Attachment 4
Residential Neighborhood Screening Tables

Attachment 4
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Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

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TABLE 4-1

1414 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Industrial [1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland [3] Background Air Results	2006 through 2008 [4] Crawl Space Air Results Min	Max	EPC [5]	CMI-CA01 (1414CAb)	CMI-CA02 (1414CAc)
1,1,1-Trichloroethane	µg/m³	22,000	68,000	1,000	ND (0.27)	0.14 J	25	15.8	21	0.96
1,1,2,2-Tetrachloroethane	µg/m³	0.21	NE	NE	NE	ND (0.19)	ND (1.2)	ND	ND (0.26)	ND (0.26)
1,1,2-Trichloroethane	µg/m³	0.77	NE	NE	NE	ND (0.076)	ND (0.49)	0.041	0.041 J	ND (0.21)
1,1-Dichloroethane	µg/m³	7.7	NE	NE	NE	0.16	**33**	**21.3**	**24**	0.97
1,1-Dichloroethene	µg/m³	880	NE	70	NE	0.062 J	1.6	1.05	0.73	0.048 J
1,2,4-Trichlorobenzene	µg/m³	8.8	NE	NE	NE	ND (0.092) J	ND (6.6)	ND	ND (6.9)	ND (7.1)
1,2,4-Trimethylbenzene	µg/m³	31	NE	NE	NE	0.16 J	9.6	2.14	0.3 J	0.41 J
1,2-Dibromoethane	µg/m³	0.02	NE	0.8	NE	**0.11 J**	**0.11 J**	**0.11**	ND (1.4)	ND (1.5)
1,2-Dichlorobenzene	µg/m³	880	NE	NE	NE	ND (0.02) J	ND (1.1)	ND	ND (1.1)	ND (1.2)
1,2-Dichloroethane	µg/m³	0.47	NE	400	ND (0.40)	0.033 J	**1.5**	**0.802**	0.13 J	ND (0.16)
1,2-Dichloropropane	µg/m³	1.2	NE	NE	NE	0.034 J	0.14	0.0619	ND (0.86)	ND (0.89)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	0.06 J	1	0.365	ND (0.92)	ND (0.94)
1,3-Dichlorobenzene	µg/m³	880	NE	NE	NE	ND (0.032) J	ND (1.1)	ND	ND (1.1)	ND (1.2)
1,4-Dichlorobenzene	µg/m³	1.1	NE	800	NE	0.26	0.96	0.417	ND (1.1)	ND (1.2)
1,4-Dioxane (p-dioxane)	µg/m³	1.6	3,000	3,000	NE	1.3 J	1.3 J	0.724	ND (0.67)	ND (0.69)
Benzene	µg/m³	1.6	1,300	60	0.96	0.28	1.3 J	0.724	0.3 J	0.31
Bromomethane	µg/m³	22	3,900	5	NE	0.04 J	0.25 J	0.189	0.4 J	ND (0.74)
Carbon tetrachloride	µg/m³	0.82	1,900	40	0.69	0.38	**17**	**6.05**	**0.84**	0.53
Chlorobenzene	µg/m³	220	NE	1,000	NE	0.031 J	0.19	0.0878	ND (0.86)	ND (0.88)
Chloroethane	µg/m³	44,000	NE	30,000	NE	0.074 J	0.96	0.393	0.3 J	ND (0.51)
Chloroform	µg/m³	0.53	150	300	ND (0.10)	0.13 J	**3**	**1.35**	0.52 J	ND (0.94)
Chloromethane	µg/m³	390	NE	NE	NE	0.59	46	24.2	ND (0.39)	ND (0.4)
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	0.67	440	272	260	7.1
cis-1,3-Dichloropropene	µg/m³	3.1	NE	NE	NE	0.056 J	0.056 J	0.056	ND (0.85)	ND (0.87)
Ethylbenzene	µg/m³	4.9	NE	2,000	NE	0.31	1.8	1.11	0.38	0.18
Freon 11	µg/m³	3,100	NE	NE	NE	1.3 J	4.8	2.68	1.2	1.5
Freon 12	µg/m³	880	NE	NE	NE	1.6	13	4.23	1.8	2.2 J
Freon 113	µg/m³	130,000	NE	NE	NE	0.45	0.76	0.675	0.35 J	0.53 J
Freon 114	µg/m³	130,000	NE	NE	NE	---	---	---	ND (1.3)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.56	NE	NE	NE	ND (0.051) J	ND (9.5)	ND	ND (10)	ND (10)
Methyl tert-butyl ether	µg/m³	47	NE	8,000	ND (1.8)	0.014 J	0.14 J	0.0777	ND (0.67)	ND (0.69)
Methylene chloride	µg/m³	26	14,000	400	ND (1.74)	1.2	1.6	0.801	0.37 J	0.44 J
Naphthalene	µg/m³	0.36	NE	9	NE	**0.41 J**	**0.98 J**	**0.638**	ND (4.9) J	ND (5) J
Styrene	µg/m³	4,400	21,000	900	NE	0.13 J	0.64	0.347	0.16 J	ND (0.82)
Tetrachloroethene	µg/m³	2.1	20,000	35	ND (0.47)	1.2	**19**	**9.47**	**14**	**2.7**
Toluene	µg/m³	22,000	37,000	300	ND (3.0)	2.2	16	9.3	1.5	1.2
trans-1,2-Dichloroethene	µg/m³	260	NE	NE	NE	0.079 J	1.1 J	0.635	0.23 J	0.048 J

TABLE 4-1

1414 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Industrial [1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland [3] Background Air Results	2006 through 2008 [4] Crawl Space Air Results Min	Max	EPC [5]	CMI-CA01 (1414CAb)	CMI-CA02 (1414CAc)
trans-1,3-Dichloropropene	µg/m³	3.1	NE	NE	NE	0.051 J	0.057 J	0.057	ND (0.85)	ND (0.87)
Trichloroethene	µg/m³	6.1	NE	600	ND (0.43)	0.49	**26**	**13.6**	**28**	2
Vinyl chloride	µg/m³	2.8	180,000	NE	ND (0.77)	0.021 J	**7.6**	1.62	ND (0.048)	ND (0.049)
Xylenes, m & p	µg/m³	3,100	22,000	700	NE	0.78	6.9	3.86	1.4	0.6
Xylenes, o	µg/m³	3,100	22,000	700	NE	0.22	1.5	0.985	0.59	0.23

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from November 2006 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1414 3rd St November 2006 through June 2009.

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-2

1414 3rd Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Industrial RSL [1]	Acute REL [2]	Chronic REL [2]	West Oakland Background Air Results [3]	EPC [4]	CMI-IA01	CMI-IA02
1,1,1-Trichloroethane	µg/m³	22,000	68,000	1,000	ND (0.27)	15.8	0.15 J	0.23
1,1,2,2-Tetrachloroethane	µg/m³	0.21	NE	NE	NE	ND	ND (0.31)	ND (0.25)
1,1,2-Trichloroethane	µg/m³	0.77	NE	NE	NE	0.041	ND (0.24)	ND (0.2)
1,1-Dichloroethane	µg/m³	7.7	NE	NE	NE	**21.3**	0.14 J	0.22
1,1-Dichloroethene	µg/m³	880	NE	70	NE	1.05	ND (0.088)	ND (0.072)
1,2,4-Trichlorobenzene	µg/m³	8.8	NE	NE	NE	ND	ND (8.3)	ND (6.8)
1,2,4-Trimethylbenzene	µg/m³	31	NE	NE	NE	2.14	0.51 J	0.55 J
1,2-Dibromoethane	µg/m³	0.02	NE	0.8	NE	**0.11**	ND (1.7)	ND (1.4)
1,2-Dichlorobenzene	µg/m³	880	NE	NE	NE	ND	ND (1.3)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.47	NE	400	ND (0.40)	**0.802**	0.14 J	0.12 J
1,2-Dichloropropane	µg/m³	1.2	NE	NE	NE	0.0619	ND (1)	ND (0.84)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	0.365	0.17 J	0.17 J
1,3-Dichlorobenzene	µg/m³	880	NE	NE	NE	ND	ND (1.3)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	1.1	NE	800	NE	0.417	ND (1.3)	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	1.6	3,000	3,000	NE	0.724	ND (0.8)	ND (0.66)
Benzene	µg/m³	1.6	1,300	60	0.96	0.724	0.36	0.33
Bromomethane	µg/m³	22	3,900	5	NE	0.189	0.43 J	0.43 J
Carbon tetrachloride	µg/m³	0.82	1,900	40	0.69	**6.05**	0.36	0.37
Chlorobenzene	µg/m³	220	NE	1,000	NE	0.0878	ND (1)	ND (0.84)
Chloroethane	µg/m³	44,000	NE	30,000	NE	0.393	ND (0.59)	ND (0.48)
Chloroform	µg/m³	0.53	150	300	ND (0.10)	**1.35**	ND (1.1)	ND (0.89)
Chloromethane	µg/m³	390	NE	NE	NE	24.2	1	0.9
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	272	1.2	2
cis-1,3-Dichloropropene	µg/m³	3.1	NE	NE	NE	0.056	ND (1)	ND (0.83)
Ethylbenzene	µg/m³	4.9	NE	2,000	NE	1.11	0.49	0.46
Freon 11	µg/m³	3,100	NE	NE	NE	2.68	1.1 J	1.1
Freon 12	µg/m³	880	NE	NE	NE	4.23	1.7	1.9
Freon 113	µg/m³	130,000	NE	NE	NE	0.675	0.36 J	0.35 J
Freon 114	µg/m³	130,000	NE	NE	NE	---	ND (1.6)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.56	NE	NE	NE	ND	ND (12)	ND (9.8)
Methyl tert-butyl ether	µg/m³	47	NE	8,000	ND (1.8)	0.0777	ND (0.8)	ND (0.66)
Methylene chloride	µg/m³	26	14,000	400	ND (1.74)	0.801	ND (1.5)	ND (1.3)
Naphthalene	µg/m³	0.36	NE	9	NE	**0.638**	ND (5.8) J	ND (4.8) J
Styrene	µg/m³	4,400	21,000	900	NE	0.347	0.22 J	0.21 J
Tetrachloroethene	µg/m³	2.1	20,000	35	ND (0.47)	**9.47**	1.2	**2.2**
Toluene	µg/m³	22,000	37,000	300	ND (3.0)	9.3	2.3	2.2
trans-1,2-Dichloroethene	µg/m³	260	NE	NE	NE	0.635	ND (0.88)	ND (0.72)

TABLE 4-2

1414 3rd Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Industrial RSL [1]	Acute REL [2]	Chronic REL [2]	West Oakland Background Air Results [3]	EPC [4]	CMI-IA01	CMI-IA02
trans-1,3-Dichloropropene	µg/m³	3.1	NE	NE	NE	0.057	ND (1)	ND (0.83)
Trichloroethene	µg/m³	6.1	NE	600	ND (0.43)	**13.6**	0.25	0.36
Vinyl chloride	µg/m³	2.8	180,000	NE	ND (0.77)	1.62	ND (0.057)	0.016 J
Xylenes, m & p	µg/m³	3,100	22,000	700	NE	3.86	1.8	1.6
Xylenes, o	µg/m³	3,100	22,000	700	NE	0.985	0.68	0.64

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1414 3rd St November 2006 through June 2009.

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-3
1428 3rd Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	1428-SG01	1428-SG02
1,1,1-Trichloroethane	µg/m³	52,000	12	58	16	2
1,1,2,2-Tetrachloroethane	µg/m³	0.42	0.032 J	0.032 J	ND (0.23)	ND (0.22)
1,1,2-Trichloroethane	µg/m³	1.5	0.34	0.36	ND (0.18)	ND (0.18)
1,1-Dichloroethane	µg/m³	15	4.9	**47**	7.4	0.021 J
1,1-Dichloroethene	µg/m³	2,100	ND (0.53)	ND (2.7)	ND (0.067)	ND (0.064)
1,2,4-Trichlorobenzene	µg/m³	42	ND (5)	ND (20)	ND (6.2)	ND (6)
1,2,4-Trimethylbenzene	µg/m³	73	0.13 J	0.13 J	ND (0.82)	0.1 J
1,2-Dibromoethane	µg/m³	0.041	ND (0.42)	ND (2.2)	ND (1.3)	ND (1.2)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.8) J	ND (4.1)	ND (1)	ND (0.97)
1,2-Dichloroethane	µg/m³	0.94	0.029 J	0.029 J	ND (0.14)	ND (0.13)
1,2-Dichloropropane	µg/m³	2.4	ND (0.25)	ND (1.4)	ND (0.78)	ND (0.74)
1,3,5-Trimethylbenzene	µg/m³	63	0.18 J	0.18 J	1.6	0.11 J
1,3-Dichlorobenzene	µg/m³	2,100	ND (0.8)	ND (4.1)	ND (1)	ND (0.97)
1,4-Dichlorobenzene	µg/m³	2.2	ND (0.8)	ND (4.1)	ND (1)	ND (0.97)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.48)	ND (9.8)	ND (0.6)	ND (0.58)
Benzene	µg/m³	3.1	0.46 J	0.94	0.77	0.44
Bromomethane	µg/m³	52	ND (0.52)	ND (2.6)	ND (0.65)	0.24 J
Carbon tetrachloride	µg/m³	1.6	ND (0.34)	ND (1.8)	0.27	0.23
Chlorobenzene	µg/m³	520	ND (0.62)	ND (3.1)	ND (0.77)	ND (0.74)
Chloroethane	µg/m³	100,000	0.2 J	0.22 J	ND (0.44)	ND (0.42)
Chloroform	µg/m³	1.1	**6.7**	**22**	**23**	**48**
Chloromethane	µg/m³	940	0.77	0.79	ND (0.35)	0.22 J
cis-1,2-Dichloroethene	µg/m³	NE	4.4	160	3.2	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.61)	ND (3.1)	ND (0.76)	ND (0.73)
Ethylbenzene	µg/m³	9.7	0.082 J	0.34 J	0.12 J	0.073 J
Freon 11	µg/m³	7,300	3.3	14	2.6	0.75 J
Freon 12	µg/m³	2,100	1.5	2.2 J	0.93	1
Freon 113	µg/m³	310,000	0.6 J	1	0.34 J	0.74 J
Freon 114	µg/m³	310,000	ND (4.8)	ND (4.8)	ND (1.2)	ND (1.1)
Hexachlorobutadiene	µg/m³	1.1	ND (2.9)	ND (16)	ND (9)	ND (8.6)
Methyl tert-butyl ether	µg/m³	94	ND (0.48)	ND (2.4)	ND (0.6)	ND (0.58)
Methylene chloride	µg/m³	52	0.36 J	0.95 J	ND (1.2)	ND (1.1)
Naphthalene	µg/m³	0.72	ND (3.5) J	ND (7.7)	ND (4.4)	ND (4.2)
Styrene	µg/m³	10,000	ND (0.57)	ND (2.9)	ND (0.72)	ND (0.68)
Tetrachloroethene	µg/m³	4.1	**42**	**210**	**22**	**5**
Toluene	µg/m³	52,000	0.31 J	16	0.76	0.64
trans-1,2-Dichloroethene	µg/m³	630	3.1	47	1	ND (0.64)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.61)	ND (3.1)	ND (0.76)	ND (0.73)
Trichloroethene	µg/m³	12	**98**	**480**	**36**	0.034 J
Vinyl chloride	µg/m³	1.6	0.0094 J	0.0094 J	ND (0.043)	ND (0.041)
Xylenes, m & p	µg/m³	7,300	0.21 J	0.62 J	0.16 J	0.16 J
Xylenes, o	µg/m³	7,300	ND (0.58)	ND (3)	0.094 J	0.075 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-4

1428 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Historical[4] Crawl Space Air Results Min	Historical[4] Crawl Space Air Results Max	EPC[5]	1428-CA01 (1428CAd)	1428-CA02 (1428CAe)	1428-CA02 (FD) (1428CAe)
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.08 J	0.15 J	0.114	ND (8.8)	0.074 J	0.074 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	**0.074 J**	**0.074 J**	**0.074**	ND (11)	ND (0.23)	ND (0.27)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	0.065 J	0.065 J	0.065	ND (8.8)	ND (0.19)	ND (0.21)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	0.015 J	0.026 J	0.026	ND (6.5)	ND (0.14)	ND (0.16)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.056)	ND (0.078)	ND	ND (3.2)	ND (0.068)	ND (0.078)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (0.065) J	ND (1.4) J	ND	ND (300)	ND (6.3)	ND (7.3)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.065 J	**14**	**33.5**	**57**	0.26 J	2.5
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	**0.034 J**	**0.034 J**	**0.034**	ND (62)	ND (1.3)	ND (1.5)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.014) J	ND (0.22) J	ND	ND (48)	ND (1)	ND (1.2)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.01 J	**2.9**	**2.1**	ND (6.5)	ND (0.14)	ND (0.16)
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.021 J	**0.3**	0.0906	ND (37)	ND (0.79)	ND (0.9)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.018 J	5.6	**9.46**	**15 J**	ND (0.84)	0.72 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.036) J	ND (0.25)	ND	ND (48)	ND (1)	ND (1.2)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**0.25 J**	**2**	**0.565**	ND (48)	**0.35 J**	**0.36 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.51) J	ND (0.71)	ND	ND (29)	ND (0.62)	ND (0.71)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.14 J	**1.2 J**	**1.1**	ND (13)	0.13 J	**2.4**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.13 J	0.19 J	0.185	ND (31)	0.4 J	0.45 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.4**	**0.63 J**	**0.502**	ND (10)	**0.39**	**0.4**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.02 J	0.047 J	0.0372	ND (37)	ND (0.79)	ND (0.9)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.02 J	0.63	0.189	ND (21)	ND (0.45)	0.46 J
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.19**	**6.6**	**2.53**	ND (39)	**0.38 J**	ND (0.96)
Chloromethane	µg/m³	94	NE	NE	NE	0.18 J	19	8.88	ND (17)	0.32 J	0.35 J
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.11)	ND (0.16)	ND	ND (6.4)	ND (0.14)	ND (0.16)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.13)	ND (0.18)	ND	ND (36)	ND (0.78)	ND (0.89)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.11 J	**1.9**	**1.26**	**4 J**	0.17	**1.4**
Freon 11	µg/m³	730	NE	NE	NE	1.2	4.7	2.95	ND (45)	1.3	1.3
Freon 12	µg/m³	210	NE	NE	NE	1.7	3.1	2.54	ND (40)	2	1.8
Freon 113	µg/m³	31,000	NE	NE	NE	0.54	0.8	0.654	ND (62)	0.51 J	0.48 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (0.22)	ND (0.26)	ND	ND (56)	ND (1.2)	ND (1.4)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (0.051) J	ND (2)	ND	ND (430)	ND (9.1)	ND (10)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	ND (0.51)	ND (0.71)	ND	ND (29)	ND (0.62)	ND (0.71)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	1.8	**8.2**	2.17	ND (56)	ND (1.2)	0.34 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.58 J**	**0.64 J**	**1.09**	ND (210)	ND (4.5)	**3 J**
Styrene	µg/m³	1,000	21,000	900	NE	0.04 J	0.78	0.498	ND (34)	0.12 J	0.21 J
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.17 J	**4.8**	**1.74**	**1.4 J**	**1.7**	**1.7**
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.46	24	12.6	33	0.62	4.7
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.56)	ND (0.78)	ND	ND (32)	ND (0.68)	ND (0.78)

TABLE 4-4

1428 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Historical[4] Crawl Space Air Results Min	Historical[4] Crawl Space Air Results Max	EPC[5]	1428-CA01 (1428CAd)	1428-CA02 (1428CAe)	1428-CA02 (FD) (1428CAe)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.018 J	0.018 J	0.018	ND (36)	ND (0.78)	ND (0.89)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.067	**4.2**	**3.37**	**2.9 J**	0.054 J	0.056 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.034 J	**10**	**1.58**	ND (2)	ND (0.044)	ND (0.05)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.15 J	7.9	5.49	18	0.57	6.3
Xylenes, o	µg/m³	730	22,000	700	NE	0.068 J	5.5	3.43	11	0.16	2.4

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1428 3rd St from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-5

1428 and 1430 3rd Street Analytical Results - Comparison of Historical 1428 3rd Street Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	(Downstairs)	1428-IA01 (FD) (Downstairs)	(Downstairs)	(Downstairs)	(Downstairs)	(Upstairs)	(Upstairs)	(Upstairs)	(Upstairs)
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.114	0.053 J	0.059 J	0.062 J	0.054 J	0.065 J	0.056 J	0.052 J	0.051 J	0.048 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	**0.074**	ND (0.23)	ND (0.25)	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.26)	ND (0.24)	ND (0.26)	ND (0.25)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	0.065	ND (0.19)	ND (0.2)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.2)	ND (0.2)	ND (0.21)	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	0.026	ND (0.14)	ND (0.15)	ND (0.14)	ND (0.13)	ND (0.13)	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.15)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND	ND (0.068)	ND (0.072)	ND (0.068)	ND (0.065)	ND (0.065)	ND (0.074)	ND (0.071)	ND (0.076)	ND (0.072)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND	ND (6.3) J	ND (6.8) J	ND (6.3)	ND (6.1) J	ND (6.1)	ND (6.9)	ND (6.6)	ND (7.1)	ND (6.8)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	**33.5**	0.54 J	0.77 J	0.89	3	0.89	0.31 J	0.83 J	0.46 J	0.42 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	**0.034**	ND (1.3)	ND (1.4)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.4)	ND (1.4)	ND (1.5)	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (1)	ND (1.1)	ND (1)	ND (0.99)	ND (0.99)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	**2.1**	**0.36**	**0.36**	**0.14**	**0.37**	**0.38**	ND (0.071) J	**0.43**	**0.11 J**	**0.1 J**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.0906	ND (0.79)	ND (0.84)	ND (0.79)	ND (0.76)	ND (0.76)	ND (0.86)	ND (0.83)	ND (0.88)	ND (0.84)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	9.46	0.16 J	0.2 J	0.17 J	0.6 J	0.17 J	0.11 J	0.18 J	ND (0.94)	ND (0.9)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (1)	ND (1.1)	ND (1)	ND (0.99)	ND (0.99)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**0.565**	0.17 J	**0.3 J**	ND (0.25) J	**0.34 J**	ND (0.17) J	ND (1.1)	ND (0.32) J	ND (1.1)	ND (0.17) J
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND	ND (0.62)	ND (0.66)	ND (0.62)	ND (0.59)	ND (0.59)	ND (0.67)	ND (0.64)	ND (0.69)	ND (0.66)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**1.1**	**1**	**1.1**	**0.65**	**0.72**	**0.78**	**0.62**	**0.99**	**0.61**	**1.2**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.185	ND (0.41) J	ND (0.47) J	0.49 J	ND (0.28) J	0.34 J	ND (0.73)	0.37 J	ND (0.74) J	0.42 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.502**	**0.4**	**0.41**	**0.52**	**0.42**	**0.42**	**0.45**	**0.38**	**0.56**	**0.41**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.0372	ND (0.79)	ND (0.84)	ND (0.79)	ND (0.76)	ND (0.76)	ND (0.86)	ND (0.82)	ND (0.88)	ND (0.84)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.189	ND (0.45)	ND (0.48)	ND (0.45)	ND (0.43)	ND (0.43)	ND (0.49)	ND (0.47)	ND (0.5)	ND (0.48)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**2.53**	**2.4**	**2.7**	**1.2**	**2.4**	**2.7**	**1.5**	**0.88**	**1**	**2.9**
Chloromethane	µg/m³	94	NE	NE	NE	8.88	1.1	1.2	0.83	0.97	1.1	0.95	1	1.3	1
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.13)	ND (0.13)	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND	ND (0.78)	ND (0.83)	ND (0.78)	ND (0.74)	ND (0.74)	ND (0.85)	ND (0.81)	ND (0.87)	ND (0.83)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	**1.26**	0.79	0.93	**3.2**	**1**	0.78	0.36	0.71	0.41	0.45
Freon 11	µg/m³	730	NE	NE	NE	2.95	1.4	1.4	1.2	0.94	1.4	1.1	1.2	1.1	1.2
Freon 12	µg/m³	210	NE	NE	NE	2.54	1.8	1.9	1.8	1.4	2	2	2	2.1	1.8
Freon 113	µg/m³	31,000	NE	NE	NE	0.654	0.45 J	0.44 J	0.43 J	0.34 J	0.43 J	ND (1.4)	0.38 J	0.41 J	0.45 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND	ND (1.2)	ND (1.3)	ND (1.2)	ND (1.1)	ND (1.1)	ND (1.3)	ND (1.2)	ND (1.3)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND	ND (9.1)	ND (9.8)	ND (9.1)	ND (8.7)	ND (8.7)	ND (10)	ND (9.5)	ND (10)	ND (9.8)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	ND	ND (0.62)	ND (0.66)	ND (0.62)	ND (0.59)	ND (0.59)	ND (0.67)	0.24 J	ND (0.69)	ND (0.66)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	2.17	0.42 J	0.39 J	0.36 J	0.3 J	0.44 J	0.3 J	0.47 J	0.47 J	0.46 J
Naphthalene	µg/m³	0.072	NE	9	NE	**1.09**	ND (4.5) J	ND (4.8) J	ND (0.73) J	**0.79 J**	ND (0.88) J	ND (4.9)	ND (1.4) J	ND (0.73) J	ND (1.1) J
Styrene	µg/m³	1,000	21,000	900	NE	0.498	0.28 J	0.37 J	0.46 J	0.42 J	0.29 J	ND (0.8)	0.49 J	0.26 J	0.27 J
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	**1.74**	**3.6**	**3.4**	**58**	**2.8**	**3.1**	0.38	**0.64**	**0.6**	0.35
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	12.6	5.8	6.7	6.6	4.8	6	2.6	13	5.2	3.8
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND	ND (0.68)	ND (0.72)	ND (0.68)	ND (0.65)	ND (0.65)	ND (0.74)	ND (0.71)	ND (0.76)	ND (0.72)

TABLE 4-5

1428 and 1430 3rd Street Analytical Results - Comparison of Historical 1428 3rd Street Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	1428-IA01 (FD) (Downstairs)	(Downstairs)	(Downstairs)	(Downstairs)	(Downstairs)	(Upstairs)	(Upstairs)	(Upstairs)	(Upstairs)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.018	ND (0.78)	ND (0.83)	ND (0.78)	ND (0.74)	ND (0.74)	ND (0.85)	ND (0.81)	ND (0.87)	ND (0.83)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	**3.37**	0.026 J	0.043 J	ND (0.055) J	0.04 J	ND (0.027) J	ND (0.045) J	ND (0.031) J	ND (0.048) J	ND (0.03) J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	**1.58**	ND (0.044) J	ND (0.047) J	ND (0.044) J	ND (0.042) J	ND (0.042) J	ND (0.048) J	ND (0.046) J	ND (0.049) J	ND (0.047) J
Xylenes, m & p	µg/m³	730	22,000	700	NE	5.49	2.5	2.8	3.8	2.9	2.4	0.97	1.6	1.2	1.2
Xylenes, o	µg/m³	730	22,000	700	NE	3.43	0.75	0.86	1.5	0.98	0.75	0.41	0.82	0.46	0.51

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1428 3rd St from September 2004 through June 2009.

--- not analyzed
ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-6

1428 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1428-OA01 (1428AA)	1430-OA01
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.062 J	0.11 J	0.0941	0.12 J	0.051 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	**0.15 J**	**0.18 J**	**0.159**	ND (0.23)	ND (0.23)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.073) J	ND (0.18)	ND	ND (0.19)	ND (0.18)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.11) J	ND (0.14)	ND	ND (0.14)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.053) J	ND (0.067)	ND	ND (0.068)	ND (0.067)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (0.18) J	ND (1.2) J	ND	ND (6.3)	ND (6.2)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.12 J	**23**	4.74	0.4 J	0.3 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.017) J	ND (0.26)	ND	ND (1.3)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.011) J	ND (0.2) J	ND	ND (1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.029 J	**0.27**	**0.129**	**0.21**	0.066 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.046 J	0.057 J	0.0513	ND (0.79)	ND (0.78)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.039 J	**8**	4.09	ND (0.84)	ND (0.82)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.052 J	51 J	51	ND (1)	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.17 J	**3.5 J**	**1.14**	ND (1)	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.02) J	ND (0.6)	ND	ND (0.62)	ND (0.6)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.29	**5.6 J**	**3.2**	0.31	**0.34**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.063 J	0.35	0.244	0.4 J	0.31 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.42**	**0.7**	**0.565**	**0.62**	**0.42**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.016 J	0.3	0.3	ND (0.79)	ND (0.77)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.026 J	0.11 J	0.089	ND (0.45)	ND (0.44)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.078 J	**0.38**	**0.207**	ND (0.83)	ND (0.82)
Chloromethane	µg/m³	94	NE	NE	NE	0.84	1.5	1.28	1	1
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.11) J	ND (0.13)	ND	ND (0.14)	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.049 J	0.052 J	0.052	ND (0.78)	ND (0.76)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.12	**12**	**12**	0.26	0.24
Freon 11	µg/m³	730	NE	NE	NE	1.1	3.8	2.08	1.2	1.3
Freon 12	µg/m³	210	NE	NE	NE	2	3.4	2.71	2	2.1
Freon 113	µg/m³	31,000	NE	NE	NE	0.55	0.8	0.672	0.48 J	0.43 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.12 J	0.13 J	0.13	ND (1.2)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (0.1) J	ND (1.8) J	ND	ND (9.1)	ND (9)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.0099 J	0.023 J	0.023	ND (0.62)	ND (0.6)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	3.6	**21**	**6.26**	0.34 J	0.31 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.1**	**16 J**	**5.18**	**0.76 J**	ND (4.4)
Styrene	µg/m³	1,000	21,000	900	NE	0.042 J	6.8	6.8	0.16 J	ND (0.72)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.063 J	**2.2**	**1.16**	0.074 J	0.086 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	1	32	12.5	2.5	1.7
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	0.042 J	0.042 J	0.042	ND (0.68)	ND (0.67)

TABLE 4-6

1428 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1428-OA01 (1428AA)	1430-OA01
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.039 J	0.041 J	0.041	ND (0.78)	ND (0.76)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.023 J	0.44	0.261	0.056 J	0.025 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.058	0.058	0.0385	ND (0.044)	ND (0.043)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.35	44	44	0.68	0.79
Xylenes, o	µg/m³	730	22,000	700	NE	0.11 J	18	18	0.26	0.27

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air data collected from 1428 3rd St from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-7
1432 3rd Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	1432-SG01 (PropA1SGa)	1432-SG02
1,1,1-Trichloroethane	µg/m³	52,000	0.26 J	4	23	0.93
1,1,2,2-Tetrachloroethane	µg/m³	0.42	ND (0.18)	ND (0.25)	ND (0.22)	ND (0.24)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.14)	ND (0.2)	ND (0.18)	ND (0.2)
1,1-Dichloroethane	µg/m³	15	0.023 J	0.23	0.39	ND (0.14)
1,1-Dichloroethene	µg/m³	2,100	ND (0.52)	ND (2.7)	0.061 J	ND (0.071)
1,2,4-Trichlorobenzene	µg/m³	42	ND (4.9)	ND (20)	ND (6.1)	ND (6.6)
1,2,4-Trimethylbenzene	µg/m³	73	0.2 J	6.5	0.15 J	0.17 J
1,2-Dibromoethane	µg/m³	0.041	ND (0.21)	ND (1.4)	ND (1.3)	ND (1.4)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.79)	ND (4.1)	ND (0.99)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.94	0.024 J	0.16	ND (0.13)	0.037 J
1,2-Dichloropropane	µg/m³	2.4	ND (0.12)	ND (0.84)	ND (0.76)	ND (0.83)
1,3,5-Trimethylbenzene	µg/m³	63	0.2 J	6	0.13 J	0.24 J
1,3-Dichlorobenzene	µg/m³	2,100	15	15	ND (0.99)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	2.2	ND (0.79)	ND (4.1)	ND (0.99)	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.48)	ND (9.8)	ND (0.59)	ND (0.64)
Benzene	µg/m³	3.1	0.32	0.99	0.49	1
Bromomethane	µg/m³	52	1	1	ND (0.64)	ND (0.7)
Carbon tetrachloride	µg/m³	1.6	0.43 J	0.43 J	0.17 J	0.25
Chlorobenzene	µg/m³	520	ND (0.61)	ND (3.1)	ND (0.76)	ND (0.82)
Chloroethane	µg/m³	100,000	ND (0.35)	ND (1.8)	ND (0.43)	0.32 J
Chloroform	µg/m³	1.1	0.26 J	**12**	**280**	**13**
Chloromethane	µg/m³	940	0.21 J	0.92	0.32 J	2
cis-1,2-Dichloroethene	µg/m³	NE	0.11	0.11	0.14	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.6)	ND (3.1)	ND (0.74)	ND (0.81)
Ethylbenzene	µg/m³	9.7	0.084 J	0.38	0.44	0.2
Freon 11	µg/m³	7,300	1.2	12	6.5	2.2
Freon 12	µg/m³	2,100	1.1	2.2	0.92	0.81 J
Freon 113	µg/m³	310,000	0.44 J	0.88 J	0.63 J	0.97 J
Freon 114	µg/m³	310,000	ND (4.8)	ND (4.8)	ND (1.1)	ND (1.2)
Hexachlorobutadiene	µg/m³	1.1	ND (1.4)	ND (9.8)	ND (8.7)	ND (9.5)
Methyl tert-butyl ether	µg/m³	94	ND (0.48)	ND (2.4)	ND (0.59)	ND (0.64)
Methylene chloride	µg/m³	52	0.28 J	0.37 J	ND (1.1)	0.4 J
Naphthalene	µg/m³	0.72	0.59 J	**1.6 J**	ND (4.3)	ND (4.7)
Styrene	µg/m³	10,000	ND (0.56)	ND (2.9)	ND (0.7)	ND (0.76)
Tetrachloroethene	µg/m³	4.1	0.22	**11**	**5.1**	1.9
Toluene	µg/m³	52,000	0.47 J	4.7	1.2	2.6
trans-1,2-Dichloroethene	µg/m³	630	ND (0.52)	ND (2.7)	ND (0.65)	ND (0.71)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.6)	ND (3.1)	ND (0.74)	ND (0.81)
Trichloroethene	µg/m³	12	0.05 J	0.55	0.31	0.061 J
Vinyl chloride	µg/m³	1.6	0.014 J	1.1	ND (0.042)	0.024 J
Xylenes, m & p	µg/m³	7,300	0.23 J	8.2	0.48	0.41
Xylenes, o	µg/m³	7,300	0.3 J	3.4	0.24	0.21

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-8

1432 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Crawl Space Air Results Min	Max	EPC[5]	1432-CA01 (PropA1CA)	1432-CA02
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.062 J	0.12 J	0.0961	0.046 J	0.047 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.025) J	ND (0.23)	ND	ND (0.26)	ND (0.23)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.073)	ND (0.18)	ND	ND (0.2)	ND (0.18)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.11)	ND (0.14)	ND	ND (0.15)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.053)	ND (0.067)	ND	ND (0.074)	ND (0.067)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (0.28) J	ND (1.2) J	ND	ND (6.9)	ND (6.2)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.066 J	**31**	**30.9**	0.8 J	0.11 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.2)	ND (0.26)	ND	ND (1.4)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.11 J	0.16 J	0.16	ND (1.1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.028 J	**0.91**	**0.627**	0.06 J	0.064 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.027 J	0.11	0.0615	ND (0.86)	ND (0.78)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.047 J	**11**	**11**	0.22 J	ND (0.82)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.077 J	63	63	0.61 J	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**0.3 J**	**4.8**	**1.63**	ND (1.1)	**0.29 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	0.26 J	0.26 J	0.26	ND (0.67)	ND (0.6)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.11 J	**16 J**	**16**	**0.52**	**0.35**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.041 J	0.78	0.33	ND (0.73)	ND (0.65)
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.41**	**0.58**	**0.531**	**0.47**	**0.43**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.029 J	0.4	0.146	ND (0.86)	ND (0.77)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.029 J	0.37	0.166	0.29 J	ND (0.44)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.16**	**0.65**	**0.389**	ND (0.91)	ND (0.82)
Chloromethane	µg/m³	94	NE	NE	NE	0.35	7.2	3.07	3	0.64
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.11)	ND (0.13)	ND	ND (0.15)	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.035 J	0.036 J	0.036	ND (0.85)	ND (0.76)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.043 J	**20**	**20**	0.28	0.16
Freon 11	µg/m³	730	NE	NE	NE	1.3	3.7	2.16	1.8	1.2
Freon 12	µg/m³	210	NE	NE	NE	1.6	2.8	2.54	2.1	2.1
Freon 113	µg/m³	31,000	NE	NE	NE	0.54	0.74	0.676	0.67 J	0.6 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.23	0.23	0.23	ND (1.3)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.4)	ND (1.8)	ND	ND (10)	ND (9)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.017 J	0.019 J	0.019	ND (0.67)	ND (0.6)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	2.2	3.3	1.37	0.36 J	0.3 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.7 J**	**0.92 J**	**0.882**	ND (4.9)	ND (4.4)
Styrene	µg/m³	1,000	21,000	900	NE	0.05 J	11	5.56	ND (0.8)	ND (0.72)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.14 J	**3.2**	**2.21**	0.06 J	0.1 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.17	77	30.6	1.3	6.5
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.53)	ND (0.67)	ND	ND (0.74)	ND (0.67)

TABLE 4-8

1432 3rd Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Crawl Space Air Results Min	Max	EPC[5]	1432-CA01 (PropA1CA)	1432-CA02
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.036 J	0.04 J	0.04	ND (0.85)	ND (0.76)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.033	**1.5**	0.886	0.033 J	0.66
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.03 J	**2.8**	**2.8**	0.074	0.037 J
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.08 J	94	93.7	1	0.68
Xylenes, o	µg/m³	730	22,000	700	NE	0.027 J	33	32.9	0.37	0.085 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1432 3rd Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-9

1432 and 1434 3rd Street Analytical Results - Comparison of Historical 1432 3rd Street Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	1432-IA01 (Downstairs)	1432-IA01 (FD) (Downstairs)	1432-IA03 (Downstairs)	1434-IA01 (Upstairs)
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.0961	0.051 J	0.065 J	0.04 J	0.043 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND	ND (0.22)	ND (0.24)	ND (0.24)	ND (0.24)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND	ND (0.18)	ND (0.19)	ND (0.19)	ND (0.19)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND	ND (0.13)	ND (0.14)	ND (0.14)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND	ND (0.064)	ND (0.069)	ND (0.069)	ND (0.069)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND	ND (6)	ND (6.5)	ND (6.5)	ND (6.5)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	**30.9**	0.62 J	0.48 J	0.28 J	0.29 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND	ND (1.2)	ND (1.3)	ND (1.3)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.16	ND (0.97)	ND (1)	ND (1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	**0.627**	**0.12 J**	ND (0.11) J	0.077 J	**0.11 J**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.0615	ND (0.74)	ND (0.81)	ND (0.81)	ND (0.81)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	11	ND (0.79)	0.14 J	ND (0.86)	ND (0.86)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	63	ND (0.97)	ND (1)	ND (1)	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**1.63**	**2.4**	**2.8**	ND (1)	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	0.26	ND (0.58)	ND (0.63)	ND (0.63)	ND (0.63)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**16**	0.31	**0.32**	0.26 J	0.25 J
Bromomethane	µg/m³	5.2	3,900	5	NE	0.33	ND (1.9) J	ND (0.68)	ND (2.4) J	ND (1.8) J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.531**	**0.43**	**0.52**	**0.45**	**0.49**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.146	ND (0.74)	ND (0.8)	ND (0.8)	ND (0.8)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.166	ND (0.42)	ND (0.46)	ND (0.46)	ND (0.46)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.389**	**2.7**	**2.8**	**0.29 J**	**0.21 J**
Chloromethane	µg/m³	94	NE	NE	NE	3.07	0.88	1.2	0.65	0.7
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND	ND (0.13)	ND (0.14)	ND (0.14)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.036	ND (0.73)	ND (0.79)	ND (0.79)	ND (0.79)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	**20**	0.26	0.24	0.35	0.18
Freon 11	µg/m³	730	NE	NE	NE	2.16	1.1	1.1	1	1
Freon 12	µg/m³	210	NE	NE	NE	2.54	2	2	2	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.676	0.44 J	0.61 J	0.41 J	0.41 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.23	ND (1.1)	ND (1.2)	ND (1.2)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND	ND (8.6)	ND (9.3)	ND (9.3)	ND (9.3)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.019	ND (0.58)	ND (0.63)	ND (0.63)	ND (0.63)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	1.37	0.7 J	0.35 J	0.32 J	0.34 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.882**	**75**	**110**	**0.79 J**	**1.6 J**
Styrene	µg/m³	1,000	21,000	900	NE	5.56	0.39 J	0.35 J	0.42 J	ND (0.74)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	**2.21**	0.17 J	0.075 J	0.057 J	0.047 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	30.6	2	1.9	1.1	1
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND	ND (0.64)	ND (0.69)	ND (0.69)	ND (0.69)

TABLE 4-9

1432 and 1434 3rd Street Analytical Results - Comparison of Historical 1432 3rd Street Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	1432-IA01 (Downstairs)	1432-IA01 (FD) (Downstairs)	1432-IA03 (Downstairs)	1434-IA01 (Upstairs)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.04	ND (0.73)	ND (0.79)	ND (0.79)	ND (0.79)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.886	0.027 J	ND (0.036) J	ND (0.19)	ND (0.19)
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	**2.8**	ND (0.041) J	ND (0.045) J	ND (0.045) J	ND (0.045) J
Xylenes, m & p	µg/m³	730	22,000	700	NE	93.7	0.6	0.54	0.48	0.42
Xylenes, o	µg/m³	730	22,000	700	NE	32.9	0.27	0.25	0.23	0.2

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 1432 Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-10

1432 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1432-OA01	1432-OA02
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.058 J	0.11 J	0.0823	0.042 J	0.04 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.033) J	ND (0.24)	ND	ND (0.22)	ND (0.22)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.077)	ND (0.18)	ND	ND (0.18)	ND (0.18)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.11)	ND (0.14)	ND	ND (0.13)	ND (0.13)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.056)	ND (0.071)	ND	ND (0.065)	ND (0.065)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (1)	ND (1.3)	ND	ND (6.1)	ND (6.1)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.087 J	1.6	0.983	ND (0.81)	0.2 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.22)	ND (0.28)	ND	ND (1.3)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.13 J	0.13 J	0.13	ND (0.99)	ND (0.99)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.028 J	0.069 J	0.0557	0.053 J	0.054 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.025 J	0.064 J	0.0438	ND (0.76)	ND (0.76)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.035 J	0.6	0.354	ND (0.81)	ND (0.81)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.092 J	0.092 J	0.092	ND (0.99)	ND (0.99)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**0.25 J**	**0.25 J**	**0.25**	ND (0.99)	ND (0.99)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.025) J	ND (0.64)	ND	ND (0.59)	ND (0.59)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.24	**1.6**	**0.852**	**0.34**	0.24 J
Bromomethane	µg/m³	5.2	3,900	5	NE	0.057 J	0.35	1.18	1.8 J	1.3 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.43**	**0.6**	**0.525**	**0.43**	**0.42**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.022 J	0.022 J	0.022	ND (0.76)	ND (0.76)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.048 J	0.12 J	0.0991	ND (0.43)	ND (0.43)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.088 J	**0.36**	**0.234**	ND (0.8)	ND (0.8)
Chloromethane	µg/m³	94	NE	NE	NE	0.92	1.8	1.21	0.6	0.64
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.11)	ND (0.14)	ND	ND (0.13)	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.051 J	0.051 J	0.051	ND (0.74)	ND (0.74)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.11 J	**1.5**	0.642	0.1 J	0.1 J
Freon 11	µg/m³	730	NE	NE	NE	1.2	3.8	2.05	1.1	1.1
Freon 12	µg/m³	210	NE	NE	NE	1.5	2.9	2.52	2.1	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.52	0.72	0.645	0.46 J	0.38 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.13 J	0.13 J	0.13	ND (1.1)	ND (1.1)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.5)	ND (1.9) J	ND	ND (8.7)	ND (8.7)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.019 J	0.019 J	0.019	ND (0.59)	ND (0.59)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	3.2	4.5	1.78	0.26 J	0.21 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.27**	**0.74 J**	**0.74**	ND (4.3)	ND (4.3)
Styrene	µg/m³	1,000	21,000	900	NE	0.032 J	0.4	0.193	0.35 J	ND (0.7)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.062 J	0.38	0.239	0.035 J	0.077 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.6	9.9	3.96	0.5	0.48
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.56)	ND (0.71)	ND	ND (0.65)	ND (0.65)

TABLE 4-10

1432 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1432-OA01	1432-OA02
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.046 J	0.046 J	0.046	ND (0.74)	ND (0.74)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.02 J	0.23	0.102	ND (0.18)	0.12 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND (0.036)	ND (0.046)	ND	ND (0.042)	ND (0.042)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.31	5.2	2.12	0.29	0.3
Xylenes, o	µg/m³	730	22,000	700	NE	0.088 J	1.7	0.704	0.12 J	0.11 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air data collected from 1432 3rd Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-11
1436 3rd Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	1436-SG01
1,1,1-Trichloroethane	µg/m³	52,000	0.28 J	0.46 J	0.22
1,1,2,2-Tetrachloroethane	µg/m³	0.42	ND (0.19)	ND (0.23)	ND (0.19)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.15)	ND (0.18)	ND (0.15)
1,1-Dichloroethane	µg/m³	15	0.045 J	0.045 J	ND (0.11)
1,1-Dichloroethene	µg/m³	2,100	ND (0.59)	ND (2.7)	ND (0.055)
1,2,4-Trichlorobenzene	µg/m³	42	ND (5.5)	ND (20)	ND (5.2)
1,2,4-Trimethylbenzene	µg/m³	73	0.34 J	1	1.7
1,2-Dibromoethane	µg/m³	0.041	ND (0.21)	ND (1.3)	ND (1.1)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.9) J	ND (4.1)	ND (0.84)
1,2-Dichloroethane	µg/m³	0.94	0.026 J	0.098 J	0.075 J
1,2-Dichloropropane	µg/m³	2.4	ND (0.12)	ND (0.78)	ND (0.64)
1,3,5-Trimethylbenzene	µg/m³	63	0.14 J	0.36 J	0.36 J
1,3-Dichlorobenzene	µg/m³	2,100	ND (0.9)	ND (4.1)	ND (0.84)
1,4-Dichlorobenzene	µg/m³	2.2	ND (0.9)	ND (4.1)	ND (0.84)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	0.67	0.67	ND (0.5)
Benzene	µg/m³	3.1	0.72	1.2	0.61
Bromomethane	µg/m³	52	1.4	1.4	0.39 J
Carbon tetrachloride	µg/m³	1.6	0.54 J	0.54 J	0.3
Chlorobenzene	µg/m³	520	0.12 J	0.12 J	ND (0.64)
Chloroethane	µg/m³	100,000	ND (0.39)	ND (1.8)	ND (0.37)
Chloroform	µg/m³	1.1	**1.6**	**2.9**	**7.6**
Chloromethane	µg/m³	940	1.4	2.6 J	0.3
cis-1,2-Dichloroethene	µg/m³	NE	ND (0.12)	ND (2.7)	ND (0.11)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.68)	ND (3.1)	ND (0.63)
Ethylbenzene	µg/m³	9.7	0.17	0.73	0.45
Freon 11	µg/m³	7,300	3.5	16	2.2
Freon 12	µg/m³	2,100	2.3	3.2	1.2
Freon 113	µg/m³	310,000	0.74 J	0.87 J	0.54 J
Freon 114	µg/m³	310,000	ND (4.8)	ND (4.8)	ND (0.97)
Hexachlorobutadiene	µg/m³	1.1	ND (1.4)	ND (9)	ND (7.4)
Methyl tert-butyl ether	µg/m³	94	ND (0.54)	ND (2.4)	ND (0.5)
Methylene chloride	µg/m³	52	0.4 J	0.59 J	ND (0.96)
Naphthalene	µg/m³	0.72	**1.3 J**	**1.3 J**	ND (3.6)
Styrene	µg/m³	10,000	0.14 J	0.14 J	0.23 J
Tetrachloroethene	µg/m³	4.1	0.4	**5.2**	1.7
Toluene	µg/m³	52,000	1.1	4.8	1.6
trans-1,2-Dichloroethene	µg/m³	630	ND (0.59)	ND (2.7)	ND (0.55)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.68)	ND (3.1)	ND (0.63)
Trichloroethene	µg/m³	12	0.039 J	0.21	0.045 J
Vinyl chloride	µg/m³	1.6	1.1	1.1	ND (0.036)
Xylenes, m & p	µg/m³	7,300	0.47 J	2	1.8
Xylenes, o	µg/m³	7,300	0.22 J	0.74	0.6

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-12

1436 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1436-OA01
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.073 J	0.11 J	0.099	0.055 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.19)	ND (0.22) J	ND	ND (0.23)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.076)	ND (0.17)	ND	ND (0.18)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.11)	ND (0.13)	ND	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.055)	ND (0.063)	ND	ND (0.067)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (1)	ND (1.2) J	ND	ND (6.2) J
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.15 J	2.4	1.59	0.2 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.21)	ND (0.24)	ND	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.1 J	0.1 J	0.1	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.029 J	0.061 J	0.061	0.054 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.064)	ND (0.15)	ND	ND (0.78)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.062 J	0.86	0.537	0.099 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.074 J	0.074 J	0.074	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.14 J	**0.23**	0.204	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	0.22 J	0.22 J	0.22	ND (0.6)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.24 J	**1.8**	**1.32**	**0.66**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.051 J	0.34	0.295	ND (0.65)
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.47**	**0.63**	**0.568**	**0.46 J**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.022 J	0.048 J	0.048	ND (0.77)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.036 J	0.07 J	0.0689	ND (0.44)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.09 J	**0.39**	**0.284**	ND (0.82)
Chloromethane	µg/m³	94	NE	NE	NE	1	8 J	7.27	0.95
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.11)	ND (0.12)	ND	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.13)	ND (0.14)	ND	ND (0.76)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.13 J	**2.2**	**1.57**	0.2
Freon 11	µg/m³	730	NE	NE	NE	1.3	2.4	1.98	1.3
Freon 12	µg/m³	210	NE	NE	NE	1.8 J	3	2.81	2.4
Freon 113	µg/m³	31,000	NE	NE	NE	0.55	0.74	0.692	0.69 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.14 J	0.14 J	0.14	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.5)	ND (1.7) J	ND	ND (9) J
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	ND (0.5)	ND (0.57)	ND	ND (0.6)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	1.3 J	**11**	**6.99**	0.22 J
Naphthalene	µg/m³	0.072	NE	9	NE	0.069	**0.62 J**	**0.62**	ND (4.4) J
Styrene	µg/m³	1,000	21,000	900	NE	0.037 J	0.34	0.314	ND (0.72)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.18 J	0.31	0.252	0.065 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.68	14	14	1.5
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.55)	ND (0.63)	ND	ND (0.67)

TABLE 4-12

1436 3rd Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	1436-OA01
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.13)	ND (0.14)	ND	ND (0.76)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.058	0.26	0.189	ND (0.18)
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	**0.7 J**	**0.7 J**	**0.627**	ND (0.043)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.34	7.9	7.9	0.53
Xylenes, o	µg/m³	730	22,000	700	NE	0.11 J	2.5	1.65	0.26

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through October 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air data collected from 1436 3rd Street from September 2004 through June 2009.

--- not analyzed
ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-13
320 Center Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	320-SG01
1,1,1-Trichloroethane	µg/m³	52,000	ND (0.73)	ND (0.73)	0.084 J
1,1,2,2-Tetrachloroethane	µg/m³	0.42	ND (0.18)	ND (0.18)	ND (0.22)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.15)	ND (0.15)	ND (0.18)
1,1-Dichloroethane	µg/m³	15	0.17	0.17	ND (0.13)
1,1-Dichloroethene	µg/m³	2,100	ND (0.53)	ND (0.53)	ND (0.064)
1,2,4-Trichlorobenzene	µg/m³	42	ND (5)	ND (5)	ND (6)
1,2,4-Trimethylbenzene	µg/m³	73	0.9	0.9	ND (0.79)
1,2-Dibromoethane	µg/m³	0.041	ND (1)	ND (1)	ND (1.2)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.8)	ND (0.8)	ND (0.97)
1,2-Dichloroethane	µg/m³	0.94	0.026 J	0.026 J	ND (0.13)
1,2-Dichloropropane	µg/m³	2.4	ND (0.62)	ND (0.62)	ND (0.74)
1,3,5-Trimethylbenzene	µg/m³	63	0.2 J	0.2 J	ND (0.79)
1,3-Dichlorobenzene	µg/m³	2,100	ND (0.8)	ND (0.8)	ND (0.97)
1,4-Dichlorobenzene	µg/m³	2.2	ND (0.8)	ND (0.8)	ND (0.97)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.48)	ND (0.48)	ND (0.58)
Benzene	µg/m³	3.1	1.1	1.1	0.61
Bromomethane	µg/m³	52	1.4	1.4	0.36 J
Carbon tetrachloride	µg/m³	1.6	ND (0.84)	ND (0.84)	0.21
Chlorobenzene	µg/m³	520	ND (0.62)	ND (0.62)	ND (0.74)
Chloroethane	µg/m³	100,000	ND (0.35)	ND (0.35)	ND (0.42)
Chloroform	µg/m³	1.1	1.1	1.1	0.81
Chloromethane	µg/m³	940	1.1	1.1	0.62
cis-1,2-Dichloroethene	µg/m³	NE	ND (0.11)	ND (0.11)	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.61)	ND (0.61)	ND (0.73)
Ethylbenzene	µg/m³	9.7	0.28	0.28	0.065 J
Freon 11	µg/m³	7,300	1.3	1.3	1.4
Freon 12	µg/m³	2,100	1.5	1.5	1.2
Freon 113	µg/m³	310,000	0.55 J	0.55 J	0.37 J
Freon 114	µg/m³	310,000	---	---	ND (1.1)
Hexachlorobutadiene	µg/m³	1.1	ND (7.1)	ND (7.1)	ND (8.6)
Methyl tert-butyl ether	µg/m³	94	ND (0.48)	ND (0.48)	ND (0.58)
Methylene chloride	µg/m³	52	ND (0.93) J	ND (0.93) J	ND (1.1)
Naphthalene	µg/m³	0.72	ND (3.5)	ND (3.5)	ND (4.2) J
Styrene	µg/m³	10,000	ND (0.57)	ND (0.57)	ND (0.68)
Tetrachloroethene	µg/m³	4.1	**5.5**	**5.5**	0.99
Toluene	µg/m³	52,000	1.4	1.4	0.7
trans-1,2-Dichloroethene	µg/m³	630	ND (0.53)	ND (0.53)	ND (0.64)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.61)	ND (0.61)	ND (0.73)
Trichloroethene	µg/m³	12	0.19	0.19	0.016 J
Vinyl chloride	µg/m³	1.6	**4.4**	**4.4**	ND (0.041)
Xylenes, m & p	µg/m³	7,300	0.79	0.79	0.12 J
Xylenes, o	µg/m³	7,300	0.29 J	0.29 J	0.054 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from October 2008 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-14

320 Center Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2008[4] Crawl Space Air Results Min	Max	EPC[5]	320-CA01	320-CA02
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.068 J	0.12 J	0.117	0.14 J	0.052 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.058) J	ND (0.21)	ND	ND (0.25)	ND (0.22)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.072)	ND (0.084)	ND	ND (0.2)	ND (0.17)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.11)	ND (0.12)	ND	ND (0.15)	ND (0.13)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.052)	ND (0.061)	ND	ND (0.072)	ND (0.063)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (0.24) J	ND (1.2) J	ND	ND (6.8)	ND (5.9)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.22 J	2	1.94	0.37 J	0.45 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.2)	ND (0.24)	ND	ND (1.4)	ND (1.2)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.054) J	ND (0.19)	ND	ND (1.1)	ND (0.95)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.037 J	**1.2**	**1.17**	**0.26**	**0.31**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.14	0.14	0.14	ND (0.84)	ND (0.73)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.069 J	0.74	0.678	0.14 J	0.14 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.018) J	ND (0.19)	ND	ND (1.1)	ND (0.95)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**1.4**	**1.4**	**0.916**	**0.35 J**	**0.34 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.48)	ND (0.56)	ND	ND (0.66)	ND (0.57)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.3	**2**	**1.32**	**0.66**	**0.54**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.087 J	0.18 J	0.353	0.49 J	0.32 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.44**	**0.6**	**0.537**	**0.37**	**0.37**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.032 J	0.032 J	0.032	ND (0.84)	ND (0.73)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.029 J	0.029 J	0.029	ND (0.48)	ND (0.42)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.14**	**0.56**	**0.352**	ND (0.89)	ND (0.77)
Chloromethane	µg/m³	94	NE	NE	NE	0.88	1	1.04	1.1	0.83
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.1)	ND (0.12)	ND	ND (0.14)	ND (0.12)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.053 J	0.053 J	0.053	ND (0.83)	ND (0.72)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.36	**1.8**	**1.67**	0.45	0.47
Freon 11	µg/m³	730	NE	NE	NE	1.4	3.5	2.71	1.2	1.2
Freon 12	µg/m³	210	NE	NE	NE	2.1	2.7	2.5	1.9	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.53	0.72	0.64	0.45 J	0.43 J
Freon 114	µg/m³	31,000	NE	NE	NE	---	---	---	ND (1.3)	ND (1.1)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.4)	ND (1.6) J	ND	ND (9.8)	ND (8.4)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.022 J	0.022 J	0.022	ND (0.66)	ND (0.57)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	4.4	4.4	4.4	0.57 J	0.51 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND (0.22) J	ND (4.1) J	ND	ND (4.8)	ND (4.1)
Styrene	µg/m³	1,000	21,000	900	NE	0.074 J	0.51	0.462	0.31 J	0.35 J
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.14 J	**0.71**	**0.539**	0.28	0.21 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	3	17	14.1	16	9.6
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.52)	ND (0.61)	ND	ND (0.72)	ND (0.63)

TABLE 4-14

320 Center Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2008[4] Crawl Space Air Results Min	Max	EPC[5]	320-CA01	320-CA02
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.047 J	0.047 J	0.047	ND (0.83)	ND (0.72)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.051	**1.8**	1.19	0.99	0.68
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND (0.034)	ND (0.04)	0.0202	0.021 J	0.019 J
Xylenes, m & p	µg/m³	730	22,000	700	NE	1.3	6.3	5.8	1.4	1.4
Xylenes, o	µg/m³	730	22,000	700	NE	0.25	2.2	2.02	0.35	0.4

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from August 2008 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 320 Center Street from August 2008 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-15

320 Center Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	320-IA01 (One unit)	320-IA02 (One unit)	320-IA03 (One unit)	320-IA04 (One unit)	320-IA05 (One unit)
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.117	0.34	0.34	0.39	0.3	0.53
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND	ND (0.24)	ND (0.31)	ND (0.26)	ND (0.26)	ND (0.25)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND	ND (0.19)	ND (0.24)	ND (0.2)	ND (0.2)	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND	ND (0.14)	ND (0.18)	ND (0.15)	ND (0.15)	ND (0.15)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND	ND (0.069)	ND (0.088)	ND (0.074)	ND (0.074)	ND (0.072)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND	ND (6.5) J	ND (8.3) J	ND (6.9) J	ND (6.9)	ND (6.8) J
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	1.94	0.57 J	0.74 J	0.62 J	0.66 J	0.59 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND	ND (1.3)	ND (1.7)	ND (1.4)	ND (1.4)	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (1)	ND (1.3)	ND (1.1)	ND (1.1)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	**1.17**	**2**	**2**	**1.6**	**1.9**	**1.6**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.14	ND (0.81)	ND (1)	ND (0.86)	ND (0.86)	ND (0.84)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	0.678	0.19 J	0.2 J	0.18 J	0.17 J	0.15 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (1)	ND (1.3)	ND (1.1)	ND (1.1)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**0.916**	**5.4**	**5.5**	**7.6**	**5.9**	**7.3**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND	ND (0.63)	ND (0.8)	ND (0.67)	ND (0.67)	ND (0.66)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**1.32**	**1.3**	**1.5**	**1.6**	**1.6**	**1.5**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.353	0.51 J	0.49 J	0.67 J	0.52 J	0.44 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.537**	**0.56**	**0.41**	**0.44**	**0.38**	**0.43**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.032	ND (0.8)	ND (1)	ND (0.86)	ND (0.86)	ND (0.84)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.029	ND (0.46)	ND (0.59)	ND (0.49)	ND (0.49)	ND (0.48)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.352**	**4.5**	**6.4**	**5.4**	**4.3**	**5.8**
Chloromethane	µg/m³	94	NE	NE	NE	1.04	1.2	1.5	1.3	1.2	1.3
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND	ND (0.14)	ND (0.18)	ND (0.15)	ND (0.15)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.053	ND (0.79)	ND (1)	ND (0.85)	ND (0.85)	ND (0.83)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	**1.67**	0.65	0.81	0.81	0.68	0.72
Freon 11	µg/m³	730	NE	NE	NE	2.71	1.1	1.2 J	1 J	1.3	1.2
Freon 12	µg/m³	210	NE	NE	NE	2.5	2	1.9	2	1.9	1.8
Freon 113	µg/m³	31,000	NE	NE	NE	0.64	0.52 J	0.42 J	0.36 J	0.4 J	0.42 J
Freon 114	µg/m³	31,000	NE	NE	NE	---	ND (1.2)	ND (1.6)	ND (1.3)	ND (1.3)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND	ND (9.3)	ND (12)	ND (10)	ND (10)	ND (9.8)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.022	ND (0.63)	ND (0.8)	ND (0.67)	ND (0.67)	ND (0.66)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	4.4	0.56 J	0.58 J	0.54 J	0.4 J	0.41 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND	**0.96 J**	**0.87 J**	**0.88 J**	**0.82 J**	ND (4.8) J
Styrene	µg/m³	1,000	21,000	900	NE	0.462	0.86	1.2	0.93	0.78 J	0.82
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	**0.539**	0.25	0.41	0.36	0.23 J	0.24 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	14.1	11	9.3	8.5	9.4	9.4
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND	ND (0.69)	ND (0.88)	ND (0.74)	ND (0.74)	ND (0.72)

TABLE 4-15

320 Center Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	320-IA01 (One unit)	320-IA02 (One unit)	320-IA03 (One unit)	320-IA04 (One unit)	320-IA05 (One unit)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.047	ND (0.79)	ND (1)	ND (0.85)	ND (0.85)	ND (0.83)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	1.19	0.037 J	0.085 J	0.12 J	0.037 J	0.044 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.0202	ND (0.045)	ND (0.057)	ND (0.048)	ND (0.048)	ND (0.047)
Xylenes, m & p	µg/m³	730	22,000	700	NE	5.8	2.1	2.3	2.5	2.2	2.3
Xylenes, o	µg/m³	730	22,000	700	NE	2.02	0.74	0.84	0.82	0.73	0.78

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 320 Center Street from August 2008 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-16

320 Center Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2008[4] Outdoor Air Results Min	Max	EPC[5]	320-OA01
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.065 J	0.096 J	0.0868	0.053 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.03) J	ND (0.28)	ND	ND (0.24)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.083)	ND (0.11)	ND	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.12)	ND (0.16)	ND	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.06)	ND (0.08)	ND	ND (0.071)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (1.1) J	ND (1.5)	ND	ND (6.6) J
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.13 J	2.4	1.72	0.99
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.23)	ND (0.31)	ND	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.18)	ND (0.24)	ND	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.031 J	0.09 J	0.0785	0.054 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.07)	ND (0.093)	ND	ND (0.83)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.045 J	0.83	0.83	0.3 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.18)	ND (0.24)	ND	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.19	0.19	0.19	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.55)	ND (0.72)	ND	ND (0.64)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.26 J	**1.8**	**1.35**	0.31
Bromomethane	µg/m³	5.2	3,900	5	NE	0.047 J	0.18 J	0.18	ND (0.7)
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.47**	**0.56**	**0.546**	**0.48 J**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.02 J	0.02 J	0.02	ND (0.82)
Chloroethane	µg/m³	10,000	NE	30,000	NE	ND (0.2)	ND (0.26)	ND	ND (0.47)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.12 J**	**0.35**	**0.311**	ND (0.87)
Chloromethane	µg/m³	94	NE	NE	NE	0.78	1.1	1.1	0.9
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.16)	ND	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.046 J	0.046 J	0.046	ND (0.81)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.13 J	**1.8**	**1.27**	0.18
Freon 11	µg/m³	730	NE	NE	NE	1.3	3.5	3.09	1.3
Freon 12	µg/m³	210	NE	NE	NE	2.2	2.8	2.66	2.4
Freon 113	µg/m³	31,000	NE	NE	NE	0.56 J	0.8	0.736	ND (1.4)
Freon 114	µg/m³	31,000	NE	NE	NE	---	---	---	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.6) J	ND (2.1) J	ND	ND (9.5) J
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	ND (0.55)	ND (0.72) J	ND	ND (0.64)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	1.1	4.2	3.01	0.3 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND (0.17) J	ND (4.8)	**1.9**	**1.9 J**
Styrene	µg/m³	1,000	21,000	900	NE	0.053 J	0.35	0.315	ND (0.76)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.078 J	0.27	0.27	0.063 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.91	11	8.71	1.1
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.6)	ND (0.8)	ND	ND (0.71)

TABLE 4-16

320 Center Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2008[4] Outdoor Air Results Min	Max	EPC[5]	320-OA01
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.037 J	0.037 J	0.037	ND (0.81)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.028 J	0.1	0.1	0.029 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND (0.039)	ND (0.051)	ND	ND (0.046)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.41	6.4	6.4	0.78
Xylenes, o	µg/m³	730	22,000	700	NE	0.14 J	2.2	2.2	0.47

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from August 2008 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air data collected from 320 Center Street from August 2008 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-17

326 Center Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Crawl Space Air Results Min	Max	EPC[5]	326-CA01
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.061 J	0.11 J	0.0864	0.052 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	**0.58**	**0.58**	**0.39**	ND (0.26)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	0.076 J	0.076 J	0.076	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	0.015 J	0.015 J	0.015	ND (0.15)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.053)	ND (0.068)	ND	ND (0.074)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (0.15) J	ND (1.2) J	ND	ND (6.9)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.069 J	1.4	1.08	0.12 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.2)	ND (0.26)	ND	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.13 J	0.13 J	0.13	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.03 J	**1.9**	**1.57**	0.068 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.027 J	0.18	0.102	ND (0.86)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.04 J	0.39	0.22	ND (0.92)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.096 J	0.096 J	0.096	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.088 J	**6**	**2.31**	**0.27 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	0.18 J	0.18 J	0.18	ND (0.67)
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.28	**1.7**	**0.978**	**0.34**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.047 J	0.38	0.204	ND (0.73)
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.42**	**0.55**	**0.519**	**0.51 J**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.026 J	0.035 J	0.033	ND (0.86)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.023 J	0.074 J	0.0607	ND (0.49)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.091 J	**0.53**	**0.278**	ND (0.91)
Chloromethane	µg/m³	94	NE	NE	NE	0.73	1.3	1.06	0.83
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	0.018 J	0.018 J	0.018	ND (0.15)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.039 J	0.039 J	0.039	ND (0.85)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.11 J	**1.5**	**1**	0.16
Freon 11	µg/m³	730	NE	NE	NE	1.2	3.4	2.14	1.4
Freon 12	µg/m³	210	NE	NE	NE	2.1	3.4	2.84	2.3
Freon 113	µg/m³	31,000	NE	NE	NE	0.53	0.7	0.668	0.64 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.11 J	0.11 J	0.11	ND (1.3)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	**0.68 J**	**0.68 J**	**0.68**	ND (10)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.015 J	0.016 J	0.016	ND (0.67) J
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	0.72 J	**5.4**	2.12	0.3 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND (0.28) J	ND (4.5) J	ND	ND (4.9)
Styrene	µg/m³	1,000	21,000	900	NE	0.1 J	1.2	0.541	ND (0.8)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.19	**0.73**	**0.469**	0.075 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	1	28	16.2	4
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.53)	ND (0.68)	ND	ND (0.74)

TABLE 4-17

326 Center Street Analytical Results - Comparison of Historical and June 2009 Crawl Space Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Crawl Space Air Results Min	Max	EPC[5]	326-CA01
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.12)	ND (0.16)	ND	ND (0.85)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.07	**2.5**	**1.69**	0.35
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.022 J	0.061	0.0357	0.023 J
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.16 J	6.8	3.78	0.54
Xylenes, o	µg/m³	730	22,000	700	NE	0.046 J	1.5	0.913	0.1 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through December 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 326 Center Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-18

326 Center Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	326-IA01 (Upstairs)	326-IA02 (Upstairs)	326-IA03 (Upstairs)	326-IA04 (Upstairs)
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.0864	0.053 J	0.067 J	0.054 J	0.048 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	**0.39**	ND (0.26)	ND (0.46)	ND (0.23)	**0.058 J**
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	0.076	ND (0.2)	ND (0.37)	ND (0.19)	ND (0.21)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	0.015	ND (0.15)	ND (0.27)	ND (0.14)	ND (0.15)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND	ND (0.074)	ND (0.13)	ND (0.068)	ND (0.076)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND	ND (6.9) J	ND (12) J	ND (6.3) J	ND (7.1)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	1.08	0.23 J	0.21 J	0.26 J	0.22 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND	ND (1.4)	ND (2.6)	ND (1.3)	ND (1.5)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.13	ND (1.1)	ND (2)	ND (1)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	**1.57**	**0.14 J**	**0.16 J**	**0.14**	**0.12 J**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.102	ND (0.86)	ND (1.6)	ND (0.79)	ND (0.88)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	0.22	ND (0.92)	ND (1.6)	ND (0.84)	ND (0.94)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	0.096	ND (1.1)	ND (2)	ND (1)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	**2.31**	**0.26 J**	ND (2)	**0.57 J**	0.22 J
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	0.18	ND (0.67)	ND (1.2)	ND (0.62)	ND (0.69)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**0.978**	**0.34**	**0.42 J**	**0.37**	**0.35**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.204	ND (0.73)	ND (1.3)	ND (0.66)	ND (0.74)
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.519**	**0.52 J**	**0.43 J**	**0.57 J**	**0.51 J**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.033	ND (0.86)	ND (1.5)	ND (0.79)	ND (0.88)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.0607	ND (0.49)	ND (0.89)	ND (0.45)	ND (0.5)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.278**	**0.97**	**0.8 J**	**1**	**1.3**
Chloromethane	µg/m³	94	NE	NE	NE	1.06	1.1	0.99	1.1	1
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	0.018	ND (0.15)	ND (0.27)	ND (0.14)	ND (0.15)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.039	ND (0.85)	ND (1.5)	ND (0.78)	ND (0.87)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	**1**	0.19	0.18 J	0.18	0.19
Freon 11	µg/m³	730	NE	NE	NE	2.14	1.4	1.4 J	1.6	1.5
Freon 12	µg/m³	210	NE	NE	NE	2.84	2.4	2.6	2.4	2.4
Freon 113	µg/m³	31,000	NE	NE	NE	0.668	0.66 J	ND (2.6)	ND (1.3)	ND (1.5)
Freon 114	µg/m³	31,000	NE	NE	NE	0.11	ND (1.3)	ND (2.3)	ND (1.2)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	**0.68**	ND (10) J	ND (18) J	ND (9.1) J	ND (10)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.016	ND (0.67)	ND (1.2)	ND (0.62)	ND (0.69) J
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	2.12	0.27 J	ND (2.3)	0.25 J	0.34 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND	ND (4.9) J	ND (8.8) J	ND (4.5) J	ND (5)
Styrene	µg/m³	1,000	21,000	900	NE	0.541	ND (0.8)	ND (1.4)	ND (0.73)	ND (0.81)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	**0.469**	0.098 J	0.083 J	0.092 J	0.077 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	16.2	2.6	4.6	2.2	1.8
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND	ND (0.74)	ND (1.3)	ND (0.68)	ND (0.76)

TABLE 4-18

326 Center Street Analytical Results - Comparison of Historical Crawl Space EPCs and June 2009 Indoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	326-IA01 (Upstairs)	326-IA02 (Upstairs)	326-IA03 (Upstairs)	326-IA04 (Upstairs)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND	ND (0.85)	ND (1.5)	ND (0.78)	ND (0.87)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	**1.69**	0.09 J	0.05 J	0.064 J	0.064 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	0.0357	ND (0.048)	ND (0.086)	ND (0.044)	ND (0.049)
Xylenes, m & p	µg/m³	730	22,000	700	NE	3.78	0.5	0.39 J	0.46	0.51
Xylenes, o	µg/m³	730	22,000	700	NE	0.913	0.17	0.16 J	0.14 J	0.17

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 326 Center Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-19
356 Center Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	356-SG01
1,1,1-Trichloroethane	µg/m³	52,000	ND (0.77)	ND (14)	0.056 J
1,1,2,2-Tetrachloroethane	µg/m³	0.42	ND (0.19)	ND (0.52)	ND (0.4)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.15)	ND (0.42)	ND (0.32)
1,1-Dichloroethane	µg/m³	15	0.018 J	0.018 J	ND (0.24)
1,1-Dichloroethene	µg/m³	2,100	ND (0.56)	ND (9.9)	ND (0.12)
1,2,4-Trichlorobenzene	µg/m³	42	ND (5.2)	ND (74)	ND (11)
1,2,4-Trimethylbenzene	µg/m³	73	0.28 J	8	0.36 J
1,2-Dibromoethane	µg/m³	0.041	ND (0.21)	ND (1.2)	ND (2.2)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.85) J	ND (15)	ND (1.8)
1,2-Dichloroethane	µg/m³	0.94	0.018 J	0.047 J	0.072 J
1,2-Dichloropropane	µg/m³	2.4	ND (0.12)	ND (0.7)	ND (1.3)
1,3,5-Trimethylbenzene	µg/m³	63	ND (0.69)	ND (12)	ND (1.4)
1,3-Dichlorobenzene	µg/m³	2,100	21	21	ND (1.8)
1,4-Dichlorobenzene	µg/m³	2.2	ND (0.85)	ND (15)	ND (1.8)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.51)	ND (36)	ND (1)
Benzene	µg/m³	3.1	0.5	2.4	0.72
Bromomethane	µg/m³	52	ND (0.55)	ND (9.7)	0.58 J
Carbon tetrachloride	µg/m³	1.6	0.3 J	0.51	0.31 J
Chlorobenzene	µg/m³	520	ND (0.65)	ND (11)	ND (1.3)
Chloroethane	µg/m³	100,000	0.69	0.69	ND (0.77)
Chloroform	µg/m³	1.1	0.98	**1.2**	ND (1.4)
Chloromethane	µg/m³	940	0.7 J	6.9 J	0.79
cis-1,2-Dichloroethene	µg/m³	NE	ND (0.11)	ND (9.9)	ND (0.23)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.64)	ND (11)	ND (1.3)
Ethylbenzene	µg/m³	9.7	0.11 J	3.5	0.22 J
Freon 11	µg/m³	7,300	1.1	4.8	1.2 J
Freon 12	µg/m³	2,100	1.7	2.3	2
Freon 113	µg/m³	310,000	0.65 J	0.65 J	0.43 J
Freon 114	µg/m³	310,000	ND (4.8)	ND (17)	ND (2)
Hexachlorobutadiene	µg/m³	1.1	ND (1.4)	ND (8.1)	ND (16)
Methyl tert-butyl ether	µg/m³	94	ND (0.51)	ND (9)	ND (1)
Methylene chloride	µg/m³	52	0.34 J	0.72 J	ND (2)
Naphthalene	µg/m³	0.72	0.57 J	**0.75 J**	ND (7.6) J
Styrene	µg/m³	10,000	0.12 J	0.12 J	ND (1.2)
Tetrachloroethene	µg/m³	4.1	0.13 J	3.3	0.37 J
Toluene	µg/m³	52,000	0.78	9.9	1.3
trans-1,2-Dichloroethene	µg/m³	630	ND (0.56)	ND (9.9)	ND (1.2)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.64)	ND (11)	ND (1.3)
Trichloroethene	µg/m³	12	0.02 J	0.13 J	0.053 J
Vinyl chloride	µg/m³	1.6	ND (0.035)	ND (0.098)	ND (0.075)
Xylenes, m & p	µg/m³	7,300	0.34 J	13	0.64
Xylenes, o	µg/m³	7,300	0.24 J	4.8	0.26

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through September 2007

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-20
360 Center Street Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	360-SG01 (PropFSGb)
1,1,1-Trichloroethane	µg/m³	52,000	ND (0.72)	ND (4.5)	0.078 J
1,1,2,2-Tetrachloroethane	µg/m³	0.42	0.076 J	0.34	ND (0.26)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.14)	ND (0.37)	ND (0.21)
1,1-Dichloroethane	µg/m³	15	0.022 J	0.066 J	ND (0.15)
1,1-Dichloroethene	µg/m³	2,100	ND (0.52)	ND (3.2)	ND (0.076)
1,2,4-Trichlorobenzene	µg/m³	42	ND (4.9)	ND (24)	ND (7.1)
1,2,4-Trimethylbenzene	µg/m³	73	0.21 J	5.7	0.33 J
1,2-Dibromoethane	µg/m³	0.041	ND (0.21)	ND (2.6)	ND (1.5)
1,2-Dichlorobenzene	µg/m³	2,100	0.71 J	0.71 J	ND (1.1)
1,2-Dichloroethane	µg/m³	0.94	0.028 J	0.14	ND (0.15)
1,2-Dichloropropane	µg/m³	2.4	ND (0.12)	ND (1.6)	ND (0.88)
1,3,5-Trimethylbenzene	µg/m³	63	0.23 J	0.69 J	ND (0.94)
1,3-Dichlorobenzene	µg/m³	2,100	26	26	ND (1.1)
1,4-Dichlorobenzene	µg/m³	2.2	0.32 J	0.32 J	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.48)	ND (12)	0.56 J
Benzene	µg/m³	3.1	0.36	**3.6**	1
Bromomethane	µg/m³	52	0.4 J	1.4	0.6 J
Carbon tetrachloride	µg/m³	1.6	0.22	0.73 J	0.22 J
Chlorobenzene	µg/m³	520	ND (0.61)	ND (3.8)	ND (0.88)
Chloroethane	µg/m³	100,000	0.25 J	1.4	ND (0.5)
Chloroform	µg/m³	1.1	0.28 J	**9.4**	**6.9**
Chloromethane	µg/m³	940	0.4	10 J	0.9
cis-1,2-Dichloroethene	µg/m³	NE	ND (0.1)	ND (3.2)	ND (0.15)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.6) J	ND (3.7)	ND (0.87)
Ethylbenzene	µg/m³	9.7	0.14	1.1	0.18
Freon 11	µg/m³	7,300	1	4.5	1.4
Freon 12	µg/m³	2,100	0.83 J	3.2 J	1.1
Freon 113	µg/m³	310,000	0.5 J	0.76 J	0.42 J
Freon 114	µg/m³	310,000	ND (4.8)	ND (5.7)	ND (1.3)
Hexachlorobutadiene	µg/m³	1.1	ND (1.4)	ND (18)	ND (10)
Methyl tert-butyl ether	µg/m³	94	ND (0.48)	ND (3)	ND (0.69)
Methylene chloride	µg/m³	52	0.19 J	0.43 J	0.36 J
Naphthalene	µg/m³	0.72	**0.81 J**	**1.3 J**	**0.97 J**
Styrene	µg/m³	10,000	0.15 J	0.77	0.21 J
Tetrachloroethene	µg/m³	4.1	0.06 J	1.7	**4.7**
Toluene	µg/m³	52,000	0.58	10	1
trans-1,2-Dichloroethene	µg/m³	630	0.09 J	0.09 J	ND (0.76)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.6)	ND (3.7)	ND (0.87)
Trichloroethene	µg/m³	12	0.022 J	0.2	0.11 J
Vinyl chloride	µg/m³	1.6	0.018 J	**2**	ND (0.049)
Xylenes, m & p	µg/m³	7,300	0.4 J	8.3	0.42
Xylenes, o	µg/m³	7,300	0.18 J	3	0.25

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-21

360 Center Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	360-OA01
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.075 J	0.12 J	0.103	0.048 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.21)	ND (0.26)	ND	ND (0.24)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.084)	ND (0.2)	ND	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.12)	ND (0.15)	ND	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.06)	ND (0.074)	ND	ND (0.071)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (1.1) J	ND (1.4) J	ND	ND (6.6)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.083 J	5.8	5.8	0.87 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.23)	ND (0.28)	ND	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.18) J	ND (0.22) J	ND	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.034 J	0.066 J	**0.106**	**0.15**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.072)	ND (0.17)	ND	ND (0.83)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.03 J	1.9	1.12	0.28 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.18)	ND (0.22) J	ND	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.16 J	**0.28 J**	**0.243**	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	ND (0.55)	ND (0.67)	**0.36**	**0.36 J**
Benzene	µg/m³	0.31	1,300	60	**0.96**	0.28	**2**	**1.47**	**0.36**
Bromomethane	µg/m³	5.2	3,900	5	NE	0.043 J	0.18 J	0.311	0.5 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.46**	**0.83**	**0.666**	**0.41**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.031 J	0.052 J	0.052	ND (0.82)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.029 J	0.075 J	0.075	ND (0.47)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.078 J	**0.37**	**0.272**	ND (0.87)
Chloromethane	µg/m³	94	NE	NE	NE	0.97	1.2	1.18	0.86
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.15)	ND	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.14)	ND (0.17)	ND	ND (0.81)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.089 J	**3.5**	**3.5**	0.35
Freon 11	µg/m³	730	NE	NE	NE	1.1	1.7	1.63	1.1
Freon 12	µg/m³	210	NE	NE	NE	1.7 J	2.6	2.6	1.9
Freon 113	µg/m³	31,000	NE	NE	NE	0.57	0.63	0.626	0.45 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.12 J	0.12 J	0.12	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.6) J	ND (2)	ND	ND (9.5)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	ND (0.55)	ND (0.67)	ND	ND (0.64)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	2.2	5.1	3.25	0.42 J
Naphthalene	µg/m³	0.072	NE	9	NE	0.041	0.041	0.041	ND (4.7) J
Styrene	µg/m³	1,000	21,000	900	NE	0.028 J	0.55	0.397	0.18 J
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.2 J	0.4	0.322	0.093 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	0.54	34	34	3.3
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.6)	ND (0.74)	ND	ND (0.71)

TABLE 4-21

360 Center Street Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2004 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	360-OA01
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.14)	ND (0.17)	ND	ND (0.81)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.11	0.23	0.151	0.026 J
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND (0.039)	ND (0.048)	ND	ND (0.046)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.23 J	12	12	1.1
Xylenes, o	µg/m³	730	22,000	700	NE	0.084 J	3.4	3.4	0.43

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from September 2004 through October 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Crawl Space Air data collected from 360 Center Street from September 2004 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-22
Prescott Park Analytical Results - Comparison of Historical and June 2009 Soil Gas Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Historical[2] Soil Gas Results Min	Historical[2] Soil Gas Results Max	Park-SG01	Park-SG02 (PP-SG-02)
1,1,1-Trichloroethane	µg/m³	52,000	7.8	7.8	0.078 J	0.23
1,1,2,2-Tetrachloroethane	µg/m³	0.42	0.14 J	0.17 J	ND (0.22)	ND (0.23)
1,1,2-Trichloroethane	µg/m³	1.5	ND (0.11)	ND (0.68)	ND (0.18)	ND (0.19)
1,1-Dichloroethane	µg/m³	15	0.032 J	1	ND (0.13)	0.06 J
1,1-Dichloroethene	µg/m³	2,100	ND (0.4)	ND (8.5)	ND (0.065)	ND (0.068)
1,2,4-Trichlorobenzene	µg/m³	42	ND (3.7)	ND (64)	ND (6.1)	ND (6.3)
1,2,4-Trimethylbenzene	µg/m³	73	0.19 J	8.9	0.31 J	ND (0.84)
1,2-Dibromoethane	µg/m³	0.041	ND (0.2)	ND (4.8)	ND (1.3)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	2,100	ND (0.6)	ND (13)	ND (0.99)	ND (1)
1,2-Dichloroethane	µg/m³	0.94	0.017 J	0.21	ND (0.13)	0.026 J
1,2-Dichloropropane	µg/m³	2.4	ND (0.12)	ND (2.9)	ND (0.76)	ND (0.79)
1,3,5-Trimethylbenzene	µg/m³	63	0.11 J	1.9	ND (0.81)	ND (0.84)
1,3-Dichlorobenzene	µg/m³	2,100	ND (0.6)	ND (13)	ND (0.99)	ND (1)
1,4-Dichlorobenzene	µg/m³	2.2	0.31 J	0.31 J	ND (0.99)	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	3.2	ND (0.36)	ND (31)	ND (0.59)	ND (0.62)
Benzene	µg/m³	3.1	0.4	**14**	0.8	0.8
Bromomethane	µg/m³	52	1.2	2.3	2.1 J	1.8 J
Carbon tetrachloride	µg/m³	1.6	0.056 J	0.56 J	0.36	0.24
Chlorobenzene	µg/m³	520	ND (0.46)	ND (9.9)	ND (0.76)	ND (0.79)
Chloroethane	µg/m³	100,000	0.35 J	0.35 J	ND (0.43)	ND (0.45)
Chloroform	µg/m³	1.1	0.66 J	**590**	**14**	**94**
Chloromethane	µg/m³	940	0.45	1.4	0.3 J	0.35
cis-1,2-Dichloroethene	µg/m³	NE	0.019 J	20	ND (0.13)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	6.1	ND (0.45) J	ND (9.8)	ND (0.74)	ND (0.78)
Ethylbenzene	µg/m³	9.7	0.18	1.4	0.17	0.11 J
Freon 11	µg/m³	7,300	0.94	11	1.7	2
Freon 12	µg/m³	2,100	0.94	2.3 J	1.9	2
Freon 113	µg/m³	310,000	0.46 J	0.83 J	0.47 J	0.47 J
Freon 114	µg/m³	310,000	ND (4.7)	ND (15) J	ND (1.1)	ND (1.2)
Hexachlorobutadiene	µg/m³	1.1	ND (1.4) J	ND (33)	ND (8.7)	ND (9.1)
Methyl tert-butyl ether	µg/m³	94	ND (0.36)	ND (7.8)	ND (0.59)	ND (0.62)
Methylene chloride	µg/m³	52	0.43 J	5.8	0.31 J	0.3 J
Naphthalene	µg/m³	0.72	0.36 J	**29**	ND (4.3)	ND (4.5)
Styrene	µg/m³	10,000	0.14 J	0.85	ND (0.7)	ND (0.73)
Tetrachloroethene	µg/m³	4.1	0.041 J	**60**	**41**	3
Toluene	µg/m³	52,000	0.6	38	1.4	1.2
trans-1,2-Dichloroethene	µg/m³	630	0.039 J	0.14 J	ND (0.65)	ND (0.68)
trans-1,3-Dichloropropene	µg/m³	6.1	ND (0.45)	ND (9.8)	ND (0.74)	ND (0.78)
Trichloroethene	µg/m³	12	0.029 J	4.5	0.082 J	0.31
Vinyl chloride	µg/m³	1.6	0.012 J	**2.7**	ND (0.042)	ND (0.044)
Xylenes, m & p	µg/m³	7,300	0.41 J	11	0.46	0.27 J
Xylenes, o	µg/m³	7,300	0.17 J	2.4	0.23	0.16

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Historical results are from samples collected from September 2004 through October 2008

---	not analyzed
ND	not detected above the laboratory's reporting limit shown in parentheses
NE	not established
J	estimated value
µg/m³	micrograms per cubic meter

TABLE 4-23

Prescott Park Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2005 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	PP-BGA02	PP-BGA03
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.08 J	0.11 J	0.0983	0.056 J	0.045 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	0.024 J	0.024 J	0.024	ND (0.25)	ND (0.23)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.084)	ND (0.17)	ND	ND (0.2)	ND (0.19)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.12)	ND (0.13)	ND	ND (0.15)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.061)	ND (0.065)	ND	ND (0.072)	ND (0.068)
1,2,4-Trichlorobenzene	µg/m³	4.2	NE	NE	NE	ND (1.2) J	ND (1.2) J	ND	ND (6.8)	ND (6.3)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.11 J	0.91	0.751	0.48 J	ND (0.84)
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND (0.24)	ND (0.25) J	ND	ND (1.4)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.19) J	ND (0.2) J	ND	ND (1.1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.061 J	0.061 J	**0.183**	**0.29**	0.052 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.072)	ND (0.15)	ND	ND (0.84)	ND (0.79)
1,3,5-Trimethylbenzene	µg/m³	6.3	NE	NE	NE	0.04 J	0.27	0.245	0.15 J	ND (0.84)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.19) J	ND (0.2) J	ND	ND (1.1)	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	ND (0.088) J	ND (0.2) J	ND	ND (1.1)	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	**0.96**	**0.96**	**0.891**	ND (0.66)	ND (0.62)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**0.4**	**1.3**	**0.937**	**0.41**	0.23 J
Bromomethane	µg/m³	5.2	3,900	5	NE	0.062 J	0.15 J	1.12	0.39 J	2 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.46**	**0.64**	**0.577**	**0.53**	**0.43**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.024 J	0.034 J	0.034	ND (0.84)	ND (0.79)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.021 J	0.1 J	0.0833	ND (0.48)	ND (0.45)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	0.093 J	**0.51**	**0.373**	ND (0.89)	ND (0.83)
Chloromethane	µg/m³	94	NE	NE	NE	1.2	1.2	1.2	1	0.62
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	0.038 J	0.038 J	0.038	ND (0.14)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.14)	ND (0.15) J	ND	ND (0.83)	ND (0.78)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.16	0.86	0.651	0.4	0.084 J
Freon 11	µg/m³	730	NE	NE	NE	1.4	2	1.84	1.4	1
Freon 12	µg/m³	210	NE	NE	NE	2.4	3	2.8	1.9 J	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.58	0.73	0.719	0.72 J	0.45 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (0.22)	ND (0.22)	ND	ND (1.3)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (1.6) J	ND (1.7) J	ND	ND (9.8)	ND (9.1)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.0097 J	0.0097 J	0.0097	ND (0.66)	ND (0.62)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	ND (0.84) J	ND (1.1) J	0.4	0.4 J	0.24 J
Naphthalene	µg/m³	0.072	NE	9	NE	ND (4.1)	ND (4.3)	ND	ND (4.8) J	ND (4.5)
Styrene	µg/m³	1,000	21,000	900	NE	0.048 J	0.24	0.231	0.24 J	ND (0.73)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.065 J	**0.42**	0.314	0.3	0.046 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	1.1	4.4	3.45	2.3	0.39
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.61)	ND (0.65)	ND	ND (0.72)	ND (0.68)

TABLE 4-23

Prescott Park Analytical Results - Comparison of Historical and June 2009 Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	2005 through 2008[4] Outdoor Air Results Min	Max	EPC[5]	PP-BGA02	PP-BGA03
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.14)	ND (0.15)	ND	ND (0.83)	ND (0.78)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.056	0.13	0.105	0.078 J	ND (0.18)
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND (0.04)	ND (0.042)	ND	ND (0.047)	ND (0.044)
Xylenes, m & p	µg/m³	730	22,000	700	NE	0.42	2.7	1.96	1	0.26 J
Xylenes, o	µg/m³	730	22,000	700	NE	0.13 J	0.92	0.92	0.4	0.091 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Historical results are from samples collected from May 2005 through October 2008

[5] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air Air data collected from Prescott Park from May 2005 through June 2009.

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-24

Background Outdoor Air - Comparison of Historical EPCs and June 2009 Background Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	BGA01	BGA02
1,1,1-Trichloroethane	µg/m³	5,200	68,000	1,000	ND (0.27)	0.0797	0.06 J	0.04 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND	ND (0.22)	ND (0.26)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND	ND (0.17)	ND (0.2)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	0.011	ND (0.13)	ND (0.15)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	0.0392	ND (0.063)	ND (0.074)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND	ND (5.9)	ND (6.9)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.639	0.29 J	0.24 J
1,2-Dibromoethane	µg/m³	0.0041	NE	0.8	NE	ND	ND (1.2)	ND (1.4)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (0.95)	ND (1.1)
1,2-Dichloroethane	µg/m³	0.094	NE	400	ND (0.40)	0.0535	ND (0.13)	0.061 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	0.0448	ND (0.73)	ND (0.86)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	0.272	ND (0.78)	ND (0.92)
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND	ND (0.95)	ND (1.1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	800	NE	0.0948	ND (0.95)	ND (1.1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	3,000	3,000	NE	**0.383**	ND (0.57)	ND (0.67)
Benzene	µg/m³	0.31	1,300	60	**0.96**	**0.8**	0.31	0.26 J
Bromomethane	µg/m³	5.2	3,900	5	NE	0.682	0.39 J	1.8 J
Carbon tetrachloride	µg/m³	0.16	1,900	40	**0.69**	**0.526**	**0.51**	**0.47**
Chlorobenzene	µg/m³	52	NE	1,000	NE	0.0268	ND (0.73)	ND (0.86)
Chloroethane	µg/m³	10,000	NE	30,000	NE	0.0484	ND (0.42)	ND (0.49)
Chloroform	µg/m³	0.11	150	300	ND (0.10)	**0.155**	ND (0.77)	ND (0.91)
Chloromethane	µg/m³	94	NE	NE	NE	1.16	1	0.56
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	0.025	ND (0.12)	ND (0.15)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.0593	ND (0.72)	ND (0.85)
Ethylbenzene	µg/m³	0.97	NE	2,000	NE	0.582	0.15	0.12 J
Freon 11	µg/m³	730	NE	NE	NE	1.89	1.4	1 J
Freon 12	µg/m³	210	NE	NE	NE	2.56	2.4 J	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.674	0.8 J	0.46 J
Freon 114	µg/m³	31,000	NE	NE	NE	0.12	ND (1.1)	ND (1.3)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND	ND (8.4)	ND (10)
Methyl tert-butyl ether	µg/m³	9.4	NE	8,000	ND (1.8)	0.23	ND (0.57)	ND (0.67)
Methylene chloride	µg/m³	5.2	14,000	400	ND (1.74)	0.233	0.28 J	0.2 J
Naphthalene	µg/m³	0.072	NE	9	NE	**0.376**	ND (4.1) J	ND (4.9)
Styrene	µg/m³	1,000	21,000	900	NE	0.175	ND (0.67)	ND (0.8)
Tetrachloroethene	µg/m³	0.41	20,000	35	ND (0.47)	0.288	0.15 J	0.052 J
Toluene	µg/m³	5,200	37,000	300	ND (3.0)	3.31	0.99	0.56
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND	ND (0.63)	ND (0.74)

TABLE 4-24

Background Outdoor Air - Comparison of Historical EPCs and June 2009 Background Outdoor Air Data
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	EPC[4]	BGA01	BGA02
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	0.056	ND (0.72)	ND (0.85)
Trichloroethene	µg/m³	1.2	NE	600	ND (0.43)	0.089	0.05 J	ND (0.2)
Vinyl chloride	µg/m³	0.16	180,000	NE	ND (0.77)	ND	ND (0.04)	ND (0.048)
Xylenes, m & p	µg/m³	730	22,000	700	NE	2.5	0.5	0.36
Xylenes, o	µg/m³	730	22,000	700	NE	0.853	0.19	0.13 J

Notes:

Results greater than the screening level are bolded.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. The screening level used to compare to soil gas concentrations are 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] An Exposure Point Concentration (EPC) is a measure of exposure appropriate for use in a risk assessment based on an average concentration of a contaminant throughout an area to which humans are exposed. A conservative estimate of the average concentration of a chemical across an exposure area is the 95 percent Upper Confidence Limit (UCL) on the mean. The EPCs shown are either the 95% UCL or the maximum detection concentration, whichever is lower. These EPCs includes Outdoor Air data from September 2004 through June 2009 from 322 and 329 Lewis Street

--- not analyzed

ND not detected above the laboratory's reporting limit shown in parentheses

NE not established

J estimated value

µg/m³ micrograms per cubic meter

TABLE 4-25
1436 and 1438 3rd Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Downstairs Indoor Air	Indoor Air 1436-IA01	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs * Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Outdoor Air
						BGA01	BGA02	1436-SG01	1436-IA01	(FD)	1436-IA03	1436-IA04	1436-IA05	1438-IA01	1438-IA02	1438-IA03	1438-IA04	1436-OA01
1,1,1-Trichloroethane	µg/m³	5,200	**68,000**	1,000	ND (0.27)	0.06 J	0.04 J	0.22	0.53	0.052 J	0.052 J	0.059 J	0.061 J	0.048 J	0.049 J	0.056 J	0.056 J	0.055 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.22)	ND (0.26)	ND (0.19)	ND (0.27)	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.23)	ND (0.26)	ND (0.18) J	ND (0.25)	ND (0.23)	ND (0.23)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.17)	ND (0.2)	ND (0.15)	ND (0.21)	ND (0.2)	ND (0.2)	ND (0.21)	ND (0.19)	ND (0.21)	ND (0.2)	ND (0.2)	ND (0.18)	ND (0.18)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.13)	ND (0.15)	ND (0.11)	0.046 J	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.14)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.063)	ND (0.074)	ND (0.055)	0.18	ND (0.074)	ND (0.072)	ND (0.076)	ND (0.068)	ND (0.076)	ND (0.074)	ND (0.072)	ND (0.067)	ND (0.067)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND (5.9)	ND (6.9)	ND (5.2)	ND (7.3)	ND (6.9)	ND (6.8)	ND (7.1)	ND (6.3)	ND (7.1)	ND (6.9)	ND (6.8)	ND (6.2)	ND (6.2) J
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.29 J	0.24 J	1.7	1.6	1.3	1.3	1.8	0.59 J	0.4 J	0.4 J	0.42 J	0.48 J	0.2 J
1,2-Dibromoethane	µg/m³	0.0041	NE	**0.8**	NE	ND (1.2)	ND (1.4)	ND (1.1)	ND (1.5)	ND (1.4)	ND (1.4)	ND (1.5)	ND (1.3)	ND (1.5)	ND (1.4)	ND (1.4)	ND (1.3)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (0.84)	ND (1.2)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	**400**	ND (0.40)	ND (0.13)	0.061 J	0.075 J	**1.1**	**0.35**	**0.38**	**0.34**	ND (0.14)	**0.15**	**0.2**	**0.25**	**0.23**	0.054 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.73)	ND (0.86)	ND (0.64)	ND (0.9)	ND (0.86)	ND (0.84)	ND (0.88)	ND (0.79)	ND (0.88)	ND (0.86)	ND (0.84)	ND (0.78)	ND (0.78)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	ND (0.78)	ND (0.92)	0.36 J	0.4 J	0.32 J	0.33 J	0.44 J	0.18 J	ND (0.94)	ND (0.92)	ND (0.9)	0.14 J	0.099 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (0.84)	ND (1.2)	ND (1.1)	0.11 J	ND (1.1)	ND (1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1)	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	**800**	NE	ND (0.95)	ND (1.1)	ND (0.84)	**0.67 J**	**0.54 J**	**0.75 J**	**0.58 J**	**2.2**	ND (1.1)	ND (0.17) J	ND (1.1)	ND (1)	ND (1)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	**3,000**	**3,000**	NE	ND (0.57)	ND (0.67)	ND (0.5)	**0.36 J**	ND (0.67)	**0.47 J**	0.3 J	ND (0.62)	ND (0.69)	ND (0.67)	ND (0.66)	ND (0.6)	ND (0.6)
Benzene	µg/m³	0.31	**1,300**	**60**	**0.96**	0.31	0.26 J	0.61	**0.5**	**0.54**	**0.49**	**0.47**	**0.84**	**0.36**	**0.4**	**0.48**	**0.4**	**0.66**
Bromomethane	µg/m³	5.2	**3,900**	5	NE	0.39 J	1.8 J	0.39 J	ND (0.46) J	0.7 J	0.36 J	0.58 J	ND (0.52) J	0.48 J	0.43 J	0.5 J	0.44 J	ND (0.65)
Carbon tetrachloride	µg/m³	0.16	**1,900**	**40**	**0.69**	**0.51**	**0.47**	0.3	**0.45**	**0.5**	**0.5**	**0.48**	**0.45**	**0.37**	**0.41**	**0.37**	**0.39**	**0.46 J**
Chlorobenzene	µg/m³	52	NE	**1,000**	NE	ND (0.73)	ND (0.86)	ND (0.64)	ND (0.9)	ND (0.86)	ND (0.84)	ND (0.88)	ND (0.79)	ND (0.88)	ND (0.86)	ND (0.84)	ND (0.77)	ND (0.77)
Chloroethane	µg/m³	10,000	NE	**30,000**	NE	ND (0.42)	ND (0.49)	ND (0.37)	ND (0.52)	ND (0.49)	ND (0.48)	ND (0.5)	ND (0.45)	ND (0.5)	ND (0.49)	ND (0.48)	ND (0.44)	ND (0.44)
Chloroform	µg/m³	0.11	**150**	**300**	ND (0.10)	ND (0.77)	ND (0.91)	**7.6**	**1.6**	**1.7**	**1.7**	**1.8**	**3**	ND (0.93)	**0.48 J**	**0.43 J**	**0.41 J**	ND (0.82)
Chloromethane	µg/m³	94	NE	NE	NE	1	0.56	0.3	1.3	1.4	1.2	1.1	1.6	1.4	0.86	1	1.1	0.95
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.15)	ND (0.11)	ND (0.16)	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.14)	ND (0.15)	ND (0.15)	0.54	0.043 J	ND (0.13)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.63)	ND (0.89)	ND (0.85)	ND (0.83)	ND (0.87)	ND (0.78)	ND (0.87)	ND (0.85)	ND (0.83)	ND (0.76)	ND (0.76)
Ethylbenzene	µg/m³	0.97	NE	**2,000**	NE	0.15	0.12 J	0.45	**1**	0.86	0.73	0.78	0.49	0.37	0.25	0.28	0.53	0.2
Freon 11	µg/m³	730	NE	NE	NE	1.4	1 J	2.2	1.3	1.4	1.3	1.1	1.5	1.1	0.88 J	1.1	1.2	1.3
Freon 12	µg/m³	210	NE	NE	NE	2.4 J	2	1.2	2	1.8	2.4	1.6	1.8	2	1.6	1.8	2.2	2.4
Freon 113	µg/m³	31,000	NE	NE	NE	0.8 J	0.46 J	0.54 J	0.5 J	0.45 J	0.46 J	0.35 J	0.47 J	0.42 J	0.39 J	0.39 J	0.72 J	0.69 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (1.1)	ND (1.3)	ND (0.97)	ND (1.4)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.2)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.2)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (8.4)	ND (10)	ND (7.4)	ND (10)	ND (10)	ND (9.8)	ND (10)	ND (9.1)	ND (10)	ND (10)	ND (9.8)	ND (9)	ND (9) J
Methyl tert-butyl ether	µg/m³	9.4	NE	**8,000**	ND (1.8)	ND (0.57)	ND (0.67)	ND (0.5)	ND (0.71)	ND (0.67)	ND (0.66)	ND (0.69)	ND (0.62)	ND (0.69)	ND (0.67)	ND (0.66)	ND (0.6)	ND (0.6)
Methylene chloride	µg/m³	5.2	**14,000**	**400**	ND (1.74)	0.28 J	0.2 J	ND (0.96)	0.71 J	0.57 J	0.59 J	0.62 J	0.42 J	ND (1.3)	ND (1.3)	0.4 J	0.57 J	0.22 J
Naphthalene	µg/m³	0.072	NE	**9**	NE	ND (4.1) J	ND (4.9)	ND (3.6)	**1 J**	ND (4.9) J	**1.2 J**	**0.76 J**	**0.63 J**	ND (5) J	ND (4.9) J	ND (4.8) J	ND (4.4) J	ND (4.4) J
Styrene	µg/m³	1,000	**21,000**	900	NE	ND (0.67)	ND (0.8)	0.23 J	0.81 J	0.61 J	0.72 J	0.69 J	0.47 J	0.15 J	0.19 J	ND (0.78)	1.4	ND (0.72)
Tetrachloroethene	µg/m³	0.41	**20,000**	**35**	ND (0.47)	0.15 J	0.052 J	1.7	**0.95**	0.14 J	0.12 J	**0.48**	0.1 J	0.085 J	0.095 J	0.14 J	0.35	0.065 J

TABLE 4-25
1436 and 1438 3rd Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Downstairs Indoor Air	Indoor Air 1436-IA01	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs * Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Outdoor Air
						BGA01	BGA02	1436-SG01	1436-IA01	(FD)	1436-IA03	1436-IA04	1436-IA05	1438-IA01	1438-IA02	1438-IA03	1438-IA04	1436-OA01
Toluene	µg/m³	5,200	**37,000**	300	ND (3.0)	0.99	0.56	1.6	10	11	10	8.2	4.5	1.6	1.3	1.8	4.5	1.5
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.63)	ND (0.74)	ND (0.55)	ND (0.78)	ND (0.74)	ND (0.72)	ND (0.76)	ND (0.68)	ND (0.76)	ND (0.74)	ND (0.72)	0.079 J	ND (0.67)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.63)	ND (0.89)	ND (0.85)	ND (0.83)	ND (0.87)	ND (0.78)	ND (0.87)	ND (0.85)	ND (0.83)	ND (0.76)	ND (0.76)
Trichloroethene	µg/m³	1.2	NE	**600**	ND (0.43)	0.05 J	ND (0.2)	0.045 J	0.91	ND (0.045) J	ND (0.048) J	ND (0.061) J	0.027 J	ND (0.026) J	ND (0.045) J	0.093 J	0.18 J	ND (0.18)
Vinyl chloride	µg/m³	0.16	**180,000**	NE	ND (0.77)	ND (0.04)	ND (0.048)	ND (0.036)	ND (0.05) J	ND (0.048) J	ND (0.047) J	ND (0.049) J	ND (0.044) J	ND (0.049) J	ND (0.048) J	ND (0.047) J	ND (0.043) J	ND (0.043)
Xylenes, m & p	µg/m³	730	**22,000**	700	NE	0.5	0.36	1.8	2.1	1.9	1.8	1.9	1.4	0.9	0.66	0.78	1.2	0.53
Xylenes, o	µg/m³	730	**22,000**	700	NE	0.19	0.13 J	0.6	1	0.85	0.79	0.89	0.56	0.4	0.28	0.34	0.48	0.26

Notes:

Results greater than the screening level are bolded. Crawlspace air, indoor air, and outdoor air data is compared to the residential air RSL and soil gas data is compared to the residential air RSL multiplied by an attenuation factor of 10.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. A screening level to compare to soil gas concentrations may be 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Neighborhood background results are from samples collected at 323 Lewis Street (upwind of the AMCO site) in June 2009.

* Sample taken from back house unit

ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-26
337 and 339 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Downstairs Indoor Air	Downstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Outdoor Air
						BGA01	BGA02	339-SG01	337-IA01	337-IA02	339-IA01	339-IA02	339-OA01
1,1,1-Trichloroethane	µg/m³	5,200	**68,000**	1,000	ND (0.27)	0.06 J	0.04 J	0.068 J	0.059 J	0.061 J	0.075 J	0.058 J	0.062 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.22)	ND (0.26)	ND (0.28)	ND (0.22)	ND (0.24)	ND (0.26)	ND (0.26)	**0.18 J**
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.17)	ND (0.2)	ND (0.22)	ND (0.18)	ND (0.19)	0.12 J	0.065 J	0.033 J
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.13)	ND (0.15)	ND (0.16)	ND (0.13)	ND (0.14)	0.03 J	0.028 J	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.063)	ND (0.074)	ND (0.08)	ND (0.064)	ND (0.069)	ND (0.074)	ND (0.074)	ND (0.069)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND (5.9)	ND (6.9)	ND (7.4)	ND (6) J	ND (6.5) J	ND (6.9) J	ND (6.9) J	ND (6.5)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.29 J	0.24 J	0.18 J	1.3	1.1	3.1	0.54 J	0.37 J
1,2-Dibromoethane	µg/m³	0.0041	NE	**0.8**	NE	ND (1.2)	ND (1.4)	ND (1.5)	ND (1.2)	ND (1.3)	ND (1.4)	ND (1.4)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1.2)	ND (0.97)	ND (1)	ND (1.1)	ND (1.1)	0.22 J
1,2-Dichloroethane	µg/m³	0.094	NE	**400**	ND (0.40)	ND (0.13)	0.061 J	ND (0.16)	**0.76**	**0.52**	**0.1 J**	**0.095 J**	0.067 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.73)	ND (0.86)	ND (0.93)	**0.53 J**	**0.81 J**	ND (0.86)	ND (0.86)	ND (0.81)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	ND (0.78)	ND (0.92)	ND (0.99)	0.32 J	0.3 J	0.5 J	ND (0.92)	0.16 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1.2)	ND (0.97)	0.1 J	ND (1.1)	ND (1.1)	0.19 J
1,4-Dichlorobenzene	µg/m³	0.22	NE	**800**	NE	ND (0.95)	ND (1.1)	ND (1.2)	**1**	**1.5**	**0.26 J**	0.21 J	**0.24 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	**3,000**	**3,000**	NE	ND (0.57)	ND (0.67)	ND (0.72)	ND (0.58)	ND (0.63)	ND (0.67)	ND (0.67)	ND (0.63)
Benzene	µg/m³	0.31	**1,300**	**60**	**0.96**	0.31	0.26 J	0.77	**0.82**	**0.87**	**0.6**	**0.42**	**0.38**
Bromomethane	µg/m³	5.2	**3,900**	5	NE	0.39 J	1.8 J	0.31 J	ND (0.62)	0.44 J	0.39 J	0.48 J	0.41 J
Carbon tetrachloride	µg/m³	0.16	**1,900**	**40**	**0.69**	**0.51**	**0.47**	0.25	**0.56 J**	**0.43**	**0.4**	**0.39**	**0.4**
Chlorobenzene	µg/m³	52	NE	**1,000**	NE	ND (0.73)	ND (0.86)	ND (0.92)	ND (0.74)	ND (0.8)	ND (0.86)	ND (0.86)	ND (0.8)
Chloroethane	µg/m³	10,000	NE	**30,000**	NE	ND (0.42)	ND (0.49)	ND (0.53)	ND (0.42)	ND (0.46)	ND (0.49)	ND (0.49)	ND (0.46)
Chloroform	µg/m³	0.11	**150**	**300**	ND (0.10)	ND (0.77)	ND (0.91)	**4.7**	**1.3**	**1.5**	**0.83 J**	**0.46 J**	ND (0.85)
Chloromethane	µg/m³	94	NE	NE	NE	1	0.56	ND (0.42)	1.2	1.3	1.1	1.3	0.92
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.15)	ND (0.16)	ND (0.13)	ND (0.14)	ND (0.15)	ND (0.15)	ND (0.14)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.91)	ND (0.73)	ND (0.79)	ND (0.85)	ND (0.85)	ND (0.79)
Ethylbenzene	µg/m³	0.97	NE	**2,000**	NE	0.15	0.12 J	0.12 J	**1.9**	0.97	0.81	0.4	0.21
Freon 11	µg/m³	730	NE	NE	NE	1.4	1 J	1.8	2.8	1.2	1.1	1.3	1.1
Freon 12	µg/m³	210	NE	NE	NE	2.4 J	2	1.4	2.2	1.9	1.9	2.1	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.8 J	0.46 J	0.42 J	ND (1.2)	0.49 J	0.36 J	0.42 J	0.45 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (1.1)	ND (1.3)	ND (1.4)	ND (1.1)	ND (1.2)	ND (1.3)	ND (1.3)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (8.4)	ND (10)	ND (11)	ND (8.6) J	ND (9.3)	ND (10)	ND (10)	ND (9.3)
Methyl tert-butyl ether	µg/m³	9.4	NE	**8,000**	ND (1.8)	ND (0.57)	ND (0.67)	ND (0.72)	ND (0.58)	0.039 J	0.024 J	ND (0.67)	0.03 J
Methylene chloride	µg/m³	5.2	**14,000**	**400**	ND (1.74)	0.28 J	0.2 J	ND (1.4)	0.79 J	0.94 J	0.53 J	0.52 J	0.46 J
Naphthalene	µg/m³	0.072	NE	**9**	NE	ND (4.1) J	ND (4.9)	ND (5.3) J	**2.6 J**	**5.2 J**	**7 J**	**1.6 J**	**1.1 J**
Styrene	µg/m³	1,000	**21,000**	900	NE	ND (0.67)	ND (0.8)	0.45 J	3.5	1.5	0.41 J	0.48 J	ND (0.74)
Tetrachloroethene	µg/m³	0.41	**20,000**	**35**	ND (0.47)	0.15 J	0.052 J	0.38	**0.68**	**0.83**	0.13 J	0.11 J	0.096 J

TABLE 4-26
337 and 339 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Downstairs Indoor Air	Downstairs Indoor Air	Upstairs Indoor Air	Upstairs Indoor Air	Outdoor Air
						BGA01	BGA02	339-SG01	337-IA01	337-IA02	339-IA01	339-IA02	339-OA01
Toluene	µg/m³	5,200	**37,000**	300	ND (3.0)	0.99	0.56	1.4	20	19	3.4	3.4	1.2
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.63)	ND (0.74)	ND (0.8)	ND (0.64)	ND (0.69)	ND (0.74)	ND (0.74)	ND (0.69)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.91)	ND (0.73)	ND (0.79)	ND (0.85)	ND (0.85)	ND (0.79)
Trichloroethene	µg/m³	1.2	NE	**600**	ND (0.43)	0.05 J	ND (0.2)	0.088 J	0.11 J	0.18 J	ND (0.078) J	ND (0.048) J	0.13 J
Vinyl chloride	µg/m³	0.16	**180,000**	NE	ND (0.77)	ND (0.04)	ND (0.048)	ND (0.051)	0.036 J	0.046	ND (0.048) J	ND (0.048) J	ND (0.045)
Xylenes, m & p	µg/m³	730	**22,000**	700	NE	0.5	0.36	0.35	2.9	2.3	3.1	0.96	0.67
Xylenes, o	µg/m³	730	**22,000**	700	NE	0.19	0.13 J	0.14 J	1.2	1	1	0.44	0.28

Notes:

Results greater than the screening level are bolded. Indoor air and outdoor air data are compared to the residential air RSL and soil gas data is compared to the residential air RSL multiplied by an attenuation factor of 10.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. A screening level to compare to soil gas concentrations may be 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Neighborhood background results are from samples collected at 323 Lewis Street (upwind of the AMCO site) in June 2009.

ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-27
356 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	Outdoor Air
						BGA01	BGA02	356-SG01	356-IA01	356-IA02	356-IA03	356-IA04	356-IA05	356-IA06	356-OA01
1,1,1-Trichloroethane	µg/m³	5,200	**68,000**	1,000	ND (0.27)	0.06 J	0.04 J	0.056 J	0.56	0.27	0.17 J	0.085 J	0.069 J	0.065 J	0.065 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.22)	ND (0.26)	ND (0.4)	ND (0.29)	ND (0.27)	ND (0.24)	ND (0.28)	ND (0.29)	ND (0.26)	ND (0.24)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.17)	ND (0.2)	ND (0.32)	ND (0.23)	ND (0.21)	ND (0.2)	ND (0.22)	ND (0.23)	ND (0.2)	ND (0.19)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.13)	ND (0.15)	ND (0.24)	ND (0.17)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.14)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.063)	ND (0.074)	ND (0.12)	ND (0.084)	ND (0.078)	ND (0.071)	ND (0.08)	ND (0.084)	ND (0.074)	ND (0.069)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND (5.9)	ND (6.9)	ND (11)	ND (7.9) J	ND (7.3) J	ND (6.6) J	ND (7.4) J	ND (7.9) J	ND (6.9) J	ND (6.5) J
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.29 J	0.24 J	0.36 J	**29**	**27**	**26**	**35**	**26**	0.49 J	0.79 J
1,2-Dibromoethane	µg/m³	0.0041	NE	**0.8**	NE	ND (1.2)	ND (1.4)	ND (2.2)	ND (1.6)	ND (1.5)	ND (1.4)	ND (1.5)	ND (1.6)	ND (1.4)	ND (1.3)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1.8)	ND (1.3)	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.3)	ND (1.1)	ND (1)
1,2-Dichloroethane	µg/m³	0.094	NE	**400**	ND (0.40)	ND (0.13)	0.061 J	0.072 J	**1.3**	**1.3**	**1.4**	**0.32**	**0.39**	**1.3**	0.054 J
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.73)	ND (0.86)	ND (1.3)	ND (0.98)	ND (0.9)	ND (0.83)	ND (0.93)	ND (0.98)	ND (0.86)	ND (0.81)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	ND (0.78)	ND (0.92)	ND (1.4)	8.4	7.7	7.3	9.8	7.5	0.15 J	0.19 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1.8)	ND (1.3)	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.3)	ND (1.1)	ND (1)
1,4-Dichlorobenzene	µg/m³	0.22	NE	**800**	NE	ND (0.95)	ND (1.1)	ND (1.8)	ND (1.3)	ND (1.2)	0.16 J	0.2 J	ND (1.3)	0.2 J	**0.62 J**
1,4-Dioxane (p-dioxane)	µg/m³	0.32	**3,000**	**3,000**	NE	ND (0.57)	ND (0.67)	ND (1)	ND (0.76)	ND (0.71)	ND (0.64)	ND (0.72)	ND (0.76)	ND (0.67)	**0.89**
Benzene	µg/m³	0.31	**1,300**	**60**	**0.96**	0.31	0.26 J	0.72	**8.6**	**7.8**	**7.4**	**10**	**7.8**	**0.91**	**0.41**
Bromomethane	µg/m³	5.2	**3,900**	5	NE	0.39 J	1.8 J	0.58 J	ND (0.82)	ND (0.76)	ND (0.7)	ND (0.78)	ND (0.82)	ND (0.73)	0.36 J
Carbon tetrachloride	µg/m³	0.16	**1,900**	**40**	**0.69**	**0.51**	**0.47**	0.31 J	**0.52 J**	**0.55 J**	**0.53 J**	**0.53 J**	**0.51 J**	**0.45 J**	**0.5 J**
Chlorobenzene	µg/m³	52	NE	**1,000**	NE	ND (0.73)	ND (0.86)	ND (1.3)	ND (0.98)	ND (0.9)	ND (0.82)	ND (0.92)	ND (0.98)	ND (0.86)	ND (0.8)
Chloroethane	µg/m³	10,000	NE	**30,000**	NE	ND (0.42)	ND (0.49)	ND (0.77)	ND (0.56)	ND (0.52)	ND (0.47)	ND (0.53)	ND (0.56)	ND (0.49)	ND (0.46)
Chloroform	µg/m³	0.11	**150**	**300**	ND (0.10)	ND (0.77)	ND (0.91)	ND (1.4)	**3.1**	**2.5**	**1.8**	**0.9 J**	**0.92 J**	ND (0.91)	ND (0.85)
Chloromethane	µg/m³	94	NE	NE	NE	1	0.56	0.79	1.3	1.2	1.7	1.1	1.1	1	0.98
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.15)	ND (0.23)	ND (0.17)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.17)	ND (0.15)	0.031 J
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (1.3)	ND (0.96)	ND (0.89)	ND (0.81)	ND (0.91)	ND (0.96)	ND (0.85)	ND (0.79)
Ethylbenzene	µg/m³	0.97	NE	**2,000**	NE	0.15	0.12 J	0.22 J	**17**	**15**	**15**	**21**	**15**	0.89	0.53
Freon 11	µg/m³	730	NE	NE	NE	1.4	1 J	1.2 J	1.6	1.5	1.5	1.2	1.3	1.2	1.2
Freon 12	µg/m³	210	NE	NE	NE	2.4 J	2	2	2.5	2.6	2.5	2.2	2.2	2.4	2.4
Freon 113	µg/m³	31,000	NE	NE	NE	0.8 J	0.46 J	0.43 J	ND (1.6)	ND (1.5)	0.62 J	ND (1.5)	ND (1.6)	0.66 J	0.68 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (1.1)	ND (1.3)	ND (2)	ND (1.5)	ND (1.4)	ND (1.2)	ND (1.4)	ND (1.5)	ND (1.3)	ND (1.2)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (8.4)	ND (10)	ND (16)	ND (11) J	ND (10) J	ND (9.5) J	ND (11) J	ND (11) J	ND (10) J	ND (9.3) J
Methyl tert-butyl ether	µg/m³	9.4	NE	**8,000**	ND (1.8)	ND (0.57)	ND (0.67)	ND (1)	ND (0.76)	ND (0.71)	ND (0.64)	ND (0.72)	ND (0.76)	ND (0.67)	ND (0.63)
Methylene chloride	µg/m³	5.2	**14,000**	**400**	ND (1.74)	0.28 J	0.2 J	ND (2)	ND (1.5)	ND (1.4)	ND (1.2)	ND (1.4)	ND (1.5)	0.32 J	0.6 J
Naphthalene	µg/m³	0.072	NE	**9**	NE	ND (4.1) J	ND (4.9)	ND (7.6) J	**2.9 J**	**3 J**	**2.7 J**	**2.6 J**	**2.5 J**	ND (4.9) J	**1.9 J**
Styrene	µg/m³	1,000	**21,000**	900	NE	ND (0.67)	ND (0.8)	ND (1.2)	2.2	2.4	3	ND (0.86)	ND (0.9)	0.36 J	ND (0.74)
Tetrachloroethene	µg/m³	0.41	**20,000**	**35**	ND (0.47)	0.15 J	0.052 J	0.37 J	0.41	0.19 J	0.21 J	0.28	0.28 J	0.091 J	0.12 J

TABLE 4-27
356 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	One unit Indoor Air	Outdoor Air
						BGA01	BGA02	356-SG01	356-IA01	356-IA02	356-IA03	356-IA04	356-IA05	356-IA06	356-OA01
Toluene	µg/m³	5,200	**37,000**	300	ND (3.0)	0.99	0.56	1.3	130	110	110	150	120	2.5	2.1
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.63)	ND (0.74)	ND (1.2)	ND (0.84)	ND (0.78)	ND (0.71)	ND (0.8)	ND (0.84)	ND (0.74)	ND (0.69)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (1.3)	ND (0.96)	ND (0.89)	ND (0.81)	ND (0.91)	ND (0.96)	ND (0.85)	ND (0.79)
Trichloroethene	µg/m³	1.2	NE	**600**	ND (0.43)	0.05 J	ND (0.2)	0.053 J	0.25	0.096 J	0.028 J	ND (0.22)	0.038 J	ND (0.2)	0.034 J
Vinyl chloride	µg/m³	0.16	**180,000**	NE	ND (0.77)	ND (0.04)	ND (0.048)	ND (0.075)	ND (0.054)	ND (0.05)	ND (0.046)	ND (0.051)	ND (0.054)	0.02 J	ND (0.045)
Xylenes, m & p	µg/m³	730	**22,000**	700	NE	0.5	0.36	0.64	77	70	68	98	71	2.4	1.2
Xylenes, o	µg/m³	730	**22,000**	700	NE	0.19	0.13 J	0.26	26	23	23	32	23	1.1	0.57

Notes:

Results greater than the screening level are bolded. Indoor air, and outdoor air data is compared to the residential air RSL and soil gas data is compared to the residential air RSL multiplied by an attenuation factor of 10.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. A screening level to compare to soil gas concentrations may be 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Neighborhood background results are from samples collected at 323 Lewis Street (upwind of the AMCO site) in June 2009.

ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-28
366 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Soil Gas 366-SG01	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs Indoor Air	Outdoor Air
						BGA01	BGA02	366-SG01	(FD)	366-IA01	366-IA02	366-IA03	366-IA04	366-OA01
1,1,1-Trichloroethane	µg/m³	5,200	**68,000**	1,000	ND (0.27)	0.06 J	0.04 J	0.081 J	0.088 J	0.13 J	0.078 J	0.34	0.1 J	0.051 J
1,1,2,2-Tetrachloroethane	µg/m³	0.042	NE	NE	NE	ND (0.22)	ND (0.26)	ND (0.23)	ND (0.21)	ND (0.24)	ND (0.24)	ND (0.23)	ND (0.25)	ND (0.2)
1,1,2-Trichloroethane	µg/m³	0.15	NE	NE	NE	ND (0.17)	ND (0.2)	ND (0.19)	ND (0.17)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.2)	ND (0.16)
1,1-Dichloroethane	µg/m³	1.5	NE	NE	NE	ND (0.13)	ND (0.15)	ND (0.14)	ND (0.12)	ND (0.14)	ND (0.14)	0.024 J	ND (0.15)	ND (0.12)
1,1-Dichloroethene	µg/m³	210	NE	70	NE	ND (0.063)	ND (0.074)	ND (0.068)	ND (0.061)	ND (0.069)	ND (0.069)	0.083	ND (0.072)	ND (0.059)
1,2,4-Trichlorobenzene	µg/m³	2.1	NE	NE	NE	ND (5.9)	ND (6.9)	ND (6.3)	ND (5.8)	ND (6.5)	ND (6.5)	ND (6.3)	ND (6.8)	ND (5.5)
1,2,4-Trimethylbenzene	µg/m³	7.3	NE	NE	NE	0.29 J	0.24 J	ND (0.84)	ND (0.76)	2.1	2.3	1.2	1.9	0.32 J
1,2-Dibromoethane	µg/m³	0.0041	NE	**0.8**	NE	ND (1.2)	ND (1.4)	ND (1.3)	ND (1.2)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.4)	ND (1.1)
1,2-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1)	ND (0.93)	ND (1)	ND (1)	ND (1)	ND (1.1)	ND (0.9)
1,2-Dichloroethane	µg/m³	0.094	NE	**400**	ND (0.40)	ND (0.13)	0.061 J	0.012 J	0.014 J	0.093 J	0.08 J	**0.2**	**0.11 J**	**0.11 J**
1,2-Dichloropropane	µg/m³	0.24	NE	NE	NE	ND (0.73)	ND (0.86)	ND (0.79)	ND (0.72)	ND (0.81)	ND (0.81)	ND (0.79)	ND (0.84)	ND (0.69)
1,3,5-Trimethylbenzene	µg/m³	NE	NE	NE	NE	ND (0.78)	ND (0.92)	ND (0.84)	ND (0.76)	0.69 J	0.76 J	0.35 J	0.53 J	0.11 J
1,3-Dichlorobenzene	µg/m³	210	NE	NE	NE	ND (0.95)	ND (1.1)	ND (1)	ND (0.93)	ND (1)	ND (1)	ND (1)	ND (1.1)	ND (0.9)
1,4-Dichlorobenzene	µg/m³	0.22	NE	**800**	NE	ND (0.95)	ND (1.1)	ND (1)	ND (0.93)	**0.31 J**	0.22 J	ND (1)	**0.88 J**	ND (0.9)
1,4-Dioxane (p-dioxane)	µg/m³	0.32	**3,000**	**3,000**	NE	ND (0.57)	ND (0.67)	ND (0.62)	ND (0.56)	**0.46 J**	ND (0.63)	ND (0.62)	ND (0.66)	ND (0.54)
Benzene	µg/m³	0.31	**1,300**	**60**	**0.96**	0.31	0.26 J	0.36	**0.32**	**1.2**	**0.86**	**0.58**	**0.79**	**0.42**
Bromomethane	µg/m³	5.2	**3,900**	5	NE	0.39 J	1.8 J	ND (0.66)	ND (0.6)	ND (0.68)	2 J	1.6 J	2.1 J	ND (0.58)
Carbon tetrachloride	µg/m³	0.16	**1,900**	**40**	**0.69**	**0.51**	**0.47**	0.31	**0.33**	**0.53**	**0.46**	**0.38**	**0.38**	**0.48**
Chlorobenzene	µg/m³	52	NE	**1,000**	NE	ND (0.73)	ND (0.86)	ND (0.79)	ND (0.71)	ND (0.8)	ND (0.8)	ND (0.79)	ND (0.84)	ND (0.68)
Chloroethane	µg/m³	10,000	NE	**30,000**	NE	ND (0.42)	ND (0.49)	0.14 J	ND (0.41)	ND (0.46)	ND (0.46)	ND (0.45)	ND (0.48)	ND (0.39)
Chloroform	µg/m³	0.11	**150**	**300**	ND (0.10)	ND (0.77)	ND (0.91)	**4.9**	**5**	**0.46 J**	**0.54 J**	**0.52 J**	**0.71 J**	ND (0.73)
Chloromethane	µg/m³	94	NE	NE	NE	1	0.56	0.51	0.4	1	0.93	0.64	0.98	1.2
cis-1,2-Dichloroethene	µg/m³	NE	NE	NE	NE	ND (0.12)	ND (0.15)	ND (0.14)	ND (0.12)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.12)
cis-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.78)	ND (0.7)	ND (0.79)	ND (0.79)	ND (0.78)	ND (0.83)	ND (0.68)
Ethylbenzene	µg/m³	0.97	NE	**2,000**	NE	0.15	0.12 J	0.053 J	0.047 J	**1.7**	**1.4**	0.79	**1.8**	0.74
Freon 11	µg/m³	730	NE	NE	NE	1.4	1 J	2.2	2.4	1.8	1.7	1.6	1.6	1.1
Freon 12	µg/m³	210	NE	NE	NE	2.4 J	2	1.2	1	2.1	1.8	1.9	1.8	2
Freon 113	µg/m³	31,000	NE	NE	NE	0.8 J	0.46 J	ND (1.3)	0.59 J	ND (1.3)	0.44 J	0.36 J	0.44 J	0.52 J
Freon 114	µg/m³	31,000	NE	NE	NE	ND (1.1)	ND (1.3)	ND (1.2)	ND (1.1)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.3)	ND (1)
Hexachlorobutadiene	µg/m³	0.11	NE	NE	NE	ND (8.4)	ND (10)	ND (9.1)	ND (8.3)	ND (9.3)	ND (9.3)	ND (9.1)	ND (9.8)	ND (7.9)
Methyl tert-butyl ether	µg/m³	9.4	NE	**8,000**	ND (1.8)	ND (0.57)	ND (0.67)	ND (0.62)	ND (0.56)	ND (0.63)	ND (0.63)	ND (0.62)	ND (0.66)	ND (0.54)
Methylene chloride	µg/m³	5.2	**14,000**	**400**	ND (1.74)	0.28 J	0.2 J	ND (1.2)	ND (1.1)	0.52 J	0.44 J	0.39 J	0.62 J	0.78 J
Naphthalene	µg/m³	0.072	NE	**9**	NE	ND (4.1) J	ND (4.9)	ND (4.5)	ND (4.1)	ND (4.6)	**0.9 J**	ND (4.5)	ND (4.8)	ND (3.9)
Styrene	µg/m³	1,000	**21,000**	900	NE	ND (0.67)	ND (0.8)	ND (0.73)	ND (0.66)	1.9	1	0.62 J	1.3	0.23 J
Tetrachloroethene	µg/m³	0.41	**20,000**	**35**	ND (0.47)	0.15 J	0.052 J	0.38	0.39	0.2 J	0.19 J	**1.2**	0.19 J	0.26

TABLE 4-28
366 Center Street Analytical Results - Air (June 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential[1] RSL	Acute[2] REL	Chronic[2] REL	West Oakland[3] Background Air Results	Neighborhood[4] Background Air Results		Soil Gas	Soil Gas 366-SG01	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs Indoor Air	Downstairs Indoor Air	Outdoor Air
						BGA01	BGA02	366-SG01	(FD)	366-IA01	366-IA02	366-IA03	366-IA04	366-OA01
Toluene	µg/m³	5,200	**37,000**	300	ND (3.0)	0.99	0.56	0.6	0.72	14	9.1	5.3	13	2
trans-1,2-Dichloroethene	µg/m³	63	NE	NE	NE	ND (0.63)	ND (0.74)	ND (0.68)	ND (0.61)	ND (0.69)	ND (0.69)	ND (0.68)	ND (0.72)	ND (0.59)
trans-1,3-Dichloropropene	µg/m³	0.61	NE	NE	NE	ND (0.72)	ND (0.85)	ND (0.78)	ND (0.7)	ND (0.79)	ND (0.79)	ND (0.78)	ND (0.83)	ND (0.68)
Trichloroethene	µg/m³	1.2	NE	**600**	ND (0.43)	0.05 J	ND (0.2)	0.091 J	0.03 J	0.098 J	0.04 J	0.7	0.046 J	0.045 J
Vinyl chloride	µg/m³	0.16	**180,000**	NE	ND (0.77)	ND (0.04)	ND (0.048)	0.0097 J	ND (0.04)	0.022 J	ND (0.045)	ND (0.044)	ND (0.047)	ND (0.038)
Xylenes, m & p	µg/m³	730	**22,000**	700	NE	0.5	0.36	0.095 J	0.12 J	5.9	5	2.7	6.5	2.5
Xylenes, o	µg/m³	730	**22,000**	700	NE	0.19	0.13 J	0.04 J	0.041 J	2	1.8	0.98	2.1	0.85

Notes:

Results greater than the screening level are bolded. Indoor air, and outdoor air data is compared to the residential air RSL and soil gas data is compared to the residential air RSL multiplied by an attenuation factor of 10.

[1] Regional screening levels (EPA, December 2009) shown are specific concentrations of chemicals that are considered health protective for human populations. These RSLs are provided for comparisons to the crawlspace air, indoor air, and outdoor air levels in this table. A screening level to compare to soil gas concentrations may be 10 times higher than the residential air RSL due to attenuation from the soil gas to the air that people breathe.

[2] Reference Exposure Levels developed by Office of Environmental Health Hazard Assessment as of December 2008. Acute RELs are designed to address an average exposure time of 1 hour. Chronic RELs are designed to address continuous exposure for up to a lifetime.

[3] West Oakland background results are from the Oakland-Filbert Street ambient air sampling station monitored by the Bay Area Air Quality Management District, located at 2419 Filbert Street (approximately one mile northeast, or crosswind, of the AMCO site); the result is from December 2002.

[4] Neighborhood background results are from samples collected at 323 Lewis Street (upwind of the AMCO site) in June 2009.

ND not detected above the laboratory's reporting limit shown in parentheses
NE not established
J estimated value
µg/m³ micrograms per cubic meter

TABLE 4-29
Soil Screening Levels
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level	Source	Notes
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/kg	8,700,000	EPA Regional Screening Level	
1,1,2,2-Tetrachloroethane	µg/kg	560	EPA Regional Screening Level	
1,1,2-Trichloroethane	µg/kg	1,100	EPA Regional Screening Level	
1,1-Dichloroethane	µg/kg	3,300	EPA Regional Screening Level	
1,1-Dichloroethene	µg/kg	240,000	EPA Regional Screening Level	
1,1-Dichloropropene		NDRI		Not detected, SL not required
1,2,3-Trichlorobenzene	µg/kg	49,000	EPA Regional Screening Level	
1,2,3-Trichloropropane	µg/kg	5	EPA Regional Screening Level	
1,2,4-Trichlorobenzene	µg/kg	22,000	EPA Regional Screening Level	
1,2,4-Trimethylbenzene	µg/kg	62,000	EPA Regional Screening Level	
1,2-Dibromo-3-chloropropane	µg/kg	5.4	EPA Regional Screening Level	
1,2-Dibromoethane	µg/kg	34	EPA Regional Screening Level	
1,2-Dichlorobenzene	µg/kg	1,900,000	EPA Regional Screening Level	
1,2-Dichloroethane	µg/kg	430	EPA Regional Screening Level	
1,2-Dichloropropane	µg/kg	890	EPA Regional Screening Level	
1,3,5-Trimethylbenzene	µg/kg	780,000	EPA Regional Screening Level	
1,3-Dichlorobenzene	µg/kg	530,000	EPA Region 9 Residential Soil PRG	
1,3-Dichloropropane	µg/kg	1,600,000	EPA Regional Screening Level	
1,4-Dichlorobenzene	µg/kg	2,400	EPA Regional Screening Level	
1,4-Dioxane (p-dioxane)	µg/kg	44,000	EPA Regional Screening Level	
2-Hexanone	µg/kg	210,000	EPA Regional Screening Level	
Acetone	µg/kg	61,000,000	EPA Regional Screening Level	
Benzene	µg/kg	1,100	EPA Regional Screening Level	
Bromochloromethane		NDRI		Not detected, SL not required
Bromodichloromethane	µg/kg	270	EPA Regional Screening Level	
Bromoform	µg/kg	61,000	EPA Regional Screening Level	
Bromomethane	µg/kg	7,300	EPA Regional Screening Level	
Carbon disulfide	µg/kg	820,000	EPA Regional Screening Level	
Carbon tetrachloride	µg/kg	610	EPA Regional Screening Level	
Chlorobenzene	µg/kg	290,000	EPA Regional Screening Level	
Chloroethane	µg/kg	15,000,000	EPA Regional Screening Level	
Chloroform	µg/kg	290	EPA Regional Screening Level	
Chloromethane	µg/kg	120,000	EPA Regional Screening Level	
cis-1,2-Dichloroethene	µg/kg	780,000	EPA Regional Screening Level	
cis-1,3-Dichloropropene	µg/kg	1,700	Surrogate	1,3-Dichloropropene was used as the surrogate
Cyclohexane	µg/kg	7,000,000	EPA Regional Screening Level	
Dibromochloromethane	µg/kg	680	EPA Regional Screening Level	
Ethyl tert-butyl ether	µg/kg	43,000	Surrogate	Methyl tertbutyl ether (MTBE) was used as the surrogate
Ethylbenzene	µg/kg	5,400	EPA Regional Screening Level	
Freon 11	µg/kg	790,000	EPA Regional Screening Level	
Freon 12	µg/kg	180,000	EPA Regional Screening Level	
Freon 113	µg/kg	43,000,000	EPA Regional Screening Level	
Isopropyl ether	µg/kg	1,400,000	EPA Regional Screening Level	
Isopropylbenzene (cumene)	µg/kg	2,100,000	EPA Regional Screening Level	
Methyl acetate	µg/kg	78,000,000	EPA Regional Screening Level	
Methyl ethyl ketone	µg/kg	28,000,000	EPA Regional Screening Level	
Methyl isobutyl ketone	µg/kg	5,300,000	EPA Regional Screening Level	
Methyl tert-butyl ether	µg/kg	43,000	EPA Regional Screening Level	
Methylcyclohexane	µg/kg	2,600,000	EPA Region 9 Residential Soil PRG	
Methylene chloride	µg/kg	11,000	EPA Regional Screening Level	
Naphthalene	µg/kg	3,600	EPA Regional Screening Level	
Styrene	µg/kg	6,300,000	EPA Regional Screening Level	

TABLE 4-29
Soil Screening Levels
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level	Source	Notes
Volatile Organic Compounds				
tert-Amyl methyl ether	µg/kg	43,000	Surrogate	Methyl tertbutyl ether (MTBE) was used as the surrogate
tert-Butyl alcohol	µg/kg	160,000,000	Surrogate	sec-butyl alcohol was used as the surrogate
Tetrachloroethene	µg/kg	550	EPA Regional Screening Level	
Toluene	µg/kg	5,000,000	EPA Regional Screening Level	
trans-1,2-Dichloroethene	µg/kg	150,000	EPA Regional Screening Level	
trans-1,3-Dichloropropene	µg/kg	1,700	Surrogate	1,3-Dichloropropene was used as the surrogate
Trichloroethene	µg/kg	2,800	EPA Regional Screening Level	
Vinyl chloride	µg/kg	60	EPA Regional Screening Level	
Xylenes, m & p	µg/kg	3,400,000	EPA Regional Screening Level	
Xylenes, o	µg/kg	3,800,000	EPA Regional Screening Level	
Xylenes, total	µg/kg	630,000	EPA Regional Screening Level	
Semivolatile Organic Compounds				
1,1'-Biphenyl	µg/kg	3,900,000	EPA Regional Screening Level	
1,2,4,5-Tetrachlorobenzene	µg/kg	18,000	EPA Regional Screening Level	
1,4-Dioxane (p-dioxane)	µg/kg	44,000	EPA Regional Screening Level	
2,2'-Oxybis(1-Chloropropane)	µg/kg	4,600	EPA Regional Screening Level	
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	EPA Regional Screening Level	
2,4,5-Trichlorophenol	µg/kg	6,100,000	EPA Regional Screening Level	
2,4,6-Trichlorophenol	µg/kg	44,000	EPA Regional Screening Level	
2,4-Dichlorophenol	µg/kg	180,000	EPA Regional Screening Level	
2,4-Dimethylphenol	µg/kg	1,200,000	EPA Regional Screening Level	
2,4-Dinitrophenol	µg/kg	120,000	EPA Regional Screening Level	
2,4-Dinitrotoluene	µg/kg	1,600	EPA Regional Screening Level	
2,6-Dinitrotoluene	µg/kg	61,000	EPA Regional Screening Level	
2-Chloronaphthalene	µg/kg	6,300,000	EPA Regional Screening Level	
2-Chlorophenol	µg/kg	390,000	EPA Regional Screening Level	
2-Methylnaphthalene	µg/kg	310,000	EPA Regional Screening Level	
2-Methylphenol	µg/kg	3,100,000	EPA Regional Screening Level	
2-Nitroaniline	µg/kg	610,000	EPA Regional Screening Level	
2-Nitrophenol		NDRI		Not detected, SL not required
3,3'-Dichlorobenzidine	µg/kg	1,100	EPA Regional Screening Level	
3-Nitroaniline	µg/kg	24,000	Surrogate	4-Nitroaniline used as the surrogate
4,6-Dinitro-2-methylphenol	µg/kg	4,900	EPA Regional Screening Level	
4-Bromophenylphenyl ether		NDRI		Not detected, SL not required
4-Chloro-3-methylphenol	µg/kg	3,100,000	Surrogate	3-methylphenol was used as the surrogate
4-Chloroaniline	µg/kg	2,400	EPA Regional Screening Level	
4-Chlorophenylphenyl ether		NDRI		Not detected, SL not required
4-Methylphenol	µg/kg	310,000	EPA Regional Screening Level	
4-Nitroaniline	µg/kg	24,000	EPA Regional Screening Level	
4-Nitrophenol	µg/kg	120,000	Surrogate	2,4-Dinitrophenol was used as the surrogate
Acenaphthene	µg/kg	3,400,000	EPA Regional Screening Level	
Acenaphthylene	µg/kg	1,700,000	Surrogate	Pyrene was used as the surrogate
Acetophenone	µg/kg	7,800,000	EPA Regional Screening Level	
Anthracene	µg/kg	17,000,000	EPA Regional Screening Level	
Atrazine	µg/kg	2,100	EPA Regional Screening Level	
Benzaldehyde	µg/kg	7,800,000	EPA Regional Screening Level	
Benzo(a)anthracene	µg/kg	150	EPA Regional Screening Level	
Benzo(a)pyrene	µg/kg	15	EPA Regional Screening Level	
Benzo(b)fluoranthene	µg/kg	150	EPA Regional Screening Level	
Benzo(g,h,i)perylene	µg/kg	1,700,000	Surrogate	Pyrene was used as the surrogate
Benzo(k)fluoranthene	µg/kg	1,500	EPA Regional Screening Level	
Benzyl butyl phthalate	µg/kg	260,000	EPA Regional Screening Level	

TABLE 4-29
Soil Screening Levels
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level	Source	Notes
Semivolatile Organic Compounds				
bis(2-Chloroethoxy)methane	µg/kg	180,000	EPA Regional Screening Level	
bis(2-Chloroethyl)ether	µg/kg	210	EPA Regional Screening Level	
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	EPA Regional Screening Level	
Caprolactam	µg/kg	31,000,000	EPA Regional Screening Level	
Carbazole	µg/kg	24,000	EPA Region 9 Residential Soil PRG	
Chrysene	µg/kg	15,000	EPA Regional Screening Level	
Dibenz(a,h)anthracene	µg/kg	15	EPA Regional Screening Level	
Dibenzofuran	µg/kg	78,000	EPA Regional Screening Level	
Diethylphthalate	µg/kg	49,000,000	EPA Regional Screening Level	
Dimethylphthalate	µg/kg	100,000,000	EPA Region 9 Residential Soil PRG	
Di-n-butyl phthalate	µg/kg	6,100,000	EPA Regional Screening Level	
Di-n-octyl phthalate	µg/kg	2,400,000	EPA Region 9 Residential Soil PRG	
Fluoranthene	µg/kg	2,300,000	EPA Regional Screening Level	
Fluorene	µg/kg	2,300,000	EPA Regional Screening Level	
Hexachlorobenzene	µg/kg	300	EPA Regional Screening Level	
Hexachlorobutadiene	µg/kg	6,200	EPA Regional Screening Level	
Hexachlorocyclopentadiene	µg/kg	370,000	EPA Regional Screening Level	
Hexachloroethane	µg/kg	35,000	EPA Regional Screening Level	
Indeno(1,2,3-c,d)pyrene	µg/kg	150	EPA Regional Screening Level	
Isophorone	µg/kg	510,000	EPA Regional Screening Level	
Naphthalene	µg/kg	3,600	EPA Regional Screening Level	
Nitrobenzene	µg/kg	4,800	EPA Regional Screening Level	
N-Nitrosodi-n-propylamine	µg/kg	69	EPA Regional Screening Level	
N-Nitrosodiphenylamine	µg/kg	99,000	EPA Regional Screening Level	
Pentachlorophenol	µg/kg	3,000	EPA Regional Screening Level	
Phenanthrene	µg/kg	1,700,000	Surrogate	Pyrene was used as the surrogate
Phenol	µg/kg	18,000,000	EPA Regional Screening Level	
Pyrene	µg/kg	1,700,000	EPA Regional Screening Level	
Total Petroleum Hydrocarbons				
Diesel c10-c24		NA		Not available because Diesel and Gasoline are
Gasoline c6-c10		NA		considered a mixture of compounds
Metals				
Aluminum	mg/kg	77,000	EPA Regional Screening Level	
Antimony	mg/kg	31	EPA Regional Screening Level	
Arsenic	mg/kg	0.39 / 22	EPA Regional Screening Level	0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.
Barium	mg/kg	15,000	EPA Regional Screening Level	
Beryllium	mg/kg	160	EPA Regional Screening Level	
Cadmium	mg/kg	70	EPA Regional Screening Level	
Chromium	mg/kg	210	EPA Region 9 Residential Soil PRG	
Cobalt	mg/kg	23	EPA Regional Screening Level	
Copper	mg/kg	3,100	EPA Regional Screening Level	
Cyanide	mg/kg	1,600	EPA Regional Screening Level	
Lead	mg/kg	80	OEHHA CHHSL	
Manganese	mg/kg	1,800	EPA Regional Screening Level	
Mercury	mg/kg	5.6	EPA Regional Screening Level	
Nickel	mg/kg	1,500	EPA Regional Screening Level	
Selenium	mg/kg	390	EPA Regional Screening Level	
Silver	mg/kg	390	EPA Regional Screening Level	
Thallium	mg/kg	5.2	EPA Region 9 Residential Soil PRG	
Vanadium	mg/kg	390	EPA Regional Screening Level	
Zinc	mg/kg	23,000	EPA Regional Screening Level	
Calcium		NA		Essential nutrient; SL not required

TABLE 4-29
Soil Screening Levels
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level	Source	Notes
Metals				
Iron	mg/kg	55,000	EPA Regional Screening Level	
Magnesium		NA		Essential nutrient; SL not required
Potassium		NA		Essential nutrient; SL not required
Sodium		NA		Essential nutrient; SL not required
Organochlorine Pesticides/PCBs				
4,4'-DDD	µg/kg	2,000	EPA Regional Screening Level	
4,4'-DDE	µg/kg	1,400	EPA Regional Screening Level	
4,4'-DDT	µg/kg	1,700	EPA Regional Screening Level	
Aldrin	µg/kg	29	EPA Regional Screening Level	
alpha-BHC	µg/kg	77	EPA Regional Screening Level	
alpha-Chlordane	µg/kg	1,600	Surrogate	Chlordane was used as the surrogate
Aroclor-1016	µg/kg	3,900	EPA Regional Screening Level	
Aroclor-1221	µg/kg	140	EPA Regional Screening Level	
Aroclor-1232	µg/kg	140	EPA Regional Screening Level	
Aroclor-1242	µg/kg	220	EPA Regional Screening Level	
Aroclor-1248	µg/kg	220	EPA Regional Screening Level	
Aroclor-1254	µg/kg	220	EPA Regional Screening Level	
Aroclor-1260	µg/kg	220	EPA Regional Screening Level	
Aroclor-1262		NDRI		Not detected, SL not required
Aroclor-1268		NDRI		Not detected, SL not required
beta-BHC	µg/kg	270	EPA Regional Screening Level	
delta-BHC	µg/kg	77	Surrogate	alpha-BHC was used as the surrogate
Dieldrin	µg/kg	30	EPA Regional Screening Level	
Endosulfan I	µg/kg	370,000	Surrogate	Endosulfan was used as the surrogate
Endosulfan II	µg/kg	370,000	Surrogate	Endosulfan was used as the surrogate
Endosulfan sulfate	µg/kg	370,000	Surrogate	Endosulfan was used as the surrogate
Endrin	µg/kg	18,000	EPA Regional Screening Level	
Endrin aldehyde	µg/kg	18,000	Surrogate	Endrin was used as the surrogate
Endrin ketone	µg/kg	18,000	Surrogate	Endrin was used as the surrogate
gamma-BHC	µg/kg	520	EPA Regional Screening Level	
gamma-Chlordane	µg/kg	1,600	Surrogate	Chlordane was used as the surrogate
Heptachlor	µg/kg	110	EPA Regional Screening Level	
Heptachlor epoxide	µg/kg	53	EPA Regional Screening Level	
Methoxychlor	µg/kg	310,000	EPA Regional Screening Level	
Toxaphene	µg/kg	440	EPA Regional Screening Level	
Dioxins/Furans (1)				
1,2,3,4,6,7,8-HpCDD	ng/kg	450	TEF Calculation	
1,2,3,4,6,7,8-HpCDF	ng/kg	450	TEF Calculation	
1,2,3,4,7,8,9-HpCDF	ng/kg	450	TEF Calculation	
1,2,3,4,7,8-HxCDD	ng/kg	45	TEF Calculation	
1,2,3,4,7,8-HxCDF	ng/kg	45	TEF Calculation	
1,2,3,6,7,8-HxCDD	ng/kg	45	TEF Calculation	
1,2,3,6,7,8-HxCDF	ng/kg	45	TEF Calculation	
1,2,3,7,8,9-HxCDD	ng/kg	45	TEF Calculation	
1,2,3,7,8,9-HxCDF	ng/kg	45	TEF Calculation	
1,2,3,7,8-PeCDD	ng/kg	4.5	TEF Calculation	
1,2,3,7,8-PeCDF	ng/kg	90	TEF Calculation	
2,3,4,6,7,8-HxCDF	ng/kg	45	TEF Calculation	
2,3,4,7,8-PeCDF	ng/kg	9	TEF Calculation	
2,3,7,8-TCDD	ng/kg	4.5	EPA Regional Screening Level	
2,3,7,8-TCDF	ng/kg	45	TEF Calculation	
OCDD	ng/kg	45,000	TEF Calculation	
OCDF	ng/kg	45,000	TEF Calculation	

Notes:
(1) Dioxin/Furan screening levels calculated using Toxicity Equivalency Factors (EPA 2000)
EPA Region 9 PRGs were last updated in October 2004.
EPA Regional Screening Levels were last updated in May 2010.

OEHHA	Office of Environmental Health Hazard Assessment
CHHSL	California Human Health Screening Level
NA	not applicable
NDRI	not detected in soil during the Remedial Investigation phase
PRG	Preliminary Remediation Goal
TEF	Toxicity Equivalence Factor
mg/kg	milligrams per kilogram
ng/kg	nanograms per kilogram

TABLE 4-30
1428 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Volatile Organic Compounds														
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (5.3)	ND (5)	ND (6.8)	ND (16)	ND (4.7)	ND (5.6)	ND (7.5)	ND (5.6)	ND (5.2)	ND (6)	ND (5.6)
1,2-Dibromoethane	µg/kg	34	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2-Dichloroethane	µg/kg	430	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,2-Dichloropropane	µg/kg	890	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
2-Hexanone	µg/kg	210,000	NE	ND (21)	ND (20)	ND (27)	ND (32)	ND (19)	ND (22)	ND (30)	ND (22)	ND (21)	ND (24)	ND (22)
Acetone	µg/kg	61,000,000	NE	ND (21)	ND (20)	19 J	ND (32)	ND (19)	23	17 J	ND (22)	ND (21)	54	ND (22)
Benzene	µg/kg	1,100	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Bromochloromethane	µg/kg	NDRI	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Bromodichloromethane	µg/kg	270	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Bromoform	µg/kg	61,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Bromomethane	µg/kg	7,300	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Carbon disulfide	µg/kg	820,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Carbon tetrachloride	µg/kg	610	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Chlorobenzene	µg/kg	290,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Chloroethane	µg/kg	15,000,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Chloroform	µg/kg	290	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Chloromethane	µg/kg	120,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)

TABLE 4-30
1428 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Volatile Organic Compounds														
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Dibromochloromethane	µg/kg	680	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (11)	ND (10)	ND (14)	ND (16)	ND (9.4)	ND (11)	ND (15)	ND (11)	ND (10)	ND (12)	ND (11)
Ethylbenzene	µg/kg	5,400	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Freon 11	µg/kg	790,000	NE	3.4	3.5	8.8	11	2 J	2.2 J	5	4.1	ND (2.6)	3.2	5.9
Freon 113	µg/kg	43,000,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Freon 12	µg/kg	180,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Isopropyl ether	µg/kg	1,400,000	NE	ND (11)	ND (10)	ND (14)	ND (16)	ND (9.4)	ND (11)	ND (15)	ND (11)	ND (10)	ND (12)	ND (11)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (21)	ND (20)	ND (27)	ND (32)	ND (19)	ND (22)	ND (30)	ND (22)	ND (21)	ND (24)	ND (22)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (21)	ND (20)	ND (27)	ND (32)	ND (19)	ND (22)	ND (30)	ND (22)	ND (21)	ND (24)	ND (22)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (11)	ND (10)	ND (14)	ND (16)	ND (9.4)	ND (11)	ND (15)	ND (11)	ND (10)	ND (12)	ND (11)
Methylene chloride	µg/kg	11,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Styrene	µg/kg	6,300,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (11)	ND (10)	ND (14)	ND (16)	ND (9.4)	ND (11)	ND (15)	ND (11)	ND (10)	ND (12)	ND (11)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (53)	ND (50)	ND (68)	ND (79)	ND (47)	ND (56)	ND (75)	ND (56)	ND (52)	ND (60)	ND (56)
Tetrachloroethene	µg/kg	550	NE	ND (2.6)	ND (2.5)	ND (3.4)	2.5 J	20	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	17	ND (2.8)
Toluene	µg/kg	5,000,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Trichloroethene	µg/kg	2,800	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	20	ND (2.8)
Vinyl chloride	µg/kg	60	NE	ND (2.6)	ND (2.5)	ND (3.4)	ND (4)	ND (2.4)	ND (2.8)	ND (3.7)	ND (2.8)	ND (2.6)	ND (3)	ND (2.8)
Xylenes, total	µg/kg	630,000	NE	ND (5.3)	ND (5)	ND (6.8)	ND (7.9)	ND (4.7)	ND (5.6)	ND (7.5)	ND (5.6)	ND (5.2)	ND (6)	ND (5.6)
Semivolatile Organic Compounds														
1,1'-Biphenyl	µg/kg	3,900,000	NE	ND (910)	ND (320)	290 J	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (360) J	ND (130) J	ND (390) J	ND (75) R	ND (80) J	ND (390) J	ND (95) R	ND (83) R	ND (410) R	ND (530) J	6.6 J
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)

TABLE 4-30
1428 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Semivolatile Organic Compounds														
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (1,800)	ND (620)	ND (1,900)	ND (1,900)	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2,6-Dinitrotoluene	µg/kg	61,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	1,800	ND (1,100)	ND (1,300)	ND (1,100)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2-Chlorophenol	µg/kg	390,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2-Methylnaphthalene	µg/kg	310,000	NE	ND (910)	ND (320)	180 J	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2-Methylphenol	µg/kg	3,100,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
2-Nitroaniline	µg/kg	610,000	NE	ND (1,800)	ND (620)	ND (1,900)	ND (1,900)	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
2-Nitrophenol	µg/kg	NDRI	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
3-Nitroaniline	µg/kg	24,000	NE	ND (1,800)	ND (620)	ND (1,900)	370	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (1,800)	ND (620)	ND (1,900)	ND (1,900)	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
4-Chloroaniline	µg/kg	2,400	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
4-Methylphenol	µg/kg	310,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
4-Nitroaniline	µg/kg	24,000	NE	ND (1,800)	ND (620)	ND (1,900)	ND (1,900)	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
4-Nitrophenol	µg/kg	120,000	NE	ND (1,800)	ND (620)	ND (1,900)	100	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
Acenaphthene	µg/kg	3,400,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Acenaphthylene	µg/kg	1,700,000	NE	330	72 J	2,300 J	400 J	24 J	ND (990)	ND (240)	150 J	ND (1,100)	900 J	170
Acetophenone	µg/kg	7,800,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Anthracene	µg/kg	17,000,000	NE	320	110 J	3,000 J	270 J	28 J	ND (990)	ND (240)	130 J	ND (1,100)	1,100 J	250
Atrazine	µg/kg	2,100	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Benzaldehyde	µg/kg	7,800,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Benzo(a)anthracene	µg/kg	150	NE	1,600	340	8,300 J	970 J	96 J	380	41 J	500 J	260	4,700	1,200
Benzo(a)pyrene	µg/kg	15	NE	1,800	410	9,200 J	1,500 J	150 J	690	68 J	770 J	390	6,200	1,600
Benzo(b)fluoranthene	µg/kg	150	NE	2,000	380	9,800 J	1,500 J	180 J	630	79 J	940 J	420	6,000	1,400

TABLE 4-30
1428 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Semivolatile Organic Compounds														
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	670	160 J	4,400 J	810 J	ND (200)	360	64 J	570 J	ND (1,100)	4,000	610
Benzo(k)fluoranthene	µg/kg	1,500	NE	860	180 J	3,600 J	720 J	67 J	260	29 J	300 J	150	2,900	810
Benzyl butyl phthalate	µg/kg	260,000	NE	ND (910)	ND (320)	ND (1,000)	100	ND (200)	240	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	ND (910)	ND (320)	120 J	120	36 J	150	39 J	560 J	ND (1,100)	190 J	200
Caprolactam	µg/kg	31,000,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Carbazole	µg/kg	24,000	NE	190	ND (320)	630 J	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	240 J	ND (1,100)
Chrysene	µg/kg	15,000	NE	2,200	420	10,000 J	1,400 J	140 J	560	70 J	830 J	450	6,100	1,500
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Dibenzofuran	µg/kg	78,000	NE	ND (910)	ND (320)	130 J	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Diethylphthalate	µg/kg	49,000,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	ND (910)	ND (320)	230 J	ND (960)	ND (200)	ND (990)	180 J	190 J	ND (1,100)	440 J	ND (1,100)
Di-n-octyl phthalate	µg/kg	2,400,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Fluoranthene	µg/kg	2,300,000	NE	3,800	840	19,000 J	2,600 J	270	980	83 J	1,300	670	9,800	2,600
Fluorene	µg/kg	2,300,000	NE	120	ND (320)	1,600 J	110 J	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	490 J	ND (1,100)
Hexachlorobenzene	µg/kg	300	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Hexachloroethane	µg/kg	35,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	950	220 J	4,600 J	970 J	100 J	460	57 J	500 J	220	3,600	870
Isophorone	µg/kg	510,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Naphthalene	µg/kg	3,600	NE	210	ND (320)	1,000 J	330 J	37 J	ND (990)	ND (240)	ND (1,100)	ND (1,100)	180 J	ND (1,100)
Nitrobenzene	µg/kg	4,800	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Pentachlorophenol	µg/kg	3,000	NE	ND (1,800)	ND (620)	ND (1,900)	ND (1,900)	ND (390)	ND (1,900)	ND (470)	ND (2,000)	ND (2,000)	ND (2,600)	ND (2,200)
Phenanthrene	µg/kg	1,700,000	NE	2,500	680	20,000 J	2,200 J	220	530	51 J	1,000 J	400 J	6,800	1,600
Phenol	µg/kg	18,000,000	NE	ND (910)	ND (320)	ND (1,000)	ND (960)	ND (200)	ND (990)	ND (240)	ND (1,100)	ND (1,100)	ND (1,300)	ND (1,100)
Pyrene	µg/kg	1,700,000	NE	3,800	820	20,000 J	2,900 J	260	1,000	97 J	1,400	680	11,000	2,800

TABLE 4-30
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Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Metals														
Aluminum	mg/kg	77,000	NE	2,160	4,610	7,910	6,920	3,940	2,140	11,900	5,640	1,910	7,060	5,570
Antimony	mg/kg	31	5.9	0.75 J	ND (6.8)	37.7	36.5	6 J	0.87 J	ND (8.7)	ND (7.1)	1.3 J	77.4	18.4
Arsenic[5]	mg/kg	0.062 / 22	***14***	*4.9*	*3.1*	*14.8*	*13.5*	*6.2*	*5.2*	*13.5*	*15.7*	*4.7*	35.1	*10.8*
Barium	mg/kg	15,000	NE	150	125	1,490	1,220	231	126	3,210	1,160	123	711	374
Beryllium	mg/kg	160	0.9	0.08 J	0.09 J	0.27 J	0.22 J	0.12 J	0.09 J	0.47 J	0.16 J	0.05 J	0.29 J	0.15 J
Cadmium	mg/kg	70	1.5	0.76	0.15 J	4	4.3	0.78	0.94	17.9	5.6	1.6	3.4	2.1
Calcium	mg/kg	NA	NE	2,210	2,650	18,700	21,900	3,910	2,540	31,900	12,400	2,400	9,160	4,490
Chromium	mg/kg	210	91.4	12.5	24.8	41.7	39	21.8	10.9	81.1	112	17.8	38.8	37.3
Cobalt	mg/kg	23	NE	2.3 J	5 J	9.4	8.6	4.5 J	2.6 J	14.4	11.4	3.2 J	7.1	6.6
Copper	mg/kg	3,100	59.6	64.3	23.9	427	347	55.6	72.6	267	439	76.1	440	257
Iron	mg/kg	55,000	NE	9,130	9,140	26,100	23,700	10,500	8,670	51,500	44,100	15,000	22,200	16,600
Lead[6]	mg/kg	194 / 340	14.7	443	72.1 J+	2,320	1,590 J+	*224*	429	4,170 J+	2,920	*318 J+*	2,660 J+	1,050 J+
Magnesium	mg/kg	NA	NE	686	1,440	2,410	2,230	1,190	766	2,650	3,180	695	2,310	1,730
Manganese	mg/kg	1,800	NE	102	220	493	478	193	123	492	485	239	313	260
Mercury	mg/kg	5.6	0.3	0.73	0.18	0.76	0.69	0.26	0.52	1.5	0.71	0.34	1.4	0.81
Nickel	mg/kg	1,500	120.2	10.3	17.4	38.8	38	18	10.6	44.3	59.4	18.9	33.6	27
Potassium	mg/kg	NA	NE	362 J	645	1,880	1,490	744	425 J	1,260	1,050	327 J	1,280	834
Selenium	mg/kg	390	5.6	ND (3.8)	0.55 J	ND (4.1)	ND (3.8)	ND (4)	ND (3.9)	ND (5.1)	ND (4.2)	ND (4.2)	ND (4.4)	0.66 J
Silver	mg/kg	390	1.7	0.88 J	0.58 J	6.4	4.9	0.74 J	0.95 J	4.1	6.4	0.83 J	3.2	2.6
Sodium	mg/kg	NA	NE	ND (536)	383 J	5,370	6,030	ND (567)	ND (562)	12,400	5,860	ND (602)	2,970	1,950
Thallium	mg/kg	5.2	**42.5**	0.53 J	ND (2.8)	ND (2.9)	ND (2.7)	0.71 J	0.68 J	ND (3.6)	0.61 J	1 J	ND (3.2)	ND (3.1)
Vanadium	mg/kg	390	NE	8	19.8	27.7	25.6	15.9	9	43.9	38.4	10.6	27	23.3
Zinc	mg/kg	23,000	91.5	267	77.2	2,040	2,340	277	361	4,730	2,320	495	1,130	722
Organochlorine Pesticides/PCBs														
4,4'-DDD	µg/kg	2,000	NE	160 J	4.7 J	30 J	180 J	13 J	14 J	0.53 J	13 J	4.3 J	ND (5.2)	4.7 J
4,4'-DDE	µg/kg	1,400	NE	240 J	18	6.1 J	260 J	180 J	58	3.1 J	9 J	14	7.7 J	20 J
4,4'-DDT	µg/kg	1,700	NE	360 J	38 J	270 J	1,800 J	450 J	340 J	8.4	1,000 J	110	0.34 J	200 J
Aldrin	µg/kg	29	NE	0.15 J	ND (3.2) J	ND (2) J	0.18 J	0.16 J	0.64 J	ND (2.4) J	0.68 J	0.59 J	ND (2.7) J	ND (2.3) J
alpha-BHC	µg/kg	77	NE	0.082 J	ND (3.2)	1.5 J	2.5 J	0.3 J	0.042 J	ND (2.4)	0.55 J	ND (2.1)	ND (2.7)	0.18 J
alpha-Chlordane	µg/kg	1,600	NE	0.44 J	0.18 J	1.7 J	4.3	0.64 J	3.9	ND (2.4)	10 J	0.21 J	0.54 J	2.5 J
Aroclor-1016	µg/kg	3,900	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)

TABLE 4-30
1428 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1428SSa	1428SSa	1428SSb	1428SSb	1428SSb	1428SSc	1428SSc	1428SSd	1428SSd	1428SSe	1428SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Organochlorine Pesticides/PCBs														
Aroclor-1221	µg/kg	140	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1232	µg/kg	140	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1242	µg/kg	220	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1248	µg/kg	220	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1254	µg/kg	220	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1260	µg/kg	220	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1262	µg/kg	NDRI	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
Aroclor-1268	µg/kg	NDRI	NE	ND (36)	ND (62)	ND (39)	ND (37)	ND (39)	ND (38)	ND (47)	ND (41)	ND (41)	ND (52)	ND (44)
beta-BHC	µg/kg	270	NE	0.45 J	0.25 J	ND (2) J	2.3 J	0.36 J	1.2 J	ND (2.4)	ND (2.1) J	ND (2.1)	ND (2.7) J	0.7 J
delta-BHC	µg/kg	77	NE	0.43 J	ND (3.2)	0.92 J	0.23 J	0.14 J	0.1 J	ND (2.4)	0.25 J	ND (2.1)	0.68 J	0.26 J
Dieldrin	µg/kg	30	NE	ND (3.3) J	ND (6.2)	0.2 J	15 J	18 J	8.1 J	ND (4.7)	2 J	ND (4.1)	0.77 J	5.8 J
Endosulfan I	µg/kg	370,000	NE	0.38 J	ND (3.2)	ND (2)	0.4 J	0.069 J	0.067 J	ND (2.4)	1.9 J	ND (2.1)	ND (2.7)	0.095 J
Endosulfan II	µg/kg	370,000	NE	0.53 J	0.66 J	0.31 J	0.83 J	0.4 J	0.31 J	ND (4.7)	2.2 J	0.62 J	0.31 J	0.24 J
Endosulfan sulfate	µg/kg	370,000	NE	0.57 J	0.54 J	0.58 J	2.7 J	0.16 J	2.1 J	0.52 J	0.92 J	0.26 J	2.1 J	2.6 J
Endrin	µg/kg	18,000	NE	11 J	0.44 J	0.57 J	0.75 J	0.73 J	0.32 J	1.4 J	2 J	0.58 J	7.5 J	3.9 J
Endrin aldehyde	µg/kg	18,000	NE	ND (3.3) J	ND (3.3)	1 J	ND (3.3) J	ND (3.3) J	ND (3.3) J	ND (4.7)	5.4 J	0.42 J	3.3 J	ND (3.3) J
Endrin ketone	µg/kg	18,000	NE	0.19 J	0.68 J	4.9 J	7 J	0.16 J	0.21 J	ND (2.4)	1.4 J	ND (2.1)	0.41 J	4 J
gamma-BHC	µg/kg	520	NE	0.28 J	ND (3.2) J	0.32 J	0.48 J	ND (2) J	0.21 J	ND (2.4) J	ND (2.1) J	ND (2.1)	ND (2.7) J	ND (2.3) J
gamma-Chlordane	µg/kg	1,600	NE	ND (1.7) J	ND (1.7) J	4.4 J	1.9 J	ND (1.7) J	2 J	0.29 J	4.4 J	1.3 J	1.5 J	3.7
Heptachlor	µg/kg	110	NE	0.11 J	ND (3.2) J	0.29 J	0.69 J	0.16 J	0.25 J	ND (2.4) J	0.84 J	ND (2.1)	0.32 J	0.036 J
Heptachlor epoxide	µg/kg	53	NE	0.28 J	0.14 J	1.9 J	6.1 J	0.44 J	2.9	ND (2.4)	26	0.48 J	0.38 J	0.66 J
Methoxychlor	µg/kg	310,000	NE	18 J	ND (17) J	1.1 J	17 J	ND (17)	ND (17) J	ND (24)	0.71 J	0.5 J	12 J	ND (17) J
Toxaphene	µg/kg	440	NE	ND (180)	ND (320)	ND (200)	ND (190)	ND (200)	ND (200)	ND (240)	ND (210)	ND (210)	ND (270)	ND (230)

TABLE 4-30
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Human Health Risk Assessment
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Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

FD	field duplicate
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa	1432SSa	1432SSb	1432SSb	1432SSb	1432SSc	1432SSc
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	11/7/2006	11/7/2006
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (6.5)	ND (6.2)	ND (7.3)	ND (6.5)	ND (7.3)	ND (15)	ND (13)
1,2-Dibromoethane	µg/kg	34	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2-Dichloroethane	µg/kg	430	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,2-Dichloropropane	µg/kg	890	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
2-Hexanone	µg/kg	210,000	NE	ND (26)	ND (25)	ND (29)	ND (26)	ND (29)	ND (29)	ND (25)
Acetone	µg/kg	61,000,000	NE	ND (13)	ND (12)	ND (29)	ND (13)	ND (29)	ND (29) J	ND (25) J
Benzene	µg/kg	1,100	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Bromochloromethane	µg/kg	NDRI	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Bromodichloromethane	µg/kg	270	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Bromoform	µg/kg	61,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6) J	ND (3.2) J
Bromomethane	µg/kg	7,300	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Carbon disulfide	µg/kg	820,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Carbon tetrachloride	µg/kg	610	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Chlorobenzene	µg/kg	290,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Chloroethane	µg/kg	15,000,000	NE	ND (1.6)	ND (1.6)	ND (3.6)	ND (1.6)	ND (3.6)	ND (3.6)	ND (3.2)
Chloroform	µg/kg	290	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Chloromethane	µg/kg	120,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa	1432SSa	1432SSb	1432SSb	1432SSb	1432SSc	1432SSc
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	11/7/2006	11/7/2006
Volatile Organic Compounds										
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Dibromochloromethane	µg/kg	680	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6) J	ND (3.2) J
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (15)	ND (13)	ND (15)	ND (15)	ND (13)
Ethylbenzene	µg/kg	5,400	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Freon 11	µg/kg	790,000	NE	4.5	5.2	9.2	5.8	12	17	3 J
Freon 113	µg/kg	43,000,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Freon 12	µg/kg	180,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Isopropyl ether	µg/kg	1,400,000	NE	ND (13)	ND (12)	ND (15)	ND (13)	ND (15)	ND (15)	ND (13)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (26)	ND (25)	ND (29)	ND (26)	ND (29)	ND (29)	ND (25)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (26)	ND (25)	ND (29)	ND (26)	ND (29)	ND (29)	ND (25)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (15)	ND (13)	ND (15)	ND (15)	ND (13)
Methylene chloride	µg/kg	11,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Styrene	µg/kg	6,300,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (15)	ND (13)	ND (15)	ND (15)	ND (13)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (65)	ND (62)	ND (73)	ND (65)	ND (73)	ND (73)	ND (63)
Tetrachloroethene	µg/kg	550	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Toluene	µg/kg	5,000,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Trichloroethene	µg/kg	2,800	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Vinyl chloride	µg/kg	60	NE	ND (3.3)	ND (3.1)	ND (3.6)	ND (3.2)	ND (3.6)	ND (3.6)	ND (3.2)
Xylenes, total	µg/kg	630,000	NE	ND (6.5)	ND (6.2)	ND (7.3)	ND (6.5)	ND (7.3)	ND (7.3)	ND (6.3)
Semivolatile Organic Compounds										
1,1'-Biphenyl	µg/kg	3,900,000	NE	220	ND (1,000)	490 J	ND (1,200)	ND (1,000)	ND (230)	ND (200)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (81) R	ND (400) J	ND (400) J	ND (490) J	ND (410) J	---	---
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa	1432SSa	1432SSb	1432SSb	1432SSb	1432SSc	1432SSc
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	11/7/2006	11/7/2006
Semivolatile Organic Compounds										
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2,6-Dinitrotoluene	µg/kg	61,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	1,800	ND (230)	ND (200)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2-Chlorophenol	µg/kg	390,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2-Methylnaphthalene	µg/kg	310,000	NE	130	ND (1,000)	150 J	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2-Methylphenol	µg/kg	3,100,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
2-Nitroaniline	µg/kg	610,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
2-Nitrophenol	µg/kg	NDRI	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
3-Nitroaniline	µg/kg	24,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
4-Chloroaniline	µg/kg	2,400	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
4-Methylphenol	µg/kg	310,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
4-Nitroaniline	µg/kg	24,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
4-Nitrophenol	µg/kg	120,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
Acenaphthene	µg/kg	3,400,000	NE	120	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Acenaphthylene	µg/kg	1,700,000	NE	870	ND (1,000)	1,200 J	180 J	110 J	120 J	ND (200)
Acetophenone	µg/kg	7,800,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Anthracene	µg/kg	17,000,000	NE	610	ND (1,000)	570 J	160	120 J	90 J	ND (200)
Atrazine	µg/kg	2,100	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Benzaldehyde	µg/kg	7,800,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Benzo(a)anthracene	µg/kg	150	NE	1,300	290 J	1,600 J	480 J	390 J	340	66 J
Benzo(a)pyrene	µg/kg	15	NE	1,900	380 J	2,800 J	790 J	600 J	410	52 J
Benzo(b)fluoranthene	µg/kg	150	NE	2,000	400 J	3,000 J	820 J	770 J	600	110 J

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa	1432SSa	1432SSb	1432SSb	1432SSb	1432SSc	1432SSc
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	11/7/2006	11/7/2006
Semivolatile Organic Compounds										
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	810	190 J	1,400 J	390 J	390 J	270	37 J
Benzo(k)fluoranthene	µg/kg	1,500	NE	970	160 J	880 J	420	360 J	220 J	39 J
Benzyl butyl phthalate	µg/kg	260,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	130	110 J	ND (1,000)	ND (1,200)	160 J	60 J	ND (200)
Caprolactam	µg/kg	31,000,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Carbazole	µg/kg	24,000	NE	190	ND (1,000)	160 J	ND (1,200)	ND (1,000)	28 J	ND (200)
Chrysene	µg/kg	15,000	NE	1,800	410 J	2,300 J	750 J	780 J	460	75 J
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Dibenzofuran	µg/kg	78,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Diethylphthalate	µg/kg	49,000,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	ND (1,000)	ND (1,000)	210 J	ND (1,200)	240 J	51 J	50 J
Di-n-octyl phthalate	µg/kg	2,400,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Fluoranthene	µg/kg	2,300,000	NE	4,300	620 J	5,200 J	1,500 J	1,100	900	110 J
Fluorene	µg/kg	2,300,000	NE	320	ND (1,000)	330 J	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Hexachlorobenzene	µg/kg	300	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230) J	ND (200) J
Hexachloroethane	µg/kg	35,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	1,200	270 J	1,800 J	490 J	410 J	370	56 J
Isophorone	µg/kg	510,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Naphthalene	µg/kg	3,600	NE	1,200	ND (1,000)	2,800 J	140 J	ND (1,000)	ND (230)	ND (200)
Nitrobenzene	µg/kg	4,800	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Pentachlorophenol	µg/kg	3,000	NE	ND (2,000)	ND (2,000)	ND (2,000)	ND (2,400)	ND (2,000)	ND (440)	ND (390)
Phenanthrene	µg/kg	1,700,000	NE	5,100	500 J	6,000	1,200	920 J	590	88 J
Phenol	µg/kg	18,000,000	NE	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,200)	ND (1,000)	ND (230)	ND (200)
Pyrene	µg/kg	1,700,000	NE	4,300	720 J	5,800 J	1,500 J	1,200	940	110 J

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa 1 ft bgs[3] 10/18/2006	1432SSa 3 ft bgs[4] 10/18/2006	1432SSb 1 ft bgs 10/18/2006	1432SSb 1 ft bgs (FD) 10/18/2006	1432SSb 3 ft bgs 10/18/2006	1432SSc 1 ft bgs 11/7/2006	1432SSc 3 ft bgs 11/7/2006
Metals										
Aluminum	mg/kg	77,000	NE	1,870	4,760	6,870 J	3,610 J	6,730	6,760 J	6,470
Antimony	mg/kg	31	5.9	1.1 J	1.4 J	ND (7.2)	2 J	ND (7.6)	5.7 J	2.6 J
Arsenic[5]	mg/kg	0.062 / 22	***14***	*7.8*	*8.1*	*11.7*	*9.9*	*11.1*	*13.8*	*7.6*
Barium	mg/kg	15,000	NE	396	493	1,180 J	660 J	1,290	1,170 J	502
Beryllium	mg/kg	160	0.9	0.07 J	0.24 J	0.26 J	0.13 J	0.26 J	0.25 J	0.25 J
Cadmium	mg/kg	70	1.5	1.9	1.5	5.7 J	3.4 J	3.6	5.3	3.6
Calcium	mg/kg	NA	NE	3,080	9,200	13,500 J	5,630 J	15,200	10,500 J	12,600
Chromium	mg/kg	210	91.4	13.2	19.8	47.7 J	24.1 J	47.6	62.6 J	53
Cobalt	mg/kg	23	NE	2.2 J	4.1 J	9	4.1 J	7.6	9.1	7
Copper	mg/kg	3,100	59.6	101	168	544 J	235 J	316	458 J	505
Iron	mg/kg	55,000	NE	15,700	9,680	28,200	22,600	22,900	21,700 J	15,000
Lead[6]	mg/kg	194 / 340	14.7	1,060	524 J+	1,830	1,610	1,500 J+	2,280 J	983
Magnesium	mg/kg	NA	NE	571 J	1,160	2,200 J	1,050 J	1,990	2,030 J	1,860
Manganese	mg/kg	1,800	NE	104	338	436 J	237 J	323	369 J	359
Mercury	mg/kg	5.6	0.3	1.5	1.7	1.5	1.6	2.3	1.8	2.3
Nickel	mg/kg	1,500	120.2	10.2	15.2	43.6 J	20.8 J	36.5	39 J	31.6
Potassium	mg/kg	NA	NE	514 J	759 J	1,360 J	663 J	1,270	1,490	1,240
Selenium	mg/kg	390	5.6	0.59 J	ND (5.4)	ND (4.2)	0.48 J	0.51 J	ND (4.6)	ND (4.5)
Silver	mg/kg	390	1.7	1.1 J	1.2 J	7.1 J	3 J	4.3	6.6 J+	3.6
Sodium	mg/kg	NA	NE	ND (747)	ND (770)	5,810 J	ND (704) J	3,910	4,570 J+	3,810 J+
Thallium	mg/kg	5.2	**42.5**	0.61 J	0.6 J	ND (3)	1 J	ND (3.2)	ND (3.3)	ND (3.2)
Vanadium	mg/kg	390	NE	8.4	16.4	29.6 J	15 J	30.8	28.2 J	21.3
Zinc	mg/kg	23,000	91.5	565	601	2,290 J	973 J	1,490	1,880 J	1,550
Organochlorine Pesticides/PCBs										
4,4'-DDD	µg/kg	2,000	NE	17 J	0.82 J	21 J	14 J	13 J	8.3 J	3.1 J
4,4'-DDE	µg/kg	1,400	NE	230 J	0.5 J	220 J	870 J	4.7 J	62 J	17
4,4'-DDT	µg/kg	1,700	NE	980 J	140	610 J	3,100 J	510 J	220 J	55
Aldrin	µg/kg	29	NE	0.098 J	ND (2) J	0.21 J	0.2 J	0.53 J	2.7 J	0.15 J
alpha-BHC	µg/kg	77	NE	1.5 J	ND (2)	10 J	1.5 J	0.56 J	0.67 J	0.18 J
alpha-Chlordane	µg/kg	1,600	NE	28 J	7.6 J	73 J	23 J	0.3 J	14	6.6
Aroclor-1016	µg/kg	3,900	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1432SSa	1432SSa	1432SSb	1432SSb	1432SSb	1432SSc	1432SSc
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	11/7/2006	11/7/2006
Organochlorine Pesticides/PCBs										
Aroclor-1221	µg/kg	140	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1232	µg/kg	140	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1242	µg/kg	220	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1248	µg/kg	220	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1254	µg/kg	220	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1260	µg/kg	220	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1262	µg/kg	NDRI	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
Aroclor-1268	µg/kg	NDRI	NE	ND (40)	ND (39)	ND (40)	ND (48)	ND (41)	ND (44)	ND (39)
beta-BHC	µg/kg	270	NE	2.9 J	ND (2) J	2.3 J	0.52 J	ND (2.1) J	0.85 J	ND (2)
delta-BHC	µg/kg	77	NE	0.037 J	0.33 J	1.4 J	0.72 J	0.27 J	0.34 J	ND (2)
Dieldrin	µg/kg	30	NE	19	4.8	17 J	10 J	3.5 J	12 J	3.5 J
Endosulfan I	µg/kg	370,000	NE	0.62 J	0.25 J	0.44 J	0.21 J	0.53 J	0.3 J	0.14 J
Endosulfan II	µg/kg	370,000	NE	0.54 J	0.62 J	0.82 J	0.28 J	0.55 J	1.1 J	0.29 J
Endosulfan sulfate	µg/kg	370,000	NE	2.7 J	0.31 J	16 J	0.83 J	2.7 J	3.5 J	1.5 J
Endrin	µg/kg	18,000	NE	19 J	6.7 J	150 J	15 J	0.22 J	9.2 J	ND (3.3) J
Endrin aldehyde	µg/kg	18,000	NE	ND (3.3) J	0.24 J	24 J	ND (3.3) J	ND (4.1)	2.5 J	1.5 J
Endrin ketone	µg/kg	18,000	NE	0.36 J	ND (2)	0.29 J	0.46 J	2.5 J	5.5 J	2.6 J
gamma-BHC	µg/kg	520	NE	0.36 J	ND (2) J	0.51 J	0.28 J	ND (2.1) J	0.16 J	0.26 J
gamma-Chlordane	µg/kg	1,600	NE	27 J	8.3 J	68 J	23	7.8 J	19 J	9.8
Heptachlor	µg/kg	110	NE	0.34 J	ND (2) J	0.36 J	0.04 J	ND (2.1) J	ND (1.7) J	ND (1.7)
Heptachlor epoxide	µg/kg	53	NE	1.6 J	ND (2)	1.1 J	1.4 J	ND (2.1)	0.73 J	0.46 J
Methoxychlor	µg/kg	310,000	NE	27 J	4.4 J	8.5 J	ND (17) J	0.22 J	0.63 J	2.7 J
Toxaphene	µg/kg	440	NE	ND (200)	ND (200)	ND (200)	ND (250)	ND (210)	ND (230)	ND (200)

TABLE 4-31
1432 3rd Street Analytical Results - Soil (October 2006)
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Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

FD	field duplicate
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-32
1436 3rd Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (6.6)	ND (5.8)	ND (6.8)	ND (6)
1,2-Dibromoethane	µg/kg	34	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2-Dichloroethane	µg/kg	430	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,2-Dichloropropane	µg/kg	890	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
2-Hexanone	µg/kg	210,000	NE	ND (27)	ND (23)	ND (27)	ND (24)
Acetone	µg/kg	61,000,000	NE	ND (27)	ND (23)	ND (27)	ND (12)
Benzene	µg/kg	1,100	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Bromochloromethane	µg/kg	NDRI	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Bromodichloromethane	µg/kg	270	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Bromoform	µg/kg	61,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Bromomethane	µg/kg	7,300	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Carbon disulfide	µg/kg	820,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Carbon tetrachloride	µg/kg	610	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Chlorobenzene	µg/kg	290,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Chloroethane	µg/kg	15,000,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (1.5)
Chloroform	µg/kg	290	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Chloromethane	µg/kg	120,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)

TABLE 4-32
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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Volatile Organic Compounds							
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Dibromochloromethane	µg/kg	680	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (14)	ND (12)
Ethylbenzene	µg/kg	5,400	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Freon 11	µg/kg	790,000	NE	ND (3.3)	4.1	15	5.8
Freon 113	µg/kg	43,000,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Freon 12	µg/kg	180,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (1.5)
Isopropyl ether	µg/kg	1,400,000	NE	ND (13)	ND (12)	ND (14)	ND (12)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (27)	ND (23)	ND (27)	ND (24)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (27)	ND (23)	ND (27)	ND (24)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (14)	ND (12)
Methylene chloride	µg/kg	11,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Styrene	µg/kg	6,300,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (13)	ND (12)	ND (14)	ND (12)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (66)	ND (58)	ND (68)	ND (60)
Tetrachloroethene	µg/kg	550	NE	4.9	5.6	ND (3.4)	ND (3)
Toluene	µg/kg	5,000,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Trichloroethene	µg/kg	2,800	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Vinyl chloride	µg/kg	60	NE	ND (3.3)	ND (2.9)	ND (3.4)	ND (3)
Xylenes, total	µg/kg	630,000	NE	ND (6.6)	ND (5.8)	ND (6.8)	ND (6)
Semivolatile Organic Compounds							
1,1'-Biphenyl	µg/kg	3,900,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (440) J	ND (81) J	ND (400) J	ND (77) J
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Semivolatile Organic Compounds							
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2,6-Dinitrotoluene	µg/kg	61,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2-Chlorophenol	µg/kg	390,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2-Methylnaphthalene	µg/kg	310,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2-Methylphenol	µg/kg	3,100,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
2-Nitroaniline	µg/kg	610,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
2-Nitrophenol	µg/kg	NDRI	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
3-Nitroaniline	µg/kg	24,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
4-Chloroaniline	µg/kg	2,400	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
4-Methylphenol	µg/kg	310,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
4-Nitroaniline	µg/kg	24,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
4-Nitrophenol	µg/kg	120,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
Acenaphthene	µg/kg	3,400,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Acenaphthylene	µg/kg	1,700,000	NE	500	ND (210)	ND (1,000)	ND (190)
Acetophenone	µg/kg	7,800,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Anthracene	µg/kg	17,000,000	NE	820	ND (210)	130 J	ND (190)
Atrazine	µg/kg	2,100	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Benzaldehyde	µg/kg	7,800,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Benzo(a)anthracene	µg/kg	150	NE	1,800	66 J	840 J	46 J
Benzo(a)pyrene	µg/kg	15	NE	2,400	82 J	1,200	74 J
Benzo(b)fluoranthene	µg/kg	150	NE	2,300	100 J	1,800	95 J

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Semivolatile Organic Compounds							
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	960	45 J	1,300	63 J
Benzo(k)fluoranthene	µg/kg	1,500	NE	980	43 J	610 J	32 J
Benzyl butyl phthalate	µg/kg	260,000	NE	130	ND (210)	ND (1,000)	ND (190)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	570	51 J	8,900	60 J
Caprolactam	µg/kg	31,000,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Carbazole	µg/kg	24,000	NE	120	ND (210)	ND (1,000)	ND (190)
Chrysene	µg/kg	15,000	NE	2,400	86 J	1,400	69 J
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Dibenzofuran	µg/kg	78,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Diethylphthalate	µg/kg	49,000,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	ND (1,100)	28 J	380 J	140 J
Di-n-octyl phthalate	µg/kg	2,400,000	NE	ND (1,100)	ND (210)	240 J	ND (190)
Fluoranthene	µg/kg	2,300,000	NE	5,200	120 J	2,600	150 J
Fluorene	µg/kg	2,300,000	NE	390	ND (210)	ND (1,000)	ND (190)
Hexachlorobenzene	µg/kg	300	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Hexachloroethane	µg/kg	35,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	1,300	69 J	1,100	64 J
Isophorone	µg/kg	510,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Naphthalene	µg/kg	3,600	NE	110	ND (210)	ND (1,000)	ND (190)
Nitrobenzene	µg/kg	4,800	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Pentachlorophenol	µg/kg	3,000	NE	ND (2,200)	ND (400)	ND (2,000)	ND (380)
Phenanthrene	µg/kg	1,700,000	NE	5,000	70 J	1,100	76 J
Phenol	µg/kg	18,000,000	NE	ND (1,100)	ND (210)	ND (1,000)	ND (190)
Pyrene	µg/kg	1,700,000	NE	5,600 J	130 J	2,900	150 J

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Metals							
Aluminum	mg/kg	77,000	NE	4,210 J	5,650	8,910	4,690
Antimony	mg/kg	31	5.9	1.7 J	ND (7.3)	ND (7.3)	ND (6.8)
Arsenic[5]	mg/kg	0.062 / 22	***14***	*7.6 J*	*7.7*	*15.6*	*3.3*
Barium	mg/kg	15,000	NE	333 J	217	1,450	154
Beryllium	mg/kg	160	0.9	0.12 J	0.21 J	0.23 J	0.11 J
Cadmium	mg/kg	70	1.5	3 J	1.2	13	0.59
Calcium	mg/kg	NA	NE	4,370 J	3,700	15,000	3,180
Chromium	mg/kg	210	91.4	26.1 J	144	69.7	35.3
Cobalt	mg/kg	23	NE	4.2 J	6.3	10.2	5.3 J
Copper	mg/kg	3,100	59.6	234 J	147	927	51.3
Iron	mg/kg	55,000	NE	23,500	13,900	27,700	9,290
Lead[6]	mg/kg	194 / 340	14.7	2,910	829	3,630	*216 J+*
Magnesium	mg/kg	NA	NE	1,230 J	1,630	4,060	1,580
Manganese	mg/kg	1,800	NE	304 J	120	447	183
Mercury	mg/kg	5.6	0.3	1.7	1.9	1.9	0.49
Nickel	mg/kg	1,500	120.2	14.3 J	22.7	60	18.4
Potassium	mg/kg	NA	NE	705 J	700	1,530	852
Selenium	mg/kg	390	5.6	ND (4.2) J	0.69 J	ND (4.2)	0.52 J
Silver	mg/kg	390	1.7	2.8 J	2.7	6.2	0.7 J
Sodium	mg/kg	NA	NE	ND (595)	2,460	8,190	739
Thallium	mg/kg	5.2	**42.5**	1.1 J	ND (3)	ND (3)	ND (2.8)
Vanadium	mg/kg	390	NE	12.5 J	25.3	32.9	19.5
Zinc	mg/kg	23,000	91.5	1,580 J	977	3,200	231
Organochlorine Pesticides/PCBs							
4,4'-DDD	µg/kg	2,000	NE	9.9 J	0.81 J	12 J	ND (3.8)
4,4'-DDE	µg/kg	1,400	NE	300 J	ND (4)	93	3.1 J
4,4'-DDT	µg/kg	1,700	NE	1,600	17 J	320 J	12 J
Aldrin	µg/kg	29	NE	0.17 J	ND (2.1) J	0.57 J	ND (1.9) J
alpha-BHC	µg/kg	77	NE	0.9 J	ND (2.1)	0.71 J	ND (1.9)
alpha-Chlordane	µg/kg	1,600	NE	100 J	2.8 J	120 J	0.41 J
Aroclor-1016	µg/kg	3,900	NE	ND (43)	ND (40)	ND (40)	ND (38)

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	1436SSa 1 ft bgs[3] 10/18/2006	1436SSa 3 ft bgs[4] 10/18/2006	1436SSb 1 ft bgs 10/18/2006	1436SSb 3 ft bgs 10/18/2006
Organochlorine Pesticides/PCBs							
Aroclor-1221	µg/kg	140	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1232	µg/kg	140	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1242	µg/kg	220	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1248	µg/kg	220	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1254	µg/kg	220	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1260	µg/kg	220	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1262	µg/kg	NDRI	NE	ND (43)	ND (40)	ND (40)	ND (38)
Aroclor-1268	µg/kg	NDRI	NE	ND (43)	ND (40)	ND (40)	ND (38)
beta-BHC	µg/kg	270	NE	0.57 J	ND (2.1) J	2.7 J	ND (1.9) J
delta-BHC	µg/kg	77	NE	1.4 J	ND (2.1)	ND (2)	ND (1.9)
Dieldrin	µg/kg	30	NE	1,000	4.4 J	36	0.2 J
Endosulfan I	µg/kg	370,000	NE	0.79 J	ND (2.1)	1.5 J	ND (1.9)
Endosulfan II	µg/kg	370,000	NE	0.51 J	0.43 J	2.4 J	ND (3.8)
Endosulfan sulfate	µg/kg	370,000	NE	4.7 J	0.82 J	0.97 J	1.9 J
Endrin	µg/kg	18,000	NE	1.2 J	1.4 J	13 J	1.3 J
Endrin aldehyde	µg/kg	18,000	NE	ND (3.3) J	0.5 J	0.56 J	ND (3.8)
Endrin ketone	µg/kg	18,000	NE	8.7 J	0.65 J	1.7 J	0.59 J
gamma-BHC	µg/kg	520	NE	0.36 J	ND (2.1) J	ND (2) J	ND (1.9) J
gamma-Chlordane	µg/kg	1,600	NE	110 J	1.4 J	1.5 J	1 J
Heptachlor	µg/kg	110	NE	0.34 J	ND (2.1) J	1.3 J	ND (1.9) J
Heptachlor epoxide	µg/kg	53	NE	2.3 J	ND (2.1)	0.74 J	ND (1.9)
Methoxychlor	µg/kg	310,000	NE	45 J	2.5 J	29	0.42 J
Toxaphene	µg/kg	440	NE	ND (220)	ND (210)	ND (200)	ND (190)

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Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias

TABLE 4-33
326 Center Street Analytical Results - Soil (October 2006)
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Volatile Organic Compounds														
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (5.9)	ND (4.8)	ND (5)	ND (5)	ND (5.4)	ND (8.8)	ND (15)	ND (5.5)	ND (5.6)	ND (11)	ND (15)
1,2-Dibromoethane	µg/kg	34	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,2-Dichloroethane	µg/kg	430	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
1,2-Dichloropropane	µg/kg	890	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
2-Hexanone	µg/kg	210,000	NE	ND (24)	ND (19)	ND (20)	ND (20)	ND (11)	ND (18)	ND (29)	ND (22)	ND (22)	ND (21)	ND (30)
Acetone	µg/kg	61,000,000	NE	16 J	12 J	ND (20)	ND (20)	ND (11)	64	ND (29)	20 J	ND (11)	ND (21)	ND (30)
Benzene	µg/kg	1,100	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
Bromochloromethane	µg/kg	NDRI	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Bromodichloromethane	µg/kg	270	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
Bromoform	µg/kg	61,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Bromomethane	µg/kg	7,300	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Carbon disulfide	µg/kg	820,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Carbon tetrachloride	µg/kg	610	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
Chlorobenzene	µg/kg	290,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Chloroethane	µg/kg	15,000,000	NE	ND (1.5)	ND (1.2)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (1.4)	ND (2.7)	ND (3.8)
Chloroform	µg/kg	290	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Chloromethane	µg/kg	120,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)

TABLE 4-33
326 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Volatile Organic Compounds														
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
Dibromochloromethane	µg/kg	680	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (12)	ND (9.6)	ND (10)	ND (10)	ND (11)	ND (18)	ND (15)	ND (11)	ND (11)	ND (11)	ND (15)
Ethylbenzene	µg/kg	5,400	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Freon 11	µg/kg	790,000	NE	4.9	2.7	2.2 J	3.8	8.2	14	11	5.3	8.5	9.2	11
Freon 113	µg/kg	43,000,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Freon 12	µg/kg	180,000	NE	ND (1.5)	ND (1.2)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (1.4)	ND (2.7)	ND (3.8)
Isopropyl ether	µg/kg	1,400,000	NE	ND (12)	ND (9.6)	ND (10)	ND (10)	ND (11)	ND (18)	ND (15)	ND (11)	ND (11)	ND (11)	ND (15)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (24)	ND (19)	ND (20)	ND (20)	ND (11)	ND (35)	ND (29)	ND (22)	ND (22)	ND (21)	ND (30)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (24)	ND (19)	ND (20)	ND (20)	ND (11)	ND (18)	ND (29)	ND (11)	ND (11)	ND (21)	ND (30)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (12)	ND (9.6)	ND (10)	ND (10)	ND (5.4)	ND (18)	ND (15)	ND (11)	ND (11)	ND (11)	ND (15)
Methylene chloride	µg/kg	11,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Styrene	µg/kg	6,300,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (12)	ND (9.6)	ND (10)	ND (10)	ND (5.4)	ND (8.8)	ND (15)	ND (5.5)	ND (11)	ND (11)	ND (15)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (59)	ND (48)	ND (50)	ND (50)	ND (27)	ND (44)	ND (73)	ND (27)	ND (28)	ND (53)	ND (76)
Tetrachloroethene	µg/kg	550	NE	ND (3)	ND (2.4)	2.9	9.7	ND (1.3)	ND (2.2)	ND (3.6)	4.4	11	ND (2.7)	ND (3.8)
Toluene	µg/kg	5,000,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Trichloroethene	µg/kg	2,800	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (1.3)	ND (2.2)	ND (3.6)	ND (1.4)	ND (2.8)	ND (2.7)	ND (3.8)
Vinyl chloride	µg/kg	60	NE	ND (3)	ND (2.4)	ND (2.5)	ND (2.5)	ND (2.7)	ND (4.4)	ND (3.6)	ND (2.7)	ND (2.8)	ND (2.7)	ND (3.8)
Xylenes, total	µg/kg	630,000	NE	ND (5.9)	ND (4.8)	ND (5)	ND (5)	ND (2.7)	ND (4.4)	ND (7.3)	ND (5.5)	ND (5.6)	ND (5.3)	ND (7.6)
Semivolatile Organic Compounds														
1,1'-Biphenyl	µg/kg	3,900,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (75) J	ND (80) J	ND (76) J	ND (86) J	ND (77) J	ND (75) J	ND (83) J	ND (86) J	ND (86) J	ND (73) J	ND (87) J
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)

TABLE 4-33
326 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Semivolatile Organic Compounds														
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2,6-Dinitrotoluene	µg/kg	61,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2-Chlorophenol	µg/kg	390,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2-Methylnaphthalene	µg/kg	310,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	35 J	ND (210)	ND (220)	30 J	ND (190)	ND (220)
2-Methylphenol	µg/kg	3,100,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
2-Nitroaniline	µg/kg	610,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
2-Nitrophenol	µg/kg	NDRI	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
3-Nitroaniline	µg/kg	24,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
4-Chloroaniline	µg/kg	2,400	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
4-Methylphenol	µg/kg	310,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
4-Nitroaniline	µg/kg	24,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
4-Nitrophenol	µg/kg	120,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
Acenaphthene	µg/kg	3,400,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Acenaphthylene	µg/kg	1,700,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Acetophenone	µg/kg	7,800,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Anthracene	µg/kg	17,000,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	20 J	ND (190)	ND (210)	40 J	100 J	29 J	ND (220)
Atrazine	µg/kg	2,100	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Benzaldehyde	µg/kg	7,800,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Benzo(a)anthracene	µg/kg	150	NE	54 J	ND (200)	38 J	ND (220)	66 J	41 J	29 J	170 J	280	94 J	46 J
Benzo(a)pyrene	µg/kg	15	NE	75 J	ND (200)	45 J	ND (220)	100 J	56 J	39 J	220	270	140 J	62 J
Benzo(b)fluoranthene	µg/kg	150	NE	96 J	ND (200)	51 J	22 J	110 J	90 J	50 J	260	280	170 J	83 J

TABLE 4-33
326 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Semivolatile Organic Compounds														
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	47 J	ND (200)	ND (190)	ND (220)	22 J	53 J	22 J	180 J	34 J	42 J	ND (220)
Benzo(k)fluoranthene	µg/kg	1,500	NE	42 J	ND (200)	23 J	ND (220)	56 J	35 J	26 J	110 J	140 J	86 J	35 J
Benzyl butyl phthalate	µg/kg	260,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	85 J	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	200	38 J	59 J	ND (220)	ND (200)	3,600	110 J	55 J	ND (220)	ND (190)	ND (220)
Caprolactam	µg/kg	31,000,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Carbazole	µg/kg	24,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	31 J	ND (190)	ND (220)
Chrysene	µg/kg	15,000	NE	85 J	ND (200)	44 J	ND (220)	99 J	71 J	46 J	210 J	340	140 J	66 J
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Dibenzofuran	µg/kg	78,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	22 J	ND (190)	ND (220)
Diethylphthalate	µg/kg	49,000,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	42 J	90 J	37 J	ND (220)	ND (200)	170 J	ND (210)	150 J	ND (220)	ND (190)	ND (220)
Di-n-octyl phthalate	µg/kg	2,400,000	NE	24 J	ND (200)	21 J	ND (220)	ND (200)	91 J	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Fluoranthene	µg/kg	2,300,000	NE	120 J	ND (200)	68 J	26 J	160 J	89 J	67 J	360	590	240	100 J
Fluorene	µg/kg	2,300,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	40 J	ND (190)	ND (220)
Hexachlorobenzene	µg/kg	300	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Hexachloroethane	µg/kg	35,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	56 J	ND (200)	39 J	ND (220)	70 J	62 J	28 J	170 J	140 J	110 J	44 J
Isophorone	µg/kg	510,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Naphthalene	µg/kg	3,600	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	23 J	ND (210)	ND (220)	22 J	ND (190)	ND (220)
Nitrobenzene	µg/kg	4,800	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Pentachlorophenol	µg/kg	3,000	NE	ND (370)	ND (400)	ND (370)	ND (420)	ND (380)	ND (370)	ND (410)	ND (430)	ND (420)	ND (360)	ND (430)
Phenanthrene	µg/kg	1,700,000	NE	73 J	ND (200)	52 J	ND (220)	89 J	78 J	61 J	150 J	440	120 J	50 J
Phenol	µg/kg	18,000,000	NE	ND (190)	ND (200)	ND (190)	ND (220)	ND (200)	ND (190)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)
Pyrene	µg/kg	1,700,000	NE	110 J	ND (200)	72 J	23 J	150 J	110 J	67 J	320	500	220	94 J

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Metals														
Aluminum	mg/kg	77,000	NE	5,030	4,540	3,000	2,210	2,460 J	4,280 J	2,200	7,250	2,890	3,120	9,120
Antimony	mg/kg	31	5.9	ND (6.4)	ND (7.1)	ND (7.3)	ND (7.6)	ND (7.7)	0.81 J	ND (7.8)	ND (6.9)	0.6 J	1.2 J	13
Arsenic[5]	mg/kg	0.062 / 22	***14***	*6*	*2.8*	*5.5*	*3.5*	*10.4*	*9.6*	*8.5*	451	125	*7.5*	*15.5*
Barium	mg/kg	15,000	NE	161	99.4	114	48.3	173 J	483 J	112	907	195	379	487
Beryllium	mg/kg	160	0.9	0.11 J	0.07 J	0.13 J	0.07 J	0.08 J	0.14 J	0.07 J	0.31 J	0.12 J	0.13 J	0.48 J
Cadmium	mg/kg	70	1.5	0.89	0.11 J	0.33 J	0.19 J	0.53 J	2.6	0.53 J	4.1	0.68	2.1	1.7
Calcium	mg/kg	NA	NE	2,650	2,600	2,250	1,730	1,660 J	4,250 J	1,960	10,900	5,470	4,360	19,400
Chromium	mg/kg	210	91.4	33.8	28.9	13.8	12.5	14.7 J	42.5 J	12.2	77.5	31.2	25.6	19.2
Cobalt	mg/kg	23	NE	5.1 J	4.4 J	2.5 J	2 J	2.2 J	5.7 J	2 J	7.2	2.2 J	3.6 J	4.7 J
Copper	mg/kg	3,100	59.6	44.6	16.9	46.7	8.7	40.5 J	120 J	48.7	173	45.5	109	110
Iron	mg/kg	55,000	NE	9,630	8,510	5,090	6,000	5,270 J	17,400 J	8,370	25,400	5,530	13,600	9,050
Lead[6]	mg/kg	194 / 340	14.7	*274*	35.9	*261 J+*	179	167 J+	389 J+	*284*	28,600	631 J+	1,270 J+	53,000 J
Magnesium	mg/kg	NA	NE	1,780	1,410	1,010	701	784 J	1,660 J	612 J	2,190	982	1,160	2,080
Manganese	mg/kg	1,800	NE	187	251	202	53	175 J	465 J	78.2	352	278	309	305
Mercury	mg/kg	5.6	0.3	0.41	0.1 J	0.22	0.36	0.55	1	4.4	0.62	0.82	0.69	0.61
Nickel	mg/kg	1,500	120.2	20.2	17.6	8.6	10.6	9.5 J	34.1 J	7.7	27.9	8.4	15.4	14.5
Potassium	mg/kg	NA	NE	905	666	561 J	356 J	409 J	671	310 J	1,360	643	762	1,320
Selenium	mg/kg	390	5.6	0.55 J	0.52 J	ND (4.3)	ND (4.4)	ND (4.5)	ND (4.1)	ND (4.6)	0.57 J	ND (4.1)	ND (3.8)	ND (4.7)
Silver	mg/kg	390	1.7	0.68 J	0.47 J	0.18 J	ND (1.3)	0.2 J	0.8 J	0.35 J	2.6	0.21 J	0.8 J	5.3
Sodium	mg/kg	NA	NE	833	303 J	ND (607)	ND (635)	ND (642)	ND (585)	ND (652)	5,940	ND (587)	ND (545)	1,540
Thallium	mg/kg	5.2	**42.5**	ND (2.7)	ND (2.9)	ND (3)	ND (3.2)	0.7 J	1.3 J	ND (3.3)	ND (2.9)	0.58 J	0.95 J	ND (3.4)
Vanadium	mg/kg	390	NE	21.9	19.4	10.2	8.1	8.5 J	16.9 J	8.2	24.5	8	13	21.3
Zinc	mg/kg	23,000	91.5	298	63.2	139	72.4	175 J	555 J	206	2,380	251	732	344
Organochlorine Pesticides/PCBs														
4,4'-DDD	µg/kg	2,000	NE	13 J	0.36 J	0.39 J	0.48 J	490 J	1,000 J	45 J	400	780	15 J	3.5 J
4,4'-DDE	µg/kg	1,400	NE	180	8.1 J	1.1 J	ND (3.3) J	2,100 J	11,000 J	590 J	740 J	810 J	150	33
4,4'-DDT	µg/kg	1,700	NE	14 J	25 J	47	2.4 J	9 J	3,100 J	4,400 J	2,200	3,000	400 J	73
Aldrin	µg/kg	29	NE	ND (1.9) J	ND (2) R	ND (3.8) J	ND (2.2) J	1.7 J	ND (190) J	ND (2.1) J	1.6 J	ND (2.2)	ND (1.9)	ND (2.2)
alpha-BHC	µg/kg	77	NE	ND (1.9)	ND (2) R	ND (3.8)	0.24 J	ND (2)	ND (190)	ND (2.1)	ND (2.2)	ND (2.2)	ND (1.9)	0.24 J
alpha-Chlordane	µg/kg	1,600	NE	2.3 J	ND (2) R	ND (3.8)	0.29 J	7.9 J	ND (190)	0.59 J	0.55 J	0.5 J	3.3 J	0.65 J
Aroclor-1016	µg/kg	3,900	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)

TABLE 4-33
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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	326SSa	326SSa	326SSb	326SSb	326SSc	326SSc	326SSc	326SSd	326SSd	326SSe	326SSe
				1 ft bgs[3]	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	1 ft bgs (FD)	3 ft bgs	1 ft bgs	2.5 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Organochlorine Pesticides/PCBs														
Aroclor-1221	µg/kg	140	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1232	µg/kg	140	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1242	µg/kg	220	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1248	µg/kg	220	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1254	µg/kg	220	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1260	µg/kg	220	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1262	µg/kg	NDRI	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
Aroclor-1268	µg/kg	NDRI	NE	ND (37)	ND (40)	ND (37)	ND (42)	ND (38)	ND (37)	ND (41)	ND (43)	ND (42)	ND (36)	ND (43)
beta-BHC	µg/kg	270	NE	ND (1.9) J	ND (2) J	ND (3.8) J	0.054 J	1.4 J	ND (190)	0.2 J	ND (2.2)	0.57 J	0.86 J	2.4
delta-BHC	µg/kg	77	NE	0.28 J	ND (2) R	ND (3.8)	ND (2.2)	ND (2)	ND (190)	0.24 J	0.25 J	0.62 J	ND (1.9)	ND (2.2)
Dieldrin	µg/kg	30	NE	0.34 J	ND (4) R	ND (7.4)	ND (3.3) J	160 J	23 J	13	1.4 J	9.8 J	ND (3.6)	0.47 J
Endosulfan I	µg/kg	370,000	NE	1.6 J	ND (2) R	ND (3.8)	ND (2.2)	5.7 J	ND (190)	0.67 J	0.6 J	0.34 J	ND (1.9)	ND (2.2)
Endosulfan II	µg/kg	370,000	NE	0.35 J	ND (4) R	ND (7.4)	ND (4.2)	5.9 J	32 J	3 J	2.5 J	0.77 J	1.5 J	0.42 J
Endosulfan sulfate	µg/kg	370,000	NE	3 J	ND (4) R	ND (7.4)	0.37 J	6.8 J	ND (370)	1.6 J	0.78 J	1.2 J	0.35 J	ND (4.3)
Endrin	µg/kg	18,000	NE	0.44 J	0.21 J	ND (7.4)	3.5 J	0.78 J	ND (370)	0.26 J	340 J	0.28 J	0.82 J	0.44 J
Endrin aldehyde	µg/kg	18,000	NE	ND (3.7)	0.47 J	ND (7.4)	ND (3.3) J	0.75 J	24 J	ND (3.3) J	0.33 J	ND (4.2)	1.3 J	0.28 J
Endrin ketone	µg/kg	18,000	NE	0.34 J	1.5 J	0.53 J	0.41 J	5.2 J	ND (190)	0.95 J	0.44 J	1.6 J	0.21 J	0.33 J
gamma-BHC	µg/kg	520	NE	5 J	ND (2) R	ND (3.8) J	0.2 J	3.7 J	ND (190) J	0.27 J	220 J	26 J	ND (1.9)	1 J
gamma-Chlordane	µg/kg	1,600	NE	0.23 J	0.57 J	ND (3.8)	ND (1.7) J	4	110 J	1.7 J	22	23 J	3.1 J	0.73 J
Heptachlor	µg/kg	110	NE	ND (1.9) J	ND (2) R	ND (3.8) J	ND (2.2) J	0.66 J	ND (190) J	ND (2.1) J	ND (2.2) J	ND (2.2)	ND (1.9)	ND (2.2)
Heptachlor epoxide	µg/kg	53	NE	0.47 J	ND (2) R	ND (3.8)	ND (2.2)	4.3 J	ND (190)	0.49 J	ND (2.2)	0.34 J	ND (1.9)	ND (2.2)
Methoxychlor	µg/kg	310,000	NE	31	0.79 J	1.8 J	ND (17) J	12 J	82 J	26	5.9 J	6.2 J	9.5 J	3.4 J
Toxaphene	µg/kg	440	NE	ND (190)	ND (200) R	ND (380)	ND (220)	ND (200)	ND (19,000)	ND (210)	ND (220)	ND (220)	ND (190)	ND (220)

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Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

FD	field duplicate
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa	356SSa	356SSa	356SSb	356SSb	356SSc	356SSc
				1 ft bgs[3]	1 ft bgs (FD)	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (12)	ND (12)	ND (12)	ND (15)	ND (10)	ND (6.7)	ND (9.4)
1,2-Dibromoethane	µg/kg	34	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,2-Dichloroethane	µg/kg	430	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
1,2-Dichloropropane	µg/kg	890	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
2-Hexanone	µg/kg	210,000	NE	ND (24)	ND (24)	ND (25)	ND (30)	ND (20)	ND (13)	ND (19)
Acetone	µg/kg	61,000,000	NE	ND (24)	ND (24)	ND (25)	ND (30)	ND (20)	ND (13)	ND (19)
Benzene	µg/kg	1,100	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Bromochloromethane	µg/kg	NDRI	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
Bromodichloromethane	µg/kg	270	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Bromoform	µg/kg	61,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Bromomethane	µg/kg	7,300	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Carbon disulfide	µg/kg	820,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
Carbon tetrachloride	µg/kg	610	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Chlorobenzene	µg/kg	290,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Chloroethane	µg/kg	15,000,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Chloroform	µg/kg	290	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Chloromethane	µg/kg	120,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa 1 ft bgs[3] 10/18/2006	356SSa 1 ft bgs (FD) 10/18/2006	356SSa 3 ft bgs[4] 10/18/2006	356SSb 1 ft bgs 10/18/2006	356SSb 3 ft bgs 10/18/2006	356SSc 1 ft bgs 10/18/2006	356SSc 3 ft bgs 10/18/2006
Volatile Organic Compounds										
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Dibromochloromethane	µg/kg	680	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (12)	ND (12)	ND (12)	ND (15)	ND (10)	ND (13)	ND (9.4)
Ethylbenzene	µg/kg	5,400	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Freon 11	µg/kg	790,000	NE	11	7.4	5.3	7	7.8	ND (3.3)	6.1
Freon 113	µg/kg	43,000,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Freon 12	µg/kg	180,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Isopropyl ether	µg/kg	1,400,000	NE	ND (12)	ND (12)	ND (12)	ND (15)	ND (10)	ND (13)	ND (9.4)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (24)	ND (24)	ND (25)	ND (30)	ND (20)	ND (13)	ND (19)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (24)	ND (24)	ND (25)	ND (30)	ND (20)	ND (27)	ND (19)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (12)	ND (12)	ND (12)	ND (15)	ND (10)	ND (13)	ND (9.4)
Methylene chloride	µg/kg	11,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (3.3)	ND (2.4)
Styrene	µg/kg	6,300,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (12)	ND (12)	ND (12)	ND (15)	ND (10)	ND (13)	ND (9.4)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (60)	ND (61)	ND (61)	ND (75)	ND (51)	ND (67)	ND (47)
Tetrachloroethene	µg/kg	550	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Toluene	µg/kg	5,000,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Trichloroethene	µg/kg	2,800	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Vinyl chloride	µg/kg	60	NE	ND (3)	ND (3.1)	ND (3.1)	ND (3.8)	ND (2.6)	ND (1.7)	ND (2.4)
Xylenes, total	µg/kg	630,000	NE	ND (6)	ND (6.1)	ND (6.1)	ND (7.5)	ND (5.1)	ND (3.3)	ND (4.7)
Semivolatile Organic Compounds										
1,1'-Biphenyl	µg/kg	3,900,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (370) J	ND (73) J	ND (79) J	ND (89) J	ND (83) J	ND (73) J	ND (76) J
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa 1 ft bgs[3] 10/18/2006	356SSa 1 ft bgs (FD) 10/18/2006	356SSa 3 ft bgs[4] 10/18/2006	356SSb 1 ft bgs 10/18/2006	356SSb 3 ft bgs 10/18/2006	356SSc 1 ft bgs 10/18/2006	356SSc 3 ft bgs 10/18/2006
Semivolatile Organic Compounds										
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
2,6-Dinitrotoluene	µg/kg	61,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2-Chlorophenol	µg/kg	390,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
2-Methylnaphthalene	µg/kg	310,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2-Methylphenol	µg/kg	3,100,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
2-Nitroaniline	µg/kg	610,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
2-Nitrophenol	µg/kg	NDRI	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
3-Nitroaniline	µg/kg	24,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
4-Chloroaniline	µg/kg	2,400	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
4-Methylphenol	µg/kg	310,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
4-Nitroaniline	µg/kg	24,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
4-Nitrophenol	µg/kg	120,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360)	ND (380)
Acenaphthene	µg/kg	3,400,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Acenaphthylene	µg/kg	1,700,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Acetophenone	µg/kg	7,800,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
Anthracene	µg/kg	17,000,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Atrazine	µg/kg	2,100	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Benzaldehyde	µg/kg	7,800,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) J	ND (190)	ND (190)
Benzo(a)anthracene	µg/kg	150	NE	210	130 J	20 J	93 J	38 J	37 J	ND (190)
Benzo(a)pyrene	µg/kg	15	NE	430	280 J	27 J	190 J	51 J	49 J	ND (190)
Benzo(b)fluoranthene	µg/kg	150	NE	520	310 J	36 J	240	66 J	58 J	24 J

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa	356SSa	356SSa	356SSb	356SSb	356SSc	356SSc
				1 ft bgs[3]	1 ft bgs (FD)	3 ft bgs[4]	1 ft bgs	3 ft bgs	1 ft bgs	3 ft bgs
				10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006	10/18/2006
Semivolatile Organic Compounds										
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	210	270 J	ND (200)	140 J	27 J	41 J	ND (190)
Benzo(k)fluoranthene	µg/kg	1,500	NE	200	130 J	ND (200)	90 J	23 J	ND (190)	ND (190)
Benzyl butyl phthalate	µg/kg	260,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	440	210 J	23 J	170 J	21 J	33 J	ND (190)
Caprolactam	µg/kg	31,000,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Carbazole	µg/kg	24,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Chrysene	µg/kg	15,000	NE	350	230 J	21 J	150 J	52 J	52 J	ND (190)
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Dibenzofuran	µg/kg	78,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Diethylphthalate	µg/kg	49,000,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	ND (930)	190 J	96 J	ND (230)	ND (210)	100 J	ND (190)
Di-n-octyl phthalate	µg/kg	2,400,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Fluoranthene	µg/kg	2,300,000	NE	520	270 J	26 J	160 J	77 J	74 J	26 J
Fluorene	µg/kg	2,300,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Hexachlorobenzene	µg/kg	300	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Hexachloroethane	µg/kg	35,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	310	270 J	26 J	180 J	36 J	46 J	ND (190)
Isophorone	µg/kg	510,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
Naphthalene	µg/kg	3,600	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)
Nitrobenzene	µg/kg	4,800	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) R	ND (190)	ND (190)
Pentachlorophenol	µg/kg	3,000	NE	ND (1,800)	ND (1,800)	ND (390)	ND (440)	ND (410)	ND (360) J	ND (380)
Phenanthrene	µg/kg	1,700,000	NE	210 J	100 J	ND (200)	67 J	58 J	52 J	ND (190)
Phenol	µg/kg	18,000,000	NE	ND (930)	ND (920)	ND (200)	ND (230)	ND (210) J	ND (190)	ND (190)
Pyrene	µg/kg	1,700,000	NE	520	310 J	29 J	160 J	73 J	81 J	22 J

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa 1 ft bgs[3] 10/18/2006	356SSa 1 ft bgs (FD) 10/18/2006	356SSa 3 ft bgs[4] 10/18/2006	356SSb 1 ft bgs 10/18/2006	356SSb 3 ft bgs 10/18/2006	356SSc 1 ft bgs 10/18/2006	356SSc 3 ft bgs 10/18/2006
Metals										
Aluminum	mg/kg	77,000	NE	2,680 J	5,670 J	5,510	5,580	5,570	6,380 J	1,660
Antimony	mg/kg	31	5.9	ND (6.7)	ND (6.6)	ND (7)	ND (6.8)	ND (7.3)	ND (6.5) J	ND (6.8)
Arsenic[5]	mg/kg	0.062 / 22	***14***	*4.3 J*	*7.8 J*	*3.9*	*6.6*	*4.5*	*7.5 J*	*3.7*
Barium	mg/kg	15,000	NE	174 J	360 J	821	292	240	190 J	31
Beryllium	mg/kg	160	0.9	0.09 J	0.19 J	0.16 J	0.27 J	0.23 J	0.27 J	0.05 J
Cadmium	mg/kg	70	1.5	0.9	2	ND (0.59)	1.7	0.41 J	1.1 J	0.11 J
Calcium	mg/kg	NA	NE	3,190 J	5,490 J	5,510	5,760	8,500	8,310 J	1,490
Chromium	mg/kg	210	91.4	10.3 J	30.6 J	32.4	27.3	18.7	19.1 J	8.8
Cobalt	mg/kg	23	NE	2.3 J	5.7	5.3 J	5.4 J	4.2 J	5.7 J	1.5 J
Copper	mg/kg	3,100	59.6	28 J	80 J	27	63.7	40.4	48.3 J	5.2
Iron	mg/kg	55,000	NE	12,200	14,400	10,500	14,500	9,900	13,700 J	2,690
Lead[6]	mg/kg	194 / 340	14.7	574	822 J+	*223*	563 J+	432	354 J+	26.2 J+
Magnesium	mg/kg	NA	NE	879 J	2,100 J	1,820	2,410	2,440	3,610 J	612
Manganese	mg/kg	1,800	NE	99.7 J	271 J	181	261	200	285	124
Mercury	mg/kg	5.6	0.3	0.5	0.58	0.33	0.56	0.46	0.53	0.19
Nickel	mg/kg	1,500	120.2	11.8 J	28.4 J	18.1	25.8	13.9	21.3 J	5.8
Potassium	mg/kg	NA	NE	624 J	1,520 J	1,170	1,510	1,150	1,660 J	407 J
Selenium	mg/kg	390	5.6	ND (3.9)	0.52 J	0.47 J	0.56 J	ND (4.2)	ND (3.8) J	ND (4)
Silver	mg/kg	390	1.7	0.4 J	1.4	0.75 J	1.2	0.5 J	0.61 J-	ND (1.1)
Sodium	mg/kg	NA	NE	ND (556) J	1,920 J	554 J	1,760	ND (605)	ND (542)	ND (566)
Thallium	mg/kg	5.2	**42.5**	0.39 J	ND (2.7)	ND (2.9)	ND (2.9)	ND (3)	0.56 J	ND (2.8)
Vanadium	mg/kg	390	NE	9 J	22.4 J	23.9	23.3	21.5	18.5 J	6.3
Zinc	mg/kg	23,000	91.5	254 J	724 J	68.9	648	71.7	260 J	25
Organochlorine Pesticides/PCBs										
4,4'-DDD	µg/kg	2,000	NE	9.2 J	5.9 J	0.44 J	5.8 J	2.3 J	0.89 J	1.5 J
4,4'-DDE	µg/kg	1,400	NE	110 J	0.67 J	1.1 J	12	ND (3.3) J	1.2 J	0.37 J
4,4'-DDT	µg/kg	1,700	NE	480 J	210 J	ND (3.9)	33 J	9.9 J	4.9	7.4
Aldrin	µg/kg	29	NE	0.77 J	0.51 J	ND (2) J	0.094 J	0.11 J	ND (1.9) J	ND (1.9)
alpha-BHC	µg/kg	77	NE	0.14 J	ND (1.8)	ND (2)	0.35 J	ND (2.1)	ND (1.9)	ND (1.9)
alpha-Chlordane	µg/kg	1,600	NE	370 J	2.5 J	1.7 J	19 J	0.1 J	2.1 J	0.25 J
Aroclor-1016	µg/kg	3,900	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)

TABLE 4-34
356 Center Street Analytical Results - Soil (October 2006)
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	356SSa 1 ft bgs[3] 10/18/2006	356SSa 1 ft bgs (FD) 10/18/2006	356SSa 3 ft bgs[4] 10/18/2006	356SSb 1 ft bgs 10/18/2006	356SSb 3 ft bgs 10/18/2006	356SSc 1 ft bgs 10/18/2006	356SSc 3 ft bgs 10/18/2006
Organochlorine Pesticides/PCBs										
Aroclor-1221	µg/kg	140	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1232	µg/kg	140	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1242	µg/kg	220	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1248	µg/kg	220	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1254	µg/kg	220	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1260	µg/kg	220	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1262	µg/kg	NDRI	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
Aroclor-1268	µg/kg	NDRI	NE	ND (36)	ND (36)	ND (39)	ND (44)	ND (41)	ND (36)	ND (38)
beta-BHC	µg/kg	270	NE	0.07 J	ND (1.8) J	ND (2) J	0.17 J	0.089 J	ND (1.9) J	ND (1.9)
delta-BHC	µg/kg	77	NE	0.41 J	ND (1.8)	ND (2)	0.56 J	ND (2.1)	ND (1.9)	ND (1.9)
Dieldrin	µg/kg	30	NE	5.1 J	2.3 J	ND (3.9)	2.3 J	ND (3.3) J	ND (3.6)	ND (3.8)
Endosulfan I	µg/kg	370,000	NE	3.5 J	3.3 J	ND (2)	0.97 J	0.15 J	ND (1.9)	ND (1.9)
Endosulfan II	µg/kg	370,000	NE	1.8 J	1.4 J	ND (3.9)	0.29 J	0.2 J	ND (3.6)	ND (3.8)
Endosulfan sulfate	µg/kg	370,000	NE	0.3 J	0.71 J	ND (3.9)	1.2 J	0.3 J	ND (3.6)	ND (3.8)
Endrin	µg/kg	18,000	NE	37 J	0.25 J	ND (3.9)	0.3 J	0.67 J	ND (3.6)	ND (3.8)
Endrin aldehyde	µg/kg	18,000	NE	ND (3.3)	0.19 J	0.55 J	ND (3.3) J	ND (3.3) J	ND (3.6)	ND (3.8)
Endrin ketone	µg/kg	18,000	NE	0.73 J	0.75 J	19 J	0.93 J	1.6 J	ND (3.6)	ND (1.9)
gamma-BHC	µg/kg	520	NE	ND (1.9) J	0.22 J	ND (2) J	ND (2.3) J	0.17 J	ND (1.9) J	ND (1.9)
gamma-Chlordane	µg/kg	1,600	NE	390	2.8 J	0.48 J	16	ND (1.7) J	1.8 J	ND (1.9)
Heptachlor	µg/kg	110	NE	3.4 J	1.4 J	ND (2) J	0.042 J	ND (2.1) J	ND (1.9) J	ND (1.9)
Heptachlor epoxide	µg/kg	53	NE	11 J	0.97 J	ND (2)	2.2 J	0.057 J	ND (1.9)	ND (1.9)
Methoxychlor	µg/kg	310,000	NE	ND (17) J	0.68 J	1.8 J	ND (17) J	ND (17) J	2.4 J	ND (0.22) R
Toxaphene	µg/kg	440	NE	ND (190)	ND (180)	ND (200)	ND (230)	ND (210)	ND (190)	ND (190)

TABLE 4-34
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Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

FD	field duplicate
ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J-	estimated value, low bias
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-35
360 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/kg	8,700,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,1,2,2-Tetrachloroethane	µg/kg	560	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,1,2-Trichloroethane	µg/kg	1,100	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,1-Dichloroethane	µg/kg	3,300	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,1-Dichloroethene	µg/kg	240,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,1-Dichloropropene	µg/kg	NDRI	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2,3-Trichlorobenzene	µg/kg	49,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2,3-Trichloropropane	µg/kg	5	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2,4-Trichlorobenzene	µg/kg	22,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2,4-Trimethylbenzene	µg/kg	62,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2-Dibromo-3-chloroprop	µg/kg	5.4	NE	ND (13)	ND (11)	ND (12)	ND (9.8)
1,2-Dibromoethane	µg/kg	34	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2-Dichlorobenzene	µg/kg	1,900,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2-Dichloroethane	µg/kg	430	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,2-Dichloropropane	µg/kg	890	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,3-Dichlorobenzene	µg/kg	530,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,3-Dichloropropane	µg/kg	1,600,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
1,4-Dichlorobenzene	µg/kg	2,400	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
2-Hexanone	µg/kg	210,000	NE	ND (26)	ND (22)	ND (25)	ND (20)
Acetone	µg/kg	61,000,000	NE	ND (26)	ND (22)	ND (25)	ND (20)
Benzene	µg/kg	1,100	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Bromochloromethane	µg/kg	NDRI	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Bromodichloromethane	µg/kg	270	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Bromoform	µg/kg	61,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Bromomethane	µg/kg	7,300	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Carbon disulfide	µg/kg	820,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Carbon tetrachloride	µg/kg	610	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Chlorobenzene	µg/kg	290,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Chloroethane	µg/kg	15,000,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Chloroform	µg/kg	290	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Chloromethane	µg/kg	120,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)

TABLE 4-35
360 Center Street Analytical Results - Soil (October 2006)
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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Volatile Organic Compounds							
cis-1,2-Dichloroethene	µg/kg	780,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
cis-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Dibromochloromethane	µg/kg	680	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Ethyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (11)	ND (12)	ND (9.8)
Ethylbenzene	µg/kg	5,400	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Freon 11	µg/kg	790,000	NE	3.2	3.6	2.2 J	1.8 J
Freon 113	µg/kg	43,000,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Freon 12	µg/kg	180,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Isopropyl ether	µg/kg	1,400,000	NE	ND (13)	ND (11)	ND (12)	ND (9.8)
Isopropylbenzene (cumen	µg/kg	2,100,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Methyl ethyl ketone	µg/kg	28,000,000	NE	ND (26)	ND (22)	ND (25)	ND (20)
Methyl isobutyl ketone	µg/kg	5,300,000	NE	ND (26)	ND (22)	ND (25)	ND (20)
Methyl tert-butyl ether	µg/kg	43,000	NE	ND (13)	ND (11)	ND (12)	ND (9.8)
Methylene chloride	µg/kg	11,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Styrene	µg/kg	6,300,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
tert-Amyl methyl ether	µg/kg	43,000	NE	ND (13)	ND (11)	ND (12)	ND (9.8)
tert-Butyl alcohol	µg/kg	160,000,000	NE	ND (65)	ND (56)	ND (61)	ND (49)
Tetrachloroethene	µg/kg	550	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Toluene	µg/kg	5,000,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
trans-1,2-Dichloroethene	µg/kg	150,000	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
trans-1,3-Dichloropropene	µg/kg	1,700	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Trichloroethene	µg/kg	2,800	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Vinyl chloride	µg/kg	60	NE	ND (3.2)	ND (2.8)	ND (3.1)	ND (2.5)
Xylenes, total	µg/kg	630,000	NE	ND (6.5)	ND (5.6)	ND (6.1)	ND (4.9)
Semivolatile Organic Compounds							
1,1'-Biphenyl	µg/kg	3,900,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
1,2,4,5-Tetrachlorobenzen	µg/kg	18,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
1,4-Dioxane (p-dioxane)	µg/kg	44,000	NE	ND (73) J	ND (76) J	ND (410) J	ND (76) J
2,2'-Oxybis(1-Chloropropa	µg/kg	4,600	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,3,4,6-Tetrachlorophenol	µg/kg	1,800,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,4,5-Trichlorophenol	µg/kg	6,100,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)

TABLE 4-35
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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Semivolatile Organic Compounds							
2,4,6-Trichlorophenol	µg/kg	44,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,4-Dichlorophenol	µg/kg	180,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,4-Dimethylphenol	µg/kg	1,200,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,4-Dinitrophenol	µg/kg	120,000	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
2,4-Dinitrotoluene	µg/kg	1,600	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2,6-Dinitrotoluene	µg/kg	61,000	NE	62 J	ND (190)	ND (1,000)	ND (190)
2-Chloronaphthalene	µg/kg	6,300,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2-Chlorophenol	µg/kg	390,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2-Methylnaphthalene	µg/kg	310,000	NE	ND (180)	28 J	ND (1,000)	46 J
2-Methylphenol	µg/kg	3,100,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
2-Nitroaniline	µg/kg	610,000	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
2-Nitrophenol	µg/kg	NDRI	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
3,3'-Dichlorobenzidine	µg/kg	1,100	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
3-Nitroaniline	µg/kg	24,000	NE	24 J	ND (370)	ND (2,000)	ND (370)
4,6-Dinitro-2-methylphenol	µg/kg	4,900	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
4-Bromophenylphenyl eth	µg/kg	NDRI	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
4-Chloro-3-methylphenol	µg/kg	3,100,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
4-Chloroaniline	µg/kg	2,400	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
4-Chlorophenylphenyl eth	µg/kg	NDRI	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
4-Methylphenol	µg/kg	310,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
4-Nitroaniline	µg/kg	24,000	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
4-Nitrophenol	µg/kg	120,000	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
Acenaphthene	µg/kg	3,400,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Acenaphthylene	µg/kg	1,700,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Acetophenone	µg/kg	7,800,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Anthracene	µg/kg	17,000,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Atrazine	µg/kg	2,100	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Benzaldehyde	µg/kg	7,800,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Benzo(a)anthracene	µg/kg	150	NE	47 J	44 J	160	44 J
Benzo(a)pyrene	µg/kg	15	NE	90 J	67 J	320	59 J
Benzo(b)fluoranthene	µg/kg	150	NE	120 J	91 J	400	84 J

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Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Semivolatile Organic Compounds							
Benzo(g,h,i)perylene	µg/kg	1,700,000	NE	91 J	37 J	150	29 J
Benzo(k)fluoranthene	µg/kg	1,500	NE	60 J	33 J	200	32 J
Benzyl butyl phthalate	µg/kg	260,000	NE	24 J	ND (190)	ND (1,000)	ND (190)
bis(2-Chloroethoxy)metha	µg/kg	180,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
bis(2-Chloroethyl)ether	µg/kg	210	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
bis(2-Ethylhexyl)phthalate	µg/kg	35,000	NE	55 J	59 J	150 J	33 J
Caprolactam	µg/kg	31,000,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Carbazole	µg/kg	24,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Chrysene	µg/kg	15,000	NE	110 J	74 J	420	76 J
Dibenz(a,h)anthracene	µg/kg	15	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Dibenzofuran	µg/kg	78,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Diethylphthalate	µg/kg	49,000,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Dimethylphthalate	µg/kg	100,000,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Di-n-butyl phthalate	µg/kg	6,100,000	NE	140 J	ND (190)	ND (1,000)	46 J
Di-n-octyl phthalate	µg/kg	2,400,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Fluoranthene	µg/kg	2,300,000	NE	160 J	110 J	830	110 J
Fluorene	µg/kg	2,300,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Hexachlorobenzene	µg/kg	300	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Hexachlorobutadiene	µg/kg	6,200	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Hexachlorocyclopentadien	µg/kg	370,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Hexachloroethane	µg/kg	35,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Indeno(1,2,3-c,d)pyrene	µg/kg	150	NE	75 J	45 J	240	42 J
Isophorone	µg/kg	510,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Naphthalene	µg/kg	3,600	NE	23 J	21 J	ND (1,000)	31 J
Nitrobenzene	µg/kg	4,800	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
N-Nitrosodi-n-propylamine	µg/kg	69	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
N-Nitrosodiphenylamine	µg/kg	99,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Pentachlorophenol	µg/kg	3,000	NE	ND (360)	ND (370)	ND (2,000)	ND (370)
Phenanthrene	µg/kg	1,700,000	NE	90 J	85 J	770 J	100 J
Phenol	µg/kg	18,000,000	NE	ND (180)	ND (190)	ND (1,000)	ND (190)
Pyrene	µg/kg	1,700,000	NE	130 J	98 J	710	98 J

TABLE 4-35
360 Center Street Analytical Results - Soil (October 2006)
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AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Metals							
Aluminum	mg/kg	77,000	NE	7,190	2,420	3,570	6,640 J
Antimony	mg/kg	31	5.9	ND (9.2)	ND (6.8)	ND (6.9)	ND (6.8) J
Arsenic[5]	mg/kg	0.062 / 22	***14***	*11.1*	*4*	*6.4*	*5.3*
Barium	mg/kg	15,000	NE	610	75.3	188	168 J
Beryllium	mg/kg	160	0.9	0.23 J	0.1 J	0.15 J	0.21 J
Cadmium	mg/kg	70	1.5	1.8	0.41 J	1.5	0.21 J
Calcium	mg/kg	NA	NE	7,850	3,640	3,780	8,450 J
Chromium	mg/kg	210	91.4	31.2	9.5	14	22.9 J
Cobalt	mg/kg	23	NE	6.9 J	2.3 J	3.7 J	5.9
Copper	mg/kg	3,100	59.6	152	19.6	75.6	105 J
Iron	mg/kg	55,000	NE	19,900	8,680	17,500	14,800 J
Lead[6]	mg/kg	194 / 340	14.7	2,230 J+	193	600	478 J
Magnesium	mg/kg	NA	NE	2,800	1,060	1,320	3,090 J
Manganese	mg/kg	1,800	NE	322	108	161	245 J
Mercury	mg/kg	5.6	0.3	0.21	0.61	2.8	1.7 J
Nickel	mg/kg	1,500	120.2	32.2	8.2	14.9	20.9 J
Potassium	mg/kg	NA	NE	1,920	748	743	1,510 J
Selenium	mg/kg	390	5.6	ND (5.4)	ND (4)	ND (4)	ND (4)
Silver	mg/kg	390	1.7	1.6	0.28 J	0.68 J	1.3
Sodium	mg/kg	NA	NE	2,410	ND (569)	ND (571)	674
Thallium	mg/kg	5.2	**42.5**	ND (3.9)	0.45 J	0.91 J	ND (2.8)
Vanadium	mg/kg	390	NE	25.8	8.4	13.2	22.3 J
Zinc	mg/kg	23,000	91.5	897	81.6	356	178 J
Organochlorine Pesticides/PCBs							
4,4'-DDD	µg/kg	2,000	NE	1.6 J	1.8 J	7.5 J	0.39 J
4,4'-DDE	µg/kg	1,400	NE	130 J	50 J	54 J	5.2 J
4,4'-DDT	µg/kg	1,700	NE	9 J	380 J	800 J	38 J
Aldrin	µg/kg	29	NE	0.48 J	1.2 J	0.11 J	ND (1.9) J
alpha-BHC	µg/kg	77	NE	0.34 J	0.28 J	0.26 J	ND (1.9)
alpha-Chlordane	µg/kg	1,600	NE	7.3 J	1.3 J	3 J	ND (1.9)
Aroclor-1016	µg/kg	3,900	NE	ND (180)	ND (37)	ND (40)	ND (37)

TABLE 4-35
360 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Screening Level[1]	Oakland Background Levels[2]	360SSa 1 ft bgs[3] 10/18/2006	360SSa 3 ft bgs[4] 10/18/2006	360SSb 1 ft bgs 10/18/2006	360SSb 3 ft bgs 10/18/2006
Organochlorine Pesticides/PCBs							
Aroclor-1221	µg/kg	140	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1232	µg/kg	140	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1242	µg/kg	220	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1248	µg/kg	220	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1254	µg/kg	220	NE	11,000	2,400 J	ND (40)	ND (37)
Aroclor-1260	µg/kg	220	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1262	µg/kg	NDRI	NE	ND (180)	ND (37)	ND (40)	ND (37)
Aroclor-1268	µg/kg	NDRI	NE	ND (180)	ND (37)	ND (40)	ND (37)
beta-BHC	µg/kg	270	NE	ND (1.8) J	1.2 J	0.057 J	ND (1.9) J
delta-BHC	µg/kg	77	NE	0.23 J	0.18 J	0.032 J	ND (1.9)
Dieldrin	µg/kg	30	NE	14 J	12 J	3.9 J	ND (3.7)
Endosulfan I	µg/kg	370,000	NE	20 J	4 J	0.35 J	ND (1.9)
Endosulfan II	µg/kg	370,000	NE	53 J	8.6 J	0.87 J	ND (3.7)
Endosulfan sulfate	µg/kg	370,000	NE	0.42 J	0.32 J	0.16 J	0.4 J
Endrin	µg/kg	18,000	NE	530	5.3 J	0.64 J	0.57 J
Endrin aldehyde	µg/kg	18,000	NE	8.2 J	6.8	ND (3.3) J	ND (3.7)
Endrin ketone	µg/kg	18,000	NE	1.5 J	0.15 J	0.27 J	ND (1.9)
gamma-BHC	µg/kg	520	NE	ND (1.8) J	ND (1.9) J	0.2 J	ND (1.9) J
gamma-Chlordane	µg/kg	1,600	NE	3.9 J	29 J	2.9 J	0.51 J
Heptachlor	µg/kg	110	NE	ND (1.8) J	0.47 J	0.33 J	ND (1.9) J
Heptachlor epoxide	µg/kg	53	NE	310 J	9.9 J	2.5 J	ND (1.9)
Methoxychlor	µg/kg	310,000	NE	9.6 J	ND (17) J	220 J	2 J
Toxaphene	µg/kg	440	NE	ND (180)	ND (190)	ND (210)	ND (190)

TABLE 4-35
360 Center Street Analytical Results - Soil (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Notes:

Results greater than the screening level are bolded.

[1] Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Table 16b (Soil Screening Levels) for source of screening levels.

[2] Oakland background results are from background metal concentration studies conducted by the Lawrence Berkeley National Laboratory Environmental Restoration Program, 1995. Samples were taken from locations representing the Colluvian and Fill geologic unit.

[3] 1ft bgs samples were collected between 0.5 and 1ft bgs

[4] 3ft bgs samples were collected between 2.5 and 3 ft bgs

[5] For Arsenic, 0.062 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

ft bgs	feet below ground surface
mg/kg	milligrams per kilogram
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias

TABLE 4-36
Residential Soil Results Summary (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential Soil Levels	Screening Levels[1]
4,4'-DDE	mg/kg	0.00037 - 11	1.4
4,4'-DDT	mg/kg	0.00034 - 4.4	1.7
Antimony	mg/kg	0.6 - 77.4	31
Aroclor-1254	mg/kg	< 0.036 - 11	0.22
Arsenic *	mg/kg	2.8 - 451	0.39 / 22
Benzo(a)anthracene	mg/kg	0.02 - 8.3	0.15
Benzo(a)pyrene	mg/kg	0.027 - 9.2	0.015
Benzo(b)fluoranthene	mg/kg	0.022 - 9.8	0.15
Benzo(k)fluoranthene	mg/kg	0.023 - 3.6	1.5
Dieldrin	mg/kg	0.0002 - 1	0.03
Heptachlor epoxide	mg/kg	0.000057 - 0.31	0.053
Indeno(1,2,3-c,d)pyrene	mg/kg	0.026 - 4.6	0.15
Lead **	mg/kg	26.2 - 53000	80

Notes:

Only compounds detected above screening levels are shown

[1] EPA Regional Screening Levels for residential soil, May 2010.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

** For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

mg/kg milligrams per kilogram

TABLE 4-37
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-06D	RMW-06D	RMW-06D	RMW-06M	RMW-06M	RMW-06M	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15S	RMW-15S	RMW-15S
			2 ft bgs	6 ft bgs	11 ft bgs	2 ft bgs	6 ft bgs	11 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	1 ft bgs	10 ft bgs	15 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs
	Sample Date		10/12/2009	10/16/2009	10/16/2009	10/12/2009	10/15/2009	10/15/2009	10/12/2009	10/21/2009	10/21/2009	10/21/2009	10/12/2009	11/2/2009	11/2/2009	10/12/2009	10/20/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**															
Volatile Organic Compounds																		
1,1,1-Trichloroethane	38,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,1,2,2-Tetrachloroethane	2,800	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,1,2-Trichloroethane	5,300	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	9.9	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,1-Dichloroethane	17,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	13	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,1-Dichloroethene	1,100,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	0.84 J	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,1-Dichloropropene	NE	µg/kg	ND (2.2)	---	---	ND (2.2)	---	---	ND (3.1)	---	---	---	ND (2.2)	---	---	ND (2.8)	---	---
1,2,3-Trichlorobenzene	490,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1) J	ND (5.1)	---	ND (5.6) J	ND (5.6)
1,2,3-Trichloropropane	95	µg/kg	ND (2.2)	---	---	ND (2.2)	---	---	ND (3.1)	---	---	---	ND (2.2)	---	---	ND (2.8)	---	---
1,2,4-Trichlorobenzene	99,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1) J	ND (5.1)	---	ND (5.6) J	ND (5.6)
1,2,4-Trimethylbenzene	260,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
1,2-Dibromo-3-chloropropane	69	µg/kg	ND (8.9)	ND (4.8)	ND (5)	ND (8.8)	ND (4.9)	ND (4.9)	ND (13)	ND (5.1)	ND (4.6)	ND (4.8)	ND (8.7)	ND (5.1)	ND (5.1)	ND (11)	ND (5.6)	ND (5.6)
1,2-Dibromoethane	170	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,2-Dichlorobenzene	9,800,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6) J	ND (5.6)
1,2-Dichloroethane	2,200	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,2-Dichloropropane	4,500	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
1,3,5-Trimethylbenzene	10,000,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
1,3-Dichlorobenzene	NE	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6) J	ND (5.6)
1,3-Dichloropropane	20,000,000	µg/kg	ND (2.2)	---	---	ND (2.2)	---	---	ND (3.1)	---	---	---	ND (2.2)	---	---	ND (2.8)	---	---
1,4-Dichlorobenzene	12,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1) J	ND (2.8)	ND (5.6) J	ND (5.6)
1,4-Dioxane (p-dioxane)	160,000	µg/kg	---	ND (95) R	ND (100) R	---	ND (99) R	ND (97) R	---	ND (100) R	ND (92) R	ND (96) R	---	ND (100) R	ND (100) R	---	ND (110) R	ND (110) R
2-Hexanone	1,400,000	µg/kg	ND (18)	ND (9.5)	ND (10)	ND (18)	ND (9.9)	ND (9.7)	ND (25)	ND (10)	ND (9.2)	ND (9.6)	ND (17)	ND (10)	ND (10)	ND (23)	ND (11)	ND (11)
Acetone	630,000,000	µg/kg	ND (18)	ND (9.5)	ND (10)	ND (18)	ND (9.9)	ND (9.7)	81	ND (10)	ND (9.2)	ND (9.6)	ND (17)	26	ND (10)	ND (23)	2 J	2.9 J
Benzene	5,400	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Bromochloromethane	NE	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
Bromodichloromethane	1,400	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Bromoform	220,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Bromomethane	32,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Carbon disulfide	3,700,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Carbon tetrachloride	3,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Chlorobenzene	1,400,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	7.2	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6) J	ND (5.6)
Chloroethane	61,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Chloroform	1,500	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Chloromethane	500,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
cis-1,2-Dichloroethene	10,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
[1] cis-1,3-Dichloropropene	8,100	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Cyclohexane	29,000,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
Dibromochloromethane	3,300	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
[2] Ethyl tert-butyl ether	220,000	µg/kg	ND (8.9)	ND (9.5)	ND (10)	ND (8.8)	ND (9.9)	ND (9.7)	ND (13)	ND (10)	ND (9.2)	ND (9.6)	ND (8.7)	ND (10)	ND (10)	ND (11)	ND (11)	ND (11)
Ethylbenzene	27,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	7.1	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Freon 11	3,400,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Freon 12	780,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Freon 113	180,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	9.9	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Isopropylbenzene (cumene)	11,000,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1) J	ND (5.1)	---	ND (5.6)	ND (5.6)
Methyl acetate	1,000,000,000	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
Methyl ethyl ketone	200,000,000	µg/kg	ND (18)	ND (9.5)	ND (10)	ND (18)	ND (9.9)	ND (9.7)	23 J	3.1 J	3.4 J	ND (9.6)	ND (17)	ND (10)	ND (10)	ND (23)	ND (11)	ND (11)
Methyl isobutyl ketone	53,000,000	µg/kg	ND (18)	ND (9.5)	ND (10)	ND (18)	ND (9.9)	ND (9.7)	ND (25)	ND (10)	ND (9.2)	ND (9.6)	ND (17)	ND (10)	ND (10)	ND (23)	ND (11)	ND (11)
Methyl tert-butyl ether	220,000	µg/kg	ND (8.9)	ND (4.8)	ND (5)	ND (8.8)	ND (4.9)	ND (4.9)	ND (13)	ND (5.1)	ND (4.6)	ND (4.8)	ND (8.7)	ND (5.1)	ND (5.1)	ND (11)	ND (5.6)	ND (5.6)
Methylcyclohexane	NE	µg/kg	---	ND (4.8)	ND (5)	---	ND (4.9)	ND (4.9)	---	ND (5.1)	ND (4.6)	ND (4.8)	---	ND (5.1)	ND (5.1)	---	ND (5.6)	ND (5.6)
Methylene chloride	53,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Naphthalene	18,000	µg/kg	ND (2.2)	---	---	ND (2.2)	---	---	74	---	---	---	ND (2.2)	---	---	ND (2.8)	---	---

TABLE 4-37
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-06D	RMW-06D	RMW-06D	RMW-06M	RMW-06M	RMW-06M	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15S	RMW-15S	RMW-15S
			2 ft bgs	6 ft bgs	11 ft bgs	2 ft bgs	6 ft bgs	11 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	1 ft bgs	10 ft bgs	15 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs
		Sample Date	10/12/2009	10/16/2009	10/16/2009	10/12/2009	10/15/2009	10/15/2009	10/12/2009	10/21/2009	10/21/2009	10/21/2009	10/12/2009	11/2/2009	11/2/2009	10/12/2009	10/20/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**															
Volatile Organic Compounds																		
Styrene	36,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
[3] tert-Amyl methyl ether	220,000	µg/kg	---	ND (9.5)	ND (10)	---	ND (9.9)	ND (9.7)	---	ND (10)	ND (9.2)	ND (9.6)	---	ND (10)	ND (10)	---	ND (11)	ND (11)
[4] tert-Butyl alcohol	2,000,000,000	µg/kg	---	ND (48)	ND (50)	---	ND (49)	ND (49)	---	ND (51)	ND (46)	ND (48)	---	ND (51)	ND (51)	---	ND (56)	ND (56)
Tetrachloroethene	2,600	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	13	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Toluene	45,000,000	µg/kg	ND (2.2)	5.4	ND (5)	ND (2.2)	5	ND (4.9)	10	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
trans-1,2-Dichloroethene	690,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
[5] trans-1,3-Dichloropropene	8,100	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1)	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Trichloroethene	14,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Vinyl chloride	1,700	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	ND (3.1)	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1) J	ND (2.8)	ND (5.6)	ND (5.6)
Xylenes, m & p	17,000,000	µg/kg	ND (4.5)	ND (4.8)	ND (5)	ND (4.4)	ND (4.9)	ND (4.9)	12	ND (5.1)	ND (4.6)	ND (4.8)	ND (4.3)	ND (5.1) J	ND (5.1)	ND (5.6)	ND (5.6)	ND (5.6)
Xylenes, o	19,000,000	µg/kg	ND (2.2)	ND (4.8)	ND (5)	ND (2.2)	ND (4.9)	ND (4.9)	17	ND (5.1)	ND (4.6)	ND (4.8)	ND (2.2)	ND (5.1) J	ND (5.1)	ND (2.8)	ND (5.6)	ND (5.6)
Semivolatile Organic Compounds																		
1,1'-Biphenyl	51,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	74 J	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
1,2,4,5-Tetrachlorobenzene	180,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,2'-Oxybis(1-Chloropropane)	22,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,3,4,6-Tetrachlorophenol	18,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,4,5-Trichlorophenol	62,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,4,6-Trichlorophenol	160,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,4-Dichlorophenol	1,800,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,4-Dimethylphenol	12,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,4-Dinitrophenol	1,200,000	µg/kg	ND (360) R	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350) R	ND (400)	ND (380)	ND (370)	ND (330) R	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
2,4-Dinitrotoluene	5,500	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2,6-Dinitrotoluene	620,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2-Chloronaphthalene	82,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2-Chlorophenol	5,100,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2-Methylnaphthalene	4,100,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	4,400	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2-Methylphenol	31,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
2-Nitroaniline	6,000,000	µg/kg	ND (360)	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350)	ND (400)	ND (380)	ND (370)	ND (330)	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
2-Nitrophenol	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
3,3'-Dichlorobenzidine	3,800	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
[6] 3-Nitroaniline	86,000	µg/kg	ND (360)	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350)	ND (400)	ND (380)	ND (370)	ND (330)	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
4,6-Dinitro-2-methylphenol	49,000	µg/kg	ND (360) R	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350) R	ND (400)	ND (380)	ND (370)	ND (330) R	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
4-Bromophenylphenyl ether	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
[7] 4-Chloro-3-methylphenol	31,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
4-Chloroaniline	8,600	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
4-Methylphenol	3,100,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
4-Nitroaniline	86,000	µg/kg	ND (360)	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350)	ND (400)	ND (380)	ND (370)	ND (330)	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
[8] 4-Nitrophenol	1,200,000	µg/kg	ND (360)	ND (380)	ND (390)	ND (360)	ND (380)	ND (390)	ND (350)	ND (400)	ND (380)	ND (370)	ND (330)	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
Acenaphthene	33,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	26 J	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
[9] Acenaphthylene	17,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Acetophenone	100,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Anthracene	170,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Atrazine	7,500	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Benzaldehyde	100,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Benzo(a)anthracene	2,100	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Benzo(a)pyrene	210	µg/kg	23 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Benzo(b)fluoranthene	2,100	µg/kg	33 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
[10] Benzo(g,h,i)perylene	17,000,000	µg/kg	ND (180) J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210) J	ND (200) J	ND (190) J	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Benzo(k)fluoranthene	21,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)

TABLE 4-37
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-06D	RMW-06D	RMW-06D	RMW-06M	RMW-06M	RMW-06M	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15S	RMW-15S	RMW-15S
			2 ft bgs	6 ft bgs	11 ft bgs	2 ft bgs	6 ft bgs	11 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	1 ft bgs	10 ft bgs	15 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs
	Sample Date		10/12/2009	10/16/2009	10/16/2009	10/12/2009	10/15/2009	10/15/2009	10/12/2009	10/21/2009	10/21/2009	10/21/2009	10/12/2009	11/2/2009	11/2/2009	10/12/2009	10/20/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**															
Semivolatile Organic Compounds																		
Benzyl butyl phthalate	910,000	µg/kg	41 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) J	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
bis(2-Chloroethoxy)methane	1,800,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
bis(2-Chloroethyl)ether	1,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
bis(2-Ethylhexyl)phthalate	120,000	µg/kg	120 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	170 J	ND (210)	ND (200)	ND (190)	29 J	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Caprolactam	310,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	61 J	260
Carbazole	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Chrysene	210,000	µg/kg	26 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Dibenz(a,h)anthracene	210	µg/kg	ND (180) J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Dibenzofuran	1,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Diethylphthalate	490,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	1,800	25 J	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Dimethylphthalate	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Di-n-butyl phthalate	62,000,000	µg/kg	230	ND (200)	ND (200)	34 J	ND (190)	21 J	200	ND (210)	ND (200)	ND (190)	56 J	ND (210)	ND (200)	97 J	ND (190)	ND (200)
Di-n-octyl phthalate	NE	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Fluoranthene	22,000,000	µg/kg	34 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	56 J	ND (210)	ND (200)	ND (190)	ND (170) J	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Fluorene	22,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Hexachlorobenzene	1,100	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Hexachlorobutadiene	22,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Hexachlorocyclopentadiene	3,700,000	µg/kg	ND (180) J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) J	ND (210)	ND (200)	ND (190)	ND (170) J	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Hexachloroethane	120,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Indeno(1,2,3-c,d)pyrene	2,100	µg/kg	34 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180) R	ND (210)	ND (200)	ND (190)	ND (170) R	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Isophorone	1,800,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Naphthalene	18,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	190	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Nitrobenzene	24,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
N-Nitrosodi-n-propylamine	250	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
N-Nitrosodiphenylamine	350,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Pentachlorophenol	9,000	µg/kg	ND (360)	ND (380)	ND (390)	ND (360) J	ND (380)	ND (390)	ND (350)	ND (400) J	ND (380) J	ND (370) J	ND (330)	ND (400)	ND (400)	ND (320)	ND (380)	ND (400)
11 Phenanthrene	17,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	44 J	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Phenol	180,000,000	µg/kg	ND (180)	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	ND (180)	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Pyrene	17,000,000	µg/kg	44 J	ND (200)	ND (200)	ND (190)	ND (190)	ND (200)	120 J	ND (210)	ND (200)	ND (190)	ND (170)	ND (210)	ND (200)	ND (170)	ND (190)	ND (200)
Total Petroleum Hydrocarbons																		
Diesel c10-c24	NE	mg/kg	68 J	0.31 J	ND (0.25)	2.5 J	1.3 J	ND (0.32)	2,300 J	5 J	ND (0.31)	0.51 J	1,200 J	ND (0.54) J	ND (0.32) J	13 J	1.7 J	ND (0.31)
Gasoline c6-c10	NE	mg/kg	ND (0.018) J	ND (0.014) J	ND (0.02) J	ND (0.013) J	ND (0.015) J	ND (0.013) J	0.19 J	ND (0.016) J	ND (0.022) J	ND (0.016) J	ND (0.018) J	ND (0.013) J	ND (0.016) J	ND (0.014) J	ND (0.013) J	ND (0.015) J
Metals																		
Aluminum	990,000	mg/kg	9,270	4,500	6,760	8,210	4,080	15,300	6,060	4,900	11,600	7,780	7,600	11,300	7,410	5,510	5,230	11,700
Antimony	410	mg/kg	3 J	ND (6.9) J	ND (7) J	1.8 J	ND (7) J	ND (6.4) J	1.8 J	ND (7.1) J	ND (6.6) J	ND (6.1) J	1.6 J	ND (5.4) J	ND (7) J	1.5 J	ND (6.6) J	ND (7) J
Arsenic	1.6	mg/kg	46.9	1.5	2.6	31.4	1.6	3.3	56.3	2	3.1	2.2	31.9	2.9	3	39.9	1.9	2.6
Barium	190,000	mg/kg	206	53.6	57.1	130	71.5	115	77.6	59.4	56.3	54.8	119	66.7	52.8	50.6	65.4	69.1
Beryllium	2,000	mg/kg	0.85	0.23 J	0.31 J	0.53 J	0.24 J	0.51 J	0.45 J	0.26 J	0.41 J	0.26 J	0.47 J	0.36 J	0.3 J	0.35 J	0.25 J	0.36 J
Cadmium	800	mg/kg	ND (0.58)	ND (0.58)	ND (0.59)	ND (0.55)	ND (0.59)	ND (0.53)	ND (0.55)	ND (0.6)	ND (0.55)	ND (0.51)	11.9	ND (0.45)	ND (0.58)	ND (0.51)	ND (0.55)	ND (0.59)
Chromium	NE	mg/kg	168	29.5	40	27.3	28.1	83.3	15.6	29.2	47.1	40.7	7.2	42.6	38.6	4.3	29.1	49
Cobalt	300	mg/kg	17.7	3.8 J	6.7	13.6	4.1 J	9	12.3	6.4	7.4	6.2	11.2	8	7.1	8	5.1 J	7.9
Copper	41,000	mg/kg	81.5 J	7.6 J	8.7 J	24.3 J	7.5 J	10.8 J	31.9 J	19.2 J	16.9 J	23.2 J	39.2 J	8.5	7.6	12.5 J	13.5 J	8.5 J
Cyanide	20,000	mg/kg	ND (2.9)	ND (2.8)	ND (2.9)	ND (2.6)	ND (3)	ND (2.9)	ND (2.8)	ND (2.9)	ND (3)	ND (3)	ND (2.7)	ND (2.8)	ND (2.9)	ND (2.8)	ND (2.9)	ND (2.9)
Lead	800	mg/kg	312 J	2.1 J	3 J	44.8 J	9.3 J	4.4 J	810 J	2.6 J	3.4 J	2.7 J	59.9 J	3.3 J	3.2 J	215 J	2.9 J	3.3 J
Manganese	23,000	mg/kg	518	111	147	916	124	221	594	154	191	128	1,140	220	134	506	136	200
Mercury	34	mg/kg	1.7	ND (0.12)	0.034 J	0.42	0.067 J	0.066 J	0.87	0.025 J	0.033 J	0.025 J	0.63	0.057 J	ND (0.11)	0.81	ND (0.12)	ND (0.12)
Nickel	20,000	mg/kg	46.7	17.2	34.7	17.4	15.6	54.1	7.1	18.8	40.6	33.6	7.5	39.2	33.1	4.3	18.7	41.7
Selenium	5,100	mg/kg	6.8	0.73 J	1 J	4	0.94 J	2.5 J	3.9	1.3 J	1.7 J	1.6 J	4.2	1.6 J	1.3 J	3.6	1.3 J	2 J
Silver	5,100	mg/kg	0.22 J+	ND (1.2)	ND (1.2)	0.16 J+	ND (1.2)	ND (1.1)	0.17 J+	ND (1.2)	ND (1.1)	ND (1)	0.21 J+	ND (0.9) R	ND (1.2) R	0.23 J+	ND (1.1)	ND (1.2)
Thallium	NE	mg/kg	ND (2.9)	ND (2.9)	ND (2.9)	0.92 J	ND (2.9)	ND (2.7)	1.2 J	ND (3)	ND (2.7)	ND (2.6)	0.39 J	ND (2.3)	ND (2.9)	0.48 J	ND (2.7)	ND (2.9)

TABLE 4-37
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-06D	RMW-06D	RMW-06D	RMW-06M	RMW-06M	RMW-06M	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15S	RMW-15S	RMW-15S
			2 ft bgs	6 ft bgs	11 ft bgs	2 ft bgs	6 ft bgs	11 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	1 ft bgs	10 ft bgs	15 ft bgs	1 ft bgs	6 ft bgs	11 ft bgs
	Sample Date		10/12/2009	10/16/2009	10/16/2009	10/12/2009	10/15/2009	10/15/2009	10/12/2009	10/21/2009	10/21/2009	10/21/2009	10/12/2009	11/2/2009	11/2/2009	10/12/2009	10/20/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**															
Metals																		
Vanadium	5,200	mg/kg	45.2 J	21.6 J	30.3 J	41.4 J	21.9 J	50.2 J	28.1 J	21.1 J	34.5 J	29.3 J	27 J	35.6	34.5	21.1 J	22.6 J	33.1 J
Zinc	310,000	mg/kg	220 J	15.2 J	23.3 J	214 J	21.9 J	30.4 J	256 J	26.3 J	28.3 J	28.8 J	195 J	24.1	21.6	190 J	22.7 J	24.8 J
Calcium	NE	mg/kg	4,750	1,570	1,560	3,930	2,340	2,100	2,340	2,060	1,610	1,620	4,400	1,880	1,700	2,380	2,440	1,560
Iron	720,000	mg/kg	66,100	8,310	13,200	34,600	8,070	20,400	30,900	8,990	15,900	12,900	31,700	15,900	14,200	28,000	9,140	15,300
Magnesium	NE	mg/kg	3,510	1,540	2,860	4,200	1,390	3,750	1,600	1,410	3,070	2,550	2,110	2,770	2,690	1,450	1,500	3,110
Potassium	NE	mg/kg	747	ND (374) J	ND (456) J	530 J+	ND (529) J	463 J+	420 J+	637 J+	536 J+	468 J+	424 J+	860	ND (453) J	314 J+	695 J+	481 J+
Sodium	NE	mg/kg	289 J	166 J	198 J	ND (444) J	180 J	ND (352) J	ND (209) J	ND (173) J	ND (170) J	ND (147) J	ND (274) J	ND (140) J	ND (155) J	ND (247) J	ND (122) J	ND (180) J
Organochlorine Pesticides/PCBs																		
4,4'-DDD	7,200	µg/kg	39	0.066 J	ND (3.9)	41	0.055 J	0.13 J	8,600	32	ND (3.9) J	ND (3.9)	55	0.35 J	0.15 J	2.8 J	0.48 J	ND (4.5)
4,4'-DDE	5,100	µg/kg	140	0.2 J	ND (3.9)	23	0.07 J	0.18 J	1,800	7.3	ND (3.9) J	ND (3.9)	110	ND (4)	0.045 J	84	0.38 J	ND (4.5)
4,4'-DDT	7,000	µg/kg	130	0.14 J	ND (3.9)	23	ND (3.8)	0.071 J	27 J	3.7 J	ND (3.9) J	ND (3.9)	400	0.34 J	0.12 J	55	0.64 J	ND (4.5)
Aldrin	100	µg/kg	0.087 J	0.037 J	ND (2)	0.018 J	0.04 J	0.037 J	ND (370)	ND (2.1)	ND (2) J	ND (2)	0.041 J	ND (2.1)	ND (2.1)	ND (1.8)	ND (2)	ND (2.3)
alpha-BHC	270	µg/kg	ND (1.9)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	ND (2.1)	ND (2) J	ND (2)	ND (1.8)	ND (2.1)	ND (2.1)	ND (3.7)	ND (2)	ND (2.3)
12 alpha-Chlordane	6,500	µg/kg	1.1 J	ND (2)	ND (2)	0.1 J	ND (2)	ND (2.1)	3.6 J	0.27 J	ND (2) J	ND (2)	3.9 J	ND (2.1)	ND (2.1)	4	ND (2)	ND (2.3)
Aroclor-1016	21,000	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1221	540	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1232	540	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1242	740	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1248	740	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1254	740	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1260	740	µg/kg	100	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1262	NE	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
Aroclor-1268	NE	µg/kg	ND (37)	ND (38)	ND (39)	ND (36)	ND (38)	ND (39)	ND (36)	ND (41)	ND (39)	ND (39)	ND (35)	ND (40)	ND (39)	ND (35)	ND (38)	ND (39)
beta-BHC	960	µg/kg	ND (1.9)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	ND (2.1)	ND (2) J	ND (2)	ND (18)	ND (2.1)	0.037 J	ND (3.7)	ND (2)	ND (2.3)
13 delta-BHC	270	µg/kg	ND (9.6)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	ND (2.1)	ND (2) J	ND (2)	ND (1.8)	ND (2.1)	0.017 J	ND (3.7)	ND (2)	ND (2.3)
Dieldrin	110	µg/kg	3.1 J	ND (3.8)	ND (3.9)	0.15 J	ND (3.8)	0.028 J	13 J	ND (4.2)	ND (3.9) J	ND (3.9)	9.6 J	ND (4)	ND (4)	18	ND (3.9)	ND (4.5)
14 Endosulfan I	3,700,000	µg/kg	0.14 J	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	12 J	ND (2.1)	ND (2) J	ND (2)	0.027 J	ND (2.1)	ND (2.1)	0.18 J	ND (2)	ND (2.3)
15 Endosulfan II	3,700,000	µg/kg	1.6 J	ND (3.8)	ND (3.9)	0.13 J	ND (3.8)	ND (4)	ND (710)	ND (4.2)	ND (3.9) J	ND (3.9)	1.6 J	ND (4)	ND (4)	0.16 J	ND (3.9)	ND (4.5)
16 Endosulfan sulfate	3,700,000	µg/kg	1.2 J	ND (3.8)	ND (3.9)	0.11 J	ND (3.8)	ND (4)	1.1 J	ND (4.2)	ND (3.9) J	ND (3.9)	0.49 J	ND (4)	ND (4)	0.11 J	ND (3.9)	ND (4.5)
Endrin	180,000	µg/kg	0.15 J	ND (3.8)	ND (3.9)	0.057 J	ND (3.8)	ND (4)	6.9 J	0.29 J	ND (3.9) J	ND (3.9)	0.36 J	ND (4)	ND (4)	0.69 J	ND (3.9)	ND (4.5)
17 Endrin aldehyde	180,000	µg/kg	0.29 J	0.069 J	0.052 J	ND (3.6)	0.11 J	0.14 J	6.1 J	ND (4.2)	ND (3.9) J	ND (3.9)	0.3 J	ND (4)	ND (4)	0.1 J	ND (3.9)	ND (4.5)
18 Endrin ketone	180,000	µg/kg	0.96 J	ND (3.8)	ND (3.9)	0.065 J	ND (3.8)	ND (4)	1.5 J	ND (4.2)	ND (3.9) J	ND (3.9)	0.94 J	ND (4)	ND (4)	0.24 J	ND (3.9)	ND (4.5)
gamma-BHC	2,100	µg/kg	ND (1.9)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	ND (2.1)	ND (2) J	ND (2)	ND (18)	ND (2.1)	0.046 J	ND (1.8)	ND (2)	ND (2.3)
19 gamma-Chlordane	6,500	µg/kg	ND (9.6)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	0.24 J	ND (2) J	ND (2)	ND (18)	ND (2.1)	ND (2.1)	4.3	ND (2)	ND (2.3)
Heptachlor	380	µg/kg	ND (1.9)	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (2.1)	ND (370)	ND (2.1)	ND (2) J	ND (2)	ND (1.8)	ND (2.1)	0.046 J	ND (3.7)	ND (2)	ND (2.3)
Heptachlor epoxide	190	µg/kg	ND (9.6)	ND (2)	ND (2)	0.043 J	ND (2)	ND (2.1)	4 J	ND (2.1)	ND (2) J	ND (2)	ND (18)	ND (2.1)	ND (2.1)	0.087 J	ND (2)	ND (2.3)
Methoxychlor	3,100,000	µg/kg	ND (96)	ND (20)	ND (20)	ND (19)	ND (20)	ND (21)	ND (370)	ND (21)	ND (20) J	ND (20)	ND (18)	ND (21)	ND (21)	ND (18)	ND (20)	ND (23)
Toxaphene	1,600	µg/kg	ND (960)	ND (200)	ND (200)	ND (190)	ND (200)	ND (210)	ND (37,000)	ND (210)	ND (200) J	ND (200)	ND (180)	ND (210)	ND (210)	ND (370)	ND (200)	ND (230)

[1] 1,3-Dichloropropene was used as the surrogate
[2] Methyl tertbutyl ether (MTBE) was used as the surrogate
[3] Methyl tertbutyl ether (MTBE) was used as the surrogate
[4] sec-butyl alcohol was used as the surrogate
[5] 1,3-Dichloropropene was used as the surrogate
[6] 4-Nitroaniline used as the surrogate
[7] 3-methylphenol was used as the surrogate
[8] 2,4-Dinitrophenol was used as the surrogate
[9] Pyrene was used as the surrogate
[10] Pyrene was used as the surrogate
[11] Pyrene was used as the surrogate
[12] Chlordane was used as the surrogate
[13] alpha-BHC was used as the surrogate
[14] Endosulfan was used as the surrogate
[15] Endosulfan was used as the surrogate
[16] Endosulfan was used as the surrogate
[17] Endrin was used as the surrogate
[18] Endrin was used as the surrogate
[19] Chlordane was used as the surrogate

Results greater than the screening level are bolded.
Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations).
Units are presented as reported by the laboratory.

ISL	Industrial Screening Level
ft bgs	feet below ground surface
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
--	not analyzed
NE	not established
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-38
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15S
			22 ft bgs	22 ft bgs (FD)	26 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	61 ft bgs	20 ft bgs	25 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	16 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**																
Volatile Organic Compounds																			
1,1,1-Trichloroethane	38,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,1,2,2-Tetrachloroethane	2,800	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,1,2-Trichloroethane	5,300	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,1-Dichloroethane	17,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,1-Dichloroethene	1,100,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2,3-Trichlorobenzene	490,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2,4-Trichlorobenzene	99,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2,4-Trimethylbenzene	260,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2-Dibromo-3-chloropropane	69	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2-Dibromoethane	170	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2-Dichlorobenzene	9,800,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2-Dichloroethane	2,200	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,2-Dichloropropane	4,500	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,3,5-Trimethylbenzene	10,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,3-Dichlorobenzene	NE	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
1,4-Dichlorobenzene	12,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6) J	ND (5.2) J	ND (5.2) J	ND (5.5) J	ND (5.8) J	ND (4.9)
1,4-Dioxane (p-dioxane)	160,000	µg/kg	ND (97) R	ND (96) R	ND (110) R	ND (98) R	ND (100) R	ND (100) R	ND (96) R	---	ND (97) R	ND (97) R	ND (100) R	ND (92) R	ND (100) R	ND (100) R	ND (110) R	ND (120) R	ND (97) R
2-Hexanone	1,400,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	ND (9.7)	ND (10)	ND (9.2)	ND (10)	ND (10)	ND (11)	ND (12)	ND (9.7)
Acetone	630,000,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	ND (9.7)	ND (10)	ND (9.2)	ND (10)	ND (10)	ND (11)	ND (12)	2.8 J
Benzene	5,400	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Bromochloromethane	NE	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Bromodichloromethane	1,400	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Bromoform	220,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7) J	ND (4.9) J	ND (5) J	ND (5.1) J	ND (4.8) J	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Bromomethane	32,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Carbon disulfide	3,700,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	0.66 J	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Carbon tetrachloride	3,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Chlorobenzene	1,400,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Chloroethane	61,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Chloroform	1,500	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Chloromethane	500,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
cis-1,2-Dichloroethene	10,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	3.4 J	ND (5.8)	ND (4.9)
[1] cis-1,3-Dichloropropene	8,100	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Cyclohexane	29,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Dibromochloromethane	3,300	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
[2] Ethyl tert-butyl ether	220,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	ND (9.7)	ND (10)	ND (9.2)	ND (10)	ND (10)	ND (11)	ND (12)	ND (9.7)
Ethylbenzene	27,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Freon 11	3,400,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Freon 12	780,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Freon 113	180,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Isopropylbenzene (cumene)	11,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Methyl acetate	1,000,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	5.6	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Methyl ethyl ketone	200,000,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	3.3 J	2.7 J	ND (9.2)	ND (10)	ND (10)	ND (11)	ND (12)	ND (9.7)
Methyl isobutyl ketone	53,000,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	ND (9.7)	ND (10)	ND (9.2)	ND (10)	ND (10)	1.1 J	ND (12)	ND (9.7)
Methyl tert-butyl ether	220,000	µg/kg	18	9.6	18	16	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	3.5 J	ND (5)	9.6	34	21	12	ND (5.8)	ND (4.9)
Methylcyclohexane	NE	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Methylene chloride	53,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Styrene	36,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
[3] tert-Amyl methyl ether	220,000	µg/kg	ND (9.7)	ND (9.6)	ND (11)	ND (9.8)	ND (10)	ND (10)	ND (9.6)	---	ND (9.7)	ND (9.7)	ND (10)	ND (9.2)	ND (10)	ND (10)	ND (11)	ND (12)	ND (9.7)
[4] tert-Butyl alcohol	2,000,000,000	µg/kg	ND (48)	ND (48)	ND (57)	ND (49)	ND (50)	ND (51)	ND (48)	---	ND (49)	ND (49)	ND (50)	ND (46)	ND (52)	ND (52)	ND (55)	ND (58)	ND (49)
Tetrachloroethene	2,600	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)

TABLE 4-38
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15S
			22 ft bgs	22 ft bgs (FD)	26 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	61 ft bgs	20 ft bgs	25 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	16 ft bgs
		Sample Date	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	10/20/2009
Analyte	ISL	Units	Analytical Results																
Volatile Organic Compounds																			
Toluene	45,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
trans-1,2-Dichloroethene	690,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
5 trans-1,3-Dichloropropene	8,100	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Trichloroethene	14,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	1.2 J	0.77 J	ND (4.9)
Vinyl chloride	1,700	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6) J	ND (5.2) J	ND (5.2) J	ND (5.5) J	ND (5.8) J	ND (4.9)
Xylenes, m & p	17,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Xylenes, o	19,000,000	µg/kg	ND (4.8)	ND (4.8)	ND (5.7)	ND (4.9)	ND (5)	ND (5.1)	ND (4.8)	---	ND (4.9)	ND (4.9)	ND (5)	ND (4.6)	ND (5.2)	ND (5.2)	ND (5.5)	ND (5.8)	ND (4.9)
Semivolatile Organic Compounds																			
1,1'-Biphenyl	51,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
1,2,4,5-Tetrachlorobenzene	180,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,2'-Oxybis(1-Chloropropane)	22,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,3,4,6-Tetrachlorophenol	18,000,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,4,5-Trichlorophenol	62,000,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,4,6-Trichlorophenol	160,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,4-Dichlorophenol	1,800,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,4-Dimethylphenol	12,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,4-Dinitrophenol	1,200,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
2,4-Dinitrotoluene	5,500	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2,6-Dinitrotoluene	620,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2-Chloronaphthalene	82,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2-Chlorophenol	5,100,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2-Methylnaphthalene	4,100,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2-Methylphenol	31,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
2-Nitroaniline	6,000,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
2-Nitrophenol	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
3,3'-Dichlorobenzidine	3,800	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
6 3-Nitroaniline	86,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
4,6-Dinitro-2-methylphenol	49,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
4-Bromophenylphenyl ether	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
7 4-Chloro-3-methylphenol	31,000,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
4-Chloroaniline	8,600	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
4-Methylphenol	3,100,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
4-Nitroaniline	86,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
8 4-Nitrophenol	1,200,000	µg/kg	ND (420)	ND (390)	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
Acenaphthene	33,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
9 Acenaphthylene	17,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Acetophenone	100,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Anthracene	170,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Atrazine	7,500	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Benzaldehyde	100,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Benzo(a)anthracene	2,100	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Benzo(a)pyrene	210	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Benzo(b)fluoranthene	2,100	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
10 Benzo(g,h,i)perylene	17,000,000	µg/kg	ND (210) J	ND (200) J	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Benzo(k)fluoranthene	21,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Benzyl butyl phthalate	910,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
bis(2-Chloroethoxy)methane	1,800,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
bis(2-Chloroethyl)ether	1,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
bis(2-Ethylhexyl)phthalate	120,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	55 J	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	25 J	24 J

TABLE 4-38
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15S
			22 ft bgs	22 ft bgs (FD)	26 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	61 ft bgs	20 ft bgs	25 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	16 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**																
Semivolatile Organic Compounds																			
Caprolactam	310,000,000	µg/kg	55 J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	280
Carbazole	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Chrysene	210,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Dibenz(a,h)anthracene	210	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Dibenzofuran	1,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Diethylphthalate	490,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Dimethylphthalate	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Di-n-butyl phthalate	62,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Di-n-octyl phthalate	NE	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Fluoranthene	22,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Fluorene	22,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Hexachlorobenzene	1,100	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Hexachlorobutadiene	22,000	µg/kg	ND (210) J	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Hexachlorocyclopentadiene	3,700,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Hexachloroethane	120,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Indeno(1,2,3-c,d)pyrene	2,100	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Isophorone	1,800,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Naphthalene	18,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Nitrobenzene	24,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
N-Nitrosodi-n-propylamine	250	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
N-Nitrosodiphenylamine	350,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Pentachlorophenol	9,000	µg/kg	ND (420) J	ND (390) J	ND (460)	ND (370)	ND (400)	ND (400)	ND (360)	ND (390)	ND (380)	ND (390)	ND (380)	ND (380)	ND (410)	ND (410)	ND (390)	ND (390)	ND (370)
11 Phenanthrene	17,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Phenol	180,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	310	850	690	860	1,300	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200)	ND (200)	ND (190)
Pyrene	17,000,000	µg/kg	ND (210)	ND (200)	ND (240)	ND (190)	ND (210)	ND (200)	ND (180)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (210)	ND (210)	ND (200) J	ND (200)	ND (190)
Total Petroleum Hydrocarbons																			
Diesel c10-c24	NE	mg/kg	0.36 J	ND (1.2) J	0.53 J	0.63 J	0.63 J	0.66 J	ND (0.32)	0.31 J	0.53 J	0.96 J	0.49 J	ND (1.8) J	ND (0.62) J	ND (0.77) J	ND (0.19) J	ND (0.34) J	ND (0.3)
Gasoline c6-c10	NE	mg/kg	ND (0.013) J	ND (0.015) J	ND (0.019) J	ND (0.015) J	ND (0.015) J	ND (0.015) J	ND (0.016) J	ND (0.014) J	ND (0.013) J	ND (0.015) J	ND (0.016) J	ND (0.012) J	ND (0.015) J	ND (0.016) J	ND (0.011)	ND (0.019) J	ND (0.014) J
Organochlorine Pesticides/PCBs																			
4,4'-DDD	7,200	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
4,4'-DDE	5,100	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
4,4'-DDT	7,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
Aldrin	100	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
alpha-BHC	270	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
12 alpha-Chlordane	6,500	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
Aroclor-1016	21,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1221	540	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1232	540	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1242	740	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1248	740	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1254	740	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1260	740	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1262	NE	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
Aroclor-1268	NE	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (41)
beta-BHC	960	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
13 delta-BHC	270	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
Dieldrin	110	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
14 Endosulfan I	3,700,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
15 Endosulfan II	3,700,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
16 Endosulfan sulfate	3,700,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)

TABLE 4-38
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15D	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15M	RMW-15S
			22 ft bgs	22 ft bgs (FD)	26 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	61 ft bgs	20 ft bgs	25 ft bgs	30 ft bgs	35 ft bgs	35 ft bgs (FD)	16 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	11/2/2009	10/20/2009
Analyte	**ISL**	**Units**	**Analytical Results**																
Organochlorine Pesticides/PCBs																			
Endrin	180,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
[17] Endrin aldehyde	180,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
[18] Endrin ketone	180,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (4.1)
gamma-BHC	2,100	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
[19] gamma-Chlordane	6,500	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
Heptachlor	380	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
Heptachlor epoxide	190	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (2.1)
Methoxychlor	3,100,000	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (21)
Toxaphene	1,600	µg/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND (210)

[1] 1,3-Dichloropropene was used as the surrogate
[2] Methyl tertbutyl ether (MTBE) was used as the surrogate
[3] Methyl tertbutyl ether (MTBE) was used as the surrogate
[4] sec-butyl alcohol was used as the surrogate
[5] 1,3-Dichloropropene was used as the surrogate
[6] 4-Nitroaniline used as the surrogate
[7] 3-methylphenol was used as the surrogate
[8] 2,4-Dinitrophenol was used as the surrogate
[9] Pyrene was used as the surrogate
[10] Pyrene was used as the surrogate
[11] Pyrene was used as the surrogate
[12] Chlordane was used as the surrogate
[13] alpha-BHC was used as the surrogate
[14] Endosulfan was used as the surrogate
[15] Endosulfan was used as the surrogate
[16] Endosulfan was used as the surrogate
[17] Endrin was used as the surrogate
[18] Endrin was used as the surrogate
[19] Chlordane was used as the surrogate

Results greater than the screening level are bolded.
Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations).
Units are presented as reported by the laboratory.

ISL	Industrial Screening Level
ft bgs	feet below ground surface
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
--	not analyzed
NE	not established
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
R	rejected for failure to meet quality control requirements

TABLE 4-39
Well Installation Soil Analytical Results (September - October 2009) Compared to Industrial Regional Screening Levels (Total Petroleum Hydrocarbons Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06D	RMW-06M	RMW-06M	RMW-06M	RMW-06M	RMW-06M
			16 ft bgs	21 ft bgs	26 ft bgs	31 ft bgs	36 ft bgs	41 ft bgs	46 ft bgs	51 ft bgs	56 ft bgs	61 ft bgs	16 ft bgs	21 ft bgs	26 ft bgs	31 ft bgs	36 ft bgs
		Sample Date	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/16/2009	10/19/2009	10/15/2009	10/15/2009	10/15/2009	10/15/2009	10/15/2009
Analyte	**ISL**	**Units**	**Analytical Results**														
Total Petroleum Hydrocarbons																	
Diesel c10-c24	NE	mg/kg	ND (0.25)	ND (0.25)	ND (0.28)	ND (0.26)	0.28 J	0.27 J	0.29 J	ND (0.26)	0.5 J	0.5 J	2.5 J	0.36 J	ND (0.31)	ND (0.33)	0.62 J
Gasoline c6-c10	NE	mg/kg	ND (0.013) J	ND (0.011) J	ND (0.012) J	ND (0.017) J	ND (0.016) J	ND (0.013) J	ND (0.032) J	ND (0.013) J	ND (0.016) J	0.016 J	ND (0.013) J	ND (0.011) J	ND (0.014) J	ND (0.013) J	ND (0.015) J

Results greater than the screening level are bolded.
Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations).
Units are presented as reported by the laboratory.

ISL Industrial Screening Level
ft bgs feet below ground surface
mg/kg milligrams per kilogram
NE not established
ND not detected above the laboratory's reporting limit shown in parentheses
J estimated value

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16WS	RMW-16WS	RMW-16WS	RMW-16WS
			5 ft bgs	10 ft bgs	10 ft bgs (FD)	15 ft bgs	15 ft bgs (FD)	0.5 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/20/2009	10/30/2009	10/30/2009	10/30/2009	10/20/2009	10/22/2009	10/22/2009	10/22/2009	10/20/2009	10/29/2009	10/29/2009	10/29/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Volatile Organic Compounds																			
1,1,1-Trichloroethane	8,700,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,1,2,2-Tetrachloroethane	560	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,1,2-Trichloroethane	1,100	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,1-Dichloroethane	3,300	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,1-Dichloroethene	240,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	0.7 J	ND (4.6)	ND (6)	0.57 J	ND (4.7)	ND (5.2)
1,2,3-Trichlorobenzene	49,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,2,4-Trichlorobenzene	22,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,2,4-Trimethylbenzene	62,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	1.1 J	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,2-Dibromo-3-chloropropane	5.4	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,2-Dibromoethane	34	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,2-Dichlorobenzene	1,900,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,2-Dichloroethane	430	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,2-Dichloropropane	890	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,3,5-Trimethylbenzene	780,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
1,3-Dichlorobenzene	NE	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,4-Dichlorobenzene	2,400	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
1,4-Dioxane (p-dioxane)	44,000	µg/kg	ND (97) R	ND (93) R	ND (97) R	ND (96) R	ND (98) R	ND (170) R	ND (91) R	ND (88) R	ND (89) R	ND (110) R	ND (94) R	ND (96) R	ND (92) R	ND (120) R	ND (99) R	ND (93) R	ND (100) R
2-Hexanone	210,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	ND (17)	ND (9.1)	ND (8.8)	ND (8.9)	ND (11)	ND (9.4)	ND (9.6)	ND (9.2)	ND (12)	ND (9.9)	ND (9.3)	ND (10)
Acetone	61,000,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	19	ND (9.1)	ND (8.8)	ND (8.9)	21	ND (9.4)	ND (9.6)	ND (9.2)	12	ND (9.9)	ND (9.3)	ND (10)
Benzene	1,100	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	1.6 J	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Bromochloromethane	NE	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Bromodichloromethane	270	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Bromoform	61,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7) R	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6) R	ND (4.9)	ND (4.7)	ND (5.2)
Bromomethane	7,300	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Carbon disulfide	820,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	0.84 J	ND (4.9)	ND (4.7)	ND (5.2)
Carbon tetrachloride	610	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Chlorobenzene	290,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Chloroethane	15,000,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Chloroform	290	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Chloromethane	120,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
cis-1,2-Dichloroethene	780,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
[1] cis-1,3-Dichloropropene	1,700	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Cyclohexane	7,000,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Dibromochloromethane	680	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
[2] Ethyl tert-butyl ether	43,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	ND (17)	ND (9.1)	ND (8.8)	ND (8.9)	ND (11)	ND (9.4)	ND (9.6)	ND (9.2)	ND (12)	ND (9.9)	ND (9.3)	ND (10)
Ethylbenzene	5,400	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	4 J	ND (4.6)	ND (4.4)	ND (4.4)	0.73 J	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Freon 11	790,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Freon 12	180,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Freon 113	43,000,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Isopropylbenzene (cumene)	2,100,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Methyl acetate	78,000,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	3.9 J	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Methyl ethyl ketone	28,000,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	ND (17)	ND (9.1)	ND (8.8)	ND (8.9)	8 J	3.1 J	ND (9.6)	ND (9.2)	ND (12)	ND (9.9)	ND (9.3)	ND (10)
Methyl isobutyl ketone	5,300,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	ND (17)	ND (9.1)	ND (8.8)	ND (8.9)	ND (11)	ND (9.4)	ND (9.6)	ND (9.2)	ND (12)	ND (9.9)	ND (9.3)	ND (10)
Methyl tert-butyl ether	43,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Methylcyclohexane	NE	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Methylene chloride	11,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	10	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Styrene	6,300,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
[3] tert-Amyl methyl ether	43,000	µg/kg	ND (9.7)	ND (9.3)	ND (9.7)	ND (9.6)	ND (9.8)	ND (17)	ND (9.1)	ND (8.8)	ND (8.9)	ND (11)	ND (9.4)	ND (9.6)	ND (9.2)	ND (12)	ND (9.9)	ND (9.3)	ND (10)
[4] tert-Butyl alcohol	160,000,000	µg/kg	ND (48)	ND (46)	ND (49)	ND (48)	ND (49)	ND (87)	ND (46)	ND (44)	ND (44)	ND (53)	ND (47)	ND (48)	ND (46)	ND (60)	ND (49)	ND (47)	ND (52)
Tetrachloroethene	550	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16WS	RMW-16WS	RMW-16WS	RMW-16WS
			5 ft bgs	10 ft bgs	10 ft bgs (FD)	15 ft bgs	15 ft bgs (FD)	0.5 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs
		Sample Date	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/20/2009	10/30/2009	10/30/2009	10/30/2009	10/20/2009	10/22/2009	10/22/2009	10/22/2009	10/20/2009	10/29/2009	10/29/2009	10/29/2009
Analyte	RSL	Units	Analytical Results																
Volatile Organic Compounds																			
Toluene	5,000,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	18	ND (4.6)	ND (4.4)	ND (4.4)	18	ND (4.7)	ND (4.8)	ND (4.6)	13	ND (4.9)	ND (4.7)	ND (5.2)
trans-1,2-Dichloroethene	150,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
5 trans-1,3-Dichloropropene	1,700	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Trichloroethene	2,800	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Vinyl chloride	60	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	ND (8.7)	ND (4.6)	ND (4.4)	ND (4.4)	ND (5.3)	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Xylenes, m & p	3,400,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	12 J	ND (4.6)	ND (4.4)	ND (4.4)	2.2 J	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Xylenes, o	3,800,000	µg/kg	ND (4.8)	ND (4.6)	ND (4.9)	ND (4.8)	ND (4.9)	2 J	ND (4.6)	ND (4.4)	ND (4.4)	0.64 J	ND (4.7)	ND (4.8)	ND (4.6)	ND (6)	ND (4.9)	ND (4.7)	ND (5.2)
Semivolatile Organic Compounds																			
1,1'-Biphenyl	3,900,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
1,2,4,5-Tetrachlorobenzene	18,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,2'-Oxybis(1-Chloropropane)	4,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,3,4,6-Tetrachlorophenol	1,800,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,4,5-Trichlorophenol	6,100,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,4,6-Trichlorophenol	44,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,4-Dichlorophenol	180,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,4-Dimethylphenol	1,200,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	23 J	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,4-Dinitrophenol	120,000	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
2,4-Dinitrotoluene	1,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2,6-Dinitrotoluene	61,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2-Chloronaphthalene	6,300,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2-Chlorophenol	390,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2-Methylnaphthalene	310,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	26 J	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2-Methylphenol	3,100,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
2-Nitroaniline	610,000	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
2-Nitrophenol	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
3,3'-Dichlorobenzidine	1,100	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
6 3-Nitroaniline	24,000	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
4,6-Dinitro-2-methylphenol	4,900	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
4-Bromophenylphenyl ether	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
7 4-Chloro-3-methylphenol	3,100,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
4-Chloroaniline	2,400	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
4-Methylphenol	310,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
4-Nitroaniline	24,000	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
8 4-Nitrophenol	120,000	µg/kg	ND (390)	ND (380)	ND (400)	ND (370)	ND (360)	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
Acenaphthene	3,400,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
9 Acenaphthylene	1,700,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Acetophenone	7,800,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Anthracene	17,000,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	38 J	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Atrazine	2,100	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzaldehyde	7,800,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzo(a)anthracene	150	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	110 J	ND (200)	ND (200)	ND (200)	50 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzo(a)pyrene	15	µg/kg	22 J	ND (200)	ND (210)	ND (190)	ND (190)	150 J	ND (200)	ND (200)	ND (200)	77 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzo(b)fluoranthene	150	µg/kg	30 J	ND (200)	ND (210)	ND (190)	ND (190)	180 J	ND (200)	ND (200)	ND (200)	100 J	ND (200)	ND (200)	ND (200)	19 J	ND (190)	ND (200)	ND (220)
10 Benzo(g,h,i)perylene	1,700,000	µg/kg	ND (200) J	ND (200) J	ND (210)	ND (190) J	ND (190) J	120 J	ND (200)	ND (200)	ND (200)	63 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzo(k)fluoranthene	1,500	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	66 J	ND (200)	ND (200)	ND (200)	30 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Benzyl butyl phthalate	260,000	µg/kg	34 J	ND (200)	ND (210)	ND (190)	ND (190)	360	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
bis(2-Chloroethoxy)methane	180,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
bis(2-Chloroethyl)ether	210	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
bis(2-Ethylhexyl)phthalate	35,000	µg/kg	240	ND (200)	29 J	ND (190)	ND (190)	870	480	38 J	ND (200)	34 J	37 J	ND (200)	ND (200)	35 J	28 J	ND (200)	ND (220)

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16WS	RMW-16WS	RMW-16WS	RMW-16WS
			5 ft bgs	10 ft bgs	10 ft bgs (FD)	15 ft bgs	15 ft bgs (FD)	0.5 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/20/2009	10/30/2009	10/30/2009	10/30/2009	10/20/2009	10/22/2009	10/22/2009	10/22/2009	10/20/2009	10/29/2009	10/29/2009	10/29/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Semivolatile Organic Compounds																			
Caprolactam	31,000,000	µg/kg	60 J	ND (200)	ND (210)	53 J	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	87 J	ND (200)	ND (200)	ND (200)	63 J	ND (190)	ND (200)	ND (220)
Carbazole	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	29 J	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Chrysene	15,000	µg/kg	25 J	ND (200)	ND (210)	ND (190)	ND (190)	140 J	ND (200)	ND (200)	ND (200)	68 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Dibenz(a,h)anthracene	15	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Dibenzofuran	78,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Diethylphthalate	49,000,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Dimethylphthalate	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Di-n-butyl phthalate	6,100,000	µg/kg	62 J	ND (200)	ND (210)	ND (190)	ND (190)	350	ND (200)	ND (200)	ND (200)	25 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Di-n-octyl phthalate	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	27 J	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Fluoranthene	2,300,000	µg/kg	32 J	ND (200)	ND (210)	ND (190)	ND (190)	190	ND (200)	ND (200)	ND (200)	94 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Fluorene	2,300,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Hexachlorobenzene	300	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Hexachlorobutadiene	6,200	µg/kg	ND (200)	ND (200) J	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Hexachlorocyclopentadiene	370,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Hexachloroethane	35,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Indeno(1,2,3-c,d)pyrene	150	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	110 J	ND (200)	ND (200)	ND (200)	61 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Isophorone	510,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Naphthalene	3,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Nitrobenzene	4,800	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
N-Nitrosodi-n-propylamine	69	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
N-Nitrosodiphenylamine	99,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	ND (200)	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Pentachlorophenol	3,000	µg/kg	ND (390) J	ND (380) J	ND (400)	ND (370) J	ND (360) J	ND (360)	ND (390)	ND (390)	ND (400)	ND (380)	ND (400)	ND (400)	ND (380)	ND (350)	ND (380)	ND (390)	ND (430)
[11] Phenanthrene	1,700,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	98 J	ND (200)	ND (200)	ND (200)	46 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Phenol	18,000,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (190)	ND (190)	ND (190)	ND (200)	61 J	ND (200)	ND (190)	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	64 J
Pyrene	1,700,000	µg/kg	37 J	ND (200)	ND (210)	ND (190)	ND (190)	220	ND (200)	ND (200)	ND (200)	100 J	ND (200)	ND (200)	ND (200)	ND (180)	ND (190)	ND (200)	ND (220)
Total Petroleum Hydrocarbons																			
Diesel c10-c24	NE	mg/kg	3.7 J	1.8 J	ND (0.31) J	ND (0.4) J	ND (0.24) J	390 J	0.25 J	ND (0.18)	ND (0.18)	19 J	ND (0.31)	ND (0.31)	0.42 J	20 J	0.23 J	ND (0.19)	ND (0.18)
Gasoline c6-c10	NE	mg/kg	ND (0.014) J	ND (0.015) J	ND (0.014) J	ND (0.012) J	ND (0.016) J	ND (0.039) J	ND (0.02) J	ND (0.016) J	ND (0.016) J	ND (0.019) J	ND (0.013) J	ND (0.016) J	ND (0.014) J	ND (0.014) J	ND (0.014) J	ND (0.016) J	ND (0.016) J
Metals																			
Aluminum	77,000	mg/kg	5,310	10,700	9,090	10,700	6,830	7,970	13,900	9,640	6,570	8,190	5,760	8,270	5,850	7,590	15,300	11,200	8,300
Antimony	31	mg/kg	ND (6.7) J	ND (6.5) J	ND (6.7) J	ND (6.8) J	ND (6.8) J	1.9 J	ND (5.7) J	ND (6.1) J	ND (6.2) J	3.3 J	ND (5.8)	ND (5.1)	ND (6.1)	6.7 J	ND (7.1) J	ND (6.7) J	ND (6.8) J
Arsenic	0.39	mg/kg	2.6	3.3	2.7	3.9	2.2	9.2	4.3	2.2	1.5	5.6	2.1	1	2.1	6.5	4.5	2.8	2.8
Barium	15,000	mg/kg	71.8	87.6	72.2	69.7	54.6	201	80.6	61.4	61	256	77.5	51.3	60.7	158	82.2	70.4	61.6
Beryllium	160	mg/kg	0.24 J	0.46 J	0.34 J	0.43 J	0.27 J	0.36 J	0.47 J	0.36 J	0.21 J	0.49 J	0.27 J	0.22 J	0.25 J	0.37 J	0.62	0.35 J	0.3 J
Cadmium	70	mg/kg	ND (0.56)	ND (0.54)	ND (0.56)	ND (0.56)	ND (0.57)	0.54 J	ND (0.48)	ND (0.51)	ND (0.51)	ND (0.58)	ND (0.48)	ND (0.43)	ND (0.51)	0.5 J	ND (0.59)	ND (0.56)	ND (0.57)
Chromium	NE	mg/kg	32.7	44.9	39.9	45.4	40	52.4	39.4	43.2	38.9	36.4	30.8	44.8	35.2	42.9	43.6	42.4	47.7
Cobalt	23	mg/kg	5.8	9.5	7.8	8.3	6.4	8.1	12.7	6.6	5.9	25.8	7.2	5	5.7	6.4	14.2	8.6	6.9
Copper	3,100	mg/kg	13.5 J	12.3 J	8.8 J	10 J	7.9 J	97.6 J	11.4	9.2	6.5	90.4 J	7.3	6.3	7	126 J	12.9	9.8	9.2
Cyanide	1,600	mg/kg	ND (2.8)	ND (2.8)	ND (2.8)	ND (3)	ND (2.7)	0.19 J	ND (2.9)	ND (2.9)	ND (2.8)	ND (2.9)	ND (2.7)	ND (2.5)	ND (2.6)	0.26 J	ND (3)	ND (2.8)	ND (2.8)
Lead	400	mg/kg	23.6 J	12.6 J	2.8 J	4.1 J	2.4 J	335 J	4.9 J	2.9 J	2.3 J	229 J	2.5 J	2.7 J	2.3 J	347 J	4.6 J	3.6 J	3.1 J
Manganese	1,800	mg/kg	131	245	175	247	144	318	268	164	128	241	118	106	131	283	261	218	151
Mercury	5.6	mg/kg	0.16	0.081 J	0.029 J	ND (0.11)	ND (0.12)	0.2	0.074 J	ND (0.12)	0.045 J	0.63	0.035 J	0.027 J	0.029 J	0.55	0.048 J	ND (0.12)	0.049 J
Nickel	1,500	mg/kg	21.2	38.9	36.6	41.2	34.1	38.2	42.8	34.5	27.2	30.2	21.8	28.8	29.9	29.8	47.5	39.4	36.9
Selenium	390	mg/kg	1.5 J	2 J	1.6 J	2 J	1.5 J	2.7 J	2.1 J	2 J	0.93 J	2.1 J	1.5 J	1.4 J	1.7 J	1.9 J	2.6 J	2 J	1.5 J
Silver	390	mg/kg	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	0.34 J+	ND (0.95) R	ND (1) R	ND (1) R	0.42 J+	ND (0.97) J	ND (0.86) J	ND (1)	0.28 J+	ND (1.2) R	ND (1.1) R	ND (1.1) R
Thallium	NE	mg/kg	ND (2.8)	ND (2.7)	ND (2.8)	ND (2.8)	ND (2.8)	ND (2.9)	ND (2.4)	ND (2.5)	ND (2.6)	ND (2.9)	ND (2.4)	ND (2.1)	ND (2.6)	ND (2.7)	ND (2.9)	ND (2.8)	ND (2.8)
Vanadium	390	mg/kg	22.7 J	36.5 J	31.2 J	36.7 J	28.6 J	33.2 J	39.2	32.3	22.8	32.4 J	23.9	19	26.9	31.8 J	42.1	35.1	33.8
Zinc	23,000	mg/kg	40.2 J	36.2 J	25.2 J	26.2 J	21.6 J	337 J	26.6	23.5	19.5	195 J	17.7	23.3	21.1	341 J	31.8	25.8	23.2
Calcium	NE	mg/kg	1,930	1,810	1,720	1,680	1,560	5,240	1,980	1,840	1,630	10,600	1,310	1,450	1,410	3,070	2,210	1,980	1,810
Iron	55,000	mg/kg	9,290	16,500	14,200	17,300	12,100	18,100	19,800	14,500	9,650	15,100	9,760	9,420	11,600	14,400	22,700	15,900	14,100

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16ES	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16WS	RMW-16WS	RMW-16WS	RMW-16WS
			5 ft bgs	10 ft bgs	10 ft bgs (FD)	15 ft bgs	15 ft bgs (FD)	0.5 ft bgs	6 ft bgs	11 ft bgs	16 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs	0.5 ft bgs	5 ft bgs	10 ft bgs	15 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/20/2009	10/30/2009	10/30/2009	10/30/2009	10/20/2009	10/22/2009	10/22/2009	10/22/2009	10/20/2009	10/29/2009	10/29/2009	10/29/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Metals																			
Magnesium	NE	mg/kg	1,480	2,990	3,120	3,050	2,470	3,310	3,540	2,950	2,330	2,410	1,740	2,500	2,210	2,250	4,100	3,420	2,720
Potassium	NE	mg/kg	554 J+	902 J+	532 J+	819 J+	444 J+	831 J+	967	574	ND (421) J	915 J+	527 J+	419 J+	414 J	770 J+	1,030	587	ND (546) J
Sodium	NE	mg/kg	ND (160) J	ND (178) J	ND (227) J	ND (163) J	618	ND (234) J	ND (315) J	ND (407) J	ND (473) J	ND (371) J	149 J	127 J	537 J	ND (242) J	ND (387) J	ND (300) J	917
Organochlorine Pesticides/PCBs																			
4,4'-DDD	2,000	µg/kg	5	ND (3.9)	ND (3.7)	0.91 J	ND (3.6)	310	ND (3.9)	0.1 J	0.24 J	2.6 J	3.1 J	ND (3.9)	0.65 J	1.5 J	ND (3.8)	ND (3.9)	ND (4.3)
4,4'-DDE	1,400	µg/kg	110	ND (3.9)	0.37 J	3.4 J	ND (3.6)	490	ND (3.9)	0.055 J	0.15 J	46	4.3	ND (3.9)	0.44 J	20	ND (3.8)	ND (3.9)	ND (4.3)
4,4'-DDT	1,700	µg/kg	250	0.29 J	0.94 J	8.4	0.33 J	1,100	ND (3.9)	0.08 J	0.25 J	26	10	0.28 J	0.9 J	38	ND (3.8)	ND (3.9)	ND (4.3)
Aldrin	29	µg/kg	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (1.9)	0.96 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
alpha-BHC	77	µg/kg	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (1.9)	ND (96)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
12 alpha-Chlordane	1,600	µg/kg	4.9	ND (2)	ND (1.9)	0.19 J	ND (1.9)	16	ND (2)	ND (2)	ND (2)	0.77 J	0.33 J	ND (2)	ND (2)	2.1	ND (2)	ND (2)	ND (2.2)
Aroclor-1016	3,900	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1221	140	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1232	140	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1242	220	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1248	220	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1254	220	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	2,100	ND (39)	ND (39)	ND (39)	92	ND (39)	ND (39)	ND (38)	130	ND (38)	ND (39)	ND (42)
Aroclor-1260	220	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1262	NE	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
Aroclor-1268	NE	µg/kg	ND (39)	ND (38)	ND (39)	ND (39)	ND (38)	ND (37)	ND (39)	ND (39)	ND (39)	ND (35)	ND (39)	ND (39)	ND (38)	ND (33)	ND (38)	ND (39)	ND (42)
beta-BHC	270	µg/kg	ND (2)	ND (2)	ND (1.9)	ND (2)	ND (1.9)	ND (96)	ND (2)	0.088 J	0.074 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
13 delta-BHC	77	µg/kg	ND (20)	ND (2)	ND (1.9)	ND (2)	ND (1.9)	ND (96)	ND (2)	0.013 J	0.017 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
Dieldrin	30	µg/kg	6.7	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	30 J	ND (3.9)	ND (3.9)	0.052 J	ND (3.8)	0.41 J	ND (3.9)	ND (3.9)	ND (3.5)	ND (3.8)	ND (3.9)	ND (4.3)
14 Endosulfan I	370,000	µg/kg	1.2 J	ND (2)	ND (1.9)	ND (2)	ND (1.9)	3.3 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
15 Endosulfan II	370,000	µg/kg	1.2 J	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	5.4 J	ND (3.9)	ND (3.9)	ND (3.9)	0.85 J	ND (3.9)	ND (3.9)	ND (3.9)	ND (3.5)	ND (3.8)	ND (3.9)	ND (4.3)
16 Endosulfan sulfate	370,000	µg/kg	ND (3.9)	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	23	ND (3.9)	ND (3.9)	ND (3.9)	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.9)	ND (3.5)	ND (3.8)	ND (3.9)	ND (4.3)
Endrin	18,000	µg/kg	0.81 J	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	1.1 J	ND (3.9)	ND (3.9)	ND (3.9)	0.21 J	ND (3.9)	ND (3.9)	ND (3.9)	0.28 J	ND (3.8)	ND (3.9)	ND (4.3)
17 Endrin aldehyde	18,000	µg/kg	1.5 J	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	2.3 J	ND (3.9)	ND (3.9)	ND (3.9)	0.26 J	ND (3.9)	ND (3.9)	ND (3.9)	ND (3.5)	ND (3.8)	ND (3.9)	ND (4.3)
18 Endrin ketone	18,000	µg/kg	0.9 J	ND (3.9)	ND (3.7)	ND (3.8)	ND (3.6)	4.8 J	ND (3.9)	ND (3.9)	ND (3.9)	0.37 J	ND (3.9)	ND (3.9)	ND (3.9)	0.24 J	ND (3.8)	ND (3.9)	ND (4.3)
gamma-BHC	520	µg/kg	0.34 J	ND (2)	ND (1.9)	ND (2)	ND (1.9)	0.94 J	ND (2)	0.031 J	0.079 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
19 gamma-Chlordane	1,600	µg/kg	2.7	ND (2)	ND (1.9)	ND (2)	ND (1.9)	40 J	ND (2)	ND (2)	ND (2)	1.5 J	0.36 J	ND (2)	ND (2)	1.7 J	ND (2)	ND (2)	ND (2.2)
Heptachlor	110	µg/kg	0.36 J	ND (2)	ND (1.9)	ND (2)	ND (1.9)	3.6 J	ND (2)	0.058 J	0.02 J	ND (2)	ND (2)	ND (2)	ND (2)	ND (1.8)	ND (2)	ND (2)	ND (2.2)
Heptachlor epoxide	53	µg/kg	2 J	ND (2)	ND (1.9)	ND (2)	ND (1.9)	22 J	ND (2)	ND (2)	0.034 J	ND (2)	ND (2)	ND (2)	ND (2)	0.52 J	ND (2)	ND (2)	ND (2.2)
Methoxychlor	310,000	µg/kg	ND (200)	ND (20)	ND (19)	ND (20)	ND (19)	10 J	ND (20)	0.081 J	0.076 J	ND (20)	ND (20)	ND (20)	ND (20)	ND (18)	ND (20)	ND (20)	ND (22)
Toxaphene	440	µg/kg	ND (200)	ND (200)	ND (190)	ND (200)	ND (190)	ND (960)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (220)

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D 6 ft bgs	RMW-17D 11 ft bgs	RMW-17M 6 ft bgs	RMW-17M 11 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009
Analyte	RSL	Units	Analytical Results			
Volatile Organic Compounds						
1,1,1-Trichloroethane	8,700,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,1,2,2-Tetrachloroethane	560	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,1,2-Trichloroethane	1,100	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,1-Dichloroethane	3,300	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,1-Dichloroethene	240,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2,3-Trichlorobenzene	49,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2,4-Trichlorobenzene	22,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2,4-Trimethylbenzene	62,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2-Dibromo-3-chloropropane	5.4	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2-Dibromoethane	34	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2-Dichlorobenzene	1,900,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2-Dichloroethane	430	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,2-Dichloropropane	890	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,3,5-Trimethylbenzene	780,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,3-Dichlorobenzene	NE	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,4-Dichlorobenzene	2,400	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
1,4-Dioxane (p-dioxane)	44,000	µg/kg	ND (94) R	ND (94) R	ND (100) R	ND (90) R
2-Hexanone	210,000	µg/kg	ND (9.4)	ND (9.4)	ND (10)	ND (9)
Acetone	61,000,000	µg/kg	21	ND (9.4)	23	ND (9)
Benzene	1,100	µg/kg	ND (4.7)	ND (4.7)	0.73 J	ND (4.5)
Bromochloromethane	NE	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Bromodichloromethane	270	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Bromoform	61,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Bromomethane	7,300	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Carbon disulfide	820,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Carbon tetrachloride	610	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Chlorobenzene	290,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Chloroethane	15,000,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Chloroform	290	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Chloromethane	120,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
cis-1,2-Dichloroethene	780,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
[1] cis-1,3-Dichloropropene	1,700	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Cyclohexane	7,000,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Dibromochloromethane	680	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
[2] Ethyl tert-butyl ether	43,000	µg/kg	ND (9.4)	ND (9.4)	ND (10)	ND (9)
Ethylbenzene	5,400	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Freon 11	790,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Freon 12	180,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Freon 113	43,000,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Isopropylbenzene (cumene)	2,100,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Methyl acetate	78,000,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Methyl ethyl ketone	28,000,000	µg/kg	ND (9.4)	ND (9.4)	ND (10)	ND (9)
Methyl isobutyl ketone	5,300,000	µg/kg	ND (9.4)	ND (9.4)	ND (10)	ND (9)
Methyl tert-butyl ether	43,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Methylcyclohexane	NE	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Methylene chloride	11,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Styrene	6,300,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
[3] tert-Amyl methyl ether	43,000	µg/kg	ND (9.4)	ND (9.4)	ND (10)	ND (9)
[4] tert-Butyl alcohol	160,000,000	µg/kg	ND (47)	ND (47)	ND (50)	ND (45)
Tetrachloroethene	550	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D 6 ft bgs	RMW-17D 11 ft bgs	RMW-17M 6 ft bgs	RMW-17M 11 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009
Analyte	RSL	Units	Analytical Results			
Volatile Organic Compounds						
Toluene	5,000,000	µg/kg	ND (4.7)	ND (4.6)	ND (5)	ND (4.5)
trans-1,2-Dichloroethene	150,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
5 trans-1,3-Dichloropropene	1,700	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Trichloroethene	2,800	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Vinyl chloride	60	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Xylenes, m & p	3,400,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Xylenes, o	3,800,000	µg/kg	ND (4.7)	ND (4.7)	ND (5)	ND (4.5)
Semivolatile Organic Compounds						
1,1'-Biphenyl	3,900,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
1,2,4,5-Tetrachlorobenzene	18,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,2'-Oxybis(1-Chloropropane)	4,600	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,3,4,6-Tetrachlorophenol	1,800,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,4,5-Trichlorophenol	6,100,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,4,6-Trichlorophenol	44,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,4-Dichlorophenol	180,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,4-Dimethylphenol	1,200,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,4-Dinitrophenol	120,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
2,4-Dinitrotoluene	1,600	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2,6-Dinitrotoluene	61,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2-Chloronaphthalene	6,300,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2-Chlorophenol	390,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2-Methylnaphthalene	310,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2-Methylphenol	3,100,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
2-Nitroaniline	610,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
2-Nitrophenol	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
3,3'-Dichlorobenzidine	1,100	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
6 3-Nitroaniline	24,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
4,6-Dinitro-2-methylphenol	4,900	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
4-Bromophenylphenyl ether	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
7 4-Chloro-3-methylphenol	3,100,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
4-Chloroaniline	2,400	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
4-Methylphenol	310,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
4-Nitroaniline	24,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
8 4-Nitrophenol	120,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
Acenaphthene	3,400,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
9 Acenaphthylene	1,700,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Acetophenone	7,800,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Anthracene	17,000,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Atrazine	2,100	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzaldehyde	7,800,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzo(a)anthracene	150	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzo(a)pyrene	15	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzo(b)fluoranthene	150	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
10 Benzo(g,h,i)perylene	1,700,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzo(k)fluoranthene	1,500	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Benzyl butyl phthalate	260,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
bis(2-Chloroethoxy)methane	180,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
bis(2-Chloroethyl)ether	210	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
bis(2-Ethylhexyl)phthalate	35,000	µg/kg	40 J	48 J	ND (200)	ND (200)

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-17D	RMW-17D	RMW-17M	RMW-17M
			6 ft bgs	11 ft bgs	6 ft bgs	11 ft bgs
	Sample Date		10/27/2009	10/27/2009	10/26/2009	10/26/2009
Analyte	**RSL**	**Units**	**Analytical Results**			
Semivolatile Organic Compounds						
Caprolactam	31,000,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Carbazole	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Chrysene	15,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Dibenz(a,h)anthracene	15	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Dibenzofuran	78,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Diethylphthalate	49,000,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Dimethylphthalate	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Di-n-butyl phthalate	6,100,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Di-n-octyl phthalate	NE	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Fluoranthene	2,300,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Fluorene	2,300,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Hexachlorobenzene	300	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Hexachlorobutadiene	6,200	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Hexachlorocyclopentadiene	370,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Hexachloroethane	35,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Indeno(1,2,3-c,d)pyrene	150	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Isophorone	510,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Naphthalene	3,600	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Nitrobenzene	4,800	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
N-Nitrosodi-n-propylamine	69	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
N-Nitrosodiphenylamine	99,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Pentachlorophenol	3,000	µg/kg	ND (370)	ND (390)	ND (380)	ND (390)
[11] Phenanthrene	1,700,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Phenol	18,000,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Pyrene	1,700,000	µg/kg	ND (190)	ND (200)	ND (200)	ND (200)
Total Petroleum Hydrocarbons						
Diesel c10-c24	NE	mg/kg	17 J	0.26 J	3.4 J	ND (0.34) J
Gasoline c6-c10	NE	mg/kg	ND (0.012) J	ND (0.012) J	ND (0.011) J	ND (0.013) J
Metals						
Aluminum	77,000	mg/kg	5,050	11,100	5,700	14,800
Antimony	31	mg/kg	ND (5.7) J	ND (6.2) J	ND (7.4)	ND (7) J
Arsenic	0.39	mg/kg	1.7	3.2	2.1	3.3
Barium	15,000	mg/kg	69.9	63	83.1	45.9
Beryllium	160	mg/kg	0.23 J	0.42 J	0.22 J	0.44 J
Cadmium	70	mg/kg	ND (0.48)	ND (0.52)	ND (0.61)	ND (0.58)
Chromium	NE	mg/kg	28.2	43.1	30.6	40.4
Cobalt	23	mg/kg	4.3 J	6.8	5.5 J	13.4
Copper	3,100	mg/kg	6.7	9.7	8.8	11.4
Cyanide	1,600	mg/kg	ND (2.8)	ND (2.9)	ND (3.1)	ND (2.9)
Lead	400	mg/kg	2.4 J	3.5 J	3.7	4.7 J
Manganese	1,800	mg/kg	146	123	154	1,370
Mercury	5.6	mg/kg	0.042 J	0.058 J	0.065 J	0.044 J
Nickel	1,500	mg/kg	16	39.3	18.7	46.4
Selenium	390	mg/kg	1.2 J	1.6 J	1.4 J	2.1 J
Silver	390	mg/kg	ND (0.96) R	ND (1) R	ND (1.2)	ND (1.2) R
Thallium	NE	mg/kg	ND (2.4)	ND (2.6)	ND (3.1)	ND (2.9)
Vanadium	390	mg/kg	21.6	35.6	23.2	36.5
Zinc	23,000	mg/kg	14.5	25.2	21.5	29.3
Calcium	NE	mg/kg	1,800	1,620	3,260	1,700
Iron	55,000	mg/kg	8,680	16,500	8,650	18,100

TABLE 4-40
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (All Analyses)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D 6 ft bgs	RMW-17D 11 ft bgs	RMW-17M 6 ft bgs	RMW-17M 11 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009
Analyte	**RSL**	**Units**	**Analytical Results**			
Metals						
Magnesium	NE	mg/kg	1,570	3,090	1,660	3,920
Potassium	NE	mg/kg	753	ND (512) J	944	1,190
Sodium	NE	mg/kg	ND (270) J	675	393 J	ND (428) J
Organochlorine Pesticides/PCBs						
4,4'-DDD	2,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
4,4'-DDE	1,400	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
4,4'-DDT	1,700	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
Aldrin	29	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
alpha-BHC	77	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
12 alpha-Chlordane	1,600	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
Aroclor-1016	3,900	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1221	140	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1232	140	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1242	220	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1248	220	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1254	220	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1260	220	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1262	NE	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
Aroclor-1268	NE	µg/kg	ND (38)	ND (39)	ND (39)	ND (38)
beta-BHC	270	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
13 delta-BHC	77	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
Dieldrin	30	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
14 Endosulfan I	370,000	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
15 Endosulfan II	370,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
16 Endosulfan sulfate	370,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
Endrin	18,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
17 Endrin aldehyde	18,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
18 Endrin ketone	18,000	µg/kg	ND (3.8)	ND (3.9)	ND (3.9)	ND (3.8)
gamma-BHC	520	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
19 gamma-Chlordane	1,600	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
Heptachlor	110	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
Heptachlor epoxide	53	µg/kg	ND (2)	ND (2)	ND (2)	ND (2)
Methoxychlor	310,000	µg/kg	ND (20)	ND (20)	ND (20)	ND (20)
Toxaphene	440	µg/kg	ND (200)	ND (200)	ND (200)	ND (200)

[1] 1,3-Dichloropropene was used as the surrogate
[2] Methyl tertbutyl ether (MTBE) was used as the surrogate
[3] Methyl tertbutyl ether (MTBE) was used as the surrogate
[4] sec-butyl alcohol was used as the surrogate
[5] 1,3-Dichloropropene was used as the surrogate
[6] 4-Nitroaniline used as the surrogate
[7] 3-methylphenol was used as the surrogate
[8] 2,4-Dinitrophenol was used as the surrogate
[9] Pyrene was used as the surrogate
[10] Pyrene was used as the surrogate
[11] Pyrene was used as the surrogate
[12] Chlordane was used as the surrogate
[13] alpha-BHC was used as the surrogate
[14] Endosulfan was used as the surrogate
[15] Endosulfan was used as the surrogate
[16] Endosulfan was used as the surrogate
[17] Endrin was used as the surrogate
[18] Endrin was used as the surrogate
[19] Chlordane was used as the surrogate

Results greater than the screening level are bolded.
Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations).
Units are presented as reported by the laboratory.

RSL	Residential Screening Level
ft bgs	feet below ground surface
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
NE	not established
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-16D	RMW-16D	RMW-16D	RMW-16D
			0.5 ft bgs	0.5 ft bgs (FD)	5 ft bgs	10 ft bgs	15 ft bgs	20 ft bgs	20 ft bgs (FD)	30 ft bgs	40 ft bgs	50 ft bgs	60 ft bgs	70 ft bgs	77 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs
	Sample Date		11/2/2009	11/2/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Volatile Organic Compounds																			
1,1,1-Trichloroethane	8,700,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,1,2,2-Tetrachloroethane	560	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,1,2-Trichloroethane	1,100	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,1-Dichloroethane	3,300	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	2.4 J	ND (4.9)	---
1,1-Dichloroethene	240,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2,3-Trichlorobenzene	49,000	µg/kg	ND (5.3) R	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2,4-Trichlorobenzene	22,000	µg/kg	ND (5.3) R	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2,4-Trimethylbenzene	62,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2-Dibromo-3-chloropropane	5.4	µg/kg	ND (5.3) R	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2-Dibromoethane	34	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2-Dichlorobenzene	1,900,000	µg/kg	ND (5.3) R	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	7.2	12	6.9	---
1,2-Dichloroethane	430	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,2-Dichloropropane	890	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,3,5-Trimethylbenzene	780,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,3-Dichlorobenzene	NE	µg/kg	ND (5.3) R	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,4-Dichlorobenzene	2,400	µg/kg	ND (5.3) R	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
1,4-Dioxane (p-dioxane)	44,000	µg/kg	ND (110) R	ND (110) R	ND (120) R	ND (110) R	ND (98) R	ND (91) R	ND (97) R	ND (99) R	ND (110) R	ND (110) R	ND (100) R	ND (100) R	ND (110) R	ND (110) R	ND (110) R	ND (98) R	---
2-Hexanone	210,000	µg/kg	ND (11)	ND (11)	ND (12)	ND (11)	ND (9.8)	ND (9.1)	ND (9.7)	ND (9.9)	ND (11)	ND (11)	ND (10)	ND (10)	ND (11)	ND (11)	ND (11)	ND (9.8)	---
Acetone	61,000,000	µg/kg	ND (11)	ND (11)	45	130	35	ND (9.1)	ND (9.7)	ND (9.9)	ND (11)	ND (11)	ND (10)	ND (10)	ND (11)	ND (11)	ND (11)	ND (9.8)	---
Benzene	1,100	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Bromochloromethane	NE	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Bromodichloromethane	270	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Bromoform	61,000	µg/kg	ND (5.3) R	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6) J	ND (4.9)	---
Bromomethane	7,300	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
Carbon disulfide	820,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	0.82 J	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
Carbon tetrachloride	610	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Chlorobenzene	290,000	µg/kg	ND (5.3) J	ND (5.3) J	ND (5.9) J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Chloroethane	15,000,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
Chloroform	290	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Chloromethane	120,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
cis-1,2-Dichloroethene	780,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	1.7 J	2.3 J	1.8 J	---
[1] cis-1,3-Dichloropropene	1,700	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Cyclohexane	7,000,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Dibromochloromethane	680	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
[2] Ethyl tert-butyl ether	43,000	µg/kg	ND (11)	ND (11) J	ND (12) J	ND (11)	ND (9.8) J	ND (9.1) J	ND (9.7) J	ND (9.9) J	ND (11) J	ND (11) J	ND (10) J	ND (10) J	ND (11) J	ND (11)	ND (11)	ND (9.8)	---
Ethylbenzene	5,400	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Freon 11	790,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Freon 12	180,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
Freon 113	43,000,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Isopropylbenzene (cumene)	2,100,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Methyl acetate	78,000,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Methyl ethyl ketone	28,000,000	µg/kg	ND (11)	ND (11)	ND (12)	13	ND (9.8)	ND (9.1)	ND (9.7)	ND (9.9)	ND (11)	ND (11)	ND (10)	ND (10)	ND (11)	ND (11)	ND (11)	ND (9.8)	---
Methyl isobutyl ketone	5,300,000	µg/kg	ND (11)	ND (11)	ND (12)	ND (11)	ND (9.8)	ND (9.1)	ND (9.7)	ND (9.9)	ND (11)	ND (11)	ND (10)	ND (10)	ND (11)	ND (11)	ND (11)	ND (9.8)	---
Methyl tert-butyl ether	43,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Methylcyclohexane	NE	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Methylene chloride	11,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Styrene	6,300,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
[3] tert-Amyl methyl ether	43,000	µg/kg	ND (11)	ND (11) J	ND (12) J	ND (11)	ND (9.8) J	ND (9.1) J	ND (9.7) J	ND (9.9) J	ND (11) J	ND (11) J	ND (10) J	ND (10) J	ND (11) J	ND (11)	ND (11)	ND (9.8)	---
[4] tert-Butyl alcohol	160,000,000	µg/kg	ND (53)	ND (53)	ND (59)	ND (53)	ND (49)	ND (46)	ND (49)	ND (50)	ND (53)	ND (56)	ND (52)	ND (51)	ND (54)	ND (53)	ND (56)	ND (49)	---
Tetrachloroethene	550	µg/kg	ND (5.3)	ND (5.3)	0.61 J	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-16D	RMW-16D	RMW-16D	RMW-16D
			0.5 ft bgs	0.5 ft bgs (FD)	5 ft bgs	10 ft bgs	15 ft bgs	20 ft bgs	20 ft bgs (FD)	30 ft bgs	40 ft bgs	50 ft bgs	60 ft bgs	70 ft bgs	77 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs
		Sample Date	11/2/2009	11/2/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009
Analyte	RSL	Units	Analytical Results																
Volatile Organic Compounds																			
Toluene	5,000,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
trans-1,2-Dichloroethene	150,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
5 trans-1,3-Dichloropropene	1,700	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Trichloroethene	2,800	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Vinyl chloride	60	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1)	ND (5.4)	ND (5.3)	ND (5.6)	ND (4.9)	---
Xylenes, m & p	3,400,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Xylenes, o	3,800,000	µg/kg	ND (5.3)	ND (5.3)	ND (5.9)	ND (5.3)	ND (4.9)	ND (4.6)	ND (4.9)	ND (5)	ND (5.3)	ND (5.6)	ND (5.2)	ND (5.1) J	ND (5.4) J	ND (5.3)	ND (5.6)	ND (4.9)	---
Semivolatile Organic Compounds																			
1,1'-Biphenyl	3,900,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
1,2,4,5-Tetrachlorobenzene	18,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,2'-Oxybis(1-Chloropropane)	4,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,3,4,6-Tetrachlorophenol	1,800,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,4,5-Trichlorophenol	6,100,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,4,6-Trichlorophenol	44,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,4-Dichlorophenol	180,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,4-Dimethylphenol	1,200,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,4-Dinitrophenol	120,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
2,4-Dinitrotoluene	1,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2,6-Dinitrotoluene	61,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2-Chloronaphthalene	6,300,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2-Chlorophenol	390,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2-Methylnaphthalene	310,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2-Methylphenol	3,100,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
2-Nitroaniline	610,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
2-Nitrophenol	NE	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
3,3'-Dichlorobenzidine	1,100	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
6 3-Nitroaniline	24,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
4,6-Dinitro-2-methylphenol	4,900	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
4-Bromophenylphenyl ether	NE	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
7 4-Chloro-3-methylphenol	3,100,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
4-Chloroaniline	2,400	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
4-Methylphenol	310,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
4-Nitroaniline	24,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
8 4-Nitrophenol	120,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400)	ND (390)	ND (390)	ND (350)	ND (390)	ND (380)	ND (390)
Acenaphthene	3,400,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
9 Acenaphthylene	1,700,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Acetophenone	7,800,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Anthracene	17,000,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Atrazine	2,100	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Benzaldehyde	7,800,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Benzo(a)anthracene	150	µg/kg	ND (200)	ND (200) J	41 J	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Benzo(a)pyrene	15	µg/kg	ND (200)	ND (200)	59 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Benzo(b)fluoranthene	150	µg/kg	ND (200)	ND (200)	73 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
10 Benzo(g,h,i)perylene	1,700,000	µg/kg	ND (200)	ND (200)	60 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180) J	ND (200)	ND (200) J	ND (200)
Benzo(k)fluoranthene	1,500	µg/kg	ND (200)	ND (200)	30 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Benzyl butyl phthalate	260,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
bis(2-Chloroethoxy)methane	180,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
bis(2-Chloroethyl)ether	210	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
bis(2-Ethylhexyl)phthalate	35,000	µg/kg	21 J	37 J	130 J	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	27 J	22 J

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-09D	RMW-16D	RMW-16D	RMW-16D	RMW-16D
			0.5 ft bgs	0.5 ft bgs (FD)	5 ft bgs	10 ft bgs	15 ft bgs	20 ft bgs	20 ft bgs (FD)	30 ft bgs	40 ft bgs	50 ft bgs	60 ft bgs	70 ft bgs	77 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs
	Sample Date		11/2/2009	11/2/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	11/3/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Semivolatile Organic Compounds																			
Caprolactam	31,000,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Carbazole	NE	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Chrysene	15,000	µg/kg	ND (200)	ND (200) J	53 J	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Dibenz(a,h)anthracene	15	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Dibenzofuran	78,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Diethylphthalate	49,000,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Dimethylphthalate	NE	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Di-n-butyl phthalate	6,100,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Di-n-octyl phthalate	NE	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Fluoranthene	2,300,000	µg/kg	ND (200)	ND (200) J	70 J	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Fluorene	2,300,000	µg/kg	ND (200)	ND (200) J	ND (210)	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Hexachlorobenzene	300	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Hexachlorobutadiene	6,200	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200) J	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Hexachlorocyclopentadiene	370,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Hexachloroethane	35,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Indeno(1,2,3-c,d)pyrene	150	µg/kg	ND (200)	ND (200)	44 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Isophorone	510,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Naphthalene	3,600	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Nitrobenzene	4,800	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
N-Nitrosodi-n-propylamine	69	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
N-Nitrosodiphenylamine	99,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Pentachlorophenol	3,000	µg/kg	ND (380)	ND (390)	ND (410)	ND (390)	ND (390)	ND (380)	ND (400)	ND (390)	ND (400)	ND (380)	ND (400) J	ND (390)	ND (390)	ND (350) J	ND (390)	ND (380) J	ND (390)
[11] Phenanthrene	1,700,000	µg/kg	ND (200)	ND (200)	35 J	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Phenol	18,000,000	µg/kg	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	200 J	ND (200)	ND (200)	210	300	ND (180)	ND (200)	ND (200)	ND (200)
Pyrene	1,700,000	µg/kg	ND (200)	ND (200) J	91 J	ND (200) J	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (200)	ND (180)	ND (200)	ND (200)	ND (200)
Total Petroleum Hydrocarbons																			
Diesel c10-c24	NE	mg/kg	13 J	12 J	56 J	ND (0.8) J	2.3 J	ND (0.3) J	ND (0.4) J	ND (0.39) J	ND (0.38) J	ND (0.46) J	ND (0.15)	ND (0.44) J	ND (0.38) J	ND (0.43) J	ND (0.31) J	ND (0.42) J	ND (0.43) J
Gasoline c6-c10	NE	mg/kg	ND (0.016) J	ND (0.011)	0.021 J	0.022 J	0.039 J	0.01 J	0.012 J	0.013 J	0.0088 J	0.017 J	0.0076 J	0.0093 J	0.011 J	ND (0.015) J	ND (0.016) J	ND (0.017) J	ND (0.022) J

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D
			35 ft bgs	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	60 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs	35 ft bgs	21 ft bgs	21 ft bgs (FD)	31 ft bgs	41 ft bgs	51 ft bgs	61 ft bgs
		Sample Date	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Volatile Organic Compounds																			
1,1,1-Trichloroethane	8,700,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,1,2,2-Tetrachloroethane	560	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,1,2-Trichloroethane	1,100	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,1-Dichloroethane	3,300	µg/kg	4.8 J	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	0.73 J	1 J	1.6 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,1-Dichloroethene	240,000	µg/kg	ND (5)	0.87 J	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2,3-Trichlorobenzene	49,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2,4-Trichlorobenzene	22,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2,4-Trimethylbenzene	62,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2-Dibromo-3-chloropropane	5.4	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2-Dibromoethane	34	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2-Dichlorobenzene	1,900,000	µg/kg	3.4 J	3 J	1.2 J	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	1.3 J	0.81 J	1.1 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2-Dichloroethane	430	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,2-Dichloropropane	890	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,3,5-Trimethylbenzene	780,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,3-Dichlorobenzene	NE	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,4-Dichlorobenzene	2,400	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	0.9 J	0.64 J	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
1,4-Dioxane (p-dioxane)	44,000	µg/kg	ND (100) R	ND (100) R	ND (100) R	ND (110) R	ND (100) R	ND (130) R	ND (95) R	ND (97) R	ND (110) R	ND (110) R	ND (100) J	ND (100) R	ND (99) R	ND (100) R	ND (110) R	ND (90) R	ND (100) R
2-Hexanone	210,000	µg/kg	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
Acetone	61,000,000	µg/kg	ND (10)	ND (10)	23	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
Benzene	1,100	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Bromochloromethane	NE	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Bromodichloromethane	270	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Bromoform	61,000	µg/kg	ND (5) J	ND (5.1) J	ND (5) J	ND (5.4) J	ND (5.1) J	ND (6.4) J	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Bromomethane	7,300	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Carbon disulfide	820,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Carbon tetrachloride	610	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Chlorobenzene	290,000	µg/kg	4.8 J	3.8 J	1.6 J	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	0.73 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Chloroethane	15,000,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Chloroform	290	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4) J	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Chloromethane	120,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
cis-1,2-Dichloroethene	780,000	µg/kg	3.2 J	1.2 J	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	2.1 J	1.2 J	2 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
[1] cis-1,3-Dichloropropene	1,700	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Cyclohexane	7,000,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Dibromochloromethane	680	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
[2] Ethyl tert-butyl ether	43,000	µg/kg	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
Ethylbenzene	5,400	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Freon 11	790,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Freon 12	180,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Freon 113	43,000,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Isopropylbenzene (cumene)	2,100,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Methyl acetate	78,000,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Methyl ethyl ketone	28,000,000	µg/kg	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
Methyl isobutyl ketone	5,300,000	µg/kg	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
Methyl tert-butyl ether	43,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Methylcyclohexane	NE	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Methylene chloride	11,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Styrene	6,300,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
[3] tert-Amyl methyl ether	43,000	µg/kg	ND (10)	ND (10)	ND (10)	ND (11)	ND (10)	ND (13)	ND (9.5)	ND (9.7)	ND (11)	ND (11)	ND (10)	ND (10)	ND (9.9)	ND (10)	ND (11)	ND (9)	ND (10)
[4] tert-Butyl alcohol	160,000,000	µg/kg	ND (50)	ND (51)	ND (50)	ND (54)	ND (51)	ND (64)	ND (47)	ND (49)	ND (53)	ND (54)	ND (52)	ND (50)	ND (50)	ND (51)	ND (53)	ND (45)	ND (52)
Tetrachloroethene	550	µg/kg	0.61 J	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	0.77 J	ND (5.4)	0.69 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D
			35 ft bgs	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	60 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs	35 ft bgs	21 ft bgs	21 ft bgs (FD)	31 ft bgs	41 ft bgs	51 ft bgs	61 ft bgs
		Sample Date	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009
Analyte	RSL	Units	Analytical Results																
Volatile Organic Compounds																			
Toluene	5,000,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4) J	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5) J	ND (5)	6.7	5.9	ND (4.5)	5.9 J
trans-1,2-Dichloroethene	150,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
5 trans-1,3-Dichloropropene	1,700	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Trichloroethene	2,800	µg/kg	0.6 J	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	0.86 J	0.56 J	0.6 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Vinyl chloride	60	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	0.84 J	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Xylenes, m & p	3,400,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Xylenes, o	3,800,000	µg/kg	ND (5)	ND (5.1)	ND (5)	ND (5.4)	ND (5.1)	ND (6.4)	ND (4.7)	ND (4.9)	ND (5.3)	ND (5.4)	ND (5.2)	ND (5)	ND (5)	ND (5.1)	ND (5.3)	ND (4.5)	ND (5.2)
Semivolatile Organic Compounds																			
1,1'-Biphenyl	3,900,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
1,2,4,5-Tetrachlorobenzene	18,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,2'-Oxybis(1-Chloropropane)	4,600	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,3,4,6-Tetrachlorophenol	1,800,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,4,5-Trichlorophenol	6,100,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,4,6-Trichlorophenol	44,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,4-Dichlorophenol	180,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,4-Dimethylphenol	1,200,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,4-Dinitrophenol	120,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
2,4-Dinitrotoluene	1,600	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2,6-Dinitrotoluene	61,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2-Chloronaphthalene	6,300,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2-Chlorophenol	390,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2-Methylnaphthalene	310,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2-Methylphenol	3,100,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
2-Nitroaniline	610,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
2-Nitrophenol	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
3,3'-Dichlorobenzidine	1,100	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
6 3-Nitroaniline	24,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
4,6-Dinitro-2-methylphenol	4,900	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
4-Bromophenylphenyl ether	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
7 4-Chloro-3-methylphenol	3,100,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
4-Chloroaniline	2,400	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
4-Methylphenol	310,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
4-Nitroaniline	24,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
8 4-Nitrophenol	120,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410)	ND (380)	ND (380)	ND (350)
Acenaphthene	3,400,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
9 Acenaphthylene	1,700,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Acetophenone	7,800,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Anthracene	17,000,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Atrazine	2,100	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzaldehyde	7,800,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzo(a)anthracene	150	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzo(a)pyrene	15	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzo(b)fluoranthene	150	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
10 Benzo(g,h,i)perylene	1,700,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzo(k)fluoranthene	1,500	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Benzyl butyl phthalate	260,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
bis(2-Chloroethoxy)methane	180,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
bis(2-Chloroethyl)ether	210	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
bis(2-Ethylhexyl)phthalate	35,000	µg/kg	25 J	30 J	93 J	37 J	30 J	61 J	ND (190)	28 J	ND (200)	ND (210)	29 J	53 J	ND (200)	47 J	36 J	55 J	58 J

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

	Sample Location		RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16D	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-16M	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D	RMW-17D
			35 ft bgs	40 ft bgs	45 ft bgs	50 ft bgs	55 ft bgs	60 ft bgs	20 ft bgs	20 ft bgs (FD)	25 ft bgs	30 ft bgs	35 ft bgs	21 ft bgs	21 ft bgs (FD)	31 ft bgs	41 ft bgs	51 ft bgs	61 ft bgs
	Sample Date		10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/21/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/22/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009	10/27/2009
Analyte	**RSL**	**Units**	**Analytical Results**																
Semivolatile Organic Compounds																			
Caprolactam	31,000,000	µg/kg	ND (180)	ND (190)	62 J	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Carbazole	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Chrysene	15,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Dibenz(a,h)anthracene	15	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Dibenzofuran	78,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Diethylphthalate	49,000,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Dimethylphthalate	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Di-n-butyl phthalate	6,100,000	µg/kg	ND (180)	ND (190)	ND (180)	19 J	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	41 J	ND (180)
Di-n-octyl phthalate	NE	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Fluoranthene	2,300,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Fluorene	2,300,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Hexachlorobenzene	300	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Hexachlorobutadiene	6,200	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Hexachlorocyclopentadiene	370,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Hexachloroethane	35,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Indeno(1,2,3-c,d)pyrene	150	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Isophorone	510,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Naphthalene	3,600	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Nitrobenzene	4,800	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
N-Nitrosodi-n-propylamine	69	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
N-Nitrosodiphenylamine	99,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Pentachlorophenol	3,000	µg/kg	ND (360)	ND (360)	ND (340)	ND (330)	ND (370)	ND (390)	ND (380)	ND (400)	ND (380)	ND (400)	ND (390)	ND (400)	ND (390)	ND (410) J	ND (380) J	ND (380) J	ND (350) J
[11] Phenanthrene	1,700,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Phenol	18,000,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Pyrene	1,700,000	µg/kg	ND (180)	ND (190)	ND (180)	ND (170)	ND (190)	ND (200)	ND (190)	ND (200)	ND (200)	ND (210)	ND (200)	ND (200)	ND (200)	ND (210)	ND (200)	ND (190)	ND (180)
Total Petroleum Hydrocarbons																			
Diesel c10-c24	NE	mg/kg	ND (0.45) J	ND (0.28) J	ND (0.5) J	ND (0.47) J	ND (0.48) J	ND (0.43) J	ND (0.3)	ND (0.33)	ND (0.31)	ND (0.32)	ND (0.32)	0.24 J	ND (0.23)	7.2 J	1.2 J	0.46 J	0.35 J
Gasoline c6-c10	NE	mg/kg	ND (0.021) J	ND (0.028) J	ND (0.02) J	ND (0.018) J	ND (0.013) J	ND (0.019) J	ND (0.011) J	ND (0.015) J	ND (0.017) J	ND (0.011) J	ND (0.015) J	ND (0.017) J	ND (0.017) J	ND (0.015) J	ND (0.018) J	ND (0.017) J	ND (0.019) J

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D	RMW-17D	RMW-17M	RMW-17M	RMW-17M
			71 ft bgs	81 ft bgs	21 ft bgs	31 ft bgs	36 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009	10/26/2009
Analyte	RSL	Units	Analytical Results				
Volatile Organic Compounds							
1,1,1-Trichloroethane	8,700,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,1,2,2-Tetrachloroethane	560	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,1,2-Trichloroethane	1,100	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,1-Dichloroethane	3,300	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,1-Dichloroethene	240,000	µg/kg	ND (5.1)	ND (4.6)	0.74 J	ND (5.7)	0.81 J
1,2,3-Trichlorobenzene	49,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2,4-Trichlorobenzene	22,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2,4-Trimethylbenzene	62,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2-Dibromo-3-chloropropane	5.4	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2-Dibromoethane	34	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2-Dichlorobenzene	1,900,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2-Dichloroethane	430	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,2-Dichloropropane	890	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,3,5-Trimethylbenzene	780,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,3-Dichlorobenzene	NE	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,4-Dichlorobenzene	2,400	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
1,4-Dioxane (p-dioxane)	44,000	µg/kg	ND (100) R	ND (92) R	ND (98) R	ND (110) R	ND (110) R
2-Hexanone	210,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
Acetone	61,000,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
Benzene	1,100	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Bromochloromethane	NE	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Bromodichloromethane	270	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Bromoform	61,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Bromomethane	7,300	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Carbon disulfide	820,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Carbon tetrachloride	610	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Chlorobenzene	290,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Chloroethane	15,000,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Chloroform	290	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Chloromethane	120,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
cis-1,2-Dichloroethene	780,000	µg/kg	0.53 J	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
[1] cis-1,3-Dichloropropene	1,700	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Cyclohexane	7,000,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Dibromochloromethane	680	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
[2] Ethyl tert-butyl ether	43,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
Ethylbenzene	5,400	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Freon 11	790,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Freon 12	180,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Freon 113	43,000,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Isopropylbenzene (cumene)	2,100,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Methyl acetate	78,000,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Methyl ethyl ketone	28,000,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
Methyl isobutyl ketone	5,300,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
Methyl tert-butyl ether	43,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Methylcyclohexane	NE	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Methylene chloride	11,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Styrene	6,300,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
[3] tert-Amyl methyl ether	43,000	µg/kg	ND (10)	ND (9.2)	ND (9.8)	ND (11)	ND (11)
[4] tert-Butyl alcohol	160,000,000	µg/kg	ND (51)	ND (46)	ND (49)	ND (57)	ND (53)
Tetrachloroethene	550	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D	RMW-17D	RMW-17M	RMW-17M	RMW-17M
			71 ft bgs	81 ft bgs	21 ft bgs	31 ft bgs	36 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009	10/26/2009
Analyte	RSL	Units	Analytical Results				
Volatile Organic Compounds							
Toluene	5,000,000	µg/kg	ND (5.1)	4.9	ND (4.6)	ND (5.7)	ND (5.3)
trans-1,2-Dichloroethene	150,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
5 trans-1,3-Dichloropropene	1,700	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Trichloroethene	2,800	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Vinyl chloride	60	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Xylenes, m & p	3,400,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Xylenes, o	3,800,000	µg/kg	ND (5.1)	ND (4.6)	ND (4.9)	ND (5.7)	ND (5.3)
Semivolatile Organic Compounds							
1,1'-Biphenyl	3,900,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
1,2,4,5-Tetrachlorobenzene	18,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,2'-Oxybis(1-Chloropropane)	4,600	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,3,4,6-Tetrachlorophenol	1,800,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,4,5-Trichlorophenol	6,100,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,4,6-Trichlorophenol	44,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,4-Dichlorophenol	180,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,4-Dimethylphenol	1,200,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,4-Dinitrophenol	120,000	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
2,4-Dinitrotoluene	1,600	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2,6-Dinitrotoluene	61,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2-Chloronaphthalene	6,300,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2-Chlorophenol	390,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2-Methylnaphthalene	310,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2-Methylphenol	3,100,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
2-Nitroaniline	610,000	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
2-Nitrophenol	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
3,3'-Dichlorobenzidine	1,100	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
6 3-Nitroaniline	24,000	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
4,6-Dinitro-2-methylphenol	4,900	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
4-Bromophenylphenyl ether	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
7 4-Chloro-3-methylphenol	3,100,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
4-Chloroaniline	2,400	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
4-Chlorophenylphenyl ether	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
4-Methylphenol	310,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
4-Nitroaniline	24,000	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
8 4-Nitrophenol	120,000	µg/kg	ND (350)	---	ND (390)	ND (420)	ND (400)
Acenaphthene	3,400,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
9 Acenaphthylene	1,700,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Acetophenone	7,800,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Anthracene	17,000,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Atrazine	2,100	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzaldehyde	7,800,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzo(a)anthracene	150	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzo(a)pyrene	15	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzo(b)fluoranthene	150	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
10 Benzo(g,h,i)perylene	1,700,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzo(k)fluoranthene	1,500	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Benzyl butyl phthalate	260,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
bis(2-Chloroethoxy)methane	180,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
bis(2-Chloroethyl)ether	210	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
bis(2-Ethylhexyl)phthalate	35,000	µg/kg	26 J	---	ND (200)	ND (210)	ND (210)

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

		Sample Location	RMW-17D	RMW-17D	RMW-17M	RMW-17M	RMW-17M
			71 ft bgs	81 ft bgs	21 ft bgs	31 ft bgs	36 ft bgs
		Sample Date	10/27/2009	10/27/2009	10/26/2009	10/26/2009	10/26/2009
Analyte	RSL	Units	Analytical Results				
Semivolatile Organic Compounds							
Caprolactam	31,000,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Carbazole	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Chrysene	15,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Dibenz(a,h)anthracene	15	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Dibenzofuran	78,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Diethylphthalate	49,000,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Dimethylphthalate	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Di-n-butyl phthalate	6,100,000	µg/kg	34 J	---	ND (200)	ND (210)	ND (210)
Di-n-octyl phthalate	NE	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Fluoranthene	2,300,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Fluorene	2,300,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Hexachlorobenzene	300	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Hexachlorobutadiene	6,200	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Hexachlorocyclopentadiene	370,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Hexachloroethane	35,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Indeno(1,2,3-c,d)pyrene	150	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Isophorone	510,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Naphthalene	3,600	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Nitrobenzene	4,800	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
N-Nitrosodi-n-propylamine	69	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
N-Nitrosodiphenylamine	99,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Pentachlorophenol	3,000	µg/kg	ND (350) J	---	ND (390)	ND (420)	ND (400)
[11] Phenanthrene	1,700,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Phenol	18,000,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Pyrene	1,700,000	µg/kg	ND (180)	---	ND (200)	ND (210)	ND (210)
Total Petroleum Hydrocarbons							
Diesel c10-c24	NE	mg/kg	0.39 J	0.28 J	ND (0.25)	4.9 J	ND (1.6) J
Gasoline c6-c10	NE	mg/kg	ND (0.022) J	ND (0.023) J	ND (0.011) J	ND (0.014) J	ND (0.014) J

TABLE 4-41
Well Installation Soil Analytical Results (September - October 2009) Compared to Residential Regional Screening Levels (Organics Only)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

[1] 1,3-Dichloropropene was used as the surrogate
[2] Methyl tertbutyl ether (MTBE) was used as the surrogate
[3] Methyl tertbutyl ether (MTBE) was used as the surrogate
[4] sec-butyl alcohol was used as the surrogate
[5] 1,3-Dichloropropene was used as the surrogate
[6] 4-Nitroaniline used as the surrogate
[7] 3-methylphenol was used as the surrogate
[8] 2,4-Dinitrophenol was used as the surrogate
[9] Pyrene was used as the surrogate
[10] Pyrene was used as the surrogate
[11] Pyrene was used as the surrogate
[12] Chlordane was used as the surrogate
[13] alpha-BHC was used as the surrogate
[14] Endosulfan was used as the surrogate
[15] Endosulfan was used as the surrogate
[16] Endosulfan was used as the surrogate
[17] Endrin was used as the surrogate
[18] Endrin was used as the surrogate
[19] Chlordane was used as the surrogate

Results greater than the screening level are bolded.
Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations).

RSL	Residential Screening Level
ft bgs	feet below ground surface
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
--	not analyzed
NE	not established
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
R	rejected for failure to meet quality control requirements

TABLE 4-42
Residential Soil Results Summary (October 2009)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential Soil Levels	Screening Levels[1]
4,4'-DDD	mg/kg	0.000055 - 8.6	2
4,4'-DDE	mg/kg	0.000045 - 1.8	1.4
Aroclor-1254	mg/kg	< 0.035 - 2.1	0.22
Arsenic *	mg/kg	1 - 56.3	0.39 / 22
Benzo(a)pyrene	mg/kg	0.022 - < 0.24	0.015
Benzo(b)fluoranthene	mg/kg	0.019 - < 0.24	0.15
Cobalt	mg/kg	3.8 - 25.8	23
Iron	mg/kg	8070 - 66100	55000
Lead **	mg/kg	2.1 - 810	80

Notes:

Only compounds detected above screening levels are shown

[1] EPA Regional Screening Levels for residential soil, May 2010.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

** For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

mg/kg milligrams per kilogram

TABLE 4-43
1432 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Fig	**none**			
Metals					
Arsenic *	ND (0.06)	NC	NC	0.062 / 22	mg/kg
Chromium	0.79	NC	NC	210	mg/kg
Lead **	0.28	NC	NC	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.02)	NC	NC	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.025)	NC	NC	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.018)	NC	NC	1.1	mg/kg
1,1-Dichloroethane	ND (0.017)	NC	NC	3.3	mg/kg
1,1-Dichloroethene	ND (0.022)	NC	NC	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.039)	NC	NC	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.026)	NC	NC	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.18)	NC	NC	0.0054	mg/kg
1,2-Dibromoethane	ND (0.013)	NC	NC	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.016)	NC	NC	1,900	mg/kg
1,2-Dichloroethane	ND (0.021)	NC	NC	0.43	mg/kg
1,2-Dichloropropane	ND (0.034)	NC	NC	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.019)	NC	NC	530	mg/kg
1,4-Dichlorobenzene	ND (0.016)	NC	NC	2.4	mg/kg
2-Hexanone	ND (0.71)	NC	NC	210	mg/kg
Acetone	ND (0.41)	NC	NC	61,000	mg/kg
Benzene	ND (0.019)	NC	NC	1.1	mg/kg
Bromochloromethane	ND (0.023)	NC	NC	NE	mg/kg
Bromodichloromethane	ND (0.016)	NC	NC	0.27	mg/kg
Bromoform	ND (0.05)	NC	NC	61	mg/kg
Bromomethane	ND (0.039)	NC	NC	7.3	mg/kg
Carbon disulfide	ND (0.029)	NC	NC	820	mg/kg
Carbon tetrachloride	ND (0.022)	NC	NC	0.61	mg/kg
Chlorobenzene	ND (0.017)	NC	NC	290	mg/kg
Chloroethane	ND (0.031)	NC	NC	15,000	mg/kg
Chloroform	ND (0.018)	NC	NC	0.29	mg/kg
Chloromethane	ND (0.025)	NC	NC	120	mg/kg
cis-1,2-Dichloroethene	ND (0.021)	NC	NC	780	mg/kg
cis-1,3-Dichloropropene	ND (0.015)	NC	NC	1.7	mg/kg
Cyclohexane	ND (0.018)	NC	NC	7,000	mg/kg
Dibromochloromethane	ND (0.015)	NC	NC	0.68	mg/kg
Ethylbenzene	ND (0.018)	NC	NC	5.4	mg/kg
Freon 11	ND (0.024)	NC	NC	790	mg/kg
Freon 113	ND (0.022)	NC	NC	43,000	mg/kg
Freon 12	ND (0.03)	NC	NC	180	mg/kg
Isopropylbenzene (cumene)	ND (0.013)	NC	NC	2,100	mg/kg
Methyl acetate	0.053 J	NC	NC	78,000	mg/kg
Methyl ethyl ketone	ND (0.58)	NC	NC	28,000	mg/kg
Methyl isobutyl ketone	ND (0.5)	NC	NC	5,300	mg/kg
Methyl tert-butyl ether	ND (0.014)	NC	NC	43	mg/kg
Methylcyclohexane	ND (0.011)	NC	NC	2,600	mg/kg
Methylene chloride	ND (0.035)	NC	NC	11	mg/kg
Styrene	ND (0.017)	NC	NC	6,300	mg/kg
tert-Butyl alcohol	ND (0.19) R	NC	NC	160,000	mg/kg
Tetrachloroethene	ND (0.02)	NC	NC	0.55	mg/kg
Toluene	ND (0.018)	NC	NC	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.025)	NC	NC	150	mg/kg
trans-1,3-Dichloropropene	ND (0.016)	NC	NC	1.7	mg/kg
Trichloroethene	ND (0.034)	NC	NC	2.8	mg/kg
Vinyl chloride	ND (0.038)	NC	NC	0.06	mg/kg
Xylenes, total	ND (0.034)	NC	NC	630	mg/kg

TABLE 4-43
1432 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Grape	**1432SSc**			
Metals					
Arsenic *	ND (0.06)	**13.8**	**7.6**	0.062 / 22	mg/kg
Chromium	0.44	62.6 J	53	210	mg/kg
Lead **	0.86	**2,280 J**	**983**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.02)	ND (0.0036)	ND (0.0032)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.025)	ND (0.0036)	ND (0.0032)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.018)	ND (0.0036)	ND (0.0032)	1.1	mg/kg
1,1-Dichloroethane	ND (0.017)	ND (0.0036)	ND (0.0032)	3.3	mg/kg
1,1-Dichloroethene	ND (0.022)	ND (0.0036)	ND (0.0032)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.04)	ND (0.0036)	ND (0.0032)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.026)	ND (0.0036)	ND (0.0032)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.18)	ND (0.015)	ND (0.013)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.014)	ND (0.0036)	ND (0.0032)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.016)	ND (0.0036)	ND (0.0032)	1,900	mg/kg
1,2-Dichloroethane	ND (0.021)	ND (0.0036)	ND (0.0032)	0.43	mg/kg
1,2-Dichloropropane	ND (0.035)	ND (0.0036)	ND (0.0032)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.019)	ND (0.0036)	ND (0.0032)	530	mg/kg
1,4-Dichlorobenzene	ND (0.016)	ND (0.0036)	ND (0.0032)	2.4	mg/kg
2-Hexanone	ND (0.72)	ND (0.029)	ND (0.025)	210	mg/kg
Acetone	ND (0.42)	ND (0.029) J	ND (0.025) J	61,000	mg/kg
Benzene	ND (0.019)	ND (0.0036)	ND (0.0032)	1.1	mg/kg
Bromochloromethane	ND (0.023)	ND (0.0036)	ND (0.0032)	NE	mg/kg
Bromodichloromethane	ND (0.016)	ND (0.0036)	ND (0.0032)	0.27	mg/kg
Bromoform	ND (0.051)	ND (0.0036) J	ND (0.0032) J	61	mg/kg
Bromomethane	ND (0.04)	ND (0.0036)	ND (0.0032)	7.3	mg/kg
Carbon disulfide	ND (0.029)	ND (0.0036)	ND (0.0032)	820	mg/kg
Carbon tetrachloride	ND (0.023)	ND (0.0036)	ND (0.0032)	0.61	mg/kg
Chlorobenzene	ND (0.017)	ND (0.0036)	ND (0.0032)	290	mg/kg
Chloroethane	ND (0.032)	ND (0.0036)	ND (0.0032)	15,000	mg/kg
Chloroform	ND (0.018)	ND (0.0036)	ND (0.0032)	0.29	mg/kg
Chloromethane	ND (0.025)	ND (0.0036)	ND (0.0032)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.021)	ND (0.0036)	ND (0.0032)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.015)	ND (0.0036)	ND (0.0032)	1.7	mg/kg
Cyclohexane	ND (0.018)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.015)	ND (0.0036) J	ND (0.0032) J	0.68	mg/kg
Ethylbenzene	ND (0.018)	ND (0.0036)	ND (0.0032)	5.4	mg/kg
Freon 11	ND (0.024)	0.017	0.003 J	790	mg/kg
Freon 113	ND (0.022)	ND (0.0036)	ND (0.0032)	43,000	mg/kg
Freon 12	ND (0.03)	ND (0.0036)	ND (0.0032)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.013)	ND (0.0036)	ND (0.0032)	2,100	mg/kg
Methyl acetate	ND (0.017)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.58)	ND (0.029)	ND (0.025)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.51)	ND (0.029)	ND (0.025)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.014)	ND (0.015)	ND (0.013)	43	mg/kg
Methylcyclohexane	ND (0.011)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.035)	ND (0.0036)	ND (0.0032)	11	mg/kg
Styrene	ND (0.017)	ND (0.0036)	ND (0.0032)	6,300	mg/kg
tert-Butyl alcohol	ND (0.19) R	ND (0.073)	ND (0.063)	160,000	mg/kg
Tetrachloroethene	ND (0.02)	ND (0.0036)	ND (0.0032)	0.55	mg/kg
Toluene	ND (0.018)	ND (0.0036)	ND (0.0032)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.025)	ND (0.0036)	ND (0.0032)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.016)	ND (0.0036)	ND (0.0032)	1.7	mg/kg
Trichloroethene	ND (0.034)	ND (0.0036)	ND (0.0032)	2.8	mg/kg
Vinyl chloride	ND (0.038)	ND (0.0036)	ND (0.0032)	0.06	mg/kg
Xylenes, total	ND (0.034)	ND (0.0073)	ND (0.0063)	630	mg/kg

TABLE 4-43
1432 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Pomegranate	**1432SSa**			
Metals					
Arsenic *	**0.08**	**7.8**	**8.1**	0.062 / 22	mg/kg
Chromium	0.49	13.2	19.8	210	mg/kg
Lead **	0.16	**1,060**	**524 J+**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.02)	ND (0.0033)	ND (0.0031)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.025)	ND (0.0033)	ND (0.0031)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.018)	ND (0.0033)	ND (0.0031)	1.1	mg/kg
1,1-Dichloroethane	ND (0.016)	ND (0.0033)	ND (0.0031)	3.3	mg/kg
1,1-Dichloroethene	ND (0.021)	ND (0.0033)	ND (0.0031)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.039)	ND (0.0033)	ND (0.0031)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.025)	ND (0.0033)	ND (0.0031)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.18)	ND (0.0065)	ND (0.0062)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.013)	ND (0.0033)	ND (0.0031)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0031)	1,900	mg/kg
1,2-Dichloroethane	ND (0.021)	ND (0.0033)	ND (0.0031)	0.43	mg/kg
1,2-Dichloropropane	ND (0.034)	ND (0.0033)	ND (0.0031)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.018)	ND (0.0033)	ND (0.0031)	530	mg/kg
1,4-Dichlorobenzene	ND (0.016)	ND (0.0033)	ND (0.0031)	2.4	mg/kg
2-Hexanone	ND (0.7)	ND (0.026)	ND (0.025)	210	mg/kg
Acetone	ND (0.41)	ND (0.013)	ND (0.012)	61,000	mg/kg
Benzene	ND (0.019)	ND (0.0033)	ND (0.0031)	1.1	mg/kg
Bromochloromethane	ND (0.023)	ND (0.0033)	ND (0.0031)	NE	mg/kg
Bromodichloromethane	ND (0.015)	ND (0.0033)	ND (0.0031)	0.27	mg/kg
Bromoform	ND (0.05)	ND (0.0033)	ND (0.0031)	61	mg/kg
Bromomethane	ND (0.039)	ND (0.0033)	ND (0.0031)	7.3	mg/kg
Carbon disulfide	ND (0.029)	ND (0.0033)	ND (0.0031)	820	mg/kg
Carbon tetrachloride	ND (0.022)	ND (0.0033)	ND (0.0031)	0.61	mg/kg
Chlorobenzene	ND (0.017)	ND (0.0033)	ND (0.0031)	290	mg/kg
Chloroethane	ND (0.031)	ND (0.0016)	ND (0.0016)	15,000	mg/kg
Chloroform	ND (0.017)	ND (0.0033)	ND (0.0031)	0.29	mg/kg
Chloromethane	ND (0.024)	ND (0.0033)	ND (0.0031)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.021)	ND (0.0033)	ND (0.0031)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.015)	ND (0.0033)	ND (0.0031)	1.7	mg/kg
Cyclohexane	ND (0.018)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.015)	ND (0.0033)	ND (0.0031)	0.68	mg/kg
Ethylbenzene	ND (0.018)	ND (0.0033)	ND (0.0031)	5.4	mg/kg
Freon 11	ND (0.024)	0.0045	0.0052	790	mg/kg
Freon 113	ND (0.022)	ND (0.0033)	ND (0.0031)	43,000	mg/kg
Freon 12	ND (0.03)	ND (0.0033)	ND (0.0031)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.012)	ND (0.0033)	ND (0.0031)	2,100	mg/kg
Methyl acetate	ND (0.017)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.57)	ND (0.026)	ND (0.025)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.5)	ND (0.026)	ND (0.025)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.013)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.011)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.035)	ND (0.0033)	ND (0.0031)	11	mg/kg
Styrene	ND (0.017)	ND (0.0033)	ND (0.0031)	6,300	mg/kg
tert-Butyl alcohol	ND (0.19) R	ND (0.065)	ND (0.062)	160,000	mg/kg
Tetrachloroethene	ND (0.02)	ND (0.0033)	ND (0.0031)	0.55	mg/kg
Toluene	ND (0.018)	ND (0.0033)	ND (0.0031)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.025)	ND (0.0033)	ND (0.0031)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.016)	ND (0.0033)	ND (0.0031)	1.7	mg/kg
Trichloroethene	ND (0.034)	ND (0.0033)	ND (0.0031)	2.8	mg/kg
Vinyl chloride	ND (0.038)	ND (0.0033)	ND (0.0031)	0.06	mg/kg
Xylenes, total	ND (0.033)	ND (0.0065)	ND (0.0062)	630	mg/kg

TABLE 4-43
1432 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Tomato	**1432SSc**			
Metals					
Arsenic *	ND (0.06)	**13.8**	**7.6**	0.062 / 22	mg/kg
Chromium	0.88	62.6 J	53	210	mg/kg
Lead **	0.75	**2,280 J**	**983**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.022)	ND (0.0036)	ND (0.0032)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.028)	ND (0.0036)	ND (0.0032)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.02)	ND (0.0036)	ND (0.0032)	1.1	mg/kg
1,1-Dichloroethane	ND (0.018)	ND (0.0036)	ND (0.0032)	3.3	mg/kg
1,1-Dichloroethene	ND (0.024)	ND (0.0036)	ND (0.0032)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.043)	ND (0.0036)	ND (0.0032)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.028)	ND (0.0036)	ND (0.0032)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.2)	ND (0.015)	ND (0.013)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.015)	ND (0.0036)	ND (0.0032)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.017)	ND (0.0036)	ND (0.0032)	1,900	mg/kg
1,2-Dichloroethane	ND (0.023)	ND (0.0036)	ND (0.0032)	0.43	mg/kg
1,2-Dichloropropane	ND (0.038)	ND (0.0036)	ND (0.0032)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.02)	ND (0.0036)	ND (0.0032)	530	mg/kg
1,4-Dichlorobenzene	ND (0.018)	ND (0.0036)	ND (0.0032)	2.4	mg/kg
2-Hexanone	ND (0.78)	ND (0.029)	ND (0.025)	210	mg/kg
Acetone	ND (0.45)	ND (0.029) J	ND (0.025) J	61,000	mg/kg
Benzene	ND (0.021)	ND (0.0036)	ND (0.0032)	1.1	mg/kg
Bromochloromethane	ND (0.025)	ND (0.0036)	ND (0.0032)	NE	mg/kg
Bromodichloromethane	ND (0.017)	ND (0.0036)	ND (0.0032)	0.27	mg/kg
Bromoform	ND (0.055)	ND (0.0036) J	ND (0.0032) J	61	mg/kg
Bromomethane	ND (0.043)	ND (0.0036)	ND (0.0032)	7.3	mg/kg
Carbon disulfide	ND (0.032)	ND (0.0036)	ND (0.0032)	820	mg/kg
Carbon tetrachloride	ND (0.025)	ND (0.0036)	ND (0.0032)	0.61	mg/kg
Chlorobenzene	ND (0.019)	ND (0.0036)	ND (0.0032)	290	mg/kg
Chloroethane	ND (0.034)	ND (0.0036)	ND (0.0032)	15,000	mg/kg
Chloroform	ND (0.019)	ND (0.0036)	ND (0.0032)	0.29	mg/kg
Chloromethane	ND (0.027)	ND (0.0036)	ND (0.0032)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.023)	ND (0.0036)	ND (0.0032)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.016)	ND (0.0036)	ND (0.0032)	1.7	mg/kg
Cyclohexane	ND (0.02)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.017)	ND (0.0036) J	ND (0.0032) J	0.68	mg/kg
Ethylbenzene	ND (0.02)	ND (0.0036)	ND (0.0032)	5.4	mg/kg
Freon 11	ND (0.026)	0.017	0.003 J	790	mg/kg
Freon 113	ND (0.024)	ND (0.0036)	ND (0.0032)	43,000	mg/kg
Freon 12	ND (0.033)	ND (0.0036)	ND (0.0032)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.014)	ND (0.0036)	ND (0.0032)	2,100	mg/kg
Methyl acetate	ND (0.019)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.64)	ND (0.029)	ND (0.025)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.55)	ND (0.029)	ND (0.025)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.015)	ND (0.015)	ND (0.013)	43	mg/kg
Methylcyclohexane	ND (0.012)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.038)	ND (0.0036)	ND (0.0032)	11	mg/kg
Styrene	ND (0.019)	ND (0.0036)	ND (0.0032)	6,300	mg/kg
tert-Butyl alcohol	ND (0.21) R	ND (0.073)	ND (0.063)	160,000	mg/kg
Tetrachloroethene	ND (0.022)	ND (0.0036)	ND (0.0032)	0.55	mg/kg
Toluene	ND (0.02)	ND (0.0036)	ND (0.0032)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.028)	ND (0.0036)	ND (0.0032)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.017)	ND (0.0036)	ND (0.0032)	1.7	mg/kg
Trichloroethene	ND (0.037)	ND (0.0036)	ND (0.0032)	2.8	mg/kg
Vinyl chloride	ND (0.042)	ND (0.0036)	ND (0.0032)	0.06	mg/kg
Xylenes, total	ND (0.037)	ND (0.0073)	ND (0.0063)	630	mg/kg

TABLE 4-43
1432 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Notes:

Deep samples were collected between 2.5 and 3 ft below ground surface.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

**For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

Produce results were compared to Soil Screening Levels.

Results greater than the screening level are bolded.

Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Soil Screening Level table for source of screening levels.

Shallow samples 1ft bgs samples were collected between 0.5 and 1ft below ground surface.

mg/kg	milligrams per kilogram
NA	not analyzed
NC	not collected
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
J+	estimated value, possible high bias
R	rejected for failure to meet quality control requirements

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Bell Pepper		**none**		
Metals					
Arsenic *	ND (0.06)	NC	NC	0.062 / 22	mg/kg
Chromium	0.58	NC	NC	210	mg/kg
Lead **	0.13	NC	NC	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.019)	NC	NC	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.024)	NC	NC	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.017)	NC	NC	1.1	mg/kg
1,1-Dichloroethane	ND (0.016)	NC	NC	3.3	mg/kg
1,1-Dichloroethene	ND (0.021)	NC	NC	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.037)	NC	NC	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.024)	NC	NC	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.17)	NC	NC	0.0054	mg/kg
1,2-Dibromoethane	ND (0.013)	NC	NC	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.015)	NC	NC	1,900	mg/kg
1,2-Dichloroethane	ND (0.02)	NC	NC	0.43	mg/kg
1,2-Dichloropropane	ND (0.032)	NC	NC	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.018)	NC	NC	530	mg/kg
1,4-Dichlorobenzene	ND (0.015)	NC	NC	2.4	mg/kg
2-Hexanone	ND (0.67)	NC	NC	210	mg/kg
Acetone	ND (0.39)	NC	NC	61,000	mg/kg
Benzene	ND (0.018)	NC	NC	1.1	mg/kg
Bromochloromethane	ND (0.022)	NC	NC	NE	mg/kg
Bromodichloromethane	ND (0.015)	NC	NC	0.27	mg/kg
Bromoform	ND (0.047)	NC	NC	61	mg/kg
Bromomethane	ND (0.037)	NC	NC	7.3	mg/kg
Carbon disulfide	ND (0.027)	NC	NC	820	mg/kg
Carbon tetrachloride	ND (0.021)	NC	NC	0.61	mg/kg
Chlorobenzene	ND (0.016)	NC	NC	290	mg/kg
Chloroethane	ND (0.03)	NC	NC	15,000	mg/kg
Chloroform	ND (0.017)	NC	NC	0.29	mg/kg
Chloromethane	ND (0.023)	NC	NC	120	mg/kg
cis-1,2-Dichloroethene	ND (0.02)	NC	NC	780	mg/kg
cis-1,3-Dichloropropene	ND (0.014)	NC	NC	1.7	mg/kg
Cyclohexane	ND (0.017)	NC	NC	7,000	mg/kg
Dibromochloromethane	ND (0.014)	NC	NC	0.68	mg/kg
Ethylbenzene	ND (0.017)	NC	NC	5.4	mg/kg
Freon 11	ND (0.023)	NC	NC	790	mg/kg
Freon 113	ND (0.021)	NC	NC	43,000	mg/kg
Freon 12	ND (0.028)	NC	NC	180	mg/kg
Isopropylbenzene (cumene)	ND (0.012)	NC	NC	2,100	mg/kg
Methyl acetate	ND (0.016)	NC	NC	78,000	mg/kg
Methyl ethyl ketone	ND (0.55)	NC	NC	28,000	mg/kg
Methyl isobutyl ketone	ND (0.48)	NC	NC	5,300	mg/kg
Methyl tert-butyl ether	ND (0.013)	NC	NC	43	mg/kg
Methylcyclohexane	ND (0.01)	NC	NC	2,600	mg/kg
Methylene chloride	ND (0.033)	NC	NC	11	mg/kg
Styrene	ND (0.016)	NC	NC	6,300	mg/kg
tert-Butyl alcohol	ND (0.18) R	NC	NC	160,000	mg/kg
Tetrachloroethene	ND (0.019)	NC	NC	0.55	mg/kg
Toluene	ND (0.017)	NC	NC	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.024)	NC	NC	150	mg/kg
trans-1,3-Dichloropropene	ND (0.015)	NC	NC	1.7	mg/kg
Trichloroethene	ND (0.032)	NC	NC	2.8	mg/kg
Vinyl chloride	ND (0.036)	NC	NC	0.06	mg/kg
Xylenes, total	ND (0.032)	NC	NC	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Green Chili	**1436SSa**			
Metals					
Arsenic *	ND (0.06)	**7.6 J**	**7.7**	0.062 / 22	mg/kg
Chromium	0.68	26.1 J	144	210	mg/kg
Lead **	0.15	**2,910**	**829**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.016)	ND (0.0033)	ND (0.0029)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.02)	ND (0.0033)	ND (0.0029)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.015)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
1,1-Dichloroethane	ND (0.013)	ND (0.0033)	ND (0.0029)	3.3	mg/kg
1,1-Dichloroethene	ND (0.017)	ND (0.0033)	ND (0.0029)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.031)	ND (0.0033)	ND (0.0029)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.02)	ND (0.0033)	ND (0.0029)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.14)	ND (0.0066)	ND (0.0058)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.011)	ND (0.0033)	ND (0.0029)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.012)	ND (0.0033)	ND (0.0029)	1,900	mg/kg
1,2-Dichloroethane	ND (0.017)	ND (0.0033)	ND (0.0029)	0.43	mg/kg
1,2-Dichloropropane	ND (0.027)	ND (0.0033)	ND (0.0029)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	530	mg/kg
1,4-Dichlorobenzene	ND (0.013)	ND (0.0033)	ND (0.0029)	2.4	mg/kg
2-Hexanone	ND (0.56)	ND (0.027)	ND (0.023)	210	mg/kg
Acetone	ND (0.33)	ND (0.027)	ND (0.023)	61,000	mg/kg
Benzene	ND (0.015)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
Bromochloromethane	ND (0.018)	ND (0.0033)	ND (0.0029)	NE	mg/kg
Bromodichloromethane	ND (0.012)	ND (0.0033)	ND (0.0029)	0.27	mg/kg
Bromoform	ND (0.04)	ND (0.0033)	ND (0.0029)	61	mg/kg
Bromomethane	ND (0.031)	ND (0.0033)	ND (0.0029)	7.3	mg/kg
Carbon disulfide	ND (0.023)	ND (0.0033)	ND (0.0029)	820	mg/kg
Carbon tetrachloride	ND (0.018)	ND (0.0033)	ND (0.0029)	0.61	mg/kg
Chlorobenzene	ND (0.014)	ND (0.0033)	ND (0.0029)	290	mg/kg
Chloroethane	ND (0.025)	ND (0.0033)	ND (0.0029)	15,000	mg/kg
Chloroform	ND (0.014)	ND (0.0033)	ND (0.0029)	0.29	mg/kg
Chloromethane	ND (0.02)	ND (0.0033)	ND (0.0029)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.017)	ND (0.0033)	ND (0.0029)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.012)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Cyclohexane	ND (0.015)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.012)	ND (0.0033)	ND (0.0029)	0.68	mg/kg
Ethylbenzene	ND (0.014)	ND (0.0033)	ND (0.0029)	5.4	mg/kg
Freon 11	ND (0.019)	ND (0.0033)	0.0041	790	mg/kg
Freon 113	ND (0.018)	ND (0.0033)	ND (0.0029)	43,000	mg/kg
Freon 12	ND (0.024)	ND (0.0033)	ND (0.0029)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.0096)	ND (0.0033)	ND (0.0029)	2,100	mg/kg
Methyl acetate	ND (0.014)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.46)	ND (0.027)	ND (0.023)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.4)	ND (0.027)	ND (0.023)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.011)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.0084)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.028)	ND (0.0033)	ND (0.0029)	11	mg/kg
Styrene	ND (0.014)	ND (0.0033)	ND (0.0029)	6,300	mg/kg
tert-Butyl alcohol	ND (0.15) R	ND (0.066)	ND (0.058)	160,000	mg/kg
Tetrachloroethene	ND (0.016)	0.0049	0.0056	0.55	mg/kg
Toluene	ND (0.014)	ND (0.0033)	ND (0.0029)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.02)	ND (0.0033)	ND (0.0029)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.013)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Trichloroethene	ND (0.027)	ND (0.0033)	ND (0.0029)	2.8	mg/kg
Vinyl chloride	ND (0.03)	ND (0.0033)	ND (0.0029)	0.06	mg/kg
Xylenes, total	ND (0.027)	ND (0.0066)	ND (0.0058)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Lemon	**1436SSb**			
Metals					
Arsenic *	ND (0.06)	**15.6**	**3.3**	0.062 / 22	mg/kg
Chromium	0.7	69.7	35.3	210	mg/kg
Lead **	0.19	**3,630**	**216 J+**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.017)	ND (0.0034)	ND (0.003)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.021)	ND (0.0034)	ND (0.003)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.015)	ND (0.0034)	ND (0.003)	1.1	mg/kg
1,1-Dichloroethane	ND (0.014)	ND (0.0034)	ND (0.003)	3.3	mg/kg
1,1-Dichloroethene	ND (0.018)	ND (0.0034)	ND (0.003)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.033)	ND (0.0034)	ND (0.003)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.021)	ND (0.0034)	ND (0.003)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.15)	ND (0.0068)	ND (0.006)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.011)	ND (0.0034)	ND (0.003)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.013)	ND (0.0034)	ND (0.003)	1,900	mg/kg
1,2-Dichloroethane	ND (0.017)	ND (0.0034)	ND (0.003)	0.43	mg/kg
1,2-Dichloropropane	ND (0.029)	ND (0.0034)	ND (0.003)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.016)	ND (0.0034)	ND (0.003)	530	mg/kg
1,4-Dichlorobenzene	ND (0.013)	ND (0.0034)	ND (0.003)	2.4	mg/kg
2-Hexanone	ND (0.59)	ND (0.027)	ND (0.024)	210	mg/kg
Acetone	ND (0.34)	ND (0.027)	ND (0.012)	61,000	mg/kg
Benzene	ND (0.016)	ND (0.0034)	ND (0.003)	1.1	mg/kg
Bromochloromethane	ND (0.019)	ND (0.0034)	ND (0.003)	NE	mg/kg
Bromodichloromethane	ND (0.013)	ND (0.0034)	ND (0.003)	0.27	mg/kg
Bromoform	ND (0.042)	ND (0.0034)	ND (0.003)	61	mg/kg
Bromomethane	ND (0.033)	ND (0.0034)	ND (0.003)	7.3	mg/kg
Carbon disulfide	ND (0.024)	ND (0.0034)	ND (0.003)	820	mg/kg
Carbon tetrachloride	ND (0.019)	ND (0.0034)	ND (0.003)	0.61	mg/kg
Chlorobenzene	ND (0.014)	ND (0.0034)	ND (0.003)	290	mg/kg
Chloroethane	ND (0.026)	ND (0.0034)	ND (0.0015)	15,000	mg/kg
Chloroform	ND (0.015)	ND (0.0034)	ND (0.003)	0.29	mg/kg
Chloromethane	ND (0.021)	ND (0.0034)	ND (0.003)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.018)	ND (0.0034)	ND (0.003)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.012)	ND (0.0034)	ND (0.003)	1.7	mg/kg
Cyclohexane	ND (0.015)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.013)	ND (0.0034)	ND (0.003)	0.68	mg/kg
Ethylbenzene	ND (0.015)	ND (0.0034)	ND (0.003)	5.4	mg/kg
Freon 11	ND (0.02)	0.015	0.0058	790	mg/kg
Freon 113	ND (0.018)	ND (0.0034)	ND (0.003)	43,000	mg/kg
Freon 12	ND (0.025)	ND (0.0034)	ND (0.0015)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.011)	ND (0.0034)	ND (0.003)	2,100	mg/kg
Methyl acetate	ND (0.014)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.48)	ND (0.027)	ND (0.024)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.42)	ND (0.027)	ND (0.024)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.011)	ND (0.014)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.0088)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.029)	ND (0.0034)	ND (0.003)	11	mg/kg
Styrene	ND (0.014)	ND (0.0034)	ND (0.003)	6,300	mg/kg
tert-Butyl alcohol	ND (0.16) R	ND (0.068)	ND (0.06)	160,000	mg/kg
Tetrachloroethene	ND (0.017)	ND (0.0034)	ND (0.003)	0.55	mg/kg
Toluene	ND (0.015)	ND (0.0034)	ND (0.003)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.021)	ND (0.0034)	ND (0.003)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.013)	ND (0.0034)	ND (0.003)	1.7	mg/kg
Trichloroethene	ND (0.028)	ND (0.0034)	ND (0.003)	2.8	mg/kg
Vinyl chloride	ND (0.032)	ND (0.0034)	ND (0.003)	0.06	mg/kg
Xylenes, total	ND (0.028)	ND (0.0068)	ND (0.006)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Lemon (FD)	**1436SSb**			
Metals					
Arsenic *	ND (0.06)	**15.6**	**3.3**	0.062 / 22	mg/kg
Chromium	0.59	69.7	35.3	210	mg/kg
Lead **	0.16	**3,630**	**216 J+**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.022)	ND (0.0034)	ND (0.003)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.028)	ND (0.0034)	ND (0.003)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.02)	ND (0.0034)	ND (0.003)	1.1	mg/kg
1,1-Dichloroethane	ND (0.018)	ND (0.0034)	ND (0.003)	3.3	mg/kg
1,1-Dichloroethene	ND (0.024)	ND (0.0034)	ND (0.003)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.043)	ND (0.0034)	ND (0.003)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.028)	ND (0.0034)	ND (0.003)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.2)	ND (0.0068)	ND (0.006)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.015)	ND (0.0034)	ND (0.003)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.017)	ND (0.0034)	ND (0.003)	1,900	mg/kg
1,2-Dichloroethane	ND (0.023)	ND (0.0034)	ND (0.003)	0.43	mg/kg
1,2-Dichloropropane	ND (0.038)	ND (0.0034)	ND (0.003)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.02)	ND (0.0034)	ND (0.003)	530	mg/kg
1,4-Dichlorobenzene	ND (0.018)	ND (0.0034)	ND (0.003)	2.4	mg/kg
2-Hexanone	ND (0.78)	ND (0.027)	ND (0.024)	210	mg/kg
Acetone	ND (0.45)	ND (0.027)	ND (0.012)	61,000	mg/kg
Benzene	ND (0.021)	ND (0.0034)	ND (0.003)	1.1	mg/kg
Bromochloromethane	ND (0.025)	ND (0.0034)	ND (0.003)	NE	mg/kg
Bromodichloromethane	ND (0.017)	ND (0.0034)	ND (0.003)	0.27	mg/kg
Bromoform	ND (0.055)	ND (0.0034)	ND (0.003)	61	mg/kg
Bromomethane	ND (0.043)	ND (0.0034)	ND (0.003)	7.3	mg/kg
Carbon disulfide	ND (0.032)	ND (0.0034)	ND (0.003)	820	mg/kg
Carbon tetrachloride	ND (0.025)	ND (0.0034)	ND (0.003)	0.61	mg/kg
Chlorobenzene	ND (0.019)	ND (0.0034)	ND (0.003)	290	mg/kg
Chloroethane	ND (0.034)	ND (0.0034)	ND (0.0015)	15,000	mg/kg
Chloroform	ND (0.019)	ND (0.0034)	ND (0.003)	0.29	mg/kg
Chloromethane	ND (0.027)	ND (0.0034)	ND (0.003)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.023)	ND (0.0034)	ND (0.003)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.016)	ND (0.0034)	ND (0.003)	1.7	mg/kg
Cyclohexane	ND (0.02)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.017)	ND (0.0034)	ND (0.003)	0.68	mg/kg
Ethylbenzene	ND (0.02)	ND (0.0034)	ND (0.003)	5.4	mg/kg
Freon 11	ND (0.026)	0.015	0.0058	790	mg/kg
Freon 113	ND (0.024)	ND (0.0034)	ND (0.003)	43,000	mg/kg
Freon 12	ND (0.033)	ND (0.0034)	ND (0.0015)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.014)	ND (0.0034)	ND (0.003)	2,100	mg/kg
Methyl acetate	ND (0.019)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.64)	ND (0.027)	ND (0.024)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.55)	ND (0.027)	ND (0.024)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.015)	ND (0.014)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.012)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.038)	ND (0.0034)	ND (0.003)	11	mg/kg
Styrene	ND (0.019)	ND (0.0034)	ND (0.003)	6,300	mg/kg
tert-Butyl alcohol	ND (0.21) R	ND (0.068)	ND (0.06)	160,000	mg/kg
Tetrachloroethene	ND (0.022)	ND (0.0034)	ND (0.003)	0.55	mg/kg
Toluene	ND (0.02)	ND (0.0034)	ND (0.003)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.028)	ND (0.0034)	ND (0.003)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.017)	ND (0.0034)	ND (0.003)	1.7	mg/kg
Trichloroethene	ND (0.037)	ND (0.0034)	ND (0.003)	2.8	mg/kg
Vinyl chloride	ND (0.042)	ND (0.0034)	ND (0.003)	0.06	mg/kg
Xylenes, total	ND (0.037)	ND (0.0068)	ND (0.006)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Mint	**1436SSa**			
Metals					
Arsenic *	ND (0.06)	**7.6 J**	**7.7**	0.062 / 22	mg/kg
Chromium	1.07	26.1 J	144	210	mg/kg
Lead **	8.47	**2,910**	**829**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.019)	ND (0.0033)	ND (0.0029)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.024)	ND (0.0033)	ND (0.0029)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.017)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
1,1-Dichloroethane	ND (0.016)	ND (0.0033)	ND (0.0029)	3.3	mg/kg
1,1-Dichloroethene	ND (0.021)	ND (0.0033)	ND (0.0029)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.037)	ND (0.0033)	ND (0.0029)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.024)	ND (0.0033)	ND (0.0029)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.17)	ND (0.0066)	ND (0.0058)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.013)	ND (0.0033)	ND (0.0029)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	1,900	mg/kg
1,2-Dichloroethane	ND (0.02)	ND (0.0033)	ND (0.0029)	0.43	mg/kg
1,2-Dichloropropane	ND (0.033)	ND (0.0033)	ND (0.0029)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.018)	ND (0.0033)	ND (0.0029)	530	mg/kg
1,4-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	2.4	mg/kg
2-Hexanone	ND (0.67)	ND (0.027)	ND (0.023)	210	mg/kg
Acetone	ND (0.39)	ND (0.027)	ND (0.023)	61,000	mg/kg
Benzene	ND (0.018)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
Bromochloromethane	ND (0.022)	ND (0.0033)	ND (0.0029)	NE	mg/kg
Bromodichloromethane	ND (0.015)	ND (0.0033)	ND (0.0029)	0.27	mg/kg
Bromoform	ND (0.048)	ND (0.0033)	ND (0.0029)	61	mg/kg
Bromomethane	ND (0.037)	ND (0.0033)	ND (0.0029)	7.3	mg/kg
Carbon disulfide	ND (0.027)	ND (0.0033)	ND (0.0029)	820	mg/kg
Carbon tetrachloride	ND (0.021)	ND (0.0033)	ND (0.0029)	0.61	mg/kg
Chlorobenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	290	mg/kg
Chloroethane	ND (0.03)	ND (0.0033)	ND (0.0029)	15,000	mg/kg
Chloroform	ND (0.017)	ND (0.0033)	ND (0.0029)	0.29	mg/kg
Chloromethane	ND (0.023)	ND (0.0033)	ND (0.0029)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.02)	ND (0.0033)	ND (0.0029)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.014)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Cyclohexane	ND (0.017)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.014)	ND (0.0033)	ND (0.0029)	0.68	mg/kg
Ethylbenzene	ND (0.017)	ND (0.0033)	ND (0.0029)	5.4	mg/kg
Freon 11	ND (0.023)	ND (0.0033)	0.0041	790	mg/kg
Freon 113	ND (0.021)	ND (0.0033)	ND (0.0029)	43,000	mg/kg
Freon 12	ND (0.028)	ND (0.0033)	ND (0.0029)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.012)	ND (0.0033)	ND (0.0029)	2,100	mg/kg
Methyl acetate	0.19	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.55)	ND (0.027)	ND (0.023)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.48)	ND (0.027)	ND (0.023)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.013)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.01)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.033)	ND (0.0033)	ND (0.0029)	11	mg/kg
Styrene	ND (0.016)	ND (0.0033)	ND (0.0029)	6,300	mg/kg
tert-Butyl alcohol	ND (0.18) R	ND (0.066)	ND (0.058)	160,000	mg/kg
Tetrachloroethene	ND (0.019)	0.0049	0.0056	0.55	mg/kg
Toluene	ND (0.017)	ND (0.0033)	ND (0.0029)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.024)	ND (0.0033)	ND (0.0029)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.015)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Trichloroethene	ND (0.032)	ND (0.0033)	ND (0.0029)	2.8	mg/kg
Vinyl chloride	ND (0.036)	ND (0.0033)	ND (0.0029)	0.06	mg/kg
Xylenes, total	ND (0.032)	ND (0.0066)	ND (0.0058)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Red Chili	**1436SSa**			
Metals					
Arsenic *	**0.07**	**7.6 J**	**7.7**	0.062 / 22	mg/kg
Chromium	0.39	26.1 J	144	210	mg/kg
Lead **	0.77	**2,910**	**829**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.019)	ND (0.0033)	ND (0.0029)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.023)	ND (0.0033)	ND (0.0029)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.017)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
1,1-Dichloroethane	ND (0.015)	ND (0.0033)	ND (0.0029)	3.3	mg/kg
1,1-Dichloroethene	ND (0.02)	ND (0.0033)	ND (0.0029)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.036)	ND (0.0033)	ND (0.0029)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.023)	ND (0.0033)	ND (0.0029)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.17)	ND (0.0066)	ND (0.0058)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.012)	ND (0.0033)	ND (0.0029)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.014)	ND (0.0033)	ND (0.0029)	1,900	mg/kg
1,2-Dichloroethane	ND (0.019)	ND (0.0033)	ND (0.0029)	0.43	mg/kg
1,2-Dichloropropane	ND (0.031)	ND (0.0033)	ND (0.0029)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.017)	ND (0.0033)	ND (0.0029)	530	mg/kg
1,4-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	2.4	mg/kg
2-Hexanone	ND (0.65)	ND (0.027)	ND (0.023)	210	mg/kg
Acetone	ND (0.38)	ND (0.027)	ND (0.023)	61,000	mg/kg
Benzene	ND (0.018)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
Bromochloromethane	ND (0.021)	ND (0.0033)	ND (0.0029)	NE	mg/kg
Bromodichloromethane	ND (0.014)	ND (0.0033)	ND (0.0029)	0.27	mg/kg
Bromoform	ND (0.046)	ND (0.0033)	ND (0.0029)	61	mg/kg
Bromomethane	ND (0.036)	ND (0.0033)	ND (0.0029)	7.3	mg/kg
Carbon disulfide	ND (0.026)	ND (0.0033)	ND (0.0029)	820	mg/kg
Carbon tetrachloride	ND (0.02)	ND (0.0033)	ND (0.0029)	0.61	mg/kg
Chlorobenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	290	mg/kg
Chloroethane	ND (0.029)	ND (0.0033)	ND (0.0029)	15,000	mg/kg
Chloroform	ND (0.016)	ND (0.0033)	ND (0.0029)	0.29	mg/kg
Chloromethane	ND (0.023)	ND (0.0033)	ND (0.0029)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.019)	ND (0.0033)	ND (0.0029)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.014)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Cyclohexane	ND (0.017)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.014)	ND (0.0033)	ND (0.0029)	0.68	mg/kg
Ethylbenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	5.4	mg/kg
Freon 11	ND (0.022)	ND (0.0033)	0.0041	790	mg/kg
Freon 113	ND (0.02)	ND (0.0033)	ND (0.0029)	43,000	mg/kg
Freon 12	ND (0.027)	ND (0.0033)	ND (0.0029)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.012)	ND (0.0033)	ND (0.0029)	2,100	mg/kg
Methyl acetate	0.13 J	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.53)	ND (0.027)	ND (0.023)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.46)	ND (0.027)	ND (0.023)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.012)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.0096)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.032)	ND (0.0033)	ND (0.0029)	11	mg/kg
Styrene	ND (0.016)	ND (0.0033)	ND (0.0029)	6,300	mg/kg
tert-Butyl alcohol	ND (0.17) R	ND (0.066)	ND (0.058)	160,000	mg/kg
Tetrachloroethene	ND (0.018)	0.0049	0.0056	0.55	mg/kg
Toluene	ND (0.016)	ND (0.0033)	ND (0.0029)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.023)	ND (0.0033)	ND (0.0029)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.015)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Trichloroethene	ND (0.031)	ND (0.0033)	ND (0.0029)	2.8	mg/kg
Vinyl chloride	ND (0.035)	ND (0.0033)	ND (0.0029)	0.06	mg/kg
Xylenes, total	ND (0.031)	ND (0.0066)	ND (0.0058)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Tomatillo	**1436SSa**			
Metals					
Arsenic *	ND (0.06)	**7.6 J**	**7.7**	0.062 / 22	mg/kg
Chromium	0.68	26.1 J	144	210	mg/kg
Lead **	0.65	**2,910**	**829**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.02)	ND (0.0033)	ND (0.0029)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.024)	ND (0.0033)	ND (0.0029)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.018)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
1,1-Dichloroethane	ND (0.016)	ND (0.0033)	ND (0.0029)	3.3	mg/kg
1,1-Dichloroethene	ND (0.021)	ND (0.0033)	ND (0.0029)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.038)	ND (0.0033)	ND (0.0029)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.025)	ND (0.0033)	ND (0.0029)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.18)	ND (0.0066)	ND (0.0058)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.013)	ND (0.0033)	ND (0.0029)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	1,900	mg/kg
1,2-Dichloroethane	ND (0.02)	ND (0.0033)	ND (0.0029)	0.43	mg/kg
1,2-Dichloropropane	ND (0.033)	ND (0.0033)	ND (0.0029)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.018)	ND (0.0033)	ND (0.0029)	530	mg/kg
1,4-Dichlorobenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	2.4	mg/kg
2-Hexanone	ND (0.69)	ND (0.027)	ND (0.023)	210	mg/kg
Acetone	ND (0.4)	ND (0.027)	ND (0.023)	61,000	mg/kg
Benzene	ND (0.019)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
Bromochloromethane	ND (0.022)	ND (0.0033)	ND (0.0029)	NE	mg/kg
Bromodichloromethane	ND (0.015)	ND (0.0033)	ND (0.0029)	0.27	mg/kg
Bromoform	ND (0.049)	ND (0.0033)	ND (0.0029)	61	mg/kg
Bromomethane	ND (0.038)	ND (0.0033)	ND (0.0029)	7.3	mg/kg
Carbon disulfide	ND (0.028)	ND (0.0033)	ND (0.0029)	820	mg/kg
Carbon tetrachloride	ND (0.022)	ND (0.0033)	ND (0.0029)	0.61	mg/kg
Chlorobenzene	ND (0.017)	ND (0.0033)	ND (0.0029)	290	mg/kg
Chloroethane	ND (0.031)	ND (0.0033)	ND (0.0029)	15,000	mg/kg
Chloroform	ND (0.017)	ND (0.0033)	ND (0.0029)	0.29	mg/kg
Chloromethane	ND (0.024)	ND (0.0033)	ND (0.0029)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.021)	ND (0.0033)	ND (0.0029)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.015)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Cyclohexane	ND (0.018)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.015)	ND (0.0033)	ND (0.0029)	0.68	mg/kg
Ethylbenzene	ND (0.017)	ND (0.0033)	ND (0.0029)	5.4	mg/kg
Freon 11	ND (0.023)	ND (0.0033)	0.0041	790	mg/kg
Freon 113	ND (0.021)	ND (0.0033)	ND (0.0029)	43,000	mg/kg
Freon 12	ND (0.029)	ND (0.0033)	ND (0.0029)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.012)	ND (0.0033)	ND (0.0029)	2,100	mg/kg
Methyl acetate	ND (0.017)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.56)	ND (0.027)	ND (0.023)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.49)	ND (0.027)	ND (0.023)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.013)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.011)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.034)	ND (0.0033)	ND (0.0029)	11	mg/kg
Styrene	ND (0.017)	ND (0.0033)	ND (0.0029)	6,300	mg/kg
tert-Butyl alcohol	ND (0.18) R	ND (0.066)	ND (0.058)	160,000	mg/kg
Tetrachloroethene	ND (0.019)	0.0049	0.0056	0.55	mg/kg
Toluene	ND (0.017)	ND (0.0033)	ND (0.0029)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.025)	ND (0.0033)	ND (0.0029)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.015)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Trichloroethene	ND (0.033)	ND (0.0033)	ND (0.0029)	2.8	mg/kg
Vinyl chloride	ND (0.037)	ND (0.0033)	ND (0.0029)	0.06	mg/kg
Xylenes, total	ND (0.033)	ND (0.0066)	ND (0.0058)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Tomato	**1436SSa**			
Metals					
Arsenic *	0.06	**7.6 J**	**7.7**	0.062 / 22	mg/kg
Chromium	0.73	26.1 J	144	210	mg/kg
Lead **	1	**2,910**	**829**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.018)	ND (0.0033)	ND (0.0029)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.023)	ND (0.0033)	ND (0.0029)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.016)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
1,1-Dichloroethane	ND (0.015)	ND (0.0033)	ND (0.0029)	3.3	mg/kg
1,1-Dichloroethene	ND (0.02)	ND (0.0033)	ND (0.0029)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.036)	ND (0.0033)	ND (0.0029)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.023)	ND (0.0033)	ND (0.0029)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.16)	ND (0.0066)	ND (0.0058)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.012)	ND (0.0033)	ND (0.0029)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.014)	ND (0.0033)	ND (0.0029)	1,900	mg/kg
1,2-Dichloroethane	ND (0.019)	ND (0.0033)	ND (0.0029)	0.43	mg/kg
1,2-Dichloropropane	ND (0.031)	ND (0.0033)	ND (0.0029)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.017)	ND (0.0033)	ND (0.0029)	530	mg/kg
1,4-Dichlorobenzene	ND (0.015)	ND (0.0033)	ND (0.0029)	2.4	mg/kg
2-Hexanone	ND (0.64)	ND (0.027)	ND (0.023)	210	mg/kg
Acetone	ND (0.37)	ND (0.027)	ND (0.023)	61,000	mg/kg
Benzene	ND (0.017)	ND (0.0033)	ND (0.0029)	1.1	mg/kg
Bromochloromethane	ND (0.021)	ND (0.0033)	ND (0.0029)	NE	mg/kg
Bromodichloromethane	ND (0.014)	ND (0.0033)	ND (0.0029)	0.27	mg/kg
Bromoform	ND (0.045)	ND (0.0033)	ND (0.0029)	61	mg/kg
Bromomethane	ND (0.035)	ND (0.0033)	ND (0.0029)	7.3	mg/kg
Carbon disulfide	ND (0.026)	ND (0.0033)	ND (0.0029)	820	mg/kg
Carbon tetrachloride	ND (0.02)	ND (0.0033)	ND (0.0029)	0.61	mg/kg
Chlorobenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	290	mg/kg
Chloroethane	ND (0.028)	ND (0.0033)	ND (0.0029)	15,000	mg/kg
Chloroform	ND (0.016)	ND (0.0033)	ND (0.0029)	0.29	mg/kg
Chloromethane	ND (0.022)	ND (0.0033)	ND (0.0029)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.019)	ND (0.0033)	ND (0.0029)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.014)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Cyclohexane	ND (0.017)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.014)	ND (0.0033)	ND (0.0029)	0.68	mg/kg
Ethylbenzene	ND (0.016)	ND (0.0033)	ND (0.0029)	5.4	mg/kg
Freon 11	ND (0.022)	ND (0.0033)	0.0041	790	mg/kg
Freon 113	ND (0.02)	ND (0.0033)	ND (0.0029)	43,000	mg/kg
Freon 12	ND (0.027)	ND (0.0033)	ND (0.0029)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.011)	ND (0.0033)	ND (0.0029)	2,100	mg/kg
Methyl acetate	ND (0.016)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.52)	ND (0.027)	ND (0.023)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.46)	ND (0.027)	ND (0.023)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.012)	ND (0.013)	ND (0.012)	43	mg/kg
Methylcyclohexane	ND (0.0096)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.032)	ND (0.0033)	ND (0.0029)	11	mg/kg
Styrene	ND (0.016)	ND (0.0033)	ND (0.0029)	6,300	mg/kg
tert-Butyl alcohol	ND (0.17) R	ND (0.066)	ND (0.058)	160,000	mg/kg
Tetrachloroethene	ND (0.018)	0.0049	0.0056	0.55	mg/kg
Toluene	ND (0.016)	ND (0.0033)	ND (0.0029)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.023)	ND (0.0033)	ND (0.0029)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.014)	ND (0.0033)	ND (0.0029)	1.7	mg/kg
Trichloroethene	ND (0.031)	ND (0.0033)	ND (0.0029)	2.8	mg/kg
Vinyl chloride	ND (0.035)	ND (0.0033)	ND (0.0029)	0.06	mg/kg
Xylenes, total	ND (0.03)	ND (0.0066)	ND (0.0058)	630	mg/kg

TABLE 4-44
1436 3rd Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Notes:

Deep samples were collected between 2.5 and 3 ft below ground surface.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

**For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

Produce results were compared to Soil Screening Levels.

Results greater than the screening level are bolded.

Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Soil Screening Level table for source of screening levels.

Shallow samples 1ft bgs samples were collected between 0.5 and 1ft below ground surface.

FD	field duplicate
mg/kg	milligrams per kilogram
NA	not analyzed
NC	not collected
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
R	rejected for failure to meet quality control requirements
J+	estimated value, possible high bias

TABLE 4-45
356 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Apple		**none**		
Metals					
Arsenic *	ND (0.06)	NC	NC	0.062 / 22	mg/kg
Chromium	0.3	NC	NC	210	mg/kg
Lead **	0.3	NC	NC	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.017) J	NC	NC	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.021) J	NC	NC	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.015) J	NC	NC	1.1	mg/kg
1,1-Dichloroethane	ND (0.014) J	NC	NC	3.3	mg/kg
1,1-Dichloroethene	ND (0.018) J	NC	NC	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.033) J	NC	NC	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.021) J	NC	NC	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.15) J	NC	NC	0.0054	mg/kg
1,2-Dibromoethane	ND (0.011) J	NC	NC	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.013) J	NC	NC	1,900	mg/kg
1,2-Dichloroethane	ND (0.017) J	NC	NC	0.43	mg/kg
1,2-Dichloropropane	ND (0.028) J	NC	NC	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.016) J	NC	NC	530	mg/kg
1,4-Dichlorobenzene	ND (0.013) J	NC	NC	2.4	mg/kg
2-Hexanone	ND (0.59) J	NC	NC	210	mg/kg
Acetone	ND (0.34) J	NC	NC	61,000	mg/kg
Benzene	ND (0.016) J	NC	NC	1.1	mg/kg
Bromochloromethane	ND (0.019) J	NC	NC	NE	mg/kg
Bromodichloromethane	ND (0.013) J	NC	NC	0.27	mg/kg
Bromoform	ND (0.042) J	NC	NC	61	mg/kg
Bromomethane	ND (0.032) J	NC	NC	7.3	mg/kg
Carbon disulfide	ND (0.024) J	NC	NC	820	mg/kg
Carbon tetrachloride	ND (0.019) J	NC	NC	0.61	mg/kg
Chlorobenzene	ND (0.014) J	NC	NC	290	mg/kg
Chloroethane	ND (0.026) J	NC	NC	15,000	mg/kg
Chloroform	ND (0.015) J	NC	NC	0.29	mg/kg
Chloromethane	ND (0.021) J	NC	NC	120	mg/kg
cis-1,2-Dichloroethene	ND (0.018) J	NC	NC	780	mg/kg
cis-1,3-Dichloropropene	ND (0.012) J	NC	NC	1.7	mg/kg
Cyclohexane	ND (0.015) J	NC	NC	7,000	mg/kg
Dibromochloromethane	ND (0.013) J	NC	NC	0.68	mg/kg
Ethylbenzene	ND (0.015) J	NC	NC	5.4	mg/kg
Freon 11	ND (0.02) J	NC	NC	790	mg/kg
Freon 113	ND (0.018) J	NC	NC	43,000	mg/kg
Freon 12	ND (0.025) J	NC	NC	180	mg/kg
Isopropylbenzene (cumene)	ND (0.011) J	NC	NC	2,100	mg/kg
Methyl acetate	ND (0.014) J	NC	NC	78,000	mg/kg
Methyl ethyl ketone	ND (0.48) J	NC	NC	28,000	mg/kg
Methyl isobutyl ketone	ND (0.42) J	NC	NC	5,300	mg/kg
Methyl tert-butyl ether	ND (0.011) J	NC	NC	43	mg/kg
Methylcyclohexane	ND (0.0087) J	NC	NC	2,600	mg/kg
Methylene chloride	ND (0.029) J	NC	NC	11	mg/kg
Styrene	ND (0.014) J	NC	NC	6,300	mg/kg
tert-Butyl alcohol	ND (0.16) R	NC	NC	160,000	mg/kg
Tetrachloroethene	ND (0.017) J	NC	NC	0.55	mg/kg
Toluene	ND (0.015) J	NC	NC	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.021) J	NC	NC	150	mg/kg
trans-1,3-Dichloropropene	ND (0.013) J	NC	NC	1.7	mg/kg
Trichloroethene	ND (0.028) J	NC	NC	2.8	mg/kg
Vinyl chloride	ND (0.032) J	NC	NC	0.06	mg/kg
Xylenes, total	ND (0.028) J	NC	NC	630	mg/kg

TABLE 4-45
356 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Notes:

Deep samples were collected between 2.5 and 3 ft below ground surface.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

**For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

Produce results were compared to Soil Screening Levels.

Results greater than the screening level are bolded.

Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Soil Screening Level table for source of screening levels.

Shallow samples 1ft bgs samples were collected between 0.5 and 1ft below ground surface.

mg/kg	milligrams per kilogram
NA	not analyzed
NC	not collected
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
R	rejected for failure to meet quality control requirements

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Apple		**none**		
Metals					
Arsenic *	**0.07**	NC	NC	0.062 / 22	mg/kg
Chromium	0.46	NC	NC	210	mg/kg
Lead **	0.23	NC	NC	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.017)	NC	NC	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.021)	NC	NC	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.015)	NC	NC	1.1	mg/kg
1,1-Dichloroethane	ND (0.014)	NC	NC	3.3	mg/kg
1,1-Dichloroethene	ND (0.018)	NC	NC	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.032)	NC	NC	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.021)	NC	NC	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.15)	NC	NC	0.0054	mg/kg
1,2-Dibromoethane	ND (0.011)	NC	NC	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.013)	NC	NC	1,900	mg/kg
1,2-Dichloroethane	ND (0.017)	NC	NC	0.43	mg/kg
1,2-Dichloropropane	ND (0.028)	NC	NC	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.015)	NC	NC	530	mg/kg
1,4-Dichlorobenzene	ND (0.013)	NC	NC	2.4	mg/kg
2-Hexanone	ND (0.58)	NC	NC	210	mg/kg
Acetone	ND (0.34)	NC	NC	61,000	mg/kg
Benzene	ND (0.016)	NC	NC	1.1	mg/kg
Bromochloromethane	ND (0.019)	NC	NC	NE	mg/kg
Bromodichloromethane	ND (0.013)	NC	NC	0.27	mg/kg
Bromoform	ND (0.041)	NC	NC	61	mg/kg
Bromomethane	ND (0.032)	NC	NC	7.3	mg/kg
Carbon disulfide	ND (0.024)	NC	NC	820	mg/kg
Carbon tetrachloride	ND (0.018)	NC	NC	0.61	mg/kg
Chlorobenzene	ND (0.014)	NC	NC	290	mg/kg
Chloroethane	ND (0.026)	NC	NC	15,000	mg/kg
Chloroform	ND (0.014)	NC	NC	0.29	mg/kg
Chloromethane	ND (0.02)	NC	NC	120	mg/kg
cis-1,2-Dichloroethene	ND (0.017)	NC	NC	780	mg/kg
cis-1,3-Dichloropropene	ND (0.012)	NC	NC	1.7	mg/kg
Cyclohexane	ND (0.015)	NC	NC	7,000	mg/kg
Dibromochloromethane	ND (0.012)	NC	NC	0.68	mg/kg
Ethylbenzene	ND (0.015)	NC	NC	5.4	mg/kg
Freon 11	ND (0.02)	NC	NC	790	mg/kg
Freon 113	ND (0.018)	NC	NC	43,000	mg/kg
Freon 12	ND (0.025)	NC	NC	180	mg/kg
Isopropylbenzene (cumene)	ND (0.01)	NC	NC	2,100	mg/kg
Methyl acetate	ND (0.014)	NC	NC	78,000	mg/kg
Methyl ethyl ketone	ND (0.47)	NC	NC	28,000	mg/kg
Methyl isobutyl ketone	ND (0.41)	NC	NC	5,300	mg/kg
Methyl tert-butyl ether	ND (0.011)	NC	NC	43	mg/kg
Methylcyclohexane	ND (0.0086)	NC	NC	2,600	mg/kg
Methylene chloride	ND (0.029)	NC	NC	11	mg/kg
Styrene	ND (0.014)	NC	NC	6,300	mg/kg
tert-Butyl alcohol	ND (0.16) R	NC	NC	160,000	mg/kg
Tetrachloroethene	ND (0.016)	NC	NC	0.55	mg/kg
Toluene	ND (0.015)	NC	NC	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.021)	NC	NC	150	mg/kg
trans-1,3-Dichloropropene	ND (0.013)	NC	NC	1.7	mg/kg
Trichloroethene	ND (0.028)	NC	NC	2.8	mg/kg
Vinyl chloride	ND (0.031)	NC	NC	0.06	mg/kg
Xylenes, total	ND (0.028)	NC	NC	630	mg/kg

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Blackberry (CS)	**360SSa**			
Metals					
Arsenic *	ND (0.06)	**11.1**	**4**	0.062 / 22	mg/kg
Chromium	0.66	31.2	9.5	210	mg/kg
Lead **	3.27	**2,230 J+**	193	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.018)	ND (0.0032)	ND (0.0028)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.022)	ND (0.0032)	ND (0.0028)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.016)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
1,1-Dichloroethane	ND (0.015)	ND (0.0032)	ND (0.0028)	3.3	mg/kg
1,1-Dichloroethene	ND (0.019)	ND (0.0032)	ND (0.0028)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.034)	ND (0.0032)	ND (0.0028)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.022)	ND (0.0032)	ND (0.0028)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.16)	ND (0.013)	ND (0.011)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.012)	ND (0.0032)	ND (0.0028)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.014)	ND (0.0032)	ND (0.0028)	1,900	mg/kg
1,2-Dichloroethane	ND (0.018)	ND (0.0032)	ND (0.0028)	0.43	mg/kg
1,2-Dichloropropane	ND (0.03)	ND (0.0032)	ND (0.0028)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.016)	ND (0.0032)	ND (0.0028)	530	mg/kg
1,4-Dichlorobenzene	ND (0.014)	ND (0.0032)	ND (0.0028)	2.4	mg/kg
2-Hexanone	ND (0.62)	ND (0.026)	ND (0.022)	210	mg/kg
Acetone	ND (0.36)	ND (0.026)	ND (0.022)	61,000	mg/kg
Benzene	ND (0.017)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
Bromochloromethane	ND (0.02)	ND (0.0032)	ND (0.0028)	NE	mg/kg
Bromodichloromethane	ND (0.014)	ND (0.0032)	ND (0.0028)	0.27	mg/kg
Bromoform	ND (0.044)	ND (0.0032)	ND (0.0028)	61	mg/kg
Bromomethane	ND (0.034)	ND (0.0032)	ND (0.0028)	7.3	mg/kg
Carbon disulfide	ND (0.025)	ND (0.0032)	ND (0.0028)	820	mg/kg
Carbon tetrachloride	ND (0.02)	ND (0.0032)	ND (0.0028)	0.61	mg/kg
Chlorobenzene	ND (0.015)	ND (0.0032)	ND (0.0028)	290	mg/kg
Chloroethane	ND (0.027)	ND (0.0032)	ND (0.0028)	15,000	mg/kg
Chloroform	ND (0.015)	ND (0.0032)	ND (0.0028)	0.29	mg/kg
Chloromethane	ND (0.022)	ND (0.0032)	ND (0.0028)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.018)	ND (0.0032)	ND (0.0028)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.013)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Cyclohexane	ND (0.016)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.013)	ND (0.0032)	ND (0.0028)	0.68	mg/kg
Ethylbenzene	ND (0.016)	ND (0.0032)	ND (0.0028)	5.4	mg/kg
Freon 11	ND (0.021)	0.0032	0.0036	790	mg/kg
Freon 113	ND (0.019)	ND (0.0032)	ND (0.0028)	43,000	mg/kg
Freon 12	ND (0.026)	ND (0.0032)	ND (0.0028)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.011)	ND (0.0032)	ND (0.0028)	2,100	mg/kg
Methyl acetate	ND (0.015)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.5)	ND (0.026)	ND (0.022)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.44)	ND (0.026)	ND (0.022)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.012)	ND (0.013)	ND (0.011)	43	mg/kg
Methylcyclohexane	ND (0.0092)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.03)	ND (0.0032)	ND (0.0028)	11	mg/kg
Styrene	ND (0.015)	ND (0.0032)	ND (0.0028)	6,300	mg/kg
tert-Butyl alcohol	ND (0.16) R	ND (0.065)	ND (0.056)	160,000	mg/kg
Tetrachloroethene	ND (0.017)	ND (0.0032)	ND (0.0028)	0.55	mg/kg
Toluene	ND (0.016)	ND (0.0032)	ND (0.0028)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.022)	ND (0.0032)	ND (0.0028)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.014)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Trichloroethene	ND (0.03)	ND (0.0032)	ND (0.0028)	2.8	mg/kg
Vinyl chloride	ND (0.033)	ND (0.0032)	ND (0.0028)	0.06	mg/kg
Xylenes, total	ND (0.029)	ND (0.0065)	ND (0.0056)	630	mg/kg

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Blackberry (CS)	**360SSb**			
Metals					
Arsenic *	ND (0.06)	**6.4**	**5.3**	0.062 / 22	mg/kg
Chromium	0.66	14	22.9 J	210	mg/kg
Lead **	3.27	**600**	**478 J**	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.018)	ND (0.0031)	ND (0.0025)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.022)	ND (0.0031)	ND (0.0025)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.016)	ND (0.0031)	ND (0.0025)	1.1	mg/kg
1,1-Dichloroethane	ND (0.015)	ND (0.0031)	ND (0.0025)	3.3	mg/kg
1,1-Dichloroethene	ND (0.019)	ND (0.0031)	ND (0.0025)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.034)	ND (0.0031)	ND (0.0025)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.022)	ND (0.0031)	ND (0.0025)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.16)	ND (0.012)	ND (0.0098)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.012)	ND (0.0031)	ND (0.0025)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.014)	ND (0.0031)	ND (0.0025)	1,900	mg/kg
1,2-Dichloroethane	ND (0.018)	ND (0.0031)	ND (0.0025)	0.43	mg/kg
1,2-Dichloropropane	ND (0.03)	ND (0.0031)	ND (0.0025)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.016)	ND (0.0031)	ND (0.0025)	530	mg/kg
1,4-Dichlorobenzene	ND (0.014)	ND (0.0031)	ND (0.0025)	2.4	mg/kg
2-Hexanone	ND (0.62)	ND (0.025)	ND (0.02)	210	mg/kg
Acetone	ND (0.36)	ND (0.025)	ND (0.02)	61,000	mg/kg
Benzene	ND (0.017)	ND (0.0031)	ND (0.0025)	1.1	mg/kg
Bromochloromethane	ND (0.02)	ND (0.0031)	ND (0.0025)	NE	mg/kg
Bromodichloromethane	ND (0.014)	ND (0.0031)	ND (0.0025)	0.27	mg/kg
Bromoform	ND (0.044)	ND (0.0031)	ND (0.0025)	61	mg/kg
Bromomethane	ND (0.034)	ND (0.0031)	ND (0.0025)	7.3	mg/kg
Carbon disulfide	ND (0.025)	ND (0.0031)	ND (0.0025)	820	mg/kg
Carbon tetrachloride	ND (0.02)	ND (0.0031)	ND (0.0025)	0.61	mg/kg
Chlorobenzene	ND (0.015)	ND (0.0031)	ND (0.0025)	290	mg/kg
Chloroethane	ND (0.027)	ND (0.0031)	ND (0.0025)	15,000	mg/kg
Chloroform	ND (0.015)	ND (0.0031)	ND (0.0025)	0.29	mg/kg
Chloromethane	ND (0.022)	ND (0.0031)	ND (0.0025)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.018)	ND (0.0031)	ND (0.0025)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.013)	ND (0.0031)	ND (0.0025)	1.7	mg/kg
Cyclohexane	ND (0.016)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.013)	ND (0.0031)	ND (0.0025)	0.68	mg/kg
Ethylbenzene	ND (0.016)	ND (0.0031)	ND (0.0025)	5.4	mg/kg
Freon 11	ND (0.021)	0.0022 J	0.0018 J	790	mg/kg
Freon 113	ND (0.019)	ND (0.0031)	ND (0.0025)	43,000	mg/kg
Freon 12	ND (0.026)	ND (0.0031)	ND (0.0025)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.011)	ND (0.0031)	ND (0.0025)	2,100	mg/kg
Methyl acetate	ND (0.015)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.5)	ND (0.025)	ND (0.02)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.44)	ND (0.025)	ND (0.02)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.012)	ND (0.012)	ND (0.0098)	43	mg/kg
Methylcyclohexane	ND (0.0092)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.03)	ND (0.0031)	ND (0.0025)	11	mg/kg
Styrene	ND (0.015)	ND (0.0031)	ND (0.0025)	6,300	mg/kg
tert-Butyl alcohol	ND (0.16) R	ND (0.061)	ND (0.049)	160,000	mg/kg
Tetrachloroethene	ND (0.017)	ND (0.0031)	ND (0.0025)	0.55	mg/kg
Toluene	ND (0.016)	ND (0.0031)	ND (0.0025)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.022)	ND (0.0031)	ND (0.0025)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.014)	ND (0.0031)	ND (0.0025)	1.7	mg/kg
Trichloroethene	ND (0.03)	ND (0.0031)	ND (0.0025)	2.8	mg/kg
Vinyl chloride	ND (0.033)	ND (0.0031)	ND (0.0025)	0.06	mg/kg
Xylenes, total	ND (0.029)	ND (0.0061)	ND (0.0049)	630	mg/kg

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Cactus	360SSa			
Metals					
Arsenic *	ND (0.06)	**11.1**	**4**	0.062 / 22	mg/kg
Chromium	0.75	31.2	9.5	210	mg/kg
Lead **	2.7 J	**2,230 J+**	193	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.016)	ND (0.0032)	ND (0.0028)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.019)	ND (0.0032)	ND (0.0028)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.014)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
1,1-Dichloroethane	ND (0.013)	ND (0.0032)	ND (0.0028)	3.3	mg/kg
1,1-Dichloroethene	ND (0.017)	ND (0.0032)	ND (0.0028)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.03)	ND (0.0032)	ND (0.0028)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.02)	ND (0.0032)	ND (0.0028)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.14)	ND (0.013)	ND (0.011)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.01)	ND (0.0032)	ND (0.0028)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.012)	ND (0.0032)	ND (0.0028)	1,900	mg/kg
1,2-Dichloroethane	ND (0.016)	ND (0.0032)	ND (0.0028)	0.43	mg/kg
1,2-Dichloropropane	ND (0.026)	ND (0.0032)	ND (0.0028)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.014)	ND (0.0032)	ND (0.0028)	530	mg/kg
1,4-Dichlorobenzene	ND (0.012)	ND (0.0032)	ND (0.0028)	2.4	mg/kg
2-Hexanone	ND (0.55)	ND (0.026)	ND (0.022)	210	mg/kg
Acetone	ND (0.32)	ND (0.026)	ND (0.022)	61,000	mg/kg
Benzene	ND (0.015)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
Bromochloromethane	ND (0.018)	ND (0.0032)	ND (0.0028)	NE	mg/kg
Bromodichloromethane	ND (0.012)	ND (0.0032)	ND (0.0028)	0.27	mg/kg
Bromoform	ND (0.039)	ND (0.0032)	ND (0.0028)	61	mg/kg
Bromomethane	ND (0.03)	ND (0.0032)	ND (0.0028)	7.3	mg/kg
Carbon disulfide	ND (0.022)	ND (0.0032)	ND (0.0028)	820	mg/kg
Carbon tetrachloride	ND (0.017)	ND (0.0032)	ND (0.0028)	0.61	mg/kg
Chlorobenzene	ND (0.013)	ND (0.0032)	ND (0.0028)	290	mg/kg
Chloroethane	ND (0.024)	ND (0.0032)	ND (0.0028)	15,000	mg/kg
Chloroform	ND (0.014)	ND (0.0032)	ND (0.0028)	0.29	mg/kg
Chloromethane	ND (0.019)	ND (0.0032)	ND (0.0028)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.016)	ND (0.0032)	ND (0.0028)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.012)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Cyclohexane	ND (0.014)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.012)	ND (0.0032)	ND (0.0028)	0.68	mg/kg
Ethylbenzene	ND (0.014)	ND (0.0032)	ND (0.0028)	5.4	mg/kg
Freon 11	ND (0.018)	0.0032	0.0036	790	mg/kg
Freon 113	ND (0.017)	ND (0.0032)	ND (0.0028)	43,000	mg/kg
Freon 12	ND (0.023)	ND (0.0032)	ND (0.0028)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.0093)	ND (0.0032)	ND (0.0028)	2,100	mg/kg
Methyl acetate	ND (0.013)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.44)	ND (0.026)	ND (0.022)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.39)	ND (0.026)	ND (0.022)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.011)	ND (0.013)	ND (0.011)	43	mg/kg
Methylcyclohexane	ND (0.0081)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.027)	ND (0.0032)	ND (0.0028)	11	mg/kg
Styrene	0.022 J	ND (0.0032)	ND (0.0028)	6,300	mg/kg
tert-Butyl alcohol	ND (0.15) R	ND (0.065)	ND (0.056)	160,000	mg/kg
Tetrachloroethene	ND (0.015)	ND (0.0032)	ND (0.0028)	0.55	mg/kg
Toluene	ND (0.014)	ND (0.0032)	ND (0.0028)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.019)	ND (0.0032)	ND (0.0028)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.012)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Trichloroethene	ND (0.026)	ND (0.0032)	ND (0.0028)	2.8	mg/kg
Vinyl chloride	ND (0.029)	ND (0.0032)	ND (0.0028)	0.06	mg/kg
Xylenes, total	ND (0.026)	ND (0.0065)	ND (0.0056)	630	mg/kg

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Produce Result	Soil Result (Shallow)	Soil Result (Deep)	Soil Screening Level	Units
	Cactus (FD)	360SSa			
Metals					
Arsenic *	ND (0.06)	**11.1**	**4**	0.062 / 22	mg/kg
Chromium	0.66	31.2	9.5	210	mg/kg
Lead **	1.21 J	**2,230 J+**	193	194 / 340	mg/kg
VOCs					
1,1,1-Trichloroethane	ND (0.023)	ND (0.0032)	ND (0.0028)	8,700	mg/kg
1,1,2,2-Tetrachloroethane	ND (0.029)	ND (0.0032)	ND (0.0028)	0.56	mg/kg
1,1,2-Trichloroethane	ND (0.021)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
1,1-Dichloroethane	ND (0.019)	ND (0.0032)	ND (0.0028)	3.3	mg/kg
1,1-Dichloroethene	ND (0.025)	ND (0.0032)	ND (0.0028)	240	mg/kg
1,2,4-Trichlorobenzene	ND (0.045)	ND (0.0032)	ND (0.0028)	22	mg/kg
1,2,4-Trimethylbenzene	ND (0.029)	ND (0.0032)	ND (0.0028)	62	mg/kg
1,2-Dibromo-3-chloropropane	ND (0.21)	ND (0.013)	ND (0.011)	0.0054	mg/kg
1,2-Dibromoethane	ND (0.015)	ND (0.0032)	ND (0.0028)	0.034	mg/kg
1,2-Dichlorobenzene	ND (0.018)	ND (0.0032)	ND (0.0028)	1,900	mg/kg
1,2-Dichloroethane	ND (0.024)	ND (0.0032)	ND (0.0028)	0.43	mg/kg
1,2-Dichloropropane	ND (0.039)	ND (0.0032)	ND (0.0028)	0.89	mg/kg
1,3-Dichlorobenzene	ND (0.021)	ND (0.0032)	ND (0.0028)	530	mg/kg
1,4-Dichlorobenzene	ND (0.018)	ND (0.0032)	ND (0.0028)	2.4	mg/kg
2-Hexanone	ND (0.81)	ND (0.026)	ND (0.022)	210	mg/kg
Acetone	ND (0.47)	ND (0.026)	ND (0.022)	61,000	mg/kg
Benzene	ND (0.022)	ND (0.0032)	ND (0.0028)	1.1	mg/kg
Bromochloromethane	ND (0.026)	ND (0.0032)	ND (0.0028)	NE	mg/kg
Bromodichloromethane	ND (0.018)	ND (0.0032)	ND (0.0028)	0.27	mg/kg
Bromoform	ND (0.057)	ND (0.0032)	ND (0.0028)	61	mg/kg
Bromomethane	ND (0.045)	ND (0.0032)	ND (0.0028)	7.3	mg/kg
Carbon disulfide	ND (0.033)	ND (0.0032)	ND (0.0028)	820	mg/kg
Carbon tetrachloride	ND (0.025)	ND (0.0032)	ND (0.0028)	0.61	mg/kg
Chlorobenzene	ND (0.019)	ND (0.0032)	ND (0.0028)	290	mg/kg
Chloroethane	ND (0.036)	ND (0.0032)	ND (0.0028)	15,000	mg/kg
Chloroform	ND (0.02)	ND (0.0032)	ND (0.0028)	0.29	mg/kg
Chloromethane	ND (0.028)	ND (0.0032)	ND (0.0028)	120	mg/kg
cis-1,2-Dichloroethene	ND (0.024)	ND (0.0032)	ND (0.0028)	780	mg/kg
cis-1,3-Dichloropropene	ND (0.017)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Cyclohexane	ND (0.021)	NA	NA	7,000	mg/kg
Dibromochloromethane	ND (0.017)	ND (0.0032)	ND (0.0028)	0.68	mg/kg
Ethylbenzene	ND (0.02)	ND (0.0032)	ND (0.0028)	5.4	mg/kg
Freon 11	ND (0.027)	0.0032	0.0036	790	mg/kg
Freon 113	ND (0.025)	ND (0.0032)	ND (0.0028)	43,000	mg/kg
Freon 12	ND (0.034)	ND (0.0032)	ND (0.0028)	180	mg/kg
Isopropylbenzene (cumene)	ND (0.014)	ND (0.0032)	ND (0.0028)	2,100	mg/kg
Methyl acetate	ND (0.02)	NA	NA	78,000	mg/kg
Methyl ethyl ketone	ND (0.66)	ND (0.026)	ND (0.022)	28,000	mg/kg
Methyl isobutyl ketone	ND (0.57)	ND (0.026)	ND (0.022)	5,300	mg/kg
Methyl tert-butyl ether	ND (0.015)	ND (0.013)	ND (0.011)	43	mg/kg
Methylcyclohexane	ND (0.012)	NA	NA	2,600	mg/kg
Methylene chloride	ND (0.04)	ND (0.0032)	ND (0.0028)	11	mg/kg
Styrene	ND (0.02)	ND (0.0032)	ND (0.0028)	6,300	mg/kg
tert-Butyl alcohol	ND (0.21) R	ND (0.065)	ND (0.056)	160,000	mg/kg
Tetrachloroethene	ND (0.023)	ND (0.0032)	ND (0.0028)	0.55	mg/kg
Toluene	ND (0.02)	ND (0.0032)	ND (0.0028)	5,000	mg/kg
trans-1,2-Dichloroethene	ND (0.029)	ND (0.0032)	ND (0.0028)	150	mg/kg
trans-1,3-Dichloropropene	ND (0.018)	ND (0.0032)	ND (0.0028)	1.7	mg/kg
Trichloroethene	ND (0.039)	ND (0.0032)	ND (0.0028)	2.8	mg/kg
Vinyl chloride	ND (0.043)	ND (0.0032)	ND (0.0028)	0.06	mg/kg
Xylenes, total	ND (0.038)	ND (0.0065)	ND (0.0056)	630	mg/kg

TABLE 4-46
360 Center Street Analytical Results - Produce and Adjacent Soil Samples (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Notes:

Deep samples were collected between 2.5 and 3 ft below ground surface.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

**For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

Produce results were compared to Soil Screening Levels.

Results greater than the screening level are bolded.

Screening levels are specific concentrations of chemicals that are considered health protective for human populations (including sensitive populations). See Soil Screening Level table for source of screening levels.

Shallow samples 1ft bgs samples were collected between 0.5 and 1ft below ground surface.

CS	composite
FD	field duplicate
mg/kg	milligrams per kilogram
NA	not analyzed
NC	not collected
ND	not detected above the laboratory's reporting limit shown in parentheses
J	estimated value
R	rejected for failure to meet quality control requirements
J+	estimated value, possible high bias

TABLE 4-47
Residential Produce and Adjacent Soil Results Summary (October 2006)
Human Health Risk Assessment
AMCO Chemical Superfund Site, Oakland, California

Analyte	Units	Residential Produce Levels	Screening Levels[1]
Arsenic *	mg/kg	0.06 - 0.08	0.39 / 22
Chromium	mg/kg	0.39 - 1.07	210
Lead **	mg/kg	0.15 - 8.47	80

Notes:

[1] EPA Region 9 Preliminary Remediation Goals for soil, October 2004.

* For Arsenic, 0.39 mg/kg is the cancer endpoint; 22 mg/kg is the noncancer endpoint.

** For Lead: Lead screening level in soil was evaluated using the California Human Health Screening Level developed by the Office of Environmental Health Hazard Assessment.

mg/kg milligrams per kilogram