

Appendix 6

Human Health Risk Assessment Tables

TABLE 1
 OCCURRENCE, DISTRIBUTION, AND SCREENING OF SITE CHEMICALS
 AOC 1 (WASTE DITCH AD SETTLING PONDS) NORTH
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
											(C or N)			
	VOCs (ug/kg)													
87-61-6	1,2,3-Trichlorobenzene	3.2 JQj	3.2 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	5.1U - 8.9U	3.2	NA	6.22E+04 (7)	N	6.22E+03	N/A	No
120-82-1	1,2,4-Trichlorobenzene	2.4 JQj	2.4 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	5.1U - 8.9U	2.4	NA	6.22E+04	N	6.22E+03	2.00E+05	No
95-63-6	1,2,4-Trimethylbenzene	0.74 J	1.3 J	µg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	3/5	5.5U - 7.1U	1.3	NA	5.2E+04	N	5.16E+03	8.00E+03	No
95-50-1	1,2-Dichlorobenzene	0.82 JQj	0.82 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	5.1U - 8.9U	0.82	NA	6.0E+05	C	6.0E+05	2.60E+04	No
78-93-3	2-Butanone (MEK)	4.4 JQj	4.4 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	20U - 36U	4.4	NA	2.2E+07	N	2.2E+06	5.50E+06	No
67-64-1	Acetone	6.2 J	9.1 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES),FGOW-AOC1N-SS-SS1(0-6INCHES),FGOW-AOC1N-SS-SS2(0-6INCHES)	2/5	22U - 36U	9.1	NA	1.4E+07	N	1.4E+06	3.40E+05	No
75-09-2	Methylene chloride	0.94 JB	1.7 JBQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	5/5	(6)	1.7	NA	9.1E+03	N	9.1E+02	9.70E+04	No
91-20-3	Naphthalene	1.3 JB	5.6 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	5/5	(6)	5.6	NA	5.6E+04	N	5.6E+03	1.00E+04	No
99-87-6	p-Isopropyltoluene	3.2 J	3.2 J	µg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	1/5	5.1U - 7.3U	3.2	NA	5.7E+05 (8)	N	5.7E+4	3.00E+03	No
108-88-3	Toluene	1 JQj	1 JQj	µg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	5.1U - 8.9U	1	NA	5.2E+05	C	5.2E+05	1.07E+05	No
	SVOCs (ug/kg)													
117-81-7	bis(2-Ethylhexyl) phthalate	86 J	94 J	µg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	2/5	400U - 550000U	94	NA	3.5E+04	C	3.5E+04	5.70E+05	No
84-74-2	Di-n-butyl phthalate	460	460	µg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	1/5	350U - 550000U	460	NA	6.1E+03	N	6.1E+02	N/A	No
	Explosives (mg/kg)													
121-14-2	2,4-Dinitrotoluene	0.4	0.55	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	2/5	0.25U - 0.25U	0.55	NA	1.2E+02	N	1.2E+01	5.00E+04	No
606-20-2	2,6-Dinitrotoluene	0.12 Jj	0.12 Jj	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	1/5	0.25U - 0.25U	0.12	NA	6.1E+01	N	6.1E+00	2.50E+04	No
	Metals (mg/kg)													
7440-38-2	Arsenic	1.1 J	8.3	mg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	5/5	(6)	8.3	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	16	190	mg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	5/5	(6)	190	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.11 J	0.14 J	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	2/5	0.53U - 0.67U	0.14	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	8.2	25	mg/kg	FGOW-AOC1N-SS-GP1(0-6INCHES)	5/5	(6)	25	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	1.5 J	78	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	5/5	(6)	78	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-97-6	Mercury	0.52	11 J	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	3/5	0.035U - 0.04U	11	0.460	2.30E+01	N	2.30E+00	5.00E-01	Yes
	Other (mg/kg)													
9004-70-0	Nitrocellulose	9.7	18,000 JQ	mg/kg	FGOW-AOC1N-SS-SS1(0-6INCHES)	4/5	5.6U - 5.6U	18,000	NA	N/A	N/A	N/A	N/A	N/A

(1) J - Analyte present - Reported value is estimate
 Q - One or more quality control criteria failed
 B - blank contamination above the method detection limit
 j - estimated (Data Reviewer flag)
 U - Not detected

(2) Maximum concentration used for screening

(3) Site-Specific: Maximum detection

(4) Non-carcinogenic PRGs (except soil saturation limits) were divided by 10 to account for potential additive effects of chemical USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)

(6) No detection limits given; analyte detected in every sample

(7) Screening level for 1,2,4-trichlorobenzene used as a surrogate.

(8) Screening level for isopropylbenzene used as a surrogate

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic

N = Non-Carcinogenic

S = Soil Saturation

M = Max, Ceiling Limit

mg/kg = milligrams per kilogram

ug/kg = microgram per kilogram

TABLE 2
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICAL:
 AOC 1 (WASTE DITCH AND SETTLING PONDS) MIDDLE
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG (C or N)	Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)	
VOCs (ug/kg)														
95-63-6	1,2,4-Trimethylbenzene	1.1 JQj	2 JQj	µg/kg	FGOW-AOC1M-S-GP2(2-4FT)	3/12	4.8U - 7.2U	2	NA	5.2E+04	N	5.16E+03	8.00E+03	No
95-50-1	1,2-Dichlorobenzene	1.4 JQj	1.4 JQj	µg/kg	FGOW-AOC1M-S-GP1(2-4FT)	1/12	4.8U - 9.2U	1.4	NA	6.0E+05	C	6.0E+05	2.60E+04	No
106-46-7	1,4-Dichlorobenzene	1.4 JQj	1.4 JQj	µg/kg	FGOW-AOC1M-S-GP1(2-4FT)	1/12	4.8U - 9.2U	1.4	NA	3.4E+03	C	3.45E+03	3.00E+04	No
78-93-3	2-Butanone (MEK)	2.8 J	2.8 J	µg/kg	FGOW-AOC1M-S-GP2(8-10FT)	1/12	19U - 37U	2.8	NA	2.2E+07	N	2.2E+06	5.50E+06	No
67-64-1	Acetone	12 J	12 J	µg/kg	FGOW-AOC1M-S-GP2(8-10FT)	1/12	19U - 37U	12	NA	1.4E+07	N	1.4E+06	3.40E+05	No
136777-61-2	m-Xylene & p-Xylene	2.3 J	2.3 J	µg/kg	FGOW-AOC1M-S-GP2(8-10FT)	1/12	2.4U - 4.6U	2.3	NA	2.7E+05	N	2.7E+04	4.50E+04	No
75-09-2	Methylene chloride	1.1 JBj	2.1 JBQj	µg/kg	FGOW-AOC1M-S-GP2(2-4FT)	12/12	(5)	2.1	NA	9.1E+03	N	9.1E+02	9.70E+04	No
91-20-3	Naphthalene	0.78 J	2.7 JQj	µg/kg	FGOW-AOC1M-S-GP2(2-4FT)	8/12	4.8U - 7.2U	2.7	NA	5.6E+04	N	5.6E+03	1.00E+04	No
99-87-6	p-Isopropyltoluene	2.2 JQj	2.2 JQj	µg/kg	FGOW-AOC1M-SS-SS2(0-6INCHES)	1/12	4.8U - 9.2U	2.2	NA	5.7E+05 (6)	N	5.7E+04	3.00E+03	No
SVOCs (ug/kg)														
121-14-2	2,4-Dinitrotoluene	63 J	380 J	µg/kg	FGOW-AOC1M-S-GP2(2-4FT)	4/12	350U - 470U	380	NA	1.2E+05	N	1.2E+04	5.00E+04	No
205-99-2	Benzo(b)fluoranthene	87 Jj	87 Jj	µg/kg	FGOW-AOC1M-SS-GP1(0-6INCHES)	1/12	350U - 1800U	87	NA	6.2E+02	C	6.2E+02	2.00E+04	No
207-08-9	Benzo(k)fluoranthene	230 Jj	260 J	µg/kg	FGOW-AOC1M-SS-GP2(0-6INCHES)	2/12	350U - 1800U	260	NA	6.2E+03	C	6.2E+03	2.00E+04	No
65-85-0	Benzoic acid	420 Jj	560 Jj	µg/kg	FGOW-AOC1M-SS-SS3(0-6INCHES)	5/12	1700U - 8800U	560	NA	1.0E+08	Max	1.0E+08	5.00E+07	No
117-81-7	bis(2-Ethylhexyl) phthalate	69 JB	440 Jj	µg/kg	FGOW-AOC1M-SS-GP1(0-6INCHES)	10/12	350U - 390U	440	NA	3.5E+04	C	3.5E+04	5.70E+05	No
84-74-2	Di-n-butyl phthalate	95 J	2,900	µg/kg	FGOW-AOC1M-SS-SS2(0-6INCHES)	5/12	350U - 430U	2,900	NA	6.1E+03	N	6.1E+02	N/A	No
85-01-8	Phenanthrene	96 Jj	430 J	µg/kg	FGOW-AOC1M-SS-SS2(0-6INCHES)	6/12	350U - 480U	430	NA	2.3E+06 (7)	N	2.30E+05	N/A	No
Explosives (mg/kg)														
121-14-2	2,4-Dinitrotoluene	0.16 J	1.4	mg/kg	FGOW-AOC1M-S-GP2(2-4FT)	6/12	0.25U - 0.25U	1.4	NA	1.2E+02	N	1.2E+01	5.00E+04	No
Metals (mg/kg)														
7440-38-2	Arsenic	1.4 J	8.2	mg/kg	FGOW-AOC1M-S-GP1(2-4FT)	12/12	(5)	8.2	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	35	290	mg/kg	FGOW-AOC1M-S-GP2(2-4FT)	12/12	(5)	290	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.06 J	0.19 J	mg/kg	FGOW-AOC1M-SS-GP2(0-6INCHES)	4/12	0.53U - 0.73U	0.19	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	9.1	29	mg/kg	FGOW-AOC1M-SS-GP1(0-6INCHES)	12/12	(5)	29	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	1.6 J	39	mg/kg	FGOW-AOC1M-SS-SS2(0-6INCHES)	12/12	(5)	39	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-97-6	Mercury	0.012 J	4.9	mg/kg	FGOW-AOC1M-SS-SS2(0-6INCHES)	11/12	0.035U - 0.035U	4.9	0.460	2.30E+01	N	2.30E+00	5.00E-01	Yes
Other (mg/kg)														
9004-70-0	Nitrocellulose	5.9	11,000 Jq	mg/kg	FGOW-AOC1M-SS-GP1(0-6INCHES)	9/12	5.2U - 6.1U	11,000	NA	N/A	N/A	N/A	N/A	N/A

- (1) J - Analyte present - Reported value is estimated
- Q - One or more quality control criteria failed
- B - blank contamination above the method detection limit
- j - estimated (Data Reviewer flag)
- U - Not detected

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) Non-carcinogenic PRGs (except soil saturation limits) were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (5) No detection limits given; analyte detected in every sample.
- (6) Screening level for isopropylbenzene used as a surrogate.
- (7) Screening level for pyrene used as a surrogate.

C = Carcinogenic
 N = Non-Carcinogenic
 S = Soil Saturation
 M = Max. Ceiling Limit

mg/kg = milligrams per kilogram
 ug/kg = microgram per kilogram

TABLE 3
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 1 (WASTE DITCH AND SETTLING PONDS) MIDDLE
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNDANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Groundwater

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 Tapwater PRG		Adjusted PRG (4)	MCL	MDH Value (5)	Exceeds Adjusted PRG? (Y/N)
											(C or N)				
	VOCs (ug/L)														
87-61-6	1,2,3-Trichlorobenzene	0.42 J	0.42 J	µg/L	FGOW-AOC1N-W-GP1	1/6	1U - 1U	0.42	NA	7.2E+00 (8)	N	7.20E-01	70	N/A	N
67-64-1	Acetone	3.6 J	3.6 J	µg/L	FGOW-AOC1M-W-GP3	1/6	10U - 10U	3.6	NA	5.5E+03	N	5.48E+02	N/A	7.00E+02 HRL	N
74-87-3	Chloromethane	0.31 J	0.31 J	µg/L	FGOW-AOC1N-W-GP1	1/6	2U - 2U	0.31	NA	1.6E+02	N	1.58E+01	N/A	3.00E+01 LHA	N
87-68-3	Hexachlorobutadiene	0.15 J	0.15 J	µg/L	FGOW-AOC1N-W-GP1	1/6	1U - 1U	0.15	NA	8.6E-01	C	8.6E-01	N/A	1.00E+00 HRL	N
79-01-6	Trichloroethene	0.47 J	0.47 J	µg/L	FGOW-AOC1M-W-GP3	1/6	1U - 1U	0.47	NA	1.4E+00 (6)	C	1.4E+00 (6)	5	5.00E+00 HRL	N
	SVOCs (ug/L)														
117-81-7	bis(2-Ethylhexyl) phthalate	74 Jj	74 Jj	µg/L	FGOW-AOC1N-W-GP1	1/6	10U - 10U	74	NA	4.8E+00	C	4.8E+00	6	2.00E+01 HRL	Y
	Explosives (ug/L)														
121-14-2	2,4-Dinitrotoluene	0.26 J	0.26 J	µg/L	FGOW-AOC1N-W-GP1	1/6	0.4U - 0.4U	0.26	NA	7.3E+01	N	7.3E+00	N/A	N/A	N
	Metals (ug/L)														
7440-39-3	Barium	30	73	µg/L	FGOW-AOC1S-W-GP2	6/6	(7)	73	310	2.6E+03	N	2.6E+02	2000	2.00E+03 HRL	N
7440-47-3	Chromium	2.6 J	2.6 J	µg/L	FGOW-AOC1N-W-GP1	1/6	15U - 15U	2.6	ND	5.50E+04	N	5.5+03	100	1.00E+02 HRL	N
	Other (mg/L)														
9004-70-0	Nitrocellulose	0.13 B	0.13 B	µg/L	FGOW-AOC1M-W-GP3	1/6	0.5U - 0.5U	0.13	NA	N/A		N/A	N/A	N/A	

- (1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
 j - Estimated (Data Reviewer flag)
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) Non-carcinogenic PRGs were divided by 10 to account for potential additive effects of chemicals
- (5) Minnesota Department of Health (MDH) Human Risk Levels (HRLs) or Lifetime Health Advisory (LHA) limits
- (6) CAL-modified PRG
- (7) No detection limits given; analyte detected in every sample.
- (8) Screening level for 1,2,4-trichlorobenzene used as a surrogate

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic
 N = Non-Carcinogenic
 S = Soil Saturation
 M = Max, Ceiling Limit

mg/kg = milligrams per kilogram
 ug/kg = microgram per kilogram

TABLE 4
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 1 (WASTE DITCH AND SETTLING PONDS) SOUTH
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)	(C or N)			
VOCs (ug/kg)														
95-63-6	1,2,4-Trimethylbenzene	0.88 JQj	1.1 JQj	µg/kg	FGOW-AOC1S-SS-SS3(0-6INCHES)	3/9	4.6U - 9.6U	1.1	NA	5.2E+04	N	5.16E+03	8.00E+03	No
78-93-3	2-Butanone (MEK)	7.8 J	33	µg/kg	FGOW-AOC1S-S-GP1(2-4FT)	6/9	26U - 38U	33	NA	2.2E+07	N	2.2E+06	5.50E+06	No
67-64-1	Acetone	30	170	µg/kg	FGOW-AOC1S-SS-SS1(0-6INCHES)	6/9	26U - 38U	170	NA	1.4E+07	N	1.4E+06	3.40E+05	No
75-09-2	Methylene chloride	1 JB	2.1 JB	µg/kg	FGOW-AOC1S-SS-GP1(0-6INCHES)	9/9	(6)	2.1	NA	9.1E+03	N	9.1E+02	9.70E+04	No
91-20-3	Naphthalene	1.6 JQj	2.4 JQj	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	4/9	4.6U - 9.6U	2.4	NA	5.6E+04	N	5.6E+03	1.00E+04	No
108-88-3	Toluene	1.2 J	1.2 J	µg/kg	FGOW-AOC1S-SS-SS1(0-6INCHES)	1/9	4.6U - 9.6U	1.2	NA	5.2E+05	C	5.2E+05	1.07E+05	No
SVOCs (ug/kg)														
83-32-9	Acenaphthene	580 J	580 J	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	580	NA	3.7E+06	N	3.7E+05	1.20E+06	No
120-12-7	Anthracene	2,000 J	2,000 J	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	2,000	NA	2.2E+07	N	2.2E+06	7.88E+06	No
56-55-3	Benzo(a)anthracene	50 J	14,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	400U - 660U	14,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
50-32-8	Benzo(a)pyrene	48 J	15,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	400U - 660U	15,000	NA	6.2E+01	C	6.2E+01	2.00E+03	Yes
205-99-2	Benzo(b)fluoranthene	81 JK	31,000 K	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	400U - 660U	31,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
191-24-2	Benzo(ghi)perylene	11,000	11,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	11,000	NA	N/A	N/A	N/A	N/A	N/A
207-08-9	Benzo(k)fluoranthene	260 J	260 J	µg/kg	FGOW-AOC1S-SS-GP2(0-6INCHES)	1/9	400U - 4200U	260	NA	6.21E+03	C	6.2E+03	2.00E+04	No
65-85-0	Benzoic acid	520 J	2,300 Q	µg/kg	FGOW-AOC1S-SS-SS3(0-6INCHES)	4/9	2000U - 20000U	2,300	NA	1.00E+08	Max	1.00E+08	5.00E+07	No
117-81-7	bis(2-Ethylhexyl) phthalat	64 J	140 JB	µg/kg	FGOW-AOC1S-S-GP1(2-4FT)	7/9	450U - 4200U	140	NA	3.5E+04	C	3.5E+04	5.70E+05	No
86-74-8	Carbazole	2,000 J	2,000 J	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	2,000	NA	2.43E+04	C	2.4E+04	7.00E+05	No
218-01-9	Chrysene	54 J	18,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	400U - 660U	18,000	NA	6.2E+04	C	6.2E+04	2.00E+05	No
53-70-3	Dibenz(a,h)anthracene	2,300 J	2,300 J	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	2,300	NA	6.2E+01	C	6.2E+01	3.56E+03	Yes
206-44-0	Fluoranthene	69 J	32,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	400U - 660U	32,000	NA	2.2E+06	N	2.29E+05	1.08E+06	No
86-73-7	Fluorene	580 J	580 J	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	580	NA	3.7E+06	N	3.7E+05	8.50E+05	No
193-39-5	Indeno(1,2,3-cd)pyrene	9,800	9,800	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	1/9	400U - 660U	9,800	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
85-01-8	Phenanthrene	110 J	12,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	3/9	400U - 480U	12,000	NA	N/A	N/A	N/A	N/A	N/A
129-00-0	Pyrene	64 J	26,000	µg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	2/9	490U - 800U	26,000	NA	2.32E+06	N	2.32E+05	8.90E+05	No
Metals (mg/kg)														
7440-38-2	Arsenic	1.1 J	9.5	mg/kg	FGOW-AOC1S-S-GP2(8-10FT)	9/9	(6)	9.5	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	32	260	mg/kg	FGOW-AOC1S-SS-GP1(0-6INCHES)	9/9	(6)	260	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.18 J	0.81	mg/kg	FGOW-AOC1S-S-GP1(2-4FT)	6/9	0.63U - 0.68U	0.81	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	12	27	mg/kg	FGOW-AOC1S-SS-GP1(0-6INCHES)	9/9	(6)	27	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	7.3 J	320	mg/kg	FGOW-AOC1S-SS-SS2(0-6INCHES)	9/9	(6)	320	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-97-6	Mercury	0.014 J	0.38	mg/kg	FGOW-AOC1S-SS-GP1(0-6INCHES)	9/9	(6)	0.38	0.460	2.3E+01	N	2.30E+00	5.00E-01	No
Other (mg/kg)														
9004-70-0	Nitrocellulose	2 B	74 J	mg/kg	FGOW-AOC1S-SS-GP1(0-6INCHES)	4/9	1.7BJu - 6.5U	74	NA	N/A	N/A	N/A	N/A	N/A

- (1) J - Analyte present - Reported value is estimated
 Q - One or more quality control criteria failed
 B - blank contamination above the method detection limit
 u - Undetected due to presence of analyte in method blank - concentrations in samples not significantly different from background
 U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detector
- (4) All non-carcinogenic criteria were divided by 10 (except soil saturation/ceiling limits) to account for potential additive effects of chen
 USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic
 N = Non-Carcinogenic
 S = Soil Saturation
 M = Max, Ceiling Limit

mg/kg = milligrams per kilogram
 µg/kg = microgram per kilogram

TABLE 5
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 1 (WASTE DITCH AND SETTLING PONDS) SOUTH
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Surface Water

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value	Region 9 Tapwater PRG		Adjusted PRG (3) (4)	MCL	MDH Value	Exceeds Adjusted PRG? (Y/N)
										(C or N)					
91-20-3	VOCs (ug/L) Naphthalene	0.69 J	0.69 J	µg/L	FGOW-AOC1S-W-S1	1/2	1U - 1U	0.69	NA	6.2E+00	N	6.20E+00	N/A	8.10E+01 N	N
91-57-6	PAHs (ug/L) 2-Methylnaphthalene	0.033 J	0.033 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.033	NA	6.2E+00 (6)	N	6.20E+00	N/A	N/A	N
83-32-9	Acenaphthene	0.14	0.14	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.14	NA	3.7E+02	N	3.7E+02	N/A	2.00E+01 N	N
208-96-8	Acenaphthylene	0.0056 J	0.0056 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.0056	NA	3.7E+02 (7)	N	3.7E+02	N/A	N/A	N
120-12-7	Anthracene	0.019 J	0.019 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.019	NA	1.8E+03	N	1.8E+03	N/A	3.50E-02 N	N
56-55-3	Benzo(a)anthracene	0.0057 J	0.0057 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.0057	NA	9.2E-02	C	9.2E-02	N/A	2.70E-02 C	N
206-44-0	Fluoranthene	0.0052 J	0.033 J	µg/L	FGOW-AOC1S-W-S1	2/2	(5)	0.033	NA	1.5E+03	N	1.5E+03	N/A	1.90E+00 N	N
86-73-7	Fluorene	0.081 J	0.081 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.081	NA	2.4E+02	N	2.4E+02	N/A	3.90E+00 N	N
91-20-3	Naphthalene	0.69 J	0.69 J	µg/L	FGOW-AOC1S-W-S1	1/2	1U - 1U	0.69	NA	6.2E+00	N	6.2E+00	N/A	8.10E+01 N	N
85-01-8	Phenanthrene	0.048 J	0.048 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.048	NA	N/A	N/A	N/A	N/A	3.60E+00 N	N
129-00-0	Pyrene	0.019 J	0.019 J	µg/L	FGOW-AOC1S-W-S1	1/2	0.1U - 0.1U	0.019	NA	1.8E+02	N	1.8E+02	N/A	N/A	N
	Metals (ug/L)														
7440-38-2	Arsenic	1 J	8	µg/L	FGOW-AOC1S-W-S1	2/2	(5)	8	ND	4.5E-02	C	4.5E-02	1.00E+01	2.00E+00 C	Y
7440-39-3	Barium	56	110	µg/L	FGOW-AOC1S-W-S1	2/2	(5)	110	ND	2.6E+03	N	2.6E+03	2.00E+03	N/A	N
7440-47-3	Chromium	0.57 J	0.57 J	µg/L	FGOW-AOC1S-W-S2	1/2	10U - 10U	0.57	ND	1.1E+02 (8)	N	1.10E+02	1.00E+02	1.00E+02 N	N
7439-92-1	Lead	0.19 J	0.19 J	µg/L	FGOW-AOC1S-W-S1	1/2	3U - 3U	0.19	ND	N/A	N/A	N/A	1.50E+01	N/A	N/A
7782-49-2	Selenium	1.8 J	1.8 J	µg/L	FGOW-AOC1S-W-S2	1/2	5U - 5U	1.8	ND	1.8E+02	N	1.8E+03	5.00E+01	5.00E+00 N	N
	Other (mg/L)														
9004-70-0	Nitrocellulose	0.19 B	0.23 B	µg/L	FGOW-AOC1S-W-S2	2/2	(5)	0.23	NA	N/A		N/A	N/A	N/A	N/A

- (1) J - Analyte present - Reported value is estimated
- B - blank contamination above the method detection limit
- U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Non-carcinogenic PRGs were divided by 10 to account for potential additive effects of chemicals
- (4) USEPA Region IX Tap Water COC Screening Value multiplied by a factor of 10
- (5) No detection limits given; analyte detected in every sample.
- (6) Screening value for naphthalene used as a surrogate
- (7) Screening value for acenaphthene used as a surrogate.
- (8) Screening value for chromium VI used as a surrogate.

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic
 N = Non-Carcinogenic
 S = Soil Saturation
 M = Max, Ceiling Limit

mg/kg = milligrams per kilogram
 ug/kg = microgram per kilogram

TABLE 6
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 1 (WASTE DITCH AND SETTLING PONDS) SOUTH
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Sediment
 Exposure Medium: Sediment
 Exposure Point: Sediment

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value	Region 9 PRG		Adjusted PRG (3) (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)				
VOCs (ug/kg)														
108-67-8	1,3,5-Trimethylbenzene	1.5 Jj	1.5 Jj	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	10U - 10U	1.5	NA	2.1E+04	N	2.10E+04	3.00E+03	N
78-93-3	2-Butanone (MEK)	36 BJ	53 BJ	µg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	53	NA	2.2E+07	N	2.2E+07	5.50E+06	N
67-64-1	Acetone	72 J	110 J	µg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	110	NA	1.4E+07	N	1.4E+07	3.40E+05	N
75-15-0	Carbon disulfide	0.87 Jj	0.87 Jj	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	10U - 10U	0.87	NA	3.6E+05	N	3.6E+05	6.50E+04	N
91-20-3	Naphthalene	4.7 Jj	4.7 Jj	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	10U - 10U	4.7	NA	5.6E+04	N	5.6E+04	1.00E+04	N
108-88-3	Toluene	1.1 Jj	1.1 Jj	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	10U - 10U	1.1	NA	5.2E+05	C	5.2E+06	1.07E+05	N
PAHs (ug/kg)														
91-57-6	2-Methylnaphthalene	0.69 J	2.8 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	2.8	NA	5.6E+04 (7)	N	5.6E+03	1.00E+05	N
83-32-9	Acenaphthene	0.69 J	11	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	11	NA	3.7E+06	N	3.7E+06	1.20E+06	N
208-96-8	Acenaphthylene	1.2 J	3.8 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	3.8	NA	3.7E+06 (6)	N	3.7E+06	1.20E+06	N
120-12-7	Anthracene	3.4 J	19	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	19	NA	2.2E+07	N	2.2E+07	7.88E+06	N
56-55-3	Benzo(a)anthracene	11 J	62 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	62	NA	6.2E+02	C	6.2E+03	2.00E+04	N
50-32-8	Benzo(a)pyrene	17 JQ	120 QJ	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	120	NA	6.2E+01	C	6.2E+02	2.00E+03	N
205-99-2	Benzo(b)fluoranthene	31 JK	230 K	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	230	NA	6.2E+02	C	6.2E+03	2.00E+04	N
191-24-2	Benzo(ghi)perylene	19	140 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	140	NA	2.32E+06 (8)	N	2.32E+06	N/A	N
218-01-9	Chrysene	19 J	84 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	84	NA	6.2E+04	C	6.2E+05	2.00E+05	N
53-70-3	Dibenzo(a,h)anthracene	4.8 J	42 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	42	NA	6.2E+01	C	6.20E+02	3.56E+03	N
206-44-0	Fluoranthene	26 J	110 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	110	NA	2.3E+06	N	2.30E+06	1.08E+06	N
86-73-7	Fluorene	7.9 J	12	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	12	NA	3.7E+06	N	3.7E+06	8.50E+05	N
193-39-5	Indeno(1,2,3-cd)pyrene	15 J	120 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	120	NA	6.2E+02	C	6.2E+03	2.00E+04	N
91-20-3	Naphthalene	4.7 Jj	4.7 Jj	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	10U - 10U	4.7	NA	5.6E+04	N	5.6E+04	1.00E+04	N
85-01-8	Phenanthrene	10 J	38 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	38	NA	2.32E+06 (8)	N	2.32E+06	N/A	N
129-00-0	Pyrene	20 J	98 J	µg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	2/2	(5)	98	NA	2.32E+06	N	2.32E+06	8.90E+05	N
Metals (mg/kg)														
7440-38-2	Arsenic	4.4 J	6.5	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	6.5	ND	3.9E-01	C	3.9E+00	5.00E+00	Y
7440-39-3	Barium	87 J	160	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	160	ND	5.4E+03	N	5.4E+03	1.20E+03	N
7440-43-9	Cadmium	0.17	0.39	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	0.39	ND	3.7E+01	N	3.7E+01	2.50E+01	N
7440-47-3	Chromium	10 J	15	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	15	ND	2.1E+02	C	2.1E+02	8.70E+01	N
7439-92-1	Lead	9 J	19	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	19	ND	4.0E+02	N	4.0E+02	3.00E+02	N
7439-97-6	Mercury	0.035 J	0.037 J	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	0.037	ND	2.30E+01	N	2.30E+01	5.00E+01	N
7782-49-2	Selenium	0.54 J	2.5	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	2.5	ND	3.9E+02	N	3.9E+02	1.60E+05	N
7440-22-4	Silver	0.038 Jj	0.065 J	mg/kg	FGOW-AOC1S-SED-SED2(0-4INCHES)	2/2	(5)	0.065	ND	3.9E+02	N	3.9E+02	1.60E+05	N
Other (mg/kg)														
9004-70-0	Nitrocellulose	12 J	12 J	mg/kg	FGOW-AOC1S-SED-SED1(0-4INCHES)	1/2	5.1BJu - 5.1BJu	12	NA	N/A	N/A	N/A	N/A	N/A

- (1) J - Analyte present - Reported value is estimated
- K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
- B - blank contamination above the method detection limit
- U - undetected at the limit of detection
- u - Undetected due to presence of analyte in method blank - concentrations in samples not significantly different from background
- Q - One or more quality control criteria failed
- (2) Maximum concentration used for screening
- (3) Non-carcinogenic PRGs were divided by 10 to account for potential additive effects of chemicals
- (4) USEPA Region IX Residential Soil COC Screening Value multiplied by a factor of 10
- (5) No detection limits given; analyte detected in every sample.
- (6) Screening value for acenaphthene used as a surrogate.
- (7) Screening value for naphthalene used as a surrogate.

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic mg/kg = milligrams per kilogram
 N = Non-Carcinogenic ug/kg = microgram per kilogram
 S = Soil Saturation
 M = Max, Ceiling Limit

TABLE 7
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 4 (SANITARY BUILDINGS)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
Medium: Total Soil
Exposure Medium: Total Soil
Exposure Point: Total Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)	
											(C or N)					
Total Soil		PAHs (ug/kg)														
		91-57-6	2-Methylnaphthalene	38 J	38 J	µg/kg	FGOW-AOC4-SS-SS2(0-6INCHES)	1/8	340U - 440U	38	NA	5.6E+04 (7)	N	5.60E+03	1.00E+05	N
		120-12-7	Anthracene	120 J	120 J	µg/kg	FGOW-AOC4-SS-SS2(0-6INCHES)	1/8	340U - 440U	120	NA	2.2E+07	N	2.2E+06	7.88E+06	N
		205-99-2	Benzo(b)fluoranthene	65 JK	65 JK	µg/kg	FGOW-AOC4-SS-SS2(0-6INCHES)	1/8	340U - 440U	65	NA	6.2E+02	C	6.2E+02	2.00E+04	N
		206-44-0	Fluoranthene	180 J	200 J	µg/kg	FGOW-AOC4-SS-GP1(0-6INCHES)	2/8	340U - 410U	200	NA	2.3E+06	N	2.29E+05	1.08E+06	N
		85-01-8	Phenanthrene	150 J	150 J	µg/kg	FGOW-AOC4-SS-SS2(0-6INCHES)	1/8	340U - 440U	150	NA	2.3E+06 (8)	N	2.30E+05	N/A	N
			Metals (mg/kg)													
		7440-38-2	Arsenic	1 J	7.3 j	mg/kg	FGOW-AOC4-SS-GP2(0-6INCHES)	8/8	(6)	7.3	8.70	3.9E-01	C	3.9E-01	5.00E+00	Y
		7440-39-3	Barium	12	150	mg/kg	FGOW-AOC4-SS-SS1(0-6INCHES)	8/8	(6)	150	170	5.4E+03	N	5.4E+02	1.20E+03	N
		7440-43-9	Cadmium	0.044 J	0.1 J	mg/kg	FGOW-AOC4-SS-GP2(0-6INCHES)	6/8	0.51U - 0.62U	0.1	1.40	3.7E+01	N	3.7E+00	2.50E+01	N
		7440-47-3	Chromium	5.9	20	mg/kg	FGOW-AOC4-SS-GP1(0-6INCHES)	8/8	(6)	20	28.0	2.1E+02	C	2.1E+02	8.70E+01	N
		7439-92-1	Lead	1.5 J	15	mg/kg	FGOW-AOC4-SS-GP1(0-6INCHES)	8/8	(6)	15	18.0	4.0E+02	N	4.0E+02	3.00E+02	N
		7439-97-6	Mercury	0.011 J	0.055	mg/kg	FGOW-AOC4-SS-GP1(0-6INCHES)	4/8	0.034U - 0.036U	0.055	0.460	2.30E+01	N	2.30E+00	5.00E-01	N
		7782-49-2	Selenium	0.98 J	1.1 J	mg/kg	FGOW-AOC4-SS-GP1(0-6INCHES)	2/8	3.1U - 3.7U	1.1	ND	3.9E+02	N	3.9E+01	1.60E+02	N

- (1) J - Analyte present - Reported value is estimated
- j - estimated
- K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
- U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) All non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample.
- (7) Screening level for naphthalene used as a surrogate
- (8) Screening level for pyrene used as a surrogate

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic
 N = Non-Carcinogenic
 S = Soil Saturation
 M = Max, Ceiling Limit

mg/kg = milligrams per kilogram
 ug/kg = microgram per kilogram

TABLE 8
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGS
 AOC 5 (DINITROTOLUENE STORAGE BUNKERS)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)	(4)			
	PAHs (ug/kg)													
91-57-6	2-Methylnaphthalene	76 J	420	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	4/24	340U - 430U	420	NA	5.6E+04 (10)	N	5.60E+03	N/A	No
83-32-9	Acenaphthene	37 J	2,400	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	7/24	340U - 430U	2,400	NA	3.7E+06	N	3.7E+05	1.20E+06	No
120-12-7	Anthracene	45 J	5,700	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	8/24	340U - 430U	5,700	NA	2.2E+07	N	2.2E+06	7.88E+06	No
56-55-3	Benzo(a)anthracene	48 J	8,000	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	10/24	340U - 410U	8,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
50-32-8	Benzo(a)pyrene	42 J	6,800	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	10/24	340U - 410U	6,800	NA	6.2E+01	C	6.2E+01	2.00E+03	Yes
205-99-2	Benzo(b)fluoranthene	50 JK	9,500 K	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	12/24	340U - 410U	9,500	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
191-24-2	Benzo(ghi)perylene	85 J	3,200	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	9/24	340U - 410U	3,200	NA	2.32E+06 (11)	N	2.32E+05	N/A	No
218-01-9	Chrysene	44 J	8,200	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	11/24	340U - 410U	8,200	NA	6.2E+04	C	6.2E+04	2.00E+05	No
53-70-3	Dibenz(a,h)anthracene	55 J	1,500	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	8/24	340U - 410U	1,500	NA	6.2E+01	C	6.2E+01	3.56E+03	Yes
206-44-0	Fluoranthene	67 J	19,000	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	12/24	340U - 410U	19,000	NA	2.3E+06	N	2.29E+05	1.08E+06	No
86-73-7	Fluorene	36 J	2,600	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	7/24	340U - 430U	2,600	NA	3.7E+06	N	3.7E+05	8.50E+05	No
193-39-5	Indeno(1,2,3-cd)pyrene	76 J	3,100	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	9/24	340U - 410U	3,100	NA	6.2E+02	C	6.2E+02	2.00E+04	Yes
91-20-3	Naphthalene	45 J	410	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	5/24	340U - 430U	410	NA	5.6E+04	N	5.6E+03	1.00E+04	No
85-01-8	Phenanthrene	42 J	16,000	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	11/24	340U - 410U	16,000	NA	2.32E+06 (11)	N	2.32E+05	8.90E+05	No
129-00-0	Pyrene	65 J	16,000	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	12/24	410U - 500U	16,000	NA	2.32E+06	N	2.32E+05	8.90E+05	No
	Pesticides (ug/kg)													
72-55-9	4,4-DDE	0.32 J	22	µg/kg	FGOW-AOC5-SS-GP7(0-6INCHES)	7/24	1.8U - 950U	22	NA	1.7E+03	C	1.72E+03	4.00E+04	No
50-29-3	4,4-DDT	0.76 J	510 J	µg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	12/24	2.1U - 24U	510	NA	1.7E+03	C	1.72E+03	1.50E+04	No
309-00-2	Aldrin	7.6 Jj	8.3 J	µg/kg	FGOW-AOC5-SS-GP8(0-6INCHES)	2/24	1.8U - 950U	8.3	NA	2.9E+01	C	2.9E+01	1.00E+03	No
5103-71-9	alpha-Chlordane	7.5 J	24	µg/kg	FGOW-AOC5-S-GP7(2-4FT)	3/24	1.8U - 950U	24	NA	1.6E+03 (7)	C	1.6E+03 (7)	1.30E+04	No
60-57-1	Dieldrin	2.4	17,000	µg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	9/24	1.8U - 21U	17,000	NA	3.0E+01	C	3.0E+01	8.00E+02	Yes
959-98-8	Endosulfan I	0.36 Jj	0.36 Jj	µg/kg	FGOW-AOC5-S-GP7(2-4FT)	1/24	1.8U - 950U	0.36	NA	3.7E+05 (8)	N	3.70E+04	1.20E+05	No
33213-65-9	Endosulfan II	7.1 J	7.1 J	µg/kg	FGOW-AOC5-SS-GP9(0-6INCHES)	1/24	1.8U - 950U	7.1	NA	3.7E+05 (8)	N	3.70E+04	1.20E+05	No
72-20-8	Endrin	280 J	280 J	µg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	1/24	1.8U - 22U	280	NA	1.8E+04	N	1.83E+03	8.00E+03	No
7421-93-4	Endrin aldehyde	8.2 Jj	8.2 Jj	µg/kg	FGOW-AOC5-SS-GP4(0-6INCHES)	1/24	1.8U - 950U	8.2	NA	1.8E+04 (9)	N	1.80E+03	8.00E+03	No
53494-70-5	Endrin ketone	1.4 J	1.4 J	µg/kg	FGOW-AOC5-S-GP1(2-4FT)	1/24	1.8U - 950U	1.4	NA	1.8E+04 (9)	N	1.80E+03	8.00E+03	No
5103-74-2	gamma-Chlordane	7.6 J	870	µg/kg	FGOW-AOC5-SS-GP7(0-6INCHES)	5/24	1.8U - 950U	870	NA	1.6E+03	C	1.6E+03	1.30E+04	No
76-44-8	Heptachlor	2.9 J	2.9 J	µg/kg	FGOW-AOC5-SS-GP7(0-6INCHES)	1/24	1.8U - 950U	2.9	NA	1.1E+02	C	1.1E+02	2.00E+03	No
1024-57-3	Heptachlor epoxide	2.7 J	26 J	µg/kg	FGOW-AOC5-SS-GP7(0-6INCHES)	2/24	1.8U - 950U	26	NA	5.3E+01	C	5.3E+01	4.00E+02	No
72-43-5	Methoxychlor	0.51 Jj	0.51 Jj	µg/kg	FGOW-AOC5-S-GP1(2-4FT)	1/24	3.4U - 1800U	0.51	NA	3.1E+05	N	3.06E+04	1.10E+04	No
	Explosives (mg/kg)													
121-14-2	2,4-Dinitrotoluene	0.35 J	0.35 J	mg/kg	FGOW-AOC5-SS-GP9(0-6INCHES)	1/24	0.25U - 0.25U	0.35	NA	1.2E+02	N	1.2E+01	5.00E+01	No
	Metals (mg/kg)													
7440-38-2	Arsenic	0.96 J	7.9	mg/kg	FGOW-AOC5-SS-GP12(0-6INCHES)	24/24	(6)	7.9	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	14	270	mg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	24/24	(6)	270	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.07 J	2.6	mg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	13/24	0.51U - 0.58U	2.6	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	6.3	28	mg/kg	FGOW-AOC5-SS-GP1(0-6INCHES)	24/24	(6)	28	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	1.6 J	330	mg/kg	FGOW-AOC5-SS-GP9(0-6INCHES)	24/24	(6)	330	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-97-6	Mercury	0.013 J	0.67	mg/kg	FGOW-AOC5-SS-GP8(0-6INCHES)	14/24	0.034U - 0.036U	0.67	0.460	2.30E+01	N	2.30E+00	5.00E-01	No

- (1) J - Analyte present - Reported value is estimated
- B - blank contamination above the method detection limit
- K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
- U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) All non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
- USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample.
- (7) Screening value for chlordane used as a surrogate.
- (8) Screening value for endosulfan used as a surrogate.
- (9) Screening value for endrin used as a surrogate.
- (10) Screening value for naphthalene used as a surrogate.
- (11) Screening value for pyrene used as a surrogate.

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic mg/kg = milligrams per kilogram
 N = Non-Carcinogenic ug/kg = microgram per kilogram

TABLE 9
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 5 (DINITROTOLUENE STORAGE BUNKERS)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Future Medium: Groundwater Exposure Medium: Groundwater Exposure Point: Groundwater
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CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 Tapwater PRG		Adjusted PRG (4)	MCL	MDH Value	Exceeds Adjusted PRG? (Y/N)
										(C or N)					
206-44-0	PAHs and Diphenylamine (ug/L) Fluoranthene	1.3 Jj	1.3 Jj	µg/L	FGOW-AOC5-W-GP7	1/1	(6)	1.3	NA	1.5E+03	N	1.5E+02	N/A	3.00E+02 HRL	N
129-00-0	Pyrene	1.6 Jj	1.6 Jj	µg/L	FGOW-AOC5-W-GP7	1/1	(6)	1.6	NA	1.8E+02	N	1.8E+01	N/A	2.00E+02 HRL	N
7440-39-3	Metals (ug/L) Barium	130	130	µg/L	FGOW-AOC5-W-GP7	1/1	(6)	130	310	2.6E+03	N	2.6E+02	2000	2.00E+03 HRL	N

- (1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) All non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Tap Water COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample.

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected
 MCL = Maximum Contaminant Levels (Winter, 2004)
 N = Non-Carcinogenic ug/L = microgram per liter

TABLE 10
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 6 (154TH STREET DISTURBED AREA)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
											(C or N)			
	PAHs (ug/kg)													
91-57-6	2-Methylnaphthalene	700 J	28,000 J	µg/kg	FGOW-AOC6-S-TP5(3FT)	2/12	330U - 4000U	28,000	NA	5.6E+04 (7)	N	5.6E+03	1.00E+05	N
83-32-9	Acenaphthene	50 J	130,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	5/12	330U - 4000U	130,000	NA	3.7E+06	N	3.7E+05	1.20E+06	N
120-12-7	Anthracene	48 J	330,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	330,000	NA	2.2E+07	N	2.2E+06	7.88E+06	N
56-55-3	Benzo(a)anthracene	210 J	530,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	530,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
50-32-8	Benzo(a)pyrene	220 J	490,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	490,000	NA	6.2E+01	C	6.2E+01	2.00E+03	Y
205-99-2	Benzo(b)fluoranthene	46 JK	810,000 K	µg/kg	FGOW-AOC6-S-TP5(3FT)	10/12	330U - 340U	810,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
191-24-2	Benzo(ghi)perylene	150 J	350,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	350,000	NA	2.32E+06 (8)	N	2.32E+05	N/A	Y
218-01-9	Chrysene	220 J	530,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	530,000	NA	6.2E+04	C	6.2E+04	2.00E+05	Y
53-70-3	Dibenz(a,h)anthracene	39 J	94,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	8/12	330U - 4000U	94,000	NA	6.2E+01	C	6.21E+01	3.56E+03	Y
206-44-0	Fluoranthene	49 J	1,200,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	10/12	330U - 340U	1,200,000	NA	2.3E+06	N	2.29E+05	1.08E+06	Y
86-73-7	Fluorene	43 J	160,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	6/12	330U - 4000U	160,000	NA	3.7E+06	N	3.7E+05	8.50E+05	N
193-39-5	Indeno(1,2,3-cd)pyrene	140 J	320,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	9/12	330U - 350U	320,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
91-20-3	Naphthalene	370 J	100,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	3/12	330U - 4000U	100,000	NA	5.6E+04	N	5.6E+03	1.00E+04	Y
85-01-8	Phenanthrene	44 J	1,000,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	10/12	330U - 340U	1,000,000	NA	2.32E+06 (8)	N	2.32E+05	N/A	Y
129-00-0	Pyrene	45 J	1,000,000	µg/kg	FGOW-AOC6-S-TP5(3FT)	10/12	400U - 410U	1,000,000	NA	2.32E+06	N	2.32E+05	8.90E+05	Y
	Metals (mg/kg)													
7440-38-2	Arsenic	1.1 J	14	mg/kg	FGOW-AOC6-S-TP3(5FT) FGOW-AOC6-S-TP3(5FT),FGOW-AOC6-SS-TP6(0-.5FT)	12/12	(6)	14	8.7	3.9E-01	C	3.9E-01	5.00E+00	Y
7440-39-3	Barium	12	170	mg/kg		12/12	(6)	170	170	5.4E+03	N	5.4E+02	1.20E+03	N
7440-43-9	Cadmium	0.066 J	1.2	mg/kg		8/12	0.5U - 0.53U	1.2	1.4	3.7E+01	N	3.7E+00	2.50E+01	N
7440-47-3	Chromium	5.2	43	mg/kg		12/12	(6)	43	28	2.1E+02	C	2.1E+02	8.70E+01	N
7439-92-1	Lead	1.6 J	190	mg/kg		12/12	(6)	190	18	4.0E+02	N	4.0E+02	3.00E+02	N
7439-97-6	Mercury	0.045	0.74	mg/kg		9/12	0.033U - 0.035U	0.74	0.46	2.30E+01	N	2.30E+00	5.00E-01	N
7440-22-4	Silver	0.22 J	1.5 J	mg/kg		6/12	1.5U - 1.8U	1.5	0.49	3.9E+02	N	3.9E+01	1.60E+02	N

- (1) J - Analyte present - Reported value is estimated
 K - the reported benzo(b)fluor; K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
 U - undetected at the limit of detection
 (2) Maximum concentration used for screening
 (3) Site-Specific: Maximum detection
 (4) All non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Tab - October, 2004)

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic mg/kg = milligrams per kilogram
 N = Non-Carcinogenic ug/kg = microgram per kilogram

TABLE 11
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7A (STEAM PLANT AND ASSOCIATED 26.7 ACRES - NORTHWEST QUADRANT)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)	(4)			
	VOCs (ug/kg)													
95-63-6	1,2,4-Trimethylbenzene	0.61 J	4.6 Jj	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	6/18	4.7U - 10U	4.6	NA	5.2E+04	N	5.16E+03	8.00E+03	N
78-93-3	2-Butanone (MEK)	12 J	150 BJ	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	18/18	(6)	150	NA	2.2E+07	N	2.2E+06	5.50E+06	N
67-64-1	Acetone	39	1,500 J	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	18/18	(6)	1,500	NA	1.4E+07	N	1.4E+06	3.40E+05	N
71-43-2	Benzene	0.58 J	2.9 Jj	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES),FGOW-AOC7A-SS-SS4(0-6INCHES)	13/18	4.7U - 5.4U	2.9	NA	6.4E+02	C	6.4E+02	6.00E+03	N
75-15-0	Carbon disulfide	0.52 J	6.4	µg/kg	FGOW-AOC7A-SS-GP4(0-6INCHES)	12/18	5.3U - 7.6U	6.4	NA	3.6E+05	N	3.6E+04	6.50E+04	N
100-41-4	Ethylbenzene	0.89 Jj	1.4 Jj	µg/kg	FGOW-AOC7A-SS-SS2(0-6INCHES)	4/18	4.4U - 15U	1.4	NA	4.0E+05	C	4.0E+05	2.00E+05	N
75-09-2	Methylene chloride	0.9 Jj	1.2 J	µg/kg	FGOW-AOC7A-SS-GP4(0-6INCHES)	2/18	4.4U - 15U	1.2	NA	9.1E+03	N	9.1E+02	9.70E+04	N
91-20-3	Naphthalene	0.78 J	17 J	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	7/18	4.4U - 6.6U	17	NA	5.6E+04	N	5.6E+03	1.00E+04	N
99-87-6	p-Isopropyltoluene	2.2 Jj	10	µg/kg	FGOW-AOC7A-SS-GP2(0-6INCHES)	2/18	4.4U - 12U	10	NA	5.7E+05 (7)	N	5.7E+04	3.00E+04	N
108-88-3	Toluene	0.76 J	5.1 Jj	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	14/18	4.7U - 6.6U	5.1	NA	5.2E+05	C	5.2E+05	1.07E+05	N
	SVOCs (ug/kg)													
91-57-6	2-Methylnaphthalene	42 J	3,800 J	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES),FGOW-AOC7A-SS-SS3(0-6INCHES)	7/18	340U - 480U	3,800	NA	5.6E+04 (8)	N	5.6E+03	1.00E+05	N
95-48-7	2-Methylphenol	370	370	µg/kg	FGOW-AOC7A-S-GP1(2-4FT)	1/18	340U - 18000U	370	NA	3.1E+06	N	3.1E+05	7.50E+04	N
65794-96-9	3-Methylphenol & 4-Methylp	340	340	µg/kg	FGOW-AOC7A-S-GP1(2-4FT)	1/18	340U - 18000U	340	NA	3.1E+06	N	3.1E+05	7.50E+04	N
99-09-2	3-Nitroaniline	120 J	120 J	µg/kg	FGOW-AOC7A-S-GP4(2-4FT)	1/18	1700U - 85000U	120	NA	1.8E+04	N	1.8E+03	N/A	N
100-01-6	4-Nitroaniline	200 J	200 J	µg/kg	FGOW-AOC7A-S-GP4(2-4FT)	1/18	1700U - 85000U	200	NA	2.3E+04	C	2.3E+04	N/A	N
83-32-9	Acenaphthene	55 J	22,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	12/18	340U - 480U	22,000	NA	3.7E+06	N	3.7E+05	1.20E+06	N
120-12-7	Anthracene	130 J	43,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	13/18	340U - 480U	43,000	NA	2.2E+07	N	2.2E+06	7.88E+06	N
56-55-3	Benzo(a)anthracene	40 J	110,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	13/18	340U - 390U	110,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
50-32-8	Benzo(a)pyrene	91 J	85,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	13/18	340U - 390U	85,000	NA	6.2E+01	C	6.2E+01	2.00E+03	Y
205-99-2	Benzo(b)fluoranthene	140 J	160,000 K	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	14/18	340U - 390U	160,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
191-24-2	Benzo(ghi)perylene	48 J	44,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	11/18	340U - 390U	44,000	NA	2.32E+06 (9)	N	2.32E+05	N/A	N
207-08-9	Benzo(k)fluoranthene	93 J	100 J	µg/kg	FGOW-AOC7A-S-GP3(2-4FT)	3/18	340U - 18000U	100	NA	6.2E+03	C	6.2E+03	2.00E+04	N
117-81-7	bis(2-Ethylhexyl) phthalate	79 J	79 J	µg/kg	FGOW-AOC7A-SS-GP4(0-6INCHES)	1/18	340U - 18000U	79	NA	3.5E+04	C	3.5E+04	5.70E+05	N
86-74-8	Carbazole	59 J	31,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	13/18	340U - 480U	31,000	NA	2.4E+04	C	2.4E+04	7.00E+05	Y
218-01-9	Chrysene	42 J	110,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	14/18	340U - 390U	110,000	NA	6.2E+04	C	6.2E+04	2.00E+05	Y
53-70-3	Dibenz(a,h)anthracene	59 J	14,000 J	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	6/18	340U - 480U	14,000	NA	6.2E+01	C	6.2E+01	3.56E+03	Y
132-64-9	Dibenzofuran	140 J	12,000 J	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	9/18	340U - 480U	12,000	NA	1.5E+05	N	1.45E+04	1.04E+05	N
206-44-0	Fluoranthene	210 J	300,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	15/18	340U - 390U	300,000	NA	2.3E+06	N	2.29E+05	1.08E+06	Y
86-73-7	Fluorene	59 J	23,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	11/18	340U - 480U	23,000	NA	2.7E+06	N	3.7E+05	8.50E+05	N
193-39-5	Indeno(1,2,3-cd)pyrene	54 J	42,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	11/18	340U - 390U	42,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
86-30-6	N-Nitrosodiphenylamine	350	350	µg/kg	FGOW-AOC7A-S-GP4(2-4FT)	1/18	340U - 18000U	350	NA	9.9E+04	C	9.9E+04	1.95E+06	N
91-20-3	Naphthalene	59 J	8,300 J	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	7/18	4.4U - 6.6U	8,300	NA	5.6E+04	N	5.6E+03	1.00E+04	Y
85-01-8	Phenanthrene	90 J	240,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	14/18	340U - 390U	240,000	NA	2.32E+06 (9)	N	2.32E+05	N/A	Y
129-00-0	Pyrene	53 J	230,000	µg/kg	FGOW-AOC7A-SS-SS3(0-6INCHES)	12/18	410U - 480U	230,000	NA	2.32E+06	N	2.32E+05	8.90E+05	N
	PCBs (ug/kg)													
11097-69-1	Aroclor 1254	8,800	8,800	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	1/8	35U - 450U	8,800	NA	2.2E+02	C	2.2E+02	1.20E+03	Y
11096-82-5	Aroclor 1260	39 J	17,000	µg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	7/8	35U - 35U	17,000	NA	2.2E+02	C	2.2E+02	1.20E+03	Y

TABLE 11 (continued)
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7A (STEAM PLANT AND ASSOCIATED 26.7 ACRES - NORTHWEST QUADRANT)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
Medium: Total Soil
Exposure Medium: Total Soil
Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
											(C or N)			
	Metals (mg/kg)													
7440-38-2	Arsenic	2.6 J	6.8	mg/kg	FGOW-AOC7A-S-GP2(2-4FT)	18/18	(6)	6.8	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	33	140	mg/kg	FGOW-AOC7A-S-GP2(2-4FT)	18/18	(6)	140	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.049 J	1.5	mg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES),FGOW-AOC7A-SS-SS4(0-6INCHES)	16/18	0.52U - 0.54U	1.5	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	8.5	40	mg/kg	FGOW-AOC7A-SS-SS2(0-6INCHES)	18/18	(6)	40	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	2.8 J	2,100	mg/kg	FGOW-AOC7A-S-GP6(2-4FT)	18/18	(6)	2,100	18.0	4.0E+02	N	4.0E+02	3.00E+02	Yes
7439-97-6	Mercury	0.0039 J	0.19	mg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	13/18	0.034U - 0.036U	0.19	0.460	2.30E+01	N	2.30E+00	5.00E-01	No
7440-22-4	Silver	0.22 J	0.22 J	mg/kg	FGOW-AOC7A-SS-SS1(0-6INCHES)	1/18	1.5U - 2.2U	0.22	0.490	3.9E+02	N	3.9E+01	1.60E+02	No

- (1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
 K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
 U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) Non-carcinogenic criteria (except soil saturation/ceiling limits) were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample.
- (7) Screening level for isopropylbenzene used as a surrogate.
- (8) Screening level for naphthalene used as a surrogate
- (9) Screening level for pyrene used as a surrogate

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic mg/kg = milligrams per kilogram
 N = Non-Carcinogenic ug/kg = microgram per kilogram
 S = Soil Saturation

TABLE 12
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7B (STEAM PLANT AND ASSOCIATED 26.7 ACRES - NORTHEAST QUADRANT)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
Medium: Total Soil
Exposure Medium: Total Soil
Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
											(C or N)			
	VOCs (ug/kg)													
95-63-6	1,2,4-Trimethylbenzene	0.61 Jj	0.75 J	µg/kg	FGOW-AOC7B-SS-GP2(0-6INCHES)	2/7	4.5U - 5.6U	0.75	NA	5.2E+04	N	5.16E+03	8.00E+03	No
78-93-3	2-Butanone (MEK)	8.6 JB	14 JBj	µg/kg	FGOW-AOC7B-S-GP1(2-4FT)	7/7	(6)	14	NA	2.2E+07	N	2.2E+06	5.50E+06	No
67-64-1	Acetone	15 J	24 J	µg/kg	FGOW-AOC7B-S-GP1(2-4FT)	4/7	18U - 21U	24	NA	1.4E+07	N	1.4E+06	3.40E+05	No
71-43-2	Benzene	0.53 Jj	0.53 Jj	µg/kg	FGOW-AOC7B-S-GP1(2-4FT)	1/7	4.5U - 5.6U	0.53	NA	6.4E+02	C	6.4E+02	6.00E+03	No
100-41-4	Ethylbenzene	0.91 J	0.91 J	µg/kg	FGOW-AOC7B-S-GP2(16-18FT)	1/7	4.5U - 5.3U	0.91	NA	4.0E+05	C	4.0E+05	2.00E+05	No
91-20-3	Naphthalene	1.1 J	1.1 J	µg/kg	FGOW-AOC7B-SS-GP2(0-6INCHES)	1/7	4.5U - 5.6U	1.1	NA	5.6E+04	N	5.6E+03	1.00E+04	No
108-88-3	Toluene	0.75 J	1 Jj	µg/kg	FGOW-AOC7B-S-GP1(2-4FT)	4/7	4.5U - 5.2U	1	NA	5.2E+05	C	5.2E+05	1.07E+05	No
	Metals (mg/kg)													
7440-38-2	Arsenic	1.3 J	2.2 J	mg/kg	FGOW-AOC7B-SS-GP1(0-6INCHES)	7/7	(6)	2.2	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	12	34	mg/kg	FGOW-AOC7B-SS-GP1(0-6INCHES),FGOW-AOC7B-SS-GP2(0-6INCHES)	7/7	(6)	34	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.071 J	0.096 J	mg/kg	FGOW-AOC7B-SS-GP2(0-6INCHES)	3/7	0.51U - 0.53U	0.096	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	6.5	11	mg/kg	FGOW-AOC7B-SS-GP2(0-6INCHES)	7/7	(6)	11	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
					FGOW-AOC7B-S-GP1(2-4FT),FGOW-AOC7B-SS-GP2(0-6INCHES)	7/7	(6)	3.3	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-92-1	Lead	1.7 JB	3.3 J	mg/kg	FGOW-AOC7B-SS-GP1(0-6INCHES)	2/7	0.034U - 0.039U	0.0078	0.460	2.30E+01	N	2.30E+00	5.00E-01	No
7439-97-6	Mercury	0.0068 J	0.0078 J	mg/kg										

- (1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
 U - undetected at the limit of detection
 (2) Maximum concentration used for screening
 (3) Site-Specific: Maximum detector
 (4) Non-carcinogenic PRGs (except soil saturation/ceiling limits) were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
 (6) No detection limits given; analyte detected in every sample

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic mg/kg = milligrams per kilogram
 N = Non-Carcinogenic ug/kg = microgram per kilogram
 S = Soil Saturation

TABLE 13
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7B (STEAM PLANT AND ASSOCIATED 26.7 ACRES - NORTHEAST QUADRANT
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Groundwater

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 Tapwater PRG		Adjusted PRG (4)	MCL	MDH Value	Exceeds Adjusted PRG? (Y/N)
											(C or N)				
	VOCs (ug/L)														
87-61-6	1,2,3-Trichlorobenzene	0.24 J	0.24 J	µg/L	FGOW-AOC7B-W-GP2	1/3	1U - 1U	0.24	NA	7.2E+00 (9)	N	7.20E-01	N/A	N/A	N
67-64-1	Acetone	3.8 J	3.8 J	µg/L	FGOW-AOC7B-W-GP2	1/3	10U - 10U	3.8	NA	5.5E+03	N	5.48E+02	N/A	7.00E+02 HRL	N
67-66-3	Chloroform	2.5	3.1	µg/L	FGOW-AOC7B-W-GP1	3/3	(6)	3.1	NA	1.7E-01	C	1.66E-01	80	6.00E+01 HRL	Y
104-51-8	n-Butylbenzene	0.15 J	0.15 J	µg/L	FGOW-AOC7B-W-GP2	1/3	1U - 1U	0.15	NA	2.4E+02	N	2.4E+01	N/A	N/A	N
108-88-3	Toluene	0.24 J	0.37 J	µg/L	FGOW-AOC7B-W-GP2	2/3	1U - 1U	0.37	NA	7.2E+02	N	7.2E+01	1000	1.00E+03 HRL	N
79-01-6	Trichloroethene	0.32 J	0.4 J	µg/L	FGOW-AOC7B-W-GP1	3/3	(6)	0.4	NA	1.4E+00 (8)	C	1.4E+00 (8)	5	5.00E+00 HRL	N
	SVOCs (ug/L)														
207-08-9	Benzo(k)fluoranthene	4.4 J	4.4 J	µg/L	FGOW-AOC7B-W-GP2	1/3	10U - 80U	4.4	NA	9.2E-01	C	9.2E-01	N/A	5.00E-01 HBV	Y
108-60-1	bis(2-Chloroisopropyl) ether	4.5 Jj	4.5 Jj	µg/L	FGOW-AOC7B-W-GP3	1/3	10U - 10U	4.5	NA	2.7E-01	C	2.7E-01	N/A	3.00E+02 LHA	Y
	Metals (ug/L)														
7440-39-3	Barium	79	100 B	µg/L	FGOW-AOC7B-W-GP1,FGOW-AOC7B-W-GP2	3/3	(6)	100	310	2.6E+03	N	2.6E+02	2000	2.00E+03 HRL	N
7440-47-3	Chromium	11 J	11 J	µg/L	FGOW-AOC7B-W-GP2	1/3	15U - 15U	11	ND	1.1E+02 (7)	N	1.10E+01	100	1.00E+02 HRL	N

(1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
 U - undetected at the limit of detection

(2) Maximum concentration used for screening

(3) Site-Specific: Maximum detection

(4) Non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
 USEPA Region IX Tap Water COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)

(6) No detection limits given; analyte detected in every sample.

(7) Screening value for chromium VI used as a surrogate.

(8) CAL-modified PRG

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

MCL = Maximum Contaminant Levels (Winter, 2004)

C = Carcinogenic ug/L = microgram per liter
 N = Non-Carcinogenic

TABLE 14
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7C (STEAM PLANT AND ASSOCIATED 26.7 ACRES - SOUTHEAST QUADRANT)
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)	(C or N)			
VOCs (ug/kg)														
78-93-3	2-Butanone (MEK)	8.7 JB	21 JBj	µg/kg	FGOW-AOC7C-S-GP2(2-4FEET),FGOW-AOC7C-SS-GP7(0-6INCHES)	7/14	8.2Jbu - 22U	21	NA	2.2E+07	N	2.2E+06	5.50E+06	No
67-64-1	Acetone	45 J	45 J	µg/kg	FGOW-AOC7C-S-GP2(2-4FEET)	1/14	16U - 45U	45	NA	1.4E+07	N	1.4E+06	3.40E+05	No
91-20-3	Naphthalene	1.5 JBj	1.5 JBj	µg/kg	FGOW-AOC7C-SS-GP7(0-6INCHES)	1/14	4.1U - 7U	1.5	NA	5.6E+04	N	5.6E+03	1.00E+04	No
99-87-6	p-Isopropyltoluene	2.4 JQj	2.4 JQj	µg/kg	FGOW-AOC7C-SS-GP4(0-6INCHES)	1/14	4.1U - 11U	2.4	NA	5.7E+05 (7)	N	5.7E+04	3.00E+04	No
SVOCs (ug/kg)														
91-57-6	2-Methylnaphthalene	48 J	83 J	µg/kg	FGOW-AOC7C-SS-GP4(0-6INCHES)	2/14	340U - 390U	83	NA	N/A	N/A	N/A	1.00E+05	N/A
120-12-7	Anthracene	45 J	45 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	1/14	340U - 390U	45	NA	2.2E+07	N	2.2E+06	7.88E+06	No
56-55-3	Benzo(a)anthracene	40 J	98 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	3/14	340U - 390U	98	NA	6.2E+02	C	6.2E+02	2.00E+04	No
50-32-8	Benzo(a)pyrene	65 J	65 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	1/14	340U - 390U	65	NA	6.2E+01	C	6.2E+01	2.00E+03	Yes
205-99-2	Benzo(b)fluoranthene	49 JK	110 JK	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	2/14	340U - 390U	110	NA	6.2E+02	C	6.2E+02	2.00E+04	No
117-81-7	bis(2-Ethylhexyl) phthalat	150 J	150 J	µg/kg	FGOW-AOC7C-SS-GP3(0-6INCHES)	1/14	340U - 390U	150	NA	3.5E+04	C	3.5E+04	5.70E+05	No
218-01-9	Chrysene	42 J	98 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	2/14	340U - 390U	98	NA	6.2E+04	C	6.2E+04	2.00E+05	No
132-64-9	Dibenzofuran	40 J	42 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	2/14	340U - 390U	42	NA	1.5E+05	N	1.45E+04	1.04E+05	No
206-44-0	Fluoranthene	54 J	200 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	3/14	340U - 390U	200	NA	2.3E+06	N	2.29E+05	1.08E+06	No
85-01-8	Phenanthrene	45 J	230 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	6/14	340U - 380U	230	NA	N/A	N/A	N/A	N/A	N/A
129-00-0	Pyrene	43 J	180 J	µg/kg	FGOW-AOC7C-SS-GP6(2-3FT)	4/14	410U - 470U	180	NA	2.32E+06	N	2.32E+05	8.90E+05	No
Metals (mg/kg)														
7440-38-2	Arsenic	1.6 J	3.3	mg/kg	FGOW-AOC7C-S-GP3(2-4FEET),FGOW-AOC7C-SS-GP4(0-6INCHES)	13/14	2.6U - 2.6U	3.3	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	19	63	mg/kg	FGOW-AOC7C-S-GP3(2-4FEET)	14/14	(6)	63	170	5.4E+03	N	5.4E+02	1.20E+03	No
7440-43-9	Cadmium	0.088 J	0.33 J	mg/kg	FGOW-AOC7C-S-GP5(2-4FEET)	14/14	(6)	0.33	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	8	14	mg/kg	FGOW-AOC7C-S-GP2(2-4FEET),FGOW-AOC7C-SS-GP7(0-6INCHES)	14/14	(6)	14	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	1.5 J	5.6 J	mg/kg	FGOW-AOC7C-S-GP3(2-4FEET),FGOW-AOC7C-SS-GP3(2-4FEET),FGOW-AOC7C-SS-GP4(0-6INCHES)	14/14	(6)	5.6	18.0	4.0E+02	N	4.0E+02	3.00E+02	No
7439-97-6	Mercury	0.01 J	0.011 J	mg/kg	FGOW-AOC7C-SS-GP4(0-6INCHES),FGOW-AOC7C-SS-GP5(0-6INCHES),FGOW-AOC7C-SS-GP5(0-6INCHES)	3/14	0.034U - 0.039U	0.011	0.460	2.30E+01	N	2.30E+00	5.00E-01	No
9004-70-0	Nitrocellulose	1.2 BJ	1.5 BJ	mg/kg	FGOW-AOC7C-SS-SS8(0-6INCHES)	2/12	1.2BJu - 2.8BJu	1.5	NA	N/A	N/A	N/A	N/A	N/A

- (1) J - Analyte present - Reported value is estimated
- B - blank contamination above the method detection limit
- Q - One or more quality control criteria failed
- K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene
- u - Undetected due to presence of analyte in method blank - concentrations in samples not significantly different from background
- U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detector
- (4) Non-carcinogenic PRGs (except soil saturation/ceiling limits) were divided by 10 to account for potential additive effects of chemicals
- USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample
- (7) Screening level for isopropylbenzene used as a surrogate

Definitions: N/A = Not Applicable
 NA = Not Analyzed
 ND = Not Detected

C = Carcinogenic
 N = Non-Carcinogenic
 mg/kg = milligrams per kilogram
 ug/kg = microgram per kilogram

TABLE 15
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 COMPARISON TO USEPA REGION 9 PRGs
 AOC 7C (STEAM PLANT AND ASSOCIATED 26.7 ACRES - SOUTHEAST QUADRANT
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Groundwater

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 Tapwater PRG		Adjusted PRG (4)	MCL	MDH Value	Exceeds Adjusted PRG? (Y/N)
											(C or N)				
	VOCs (ug/L)														
78-93-3	2-Butanone (MEK)	2.3 J	2.3 J	µg/L	FGOW-AOC7C-W-GP3	1/3	6U - 6U	2.3	NA	7.0E+03	N	6.97E+02	N/A	4.00E+03 HRL	N
67-64-1	Acetone	5.8 J	5.8 J	µg/L	FGOW-AOC7C-W-GP3	1/3	10U - 10U	5.8	NA	5.5E+03	N	5.48E+02	N/A	7.00E+02 HRL	N
71-43-2	Benzene	0.21 J	0.21 J	µg/L	FGOW-AOC7C-W-GP3	1/3	1U - 1U	0.21	NA	3.5E-01	C	3.54E-01	5	5.00E+00 HRL	N
					FGOW-AOC7C-W-GP3,FGOW-AOC7C-W-GP6,FGOW-AOC7C-W-GP7										
67-66-3	Chloroform	1	1	µg/L	GP7	3/3	(6)	1	NA	1.7E-01	C	1.66E-01	80	6.00E+01 HRL	Y
108-88-3	Toluene	0.35 J	0.35 J	µg/L	FGOW-AOC7C-W-GP3	1/3	1U - 1U	0.35	NA	7.2E+02	N	7.2E+01	1000	1.00E+03 HRL	N
79-01-6	Trichloroethene	0.17 J	0.23 J	µg/L	FGOW-AOC7C-W-GP3	2/3	1U - 1U	0.23	NA	1.4E+00 (8)	C	1.4E+00 (8)	5	5.00E+00 HRL	N
	SVOCs (ug/L)														
100-01-6	4-Nitroaniline	2 J	2 J	µg/L	FGOW-AOC7C-W-GP7	1/3	50U - 50U	2	NA	3.2E+00	C	3.20E+00	N/A	N/A	N
100-02-7	4-Nitrophenol	2.6 J	2.6 J	µg/L	FGOW-AOC7C-W-GP7	1/3	50U - 50U	2.6	NA	N/A	N/A	N/A	N/A	N/A	N/A
56-55-3	Benzo(a)anthracene	1.4 J	1.4 J	µg/L	FGOW-AOC7C-W-GP7	1/3	10U - 10U	1.4	NA	9.2E-02	C	9.2E-02	N/A	5.00E-01 HBV	Y
117-81-7	bis(2-Ethylhexyl) phthalate	2.2 J	6.6 J	µg/L	FGOW-AOC7C-W-GP3	3/3	(6)	6.6	NA	4.8E+00	C	4.8E+00	6	2.00E+01 HRL	Y
86-74-8	Carbazole	1.9 J	1.9 J	µg/L	FGOW-AOC7C-W-GP7	1/3	10U - 10U	1.9	NA	3.4E+00	C	3.36E+00	N/A	N/A	N
218-01-9	Chrysene	1.5 J	1.5 J	µg/L	FGOW-AOC7C-W-GP7	1/3	10U - 10U	1.5	NA	9.2E+00	C	9.21E+00	N/A	5.00E+00 HBV	N
206-44-0	Fluoranthene	1.2 J	1.2 J	µg/L	FGOW-AOC7C-W-GP7	1/3	20U - 20U	1.2	NA	1.5E+03	N	1.5E+02	N/A	3.00E+02 HRL	N
129-00-0	Pyrene	1.1 J	1.1 J	µg/L	FGOW-AOC7C-W-GP7	1/3	10U - 10U	1.1	NA	1.8E+02	N	1.83E+01	N/A	2.00E+02 HRL	N
	Metals (ug/L)														
7440-39-3	Barium	57	100	µg/L	FGOW-AOC7C-W-GP7	3/3	(6)	100	310	2.6E+03	N	2.6E+02	2000	2.00E+03 HRL	N
7440-47-3	Chromium	31	31	µg/L	FGOW-AOC7C-W-GP3	1/3	15U - 15U	31	ND	1.1E+02 (7)	N	1.10E+01	100	1.00E+02 HRL	Y
	Other (mg/L)														
9004-70-0	Nitrocellulose	0.22 B	0.87	mg/L	FGOW-AOC7C-W-GP6	2/2	(6)	0.87	NA	N/A	N/A	N/A	N/A	N/A	N/A

(1) J - Analyte present - Reported value is estimated
 B - blank contamination above the method detection limit
 U - undetected at the limit of detection

(2) Maximum concentration used for screening

(3) Site-Specific: Maximum detection

(4) Non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals

USEPA Region IX Tap Water COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)

(6) No detection limits given; analyte detected in every sample.

(7) Screening value for chromium VI used as a surrogate.

Definitions: N/A = Not Applicable

NA = Not Analyzed

ND = Not Detected

MCL = Maximum Contaminant Levels (2007)

C = Carcinogenic

ug/L = microgram per liter

N = Non-Carcinogenic

TABLE 16
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 AOC 7D (STEAM PLANT AND ASSOCIATED 26.7 ACRES - SOUTHWEST QUADRANT
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
 Medium: Total Soil
 Exposure Medium: Total Soil
 Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
										(C or N)	(4)			
	VOCs (ug/kg)													
95-63-6	1,2,4-Trimethylbenzene	0.87 J	120 JQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	12/22	4.6U - 13U	120	NA	5.2E+04	N	5.16E+03	8.00E+03	N
108-67-8	1,3,5-Trimethylbenzene	51 JQ	51 JQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	4.6U - 13U	51	NA	2.1E+04	N	2.13E+03	3.00E+03	N
78-93-3	2-Butanone (MEK)	2.4 Jj	18 Jj	µg/kg	FGOW-AOC7D-S-GP2(2-4FEET)	4/22	18U - 50U	18	NA	2.2E+07	N	2.2E+06	5.50E+06	N
67-64-1	Acetone	7.2 Jj	70 J	µg/kg	FGOW-AOC7D-S-GP2(2-4FEET)	12/22	18U - 50U	70	NA	1.4E+07	N	1.4E+06	3.40E+05	N
71-43-2	Benzene	0.6 Jj	0.6 Jj	µg/kg	FGOW-AOC7D-S-GP4(2-4FT)	1/22	4.6U - 13U	0.6	NA	6.4E+02	C	6.4E+02	6.00E+03	N
100-41-4	Ethylbenzene	0.95 J	1.9 J	µg/kg	FGOW-AOC7D-SS-GP1(0-6INCHES)	3/22	4.6U - 13U	1.9	NA	4.0E+05	C	4.0E+05	2.00E+05	N
98-82-8	Isopropylbenzene	5.3 JjQ	5.3 JjQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	4.6U - 13U	5.3	NA	5.7E+05 (8)	N	5.7E+04	3.00E+04	N
136777-61-2	m-Xylene & p-Xylene	1.3 J	6.4 JQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	7/22	2.3U - 6.3U	6.4	NA	2.7E+05 (7)	N	2.7E+04	4.50E+04	N
75-09-2	Methylene chloride	0.84 Jbu	2.6 J	µg/kg	FGOW-AOC7D-S-GP2(8-10FEET)	8/22	4.6U - 8.8U	2.6	NA	9.1E+03	N	9.1E+02	9.70E+04	N
104-51-8	n-Butylbenzene	2.9 JjQ	2.9 JjQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	4.6U - 13U	2.9	NA	2.4E+05	C	2.4E+05	3.00E+04	N
103-65-1	n-Propylbenzene	23 JQ	23 JQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	4.6U - 13U	23	NA	2.4E+05	C	2.4E+05	3.00E+04	N
91-20-3	Naphthalene	0.83 J	2,400 J	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	18/22	4.9U - 6.2U	2,400	NA	5.6E+04	N	5.6E+03	1.00E+04	N
95-47-6	o-Xylene	12 JQ	12 JQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	2.3U - 6.3U	12	NA	2.7E+05	N	2.7E+04	4.50E+04	N
108-88-3	Toluene	0.79 J	3.4 JjQ	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	12/22	4.6U - 13U	3.4	NA	5.2E+05	C	5.2E+05	1.07E+05	N
	SVOCs (ug/kg)													
91-57-6	2-Methylnaphthalene	220 J	2,900	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	7/22	340U - 460U	2,900	NA	5.6E+04 (9)	N	5.6E+03	1.00E+05	N
65794-96-9	3-Methylphenol & 4-Methylphenol	210 J	210 J	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	1/22	340U - 2000U	210	NA	3.1E+06	N	3.1E+05	7.50E+04	N
83-32-9	Acenaphthene	43 J	12,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	8/22	340U - 460U	12,000	NA	3.7E+06	N	3.7E+05	1.20E+06	N
120-12-7	Anthracene	100 J	31,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	8/22	340U - 460U	31,000	NA	2.2E+07	N	2.2E+06	7.88E+06	N
56-55-3	Benzo(a)anthracene	38 J	46,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	14/22	340U - 460U	46,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
50-32-8	Benzo(a)pyrene	52 J	37,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	9/22	340U - 460U	37,000	NA	6.2E+01	C	6.2E+01	2.00E+03	Y
205-99-2	Benzo(b)fluoranthene	40 J	54,000 K	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	13/22	340U - 460U	54,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
191-24-2	Benzo(ghi)perylene	150 J	15,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	8/22	340U - 460U	15,000	NA	2.32E+06 (10)	N	2.32E+05	N/A	Y
207-08-9	Benzo(k)fluoranthene	3,900	24,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	3/22	340U - 2000U	24,000	NA	6.2E+03	C	6.2E+03	2.00E+04	Y
117-81-7	bis(2-Ethylhexyl) phthalate	69 J	10,000	µg/kg	FGOW-AOC7D-SS-GP2(0-6INCHES)	7/22	340U - 2000U	10,000	NA	3.5E+04	C	3.5E+04	5.70E+05	N
85-68-7	Butyl benzyl phthalate	64 J	64 J	µg/kg	FGOW-AOC7D-S-GP2(2-4FEET)	1/22	340U - 2000U	64	NA	1.2E+07	N	1.2E+06	5.80E+05	N
86-74-8	Carbazole	61 J	11,000	µg/kg	FGOW-AOC7D-S-GP3(6-8FT)	8/22	340U - 460U	11,000	NA	2.4E+04	C	2.4E+04	7.00E+05	N
218-01-9	Chrysene	43 J	42,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	13/22	340U - 460U	42,000	NA	6.2E+04	C	6.2E+04	2.00E+05	N
84-74-2	Di-n-butyl phthalate	38 J	38 J	µg/kg	FGOW-AOC7D-SS-GP2(0-6INCHES)	1/22	340U - 2000U	38	NA	6.1E+06	N	6.1E+05	2.44E+06	N
117-84-0	Di-n-octyl phthalate	69 J	69 J	µg/kg	FGOW-AOC7D-S-GP2(2-4FEET)	1/22	340U - 2000U	69	NA	2.4E+06	N	2.4E+05	5.20E+05	N
53-70-3	Dibenz(a,h)anthracene	43 J	1,600 J	µg/kg	FGOW-AOC7D-S-GP5(2-4FT)	7/22	340U - 1700U	1,600	NA	6.2E+01	C	6.21E+01	3.56E+03	Y
132-64-9	Dibenzofuran	160 J	6,700	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	7/22	340U - 460U	6,700	NA	1.5E+05	N	1.45E+04	1.04E+05	N
206-44-0	Fluoranthene	62 J	100,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	13/22	340U - 460U	100,000	NA	2.3E+06	N	2.29E+05	1.08E+06	N
86-73-7	Fluorene	44 J	14,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	8/22	340U - 460U	14,000	NA	3.7E+06	N	3.7E+05	8.50E+05	N
193-39-5	Indeno(1,2,3-cd)pyrene	140 J	15,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	8/22	340U - 460U	15,000	NA	6.2E+02	C	6.2E+02	2.00E+04	Y
91-20-3	Naphthalene	0.83 J	2,400 J	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	18/22	4.9U - 6.2U	2,400	NA	5.6E+04	N	5.6E+03	1.00E+04	N
87-86-5	Pentachlorophenol	310 J	8,300	µg/kg	FGOW-AOC7D-S-GP3(6-8FT)	2/22	1600U - 9900U	8,300	NA	3.0E+03	C	3.0E+03	6.00E+03	Y
85-01-8	Phenanthrene	36 J	87,000	µg/kg	FGOW-AOC7D-S-GP3(6-8FT)	16/22	340U - 460U	87,000	NA	2.32E+06 (10)	N	2.32E+05	N/A	N
129-00-0	Pyrene	40 J	86,000	µg/kg	FGOW-AOC7D-S-GP3(2-4FT)	15/22	410U - 560U	86,000	NA	2.32E+06	N	2.32E+05	8.90E+05	N
	PCBs (ug/kg)													
11097-69-1	Aroclor 1254	64 J	320 Jj	µg/kg	FGOW-AOC7D-SS-S4	3/8	34U - 170U	320	NA	2.2E+02	C	2.2E+02	1.20E+03	Y
11096-82-5	Aroclor 1260	36	930	µg/kg	FGOW-AOC7D-S-GP3(6-8FT)	6/8	34U - 36U	930	NA	2.2E+02	C	2.2E+02	1.20E+03	Y

TABLE 16 (continued)
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SIE CHEMICALS
 AOC 7D (STEAM PLANT AND ASSOCIATED 26.7 ACRES - SOUTHWEST QUADRANT
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Current, Future
Medium: Total Soil
Exposure Medium: Total Soil
Exposure Point: Total Soil

CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 PRG		Adjusted PRG (4)	MPCA Tier 1 SRV	Exceeds Adjusted PRG? (Y/N)
											(C or N)			
	Metals (mg/kg)													
7440-38-2	Arsenic	0.96 J	33	mg/kg	FGOW-AOC7D-S-GP3(6-8FT)	22/22	(6)	33	8.70	3.9E-01	C	3.9E-01	5.00E+00	Yes
7440-39-3	Barium	14	710	mg/kg	FGOW-AOC7D-S-GP7(2-4FT)	22/22	(6)	710	170	5.4E+03	N	5.4E+02	1.20E+03	Yes
7440-43-9	Cadmium	0.08 J	2	mg/kg	FGOW-AOC7D-SS-GP5(0-6INCHES)	8/22	0.51U - 0.7U	2	1.40	3.7E+01	N	3.7E+00	2.50E+01	No
7440-47-3	Chromium	6.4 J	28	mg/kg	FGOW-AOC7D-SS-GP9(0-6INCHES)	22/22	(6)	28	28.0	2.1E+02	C	2.1E+02	8.70E+01	No
7439-92-1	Lead	1.5 J	5,400	mg/kg	FGOW-AOC7D-S-GP7(2-4FT)	22/22	(6)	5,400	18.0	4.0E+02	N	4.0E+02	3.00E+02	Yes
7439-97-6	Mercury	0.011 J	1.1	mg/kg	FGOW-AOC7D-SS-GP5(0-6INCHES)	20/22	0.034U - 0.035U	1.1	0.460	2.30E+01	N	2.30E+00	5.00E-01	No
7782-49-2	Selenium	2.2 J	3.7	mg/kg	FGOW-AOC7D-S-GP5(2-4FT)	3/22	3.1U - 4.2U	3.7	ND	3.9E+02	N	3.9E+01	1.60E+02	No
7440-22-4	Silver	1.8	1.8	mg/kg	FGOW-AOC7D-S-GP5(2-4FT)	1/22	1.5U - 2.1U	1.8	0.490	3.9E+02	N	3.9E+01	1.60E+02	No
9004-70-0	Other (mg/kg) Nitrocellulose	0.91 B	5 B	mg/kg	FGOW-AOC7D-SS-SS2	10/11	5.3U - 5.3U	5	NA	N/A	N/A	N/A	N/A	N/A

(1) J - Analyte present - Reported value is estimated

Q - One or more quality control criteria failed

K - the reported benzo(b)fluoranthene may consist of both benzo(b)fluoranthene and benzo(k)fluoranthene

U - undetected at the limit of detection

(2) Maximum concentration used for screening

(3) Site-Specific: Maximum detection

(4) Non-carcinogenic PRGs (except soil saturation/ceiling limits) were divided by 10 to account for potential additive effects of chemicals

USEPA Region IX Residential Soil COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)

(6) No detection limits given; analyte detected in every sample.

(7) Screening value for xylenes (total) used as a surrogate.

(8) Screening level for isopropylbenzene used as a surrogate

(9) Screening level for naphthalene used as a surrogate

(10) Screening level for pyrene used as a surrogate

Definitions: N/A = Not Applicable

NA = Not Analyzed

ND = Not Detected

C = Carcinogenic

N = Non-Carcinogenic

S = Soil Saturation

mg/kg = milligrams per kilogram

ug/kg = microgram per kilogram

TABLE 17
 OCCURRENCE, DISTRIBUTION AND SCREENING OF SITE CHEMICALS
 AOC 7D (STEAM PLANT AND ASSOCIATED 26.7 ACRES - SOUTHWEST QUADRANT
 FOCUSED SITE INSPECTION
 FORMER GOPHER ORDNANCE WORKS, ROSEMOUNT, MN

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Region 9 Tapwater PRG		Adjusted PRG (4)	MCL	MDH Value	Exceeds Adjusted PRG? (Y/N)	
											(C or N)	(4)					
Groundwater	VOCs (ug/L)																
	67-64-1	Acetone	2.6 J	4.8 J	µg/L	FGOW-AOC7D-W-GP2	2/4	10U - 10U	4.8	NA	5.5E+03	N	5.48E+02	N/A	7.00E+02 HRL	N	
	71-43-2	Benzene	0.26 J	0.26 J	µg/L	FGOW-AOC7D-W-GP5	1/4	1U - 1U	0.26	NA	3.5E-01	C	3.54E-01	5	5.00E+00 HRL	N	
	67-66-3	Chloroform	0.45 J	1.1	µg/L	FGOW-AOC7D-W-GP8	4/4	(6)	1.1	NA	1.7E-01	C	1.66E-01	80	6.00E+01 HRL	Y	
	100-41-4	Ethylbenzene	0.45 J	0.45 J	µg/L	FGOW-AOC7D-W-GP5	1/4	1U - 1U	0.45	NA	1.3E+03	N	1.3E+02	700	7.00E+02 HRL	N	
	75-09-2	Methylene chloride	0.45 J	0.77 J	µg/L	FGOW-AOC7D-W-GP5	2/4	5U - 5U	0.77	NA	4.3E+00	C	4.3E+00	5	5.00E+01 HRL	N	
	108-88-3	Toluene	0.18 J	1	µg/L	FGOW-AOC7D-W-GP5	4/4	(6)	1	NA	7.2E+02	N	7.2E+01	1000	1.00E+03 HRL	N	
	79-01-6	Trichloroethene	0.17 J	0.27 J	µg/L	FGOW-AOC7D-W-GP1	4/4	(6)	0.27	NA	1.4E+00 (7)	C	1.4E+00 (7)	5	5.00E+00 HRL	N	
	SVOCs (ug/L)																
	88-06-2	2,4,6-Trichlorophenol	94	94	µg/L	FGOW-AOC7D-W-GP5	1/4	20U - 20U	94	NA	3.6E+00	N	3.6E-01	N/A	3.00E+01 HRL	Y	
	91-57-6	2-Methylnaphthalene	75	75	µg/L	FGOW-AOC7D-W-GP5	1/4	10U - 10U	75	NA	6.2E+00 (8)	N	6.2E_01	N/A	N/A	Y	
	117-81-7	bis(2-Ethylhexyl) phthalate	2 J	2 J	µg/L	FGOW-AOC7D-W-GP1	1/4	10U - 10U	2	NA	4.8E+00	C	4.8E+00	6	6.00E+00 HRL	N	
	Metals (ug/L)																
	7440-39-3	Barium	75	91	µg/L	FGOW-AOC7D-W-GP2	4/4	(6)	91	310	2.6E+03	N	2.6E+02	2000	2.00E+03 HRL	N	

- (1) J - Analyte present - Reported value is estimated
U - undetected at the limit of detection
- (2) Maximum concentration used for screening
- (3) Site-Specific: Maximum detection
- (4) All non-carcinogenic criteria were divided by 10 to account for potential additive effects of chemicals
USEPA Region IX Tap Water COC Screening Value (derived from USEPA Region IX PRG Table - October, 2004)
- (6) No detection limits given; analyte detected in every sample.
- (7) CAL-modified PRG
- (8) Screening level for naphthalene used as a surrogate

Definitions: N/A = Not Applicable
 ND = Not Detected

MCL = Maximum Contaminant Levels (2007)

C = Carcinogenic ug/L = microgram per liter
 N = Non-Carcinogenic