	<11	U	<8.8	UJ	<9.2	U	<9.7	U	<17	UJ	<12	U	<12	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	6.9	J	38	J	18	J	44		<17	U	5.2	J	<18	U	<22	U	<18	UJ	<18	U	<19	U	27	J	25		<23	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	2.5	J	<6.5	U	<4.8	U	0.67	J	2.6	J	<4.7	U	3.0	J	4.7	J	1.2	J	3.6	J	4.0	J	0.67	J	0.75	J	4.4	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.34	J	<13	U	2.5	J	1.8	J	2.0	J	0.35	J	0.99	J	<11	U	0.39	J	0.52	J	0.42	J	3.0	J	13		<12	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<10	U	<13	U	<9.6	U	<9	U	<8.3	U	<9.3	U	<8.9	U	<11	U	<8.8	UJ	<9.2	U	<9.7	U	<17	UJ	<12	U	<12	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	5.3		1.5	J	0.54	J	1.1	J	5.4		<4.7	U	5.6		11		3.6	J	6.3		7.6		<8.3	UJ	1.1	J	8.0	
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5	UJ	<6.5	UJ	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	5.2	J	<6.5	U	0.50	J	<4.5	U	2.6	J	<4.7	U	2.2	J	6.2		0.59	J	2.1	J	4.0	J	<8.3	UJ	<5.8	U	3.1	J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	1.1	J	<6.5	U	<4.8	U	<4.5	U	0.27	J	<4.7	U	0.30	J	0.84	J	<4.4	UJ	<4.6	U	0.42	J	<8.3	UJ	<5.8	U	<5.9	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<10	U	<13	U	<9.6	U	<9	U	<8.3	U	<9.3	U	<8.9	U	<11	U	<8.8	UJ	<9.2	U	<9.7	U	<17	UJ	<12	U	<12	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	6.8		2.4	J	0.71	J	1.3	J	7.4		<4.7	U	7.4		17		4.8	J	10		13		<8.3	UJ	0.82	J	14	
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5	U	<5.0	UB	0.74	J	0.83	J	1.4	J	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	1.7	J	<8.3	UJ	<5.8	U	<5.9	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	4.5	J	<6.5	U	18		<4.5	U	3.5	J	<4.7	U	2.4	J	7.2		0.79	J	2.2	J	4.8	J	<8.3	UJ	<5.8	U	5.1	J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.2	J	<6.5	U	1.1	J	<4.5	U	1.6	J	<4.7	U	1.4	J	3.5	J	0.42	J	0.85	J	2.5	J	<8.3	UJ	<5.8	U	1.9	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	1.5	J	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	1.9	J	<5.5	U	<4.4	UJ	1.0	J	<4.9	U	4.2	J	<5.8	U	<5.9	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	7.0		1.7	J	0.33	J	0.33	J	7.2		0.57	J	6.5		16		1.8	J	7.8		11		<8.3	UJ	0.53	J	11	
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	2.2	J	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5	U	<6.5	U	<4.8	U	<4.5	U	<4.1	U	<4.7	U	<4.5	U	<5.5	U	<4.4	UJ	<4.6	U	<4.9	U	<8.3	UJ	<5.8	U	<5.9	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04																												

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA7SB3		AOC20CA7SB3		AOC20CA7SB4		AOC20CA8SB1		AOC20CA8SB1		AOC20CA8SB2		AOC20CA8SB4		AOC20CA9SB2		AOC20CA9SB2		AOC20CA9SB2		AOC20SB14		AOC20SB15		AOC20SB16		AOC20SB17	
Sample Top (ft below ground surface):					4		18		0		4		18		0		14		0		16		18		6		8		10		12	
Sample Bottom (ft below ground surface):					5		20		0.7		6		20		1.2		14.9		1.8		17.3		19.8		6.8		10		10.6		12.8	
Sample Date:					11/29/2005		11/29/2005		11/29/2005		11/28/2005		11/28/2005		11/28/2005		11/28/2005		11/22/2005		11/22/2005		11/22/2005		12/16/2005		12/16/2005		12/19/2005		12/19/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<14	U	<9.7	U	<14	U	<10	U	<9.5	UJ	<8.8	UJ	<13	U	<1200	UB	<970	UB	<11	U	5.4	J	<13	U	180	J	<14	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<14	U	<9.7	U	<14	U	<10	U	<9.5	UJ	<8.8	UJ	<13	U	<1200	U	<970	U	<11	U	<11	U	<13	U	31	J	<14	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<14	U	<9.7	U	<14	U	<10	U	<9.5	UJ	<8.8	UJ	<13	U	<1200	U	<970	U	<11	U	<11	U	<13	U	5.3	J	<14	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<28	U	<19	U	9.8	J	<21	U	9.6	J	36	J	<26	U	<2400	U	<1900	U	21	J	44		8.0	J	770	J	<28	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	3.1	J	5.2	J	<6.9	U	2.0	J	0.62	J	1.1	J	3.5	J	84	J	<480	U	19		1.4	J	<6.5	U	4.6	J	2.6	J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	0.59	J	0.40	J	10	J	0.32	J	1.00	J	2.9	J	<13	U	<1200	U	<970	U	5.9	J	8.3	J	0.53	J	1.4	J	<14	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<14	U	<9.7	U	<14	U	<10	U	<9.5	UJ	<8.8	UJ	<13	U	<1200	U	<970	U	<11	U	<11	U	<13	U	<14	UJ	<14	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	100	J	<5.6	U	0.44	J	<6.5	U	<6.9	UJ	<6.9	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<6.9	U	10		<6.9	U	5.2	J	2.7	J	<4.4	UJ	10		160	J	<480	U	2.8	J	1.7	J	<6.5	U	2.7	J	4.2	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	2.1	J	4.0	J	<6.9	U	2.1	J	0.41	J	<4.4	UJ	4.7	J	230	J	<480	U	49		1.0	J	<6.5	U	2.0	J	3.4	J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<6.9	U	0.53	J	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	0.56	J	360	J	92	J	4.4	J	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<14	U	<9.7	U	<14	U	<10	U	<9.5	UJ	<8.8	UJ	<13	U	<1200	U	<970	U	<11	U	<11	U	<13	U	<14	UJ	<14	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	9.5		17		<6.9	U	8.3		3.0	J	0.98	J	17		2000		<480	U	4.0	J	3.4	J	<6.5	U	3.4	J	10	
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	0.34	J	<4.4	UJ	<6.6	U	87	J	49	J	<5.6	UB	0.35	J	2.7	J	0.49	J	0.43	J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	2.8	J	6.0		<6.9	U	3.5	J	0.74	J	<4.4	UJ	7.4		650		<480	U	120		2.3	J	<6.5	U	2.6	J	4.1	J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	1.3	J	2.9	J	<6.9	U	1.6	J	<4.8	UJ	<4.4	UJ	3.2	J	210	J	<480	U	57		0.77	J	<6.5	U	1.2	J	2.3	J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<6.9	U	14		<6.9	U	6.2		1.1	J	0.79	J	13		200	J	<480	U	45		2.5	J	<6.5	U	3.4	J	9.1	
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	0.40	J	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	0.59	J	<6.9	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<6.9	U	<4.9	U	<6.9	U	<5.2	U	<4.8	UJ	<4.4	UJ	<6.6	U	<610	U	<480	U	<5.6	U	<5.7	U	<6.5	U	<6.9	UJ	<6.9	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04																										

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC20SB18	AOC20SB19	AOC20SB20	AOC20SB21	AOC20SB22	AOC20SB23	AOC20SB24	AOC20SB25	AOC20SB26	AOC20SB27	AOC20SB28	AOC20SB29	AOC20SB30	AOC20SB31
					Sample Top (ft below ground surface): 6	6	6	6	6	6	6	6	6	6	6	6	6	10
					Sample Bottom (ft below ground surface): 7.2	7.1	7.1	7.2	6.6	7.1	6.9	7.8	7.6	7.2	7.4	7.3	6.9	10.7
					Sample Date: 12/19/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	01/04/2006	01/05/2006	12/20/2005	12/20/2005	12/21/2005	12/21/2005	12/21/2005	12/21/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<12 U	<13 U	<15 U	<15 U	<13 U	<12 U	2.1 J	13	<18 U	<14 U	<13 U	2.2 J	<12 U	<10 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<12 U	<13 U	<15 U	<15 U	<13 U	<12 U	<11 U	<10 U	<18 U	<14 U	<13 U	<11 U	<12 U	<10 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<12 U	<13 U	<15 U	<15 U	<13 U	<12 U	<11 U	<10 U	<18 U	<14 U	<13 U	<11 U	<12 U	<10 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	7.1 J	<25 U	<29 U	<31 U	3.4 J	11 J	11 J	78	<35 U	<27 U	<26 U	24	16 J	10 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	1.3 J	2.2 J	1.7 J	1.7 J	0.39 J	1.1 J	7.5	<5 U	1.1 J	0.68 J	6.2 J	<5.6 U	0.41 J	<5 U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.4 J	1.7 J	<15 U	<15 U	<13 U	1.6 J	0.37 J	1.4 J	<18 U	<14 U	<13 U	<11 U	<12 U	0.42 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<12 U	<13 U	<15 U	<15 U	<13 U	<12 U	<11 U	<10 U	<18 U	<14 U	<13 U	<11 U	<12 U	<10 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<5.9 U	1.1 J	<7.3 U	<7.7 U	0.51 J	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	3.0 J	5.0 J	4.5 J	4.7 J	0.81 J	4.0 J	15	1.0 J	2.4 J	1.0 J	9.5	<5.6 U	0.54 J	2.2 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 UJ	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	0.48 J	3.5 J	2.4 J	2.6 J	<6.5 U	0.41 J	6.6	<5 U	0.87 J	1.0 J	4.0 J	<5.6 U	<5.8 U	<5 U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<5.9 U	0.46 J	<7.3 U	<7.7 U	<6.5 U	<5.8 U	0.79 J	<5 U	<8.8 U	<6.8 U	0.50 J	<5.6 U	<5.8 U	<5 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<12 U	<13 U	<15 U	<15 U	<13 U	<12 U	<11 U	<10 U	<18 U	<14 U	<13 U	<11 U	<12 U	<10 U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	4.4 J	7.3	8.9	8.3	1.4 J	5.6 J	19	1.4 J	4.3 J	1.6 J	16	<5.6 U	0.47 J	3.7 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<5.9 U	0.71 J	0.53 J	0.47 J	<6.5 U	<5.8 U	<5.3 U	0.65 J	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	0.65 J	4.7 J	3.4 J	3.5 J	0.83 J	<5.8 U	9.2	<5 U	1.2 J	1.2 J	6.6	<5.6 U	<5.8 U	<5 U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<5.9 U	2.4 J	1.7 J	1.4 J	<6.5 U	<5.8 U	4.3 J	0.33 J	0.54 J	0.73 J	2.4 J	<5.6 U	<5.8 U	<5 U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	1.7 J	8.7	6.2 J	6.2 J	0.86 J	1.7 J	18	1.2 J	3.1 J	2.5 J	15	<5.6 U	0.68 J	<5 U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<5.9 U	0.57 J	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<5.9 U	<6.3 U	<7.3 U	<7.7 U	<6.5 U	<5.8 U	<5.3 U	<5 U	<8.8 U	<6.8 U	<6.4 U	<5.6 U	<5.8 U	<5 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04														

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC20SB32		AOC20SB33		AOC20SB34		AOC20SB35		AOC20SB36		AOC20SB37		AOC20SB38		AOC20SB39		AOC20SB40		AOC20SB41		MW-19S		MW-19S		MW-19S		MW-1S	
					Sample Top (ft below ground surface):	6		2		6		6		6		12		10		0		0		6		0		16		22		0	
					Sample Bottom (ft below ground surface):	7.5		3.4		7		7.5		8		13.4		11.4		1.5		1.2		7.3		1.3		17.4		23.1		2	
					Sample Date:	01/04/2006		01/04/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/04/2006		01/04/2006		01/04/2006		11/21/2005		11/21/2005		11/21/2005		11/15/2005	
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		1.9	J	2.7	J	2.1	J	<13	U	<13	U	18		<12	U	3.8	J	2.0	J	2.3	J	<11	U	<10	U	<9.4	U	<12	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<12	U	<12	U	<15	U	<13	U	<13	U	<12	U	<12	U	<11	U	<12	U	<13	U	<11	U	<10	U	<9.4	U	<12	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<12	U	<12	U	<15	U	<13	U	<13	U	<12	U	<12	U	<11	U	<12	U	<13	U	<11	U	<10	U	<9.4	U	<12	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		10	J	14	J	9.6	J	<27	U	<27	U	82		<24	U	22	J	14	J	13	J	3.8	J	<21	U	<19	U	<24	UB
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		4.2	J	12		<7.3	U	1.8	J	1.6	J	1.6	J	2.5	J	2.8	J	3.6	J	7.1		<5.5	U	1.6	J	1.2	J	<6.2	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		<12	U	0.71	J	<15	U	<13	U	<13	U	1.1	J	0.66	J	0.69	J	0.43	J	0.52	J	2.7	J	4.6	J	1.0	J	1.4	J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<12	U	<12	U	<15	U	<13	U	<13	U	<12	U	<12	U	<11	U	<12	U	<13	U	<11	U	<10	U	<9.4	U	<12	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<6.2	U	0.81	J	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		10		8.2		<7.3	U	4.4	J	2.4	J	1.8	J	6.0		5.0	J	3.8	J	19		<5.5	U	4.7	J	3.8	J	0.64	J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<6.2	UJ	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	UJ	<5.8	UJ	<6.4	UJ	<5.5	U	<5.2	U	<4.7	U	0.58	J
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		5.0	J	2.3	J	<7.3	U	2.6	J	0.99	J	0.73	J	2.5	J	2.0	J	<5.8	U	9.3		<5.5	U	1.1	J	1.0	J	<6.2	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		0.67	J	0.41	J	<7.3	U	0.43	J	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	1.4	J	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<12	U	<12	U	<15	U	<13	U	<13	U	1.0	J	<12	U	<11	U	<12	U	<13	U	<11	U	<10	U	<9.4	U	<12	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		15		9.8		0.68	J	5.4	J	2.8	J	2.8	J	8.6		6.5		5.3	J	26		<5.5	U	5.7	J	6.1		0.74	J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<6.2	U	<5.9	U	0.59	J	<6.7	U	<6.7	U	<5.8	U	<5.9	U	0.66	J	0.58	J	0.63	J	0.44	J	0.32	J	0.49	J	0.42	J
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		9.3		6.2		<7.3	U	3.8	J	1.8	J	1.5	J	3.4	J	3.1	J	2.8	J	16		<5.5	U	1.6	J	2.0	J	<6.2	U
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		4.4	J	2.5	J	<7.3	U	1.9	J	0.81	J	0.63	J	1.7	J	1.5	J	1.4	J	7.2		<5.5	U	0.59	J	0.70	J	<6.2	U
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<6.2	U	0.85	J	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	0.38	J
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		14		9.7		0.97	J	6.3	J	2.0	J	2.6	J	6.9		6.0		6.1		24		1.0	J	3.5	J	3.3	J	0.50	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	0.42	J
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<6.2	U	<5.9	U	<7.3	U	<6.7	U	<6.7	U	<5.8	U	<5.9	U	<5.7	U	<5.8	U	<6.4	U	<5.5	U	<5.2	U	<4.7	U	<6.2	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04																											

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	MW-1S	MW-1S	MW-2S	MW-2S	MW-2S	MW-3S	MW-3S	MW-3S	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
					Sample Top (ft below ground surface):	8	26	0	16	22	0	8	18	0	12	20	0	6	22
					Sample Bottom (ft below ground surface):	10	28	2	18	24	2	10	20	2	14	22	2	8	24
					Sample Date:	11/15/2005	11/15/2005	11/16/2005	11/16/2005	11/16/2005	11/18/2005	11/18/2005	11/18/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	0.61 J	<4.8 U	<7.2 U	<5 U	<4.3 U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04		<5.6 U	<5 UJ	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04		16	<10 U	<11 U	<8.8 U	<9.9 U	<8.8 U	<11 U	<10 U	3.3 J	<11 U	<9.7 U	<14 U	<10 U	<8.6 U
2-Hexanone	NE	5.3E+06	NE	1.3E+04		<11 U	<10 U	<11 U	<8.8 U	<9.9 U	<8.8 U	<11 U	<10 U	<12 UJ	<11 U	<9.7 U	<14 U	<10 U	<8.6 U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05		<11 U	<10 U	<11 U	<8.8 U	<9.9 U	<8.8 U	<11 U	<10 U	<12 UJ	<11 U	<9.7 U	<14 U	<10 U	<8.6 U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03		<51 UB	<20 U	<22 UB	<18 U	<20 UB	<18 UB	<22 U	<20 U	28 J	<23 U	8.0 J	20 J	22 J	8.4 J
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02		27	7.7	0.43 J	3.6 J	1.2 J	0.61 J	2.1 J	5.7	2.6 J	1.0 J	1.3 J	<7.2 U	<5 U	0.79 J
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01		2.0 J	1.0 J	2.6 J	0.41 J	1.1 J	3.0 J	<11 U	0.43 J	<1.1 UJ	0.65 J	0.73 J	10 J	0.36 J	4.0 J
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Chloroethane	6.5E+03	3.0E+03	NE	NE		<11 U	<10 U	<11 U	<8.8 U	<9.9 U	<8.8 U	<11 U	<10 U	<12 UJ	<11 U	<9.7 U	<14 U	<10 U	<8.6 U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	0.45 J	<4.8 U	<7.2 U	<5 U	<4.3 U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02		<5.6 U	5.8 J	1.4 J	10	4.0 J	1.7 J	6.9	5.3	1.4 J	1.5 J	3.7 J	<7.2 U	<5 U	3.2 J
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03		6.8	3.1 J	<5.7 U	4.0 J	0.94 J	<4.4 U	1.2 J	2.0 J	<5.8 UJ	0.82 J	1.4 J	<7.2 U	<5 U	0.43 J
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE		11	4.6 J	<5.7 U	0.46 J	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Methyl acetate	9.2E+07	2.2E+07	NE	NE		<11 U	<10 U	<11 U	<8.8 U	<9.9 U	<8.8 U	<11 U	<10 U	<12 UJ	<11 U	2.7 J	<14 U	<10 U	1.5 J
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE		5.1 J	6.8 J	1.8 J	18	4.9 J	3.2 J	10	9.0	1.9 J	2.1 J	4.4 J	0.68 J	<5 U	5.1 J
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03		<5.6 U	<5.0 UB	<5.7 U	<4.4 U	<4.9 U	<4.4 UB	<5.5 UB	<5.1 UB	<5.8 UJ	2.7 J	<4.8 U	<7.2 U	<5.0 UB	<4.3 U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		39	36 J	<5.7 U	5.9	1.5 J	<4.4 U	1.4 J	3.3 J	0.85 J	1.4 J	1.8 J	<7.2 U	<5 U	0.72 J
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04		25	17 J	<5.7 U	2.5 J	0.64 J	<4.4 U	0.59 J	1.1 J	0.45 J	0.70 J	0.95 J	<7.2 U	<5 U	0.43 J
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05		21	21 J	0.94 J	11	3.2 J	0.90 J	4.7 J	5.4	2.0 J	3.4 J	3.2 J	<7.2 U	<5 U	1.5 J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04		0.34 J	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	0.35 J	<4.8 U	<7.2 U	<5 U	<4.3 U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04		0.38 J	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	0.57 J	<4.8 U	<7.2 U	<5 U	<4.3 U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02		<5.6 U	<5 U	<5.7 U	<4.4 U	<4.9 U	<4.4 U	<5.5 U	<5.1 U	<5.8 UJ	<5.7 U	<4.8 U	<7.2 U	<5 U	<4.3 U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04															

Table 4.17-1

Soil Volatile Organic Compound Analytical Results - AOC 20

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					MW-7M		MW-7S		MW-7S		MW-7S		AOC20CA12SB3		AOC20CA12SB3		AOC20CA12SB3		AOC20CA12SB4		AOC20CA12SB4		AOC20CA12SB4		AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3A	
Sample Top (ft below ground surface):					32		0		14		24		0		12		21		0		12		18		0		18		20	
Sample Bottom (ft below ground surface):					33.4		2		16		26		2		14				2		14		20		2		20			
Sample Date:					02/28/2006		11/22/2005		11/22/2005		11/22/2005		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<4.5	UJ	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<4.5	UJ	<5.1	UJ	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<4.5	UJ	<5.1	U	<5.4	U	<4.1	UJ	<2.27	U	<2.44	U	<1.93	U	<2.03	U	--		<3.35	U	<2.33	U	<2.36	U	<2.06	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<4.5	UJ	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<4.5	UJ	<5.1	UJ	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<4.5	UJ	<5.1	UJ	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	3.3	J	<10	U	<11	U	<8.2	UJ	<2.84	U	<3.06	U	<2.42	U	7.84	J	--		<4.19	U	<2.92	U	<2.96	U	<2.58	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<9	U	<10	UJ	<11	U	<8.2	UJ	<2.84	U	<3.06	U	<2.42	U	<2.54	U	--		<4.19	U	<2.92	U	<2.96	U	<2.58	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<9	U	<10	U	<11	U	<8.2	UJ	<2.84	U	<3.06	U	<2.42	U	<2.54	U	--		<4.19	U	<2.92	U	<2.96	U	<2.58	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<18	U	13	J	<22	U	11	J	<5.67	U	<6.11	U	<4.83	U	16.1		--		<8.38	U	<5.84	U	<5.91	U	<5.16	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	9.2		1.9	J	0.54	J	1.6	J	<0.567	U	<0.611	U	<0.483	U	1.25	J	--		<1.68	U	<0.584	U	<0.591	U	<0.516	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<1.13	U	<0.611	U	<0.967	U	<1.02	U	--		<0.838	U	<1.17	U	<1.18	U	<1.03	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	2.4	J	0.76	J	<11	U	2.6	J	5.45	J	1.04	J	<0.483	U	3.63	J	--		<0.838	U	1.33	J	<0.591	U	<0.516	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<9	U	<10	U	<11	U	<8.2	UJ	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<2.27	U	<2.44	U	<1.93	U	<2.03	U	--		<3.35	U	<2.33	U	<2.36	U	<2.06	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	1.1	J	<5.1	U	<5.4	U	1.5	J	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	1.3	J	8.1	J	1.2	J	0.69	J	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.306	U	<0.242	U	<0.254	U	--		<0.419	U	<0.292	U	<0.296	U	<0.258	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<4.5	U	2.0	J	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<4.5	U	<5.1	UJ	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<9	U	<10	U	<11	U	<8.2	UJ	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	1.5	J	11		1.4	J	0.97	J	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<4.5	U	<5.1	UB	<5.4	U	4.1	JB	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.5	U	2.5	J	<5.4	U	<4.1	UJ									--									
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<4.5	U	1.2	J	<5.4	U	<4.1	UJ									--									
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	1.7	J	5.2	J	0.73	J	0.43	J	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.567	U	<0.611	U	<0.483	U	<0.508	U	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<0.284	U	<0.306	U	<0.242	U	<0.254	U	--		<0.419	U	<0.292	U	<0.296	U	<0.258	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<4.5	U	<5.1	U	<5.4	U	<4.1	UJ	<1.13	U	<1.22	U	<0.967	U	<1.02	U	--		<1.68	U	<1.17	U	<1.18	U	<1.03	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04									0.684	J	<0.611	U	0.551	J	0.571	J	--		<0.838	U	<0.584	U	<0.591	U	<0.516	U

Table 4.17-1
Soil Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB4		AOC20CA4SB4		AOC20CA4SB4		MW32S		MW32S		MW32S	
Sample Top (ft below ground surface):					0		8		21		0		16		22		2		12		18	
Sample Bottom (ft below ground surface):					2		10				2		18				4		14		20	
Sample Date:					6/9/2008		6/9/2008		6/9/2008		6/6/2008		6/6/2008		6/6/2008		6/3/2008		6/3/2008		6/3/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																		
1,1,1-Trichloroethane	1.2E+06	1.2E+06	1.0E+03	3.0E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,1,2,2-Tetrachloroethane	9.3E+02	4.1E+02	2.0E+00	1.3E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.6E+06	5.6E+06	NE	NE	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,1,2-Trichloroethane	1.6E+03	7.3E+02	9.0E+00	2.9E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,1-Dichloroethane	1.7E+06	5.1E+05	1.0E+04	2.0E+04	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
1,1-Dichloroethene	4.1E+05	1.2E+05	3.0E+01	8.3E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,2,4-Trichlorobenzene	2.2E+05	6.2E+04	3.0E+03	1.1E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,2-Dibromo-3-chloropropane	7.6E+01	3.0E+01	NE	3.5E+01	<2.33	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,2-Dibromoethane	7.3E+01	3.2E+01	NE	1.2E+03	<0.582	U	<2.21	U	<2.32	U	<2.26	U	<1.77	U	<2.55	U	<2.11	U	<2.27	U	<1.69	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	9.0E+03	3.0E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,2-Dichloroethane	6.0E+02	2.8E+02	1.0E+01	2.1E-04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,2-Dichloropropane	7.4E+02	3.4E+02	1.0E+01	3.3E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,3-Dichlorobenzene	6.0E+05	5.3E+05	NE	3.8E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
1,4-Dichlorobenzene	7.9E+03	3.4E+03	1.0E+03	5.5E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
2-Butanone	1.1E+08	2.2E+07	NE	9.0E+04	<2.91	U	<2.77	U	<2.9	U	<2.82	U	<2.21	U	<3.18	U	<2.64	U	<2.84	U	<2.11	U
2-Hexanone	NE	5.3E+06	NE	1.3E+04	<2.91	U	<2.77	U	<2.9	U	<2.82	U	<2.21	U	<3.18	U	<2.64	U	<2.84	U	<2.11	U
4-Methyl-2-pentanone	4.7E+07	5.3E+06	NE	4.4E+05	<2.91	U	<2.77	U	<2.9	U	<2.82	U	<2.21	U	<3.18	U	<2.64	U	<2.84	U	<2.11	U
Acetone	5.4E+07	1.4E+07	8.0E+03	2.5E+03	<5.82	U	<5.53	U	<5.8	U	<5.65	U	<4.42	U	<6.37	U	<5.29	U	<5.69	U	<4.22	U
Benzene	1.4E+03	6.4E+02	2.0E+01	2.6E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Bromodichloromethane	1.8E+03	8.2E+02	3.0E+02	5.4E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Bromoform	2.2E+05	6.2E+04	4.0E+02	1.6E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Bromomethane	1.3E+04	3.9E+03	1.0E+02	2.4E+02	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
Carbon disulfide	7.2E+05	3.6E+05	2.0E+04	9.4E+01	1.23	J	1.76	J	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Carbon tetrachloride	5.5E+02	2.5E+02	3.0E+01	3.0E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Chlorobenzene	5.3E+05	1.5E+05	7.0E+02	1.3E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Chloroethane	6.5E+03	3.0E+03	NE	NE	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
Chloroform	4.7E+02	2.2E+02	3.0E+02	1.2E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Chloromethane	1.6E+05	4.7E+04	NE	1.0E+04	<2.33	U	<2.21	U	<2.32	U	<2.26	U	<1.77	U	<2.55	U	<2.11	U	<2.27	U	<1.69	U
cis-1,2-Dichloroethene	1.5E+05	4.3E+04	2.0E+02	7.8E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
cis-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Cyclohexane	1.4E+05	1.4E+05	NE	1.0E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Dibromochloromethane	2.6E+03	1.1E+03	2.0E+02	2.1E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Dichlorodifluoromethane	3.1E+05	9.4E+04	NE	4.0E+04	<0.291	U	<0.277	U	<0.29	U	<0.282	U	<0.221	U	<0.318	U	<0.264	U	<0.284	U	<0.211	U
Ethylbenzene	4.0E+05	4.0E+05	7.0E+03	5.2E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Isopropylbenzene	2.0E+06	5.7E+05	NE	NE	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Methyl acetate	9.2E+07	2.2E+07	NE	NE	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.4	U	<0.844	U
Methylcyclohexane	8.7E+06	2.6E+06	NE	NE	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
Methylene chloride	2.1E+04	9.1E+03	1.0E+01	4.1E+03	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
Methyl-tert-butyl-ether	7.0E+04	3.2E+04	NE	NE	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<1.06	U	<1.14	U	<0.844	U
m+p-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04																		
o-Xylene*	4.2E+05	2.7E+05	1.0E+05	1.0E+04																		
Styrene	1.7E+06	1.7E+06	2.0E+03	4.7E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569		<0.422	U
Tetrachloroethene	1.3E+03	4.8E+02	3.0E+01	9.9E+03	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569		<0.422	U
Toluene	5.2E+05	5.2E+05	6.0E+03	2.0E+05	<0.582	U	<0.553	U	<0.58	U	<0.565	U	4.47	J	2.49	J	0.689	J	0.837	J	0.694	J
trans-1,2-Dichloroethene	2.3E+05	6.9E+04	3.0E+02	7.8E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
trans-1,3-Dichloropropene	NE	NE	NE	4.0E+02	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Trichloroethene	1.1E+02	5.3E+01	3.0E+01	1.2E+04	<0.582	U	<0.553	U	<0.58	U	<0.565	U	<0.442	U	<0.637	U	<0.529	U	<0.569	U	<0.422	U
Trichlorofluoromethane	2.0E+06	3.9E+05	NE	1.6E+04	<0.291	U	<0.277	U	<0.29	U	<0.282	U	<0.221	U	<0.318	U	<0.529	U	<0.284	U	<0.211	U
Vinyl chloride	7.5E+02	7.9E+01	7.0E+00	6.5E+02	<1.16	U	<1.11	U	<1.16	U	<1.13	U	<0.884	U	<1.27	U	<0.264	U	<1.14	U	<0.844	U
Xylenes	4.2E+05	2.7E+05	1.0E+05	1.0E+04	<0.582	U	0.581	J	0.607	J	1.39	J	14.1		2.93	J	1.5	J	1.71	J	1.22	J

Notes:
B - Indicates method blank contamination.
-- Not sampled for presented method.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample detection limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC20CA1	AOC20CA1	AOC20CA1	AOC20CA10	AOC20CA10	AOC20CA10	AOC20CA11	AOC20CA11	AOC20CA11	AOC20CA12	AOC20CA12	AOC20CA12	AOC20CA13	AOC20CA13
					Sample Top (ft below ground surface):	0	2	10	0	2	10	0	2	10	0	2	10	0	2
					Sample Bottom (ft below ground surface):	2	10		2	10		2	10		2	10		2	10
					Sample Date:	12/08/2005	12/08/2005	12/08/2005	11/22/2005	11/22/2005	11/22/2005	11/16/2005	11/16/2005	11/16/2005	12/08/2005	12/08/2005	12/08/2005	12/02/2005	12/02/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
1-Methylphthalene	NE	NE	NE	NE														
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	49 J	<380 U	<350 U	50 J	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	220 J	<390 U	<370 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<370 U	<380 U	<350 U	<370 U	<370 U	630	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<370 U	<380 U	<350 U	350 J	<370 U	<360 U	150 J	<410 U	<380 U	<370 U	<400 U	1300	52 J	180 J
Acetophenone	NE	NE	NE	3.0E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	67 J	<380 U	<350 U	210 J	<370 U	<360 U	130 J	<410 U	<380 U	<370 U	<400 U	2300	58 J	150 J
Atrazine	7.8E+03	2.2E+03	NE	NE	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	190 J	110 J	<350 U	**1000**	<370 U	<360 U	330 J	52 J	<380 U	<370 U	70 J	**6400**	350 J	600
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**110** J	**100** J	<350 U	**1100**	<370 U	<360 U	**350** J	56 J	<380 U	<370 U	**77** J	**7200**	**540**	**650**
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	190 J	73 J	<350 U	**950**	<370 U	<360 U	320 J	46 J	<380 U	<370 U	74 J	**3700**	420	560
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	110 J	60 J	<350 U	820	<370 U	<360 U	260 J	<410 U	<380 U	<370 U	66 J	4900	510	460
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	130 J	99 J	<350 U	**1100**	<370 U	<360 U	320 J	47 J	<380 U	<370 U	72 J	**5100**	**450**	**630**
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	43 J
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<370 U	<380 U	<350 U	60 J	<370 U	<360 U	55 J	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	67 J
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	350 J	110 J	<350 U	1100	<370 U	<360 U	350 J	60 J	<380 U	<370 U	89 J	**6500**	350 J	620
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<370 U	<380 U	<350 U	**210** J	<370 U	<360 U	**65** J	<410 U	<380 U	<370 U	<400 U	**860** J	**140** J	**140** J
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	62 J	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	39 J
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	450	180 J	<350 U	1600	62 J	86 J	690	97 J	<380 U	<370 U	140 J	9300	400 J	1100
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<370 U	<380 U	<350 U	46 J	<370 U	730	100 J	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	53 J
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	77 J	<380 U	<350 U	**760**	<370 U	<360 U	240 J	<410 U	<380 U	<370 U	58 J	**3400**	440	420
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	58 J	<380 U	<350 U	63 J	<370 U	<360 U	57 J	<410 U	<380 U	<370 U	<400 U	<1100 U	62 J	**120** J
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1900 U	<1900 U	<1800 U	<1900 U	<1900 U	<1900 U	<2000 U	<2100 U	<2000 U	<1900 U	<2100 U	<5400 U	<2000 U	<1900 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	220 J	52 J	<350 U	630	47 J	<360 U	480	71 J	<380 U	<370 U	65 J	1800	180 J	550
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<370 U	<380 U	<350 U	<370 U	<370 U	<360 U	<390 U	<410 U	<380 U	<370 U	<400 U	<1100 U	<390 U	<370 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	490	150 J	<350 U	1500	55 J	180 J	550	82 J	<380 U	<370 U	110 J	14000	360 J	920

Table 4.17-2

Soil Semi-Volatile Organic Compound Analytical Results - AOC 20

AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC20CA13	AOC20CA2	AOC20CA2	AOC20CA2	AOC20CA3	AOC20CA3	AOC20CA3	AOC20CA4	AOC20CA4	AOC20CA4	AOC20CA5	AOC20CA5	AOC20CA5	AOC20CA6
					Sample Top (ft below ground surface):	10	0	2	10	0	2	10	0	2	10	0	2	10	0
					Sample Bottom (ft below ground surface):		2	10		10	10		2	10		2	10		2
					Sample Date:	12/02/2005	11/18/2005	11/18/2005	11/18/2005	11/17/2005	11/17/2005	11/17/2005	12/07/2005	12/07/2005	12/07/2005	12/07/2005	12/07/2005	12/07/2005	12/07/2005	12/01/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	9200 J	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
1-Methylphthalene	NE	NE	NE	NE															
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<430 U	<1200 U	<350 U	<350 U	270 J	<370 U	<360 U	<360 U	**31000** J	<350 U	120 J	<400 U	<350 U	63 J	
2-Methylphenol	3.1E+04	3.1E+03	NE	NE															
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
2-Nitrophenol	NE	NE	NE	5.1E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE															
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
4-Bromophenyl-phenylether	NE	NE	NE	NE															
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE															
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
4-Nitrophenol	NE	NE	NE	5.1E+03	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<430 U	<1200 U	<350 U	<350 U	100 J	100 J	<360 U	<360 U	4700 J	<350 U	<1100 U	130 J	<350 U	49 J	
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<430 U	<1200 U	<350 U	<350 U	210 J	<370 U	<360 U	<360 U	87000	75 J	470 J	69 J	<350 U	120 J	
Acetophenone	NE	NE	NE	3.0E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<430 U	<1200 U	<350 U	<350 U	170 J	<370 U	<360 U	67 J	120000	<350 U	540 J	510	<350 U	310 J	
Atrazine	7.8E+03	2.2E+03	NE	NE	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<430 U	380 J	<350 U	<350 U	560	<370 U	<360 U	310 J	**100000**	260 J	**1400**	500	<350 U	**1200**	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<430 U	**440** J	<350 U	<350 U	**710**	<370 U	<360 U	**310** J	**85000**	**430**	**1400**	**350** J	<350 U	**1200**	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<430 U	440 J	<350 U	<350 U	**770**	<370 U	<360 U	300 J	**64000**	240 J	**1500**	350 J	<350 U	**1200**	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<430 U	320 J	<350 U	<350 U	610	<370 U	<360 U	250 J	44000	350	1700	240 J	<350 U	1000	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<430 U	370 J	<350 U	<350 U	**730**	<370 U	<360 U	300 J	**71000**	270 J	**1400**	340 J	<350 U	**980**	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE															
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Caprolactam	1.0E+08	3.1E+07	NE	NE	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<430 U	<1200 U	<350 U	<350 U	66 J	<370 U	<360 U	<360 U	**39000** J	<350 U	140 J	78 J	<350 U	65 J	
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<430 U	450 J	<350 U	<350 U	730	<370 U	<360 U	380	**89000**	280 J	1600	560	<350 U	1300	
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<430 U	<1200 U	<350 U	<350 U	**160** J	<370 U	<360 U	**85** J	**13000** J	**67** J	**330** J	**70** J	<350 U	**280** J	
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<430 U	<1200 U	<350 U	<350 U	130 J	<370 U	<360 U	<360 U	53000	<350 U	180 J	120 J	<350 U	46 J	
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<430 U	660 J	<350 U	<350 U	1000	<370 U	<360 U	510	**290000**	260 J	3500	2100	<350 U	2200	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<430 U	<1200 U	<350 U	<350 U	140 J	180 J	<360 U	<360 U	89000	<350 U	280 J	330 J	<350 U	38 J	
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<430 U	290 J	<350 U	<350 U	510	<370 U	<360 U	230 J	**42000**	240 J	**1200**	210 J	<350 U	**890**	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<430 U	<1200 U	<350 U	<350 U	**240** J	**200** J	<360 U	38 J	**110000**	<350 U	**180** J	68 J	<350 U	59 J	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<2200 U	<6100 U	<1800 U	<1800 U	<2000 U	<1900 U	<1900 U	<1800 U	<210000 U	<1800 U	<5900 U	<2100 U	<1800 U	<1900 U	
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<430 U	310 J	<350 U	<350 U	640	<370 U	<360 U	190 J	**340000**	<350 U	2300	1800	<350 U	830	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<430 U	<1200 U	<350 U	<350 U	<380 U	<370 U	<360 U	<360 U	<40000 U	<350 U	<1100 U	<400 U	<350 U	<370 U	
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<430 U	550 J	<350 U	<350 U	920	42 J	<360 U	440	200000	390	2600	1300	<350 U	2000	

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC20CA6	AOC20CA6	AOC20CA7	AOC20CA7	AOC20CA7	AOC20CA8	AOC20CA8	AOC20CA8	AOC20CA9	AOC20CA9	AOC20CA9	AOC20SB14	AOC20SB15	AOC20SB16
					Sample Top (ft below ground surface):	2	10	0	2	10	0	2	10	0	2	10	6	8	10
					Sample Bottom (ft below ground surface):	10		2	10		2	10		2	10		6.8	10	10.6
					Sample Date:	12/01/2005	12/01/2005	11/30/2005	11/30/2005	11/30/2005	11/29/2005	11/29/2005	11/29/2005	11/22/2005	11/22/2005	11/22/2005	12/16/2005	12/16/2005	12/19/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	630 J	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
1-Methylphthalene	NE	NE	NE	NE														
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<370 U	<350 U	230 J	<360 U	<370 U	2600 J	49 J	<370 U	3200	<360 U	<360 U	<360 U	<360 U	<2000 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
4-Chloroanfline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<370 U	<350 U	480 J	<360 U	<370 U	4300	<380 U	<370 U	4500	3600	76 J	<360 U	<360 U	<2000 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<370 U	<350 U	490 J	120 J	<370 U	4100	<380 U	<370 U	<1200 U	<360 U	<360 U	110 J	450	680 J
Acetophenone	NE	NE	NE	3.0E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<370 U	<350 U	900 J	110 J	<370 U	11000	42 J	<370 U	2200	<360 U	<360 U	62 J	140 J	440 J
Atrazine	7.8E+03	2.2E+03	NE	NE	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1900 U	<1800 U	<5800 UJ	<1900 UJ	<1900 UJ	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	54 J	<350 U	**3400**	380	<370 U	**19000**	99 J	<370 U	**1200** J	68 J	<360 U	320 J	**690**	450 J
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	47 J	<350 U	**2500**	**340** J	<370 U	**16000**	**97** J	<370 U	**1000** J	47 J	<360 U	**340** J	**1200**	**600** J
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	45 J	<350 U	**3400**	330 J	<370 U	**15000**	110 J	<370 U	**1200**	48 J	<360 U	280 J	**800**	**640** J
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<370 U	<350 U	1400	220 J	<370 U	12000	82 J	<370 U	760 J	<360 U	<360 U	240 J	1200	740 J
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	48 J	<350 U	**2900**	290 J	<370 U	**15000**	100 J	<370 U	**1200**	39 J	<360 U	330 J	**800**	**620** J
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	270 J	<360 U	130 J	61 J	<2000 U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<370 U	<350 U	180 J	50 J	<370 U	**2300** J	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	60 J	<350 U	4300	400	<370 U	**19000**	120 J	40 J	1200 J	81 J	<360 U	330 J	830	570 J
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<370 U	<350 U	**400** J	74 J	<370 U	**2900** J	<380 U	<370 U	**270** J	<360 U	<360 U	73 J	**190** J	<2000 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<370 U	<350 U	240 J	38 J	<370 U	5100	<380 U	<370 U	2300	1500	<360 U	<360 U	<360 U	<2000 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	130 J	<350 U	7700	820	<370 U	44000	210 J	63 J	3200	770	44 J	630	1100	960 J
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<370 U	<350 U	310 J	<360 U	<370 U	5000	<380 U	<370 U	6200	3900	81 J	<360 U	<360 U	<2000 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<370 U	<350 U	**1400**	200 J	<370 U	**11000**	77 J	<370 U	**770** J	<360 U	<360 U	220 J	**820**	570 J
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	83 J	<350 U	**360** J	<360 U	<370 U	**2000** J	47 J	<370 U	**2100**	<360 U	**810**	<360 U	46 J	<2000 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1900 U	<1800 U	<5800 U	<1900 U	<1900 U	<16000 U	<2000 U	<1900 U	<6000 U	<1800 U	<1900 U	<1800 U	<1900 U	<10000 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	160 J	<350 U	1700	430	<370 U	40000	150 J	140 J	13000	<360 U	<360 U	240 J	210 J	490 J
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<370 U	<350 U	<1100 U	<360 U	<370 U	<3100 U	<380 U	<370 U	<1200 U	<360 U	<360 U	<360 U	<360 U	<2000 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	110 J	<350 U	7800	660	<370 U	36000	180 J	60 J	2600	580	<360 U	500	1400	830 J

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	AOC20SB17		AOC20SB18		AOC20SB19		AOC20SB20		AOC20SB21		AOC20SB22		AOC20SB23		AOC20SB24		AOC20SB25		AOC20SB26		AOC20SB27		AOC20SB28		AOC20SB29		AOC20SB30	
				Sample Top (ft below ground surface):	12		6		6		6		6		6		6		6		6		6		6		6		6		6	
				Sample Bottom (ft below ground surface):	12.8		7.2		7.1		7.1		7.2		6.6		7.1		6.9		7.8		7.6		7.2		7.4		7.3		6.9	
				Sample Date:	12/19/2005		12/19/2005		12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/20/2005		01/04/2006		01/05/2006		12/20/2005		12/20/2005		12/21/2005		12/21/2005		12/21/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																										
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<360	U	<390	U	400	J	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
1-Methylphthalene	NE	NE	NE	NE																										
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<360	U	<390	U	1600		67	J	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE																										
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE																										
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
4-Bromophenyl-phenylether	NE	NE	NE	NE																										
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE																										
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<360	U	<390	U	370	J	44	J	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<360	U	<390	U	480	J	610		<350	U	97	J	56	J	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Acetophenone	NE	NE	NE	3.0E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<360	U	<390	U	2100		530		<350	U	130	J	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<360	U	140	J	**2700**		**2200**		<350	U	470		140	J	<350	U	<410	U	46	J	<410	U	68	J	<390	U	<390	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<360	U	**140**	J	**1800**		**2200**		<350	U	**440**		**140**	J	<350	U	<410	U	52	J	<410	U	**85**	J	<390	U	<390	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<360	U	120	J	**1800**		**2100**		<350	U	440		130	J	<350	U	<410	U	61	J	<410	U	130	J	<390	U	<390	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<360	U	100	J	1100		1700		<350	U	350	J	110	J	<350	U	<410	U	47	J	<410	U	85	J	<390	U	<390	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<360	U	120	J	**1900**		**2100**		<350	U	**420**	J	130	J	<350	U	<410	U	60	J	<410	U	86	J	<390	U	<390	U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE																										
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<360	U	<390	U	<730	U	37	J	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<360	U	<390	U	**1400**		110	J	<350	U	48	J	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<360	U	140	J	2600		2200		<350	U	510		140	J	<350	U	<410	U	58	J	<410	U	96	J	<390	U	<390	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<360	U	<390	U	**350**	J	**470**		<350	U	**88**	J	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<360	U	<390	U	1900		120	J	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	62	J	320	J	7600		4000		<350	U	880		230	J	<350	U	<410	U	80	J	<410	U	130	J	<390	U	<390	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<360	U	<390	U	1000		110	J	<350	U	45	J	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<360	U	90	J	**1000**		**1500**		<350	U	310	J	100	J	<350	U	<410	U	41	J	<410	U	90	J	<390	U	<390	U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<360	U	<390	U	**3600**		**180**	J	<350	U	53	J	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1900	U	<2000	U	<3800	U	<1800	U	<1800	U	<2200	U	<1900	U	<1800	U	<2100	U	<2000	U	<2100	U	<2100	U	<2000	U	<2000	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<360	U	190	J	11000		1500		<350	U	520		100	J	<350	U	<410	U	<390	U	62	J	63	J	<390	U	<390	U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<360	U	<390	U	<730	U	<350	U	<350	U	<430	U	<380	U	<350	U	<410	U	<390	U	<410	U	<400	U	<390	U	<390	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	53	J	260	J	5600		3200		<350	U	690		180	J	<350	U	<410	U	74	J	<410	U	110	J	<390	U	<390	U

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location:	AOC20SB31	AOC20SB32	AOC20SB33	AOC20SB34	AOC20SB35	AOC20SB36	AOC20SB37	AOC20SB38	AOC20SB39	AOC20SB40	AOC20SB41	MW-19S	MW-19S	MW-19S
					Sample Top (ft below ground surface):	10	6	2	6	6	6	12	10	0	0	6	0	16	22
					Sample Bottom (ft below ground surface):	10.7	7.5	3.4	7	7.5	8	13.4	11.4	1.5	1.2	7.3	1.3	17.4	23.1
					Sample Date:	12/21/2005	01/04/2006	01/04/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/03/2006	01/04/2006	01/04/2006	01/04/2006	11/21/2005	11/21/2005	11/21/2005
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
1-Methylphthalene	NE	NE	NE	NE														
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<360 U	<340 U	770 J	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	300 J	<340 U	42 J	<390 U	<350 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<360 U	<340 U	1100 J	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	1600 J	<340 U	<370 U	<390 U	<350 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	120 J	<340 U	3500	57 J	<350 U	<420 U	<400 U	<1100 U	<380 U	310 J	<340 U	58 J	<390 U	<350 U
Acetophenone	NE	NE	NE	3.0E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	81 J	<340 U	5300	60 J	<350 U	<420 U	72 J	120 J	<380 U	3000	<340 U	150 J	<390 U	<350 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<370 U	<2000 U	<1800 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	340 J	<340 U	**14000**	240 J	<350 U	96 J	490	270 J	43 J	**15000**	<340 U	560	110 J	<350 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**330** J	<340 U	**14000**	**240** J	<350 U	**89** J	**560**	**280** J	43 J	**15000**	<340 U	**530**	**150** J	<350 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	280 J	<340 U	**13000**	200 J	<350 U	93 J	550	350 J	40 J	**14000**	<340 U	540	91 J	<350 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	180 J	<340 U	9300	180 J	<350 U	61 J	380 J	220 J	<380 U	8100	<340 U	370 J	120 J	<350 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	280 J	<340 U	**12000**	210 J	<350 U	84 J	**490**	310 J	43 J	**14000**	<340 U	**500**	94 J	<350 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	46 J	<1100 U	<380 U	<2600 U	<340 U	270 J	73 J	64 J
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<360 U	<340 U	**2200** J	<390 U	<350 U	<420 U	65 J	<1100 U	<380 U	**1800** J	<340 U	60 J	<390 U	<350 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	330 J	<340 U	**14000**	240 J	<350 U	110 J	600	370 J	46 J	**16000**	<340 U	610	120 J	<350 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	61 J	<340 U	**2900** J	55 J	<350 U	<420 U	**110** J	<1100 U	<380 U	**3000**	<340 U	**110** J	<390 U	<350 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<360 U	<340 U	1600 J	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	550 J	<340 U	56 J	<390 U	<350 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	40 J	<370 U	<390 U	<350 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	760	<340 U	28000	470	<350 U	220 J	920	650 J	83 J	25000	<340 U	1100	93 J	<350 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	38 J	<340 U	2500 J	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	1100 J	<340 U	55 J	<390 U	<350 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	180 J	<340 U	**8500**	150 J	<350 U	55 J	340 J	200 J	<380 U	**7600**	<340 U	350 J	85 J	<350 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<360 U	<340 U	**1400** J	<390 U	<350 U	90 J	**110** J	<1100 U	<380 U	**560** J	<340 U	65 J	<390 U	<350 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1800 U	<1800 U	<16000 U	<2000 U	<1800 U	<2200 U	<2100 U	<5500 U	<1900 U	<14000 U	<1800 U	<1900 U	<2000 U	<1800 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	300 J	<340 U	18000 J	200 J	<350 U	130 J	380 J	350 J	<380 U	11000	<340 U	610	<390 U	<350 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<360 U	<340 U	<3100 U	<390 U	<350 U	<420 U	<400 U	<1100 U	<380 U	<2600 U	<340 U	<370 U	<390 U	<350 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	560	<340 U	22000	410	<350 U	160 J	770	510 J	72 J	22000	<340 U	830	140 J	<350 U

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

				Sample Location:	MW-1S	MW-1S	MW-1S	MW-2S	MW-2S	MW-2S	MW-3S	MW-3S	MW-3S	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S
				Sample Top (ft below ground surface):	0	8	26	0	16	22	0	8	18	0	12	20	0	6
				Sample Bottom (ft below ground surface):	2	10	28	2	18	24	2	10	20	2	14	22	2	8
				Sample Date:	11/15/2005	11/15/2005	11/15/2005	11/16/2005	11/16/2005	11/16/2005	11/18/2005	11/18/2005	11/18/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)														
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<410 U	220000 J	880 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
1-Methylphthalene	NE	NE	NE	NE														
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<410 U	880000	3500 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	80 J	<350 U	<350 U	<360 U	<400 U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE														
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
2-Nitrophenol	NE	NE	NE	5.1E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE														
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
4-Bromophenyl-phenylether	NE	NE	NE	NE														
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE														
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
4-Nitrophenol	NE	NE	NE	5.1E+03	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<410 U	100000 J	380 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	81 J	1100000	4300 J	190 J	<370 U	<370 U	<750 U	<410 U	<340 U	480 J	140 J	<350 U	<360 U	<400 U
Acetophenone	NE	NE	NE	3.0E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	44 J	1200000	4300 J	190 J	<370 U	<370 U	<750 U	<410 U	<340 U	460 J	180 J	<350 U	<360 U	<400 U
Atrazine	7.8E+03	2.2E+03	NE	NE	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	230 J	1100000	4300 J	770	100 J	150 J	250 J	<410 U	<340 U	2900	840	<350 U	<360 U	<400 U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	250 J	850000	3500 J	820	130 J	220 J	300 J	<410 U	<340 U	2600	690	<350 U	<360 U	<400 U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	230 J	690000	2800 J	760	100 J	110 J	260 J	<410 U	<340 U	2300	610	<350 U	<360 U	<400 U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	200 J	410000 J	1700 J	620	90 J	130 J	270 J	<410 U	<340 U	1800	400	<350 U	<360 U	<400 U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	270 J	820000	3300 J	740	110 J	130 J	260 J	<410 U	<340 U	2400	670	<350 U	<360 U	<400 U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE														
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<410 U	<430000 U	<1400 U	140 J	<370 U	110 J	<750 U	<410 U	59 J	200 J	390	<350 U	<360 U	70 J
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<410 U	600000	2400 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	150 J	<350 U	<350 U	<360 U	<400 U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	270 J	1000000	3800 J	760	110 J	160 J	330 J	<410 U	<340 U	2900	820	<350 U	<360 U	<400 U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	61 J	130000 J	590 J	140 J	<370 U	<370 U	<750 U	<410 U	<340 U	450 J	100 J	<350 U	<360 U	<400 U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<410 U	920000	3500 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	85 J	<350 U	<350 U	<360 U	<400 U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	60 J	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	440	2900000	11000 J	1400	140 J	160 J	400 J	<410 U	<340 U	4400	1800	<350 U	<360 U	<400 U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<410 U	1600000	6000 J	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<410 U	<430000 U	<1400 UJ	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	170 J	390000 J	1600 J	520	76 J	92 J	190 J	<410 U	<340 U	1500	380	<350 U	<360 U	<400 U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<410 U	5000000	19000	93 J	<370 U	<370 U	<750 U	<410 U	<340 U	150 J	<350 U	<350 U	<360 U	<400 U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<410 U	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<2100 U	<2200000 U	<7300 U	<2000 U	<1900 U	<1900 U	<3900 U	<2100 U	<1700 U	<3700 U	<1800 U	<1800 U	<1900 U	<2100 U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	160 J	4200000	16000	550	43 J	<370 U	220 J	<410 U	<340 U	1800	610	<350 U	<360 U	<400 U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	200 J	<430000 U	<1400 U	<390 U	<370 U	<370 U	<750 U	<410 U	<340 U	<730 U	<350 U	<350 U	<360 U	<400 U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	410 J	2400000	9000 J	1300	170 J	280 J	490 J	<410 U	<340 U	3600	1400	<350 U	<360 U	<400 U

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:				MW-6S		MW-7M		MW-7S		MW-7S		MW-7S		AOC20CA12SB3		AOC20CA12SB3		AOC20CA12SB3		AOC20CA12SB4		AOC20CA12SB4		AOC20CA12SB4		AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3A	
Sample Top (ft below ground surface):				22		32		0		14		24		0		12		21		0		12		18		0		18		20	
Sample Bottom (ft below ground surface):				24		33.4		2		16		26		2		14				2		14		20		2		20			
Sample Date:				11/22/2005		02/28/2006		11/22/2005		11/22/2005		11/22/2005		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																											
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04	<360	U	<370	U	<390	U	<410	U	<360	U																	
1-Methylphthalene	NE	NE	NE	NE											131		<2.72	U	<2.57	U	<25.6	UJ	<3.53	UJ	<6.22	U	<13.2	UJ	15		<15.2	UJ
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	<360	U	<370	U	<390	U	<410	U	<360	U	166		<2.72	U	<82.6	U	33.8	J	<3.53	UJ	12.6		19	J	<102	UJ	78.7	
2-Methylphenol	3.1E+04	3.1E+03	NE	NE											<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
2-Nitrophenol	NE	NE	NE	5.1E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<878	U	<182	U	<165	U	<87.7	UJ	<198	UJ	<207	U	<175	UJ	<204	UJ	<202	UJ
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE											<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
4-Bromophenyl-phenylether	NE	NE	NE	NE											<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<101	UJ
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<415	U	<349	UJ	<102	UJ	<101	UJ
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE											<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
4-Nitrophenol	NE	NE	NE	5.1E+03	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	<404	UJ
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<2.72	U	<82.6	U	207	J	<3.53	UJ	<6.22	U	26.3	U	16.7	UJ	<15.2	UJ
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	<360	U	<370	U	47	J	110	J	<360	U	219		<2.72	U	5.13	U	89.5	J	13.9	U	79.7		19.1	J	13	UJ	19.1	J
Acetophenone	NE	NE	NE	3.0E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	<360	U	<370	U	<390	U	48	J	<360	U	206		<2.72	U	5.13	U	8.16	J	18.6	U	70.7		82.8		12.5	U	42	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<360	U		R	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	<360	U	<370	U	190	J	530		<360	U	**1090**		8.54		29.5	U	456	J	8.54	U	**907**		413		27.6	U	277	
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	<360	U	<370	U	**200**	J	**950**		<360	U	**999**		8.4		26.9		**625**	J	8.4	U	**1290**		**337**		24.5	U	**312**	
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	<360	U	<370	U	180	J	490		<360	U	**707**		5.15	J	16.9	U	499	J	5.43		**767**		281		<102	UJ	**644**	
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	<360	U	<370	U	140	J	710		<360	U	697		4.87	J	16.9		468	J	11.5		860		226		<102	UJ	620	
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	<360	U	<370	U	160	J	**650**		<360	U	**1170**		9.85		22.3		**622**	J	9.85	U	**756**		**398**		<102	UJ	**484**	
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE											<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	39	J	<370	U	<390	U	<410	U	48	J	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Caprolactam	1.0E+08	3.1E+07	NE	NE	<1900	U	<370	U	<2000	U	<2100	U	<1800	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	<360	U	<370	U	200	J	560		<360	U	1120		8.62		28.4		465	J	8.62	U	944		469		25.7	U	613	
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	<360	U	<370	U	<390	U	**140**	J	<360	U	**271**		<2.72	U	4.84	J	**177**	J	<99	UJ	**81.8**		**79.8**		<102	UJ	37.5	J
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	<360	U	<370	U	360	J	480		<360	U	2030		6.81		34.7		386	J	6.81	U	1010		748		55.7	U	680	
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<360	U	<370	U	<390	U	<410	U	<360	U	33.6	J	<2.72	U	<82.6	U	51.2	J	19.8	U	10		51.8	U	12.5	U	30.3	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	<360	U	<370	U	130	J	490		<360	U	**646**		4.87	J	13.7		481	J	11		567		230		<102	UJ	301	
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	<360	U	<370	U	86	J	<410	U	<360	U	**182**	U	2.97	J	11	U	49.6	J	5.43	U	33.2		17	J	<102	UJ	25.5	
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<360	U	<370	U	<390	U	<410	U	<360	U	<439	UJ	<91.2	UJ	<82.6	UJ	<87.7	UJ	<99	UJ	<104	UJ	<87.3	UJ	<102	UJ	<101	UJ
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<360	U	<370	U	<390	U	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<1900	U	<1900	U	<2000	U	<2100	U	<1800	U	<1760	U	<365	U	<330	U	<351	UJ	<396	UJ	<415	U	<349	UJ	<408	UJ	140	UJ
Phenanthrene	NE	2.2E+07	NE	4.6E+04	<360	U	<370	U	130	J	120	J	<360	U	820		3.87	J	7.49		307	U	5.43	U	36.4		267	U	39.8	U	540	
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<360	U	<370	U	40	J	<410	U	<360	U	<439	U	<91.2	U	<82.6	U	<87.7	UJ	<99	UJ	<104	U	<87.3	UJ	<102	UJ	<101	UJ
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	<360	U	<370	U	300	J	780		<360	U	1420	J	5.69		43.9		553	J	5.62	U	1520		703		<102	UJ	1090	

Table 4.17-2
Soil Semi-Volatile Organic Compound Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	Sample Location: AOC20CA4SB3B Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 6/9/2008		Sample Location: AOC20CA4SB3B Sample Top (ft below ground surface): 8 Sample Bottom (ft below ground surface): 10 Sample Date: 6/9/2008		Sample Location: AOC20CA4SB3B Sample Top (ft below ground surface): 21 Sample Bottom (ft below ground surface): Sample Date: 6/9/2008		Sample Location: AOC20CA4SB4 Sample Top (ft below ground surface): 0 Sample Bottom (ft below ground surface): 2 Sample Date: 6/6/2008		Sample Location: AOC20CA4SB4 Sample Top (ft below ground surface): 16 Sample Bottom (ft below ground surface): 18 Sample Date: 6/6/2008		Sample Location: AOC20CA4SB4 Sample Top (ft below ground surface): 22 Sample Bottom (ft below ground surface): Sample Date: 6/6/2008		Sample Location: MW32S Sample Top (ft below ground surface): 2 Sample Bottom (ft below ground surface): 4 Sample Date: 6/3/2008		Sample Location: MW32S Sample Top (ft below ground surface): 12 Sample Bottom (ft below ground surface): 14 Sample Date: 6/3/2008		Sample Location: MW32S Sample Top (ft below ground surface): 18 Sample Bottom (ft below ground surface): 20 Sample Date: 6/3/2008	
1,1-Biphenyl	2.3E+07	3.0E+06	NE	6.0E+04	<87.2	U	<87.2	U	<104	U	<445	U	1550	J	<628	U	<440	U	<88.3	U	<86.1	U
2,2'-Oxybis(1-Chloropropane)	7.4E+03	2.9E+03	NE	2.0E+04																		
1-Methylphthalene	NE	NE	NE	NE	<13.5	U	14.9	J	146		37.5	J	1030		<126	U	106		<5.27	U	<5.26	U
2,4,5-Trichlorophenol	6.2E+07	6.1E+06	1.4E+05	4.0E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2,4,6-Trichlorophenol	2.5E+04	6.1E+03	8.0E+01	9.9E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2,4-Dichlorophenol	1.8E+06	1.8E+05	5.0E+02	8.8E+04	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2,4-Dimethylphenol	1.2E+07	1.2E+06	4.0E+03	1.0E+01	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2,4-Dinitrophenol	1.2E+06	1.2E+05	1.0E+02	2.0E+04	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
2,4-Dinitrotoluene	1.2E+06	1.2E+05	4.0E-01	1.3E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2,6-Dinitrotoluene	6.2E+05	6.1E+04	3.0E-01	3.3E+01	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2-Chloronaphthalene	2.3E+07	4.9E+06	NE	1.2E+01	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2-Chlorophenol	2.4E+05	6.3E+04	2.0E+03	2.4E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2-Methylnaphthalene	NE	5.6E+04	NE	3.2E+03	21.8	J	30.4		107	J	50.4	J	2580		879		189		<88.3	U	<86.1	U
2-Methylphenol	3.1E+04	3.1E+03	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
2-Nitroaniline	1.8E+06	1.8E+05	NE	7.4E+04	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
2-Nitrophenol	NE	NE	NE	5.1E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
3,3'-Dichlorobenzidine	3.8E+03	1.1E+03	3.0E+00	6.5E+02	<174	U	<174	U	<208	U	<891	U	<1840	U	<251	U	<881	U	<177	U	<172	U
3-,4-Methylphenol	6.2E+02	6.1E+01	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
3-Nitroaniline	8.2E+04	1.8E+04	NE	3.2E+03	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
4,6-Dinitro-2-methylphenol	6.2E+04	6.1E+03	NE	1.4E+02	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
4-Bromophenyl-phenylether	NE	NE	NE	NE	<13.5	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
4-Chloro-3-methylphenol	NE	NE	NE	8.0E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
4-Chloroaniline	2.5E+06	2.4E+05	3.0E+02	1.1E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
4-Chlorophenyl-phenyl ether	NE	NE	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
4-Nitroaniline	8.2E+04	2.3E+04	NE	2.2E+04	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
4-Nitrophenol	NE	NE	NE	5.1E+03	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
Acenaphthene	2.9E+07	3.7E+06	2.9E+05	2.0E+04	<87.2	U	27.3	U	472		16.2	J	2270	U	1740		99.5		<88.3	U	<86.1	U
Acenaphthylene	NE	3.7E+06	NE	6.8E+05	18.5	J	48.7		257		215	J	4380		1030		233		<88.3	U	<86.1	U
Acetophenone	NE	NE	NE	3.0E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Anthracene	1.0E+08	2.2E+07	5.9E+06	1.5E+06	214	U	136	J	495		320	J	9570	I	2490		690		<88.3	U	<86.1	U
Atrazine	7.8E+03	2.2E+03	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U		U	<440	U	<88.3	U	<86.1	U
Benzaldehyde	6.2E+07	6.1E+06	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Benzo(a)anthracene	2.1E+03	6.2E+02	8.0E+02	5.2E+03	**1290**		511		**962**		**1380**		**11000**		**2780**		**3270**		<88.3	U	<86.1	U
Benzo(a)pyrene	2.1E+02	6.2E+01	4.0E+03	1.5E+03	**1020**		**408**		**717**		**1120**		**9100**		**2070**		**2630**		<88.3	U	<86.1	U
Benzo(b)fluoranthene	2.1E+03	6.2E+02	2.0E+03	6.0E+04	**982**		534		**703**		2010		**7400**		**1440**		**3170**		<88.3	U	<86.1	U
Benzo(g,h,i)perylene	NE	2.3E+06	NE	1.2E+05	656		278		387		465	J	4670		960		1400		<88.3	U	<86.1	U
Benzo(k)fluoranthene	1.3E+03	3.8E+02	2.0E+04	1.5E+05	**928**		**405**		**623**		**1220**		**7410**		**1570**		**1560**		<88.3	U	<86.1	U
Bis(2-Chloroethoxy)methane	NE	NE	NE	3.0E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Bis(2-Chloroethyl)ether	5.8E+02	2.2E+02	2.0E-01	2.4E+04	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Bis(2-Chloroisopropyl)ether	7.4E+00	2.9E+00	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Bis(2-Ethylhexyl)phthalate	1.2E+05	3.5E+04	NE	9.3E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Butylbenzylphthalate	1.0E+08	1.2E+07	8.1E+06	2.4E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Caprolactam	1.0E+08	3.1E+07	NE	NE	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Carbazole	8.6E+04	2.4E+04	3.0E+02	NE	<87.2	U	<87.2	U	**371**		<445	U	**3370**		**879**		<440	U	<88.3	U	<86.1	U
Chrysene	2.1E+05	6.2E+04	8.0E+04	4.7E+03	1330		543		705		1320		**9170**		2220		3130		<88.3	U	<86.1	U
Dibenz(a,h)anthracene	2.1E+02	6.2E+01	8.0E+02	1.8E+04	**281**		**96.4**		**171**	J	**184**	J	**499**		**280**	U	**735**		<88.3	U	<5.26	U
Dibenzofuran	1.6E+06	1.5E+05	NE	NE	<87.2	U	<87.2	U	466		<445	U	<922	U	1930		<440	U	<88.3	U	<86.1	U
Diethylphthalate	1.0E+08	4.9E+07	NE	1.0E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Dimethylphthalate	1.0E+08	1.0E+08	NE	7.3E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Di-n-butylphthalate	6.2E+07	6.1E+06	2.7E+06	2.0E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Di-n-octylphthalate	2.5E+07	2.4E+06	1.0E+08	7.1E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Fluoranthene	2.2E+07	2.3E+06	2.1E+06	1.2E+05	2320		1050		2810		2510		34500		7980		6160		6.85	J	<5.26	U
Fluorene	2.6E+07	2.7E+06	2.8E+05	1.2E+05	<87.2	U	59.7	U	629		82.8	J	10800		3300		89.1		<88.3	U	<86.1	U
Hexachlorobenzene	1.1E+03	3.0E+02	1.0E+03	2.0E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<5.26	U
Hexachlorobutadiene	2.2E+04	6.2E+03	1.0E+03	4.0E+01	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Hexachlorocyclopentadiene	3.7E+06	3.7E+05	2.0E+05	7.6E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Hexachloroethane	1.2E+05	3.5E+04	2.0E+02	6.0E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Indeno(1,2,3-cd)pyrene	2.1E+03	6.2E+02	7.0E+03	1.1E+05	571		244		339		461	J	**3980**		**881**		**1300**		<88.3	U	<86.1	U
Isophorone	5.1E+05	5.1E+05	3.0E+02	1.4E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Naphthalene	1.9E+05	5.6E+04	4.0E+04	9.9E+01	22.5	J	42.4		**9987**		127	J	**18400**	I	**7740**		**367**		<88.3	U	<5.26	U
Nitrobenzene	1.0E+05	2.0E+04	7.0E+01	1.3E+03	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
N-Nitroso-di-n-propylamine	2.5E+02	6.9E+01	2.0E-02	5.4E+02	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
N-Nitrosodiphenylamine	3.5E+05	9.9E+04	6.0E+02	5.5E+02	<87.2	UJ	<87.2	UJ	<104	UJ	<445	UJ	<922	UJ	<126	UJ	<440	U	<88.3	U	<86.1	U
o-Cresol (2-Methylphenol)	3.1E+07	3.1E+06	8.0E+03	4.0E+04	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
p-Cresol (4-Methylphenol)	3.1E+06	3.1E+05	NE	1.6E+05	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Pentachlorophenol	9.0E+03	3.0E+03	1.0E+01	3.0E+03	<349	U	<349	U	<415	U	<1780	U	<3690	U	<502	U	<1760	U	<353	U	<344	U
Phenanthrene	NE	2.2E+07	NE	4.6E+04	544		479		2890		894	J	45600		11100		1260		<88.3	U	<5.26	U
Phenol	1.0E+08	1.8E+07	5.0E+04	7.0E+04	<87.2	U	<87.2	U	<104	U	<445	U	<922	U	<126	U	<440	U	<88.3	U	<86.1	U
Pyrene	2.9E+07	2.3E+06	2.1E+06	7.9E+04	1990		972		2040		2160		25900		6260		4130		5.57	J	6.2	J

Notes:
B - Indicates method blank contamination.
I - Semiquanitative result (out of instrument calibration range)
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.
U - The sample was analyzed for, but was not detected above the sample detection limit.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004

DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC20CA1		AOC20CA1		AOC20CA1		AOC20CA10		AOC20CA10		AOC20CA10		AOC20CA11		AOC20CA11		AOC20CA11		AOC20CA12		AOC20CA12		AOC20CA12		AOC20CA13	
					Sample Top (ft below ground surface):		0		2		10		0		2		10		0		2		10		0		2		10		0	
					Sample Bottom (ft below ground surface):		2		10				2		10				2		10				2		10				2	
					Sample Date:		12/08/2005		12/08/2005		12/08/2005		11/22/2005		11/22/2005		11/22/2005		11/16/2005		11/16/2005		11/16/2005		12/08/2005		12/08/2005		12/08/2005		12/02/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																												
Aluminum	1.0E+05	7.6E+04	NE	NE	4730		8930		3660		25200		4860		5920		30400		21200		5530		25600		49200		3100		26600	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02	<6.7	UJ	<6.8	UJ	<6.4	UJ	<6.7	UJ	<6.7	UJ	<6.3	UJ	<7.1	U	<7.2	UJ	<6.9	UJ	<6.6	UJ	<7.2	UJ	<6.4	UJ	<6.9	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04	**7.3**		**6.6**		**13.2**		**11.9**		**9.7**		**4.3**		**7.3**		**7.9**		**4.5**		**5.3**		**2.8**		**5.6**		**3.3**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05	46.9		76.0		84.4		280		33.8		44.8		266		124		84.8		303		395		20.1		326	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04	<0.56	U	<0.57	U	<0.53	U	2.3		<0.56	U	<0.52	U	0.84		0.60		<0.57	U	3.5		8.8		<0.53	U	3.4	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02	**4.8**	J-	<0.57	UJ	<0.53	UJ	3.9		0.82		0.52		0.69		0.83		<0.57	U	**7.6**	J-	0.63	J-	<0.53	UJ	2.1	
Calcium	NE	NE	NE	NE																												
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04	**61.4**	J-	12.2	J-	5.9	J-	**88.1**		18.3		11.1		17.0		15.6		7.0		**80.6**	J-	10.7	J-	7.2	J-	**29.5**	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04	6.8		8.7		<5.3	U	<5.6	U	8.2		6.0		7.3		9.8		<5.7	U	5.6		<6	U	<5.3	U	<5.8	U
Copper	4.1E+04	3.1E+03	NE	2.8E+04	35.9		13.7		9.7		30.0		16.8		15.3		17.7		14.8		13.9		44.8		17.8		6.3		14.0	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03	1.13		<1.14	U	<1.06	U	2.36		<1.13	U	<1.09	U	<1.19	UJ	2.34		<1.15	U	2.36		<1.21	U	<1.06	U	8.19	
Iron	1.0E+05	2.3E+04	NE	NE	**103000**		19300		9760		**78400**		**27400**		15700		20800		**37100**		13000		**170000**		8470		8560		**53200**	J
Lead	8.0E+02	4.0E+02	NE	1.1E+04	**438**		12.6		<5.3	U	319		15.6		7.4		19.2		14.5		6.4		5.5		28.3		<5.3	U	17.7	J
Magnesium	NE	NE	NE	NE																												
Manganese	1.9E+04	1.8E+03	NE	5.0E+05	**2510**	J	668	J	725	J	**2990**	J	425	J	391	J	**4290**	J	1530	J	358	J	**7990**	J	**4220**	J	342	J	**4120**	J
Mercury	NE	NE	NE	3.0E+02	<0.04	U	<0.04	U	<0.03	U	<0.04	U	<0.04	U	<0.03	U	0.04		<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.03	U	0.09	J
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	17.3	J	14.1	J	9.5	J	14.5		18.7		15.8		14.7		14.6		10.2		17.1	J	<4.8	UJ	6.5	J	5.4	
Potassium	NE	NE	NE	NE																												
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03	<11.2	U	<1.1	U	<1.1	U	**5.2**		<2.2	U	<2.1	U	<2.4	U	<2.4	U	<2.3	U	<21.9	U	**5.8**		<1.1	U	**3.7**	J
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03	2.1		<1.1	U	<1.1	U	<1.1	U	<1.1	U	<1	U	<1.2	U	<1.2	U	<1.1	U	<1.1	U	<1.2	U	<1.1	U	<1.2	U
Sodium	NE	NE	NE	NE																												
Thallium	6.7E+01	5.2E+00	NE	1.0E+03	<22.4	UJ	<22.8	UJ	<21.2	UJ	<27.9	U	<5.6	U	<5.2	U	<5.9	U	<6	U	<5.7	U	<21.9	UJ	<24.2	UJ	<21.2	UJ	<34.6	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03	31.4		18.3		9.3		66.2		30.0		16.5		25.7		27.1		11.1		30.4		7.4		9.1		24.7	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04	1800		54.7		22.0		173		83.8		38.0		58.0		67.3		30.4		6.6		66.0		20.3		34.8	J

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC20CA13		AOC20CA2		AOC20CA2		AOC20CA2		AOC20CA3		AOC20CA3		AOC20CA3		AOC20CA4		AOC20CA4		AOC20CA4		AOC20CA5		AOC20CA5	
					Sample Top (ft below ground surface):		2		0		2		10		0		2		10		0		2		10		0		2	
					Sample Bottom (ft below ground surface):		10		2		10				2		10				2		10		2		10		
					Sample Date:		12/02/2005		11/18/2005		11/18/2005		11/18/2005		11/17/2005		11/17/2005		11/17/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																								
Aluminum	1.0E+05	7.6E+04	NE	NE	43000	J	7070	J	26900	J	2930	J	1770	J	13400	J	9000	J	**249000**	J	35900		8980		2120		11800		11100	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02	<6.5	UJ	<7.6	UJ	<7.1	UJ	<6.3	UJ	<6.0	UJ	<7.0	UJ	<6.3	UJ	<6.6	UJ	<6.2	UJ	<7.1	UJ	<6.2	UJ	<6.8	UJ	<7.0	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04	**2.0**		**3.3**		**8.7**	J	**3.3**	J	**4.8**	J	**9.4**	J	**3.8**	J	**4.8**	J	<1	U	**10.7**		**3.1**		**9.0**		**14.1**	
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05	427	J	142	J	229	J	41.2	J	38.2	J	145	J	58.1	J	**1440**	J	321		121		34.2		111		137	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04	7.4		<0.63	U	3.3		<0.52	U	<0.5	U	1.3		<0.52	U	<0.55	UJ	10.1		1.7		<0.52	U	1.8		1.4	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02	0.71		<0.63	U	2.6	J-	<0.52	UJ	<0.50	UJ	1.3	J-	<0.52	UJ	0.57	J-	0.58	J-	3.2	J-	<0.52	UJ	2.0	J-	1.5	J-
Calcium	NE	NE	NE	NE																								
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04	18.3	J	10.0	J	19.6		8.8		7.4		16.8		12.8		13.5		18.1	J-	**22.9**	J-	5.0	J-	**36.0**	J-	**28.4**	J-
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04	<5.4	U	<6.3	U	<5.9	U	<5.2	U	<5	U	<5.8	U	6.8		7.0		<5.1	U	<5.9	U	<5.2	U	<5.6	U	<5.8	U
Copper	4.1E+04	3.1E+03	NE	2.8E+04	11.7		12.6		35.5	J	6.6	J	8.7	J	46.5	J	16.9	J	15.8	J	<2.1	U	112		8.8		69.9		48.4	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03	2.46		<1.29	U	12.6	J-	<1.07	UJ	<1.05	UJ	<1.16	UJ	<1.1	UJ	<1.13	UJ	1.12		<1.23	U	<1.05	U	2.43		<1.21	U
Iron	1.0E+05	2.3E+04	NE	NE	**24800**	J	12000	J	**29500**		7960		9480		**37100**	J	18600		18900		15600		**91000**		8630		**63200**		**70100**	
Lead	8.0E+02	4.0E+02	NE	1.1E+04	23.2	J	6.3	J	117	J	2.9	J	3.3	J	50.0	J	7.7	J	8.0	J	<5.1	U	150		<5.2	U	65.9		87.3	
Magnesium	NE	NE	NE	NE																								
Manganese	1.9E+04	1.8E+03	NE	5.0E+05	**5380**	J	247	J	**2290**		523		624		**1860**		377		396		**4650**	J	**2160**	J	707	J	**2890**	J	**2340**	J
Mercury	NE	NE	NE	3.0E+02	0.50	J	<0.04	UJ	0.15		<0.04	U	<0.03	U	0.06		<0.04	U	<0.04	U	<0.03	U	0.13		<0.03	U	0.06		0.04	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	<4.3	U	11.5		14.3		7.6		10.6		11.4		16.9		16.4		<4.1	UJ	18.4	J	5.2	J	17.0	J	17.8	J
Potassium	NE	NE	NE	NE																								
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03	**6.0**	J	**5.3**	J	**5.1**	J	<2.1	UJ	<2	UJ	2.3	J	<2.1	UJ	<2.2	UJ	**5.9**		<2.4	U	<1	U	<2.3	U	<1.2	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03	<1.1	U	<1.3	U	<1.2	UJ	<1	U	<1	U	<1.2	U	<1	U	<1.1	U	1.1		<1.2	U	<1	U	<1.1	U	<1.2	U
Sodium	NE	NE	NE	NE																								
Thallium	6.7E+01	5.2E+00	NE	1.0E+03	<32.5	U	<3.8	U	<29.6	U	<5.2	U	<5	U	<5.8	U	<5.2	U	<5.5	U	<20.6	UJ	<23.6	UJ	<20.8	UJ	<22.6	UJ	<23.3	UJ
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03	10.0		17.5		18.6		11.2		9.3		13.9		17.0		19.6		21.0		14.0		6.5		16.8		29.2	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04	58.8	J	33.1	J	427	J	14.9	J	20.1	J	80.7	J	37.4	J	40.6	J	6.1		467		22.0		372		152	

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC20CA5	AOC20CA6	AOC20CA6	AOC20CA6	AOC20CA7	AOC20CA7	AOC20CA7	AOC20CA8	AOC20CA8	AOC20CA8	AOC20CA9	AOC20CA9	AOC20CA9
					Sample Top (ft below ground surface):	10	0	2	10	0	2	10	0	2	10	0	2	10	0	2	10
					Sample Bottom (ft below ground surface):		2	10		2	10		2	10		2	10		2	10	
					Sample Date:	12/07/2005	12/01/2005	12/01/2005	12/01/2005	11/30/2005	11/30/2005	11/30/2005	11/29/2005	11/29/2005	11/29/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005
Aluminum	1.0E+05	7.6E+04	NE	NE		1840	30000 J	4980 J	2750 J	27300 J	23200 J	9250 J	32300 J	17600 J	8730 J	15900	2700	7290
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02		<6.1 UJ	<6.5 UJ	<6.4 UJ	<6.3 UJ	<6.8 UJ	<6.6 UJ	<6.6 UJ	<6.8 UJ	<6.6 UJ	<6.7 UJ	<6.9 UJ	<6.3 UJ	<6.4 UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04		3.6	2.7	4.6	4.0	6.0	2.3	8.2	4.7	10.7	5.1	10.5	2.6	4.1
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05		51.7	245 J	50.2 J	9.4 J	223 J	214 J	46.5 J	328 J	190 J	53.0 J	163	35.9	51.6
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04		<0.51 U	5.1	<0.53 U	<0.52 U	3.8	3.3	<0.55 U	5.2	2.3	<0.55 U	2.3	<0.52 U	<0.53 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02		<0.51 UJ	2.1	0.87	<0.52 U	1.7	0.68	0.64	1.8	2.9	<0.55 U	3.1	<0.52 U	<0.53 U
Calcium	NE	NE	NE	NE														
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04		4.5 J-	43.2 J	7.1 J	5.3 J	45.6 J	11.0 J	13.0 J	46.8 J	14.7 J	11.0 J	76.6	6.8	11.4
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04		<5.1 U	<5.4 U	<5.3 U	<5.2 U	<5.7 U	<5.5 U	7.5	<5.7 U	<5.5 U	<5.5 U	7.0	<5.2 U	6.1
Copper	4.1E+04	3.1E+03	NE	2.8E+04		5.3	17.0	11.3	6.9	27.8	9.9	16.3	38.8	15.1	12.1	359	13.5	16.1
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03		<1.05 U	2.06	<1.11 U	<1.07 U	1.56	<1.1 U	<1.12 U	4.11	<1.16 U	<1.13 U	1.17	<1.08 U	<1.1 U
Iron	1.0E+05	2.3E+04	NE	NE		7010	56800 J	29600 J	6640 J	40000 J	15100 J	18900 J	47600 J	75300 J	16200 J	90700	8570	17600
Lead	8.0E+02	4.0E+02	NE	1.1E+04		<5.1 U	33.3 J	17.3 J	2.7 J	55.4 J	14.1 J	7.2 J	49.7 J	13.1 J	6.9 J	81.7	3.1	6.7
Magnesium	NE	NE	NE	NE														
Manganese	1.9E+04	1.8E+03	NE	5.0E+05		297 J	4980 J	498 J	251 J	4300 J	2980 J	394 J	6750 J	3150 J	518 J	3170 J	381 J	396 J
Mercury	NE	NE	NE	3.0E+02		<0.03 U	0.11 J	<0.04 UJ	<0.03 UJ	0.06 J	<0.03 UJ	<0.04 UJ	0.40 J	<0.04 UJ	<0.04 UJ	<0.04 U	<0.04 U	<0.04 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		4.8 J	6.4	7.1	5.1	9.3	<4.4 U	17.3	11.8	7.2	12.0	26.8	6.9	15.5
Potassium	NE	NE	NE	NE														
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03		<1 U	3.2 J	<1.1 UJ	2.7 J	3.9 J	4.7 J	1.8 J	4.1 J	<1.1 UJ	2.2 J	4.9	<2.1 U	<2.1 U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03		<1 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1 U	<1.1 U
Sodium	NE	NE	NE	NE														
Thallium	6.7E+01	5.2E+00	NE	1.0E+03		<20.4 UJ	<32.3 U	<3.2 U	<3.1 U	<34 U	<32.8 U	<3.3 U	<33.9 U	<33 U	<3.3 U	<28.7 U	<5.2 U	<5.3 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03		5.7	49.3	13.6	8.5	30.9	8.5	18.0	20.8	18.8	17.1	21.0	8.8	15.5
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04		14.5	109 J	55.3 J	18.7 J	111 J	44.0 J	42.6 J	128 J	43.1 J	36.5 J	89.6	19.4	37.6

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC20SB14	AOC20SB15	AOC20SB16	AOC20SB17	AOC20SB18	AOC20SB19	AOC20SB20	AOC20SB21	AOC20SB22	AOC20SB23	AOC20SB24	AOC20SB25	AOC20SB26
					Sample Top (ft below ground surface):	6	8	10	12	6	6	6	6	6	6	6	6	6
					Sample Bottom (ft below ground surface):	6.8	10	10.6	12.8	7.2	7.1	7.1	7.2	6.6	7.1	6.9	7.8	7.6
					Sample Date:	12/16/2005	12/16/2005	12/19/2005	12/19/2005	12/19/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	01/04/2006	01/05/2006	12/20/2005
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)														
Aluminum	1.0E+05	7.6E+04	NE	NE		10900 J	22200 J	9220 J	9150 J	9640 J	4210 J	4560 J	3020 J	16800 J	13400 J	2970 J	21700 J	7170 J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02		<6.4 UJ	<6.3 UJ	<7.0 UJ	<6.3 UJ	<7.1 UJ	<6.4 UJ	<6.1 UJ	<6.4 UJ	<7.6 UJ	<6.7 UJ	<6.2 UJ	<7.5 UJ	<6.7 UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04		**30.1** J	**9.7** J	**23.6** J	**7.0** J	**7.7** J	**7.4** J	**4.6** J	**3.7** J	**22.0** J	**9.4** J	**7.0** J	**12.7** J	**9.1** J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05		86.3 J	265 J	144 J	107 J	59.8 J	29.1 J	46.8 J	42.8 J	113 J	101 J	14.9 J	213 J	70.7 J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04		0.58	3.7	0.86	<0.52 U	<0.59 U	<0.53 U	<0.51 U	<0.53 U	<0.63 U	0.75	<0.52 UJ	0.95 J	<0.56 U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02		1.0	0.97	**6.6**	1.1	0.83	<0.53 U	<0.51 U	<0.53 U	1.6	1.2	<0.52 U	1.5	0.70
Calcium	NE	NE	NE	NE														
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04		15.9	**21.4**	**115**	14.7	14.0	8.6	8.4	4.9	**25.6**	15.4	6.0 J	**25.9** J	9.4
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04		6.3	<5.3 U	7.2	7.1	<5.9 U	<5.3 U	<5.1 U	<5.3 U	10.0	<5.6 U	<5.2 U	11.9	<5.6 U
Copper	4.1E+04	3.1E+03	NE	2.8E+04		65.1 J	40.4 J	610 J	20.2 J	15.7 J	8.0 J	6.7 J	4.1 J	34.6 J	25.6 J	9.0 J	28.4 J	12.9 J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03		<1.09 U	<1.09 U	9.61	1.24	<1.19 U	<1.11 U	<1.06 U	<1.06 U	<1.3 U	<1.14 U	<1.07 U	<1.25 U	<1.18 U
Iron	1.0E+05	2.3E+04	NE	NE		16200	12600	21100	14600	14500	9710	7620	5410	**31900**	21000	7700 J	**33500** J	12900
Lead	8.0E+02	4.0E+02	NE	1.1E+04		16.5 J-	18.4 J-	**3900** J-	113 J-	14.8 J-	<5.3 UJ	<5.1 UJ	<5.3 UJ	33.0 J-	21.8 J-	<5.2 U	17.1	6.7 J-
Magnesium	NE	NE	NE	NE														
Manganese	1.9E+04	1.8E+03	NE	5.0E+05		791 J	**4540** J	477 J	670 J	614 J	437 J	550 J	417 J	533 J	865 J	237 J	583 J	480 J
Mercury	NE	NE	NE	3.0E+02		<0.03 U	0.04	6.0	0.38	0.08	<0.04 U	<0.04 U	<0.03 U	0.07	<0.04 U	<0.04 UJ	0.04 J	<0.04 U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		14.8	6.3	11.3	10.0	12.0	8.1	7.2	5.6	27.1	17.0	6.2	**33.1** J	11.7
Potassium	NE	NE	NE	NE														
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03		1.1	**5.1**	3.0	2.0	<1.2 U	2.8	**3.9**	**4.6**	<1.3 U	1.5	2.1	<1.3 U	2.8
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03		<1.1 U	<1.1 U	<1.2 U	<1 U	<1.2 U	<1.1 U	<1 U	<1.1 U	<1.3 U	<1.1 U	<1 U	<1.3 U	<1.1 U
Sodium	NE	NE	NE	NE														
Thallium	6.7E+01	5.2E+00	NE	1.0E+03		<16 U	<15.8 U	<17.6 U	<15.7 U	<17.8 U	<15.9 U	<15.2 U	<16 U	<18.9 U	<16.7 U	<10.4 U	<12.5 U	<16.8 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03		24.7	14	13.4	22.9	22.8	12.7	12.2	8.9	35.1	24.6	9.3	38.4	18.0
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04		48.0 J-	47.2 J-	4500 J-	209 J-	46.9 J-	19.1 J-	15.9 J-	11.0 J-	99.2 J-	56.3 J-	19.4 J	102 J	33.2 J-

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC20SB27		AOC20SB28		AOC20SB29		AOC20SB30		AOC20SB31		AOC20SB32		AOC20SB33		AOC20SB34		AOC20SB35		AOC20SB36		AOC20SB37		AOC20SB38		AOC20SB39	
					Sample Top (ft below ground surface):	6		6		6		6		10		6		2		6		6		6		12		10		0	
					Sample Bottom (ft below ground surface):	7.2		7.4		7.3		6.9		10.7		7.5		3.4		7		7.5		8		13.4		11.4		1.5	
					Sample Date:	12/20/2005		12/21/2005		12/21/2005		12/21/2005		12/21/2005		01/04/2006		01/04/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/04/2006	
Aluminum	1.0E+05	7.6E+04	NE	NE		4780	J	6810	J	11300	J	2740	J	2100	J	2030	J	41900	J	10900	J	4040	J	8910	J	13500	J	13800	J	6430	J
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02		<7.1	UJ	<7.2	UJ	<6.8	UJ	<7.0	UJ	<6.5	UJ	<6.0	UJ	<7.0	UJ	<7.1	UJ	<6.2	UJ	<7.6	UJ	<7.0	UJ	<6.3	UJ	<6.6	UJ
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04		**4.7**	J	**7.1**	J	**11.5**	J	**3.7**	J	**5.0**	J	**3.2**	J	**3.0**	J	**9.3**	J	**3.1**	J	**7.1**	J	**10.1**	J	**3.7**	J	**6.4**	J
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05		74.4	J	62.6	J	76.7	J	20.0	J	18.8	J	14.8	J	275	J	60.3	J	12.1	J	82.3	J	103	J	119	J	55.9	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04		<0.59	U	<0.6	U	<0.57	U	<0.58	U	<0.54	U	<0.50	UJ	2.6	J	<0.59	UJ	<0.52	UJ	<0.63	UJ	<0.58	UJ	2.2	J	<0.55	UJ
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02		<0.59	U	0.68		0.98		<0.58	U	<0.54	U	<0.5	U	<0.58	U	0.78		<0.52	U	0.70		1.2		0.79		0.74	
Calcium	NE	NE	NE	NE																											
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04		8.2		9.8		17.2		5.5		4.1		3.1	J	8.9	J	14.4	J	8.3	J	12.7	J	14.9	J	**32.6**	J	11.9	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04		<5.9	U	<6	U	6.6		<5.8	U	<5.4	U	<5	U	<5.8	U	5.9		<5.2	U	<6.3	U	7.6		<5.2	U	<5.5	U
Copper	4.1E+04	3.1E+03	NE	2.8E+04		8.1	J	11.5	J	18.2	J	3.0	J	4.4	J	3.5	J	11.1	J	15.0	J	6.9	J	14.3	J	21.6	J	11.8	J	14.6	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03		<1.23	U	<1.22	U	<1.18	U	<1.17	U	<1.09	U	<1.04	U	1.53		<1.18	U	<1.05	U	<1.27	U	<1.22	U	<1.09	U	<1.14	U
Iron	1.0E+05	2.3E+04	NE	NE		7480		14500		21700		6260		6250		4250	J	8590	J	18300	J	7540	J	15600	J	**26300**	J	14200	J	11700	J
Lead	8.0E+02	4.0E+02	NE	1.1E+04		<5.9	UJ	6.6	J-	10.6	J-	<5.8	UJ	<5.4	UJ	<5	U	42.2		9.1		<5.2	U	9.8		14.4		15.9		11.6	
Magnesium	NE	NE	NE	NE																											
Manganese	1.9E+04	1.8E+03	NE	5.0E+05		626	J	546	J	507	J	206	J	226	J	270	J	**2730**	J	584	J	215	J	543	J	866	J	**1810**	J	419	J
Mercury	NE	NE	NE	3.0E+02		<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.04	U	<0.03	UJ	5.8	J-	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.04	UJ	<0.03	UJ	<0.04	UJ
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		7.0		11.9		19.6		5.5		4.8		<4.0	U	<4.6	U	17.9		7.3		13.6		19.3		10.6		10.3	
Potassium	NE	NE	NE	NE																											
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03		**4.6**		1.9		<1.1	U	3.0		3.0		**4.8**		**4.3**		<1.2	U	2.6		1.5		<1.2	U	2.2		1.3	
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03		<1.2	U	<1.2	U	<1.1	U	<1.2	U	<1.1	U	<1	U	<1.2	U	<1.2	U	<1	U	<1.3	U	<1.2	U	<1	U	<1.1	U
Sodium	NE	NE	NE	NE																											
Thallium	6.7E+01	5.2E+00	NE	1.0E+03		<17.8	U	<18.1	U	<17.1	U	<17.5	U	<16.3	U	<10	U	<11.6	U	<11.8	U	<10.3	U	<12.7	U	<11.6	U	<10.4	U	<10.9	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03		10.6		15.9		26.2		8.5		7.4		6.7		10.3		23.3		11.4		20.4		23.5		22.6		16.6	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04		17.8	J-	35.2	J-	62.8	J-	14.5	J-	15.7	J-	7.9	J	34.0	J	56.4	J	13.4	J	46.3	J	58.1	J	50.8	J	45.0	

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20SB40		AOC20SB41		MW-19S		MW-19S		MW-19S		MW-1S		MW-1S		MW-1S		MW-2S		MW-2S		MW-2S		MW-3S		MW-3S	
Sample Top (ft below ground surface):					0		6		0		16		22		0		8		26		0		16		22		0		8		
Sample Bottom (ft below ground surface):					1.2		7.3		1.3		17.4		23.1		2		10		28		2		18		24		2		10		
Sample Date:					01/04/2006		01/04/2006		11/21/2005		11/21/2005		11/21/2005		11/15/2005		11/15/2005		11/15/2005		11/16/2005		11/16/2005		11/16/2005		11/18/2005		11/18/2005		
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)																										
Aluminum	1.0E+05	7.6E+04	NE	NE	34700	J	3290	J	27700		10000		2980		35600		7580		2180		11100		6500		4420		11800		12500	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02	<6.8	UJ	<6.0	UJ	<6.6	U	<6.7	U	<6.2	U	<7.3	U	<7.7	U	<6.2	U	<7.1	U	<6.4	U	<6.7	U	<6.7	U	<7.2	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04	**1.8**	J	**3.8**	J	<1.1	U	**4.6**		**2.3**		**2.8**	J+	**28.5**	J+	**4.6**	J+	**4.6**	J+	**4.8**	J+	**2.8**	J+	**9.1**	J+	**9.1**	J+
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05	389	J	12.5	J	286		84.4		28.2		392	J	67.7	J	12.3	J	205	J	47.7	J	31.0	J	89.7	J	96.4	J
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04	4.9	J	<0.50	UJ	6.3		<0.56	U	<0.51	U	10.6		<0.64	U	<0.52	U	1.1		<0.53	U	<0.56	U	0.78		<0.6	U
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02	<0.57	U	<0.5	U	1.6		<0.56	U	<0.51	U	<1.2	UJ	**5.6**	J-	<1.0	UJ	<1.2	UJ	<1.1	UJ	<1.1	UJ	1.1	J-	<1.2	UJ
Calcium	NE	NE	NE	NE																										
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04	**23.6**	J	5.2	J	**46.6**		9.8		14.1		**22.1**	J	**169**	J	7.2	J	13.3	J	8.4	J	18.7	J	**25.9**	J	16.6	J
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04	<5.7	U	5.1		<5.5	U	<5.6	U	<5.1	U	<6.1	U	10.7		<5.2	U	<5.9	U	<5.3	U	<5.6	U	6.0		8.1	
Copper	4.1E+04	3.1E+03	NE	2.8E+04	5.9	J	5.6	J	8.4		10.7		5.2		2.9		153		5.5		798		10.6		16.2		28.5		20.9	
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03	<1.14	U	<1.04	U	3.11		<1.18	U	<1.06	U	2.05		3.46		<1.07	U	<1.19	U	<1.11	U	<1.12	U	1.25		<1.23	U
Iron	1.0E+05	2.3E+04	NE	NE	6050	J	5640	J	**114000**		12700		8290		8200		**185000**		7730		12600		10400		12500		**38000**		20800	
Lead	8.0E+02	4.0E+02	NE	1.1E+04	<5.7	U	<5	U	4.2		9.0		3.3		3.2	J	55.2	J	5.3	J	246	J	6.7	J	11.1	J	68.5	J	12.5	J
Magnesium	NE	NE	NE	NE																										
Manganese	1.9E+04	1.8E+03	NE	5.0E+05	**5140**	J	221	J	**4380**		573		366		**5050**	J	**3150**	J	298	J	919	J	383	J	306	J	1330	J	850	J
Mercury	NE	NE	NE	3.0E+02	0.05	J-	<0.03	UJ	<0.04	U	0.05		<0.03	U	<0.04	U	0.20		<0.03	U	0.04		<0.04	U	<0.04	U	<0.04	U	<0.04	U
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	<4.6	U	5.8		5.8		9.9		7.1		<4.9	U	40.6		6.5		11.0		9.8		11.0		18.5		20.3	
Potassium	NE	NE	NE	NE																										
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03	**6.2**		**3.3**		<5.5	U	<1.1	U	2.5		**3.6**		<2.6	U	<2.1	U	<2.4	U	<2.1	U	<2.2	U	<2.2	U	<2.4	U
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03	<1.1	U	<1	U	<1.1	U	<1.1	U	<1	U	1.7		<1.3	U	<1	U	<1.2	U	<1.1	U	<1.1	U	<1.1	U	<1.2	U
Sodium	NE	NE	NE	NE																										
Thallium	6.7E+01	5.2E+00	NE	1.0E+03	<11.4	U	<10	U	<27.7	U	<5.6	U	<5.1	U	<60.8	U	<64.2	U	<5.2	U	<5.9	U	<5.3	U	<5.6	U	<5.6	U	<6	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03	11.7		12.1		42.6		14.7		8.7		24.8		63.5		9.7		18.1		14.7		14.1		25.1		28.0	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04	19.8	J	12.0	J	14.3		33.8		15.2		4.9		69.6		19.3		692		24.7		68.3		276		64.7	

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	MW-3S	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S	MW-7M	MW-7S	MW-7S	MW-7S	AOC20CA12SB3	AOC20CA12SB3
					Sample Top (ft below ground surface):	18	0	12	20	0	6	22	32	0	14	24	0	12
					Sample Bottom (ft below ground surface):	20	2	14	22	2	8	24	33.4	2	16	26	2	14
					Sample Date:	11/18/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	02/28/2006	11/22/2005	11/22/2005	11/22/2005	6/10/2008	6/10/2008
Aluminum	1.0E+05	7.6E+04	NE	NE		2310	21400 J	2920 J	4530 J	17500 J	14000 J	3610 J	4910	15700 J	13400 J	3000 J	26500	41400
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02		<6 U	R	R	R	R	R	R	<6.6 UJ	R	R	R	3.56 J-	<0.275 U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04		2.6 J+	16.2 J	3.0 J	5.6 J	25.8 J	7.1 J	7.9 J	5.2	10.9 J	11.1 J	3.6 J	18.9	<0.412 U
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05		20.7 J	246	14.9	48.6	425	118	84.8	63.9 J	93.3	106	19.6	313	380
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04		<0.5 U	4.4	<0.52 U	<0.53 U	2.6	<0.6 U	<0.52 U	<0.55 U	<0.59 U	<0.61 U	<0.54 U	4.46	8.04
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02		<1.0 UJ	1.7	<0.52 U	<0.53 U	1.7	<0.6 U	<0.52 U	<0.55 U	<0.59 U	<0.61 U	<0.54 U	0.963	<0.137 U
Calcium	NE	NE	NE	NE													136000	215000
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04		4.6 J	58.9 J	6.6 J	15.4 J	132 J	18.3 J	13.2 J	8.4	17.6 J	17.1 J	4.7 J	57.1	5.44
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04		<5 U	<5.5 U	<5.2 U	<5.3 U	13.8	12.7	5.7	<5.5 U	8.1	7.5	<5.4 U	9.61	<0.687 U
Copper	4.1E+04	3.1E+03	NE	2.8E+04		6.8	234 J	19.4 J	38.6 J	222 J	20.3 J	13.1 J	18.8	15.8 J	21.5 J	8.9 J	231	2.39 J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03		<1.03 U	1.21	<1.05 U	<1.05 U	1.61	<1.21 U	<1.09 U	<1.11 U	<1.17 U	2.03	<1.08 U		
Iron	1.0E+05	2.3E+04	NE	NE		6190	100000 J	6460 J	18400 J	131000 J	20000 J	9880 J	9740	20100 J	17500 J	9030 J	101000	1040
Lead	8.0E+02	4.0E+02	NE	1.1E+04		3.5 J	254 J	3.8 J	45.1 J	117 J	15.3 J	5.1 J	<5.5 U	18.7 J	18.9 J	5.1 J	283	2.34
Magnesium	NE	NE	NE	NE													21600	34100
Manganese	1.9E+04	1.8E+03	NE	5.0E+05		237 J	5190 J	190 J	706 J	12600 J	1120 J	742 J	349	964 J	418 J	534 J	5860	4910
Mercury	NE	NE	NE	3.0E+02		<0.03 U	0.30	<0.03 U	0.06	0.14	<0.04 U	<0.04 U	<0.04 U	0.04	0.32	<0.03 U	0.503	<0.0106 UJ
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		5.0	24.5 J	6.1 J	10.1 J	138 J	19.4 J	14.2 J	9.7	17.2 J	17.7 J	9.5 J	65.1	4.26 J
Potassium	NE	NE	NE	NE													2270	3080
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03		<2 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<1.2 U	<1 U	<2.2 U	<1.2 U	<1.2 U	<1.1 U	2.35	2.36
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03		<1 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<1.2 U	<1 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U	0.289 J-	<0.275 UJ
Sodium	NE	NE	NE	NE													942	1260
Thallium	6.7E+01	5.2E+00	NE	1.0E+03		<5 U	<110 U	<10.5 U	<10.5 U	<107 U	<12 U	<10.4 U	<2.2 U	<11.7 U	<12.1 U	<10.8 U	0.0745 J	<0.055 U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03		8.1	28.2	10.2	11.0	34.2	28.3	11.6	11.3	34.4	28.6	8.2	22.2	3.76
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04		12.3	718 J	17.8 J	117 J	356 J	71.1 J	25.6 J	23.7	63.9 J	73.0 J	28.1 J	171 J+	13.7 U

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)	Sample Location:	AOC20CA12SB3		AOC20CA12SB4		AOC20CA12SB4		AOC20CA12SB4		AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB4		AOC20CA4SB4	
					Sample Top (ft below ground surface):	21		0		12		18		0		18		20		0		8		21		0		16	
					Sample Bottom (ft below ground surface):			2		14		20		2		20				2		10				2		18	
					Sample Date:	6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/10/2008		6/9/2008		6/9/2008		6/9/2008		6/6/2008		6/6/2008	
Aluminum	1.0E+05	7.6E+04	NE	NE		2050		26400		50000		8220		23600		8700		8880		26800		28400		11000		15000		6730	
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02		<0.254	U	<0.266	U	<0.301	U	<0.312	U	<0.27	U	<0.318	U	<0.303	U	<0.271	U	<0.272	U	<0.319	U	<0.26	U	<0.278	U
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04		**2.65**		**5.12**		<0.451	U	**7.57**		**0.474**		**6.35**		**7.4**		<0.407	U	**0.508**		**9.31**		**7.33**	J-	**0.484**	J-
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05		19.1		270		350		82.8		221		116		81.1		228		208		108		166		79.9	
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04		0.184		4.93		4.37		0.421		7.35		0.471		0.779		7.09		7.4		0.55		2.76		0.497	
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02		<0.127	U	0.546		<0.15	U	0.653		<0.135	U	0.221	J	0.257	J	<0.136	U	<0.136	U	0.361	J	0.271	J	<0.139	U
Calcium	NE	NE	NE	NE		102000		177000		212000		64400		174000		57200		80800		171000		187000		63900		57400		52600	
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04		13		**20.5**		2.58		11.4		17.6		10.5		8.36		14.8		13.8		14.4		16.6		4.9	
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04		2.71		3.64		<0.752	U	6.68		<0.676	U	6.92		5.16		<0.678	U	<0.68	U	7.58		8.27		0.74	J
Copper	4.1E+04	3.1E+03	NE	2.8E+04		21.3		17.1		1.89	J	21.7		2.9	J	17.3		15		2.9	J	3.07	J	30.2		16.3	J	2.55	J
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03																									
Iron	1.0E+05	2.3E+04	NE	NE		6020		20800		1450		15300		4200		15700		11700		7340		6140		19300		21300		19900	
Lead	8.0E+02	4.0E+02	NE	1.1E+04		3.74		54.5		<0.601	U	31.3		3.02		15.8		16.7		1.86		2.46		27.2		21.8		2.38	
Magnesium	NE	NE	NE	NE		34000		31700		27600		24100		41600		23700		23300		41300		42600		22800		16600		20400	
Manganese	1.9E+04	1.8E+03	NE	5.0E+05		167		**3720**		**2570**		396		**3280**		1470		505		**3100**		**3370**		619		**2140**		281	
Mercury	NE	NE	NE	3.0E+02		<0.00979	UJ	0.158	J-	<0.012	UJ	0.119	J-	<0.0108	UJ	0.0747	J-	0.0534	J-	<0.0108	UJ	5.42	UJ	0.163	J-	0.0476	J	0.276	
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01		9.57		12.1		5.29		15.2		5.41		15.7		12.5		5.2		5.42		18.6		16.9		3.03	J
Potassium	NE	NE	NE	NE		208		1510		2390		1250		1960		1210		1150		1950		1950		1550		1310		1000	
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03		<0.509	U	2.53		2.59		**5.81**		**3.71**		<0.637	U	<0.605	U	**3.94**		**4.1**		<0.638	U	0.943	J-	<0.555	UJ
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03		<0.254	UJ	<0.266	UJ	<0.301	UJ	<0.312	UJ	0.418	J-	<0.318	UJ	<0.303	UJ	0.409	J-	0.398	J-	<0.319	UJ	<0.26	UJ	<0.278	UJ
Sodium	NE	NE	NE	NE		101		846		1470		91.1		1400		99.3		135		1510		1380		102		342		100	
Thallium	6.7E+01	5.2E+00	NE	1.0E+03		<0.0509	U	0.178		<0.060	U	0.368		<0.0541	U	0.176		0.135		<0.0543	U	<0.0544	U	0.243		0.21		<0.555	U
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03		5.5		9.25		3.68		19.2		12.3		20.3		15.8		11		10.5		23.1		18.8		15.1	
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04		15.8	J+	200	J+	15	U	94.6	J+	13.5	U	46.8	J+	40.6	J+	13.6	U	13.6	U	73.8	J+	70	J	6.5	J

Table 4.17-3
Soil Metals Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:		AOC20CA4SB4		MW32S		MW32S		MW32S	
					Sample Top (ft below ground surface):		22		2		12		18	
					Sample Bottom (ft below ground surface):				4		14		20	
					Sample Date:		6/6/2008		6/3/2008		6/3/2008		6/3/2008	
Analyte	Industrial PRG (mg/kg)	ResPRG (mg/kg)	DAF 10 (mg/kg)	ESL (mg/kg)										
Aluminum	1.0E+05	7.6E+04	NE	NE	7200		7890		6560		140			
Antimony	4.1E+02	3.1E+01	3.0E+00	2.7E+02	<0.339	U	<0.28	U	<0.27	U	<0.256	U		
Arsenic	1.6E+00	3.9E-01	1.0E+01	1.8E+04	**5.68**	J-	**9.71**		**2.23**		**3.07**			
Barium	6.7E+04	5.4E+03	8.2E+02	3.3E+05	53.5		102		54.6		15.4			
Beryllium	1.9E+03	1.5E+02	3.0E+01	2.1E+04	0.944		1.3		0.803		0.0659			
Cadmium	4.5E+02	3.7E+01	4.0E+00	3.6E+02	0.333	J	2.52		<0.135	U	<0.128	U		
Calcium	NE	NE	NE	NE	44300		89600		104000		139000			
Chromium (total)	NE	3.0E+01	2.0E+01	2.6E+04	9.79		**55.4**		3.52		5.07			
Cobalt	1.9E+03	9.0E+02	NE	1.3E+04	4.13		6.28		2.29	J	2.28	J		
Copper	4.1E+04	3.1E+03	NE	2.8E+04	15.8	J	53.3		6.08		5.28			
CYANIDE	1.2E+04	1.2E+03	NE	1.3E+03										
Iron	1.0E+05	2.3E+04	NE	NE	**170000**		**87700**		4100		4450			
Lead	8.0E+02	4.0E+02	NE	1.1E+04	16		176		2.76		3.91			
Magnesium	NE	NE	NE	NE	12800		19500		29100		66500			
Manganese	1.9E+04	1.8E+03	NE	5.0E+05	**2080**		**4180**		301		200	J		
Mercury	NE	NE	NE	3.0E+02	0.0256	J	0.731		<0.0102	U	0.0123	J		
Nickel	2.0E+04	1.6E+03	7.0E+01	2.8E+01	12.4		25		7.58		7.09			
Potassium	NE	NE	NE	NE	<513	U	987		421		315			
Selenium	5.1E+03	3.9E+02	3.0E+00	1.0E+03	<0.678	UJ	0.82	J	<0.539	U	<0.513	U		
Silver	5.1E+03	3.9E+02	2.0E+01	4.2E+03	<0.339	UJ	0.447	J	<0.27	U	<0.256	U		
Sodium	NE	NE	NE	NE	<103	U	238		177		162			
Thallium	6.7E+01	5.2E+00	NE	1.0E+03	0.185		0.309		<0.0539	U	<0.0513	U		
Vanadium	1.0E+03	7.8E+01	3.0E+03	7.8E+03	26.4		23.1		5.33		5.95			
Zinc	1.0E+05	2.3E+04	6.2E+03	5.0E+04	110	J	537		16.6		21			

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ - The result is an estimated quantity, but the result may be biased high.
J- - The result is an estimated quantity, but the result may be biased low.
R - The data are unusable. The sample result is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)	AOC20CA1	AOC20CA1	AOC20CA1	AOC20CA10	AOC20CA10	AOC20CA10	AOC20CA11	AOC20CA11
Sample Top (ft below ground surface):					0	2	10	0	2	10	0	2
Sample Bottom (ft below ground surface):					2	10		2	10		2	10
Sample Date:					12/08/2005	12/08/2005	12/08/2005	11/22/2005	11/22/2005	11/22/2005	11/16/2005	11/16/2005
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<180 U	<38 U	<35 U	<37 U	<37 U	<36 U	<39 U	<41 U
Aroclor 1221	NE	NE	NE	4.0E+04	<380 U	<76 U	<71 U	<76 U	<76 U	<73 U	<80 U	<83 U
Aroclor 1232	NE	NE	NE	4.0E+04	<180 U	<38 U	<35 U	<37 U	<37 U	<36 U	<39 U	<41 U
Aroclor 1242	NE	NE	NE	4.0E+04	<180 U	<38 U	<35 U	<37 U	<37 U	<36 U	<39 U	<41 U
Aroclor 1248	NE	NE	NE	4.0E+04	<180 U	<38 U	<35 U	<37 U	<37 U	<36 U	<39 U	<41 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	**1100**	<38 U	<35 U	<37 U	<37 U	<36 U	<39 U	<41 U
Aroclor 1260	NE	NE	NE	4.0E+04	<180 U	<38 U	<35 U	320	67	<36 U	<39 U	<41 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	**1740**	152	140.5	**450.5**	197.5	144.5	157	164.5

Analyte	AOC20CA11	AOC20CA12	AOC20CA12	AOC20CA12	AOC20CA13	AOC20CA13	AOC20CA13	AOC20CA2
Sample Top (ft below ground surface):	10	0	2	10	0	2	10	0
Sample Bottom (ft below ground surface):		2	10		2	10		2
Sample Date:	11/16/2005	12/08/2005	12/08/2005	12/08/2005	12/02/2005	12/02/2005	12/02/2005	11/18/2005
Aroclor 1016	<38 U	<37 U	<40 U	<35 U	<39 U	<37 U	<43 U	<39 U
Aroclor 1221	<77 U	<76 U	<81 U	<71 U	<79 U	<74 U	<86 U	<80 U
Aroclor 1232	<38 U	<37 U	<40 U	<35 U	<39 U	<37 U	<43 U	<39 U
Aroclor 1242	<38 U	<37 U	<40 U	<35 U	<39 U	<37 U	<43 U	<39 U
Aroclor 1248	<38 U	<37 U	<40 U	<35 U	<39 U	<37 U	<43 U	<39 U
Aroclor 1254	<38 U	<37 U	<40 U	<35 U	<39 U	<37 U	<43 U	<39 U
Aroclor 1260	<38 U	<37 U	<40 U	<35 U	<39 U	62	<43 U	<39 U
Total PCBs*	152.5	149	160.5	140.5	156.5	191.5	172	157

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA2		AOC20CA2		AOC20CA3		AOC20CA3		AOC20CA3		AOC20CA4		AOC20CA4		AOC20CA4		AOC20CA5		AOC20CA5		AOC20CA5		AOC20CA6		AOC20CA6		AOC20CA6		AOC20CA7		AOC20CA7	
Sample Top (ft below ground surface):					2		10		0		2		10		0		2		10		0		2		10		0		2		10		0		2	
Sample Bottom (ft below ground surface):					10				2		10				2		10				2		10				2		10				2		10	
Sample Date:					11/18/2005		11/18/2005		11/17/2005		11/17/2005		11/17/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005		12/01/2005		12/01/2005		12/01/2005		11/30/2005		11/30/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	<38	U	<40	U	<35	U	<37	U	<37	U	<35	U	<37	U	<36	U
Aroclor 1221	NE	NE	NE	4.0E+04	<71	U	<70	U	<78	U	<74	U	<75	U	<72	U	<82	UJ	<70	U	<77	U	<81	U	<70	U	<75	U	<74	U	<72	U	<76	U	<74	U
Aroclor 1232	NE	NE	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	<38	U	<40	U	<35	U	<37	U	<37	U	<35	U	<37	U	<36	U
Aroclor 1242	NE	NE	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	<38	U	<40	U	<35	U	<37	U	<37	U	<35	U	<37	U	<36	U
Aroclor 1248	NE	NE	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	<38	U	<40	U	<35	U	<37	U	<37	U	<35	U	<37	U	<36	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	<38	U	<40	U	<35	U	<37	U	<37	U	<35	U	<37	U	<36	U
Aroclor 1260	NE	NE	NE	4.0E+04	<35	U	<35	U	<38	U	<36	U	<37	U	<36	U	<40	UJ	<35	U	370		170		<35	U	43		<37	U	<35	U	360		<36	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	140.5		140		153		145		148.5		144		161		140		**503.5**		**310.5**		140		173		148		141		**490.5**		145	

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA7	AOC20CA8	AOC20CA8	AOC20CA8	AOC20CA9	AOC20CA9	AOC20CA9	AOC20SB14	AOC20SB15	AOC20SB16	AOC20SB17	AOC20SB18	AOC20SB19	AOC20SB20	AOC20SB21	AOC20SB22
Sample Top (ft below ground surface):					10	0	2	10	0	2	10	6	8	10	12	6	6	6	6	6
Sample Bottom (ft below ground surface):						2	10		2	10		6.8	10	10.6	12.8	7.2	7.1	7.1	7.2	6.6
Sample Date:					11/30/2005	11/29/2005	11/29/2005	11/29/2005	11/22/2005	11/22/2005	11/22/2005	12/16/2005	12/16/2005	12/19/2005	12/19/2005	12/19/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<37 U	<38 U	<38 U	<37 U	<39 U	<36 U	<36 U	<36 U	<36 U	<7800 U	<36 U	<39 U	<37 U	<35 U	<35 U	<86 U
Aroclor 1221	NE	NE	NE	4.0E+04	<75 U	<78 U	<77 U	<76 U	<79 U	<72 U	<74 U	<73 U	<73 U	<16000 U	<74 U	<80 U	<75 U	<71 U	<71 U	<170 U
Aroclor 1232	NE	NE	NE	4.0E+04	<37 U	<38 U	<38 U	<37 U	<39 U	<36 U	<36 U	<36 U	<36 U	<7800 U	<36 U	<39 U	<37 U	<35 U	<35 U	<86 U
Aroclor 1242	NE	NE	NE	4.0E+04	<37 U	<38 U	<38 U	<37 U	<39 U	<36 U	<36 U	<36 U	<36 U	<7800 U	<36 U	<39 U	<37 U	<35 U	<35 U	<86 U
Aroclor 1248	NE	NE	NE	4.0E+04	<37 U	97	<38 U	<37 U	<39 U	<36 U	<36 U	<36 U	<36 U	<7800 U	<36 U	<39 U	<37 U	<35 U	<35 U	<86 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<37 U	<38 U	<38 U	<37 U	<39 U	<36 U	<36 U	<36 U	<36 U	<7800 U	<36 U	<39 U	<37 U	<35 U	<35 U	<86 U
Aroclor 1260	NE	NE	NE	4.0E+04	<37 U	340	<38 U	<37 U	<39 U	<36 U	<36 U	41	<36 U	70000	230	53	<37 U	85	<35 U	570
Total PCBs*	NE	2.2E+02	NE	4.0E+04	148.5	552	152.5	149	156.5	144	145	167.5	144.5	97500	357	190.5	148.5	208	140.5	870

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

					Sample Location:	AOC20SB23		AOC20SB24		AOC20SB25		AOC20SB26		AOC20SB27		AOC20SB28		AOC20SB29		AOC20SB30		AOC20SB31	
					Sample Top (ft below ground surface):	6		6		6		6		6		6		6		6		10	
					Sample Bottom (ft below ground surface):	7.1		6.9		7.8		7.6		7.2		7.4		7.3		6.9		10.7	
					Sample Date:	12/20/2005		01/04/2006		01/05/2006		12/20/2005		12/20/2005		12/21/2005		12/21/2005		12/21/2005		12/21/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																			
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04		<38	U	<35	U	<41	U	<39	U	<41	U	<40	U	<39	U	<39	U	<36	U
Aroclor 1221	NE	NE	NE	4.0E+04		<77	U	<72	U	<84	U	<79	U	<83	U	<82	U	<79	U	<78	U	<73	U
Aroclor 1232	NE	NE	NE	4.0E+04		<38	U	<35	U	<41	U	<39	U	<41	U	<40	U	<39	U	<39	U	<36	U
Aroclor 1242	NE	NE	NE	4.0E+04		<38	U	<35	U	<41	U	<39	U	<41	U	<40	U	<39	U	<39	U	<36	U
Aroclor 1248	NE	NE	NE	4.0E+04		<38	U	<35	U	<41	U	<39	U	<41	U	<40	U	<39	U	<39	U	<36	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04		<38	U	<35	U	<41	U	<39	U	<41	U	<40	U	<39	U	<39	U	<36	U
Aroclor 1260	NE	NE	NE	4.0E+04		62		<35	U	<41	U	<39	U	<41	U	30	J	<39	U	<39	U	<36	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04		195.5		141		165		156.5		164.5		171		156.5		156		144.5	

					Sample Location:	AOC20SB32		AOC20SB33		AOC20SB34		AOC20SB35		AOC20SB36		AOC20SB37		AOC20SB38					
					Sample Top (ft below ground surface):	6		2		6		6		6		12		10					
					Sample Bottom (ft below ground surface):	7.5		3.4		7		7.5		8		13.4		11.4					
					Sample Date:	01/04/2006		01/04/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006		01/03/2006					
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																			
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04		<34	U	<39	U	<39	U	<35	U	<42	U	<40	U	<36	U				
Aroclor 1221	NE	NE	NE	4.0E+04		<70	U	<78	U	<79	U	<71	U	<85	U	<82	U	<73	U				
Aroclor 1232	NE	NE	NE	4.0E+04		<34	U	<39	U	<39	U	<35	U	<42	U	<40	U	<36	U				
Aroclor 1242	NE	NE	NE	4.0E+04		<34	U	<39	U	<39	U	<35	U	<42	U	<40	U	<36	U				
Aroclor 1248	NE	NE	NE	4.0E+04		<34	U	<39	U	<39	U	<35	U	<42	U	<40	U	<36	U				
Aroclor 1254	7.4E+02	NE	NE	4.0E+04		<34	U	<39	U	<39	U	<35	U	<42	U	<40	U	<36	U				
Aroclor 1260	NE	NE	NE	4.0E+04		<34	U	260	J	110		<35	U	<42	U	32	J	<36	U				
Total PCBs*	NE	2.2E+02	NE	4.0E+04		137		396.5		247		140.5		168.5		173		144.5					

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20SB39		AOC20SB40		AOC20SB41		MW-19S		MW-19S		MW-19S		MW-1S		MW-1S		MW-1S		MW-2S		MW-2S		MW-2S		MW-3S		MW-3S		MW-3S		MW-5S	
Sample Top (ft below ground surface):					0		0		6		0		16		22		0		8		26		0		16		22		0		8		18		0	
Sample Bottom (ft below ground surface):					1.5		1.2		7.3		1.3		17.4		23.1		2		10		28		2		18		24		2		10		20		2	
Sample Date:					01/04/2006		01/04/2006		01/04/2006		11/21/2005		11/21/2005		11/21/2005		11/15/2005		11/15/2005		11/15/2005		11/16/2005		11/16/2005		11/16/2005		11/18/2005		11/18/2005		11/18/2005		11/22/2005	
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)																														
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<38	U	<38	U	<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	<36	U
Aroclor 1221	NE	NE	NE	4.0E+04	<76	U	<76	U	<70	U	<75	U	<79	U	<71	U	<82	U	<88	U	<72	U	<80	U	<75	U	<75	U	<76	U	<83	U	<69	U	<74	U
Aroclor 1232	NE	NE	NE	4.0E+04	<38	U	<38	U	<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	<36	U
Aroclor 1242	NE	NE	NE	4.0E+04	<38	U	<38	U	<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	<36	U
Aroclor 1248	NE	NE	NE	4.0E+04	40		63		<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	<36	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<38	U	<38	U	<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	<36	U
Aroclor 1260	NE	NE	NE	4.0E+04	<38	U	210		<34	U	<37	U	<39	U	<35	U	<41	U	<43	U	<35	U	<39	U	<37	U	<37	U	<38	U	<41	U	<34	U	240	
Total PCBs*	NE	2.2E+02	NE	4.0E+04	173		387		137		148.5		156.5		140.5		164		173		141		157		148.5		148.5		152		164.5		136.5		367	

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					MW-5S	MW-5S	MW-6S	MW-6S	MW-6S	MW-7M	MW-7S	MW-7S	MW-7S	AOC20CA12SB3	AOC20CA12SB3	AOC20CA12SB3	AOC20CA12SB4	AOC20CA12SB4	AOC20CA12SB4
Sample Top (ft below ground surface):					12	20	0	6	22	32	0	14	24	0	12	21	0	12	18
Sample Bottom (ft below ground surface):					14	22	2	8	24	33.4	2	16	26	2	14		2	14	20
Sample Date:					11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	02/28/2006	11/22/2005	11/22/2005	11/22/2005	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008
Analyte	Industrial PRG (ug/kg)	ResPRG (ug/kg)	DAF 10 (ug/kg)	ESL (ug/kg)															
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	<8.85 U	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Aroclor 1221	NE	NE	NE	4.0E+04	<70 U	<70 U	<73 U	<81 U	<73 U	<74 U	<79 U	<84 U	<73 U	<8.85 U	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Aroclor 1232	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	<8.85 U	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Aroclor 1242	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	<8.85 U	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Aroclor 1248	NE	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	<8.85 U	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	<35 U	<35 U	<36 U	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	45.4	<8.93 U	<8.51 U	93.7	<9.89 U	<10.3 U
Aroclor 1260	NE	NE	NE	4.0E+04	73	<35 U	<36 UJ	<40 U	<36 U	<37 U	<39 U	<41 U	<36 U	45.4	<8.93 U	<8.51 U	<8.58 U	<9.89 U	<10.3 U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	195.5	140	144.5	160.5	144.5	148	156.5	165	144.5	112.9	31.2	29.8	119.4	34.6	36.05

Table 4.17-4
Soil Polychlorinated Biphenyl Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3A		AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB3B		AOC20CA4SB4		AOC20CA4SB4		AOC20CA4SB4		MW32S		MW32S		MW32S	
Sample Top (ft below ground surface):					0		18		20		0		8		21		0		16		22		2		12		18	
Sample Bottom (ft below ground surface):					2		20				2		10				2		18				4		14		20	
Sample Date:					6/10/2008		6/10/2008		6/10/2008		6/9/2008		6/9/2008		6/9/2008		6/6/2008		6/6/2008		6/6/2008		6/3/2008		6/3/2008		6/3/2008	
Analyte	*Industrial PRG (ug/kg)*	*ResPRG (ug/kg)*	*DAF 10 (ug/kg)*	*ESL (ug/kg)*																								
Aroclor 1016	2.1E+04	3.9E+03	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1221	NE	NE	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1232	NE	NE	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1242	NE	NE	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1248	NE	NE	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1254	7.4E+02	NE	NE	4.0E+04	80.1		<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	<8.75	U	<9.41	U	<10.9	U	<9.08	U	<8.79	U	<8.59	U
Aroclor 1260	NE	NE	NE	4.0E+04	<8.86	U	<10.5	U	<10.1	U	<8.85	U	<8.83	U	<10.3	U	115		<9.41	U	<10.9	U	69.7		<8.79	U	<8.59	U
Total PCBs*	NE	2.2E+02	NE	4.0E+04	26.58		36.75		35.3		30.9		30.9		36.05		141.2		32.9		38.1		27.2		30.7		30.1	

Notes:
PCB - Polychlorinated biphenyl
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.

U - The sample was analyzed for, but was not detected above the sample detection limit.

Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.

* Total PCBs results are the sum of all PCBs analyzed. Non detect values were quantified as half of the sample quantitation limit. Total PCB exceedances were identified only in samples in which one or more PCBs were detected above the laboratory detection limit.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004

ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.

Table 4.17-5
Soil Dioxins Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20CA1		AOC20CA10		AOC20CA11		AOC20CA12		AOC20CA2		AOC20CA3		AOC20CA4		AOC20CA5		AOC20CA6		AOC20CA7		AOC20CA8		AOC20CA9		AOC20SB18		AOC20SB20	
Sample Top (ft below ground surface):					0		10		2		10		2		10		0		2		10		0		2		10		6		6	
Sample Bottom (ft below ground surface):					2				10				10				2		10				2		10				7.2		7.1	
Sample Date:					12/08/2005		11/22/2005		11/16/2005		12/08/2005		11/18/2005		11/17/2005		12/07/2005		12/07/2005		12/01/2005		11/30/2005		11/29/2005		11/22/2005		12/19/2005		12/20/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																										
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**10.294**		**2.653**	J	**69.313**		**0.273**	J	**0.584**	J	<0.043	U	**0.708**	J	**2.746**		0.109	JK	**20.626**	B	**1.291**	J	**1.682**	J	**7.056**		**0.775**	J
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**75.488**	B	**9.523**	B	**9.668**	B	<1.705	UB	**2.896**	B	<0.575	UB	**3.976**	B	**18.517**	B	<0.316	UB	**50.923**	B	**2.684**	B	<2.064	UB	**30.339**	JB	<0.857	UJBK
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.744**	JK	**0.241**	J	**13.056**		<0.05	U	<0.051	U	<0.06	U	<0.043	U	**0.333**	J	<0.037	U	**1.977**	JK	**0.209**	J	<0.041	U	**0.538**	J	<0.396	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**2.068**		**0.92**	J	**42.124**		0.12	J	**0.486**	J	<0.017	U	0.187	JK	**1.322**	J	0.079	J	**7.092**	J	**0.756**	J	**0.385**	J	**1.185**	J	<0.174	U
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**0.883**	J	0.15	JK	**0.874**	J	<0.016	U	<0.015	U	<0.041	U	0.039	JK	0.12	JK	<0.026	U	**0.836**	J	0.056	J	<0.045	U	**0.333**	J	<0.186	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**1.592**	J	**0.542**	J	**20.315**		0.062	J	**0.237**	J	<0.018	U	0.106	J	**0.503**	J	0.082	J	**2.933**	J	**0.364**	J	0.134	J	**0.626**	J	<0.182	U
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**26.998**		**0.491**	J	**1.971**	J	**0.354**	J	0.1	J	<0.039	U	**0.229**	J	**0.568**	J	0.093	J	**2.754**	J	0.136	J	<0.044	U	**1.072**	J	<0.179	U
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	0.14	JK	<0.129	U	**1.39**	J	<0.045	U	<0.024	U	<0.022	U	<0.033	U	<0.024	U	0.063	J	**0.461**	J	<0.019	U	<0.027	U	<0.107	U	<0.224	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**12.819**		0.175	JK	**1.528**	J	<0.015	U	0.087	JK	<0.039	U	**0.355**	J	**0.544**	J	0.093	JK	**2.162**	J	0.146	J	0.119	J	**0.919**	J	<0.176	U
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	**7.077**		0.199	JK	**0.977**	J	0.083	JK	<0.025	U	<0.022	U	0.133	J	**0.226**	J	0.084	J	**1.38**	J	<0.031	U	<0.031	U	<0.051	U	<0.05	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	1.659	J	0.497	J	5.345		<0.039	U	<0.021	U	<0.019	U	0.081	JK	0.293	JK	0.069	J	0.689	J	0.297	J	<0.024	U	0.48	J	<0.195	U
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	1.692	J	0.707	J	7.737		0.111	JK	0.119	JK	<0.014	U	0.068	JK	0.627	J	0.069	J	3.54	J	0.465	J	0.035	JK	0.533	JK	<0.026	U
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	1.471	J	0.721	JK	5.754		0.566	J	<0.343	U	<0.024	U	<0.038	U	0.911	J	<0.022	U	3.247		<0.708	U	<0.042	U	<0.907	U	<0.089	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	**4.898**		<0.03	U	0.177	JK	0.058	JK	<0.016	U	<0.009	U	0.08	JK	0.114	JK	0.116	JK	**0.553**	JK	<0.024	U	**0.851**	J	<0.031	U	<0.034	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	6.926		<6.106	UB	87.752	B	0.327	J	<0.867	UB	<0.088	U	1.101	J	4.089	J	<0.251	UB	35.24	B	<1.544	UB	<2.529	UB	10.342		<0.758	UB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	78.139	B	44.624	B	<12.271	UB	11.757	B	<13.012	UB	<12.043	UB	31.68	B	135.6	B	<1.933	UB	325.294	B	18.049	B	<15.628	UB	222.276	B	<4.406	UB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	**18.171**		NA		NA		NA		NA		NA		**0.3952**		NA		NA		**5.9452**		NA		NA		NA		NA	

Table 4.17-5
Soil Dioxins Analytical Results - AOC 20
AK Steel - Former Armco Hamilton Facility, New Miami, Ohio

Sample Location:					AOC20SB23		AOC20SB25		AOC20SB28		AOC20SB34		AOC20SB37		AOC20SB40		MW-19S		MW-1S		MW-2S		MW-3S		MW-5S		MW-6S	
Sample Top (ft below ground surface):					6		6		6		6		12		0		0		0		16		18		0		22	
Sample Bottom (ft below ground surface):					7.1		7.8		7.4		7		13.4		1.2		1.3		2		18		20		2		24	
Sample Date:					12/20/2005		01/05/2006		12/21/2005		01/03/2006		01/03/2006		01/04/2006		11/21/2005		11/15/2005		11/16/2005		11/18/2005		11/22/2005		11/22/2005	
Analyte	Industrial PRG (ng/kg)	ResPRG (ng/kg)	DAF 10 (ng/kg)	ESL (ng/kg)																								
1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	**0.327**	JK	<0.218	U	<0.095	U	**3.087**		<0.278	U	**16.229**		**0.883**	J	**2.544**		**0.216**	JK	**1.523**	J	**29.409**	JBK	<0.546	UB
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.764	UB	<1.197	UB	<1.256	UB	**6.11**	B	<1.622	UB	**71.087**	B	**6.261**	B	**5.23**	B	**2.787**	JB	**10.532**	B	**49.851**	B	<1.392	UB
1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.104	U	<0.105	U	<0.134	U	**0.51**	J	<0.062	U	**1.286**	J	<0.039	U	<0.056	U	<0.114	UJ	<0.092	U	**1.809**	J	<0.037	U
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.049	U	<0.137	UB	<0.058	U	<0.889	UB	<0.098	UJBK	<2.139	UB	**0.289**	J	**0.534**	J	<0.044	U	0.153	J	**14.111**	B	<0.582	UB
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.055	U	<0.05	U	<0.061	U	<0.019	U	<0.026	U	**1.077**	J	0.053	JK	<0.024	U	<0.038	U	<0.042	U	**2.531**	J	<0.029	U
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.051	U	<0.127	U	<0.061	U	**0.300**	JK	<0.021	U	**1.151**	J	0.113	JK	**0.314**	J	<0.046	U	<0.024	U	**5.332**	B	<0.243	UB
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.053	U	<0.048	U	<0.058	U	**0.266**	J	<0.025	U	**2.343**	J	**0.301**	J	**0.395**	J	<0.036	U	**0.216**	JK	**4.066**		<0.028	U
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN	NE	NE	NE	2.0E-01	<0.063	U	<0.059	U	<0.075	U	<0.043	U	<0.026	U	<0.114	U	<0.028	U	<0.018	U	<0.057	U	<0.029	U	0.14	J	<0.029	U
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.052	U	<0.047	U	<0.058	U	0.184	JK	<0.024	U	**2.315**	J	**0.263**	J	**0.323**	J	<0.036	U	**0.369**	J	**5.453**		<0.028	U
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	2.0E-01	<0.036	U	<0.054	U	<0.039	U	<0.05	U	<0.033	U	**0.61**	J	0.115	JK	**0.218**	J	<0.048	U	<0.047	U	**3.308**		<0.018	U
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.055	U	<0.051	U	<0.065	U	<0.037	U	<0.023	U	1.459	J	0.096	JK	<0.015	U	<0.049	U	<0.026	U	4.134		0.091	JK
2,3,4,7,8-PENTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.03	U	<0.022	U	<0.028	U	0.247	J	<0.021	U	0.827	J	0.163	J	0.418	JK	<0.026	UJ	<0.02	U	6.462		0.268	J
2,3,7,8-TETRACHLORODIBENZOFURAN	NE	NE	NE	3.9E+01	<0.046	U	<0.054	U	<0.054	U	<1.177	U	<0.053	U	1.36		<0.497	U	1.174		<0.067	UJ	<0.738	U	8.827		<1.398	U
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	1.6E+01	3.9E+00	NE	2.0E-01	<0.023	U	<0.027	U	<0.027	U	<0.016	U	<0.019	U	<0.024	U	0.077	JK	<0.014	U	<0.041	U	**0.511**	JK	**0.729**	J	<0.013	U
OCTACHLORODIBENZOFURAN	NE	NE	NE	NE	<0.631	U	<0.35	UB	<0.209	U	<11.575	UB	<0.66	UB	28.552	B	1.868	J	<2.407	UB	<0.997	UJBK	<5.179	UB	61.938	JB	<0.635	UB
OCTACHLORODIBENZO-P-DIOXIN	NE	NE	NE	NE	<6.426	UB	<4.911	UB	<6.639	UB	53.309	B	<11.079	UB	452.798	B	36.433	B	24.71	B	27.038	JB	130.278	B	286.201	JB	<5.609	UB
Dioxin TEQ-HH	NE	3.9E+00	NE	2.0E-01	NA		NA		NA		NA		NA		**3.0061**		**0.465**		**0.7244**		NA		NA		**11.498**		NA	

Notes:
B - Indicates method blank contamination.
J - The result is an estimated quantity; the associated numerical value is the approximate concentration of the analyte in the sample.
U - The sample was analyzed for, but was not detected above the sample reporting limit.
K - The result is considered to be "Estimated Maximum Potential Concentration" (EMPC).
Dioxin TEQ-HH is the sum of the individual dioxin congeners using the respective TEFs.
Values in **BOLD** indicate detected concentrations exceed one or more screening criteria.
NE - Screening value not established.
IndPRG - Industrial Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
ResPRG - Lower of 1/10th non-carcinogenic or carcinogenic Residential Soil PRG, U.S. EPA Region 9 PRG Table, October 2004
DAF 10 - Ten times DAF 1, U.S. EPA Region 9 PRG Table, October 2004
ESL - Ecological Screening Level. ESL hierarchy was 1) USEPA Ecological Soil Screening Values (value selected is the lower of the values derived for soil invertebrates, plants, birds, and mammals); 2) Oak Ridge National Laboratory screening benchmark for terrestrial plants (Efroymson, et al., 1997); values for earthworms are higher; and 3) USEPA Region 5 ESLs (USEPA 2003; Available at http://www.epa.gov/RCRIS-Region-5/ca/ESL.pdf). Additional ESL information provided in the Ecological Screening Values: Low Effects table.