Table 6-61
Maximum Estimated Risk for Potential Residential Vapor Intrusion Exposures from Soil Gas in AOCs J-K (2005 J1 Results Replaced with 2016 Data)[1]
Chino Airport, Chino, California

Chemical	Maximum Detect ($\mu g/m^3$)	Default Residential Soil Gas Screening Levels ($\mu g/m^3$)[2]		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[3]	Maximum Estimated Hazard Quotient[4]
Acetone	26.40	----	3.20E+07	----	8.3E-07
Benzene	6.90	9.70E+01	3.10E+03	7.1E-08	2.2E-03
Carbon disulfide	40.50	----	7.30E+05	----	5.5E-05
Carbon tetrachloride	69.80	6.70E+01	4.20E+04	1.0E-06	1.7E-03
Chloroform (Trichloromethane)	7.13	1.20E+02	1.00E+05	5.9E-08	7.1E-05
Cyclohexane	7.84	----	6.30E+06	----	1.2E-06
Dichlorodifluoromethane	6.48	----	1.00E+05	----	6.5E-05
Ethylbenzene	12.20	1.10E+03	1.00E+06	1.1E-08	1.2E-05
n-Hexane	7.19	----	7.30E+05	----	9.8E-06
Propene	4.30	----	3.10E+06	----	1.4E-06
Tetrachloroethene	42.00	4.60E+02	4.20E+04	9.1E-08	1.0E-03
Tetrahydrofuran	6.24	----	2.10E+06	----	3.0E-06
Toluene (Methyl benzene)	42.90	----	3.10E+05	----	1.4E-04
Trichloroethene	39.00	4.80E+02	2.10E+03	8.1E-08	1.9E-02
Trichlorofluoromethane	14.10	----	1.30E+06	----	1.1E-05
1,2,4-Trimethylbenzene	10.20	----	6.30E+04	----	1.6E-04
1,3,5-Trimethylbenzene	7.08	----	6.30E+04	----	1.1E-04
o-Xylene	14.00	----	1.00E+05	----	1.4E-04
m,p-Xylenes	39.80	----	1.00E+05	----	4.0E-04
n-Heptane	8.68	----	4.20E+05	----	2.1E-05
Naphthalene	24.50	8.30E+01	3.10E+03	3.0E-07	7.9E-03
Maximum Estimated Cumulative Risk and Hazard Index[5]				2.E-06	0.03

Acronyms and Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] For location J1, older 2005 data was replaced with shallower 2016 data.

[2] Listed soil gas screening criteria are the default soil gas RBSLs summarized in Appendix B.

[3] Estimated cancer risk =(soil gas concentration/cancer soil gas screening level) x 10^{-6}.

[4] Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

[5] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-62
AOC KK: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	5,642	ND	ND
1,1-Dichloroethane	ND	125	5,685	ND	ND
1,1-Dichloroethene	ND	-	277	ND	ND
1,2,3-Trichlorobenzene	ND	-	246	ND	ND
1,2,3-Trichloropropane	ND	0.17	16	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	191	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,367	ND	ND
1,2-Dichlorobenzene	ND	-	7,128	ND	ND
1,2-Dichloroethane	ND	16	110	ND	ND
1,3-Dichlorobenzene	ND	-	6,745	ND	ND
1,4-Dichlorobenzene	ND	86	20,493	ND	ND
2-Butanone (MEK)	ND	-	174,944	ND	ND
Acetone	0.00810	-	640,645	-	1.3E-08
Benzene	0.00150	11	35	1.4E-10	4.3E-05
Bromoform	0.00130	671	2,439	1.9E-12	5.3E-07
Tert-butyl alcohol	ND	-	2,330,312	ND	ND
Carbon disulfide	ND	-	2,797	ND	ND
Carbon Tetrachloride	ND	3.4	196	ND	ND
Chlorobenzene	ND	-	1,016	ND	ND
Chloroform	0.00020	11	837	1.8E-11	2.4E-07
Chloromethane	ND	-	374	ND	ND
Ethylbenzene	ND	194	15,989	ND	ND
Methylene chloride	ND	200	2,161	ND	ND
Naphthalene	ND	54	428	ND	ND
Tetrachloroethene	ND	23	265	ND	ND
Toluene	0.00160	-	4,053	-	3.9E-07
Trichloroethene	0.00041	48	15	8.6E-12	2.8E-05
Trichlorofluoromethane	0.00370	-	4,149	-	8.9E-07
o-xylene	ND	-	2,094	ND	ND
m,p-xylene	ND	-	1,863	ND	ND
TPHs					
TPH-gas	ND	-	3,035	ND	ND
TPH-diesel	421	-	820	-	5.1E-01
Estimated Cumulative Risk and Hazard Index				**2E-10**	**0.5**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-63
AOC KK: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,259	ND	ND
1,1-Dichloroethane	ND	699	1,276	ND	ND
1,1-Dichloroethene	ND	-	62	ND	ND
1,2,3-Trichlorobenzene	ND	-	59	ND	ND
1,2,3-Trichloropropane	ND	0.96	3.5	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	43	ND	ND
1,2,4-Trimethylbenzene	ND	-	315	ND	ND
1,2-Dichlorobenzene	ND	-	1,618	ND	ND
1,2-Dichloroethane	ND	92	25	ND	ND
1,3-Dichlorobenzene	ND	-	1,530	ND	ND
1,4-Dichlorobenzene	ND	480	4,894	ND	ND
2-Butanone (MEK)	ND	-	41,764	ND	ND
Acetone	0.00810	-	170,265	-	4.8E-08
Benzene	0.00150	62	7.8	2.4E-11	1.9E-04
Bromoform	0.00130	3,977	559	3.3E-13	2.3E-06
Tert-butyl alcohol	ND	-	705,538	ND	ND
Carbon disulfide	ND	-	628	ND	ND
Carbon Tetrachloride	ND	19	44	ND	ND
Chlorobenzene	ND	-	229	ND	ND
Chloroform	0.00020	62	190	3.2E-12	1.1E-06
Chloromethane	ND	-	84	ND	ND
Ethylbenzene	ND	1,100	3,699	ND	ND
Methylene chloride	ND	1,141	525	ND	ND
Naphthalene	ND	334	96	ND	ND
Tetrachloroethene	ND	140	60	ND	ND
Toluene	0.00160	-	914	-	1.8E-06
Trichloroethene	0.00041	272	3	1.5E-12	1.2E-04
Trichlorofluoromethane	0.00370	-	928	-	4.0E-06
o-xylene	ND	-	468	ND	ND
m,p-xylene	ND	-	416	ND	ND
TPHs					
TPH-gas	ND	-	689	ND	ND
TPH-diesel	216	-	185	-	1.2E+00
Estimated Cumulative Risk and Hazard Index				**3E-11**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-64
AOC KK: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,361	ND	ND
1,1-Dichloroethane	ND	2.9	1,297	ND	ND
1,1-Dichloroethene	ND	-	67	ND	ND
1,2,3-Trichlorobenzene	ND	-	35	ND	ND
1,2,3-Trichloropropane	ND	0.0015	3.8	ND	ND
1,2,4-Trichlorobenzene	ND	24	44	ND	ND
1,2,4-Trimethylbenzene	ND	-	254	ND	ND
1,2-Dichlorobenzene	ND	-	1,469	ND	ND
1,2-Dichloroethane	ND	0.38	26	ND	ND
1,3-Dichlorobenzene	ND	-	1,402	ND	ND
1,4-Dichlorobenzene	ND	2.0	3,001	ND	ND
2-Butanone (MEK)	ND	-	25,658	ND	ND
Acetone	0.00810	-	59,820	-	1.4E-07
Benzene	0.00150	0.26	8.3	5.9E-09	1.8E-04
Bromoform	0.00130	15	465	8.5E-11	2.8E-06
Tert-butyl alcohol	ND	-	156,323	ND	ND
Carbon disulfide	ND	-	639	ND	ND
Carbon Tetrachloride	ND	0.078	43	ND	ND
Chlorobenzene	ND	-	221	ND	ND
Chloroform	0.00020	0.26	171	7.7E-10	1.2E-06
Chloromethane	ND	-	88	ND	ND
Ethylbenzene	ND	4.5	2,856	ND	ND
Methylene chloride	ND	1.9	290	ND	ND
Naphthalene	ND	1.7	99	ND	ND
Tetrachloroethene	ND	0.51	59	ND	ND
Toluene	0.00160	-	883	-	1.8E-06
Trichloroethene	0.00041	0.94	3.3	4.4E-10	1.2E-04
Trichlorofluoromethane	0.00370	-	977	-	3.8E-06
o-xylene	ND	-	497	ND	ND
m,p-xylene	ND	-	443	ND	ND
TPHs					
TPH-gas	ND	-	627	ND	ND
TPH-diesel	216	-	182	-	1.2E+00
Estimated Cumulative Risk and Hazard Index				**7E-09**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-65
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.67E+06	1.37E+07	7.8E-13	9.5E-09
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	1.2	----	2.43E+08	----	4.9E-09
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	13	4.93E+03	3.97E+05	2.6E-08	3.3E-05
1,1-Dichloroethane	0.36	6.47E+04	2.96E+06	5.6E-11	1.2E-07
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	0.27	----	1.74E+05	----	1.6E-06
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.00E+05	----	4.7E-07
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	670	2.42E+04	7.09E+03	2.8E-07	9.4E-02
1,2,3-Trichloropropane	0.043	6.00E+01	4.82E+03	7.2E-09	8.9E-06
Trichlorofluoromethane	19	----	1.17E+06	----	1.6E-05
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	0.39	1.69E+04	1.24E+05	2.3E-10	3.1E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-07	0.09

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-66
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.91E+04	1.64E+06	6.8E-12	7.9E-08
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	1.2	----	2.90E+07	----	4.1E-08
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	13	5.65E+01	4.73E+04	2.3E-07	2.7E-04
1,1-Dichloroethane	0.36	7.41E+02	3.52E+05	4.9E-10	1.0E-06
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	0.27	----	2.07E+04	----	1.3E-05
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.58E+04	----	3.9E-06
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	670	1.94E+02	8.44E+02	3.4E-06	7.9E-01
1,2,3-Trichloropropane	0.043	2.57E-01	5.74E+02	1.7E-07	7.5E-05
Trichlorofluoromethane	19	----	1.39E+05	----	1.4E-04
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	0.39	1.93E+02	1.48E+04	2.0E-09	2.6E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				4.E-06	0.8

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-67
AOC LL: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	7,697	ND	ND
1,1-Dichloroethane	ND	169	7,694	ND	ND
1,1-Dichloroethene	ND	-	378	ND	ND
1,2,3-Trichlorobenzene	ND	-	307	ND	ND
1,2,3-Trichloropropane	ND	0.21	21	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	259	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,790	ND	ND
1,2-Dichlorobenzene	ND	-	9,498	ND	ND
1,2-Dichloroethane	ND	22	149	ND	ND
1,3-Dichlorobenzene	ND	-	8,999	ND	ND
1,4-Dichlorobenzene	ND	117	25,634	ND	ND
2-Butanone (MEK)	ND	-	218,909	ND	ND
Acetone	ND	-	715,432	ND	ND
Benzene	0.00076	14.8	48	5.1E-11	1.6E-05
Bromoform	ND	846	3,208	ND	ND
Tert-butyl alcohol	ND	-	2,331,832	ND	ND
Carbon disulfide	ND	-	3,786	ND	ND
Carbon Tetrachloride	ND	4.6	263	ND	ND
Chlorobenzene	ND	-	1,365	ND	ND
Chloroform	ND	15.1	1,114	ND	ND
Chloromethane	ND	-	509	ND	ND
Ethylbenzene	ND	259	20,792	ND	ND
Methylene chloride	ND	265	2,652	ND	ND
Naphthalene	ND	62	573	ND	ND
Tetrachloroethene	ND	27	358	ND	ND
Toluene	ND	-	5,448	ND	ND
Trichloroethene	ND	64	20	ND	ND
Trichlorofluoromethane	ND	-	5,641	ND	ND
o-xylene	ND	-	2,850	ND	ND
m,p-xylene	ND	-	2,537	ND	ND
TPHs					
TPH-gas	ND	-	4,046	ND	ND
TPH-diesel	642	-	1,105	-	5.8E-01
Estimated Cumulative Risk and Hazard Index				**5E-11**	**0.6**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = maximum 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-68
AOC LL: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,748	ND	ND
1,1-Dichloroethane	ND	966	1,761	ND	ND
1,1-Dichloroethene	ND	-	86	ND	ND
1,2,3-Trichlorobenzene	ND	-	76	ND	ND
1,2,3-Trichloropropane	ND	1.28	4.9	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	59	ND	ND
1,2,4-Trimethylbenzene	ND	-	422	ND	ND
1,2-Dichlorobenzene	ND	-	2,206	ND	ND
1,2-Dichloroethane	ND	126	34	ND	ND
1,3-Dichlorobenzene	ND	-	2,087	ND	ND
1,4-Dichlorobenzene	ND	664	6,315	ND	ND
2-Butanone (MEK)	ND	-	53,910	ND	ND
Acetone	ND	-	195,831	ND	ND
Benzene	0.00076	85	10.8	9.0E-12	7.0E-05
Bromoform	ND	5,171	754	ND	ND
Tert-butyl alcohol	ND	-	706,193	ND	ND
Carbon disulfide	ND	-	866	ND	ND
Carbon Tetrachloride	ND	26	61	ND	ND
Chlorobenzene	ND	-	314	ND	ND
Chloroform	ND	86	259	ND	ND
Chloromethane	ND	-	116	ND	ND
Ethylbenzene	ND	1,500	4,940	ND	ND
Methylene chloride	ND	1,546	665	ND	ND
Naphthalene	ND	386	131	ND	ND
Tetrachloroethene	ND	174	82	ND	ND
Toluene	ND	-	1,255	ND	ND
Trichloroethene	ND	371	4.5	ND	ND
Trichlorofluoromethane	ND	-	1,286	ND	ND
o-xylene	ND	-	649	ND	ND
m,p-xylene	ND	-	577	ND	ND
TPHs					
TPH-gas	ND	-	939	ND	ND
TPH-diesel	288	-	254	-	1.1E+00
Estimated Cumulative Risk and Hazard Index				**9E-12**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-69
AOC LL: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,853	ND	ND
1,1-Dichloroethane	ND	3.9	1,719	ND	ND
1,1-Dichloroethene	ND	-	90	ND	ND
1,2,3-Trichlorobenzene	ND	-	40	ND	ND
1,2,3-Trichloropropane	ND	0.0015	5.1	ND	ND
1,2,4-Trichlorobenzene	ND	24	59	ND	ND
1,2,4-Trimethylbenzene	ND	-	310	ND	ND
1,2-Dichlorobenzene	ND	-	1,864	ND	ND
1,2-Dichloroethane	ND	0.51	34	ND	ND
1,3-Dichlorobenzene	ND	-	1,784	ND	ND
1,4-Dichlorobenzene	ND	2.7	3,414	ND	ND
2-Butanone (MEK)	ND	-	29,201	ND	ND
Acetone	ND	-	62,326	ND	ND
Benzene	0.00076	0.34	11.3	2.2E-09	6.7E-05
Bromoform	ND	19	572	ND	ND
Tert-butyl alcohol	ND	-	156,351	ND	ND
Carbon disulfide	ND	-	847	ND	ND
Carbon Tetrachloride	ND	0.106	56	ND	ND
Chlorobenzene	ND	-	287	ND	ND
Chloroform	ND	0.35	216	ND	ND
Chloromethane	ND	-	118	ND	ND
Ethylbenzene	ND	6.0	3,440	ND	ND
Methylene chloride	ND	1.9	323	ND	ND
Naphthalene	ND	2.0	131	ND	ND
Tetrachloroethene	ND	0.61	77	ND	ND
Toluene	ND	-	1,147	ND	ND
Trichloroethene	ND	0.9	4.4	ND	ND
Trichlorofluoromethane	ND	-	1,314	ND	ND
o-xylene	ND	-	671	ND	ND
m,p-xylene	ND	-	599	ND	ND
TPHs					
TPH-gas	ND	-	797	ND	ND
TPH-diesel	288	-	239	-	1.2E+00
Estimated Cumulative Risk and Hazard Index				**2E-09**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-70
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.67E+06	1.37E+07	7.8E-13	9.5E-09
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	1.2	----	2.43E+08	----	4.9E-09
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	13	4.93E+03	3.97E+05	2.6E-08	3.3E-05
1,1-Dichloroethane	0.36	6.47E+04	2.96E+06	5.6E-11	1.2E-07
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	0.27	----	1.74E+05	----	1.6E-06
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.00E+05	----	4.7E-07
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	670	2.42E+04	7.09E+03	2.8E-07	9.4E-02
1,2,3-Trichloropropane	0.043	6.00E+01	4.82E+03	7.2E-09	8.9E-06
Trichlorofluoromethane	19	----	1.17E+06	----	1.6E-05
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	0.39	1.69E+04	1.24E+05	2.3E-10	3.1E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-07	0.09

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-71
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.91E+04	1.64E+06	6.8E-12	7.9E-08
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	1.2	----	2.90E+07	----	4.1E-08
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	13	5.65E+01	4.73E+04	2.3E-07	2.7E-04
1,1-Dichloroethane	0.36	7.41E+02	3.52E+05	4.9E-10	1.0E-06
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	0.27	----	2.07E+04	----	1.3E-05
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.58E+04	----	3.9E-06
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	670	1.94E+02	8.44E+02	3.4E-06	7.9E-01
1,2,3-Trichloropropane	0.043	2.57E-01	5.74E+02	1.7E-07	7.5E-05
Trichlorofluoromethane	19	----	1.39E+05	----	1.4E-04
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	0.39	1.93E+02	1.48E+04	2.0E-09	2.6E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				4.E-06	0.8

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-72
AOC M: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	8,308	ND	ND
1,1-Dichloroethane	ND	182	8,285	ND	ND
1,1-Dichloroethene	ND	-	408	ND	ND
1,2,3-Trichlorobenzene	ND	-	323	ND	ND
1,2,3-Trichloropropane	ND	0.23	23	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	279	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,909	ND	ND
1,2-Dichlorobenzene	ND	-	10,181	ND	ND
1,2-Dichloroethane	ND	24	160	ND	ND
1,3-Dichlorobenzene	ND	-	9,649	ND	ND
1,4-Dichlorobenzene	ND	126	27,001	ND	ND
2-Butanone (MEK)	0.00860	-	230,604	-	3.7E-08
Acetone	0.01300	-	732,692	-	1.8E-08
Benzene	0.00680	16	51	4.3E-10	1.3E-04
Bromoform	ND	893	3,426	ND	ND
Tert-butyl alcohol	ND	-	2,332,139	ND	ND
Carbon disulfide	ND	-	4,077	ND	ND
Carbon Tetrachloride	ND	5	283	ND	ND
Chlorobenzene	ND	-	1,467	ND	ND
Chloroform	0.00045	16	1,194	2.8E-11	3.8E-07
Chloromethane	ND	-	548	ND	ND
Ethylbenzene	0.00038	277	22,134	1.4E-12	1.7E-08
Methylene chloride	ND	283	2,779	ND	ND
Naphthalene	0.00084	63	615	1.3E-11	1.4E-06
Tetrachloroethene	ND	28	384	ND	ND
Toluene	0.00440	-	5,854	-	7.5E-07
Trichloroethene	ND	68	21	ND	ND
Trichlorofluoromethane	ND	-	6,083	ND	ND
o-xylene	ND	-	3,074	ND	ND
m,p-xylene	0.00100	-	2,736	-	3.7E-07
TPHs					
TPH-gas	ND	-	4,338	ND	ND
TPH-diesel	199	-	1,189	-	1.7E-01
Estimated Cumulative Risk and Hazard Index				**5E-10**	**0.2**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = maximum 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-73
AOC M: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,896	ND	ND
1,1-Dichloroethane	ND	1,045	1,906	ND	ND
1,1-Dichloroethene	ND	-	93	ND	ND
1,2,3-Trichlorobenzene	ND	-	81	ND	ND
1,2,3-Trichloropropane	ND	1.4	5	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	64	ND	ND
1,2,4-Trimethylbenzene	ND	-	454	ND	ND
1,2-Dichlorobenzene	ND	-	2,378	ND	ND
1,2-Dichloroethane	ND	137	37	ND	ND
1,3-Dichlorobenzene	ND	-	2,251	ND	ND
1,4-Dichlorobenzene	ND	720	6,704	ND	ND
2-Butanone (MEK)	0.00860	-	57,241	-	1.5E-07
Acetone	0.01300	-	201,895	-	6.4E-08
Benzene	0.00680	92	12	7.4E-11	5.8E-04
Bromoform	ND	5,502	810	ND	ND
Tert-butyl alcohol	ND	-	706,324	ND	ND
Carbon disulfide	ND	-	938	ND	ND
Carbon Tetrachloride	ND	28	65	ND	ND
Chlorobenzene	ND	-	340	ND	ND
Chloroform	0.00045	93	279	4.8E-12	1.6E-06
Chloromethane	ND	-	126	ND	ND
Ethylbenzene	0.00038	1,618	5,295	2.3E-13	7.2E-08
Methylene chloride	ND	1,665	703	ND	ND
Naphthalene	0.00084	399	142	2.1E-12	5.9E-06
Tetrachloroethene	ND	183	89	ND	ND
Toluene	0.00440	-	1,356	-	3.2E-06
Trichloroethene	ND	400	5	ND	ND
Trichlorofluoromethane	ND	-	1,393	ND	ND
o-xylene	ND	-	703	ND	ND
m,p-xylene	0.00100	-	626	-	1.6E-06
TPHs					
TPH-gas	ND	-	1,013	ND	ND
TPH-diesel	122	-	275	-	4.5E-01
Estimated Cumulative Risk and Hazard Index				**8E-11**	**0.4**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-74
AOC M: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,999	ND	ND
1,1-Dichloroethane	ND	4.2	1,840	ND	ND
1,1-Dichloroethene	ND	-	97	ND	ND
1,2,3-Trichlorobenzene	ND	-	41	ND	ND
1,2,3-Trichloropropane	ND	0.0015	6	ND	ND
1,2,4-Trichlorobenzene	ND	24	64	ND	ND
1,2,4-Trimethylbenzene	ND	-	324	ND	ND
1,2-Dichlorobenzene	ND	-	1,971	ND	ND
1,2-Dichloroethane	ND	0.55	37	ND	ND
1,3-Dichlorobenzene	ND	-	1,888	ND	ND
1,4-Dichlorobenzene	ND	2.9	3,511	ND	ND
2-Butanone (MEK)	0.00860	-	30,038	-	2.9E-07
Acetone	0.01300	-	62,857	-	2.1E-07
Benzene	0.00680	0.37	12	1.8E-08	5.6E-04
Bromoform	ND	20	601	ND	ND
Tert-butyl alcohol	ND	-	156,357	ND	ND
Carbon disulfide	ND	-	907	ND	ND
Carbon Tetrachloride	ND	0.114	59	ND	ND
Chlorobenzene	ND	-	306	ND	ND
Chloroform	0.00045	0.38	228	1.2E-09	2.0E-06
Chloromethane	ND	-	126	ND	ND
Ethylbenzene	0.00038	6.4	3,589	5.9E-11	1.1E-07
Methylene chloride	ND	1.9	331	ND	ND
Naphthalene	0.00084	2.0	141	4.1E-10	6.0E-06
Tetrachloroethene	ND	0.63	82	ND	ND
Toluene	0.00440	-	1,221	-	3.6E-06
Trichloroethene	ND	0.94	5	ND	ND
Trichlorofluoromethane	ND	-	1,413	ND	ND
o-xylene	ND	-	722	ND	ND
m,p-xylene	0.00100	-	645	-	1.6E-06
TPHs					
TPH-gas	ND	-	843	ND	ND
TPH-diesel	122	-	255	-	4.8E-01
Estimated Cumulative Risk and Hazard Index				**2E-08**	**0.5**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-75
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOCs DD, EE, FF, GG, M)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	1.7	2.00E+03	1.20E+05	8.5E-09	1.4E-05
Chloroform	1.1	4.93E+03	3.97E+05	2.2E-09	2.8E-06
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	610	2.42E+04	7.09E+03	2.5E-07	8.6E-02
1,2,3-Trichloropropane	0.059	6.00E+01	4.82E+03	9.8E-09	1.2E-05
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	0.90	1.69E+04	1.24E+05	5.3E-10	7.2E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-07	0.09

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW40 from June 2015 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-76
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOCs DD, EE, FF, GG, M)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	1.7	2.29E+01	1.43E+04	7.4E-08	1.2E-04
Chloroform	1.1	5.65E+01	4.73E+04	1.9E-08	2.3E-05
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	610	1.94E+02	8.44E+02	3.1E-06	7.2E-01
1,2,3-Trichloropropane	0.059	2.57E-01	5.74E+02	2.3E-07	1.0E-04
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	0.90	1.93E+02	1.48E+04	4.7E-09	6.1E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-06	0.7

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW40 from June 2015 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-77
AOC MM: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	6,037	ND	ND
1,1-Dichloroethane	ND	133	6,073	ND	ND
1,1-Dichloroethene	ND	-	297	ND	ND
1,2,3-Trichlorobenzene	ND	-	259	ND	ND
1,2,3-Trichloropropane	ND	0.18	17	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	204	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,451	ND	ND
1,2-Dichlorobenzene	ND	-	7,592	ND	ND
1,2-Dichloroethane	ND	17	117	ND	ND
1,3-Dichlorobenzene	ND	-	7,186	ND	ND
1,4-Dichlorobenzene	ND	92	21,552	ND	ND
2-Butanone (MEK)	0.06000	-	183,996	-	3.3E-07
Acetone	0.27000	-	657,481	-	4.1E-07
Benzene	0.00220	12	37	1.9E-10	5.9E-05
Bromoform	ND	707	2,591	ND	ND
Tert-butyl alcohol	0.00460	-	2,330,684	-	2.0E-09
Carbon disulfide	0.00058	-	2,988	-	1.9E-07
Carbon Tetrachloride	ND	3.6	209	ND	ND
Chlorobenzene	ND	-	1,084	ND	ND
Chloroform	ND	12	891	ND	ND
Chloromethane	ND	-	400	ND	ND
Ethylbenzene	ND	207	16,948	ND	ND
Methylene chloride	ND	213	2,263	ND	ND
Naphthalene	ND	56	456	ND	ND
Tetrachloroethene	ND	24	283	ND	ND
Toluene	0.00200	-	4,324	-	4.6E-07
Trichloroethene	ND	51	16	ND	ND
Trichlorofluoromethane	ND	-	4,437	ND	ND
o-xylene	ND	-	2,240	ND	ND
m,p-xylene	ND	-	1,993	ND	ND
TPHs					
TPH-gas	ND	-	3,233	ND	ND
TPH-diesel	447	-	875	-	5.1E-01
Estimated Cumulative Risk and Hazard Index				**2E-10**	**0.5**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-78
AOC MM: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,352	ND	ND
1,1-Dichloroethane	ND	750	1,369	ND	ND
1,1-Dichloroethene	ND	-	67	ND	ND
1,2,3-Trichlorobenzene	ND	-	62	ND	ND
1,2,3-Trichloropropane	ND	1.0	3.8	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	46	ND	ND
1,2,4-Trimethylbenzene	ND	-	336	ND	ND
1,2-Dichlorobenzene	ND	-	1,732	ND	ND
1,2-Dichloroethane	ND	99	26	ND	ND
1,3-Dichlorobenzene	ND	-	1,637	ND	ND
1,4-Dichlorobenzene	ND	515	5,181	ND	ND
2-Butanone (MEK)	0.06000	-	44,216	-	1.4E-06
Acetone	0.27000	-	175,916	-	1.5E-06
Benzene	0.00220	66	8.4	3.3E-11	2.6E-04
Bromoform	ND	4,217	597	ND	ND
Tert-butyl alcohol	0.00460	-	705,699	-	6.5E-09
Carbon disulfide	0.00058	-	673	-	8.6E-07
Carbon Tetrachloride	ND	20	47	ND	ND
Chlorobenzene	ND	-	245	ND	ND
Chloroform	ND	67	204	ND	ND
Chloromethane	ND	-	90	ND	ND
Ethylbenzene	ND	1,177	3,943	ND	ND
Methylene chloride	ND	1,219	553	ND	ND
Naphthalene	ND	345	103	ND	ND
Tetrachloroethene	ND	147	64	ND	ND
Toluene	0.00200	-	980	-	2.0E-06
Trichloroethene	ND	291	3.5	ND	ND
Trichlorofluoromethane	ND	-	996	ND	ND
o-xylene	ND	-	503	ND	ND
m,p-xylene	ND	-	447	ND	ND
TPHs					
TPH-gas	ND	-	737	ND	ND
TPH-diesel	262	-	198	-	1.3E+00
Estimated Cumulative Risk and Hazard Index				**3E-11**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-79
AOC MM: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,456	ND	ND
1,1-Dichloroethane	ND	3.1	1,380	ND	ND
1,1-Dichloroethene	ND	-	71	ND	ND
1,2,3-Trichlorobenzene	ND	-	36	ND	ND
1,2,3-Trichloropropane	ND	0.0013	4.0	ND	ND
1,2,4-Trichlorobenzene	ND	24	47	ND	ND
1,2,4-Trimethylbenzene	ND	-	266	ND	ND
1,2-Dichlorobenzene	ND	-	1,550	ND	ND
1,2-Dichloroethane	ND	0.41	27	ND	ND
1,3-Dichlorobenzene	ND	-	1,479	ND	ND
1,4-Dichlorobenzene	ND	2.1	3,092	ND	ND
2-Butanone (MEK)	0.06000	-	26,444	-	2.3E-06
Acetone	0.27000	-	60,415	-	4.5E-06
Benzene	0.00220	0.27	8.9	8.1E-09	2.5E-04
Bromoform	ND	16	487	ND	ND
Tert-butyl alcohol	0.00460	-	156,330	-	2.9E-08
Carbon disulfide	0.00058	-	680	-	8.5E-07
Carbon Tetrachloride	ND	0.084	45	ND	ND
Chlorobenzene	ND	-	235	ND	ND
Chloroform	ND	0.28	180	ND	ND
Chloromethane	ND	-	93	ND	ND
Ethylbenzene	ND	4.8	2,980	ND	ND
Methylene chloride	ND	1.9	297	ND	ND
Naphthalene	ND	1.7	106	ND	ND
Tetrachloroethene	ND	0.53	62	ND	ND
Toluene	0.00200	-	936	-	2.1E-06
Trichloroethene	ND	0.94	3.6	ND	ND
Trichlorofluoromethane	ND	-	1,043	ND	ND
o-xylene	ND	-	531	ND	ND
m,p-xylene	ND	-	473	ND	ND
TPHs					
TPH-gas	ND	-	662	ND	ND
TPH-diesel	262	-	193	-	1.4E+00
Estimated Cumulative Risk and Hazard Index				**8E-09**	**1**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-80
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOC MM)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	ND	4.93E+03	3.97E+05	ND	ND
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	20	2.42E+04	7.09E+03	8.3E-09	2.8E-03
1,2,3-Trichloropropane	ND	6.00E+01	4.82E+03	ND	ND
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	ND	1.69E+04	1.24E+05	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				8.E-09	0.003

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW32 from June 2015 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-81
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOC MM)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	ND	5.65E+01	4.73E+04	ND	ND
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	20	1.94E+02	8.44E+02	1.0E-07	2.4E-02
1,2,3-Trichloropropane	ND	2.57E-01	5.74E+02	ND	ND
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	ND	1.93E+02	1.48E+04	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				1.E-07	0.02

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW32 from June 2015 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-82
AOC N: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	6,037	ND	ND
1,1-Dichloroethane	ND	133	6,073	ND	ND
1,1-Dichloroethene	ND	-	297	ND	ND
1,2,3-Trichlorobenzene	ND	-	259	ND	ND
1,2,3-Trichloropropane	ND	0.18	17	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	204	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,451	ND	ND
1,2-Dichlorobenzene	ND	-	7,592	ND	ND
1,2-Dichloroethane	ND	17	117	ND	ND
1,3-Dichlorobenzene	ND	-	7,186	ND	ND
1,4-Dichlorobenzene	ND	92	21,552	ND	ND
2-Butanone (MEK)	ND	-	183,996	ND	ND
Acetone	ND	-	657,481	ND	ND
Benzene	0.0030	12	37	2.6E-10	8.0E-05
Bromoform	ND	707	2,591	ND	ND
Tert-butyl alcohol	ND	-	2,330,684	ND	ND
Carbon disulfide	ND	-	2,988	ND	ND
Carbon Tetrachloride	ND	3.6	209	ND	ND
Chlorobenzene	ND	-	1,084	ND	ND
Chloroform	ND	12	891	ND	ND
Chloromethane	ND	-	400	ND	ND
Ethylbenzene	0.00014	207	16,948	6.8E-13	8.3E-09
Methylene chloride	ND	213	2,263	ND	ND
Tetrachloroethene	ND	24	283	ND	ND
Toluene	0.0017	-	4,324	-	3.9E-07
Trichloroethene	ND	51	16	ND	ND
Trichlorofluoromethane	ND	-	4,437	ND	ND
o-xylene	ND	-	2,240	ND	ND
m,p-xylene	0.00040	-	1,993	-	2.0E-07
TPHs					
TPH-gas	ND	-	3,233	ND	ND
TPH-diesel	13	-	875	-	1.5E-02
SVOCs					
Diethyl Phthalate	ND	-	423,486	ND	ND
Dimethyl Phthalate	0.37	-	423,420	-	8.7E-07
PAHs					
Acenaphthene	0.16	-	20,551	-	7.8E-06
Benzo(a)pyrene	ND	4.0	123	ND	ND
Benzo(g,h,i)perylene	ND	-	8,310	ND	ND
Fluoranthene	ND	-	16,628	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	9.7	8,310	ND	ND
1-Methylnaphthalene	0.18	401	597	4.5E-10	3.0E-04
2-Methylnaphthalene	0.40	-	443	-	9.0E-04
Naphthalene	11	56	456	2.0E-07	2.4E-02
Phenanthrene	0.20	-	11,908	-	1.7E-05
Pyrene	0.20	-	12,306	-	1.6E-05

Table 6-82
AOC N: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.3	0.36	4	3.6E-06	3.0E-01
Barium	136	-	868,171	-	1.6E-04
Beryllium	0.47	69,496	207	6.8E-12	2.3E-03
Cadmium	0.95	39,712	20,610	2.4E-11	4.6E-05
Chromium III	45	-	1,563,324	-	2.8E-05
Cobalt	12	18,532	310	6.4E-10	3.8E-02
Copper	20	-	41,689	-	4.8E-04
Lead	16	-	320	-	*4.9E-02*
Mercury	0.014	-	167	-	8.1E-05
Molybdenum	0.67	-	5,211	-	1.3E-04
Nickel	15	641,502	10,079	2.3E-11	1.5E-03
Selenium	0.18	-	5,211	-	3.4E-05
Silver	0.13	-	5,211	-	2.5E-05
Vanadium	52	-	5,166	-	1.0E-02
Zinc	58	-	312,665	-	1.8E-04
Estimated Cumulative Risk and Hazard Index				**4E-06**	**0.4**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Conservatively based on maximum from all depths with exception of naphthalene,TPH-diesel, and metals.
Naphthalene and metals = 95%UCL all depths; TPH-diesel = 95%UCL 0-2 feet.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

4 Risk and hazard attributable to background is associated with arsenic and cobalt.

5 The site-related risk is estimated by subtracting the risk and hazard attributable to background.

Table 6-83
AOC N: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,352	ND	ND
1,1-Dichloroethane	ND	750	1,369	ND	ND
1,1-Dichloroethene	ND	-	67	ND	ND
1,2,3-Trichlorobenzene	ND	-	62	ND	ND
1,2,3-Trichloropropane	ND	1.0	3.8	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	46	ND	ND
1,2,4-Trimethylbenzene	ND	-	336	ND	ND
1,2-Dichlorobenzene	ND	-	1,732	ND	ND
1,2-Dichloroethane	ND	99	26	ND	ND
1,3-Dichlorobenzene	ND	-	1,637	ND	ND
1,4-Dichlorobenzene	ND	515	5,181	ND	ND
2-Butanone (MEK)	ND	-	44,216	ND	ND
Acetone	ND	-	175,916	ND	ND
Benzene	0.0030	66	8.4	4.5E-11	3.6E-04
Bromoform	ND	4,217	597	ND	ND
Tert-butyl alcohol	ND	-	705,699	ND	ND
Carbon disulfide	ND	-	673	ND	ND
Carbon Tetrachloride	ND	20	47	ND	ND
Chlorobenzene	ND	-	245	ND	ND
Chloroform	ND	67	204	ND	ND
Chloromethane	ND	-	90	ND	ND
Ethylbenzene	0.00014	1,177	3,943	1.2E-13	3.6E-08
Methylene chloride	ND	1,219	553	ND	ND
Tetrachloroethene	ND	147	64	ND	ND
Toluene	0.0017	-	980	-	1.7E-06
Trichloroethene	ND	291	3.5	ND	ND
Trichlorofluoromethane	ND	-	996	ND	ND
o-xylene	ND	-	503	ND	ND
m,p-xylene	0.00040	-	447	-	8.9E-07
TPHs					
TPH-gas	30	-	737	-	4.1E-02
TPH-diesel	19	-	198	-	9.4E-02
SVOCs					
Diethyl Phthalate	ND	-	114,059	ND	ND
Dimethyl Phthalate	0.37	-	107,912	-	3.4E-06
PAHs					
Acenaphthene	0.16	-	5,301	-	3.0E-05
Benzo(a)pyrene	ND	26	7	ND	ND
Benzo(g,h,i)perylene	ND	-	1,897	ND	ND
Fluoranthene	ND	-	4,405	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	65	1,897	ND	ND
1-Methylnaphthalene	0.18	2,675	134	6.7E-11	1.3E-03
2-Methylnaphthalene	0.40	-	103	-	3.9E-03
Naphthalene	0.38	345	103	1.1E-09	3.7E-03
Phenanthrene	0.20	-	3,148	-	6.4E-05
Pyrene	0.20	-	3,272	-	6.1E-05

Table 6-83
AOC N: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.3	24	1.2	5.3E-08	1.1E+00
Barium	136	-	2,175	-	6.3E-02
Beryllium	0.47	1,278	20	3.7E-10	2.3E-02
Cadmium	0.95	730	44	1.3E-09	2.2E-02
Chromium III	45	-	455,156	-	9.8E-05
Cobalt	12	341	20	3.5E-08	5.8E-01
Copper	20	-	12,138	-	1.6E-03
Lead	16	-	320	-	*4.9E-02*
Mercury	0.014	-	36	-	3.8E-04
Molybdenum	0.67	-	1,517	-	4.4E-04
Nickel	15	11,792	60	1.3E-09	2.5E-01
Selenium	0.18	-	1,517	-	1.2E-04
Silver	0.13	-	1,517	-	8.6E-05
Vanadium	52	-	341	-	1.5E-01
Zinc	58	-	91,031	-	6.3E-04
Estimated Cumulative Risk and Hazard Index				**9E-08**	**2**
Risk/Hazard attributable to background[4]				***5E-08***	***1.7***
Total Site-Related Risk/Hazard[5]				**4E-08**	**0.7**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Conservatively based on maximum from all depths with exception of naphthalene,TPH-diesel, and metals.
Naphthalene and metals = 95%UCL all depths; TPH-diesel = 95%UCL 0-10 feet.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

4 Risk and hazard attributable to background is associated with arsenic and cobalt.

5 The site-related risk is estimated by subtracting the risk and hazard attributable to background.

Table 6-84
AOC N: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,456	ND	ND
1,1-Dichloroethane	ND	3.1	1,380	ND	ND
1,1-Dichloroethene	ND	-	71	ND	ND
1,2,3-Trichlorobenzene	ND	-	36	ND	ND
1,2,3-Trichloropropane	ND	0.0013	4	ND	ND
1,2,4-Trichlorobenzene	ND	24	47	ND	ND
1,2,4-Trimethylbenzene	ND	-	266	ND	ND
1,2-Dichlorobenzene	ND	-	1,550	ND	ND
1,2-Dichloroethane	ND	0.41	27	ND	ND
1,3-Dichlorobenzene	ND	-	1,479	ND	ND
1,4-Dichlorobenzene	ND	2.1	3,092	ND	ND
2-Butanone (MEK)	ND	-	26,444	ND	ND
Acetone	ND	-	60,415	ND	ND
Benzene	0.0030	0.27	9	1.1E-08	3.4E-04
Bromoform	ND	16	487	ND	ND
Tert-butyl alcohol	ND	-	156,330	ND	ND
Carbon disulfide	ND	-	680	ND	ND
Carbon Tetrachloride	ND	0.084	45	ND	ND
Chlorobenzene	ND	-	235	ND	ND
Chloroform	ND	0.28	180	ND	ND
Chloromethane	ND	-	93	ND	ND
Ethylbenzene	0.00014	4.8	2,980	2.9E-11	4.7E-08
Methylene chloride	ND	1.9	297	ND	ND
Tetrachloroethene	ND	0.53	62	ND	ND
Toluene	0.0017	-	936	-	1.8E-06
Trichloroethene	ND	0.94	3.6	ND	ND
Trichlorofluoromethane	ND	-	1,043	ND	ND
o-xylene	ND	-	531	ND	ND
m,p-xylene	0.00040	-	473	-	8.5E-07
TPHs					
TPH-gas	30	-	662	-	4.5E-02
TPH-diesel	19	-	193	-	9.6E-02
SVOCs					
Diethyl Phthalate	ND	-	48,504	ND	ND
Dimethyl Phthalate	0.37	-	48,501	-	7.6E-06
PAHs					
Acenaphthene	0.16	-	2,999	-	5.3E-05
Benzo(a)pyrene	ND	0.11	16	ND	ND
Benzo(g,h,i)perylene	ND	-	1,090	ND	ND
Fluoranthene	ND	-	2,180	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	0.39	1,090	ND	ND
1-Methylnaphthalene	0.18	16	180	1.1E-08	1.0E-03
2-Methylnaphthalene	0.40	-	101	-	4.0E-03
Naphthalene	0.38	2.5	131	1.5E-07	2.9E-03
Phenanthrene	0.20	-	1,603	-	1.2E-04
Pyrene	0.20	-	1,626	-	1.2E-04

Table 6-84
AOC N: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.3	0.11	0.40	1.2E-05	3.2E+00
Barium	136	-	129,217	-	1.1E-03
Beryllium	0.47	1,591	15	3.0E-10	3.1E-02
Cadmium	0.95	909	2,341	1.0E-09	4.1E-04
Chromium III	45	-	114,013	-	3.9E-04
Cobalt	12	424	23	2.8E-08	5.2E-01
Copper	20	-	3,040	-	6.5E-03
Lead	16	-	80	-	*2.0E-01*
Mercury	0.014	-	12	-	1.1E-03
Molybdenum	0.67	-	380	-	1.8E-03
Nickel	15	14,686	802	1.0E-09	1.9E-02
Selenium	0.18	-	380	-	4.6E-04
Silver	0.13	-	380	-	3.4E-04
Vanadium	52	-	379	-	1.4E-01
Zinc	58	-	22,803	-	2.5E-03
Estimated Cumulative Risk and Hazard Index				**1E-05**	**4**
Risk/Hazard attributable to background[4]				***1E-05***	***3.7***
Total Site-Related Risk/Hazard[5]				**2E-07**	**0.4**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Conservatively based on maximum from all depths with exception of naphthalene,TPH-diesel, and metals.
Naphthalene and metals = 95%UCL all depths; TPH-diesel = 95%UCL 0-10 feet.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

4 Risk and hazard attributable to background is associated with arsenic and cobalt.

5 The site-related risk is estimated by subtracting the risk and hazard attributable to background.

Table 6-85
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOC N)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	0.79	4.93E+03	3.97E+05	1.6E-09	2.0E-06
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	2.1	2.42E+04	7.09E+03	8.7E-10	3.0E-04
1,2,3-Trichloropropane	1.7	6.00E+01	4.82E+03	2.8E-07	3.5E-04
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	ND	1.69E+04	1.24E+05	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-07	0.0007

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW36 and CAMW37 from June 2015 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-86
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOC N)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	0.79	5.65E+01	4.73E+04	1.4E-08	1.7E-05
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	2.1	1.94E+02	8.44E+02	1.1E-08	2.5E-03
1,2,3-Trichloropropane	1.7	2.57E-01	5.74E+02	6.6E-06	3.0E-03
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	ND	1.93E+02	1.48E+04	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				7.E-06	0.005

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW36 and CAMW37 from June 2015 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-87
AOC NN: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	6,037	ND	ND
1,1-Dichloroethane	ND	133	6,073	ND	ND
1,1-Dichloroethene	ND	-	297	ND	ND
1,2,3-Trichlorobenzene	ND	-	259	ND	ND
1,2,3-Trichloropropane	ND	0.18	17	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	204	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,451	ND	ND
1,2-Dichlorobenzene	ND	-	7,592	ND	ND
1,2-Dichloroethane	ND	17	117	ND	ND
1,3-Dichlorobenzene	ND	-	7,186	ND	ND
1,4-Dichlorobenzene	ND	92	21,552	ND	ND
2-Butanone (MEK)	ND	-	183,996	ND	ND
Acetone	ND	-	657,481	ND	ND
Benzene	0.00086	12	37	7.3E-11	2.3E-05
Bromoform	ND	707	2,591	ND	ND
Tert-butyl alcohol	0.00650	-	2,330,684	-	2.8E-09
Carbon disulfide	ND	-	2,988	ND	ND
Carbon Tetrachloride	ND	3.6	209	ND	ND
Chlorobenzene	ND	-	1,084	ND	ND
Chloroform	ND	12	891	ND	ND
Chloromethane	ND	-	400	ND	ND
Ethylbenzene	ND	207	16,948	ND	ND
Methylene chloride	ND	213	2,263	ND	ND
Naphthalene	ND	56	456	ND	ND
Tetrachloroethene	ND	24	283	ND	ND
Toluene	0.00120	-	4,324	-	2.8E-07
Trichloroethene	ND	51	16	ND	ND
Trichlorofluoromethane	ND	-	4,437	ND	ND
o-xylene	ND	-	2,240	ND	ND
m,p-xylene	ND	-	1,993	ND	ND
Estimated Cumulative Risk and Hazard Index				**7E-11**	**0.00002**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-88
AOC NN: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,352	ND	ND
1,1-Dichloroethane	ND	750	1,369	ND	ND
1,1-Dichloroethene	ND	-	67	ND	ND
1,2,3-Trichlorobenzene	ND	-	62	ND	ND
1,2,3-Trichloropropane	ND	1.0	3.8	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	46	ND	ND
1,2,4-Trimethylbenzene	ND	-	336	ND	ND
1,2-Dichlorobenzene	ND	-	1,732	ND	ND
1,2-Dichloroethane	ND	99	26	ND	ND
1,3-Dichlorobenzene	ND	-	1,637	ND	ND
1,4-Dichlorobenzene	ND	515	5,181	ND	ND
2-Butanone (MEK)	ND	-	44,216	ND	ND
Acetone	ND	-	175,916	ND	ND
Benzene	0.00086	66	8.4	1.3E-11	1.0E-04
Bromoform	ND	4,217	597	ND	ND
Tert-butyl alcohol	0.00650	-	705,699	-	9.2E-09
Carbon disulfide	ND	-	673	ND	ND
Carbon Tetrachloride	ND	20	47	ND	ND
Chlorobenzene	ND	-	245	ND	ND
Chloroform	ND	67	204	ND	ND
Chloromethane	ND	-	90	ND	ND
Ethylbenzene	ND	1,177	3,943	ND	ND
Methylene chloride	ND	1,219	553	ND	ND
Naphthalene	ND	345	103	ND	ND
Tetrachloroethene	ND	147	64	ND	ND
Toluene	0.00120	-	980	-	1.2E-06
Trichloroethene	ND	291	3.5	ND	ND
Trichlorofluoromethane	ND	-	996	ND	ND
o-xylene	ND	-	503	ND	ND
m,p-xylene	ND	-	447	ND	ND
Estimated Cumulative Risk and Hazard Index				**1E-11**	**0.0001**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-89
AOC NN: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,456	ND	ND
1,1-Dichloroethane	ND	3.1	1,380	ND	ND
1,1-Dichloroethene	ND	-	71	ND	ND
1,2,3-Trichlorobenzene	ND	-	36	ND	ND
1,2,3-Trichloropropane	ND	0.0013	4	ND	ND
1,2,4-Trichlorobenzene	ND	24	47	ND	ND
1,2,4-Trimethylbenzene	ND	-	266	ND	ND
1,2-Dichlorobenzene	ND	-	1,550	ND	ND
1,2-Dichloroethane	ND	0.41	27	ND	ND
1,3-Dichlorobenzene	ND	-	1,479	ND	ND
1,4-Dichlorobenzene	ND	2.1	3,092	ND	ND
2-Butanone (MEK)	ND	-	26,444	ND	ND
Acetone	ND	-	60,415	ND	ND
Benzene	0.00086	0.27	8.9	3.2E-09	9.7E-05
Bromoform	ND	16	487	ND	ND
Tert-butyl alcohol	0.00650	-	156,330	-	4.2E-08
Carbon disulfide	ND	-	680	ND	ND
Carbon Tetrachloride	ND	0.084	45	ND	ND
Chlorobenzene	ND	-	235	ND	ND
Chloroform	ND	0.28	180	ND	ND
Chloromethane	ND	-	93	ND	ND
Ethylbenzene	ND	4.8	2,980	ND	ND
Methylene chloride	ND	1.9	297	ND	ND
Naphthalene	ND	1.7	106	ND	ND
Tetrachloroethene	ND	0.53	62	ND	ND
Toluene	0.00120	-	936	-	1.3E-06
Trichloroethene	ND	0.94	3.6	ND	ND
Trichlorofluoromethane	ND	-	1,043	ND	ND
o-xylene	ND	-	531	ND	ND
m,p-xylene	ND	-	473	ND	ND
Estimated Cumulative Risk and Hazard Index				**3E-09**	**0.0001**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-90
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOC NN)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	ND	4.93E+03	3.97E+05	ND	ND
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	11	2.42E+04	7.09E+03	4.5E-09	1.6E-03
1,2,3-Trichloropropane	0.0042	6.00E+01	4.82E+03	7.0E-10	8.7E-07
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	1.3	1.69E+04	1.24E+05	7.7E-10	1.0E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				6.E-09	0.002

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW38 and CAMW39 from June 2015 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-91
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOC NN)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	ND	5.65E+01	4.73E+04	ND	ND
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	11	1.94E+02	8.44E+02	5.7E-08	1.3E-02
1,2,3-Trichloropropane	0.0042	2.57E-01	5.74E+02	1.6E-08	7.3E-06
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	1.3	1.93E+02	1.48E+04	6.7E-09	8.8E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				8.E-08	0.01

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW38 and CAMW39 from June 2015 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-92
AOC O: Risk Evaluation for Commercial Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	4,934	ND	ND
1,1-Dichloroethane	ND	109	4,985	ND	ND
1,1-Dichloroethene	ND	-	243	ND	ND
1,2,3-Trichlorobenzene	ND	-	223	ND	ND
1,2,3-Trichloropropane	ND	0.15	14	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	167	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,213	ND	ND
1,2-Dichlorobenzene	ND	-	6,285	ND	ND
1,2-Dichloroethane	ND	14	96	ND	ND
1,3-Dichlorobenzene	ND	-	5,944	ND	ND
1,4-Dichlorobenzene	ND	75	18,499	ND	ND
2-Butanone (MEK)	ND	-	157,902	ND	ND
Acetone	ND	-	606,571	ND	ND
Benzene	0.00080	9.6	31	8.3E-11	2.6E-05
Bromoform	ND	604	2,160	ND	ND
Tert-butyl alcohol	ND	-	2,329,496	ND	ND
Carbon disulfide	ND	-	2,452	ND	ND
Carbon Tetrachloride	ND	2.9	172	ND	ND
Chlorobenzene	ND	-	893	ND	ND
Chloroform	ND	9.7	739	ND	ND
Chloromethane	ND	-	328	ND	ND
Ethylbenzene	ND	171	14,223	ND	ND
Methylene chloride	ND	177	1,965	ND	ND
Tetrachloroethene	ND	21	233	ND	ND
Toluene	ND	-	3,563	ND	ND
Trichloroethene	ND	42	13	ND	ND
Trichlorofluoromethane	ND	-	3,633	ND	ND
o-xylene	ND	-	1,833	ND	ND
m,p-xylene	ND	-	1,630	ND	ND
TPHs					
TPH-gas	3.8	-	2,676	-	1.4E-03
TPH-diesel	113	-	720	-	1.6E-01
SVOCs					
Diethyl Phthalate	ND	-	423,486	ND	ND
Dimethyl Phthalate	0.34	-	423,420	-	8.0E-07
PAHs					
Acenaphthene	ND	-	19,771	ND	ND
Benzo(a)pyrene	ND	4.0	123	ND	ND
Benzo(g,h,i)perylene	ND	-	8,310	ND	ND
Fluoranthene	ND	-	16,628	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	9.7	8,310	ND	ND
1-Methylnaphthalene	ND	401	490	ND	ND
2-Methylnaphthalene	ND	-	380	ND	ND
Naphthalene	ND	51	376	ND	ND
Phenanthrene	ND	-	11,788	ND	ND
Pyrene	ND	-	12,269	ND	ND

Table 6-92
AOC O: Risk Evaluation for Commercial Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.6	0.36	4.2	4.6E-06	3.8E-01
Barium	148	-	868,171	-	1.7E-04
Beryllium	0.49	69,496	207	7.0E-12	2.4E-03
Cadmium	0.24	39,712	20,610	6.0E-12	1.2E-05
Chromium III	31	-	1,563,324	-	2.0E-05
Cobalt	12	18,532	310	6.4E-10	3.8E-02
Copper	17	-	41,689	-	4.1E-04
Lead	2.9	-	320	-	*9.0E-03*
Mercury	0.012	-	167	-	7.0E-05
Molybdenum	0.18	-	5,211	-	3.4E-05
Nickel	15	641,502	10,079	2.3E-11	1.5E-03
Selenium	ND	-	5,211	ND	ND
Silver	0.17	-	5,211	-	3.3E-05
Vanadium	48	-	5,166	-	9.3E-03
Zinc	52	-	312,665	-	1.7E-04
Estimated Cumulative Risk and Hazard Index				**5E-06**	**0.6**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.
Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Based on measurements in the 0-10 ft depth-interval.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-93
AOC O: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,093	ND	ND
1,1-Dichloroethane	ND	608	1,110	ND	ND
1,1-Dichloroethene	ND	-	54	ND	ND
1,2,3-Trichlorobenzene	ND	-	53	ND	ND
1,2,3-Trichloropropane	ND	0.85	3.0	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	37	ND	ND
1,2,4-Trimethylbenzene	ND	-	276	ND	ND
1,2-Dichlorobenzene	ND	-	1,414	ND	ND
1,2-Dichloroethane	ND	80	21	ND	ND
1,3-Dichlorobenzene	ND	-	1,337	ND	ND
1,4-Dichlorobenzene	ND	417	4,362	ND	ND
2-Butanone (MEK)	ND	-	37,221	ND	ND
Acetone	ND	-	159,019	ND	ND
Benzene	0.00080	54	6.8	1.5E-11	1.2E-04
Bromoform	ND	3,535	491	ND	ND
Tert-butyl alcohol	ND	-	705,184	ND	ND
Carbon disulfide	ND	-	546	ND	ND
Carbon Tetrachloride	ND	16	38	ND	ND
Chlorobenzene	ND	-	200	ND	ND
Chloroform	ND	54	166	ND	ND
Chloromethane	ND	-	73	ND	ND
Ethylbenzene	ND	961	3,256	ND	ND
Methylene chloride	ND	999	471	ND	ND
Tetrachloroethene	ND	127	52	ND	ND
Toluene	ND	-	797	ND	ND
Trichloroethene	ND	238	2.9	ND	ND
Trichlorofluoromethane	ND	-	807	ND	ND
o-xylene	ND	-	407	ND	ND
m,p-xylene	ND	-	362	ND	ND
TPHs					
TPH-gas	3.8	-	602	-	6.3E-03
TPH-diesel	40	-	161	-	2.5E-01
SVOCs					
Diethyl Phthalate	ND	-	114,059	ND	ND
Dimethyl Phthalate	0.34	-	107,912	-	3.2E-06
PAHs					
Acenaphthene	ND	-	5,057	ND	ND
Benzo(a)pyrene	ND	26	7	ND	ND
Benzo(g,h,i)perylene	ND	-	1,897	ND	ND
Fluoranthene	ND	-	4,405	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	65	1,897	ND	ND
1-Methylnaphthalene	ND	2,675	109	ND	ND
2-Methylnaphthalene	ND	-	88	ND	ND
Naphthalene	ND	311	84	ND	ND
Phenanthrene	ND	-	3,108	ND	ND
Pyrene	ND	-	3,260	ND	ND

Table 6-93
AOC O: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.6	24	1.2	6.7E-08	1.4E+00
Barium	148	-	2,175	-	6.8E-02
Beryllium	0.49	1,278	20	3.8E-10	2.4E-02
Cadmium	0.24	730	44	3.3E-10	5.5E-03
Chromium III	31	-	455,156	-	6.8E-05
Cobalt	12	341	20	3.5E-08	5.8E-01
Copper	17	-	12,138	-	1.4E-03
Lead	2.9	-	320	-	*9.0E-03*
Mercury	0.012	-	36	-	3.3E-04
Molybdenum	0.2	-	1,517	-	1.2E-04
Nickel	15	11,792	60	1.3E-09	2.5E-01
Selenium	ND	-	1,517	ND	ND
Silver	0.17	-	1,517	-	1.1E-04
Vanadium	48	-	341	-	1.4E-01
Zinc	52	-	91,031	-	5.7E-04
Estimated Cumulative Risk and Hazard Index				**1E-07**	**3**
Risk/Hazard attributable to background [4]				***7E-08***	***2.0***
Total Site-Related Risk/Hazard[5]				**4E-08**	**0.7**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.
  Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Conservatively based on maximum from all depths with exception of TPH-diesel and metals.
Metals = 95%UCL all depths; TPH-diesel = 95%UCL 0-10 feet.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

4 Risk and hazard attributable to background is associated with arsenic and cobalt.

5 The site-related risk is estimated by subtracting the risk and hazard attributable to background.

Table 6-94
AOC O: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,191	ND	ND
1,1-Dichloroethane	ND	2.5	1,146	ND	ND
1,1-Dichloroethene	ND	-	58	ND	ND
1,2,3-Trichlorobenzene	ND	-	33	ND	ND
1,2,3-Trichloropropane	ND	0.0015	3.3	ND	ND
1,2,4-Trichlorobenzene	ND	24	39	ND	ND
1,2,4-Trimethylbenzene	ND	-	231	ND	ND
1,2-Dichlorobenzene	ND	-	1,319	ND	ND
1,2-Dichloroethane	ND	0.33	22	ND	ND
1,3-Dichlorobenzene	ND	-	1,257	ND	ND
1,4-Dichlorobenzene	ND	1.8	2,818	ND	ND
2-Butanone (MEK)	ND	-	24,088	ND	ND
Acetone	ND	-	58,555	ND	ND
Benzene	0.00080	0.22	7.3	3.6E-09	1.1E-04
Bromoform	ND	14	422	ND	ND
Tert-butyl alcohol	ND	-	156,308	ND	ND
Carbon disulfide	ND	-	564	ND	ND
Carbon Tetrachloride	ND	0.068	38	ND	ND
Chlorobenzene	ND	-	197	ND	ND
Chloroform	ND	0.23	154	ND	ND
Chloromethane	ND	-	77	ND	ND
Ethylbenzene	ND	4.0	2,617	ND	ND
Methylene chloride	ND	1.9	275	ND	ND
Tetrachloroethene	ND	0.47	52	ND	ND
Toluene	ND	-	786	ND	ND
Trichloroethene	ND	0.94	3.0	ND	ND
Trichlorofluoromethane	ND	-	859	ND	ND
o-xylene	ND	-	436	ND	ND
m,p-xylene	ND	-	389	ND	ND
TPHs					
TPH-gas	3.8	-	563	-	6.8E-03
TPH-diesel	40	-	162	-	2.5E-01
SVOCs					
Diethyl Phthalate	ND	-	48,504	ND	ND
Dimethyl Phthalate	0.34	-	48,501	-	7.0E-06
PAHs					
Acenaphthene	ND	-	2,865	ND	ND
Benzo(a)pyrene	ND	0.11	16	ND	ND
Benzo(g,h,i)perylene	ND	-	1,090	ND	ND
Fluoranthene	ND	-	2,180	ND	ND
Indeno(1,2,3-c,d)pyrene	ND	0.39	1,090	ND	ND
1-Methylnaphthalene	ND	16	117	ND	ND
2-Methylnaphthalene	ND	-	77	ND	ND
Naphthalene	ND	1.5	88	ND	ND
Phenanthrene	ND	-	1,586	ND	ND
Pyrene	ND	-	1,621	ND	ND

Table 6-94
AOC O: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
Metals					
Arsenic	1.6	0.11	0.40	1.6E-05	4.1E+00
Barium	148	-	129,217	-	1.1E-03
Beryllium	0.49	1,591	15	3.1E-10	3.2E-02
Cadmium	0.24	909	2,341	2.6E-10	1.0E-04
Chromium III	31	-	114,013	-	2.7E-04
Cobalt	12	424	23	2.8E-08	5.2E-01
Copper	17	-	3,040	-	5.6E-03
Lead	2.9	-	80	-	*3.6E-02*
Mercury	0.012	-	12	-	9.6E-04
Molybdenum	0.18	-	380	-	4.7E-04
Nickel	15	14,686	802	1.0E-09	1.9E-02
Selenium	ND	-	380	ND	ND
Silver	0.17	-	380	-	4.5E-04
Vanadium	48	-	379	-	1.3E-01
Zinc	52	-	22,803	-	2.3E-03
Estimated Cumulative Risk and Hazard Index				**2E-05**	**5**
Risk/Hazard attributable to background[4]				***2E-05***	***4.6***
Total Site-Related Risk/Hazard[5]				**3E-08**	**0.4**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
PAHs - Polycyclic aromatic hydrocarbons.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.
SVOC - Semivolatile organic compound

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.
Italics indicate the ratio between measured lead concentration and action level. Lead is evaluated separately so this ratio is not included in the hazard index.

1 Conservatively based on maximum from all depths with exception of TPH-diesel and metals.
Metals = 95%UCL all depths; TPH-diesel = 95%UCL 0-10 feet.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

4 Risk and hazard attributable to background is associated with arsenic and cobalt.

5 The site-related risk is estimated by subtracting the risk and hazard attributable to background.

Table 6-95
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOC O)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	0.57	4.93E+03	3.97E+05	1.2E-09	1.4E-06
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	0.27	6.08E+03	3.95E+04	4.4E-10	6.8E-06
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	19	2.42E+04	7.09E+03	7.8E-09	2.7E-03
1,2,3-Trichloropropane	0.074	6.00E+01	4.82E+03	1.2E-08	1.5E-05
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	ND	1.69E+04	1.24E+05	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				2.E-08	0.003

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW49, CAMW50, CAMW51 from April 2013 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-96
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOC O)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	0.57	5.65E+01	4.73E+04	1.0E-08	1.2E-05
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	0.27	6.96E+01	4.71E+03	3.9E-09	5.7E-05
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	19	1.94E+02	8.44E+02	9.8E-08	2.3E-02
1,2,3-Trichloropropane	0.074	2.57E-01	5.74E+02	2.9E-07	1.3E-04
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	ND	1.93E+02	1.48E+04	ND	ND
Maximum Estimated Cumulative Risk and Hazard Index[4]				4.E-07	0.02

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW49, CAMW50, CAMW51 from April 2013 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-97
AOC OO: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	7,697	ND	ND
1,1-Dichloroethane	ND	169	7,694	ND	ND
1,1-Dichloroethene	ND	-	378	ND	ND
1,2,3-Trichlorobenzene	0.00110	-	307	-	3.6E-06
1,2,3-Trichloropropane	ND	0.21	21	ND	ND
1,2,4-Trichlorobenzene	0.00350	1,128	259	3.1E-12	1.3E-05
1,2,4-Trimethylbenzene	ND	-	1,790	ND	ND
1,2-Dichlorobenzene	0.08800	-	9,498	-	9.3E-06
1,2-Dichloroethane	ND	22	149	ND	ND
1,3-Dichlorobenzene	0.00270	-	8,999	-	3.0E-07
1,4-Dichlorobenzene	0.02600	117	25,634	2.2E-10	1.0E-06
2-Butanone (MEK)	0.00670	-	218,909	-	3.1E-08
Acetone	0.01200	-	715,432	-	1.7E-08
Benzene	0.00560	14.8	48	3.8E-10	1.2E-04
Bromoform	ND	846	3,208	ND	ND
Tert-butyl alcohol	0.00530	-	2,331,832	-	2.3E-09
Carbon disulfide	0.00081	-	3,786	-	2.1E-07
Carbon Tetrachloride	ND	4.6	263	ND	ND
Chlorobenzene	0.00049	-	1,365	-	3.6E-07
Chloroform	ND	15.1	1,114	ND	ND
Chloromethane	ND	-	509	ND	ND
Ethylbenzene	0.00030	259	20,792	1.2E-12	1.4E-08
Methylene chloride	ND	265	2,652	ND	ND
Naphthalene	ND	62	573	ND	ND
Tetrachloroethene	0.00030	27	358	1.1E-11	8.4E-07
Toluene	0.00300	-	5,448	-	5.5E-07
Trichloroethene	ND	64	20	ND	ND
Trichlorofluoromethane	0.00120	-	5,641	-	2.1E-07
o-xylene	ND	-	2,850	ND	ND
m,p-xylene	0.00057	-	2,537	-	2.2E-07
TPHs					
TPH-gas	ND	-	4,046	ND	ND
TPH-diesel	397	-	1,105	-	3.6E-01
Estimated Cumulative Risk and Hazard Index				**6E-10**	**0.4**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 2 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-98
AOC OO: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,748	ND	ND
1,1-Dichloroethane	ND	966	1,761	ND	ND
1,1-Dichloroethene	ND	-	86	ND	ND
1,2,3-Trichlorobenzene	0.00110	-	76	-	1.4E-05
1,2,3-Trichloropropane	ND	1.28	4.9	ND	ND
1,2,4-Trichlorobenzene	0.00350	8,543	59	4.1E-13	5.9E-05
1,2,4-Trimethylbenzene	ND	-	422	ND	ND
1,2-Dichlorobenzene	0.08800	-	2,206	-	4.0E-05
1,2-Dichloroethane	ND	126	34	ND	ND
1,3-Dichlorobenzene	0.00270	-	2,087	-	1.3E-06
1,4-Dichlorobenzene	0.02600	664	6,315	3.9E-11	4.1E-06
2-Butanone (MEK)	0.00670	-	53,910	-	1.2E-07
Acetone	0.01200	-	195,831	-	6.1E-08
Benzene	0.00560	85	10.8	6.6E-11	5.2E-04
Bromoform	ND	5,171	754	ND	ND
Tert-butyl alcohol	0.00530	-	706,193	-	7.5E-09
Carbon disulfide	0.00081	-	866	-	9.4E-07
Carbon Tetrachloride	ND	26	61	ND	ND
Chlorobenzene	0.00049	-	314	-	1.6E-06
Chloroform	ND	86	259	ND	ND
Chloromethane	ND	-	116	ND	ND
Ethylbenzene	0.00030	1,500	4,940	2.0E-13	6.1E-08
Methylene chloride	ND	1,546	665	ND	ND
Naphthalene	ND	386	131	ND	ND
Tetrachloroethene	0.00030	174	82	1.7E-12	3.6E-06
Toluene	0.00300	-	1,255	-	2.4E-06
Trichloroethene	ND	371	4.5	ND	ND
Trichlorofluoromethane	0.00120	-	1,286	-	9.3E-07
o-xylene	ND	-	649	ND	ND
m,p-xylene	0.00057	-	577	-	9.9E-07
TPHs					
TPH-gas	ND	-	939	ND	ND
TPH-diesel	125	-	254	-	4.9E-01
Estimated Cumulative Risk and Hazard Index				**1E-10**	**0.5**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05). Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-99
AOC OO: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,853	ND	ND
1,1-Dichloroethane	ND	3.9	1,719	ND	ND
1,1-Dichloroethene	ND	-	90	ND	ND
1,2,3-Trichlorobenzene	0.00110	-	40	-	2.7E-05
1,2,3-Trichloropropane	ND	0.0015	5.1	ND	ND
1,2,4-Trichlorobenzene	0.00350	24	59	1.5E-10	5.9E-05
1,2,4-Trimethylbenzene	ND	-	310	ND	ND
1,2-Dichlorobenzene	0.08800	-	1,864	-	4.7E-05
1,2-Dichloroethane	ND	0.51	34	ND	ND
1,3-Dichlorobenzene	0.00270	-	1,784	-	1.5E-06
1,4-Dichlorobenzene	0.02600	2.7	3,414	9.6E-09	7.6E-06
2-Butanone (MEK)	0.00670	-	29,201	-	2.3E-07
Acetone	0.01200	-	62,326	-	1.9E-07
Benzene	0.00560	0.34	11.3	1.6E-08	5.0E-04
Bromoform	ND	19	572	ND	ND
Tert-butyl alcohol	0.00530	-	156,351	-	3.4E-08
Carbon disulfide	0.00081	-	847	-	9.6E-07
Carbon Tetrachloride	ND	0.106	56	ND	ND
Chlorobenzene	0.00049	-	287	-	1.7E-06
Chloroform	ND	0.35	216	ND	ND
Chloromethane	ND	-	118	ND	ND
Ethylbenzene	0.00030	6.0	3,440	5.0E-11	8.7E-08
Methylene chloride	ND	1.9	323	ND	ND
Naphthalene	ND	2.0	131	ND	ND
Tetrachloroethene	0.00030	0.61	77	4.9E-10	3.9E-06
Toluene	0.00300	-	1,147	-	2.6E-06
Trichloroethene	ND	0.94	4.4	ND	ND
Trichlorofluoromethane	0.00120	-	1,314	-	9.1E-07
o-xylene	ND	-	671	ND	ND
m,p-xylene	0.00057	-	599	-	9.5E-07
TPHs					
TPH-gas	ND	-	797	ND	ND
TPH-diesel	125	-	239	-	5.2E-01
Estimated Cumulative Risk and Hazard Index				**3E-08**	**0.5**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
TPH - Total petroleum hydrocarbon
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths with exception of TPH-diesel. TPH-diesel = 95%UCL 0 to 10 feet bgs.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-100
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.67E+06	1.37E+07	7.8E-13	9.5E-09
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	1.2	----	2.43E+08	----	4.9E-09
Benzene	ND	3.62E+03	1.12E+04	ND	ND
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	ND	----	1.39E+07	ND	ND
Carbon Disulfide	ND	----	1.72E+06	ND	ND
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	ND	2.00E+03	1.20E+05	ND	ND
Chloroform	13	4.93E+03	3.97E+05	2.6E-08	3.3E-05
1,1-Dichloroethane	0.36	6.47E+04	2.96E+06	5.6E-11	1.2E-07
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	0.27	----	1.74E+05	----	1.6E-06
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.00E+05	----	4.7E-07
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	670	2.42E+04	7.09E+03	2.8E-07	9.4E-02
1,2,3-Trichloropropane	0.043	6.00E+01	4.82E+03	7.2E-09	8.9E-06
Trichlorofluoromethane	19	----	1.17E+06	----	1.6E-05
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	0.39	1.69E+04	1.24E+05	2.3E-10	3.1E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				3.E-07	0.09

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-101
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOCs KK, LL, OO)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.13	1.91E+04	1.64E+06	6.8E-12	7.9E-08
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	1.2	----	2.90E+07	----	4.1E-08
Benzene	ND	4.14E+01	1.34E+03	ND	ND
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	ND	----	1.65E+06	ND	ND
Carbon Disulfide	ND	----	2.04E+05	ND	ND
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	ND	2.29E+01	1.43E+04	ND	ND
Chloroform	13	5.65E+01	4.73E+04	2.3E-07	2.7E-04
1,1-Dichloroethane	0.36	7.41E+02	3.52E+05	4.9E-10	1.0E-06
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	0.27	----	2.07E+04	----	1.3E-05
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	0.14	----	3.58E+04	----	3.9E-06
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	670	1.94E+02	8.44E+02	3.4E-06	7.9E-01
1,2,3-Trichloropropane	0.043	2.57E-01	5.74E+02	1.7E-07	7.5E-05
Trichlorofluoromethane	19	----	1.39E+05	----	1.4E-04
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	0.39	1.93E+02	1.48E+04	2.0E-09	2.6E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				4.E-06	0.8

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from well CAMW8 from April 2013 to May 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-102
AOC Z: Risk Evaluation for Commercial Workers
(Soils, 0-2 feet bgs)

Chemical	RME[1] (mg/kg)	Commercial Soil RBSLs (mg/kg)		Commercial Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	6,037	ND	ND
1,1-Dichloroethane	ND	133	6,073	ND	ND
1,1-Dichloroethene	ND	-	297	ND	ND
1,2,3-Trichlorobenzene	ND	-	259	ND	ND
1,2,3-Trichloropropane	ND	0.18	17	ND	ND
1,2,4-Trichlorobenzene	ND	1,128	204	ND	ND
1,2,4-Trimethylbenzene	ND	-	1,451	ND	ND
1,2-Dichlorobenzene	ND	-	7,592	ND	ND
1,2-Dichloroethane	ND	17	117	ND	ND
1,3-Dichlorobenzene	ND	-	7,186	ND	ND
1,4-Dichlorobenzene	ND	92	21,552	ND	ND
2-Butanone (MEK)	0.00880	-	183,996	-	4.8E-08
Acetone	0.03500	-	657,481	-	5.3E-08
Benzene	0.00230	12	37	2.0E-10	6.1E-05
Bromoform	ND	707	2,591	ND	ND
Tert-butyl alcohol	ND	-	2,330,684	ND	ND
Carbon disulfide	0.00072	-	2,988	-	2.4E-07
Carbon Tetrachloride	ND	3.6	209	ND	ND
Chlorobenzene	ND	-	1,084	ND	ND
Chloroform	ND	12	891	ND	ND
Chloromethane	ND	-	400	ND	ND
Ethylbenzene	ND	207	16,948	ND	ND
Methylene chloride	ND	213	2,263	ND	ND
Naphthalene	ND	56	456	ND	ND
Tetrachloroethene	ND	24	283	ND	ND
Toluene	0.00070	-	4,324	-	1.6E-07
Trichloroethene	ND	51	16	ND	ND
Trichlorofluoromethane	ND	-	4,437	ND	ND
o-xylene	ND	-	2,240	ND	ND
m,p-xylene	ND	-	1,993	ND	ND
Estimated Cumulative Risk and Hazard Index				**2E-10**	**0.00006**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-103
AOC Z: Risk Evaluation for Construction Workers
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Construction Worker Soil RBSLs (mg/kg)		Construction Worker Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,352	ND	ND
1,1-Dichloroethane	ND	750	1,369	ND	ND
1,1-Dichloroethene	ND	-	67	ND	ND
1,2,3-Trichlorobenzene	ND	-	62	ND	ND
1,2,3-Trichloropropane	ND	1.0	3.8	ND	ND
1,2,4-Trichlorobenzene	ND	8,543	46	ND	ND
1,2,4-Trimethylbenzene	ND	-	336	ND	ND
1,2-Dichlorobenzene	ND	-	1,732	ND	ND
1,2-Dichloroethane	ND	99	26	ND	ND
1,3-Dichlorobenzene	ND	-	1,637	ND	ND
1,4-Dichlorobenzene	ND	515	5,181	ND	ND
2-Butanone (MEK)	0.00880	-	44,216	-	2.0E-07
Acetone	0.03500	-	175,916	-	2.0E-07
Benzene	0.00230	66	8.4	3.5E-11	2.7E-04
Bromoform	ND	4,217	597	ND	ND
Tert-butyl alcohol	ND	-	705,699	ND	ND
Carbon disulfide	0.00072	-	673	-	1.1E-06
Carbon Tetrachloride	ND	20	47	ND	ND
Chlorobenzene	ND	-	245	ND	ND
Chloroform	ND	67	204	ND	ND
Chloromethane	ND	-	90	ND	ND
Ethylbenzene	ND	1,177	3,943	ND	ND
Methylene chloride	ND	1,219	553	ND	ND
Naphthalene	ND	345	103	ND	ND
Tetrachloroethene	ND	147	64	ND	ND
Toluene	0.00070	-	980	-	7.1E-07
Trichloroethene	ND	291	3.5	ND	ND
Trichlorofluoromethane	ND	-	996	ND	ND
o-xylene	ND	-	503	ND	ND
m,p-xylene	ND	-	447	ND	ND
Estimated Cumulative Risk and Hazard Index				**3E-11**	**0.0003**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-05).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-104
AOC Z: Risk Evaluation for Residents
(Soils, 0-10 feet bgs)

Chemical	RME[1] (mg/kg)	Residential Soil RBSLs (mg/kg)		Residential Risk	
		Carcinogenic	Non-carcinogenic	Risk Estimate[3]	Hazard Quotient[3]
VOCs					
1,1,1-Trichloroethane	ND	-	1,456	ND	ND
1,1-Dichloroethane	ND	3.1	1,380	ND	ND
1,1-Dichloroethene	ND	-	71	ND	ND
1,2,3-Trichlorobenzene	ND	-	36	ND	ND
1,2,3-Trichloropropane	ND	0.0013	4.0	ND	ND
1,2,4-Trichlorobenzene	ND	24	47	ND	ND
1,2,4-Trimethylbenzene	ND	-	266	ND	ND
1,2-Dichlorobenzene	ND	-	1,550	ND	ND
1,2-Dichloroethane	ND	0.41	27	ND	ND
1,3-Dichlorobenzene	ND	-	1,479	ND	ND
1,4-Dichlorobenzene	ND	2.1	3,092	ND	ND
2-Butanone (MEK)	0.00880	-	26,444	-	3.3E-07
Acetone	0.03500	-	60,415	-	5.8E-07
Benzene	0.00230	0.27	8.9	8.4E-09	2.6E-04
Bromoform	ND	16	487	ND	ND
Tert-butyl alcohol	ND	-	156,330	ND	ND
Carbon disulfide	0.00072	-	680	-	1.1E-06
Carbon Tetrachloride	ND	0.084	45	ND	ND
Chlorobenzene	ND	-	235	ND	ND
Chloroform	ND	0.28	180	ND	ND
Chloromethane	ND	-	93	ND	ND
Ethylbenzene	ND	4.8	2,980	ND	ND
Methylene chloride	ND	1.9	297	ND	ND
Naphthalene	ND	1.7	106	ND	ND
Tetrachloroethene	ND	0.53	62	ND	ND
Toluene	0.00070	-	936	-	7.5E-07
Trichloroethene	ND	0.94	3.6	ND	ND
Trichlorofluoromethane	ND	-	1,043	ND	ND
o-xylene	ND	-	531	ND	ND
m,p-xylene	ND	-	473	ND	ND
Estimated Cumulative Risk and Hazard Index				**8E-09**	**0.0003**

Definitions:

bgs - below ground surface
mg/kg - Milligrams per kilogram.
VOCs - Volatile organic compounds.
RBSL - Risk-based screening level
RME - Reasonable maximum exposure.

Notes:

- A dash indicates a goal not calculated as appropriate toxicity data not available.

1 Conservatively based on maximum from all depths.

2 Protective of the dermal contact, ingestion, and inhalation pathways.

3 Risks estimated by dividing RME concentration by the chemical-specific RBSL and multiplying by the target risk (1E-06).
Hazard quotient estimated by dividing RME concentration by the noncarcinogenic soil RBSL.

Table 6-105
Maximum Estimated Risk for Potential Commercial On-SiteVapor Intrusion Exposures from Groundwater (AOC Z)

Chemical	Maximum Detect[1] µg/L	Commercial On-Site Groundwater RBSL (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.67E+06	1.37E+07	ND	ND
Acetone	ND	----	2.04E+09	ND	ND
Methyl ethyl ketone	ND	----	2.43E+08	ND	ND
Benzene	0.15	3.62E+03	1.12E+04	4.1E-10	1.3E-05
Bromodichloromethane	ND	4.05E+06	4.28E+08	ND	ND
Bromomethane	4.1	----	1.39E+07	----	2.9E-07
Carbon Disulfide	0.48	----	1.72E+06	----	2.8E-07
Chlorobenzene	ND	----	2.39E+05	ND	ND
Carbon Tetrachloride	0.24	2.00E+03	1.20E+05	1.2E-09	2.0E-06
Chloroform	ND	4.93E+03	3.97E+05	ND	ND
1,1-Dichloroethane	ND	6.47E+04	2.96E+06	ND	ND
1,2-Dichloroethane	ND	6.08E+03	3.95E+04	ND	ND
1,3-Dichlorobenzene	ND	----	1.21E+06	ND	ND
1,1-Dichloroethene	ND	----	1.74E+05	ND	ND
cis-1,2-Dichloroethene	ND	----	2.98E+04	ND	ND
trans-1,2-Dichloroethene	ND	----	3.00E+05	ND	ND
1,2-Dichloropropane	ND	1.34E+04	1.91E+04	ND	ND
Methylene Chloride	ND	9.90E+04	1.41E+06	ND	ND
tert-Butyl alcohol	ND	----	8.19E+09	ND	ND
Toluene	ND	----	1.22E+06	ND	ND
1,1,2-Trichloroethane	ND	1.39E+04	1.59E+03	ND	ND
Trichloroethene	130	2.42E+04	7.09E+03	5.4E-08	1.8E-02
1,2,3-Trichloropropane	0.05	6.00E+01	4.82E+03	8.3E-09	1.0E-05
Trichlorofluoromethane	ND	----	1.17E+06	ND	ND
1,1,2,2-Tetrachloroethane	ND	8.28E+03	1.37E+06	ND	ND
Tetrachloroethene	0.72	1.69E+04	1.24E+05	4.3E-10	5.8E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				6.E-08	0.02

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW33, CAMW34, and CAMW35 from June 2015 to April 2017.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-106
Maximum Estimated Risk for Potential Residential On-Site Vapor Intrusion Exposures from Groundwater (AOC Z)

Chemical	Maximum Detect[1] µg/L	Residential On-Site Groundwater RBSL[1] (µg/L)		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	ND	1.91E+04	1.64E+06	ND	ND
Acetone	ND	----	2.43E+08	ND	ND
Methyl ethyl ketone	ND	----	2.90E+07	ND	ND
Benzene	0.15	4.14E+01	1.34E+03	3.6E-09	1.1E-04
Bromodichloromethane	ND	4.63E+04	5.09E+07	ND	ND
Bromomethane	4.1	----	1.65E+06	----	2.5E-06
Carbon Disulfide	0.48	----	2.04E+05	----	2.3E-06
Chlorobenzene	ND	----	2.85E+04	ND	ND
Carbon Tetrachloride	0.24	2.29E+01	1.43E+04	1.0E-08	1.7E-05
Chloroform	ND	5.65E+01	4.73E+04	ND	ND
1,1-Dichloroethane	ND	7.41E+02	3.52E+05	ND	ND
1,2-Dichloroethane	ND	6.96E+01	4.71E+03	ND	ND
1,3-Dichlorobenzene	ND	----	1.44E+05	ND	ND
1,1-Dichloroethene	ND	----	2.07E+04	ND	ND
cis-1,2-Dichloroethene	ND	----	3.55E+03	ND	ND
trans-1,2-Dichloroethene	ND	----	3.58E+04	ND	ND
1,2-Dichloropropane	ND	1.53E+02	2.28E+03	ND	ND
Methylene Chloride	ND	4.04E+02	1.68E+05	ND	ND
tert-Butyl alcohol	ND	----	9.74E+08	ND	ND
Toluene	ND	----	1.45E+05	ND	ND
1,1,2-Trichloroethane	ND	1.60E+02	1.90E+02	ND	ND
Trichloroethene	130	1.94E+02	8.44E+02	6.7E-07	1.5E-01
1,2,3-Trichloropropane	0.05	2.57E-01	5.74E+02	1.9E-07	8.7E-05
Trichlorofluoromethane	ND	----	1.39E+05	ND	ND
1,1,2,2-Tetrachloroethane	ND	9.48E+01	1.63E+05	ND	ND
Tetrachloroethene	0.72	1.93E+02	1.48E+04	3.7E-09	4.9E-05
Maximum Estimated Cumulative Risk and Hazard Index[4]				9.E-07	0.2

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Maximum concentration from wells CAMW33, CAMW34, and CAMW35 from June 2015 to April 2017.

[2] Estimated cancer risk = (groundwater concentration/cancer groundwater screening level) x 10^{-6}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-107
Maximum Estimated Risk for Potential Industrial Vapor Intrusion Exposures from Soil Gas in AOC Z

Chemical	Maximum Detect ($\mu g/m^3$)	Default Industrial Soil Gas Screening Levels ($\mu g/m^3$)[1]		Industrial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
Acetone	92.80	----	2.80E+08	----	3.3E-07
Benzene	40.20	8.40E+03	2.60E+04	4.8E-08	1.5E-03
Carbon disulfide	105.00	----	6.20E+06	----	1.7E-05
Cyclohexane	18.00	----	5.20E+07	----	3.5E-07
Ethylbenzene	12.00	9.80E+04	8.80E+06	1.2E-09	1.4E-06
n-Hexane	7.61	----	6.20E+06	----	1.2E-06
Propene	14.10	----	2.60E+07	----	5.4E-07
Tetrachloroethene	10.00	4.00E+04	3.60E+05	2.5E-09	2.8E-05
Tetrahydrofuran	8.95	----	1.76E+07	----	5.1E-07
Toluene	65.60	----	2.60E+06	----	2.5E-05
Trichlorofluoromethane	9.38	----	1.06E+07	----	8.8E-07
1,2,4-Trimethylbenzene	11.40	----	5.20E+05	----	2.2E-05
1,3,5-Trimethylbenzene	6.88	----	5.20E+05	----	1.3E-05
o-Xylene	14.00	----	8.80E+05	----	1.6E-05
m,p-Xylenes	44.60	----	8.80E+05	----	5.1E-05
n-Heptane	5.20	----	3.60E+06	----	1.4E-06
Naphthalene	28.70	7.20E+03	2.60E+04	4.0E-08	1.1E-03
Maximum Estimated Cumulative Risk and Hazard Index[4]				9.E-08	0.003

Acronyms and Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Listed soil gas screening criteria are the default soil gas RBSLs summarized in Appendix B.

[2] Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-5}.

[3] Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-108
Maximum Estimated Risk for Potential Residential Vapor Intrusion Exposures from Soil Gas in AOC Z

Chemical	Maximum Detect ($\mu g/m^3$)	Default Residential Soil Gas Screening Levels ($\mu g/m^3$)[1]		Residential Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
Acetone	92.80	----	3.20E+07	----	2.9E-06
Benzene	40.20	9.70E+01	3.10E+03	4.1E-07	1.3E-02
Carbon disulfide	105.00	----	7.30E+05	----	1.4E-04
Cyclohexane	18.00	----	6.30E+06	----	2.9E-06
Ethylbenzene	12.00	1.10E+03	1.00E+06	1.1E-08	1.2E-05
n-Hexane	7.61	----	7.30E+05	----	1.0E-05
Propene	14.10	----	3.10E+06	----	4.5E-06
Tetrachloroethene	10.00	4.60E+02	4.20E+04	2.2E-08	2.4E-04
Tetrahydrofuran	8.95	----	2.10E+06	----	4.3E-06
Toluene	65.60	----	3.10E+05	----	2.1E-04
Trichlorofluoromethane	9.38	----	1.30E+06	----	7.2E-06
1,2,4-Trimethylbenzene	11.40	----	6.30E+04	----	1.8E-04
1,3,5-Trimethylbenzene	6.88	----	6.30E+04	----	1.1E-04
o-Xylene	14.00	----	1.00E+05	----	1.4E-04
m,p-Xylenes	44.60	----	1.00E+05	----	4.5E-04
n-Heptane	5.20	----	4.20E+05	----	1.2E-05
Naphthalene	28.70	8.30E+01	3.10E+03	3.5E-07	9.3E-03
Maximum Estimated Cumulative Risk and Hazard Index[4]				8.E-07	0.02

Acronyms and Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Listed soil gas screening criteria are the default soil gas RBSLs summarized in Appendix B.

[2] Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-6}.

[3] Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-109
Maximum Estimated Risk for Potential Off-Site Commercial Vapor Intrusion Exposures from Groundwater

Chemical	Maximum Off-Site Detect µg/L	Commercial Off-Site Groundwater RBSL[1] (µg/L)		Commercial Risk Screen	
		Carcinogenic	Non-carcinogenic	Maximum Estimated Risk[2]	Maximum Estimated Hazard Quotient[3]
1,4-Dioxane	0.25	6.43E+05	5.30E+06	3.9E-12	4.7E-08
Acetone	53	----	9.67E+08	----	5.5E-08
Methyl ethyl ketone	2.6	----	1.27E+08	----	2.0E-08
Benzene	0.16	6.74E+03	2.09E+04	2.4E-10	7.6E-06
Bromomethane	4.4	----	2.58E+07		
Carbon Disulfide	7.1	----	2.93E+06	----	2.4E-06
Chlorobenzene	ND	----	4.34E+05	ND	ND
Carbon Tetrachloride	ND	3.23E+03	1.94E+05	ND	ND
Chloroform	31	9.04E+03	7.28E+05	3.4E-08	4.3E-05
1,1-Dichloroethane	0.41	1.21E+05	5.53E+06	3.4E-11	7.4E-08
1,2-Dichloroethane	1.5	9.21E+03	5.99E+04	1.6E-09	2.5E-05
1,3-Dichlorobenzene	ND	----	2.02E+06	ND	ND
1,1-Dichloroethene	5.8	----	2.67E+05	----	2.2E-05
cis-1,2-Dichloroethene	12	----	5.54E+04	----	2.2E-04
trans-1,2-Dichloroethene	2.9	----	5.58E+05	----	5.2E-06
1,2-Dichloropropane	ND	2.41E+04	3.44E+04	ND	ND
Methylene Chloride	0.25	1.81E+05	2.59E+06	1.4E-11	9.6E-08
tert-Butyl alcohol	7.6	----	3.26E+09	----	2.3E-09
Toluene	ND	----	2.26E+06	ND	ND
1,1,2-Trichloroethane	0.82	1.78E+04	2.04E+03	4.6E-10	4.0E-04
Trichloroethene	250	4.44E+04	1.30E+04	5.6E-08	1.9E-02
1,2,3-Trichloropropane	44	5.19E+01	4.17E+03	8.5E-06	1.1E-02
Trichlorofluoromethane	10	----	1.38E+06	----	7.3E-06
1,1,2,2-Tetrachloroethane	0.95	6.87E+03	1.14E+06	1.4E-09	8.3E-07
Tetrachloroethene	0.53	2.98E+04	2.20E+05	1.8E-10	2.4E-06
Maximum Estimated Cumulative Risk and Hazard Index[4]				9.E-06	0.03

Acronyms and Abbreviations:

µg/L - micrograms per liter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Listed groundwater screening level are the off-site groundwater RBSLs summarized in Appendix B.

[2] Estimated cancer risk =(groundwater concentration/cancer groundwater screening level) x 10^{-5}.

[3] Estimated hazard = (groundwater concentration/non-cancer groundwater screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-110
Site-Specific Risk Estimate for Potential Residential Vapor Intrusion Exposures from Soil Gas
for Off-Site Residence on Euclid Avenue (Location CAMW11B)

Chemical	Residential Risk Screen											
	CAMW11B (5 feet bgs)			CAMW11B (10 feet bgs)			CAMW11B (15 feet bgs)			CAMW11B (19 feet bgs)		
	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]
Benzene	10	5.3E-08	1.7E-03	6.0	1.8E-08	5.8E-04	7.0	1.5E-08	4.8E-04	36.4	6.4E-08	2.0E-03
Carbon disulfide	15	----	1.2E-05	4.1	----	1.9E-06	ND<3.0	ND	ND	36.4	----	1.0E-05
Chloroform	246	9.4E-07	1.1E-03	63	1.4E-07	1.7E-04	61.5	9.4E-08	1.1E-04	88.3	1.1E-07	1.3E-04
Cyclohexane	8.2	----	6.1E-07	ND<2.0	ND	ND	ND<2.0	ND	ND	4.1	----	1.0E-07
Ethylbenzene	21	7.9E-09	8.6E-06	13	2.8E-09	3.1E-06	22.4	3.3E-09	3.7E-06	89.4	1.1E-08	1.2E-05
4-Ethyltoluene	ND<10	ND	ND	ND<10	ND	ND	ND<10	ND	ND	ND<10	ND	ND
n-Hexane	32	----	1.9E-05	ND<2.0	ND	ND	ND<2.0	ND	ND	13.6	----	2.6E-06
Propene	263	----	5.1E-05	2	----	2.7E-07	2.7	----	2.2E-07	73.6	----	4.9E-06
Tetrachloroethene	ND<3.0	ND	ND	ND<3.0	ND	ND	ND<3.0	ND	ND	7.5	1.6E-09	1.8E-05
Tetrahydrofuran	42	----	1.1E-05	20	----	3.0E-06	13.5	----	1.5E-06	58.9	----	5.2E-06
Toluene (Methyl benzene)	34	----	5.1E-05	19	----	1.6E-05	34.4	----	2.1E-05	231.0	----	1.1E-04
Trichloroethene	ND<3.0	ND	ND	ND<3.0	ND	ND	ND<3.0	ND	ND	ND<3.0	ND	ND
1,2,4-Trimethylbenzene	16	----	9.7E-05	16	----	5.5E-05	22.9	----	5.3E-05	52.1	----	9.8E-05
1,3,5-Trimethylbenzene	6.9	----	4.1E-05	5.9	----	1.9E-05	9.6	----	2.2E-05	24.2	----	4.5E-05
o-Xylene	23	----	9.5E-05	20	----	4.6E-05	30.7	----	5.1E-05	97.7	----	1.3E-04
m,p-Xylenes	50	----	2.1E-04	34	----	7.9E-05	61.5	----	1.0E-04	205.0	----	2.7E-04
n-Heptane	7.5	----	7.8E-06	ND<2.0	ND	ND	ND<2.0	ND	ND	6.4	----	2.2E-06
Cumulative Risk[4]	1.E-06			2.E-07			1.E-07			2.E-07		
Hazard Index[4]	0.003			0.001			0.001			0.003		

Acronyms and Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

[1] Listed soil gas screening criteria are the site-specific residential RBSLs summarized in Appendix B.

[2] Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-6}.

[3] Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

Table 6-111
Site-Specific Risk Estimate for Potential Residential Vapor Intrusion Exposures from Soil Gas for Off-Site Residence on Euclid Avenue (Location F3B)

	Residential Risk Screen														
	F3B (5 feet bgs)			F3B DUP (5 feet bgs)			F3B (10 feet bgs)			F3B (15 feet bgs)			F3B (20 feet bgs)		
Chemical	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]	Analytical Results ($\mu g/m^3$)	Cancer Risk[2]	Hazard Quotient[3]
Benzene	18	9.5E-08	3.0E-03	12	6.3E-08	2.0E-03	41	1.3E-07	3.9E-03	59	1.3E-07	4.0E-03	89	1.6E-07	4.9E-03
Carbon disulfide	11	----	8.9E-06	6.7	----	5.4E-06	36	----	1.7E-05	30	----	1.0E-05	94	----	2.6E-05
Chloroform	81	3.1E-07	3.7E-04	56	2.1E-07	2.5E-04	537	1.2E-06	1.4E-03	893	1.4E-06	1.6E-03	625	7.7E-07	9.2E-04
Cyclohexane	4.5	----	3.4E-07	ND<2.0	ND	ND	6.0	----	2.6E-07	ND<2.0	ND	ND	12	----	2.9E-07
Ethylbenzene	22	8.4E-09	9.3E-06	17	6.3E-09	7.0E-06	25	5.4E-09	6.0E-06	22	3.3E-09	3.6E-06	100	1.2E-08	1.3E-05
4-Ethyltoluene	ND<10	ND	ND	ND<10	ND	ND	ND<10	ND	ND	ND<10	ND	ND	32	----	4.2E-05
n-Hexane	10	----	6.1E-06	5.2	----	3.1E-06	51	----	1.7E-05	17	----	4.1E-06	112	----	2.2E-05
Propene	215	----	4.2E-05	206	----	4.0E-05	805	----	9.3E-05	100	----	8.2E-06	755	----	5.0E-05
Tetrachloroethene	ND<3.0	ND	ND	ND<3.0	ND	ND	ND<3.0	ND	ND	ND<3.0	ND	ND	8.8	1.9E-09	2.1E-05
Tetrahydrofuran	16	----	4.1E-06	10	----	2.7E-06	18	----	2.8E-06	18	----	1.9E-06	16	----	1.4E-06
Toluene (Methyl benzene)	59	----	8.8E-05	35	----	5.1E-05	121	----	1.0E-04	171	----	1.0E-04	411	----	2.0E-04
Trichloroethene	14	1.2E-08	2.8E-03	11	9.5E-09	2.2E-03	30	1.5E-08	3.4E-03	35	1.2E-08	2.8E-03	15	4.1E-09	9.3E-04
1,2,4-Trimethylbenzene	13	----	7.8E-05	17	----	1.0E-04	8.9	----	3.0E-05	7.1	----	1.7E-05	90	----	1.7E-04
1,3,5-Trimethylbenzene	6.7	----	4.0E-05	5.6	----	3.3E-05	5.6	----	1.9E-05	ND<3.0	ND	ND	36	----	6.7E-05
o-Xylene	25	----	1.0E-04	21	----	8.7E-05	24	----	5.6E-05	19	----	3.2E-05	103	----	1.4E-04
m,p-Xylenes	72	----	3.0E-04	58	----	2.4E-04	89	----	2.1E-04	75	----	1.2E-04	340	----	4.5E-04
n-Heptane	ND<2.0	ND	ND	ND<2.0	ND	ND	18	----	1.0E-05	12	----	5.0E-06	91	----	3.0E-05
Cumulative Risk[4]	4.E-07			3.E-07			1.E-06			2.E-06			9.E-07		
Hazard Index[4]			0.007			0.005			0.009			0.009			0.008

Acronyms and Abbreviations:

$\mu g/m^3$ - micrograms per cubic meter

---- = screening criteria not calculated as appropriate toxicity data is not available.

Notes:

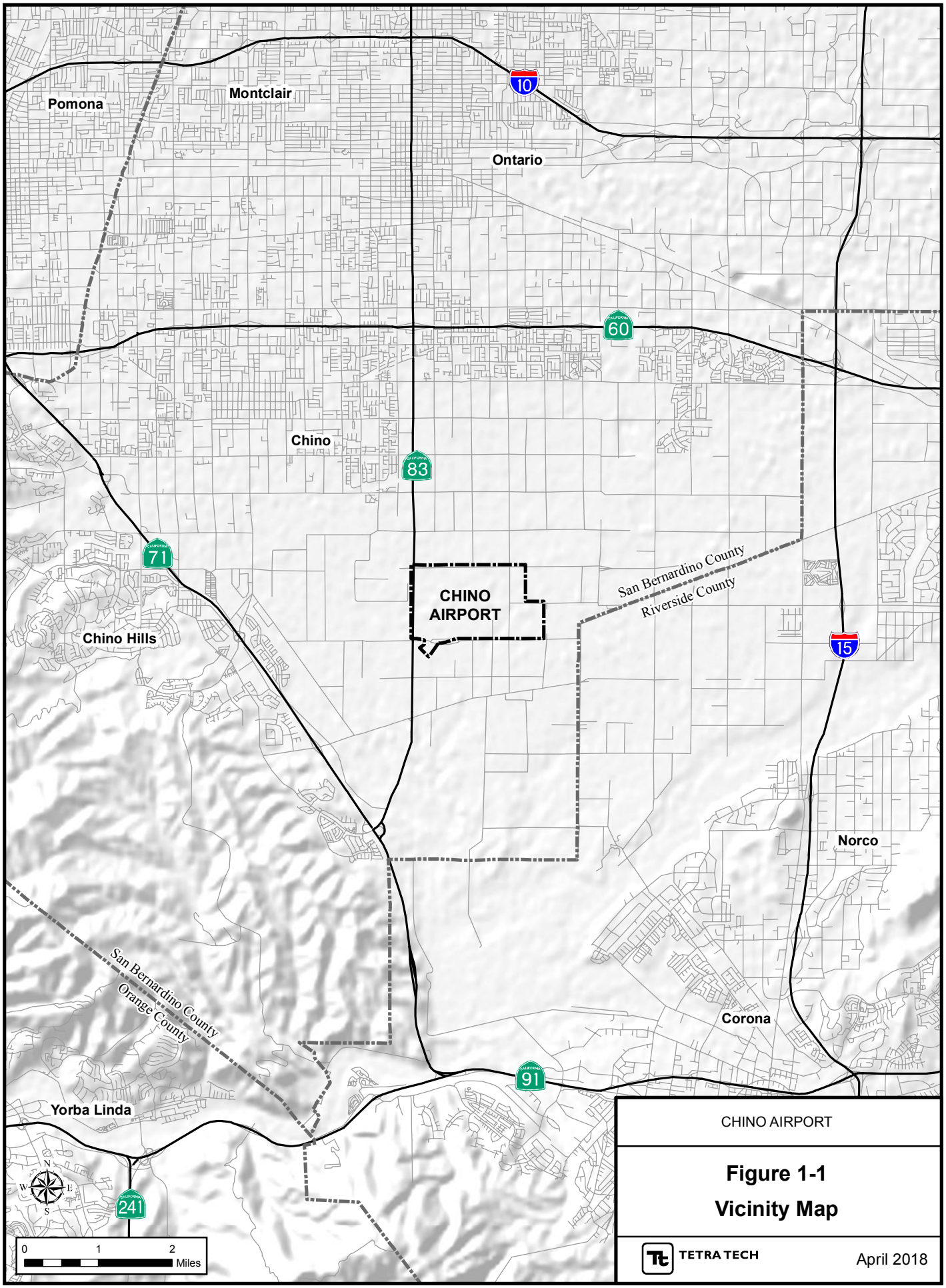
[1] Listed soil gas screening criteria are the site-specific residential RBSLs summarized in Appendix B.

[2] Estimated cancer risk = (soil gas concentration/cancer soil gas screening level) x 10^{-6}.

[3] Estimated hazard = (soil gas concentration/non-cancer soil gas screening level).

[4] Cumulative risk and hazard index represent the sum of chemical-specific cancer risks and hazard quotients.

FIGURES



CHINO AIRPORT

Figure 1-1

Vicinity Map

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\E_AOC_Locs_R1.mxd

MERRILL AVENUE

EUCLID AVENUE

KIMBALL AVENUE

Pioneer Hangars

Buried Drum Excavation

Former Sewage Treatment Plant

Existing Aircraft Fueling Area

Clarifier or Oil Water Separator

AOC B

AOC G

AOC H

AOC II

AOC J - K

AOC JJ

AOC KK

AOC LL

AOC MM

AOC N

AOC O

AOC OO

AOC Z

AOC DD

AOC EE

AOC FF

AOC GG

AOC HH

AOC M

AOC NN

Tank C-1
Tank C-2
Tank C-3
Tank C-4
(5M)

Tank C-5
Tank C-5A

Tank C-6

Tank C-7

Tank C-8

Tank C-9

Tank C-10

Tank C-11

Tank C-12

Tank C-13

Tank C-14

Tank C-15

Tank C-16

Tank C-17

Tank C-18

Tank C-19

Tank C-20

Tank C-21

Tank C-22

Tank C-23

Tank C-24

Sump-1

CAMW1

CAMW2

CAMW3

CAMW4

CAMW5

CAMW6

CAMW7

CAMW9

CAMW10-D
CAMW10-I
CAMW10-S

CAMW13-S
CAMW13-I

CAMW14-I
CAMW14-S

CAMW18-S
CAMW18-I

CDI-1

CDI-2

CDI-3

CDI-4

CDI-18

CDI-19

CDI-20

CDI-21

Pond 1
Pond 2
Pond 3
Pond 4
Pond 5
Pond 6
Pond 7

A240 | A245 (27) | A270 (23) | A280 | A285 | A290 | A305 (3) | A310 (4) | A315 (8) | A320 (4) | A325 | A330 (11) | A335 (19) | A340 (18) | A345 | A430 | A435 (17) | A436 | A437 (28) (12) | A440 (15) | A445 | A460 (H1) | A465 (H2) | A470 (H3) | A475 (H4) | A503 (6) | A505 | A510 | A515 (13) | A520 | A530 (14) | A532 | A540 | A542 | A544 | A546 (24) | A548 | A550 (25) | A552 | A220 (10) | A230 (20) | A385 (8) | A390 (7) | A480 (6) | A485 (6A) | A490 (5) | A495 (P-400) | A497 (P-300) | A555 (P-200) | A560 (P-100)

B110 | B120 (E1) | B130 (E2) | B140 (E3) | B150 (E4) | B160 (E5) | B170 (E6) | B180 (E7) | B195 (2) | B197 (2) | B199 | B210 | B220 (J8) | B230 (J7) | B240 (J6) | B250 (J5) | B260 (J4) | B270 (J3) | B280 (J2) | B290 (J1) | B295 (26) | B297 (29) | B310 | B320 | B330 | B340 | B350 (31)

F330 | F340 | F350 | F360 | F365

26L | 26R | 8-26

LEGEND

- Monitoring Well
- Underground Storage Tank identified in 1989 (SBCDEHs 1989)
- Underground Storage Tank Not Located in 1991 (Kennedy Jenks 1991)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Sump Removed in 1991 (Kennedy Jenks 1991)
- Chino Desalter Wells (Chino Desalter I - Well #)
- CDI-19 Drilling Location (non-producer, no well installation)
- Airport Property Boundary
- Area of Concern
- Buried Drum Excavation (Tetra Tech 2010)
- Additional Evaporation/ Percolation Ponds Shown in Aerial Photo 1946
- Evaporation/ Percolation Pond
- A290 Current Building Number
- (17) Historical Building Number

AOC - Area of Concern
Aerial Source: NAIP, 2016

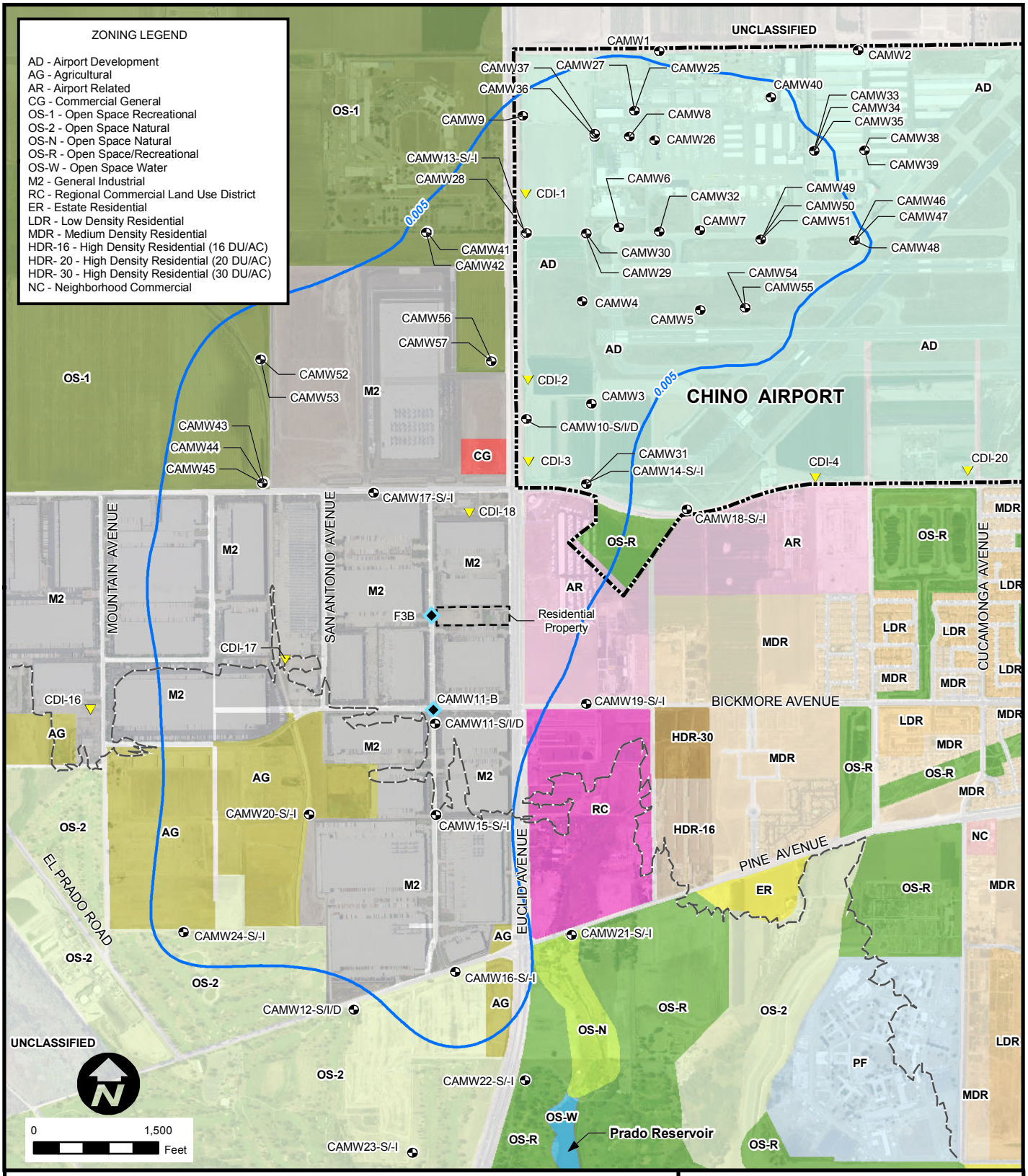
0 300 600 Feet

CHINO AIRPORT

Figure 2-1
Areas of Concern

TETRA TECH

April 2018



Monitoring Well

Desalter Well

Prado Basin Management Zone Boundary (representing the 566-foot above mean sea level contour separating the Chino North Groundwater Management Zone to the north from Prado Basin Management Zone to the south)

Soil Gas and Groundwater Grab Sample Location (2016)

Areal Extent of Volatile Organic Compound Plumes in Groundwater Exceeding PRGs

Note: Zoning information taken from City of Chino Zoning Map, adopted 7/6/10 and revised 7/1/15.

CHINO AIRPORT

Figure 3-1

Surrounding Land Use and Zoning Map

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\X-Sect_Soil_Inv.mxd

MERRILL AVENUE
KIMBALL AVENUE
BICKMORE AVENUE
PINE AVENUE
EUCLID AVENUE
Flood Control Channel
CHINO AIRPORT
CDCR Property
AOC B
AOC G
AOC II
AOC EE
AOC GG
B
B'
C
C'
D
D'
F
F'
G
G'
VAP-05
CPT-11
CAMW1
CPT-12
VAP-06
CPT-13
VAP-07
CAMW2
CPT-45
VAP-34
VAP-31
VAP-33
CAMW40
CPT-44
VAP-36
CPT-46
VAP-35
CAMW27
CAMW25
VAP-27
CAMW8
CAMW9
CPT-14
VAP-26
CAMW37
VAP-09
CAMW26
CPT-19
CPT-35
VAP-13
VAP-14
CAMW39
CAMW38
CPT-42
CAMW34
CPT-38
VAP-08
CPT-15
CPT-16
CAMW36
CPT-17
VAP-10
CPT-18
VAP-11
CPT-20
CPT-21
VAP-12
CPT-22
VAP-28
CPT-37
CPT-40
CPT-39
CAMW35
CAMW33
VAP-29
CPT-41
VAP-30
CPT-43
CDI-1
VAP-16
CAMW29
CAMW30
CAMW6
VAP-17
CPT-25
CAMW7
CPT27
VAP-25
CPT-28
CPT-47
VAP-40
CPT-49
CPT-50
VAP-37
CPT-09
CAMW42
CAMW41
CPT-07
CPT-10
VAP-04
CPT-08
VAP-03
CAMW28
CAMW13-S/-I
VAP-15
CPT-23
CPT-34
CPT-36
CPT-24
CPT-18
CPT-26
CAMW32
CAMW50
CAMW49
CAMW51
VAP-39
CPT-48
CAMW47
CAMW46
CAMW48
VAP-38
CPT-51
CAMW4
CAMW5
CAMW55
CAMW54
CPT-29
VAP-19
E5
CAMW53
CPT-02
CPT-03
VAP-02
CPT-05
CAMW52
CPT-04
CAMW56
CAMW57
VAP-01
CPT-06
CDI-2
CPT-30
VAP-20
CAMW3
VAP-21
CPT-31
CAMW10-I/-S/-D
E4
CPT-32
VAP-22
VAP-23
CPT-33
VAP-24
CDI-3
CAMW45
CAMW43
CAMW44
K1
CAMW17-S/I
K8
K10
K2
K13
K3
CDI-4
CAMW14-S/I
CAMW31
CAMW18-S/-I
CDI-18
CDI-17
B12
B2
B11
B3
CAMW19-S/-I
B8
B15
B1
CAMW11-S/-I/-D
CAMW20-S/-I
CAMW15-S/-I
6189
6202
P3
CAMW16-S/-I
HCMP-4/1
HCMP-4/2
P2
CAMW12-S/-I/-D
P1
G'
CAMW21-S/-I
CAMW22-S/-I

Existing Monitoring Well
VAP - Vertical Aquifer Profiling Boring
CPT Boring
Desalter Well Location
CPT and DP Sample Location
DP Sample Location
Fence Diagram Line/Cross Section Location
Chino Airport Boundary

0 500 1,000 Feet

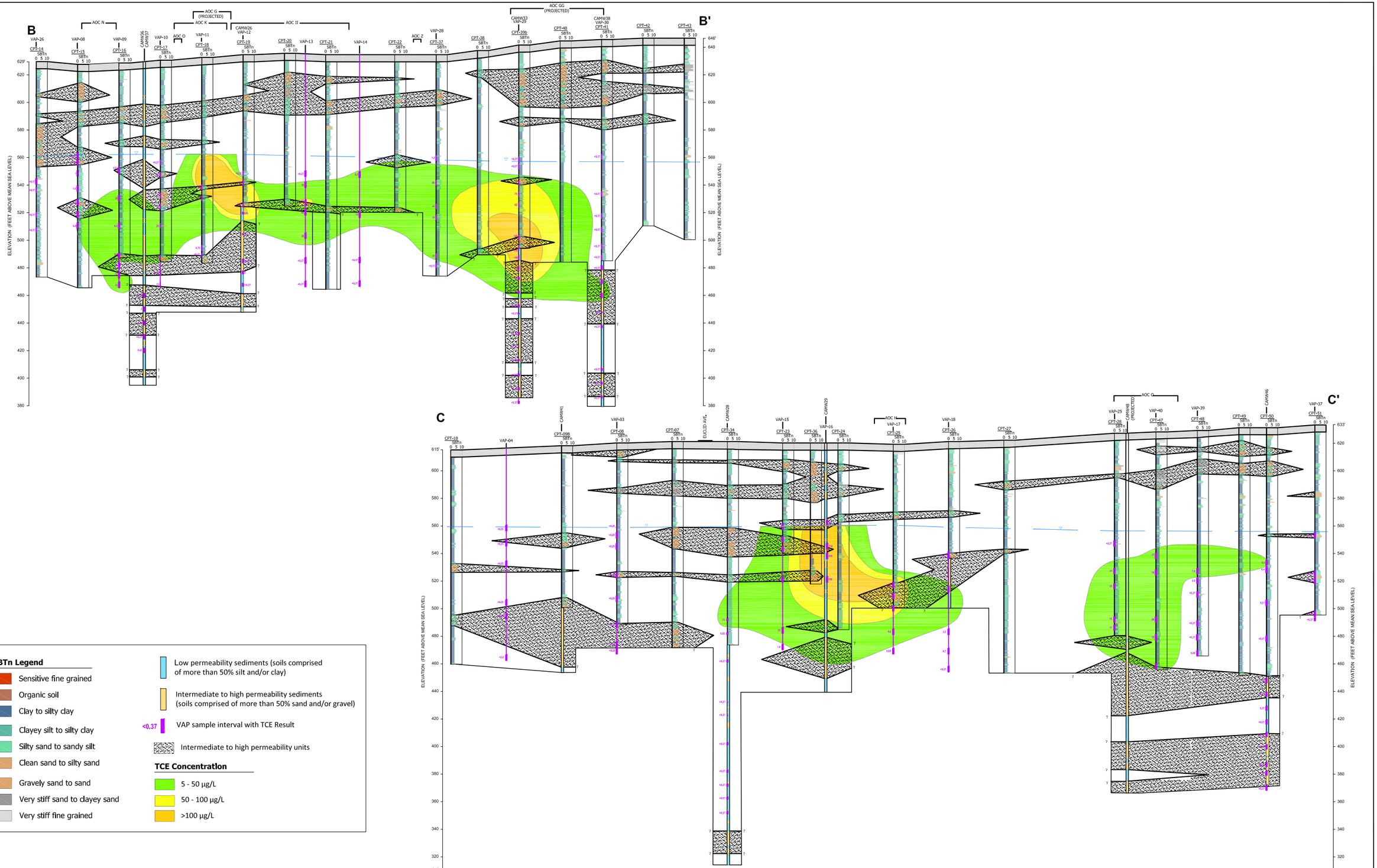
CHINO AIRPORT

Figure 3-2

Cross-Section Locations

TETRA TECH

April 2018



NOTES

0 400
Scale in Feet
Vertical Exaggeration
= 10x Horizontal
40

TETRA TECH
301 E. VANDERBILT WAY, SUITE 450
SAN BERNARDINO, CALIFORNIA 92408
(909) 381-1674

PROJECT NO. 23333-1702

DRAWN BY:			
CHECKED BY:			
APPROVED BY:			

April 2018

CHINO AIRPORT

Figure 3-3
Idealized Fence Diagrams B-B' and C-C'

P:\GIS\CHINO_RISK_ASSESSCAD\X-SECT_D-D.DWG

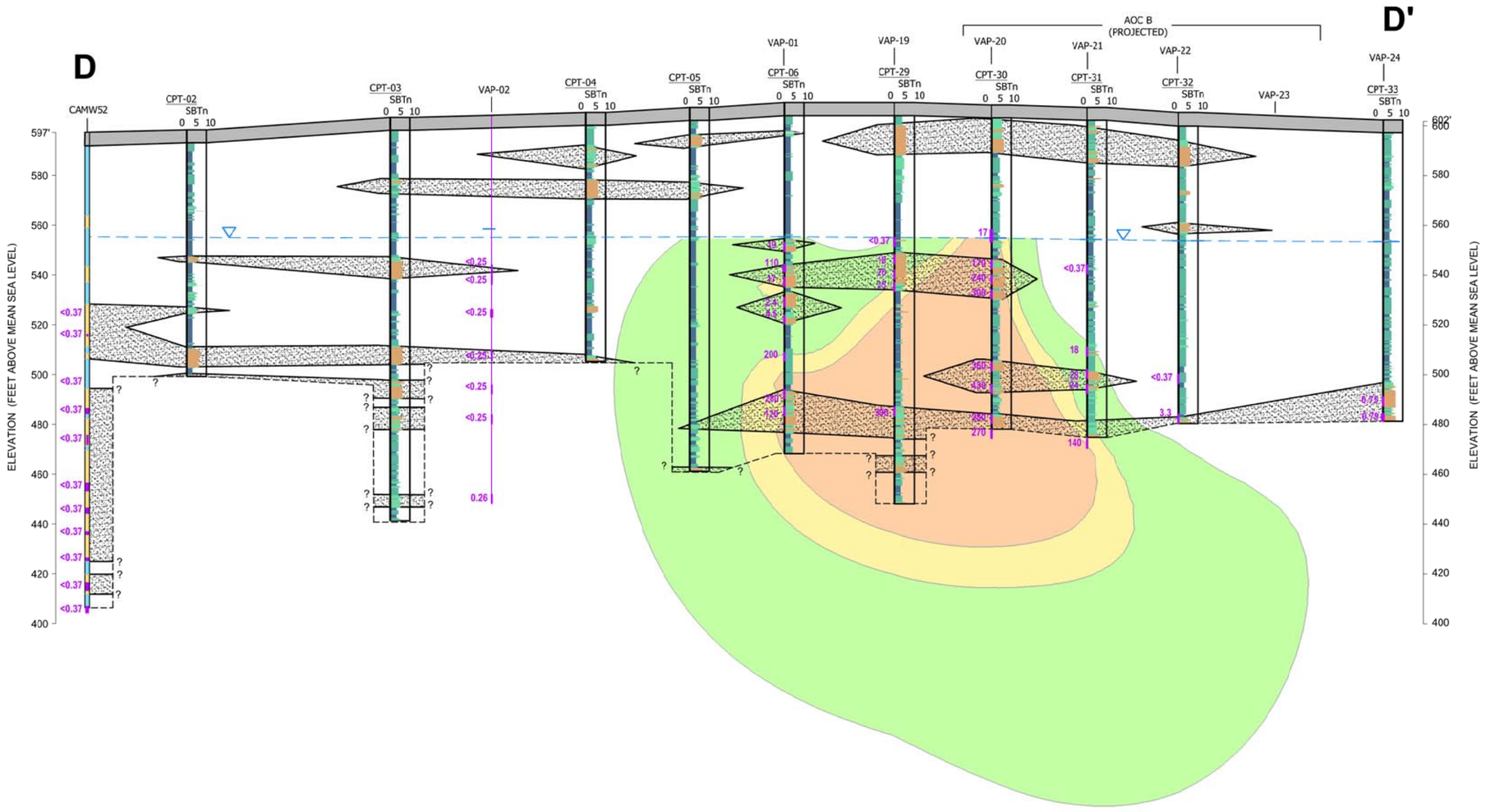
SBTn Legend

- Sensitive fine grained
- Organic soil
- Clay to silty clay
- Clayey silt to silty clay
- Silty sand to sandy silt
- Clean sand to silty sand
- Gravely sand to sand
- Very stiff sand to clayey sand
- Very stiff fine grained

- Low permeability sediments (soils comprised of more than 50% silt and/or clay)
- Intermediate to high permeability sediments (soils comprised of more than 50% sand and/or gravel)
- <0.37 VAP sample interval with TCE Result
- Intermediate to high permeability units

TCE Concentration (2017 plume cross section)

- 5 - 50 µg/L
- 50 - 100 µg/L
- >100 µg/L



0 500

Scale in Feet
Vertical Exaggeration
= 10x Horizontal

50

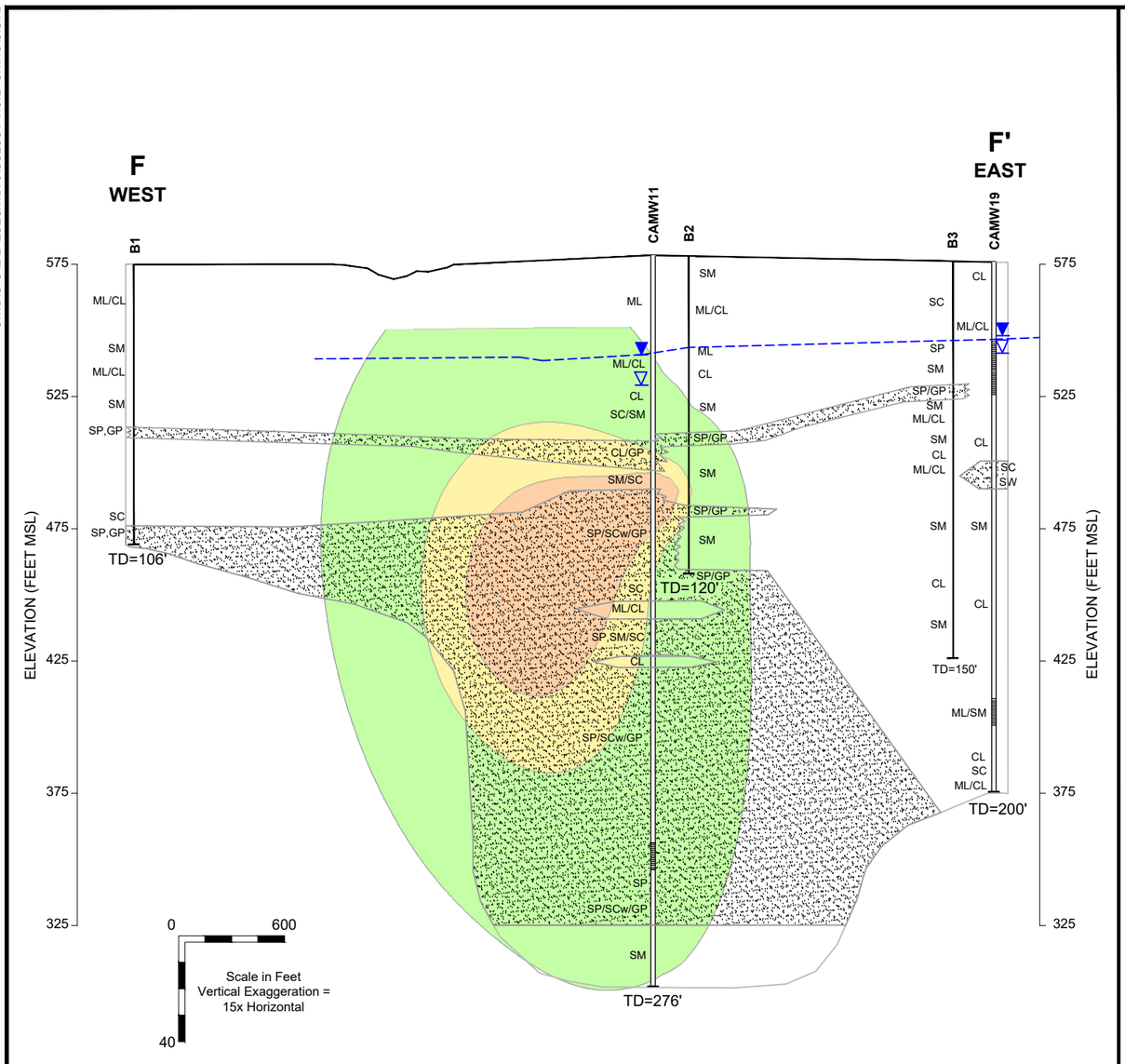
CHINO AIRPORT

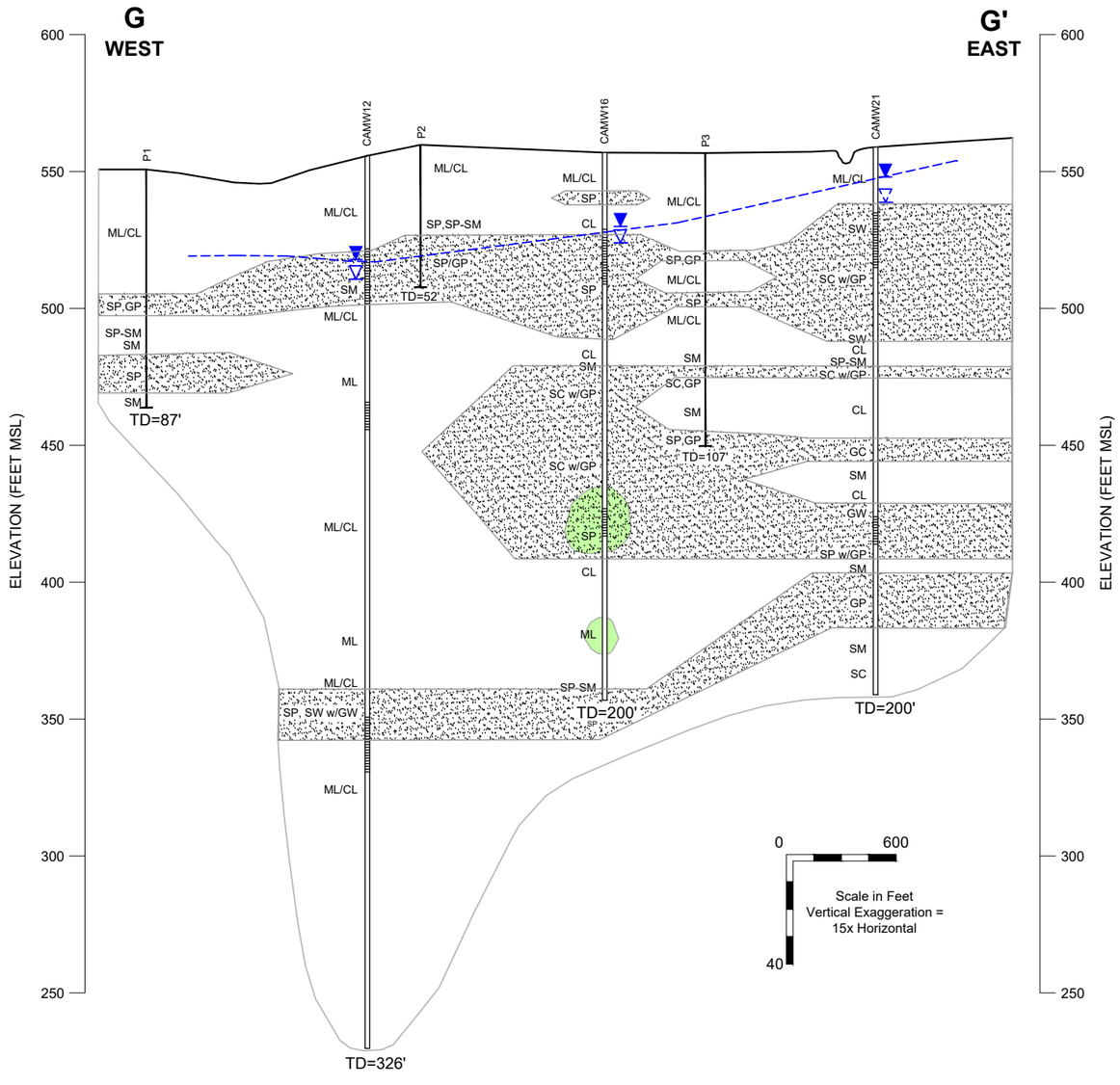
Figure 3-4
Idealized Fence Diagram
D-D'

TETRA TECH

April 2018

P:\GIS\CHINO_RISK_ASSESS\CAD\XSECT_F-F' G-G'.DWG





LEGEND

Fine-Grained Units

SM	Silty Sands
SP-SM	Poorly Graded Sand w/ Silt
ML	Silts, Sandy Silts
CL	Clays, Sandy Clays

Coarse-Grained Units

SP	Poorly Graded Sands
SW	Well Graded Sands
GP	Poorly Graded Gravels
GW	Well Graded Gravels
SC	Clayey Sands
GC	Clayey Gravels

TCE Concentration
(2017 plume cross section)

- 5 - 50 µg/L
- 50 - 100 µg/L
- >100 µg/L

- Static Water
- First Water Encountered
- Inferred Contact
- Groundwater Elevation
- Boring
- Well
- Screened Interval

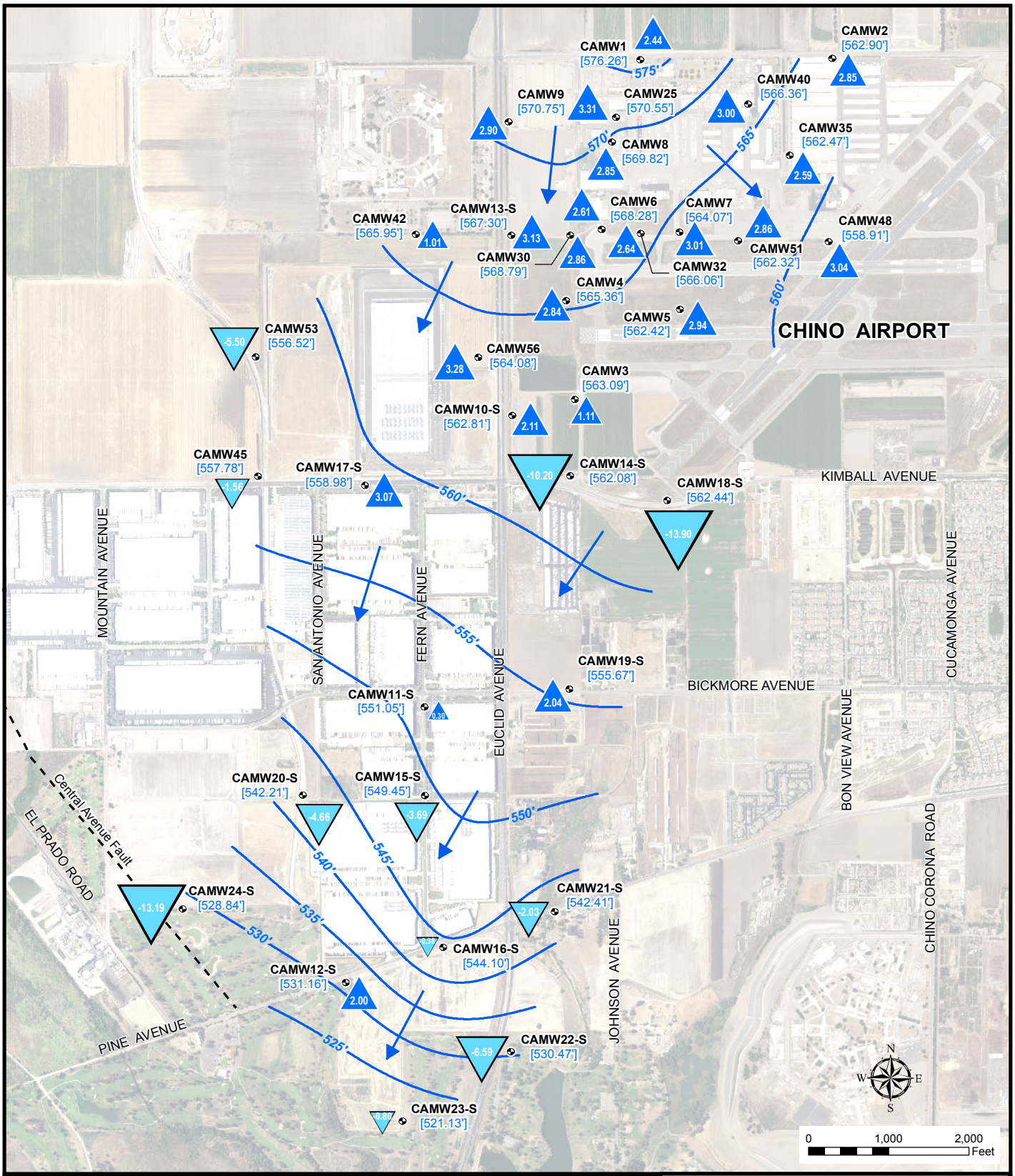
CHINO AIRPORT

Figure 3-5
Idealized Geologic Cross Sections F-F' and G-G'

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\GW_Level_Shallow_APR_2017.mxd



LEGEND

- Monitoring Well Location with Groundwater Elevation
- Decreasing Groundwater Elevation Change in Feet (from previous quarter)
- Increasing Groundwater Elevation Change in Feet (from previous quarter)
- Groundwater Elevation Contour (April 2017)
- Fault Location
- Potentiometric Surface Slope Direction

Notes:

Groundwater elevations shown in feet msl.

Fault from *Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, Version 2. Bryant, W.A., Treiman, T.A. July 2005.*

CHINO AIRPORT

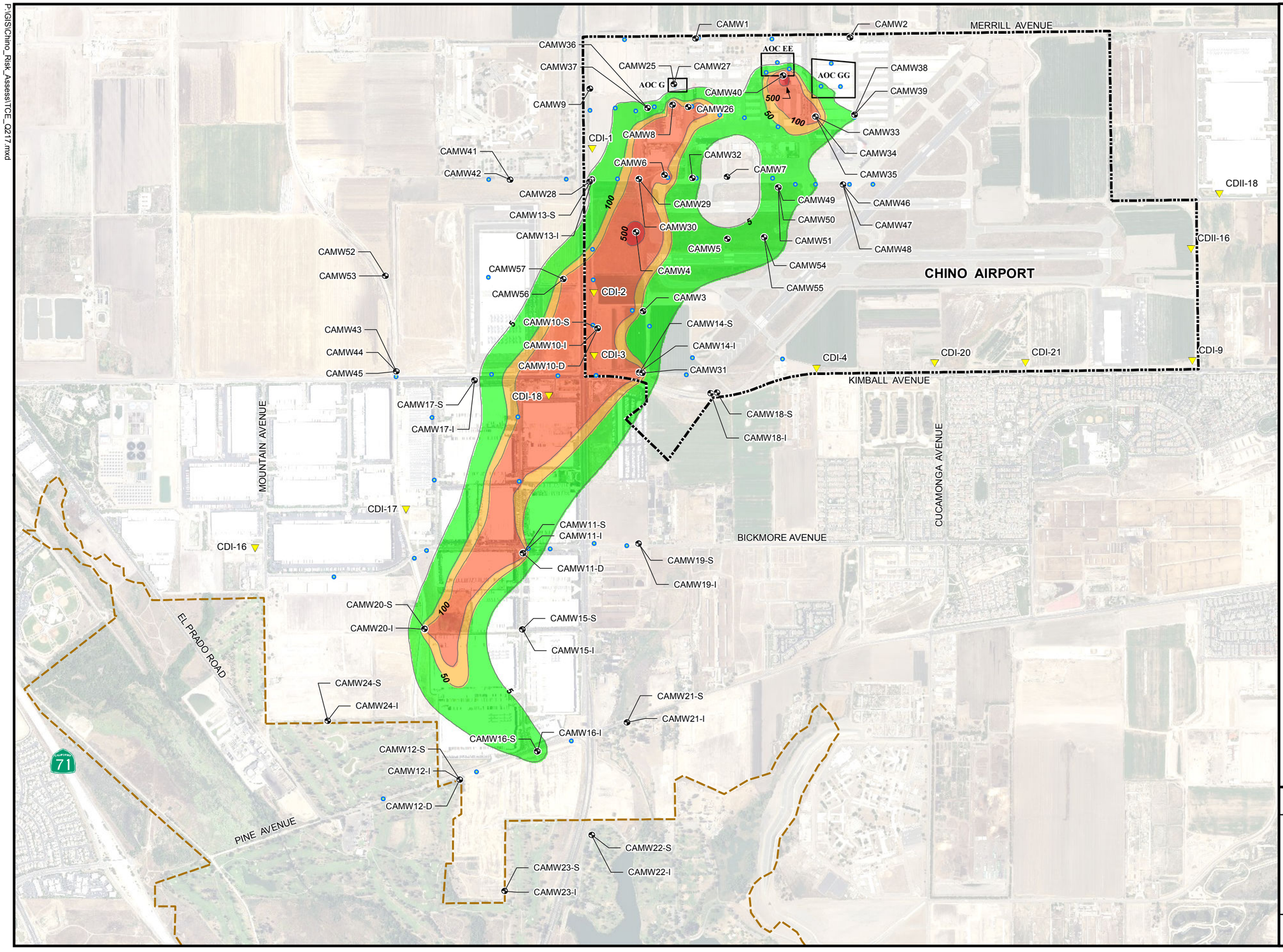
Figure 3-6

Groundwater Contour Map- April 2017

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\TCE_Q217.mxd



CHINO AIRPORT

Figure 3-7

TCE at 5 µg/L, 50 µg/L, 100 µg/L, and 500 µg/L Isoconcentration Second Quarter 2017

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\123_TCP_Q217.mxd

CAMW1
CAMW2
MERRILL AVENUE
CAMW36
CAMW37
CAMW9
CAMW27
CAMW25
AOC G
CAMW26
AOC EE
CAMW40
AOC GG
CAMW38
CAMW39
CAMW13-S
CAMW13-I
CAMW28
CAMW41
CAMW42
CDI-1
CAMW8
CAMW32
CAMW33
CAMW34
CAMW35
CAMW7
(<0.0025)
CAMW6
CAMW29
CAMW30
CAMW49
CAMW46
CAMW47
CAMW48
CAMW50
CAMW5
CAMW4
CAMW51
CAMW56
CAMW57
CAMW52
CAMW53
CDI-2
CAMW55
CAMW54
CHINO AIRPORT
CDII-18
CDII-16
CAMW3
CAMW10-S
CAMW17-S
CAMW17-I
CAMW10-I
CAMW10-D
CDI-3
CAMW14-S
CAMW14-I
CAMW31
CAMW43
CAMW44
CAMW45
CDI-18
CDI-4
CDI-20
CDI-21
CDI-9
KIMBALL AVENUE
CAMW18-S
CAMW18-I
MOUNTAIN AVENUE
CUCAMONGA AVENUE
0.005
0.05
0.5
5
CDI-17
CDI-16
BICKMORE AVENUE
CAMW11-S
CAMW11-I
CAMW11-D
CAMW19-S
CAMW19-I
CAMW20-S
CAMW20-I
EL PRADO ROAD
CAMW15-S
CAMW15-I
CAMW24-S
CAMW24-I
71
CAMW21-S
CAMW21-I
CAMW16-S
CAMW16-I
CAMW12-S
CAMW12-I
CAMW12-D
PINE AVENUE
CAMW22-S
CAMW22-I
CAMW23-S
CAMW23-I

N

0 1,500 Feet

Monitoring Well (concentration in µg/L)

Desalter Well

Temporary Groundwater Sampling Point

Prado Regional Park Boundary

AOC Boundary

Chino Airport Boundary

1,2,3-TCP Concentration (µg/L)

10
1
0.1
0.01
0.001
0.0001

Notes:
TCP - Trichloropropane

CHINO AIRPORT

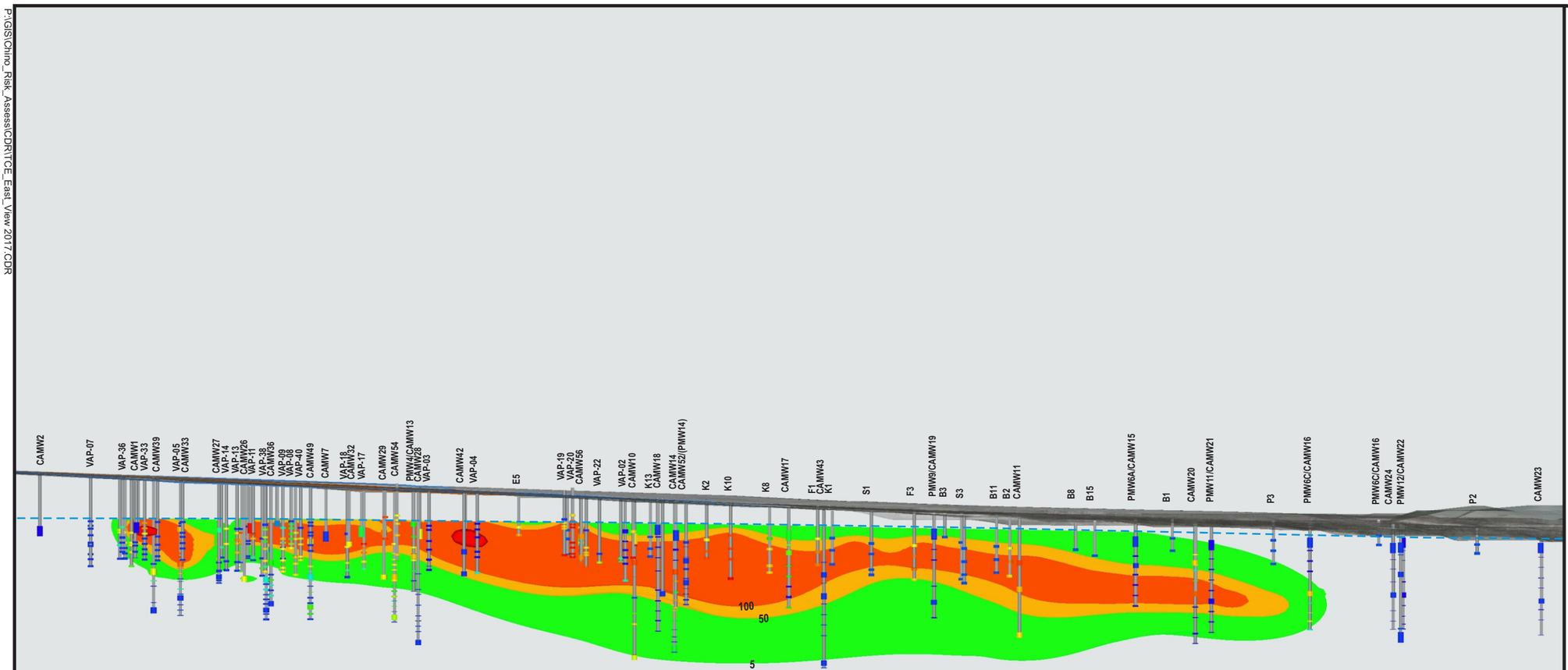
Figure 3-8

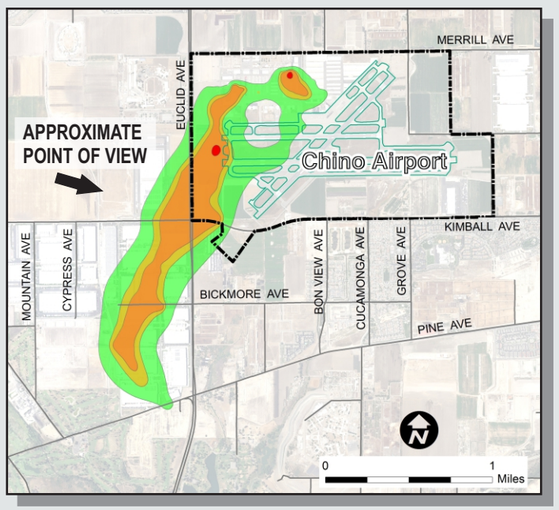
1,2,3-TCP at 0.005 µg/L 0.05 µg/L, 0.5 µg/L, and 5 µg/L Isoconcentrations Second Quarter 2017

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\CDR\TCE_East_View 2017.CDR





Groundwater Elevation

Soil Boring / Well

Well Screen or Sample Location Showing Concentration

TCE Concentration

800 µg/L

100 µg/L

10 µg/L

1 µg/L

0 1,000 2,000 Feet

APPROXIMATE SCALE

5X Vertical Exaggeration

CHINO AIRPORT

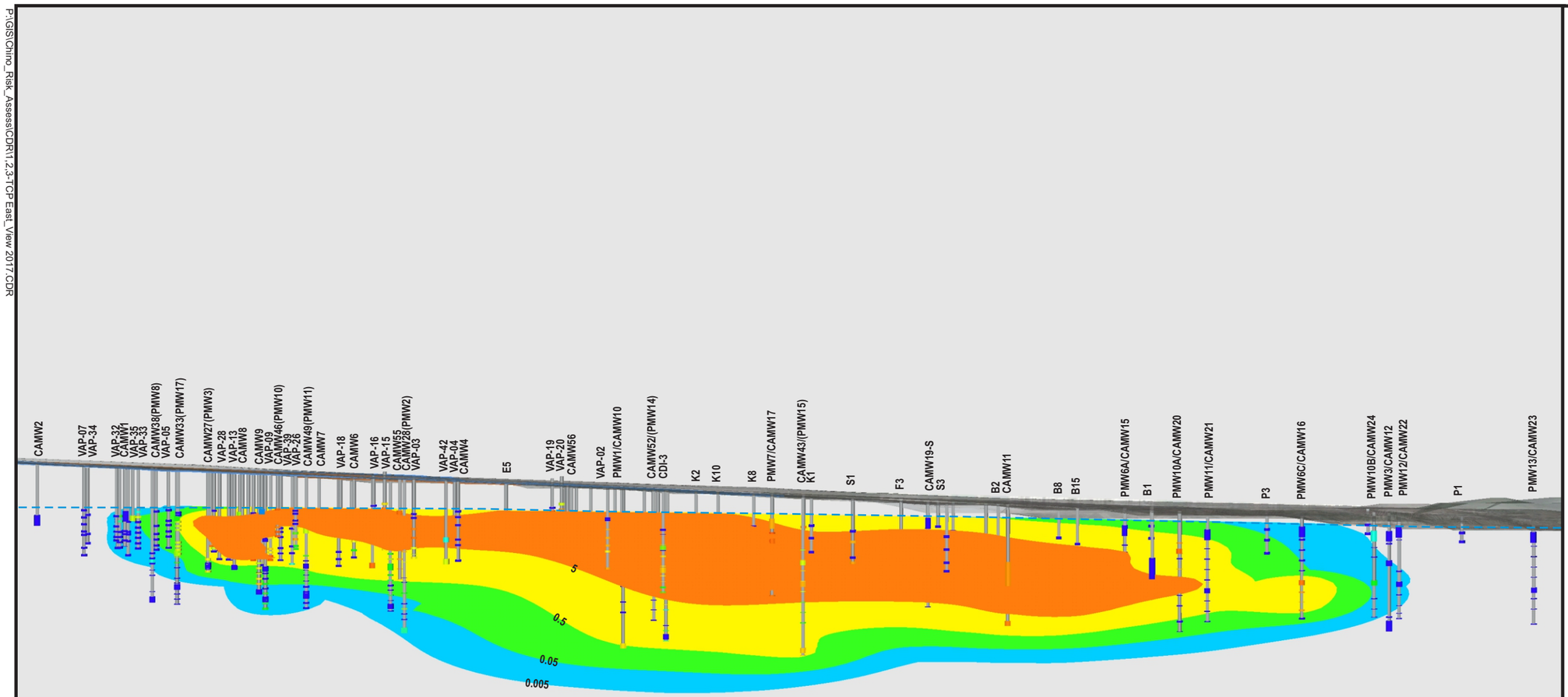
Figure 3-9

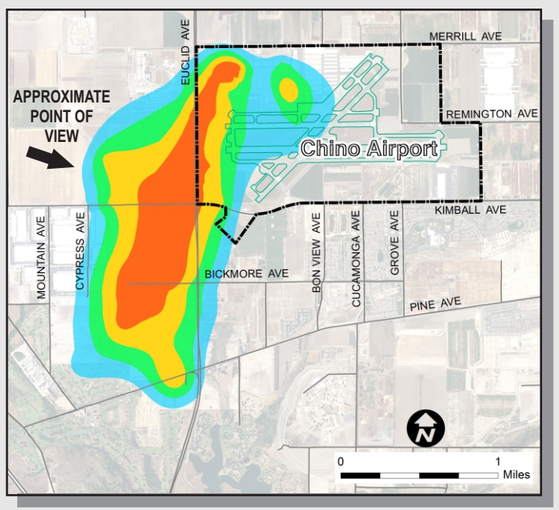
Side View Looking East of TCE at 5 µg/L, 50 µg/L, 100 µg/L, and 500 µg/L Isoconcentrations

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\CDR11.2.3-TCP East_View 2017.CDR





Groundwater Elevation

Soil Boring / Well

Well Screen or Sample Location Showing Concentration

1,2,3-TCP Concentration

10 µg/L

1 µg/L

0.1 µg/L

0.01 µg/L

0.001 µg/L

0 1,000 2,000 Feet

APPROXIMATE SCALE

5X Vertical Exaggeration

CHINO AIRPORT

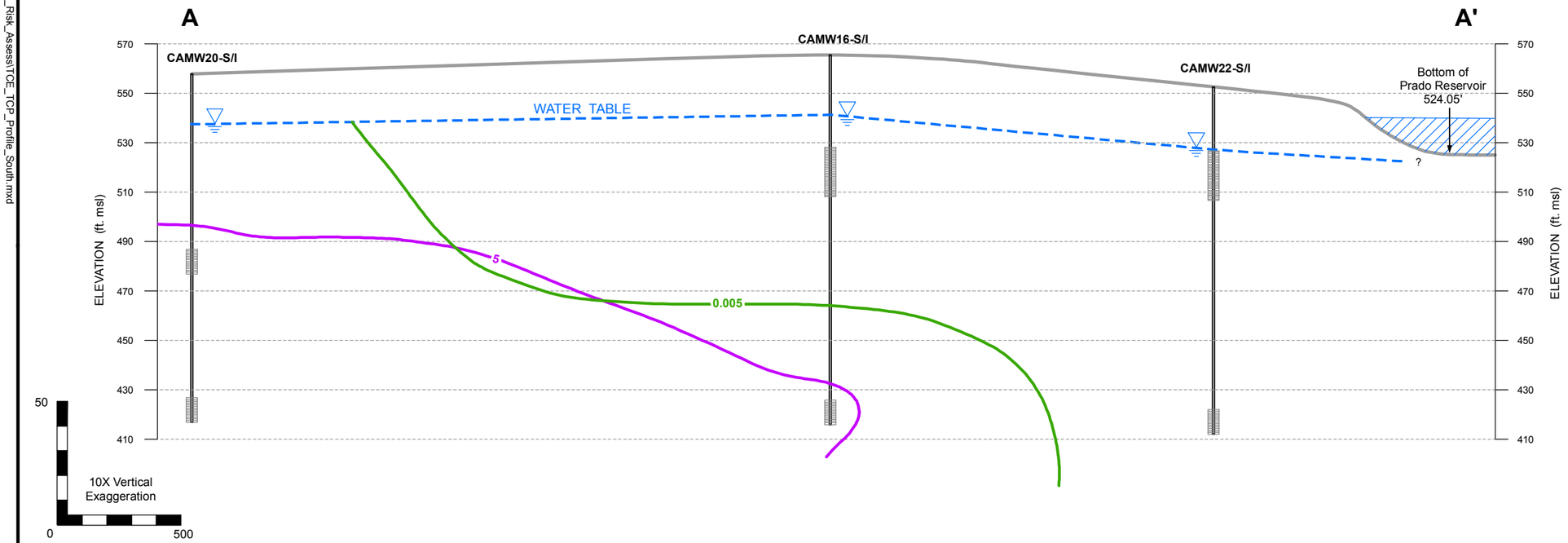
Figure 3-10

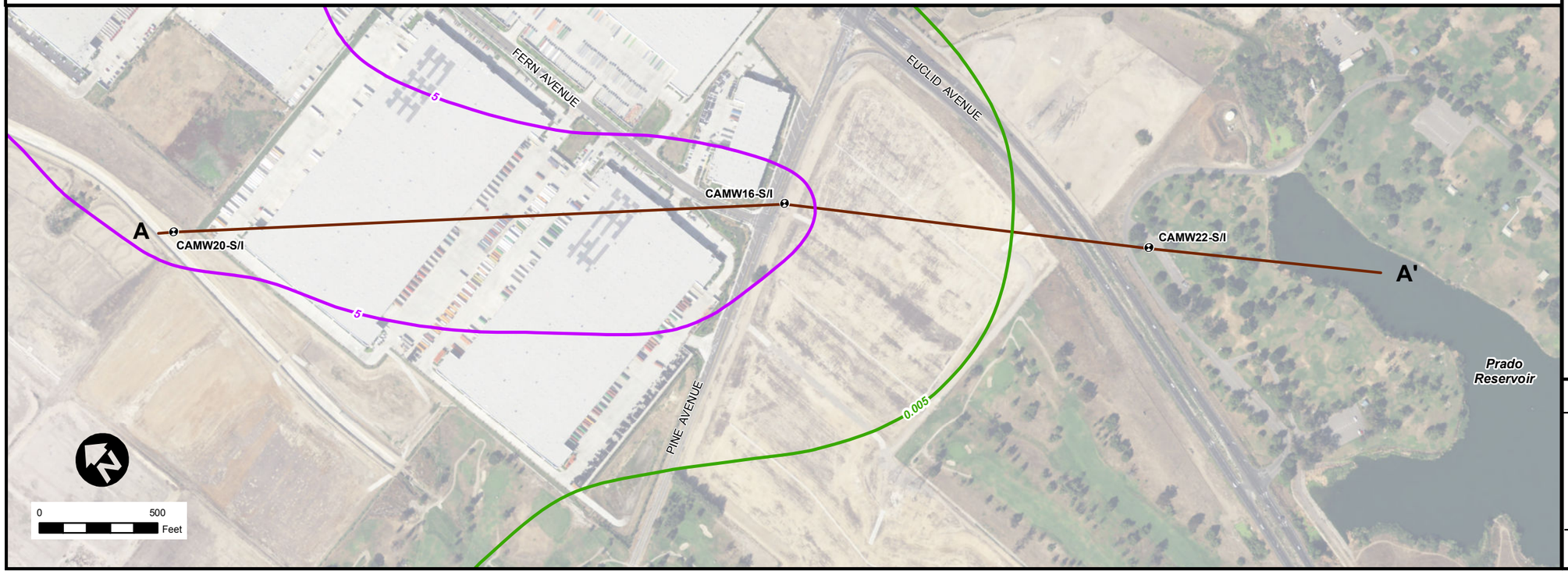
Side View Looking East of 1,2,3-TCP at 0.005 µg/L, 0.05 µg/L, 0.5, and 5 µg/L Isoconcentrations

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\TCE_TCP_Profile_South.mxd





Monitoring Well

1,2,3-TCP Isoconcentraton Contour (0.005 µg/L)

TCE Isoconcentration Contour (5 µg/L)

Profile Location

Notes:
TCP - Trichloropropane
TCE - Trichloroethene
msl - mean sea level
µg/L - micrograms per liter

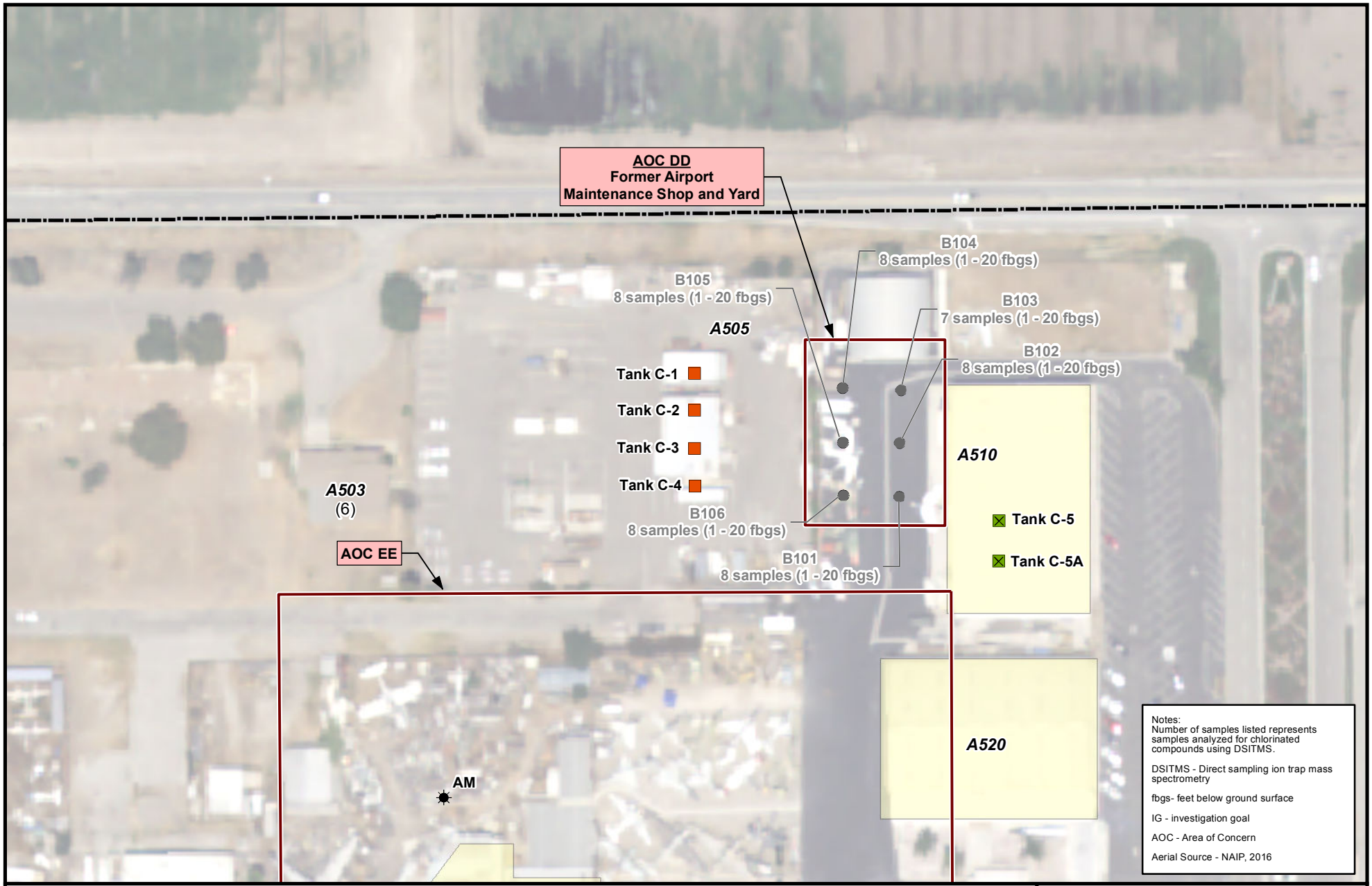
CHINO AIRPORT

Figure 3-11

Southern Extent of TCE and 1,2,3-TCP Plumes Relative to Prado Reservoir Second Quarter 2017

TETRA TECH

April 2018



P:\GIS\Chino_Risk_Assess\Samp_Loc_ChlorCom_AOC_DD.mxd

LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Underground Storage Tank identified in 1989 (SBCDEHS 1989)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- Airport Property Boundary
- ***A290*** Current Building Number
- (17) Historical Building Number

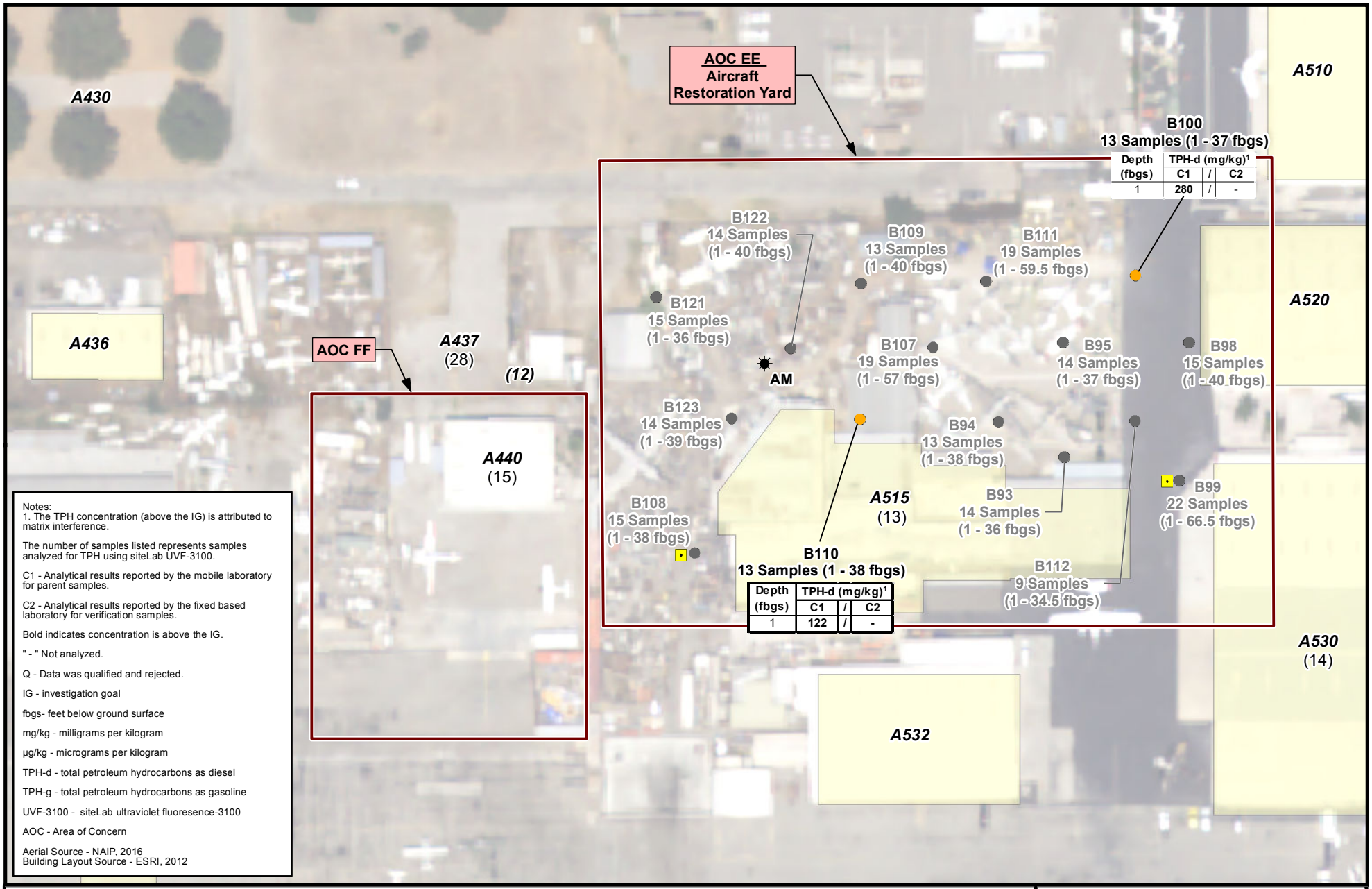
0 50 100 Feet

CHINO AIRPORT

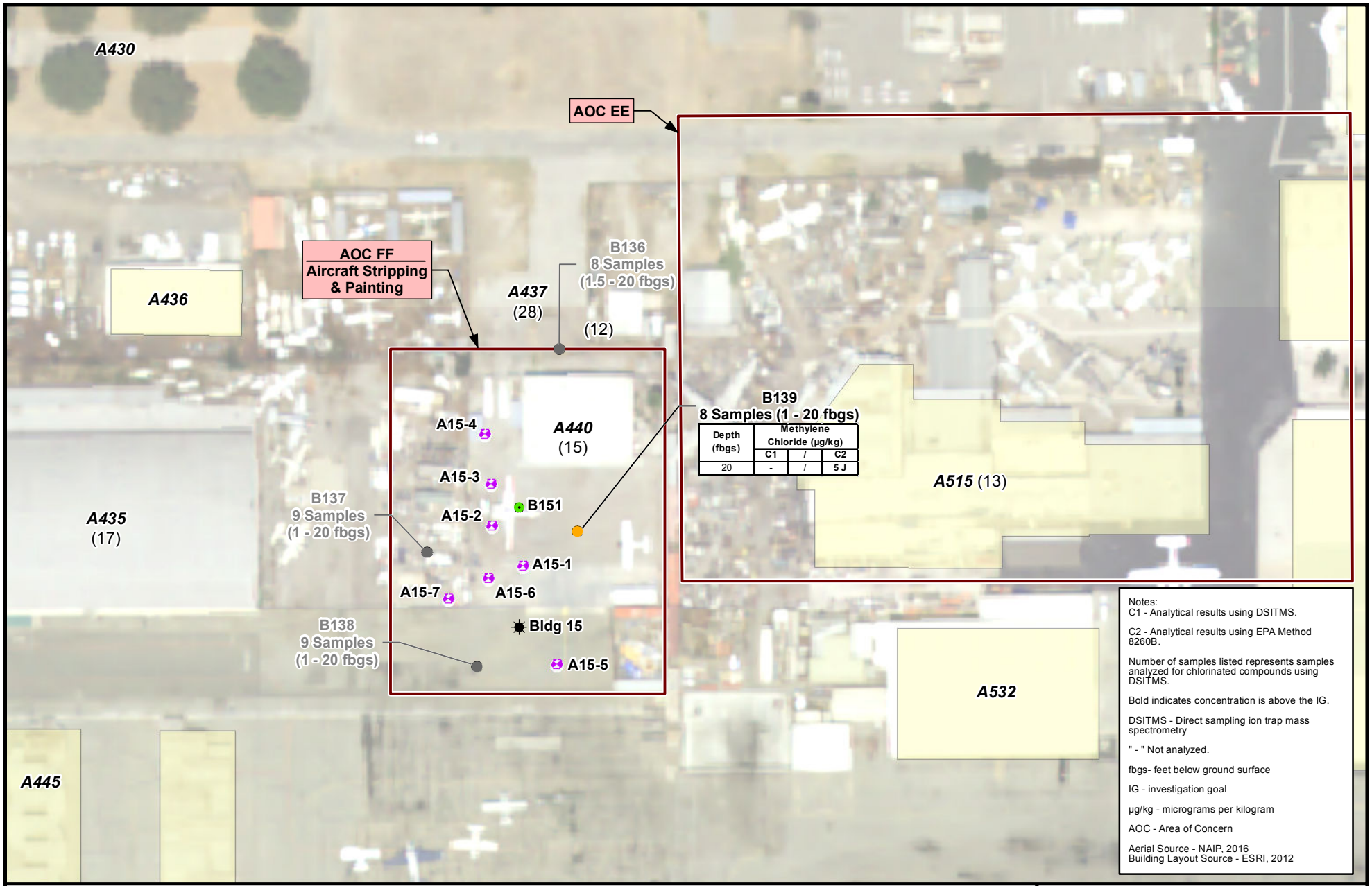
Figure 5-1
Sampling Locations for Soil, AOC DD - Former Airport Maintenance Shop and Yard

TETRA TECH

April 2018


P:\GIS\Chino_Risk_Assess\Samp_Locs_TPH_AOC_EE.mxd
AOC EE
Aircraft
Restoration Yard
A430
A510
A520
A436
AOC FF
A437
(28)
(12)
A440
(15)
A515
(13)
A530
(14)
A532
B100
13 Samples (1 - 37 fbgs)
Depth (fbgs) | TPH-d (mg/kg)[1] C1 / C2
1 | 280 / -
B122
14 Samples
(1 - 40 fbgs)
B109
13 Samples
(1 - 40 fbgs)
B111
19 Samples
(1 - 59.5 fbgs)
B121
15 Samples
(1 - 36 fbgs)
AM
B107
19 Samples
(1 - 57 fbgs)
B95
14 Samples
(1 - 37 fbgs)
B98
15 Samples
(1 - 40 fbgs)
B123
14 Samples
(1 - 39 fbgs)
B94
13 Samples
(1 - 38 fbgs)
B99
22 Samples
(1 - 66.5 fbgs)
B108
15 Samples
(1 - 38 fbgs)
B93
14 Samples
(1 - 36 fbgs)
B110
13 Samples (1 - 38 fbgs)
Depth (fbgs) | TPH-d (mg/kg)[1] C1 / C2
1 | 122 / -
B112
9 Samples
(1 - 34.5 fbgs)
Notes:
1. The TPH concentration (above the IG) is attributed to matrix interference.
The number of samples listed represents samples analyzed for TPH using siteLab UVF-3100.
C1 - Analytical results reported by the mobile laboratory for parent samples.
C2 - Analytical results reported by the fixed based laboratory for verification samples.
Bold indicates concentration is above the IG.
" - " Not analyzed.
Q - Data was qualified and rejected.
IG - investigation goal
fbgs- feet below ground surface
mg/kg - milligrams per kilogram
µg/kg - micrograms per kilogram
TPH-d - total petroleum hydrocarbons as diesel
TPH-g - total petroleum hydrocarbons as gasoline
UVF-3100 - siteLab ultraviolet fluoresence-3100
AOC - Area of Concern
Aerial Source - NAIP, 2016
Building Layout Source - ESRI, 2012
LEGEND
Soil Boring (Tetra Tech 2014)
Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
VAP Location
Soil Gas Boring (Tetra Tech 2004)
Buildings (2012)
A290 Current Building Number
(17) Historical Building Number
N
0 50 100 Feet
CHINO AIRPORT
Figure 5-2
Sampling Locations for Soil, AOC EE - Former Cal Aero Restoration Yard
TETRA TECH
April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOCs_AOC_FF.mxd



LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- *A290* Current Building Number
- (17) Historical Building Number

0 50 100 Feet

CHINO AIRPORT

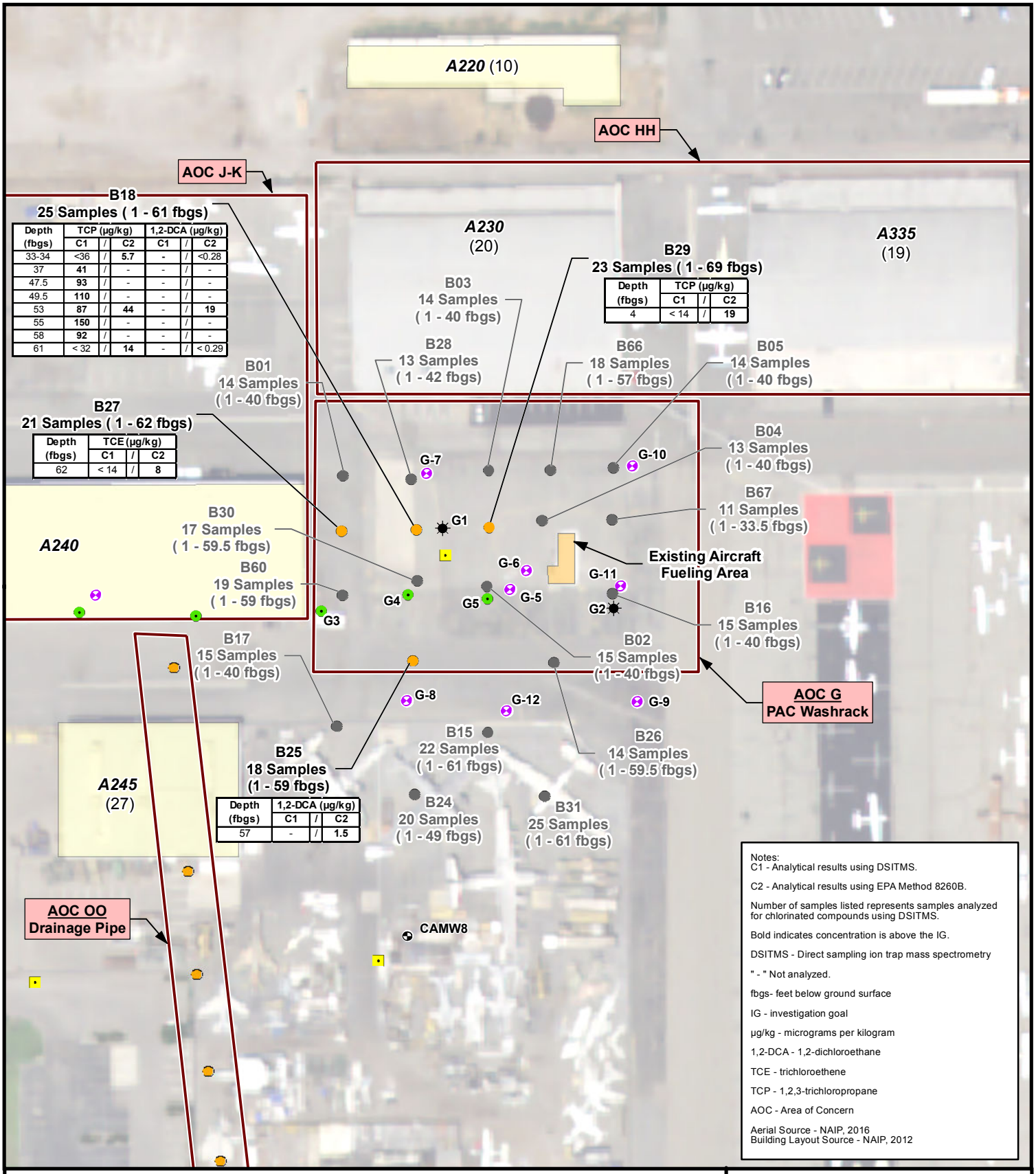
Figure 5-3

Sampling Locations for Soil, AOC - FF Building A440

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_G.mxd



Notes:
C1 - Analytical results using DSITMS.

C2 - Analytical results using EPA Method 8260B.

Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

Bold indicates concentration is above the IG.

DSITMS - Direct sampling ion trap mass spectrometry

" - " Not analyzed.

fbgs- feet below ground surface

IG - investigation goal

µg/kg - micrograms per kilogram

1,2-DCA - 1,2-dichloroethane

TCE - trichloroethene

TCP - 1,2,3-trichloropropane

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - NAIP, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Soil Gas Boring (Tetra Tech 2004)
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- Monitoring Well
- Buildings (2012)
- A290 Current Building Number
- (17) Historical Building Number

0 50 100 Feet

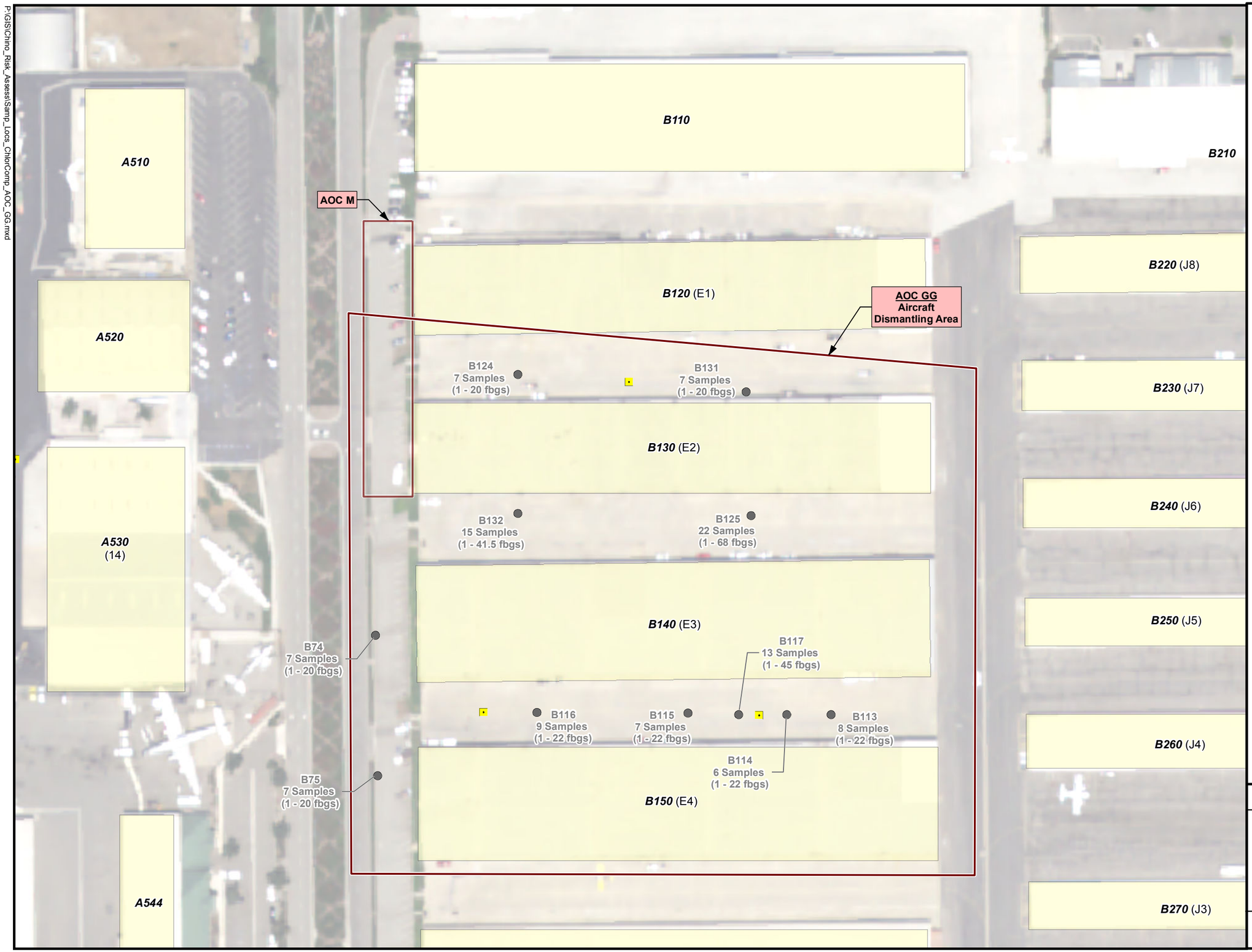
CHINO AIRPORT

Figure 5-4
Sampling Locations for Soil, AOC G - Former PAC Wash Rack Area

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_GG.mxd



0 50 100 Feet

LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Buildings (2012)
- ***A290*** Current Building Number
- (17) Historical Building Number

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source: NAIP, 2016
Building Layout Source: ESRI, 2012

CHINO AIRPORT

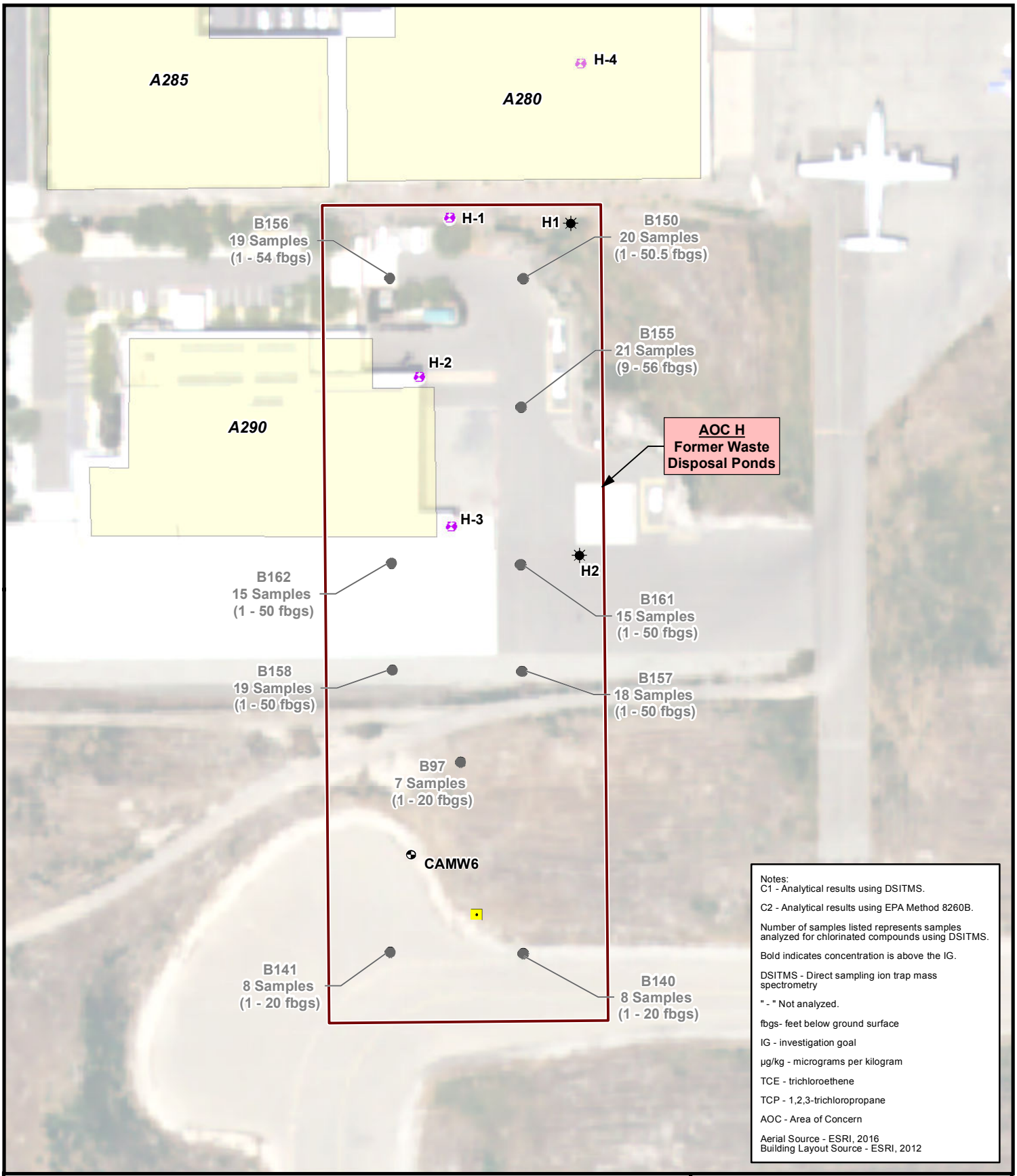
Figure 5-5

Sampling Locations for Soil, AOC GG - Former Aircraft Dismantling Area

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_H.mxd



Notes:
C1 - Analytical results using DSITMS.

C2 - Analytical results using EPA Method 8260B.

Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

Bold indicates concentration is above the IG.

DSITMS - Direct sampling ion trap mass spectrometry

" - " Not analyzed.

fbgs- feet below ground surface

IG - investigation goal

µg/kg - micrograms per kilogram

TCE - trichloroethene

TCP - 1,2,3-trichloropropane

AOC - Area of Concern

Aerial Source - ESRI, 2016
Building Layout Source - ESRI, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Monitoring Well
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- ***A290*** Current Building Number

0 50 100 Feet

CHINO AIRPORT

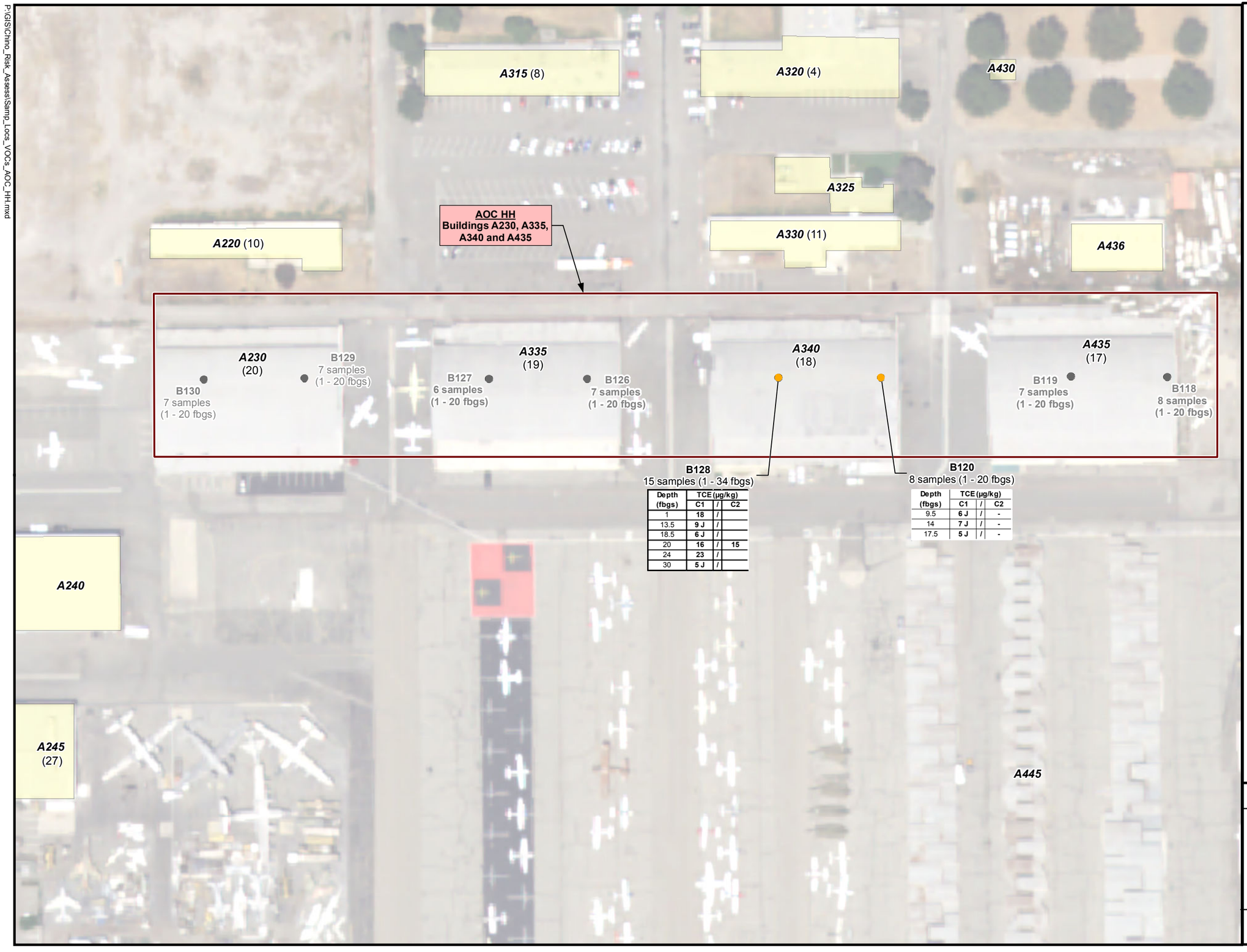
Figure 5-6

Sampling Locations for Soil, AOC H - Former Waste Disposal Ponds

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOCs_AOC_HH.mxd



Depth (fbgs)	TCE (µg/kg) C1	/	C2
1	18	/	
13.5	9 J	/	
18.5	6 J	/	
20	16	/	15
24	23	/	
30	5 J	/	

Depth (fbgs)	TCE (µg/kg) C1	/	C2
9.5	6 J	/	-
14	7 J	/	-
17.5	5 J	/	-

0 50 100 Feet

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Buildings (2012)
- *A290* Current Building Number
- (17) Historical Building Number

Notes:
C1 - Analytical results using DSITMS.

C2 - Analytical results using EPA Method 8260B.

Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

Bold indicates concentration is above the IG.

DSITMS - Direct sampling ion trap mass spectrometry.

" - " Not analyzed.

fbgs- feet below ground surface

IG - investigation goal

µg/kg - micrograms per kilogram

TCE - trichloroethene

AOC - Area of Concern

Aerial Source: - NAIP, 2012
Building Layout Source: NAIP, 2012

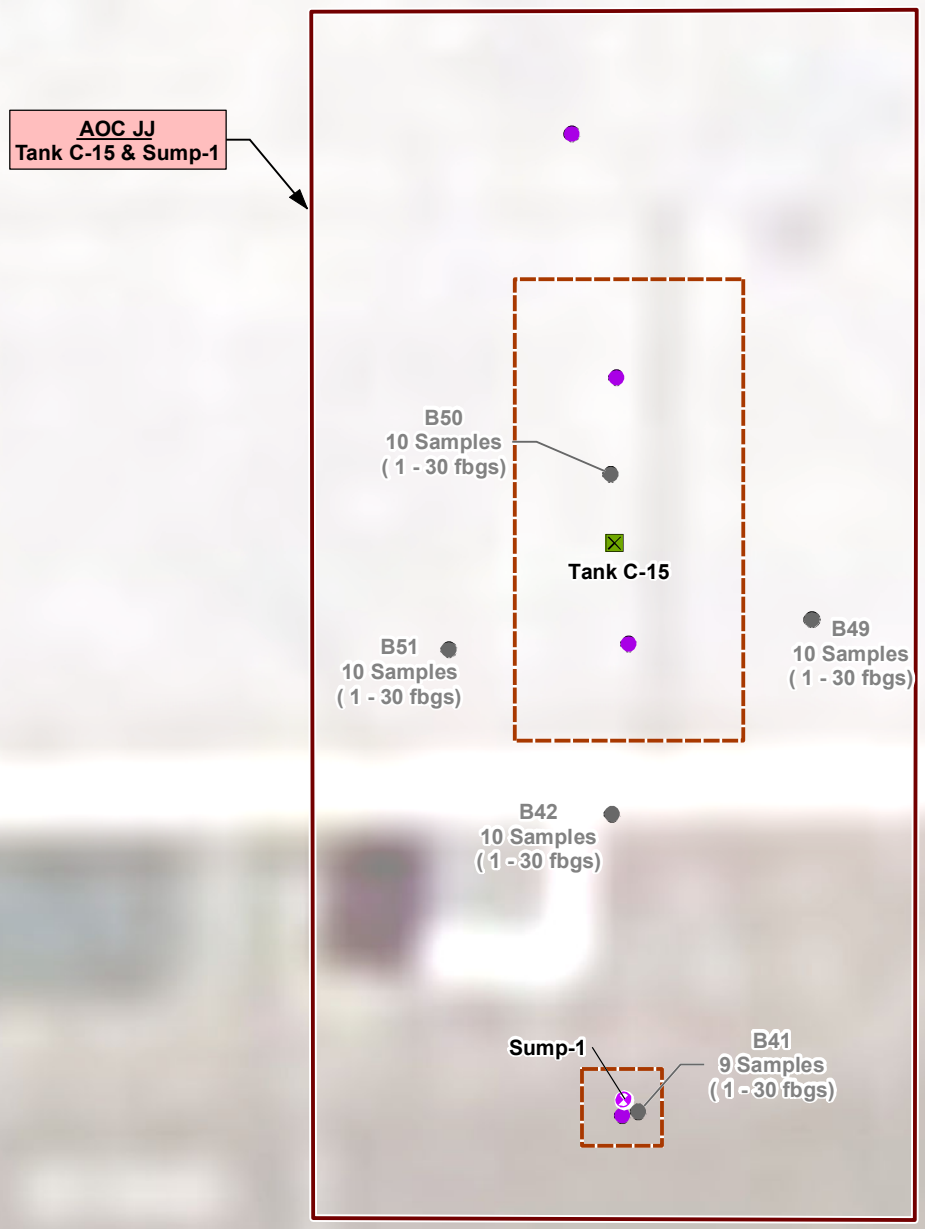
CHINO AIRPORT

Figure 5-7
Sampling Locations for Soil, AOC HH - Buildings A230, A235, A340, and A435

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_JJ.mxd



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Sump removed in 1991 (Kennedy Jenks 1991)
- Soil Boring (Kennedy Jenks 1991)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Excavation Area

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - ESRI, 2016

0 5 10 Feet

CHINO AIRPORT

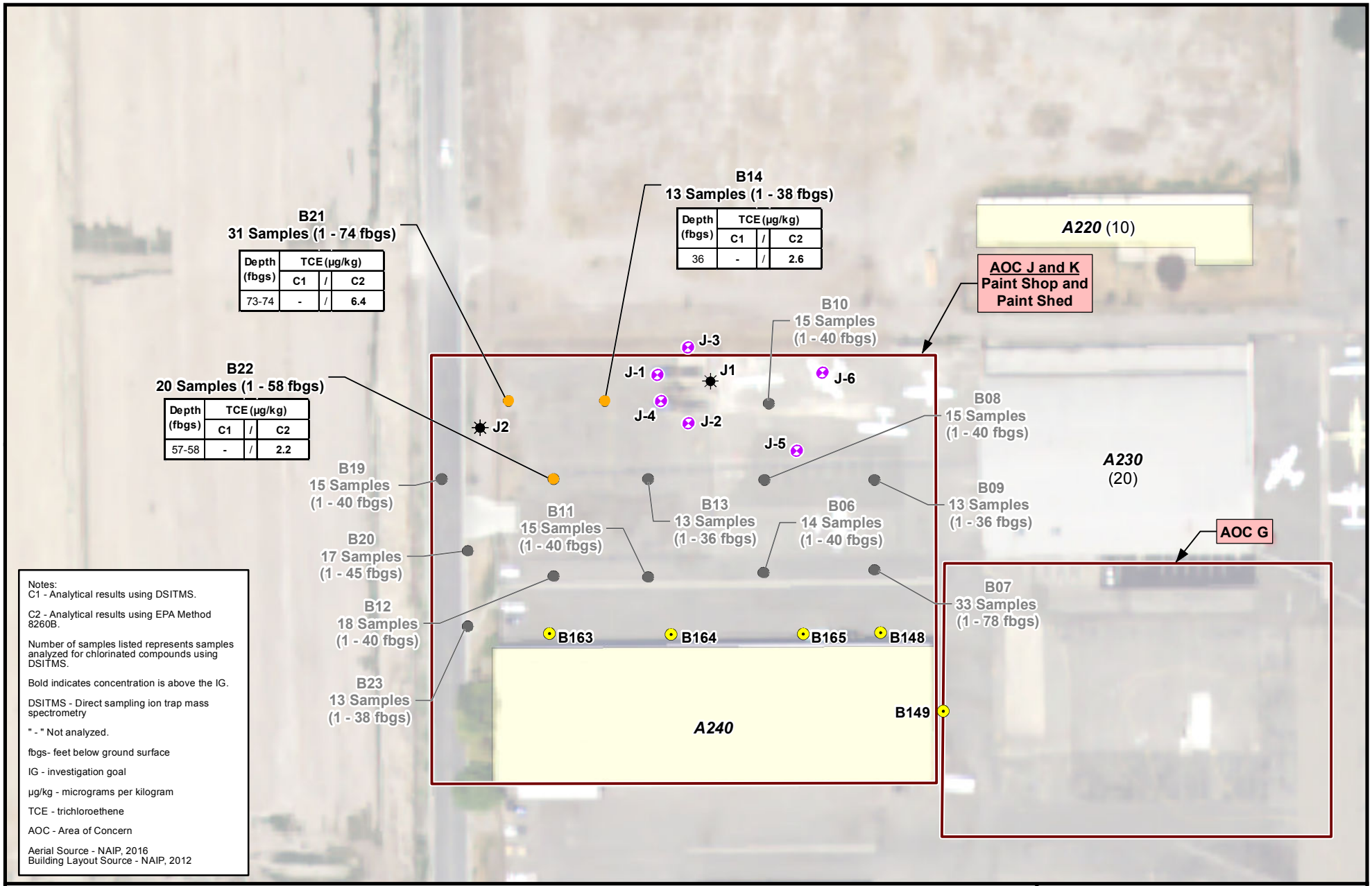
Figure 5-8

Sampling Locations for Soil, AOC JJ - Former UST, C-15 and Sump 1

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOC_Soil_AOC_J-K.mxd



Notes:
C1 - Analytical results using DSITMS.

C2 - Analytical results using EPA Method 8260B.

Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

Bold indicates concentration is above the IG.

DSITMS - Direct sampling ion trap mass spectrometry

" - " Not analyzed.

fbgs- feet below ground surface

IG - investigation goal

µg/kg - micrograms per kilogram

TCE - trichloroethene

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - NAIP, 2012

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Shallow Angle Soil Gas Probe (5 foot) (Tetra Tech 2014)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- ***A290*** Current Building Number
- (17) Historical Building Number

0 50 100 Feet

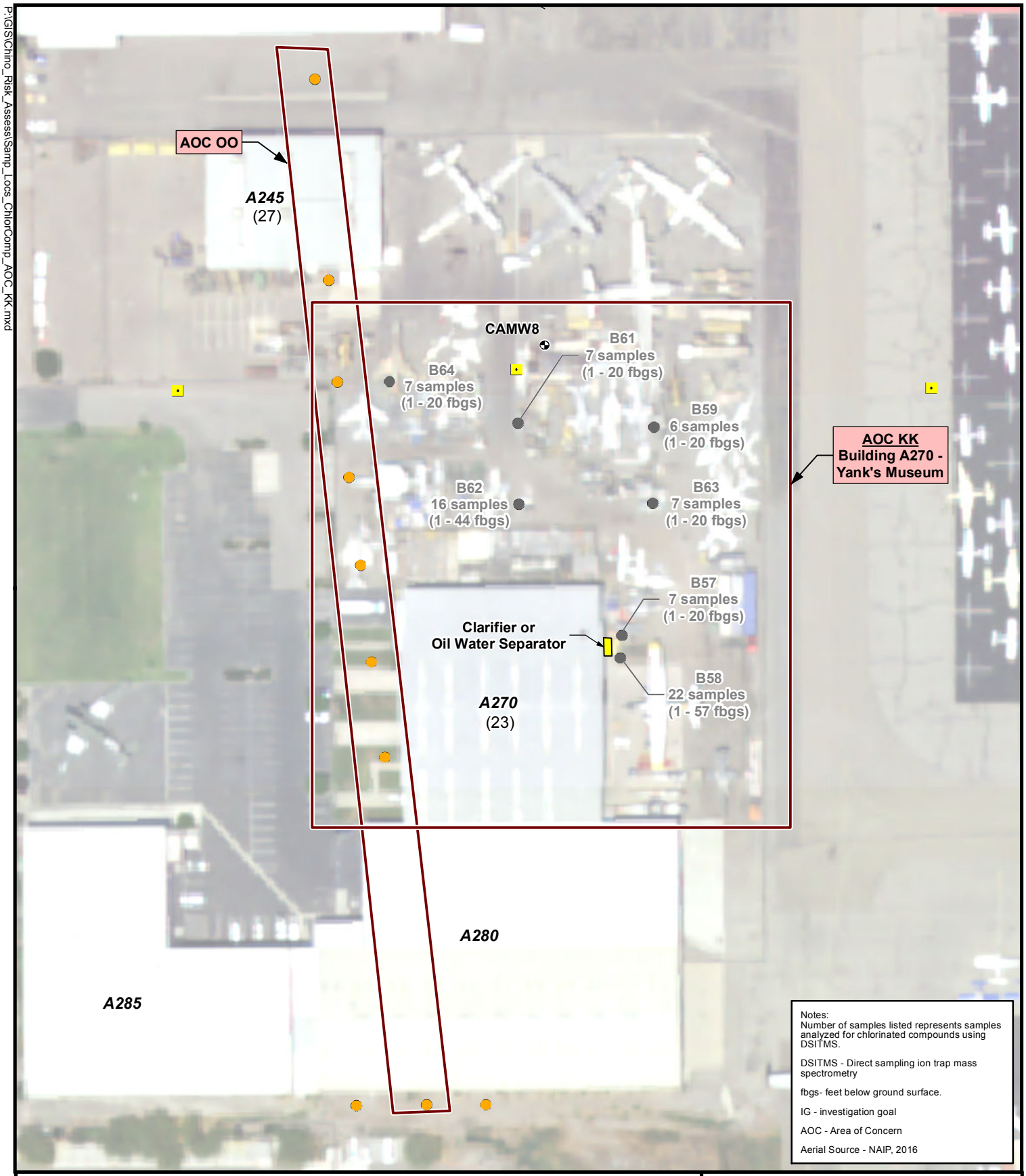
CHINO AIRPORT

Figure 5-9

Sampling Locations for Soil, AOC J/K - PAC Paint Shop and Paint Shed Areas

TETRA TECH

April 2018



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Soil Boring (Tetra Tech 2014)
- VAP Location
- Monitoring Well

A290 Current Building Number

(17) Historical Building Number

0 50 100 Feet

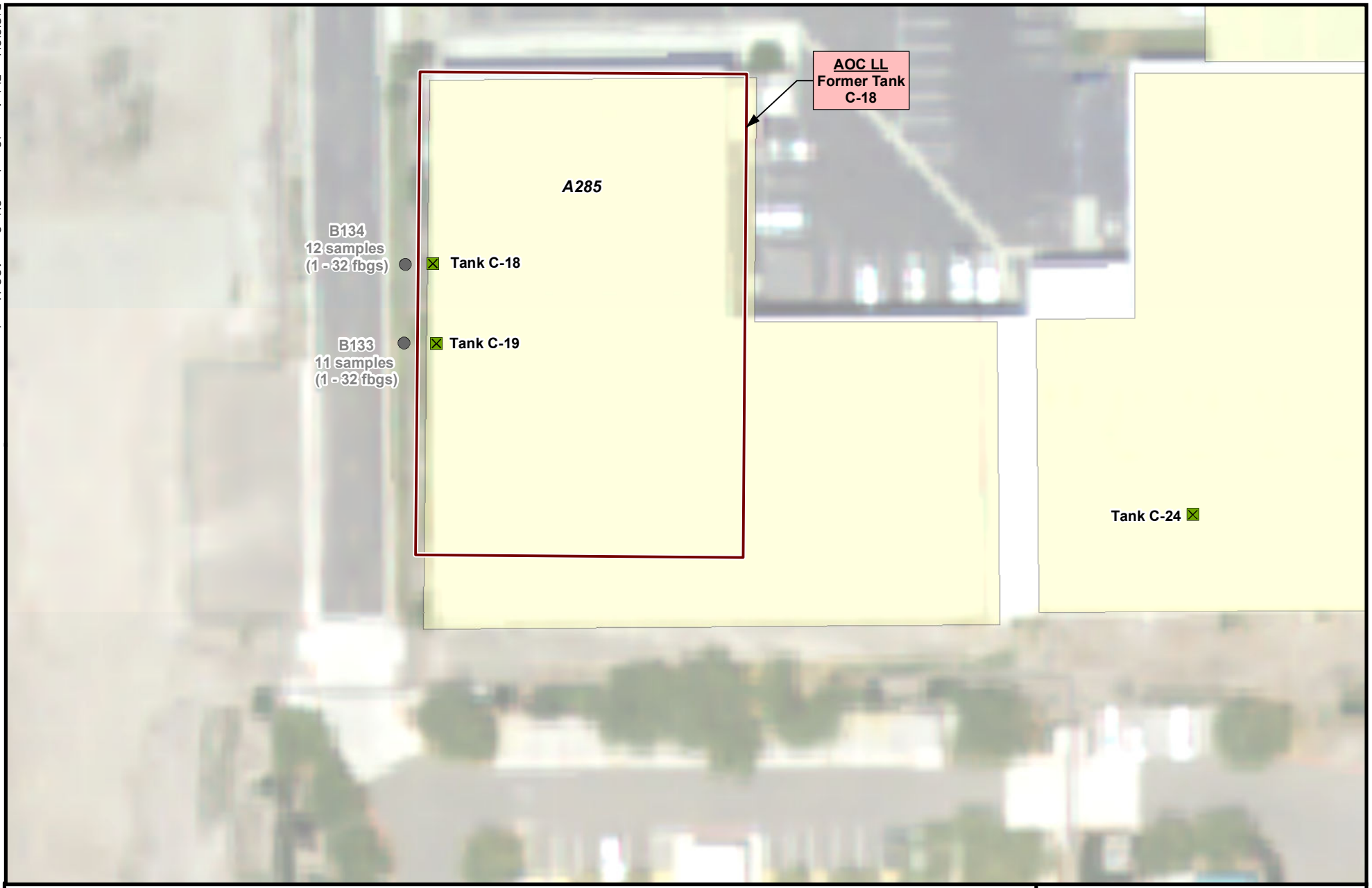
CHINO AIRPORT

Figure 5-10
Sampling Locations for Soil, AOC KK - Building A270, Yanks Museum

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Sam_Locs_ChlorComp_AOC_LL.mxd



LEGEND

- Angle Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Underground Storage Tank Removed in 1991 (Kennedy Jenks 1991)
- Former Buildings
- ***A290*** Current Building Number

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - ESRI, 2012

0 25 50 Feet

CHINO AIRPORT

Figure 5-11

Sampling Locations and Results for Soil, AOC LL - Former UST C-18

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_M.mxd

LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- VAP Location
- Buildings (2012)

A290 Current Building Number

(17) Historical Building Number

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry
fbgs- feet below ground surface.

IG - investigation goal

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - ESRI, 2012

0 50 100 Feet

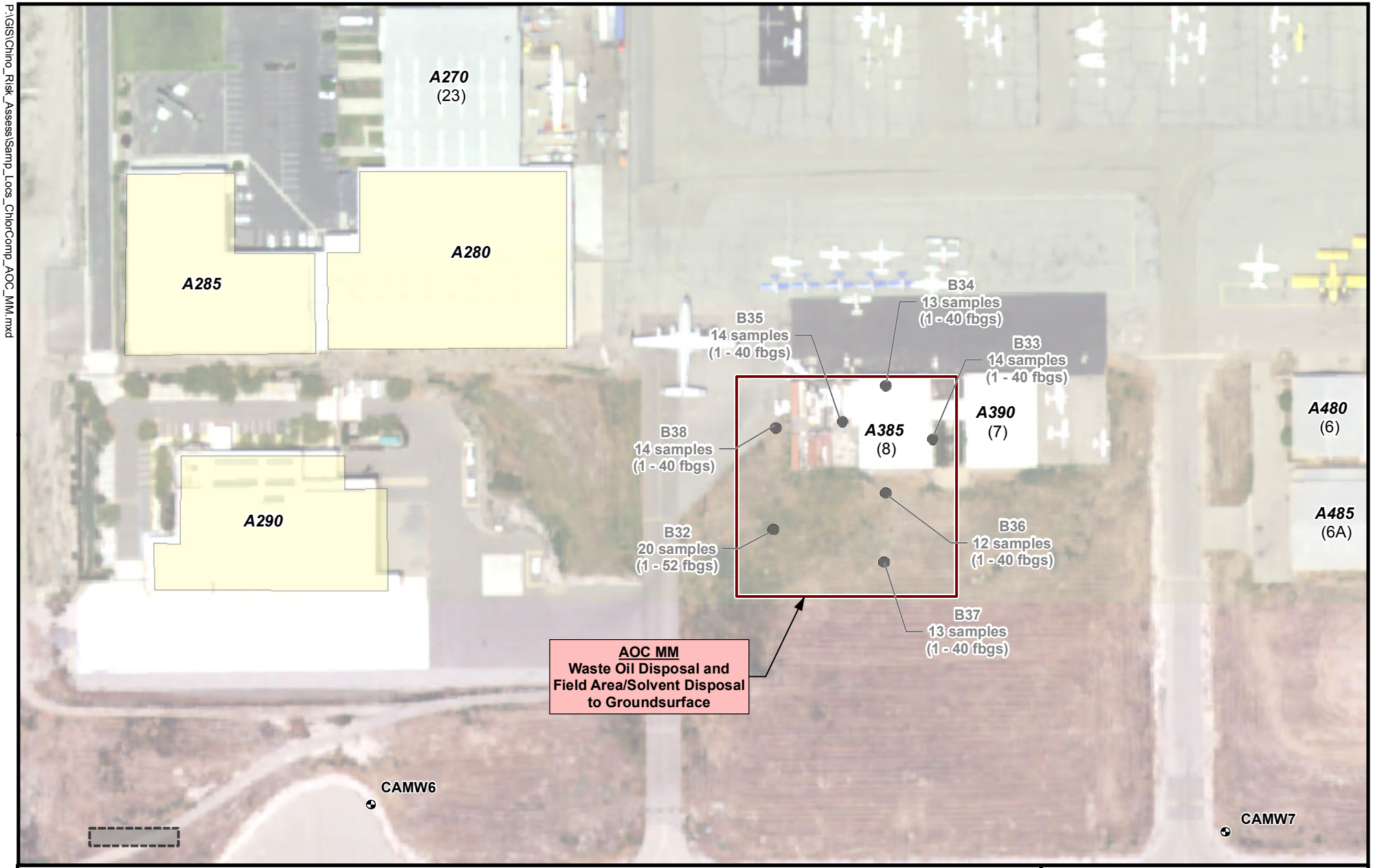
CHINO AIRPORT

Figure 5-12

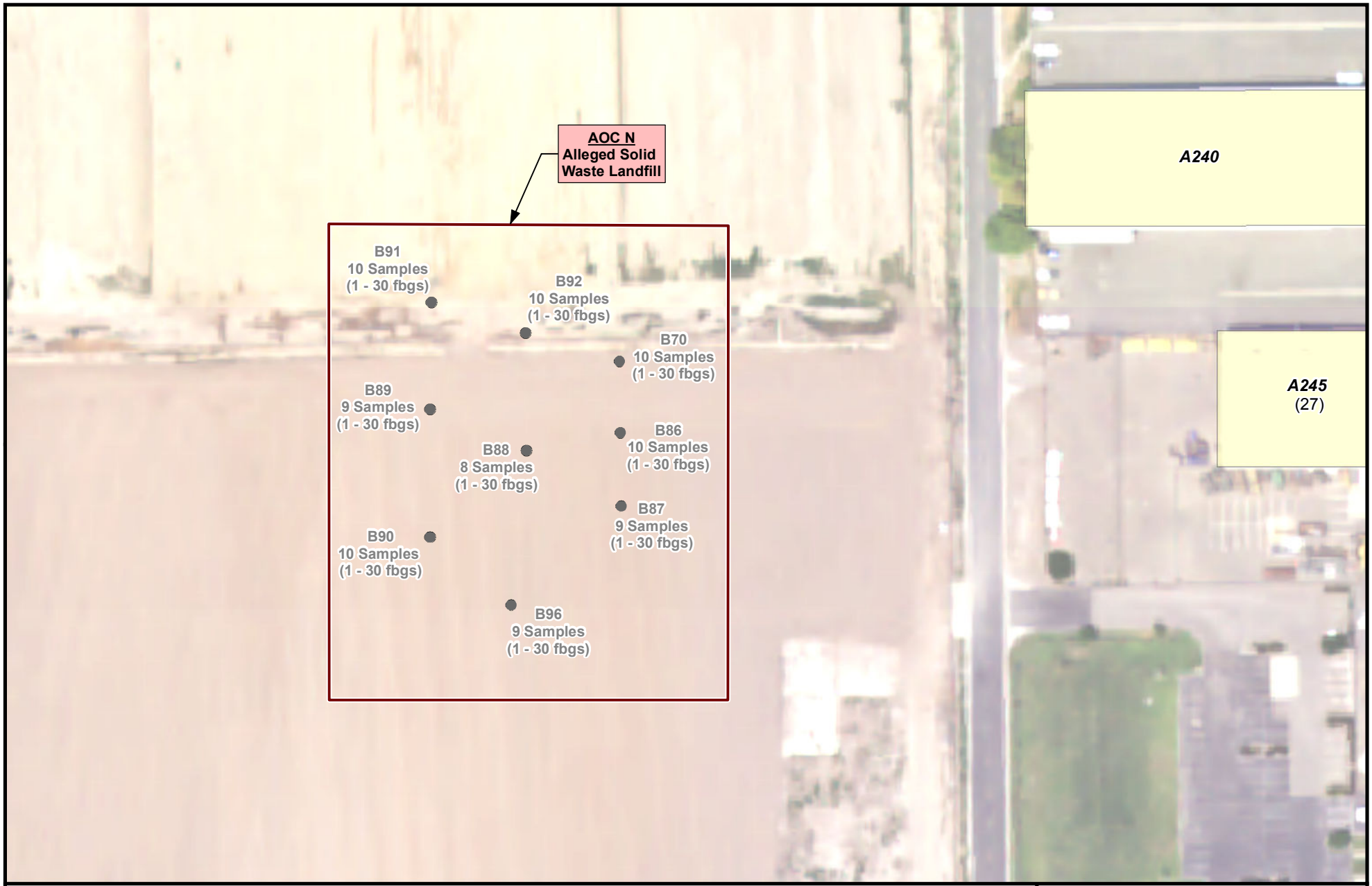
Sampling Locations for Soil, AOC M - Fuel Dump Area

TETRA TECH

April 2018


P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_MM.mxd
A270
(23)
A280
A285
A290
A385
(8)
A390
(7)
A480
(6)
A485
(6A)
B34
13 samples
(1 - 40 fbgs)
B35
14 samples
(1 - 40 fbgs)
B33
14 samples
(1 - 40 fbgs)
B38
14 samples
(1 - 40 fbgs)
B32
20 samples
(1 - 52 fbgs)
B36
12 samples
(1 - 40 fbgs)
B37
13 samples
(1 - 40 fbgs)
AOC MM
Waste Oil Disposal and
Field Area/Solvent Disposal
to Groundsurface
CAMW6
CAMW7
LEGEND
Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
Monitoring Well
Buried Drums Removed in 2010 (Tetra Tech 2010)
Buildings (2012)
A290 Current Building Number
(17) Historical Building Number
Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.
DSITMS - Direct sampling ion trap mass spectrometry
fbgs- feet below ground surface
IG - investigation goal
AOC - Area of Concern
Aerial Source - NAIP, 2016
Building Layout Source - ESRI,
N
0
75
150
Feet
CHINO AIRPORT
Figure 5-13
Sampling Locations for Soil, AOC MM - Building A385
TETRA TECH
April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_TPH_AOC_N.mxd



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Buildings (2012)
- ***A290*** Current Building Number
- (17) Historical Building Number

Notes:
1. Number of samples listed represents samples analyzed for chlorinated compounds (DSITMS) and TPH (siteLab UVF-3100).

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

UVF-3100 - siteLab ultraviolet fluoresence-3100

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - ESRI, 2012

0 50 100 Feet

CHINO AIRPORT

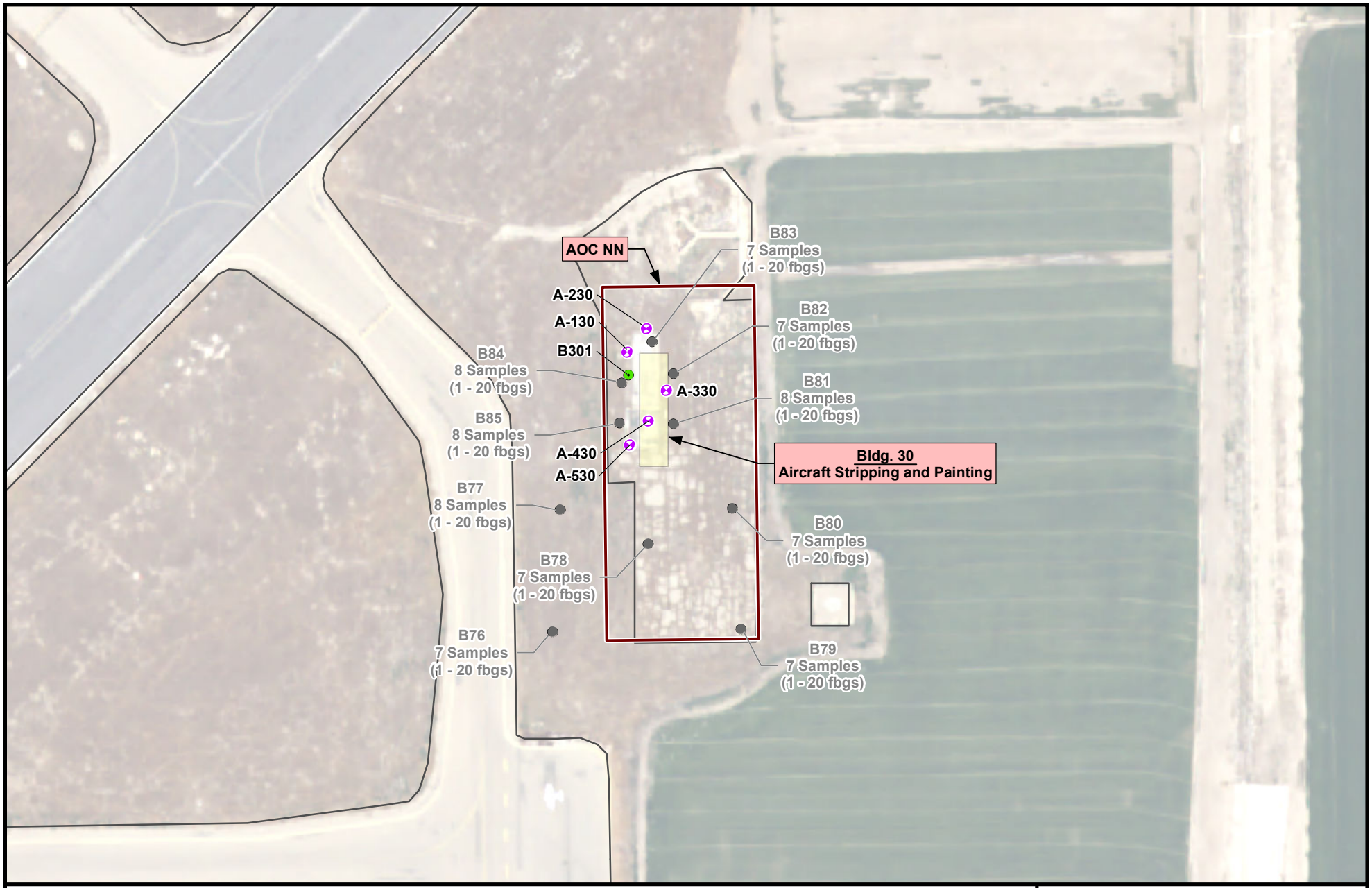
Figure 5-14

Sampling Locations for Soil, AOC N - Suspected Landfill

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOCs_AOC_NN.mxd



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- 2012 Runways/Aprons
- Former Buildings

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - ESRI,

0 75 150 Feet

CHINO AIRPORT

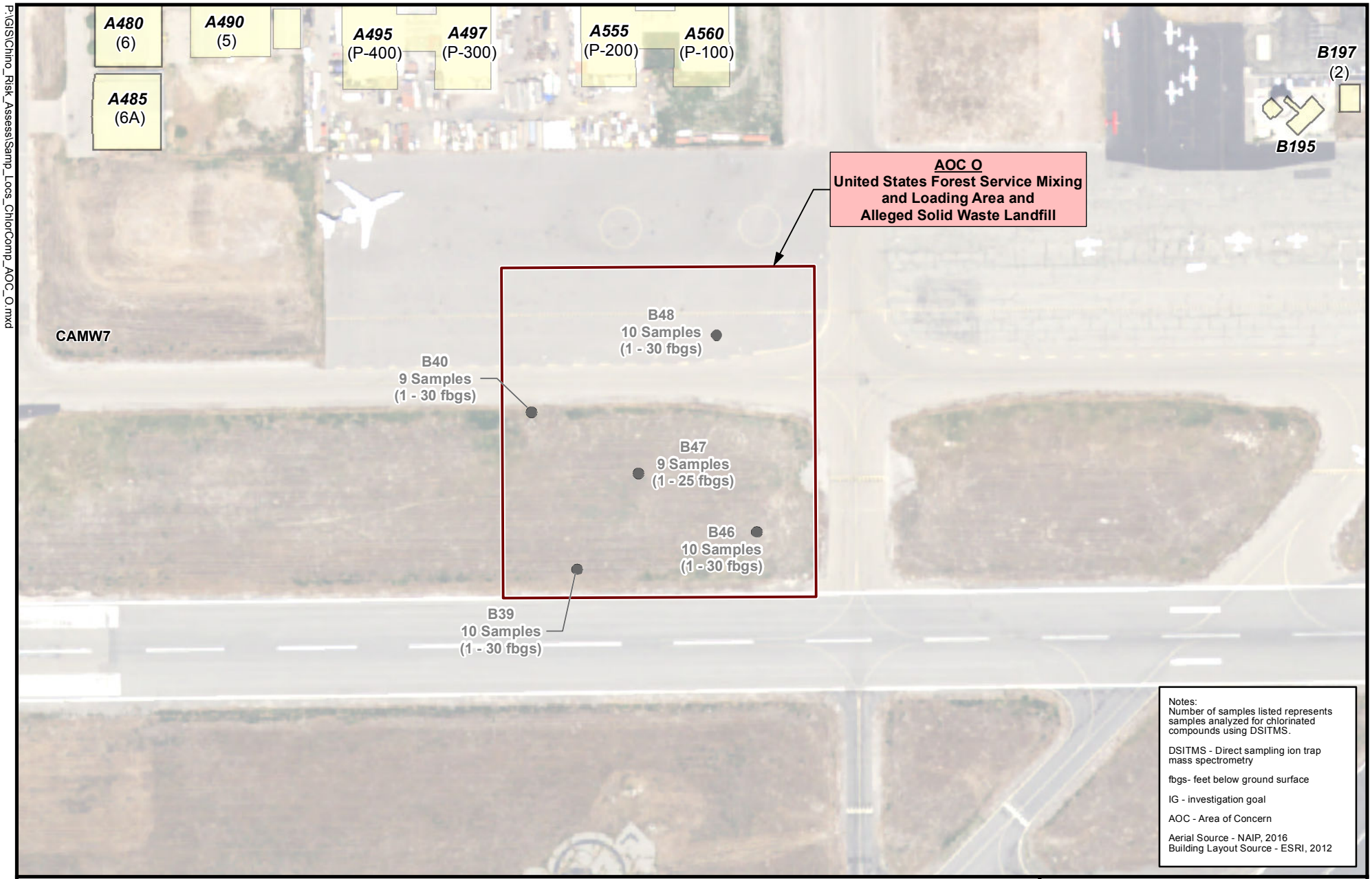
Figure 5-15

Sampling Locations for Soil, AOC NN - Former Building 30

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorComp_AOC_O.mxd



LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Monitoring Well
- Buildings (2012)

A290 Current Building Number

(17) Historical Building Number

0 100 200 Feet

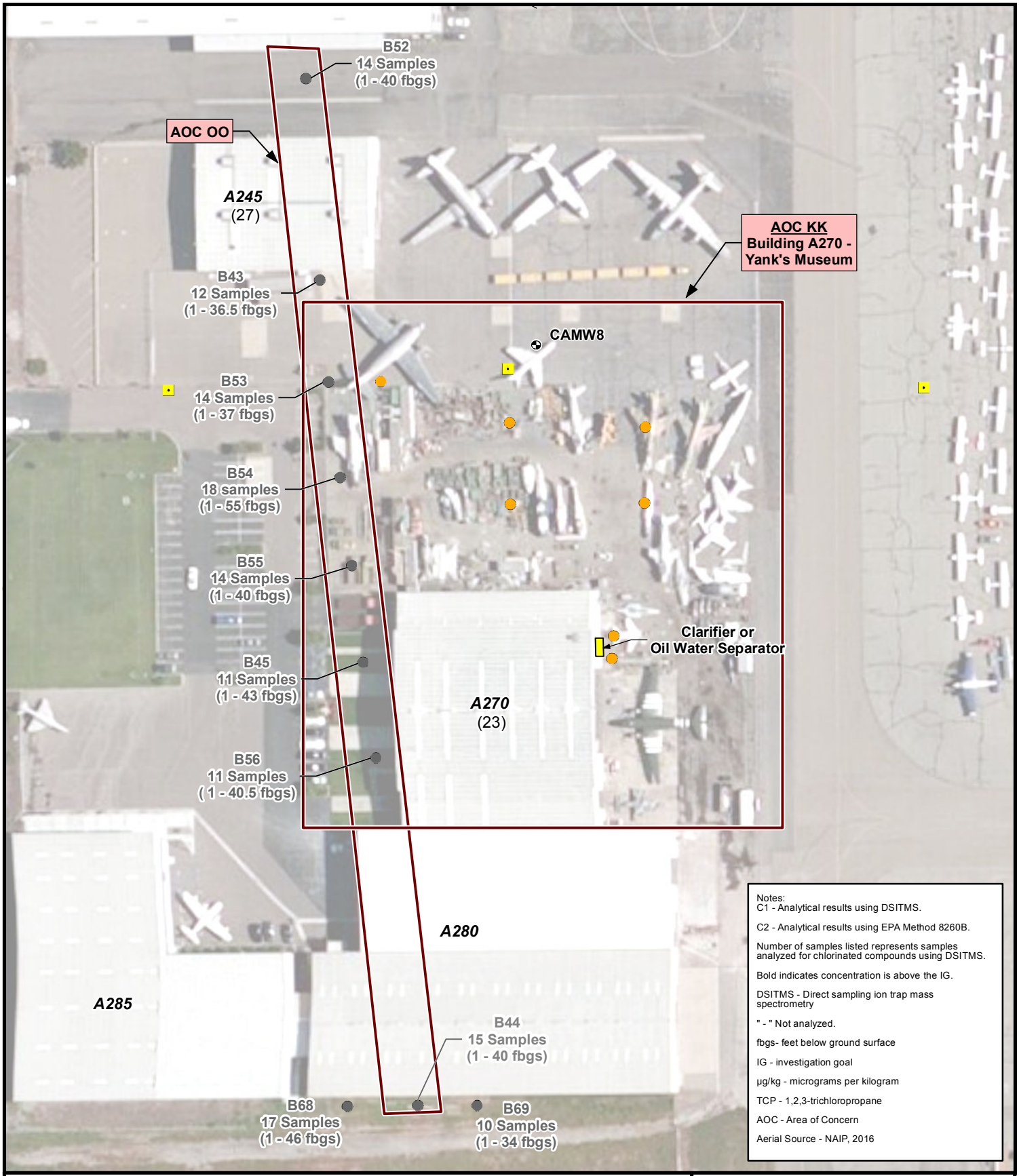
CHINO AIRPORT

Figure 5-16
Sampling Locations for Soil, AOC O - U.S. Forest Service Area/ Reported Solid Waste Landfill

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_ChlorCom_AOC_OO.mxd



Notes:
C1 - Analytical results using DSITMS.

C2 - Analytical results using EPA Method 8260B.

Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

Bold indicates concentration is above the IG.

DSITMS - Direct sampling ion trap mass spectrometry

" - " Not analyzed.

fbgs- feet below ground surface

IG - investigation goal

µg/kg - micrograms per kilogram

TCP - 1,2,3-trichloropropane

AOC - Area of Concern

Aerial Source - NAIP, 2016

LEGEND

- Soil Boring (Tetra Tech 2014)
- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Monitoring Well
- VAP Location

A290 Current Building Number

(27) Historical Building Number

0 50 100 Feet

CHINO AIRPORT

Figure 5-17

Sample Locations for Soil, AOC OO - Former PAC Wash Rack Area Drain

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOCs_Soil_AOC_Z.mxd

A546 (24)
Z-0
A548
A552
B135
5 Samples
(1 - 20 fbgs)
Z-1
AOC Z
Runoff Area from Bldg. 24
B146
1 Sample
(5 fbgs)
Z-2
B147
4 Samples
(1 - 20 fbgs)
Z-3
Z-4
Z1
Z1
A480 (6)
A490 (5)
B152
4 Samples
(1 - 20 fbgs)
A495 (P-400)
A497 (P-300)
A555 (P-200)
A560 (P-100)
B151
5 Samples
(1 - 20 fbgs)
A485 (6A)
B142
7 Samples
(1 - 20 fbgs)
Z-5
Z-6
Z-9
Z-2
B143
4 Samples
(1 - 20 fbgs)
Z-11
Z-10
Z-7
B144
4 Samples
(1 - 20 fbgs)
B145
4 Samples
(1 - 20 fbgs)
CAMW7
Z-8

0 50 100 Feet

LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Monitoring Well
- VAP Location
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- A290 Current Building Number
- (17) Historical Building Number

Notes:
Number of samples listed represents samples analyzed for chlorinated compounds using DSITMS.

DSITMS - Direct sampling ion trap mass spectrometry

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - NAIP, 2012

CHINO AIRPORT

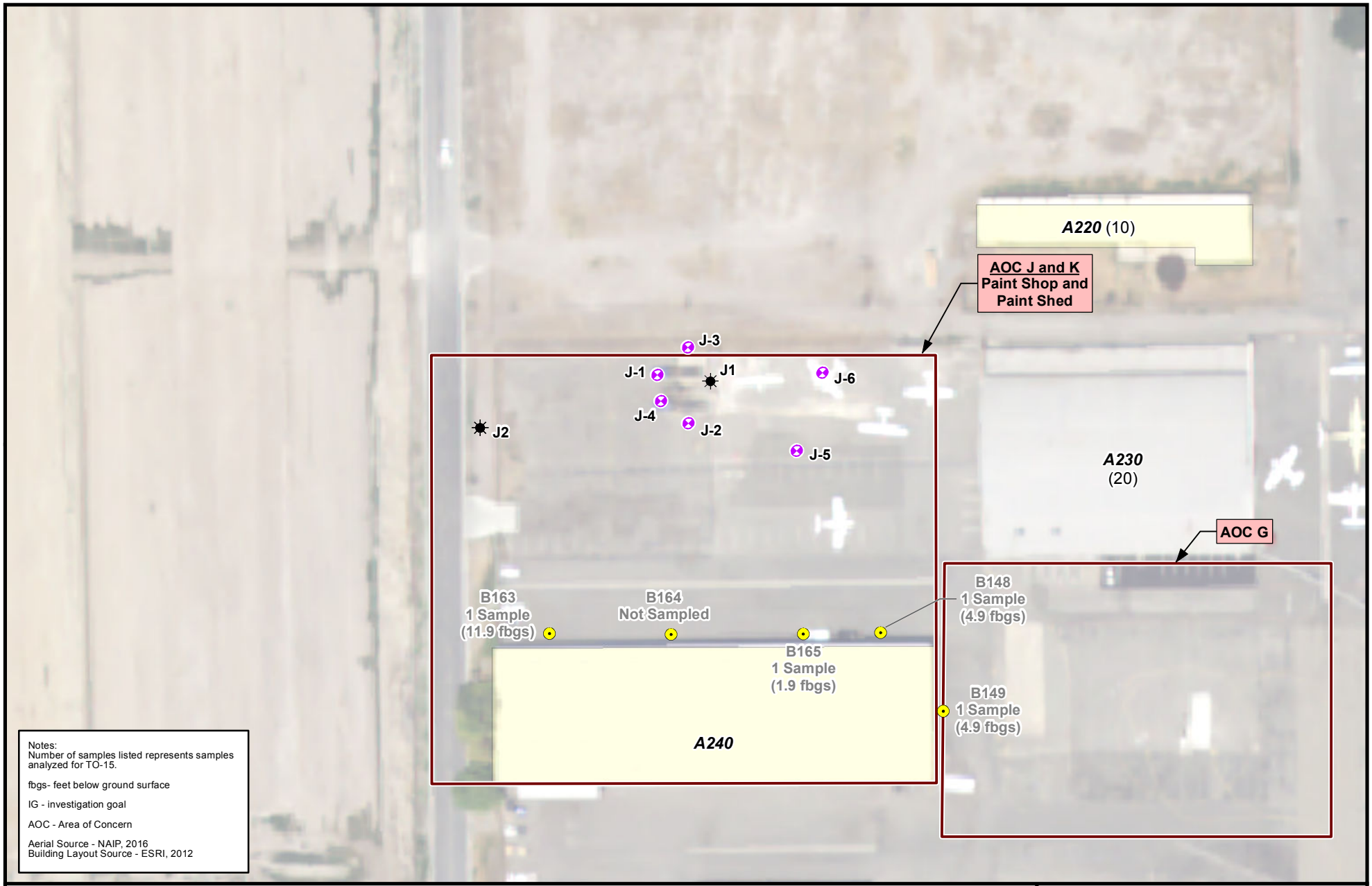
Figure 5-18

Sampling Locations and Results for VOCs in Soil, AOC Z - Waste Water Discharge from Building A495

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOC_SoilGAS_AOC_J-K.mxd



Notes:
Number of samples listed represents samples analyzed for TO-15.

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - NAIP, 2016
Building Layout Source - ESRI, 2012

LEGEND

- Shallow Angle Soil Gas Probe (5 foot) (Tetra Tech 2014)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- ***A290*** Current Building Number
- (17) Historical Building Number

0 50 100 Feet

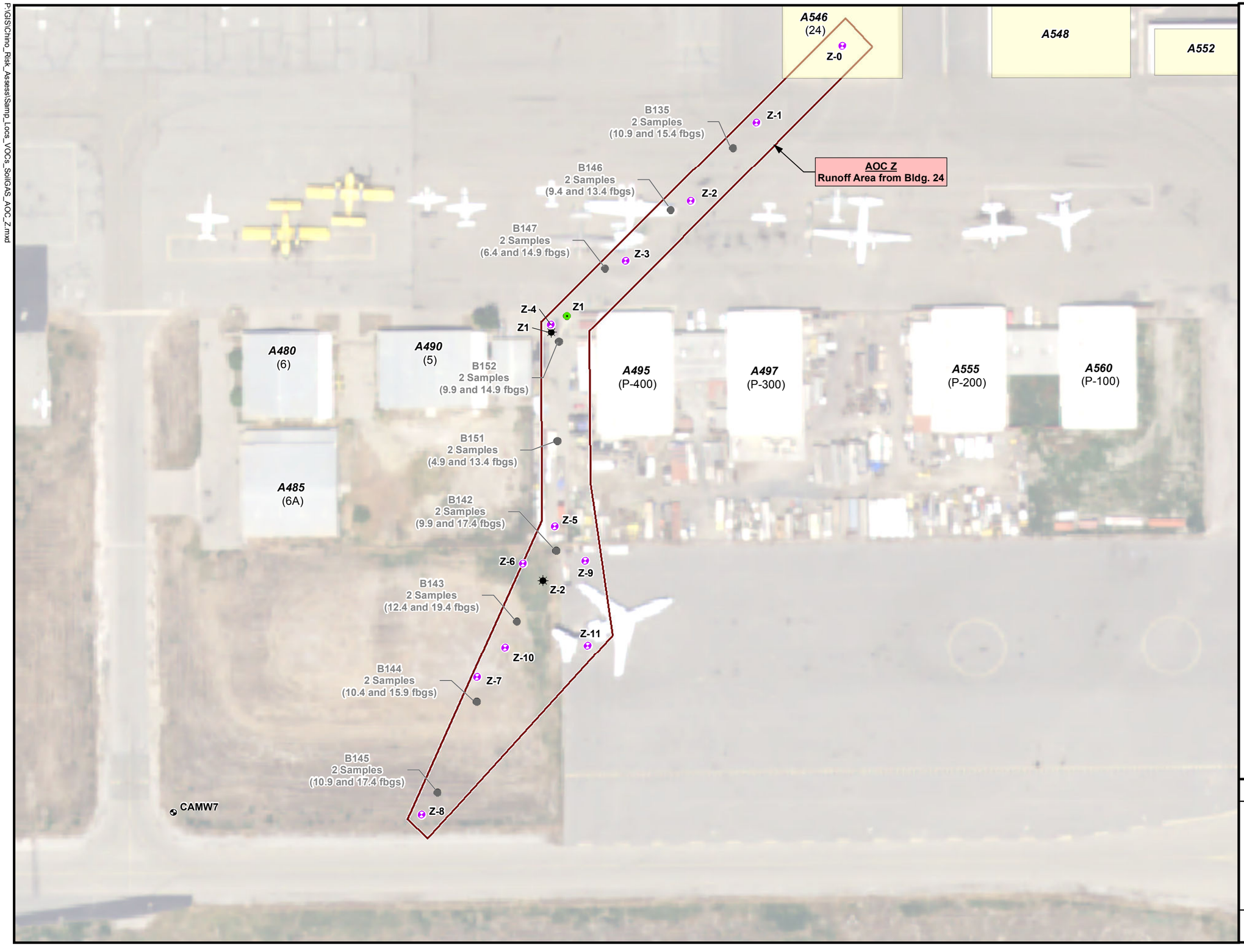
CHINO AIRPORT

Figure 5-19
Sampling Locations for Soil Gas, AOC J/K - PAC Paint Shop and Paint Shed Areas

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Samp_Locs_VOCs_SoilGAS_AOC_Z.mxd



0 50 100 Feet

LEGEND

- Soil Boring - Constituents were not detected in samples above the IG (Tetra Tech 2014)
- Monitoring Well
- Soil Gas Probe (SEACOR 1992)
- Soil/Soil Gas Boring (SEACOR 1992)
- Soil Gas Boring (Tetra Tech 2004)
- Buildings (2012)
- *A290* Current Building Number
- (17) Historical Building Number

Notes:
Number of samples listed represents samples analyzed for TO-15.

fbgs- feet below ground surface

IG - investigation goal

AOC - Area of Concern

Aerial Source - ESRI, 2016
Building Layout Source - ESRI, 2012

CHINO AIRPORT

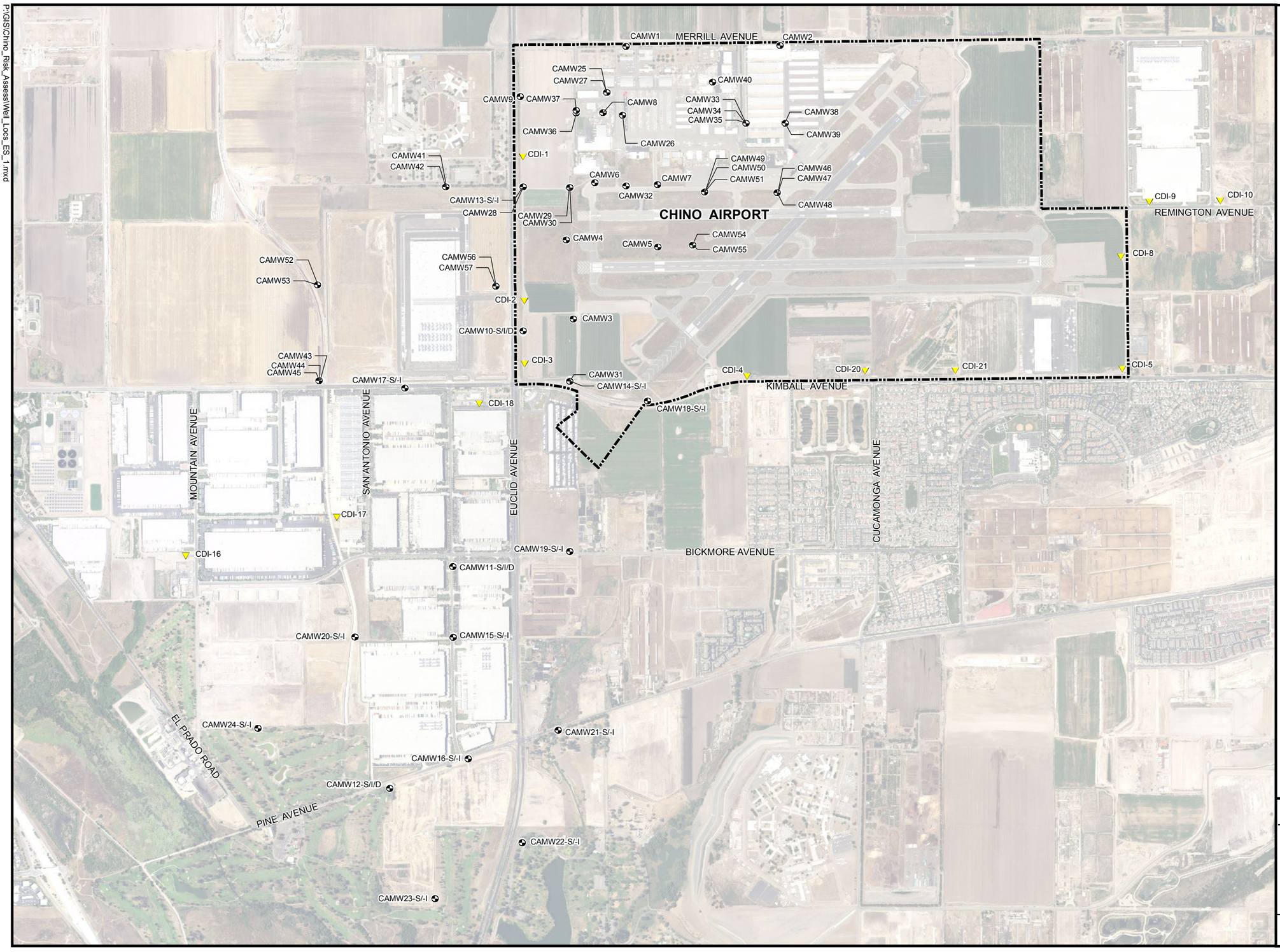
Figure 5-20

Sampling Locations for Soil Gas, AOC Z - Waste Water Discharge from Building A495

TETRA TECH

April 2018

P:\GIS\Chino_Risk_Assess\Well_Locs_ES_1.mxd



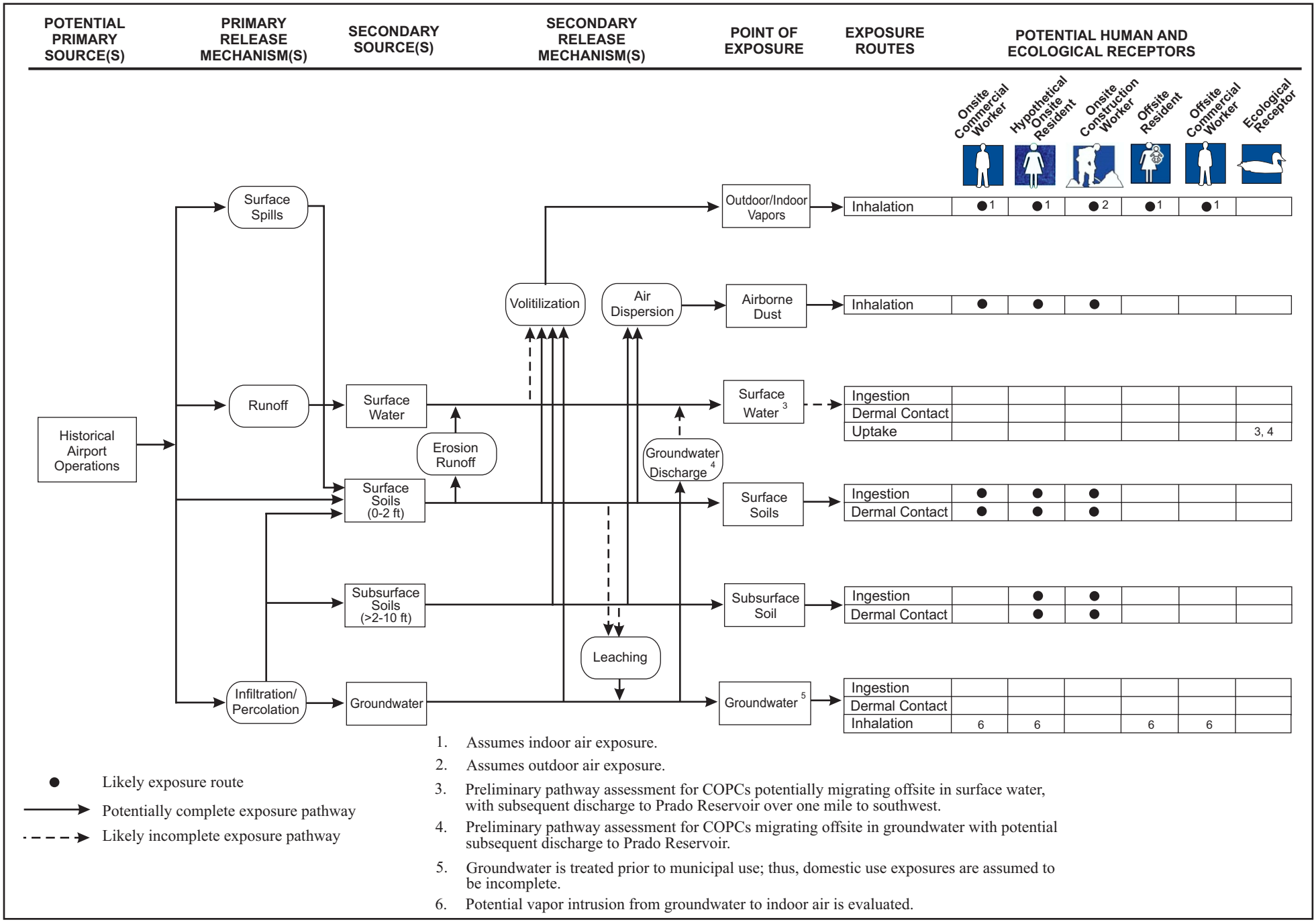
CHINO AIRPORT

Figure 5-21

Site Map Showing Groundwater Monitoring Well Locations

TETRA TECH

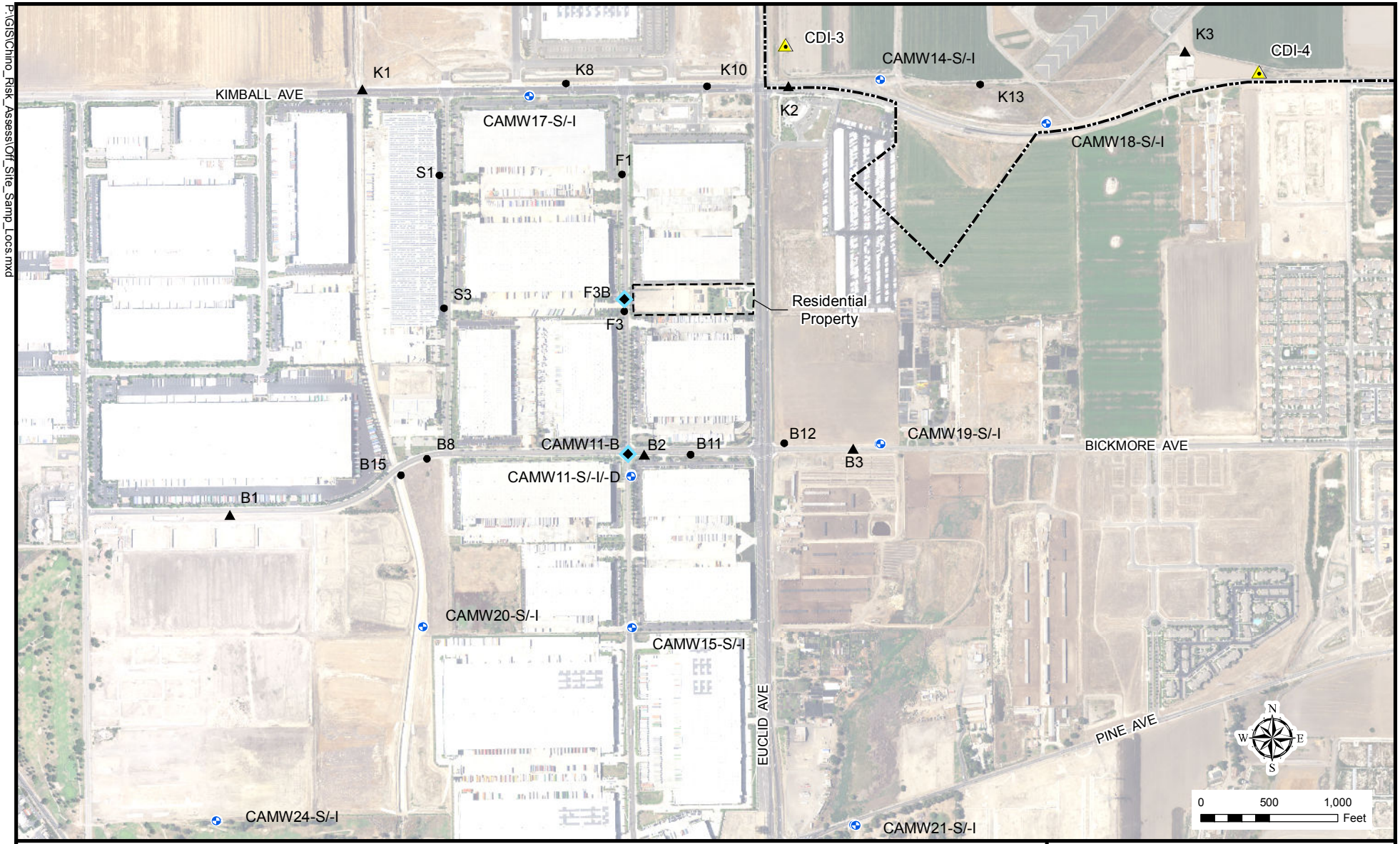
April 2018



1. Assumes indoor air exposure.
2. Assumes outdoor air exposure.
3. Preliminary pathway assessment for COPCs potentially migrating offsite in surface water, with subsequent discharge to Prado Reservoir over one mile to southwest.
4. Preliminary pathway assessment for COPCs migrating offsite in groundwater with potential subsequent discharge to Prado Reservoir.
5. Groundwater is treated prior to municipal use; thus, domestic use exposures are assumed to be incomplete.
6. Potential vapor intrusion from groundwater to indoor air is evaluated.

Figure 6-1 Conceptual Site Model for Human and Ecological Receptors

P:\GIS\Chino_Risk_Assess\Off_Site_Samp_Locs.mxd



LEGEND

- Monitoring Well Location
- DP Sample Location
- CPT/ DP Sample Location
- Groundwater Grab Sample (2016)
- Desalter Well Location
- Airport Boundary

Notes:
DCE - dichloroethene

fbgs - feet below ground surface

µg/L - micrograms per liter

Aerial source - NAIP, 2014

CHINO AIRPORT

Figure 6-2

Off-Site Sampling Locations and Result

TETRA TECH

April 2018

APPENDICES

APPENDIX A

Table A-1

Summary Statistics for Soils - Chemicals for which 95%UCLs were Derived[1]

Chino Airport, Chino, California

AOC	Chemical	Min Depth (feet)	Max Depth (feet)	Units	N	#D	%D	Min Detect	Max Detect	Mean	Standard Deviation	Distribution	Rec. UCL	RME[2]
DD	TPH-diesel	0	2	mg/kg	6	6	100	2.59E+01	6.45E+02	2.81E+02	2.12E+02	95% Student's-t UCL	456	456
DD	TPH-diesel	0	10	mg/kg	22	14	64	3.26E-01	6.45E+02	8.11E+01	1.63E+02	95% KM Chebyshev UCL	235	235
EE	TPH-diesel	0	2	mg/kg	15	14	93	2.76E+00	2.80E+02	4.56E+01	7.39E+01	95% Gamma Adjusted KM-UCL	122	122
EE	TPH-diesel	0	10	mg/kg	59	34	58	1.98E-01	2.80E+02	1.47E+01	4.29E+01	95% KM Chebyshev UCL	39	39
EE	TPH-gas	0	10	mg/kg	59	2	3	2.35E+00	3.55E+00	2.72E+00	6.59E+00	too few detects	-	3.6
G	1,2,3-TCP 8260[3]	All	All	mg/kg	51	6	12	4.80E-03	4.40E-02	2.19E-03	6.89E-03	95% KM (t) UCL	0.0042	0.0042
G	1,2,3-TCP DSITMS[4]	All	All	mg/kg	346	6	2	4.10E-02	1.50E-01	1.22E-02	1.30E-02	95% KM (t) UCL	0.012	0.012
G	TPH-diesel	0	2	mg/kg	18	18	100	1.00E+00	4.99E+02	9.88E+01	1.52E+02	95% Adjusted Gamma UCL	210	210
G	TPH-gas[5]	0	2	mg/kg	18	4	22	6.00E-02	2.04E+00	8.51E+00	1.08E+01	95% KM (t) UCL	1.0	1.0
G	TPH-gas max res[6]	0	2	mg/kg	18	4	22	9.70E-01	6.79E+03	3.86E+02	1.60E+03	95% KM Chebyshev UCL	2,223	2,223
G	TPH-diesel	0	10	mg/kg	58	33	57	9.00E-02	4.99E+02	3.28E+01	9.42E+01	95% KM Chebyshev UCL	87	87
G	TPH-gas[5]	0	10	mg/kg	58	20	34	6.40E-02	9.74E+00	3.52E+00	7.01E+00	95% KM Approximate Gamma UCL	1.6	1.6
G	TPH-gas max res[6]	0	10	mg/kg	58	20	34	5.00E-01	6.79E+03	1.21E+02	8.91E+02	95% KM Chebyshev UCL	637	637
GG	TPH-diesel	0	2	mg/kg	9	8	89	4.13E-01	2.80E+02	9.76E+01	1.06E+02	95% KM (t) UCL	164	164
GG	TPH-diesel	0	10	mg/kg	40	28	70	2.27E-01	8.33E+02	5.63E+01	1.45E+02	95% KM Chebyshev UCL	157	157
H	TPH-diesel	0	2	mg/kg	4	4	100	1.62E+01	1.25E+02	6.43E+01	4.51E+01	95% Student's-t UCL	117	117
H	TPH-diesel	0	10	mg/kg	22	17	77	2.30E-01	2.22E+02	3.37E+01	5.59E+01	95% Gamma Adjusted KM-UCL	72	72
JJ	TPH-diesel	0	2	mg/kg	5	5	100	3.00E+01	4.29E+02	1.72E+02	1.71E+02	95% Student's-t UCL	335	335
JJ	TPH-diesel	0	10	mg/kg	19	12	63	1.00E+00	7.90E+02	1.00E+02	2.00E+02	95% Gamma Adjusted KM-UCL	281	281
J-K	Carbon tetrachloride	All	All	mg/kg	25	7	28	2.50E-04	4.80E-02	2.48E-03	9.54E-03	95% Gamma Adjusted KM-UCL	0.014	0.014
KK	TPH-diesel	0	2	mg/kg	7	7	100	1.00E+00	8.82E+02	2.23E+02	3.05E+02	95% Percentile Bootstrap UCL	421	421
KK	TPH-diesel	0	10	mg/kg	26	11	42	1.00E+00	8.82E+02	6.24E+01	1.79E+02	95% Gamma Adjusted KM-UCL	216	216
LL	TPH-diesel	0	2	mg/kg	2	2	100	3.53E+02	6.42E+02	4.98E+02	2.04E+02	too few detects	-	642
LL	TPH-diesel	0	10	mg/kg	7	6	86	2.10E-01	6.42E+02	1.47E+02	2.54E+02	95% KM (Percentile Bootstrap) UCL	288	288
M	TPH-diesel	0	2	mg/kg	4	4	100	2.46E+01	1.99E+02	1.50E+02	8.35E+01	too few detects	-	199
M	TPH-diesel	0	10	mg/kg	16	8	50	2.99E+00	1.99E+02	3.91E+01	7.58E+01	95% Gamma Adjusted KM-UCL	122	122
MM	TPH-diesel	0	2	mg/kg	7	6	86	4.50E-01	8.72E+02	2.26E+02	3.82E+02	95% KM (Percentile Bootstrap) UCL	447	447
MM	TPH-diesel	0	10	mg/kg	25	8	32	4.50E-01	8.72E+02	6.42E+01	2.17E+02	95% KM Chebyshev UCL	262	262
N	Naphthalene[7]	All	All	mg/kg	60	60	100	1.30E-01	1.10E+01	3.14E-01	1.40E+00	95% Chebyshev (Mean, Sd) UCL	1.1	1.1
N	Naphthalene dup[8]	All	All	mg/kg	59	59	100	1.30E-01	5.64E+00	2.24E-01	7.17E-01	95% Student's-t UCL	0.38	0.38
N	TPH-diesel	0	2	mg/kg	8	6	75	2.52E+00	2.25E+01	8.07E+00	7.32E+00	95% KM (t) UCL	13	13
N	TPH-diesel	0	10	mg/kg	23	17	74	6.40E-01	5.53E+01	9.16E+00	1.46E+01	95% Gamma Adjusted KM-UCL	19	19
N	TPH-gas	0	10	mg/kg	23	1	4	3.03E+01	3.03E+01	1.56E+01	1.84E+01	too few detects	-	30
N	Arsenic	All	All	mg/kg	60	31	52	3.13E-01	6.09E+00	9.55E-01	1.36E+00	95% KM (t) UCL	1.28	1.3
N	Barium	All	All	mg/kg	60	60	100	3.53E+01	2.87E+02	1.22E+02	6.01E+01	95% Approximate Gamma UCL	136	136
N	Beryllium	All	All	mg/kg	60	59	98	1.39E-01	9.01E-01	4.25E-01	2.24E-01	95% KM (BCA) UCL	0.47	0.47
N	Cadmium	All	All	mg/kg	60	11	18	1.60E-01	1.37E+01	5.05E-01	1.86E+00	95% KM (t) UCL	0.95	0.95
N	Chromium	All	All	mg/kg	60	60	100	5.89E+00	1.95E+02	3.80E+01	3.11E+01	95% Approximate Gamma UCL	45	45
N	Cobalt	All	All	mg/kg	60	60	100	3.10E+00	2.65E+01	1.06E+01	5.50E+00	95% Student's-t UCL	12	12

Table A-1

Summary Statistics for Soils - Chemicals for which 95%UCLs were Derived[1]

Chino Airport, Chino, California

AOC	Chemical	Min Depth (feet)	Max Depth (feet)	Units	N	#D	%D	Min Detect	Max Detect	Mean	Standard Deviation	Distribution	Rec. UCL	RME[2]
N	Copper	All	All	mg/kg	60	60	100	3.63E+00	6.52E+01	1.74E+01	1.13E+01	95% Student's-t UCL	20	20
N	Lead	All	All	mg/kg	60	60	100	4.94E-01	1.25E+02	6.53E+00	1.64E+01	95% Chebyshev (Mean, Sd) UCL	16	16
N	Mercury	All	All	mg/kg	60	40	67	6.81E-03	5.82E-02	1.12E-02	8.35E-03	95% KM (BCA) UCL	0.01	0.0
N	Molybdenum	All	All	mg/kg	60	27	45	2.25E-01	7.84E+00	4.31E-01	1.03E+00	95% KM (t) UCL	0.67	0.7
N	Nickel	All	All	mg/kg	60	60	100	3.87E+00	2.96E+01	1.34E+01	6.76E+00	95% Student's-t UCL	15	15
N	Silver	All	All	mg/kg	60	7	12	1.76E-01	5.51E-01	9.15E-02	9.69E-02	95% KM (t) UCL	0.13	0.13
N	Vanadium	All	All	mg/kg	60	60	100	1.16E+01	1.30E+02	4.65E+01	2.49E+01	95% Approximate Gamma UCL	52	52
N	Zinc	All	All	mg/kg	60	60	100	1.66E+01	1.95E+02	5.20E+01	2.57E+01	95% Student's-t UCL	58	58
O	TPH-diesel	0	2	mg/kg	5	3	60	2.34E+00	1.55E+02	4.27E+01	6.71E+01	95% KM (t) UCL	113	113
O	TPH-diesel	0	10	mg/kg	14	5	36	2.34E+00	1.55E+02	1.82E+01	4.28E+01	95% KM (t) UCL	40	40
O	TPH-gas	0	10	mg/kg	14	1	7	3.77E+00	3.77E+00	2.02E+00	2.14E+00	too few detects	-	3.8
O	Arsenic	All	All	mg/kg	32	25	78	3.76E-01	5.10E+00	1.23E+00	1.19E+00	95% KM (BCA) UCL	1.63	1.6
O	Barium	All	All	mg/kg	32	32	100	6.06E+01	2.69E+02	1.35E+02	4.55E+01	95% Student's-t UCL	148	148
O	Beryllium	All	All	mg/kg	32	32	100	2.17E-01	7.04E-01	4.58E-01	1.04E-01	95% Student's-t UCL	0.49	0.49
O	Cadmium	All	All	mg/kg	32	1	3	2.44E-01	2.44E-01	1.01E-01	2.63E-02	too few detects	-	0.24
O	Chromium	All	All	mg/kg	32	32	100	2.08E+01	5.28E+01	2.87E+01	7.48E+00	95% Adjusted Gamma UCL	31	31
O	Cobalt	All	All	mg/kg	32	32	100	6.63E+00	1.51E+01	1.13E+01	2.26E+00	95% Student's-t UCL	12	12
O	Copper	All	All	mg/kg	32	32	100	7.58E+00	2.67E+01	1.58E+01	4.50E+00	95% Student's-t UCL	17	17
O	Lead	All	All	mg/kg	32	32	100	1.20E+00	4.36E+00	2.62E+00	8.54E-01	95% Student's-t UCL	2.87	2.9
O	Mercury	All	All	mg/kg	32	24	75	5.88E-03	2.16E-02	9.82E-03	5.25E-03	95% KM (BCA) UCL	0.012	0.012
O	Molybdenum	All	All	mg/kg	32	4	13	2.06E-01	3.89E-01	1.23E-01	8.50E-02	95% KM (t) UCL	0.18	0.18
O	Nickel	All	All	mg/kg	32	32	100	8.35E+00	1.94E+01	1.41E+01	2.81E+00	95% Student's-t UCL	15	15
O	Silver	All	All	mg/kg	32	1	3	1.72E-01	1.72E-01	6.42E-02	1.97E-02	too few detects	-	0.17
O	Vanadium	All	All	mg/kg	32	32	100	2.58E+01	7.10E+01	4.48E+01	1.03E+01	95% Student's-t UCL	48	48
O	Zinc	All	All	mg/kg	32	32	100	3.34E+01	6.24E+01	4.93E+01	8.29E+00	95% Student's-t UCL	52	52
OO	TPH-diesel	0	2	mg/kg	8	8	100	1.62E+00	7.73E+02	2.14E+02	2.73E+02	95% KM (t) UCL	397	397
OO	TPH-diesel	0	10	mg/kg	28	16	57	1.00E-02	7.73E+02	6.47E+01	1.69E+02	95% KM (BCA) UCL	124	124

Notes:

[1] Other chemicals detected in soil are represented by the maximum detected concentration within each OU.

[2] The RME is represented by the lower of the recommended UCL or maximum detected concentration.

[3] These statistics for 1,2,3-trichloropropane reflect the results associated with Method 8260 and were used in risk calculations due to better detection limits than DSITMS method.

[4] These statistics for 1,2,3-trichloropropane are based on DSITMS analytical method and are reported for informational purposes (not used in the risk calculations). Refer to footnote 3.

[5] The reported statistics for TPH-gas reflect the maximum result detected using the UVF analytical method (6,790 mg/kg) replaced with the corresponding duplicate analyzed using Method 8015 (0.064 mg/kg).

[6] These statistics are reported for informational purposes (not used in the risk calculations). They reflect the TPH-gas statistics including the maximum result associated with the UVF methodology (6,790 mg/kg).

[7] These statistics for naphthalene are reported for informational purposes (not used in the risk calculations). Refer to footnote 8.

[8] These statistics for naphthalene reflect the maximum detected result (11 mg/kg) averaged with the corresponding duplicate result (0.27 mg/kg). Average = 5.635 mg/kg.

Table A-2
Summary Statistics for Soils - Method SW8260B
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%		
Area of Concern (Listed if parameter(s) were detected above the MDL)					
AOC DD					
Benzene	4	3	75	0.68 Jq	1.3
Toluene	4	1	25	0.75 Jq	0.75 Jq
AOC EE					
Acetone	19	2	11	6.1 Jq	6.7 Jq
2-Butanone	19	1	5	4.6 Jq	4.6 Jq
Benzene	19	17	89	0.13 Jq	3.7
1,1-Dichloroethane	19	2	11	0.72 Jq	0.72 Jq
1,1-Dichloroethene	19	6	32	0.31 Jq	36
Ethylbenzene	19	3	16	0.12 Jq	0.53 Jq
Tert-Butyl Alcohol (TBA)	19	2	11	4.7 Jq	5.6 Jq
Toluene	19	6	32	0.48 Jq	3.2
1,1,1-Trichloroethane	19	3	16	0.34 Jq	0.65 Jq
Trichloroethene	19	2	11	0.35 Jq	0.40 Jq
Tetrachloroethene	19	1	5	0.16 Jq	0.16 Jq
p/m-Xylene	19	3	16	0.21 Jq	0.68 Jq
AOC FF					
Acetone	4	3	75	5.6 Jq	7.4 Jq
Benzene	4	4	100	0.23 Jq	1.0
Methylene Chloride	4	1	25	5.0 Jq	5.0 Jq
Toluene	4	2	50	0.48 Jq	0.62 Jq
AOC G					
Acetone	51	15	29	6.0 Jq	35 Jq
2-Butanone	51	9	18	3.0 Jq	28
Bromoform	51	1	2	1.4 Jq	1.4 Jq
Benzene	51	46	90	0.19 Jq	26
Carbon Disulfide	51	3	6	0.33 Jq	0.52 Jq
Chloromethane	51	1	2	0.30 Jq	0.30 Jq
Chloroform	51	5	10	0.24 Jq	1.6
1,2-Dichloroethane	51	3	6	0.43 Jq	19
Ethylbenzene	51	11	22	0.16 Jq	1.3 Jq
Naphthalene	51	2	4	0.76 Jq	1.3 Jq
Tert-Butyl Alcohol (TBA)	51	2	4	4.3 Jq	4.8
Toluene	51	22	43	0.41 Jq	15
Trichloroethene	51	1	2	0.80 Jq	0.80 Jq
1,2,3-Trichloropropane	51	6	12	4.8	44
Tetrachloroethene	51	1	2	0.22 Jq	0.22 Jq
p/m-Xylene	51	9	18	0.25 Jq	1.7 Jq
o-Xylene	51	2	4	0.62 Jq	0.70 Jq

Table A-2
Summary Statistics for Soils - Method SW8260B
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%		
AOC GG					
Acetone	12	3	25	4.8	190
2-Butanone	12	3	25	3.5 Jq	45
Benzene	12	11	92	0.16 Jq	14
Carbon Disulfide	12	1	8	0.33 Jq	0.33 Jq
Ethylbenzene	12	2	17	0.20 Jq	2.4
Tert-Butyl Alcohol (TBA)	12	2	17	6.0	6.0
Toluene	12	6	50	0.51 Jq	14.0
1,2,4-Trimethylbenzene	12	1	8	1.0 Jq	1.0 Jq
p/m-Xylene	12	4	33	0.31 Jq	3.4
o-Xylene	12	1	8	1.4	1.4
AOC H					
Acetone	13	5	38	6.8 Jq	17 Jq
2-Butanone	13	4	31	3.3 Jq	11 Jq
Benzene	13	12	92	0.13 Jq	9.9
Carbon Disulfide	13	2	15	0.29 Jq	0.29 Jq
Chlorobenzene	13	2	15	2.5	8.4
1,2-Dichlorobenzene	13	2	15	18	120
1,3-Dichlorobenzene	13	2	15	1.5	8.3
1,4-Dichlorobenzene	13	2	15	12	66
Ethylbenzene	13	2	15	0.24 Jq	0.52 Jq
Toluene	13	7	54	0.85 Jq	5.5
1,2,4-Trichlorobenzene	13	2	15	1.2 Jq	3.2
Trichloroethene	13	2	15	0.34 Jq	0.98 Jq
Tetrachloroethene	13	1	8	0.23 Jq	0.23 Jq
p/m-Xylene	13	2	15	0.28 Jq	0.66 Jq
AOC HH					
Acetone	9	3	33	6.6 Jq	20 Jq
2-Butanone	9	2	22	4.7 Jq	5.7 Jq
Benzene	9	7	78	0.12 Jq	5.5
Carbon Disulfide	9	3	33	0.3 Jq	0.37 Jq
Ethylbenzene	9	2	22	0.41 Jq	0.53 Jq
Toluene	9	2	22	3.3	3.6
Trichloroethene	9	2	22	0.35 Jq	15
p/m-Xylene	9	2	22	0.50 Jq	0.70 Jq
AOC JJ					
Acetone	6	3	50	8.5 Jq	16 Jq
Benzene	6	5	83	0.23 Jq	0.45 Jq
Carbon Disulfide	6	1	17	0.66 Jq	0.66 Jq
Toluene	5	3	60	0.50 Jq	1.6

Table A-2
Summary Statistics for Soils - Method SW8260B
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%		
AOC J-K					
Acetone	25	3	12	7.2 Jq	20 Jq
2-Butanone	25	7	28	3.3 Jq	24
Benzene	25	24	96	0.15 Jq	21
Carbon Tetrachloride	25	7	28	0.25 Jq	48
Chloroform	25	12	48	0.20 Jq	11
Ethylbenzene	25	6	24	0.16 Jq	0.89 Jq
Naphthalene	25	1	4	1.2 Jq	1.2 Jq
Tert-Butyl Alcohol (TBA)	25	4	16	4.7 Jq	6.1 Jq
Toluene	25	11	44	0.49 Jq	11
Trichloroethene	25	8	32	0.41 Jq	6.4
Tetrachloroethene	25	1	4	0.43 Jq	0.43 Jq
p/m-Xylene	25	6	24	0.26 Jq	1.2
AOC KK					
Acetone	8	2	25	7.3 Jq	8.1 Jq
Bromoform	8	1	13	1.3 Jq	1.3 Jq
Benzene	8	6	75	0.13 Jq	1.5
Chloroform	8	1	13	0.20 Jq	0.20 Jq
Toluene	8	5	63	0.51 Jq	1.6
Trichloroethene	8	1	13	0.41 Jq	0.41 Jq
Trichlorofluoromethane	8	2	25	0.78 Jq	3.7 Jq
AOC LL					
Benzene	2	2	100	0.55 Jq	0.76 Jq
AOC M					
Acetone	4	3	75	7.3 Jq	13 Jq
2-Butanone	4	3	75	4.8 Jq	8.6 Jq
Benzene	4	4	100	1.3	6.8
Chloromethane	4	1	25	0.45 Jq	0.45 Jq
Ethylbenzene	4	3	75	0.22 Jq	0.38 Jq
Naphthalene	4	1	25	0.84 Jq	0.84 Jq
Toluene	4	4	100	1.8	4.4
p/m-Xylene	4	4	100	0.34 Jq	1.0 Jq
AOC MM					
Acetone	11	5	45	5.7 Jq	270 Jq
2-Butanone	11	1	9	60	60
Benzene	11	11	100	0.14 Jq	2.2
Carbon Disulfide	11	2	18	0.36 Jq	0.58 Jq
Tert-Butyl Alcohol (TBA)	11	1	9	4.6 Jq	4.6 Jq
Toluene	11	10	91	0.58 Jq	2.0

Table A-2
Summary Statistics for Soils - Method SW8260B
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%		
AOC N					
Benzene	8	8	100	0.15 Jq	3.0
Ethylbenzene	8	1	13	0.14 Jq	0.14 Jq
Toluene	8	2	25	1.4	1.7
p/m-Xylene	8	1	13	0.40 Jq	0.40 Jq
AOC NN					
Benzene	5	2	40	0.22 Jq	0.86 Jq
Tert-Butyl Alcohol (TBA)	5	2	40	5.2 Jq	6.5 Jq
Toluene	5	5	100	0.73 Jq	1.2
AOC O					
Benzene	4	3	75	0.12 Jq	0.80
AOC OO					
Acetone	18	7	39	5.9 Jq	12 Jq
2-Butanone	18	7	39	3.4 Jq	6.7 Jq
Benzene	18	16	89	0.26 Jq	5.60
Carbon Disulfide	18	1	6	0.81 Jq	0.81 Jq
Chlorobenzene	18	2	11	0.43 Jq	0.49 Jq
1,2-Dichlorobenzene	18	3	17	0.35 Jq	88
1,3-Dichlorobenzene	18	2	11	0.92	2.7
1,4-Dichlorobenzene	18	3	17	0.18 Jq	26
Ethylbenzene	18	4	22	0.16 Jq	0.30 Jq
Tert-Butyl Alcohol (TBA)	18	1	6	5.3 Jq	5.3 Jq
Toluene	18	13	72	0.61 Jq	3.0
1,2,3-Trichlorobenzene	18	1	6	1.1 Jq	1.1 Jq
1,2,4-Trichlorobenzene	18	2	11	0.26	3.5
Trichlorofluoromethane	18	2	11	0.34 Jq	1.2 Jq
Tetrachloroethene	18	1	6	0.30 Jq	0.30 Jq
p/m-Xylene	18	8	44	0.29 Jq	0.57 Jq
AOC Z					
Acetone	8	6	75	5.3 Jq	35 Jq
2-Butanone	8	4	50	3.4 Jq	8.8 Jq
Benzene	8	8	100	0.30 Jq	2.30
Carbon Disulfide	8	6	75	0.28 Jq	0.72 Jq
Toluene	8	3	38	0.57 Jq	0.70 Jq

Table A-2
Summary Statistics for Soils - Method SW8260B
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (µg/kg)	Maximum (µg/kg)
		Number	%		

Acronyms and Abbreviations:
MDL - Method Detection Limit
Method 8260B: Volatile Organic Compounds
Notes:
All concentrations are in micrograms per kilogram (µg/kg).
VOCs were analyzed in all samples. Only detected constituents are shown in table.
J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
q - The analyte detection was below the practical quantitation limit (PQL)
Key:
AOC DD – Former Airport Maintenance Shop and Yard
AOC EE – Former Cal Aero Restoration Yard
AOC H – Former Waste Disposal Ponds
AOC FF – Building A440
AOC G - Former PAC Wash Rack Area
AOC GG – Former Aircraft Dismantling Area
AOC H – Former Waste Disposal Ponds
AOC HH – Buildings A230, A235, A340, A435
AOC JJ – Former UST C-15 and Sump I
AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC KK – Building A270, Yanks Museum
AOC LL – Former UST C-18
AOC M – Fuel Dump Area
AOC MM – Building A385
AOC N – Suspected Landfill
AOC NN - Former Building 30
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill
AOC OO – Former PAC Wash Rack Area Drain
AOC Z – Waste Water Discharge from Building A495

Table A-3
Summary Statistics for Soils - Site Lab UVF-3100
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%		
Area of Concern (Listed if parameter(s) were detected above the LOD)					
AOC DD					
TPH-d	46	14	30.4	0.33	645
AOC EE					
TPH-d	222	49	22.1	0.17	280
TPH-g	222	6	2.7	1.73	3.6
AOC G					
TPH-d	317	41	12.9	0.090	499
TPH-g	317	60	18.9	0.45	6,790
AOC GG					
TPH-d	108	36	33.3	0.20	833
TPH-g	108	1	0.9	1.9	1.9
AOC H					
TPH-d	150	56	37.3	0.18	222
TPH-g	150	1	0.7	1.9	1.9
AOC JJ					
TPH-d	49	14	28.6	0.83	790
AOC KK					
TPH-d	72	13	18.1	0.66	882
AOC LL					
TPH-d	23	7	30.4	0.21	642
AOC M					
TPH-d	28	8	28.6	2.99	199
AOC MM					
TPH-d	100	8	8.0	0.45	872
AOC N					
TPH-d	85	29	34.1	0.17	55
TPH-g	85	3	3.5	0.96	30
AOC O					
TPH-d	48	6	12.5	0.39	155
TPH-g	48	1	2.1	3.8	3.8
AOC OO					
TPH-d	109	21	19.3	0.01	773

Table A-3
Summary Statistics for Soils - Site Lab UVF-3100
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%		

Acronyms and Abbreviations:
LOD - Limit of Detection
siteLab UVF-3100: *site* Lab ultraviolet fluoresence-3100
TPH-d: total petroleum hydrocarbons as diesel
TPH-g: total petroleum hydrocarbons as gasoline
Notes:
All concentrations are in milligrams per kilogram (mg/kg).
TPH-g and TPH-d were analyzed in all samples. Only detected constituents are shown in table.
Key:
AOC DD – Former Airport Maintenance Shop and Yard
AOC EE – Former Cal Aero Restoration Yard
AOC G - Former PAC Wash Rack Area
AOC GG – Former Aircraft Dismantling Area
AOC H – Former Waste Disposal Ponds
AOC JJ – Former UST C-15 and Sump I
AOC KK – Building A270, Yanks Museum
AOC LL – Former UST C-18
AOC M – Fuel Dump Area
AOC MM – Building A385
AOC N – Suspected Landfill
AOC NN - Former Building 30
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill
AOC OO – Former PAC Wash Rack Area Drain

Table A-4
Summary Statistics for Soils - Method SW8270C
Chino Airport, Chino, California

Chemical	Number of Samples	Detections		Minimum (mg/kg)	Maximum (mg/kg)
		Number	%		
Area of Concern (Listed if parameter(s) were detected above the MDL)					
AOC N					
Acenaphthene	52	1	2	0.16 Jq	0.16
Benzo (a) Pyrene	52	1	2	0.12 Jq	0.12
Benzo (g,h,i) Perylene	52	1	2	0.15 Jq	0.15
Dimethyl Phthalate	52	28	54	0.18 Jq	0.37 Jq
Fluoranthene	52	2	4	0.13 Jq	0.20 Jq
Indeno (1,2,3-c,d) Pyrene	52	1	2	0.11 Jq	0.11 Jq
1-Methylnaphthalene	52	1	2	0.18 Jq	0.18 Jq
2-Methylnaphthalene	52	1	2	0.40 Jq	0.40 Jq
Naphthalene	52	2	4	0.15 Jq	11.00
Phenanthrene	52	2	4	0.13 Jq	0.20 Jq
Pyrene	52	2	4	0.13 Jq	0.20 Jq
AOC O					
Dimethyl Phthalate	28	15	54	0.20	0.34

Acronyms and Abbreviations:

MDL - method detection limit

Method 8270C: Semivolatile Organic Compounds

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

SVOCs were analyzed in all samples. Only detected constituents are shown in table.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table A-5
Summary Statistics for Volatile Chemicals Detected in Groundwater[1]
Chino Airport, Chino, California

Chemical	Number of Samples	Number Detected	Percent Detected	Detected Concentrations, µg/L	
				Minimum	Maximum
VOCs					
On-Site					
1,4-Dioxane	95	15	16	0.13	6.9
Acetone	286	3	1.0	11	12
Bromodichloromethane	286	1	0.3	0.23	0.23
Bromomethane	286	1	0.3	4.1	4.1
2-Butanone (MEK)	286	1	0.3	1.2	1.2
Benzene	286	18	6.3	0.14	0.84
Carbon Disulfide	286	3	1.0	0.43	5.6
Chlorobenzene	286	4	1.4	0.21	0.26
Carbon Tetrachloride	286	28	10	0.15	1.9
Chloroform	286	89	31	0.49	29
1,1-Dichloroethane	286	18	6.3	0.17	0.41
1,2-Dichloroethane	286	32	11	0.24	0.76
1,3-Dichlorobenzene	286	1	0.3	0.23	0.23
1,1-Dichloroethene	286	47	16	0.15	6.9
cis-1,2-Dichloroethene	286	48	17	0.20	47
trans-1,2-Dichloroethene	286	29	10	0.14	2.5
1,2-Dichloropropane	286	9	3	0.20	0.89
Methylene Chloride	286	1	0.3	0.16	0.16
tert-Butyl alcohol	245	3	1.2	4.8	6.8
Toluene	286	3	1.0	0.36	0.39
1,1,2-Trichloroethane	286	25	9	0.39	2.6
Trichloroethene	286	188	66	0.34	830
1,2,3-Trichloropropane	286	51	18	0.6	28
Trichlorofluoromethane	286	29	10	1.6	38
1,1,2,2-Tetrachloroethane	286	1	0.3	0.71	0.71
Tetrachloroethene	286	42	15	0.24	3.7
Off-Site					
1,4-Dioxane	66	1	1.5	0.25	0.25
Acetone	251	1	0.4	53.00	53.00
Bromomethane	251	1	0.4	4.40	4.40
2-Butanone (MEK)	251	1	0.4	2.60	2.60
Benzene	251	2	0.8	0.14	0.16
Carbon Disulfide	251	22	8.8	0.36	7.10
Chloroform	251	89	35.5	0.48	31.00
1,1-Dichloroethane	251	15	6.0	0.13	0.41
1,2-Dichloroethane	251	42	16.7	0.21	1.50

Table A-5
Summary Statistics for Volatile Chemicals Detected in Groundwater[1]
Chino Airport, Chino, California

Chemical	Number of Samples	Number Detected	Percent Detected	Detected Concentrations, µg/L	
				Minimum	Maximum
1,1-Dichloroethene	251	48	19.1	0.21	5.80
cis-1,2-Dichloroethene	251	58	23.1	0.31	12.00
trans-1,2-Dichloroethene	251	47	18.7	0.21	2.90
Methylene Chloride	251	2	0.8	0.22	0.25
tert-Butyl alcohol	178	2	1.1	5.00	7.60
1,1,2-Trichloroethane	251	15	6.0	0.41	0.82
Trichloroethene	251	65	25.9	0.38	250.00
1,2,3-Trichloropropane	251	69	27.5	0.65	44.00
Trichlorofluoromethane	251	14	5.6	0.85	10.00
1,1,2,2-Tetrachloroethane	251	2	0.8	0.35	0.95
Tetrachloroethene	251	6	2.4	0.31	0.53

Definitions:

µg/L - micrograms per liter

VOC - volatile organic compound

Notes:

[1] Only volatile chemicals are identified as the only complete exposure pathway identified for GW is potential vapor migration. Includes data collected from April 2013 to May 2017.

Table A-6
Summary Statistics for Chemicals Detected in Soil Gas
Chino Airport, Chino, California

Chemical	Number of Samples	Number Detected	Percent Detected	Detected Concentrations, µg/m^3	
				Minimum	Maximum
VOCs					
AOC EE					
1,1-Dichloroethane	1	1	100%	9.8	9.8
1,1-Dichloroethene	1	1	100%	7,820	7,820
Propylene	1	1	100%	3.9	3.9
1,1,1-Trichloroethane	1	1	100%	47	47
AOC J-K					
Acetone	4	3	75%	14	25
Benzene	4	4	100%	5.1	6.8
Carbon disulfide	4	4	100%	7.6	39
Carbon tetrachloride	4	2	50%	11	23
Chloroform	4	2	50%	5.5	7.1
Cyclohexane	4	3	75%	4.0	7.8
Dichlorodifluoromethane	4	1	25%	6.0	6.0
Ethylbenzene	4	3	75%	3.9	12
n-Hexane	4	2	50%	6.6	7.1
Propylene	4	1	25%	4.0	4.0
Tetrachloroethene	4	4	100%	8.6	42
Tetrahydrofuran	4	4	100%	3.1	6.2
Toluene	4	4	100%	3.8	41
Trichloroethene	4	1	25%	39	39
Trichlorofluoromethane	4	2	50%	6.6	14
1,2,4-Trimethylbenzene	4	4	100%	4.8	9.5
1,3,5-Trimethylbenzene	4	2	50%	5.2	6.8
o-Xylene	4	4	100%	4.2	14
m,p-Xylene	4	4	100%	4.8	38
n-Heptane	4	2	50%	5.0	8.4
Naphthalene	4	1	25%	25	25
AOC Z					
Acetone	18	12	67%	10	33
Benzene	18	11	61%	6.3	40
Carbon disulfide	18	15	83%	3.7	105
Cyclohexane	18	14	78%	3.2	18
Ethylbenzene	18	11	61%	3.1	12
n-Hexane	18	5	28%	3.4	7.6
Propylene	18	2	11%	5.6	14
Tetrachloroethene	18	6	33%	6.0	10
Tetrahydrofuran	18	11	61%	3.5	9.0
Toluene	18	15	83%	3.4	66
Trichlorofluoromethane	18	2	11%	9.3	9.4
1,2,4-Trimethylbenzene	18	16	89%	4.9	11
1,3,5-Trimethylbenzene	18	12	67%	3.8	6.8
o-Xylene	18	14	78%	3.5	14
m,p-Xylene	18	17	94%	4.8	45
n-Heptane	18	3	17%	3.5	5.2
Naphthalene	18	12	67%	10	29

Definitions:

µg/m3 - micrograms per cubic meter
VOC - volatile organic compound
AOC - area of concern

APPENDIX B

CHEMICAL FATE AND TRANSPORT ANALYSIS FOR CHINO AIRPORT

B.1 MIGRATION PATHWAYS

The contaminants identified at the Chino Airport, located at 7000 Merrill Avenue within the City Chino (hereinafter referred to as the "Site") can potentially migrate through various environmental media from the source areas identified at the Site. Potential migration pathways evaluated at the Site include volatilization from soil gas and groundwater to indoor air, volatilization from soil to outdoor air, and dust emissions and transport.

Volatile compounds in soil, soil gas, and groundwater can potentially migrate through soil pores to the ground surface and be released as vapors to indoor and outdoor air. The derivation of soil gas and groundwater attenuation factors for migration of volatile organic compounds (VOCs) into indoor air and volatilization factors for volatile emissions from soil to outdoor air are presented in Section B.2. Dust emissions and transport is presented in Section B.3. References are provided in Section B.4.

B.2 VOLATILE EMISSIONS AND TRANSPORT

B.2.1 Chemical and Source Definition

Analytical results of soil, soil gas, and groundwater sampling conducted at the Site were used to identify VOCs. All detected VOCs were evaluated in the transport modeling. Modeling was performed for those organic chemicals that met the following criteria (USEPA 2002, 2017):

- Henry's law constant ≥ 1 x 10^{-5} atm-m^3/mol; or
- Vapor pressure greater than 1 millimeter of mercury (mm Hg)

Modeling results were also only applied if the soil concentrations did not exceed the soil saturation concentration. The soil saturation concentration in the vadose zone was estimated using a partitioning equation to determine whether the chemical exists as free-phase liquid or sorbed phase. The equation, outlined in the USEPA Regional Screening Level Guidance (USEPA 2017) is as follows:

$$C_{sat} = \frac{S}{\rho_b}(K_d \rho_b + \theta_w + H'\theta_a)$$

where

C_{sat}	=	saturation concentration (milligrams per kilogram [=mg/kg])
S	=	solubility of chemical in water (milligrams per liter [=mg/L])
ρ_b	=	soil bulk density (grams per cubic centimeter [=g/cm^3])
K_d	=	soil-water partition coefficient = K_{oc} x f_{oc} (cubic centimeter per gram [=cm^3/g])

K_{oc} = organic carbon partition coefficient (cm^3/g)

f_{oc} = organic carbon fraction (dimensionless [-])

θ_w = water-filled porosity (cubic centimeter per cubic centimeter [=cm^3/cm^3])

H' = Henry's Law constant (-)

θ_a = air-filled porosity (cm^3/cm^3)

The soil saturation concentrations were calculated using the average of the soil physical data collected at the site (Table B-1) and the chemical properties presented in Table B-2. The calculated soil saturation concentrations are presented in Table B-3. None of the constituents detected in soils exceeded their respective soil saturation concentrations.

B.2.2 Evaluating Potential Vapor Intrusion Exposures

The advanced Johnson and Ettinger vapor intrusion models (USEPA 2004) for soil gas and groundwater with the most recent DTSC update to chemical properties (DTSC 2014a) were used to calculate the intrusion and subsequent accumulation of contaminant vapors in buildings from subsurface soil gas and groundwater. The relationship between soil gas and groundwater concentrations and the resulting indoor air concentrations is expressed as a soil gas or groundwater attenuation factor. The models incorporate both convective and diffusive mechanisms that drive vapor intrusion rates, and account for subsurface soil and building properties. The Johnson and Ettinger model is recommended in the *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC 2011).

B.2.2.1 Model Parameters

The model-predicted attenuation factors are based on site-specific physical soil conditions. Soil physical data were collected at two monitoring well locations (CAMW10 and CAMW11) and are shown in Table B-1. Average soil properties from these data were used in the modeling. These properties, along with the building properties used in the model, are shown in Table B-4. Default building properties from California Department of Toxic Substances Control (DTSC) guidance (DTSC, 2005 and 2011) were used.

Physical-chemical properties for all chemicals evaluated are shown in Table B-2 and were obtained from the J&E model, as modified by DTSC (2014a), or from the USEPA RSL tables (USEPA 2017).

B.2.2.2 Exposure Scenarios

Potential indoor vapor exposures were evaluated for on-site and off-site commercial workers and residents. For the on-site area, the residential scenario is considered hypothetical and residential land use is not anticipated. For the off-site area, an actual residence located within an area zoned for industrial use and associated with the off-site plume is evaluated. Exposures were evaluated in accordance with DTSC guidance (DTSC, 2014b). Commercial workers were assumed to be exposed to indoor vapors eight hours per day, 5 days per week for 50 weeks per year, while off-site and on-site residents were assumed to be exposed to indoor vapors for 24 hours per day, 7 days per week for 50 weeks per year.

B.2.2.3 Groundwater RBSLs Protective of Vapor Intrusion

Groundwater RBSLs were developed using site-specific groundwater-to-indoor air attenuation factors estimated with the J&E model in the RBSL equations presented in Table 6-9. Due to differing groundwater depths in on-site and off-site locations, separate groundwater RBSLs were developed for on-site and off-site locations.

The on-site groundwater RBSLs were developed based on a groundwater depth of 44 feet bgs as this was the shallowest depth to groundwater measured at on-site sampling locations (location CAMW-18). The off-site groundwater RBSLs were developed based on a groundwater depth of 17 feet bgs as this was the shallowest depth with detections that were above the corresponding detection limits (location CAMW-20). The maximum detected groundwater concentrations from sampling conducted from April 2013 to May 2017 were used to estimate potential risks and hazards. Individual AOCs were evaluated by using the data from the closest groundwater well. The groundwater-to-indoor air attenuation factors used to develop the groundwater RBSLs are summarized in Table B-5.

B.2.2.4 Soil Gas RBSLs Protective of Vapor Intrusion

For this evaluation, DTSC default soil gas attenuation factors (DTSC 2011) were used to derive soil gas RBSLs for the on-site AOCs where soil gas sampling was conducted (AOCs EE, J-K, and Z). The default attenuation factors reflect reasonably protective assumptions for conditions in California for the contamination of indoor air due to vapor intrusion. For a future commercial building the default attenuation factor is 0.0005 and for a residential building the default soil gas attenuation factor is 0.001. These attenuation factors were used in the equations presented in Table 6-8 to derive the on-site soil gas RBSLs.

For the off-site residence included in this evaluation, site-specific soil gas RBSLs were derived by developing site-specific soil gas attenuation factors for detected chemicals. For the off-site residence, soil gas attenuation factors were derived for sampling depths of 5, 10, 15, and 19 feet bgs. The depth-specific attenuation factors used to develop the site-specific soil gas RBSLs are summarized in Table B-6. These attenuation factors were derived for specific soil gas sampling depths associated with the off-site residence using the site-specific soil properties and default building properties identified in Table B-4.

B.2.3 Soil Volatilization Factors

Volatile emissions of COPCs from soil were calculated using the Volatilization Factor (VF) approach as presented by Equation 8 in the *Supplemental Soil Screening Guidance* (USEPA 2002). USEPA (1996) indicates that VFs developed for a 0.5-acre source under the infinite source assumption are protective of uniformly contaminated 30-acre source areas of significant depth (approximately 10 meters on average). However, when using the USEPA VF equations described below, the source/site size used in the equations can have a noticeable impact on the resulting risk-based screening levels (RBSLs). Since the actual size of the source area is not known definitively in most cases, the size of the site being evaluated is used to derive the VFs. The areas of concern (AOCs) evaluated in the human health risk assessment (HHRA) range in size from approximately 0.02 acres (AOC JJ) to 6.9 acres (AOC GG). For this reason, VFs were derived for multiple AOC sizes so that the assumed volatilization was not significantly over- or

underestimated. Based on the range of AOC sizes evaluated, VFs were derived for six acreage assumptions (0.02, 0.33, 0.5, 2, 3, and 6.9).

The VFs were calculated for on-site workers and residents using scenario-specific Q/C values as specified by USEPA (2002), Equation 4-8 as follows:

$$VF_{soil,site} = Q/C_{site} \times \frac{\sqrt{3.14 \times D_A \times T} \times 10^{-4}(m^2/cm^2)}{2 \times \rho_b \times D_A}$$

where

D_A = apparent diffusivity (cm^2/s)
T = exposure interval (s)
ρ_b = dry soil bulk density (g/cm^3)

Q/Cs for the AOC sizes indicated above are 128.9, 73.6, 68.2, 53.4. 49.9, and 43.7 g/m^2-s per kg/m^3, respectively, and are defined by USEPA (2002), Exhibit D-3:

$$Q/C_{site} = A \times exp\left[\frac{(lnA_{site} - B)^2}{C}\right]$$

where

A_{site} = areal extent of site surface soil contamination (acres)
A, B, and C = constants for Q/Cvol calculation (-)

The apparent diffusivity, D_A, is defined by USEPA (2002), Equation 4-8:

$$D_A = \frac{\left(\theta_a^{10/3} \times D_i \times H' \times \theta_w^{10/3} \times D_w\right)/n^2}{(\rho_b \times K_d) + \theta_w + (\theta_a \times H')}$$

where

D_i = diffusivity in air (cm^2/s)
D_w = diffusivity in water (cm^2/s)
K_d = soil -water partition coefficient (cm^3/g)
n = total soil porosity (unitless)
θa = air-filled soil porosity (unitless)
θw = water-filled soil porosity (unitless)
H' = dimensionless Henry's law constant (unitless)

The VF was calculated for construction workers using scenario-specific Q/C values as specified by USEPA (2002), Equation 5-14 as follows:

$$VF_{soil,cw} = Q/C_{cw} \times \frac{1}{F_D} \times \frac{\sqrt{3.14 \times D_A \times T} \times 10^{-4}(m^2/cm^2)}{2 \times \rho_b \times D_A}$$

where

D_A = apparent diffusivity (cm^2/s)
T = exposure interval (s)
ρ_b = dry soil bulk density (g/cm^3)
F_D = dispersion correction factor (unitless)

Q/Cs for the construction worker for the AOC sizes indicated above were calculated to be 28.2, 15.5, 14.3, 11.1, 10.3, and 8.9 g/m^2-s per kg/m^3 and is defined by USEPA (2002), Equation 5-15:

$$Q/C_{cw} = A \times exp\left[\frac{(lnA_c - B)^2}{C}\right]$$

where

A_c = areal extent of site surface soil contamination (acres)
A, B, and C = constants for Q/Cvol calculation (-)

The apparent diffusivity, D_A, is defined by USEPA (2002), Equation 5-14:

$$D_A = \frac{\left(\theta_a^{10/3} \times D_i \times H' \times \theta_w^{10/3} \times D_w\right)/n^2}{(\rho_b \times K_d) + \theta_w + (\theta_a \times H')}$$

where

D_i = diffusivity in air (cm^2/s)
D_w = diffusivity in water (cm^2/s)
K_d = soil -water partition coefficient (cm^3/g)
n = total soil porosity (unitless)
θa = air-filled soil porosity (unitless)
θw = water-filled soil porosity (unitless)
H' = dimensionless Henry's law constant (unitless)

Tables B-7 and B-8 present the values and assumptions used to calculate the volatilization factors for the two scenarios. The calculated constituent-specific volatilization factors for the on-site construction workers, on-site commercial workers, and residents are presented in Table B-9.

APPENDIX B

B.3 DUST EMISSIONS AND TRANSPORT

Respirable dust particles are comprised of particulate matter 10 microns (μm) or less in diameter (PM_{10}). Non-volatile constituents can adsorb to soils and become airborne dusts through wind erosion. The COPC fraction in airborne dust is assumed to be the same as the COPC fraction in soils at the Site.

Particulate emission factors (PEFs) for PM_{10} respirable dust particulates were used to evaluate non-volatile constituents adsorbed to soil. An airborne dust PEF for wind erosion has been identified as a default parameter by DTSC (2014b) for evaluating airborne dust exposures by commercial workers and residents. This PEF (1.36E+09 m^3/kg) was used in developing soil RBSLs for the hypothetical resident and commercial worker scenarios. In regard to potential construction activities, it was assumed that construction workers may be exposed to airborne dusts using the PEF recommended in DTSC guidance of 1E+06 m^3/kg (2014b). The PEFs were integrated directly into the equations for calculating soil RBSLs, as shown in Tables 6-6 and 6-7.

B.4 REFERENCES

Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment (OEHHA). 2005. Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil. November 2004; January 2005 revision.

Department of Toxic Substances Control (DTSC). 2011. Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. Final. October.

Department of Toxic Substances Control (DTSC). 2014a. Johnson & Ettinger Models – Physical-Chemical Parameters Update.

Department of Toxic Substances Control (DTSC). 2014b. Human Health Risk Assessment (HHRA) Note. HERD HHRA Note Number: 1. Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. September 30, 2014.

U.S. Environmental Protection Agency (USEPA). 1996. Soil screening guidance: technical background document. Office of Solid Waste and Emergency Response. EPA/540/R-95/128.

U.S. Environmental Protection Agency (USEPA). 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Office of Emergency and Remedial Response, Washington, D.C. OSWER 9355.4-24. December.

U.S. Environmental Protection Agency (USEPA). 2004. User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. Including associated vapor intrusion models. Available on-line at http://www.epa.gov/oswer/riskassessment/airmodel/johnson_ettinger.htm

U.S. Environmental Protection Agency (USEPA). 2017. USEPA Regional Screening Levels (RSLs). November.

Table B-1
Soil Physical Properties
Chino Airport, Chino, California

Sample ID	Well ID	Depth	Moisture Content (%)	Density (pcf)	Density (g/cm^3)	Porosity (%)	Total Organic Carbon (%)	Fraction Organic Carbon
PMW2	CAMW11	14.5-16	2.9	119.8	1.92	29.03	0.22	0.0022
PMW2	CAMW11	26-27.5	18.5	98.4	1.58	42.72	0.34	0.0034
PMW1B	CAMW10	26.5-27.5	14.3	104.9	1.68	38.98	0.42	0.0042
PMW1B	CAMW10	36-37.5	16.5	114.8	1.84	32.44	0.38	0.0038
PMW1B	CAMW10	46-47.5	28.5	96.7	1.55	43.17	0.49	0.0049
Average	*CAMW11*		*10.7*		*1.75*	*35.9*		*0.0028*
Average	*CAMW10*		*19.8*		*1.69*	*38.2*		*0.0043*
Average	*Overall*		*16.1*		*1.71*	*37.3*		*0.0037*

Definitions:

% - percent

g/cm^3 - grams per cubic centimeter

pcf - pounds per cubic foot

Table B-2
Physica-Chemical Properties of Detected Compounds
Chino Airport, Chino, California

Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $DH_{v,b}$ (cal/mol)
1,1,1-Trichloroethane	4.39E+01	6.48E-02	9.60E-06	1.29E+03	1.72E-02	25	3.47E+02	5.45E+02	7.14E+03
1,1-Dichloroethane	3.18E+01	8.36E-02	1.06E-05	5.04E+03	5.62E-03	25	3.31E+02	5.23E+02	6.90E+03
1,1-Dichloroethene	3.18E+01	8.63E-02	1.10E-05	2.42E+03	2.61E-02	25	3.05E+02	5.76E+02	6.25E+03
1,2,3-Trichlorobenzene	1.38E+03	3.95E-02	8.38E-06	1.80E+01	1.25E-03	25	4.86E+02	7.25E+02	1.05E+04
1,2,3-Trichloropropane	1.16E+02	5.75E-02	9.24E-06	1.75E+03	3.43E-04	25	4.30E+02	6.52E+02	9.17E+03
1,2,4-Trichlorobenzene	1.36E+03	3.96E-02	8.40E-06	4.90E+01	1.42E-03	25	4.86E+02	7.25E+02	1.05E+04
1,2,4-Trimethylbenzene	6.14E+02	6.07E-02	7.92E-06	5.70E+01	6.16E-03	25	4.42E+02	6.49E+02	9.37E+03
1,2-Dichlorobenzene	3.83E+02	5.62E-02	8.92E-06	1.56E+02	1.92E-03	25	4.54E+02	7.05E+02	9.70E+03
1,2-Dichloroethane	3.96E+01	8.57E-02	1.10E-05	8.60E+03	1.18E-03	25	3.57E+02	5.61E+02	7.64E+03
1,3-Dichlorobenzene	3.79E+02	5.56E-02	8.80E-06	1.19E+02	2.17E-03	25	4.46E+02	6.84E+02	9.23E+03
1,4-Dichlorobenzene	3.75E+02	5.50E-02	8.68E-06	8.13E+01	2.41E-03	25	4.47E+02	6.85E+02	9.27E+03
2-Butanone (MEK)	4.51E+00	9.14E-02	1.02E-05	2.23E+05	5.69E-05	25	3.53E+02	5.37E+02	7.48E+03
Acetone	2.36E+00	1.06E-01	1.15E-05	1.00E+06	3.50E-05	25	3.29E+02	5.08E+02	6.96E+03
Benzene	1.46E+02	8.95E-02	1.03E-05	1.79E+03	5.55E-03	25	3.53E+02	5.62E+02	7.34E+03
Bromoform	3.18E+01	3.57E-02	1.04E-05	3.10E+03	5.35E-04	25	4.22E+02	6.96E+02	9.48E+03
Tert-butyl alcohol	2.40E+06	8.90E-02	9.94E-06	2.11E+00	9.05E-06	25	3.81E+02	5.48E+02	1.09E+04
Carbon disulfide	2.17E+01	1.06E-01	1.30E-05	2.16E+03	1.44E-02	25	3.19E+02	5.52E+02	6.39E+03
Carbon Tetrachloride	4.39E+01	5.71E-02	9.78E-06	7.93E+02	2.76E-02	25	3.50E+02	5.57E+02	7.13E+03
Chlorobenzene	2.34E+02	7.21E-02	9.48E-06	4.98E+02	3.11E-03	25	4.05E+02	6.32E+02	8.41E+03
Chloroform	3.18E+01	7.69E-02	1.09E-05	7.95E+03	3.67E-03	25	3.34E+02	5.36E+02	6.99E+03
Chloromethane	1.32E+01	1.24E-01	1.36E-05	5.32E+03	8.82E-03	25	3.70E+02	5.72E+02	7.59E+03
Ethylbenzene	4.46E+02	6.85E-02	8.46E-06	1.69E+02	7.88E-03	25	4.09E+02	6.17E+02	8.50E+03
Methylene chloride	2.17E+01	9.99E-02	1.25E-05	1.30E+04	3.25E-03	25	3.13E+02	5.10E+02	6.71E+03
Tetrachloroethene	9.49E+01	5.05E-02	9.46E-06	2.06E+02	1.77E-02	25	3.94E+02	6.20E+02	8.29E+03
Toluene	2.34E+02	7.78E-02	9.20E-06	5.26E+02	6.64E-03	25	3.84E+02	5.92E+02	7.93E+03
Trichloroethene	6.07E+01	6.87E-02	1.02E-05	1.28E+03	9.85E-03	25	3.60E+02	5.44E+02	7.51E+03
Trichlorofluoromethane	4.39E+01	6.54E-02	1.00E-05	1.10E+03	9.70E-02	25	2.97E+02	4.71E+02	6.00E+03
o-xylene	3.83E+02	6.89E-02	8.53E-06	1.78E+02	5.18E-03	25	4.18E+02	6.30E+02	8.66E+03
m,p-xylene	3.75E+02	6.84E-02	8.44E-06	1.61E+02	7.18E-03	25	4.12E+02	6.17E+02	8.52E+03
TPH-gas	5.00E+03	7.00E-02	1.00E-05	2.40E+02	1.10E+00	25	-	-	-
TPH-diesel	5.00E+03	7.00E-02	1.00E-05	5.00E+00	7.80E-01	25	-	-	-
Diethyl Phthalate	1.05E+02	2.61E-02	6.72E-06	1.08E+03	6.10E-07	25	-	-	-
Dimethyl Phthalate	1.05E+02	2.61E-02	6.72E-06	1.08E+03	6.10E-07	25	-	-	-

Table B-2
Physica-Chemical Properties of Detected Compounds
Chino Airport, Chino, California

Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $DH_{v,b}$ (cal/mol)
Acenaphthene	5.03E+03	5.06E-02	8.33E-06	3.90E+00	1.84E-04	25	5.51E+02	8.03E+02	1.22E+04
Benzo(a)pyrene	5.87E+05	4.76E-02	5.56E-06	1.62E-03	4.57E-07	25	-	-	-
Benzo(g,h,i)perylene	1.95E+06	4.48E-02	5.23E-06	2.60E-04	3.31E-07	25	-	-	-
Fluoranthene	5.55E+04	2.76E-02	7.18E-06	2.60E-01	8.86E-06	25	-	-	-
Indeno(1,2,3-c,d)pyrene	1.95E+06	4.48E-02	5.23E-06	1.90E-04	3.48E-07	25	-	-	-
1-Methylnaphthalene	2.53E+03	5.28E-02	7.85E-06	2.58E+01	5.14E-04	25	5.14E+02	7.61E+02	1.26E+04
2-Methylnaphthalene	2.48E+03	5.24E-02	7.78E-06	2.46E+01	5.18E-04	25	5.14E+02	7.61E+02	1.26E+04
Naphthalene	1.54E+03	6.05E-02	8.38E-06	3.10E+01	4.40E-04	25	4.91E+02	7.48E+02	1.04E+04
Phenanthrene	1.67E+04	3.45E-02	6.69E-06	1.15E+00	4.22E-05	25	6.68E+02	9.36E+02	1.44E+04
Pyrene	5.43E+04	2.78E-02	7.25E-06	1.35E-01	1.19E-05	25	6.68E+02	9.36E+02	1.44E+04

References (in order of preference/order used unless otherwise noted):

DTSC Johnson and Ettinger model (DTSC 2014a).
USEPA RSL Tables (2017).

Notes:

- - Not available

Table B-3
Soil Saturation Concentrations
Chino Airport, Chino, California

Chemical	Soil Saturation Concentration (mg/kg)
VOC	
1,1,1-Trichloroethane	4.96E+03
1,1-Dichloroethane	1.40E+04
1,1-Dichloroethene	6.97E+03
1,2,3-Trichlorobenzene	2.08E+03
1,2,3-Trichloropropane	1.71E+04
1,2,4-Trichlorobenzene	5.55E+03
1,2,4-Trimethylbenzene	2.93E+03
1,2-Dichlorobenzene	5.00E+03
1,2-Dichloroethane	2.93E+04
1,3-Dichlorobenzene	3.77E+03
1,4-Dichlorobenzene	2.55E+03
2-Butanone (MEK)	1.05E+05
Acetone	2.91E+05
Benzene	2.20E+04
Bromoform	8.53E+03
Tert-butyl alcohol	4.22E+05
Carbon disulfide	4.28E+03
Carbon Tetrachloride	3.09E+03
Chlorobenzene	9.77E+03
Chloroform	2.20E+04
Chloromethane	6.60E+03
Ethylbenzene	6.31E+03
Methylene chloride	2.50E+04
Tetrachloroethene	1.67E+03
Toluene	1.03E+04
Trichloroethene	6.66E+03
Trichlorofluoromethane	4.67E+03
o-xylene	5.71E+03
m,p-xylene	5.06E+03
TPH	
TPH-gas	1.01E+05
TPH-diesel	2.11E+03
SVOC	
Diethyl Phthalate	9.55E+03
Dimethyl Phthalate	9.55E+03
PAHs	
Acenaphthene	1.64E+03
Benzo(a)pyrene	7.94E+01
Benzo(g,h,i)perylene	4.23E+01
Fluoranthene	1.20E+03
Indeno(1,2,3-c,d)pyrene	3.09E+01
1-Methylnaphthalene	5.44E+03
2-Methylnaphthalene	5.09E+03
Naphthalene	3.99E+03
Phenanthrene	1.60E+03
Pyrene	6.12E+02

Definitions:

mg/kg - milligrams per kilogram

Table B-4
Soil and Building Physical Properties Used in Johnson and Ettinger Model
Chino Airport, Chino, California

Variable	Variable name	Units	Value	Rationale
Soil properties				
h_A	Thickness of soil stratum A (upper layer of engineered fill)	(cm)	19	J&E: Default for upper layer of engineered fill (DTSC 2005a)
ρ_b	Soil dry bulk density	(g/cm^3)	1.66	J&E: Default for upper layer of engineered fill (DTSC 2005a)
n	Soil total porosity	(unitless)	0.375	J&E: Default for upper layer of engineered fill (DTSC 2005a)
θ_w	Soil water-filled porosity	(cm^3/cm^3)	0.054	J&E: Default for upper layer of engineered fill (DTSC 2005a)
h_A	Thickness of soil stratum B (lower layer of engineered fill)	(cm)	30	J&E: Default for lower layer of engineered fill (DTSC 2005a)
ρ_b	Soil dry bulk density	(g/cm^3)	1.8	J&E: Default for lower layer of engineered fill (DTSC 2005a)
n	Soil total porosity	(unitless)	0.3	J&E: Default for lower layer of engineered fill (DTSC 2005a)
θ_w	Soil water-filled porosity	(cm^3/cm^3)	0.15	J&E: Default for lower layer of engineered fill (DTSC 2005a)
h_C	Thickness of soil stratum C			
	Offsite soil gas, 5 ft sampling depth	(cm)	103.4	Assumes presence of engineered fill.
	Offsite soil gas, 10 ft sampling depth	(cm)	255.8	Assumes presence of engineered fill.
	Offsite soil gas, 15 ft sampling depth	(cm)	408.2	Assumes presence of engineered fill.
	Offsite soil gas, 19 ft sampling depth	(cm)	530.1	Assumes presence of engineered fill.
	Onsite groundwater	(cm)	1341	Shallowest depth to groundwater at CAMW-18 = 44 ft; assumes presence of engineered fill from 0 to 49 cm.
	Offsite groundwater	(cm)	518	Depth to groundwater at CAMW-16 = 17 ft (Tetra Tech 2015); assumes presence of engineered fill from 0 to 49 cm
ρ_b	Soil dry bulk density	(g/cm^3)	1.71	Average of soil physical data from CAMW-10-D and CAMW-11-D
n	Soil total porosity	(unitless)	0.373	Average of soil physical data from CAMW-10-D and CAMW-11-D
θ_w	Soil water-filled porosity	(cm^3/cm^3)	0.161	Average of soil physical data from CAMW-10-D and CAMW-11-D
	SCS Soil type directly above water table			
	Onsite groundwater	(unitless)	Sandy Clay	Based on boring log for CAMW-8
	Offsite groundwater	(unitless)	Silt Loam	Based on boring logs for CAMW-10 and CAMW-11
T_S	Average soil temperature	(^oC)	24	DTSC (2011) default.
Building properties				
L_{crack}	Floor thickness	(cm)	10	DTSC (2005a) default
L_B	Floor length	(cm)	1,000	DTSC (2005a) default
W_B	Floor width	(cm)	1,000	DTSC (2005a) default
H_B	Enclosed space height	(cm)	244	USEPA (2004b)
ER	Indoor air exchange rate			
	Industrial	(1/h)	1	DTSC (2011) default
	Residential	(1/h)	0.5	DTSC (2011) default
ΔP	Soil-building pressure difference	($g/cm\text{-}s^2$)	40	DTSC (2011) default
Q_{soil}	Average vapor flow rate into building	(L/m)	5	DTSC (2011) default
L_F	Depth to bottom of floor	(cm)	15	DTSC (2011) default
n	Foundation crack ratio	unitless	0.005	DTSC (2011) default

Definitions:

cm - centimeters
^oC - degrees Centigrade
g/cm^3 - grams per cubic centimeter
cm^3 - cubic centimeters
cm^2 - square centimeters
1/hr - per hour
$g/cm\text{-}s^2$ - grams per centimeter per square seconds
L/m - liters per minute
yrs - years
days/yr - days per year

Table B-5

Summary of Residential and Commercial Groundwater-to-Indoor Air Attenuation Factors[1]
Chino Airport, Chino, California

Chemical	On-Site (L/m^3)[2]		Off-Site (L/m^3)[3]
	Residential	Commercial	Commercial
Acetone	1.33E-04	6.66E-05	1.40E-04
Methyl ethyl ketone	1.80E-04	9.00E-05	1.72E-04
Benzene	2.34E-03	1.17E-03	6.27E-04
Carbon Disulfide	3.57E-03	1.79E-03	1.05E-03
Chlorobenzene	1.83E-03	9.16E-04	5.04E-04
Carbon Tetrachloride	2.91E-03	1.46E-03	9.03E-04
Chloroform	2.16E-03	1.08E-03	5.90E-04
1,1-Dichloroethane	2.37E-03	1.18E-03	6.34E-04
1,2-Dichloroethane	1.55E-03	7.76E-04	5.12E-04
1,3-Dichlorobenzene	1.45E-03	7.23E-04	4.33E-04
1,1-Dichloroethene	3.53E-03	1.76E-03	1.15E-03
cis-1,2-Dichloroethene	2.35E-03	1.18E-03	6.33E-04
trans-1,2-Dichloroethene	2.33E-03	1.17E-03	6.28E-04
1,2-Dichloropropane	1.83E-03	9.15E-04	5.10E-04
1,4-Dioxane	1.91E-05	9.56E-06	2.48E-05
Methylene Chloride	2.48E-03	1.24E-03	6.76E-04
tert-Butyl alcohol	3.21E-05	1.61E-05	4.03E-05
Toluene	2.15E-03	1.08E-03	5.81E-04
1,1,2-Trichloroethane	1.10E-03	5.50E-04	4.30E-04
Trichloroethene	2.47E-03	1.24E-03	6.74E-04
1,2,3-Trichloropropane	5.45E-04	2.73E-04	3.15E-04
Trichlorofluoromethane	5.26E-03	2.63E-03	2.22E-03
1,1,2,2-Tetrachloroethane	5.11E-04	2.55E-04	3.08E-04
Tetrachloroethene	2.46E-03	1.23E-03	6.97E-04

Definitions:

L/m^3 - liters per cubic meter

Notes:

[1] Attenuation factors calculated with Johnson and Ettinger model using the modeling parameters summarized in Table B-4.

[2] On-site attenuation factors conservatively derived based on a depth to groundwater of 44 feet, which was the shallowest depth to groundwater in on-site areas.

[3] Off-site attenuation factors conservatively derived based on a depth to groundwater of 17 feet, which was the shallowest depth to groundwater for off-site sampling locations with detections that were above the corresponding detection limits.

Table B-6
Summary of Site-Specific Soil Gas-to-Indoor Air Attenuation Factors - Off-Sote Residential Scenario
Chino Airport, Chino, California

Chemical	Site-Specific Soil Gas-to-Indoor Air Attenuation Factors[1] ($\mu g/m^3$)/($\mu g/m^3$)			
	Off-Site Indoor Resident			
	Sampling Depth (feet bgs)			
	(5 feet bgs)	(10 feet bgs)	(15 feet bgs)	(19 feet bgs)
Benzene	5.17E-04	2.99E-04	2.11E-04	1.70E-04
Carbon disulfide	5.91E-04	3.48E-04	2.47E-04	2.00E-04
Chloroform	4.58E-04	2.62E-04	1.83E-04	1.48E-04
Cyclohexane	4.72E-04	2.71E-04	1.90E-04	1.53E-04
Ethylbenzene	4.16E-04	2.36E-04	1.64E-04	1.32E-04
4-Ethyltoluene	4.15E-04	2.35E-04	1.64E-04	1.32E-04
n-Hexane	4.39E-04	2.50E-04	1.75E-04	1.41E-04
Propene	6.06E-04	3.58E-04	2.54E-04	2.06E-04
Tetrachloroethene	3.21E-04	1.78E-04	1.23E-04	9.90E-05
Tetrahydrofuran	5.54E-04	3.22E-04	2.27E-04	1.84E-04
Toluene (Methyl benzene)	4.62E-04	2.64E-04	1.85E-04	1.49E-04
Trichloroethene	4.17E-04	2.36E-04	1.65E-04	1.33E-04
1,2,4-Trimethylbenzene	3.76E-04	2.11E-04	1.47E-04	1.18E-04
1,3,5-Trimethylbenzene	3.73E-04	2.10E-04	1.46E-04	1.17E-04
o-Xylene	4.18E-04	2.37E-04	1.65E-04	1.33E-04
m,p-Xylenes	4.15E-04	2.35E-04	1.64E-04	1.32E-04
n-Heptane	4.39E-04	2.50E-04	1.75E-04	1.41E-04

Definitions:

($\mu g/m^3$) / ($\mu g/m^3$) - (micrograms per cubic meter) per (micrograms per cubic meter)

Notes:

[1] Soil gas attenuation factors calculated with Johnson and Ettinger model using the modeling parameters summarized in Table B-4.

Table B-7
Parameters Used in Calculation of Volatilization Factors for On-Site Commercial Workers and Residents
Chino Airport, Chino, California

Description	Parameter	Units	Value	Source
Areal extent of site surface soil contamination	A_{site}	acres	0.02 to 6.9	Assumed site-specific soil contamination area[1]
Constant for Q/C_{vol} calculation (-)	**A**	unitless	11.911	USEPA 2002
Constant for Q/C_{vol} calculation (-)	**B**	unitless	18.4385	USEPA 2002
Constant for Q/C_{vol} calculation (-)	**C**	unitless	209.7845	USEPA 2002
Diffusivity in air	D_i	cm^2/s	chemical-specific	See Table B-2
Diffusitivity in water	D_w	cm^2/s	chemical-specific	See Table B-2
Fraction organic carbon in soil	f_{oc}	unitless	0.0037	Average of soil physical data collected at site
Soil -water partition coefficient	K_d	cm^3/g	$K_{oc} \times f_{oc}$	USEPA 2002
Soil organic carbon partition coefficient	K_{oc}	cm^3/g	chemical-specific	See Table B-2
Total soil porosity	**n**	-	0.373	Average of soil physical data collected at site
Exposure interval, residents	**T**	s	8.2E+08	DTSC 2014
Exposure interval, workers	**T**	s	7.9E+08	DTSC 2014
Dry soil bulk density	ρ_b	g/cm^3	1.71	Average of soil physical data collected at site
Air-filled soil porosity	θ_a	unitless	0.212	Total porosity minus water-filled porosity
Water-filled soil porosity	θ_w	unitless	0.161	Average of soil physical data collected at site
Henry's law constant	**H'**	unitless	chemical-specific	See Table B-2

Definitions:

cm^2/s - Square centimeters per second.
cm^3/g - Cubic centimeters per gram.
g/cm^3 - Grams per cubic centimeter.
s - Seconds.

Notes:

1 Volatilization factors were derived for AOC sizes of: 0.02, 0.33. 0.5, 2, 3, and 6.9.

Table B-8
Parameters Used in Calculation of Volatilization Factors for On-Site Construction Workers
Chino Airport, Chino, California

Description	Parameter	Units	Value	Source
Areal extent of site suface soil contamination	A_c	acres	0.02 to 6.9	Assumed site-specific soil contamination area[1]
Constant for Q/C_{sa} calculation (-)	A	unitless	2.4538	USEPA 2002
Constant for Q/C_{sa} calculation (-)	B	unitless	17.566	USEPA 2002
Constant for Q/C_{sa} calculation (-)	C	unitless	189.0426	USEPA 2002
Diffusivity in air	D_i	cm^2/s	chemical-specific	See Table B-2
Diffusitivity in water	D_w	cm^2/s	chemical-specific	See Table B-2
Dispersion correction factor	F_D	unitless	0.185	USEPA 2002
Fraction organic carbon in soil	f_{oc}	unitless	0.0037	Average of soil physical data collected at site
Soil -water partition coefficient	K_d	cm^3/g	K_{oc} x f_{oc}	USEPA 2002
Soil organic carbon partition coefficient	K_{oc}	cm^3/g	chemical-specific	See Table B-2
Total soil porosity	n	-	0.373	Average of soil physical data collected at site
Total time over which construction occurs	T	s	3.2E+07	Assumes 1 yr of construction
Dry soil bulk density	ρ_b	g/cm^3	1.71	Average of soil physical data collected at site
Air-filled soil porosity	θ_a	unitless	0.212	Total porosity minus water-filled porosity
Water-filled soil porosity	θ_w	unitless	0.161	Average of soil physical data collected at site
Henry's law constant	H'	unitless	chemical-specific	See Table B-2

Definitions:

cm^2/s - Square centimeters per second.
cm^3/g - Cubic centimeters per gram.
g/cm^3 - Grams per cubic centimeter.
s - Seconds.

Notes:

1 Volatilization factors were derived for AOC sizes of: 0.02, 0.33. 0.5, 2, 3, and 6.9.

Table B-9
Volatilization Factors for Soil
Chino Airport, Chino, California

Chemical	Volatilization Factors for Soil (m^3/kg)																	
	0.02 Acres (AOC JJ)			0.33 Acres (AOCs DD, FF, and M)			0.5 Acres (AOCs LL and OO)			2 Acres (AOCs EE, G, MM, N, NN, and Z)			3 Acres (AOCs H. J-K, and KK)			6.9 Acres (AOCs GG, HH , and O)		
	On-Site Resident	Commercial Worker	Construction Worker	On-Site Resident	Commercial Worker	Construction Worker	On-Site Resident	Commercial Worker	Construction Worker	On-Site Resident	Commercial Worker	Construction Worker	On-Site Resident	Commercial Worker	Construction Worker	On-Site Resident	Commercial Worker	Construction Worker
VOC																		
1,1,1-Trichloroethane	3.40E+03	3.33E+03	7.87E+02	1.94E+03	1.90E+03	4.34E+02	1.80E+03	1.76E+03	4.00E+02	1.41E+03	1.38E+03	3.09E+02	1.32E+03	1.29E+03	2.88E+02	1.15E+03	1.13E+03	2.50E+02
1,1-Dichloroethane	4.38E+03	4.29E+03	1.01E+03	2.50E+03	2.45E+03	5.59E+02	2.32E+03	2.27E+03	5.15E+02	1.81E+03	1.78E+03	3.98E+02	1.70E+03	1.66E+03	3.71E+02	1.48E+03	1.45E+03	3.22E+02
1,1-Dichloroethene	2.39E+03	2.35E+03	5.54E+02	1.37E+03	1.34E+03	3.06E+02	1.27E+03	1.24E+03	2.82E+02	9.92E+02	9.73E+02	2.18E+02	9.27E+02	9.09E+02	2.03E+02	8.10E+02	7.95E+02	1.76E+02
1,2,3-Trichlorobenzene	6.28E+04	6.16E+04	1.46E+04	3.59E+04	3.52E+04	8.03E+03	3.32E+04	3.26E+04	7.40E+03	2.61E+04	2.56E+04	5.72E+03	2.44E+04	2.39E+04	5.32E+03	2.13E+04	2.09E+04	4.62E+03
1,2,3-Trichloropropane	3.15E+04	3.09E+04	7.30E+03	1.80E+04	1.76E+04	4.02E+03	1.67E+04	1.63E+04	3.71E+03	1.31E+04	1.28E+04	2.87E+03	1.22E+04	1.20E+04	2.67E+03	1.07E+04	1.05E+04	2.32E+03
1,2,4-Trichlorobenzene	5.83E+04	5.72E+04	1.35E+04	3.33E+04	3.27E+04	7.45E+03	3.09E+04	3.03E+04	6.87E+03	2.42E+04	2.37E+04	5.31E+03	2.26E+04	2.22E+04	4.94E+03	1.98E+04	1.94E+04	4.29E+03
1,2,4-Trimethylbenzene	1.55E+04	1.52E+04	3.59E+03	8.86E+03	8.68E+03	1.98E+03	8.20E+03	8.04E+03	1.83E+03	6.43E+03	6.30E+03	1.41E+03	6.01E+03	5.89E+03	1.31E+03	5.25E+03	5.15E+03	1.14E+03
1,2-Dichlorobenzene	2.30E+04	2.25E+04	5.32E+03	1.31E+04	1.29E+04	2.93E+03	1.22E+04	1.19E+04	2.71E+03	9.53E+03	9.34E+03	2.09E+03	8.90E+03	8.73E+03	1.95E+03	7.78E+03	7.63E+03	1.69E+03
1,2-Dichloroethane	9.55E+03	9.37E+03	2.21E+03	5.46E+03	5.35E+03	1.22E+03	5.05E+03	4.96E+03	1.12E+03	3.96E+03	3.88E+03	8.69E+02	3.70E+03	3.63E+03	8.09E+02	3.24E+03	3.17E+03	7.03E+02
1,3-Dichlorobenzene	2.17E+04	2.12E+04	5.02E+03	1.24E+04	1.21E+04	2.77E+03	1.15E+04	1.12E+04	2.55E+03	8.98E+03	8.80E+03	1.97E+03	8.39E+03	8.23E+03	1.83E+03	7.34E+03	7.19E+03	1.59E+03
1,4-Dichlorobenzene	2.05E+04	2.01E+04	4.76E+03	1.17E+04	1.15E+04	2.62E+03	1.09E+04	1.07E+04	2.42E+03	8.52E+03	8.35E+03	1.87E+03	7.96E+03	7.80E+03	1.74E+03	6.96E+03	6.82E+03	1.51E+03
2-Butanone (MEK)	2.80E+04	2.75E+04	6.49E+03	1.60E+04	1.57E+04	3.58E+03	1.48E+04	1.45E+04	3.30E+03	1.16E+04	1.14E+04	2.55E+03	1.09E+04	1.06E+04	2.37E+03	9.49E+03	9.31E+03	2.06E+03
Acetone	3.18E+04	3.12E+04	7.36E+03	1.82E+04	1.78E+04	4.06E+03	1.68E+04	1.65E+04	3.74E+03	1.32E+04	1.29E+04	2.89E+03	1.23E+04	1.21E+04	2.69E+03	1.08E+04	1.06E+04	2.34E+03
Benzene	7.06E+03	6.92E+03	1.64E+03	4.03E+03	3.96E+03	9.02E+02	3.74E+03	3.66E+03	8.32E+02	2.93E+03	2.87E+03	6.43E+02	2.74E+03	2.68E+03	5.98E+02	2.39E+03	2.35E+03	5.19E+02
Bromoform	2.05E+04	2.01E+04	4.74E+03	1.17E+04	1.15E+04	2.61E+03	1.08E+04	1.06E+04	2.41E+03	8.48E+03	8.32E+03	1.86E+03	7.92E+03	7.77E+03	1.73E+03	6.93E+03	6.79E+03	1.50E+03
Tert-butyl alcohol	1.92E+07	1.88E+07	4.44E+06	1.09E+07	1.07E+07	2.45E+06	1.01E+07	9.95E+06	2.26E+06	7.95E+06	7.79E+06	1.74E+06	7.43E+06	7.28E+06	1.62E+06	6.49E+06	6.37E+06	1.41E+06
Carbon disulfide	2.46E+03	2.41E+03	5.70E+02	1.40E+03	1.38E+03	3.14E+02	1.30E+03	1.28E+03	2.90E+02	1.02E+03	1.00E+03	2.24E+02	9.53E+02	9.35E+02	2.08E+02	8.33E+02	8.17E+02	1.81E+02
Carbon Tetrachloride	3.07E+03	3.01E+03	7.11E+02	1.75E+03	1.72E+03	3.92E+02	1.62E+03	1.59E+03	3.61E+02	1.27E+03	1.25E+03	2.79E+02	1.19E+03	1.17E+03	2.60E+02	1.04E+03	1.02E+03	2.26E+02
Chlorobenzene	1.28E+04	1.25E+04	2.96E+03	7.29E+03	7.15E+03	1.63E+03	6.75E+03	6.62E+03	1.50E+03	5.29E+03	5.19E+03	1.16E+03	4.94E+03	4.85E+03	1.08E+03	4.32E+03	4.24E+03	9.38E+02
Chloroform	5.53E+03	5.42E+03	1.28E+03	3.16E+03	3.10E+03	7.06E+02	2.93E+03	2.87E+03	6.51E+02	2.29E+03	2.25E+03	5.03E+02	2.14E+03	2.10E+03	4.68E+02	1.87E+03	1.84E+03	4.07E+02
Chloromethane	2.54E+03	2.49E+03	5.87E+02	1.45E+03	1.42E+03	3.24E+02	1.34E+03	1.32E+03	2.99E+02	1.05E+03	1.03E+03	2.31E+02	9.83E+02	9.64E+02	2.15E+02	8.59E+02	8.42E+02	1.87E+02
Ethylbenzene	1.11E+04	1.09E+04	2.58E+03	6.36E+03	6.23E+03	1.42E+03	5.89E+03	5.78E+03	1.31E+03	4.62E+03	4.53E+03	1.01E+03	4.31E+03	4.23E+03	9.43E+02	3.77E+03	3.70E+03	8.19E+02
Methylene chloride	4.69E+03	4.60E+03	1.09E+03	2.68E+03	2.63E+03	5.99E+02	2.48E+03	2.43E+03	5.53E+02	1.95E+03	1.91E+03	4.27E+02	1.82E+03	1.78E+03	3.98E+02	1.59E+03	1.56E+03	3.45E+02
Tetrachloroethene	4.74E+03	4.64E+03	1.10E+03	2.71E+03	2.65E+03	6.05E+02	2.51E+03	2.46E+03	5.58E+02	1.96E+03	1.93E+03	4.31E+02	1.84E+03	1.80E+03	4.01E+02	1.60E+03	1.57E+03	3.48E+02
Toluene	8.49E+03	8.32E+03	1.97E+03	4.85E+03	4.75E+03	1.08E+03	4.49E+03	4.40E+03	9.99E+02	3.52E+03	3.45E+03	7.72E+02	3.29E+03	3.22E+03	7.19E+02	2.87E+03	2.82E+03	6.24E+02
Trichloroethene	4.52E+03	4.43E+03	1.05E+03	2.58E+03	2.53E+03	5.77E+02	2.39E+03	2.34E+03	5.32E+02	1.87E+03	1.84E+03	4.11E+02	1.75E+03	1.72E+03	3.83E+02	1.53E+03	1.50E+03	3.32E+02
Trichlorofluoromethane	2.10E+03	2.06E+03	4.87E+02	1.20E+03	1.18E+03	2.69E+02	1.11E+03	1.09E+03	2.48E+02	8.72E+02	8.55E+02	1.91E+02	8.15E+02	7.99E+02	1.78E+02	7.12E+02	6.98E+02	1.55E+02
o-xylene	1.27E+04	1.25E+04	2.94E+03	7.25E+03	7.11E+03	1.62E+03	6.72E+03	6.59E+03	1.50E+03	5.27E+03	5.16E+03	1.16E+03	4.92E+03	4.82E+03	1.08E+03	4.30E+03	4.22E+03	9.34E+02
m,p-xylene	1.08E+04	1.06E+04	2.49E+03	6.15E+03	6.03E+03	1.37E+03	5.70E+03	5.59E+03	1.27E+03	4.46E+03	4.38E+03	9.80E+02	4.17E+03	4.09E+03	9.12E+02	3.65E+03	3.58E+03	7.92E+02
TPH																		
TPH-gas	3.43E+03	3.36E+03	7.94E+02	1.96E+03	1.92E+03	4.38E+02	1.81E+03	1.78E+03	4.04E+02	1.42E+03	1.39E+03	3.12E+02	1.33E+03	1.30E+03	2.90E+02	1.16E+03	1.14E+03	2.52E+02
TPH-diesel	3.93E+03	3.85E+03	9.10E+02	2.24E+03	2.20E+03	5.02E+02	2.08E+03	2.04E+03	4.62E+02	1.63E+03	1.60E+03	3.57E+02	1.52E+03	1.49E+03	3.33E+02	1.33E+03	1.30E+03	2.89E+02
PAHs																		
Acenaphthene	2.73E+05	2.68E+05	6.32E+04	1.56E+05	1.53E+05	3.49E+04	1.44E+05	1.42E+05	3.21E+04	1.13E+05	1.11E+05	2.48E+04	1.06E+05	1.04E+05	2.31E+04	9.25E+04	9.07E+04	2.01E+04
1-Methylnaphthalene	1.14E+05	1.12E+05	2.64E+04	6.52E+04	6.39E+04	1.46E+04	6.04E+04	5.92E+04	1.34E+04	4.73E+04	4.64E+04	1.04E+04	4.42E+04	4.33E+04	9.67E+03	3.86E+04	3.79E+04	8.39E+03
2-Methylnaphthalene	1.13E+05	1.11E+05	2.61E+04	6.45E+04	6.32E+04	1.44E+04	5.97E+04	5.86E+04	1.33E+04	4.68E+04	4.59E+04	1.03E+04	4.37E+04	4.29E+04	9.56E+03	3.82E+04	3.75E+04	8.30E+03
Naphthalene	9.03E+04	8.85E+04	2.09E+04	5.16E+04	5.06E+04	1.15E+04	4.78E+04	4.68E+04	1.06E+04	3.74E+04	3.67E+04	8.22E+03	3.50E+04	3.43E+04	7.65E+03	3.06E+04	3.00E+04	6.64E+03
Phenanthrene	1.23E+06	1.21E+06	2.86E+05	7.04E+05	6.91E+05	1.57E+05	6.52E+05	6.40E+05	1.45E+05	5.11E+05	5.01E+05	1.12E+05	4.78E+05	4.68E+05	1.04E+05	4.18E+05	4.10E+05	9.07E+04
Pyrene	4.33E+06	4.25E+06	1.00E+06	2.47E+06	2.43E+06	5.53E+05	2.29E+06	2.25E+06	5.10E+05	1.80E+06	1.76E+06	3.94E+05	1.68E+06	1.65E+06	3.67E+05	1.47E+06	1.44E+06	3.19E+05

Definitions:

AOC - area of concern
PAHs - polycyclic aromatic hydrocarbons
TPH - total petroleum hydrocarbons
VOCs - volatile organic compounds

APPENDIX C

Table C-1
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.02 Acres (AOC JJ)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	1.45E+04	-	3.43E+03	-	3.47E+03
1,1-Dichloroethane	3.11E+02	1.41E+04	1.86E+03	3.38E+03	2.55E+00	2.96E+03
1,1-Dichloroethene	-	7.10E+02	-	1.68E+02	-	1.67E+02
1,2,3-Trichlorobenzene	-	4.49E+02	-	1.19E+02	-	4.82E+01
1,2,3-Trichloropropane	3.45E-01	4.02E+01	2.19E+00	9.52E+00	1.51E-03	9.55E+00
1,2,4-Trichlorobenzene	1.13E+03	4.81E+02	8.54E+03	1.15E+02	2.40E+01	1.05E+02
1,2,4-Trimethylbenzene	-	2.98E+03	-	7.45E+02	-	4.33E+02
1,2-Dichlorobenzene	-	1.66E+04	-	4.07E+03	-	2.85E+03
1,2-Dichloroethane	3.93E+01	2.76E+02	2.38E+02	6.57E+01	3.34E-01	6.07E+01
1,3-Dichlorobenzene	-	1.58E+04	-	3.86E+03	-	2.75E+03
1,4-Dichlorobenzene	2.17E+02	3.79E+04	1.29E+03	9.97E+03	1.75E+00	4.15E+03
2-Butanone (MEK)	-	3.24E+05	-	8.51E+04	-	3.55E+04
Acetone	-	8.42E+05	-	2.42E+05	-	6.59E+04
Benzene	2.69E+01	8.93E+01	1.62E+02	2.12E+01	2.24E-01	2.06E+01
Bromoform	1.28E+03	5.40E+03	8.32E+03	1.34E+03	1.38E+01	8.16E+02
Tert-butyl alcohol	-	2.33E+06	-	7.07E+05	-	1.56E+05
Carbon disulfide	-	6.95E+03	-	1.66E+03	-	1.46E+03
Carbon Tetrachloride	8.44E+00	4.74E+02	5.03E+01	1.14E+02	6.85E-02	9.08E+01
Chlorobenzene	-	2.45E+03	-	5.93E+02	-	4.67E+02
Chloroform	2.81E+01	1.94E+03	1.67E+02	4.76E+02	2.26E-01	3.28E+02
Chloromethane	-	9.45E+02	-	2.25E+02	-	2.10E+02
Ethylbenzene	4.54E+02	3.39E+04	2.77E+03	8.56E+03	3.97E+00	4.67E+03
Methylene chloride	4.55E+02	3.75E+03	2.80E+03	1.00E+03	1.87E+00	3.79E+02
Tetrachloroethene	3.67E+01	6.46E+02	2.50E+02	1.56E+02	4.69E-01	1.26E+02
Toluene	-	9.79E+03	-	2.37E+03	-	1.86E+03
Trichloroethene	1.12E+02	3.64E+01	6.83E+02	8.72E+00	9.38E-01	7.59E+00
Trichlorofluoromethane	-	1.05E+04	-	2.50E+03	-	2.37E+03
o-xylene	-	5.33E+03	-	1.27E+03	-	1.22E+03
m,p-xylene	-	4.75E+03	-	1.13E+03	-	1.09E+03
TPHs						
TPH-gas	-	7.09E+03	-	1.73E+03	-	1.22E+03
TPH-diesel	-	2.00E+03	-	4.83E+02	-	3.97E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.14E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.08E+05	-	4.85E+04
PAHs						
Acenaphthene	-	2.29E+04	-	6.05E+03	-	3.12E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.65E+01	6.93E+00	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	1.90E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.41E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.45E+01	1.90E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	1.40E+03	2.68E+03	3.32E+02	1.62E+01	3.26E+02
2-Methylnaphthalene	-	7.76E+02	-	1.94E+02	-	1.35E+02
Naphthalene	7.44E+01	1.02E+03	4.81E+02	2.44E+02	1.53E+00	2.24E+02
Phenanthrene	-	1.22E+04	-	3.25E+03	-	1.62E+03
Pyrene	-	1.24E+04	-	3.30E+03	-	1.63E+03

Table C-1
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.02 Acres (AOC JJ)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.43E+01	1.17E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	2.18E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	1.28E+03	2.05E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	7.30E+02	4.36E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.55E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	3.41E+02	2.05E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.21E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	3.59E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.52E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	1.18E+04	6.02E+01	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.52E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	3.41E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.10E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-2
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.33 Acres (AOCs DD, FF, and M)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	8.31E+03	-	1.90E+03	-	2.00E+03
1,1-Dichloroethane	1.82E+02	8.28E+03	1.05E+03	1.91E+03	2.55E+00	1.84E+03
1,1-Dichloroethene	-	4.08E+02	-	9.32E+01	-	9.73E+01
1,2,3-Trichlorobenzene	-	3.23E+02	-	8.05E+01	-	4.11E+01
1,2,3-Trichloropropane	2.28E-01	2.31E+01	1.37E+00	5.27E+00	1.51E-03	5.53E+00
1,2,4-Trichlorobenzene	1.13E+03	2.79E+02	8.54E+03	6.41E+01	2.40E+01	6.38E+01
1,2,4-Trimethylbenzene	-	1.91E+03	-	4.54E+02	-	3.24E+02
1,2-Dichlorobenzene	-	1.02E+04	-	2.38E+03	-	1.97E+03
1,2-Dichloroethane	2.36E+01	1.60E+02	1.37E+02	3.68E+01	3.34E-01	3.67E+01
1,3-Dichlorobenzene	-	9.65E+03	-	2.25E+03	-	1.89E+03
1,4-Dichlorobenzene	1.26E+02	2.70E+04	7.20E+02	6.70E+03	1.75E+00	3.51E+03
2-Butanone (MEK)	-	2.31E+05	-	5.72E+04	-	3.00E+04
Acetone	-	7.33E+05	-	2.02E+05	-	6.29E+04
Benzene	1.59E+01	5.14E+01	9.18E+01	1.18E+01	2.24E-01	1.21E+01
Bromoform	8.93E+02	3.43E+03	5.50E+03	8.10E+02	1.38E+01	6.01E+02
Tert-butyl alcohol	-	2.33E+06	-	7.06E+05	-	1.56E+05
Carbon disulfide	-	4.08E+03	-	9.38E+02	-	9.07E+02
Carbon Tetrachloride	4.91E+00	2.83E+02	2.81E+01	6.55E+01	6.85E-02	5.93E+01
Chlorobenzene	-	1.47E+03	-	3.40E+02	-	3.06E+02
Chloroform	1.63E+01	1.19E+03	9.30E+01	2.79E+02	2.26E-01	2.28E+02
Chloromethane	-	5.48E+02	-	1.26E+02	-	1.26E+02
Ethylbenzene	2.77E+02	2.21E+04	1.62E+03	5.29E+03	3.97E+00	3.59E+03
Methylene chloride	2.83E+02	2.78E+03	1.66E+03	7.03E+02	1.87E+00	3.31E+02
Tetrachloroethene	2.84E+01	3.84E+02	1.83E+02	8.89E+01	4.69E-01	8.16E+01
Toluene	-	5.85E+03	-	1.36E+03	-	1.22E+03
Trichloroethene	6.84E+01	2.14E+01	4.00E+02	4.91E+00	9.38E-01	4.73E+00
Trichlorofluoromethane	-	6.08E+03	-	1.39E+03	-	1.41E+03
o-xylene	-	3.07E+03	-	7.03E+02	-	7.22E+02
m,p-xylene	-	2.74E+03	-	6.26E+02	-	6.45E+02
TPHs						
TPH-gas	-	4.34E+03	-	1.01E+03	-	8.43E+02
TPH-diesel	-	1.19E+03	-	2.75E+02	-	2.55E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.15E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.11E+05	-	4.85E+04
PAHs						
Acenaphthene	-	2.16E+04	-	5.63E+03	-	3.02E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.66E+01	1.14E+01	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	2.04E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.42E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.46E+01	2.04E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	8.16E+02	2.68E+03	1.87E+02	1.62E+01	1.94E+02
2-Methylnaphthalene	-	5.54E+02	-	1.33E+02	-	1.05E+02
Naphthalene	6.33E+01	6.15E+02	3.99E+02	1.42E+02	1.53E+00	1.41E+02
Phenanthrene	-	1.21E+04	-	3.20E+03	-	1.61E+03
Pyrene	-	1.24E+04	-	3.29E+03	-	1.63E+03

Table C-2
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.33 Acres (AOCs DD, FF, and M)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.47E+01	1.18E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	4.27E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	2.52E+03	3.06E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	1.44E+03	8.57E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.59E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	6.73E+02	3.33E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.22E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	4.15E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.53E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	2.33E+04	1.17E+02	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.53E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	5.55E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.18E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-3
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.5 Acres (AOCs LL and OO)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	7.70E+03	-	1.75E+03	-	1.85E+03
1,1-Dichloroethane	1.69E+02	7.69E+03	9.66E+02	1.76E+03	3.10E+00	1.72E+03
1,1-Dichloroethene	-	3.78E+02	-	8.59E+01	-	9.03E+01
1,2,3-Trichlorobenzene	-	3.07E+02	-	7.59E+01	-	4.00E+01
1,2,3-Trichloropropane	2.15E-01	2.14E+01	1.28E+00	4.86E+00	1.51E-03	5.13E+00
1,2,4-Trichlorobenzene	1.13E+03	2.59E+02	8.54E+03	5.92E+01	2.40E+01	5.95E+01
1,2,4-Trimethylbenzene	-	1.79E+03	-	4.22E+02	-	3.10E+02
1,2-Dichlorobenzene	-	9.50E+03	-	2.21E+03	-	1.86E+03
1,2-Dichloroethane	2.19E+01	1.49E+02	1.26E+02	3.39E+01	4.05E-01	3.42E+01
1,3-Dichlorobenzene	-	9.00E+03	-	2.09E+03	-	1.78E+03
1,4-Dichlorobenzene	1.17E+02	2.56E+04	6.64E+02	6.31E+03	2.14E+00	3.41E+03
2-Butanone (MEK)	-	2.19E+05	-	5.39E+04	-	2.92E+04
Acetone	-	7.15E+05	-	1.96E+05	-	6.23E+04
Benzene	1.48E+01	4.77E+01	8.49E+01	1.08E+01	2.72E-01	1.13E+01
Bromoform	8.46E+02	3.21E+03	5.17E+03	7.54E+02	1.61E+01	5.72E+02
Tert-butyl alcohol	-	2.33E+06	-	7.06E+05	-	1.56E+05
Carbon disulfide	-	3.79E+03	-	8.66E+02	-	8.47E+02
Carbon Tetrachloride	4.55E+00	2.63E+02	2.60E+01	6.06E+01	8.35E-02	5.57E+01
Chlorobenzene	-	1.37E+03	-	3.14E+02	-	2.87E+02
Chloroform	1.51E+01	1.11E+03	8.59E+01	2.59E+02	2.76E-01	2.16E+02
Chloromethane	-	5.09E+02	-	1.16E+02	-	1.18E+02
Ethylbenzene	2.59E+02	2.08E+04	1.50E+03	4.94E+03	4.79E+00	3.44E+03
Methylene chloride	2.65E+02	2.65E+03	1.55E+03	6.65E+02	1.87E+00	3.23E+02
Tetrachloroethene	2.72E+01	3.58E+02	1.74E+02	8.22E+01	5.31E-01	7.66E+01
Toluene	-	5.45E+03	-	1.25E+03	-	1.15E+03
Trichloroethene	6.38E+01	1.98E+01	3.71E+02	4.54E+00	9.38E-01	4.42E+00
Trichlorofluoromethane	-	5.64E+03	-	1.29E+03	-	1.31E+03
o-xylene	-	2.85E+03	-	6.49E+02	-	6.71E+02
m,p-xylene	-	2.54E+03	-	5.77E+02	-	5.99E+02
TPHs						
TPH-gas	-	4.05E+03	-	9.39E+02	-	7.97E+02
TPH-diesel	-	1.11E+03	-	2.54E+02	-	2.39E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.15E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.11E+05	-	4.85E+04
PAHs						
Acenaphthene	-	2.14E+04	-	5.56E+03	-	3.00E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.66E+01	1.14E+01	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	2.04E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.42E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.46E+01	2.04E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	7.58E+02	2.68E+03	1.73E+02	1.62E+01	1.80E+02
2-Methylnaphthalene	-	5.26E+02	-	1.25E+02	-	1.01E+02
Naphthalene	6.16E+01	5.73E+02	3.86E+02	1.31E+02	1.73E+00	1.31E+02
Phenanthrene	-	1.20E+04	-	3.19E+03	-	1.60E+03
Pyrene	-	1.23E+04	-	3.28E+03	-	1.63E+03

Table C-3
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
0.5 Acres (AOCs LL and OO)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.47E+01	1.18E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	4.27E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	2.52E+03	3.06E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	1.44E+03	8.57E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.59E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	6.73E+02	3.33E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.22E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	4.15E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.53E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	2.33E+04	1.17E+02	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.53E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	5.55E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.18E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-4
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
2 Acres (AOCs EE, G, MM, N, NN, and Z)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	6.04E+03	-	1.35E+03	-	1.46E+03
1,1-Dichloroethane	1.33E+02	6.07E+03	7.50E+02	1.37E+03	2.55E+00	1.38E+03
1,1-Dichloroethene	-	2.97E+02	-	6.65E+01	-	7.11E+01
1,2,3-Trichlorobenzene	-	2.59E+02	-	6.25E+01	-	3.64E+01
1,2,3-Trichloropropane	1.76E-01	1.68E+01	1.03E+00	3.76E+00	1.31E-03	4.03E+00
1,2,4-Trichlorobenzene	1.13E+03	2.04E+02	8.54E+03	4.59E+01	2.40E+01	4.74E+01
1,2,4-Trimethylbenzene	-	1.45E+03	-	3.36E+02	-	2.66E+02
1,2-Dichlorobenzene	-	7.59E+03	-	1.73E+03	-	1.55E+03
1,2-Dichloroethane	1.74E+01	1.17E+02	9.88E+01	2.63E+01	3.34E-01	2.72E+01
1,3-Dichlorobenzene	-	7.19E+03	-	1.64E+03	-	1.48E+03
1,4-Dichlorobenzene	9.17E+01	2.16E+04	5.15E+02	5.18E+03	1.75E+00	3.09E+03
2-Butanone (MEK)	-	1.84E+05	-	4.42E+04	-	2.64E+04
Acetone	-	6.57E+05	-	1.76E+05	-	6.04E+04
Benzene	1.17E+01	3.74E+01	6.61E+01	8.40E+00	2.24E-01	8.90E+00
Bromoform	7.07E+02	2.59E+03	4.22E+03	5.97E+02	1.38E+01	4.87E+02
Tert-butyl alcohol	-	2.33E+06	-	7.06E+05	-	1.56E+05
Carbon disulfide	-	2.99E+03	-	6.73E+02	-	6.80E+02
Carbon Tetrachloride	3.58E+00	2.09E+02	2.01E+01	4.73E+01	6.85E-02	4.54E+01
Chlorobenzene	-	1.08E+03	-	2.45E+02	-	2.35E+02
Chloroform	1.19E+01	8.91E+02	6.65E+01	2.04E+02	2.26E-01	1.80E+02
Chloromethane	-	4.00E+02	-	9.00E+01	-	9.35E+01
Ethylbenzene	2.07E+02	1.69E+04	1.18E+03	3.94E+03	3.97E+00	2.98E+03
Methylene chloride	2.13E+02	2.26E+03	1.22E+03	5.53E+02	1.87E+00	2.97E+02
Tetrachloroethene	2.36E+01	2.83E+02	1.47E+02	6.41E+01	4.69E-01	6.22E+01
Toluene	-	4.32E+03	-	9.80E+02	-	9.36E+02
Trichloroethene	5.10E+01	1.57E+01	2.91E+02	3.53E+00	9.38E-01	3.55E+00
Trichlorofluoromethane	-	4.44E+03	-	9.96E+02	-	1.04E+03
o-xylene	-	2.24E+03	-	5.03E+02	-	5.31E+02
m,p-xylene	-	1.99E+03	-	4.47E+02	-	4.73E+02
TPHs						
TPH-gas	-	3.23E+03	-	7.37E+02	-	6.62E+02
TPH-diesel	-	8.75E+02	-	1.98E+02	-	1.93E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.14E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.08E+05	-	4.85E+04
PAHs						
Acenaphthene	-	2.06E+04	-	5.30E+03	-	2.93E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.65E+01	6.93E+00	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	1.90E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.41E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.45E+01	1.90E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	5.97E+02	2.68E+03	1.34E+02	1.62E+01	1.42E+02
2-Methylnaphthalene	-	4.43E+02	-	1.03E+02	-	8.76E+01
Naphthalene	5.60E+01	4.56E+02	3.45E+02	1.03E+02	1.53E+00	1.06E+02
Phenanthrene	-	1.19E+04	-	3.15E+03	-	1.59E+03
Pyrene	-	1.23E+04	-	3.27E+03	-	1.62E+03

Table C-4
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
2 Acres (AOCs EE, G, MM, N, NN, and Z)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.43E+01	1.17E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	2.18E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	1.28E+03	2.05E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	7.30E+02	4.36E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.55E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	3.41E+02	2.05E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.21E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	3.59E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.52E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	1.18E+04	6.02E+01	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.52E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	3.41E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.10E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-5
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
3 Acres (AOCs H, J-K, and KK)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	5.64E+03	-	1.26E+03	-	1.36E+03
1,1-Dichloroethane	1.25E+02	5.68E+03	6.99E+02	1.28E+03	2.55E+00	1.30E+03
1,1-Dichloroethene	-	2.77E+02	-	6.19E+01	-	6.65E+01
1,2,3-Trichlorobenzene	-	2.46E+02	-	5.91E+01	-	3.54E+01
1,2,3-Trichloropropane	1.66E-01	1.57E+01	9.64E-01	3.50E+00	1.51E-03	3.77E+00
1,2,4-Trichlorobenzene	1.13E+03	1.91E+02	8.54E+03	4.28E+01	2.40E+01	4.45E+01
1,2,4-Trimethylbenzene	-	1.37E+03	-	3.15E+02	-	2.54E+02
1,2-Dichlorobenzene	-	7.13E+03	-	1.62E+03	-	1.47E+03
1,2-Dichloroethane	1.63E+01	1.10E+02	9.22E+01	2.45E+01	3.34E-01	2.55E+01
1,3-Dichlorobenzene	-	6.74E+03	-	1.53E+03	-	1.40E+03
1,4-Dichlorobenzene	8.58E+01	2.05E+04	4.80E+02	4.89E+03	1.75E+00	3.00E+03
2-Butanone (MEK)	-	1.75E+05	-	4.18E+04	-	2.57E+04
Acetone	-	6.41E+05	-	1.70E+05	-	5.98E+04
Benzene	1.10E+01	3.50E+01	6.17E+01	7.82E+00	2.24E-01	8.33E+00
Bromoform	6.71E+02	2.44E+03	3.98E+03	5.59E+02	1.38E+01	4.65E+02
Tert-butyl alcohol	-	2.33E+06	-	7.06E+05	-	1.56E+05
Carbon disulfide	-	2.80E+03	-	6.28E+02	-	6.39E+02
Carbon Tetrachloride	3.35E+00	1.96E+02	1.88E+01	4.41E+01	6.85E-02	4.28E+01
Chlorobenzene	-	1.02E+03	-	2.29E+02	-	2.21E+02
Chloroform	1.11E+01	8.37E+02	6.20E+01	1.90E+02	2.26E-01	1.71E+02
Chloromethane	-	3.74E+02	-	8.38E+01	-	8.76E+01
Ethylbenzene	1.94E+02	1.60E+04	1.10E+03	3.70E+03	3.97E+00	2.86E+03
Methylene chloride	2.00E+02	2.16E+03	1.14E+03	5.25E+02	1.87E+00	2.90E+02
Tetrachloroethene	2.27E+01	2.65E+02	1.40E+02	5.98E+01	4.69E-01	5.86E+01
Toluene	-	4.05E+03	-	9.14E+02	-	8.83E+02
Trichloroethene	4.79E+01	1.47E+01	2.72E+02	3.29E+00	9.38E-01	3.34E+00
Trichlorofluoromethane	-	4.15E+03	-	9.28E+02	-	9.77E+02
o-xylene	-	2.09E+03	-	4.68E+02	-	4.97E+02
m,p-xylene	-	1.86E+03	-	4.16E+02	-	4.43E+02
TPHs						
TPH-gas	-	3.04E+03	-	6.89E+02	-	6.27E+02
TPH-diesel	-	8.20E+02	-	1.85E+02	-	1.82E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.15E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.11E+05	-	4.85E+04
PAHs						
Acenaphthene	-	2.03E+04	-	5.22E+03	-	2.91E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.66E+01	1.14E+01	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	2.04E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.42E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.46E+01	2.04E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	5.59E+02	2.68E+03	1.25E+02	1.62E+01	1.33E+02
2-Methylnaphthalene	-	4.21E+02	-	9.79E+01	-	8.41E+01
Naphthalene	5.44E+01	4.28E+02	3.34E+02	9.61E+01	1.53E+00	9.95E+01
Phenanthrene	-	1.19E+04	-	3.14E+03	-	1.59E+03
Pyrene	-	1.23E+04	-	3.27E+03	-	1.62E+03

Table C-5
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
3 Acres (AOCs H, J-K, and KK)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.47E+01	1.18E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	4.27E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	2.52E+03	3.06E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	1.44E+03	8.57E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.59E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	6.73E+02	3.33E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.22E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	4.15E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.53E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	2.33E+04	1.17E+02	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.53E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	5.55E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.18E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-6
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
6.9 Acres (AOCs GG, HH, and O)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
VOCs						
1,1,1-Trichloroethane	-	4.93E+03	-	1.09E+03	-	1.19E+03
1,1-Dichloroethane	1.09E+02	4.99E+03	6.08E+02	1.11E+03	2.55E+00	1.15E+03
1,1-Dichloroethene	-	2.43E+02	-	5.38E+01	-	5.83E+01
1,2,3-Trichlorobenzene	-	2.23E+02	-	5.27E+01	-	3.33E+01
1,2,3-Trichloropropane	1.48E-01	1.37E+01	8.50E-01	3.04E+00	1.51E-03	3.30E+00
1,2,4-Trichlorobenzene	1.13E+03	1.67E+02	8.54E+03	3.72E+01	2.40E+01	3.92E+01
1,2,4-Trimethylbenzene	-	1.21E+03	-	2.76E+02	-	2.31E+02
1,2-Dichlorobenzene	-	6.29E+03	-	1.41E+03	-	1.32E+03
1,2-Dichloroethane	1.44E+01	9.60E+01	8.04E+01	2.13E+01	3.34E-01	2.25E+01
1,3-Dichlorobenzene	-	5.94E+03	-	1.34E+03	-	1.26E+03
1,4-Dichlorobenzene	7.51E+01	1.85E+04	4.17E+02	4.36E+03	1.75E+00	2.82E+03
2-Butanone (MEK)	-	1.58E+05	-	3.72E+04	-	2.41E+04
Acetone	-	6.07E+05	-	1.59E+05	-	5.86E+04
Benzene	9.63E+00	3.06E+01	5.37E+01	6.79E+00	2.24E-01	7.31E+00
Bromoform	6.04E+02	2.16E+03	3.53E+03	4.91E+02	1.38E+01	4.22E+02
Tert-butyl alcohol	-	2.33E+06	-	7.05E+05	-	1.56E+05
Carbon disulfide	-	2.45E+03	-	5.46E+02	-	5.64E+02
Carbon Tetrachloride	2.94E+00	1.72E+02	1.63E+01	3.85E+01	6.85E-02	3.81E+01
Chlorobenzene	-	8.93E+02	-	2.00E+02	-	1.97E+02
Chloroform	9.70E+00	7.39E+02	5.38E+01	1.66E+02	2.26E-01	1.54E+02
Chloromethane	-	3.28E+02	-	7.29E+01	-	7.71E+01
Ethylbenzene	1.71E+02	1.42E+04	9.61E+02	3.26E+03	3.97E+00	2.62E+03
Methylene chloride	1.77E+02	1.97E+03	9.99E+02	4.71E+02	1.87E+00	2.75E+02
Tetrachloroethene	2.08E+01	2.33E+02	1.27E+02	5.21E+01	4.69E-01	5.21E+01
Toluene	-	3.56E+03	-	7.97E+02	-	7.86E+02
Trichloroethene	4.22E+01	1.29E+01	2.38E+02	2.86E+00	9.38E-01	2.95E+00
Trichlorofluoromethane	-	3.63E+03	-	8.07E+02	-	8.59E+02
o-xylene	-	1.83E+03	-	4.07E+02	-	4.36E+02
m,p-xylene	-	1.63E+03	-	3.62E+02	-	3.89E+02
TPHs						
TPH-gas	-	2.68E+03	-	6.02E+02	-	5.63E+02
TPH-diesel	-	7.20E+02	-	1.61E+02	-	1.62E+02
SVOCs						
Diethyl Phthalate	-	4.23E+05	-	1.14E+05	-	4.85E+04
Dimethyl Phthalate	-	4.23E+05	-	1.08E+05	-	4.85E+04
PAHs						
Acenaphthene	-	1.98E+04	-	5.06E+03	-	2.87E+03
Benzo(a)pyrene	4.01E+00	1.23E+02	2.65E+01	6.93E+00	1.13E-01	1.63E+01
Benzo(g,h,i)perylene	-	8.31E+03	-	1.90E+03	-	1.09E+03
Fluoranthene	-	1.66E+04	-	4.41E+03	-	2.18E+03
Indeno(1,2,3-c,d)pyrene	9.70E+00	8.31E+03	6.45E+01	1.90E+03	3.91E-01	1.09E+03
1-Methylnaphthalene	4.01E+02	4.90E+02	2.68E+03	1.09E+02	1.62E+01	1.17E+02
2-Methylnaphthalene	-	3.80E+02	-	8.76E+01	-	7.73E+01
Naphthalene	5.11E+01	3.76E+02	3.11E+02	8.39E+01	1.53E+00	8.80E+01
Phenanthrene	-	1.18E+04	-	3.11E+03	-	1.59E+03
Pyrene	-	1.23E+04	-	3.26E+03	-	1.62E+03

Table C-6
Risk-Based Screening Levels for Soil Exposures (Ingestion, Dermal Contact, and Inhalation)
6.9 Acres (AOCs GG, HH, and O)
Chino Airport, Chino, California

	RBSLs (mg/kg)					
	Commercial worker		Construction worker		Hypothetical Resident	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Metals						
Arsenic	3.58E-01	4.25E+00	2.43E+01	1.17E+00	1.05E-01	3.98E-01
Barium	-	8.68E+05	-	2.18E+03	-	1.29E+05
Beryllium	6.95E+04	2.07E+02	1.28E+03	2.05E+01	1.59E+03	1.52E+01
Cadmium	3.97E+04	2.06E+04	7.30E+02	4.36E+01	9.09E+02	2.34E+03
Chromium III	-	1.56E+06	-	4.55E+05	-	1.14E+05
Cobalt	1.85E+04	3.10E+02	3.41E+02	2.05E+01	4.24E+02	2.27E+01
Copper	-	4.17E+04	-	1.21E+04	-	3.04E+03
Lead	-	3.20E+02	-	3.20E+02	-	8.00E+01
Mercury	-	1.67E+02	-	3.59E+01	-	1.22E+01
Molybdenum	-	5.21E+03	-	1.52E+03	-	3.80E+02
Nickel	6.42E+05	1.01E+04	1.18E+04	6.02E+01	1.47E+04	8.02E+02
Silver	-	5.21E+03	-	1.52E+03	-	3.80E+02
Vanadium	-	5.17E+03	-	3.41E+02	-	3.79E+02
Zinc	-	3.13E+05	-	9.10E+04	-	2.28E+04

Definitions:

mg/kg - milligrams per kilogram
AOC - area of concern
HQ - hazard quotient
PAH - polycyclic aromatic hydrocarbon
RBSL - risk-based screening level
SVOC - semi-volatile organic compound
TPH - total petroleum hydrocarbon
VOC - volatile organic compound

Table C-7
Risk-Based Screening Levels for Groundwater Protective of Indoor Air Inhalation On-Site
Chino Airport, Chino, California

	RBSLs (Groundwater, µg/L)			
	Commercial worker		Residential	
Chemical	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
Acetone	----	2.04E+09	----	2.43E+08
Benzene	3.62E+03	1.12E+04	4.14E+01	1.34E+03
tert-Butyl alcohol	----	8.19E+09	----	9.74E+08
Bromodichloromethane	4.05E+06	4.28E+08	4.63E+04	5.09E+07
Bromomethane	----	1.39E+07	----	1.65E+06
2-Butanone (Methyl ethyl ketone)	----	2.43E+08	----	2.90E+07
Carbon disulfide	----	1.72E+06	----	2.04E+05
Carbon tetrachloride	2.00E+03	1.20E+05	2.29E+01	1.43E+04
Chlorobenzene	----	2.39E+05	----	2.85E+04
Chloroform	4.93E+03	3.97E+05	5.65E+01	4.73E+04
1,1-Dichloroethane	6.47E+04	2.96E+06	7.41E+02	3.52E+05
1,1-Dichloroethene	----	1.74E+05	----	2.07E+04
cis-1,2-Dichloroethene	----	2.98E+04	----	3.55E+03
trans-1,2-Dichloroethene	----	3.00E+05	----	3.58E+04
1,3-Dichlorobenzene	----	1.21E+06	----	1.44E+05
1,2-Dichloroethane	6.08E+03	3.95E+04	6.96E+01	4.71E+03
1,2-Dichloropropane	1.34E+04	1.91E+04	1.53E+02	2.28E+03
1,4-Dioxane	1.67E+06	1.37E+07	1.91E+04	1.64E+06
Methylene chloride	9.90E+04	1.41E+06	4.04E+02	1.68E+05
Tetrachloroethene	1.69E+04	1.24E+05	1.93E+02	1.48E+04
Toluene	----	1.22E+06	----	1.45E+05
Trichloroethene	2.42E+04	7.09E+03	1.94E+02	8.44E+02
1,1,2,2-Tetrachloroethane	8.28E+03	1.37E+06	9.48E+01	1.63E+05
1,1,2-Trichloroethane	1.39E+04	1.59E+03	1.60E+02	1.90E+02
Trichlorofluoromethane	----	1.17E+06	----	1.39E+05
1,2,3-Trichloropropane	6.00E+01	4.82E+03	2.57E-01	5.74E+02

Definitions:

µg/L - micrograms per liter
RBSL - risk-based screening level
HQ - hazard quotient

Table C-8
Risk-Based Screening Levels for Groundwater Protective of Indoor Air Inhalation Off-Site
Chino Airport, Chino, California

Chemical	RBSLs (Groundwater, µg/L) Commercial worker Carcinogenic Risk = 10-5	RBSLs (Groundwater, µg/L) Commercial worker Non-carcinogenic HQ = 1
Acetone	----	9.67E+08
Bromomethane	----	2.58E+07
2-Butanone (MEK)	----	1.27E+08
Benzene	6.74E+03	2.09E+04
Carbon Disulfide	----	2.93E+06
Chloroform	9.04E+03	7.28E+05
1,1-Dichloroethane	1.21E+05	5.53E+06
1,2-Dichloroethane	9.21E+03	5.99E+04
1,1-Dichloroethene	----	2.67E+05
cis-1,2-Dichloroethene	----	5.54E+04
trans-1,2-Dichloroethene	----	5.58E+05
1,4-Dioxane	6.43E+05	5.30E+06
Methylene Chloride	1.81E+05	2.59E+06
tert-Butyl alcohol	----	3.26E+09
1,1,2-Trichloroethane	1.78E+04	2.04E+03
Trichloroethene	4.44E+04	1.30E+04
1,2,3-Trichloropropane	5.19E+01	4.17E+03
Trichlorofluoromethane	----	1.38E+06
1,1,2,2-Tetrachloroethane	6.87E+03	1.14E+06
Tetrachloroethene	2.98E+04	2.20E+05

Definitions:

µg/L - micrograms per liter
RBSL - risk-based screening level
HQ - hazard quotient

Table C-9
Risk-Based Screening Levels for Soil Gas Protective of Indoor Air Inhalation (On-Site)
Chino Airport, Chino, California

Chemical	RBSLs (Soil Gas, µg/m^3)			
	Commercial worker		Residential	
	Carcinogenic Risk = 10-5	Non-carcinogenic HQ = 1	Carcinogenic Risk = 10-6	Non-carcinogenic HQ = 1
1,1,1-Trichloroethane	----	8.80E+06	----	1.00E+06
1,1-Dichloroethane	1.54E+05	7.00E+06	1.80E+03	8.30E+05
1,1-Dichloroethene	----	6.20E+05	----	7.30E+04
1,2,3-Trichloropropane	3.20E+01	2.60E+03	1.40E-01	3.10E+02
1,2,4-Trimethylbenzene	----	5.20E+05	----	6.30E+04
1,3,5-Trimethylbenzene[1]	----	5.20E+05	----	6.30E+04
4-Ethyltoluene	----	8.80E+05	----	1.00E+05
Acetone	----	2.80E+08	----	3.20E+07
Benzene	8.40E+03	2.60E+04	9.70E+01	3.10E+03
Carbon disulfide	----	6.20E+06	----	7.30E+05
Carbon tetrachloride	5.80E+03	3.60E+05	6.70E+01	4.20E+04
Chloroform	1.06E+04	8.60E+05	1.20E+02	1.00E+05
Cyclohexane	----	5.20E+07	----	6.30E+06
Dichlorodifluoromethane	----	8.80E+05	----	1.00E+05
Ethylbenzene	9.80E+04	8.80E+06	1.10E+03	1.00E+06
n-Heptane[2]	----	3.60E+06	----	4.20E+05
n-Hexane	----	6.20E+06	----	7.30E+05
m-Xylene	----	8.80E+05	----	1.00E+05
Naphthalene	7.20E+03	2.60E+04	8.30E+01	3.10E+03
o-Xylene	----	8.80E+05	----	1.00E+05
p-Xylene	----	8.80E+05	----	1.00E+05
Propene	----	2.60E+07	----	3.10E+06
Tetrachloroethene	4.00E+04	3.60E+05	4.60E+02	4.20E+04
Tetrahydrofuran	----	1.76E+07	----	2.10E+06
Toluene	----	2.60E+06	----	3.10E+05
Trichloroethene	6.00E+04	1.76E+04	4.80E+02	2.10E+03
Trichlorofluoromethane	----	1.06E+07	----	1.30E+06
Xylenes	----	8.80E+05	----	1.00E+05

Definitions:

µg/m^3 - micrograms per cubic meter

RBSL - risk-based screening level

HQ - hazard quotient

Notes:

[1] 1,2,4-trimethylbenzene used as a surrogate for 1,3,5-trimethylbenzene.

[2] n-hexane used as a surrogate for n-heptane.

Table C-10
Summary of Site-Specific Risk-Based Screening Levels for Soil Gas - Residential Scenario
for Off-Site Residence on Euclid Street
Chino Airport, Chino, California

Chemical	Site-Specific Residential Risk-Based Screening Levels for Soil Gas ($\mu g/m^3$)[1]							
	(5 feet bgs)		(10 feet bgs)		(15 feet bgs)		(19 feet bgs)	
	Carcinogenic	Non-Carcinogenic	Carcinogenic	Non-Carcinogenic	Carcinogenic	Non-Carcinogenic	Carcinogenic	Non-Carcinogenic
Benzene	1.88E+02	6.00E+03	3.24E+02	1.04E+04	4.60E+02	1.47E+04	5.69E+02	1.82E+04
Carbon disulfide	----	1.24E+06	----	2.10E+06	----	2.96E+06	----	3.65E+06
Chloroform	2.62E+02	2.19E+05	4.58E+02	3.82E+05	6.55E+02	5.46E+05	8.12E+02	6.76E+05
Cyclohexane	----	1.33E+07	----	2.33E+07	----	3.32E+07	----	4.11E+07
Ethylbenzene	2.65E+03	2.41E+06	4.67E+03	4.24E+06	6.69E+03	6.08E+06	8.31E+03	7.55E+06
4-Ethyltoluene	----	2.41E+05	----	4.26E+05	----	6.10E+05	----	7.57E+05
n-Hexane	----	1.66E+06	----	2.92E+06	----	4.18E+06	----	5.18E+06
Propene	----	5.12E+06	----	8.66E+06	----	1.22E+07	----	1.50E+07
Tetrachloroethene	1.43E+03	1.31E+05	2.58E+03	2.36E+05	3.73E+03	3.40E+05	4.65E+03	4.24E+05
Tetrahydrofuran	----	3.79E+06	----	6.52E+06	----	9.24E+06	----	1.14E+07
Toluene (Methyl benzene)	----	6.71E+05	----	1.17E+06	----	1.67E+06	----	2.07E+06
Trichloroethene	1.15E+03	5.04E+03	2.03E+03	8.89E+03	2.91E+03	1.27E+04	3.61E+03	1.58E+04
1,2,4-Trimethylbenzene	----	1.68E+05	----	2.98E+05	----	4.29E+05	----	5.33E+05
1,3,5-Trimethylbenzene	----	1.69E+05	----	3.00E+05	----	4.32E+05	----	5.37E+05
o-Xylene	----	2.39E+05	----	4.22E+05	----	6.04E+05	----	7.50E+05
m,p-Xylenes	----	2.41E+05	----	4.26E+05	----	6.10E+05	----	7.57E+05
n-Heptane	----	9.57E+05	----	1.68E+06	----	2.40E+06	----	2.98E+06

Definitions:

$\mu g/m^3$ - micrograms per cubic meter

bgs - below ground surface

Notes:

---- = screening criteria not calculated as appropriate toxicity data not available.

[1] Derived by incorporating the site-specific residential soil gas attenuation factors summarized in Appendix B in the soil gas RBSL equation presented in T

APPENDIX D

TETRA TECH, INC.
DATA VALIDATION MEMORANDUM

TO: **Christie Espinoza, Engineer**

FROM: **Michael Wilson, Senior Chemist**

DATE: **November 28, 2014**

SUBJECT: **Data Validation Review for the Chino Airport Soil Remedial Investigation, Soil Sample Analyses Data Results from Triad Environmental Solution, Inc. Mobile Laboratory**

Introduction

This report summarizes the findings from data validation efforts conducted on one hundred percent of the sample data results for Chino Airport Soil Remedial Investigation. The validation guidance used in evaluating the data is presented in the current versions of *USEPA National Functional Guidelines for Inorganic Data Review* and *USEPA National Functional Guidelines for Organic Data Review*. The data were audited at a Level II effort. The Level II effort requires review of all applicable Quality Control (QC) sample results as it relates to the field data under review. Level II effort also determines the usability of the data based on the Data Quality Objectives (DQOs) for the project.

Executive Summary

The Triad data for the project were contained in multiple and daily Sample Delivery Groups (SDGs) and are associated with the soil sampling at Chino Airport.

The total data set consisted of 11,250 individual (per analyte) results from environmental samples analyses. There were over 600 individual QC records that supported the mobile lab's data quality. The number of samples per analytical method (or method group) is given below.

1. 1875 samples for Volatile Organic Compounds (VOC) by Method SW8265

The samples were logged into the lab under compliant Chain of Custody documentation with no exceptions noted. The samples were analyzed in one preparation batch per analytical method per SDG. All QC samples were reviewed and if the QC result caused the data to be qualified the reason for the qualification was identified.

The data showed the laboratory analyzed all samples in accordance with method guideline. All data is of known precision and accuracy and did not require any qualification and can be used as stated.

All data for this Chino sampling event were usable for their intended purpose.

Evaluation Criteria

The data were evaluated by results from the following Quality Control (QC) entities.

- Method Blanks
- Laboratory Control Samples
- Holding Times
- Surrogate Recovery (Organic Methods)
- Spiked and Field Duplicate Compliance
- Calibration Compliance
- Compound Identification
- Analytical Method Compliance

Chain-of-Custody (COC) forms were reviewed and no unresolved discrepancies were noted.

Evaluation of Accuracy, Precision, Representativeness, Comparability, and Completeness

1. Accuracy is established by reviewing spiked sample analysis. A blank spike (LCS) measures the accuracy of the instrument and the LCS results for this data set were found to be within control limits for greater than 95% of the LCS results. Therefore, accuracy for the project meets the Data Quality Objectives (DQO).
2. Precision is established by calculating the relative percent difference (RPD) values for matrix spike/matrix spike duplicate (MS/MSD) pairs and/or field duplicates. The RPD values calculated for the Chino project show that greater than 95% of the RPD calculated were within control limits. Therefore, the precision for the project meets the DQO.
3. Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted under approved work plans and by following established

standard operating procedures, the sampling is judged to have adequate representativeness. The DQO was met.

4. Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted EPA analytical methods. Because the EPA methods are constructed with comparability built into the methods, by using these approved analytical methods for the project, the data is comparable. The DQO was met.
5. Completeness is measured by determine the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This data set had no rejected data and all samples were analyzed as per the chains. Therefore, the data completeness is 100% which is above the 90% criterion. The DQO was met.

Validation Qualifiers and Comment Descriptors Definitions

Validation Qualifiers

B: The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

J: The analyte was positively identified, but the analyte concentration is an estimated value.

R: The sample result is rejected and not usable for any purpose. The presence or absence of the analyte cannot be verified.

U: The analyte was analyzed for, but was not detected above the MDL.

UJ: The analyte was not detected above the MDL. However, the MDL may be elevated above the reported detection limits.

Qualifier Descriptor Comments

a: The analyte was found in the method blank.

b: The surrogate spike recovery was outside control limits.

c: The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.

d: The Laboratory Control Sample (LCS) recovery was outside control limits.

e: A holding time violation occurred.

f: The duplicate samples Relative Percent Difference (RPD) was outside the control limit.

g: The datum met prescribed method criteria.

h: The method requires a confirmation result, but none was performed.

k: The analyte was found in a field blank.

l: The second column confirmation result indicates the analyte was not confirmed.

p: The result was qualified based on professional judgment.

q: The analyte detection was below the Practical Quantitation Limit (PQL).

r: The result is above the instrument's calibration range.

t: The sample temperature was outside acceptance criteria.

n: The laboratory case narrative indicated a QC problem.

1.0 Volatile Organic Compounds by Method SW8265

1.1 Method Blanks

The method blanks reported no detections of target analytes above the detection limit. One method blank was extracted for each preparation batch. The method blanks were compliant with the analytical method.

1.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

1.3 Holding Times

All extraction and analysis holding times were in compliance.

1.4 Surrogate Recovery

Surrogates recoveries are not used in this SW8265 analysis.

1.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and found there were all in compliance with the control limits.

1.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

1.7 Compound Identification

All reported compound detections were identified by the correct retention time.

1.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

1.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8265 are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

TETRA TECH, INC.
DATA VALIDATION MEMORANDUM

TO: **Christie Espinoza, Engineer**

FROM: **Michael Wilson, Senior Chemist**

DATE: **December 3, 2014**

SUBJECT: **Data Validation Review for the Chino Airport Soil Remedial Investigation, Soil Sample Analyses Data Results from Triad Environmental Solution, Inc. Mobile Laboratory.**

Introduction

This report summarizes the findings from data validation efforts conducted on one hundred percent of the sample data results for Chino Airport Soil Remedial Investigation. The validation guidance used in evaluating the data is presented in the current versions of *USEPA National Functional Guidelines for Inorganic Data Review* and *USEPA National Functional Guidelines for Organic Data Review*. The data were audited at a Level II effort. The Level II effort requires review of all applicable Quality Control (QC) sample results as it relates to the field data under review. Level II effort also determines the usability of the data based on the Data Quality Objectives (DQOs) for the project.

Executive Summary

The Triad data for the project were contained in multiple and daily Sample Delivery Groups (SDGs) and are associated with the soil sampling at Chino Airport.

The total data set consisted of 2,432 individual (per analyte) results from environmental samples analyses. There were over 400 individual QC records that supported the mobile lab's data quality. The number of samples per analytical method (or method group) is given below.

1. 1,216 samples for Total Petroleum Hydrocarbons (TPH) by Triad propriety methodology using Ultra Violet Fluorescence (UVF)

The samples were logged into the lab under compliant Chain of Custody documentation with no exceptions noted. The samples were analyzed in one preparation batch per analytical method per

SDG. All QC samples were reviewed and if the QC result caused the data to be qualified the reason for the qualification was identified.

The data showed the laboratory analyzed all samples in accordance with method guideline. All data is of known precision and accuracy and did not require any qualification and can be used as stated.

All data for this Chino sampling event were usable for their intended purpose.

Evaluation Criteria

The data were evaluated by results from the following Quality Control (QC) entities.

- Method Blanks
- Laboratory Control Samples
- Holding Times
- Surrogate Recovery (Organic Methods)
- Spiked and Field Duplicate Compliance
- Calibration Compliance
- Compound Identification
- Analytical Method Compliance

Chain-of-Custody (COC) forms were reviewed and no unresolved discrepancies were noted.

Analytical Method Description

The methodology used for the analysis of TPH in soil was developed by Triad and is based on UVF technology.

The UVF-3100A System is an ultra violet fluorescence (UVF) analysis of soil for the presence of petroleum related contamination. The basis of the UVF analysis is using UV light to induce fluorescence response from polyaromatic hydrocarbons (PAHs) present in extracts of soils containing petroleum contamination. The UVF-3100A System includes a portable fluorometer fitted with excitation and emission filters that are appropriate for TPH analysis of soil samples. The fluorometer uses a mercury vapor lamp as its light source. Light from the lamp is directed through

an excitation filter before it irradiates a sample extract held in a quartz cuvette. The UVF-3100A can separately measure TPH-g, extended TPH-d and total PAHs components of sample extracts.

Depending on the analysis being conducted (for example, TPH-g analysis), the fluorometer is fitted with an appropriate emission filter that corresponds to the wavelength at which the sample extract is expected to fluoresce. For TPH-g, an emission filter with a bandwidth of between 275 and 285 nanometers is used, for TPH-d and total PAHs, an emission filter with a bandwidth between 300 and 400 nanometers is used.

Based on the expected petroleum product contamination type at the Chino Airport site, the SiteLab fluorometer was calibrated for the analysis of soil samples for TPH-g and TPH-d. Calibration mixtures are used to calibrate the portable fluorometer were manufactured and provided by SiteLab, Inc. Once the instrument was calibrated, sample analyses were conducted. Normal operating procedures included a minimum of one continuing calibration standard analysis and one blank sample analysis for each batch of 20 field sample analyses.

Discrete soil samples (approximately 10 g) were collected from soil cores and placed in a pre-weighed vial containing 20 mL of methanol (MeOH). The sample was weighed to determine the soil sample weight. The extraction was conducted by shaking the soil and MeOH for approximately 2 minutes. The extract was then filtered (as needed), diluted if necessary and analyzed using the portable fluorometer. The concentration of the TPH-g or TPH-d was determined based on the calibration of the portable fluorometer conducted prior to samples analysis.

The majority of AOCs investigated as part of this RI were covered by asphalt. Asphalt is known to contain relatively large concentrations of PAH compounds. Over time, slightly acidic and repeated rain water can make mobile small amounts of PAH compounds such that the PAH compounds will infiltrate into the uppermost portions of the underlying soils. Because of the small amounts of PAH compounds which leached into the soil, when the sample is analyzed by fluorescence, the additional PAH contamination (from intrusion) will be additive to the native PAHs, and will give an exaggerated PAH concentration. Therefore, for the one and four- foot level, the TPH-g and TPH-d concentrations reported for some samples have overstated results.

Evaluation of Accuracy, Precision, Representativeness, Comparability, and Completeness

1. Accuracy is established by reviewing spiked sample analysis. A blank spike (LCS) measures the accuracy of the instrument and the LCS results for this data set were found to be within control limits for greater than 95% of the LCS results. Therefore, accuracy for the project meets the Data Quality Objectives (DQO).
2. Precision is established by calculating the relative percent difference (RPD) values for matrix spike/matrix spike duplicate (MS/MSD) pairs and/or field duplicates. The RPD values calculated for the project show that greater than 95% of the RPD calculated were within control limits. Therefore, the precision for the project meets the DQO.
3. Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted under approved work plans and by following established standard operating procedures, the sampling is judge to have adequate representativeness. The DQO was met.
4. Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted EPA analytical methods. Because the EPA methods are constructed with comparability built into the methods, by using these approved analytical methods for the project, the data is comparable. The DQO was met.
5. Completeness is measured by determine the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This data set had no rejected data and all samples were analyzed as per the chains. Therefore, the data completeness is 100% which is above the 90% criterion. The DQO was met.

Validation Qualifiers and Comment Descriptors Definitions

Validation Qualifiers

B: The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

J: The analyte was positively identified, but the analyte concentration is an estimated value.

R: The sample result is rejected and not usable for any purpose. The presence or absence of the analyte cannot be verified.

U: The analyte was analyzed for, but was not detected above the MDL.

UJ: The analyte was not detected above the MDL. However, the MDL may be elevated above the reported detection limits.

Qualifier Descriptor Comments

a: The analyte was found in the method blank.

b: The surrogate spike recovery was outside control limits.

c: The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.

d: The Laboratory Control Sample (LCS) recovery was outside control limits.

e: A holding time violation occurred.

f: The duplicate samples Relative Percent Difference (RPD) was outside the control limit.

g: The datum met prescribed method criteria.

h: The method requires a confirmation result, but none was performed.

k: The analyte was found in a field blank.

l: The second column confirmation result indicates the analyte was not confirmed.

p: The result was qualified based on professional judgment.

q: The analyte detection was below the Practical Quantitation Limit (PQL).

r: The result is above the instrument's calibration range.

t: The sample temperature was outside acceptance criteria.

n: The laboratory case narrative indicated a QC problem.

1.0 Total Petroleum Hydrocarbons by UVF Methodology

1.1 Method Blanks

The method blanks reported no detections of target analytes above the detection limit. One method blank was extracted for each preparation batch. The method blanks were compliant with the analytical method.

1.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

1.3 Holding Times

All extraction and analysis holding times were in compliance.

1.4 Surrogate Recovery

Surrogates recoveries are not used in this analysis

1.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and found there were all in compliance with the control limits.

1.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

1.7 Compound Identification

All reported compound detections were identified by the correct retention time.

1.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

1.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for UVF methodology are usable as reported. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

TETRA TECH, INC.
DATA VALIDATION MEMORANDUM

TO: **Christie Espinoza, Engineer**

FROM: **Michael Wilson, Senior Chemist**

DATE: **November 17, 2014**

SUBJECT: **Data Validation Review for the Chino Airport Soil Remedial Investigation, Sample Analyses Data Results from Eurofins Laboratory in Garden Grove, California**

Introduction

This report summarizes the findings from data validation efforts conducted on one hundred percent of the sample data results for Chino Airport Soil Remedial Investigation (RI). The validation guidance used in evaluating the data is presented in the current versions of *USEPA National Functional Guidelines for Inorganic Data Review* and *USEPA National Functional Guidelines for Organic Data Review.* The data were audited at a Level II effort. The Level II effort requires review of all applicable Quality Control (QC) sample results as it relates to the field data under review. Level II effort also determines the usability of the data based on the Data Quality Objectives (DQOs) for the project.

Executive Summary

The Eurofins data for the project were contained in multiple Sample Delivery Groups (SDGs) and are associated with the 2014 sampling of the soil at Chino Airport.

The total data set consisted of 23,517 individual (per analyte) results from environmental samples analyses. The number of samples per analytical method (or method group) is given below.

1. 135 samples for TPH Gasoline Range Organics (GRO) by Method SW8015B
2. 92 samples for Semi-Volatile Organic Compounds (SVOC) by Method SW8270C
3. 211 samples for Volatile Organic Compounds (VOC) by Method SW8260B
4. 135 samples for TPH Diesel Range Organics (DRO) by Method SW8015B
5. 102 samples for CAM 17 Metals by Methods SW6010B/SW7471

The samples were logged into the lab under compliant Chain of Custody documentation with no exceptions noted. The samples were analyzed in one or two preparation batch per analytical method per SDG. All QC samples were reviewed and if the QC result caused the data to be qualified the reason for the qualification was identified.

The data showed the laboratory analyzed all samples in accordance with method guidelines. The instances where qualification was required are listed below and explained under individual method sections. All other data is of known precision and accuracy and did not require any qualification and can be used as stated.

All data for this Chino sampling event were usable for their intended purpose.

Evaluation Criteria

The data were evaluated by results from the following Quality Control (QC) entities.

- Method/Field Blanks
- Laboratory Control Samples
- Holding Times
- Surrogate Recovery (Organic Methods)
- Spiked and Field Duplicate Compliance
- Calibration Compliance
- Compound Identification
- Analytical Method Compliance

Chain-of-Custody (COC) forms were reviewed and no unresolved discrepancies were noted.

Evaluation of Accuracy, Precision, Representativeness, Comparability, and Completeness

1. Accuracy is established by reviewing spiked sample analysis. A blank spike (LCS) measures the accuracy of the instrument and the LCS results for this data set were found to be within control limits for greater than 95% of the LCS results. Therefore, accuracy for the project meets the Data Quality Objectives (DQO).

2. Precision is established by calculating the relative percent difference (RPD) values for matrix spike/matrix spike duplicate (MS/MSD) pairs and/or field duplicates. The RPD values calculated for the RI show that greater than 95% of the RPD calculated were within control limits. Therefore, the precision for the project meets the DQO.
3. Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted under approved work plans and by following established SOPs, the sampling is judge to have adequate representativeness. The DQO was met.
4. Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted EPA analytical methods. Because the EPA methods are constructed with comparability built into the methods, by using these approved analytical methods for the project, the data is comparable. The DQO was met.
5. Completeness is measured by determine the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This data set had no rejected data and all samples were analyzed as per the chains. Therefore, the data completeness is 100% which is above the 90% criterion. The DQO was met.

Validation Qualifiers and Comment Descriptors Definitions

Validation Qualifiers

B: The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

J: The analyte was positively identified, but the analyte concentration is an estimated value.

R: The sample result is rejected and not usable for any purpose. The presence or absence of the analyte cannot be verified.

U: The analyte was analyzed for, but was not detected above the MDL.

UJ: The analyte was not detected above the MDL. However, the MDL may be elevated above the reported detection limits.

Qualifier Descriptor Comments

a: The analyte was found in the method blank.

b: The surrogate spike recovery was outside control limits.

c: The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.

d: The Laboratory Control Sample (LCS) recovery was outside control limits.

e: A holding time violation occurred.

f: The duplicate samples Relative Percent Difference (RPD) was outside the control limit.

g: The datum met prescribed method criteria.

h: The method requires a confirmation result, but none was performed.

k: The analyte was found in a field blank.

l: The second column confirmation result indicates the analyte was not confirmed.

p: The result was qualified based on professional judgment.

q: The analyte detection was below the Practical Quantitation Limit (PQL).

r: The result is above the instrument's calibration range.

t: The sample temperature was outside acceptance criteria.

n: The laboratory case narrative indicated a QC problem.

1.0 Gasoline Range Organics by Method SW8015B

1.1 Method/Field Blanks

The method blanks and field blanks reported no detections of target analytes above the detection limit. One method blank was extracted for each preparation batch. The method blanks were compliant with the analytical method.

1.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

1.3 Holding Times

All extraction and analysis holding times were in compliance.

1.4 Surrogate Recovery

Surrogates were recovered within control limits.

1.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and found there were all in compliance with the control limits.

1.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

1.7 Compound Identification

All reported compound detections were identified by the correct retention time.

1.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

1.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8015B are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

2.0 Semi-Volatile Organic Compounds by Method SW8270C

2.1 Method/Field Blanks

The method and field blanks showed one instances of blank contamination such that 0.015% (1 of 6532) the data were qualified for blank contamination and assigned a "B" qualifier. The analyte that caused the blank qualification was Diethyl Phthalate.

There were also many instances where Dimethyl Phthalate was detected but are probably undocumented blank contamination. - The Dimethyl Phthalate detections in the soil samples are likely due to cross contamination stemming from laboratory preparation procedures. Because the Phthalate detections were consistent at the same low level across many samples it is suspected that the Phthalate source was not native to the sample itself. If the Phthalate was present in the native

soil then natural weathering of Phthalate would give non-consistent detections of Phthalates. Additionally, Phthalates are known common lab contaminates for this method.

2.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits.

2.3 Holding Times

All extraction and analysis holding times were met.

2.4 Surrogate Recovery

All surrogate recoveries were within control limits.

2.5 Spiked and Field Duplicate Compliance

The matrix spike/matrix spike duplicate analyses were performed and were in compliance with the control limits.

2.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

2.7 Compound Identification

All reported compound detections were identified by the mass spectra results.

2.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

2.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8270C are usable as reported. The target analyte identifications are considered correct and reliable The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

3.0 Volatile Organic Compounds (VOCs) by Method SW8260B

3.1 Method/Field Blanks

The method/field blanks reported several detection of target analytes above the detection limit. Because of this there were 0.5% (81 out of 14981) analyte qualified for blank contamination and assigned a "B" qualifier. The target analytes associated with the blank contamination are stated below.

- Method blank contamination by carbon disulfide qualified one results out of 1 out of 14981 (0.007%) as estimated because of uncertainty with the blank.
- Method blank contamination by chloromethane qualified three results out of 14981 (0.02%) as estimated because of uncertainty with the blank.
- Method blank contamination by benzene qualified five results out of 14981 (0.03%) as estimated because of uncertainty with the blank.
- Method blank contamination by toluene qualified twenty eight results out of 14981 (0.19%) as estimated because of uncertainty with the blank.
- Method blank contamination by acetone qualified forty three results out of 14981 (0.29%) as estimated because of uncertainty with the blank.

3.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits.

3.3 Holding Times

All extraction and analysis holding times were met.

3.4 Surrogate Recovery

All surrogate recoveries were within control limits.

3.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and found they were in compliance with the control limits.

3.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

3.7 Compound Identification

All reported compound detections were identified by the correct retention time and mass spectra.

3.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

3.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8260B are usable as reported. The target analyte identifications are considered correct and reliable The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

4.0 Diesel Range Organics by Method SW8015B

4.1 Method/Field Blanks

The field blanks reported detections of target analytes above the detection limit. Because of this there were DRO analytes qualified for blank contamination and assigned a "B" qualifier as outlined below.

- Method blank contamination by DRO qualified eleven results out of 135 (8.1%) as estimated because of uncertainty with the blank.

4.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

4.3 Holding Times

All extraction and analysis holding times were met.

4.4 Surrogate Recovery

All surrogates were recovered within control limits.

4.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and were in compliance with the control limits.

4.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

4.7 Compound Identification

All compounds were correctly identified by correct retention times..

4.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

4.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8015B are usable as reported. The target analyte identifications are considered correct and reliable The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

5.0 CAM 17 Metals by Method SW6010B/SW7471A

5.1 Method/Field Blanks

The method blanks and field blanks reported no detection of a target analyte. One method blank was extracted for each preparation batch.

5.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

5.3 Holding Times

All extraction and analysis holding times were met.

5.4 Surrogate Recovery

This method does not use surrogates.

5.5 Spiked and Field Duplicate Compliance

The matrix spike/matrix spike duplicate analyses and duplicate analysis were performed there were a few RPD failures. The RPD failures caused 0.7 % of the data to be qualified as estimated and assigned a “J” qualifier.

5.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

5.7 Compound Identification

All extraction and analysis holding times were met.

5.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

5.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW6010B/SW7471A are usable as reported and qualified. The target analyte identifications are considered correct and reliable The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

TETRA TECH, INC.
DATA VALIDATION MEMORANDUM

TO: **Christie Espinoza, Engineer**

FROM: **Michael Wilson, Senior Chemist**

DATE: **December 10, 2014**

SUBJECT: **Data Validation Review for the Chino Airport Soil Remedial Investigation, Soil Sample Analyses Data Results from American Environmental Testing Laboratory (AETL) in Burbank, California**

Introduction

This report summarizes the findings from data validation efforts conducted on one hundred percent of the sample data results for Chino Airport Soil Remedial Investigation encompassing soil gas sampling and analysis. The validation guidance used in evaluating the data is presented in the current versions of *USEPA National Functional Guidelines for Inorganic Data Review* and *USEPA National Functional Guidelines for Organic Data Review.* The data were audited at a Level II effort. The Level II effort requires review of all applicable Quality Control (QC) sample results as it relates to the field data under review. Level II effort also determines the usability of the data based on the Data Quality Objectives (DQOs) for the project.

Executive Summary

The AETL data for the project were contained in multiple Sample Delivery Groups (SDGs) and are associated with the 2014 sampling of the soil gas at Chino Airport.

The total data set consisted of 1,905 individual (per analyte) results from environmental samples analyses. The number of samples per analytical method (or method group) is given below.

1. Twenty eight samples for Volatile Organic Compounds (soil gas) by Method TO-15

The samples were logged into the lab under compliant Chain of Custody documentation with no exceptions noted. The samples were analyzed in one or two preparation batch per analytical method per SDG. All QC samples were reviewed and if the QC result caused the data to be qualified the reason for the qualification was identified.

The data showed the laboratory analyzed all samples in accordance with method guidelines. The instances where qualification (if any) was required are listed below and explained under individual method sections. All other data is of known precision and accuracy and did not require any qualification and can be used as stated.

All data for this sampling event were usable for their intended purpose and no data needed to be qualified.

Evaluation Criteria

The data were evaluated by results from the following Quality Control (QC) entities.

- Method/Field Blanks
- Laboratory Control Samples
- Holding Times
- Surrogate Recovery (Organic Methods)
- Spiked and Field Duplicate Compliance
- Calibration Compliance
- Compound Identification
- Analytical Method Compliance

Chain-of-Custody (COC) forms were reviewed and no unresolved discrepancies were noted.

Evaluation of Accuracy, Precision, Representativeness, Comparability, and Completeness

1. Accuracy is established by reviewing spiked sample analysis. A blank spike (LCS) measures the accuracy of the instrument and the LCS results for this data set were found to be within control limits for greater than 95% of the LCS results. Therefore, accuracy for the project meets the Data Quality Objectives (DQO).
2. Precision is established by calculating the relative percent difference (RPD) values for matrix spike/matrix spike duplicate (MS/MSD) pairs and/or field duplicates. The RPD values calculated for the project show that greater than 95% of the RPD calculated were within control limits. Therefore, the precision for the projects meets the DQO.

3. Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted under approved work plans and by following established standard operating procedures, the sampling is judge to have adequate representativeness. The DQO was met.
4. Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted EPA analytical methods. Because the EPA methods are constructed with comparability built into the methods, by using these approved analytical methods for the project, the data is comparable. The DQO was met.
5. Completeness is measured by determine the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This data set had no rejected data and all samples were analyzed as per the chains. Therefore, the data completeness is 100% which is above the 90% criterion. The DQO was met.

Validation Qualifiers and Comment Descriptors Definitions

Validation Qualifiers

B: The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

J: The analyte was positively identified, but the analyte concentration is an estimated value.

R: The sample result is rejected and not usable for any purpose. The presence or absence of the analyte cannot be verified.

U: The analyte was analyzed for, but was not detected above the MDL.

UJ: The analyte was not detected above the MDL. However, the MDL may be elevated above the reported detection limits.

Qualifier Descriptor Comments

a: The analyte was found in the method blank.

b: The surrogate spike recovery was outside control limits.

c: The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.

d: The Laboratory Control Sample (LCS) recovery was outside control limits.

e: A holding time violation occurred.

f: The duplicate samples Relative Percent Difference (RPD) was outside the control limit.

g: The datum met prescribed method criteria.

h: The method requires a confirmation result, but none was performed.

k: The analyte was found in a field blank.

l: The second column confirmation result indicates the analyte was not confirmed.

p: The result was qualified based on professional judgment.

q: The analyte detection was below the Practical Quantitation Limit (PQL).

r: The result is above the instrument's calibration range.

t: The sample temperature was outside acceptance criteria.

n: The laboratory case narrative indicated a QC problem.

1.0 Volatile Organic Compounds by Method TO-15

1.1 Method/Field Blanks

The method blanks and field blanks reported no detections of target analytes above the detection limit. One method blank was extracted for each preparation batch. The method blanks were compliant with the analytical method.

1.2 Laboratory Control Samples

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

1.3 Holding Times

All extraction and analysis holding times were in compliance.

1.4 Surrogate Recovery

Surrogates were recovered within control limits.

1.5 Spiked and Field Duplicate Compliance

The MS/MSD analyses were performed and found there were all in compliance with the control limits.

1.6 Calibration Compliance

The calibration of the analytical instrument met criteria.

1.7 Compound Identification

All reported compound detections were identified by the correct retention time and mass spectra.

1.8 Analytical Method Compliance

The Level II data review showed the data to be method compliant.

1.9 Conclusions

Based on the results of this Level II Data Validation effort, it is concluded that the data for method TO-15 are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

APPENDIX E

Table E.1
Chino Airport Consolidation Table: Volatile Organic Compounds in Soil (DSITMS)
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
EE	B107	1-57	B107 EE-1	1	7/24/2014	< 18	< 18	< 18	< 18	< 18	< 18
			B107 EE-4	4	7/24/2014	< 20	< 20	< 20	< 20	< 20	< 20
			B107 EE-7	7	7/24/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B107 EE-10	10	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-14	14	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-18	18	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-20	20	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B107 EE-23	23	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B107 EE-25	25	7/24/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B107 EE-28	28	7/24/2014	< 13	10 J	< 13	< 13	< 13	< 13
			B107 EE-31.5	31.5	7/24/2014	< 12	23	< 12	< 12	< 12	< 12
			B107 EE-35	35	7/24/2014	< 12	6 J	< 12	< 12	< 12	< 12
			B107 EE-38	38	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B107 EE-42	42	7/24/2014	< 10	8 J	< 10	< 10	< 10	< 10
			B107 EE-45	45	7/24/2014	< 11	13	< 11	< 11	< 11	< 11
			B107 EE-48.5	48.5	7/24/2014	< 10	17	< 10	< 10	< 10	< 10
			B107 EE-52	52	7/24/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B107 EE-55	55	7/24/2014	< 12	7 J	< 12	< 12	< 12	< 12
			B107 EE-56-57	56-57	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
EE	B108	1-38	B108 EE-1	1	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-4	4	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-7	7	7/24/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B108 EE-10	10	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-13	13	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-16	16	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B108 EE-18	18	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-20.5	20.5	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B108 EE-24	24	7/24/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B108 EE-25	25	7/24/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B108 EE-29	29	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B108 EE-30	30	7/24/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B108 EE-33	33	7/24/2014	< 12	< 12	11 J	< 12	< 12	< 12
			B108 EE-35.5	35.5	7/24/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B108 EE-37-38	37-38	7/24/2014	< 20	< 20	< 20	< 20	< 20	< 20
EE	B109	1-40	B109 EE-1	1	7/24/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B109 EE-4	4	7/24/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B109 EE-10	10	7/25/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B109 EE-11	11	7/25/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B109 EE-13	13	7/25/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B109 EE-19.5	19.5	7/25/2014	< 19	< 19	< 19	< 19	< 19	< 19
			B109 EE-23	23	7/25/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B109 EE-26	26	7/25/2014	< 11	16	< 11	< 11	< 11	< 11
			B109 EE-31	31	7/25/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B109 EE-33	33	7/25/2014	< 13	40	< 13	< 13	< 13	< 13
			B109 EE-37	37	7/25/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B109 EE-7-8	7-8	7/25/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B109 EE-39-40	39-40	7/25/2014	< 12	13	< 12	< 12	< 12	< 12

Table E.1
Chino Airport Consolidation Table: Volatile Organic Compounds in Soil (DSITMS)
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
EE	B122	1-40	B122 EE-1	1	7/28/2014	< 17	< 17	< 17	< 17	< 17	< 17
			B122 EE-4	4	7/28/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B122 EE-7	7	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B122 EE-10	10	7/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B122 EE-13	13	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-16	16	7/28/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B122 EE-18	18	7/28/2014	< 12	12 J	< 12	< 12	< 12	< 12
			B122 EE-23.5	23.5	7/28/2014	< 11	6 J	< 11	< 11	< 11	< 11
			B122 EE-26	26	7/28/2014	< 12	19	< 12	< 12	< 12	< 12
			B122 EE-30.5	30.5	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B122 EE-32	32	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-36	36	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B122 EE-20.5-21.5	20.5-21.5	7/28/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B122 EE-39-40	39-40	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
G	B18	1-61	B18 G-01	1	7/2/2014	< 19	< 19	< 19	< 19	< 48	< 19
			B18 G-04	4	7/2/2014	< 15	< 15	< 15	< 15	< 37	< 15
			B18 G-07	7	7/2/2014	< 12	< 12	< 12	< 12	< 29	< 12
			B18 G-09	9	7/2/2014	< 10	< 10	< 10	< 10	< 26	< 10
			B18 G-11	11	7/2/2014	< 12	< 12	< 12	< 12	< 31	< 12
			B18 G-15	15	7/2/2014	< 14	< 14	< 14	< 14	< 34	< 14
			B18 G-17.5	17.5	7/2/2014	< 12	< 12	< 12	< 12	< 3	< 12
			B18 G-19	19	7/2/2014	< 12	< 12	< 12	< 12	< 29	< 12
			B18 G-22	22	7/2/2014	< 12	< 12	< 12	< 12	< 3	< 12
			B18 G-24.5	24.5	7/2/2014	< 11	< 11	< 11	< 11	< 28	< 11
			B18 G-27.5	27.5	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-29	29	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-30	30	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-33-34	33-34	7/2/2014	< 14	< 14	< 14	< 14	< 36	< 14
			B18 G-36	36	7/2/2014	< 22	< 22	< 22	< 22	< 54	< 22
			B18 G-37	37	7/2/2014	< 12	< 12	< 12	< 12	41	< 12
			B18 G-39	39	7/2/2014	< 16	< 16	< 16	< 16	< 4	< 16
			B18 G-41	41	7/2/2014	< 13	< 13	< 13	< 13	< 33	< 13
			B18 G-44	44	7/2/2014	< 16	< 16	< 16	< 16	< 4	< 16
			B18 G-47.5	47.5	7/2/2014	< 11	< 11	< 11	< 11	93	< 11
			B18 G-49.5	49.5	7/2/2014	< 12	< 12	< 12	< 12	110	< 12
			B18 G-53	53	7/2/2014	< 11	< 11	< 11	< 11	87	< 11
			B18 G-55	55	7/2/2014	< 13	< 13	< 13	< 13	150	< 13
			B18 G-58	58	7/2/2014	< 11	< 11	< 11	< 11	92	< 11
			B18 G-61	61	7/2/2014	< 13	< 13	< 13	< 13	< 32	< 13

Table E.1
Chino Airport Consolidation Table: Volatile Organic Compounds in Soil (DSITMS)
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
H	B155	9-56	B155 H-9	9	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B155 H-12	12	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-15	15	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-16	16	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-21	21	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-26	26	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-28	28	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B155 H-29	29	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-32	32	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B155 H-32.5	32.5	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B155 H-36.5	36.5	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-35-36	35-36	8/1/2014	< 13	< 13	< 13	< 13	3 J	< 13
			B155 Hd-38	38	8/4/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-42	42	8/4/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B155 H-43	43	8/4/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B155 H-47.5	47.5	8/4/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B155 H-48	48	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-51	51	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-51.5	51.5	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-54	54	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B155 H-56	56	8/4/2014	< 11	< 11	< 11	< 11	< 11	< 11
H	B156	1-54	B156 H-6	6	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B156 H-9	9	8/1/2014	< 6	< 6	< 6	< 6	< 6	< 6
			B156 H-12	12	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-15	15	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-16.5	16.5	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B156 H-19	19	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-22.5	22.5	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B156 H-24	24	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B156 H-28	28	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B156 H-31.5	31.5	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B156 H-35	35	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-38	38	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B156 H-39	39	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B156 H-39.5	39.5	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-42-43	42-43	8/1/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B156 H-45	45	8/1/2014	< 11	< 11	< 11	< 11	< 11	6 J
			B156 H-48	48	8/1/2014	< 10	< 10	< 10	< 10	< 10	< 10
			B156 H-52	52	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B156 H-53-54	53-54	8/1/2014	< 10	< 10	< 10	< 10	< 10	< 10

Table E.1
Chino Airport Consolidation Table: Volatile Organic Compounds in Soil (DSITMS)
Chino Airport, Chino, California

AOC	Boring ID	Sampling Interval (feet bgs)	Sample ID	Depth (feet)	Date Sampled	1,2-Dichloroethane + Vinyl Chloride	Total Dichloroethenes	Trichloroethene	Tetrachloroethene	1,2,3-trichloropropane	1,1,1-trichloroethane
HH	B120	1-20	B120 HH-1	1	7/28/2014	< 16	< 16	< 16	< 16	< 16	< 16
			B120 HH-4	4	7/28/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B120 HH-8	8	7/28/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B120 HH-9.5	9.5	7/28/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B120 HH-12	12	7/28/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B120 HH-14	14	7/28/2014	< 12	< 12	7 J	< 12	< 12	< 12
			B120 HH-17.5	17.5	7/28/2014	< 11	< 11	5 J	< 11	< 11	< 11
			B120 HH-20	20	7/28/2014	< 11	< 11	< 11	< 11	< 11	< 11
HH	B128	1-34	B128 HH-1	1	7/29/2014	< 14	< 14	18	< 14	< 14	< 14
			B128 HH-4	4	7/29/2014	< 13	< 13	< 13	< 13	< 13	< 13
			B128 HH-7	7	7/29/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B128 HH-9	9	7/29/2014	< 11	< 11	< 11	< 11	< 11	< 11
			B128 HH-12	12	7/29/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B128 HH-13.5	13.5	7/29/2014	< 12	< 12	9 J	< 12	< 12	< 12
			B128 HH-18.5	18.5	7/29/2014	< 12	< 12	6 J	< 12	< 12	< 12
			B128 HH-20	20	7/29/2014	< 12	< 12	16	< 12	< 12	< 12
			B128 HH-20 Dup	20	8/1/2014	< 11	< 11	0.004 J	< 11	< 11	< 11
			B128 HH-24	24	8/1/2014	< 12	< 12	23	< 12	< 12	< 12
			B128 HH-26	26	8/1/2014	< 15	< 15	< 15	< 15	< 15	< 15
			B128 HH-28	28	8/1/2014	< 12	< 12	< 12	< 12	< 12	< 12
			B128 HH-30	30	8/1/2014	< 12	< 12	5 J	< 12	< 12	< 12
			B128 HH-32	32	8/1/2014	< 14	< 14	< 14	< 14	< 14	< 14
			B128 HH-34	34	8/1/2014	< 13	< 13	< 13	< 13	< 13	< 13
Investigation Goal (IG)						0.69	2.5	1.8	2.3	5.0	70

Acronyms and Abbreviations:

AOC - Area of Concern

DSITMS - Direct sampling ion trap mass spectrometry

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

Notes:

All concentrations are in micrograms per kilogram (µg/kg).

Gray shading indicates compound was not detected in sample.

Yellow highlighting indicates concentration is above the IG.

Key:

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
DD	B101	1-20	B101 DD-1	1	26	<1.0
			B101 DD-4	4	12	<1.0
			B101 DD-7	7	0.71	<1.0
	B102	1-20	B102 DD-1	1	274	<100
			B102 DD-4	4	13	<1.0
	B103	1-20	B103 DD-1	1	645	<50.0
			B103 DD-4	4	21	<1.0
	B104	1-20	B104 DD-1	1	370	<50.0
			B104 DD-4	4	43	<10.0
			B104 DD-7	7	0.33	<1.0
	B105	1-20	B105 DD-1	1	159	<10
			B105 DD-4	4	5.2	<1.0
			B105 DD-8	8	2.3	<1.0
	B106	1-20	B106 DD-1	1	213	<10
EE	B93	1-36	B93 EE-1	1	46	<10.0
			B93 EE-4	4	96	<10.0
			B93 EE-7	7	4.8	<1.0
			B93 EE-10	10	0.24	<1.0
			B93 EE-13	13	0.68	<10.0
			B93 EE-16	16	3.3	<10.0
	B94	1-38	B94 EE-1	1	7.5	<10.0
			B94 EE-4	4	4.4	<1.0
			B94 EE-10	10	0.29	<1.0
			B94 EE-18	18	0.51	<1.0
	B95	1-37	B95 EE-1	1	3.2	<10.0
			B95 EE-4	4	0.46	<1.0
			B95 EE-7	7	0.20	<1.0
			B95 EE-35	35	0.28	<1.0
			B95 EE-36-37	36-37	0.37	<1.0
	B98	1-40	B98 EE-1	1	8.0	<10.0
			B98 EE-26	26	<0.20	1.8
			B98 EE-32.5	32.5	0.18	<1.0
	B99	1-66.5	B99 EE-1	1	31	<10.0
			B99 EE-4	4	0.33	<1.0
			B99 EE-7	7	0.64	<1.0
			B99 EE-12	12	9.9	1.7
			B99 EE-16	16	9.8	1.8
			B99 EE-24	24	1.6	<1.0
	B100	1-37	B100 EE-1	1	280	<100
			B100 EE-8	8	50	<1.0
	B107	1-57	B107 EE-1	1	5.0	<10
			B107 EE-7	7	0.28	<1.0
			B107 EE-48.5	48.5	0.17	<1.0
	B108	1-38	B108 EE-1	1	80	<10
			B108 EE-10	10	0.57	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
EE	B109	1-40	B109 EE-1	1	63	<10
			B109 EE-4	4	1.1	<1.0
	B110	1-38	B110 EE-1	1	122	<10
			B110 EE-4-5	4-5	3.9	<1.0
	B111	1-59.5	B111 EE-7	7	0.28	<1.0
			B111 EE-14	14	9.7	2.9
			B111 EE-17.5	17.5	3.8	<1.0
			B111 EE-22	22	0.46	<1.0
	B112	1-34.5	B112 EE-1	1	2.8	<10
			B112 EE-12	12	0.25	<1.0
			B112 EE-28	28	1.0	<1.0
	B121	1-36	B121 EE-1	1	3.9	<10
			B121 EE-4	4	0.43	<1.0
			B121 EE-7	7	<0.2	3.6
			B121 EE-10	10	<0.2	2.3
	B122	1-40	B122 EE-1	1	22	<10
			B122 EE-7	7	0.43	<1.0
	B123	1-39	B123 EE-1	1	7.2	<10
			B123 EE-4	4	2.8	<1.0
			B123 EE-7	7	0.23	<1.0
			B123 EE-10	10	0.47	<1.0
G	B01	1-40	B01 G-01	1	6.0	<50.0
			B01 G-04	4	45	2.1
			B01 G-13	13	<0.10	0.47
			B01 G-40	40	<0.10	0.81
	B02	1-40	B02 G-01	1	26	<0.50
			B02 G-04	4	2.1	1.7
			B02 G-07	7	<0.10	1.1
			B02 G-16	16	<0.10	0.89
			B02 G-34.5	34.5	<0.10	1.7
			B02 G-40	40	<0.10	1.7
	B03	1-40	B03 G-01	1	3.3	2.0
			B03 G-04	4	4.0	3.6
			B03 G-07	7	<0.10	1.1
			B03 G-10	10	<0.10	0.81
			B03 G-14	14	<0.10	1.9
			B03 G-19	19	<0.10	0.85
			B03 G-26-27	26-27	<0.10	1.1
			B03 G-30	30	<0.10	1.4

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
G	B04	1-40	B04 G-01	1	25	0.97
			B04 G-04	4	1.1	3.0
			B04 G-07	7	<0.10	2.4
			B04 G-17	17	<0.10	3.1
			B04 G-30	30	<0.10	0.72
	B05	1-40	B05 G-01	1	1.7	1.4
			B05 G-04	4	1.7	<0.50
	B15	1-61	B15 G-01	1	100	<50.0
			B15 G-08	8	0.090	0.82
			B15 G-12	12	<0.10	6.4
			B15 G-13	13	<0.10	0.77
			B15 G-41.5	41.5	<0.10	1.6
	B16	1-40	B16 G-01	1	38	<0.50
			B16 G-04	4	20	9.7
			B16 G-07	7	<0.10	1.3
			B16 G-13	13	0.11	0.74
			B16 G-19	19	<0.10	0.81
			B16 G-30.5	30.5	<0.10	0.55
	B17	1-40	B17 G-01	1	61	<50.0
			B17 G-04	4	2.8	1.9
			B17 G-07	7	<0.10	0.79
			B17 G-12.5	12.5	<0.10	1.5
			B17 G-15	15	<0.10	2.9
			B17 G-18.5	18.5	<0.10	4.5
			B17 G-21.5	21.5	<0.10	1.4
			B17 G-27	27	<0.10	1.4
			B17 G-31	31	<0.10	0.45
			B17 G-33	33	<0.10	1.1
			B17 G-38.5	38.5	<0.10	1.0
	B18	1-61	B18 G-01	1	2.2	<0.50
			B18 G-04	4	4.0	8.8
			B18 G-09	9	<0.10	0.50
			B18 G-11	11	<0.10	2.2
			B18 G-15	15	<0.10	0.78
			B18 G-17.5	17.5	<0.10	8.7
			B18 G-19	19	<0.10	1.2
			B18 G-29	29	<0.10	0.76
			B18 G-33-34	33-34	<0.10	0.72
			B18 G-61	61	<0.10	0.60
	B24	1-49	B24 G-1	1	38	<0.50
			B24 G-4	4	13	<0.50
			B24 G-7	7	1.8	<1.0
			B24 G-47	47	<0.10	2.2

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
G	B25	1-59	B25 G-01	1	499	<50.0
			B25 G-08	8	4.9	<0.50
			B25 G-35	35	14	<0.50
			B25 G-36	36	5.5	<0.50
			B25 G-40	40	<0.10	0.76
			B25 G-47	47	<0.10	0.70
			B25 G-50	50	<0.10	2.9
			B25 G-54	54	<0.10	1.7
	B26	1-59.5	B26 G-1	1	0.95	<0.50
			B26 G-47	47	<0.10	2.3
	B27	1-62	B27 G-1	1	136	<50.0
			B27 G-36	36	<0.10	0.58
			B27 G-53.5	53.5	<0.10	0.68
	B28	1-42	B28 G-1	1	91	6790
	B29	1-69	B29 G-1	1	49	<5.0
			B29 G-4	4	6.2	<0.50
			B29 G-44	44	Not Analyzed	<0.50
	B30	1-59.5	B30 G-1	1	470	<20.0
			B30 G-4	4	<0.20	3.3
	B31	1-61	B31 G-4	4	14	<1.0
			B31 G-1-2	1-2	10	<10.0
	B60	1-59	B60 G-1	1	221	<10
			B60 G-7	7	5.7	<1.0
GG	B74	1-20	B74 GG-1	1	255	<10
	B75	1-20	B75 GG-1	1	95	<10
			B75 GG-4	4	2.2	<1.0
			B75 GG-16	16	3.6	<1.0
			B75 GG-19-20	19-20	3.0	<1.0
	B113	1-22	B113 GG-3	3	48	<10
			B113 GG-6	6	0.95	<1.0
	B114	1-22	B114 GG-3	3	35	<10
			B114 GG-6	6	0.44	<10
			B114 GG-12	12	0.48	<1.0
			B114 GG-17.5	17.5	0.20	<1.0
			B114 GG-22	22	0.75	<1.0
	B115	1-22	B115 GG-1	1	123	<10
			B115 GG-4	4	228	<100
			B115 GG-7	7	0.91	<1.0
			B115 GG-12	12	0.80	<1.0
	B116	1-22	B116 GG-1	1	0.41	<10
			B116 GG-3	3	0.50	<1.0
			B116 GG-6	6	9.0	<100
			B116 GG-8	8	1.5	<1.0
			B116 GG-12	12	0.96	<10
			B116 GG-16	16	1.0	<1.0
			B116 GG-19	19	0.28	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
GG	B117	1-45	B117 GG-3	3	117	<10
			B117 GG-6	6	1.2	<1.0
			B117 GG-9	9	0.23	<1.0
			B117 GG-12	12	0.25	<1.0
	B124	1-20	B124 GG-1	1	19	<10
			B124 GG-4	4	0.38	<1.0
	B125	1-68	B125 GG-1	1	280	<10
			B125 GG-4	4	52	<10
			B125 GG-7	7	0.31	<1.0
			B125 GG-13.5	13.5	0.29	<1.0
	B131	1-20	B131 GG-1	1	12	<10
			B131 GG-4	4	0.75	<1.0
	B132	1-41.5	B132 GG-1	1	84	<10
			B132 GG-4	4	833	<100
			B132 GG-7	7	42	<1.0
			B132 GG-10	10	0.23	<1.0
			B132 GG-14	14	0.21	<1.0
			B132 GG-31	31	5.2	1.9
H	B97	1-20	B97 H-1	1	16	<1.0
			B97 H-4	4	0.25	<1.0
			B97 H-7	7	1.1	<1.0
			B97 H-15	15	1.0	<1.0
			B97 H-17	17	0.30	<1.0
			B97 H-20	20	0.42	<1.0
	B140	1-20	B140 H-1	1	54	<10
			B140 H-4	4	0.23	<1.0
			B140 H-12.5	12.5	0.29	<1.0
	B141	1-20	B141 H-1.5	1.5	125	<10
			B141 H-4	4	71	<10
			B141 H-8	8	86	<10
			B141 H-8.5	8.5	0.54	<1.0
	B150	1-50.5	B150 H-1	1	62	<1.0
			B150 H-4	4	1.0	<1.0
			B150 H-10.5	10.5	0.22	<1.0
			B150 H-24.5	24.5	0.24	<1.0
			B150 H-37	37	0.20	<1.0
			B150 H-39	39	0.31	<1.0
			B150 H-41	41	0.37	<1.0
			B150 H-43	43	0.26	<1.0
			B150 H-45.5	45.5	0.43	<1.0
			B150 H-49.5-50.5	49.5-50.5	1.41	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
H	B155	1-56	B155 H-9	9	222	<10
			B155 H-12	12	2.1	<1.0
			B155 H-15	15	8.5	<1.0
			B155 H-36.5	36.5	1.6	<1.0
			B155 H-47.5	47.5	0.65	<1.0
			B155 H-48	48	0.34	<1.0
	B156	1-54	B156 H-6	6	77	<10
			B156 H-9	9	18	<10
			B156 H-12	12	0.23	<1.0
			B156 H-35	35	0.18	<1.0
			B156 H-38	38	0.19	<1.0
			B156 H-39	39	0.40	<1.0
			B156 H-39.5	39.5	0.75	<1.0
			B156 H-42-43	42-43	0.27	<1.0
			B156 H-45	45	0.48	<1.0
H	B156	1-54	B156 H-48	48	0.27	<1.0
			B156 H-52	52	0.29	<1.0
	B157	1-50	B157 H-8	8	5.8	<1.0
			B157 H-10.5	10.5	5.1	<1.0
			B157 H-13	13	29	<1.0
			B157 H-24	24	0.93	<10
			B157 H-27	27	0.34	<10
	B158	1-50	B158 H-7.5	7.5	0.61	<1.0
			B158 H-36	36	3.2	1.9
			B158 H-37.5	37.5	0.86	<1.0
	B161	1-50	B161 H-8	8	0.33	<1.0
			B161 H-36.5	36.5	0.64	<1.0
			B161 H-38	38	0.66	<1.0
			B161 H-41	41	0.65	<1.0
	B162	1-50	B162 H-13	13	111	<10
			B162 H-16	16	59	<10
			B162 H-17	17	3.5	<1.0
			B162 H-44.5	44.5	0.19	<1.0
JJ	B41	1-30	B41 JJ-1	1	265	<1.0
			B41 JJ-8	8	0.83	<1.0
			B41 JJ-10	10	0.88	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
JJ	B42	1-30	B42 JJ-1	1	72	<10.0
			B42 JJ-4	4	67	<10.0
			B42 JJ-10	10	790	<100
			B42 JJ-12	12	1.1	<1.0
			B42 JJ-18	18	7.9	<1.0
	B49	1-30	B49-JJ-1	1	429	<10
			B49-JJ-4	4	130	<10
	B50	1-30	B50 JJ-1	1	63	<10
			B50 JJ-4	4	6.3	<1.0
	B51	1-30	B51 JJ-1	1	30	<10
			B51 JJ-4	4	46	<1.0
KK	B57	1-20	B57 KK-1	1	0.72	<10
	B58	1-57	B58 KK-1	1	882	<100
	B59	1-20	B59 KK-1	1	85	<100
	B61	1-20	B61 KK-1	1	293	<10
			B61 KK-4	4	1.6	<1.0
	B62	1-44	B62 KK-1	1	90	<10
			B62 KK-4	4	12	<1.0
			B62 KK-16	16	0.66	<1.0
	B63	1-20	B63 KK-1	1	59	<10
			B63 KK-4	4	26	<10
	B64	1-20	B64 KK-1	1	151	<10
			B64 KK-4	4	19	<1.0
			B64 KK-16	16	1.0	<1.0
LL	B133	1-32	B133 LL-1	1	353	<100
			B133 LL-4	4	13	<1.0
			B133 LL-7.5	7.5	0.36	<1.0
			B133 LL-16	16	2.0	<1.0
	B134	1-32	B134 LL-1	1	642	<100
			B134 LL-4	4	20	<10
			B134 LL-7.5	7.5	0.21	<1.0
M	B65	1-20	B65 M-1	1	25	<10
			B65 M-4	4	9.7	<10
	B71	1-20	B71 M-1	1	191	<10
			B71 M-4	4	7.2	<1.0
	B72	1-20	B72 M-1	1	199	<10
			B72 M-4	4	6.8	<1.0
	B73	1-20	B73 M-1	1	184	<10
			B73 M-4	4	3.0	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
MM	B32	1-52	B32 MM-1-2	1-2	4.1	<10.0
	B34	1-40	B34 MM-4	4	9.2	<1.0
			B34 MM-1-2	1-2	686	<10
	B35	1-40	B35 MM-1	1	872	<100
			B35 MM-4	4	16	<1.0
	B36	1-40	B36 MM-1	1	0.45	<1.0
	B37	1-40	B37 MM-1	1	4.2	<10
	B38	1-40	B38 MM-1	1	1.1	<10
N	B70	1-30	B70 N-4	4	1.3	<10
	B86	1-30	B86 N-1	1	1.6	<10
			B86 N-4	4	1.5	<10
	B87	1-30	B87 N-1	1	23	<100
			B87 N-4	4	2.6	30
			B87 N-8	8	0.91	<1.0
			B87 N-10-11	10-11	3.1	0.96
N	B88	1-30	B88 N-4	4	4.8	<10
			B88 N-10-11	10-11	0.17	<1.0
	B89	1-30	B89 N-1	1	2.5	<10.0
			B89 N-4	4	40	<50.0
			B89 N-28-30	28-30	6.1	1.7
N	B90	1-30	B90 N-1	1	9.8	<50.0
			B90 N-4	4	5.5	<10.0
			B90 N-8	8	0.67	<1.0
			B90 N-10-11	10-11	0.29	<1.0
			B90 N-25-26	25-26	0.36	<1.0
	B91	1-30	B91 N-1	1	7.0	<10
			B91 N-4-5	4-5	55	<100
	B92	1-30	B92 N-1	1	12	<10
			B92 N-4-5	4-5	32	<10
N	B96	1-30	B96 N-1	1	9.6	<50.0
			B96 N-4	4	1.7	<10.0
			B96 N-8	8	0.64	<10.0
			B96 N-18	18	0.42	<1.0
			B96 N-10.5-11.5	10.5-11.5	0.28	<1.0
			B96 N-15-16	15-16	1.1	<10.0
			B96 N-20-21	20-21	1.3	<1.0
			B96 N-25-26	25-26	0.52	<10.0
O	B39	1-30	B39 O-1	1	56	<10
			B39 O-8	8	4.7	<1.0
	B47	1-25	B47 O-4	4	<0.20	3.8
			B47 O-1-2	1-2	2.3	<10
	B48	1-30	B48 O-1	1	155	<10
			B48 O-4-5	4-5	36	<1.0
			B48 O-12-13	12-13	0.39	<1.0

Table E.2
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons in Soil (siteLab UVF-3100)
Chino Airport, Chino, California

AOC	Boring	Sampling Interval (feet bgs)	Sample_Name	Depth	TPH-d	TPH-g
OO	B43	1-36.5	B43 OO-1	1	773	<100
			B43 OO-8	8	1.5	<1.0
	B44	1-40	B44 OO-1	1	339	<100
			B44 OO-4	4	2.6	<1.0
			B44 OO-8	8	8.7	<1.0
			B44 OO-10	10	0.015	<1.0
			B44 OO-25.5	25.5	1.9	<1.0
			B44 OO-31	31	1.5	<1.0
			B44 OO-34	34	0.37	<1.0
			B44 OO-36	36	1.3	<1.0
			B44 OO-37	37	2.4	<1.0
	B45	1-43	B45 OO-1	1	1.6	<10
	B52	1-40	B52 OO-1	1	395	<250
			B52 OO-4	4	7.4	<250
	B53	1-37	B53 OO-1	1	75	<10
			B53 OO-4-5	4-5	66	<1.0
OO	B54	1-55	B54 OO-1	1	116	<10
			B54 OO-4	4	11	<1.0
	B55	1-40	B55 OO-1	1	8.7	<10
			B55 OO-4	4	2.7	<1.0
	B56	1-40.5	B56 OO-1	1	3.3	<10
Investigation Goal					100	100

Acronyms and Abbreviations:
TPH-d: total petroleum hydrocarbons as diesel
TPH-g: total petroleum hydrocarbons as gasoline
Notes:
All concentrations are in milligrams per kilogram (mg/kg)
siteLab UVF-3100: *site* Lab ultraviolet fluoresence-3100
Gray shading indicates compound was not detected in sample.
Key:
AOC DD – Former Airport Maintenance Shop and Yard
AOC EE – Former Cal Aero Restoration Yard
AOC FF – Building A440
AOC G - Former PAC Wash Rack Area
AOC GG – Former Aircraft Dismantling Area
AOC H – Former Waste Disposal Ponds
AOC HH – Buildings A230, A235, A340, A435
AOC JJ – Former UST C-15 and Sump I
AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC KK – Building A270, Yanks Museum
AOC LL – Former UST C-18
AOC M – Fuel Dump Area
AOC MM – Building A385
AOC N – Suspected Landfill
AOC NN - Former Building 30
AOC OO – Former PAC Wash Rack Area Drain
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill
AOC Z – Waste Water Discharge from Building A495

Table E.3
Chino Airport Consolidation Table: Total Petroleum Hydrocarbons (Method SW8015B)
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	TPH-g	TPH-d
G	B15	B15-GD61-DUP	B15-G	61	07/03/2014	0.052 Jq	<1.6
G	B24	B24-GD4-5-DUP	B24-G	4-5	07/09/2014	<0.048	8.5 Bk
G	B28	B28-GD1-DUP	B28-G	1	07/08/2014	0.064 Jq	230 Bk
G	B29	B29-GD1-DUP	B29-G	1	07/09/2014	<0.043	270 Bk
G	B30	B30-GD1-DUP	B30-G	1	07/09/2014	<0.051	530 Bk
G	B30	B30-GD4-DUP	B30-G	4	07/09/2014	<0.046	8.6 Bk
G	B31	B31-GD1-2-DUP	B31-G	1-2	07/09/2014	<0.059	37 Bk
GG	B125	B125-GGD4-5-DUP	B125-GG	4-5	07/29/2014	0.14 Jq	16 Bk
GG	B132	B132-GGD40.5-41.5-DUP	B132-GG	40.5-41.5	07/30/2014	<0.066	1.7 BJkq
H	B156	B156-HD42-43-DUP	B156-H	42-43	08/01/2014	0.28	2.8 BJkq
H	B156	B156-HD53-54-DUP	B156-H	53-54	08/01/2014	0.041 Jq	<1.6
JJ	B41	B41-JJD23-DUP	B41-JJ	23	07/14/2014	0.059 Jq	<1.6
JJ	B41	B41-JJD30-DUP	B41-JJ	30	07/14/2014	0.088 Jq	<1.6
MM	B34	B34-MMD1-2-DUP	B34-MM	1-2	07/10/2014	0.062 Jq	320 Bk
OO	B44	B44-00D40-DUP	B44-OO	40	07/15/2014	0.12 Jq	<1.6
OO	B53	B53-00D4-5-DUP	B53-OO	4-5	07/15/2014	<0.055	22 Bk
Investigation Goal						100	100

Acronyms and Abbreviations:

AOC - Area of Concern

B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

k - The analyte was found in a field blank.

q - The analyte detection was below the practical quantitation limit (PQL)

The result is considered not to have originated from the environmental sample, because cross-contamination is suspected.

TPH-d: total petroleum hydrocarbons as diesel

TPH-g: total petroleum hydrocarbons as gasoline

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

Yellow highlighting indicates concentration is above the IG.

Gray shading indicates compound was not detected in sample.

Key:

AOC EE – Former Cal Aero Restoration Yard

AOC G - Former PAC Wash Rack Area

AOC H – Former Waste Disposal Ponds

AOC HH – Buildings A230, A235, A340, A435

AOC OO – Former PAC Wash Rack Area Drain

Table E.4
Chino Airport Consolidation Table: Volatile Organic Compounds (Method SW8260B) in Soil
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
DD	B101	B101-DDD19-20-DUP	B101-DD	19-20	07/23/2014	<5.0	<3.0	<0.64	0.85	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.41	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
DD	B102	B102-DDD19-20-DUP	B102-DD	19-20	07/23/2014	6.4 BJkq	<3.0	<0.64	1.3	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.2	0.75 Jq	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
DD	B104	B104-DDD19-20-DUP	B104-DD	19-20	07/23/2014	<7.1	<4.3	<0.90	<0.15	<0.35	<0.25	<0.34	<0.32	<0.27	<0.24	<0.36	<0.26	<0.20	<0.25	<0.39	<0.17	<1.5	<0.92	<5.9	<0.58	<0.25	<1.0	<0.35	<0.34	<0.94	<0.42	<0.66	<0.24	<0.30	<0.63
DD	B106	B106-DDD19-20-DUP	B106-DD	19-20	07/23/2014	<5.1	<3.1	<0.65	0.68 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.68	<0.31	<0.48	<0.17	<0.22	<0.45
EE	B100	B100-EED36-37-DUP	B100-EE	36-37	07/24/2014	<5.4	<3.3	<0.69	<0.11	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	<0.45	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
EE	B107	B107-EED56-57-DUP	B107-EE	56-57	07/24/2014	<5.0	<3.0	<0.64	0.22 Jq	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	0.31 Jq	<0.12	<1.1	<0.65	<4.2	<0.41	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
EE	B108	B108-EED37-38-DUP	B108-EE	37-38	07/24/2014	<6.5	<3.9	<0.83	0.22 Jq	<0.32	<0.23	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.85	<5.4	<0.54	<0.24	<0.95	<0.32	<0.31	<0.87	<0.39	<0.61	<0.22	<0.28	<0.58
EE	B109	B109-EED7-8-DUP	B109-EE	7-8	07/25/2014	9.0 BJkq	<2.9	<0.61	2.3	<0.23	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	0.85	0.12 Jq	<1.0	<0.62	<3.9	1.2	<0.17	<0.70	<0.24	<0.23	<0.63	<0.29	<0.45	<0.16	0.21 Jq	<0.42
EE		B109-EED39-40-DUP	B109-EE	39-40	07/25/2014	5.8 BJkq	<3.3	<0.69	1.3	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	36	<0.13	<1.2	<0.70	<4.5	0.63 Jq	0.65 Jq	<0.79	<0.27	0.35 Jq	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
EE	B110	B110-EED4-5-DUP	B110-EE	4-5	07/25/2014	16 BJkq	<4.4	<0.93	2.8	<0.36	<0.26	<0.35	<0.33	<0.28	<0.25	<0.37	<0.27	<0.21	<0.26	<0.40	0.53 Jq	<1.6	<0.95	<6.0	3.2	<0.26	<1.1	<0.36	<0.35	<0.97	<0.44	<0.68	<0.24	0.68 Jq	<0.65
EE		B110-EED37-38-DUP	B110-EE	37-38	07/25/2014	<5.8	<3.5	<0.74	0.96	<0.28	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	1.2	<0.14	<1.2	<0.76	5.6 Jq	<0.48	<0.21	<0.85	<0.29	<0.28	<0.77	<0.35	<0.55	<0.20	<0.25	<0.52
EE	B111	B111-EED58.5-59.5-DUP	B111-EE	58.5-59.5	07/24/2014	<4.7	<2.8	<0.59	0.58 Jq	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.68	<0.23	<0.22	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42
EE	B112	B112-EED33.5-34.5-DUP	B112-EE	33.5-34.5	07/24/2014	6.1 BJkq	<3.2	<0.68	0.26 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
EE	B121	B121-EED33-34-DUP	B121-EE	33-34	07/25/2014	7.6 BJkq	<3.3	<0.70	0.9	<0.27	<0.20	<0.27	<0.25	<0.21	0.72 Jq	<0.27	<0.20	<0.15	<0.19	22	<0.13	<1.2	<0.71	<4.5	<0.45	0.34 Jq	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
EE		B121-EED35-36-DUP	B121-EE	35-36	07/25/2014	9.4 BJkq	<3.3	<0.69	1.1	<0.27	<0.19	<0.26	<0.25	<0.21	0.72 Jq	<0.27	<0.20	<0.15	<0.19	23	<0.13	<1.2	<0.71	4.7 Jq	<0.45	0.37 Jq	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
EE	B122	B122-EED20.5-21.5-DUP	B122-EE	20.5-21.5	07/28/2014	6.1 Jq	4.6 Jq	<0.60	3.7	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	0.13 Jq	<1.0	<0.62	<3.9	1.7	<0.17	<0.69	<0.24	<0.23	<0.63	<0.29	<0.45	<0.16	0.24 Jq	<0.42
EE		B122-EED39-40-DUP	B122-EE	39-40	07/28/2014	<5.9	<3.6	<0.76	0.25 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	<0.49	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.53
EE	B123	B123-EED38-39-DUP	B123-EE	38-39	07/28/2014	<5.4	<3.3	<0.69	0.13 Jq	<0.27	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
EE	B93	B93-EED35-36-DUP	B93-EE	35-36	07/22/2014	<6.4	<3.9	<0.82	<0.13	<0.32	<0.23	<0.31	<0.29	<0.25	<0.22	<0.32	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.84	<5.3	<0.53	<0.23	<0.94	<0.32	<0.31	<0.86	<0.39	<0.61	<0.22	<0.28	<0.57
EE	B94	B94-EED37-38-DUP	B94-EE	37-38	07/22/2014	<6.0	<3.6	<0.76	0.14 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	<5.0	<0.49	<0.22	<0.87	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
EE	B95	B95-EED36-37-DUP	B95-EE	36-37	07/22/2014	<5.9	<3.6	<0.75	1.2	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.63 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
EE	B98	B98-EED39-40-DUP	B98-EE	39-40	07/23/2014	<4.4	<2.6	<0.56	0.48 Jq	<0.21	<0.16	<0.21	<0.20	<0.17	<0.15	<0.22	<0.16	<0.12	<0.16	<0.24	<0.11	<0.94	<0.57	<3.6	<0.36	<0.16	<0.64	<0.22	<0.21	<0.58	<0.26	<0.41	0.16 Jq	<0.19	<0.39
EE	B99	B99-EED65.5-66.5-DUP	B99-EE	65.5-66.5	07/23/2014	6.7 Jq	<2.9	<0.62	1.1	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	0.48 Jq	<0.18	<0.71	<0.24	0.40 Jq	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
FF	B136	B136-FFD20-DUP	B136-FF	20	07/30/2014	5.6 Jq	<3.0	<0.64	0.52 Jq	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.41	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
FF	B137	B137-FFD20-DUP	B137-FF	20	07/30/2014	<5.2	<3.1	<0.66	0.23 Jq	<0.25	<0.19	<0.25	<0.23	<0.20	<0.18	<0.26	<0.19	<0.15	<0.18	<0.29	<0.13	<1.1	<0.67	<4.3	<0.43	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	<0.22	<0.46
FF	B138	B138-FFD20-DUP	B138-FF	20	07/30/2014	7.4 Jq	<3.4	<0.71	0.93	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.6	0.62 Jq	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
FF	B139	B139-FFD20-DUP	B139-FF	20	07/30/2014	5.7 Jq	<3.1	<0.66	1	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	5.0 Jq	<0.68	<4.3	0.48 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.46
G	B01	B01-GD25-26-DUP	B01-G	25-26	06/30/2014	<4.9	<3.0	<0.63	0.25 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.27	<0.12	<1.1	<0.64	<4.1	<0.41	<0.18	<0.72	<0.25	<0.24	<0.66	<0.30	<0.46	<0.17	<0.21	<0.44
G		B01-GD39-40-DUP	B01-G	39-40	06/30/2014	6.2 BJkq	<3.3	<0.69	2	<0.27	<0.20	<0.27	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	4.8 Jq	0.97 Bk	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.49
G	B02	B02-GD39-40-DUP	B02-G	39-40	06/30/2014	<5.5	<3.3	<0.71	0.67 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	<0.46	<0.20	<0.81	<0.28	<0.27	<0.74	<0.33	<0.52	<0.19	<0.24	<0.49
G	B03	B03-GD26-27-DUP	B03-G	26-27	06/30/2014	<5.0	<3.0	<0.64	0.57 Jq	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	<0.41	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.21	<0.45
G		B03-GD39-40-DUP	B03-G	39-40	06/30/2014	<4.9	<3.0	<0.63	0.33 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.27	<0.12	<1.1	<0.64	<4.1	<0.41	<0.18	<0.72	<0.24	<0.24	<0.65	<0.30	<0.46	<0.17	<0.21	<0.44
G	B04	B04-GD39-40-DUP	B04-G	39-40	07/01/2014	6.2 BJkq	<3.3	<0.70	0.38 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
G	B05	B05-GD7-8-DUP	B05-G	7-8	07/01/2014	7.2 BJkq	<3.3	<0.69	2.2	<0.27	<0.20	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	0.84 BJkq	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
G		B05-GD39-40-DUP	B05-G	39-40	07/01/2014	<5.4	<3.2	<0.68	0.30 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.70	<4.4	<0.44	<0.19	<0.78	<0.27	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.48
G	B15	B15-GD19-DUP	B15-G	19	07/03/2014	<5.1	<3.1	<0.65	0.20 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
G		B15-GD61-DUP	B15-G	61	07/03/2014	6.4 Jq	<3.2	<0.68	0.25 Jq	<0.26	<0.19	0.30 Jq	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.70	<4.4	0.51 Jq	<0.19	<0.78	<0.27	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.48
G	B16	B16-GD39-40-DUP	B16-G	39-40	07/01/2014	<4.8	<2.9	<0.61	0.24 Jq	<0.23	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.62	<4.0	<0.40	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	<0.21	<0.43
G	B17	B17-GD39-40-DUP	B17-G	39-40	07/02/2014	<5.3	<3.2	<0.68	0.41 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
G	B18	B18-GD33-34-DUP	B18-G	33-34	07/02/2014	<5.7	<3.4	<0.72	0.41 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.74	<4.7	0.51 Jq	<0.20	<0.83	<0.28	<0.27	5.7	<0.34	<0.53	<0.19	<0.24	<0.50
G		B18-GD52-53-DUP	B18-G	52-53	07/02/2014	5.5 BJkq	<2.7	<0.58	1.1	<0.22	<0.16	<0.22	<0.21	0.32 Jq	<0.15	19	<0.17	<0.13	<0.16	<0.25	<0.11	<0.97	<0.59	<3.8	0.66 Jq	<0.16	<0.66	<0.23	<0.22	44	<0.27	<0.43	<0.15	<0.19	<0.40
G		B18-GD60-61-DUP	B18-G	60-61	07/02/2014	<5.7	<3.5	<0.73	0.54 Jq	<0.28	<0.21	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	<0.14	<1.2	<0.75	<4.7	<0.47	<0.21	<0.84	<0.28	<0.28	14	<0.34	<0.54	<0.19	<0.25	<0.51
G	B24	B24-GD4-5-DUP	B24-G	4-5	07/09/2014	16 BJkq	4.2 Jq	<0.74	3.4	<0.29	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	<0.32	0.64 Jq	<1.3	<0.76	<4.8	4.4	<0.21	<0.85	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	0.89 Jq	<0.52
G		B24-GD38-39-DUP	B24-G	38-39	07/09/2014	13 BJkq	<3.4	<0.71	0.22 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	<0.46	<0.20	<0.81	<0.28	<0.27	<0.74	<0.33	<0.52	<0.19	<0.24	<0.49
G	B25	B25-GD20-DUP	B25-G	20	07/03/2014	<5.0	<3.1	1.4 Jq	0.20 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
G		B25-GD57-DUP	B25-G	57	07/07/2014	6.7 Jq	<3.0	<0.63	1.3	<0.24	<0.18	<0.24	<0.22	1.6	<0.17	1.5	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	0.8	<0.18	<0.73	<0.25	0.80 Jq	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
G		B25-GD59-DUP	B25-G	59	07/07/2014	<5.1	<3.1	<0.65	0.26 Jq	<0.25	<0.18	<0.25	<0.23	0.24 Jq	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	4.3 Jq	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
G	B26	B26-GD12-DUP	B26-G	12	07/07/2014	20 Jq	3.9 Jq	<0.69	0.38 Jq	<0.27	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
G		B26-GD59.5-DUP	B26-G	59.5	07/07/2014	6.3 Jq	<3.0	<0.63	0.77 Jq	<0.24	<0.18	<0.24	<0.22	0.41 Jq	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.1	<0.64	<4.1	0.41 Jq	<0.18	<0.72	<0.24	<0.24	<0.65	<0.30	<0.46	<0.17	<0.21	<0.44
G	B27	B27-GD62-DUP	B27-G	62	07/08/2014	6.0 Jq	<3.3	<0.70	0.81 BJq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	<0.46	<0.20	<0.81	<0.27	<0.27	8	<0.33	<0.52	<0.19	<0.24	<0.49
G	B28	B28-GD1-DUP	B28-G	1	07/08/2014	14 Jq	<3.7	<0.78	0.61 BJq	0.37 Jq	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.17	<0.22	<0.34	<0.15	<1.3	<0.80	<5.1	0.59 BJkq	<0.22	<0.90	<0.31	<0.30	<0.82	<0.37	<0.58	<0.21	<0.26	<0.55
G		B28-GD4-DUP	B28-G	4	07/08/2014	14 Jq	<3.3	<0.70	0.61 BJq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.30	<0.13	<1.2	<0.72	<4.6	0.65 BJkq	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
G		B28-GD42-DUP	B28-G	42	07/08/2014	7.0 Jq	3.9 Jq	<0.70	1.3	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	0.57 BJkq	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
G	B29	B29-GD1-DUP	B29-G	1	07/09/2014	17 BJkq	<3.4	<0.73	0.48 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	0.17 Jq	<1.2	<0.74	<4.7	0.66 BJkq	<0.21	<0.83	<0.28	<0.27	<0.76	<0.34	<0.54	<0.19	0.38 Jq	<0.51
G		B29-GD4-DUP	B29-G	4	07/09/2014	10 BJkq	<3.3	<0.70	0.33 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	0.47 BJkq	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49

Table E.4
Chino Airport Consolidation Table: Volatile Organic Compounds (Method SW8260B) in Soil
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
G		B29-GD69-DUP	B29-G	69	07/09/2014	<4.9	<2.9	<0.62	1.5	<0.24	<0.18	<0.24	<0.22	0.93	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	0.94 Bk	<0.18	<0.71	<0.24	<0.23	19	<0.29	<0.46	<0.16	<0.21	<0.43
G	B30	B30-GD1-DUP	B30-G	1	07/09/2014	50 Bk	5.2 Jq	<0.71	1.4	0.52 Jq	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	0.16 Jq	<1.2	<0.73	<4.6	1.2 Bk	<0.20	<0.82	<0.28	<0.27	<0.74	<0.34	<0.52	0.22 Jq	<0.24	<0.50
G		B30-GD4-DUP	B30-G	4	07/09/2014	14 BJkq	<3.4	<0.72	0.81 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	0.17 Jq	<1.2	<0.74	<4.7	0.88 BJkq	<0.21	<0.83	<0.28	<0.27	<0.76	<0.34	<0.53	<0.19	<0.24	<0.51
G		B30-GD59.5-DUP	B30-G	59.5	07/10/2014	<5.1	<3.1	<0.65	0.19 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	0.43 Jq	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	4.8	<0.31	<0.48	<0.17	<0.22	<0.45
G	B31	B31-GD1-2-DUP	B31-G	1-2	07/09/2014	17 BJkq	<3.9	<0.83	1.6	0.33 Jq	<0.23	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.18	<0.23	<0.36	0.23 Jq	<1.4	<0.85	<5.4	1.9	<0.24	<0.96	<0.32	<0.31	<0.87	<0.39	<0.61	<0.22	0.30 Jq	<0.58
G		B31-GD60-61-DUP	B31-G	60-61	07/09/2014	<6.0	<3.6	<0.77	0.24 Jq	<0.30	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.79	<5.0	<0.50	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.57	<0.20	<0.26	<0.54
G	B60	B60-GD58-59-DUP	B60-G	58-59	07/17/2014	7.4 Jq	<2.9	<0.62	0.63 Jq	<0.24	<0.17	<0.24	<0.22	<0.19	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.63	<4.0	0.82	<0.18	<0.71	<0.24	<0.23	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
G		B66-GD4-DUP	B66-G	4	07/17/2014	11 Jq	<3.5	<0.74	1.3	<0.28	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	<0.32	0.23 Jq	<1.2	<0.75	<4.8	1.4	<0.21	<0.85	<0.29	<0.28	<0.77	<0.35	<0.54	<0.19	0.33 Jq	<0.52
G		B66-GD12-DUP	B66-G	12	07/17/2014	18 Jq	3.5 Jq	<0.62	0.67 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	0.65 Jq	<0.18	<0.71	<0.24	<0.24	<0.65	<0.29	<0.46	<0.16	<0.21	<0.44
G		B66-GD19-DUP	B66-G	19	07/17/2014	20 Jq	5.4 Jq	<0.85	5.3	<0.33	<0.24	<0.32	<0.30	<0.26	<0.23	<0.34	<0.24	<0.19	<0.24	<0.37	1.2	<1.4	1.3 Jq	<5.5	5.9	<0.24	<0.98	<0.33	<0.32	<0.89	<0.40	<0.63	<0.22	1.7 Jq	0.70 Jq
G		B66-GD24-DUP	B66-G	24	07/17/2014	<5.3	<3.2	<0.67	0.31 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.48 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
G	B66	B66-GD36-DUP	B66-G	36	07/17/2014	<5.2	<3.1	<0.66	0.25 Jq	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.3	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.46
G		B66-GD42-DUP	B66-G	42	07/17/2014	<5.2	<3.1	<0.66	0.80 Jq	<0.25	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	0.79 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	<0.22	<0.46
G		B66-GD47-DUP	B66-G	47	07/17/2014	15 Jq	3.0 Jq	<0.60	2	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	0.16 Jq	<1.0	<0.61	<3.9	1.5	<0.17	<0.68	<0.23	<0.23	<0.62	<0.28	<0.44	<0.16	0.25 Jq	<0.42
G		B66-GD52-DUP	B66-G	52	07/17/2014	6.6 Jq	<3.0	<0.63	1.7	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.27	<0.12	<1.1	<0.64	<4.1	1.4	<0.18	<0.72	<0.25	<0.24	<0.66	<0.30	<0.46	<0.17	<0.21	<0.44
G		B66-GD57-DUP	B66-G	57	07/17/2014	35 Jq	28	<0.70	26	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	1.3	<1.2	0.76 Jq	<4.6	15	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	1.5 Jq	0.62 Jq
G		B67-GD4-DUP	B67-G	4	07/18/2014	11 BJkq	<3.6	<0.75	2	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	0.32 Jq	<1.3	<0.77	<4.9	2.4	<0.21	<0.86	<0.29	<0.28	<0.79	<0.36	<0.56	<0.20	0.47 Jq	<0.53
G		B67-GD9.5-DUP	B67-G	9.5	07/18/2014	<5.0	<3.1	<0.64	0.41 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	1.4	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
G		B67-GD16-DUP	B67-G	16	07/18/2014	23 BJkq	8.6 Jq	<0.72	8.2	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	0.48 Jq	<1.2	<0.74	<4.7	5.3	<0.20	<0.83	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	0.95 Jq	<0.50
G	B67	B67-GD22-DUP	B67-G	22	07/18/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.82 Bk	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
G		B67-GD28-DUP	B67-G	28	07/18/2014	<5.5	<3.3	<0.70	<0.11	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	1.3	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
G		B67-GD31-DUP	B67-G	31	07/18/2014	<5.3	<3.2	<0.68	0.42 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.69	<4.4	1.5	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
G		B67-GD33.5-DUP	B67-G	33.5	07/18/2014	<5.5	<3.3	<0.70	0.49 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.30	<0.13	<1.2	<0.72	<4.6	0.94 Bk	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
GG	B113	B113-GGD21-22-DUP	B113-GG	21-22	07/25/2014	<5.6	<3.4	<0.72	0.27 Jq	<0.28	<0.20	<0.27	<0.25	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	6.0 Jq	<0.46	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
GG	B114	B114-GGD21-22-DUP	B114-GG	21-22	07/25/2014	4.8 Jq	<2.8	<0.59	0.55 Jq	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.68	<0.23	<0.22	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42
GG	B115	B115-GGD21-22-DUP	B115-GG	21-22	07/25/2014	<4.8	<2.9	<0.61	1.9	0.33 Jq	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.13	<0.17	<0.26	<0.12	<1.0	<0.62	<4.0	0.93	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	0.36 Jq	<0.43
GG	B116	B116-GGD21-22-DUP	B116-GG	21-22	07/25/2014	<5.1	<3.1	<0.65	0.16 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
GG	B117	B117-GGD44-45-DUP	B117-GG	44-45	07/25/2014	<5.0	<3.0	<0.63	0.31 Jq	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	<0.41	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
GG	B124	B124-GGD19-20-DUP	B124-GG	19-20	07/29/2014	6.9 BJkq	3.5 Jq	<0.66	3.1	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.4	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	0.31 Jq	<0.47
GG	B125	B125-GGD4-5-DUP	B125-GG	4-5	07/29/2014	190	45	<0.84	14	<0.32	<0.24	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.19	<0.23	<0.37	2.4	<1.4	<0.86	<5.5	14	<0.24	<0.97	<0.33	<0.32	<0.88	<0.40	1.0 Jq	<0.22	3.4	1.4
GG		B125-GGD67-68-DUP	B125-GG	67-68	07/29/2014	<6.0	<3.6	<0.76	<0.12	<0.29	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	6.0 Jq	<0.50	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
GG	B131	B131-GGD19-20-DUP	B131-GG	19-20	07/29/2014	<5.4	<3.3	<0.69	1.3	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	0.51 Jq	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
GG	B132	B132-GGD40.5-41.5-DUP	B132-GG	40.5-41.5	07/30/2014	<5.4	<3.3	<0.68	0.16 Jq	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	<0.44	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
GG	B74	B74-GGD19-20-DUP	B74-GG	19-20	07/17/2014	19 Jq	7.9 Jq	<0.78	9.9	<0.30	<0.22	<0.30	<0.28	<0.23	<0.21	<0.31	<0.22	<0.17	<0.22	<0.34	0.20 Jq	<1.3	<0.80	<5.1	3.7	<0.22	<0.90	<0.30	<0.29	<0.81	<0.37	<0.57	<0.21	0.45 Jq	<0.55
GG	B75	B75-GGD19-20-DUP	B75-GG	19-20	07/17/2014	<5.1	<3.1	<0.65	0.27 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.96	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.45
H	B140	B140-HD19-20-DUP	B140-H	19-20	07/30/2014	<5.1	<3.1	<0.64	0.35 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.25	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.48	<0.17	<0.22	<0.45
H	B141	B141-HD19-20-DUP	B141-H	19-20	07/30/2014	<5.3	<3.2	<0.68	0.13 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.78	<0.26	<0.26	<0.71	<0.32	<0.50	<0.18	<0.23	<0.47
H	B150	B150-HD49.5-50.5-DUP	B150-H	49.5-50.5	08/01/2014	<5.0	<3.0	<0.63	1.9	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	0.87	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
H	B155	B155-HD35-36-DUP	B155-H	35-36	08/01/2014	<4.5	<2.7	<0.58	1.6	<0.22	<0.16	<0.22	<0.21	<0.17	<0.15	<0.23	<0.17	<0.13	<0.16	<0.25	<0.11	<0.97	<0.59	<3.8	0.69 BJkq	<0.16	<0.66	<0.23	<0.22	<0.60	<0.27	<0.43	<0.15	<0.19	<0.40
H		B155-HD55-56-DUP	B155-H	55-56	08/04/2014	7.3 Jq	<3.4	<0.72	0.18 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	<0.14	<1.2	<0.74	<4.7	<0.47	<0.21	<0.83	<0.28	<0.27	<0.76	<0.34	<0.53	<0.19	<0.24	<0.51
H	B156	B156-HD42-43-DUP	B156-H	42-43	08/01/2014	<5.0	<3.1	<0.64	2.3	<0.25	8.4	<0.25	<0.23	<0.19	<0.17	<0.25	120	8.3	66	<0.28	<0.12	<1.1	<0.66	<4.2	0.85	<0.18	<0.74	3.2	0.98 Jq	<0.67	<0.30	<0.47	0.23 Jq	<0.22	<0.45
H		B156-HD53-54-DUP	B156-H	53-54	08/01/2014	<4.4	<2.7	<0.57	0.43 Jq	<0.22	2.5	<0.22	<0.20	<0.17	<0.15	<0.22	18	1.5	12	<0.25	<0.11	<0.95	<0.58	<3.7	<0.37	<0.16	<0.65	1.2 Jq	0.34 Jq	<0.59	<0.27	<0.42	<0.15	<0.19	<0.40
H	B157	B157-HD49-50-DUP	B157-H	49-50	08/04/2014	7.1 Jq	3.3 Jq	<0.63	2.5	0.29 Jq	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	1.3	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
H	B158	B158-HD49-50-DUP	B158-H	49-50	08/04/2014	9.6 Jq	3.8 Jq	<0.73	2.7	<0.28	<0.21	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	<0.14	<1.2	<0.75	<4.8	1.3	<0.21	<0.84	<0.29	<0.28	<0.76	<0.34	<0.54	<0.19	<0.25	<0.51
H	B161	B161-HD34-35-DUP	B161-H	34-35	08/01/2014	<4.7	<2.8	<0.60	0.77	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.69	<0.23	<0.23	<0.63	<0.28	<0.44	<0.16	<0.20	<0.42
H		B161-HD49-50-DUP	B161-H	49-50	08/04/2014	6.8 Jq	3.9 Jq	<0.31	4.2	<0.12	<0.087	<0.12	<0.11	<0.093	<0.082	<0.12	<0.089	<0.068	<0.086	<0.13	0.24 Jq	<0.52	<0.32	<2.0	2.5	<0.088	<0.36	<0.12	<0.12	<0.32	<0.15	<0.23	<0.082	0.28 Jq	<0.22
H	B162	B162-HD49-50-DUP	B162-H	49-50	08/04/2014	17 Jq	11 Jq	<0.61	9.9	0.29 Jq	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	0.52 Jq	<1.0	<0.63	<4.0	5.5	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	0.66 Jq	<0.43
H	B97	B97-HD19-20-DUP	B97-H	19-20	07/22/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.12	<1.1	<0.67	<4.3	<0.42	<0.19	<0.75	<0.26	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46

Table E.4
Chino Airport Consolidation Table: Volatile Organic Compounds (Method SW8260B) in Soil
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
HH	B118	B118-HHD20-DUP	B118-HH	20	07/28/2014	<4.6	<2.8	<0.58	0.14 Jq	0.30 Jq	<0.16	<0.22	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.16	<0.25	<0.11	<0.98	<0.60	<3.8	<0.38	<0.17	<0.67	<0.23	<0.22	<0.61	<0.28	<0.43	<0.15	<0.20	<0.41
HH	B119	B119-HHD20-DUP	B119-HH	20	07/28/2014	<4.5	<2.7	<0.57	<0.093	<0.22	<0.16	<0.22	<0.20	<0.17	<0.15	<0.22	<0.16	<0.13	<0.16	<0.25	<0.11	<0.96	<0.58	<3.7	<0.37	<0.16	<0.65	<0.22	<0.21	<0.59	<0.27	<0.42	<0.15	<0.19	<0.40
HH	B120	B120-HHD20-DUP	B120-HH	20	07/28/2014	<4.8	<2.9	<0.62	0.32 Jq	<0.24	<0.17	<0.24	<0.22	<0.19	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.63	<4.0	<0.40	<0.17	<0.71	<0.24	<0.23	<0.64	<0.29	<0.46	<0.16	<0.21	<0.43
HH	B126	B126-HHD20-DUP	B126-HH	20	07/29/2014	<5.1	<3.1	<0.65	0.55 Jq	0.37 Jq	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.12	<1.1	<0.67	<4.3	0.45 BJkq	<0.19	<0.75	<0.26	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
HH	B127	B127-HHD20-DUP	B127-HH	20	07/29/2014	6.6 Jq	<3.5	<0.73	2	<0.28	<0.21	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	<0.14	<1.2	<0.75	<4.8	0.73 BJkq	<0.21	<0.84	<0.29	<0.28	<0.76	<0.35	<0.54	<0.19	<0.25	<0.51
HH	B128	B128-HHD20-DUP	B128-HH	20	07/29/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	15	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
HH		B128-HHD34-DUP	B128-HH	34	08/01/2014	<5.7	<3.4	<0.72	0.12 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.74	<4.7	<0.47	<0.20	<0.83	<0.28	0.35 Jq	<0.75	<0.34	<0.53	<0.19	<0.24	<0.51
HH	B129	B129-HHD19.5-DUP	B129-HH	19.5	07/29/2014	18 Jq	5.7 Jq	<0.74	5.5	<0.29	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	<0.32	0.41 Jq	<1.2	<0.76	<4.8	3.3	<0.21	<0.85	<0.29	<0.28	<0.77	<0.35	<0.55	<0.20	0.50 Jq	<0.52
HH	B130	B130-HHD20-DUP	B130-HH	20	07/29/2014	20 Jq	4.7 Jq	<0.73	3.6	0.33 Jq	<0.21	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	0.53 Jq	<1.2	<0.75	<4.8	3.6	<0.21	<0.84	<0.29	<0.28	<0.77	<0.35	<0.54	<0.19	0.70 Jq	<0.51
JJ	B41	B41-JJD23-DUP	B41-JJ	23	07/14/2014	6.7 BJkq	<3.1	<0.65	<0.11	<0.25	<0.18	0.27 BJaq	<0.23	<0.19	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.67	<0.31	<0.48	<0.17	<0.22	<0.45
JJ		B41-JJD30-DUP	B41-JJ	30	07/14/2014	<5.0	<3.0	<0.63	0.45 Jq	<0.24	<0.18	0.28 BJaq	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	0.96 Bk	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
JJ	B42	B42-JJD30-DUP	B42-JJ	30	07/14/2014	11 BJkq	<3.3	<0.68	0.30 Jq	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	1.1 Bk	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
JJ	B49	B49-JJD29-30-DUP	B49-JJ	29-30	07/14/2014	16 Jq	<3.4	<0.72	0.23 Jq	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.74	<4.7	0.78 Jq	<0.20	<0.83	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
JJ	B50	B50-JJD29-30-DUP	B50-JJ	29-30	07/14/2014	9.6 Jq	<2.6	<0.54	0.45 Jq	<0.21	<0.15	<0.21	<0.19	<0.16	<0.14	<0.21	<0.16	<0.12	<0.15	<0.24	<0.10	<0.91	<0.56	<3.5	0.50 Jq	<0.15	<0.62	<0.21	<0.21	<0.57	<0.26	<0.40	<0.14	<0.18	<0.38
JJ	B51	B51-JJD29-30-DUP	B51-JJ	29-30	07/14/2014	8.5 Jq	<3.5	<0.75	0.27 Jq	0.66 Jq	<0.21	<0.29	<0.27	<0.22	<0.20	<0.30	<0.21	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	1.6	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.52
J-K	B06	B06-JKD25	B06-JK	25	06/30/2014	<5.0	<3.0	<0.64	0.19 Jq	<0.25	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.41	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
J-K	B07	B07-JKD16	B07-JK	16	06/30/2014	7.2 Jq	4.7 Jq	<0.50	5.3	<0.19	<0.14	<0.19	<0.18	<0.15	<0.13	<0.20	<0.14	<0.11	<0.14	<0.22	0.36 Jq	<0.83	<0.51	<3.2	3.3	<0.14	<0.57	<0.19	<0.19	<0.52	<0.23	<0.37	<0.13	0.85 Jq	<0.35
J-K		B07-JKD41-42-DUP	B07-JK	41-42	07/03/2014	6.0 BJkq	<3.3	<0.69	0.45 Jq	<0.27	<0.20	<0.26	<0.25	0.23 Jq	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	0.71 Jq	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	0.43 Jq	<0.23	<0.48
J-K		B07-JKD50-51-DUP	B07-JK	50-51	07/03/2014	12 BJkq	<3.1	<0.66	0.62 Jq	<0.25	<0.19	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.13	<1.1	<0.67	<4.3	0.49 Jq	<0.19	<0.75	<0.26	<0.25	<0.69	<0.31	<0.48	<0.17	<0.22	<0.46
J-K		B07-JKD77-78-DUP	B07-JK	77-78	07/07/2014	<4.7	<2.8	<0.60	0.43 Jq	<0.23	<0.17	<0.23	0.25 Jq	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	<0.11	<1.0	<0.61	<3.9	<0.39	<0.17	<0.69	<0.23	<0.23	<0.62	<0.28	<0.44	<0.16	<0.20	<0.42
J-K	B08	B08-JKD7	B08-JK	7	06/30/2014	15 Jq	3.3 Jq	<0.68	4.3	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	0.49 Jq	<1.1	<0.70	<4.4	3.4	<0.19	<0.78	<0.27	<0.26	<0.71	<0.32	<0.50	<0.18	0.68 Jq	<0.48
J-K		B08-JKD23	B08-JK	23	06/30/2014	<5.6	<3.4	<0.72	0.15 Jq	<0.28	<0.20	<0.27	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.7	<0.46	<0.20	<0.82	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
J-K	B09	B09-JKD19	B09-JK	19	07/01/2014	20 Jq	5.1 Jq	<0.79	5.4	<0.30	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.34	0.89 Jq	<1.3	1.2 Jq	<5.1	5	<0.22	<0.91	<0.31	<0.30	<0.83	<0.37	<0.58	<0.21	1.2 Jq	<0.55
J-K		B09-JKD36	B09-JK	36	07/01/2014	<5.5	<3.3	<0.70	0.34 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	4.7 Jq	0.58 BJkq	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
J-K	B10	B10-JKD37	B10-JK	37	07/01/2014	<5.3	<3.2	<0.67	0.27 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
J-K	B11	B11-JKD31	B11-JK	31	07/01/2014	<5.1	<3.1	<0.65	0.63 Jq	<0.25	<0.18	<0.25	<0.23	0.20 Jq	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.45 BJkq	<0.18	<0.75	<0.25	0.55 Jq	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
J-K		B11-JKD40	B11-JK	40	07/01/2014	<4.8	<2.9	<0.61	0.37 Jq	<0.23	<0.17	<0.23	<0.22	0.8	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.62	<4.0	<0.40	<0.17	<0.70	<0.24	0.82 Jq	<0.64	<0.29	<0.45	<0.16	<0.21	<0.43
J-K	B12	B12-JKD40-DUP	B12-JK	40	07/02/2014	<5.5	<3.3	<0.70	0.27 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	5.0 Jq	<0.46	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
J-K	B13	B13-JKD30-DUP	B13-JK	30	07/02/2014	<5.6	<3.4	<0.71	<0.12	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.14	<1.2	<0.73	<4.6	<0.46	<0.20	<0.81	<0.28	<0.27	<0.74	<0.33	<0.52	<0.19	<0.24	<0.50
J-K		B13-JKD36-DUP	B13-JK	36	07/02/2014	<5.1	<3.1	<0.64	1	<0.25	<0.18	<0.25	0.32 Jq	0.34 Jq	<0.17	<0.25	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	0.60 BJkq	<0.18	<0.74	<0.25	0.41 Jq	<0.67	<0.30	<0.48	<0.17	<0.22	<0.45
J-K	B14	B14-JKD36-DUP	B14-JK	36	07/02/2014	<5.3	<3.2	<0.67	0.39 Jq	<0.26	<0.19	<0.26	3.9	8.6	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	<0.44	<0.19	<0.77	<0.26	2.6	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
J-K		B14-JKD38-DUP	B14-JK	38	07/02/2014	<4.8	<2.9	<0.61	0.39 Jq	<0.23	<0.17	<0.23	1.9	4.3	<0.16	<0.24	<0.18	<0.13	<0.17	<0.26	<0.12	<1.0	<0.62	<4.0	<0.39	<0.17	<0.70	<0.24	1.3 Jq	<0.64	<0.29	<0.45	<0.16	<0.21	<0.43
J-K	B19	B19-JKD27-28-DUP	B19-JK	27-28	07/03/2014	7.7 BJkq	3.6 Jq	<0.64	3.1	<0.25	<0.18	<0.25	<0.23	6.8	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	0.16 Jq	<1.1	<0.66	<4.2	1.7	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	0.26 Jq	<0.45
J-K		B19-JKD39-40-DUP	B19-JK	39-40	07/03/2014	<5.2	<3.2	<0.66	0.79 Jq	<0.26	<0.19	<0.25	<0.24	1.2	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	4.8 Jq	0.55 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.47
J-K		B20-JKD44-45-DUP	B20JK	44-45	07/03/2014	<6.6	<4.0	<0.84	0.18 Jq	<0.32	<0.24	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.19	<0.23	<0.36	<0.16	<1.4	<0.86	6.1 Jq	<0.54	<0.24	<0.96	<0.33	<0.32	<0.87	<0.39	<0.62	<0.22	<0.28	<0.59
J-K	B21	B21-JKD47-48-DUP	B21-JK	47-48	07/07/2014	14 BJkq	9.0 Jq	<0.65	7.8	<0.25	<0.18	<0.25	2.4	3.3	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	0.34 Jq	<1.1	<0.66	<4.2	3.1	<0.18	<0.74	<0.25	0.70 Jq	<0.67	<0.31	<0.48	<0.17	0.64 Jq	<0.45
J-K		B21-JKD73-74-DUP	B21-JK	73-74	07/08/2014	8.9 BJkq	4.0 Jq	<0.64	2.3	<0.24	<0.18	<0.24	48	8.5	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	1.1	<0.18	<0.73	<0.25	6.4	<0.67	<0.30	<0.47	<0.17	<0.21	<0.45
J-K	B22	B22-JKD4-5-DUP	B22-JK	4-5	07/08/2014	16 BJkq	<3.8	<0.81	0.68 BJaq	<0.31	<0.23	<0.31	<0.29	<0.24	<0.21	<0.32	<0.23	<0.18	<0.23	<0.35	<0.15	<1.4	<0.83	<5.3	0.60 Jq	<0.23	<0.93	<0.32	<0.31	<0.84	<0.38	<0.60	<0.21	<0.27	<0.57
J-K		B22-JKD57-58-DUP	B22-JK	57-58	07/08/2014	33 BJkq	24	<0.65	21	<0.25	<0.18	<0.25	3	11	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	0.81	<1.1	<0.66	<4.2	11	<0.18	<0.74	<0.25	2.2	<0.68	<0.31	<0.48	<0.17	0.84 Jq	<0.45
J-K	B23	B23-JKD37-38-DUP	B23-JK	37-38	07/08/2014	5.7 BJkq	<3.3	<0.70	0.37 BJaq	<0.27	<0.20	<0.27	<0.25	0.47 Jq	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
KK	B57	B57-KKD19-20-DUP	B57-KK	19-20	07/16/2014	<5.5	<3.3	<0.70	0.88	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.15	<0.20	<0.30	<0.13	<1.2	<0.72	<4.5	1.2 Bk	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
KK	B58	B58-KKD56-57-DUP	B58-KK	56-57	07/16/2014	<4.4	<2.7	<0.56	0.13 Jq	<0.22	<0.16	<0.22	<0.20	0.20 Jq	<0.15	<0.22	<0.16	<0.12	<0.16	<0.25	<0.11	<0.95	<0.58	<3.7	0.71 Bk	<0.16	<0.65	<0.22	0.41 Jq	<0.59	3.7 Jq	<0.42	<0.15	<0.19	<0.39
KK	B59	B59-KKD19-20-DUP	B59-KK	19-20	07/16/2014	<5.4	<3.3	<0.69	0.21 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	0.60 BJkq	<0.20	<0.80	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.49
KK	B61	B61-KKD19-20-DUP	B61-KK	19-20	07/16/2014	<5.1	<3.1	<0.65	<0.11	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	0.80 Jq	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
KK	B62	B62-KKD19-20-DUP	B62-KK	19-20	07/16/2014	<5.9	<3.6	<0.76	<0.12	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.90 Jq	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.53
KK		B62-KKD43-44-DUP	B62-KK	43-44	07/16/2014	7.3 Jq	<3.5	<0.75	1.5	<0.29	<0.21	<0.29	<0.27	<0.22	<0.20	<0.29	<0.21	<0.17	<0.21	<0.32	<0.14	<1.3	<0.76	<4.9	1.6	<0.21	<0.86	<0.29	<0.28	<0.78	0.78 Jq	<0.55	<0.20	<0.25	<0.52
KK	B63	B63-KKD19-20-DUP	B63-KK	19-20	07/16/2014	8.1 Jq	<3.0	<0.62	0.39 Jq	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.1	<0.64	<4.1	0.51 Jq	<0.18	<0.72	<0.24	<0.24	<0.65	<0.29	<0.46	<0.16	<0.21	<0.44

Table E.4
Chino Airport Consolidation Table: Volatile Organic Compounds (Method SW8260B) in Soil
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
KK	B64	B64-KKD19-20-DUP	B64-KK	19-20	07/16/2014	<5.3	<3.2	1.3 Jq	0.21 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.77 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
LL	B133	B133-LLD31-32-DUP	B133-LL	31-2	07/30/2014	<5.5	<3.3	<0.69	0.55 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
LL	B134	B134-LLD31-32-DUP	B134-LL	31-32	07/30/2014	<5.5	<3.3	<0.70	0.76 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.30	<0.13	<1.2	<0.72	<4.6	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.52	<0.18	<0.24	<0.49
M	B65	B65-MD19-20-DUP	B65-M	19-20	07/17/2014	<5.1	<3.1	<0.65	1.3	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	1.8	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	0.34 Jq	<0.46
M	B71	B71-MD19-20-DUP	B71-M	19-20	07/17/2014	7.3 Jq	4.8 Jq	<0.77	4.3	<0.30	<0.22	0.45 Jq	<0.28	<0.23	<0.21	<0.31	<0.22	<0.17	<0.22	<0.34	0.22 Jq	<1.3	<0.79	<5.0	3.5	<0.22	<0.89	<0.30	<0.29	<0.81	<0.36	<0.57	<0.20	0.90 Jq	<0.54
M	B72	B72-MD19-20-DUP	B72-M	19-20	07/17/2014	13 Jq	8.6 Jq	<0.79	6.7	<0.30	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.17	<0.22	<0.34	0.37 Jq	<1.3	<0.81	<5.1	4.4	<0.22	<0.90	<0.31	<0.30	<0.82	<0.37	<0.58	<0.21	0.98 Jq	<0.55
M	B73	B73-MD19-20-DUP	B73-M	19-20	07/17/2014	9.3 Jq	6.5 Jq	<0.66	6.8	<0.25	<0.19	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	0.38 Jq	<1.1	0.84 Jq	<4.3	3.8	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	1.0 Jq	<0.46
MM	B32	B32-MMD1-2-DUP	B32-MM	1-2	07/10/2014	27 Jq	<4.1	<0.86	1.7	0.58 Jq	<0.24	<0.33	<0.31	<0.26	<0.23	<0.34	<0.25	<0.19	<0.24	<0.37	<0.16	<1.4	<0.88	<5.6	1.2	<0.24	<0.99	<0.34	<0.32	<0.90	<0.41	<0.63	<0.23	<0.29	<0.60
MM		B32-MMD4-5-DUP	B32-MM	4-5	07/10/2014	17 Jq	<4.2	<0.89	0.87 Jq	<0.34	<0.25	<0.34	<0.32	<0.27	<0.24	<0.35	<0.26	<0.20	<0.25	<0.39	<0.17	<1.5	<0.92	<5.8	1.4	<0.25	<1.0	<0.35	<0.34	<0.93	<0.42	<0.66	<0.24	<0.30	<0.63
MM		B32-MMD51-52-DUP	B32-MM	51-52	07/10/2014	5.7 Jq	<3.2	<0.67	0.38 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	4.6 Jq	0.96	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.49	<0.18	<0.23	<0.47
MM	B33	B33-MMD4-5-DUP	B33-MM	4-5	07/10/2014	9.8 BJkq	<4.1	<0.87	1.0 Jq	<0.33	<0.25	<0.33	<0.31	<0.26	<0.23	<0.34	<0.25	<0.19	<0.24	<0.38	<0.17	<1.5	<0.89	<5.7	1.2	<0.25	<1.0	<0.34	<0.33	<0.91	<0.41	<0.64	<0.23	<0.29	<0.61
MM		B33-MMD39-40-DUP	B33-MM	39-40	07/10/2014	<5.2	<3.1	<0.66	0.39 Jq	<0.25	<0.19	<0.25	<0.23	<0.20	<0.18	<0.26	<0.19	<0.15	<0.18	<0.29	<0.13	<1.1	<0.67	<4.3	0.72 Jq	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.17	<0.22	<0.46
MM	B34	B34-MMD1-2-DUP	B34-MM	1-2	07/10/2014	270 Jr	60	<0.92	2.2	0.87 BJkq	<0.26	<0.35	<0.33	<0.28	<0.25	<0.36	<0.27	<0.20	<0.26	<0.40	<0.18	<1.6	<0.94	<6.0	2	<0.26	<1.1	<0.36	<0.35	<0.96	<0.44	<0.68	<0.24	<0.31	<0.65
MM		B34-MMD39-40-DUP	B34-MM	39-40	07/10/2014	<5.3	<3.2	<0.67	1.8	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	1.8	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
MM	B35	B35-MMD39-40-DUP	B35-MM	39-40	07/11/2014	12 Jq	<3.3	<0.70	0.37 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	0.58 Jq	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
MM	B36	B36-MMD40-DUP	B36-MM	40	07/10/2014	13 BJkq	<3.3	<0.70	0.24 Jq	0.36 Jq	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	0.74 Jq	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
MM	B37	B37-MMD40-DUP	B37-MM	40	07/10/2014	8.2 BJkq	<3.2	<0.67	0.14 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	0.62 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.49	<0.18	<0.23	<0.47
MM	B38	B38-MMD40-DUP	B38-MM	40	07/11/2014	<5.3	<3.2	<0.67	0.23 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.67 BJkq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
N	B70	B70-ND28-30-DUP	B70-N	28	07/21/2014	<5.4	<3.3	<0.69	0.21 Jq	<0.26	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	1.7	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	<0.23	<0.48
N	B86	B86-ND28-30-DUP	B86-N	28	07/21/2014	<4.6	<2.8	<0.59	0.52 Jq	<0.23	<0.17	<0.23	<0.21	<0.18	<0.16	<0.23	<0.17	<0.13	<0.16	<0.26	<0.11	<0.99	<0.60	<3.8	1.1 Bk	<0.17	<0.68	<0.23	<0.22	<0.62	<0.28	<0.43	<0.16	<0.20	<0.41
N	B87	B87-ND28-30-DUP	B87-N	28	07/21/2014	<5.1	<3.1	<0.65	0.20 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
N	B88	B88-ND28-30-DUP	B88-N	28	07/21/2014	<6.2	<3.8	<0.79	0.15 Jq	<0.31	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.35	<0.15	<1.3	<0.81	<5.2	<0.52	<0.23	<0.91	<0.31	<0.30	<0.83	<0.38	<0.59	<0.21	<0.27	<0.56
N	B89	B89-ND28-30-DUP	B89-N	28	07/22/2014	<6.6	<4.0	<0.84	0.23 Jq	<0.32	<0.24	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.19	<0.24	<0.37	<0.16	<1.4	<0.86	<5.5	<0.55	<0.24	<0.97	<0.33	<0.32	<0.88	<0.40	<0.62	<0.22	<0.28	<0.59
N	B90	B90-ND28-30-DUP	B90-N	28	07/22/2014	<4.8	<2.9	<0.61	3	<0.23	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.17	<0.13	<0.17	<0.26	0.14 Jq	<1.0	<0.62	<4.0	1.4	<0.17	<0.70	<0.24	<0.23	<0.63	<0.29	<0.45	<0.16	0.40 Jq	<0.43
N	B92	B92-ND29-30-DUP	B92-N	29	07/21/2014	<5.7	<3.5	<0.73	0.43 Jq	<0.28	<0.21	<0.28	<0.26	<0.22	<0.19	<0.29	<0.21	<0.16	<0.20	<0.32	<0.14	<1.2	<0.75	<4.8	<0.47	<0.21	<0.84	<0.29	<0.28	<0.76	<0.34	<0.54	<0.19	<0.25	<0.51
N	B96	B96-ND28-30-DUP	B96-N	28	07/22/2014	<6.3	<3.8	<0.80	0.17 Jq	<0.31	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.35	<0.15	<1.3	<0.82	<5.2	<0.52	<0.23	<0.92	<0.31	<0.30	<0.83	<0.38	<0.59	<0.21	<0.27	<0.56
NN	B77	B77-NND19-20-DUP	B77-NN	19	07/18/2014	<6.9	<4.2	<0.88	0.22 Jq	<0.34	<0.25	<0.34	<0.31	<0.26	<0.23	<0.35	<0.25	<0.20	<0.25	<0.38	<0.17	<1.5	<0.90	<5.7	0.83 Jq	<0.25	<1.0	<0.34	<0.33	<0.92	<0.42	<0.65	<0.23	<0.30	<0.62
NN	B78	B78-NND19-20-DUP	B78-NN	19	07/18/2014	<5.9	<3.6	<0.76	<0.12	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.78	<4.9	1.2	<0.21	<0.87	<0.30	<0.29	<0.79	<0.36	<0.56	<0.20	<0.26	<0.53
NN	B79	B79-NND19-20-DUP	B79-NN	19	07/18/2014	<5.8	<3.5	<0.74	0.86 Jq	<0.29	<0.21	<0.28	<0.26	<0.22	<0.20	<0.29	<0.21	<0.16	<0.21	<0.32	<0.14	<1.3	<0.76	<4.8	0.89 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.52
NN	B82	B82-NND19-20-DUP	B82-NN	19	07/21/2014	<6.1	<3.7	<0.78	<0.13	<0.30	<0.22	<0.30	<0.28	<0.24	<0.21	<0.31	<0.22	<0.17	<0.22	<0.34	<0.15	<1.3	<0.80	5.2 Jq	0.92 Jq	<0.22	<0.90	<0.31	<0.30	<0.82	<0.37	<0.58	<0.21	<0.26	<0.55
NN	B84	B84-NND19-20-DUP	B84-NN	19	07/21/2014	<5.9	<3.6	<0.75	<0.12	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	6.5 Jq	0.73 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.52
O	B39	B39-OD28-30-DUP	B39-O	28	07/11/2014	<5.9	<3.6	<0.75	0.12 Jq	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.50 BJkq	<0.21	<0.87	<0.29	<0.29	<0.79	<0.36	<0.56	<0.20	<0.25	<0.53
O	B40	B40-OD28-30-DUP	B40-O	28	07/11/2014	<5.1	<3.1	<0.65	0.27 Jq	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.67	<4.2	<0.42	<0.18	<0.75	<0.25	<0.25	<0.68	<0.31	<0.48	<0.17	<0.22	<0.46
O	B46	B46-0D29-30-DUP	B46-O	29	07/11/2014	<4.9	<2.9	<0.62	0.8	<0.24	<0.18	<0.24	<0.22	<0.19	<0.17	<0.25	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.64	<4.0	<0.40	<0.18	<0.71	<0.24	<0.23	<0.65	<0.29	<0.46	<0.16	<0.21	<0.43
O	B47	B47-0D24-25-DUP	B47-O	24	07/11/2014	<5.7	<3.4	<0.72	<0.12	<0.28	<0.20	<0.28	<0.26	<0.22	<0.19	<0.28	<0.21	<0.16	<0.20	<0.31	<0.14	<1.2	<0.74	<4.7	<0.47	<0.20	<0.83	<0.28	<0.27	<0.75	<0.34	<0.53	<0.19	<0.24	<0.50
OO	B43	B43-OOD36.5-DUP	B43-OO	36.5	07/14/2014	<5.4	<3.3	<0.69	<0.11	<0.26	<0.19	<0.26	<0.24	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.70	<4.5	0.63 BJkq	<0.19	<0.79	<0.27	<0.26	<0.72	<0.32	<0.51	<0.18	<0.23	<0.48
OO	B44	B44-00D40-DUP	B44-OO	40	07/15/2014	8.3 Jq	<3.3	<0.70	2.4	0.81 Jq	0.43 Jq	<0.27	<0.25	<0.21	<0.19	<0.28	88	2.7	26	<0.30	<0.13	<1.2	<0.72	<4.5	1.8	<0.20	1.1 Jq	3.5	<0.26	<0.73	<0.33	<0.52	<0.18	0.29 Jq	<0.49
OO	B45	B45-00D43-DUP	B45-OO	43	07/15/2014	12 Jq	6.7 Jq	<0.63	3.9	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	0.35 Jq	<0.14	0.18 Jq	<0.28	0.16 Jq	<1.1	<0.65	<4.1	2.1	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	0.29 Jq	<0.44
OO	B52	B52-OOD39-40-DUP	B52-OO	39-40	07/14/2014	<6.0	<3.6	<0.76	<0.12	<0.29	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.78	<5.0	0.61 Jq	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.56	<0.20	<0.26	<0.53
OO	B53	B53-00D4-5-DUP	B53-OO	4	07/15/2014	8.9 Jq	<3.8	<0.80	0.48 Jq	<0.31	<0.22	0.42 BJaq	<0.28	<0.24	<0.21	<0.31	<0.23	<0.18	<0.22	<0.35	<0.15	<1.3	<0.82	<5.2	0.68 Jq	<0.23	<0.92	<0.31	<0.30	<0.83	<0.38	<0.59	<0.21	<0.27	<0.56
OO		B53-00D36-37-DUP	B53-OO	36-37	07/15/2014	8.1 Jq	<3.6	<0.75	1.5	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	5.3 Jq	1.5	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
OO	B54	B54-00D39-40-DUP	B54-OO	39-40	07/15/2014	8.4 Jq	5.2 Jq	<0.83	2.9	<0.32	<0.23	<0.32	<0.30	<0.25	<0.22	<0.33	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.85	<5.4	1.9	<0.24	<0.96	<0.33	<0.32	<0.87	0.34 Jq	<0.61	<0.22	0.33 Jq	<0.58
OO		B54-00D54-55-DUP	B54-OO	54-55	07/15/2014	8.0 Jq	4.9 Jq	<0.68	5.6	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	0.26 Jq	<1.1	<0.69	<4.4	2.8	<0.19	<0.78	<0.26	<0.26	<0.71	1.2 Jq	<0.50	<0.18	0.50 Jq	<0.47
OO	B56	B56-00D40.5-DUP	B56-OO	40.5	07/15/2014	5.9 Jq	<3.2	<0.67	0.49 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	1.0	<0.19	<0.77	<0.26	<0.25	<0.70	<0.31	<0.49	<0.18	<0.22	<0.47
OO	B68	B68-00D9-DUP	B68-OO	9	07/18/2014	17 BJkq	4.2 Jq	<0.66	0.67 Jq	<0.26	<0.19	<0.25	<0.24	<0.20	<0.18	<0.26	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.68	<4.3	0.85 Bk	<0.19	<0.76	<0.26	<0.25	<0.69	<0.31	<0.49	<0.18	<0.22	<0.47
OO		B68-00D20-DUP	B68-OO	20	07/18/2014	<5.0	<3.0	<0.63	0.28 Jq	<0.24	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.1	0.72 BJkq	<0.18	<0.73	<0.25	<0.24	<0.66	<0.30	<0.47	<0.17	<0.21	<0.44
OO		B68-00D30-DUP	B68-OO	30	07/18/2014	6.5 BJkq	4.1 Jq	<0.67	3.4	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	0.30 Jq	<1.1	<0.69	<4.4	2.9	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	0.57 Jq	<0.47
OO		B68-00D37-DUP	B68-OO	37	07/18/2014	<5.1	<3.1	<0.65	1.9	<0.25	<0.18	<0.25	<0.23	<0.20	<0.17	<0.26	<0.19	<0.15	<0.18	<0.29	<0.12	<1.1	<0.67	<4.3	1.9	<0.19	<0.75	<0.26	<0.25	<0.68	<0.31	<0.48	<0.17	0.32 Jq	<0.46
OO		B68-00D46-DUP	B68-OO	46	07/18/2014	18 BJkq	<3.1	<0.65	0.39 Jq	<0.25	0.49 Jq	<0.25	<0.23	<0.20	<0.17	<0.26	3.3	0.92	3.8	<0.28	<0.12	<1.1	<0.67	<4.2	0.94 Bk	<0.18	<0.75	0.26 Jq	<0.25	<0.68	<0.31	<0.48	0.30 Jq	<0.22	<0.46
OO		B69-00D10-DUP	B69-OO	10	07/18/2014	16 BJkq	3.4 Jq	<0.67	0.35 Jq	<0.26	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.45 BJkq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47

Table E.4
Chino Airport Consolidation Table: Volatile Organic Compounds (Method SW8260B) in Soil
Chino Airport, Chino, California

AOC	Boring	Sample Name	Locid	Depth	Sample Date	Acetone	2-Butanone	Bromoform	Benzene	Carbon Disulfide	Chlorobenzene	Chloromethane	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethene	Ethylbenzene	Methylene Chloride	Naphthalene	Tert-Butyl Alcohol (TBA)	Toluene	1,1,1-Trichloroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	Trichloroethene	1,2,3-Trichloropropane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	Tetrachloroethene	p/m-Xylene	o-Xylene
OO	B68	B69-00D23-DUP	B69-OO	23	07/18/2014	7.3 BJkq	3.5 Jq	<0.69	3.5	<0.26	<0.19	<0.26	<0.25	<0.21	<0.18	<0.27	<0.20	<0.15	<0.19	<0.30	0.20 Jq	<1.2	<0.71	<4.5	3	<0.20	<0.79	<0.27	<0.26	<0.72	<0.33	<0.51	<0.18	0.47 Jq	<0.48
OO		B69-00D30-DUP	B69-OO	30	07/18/2014	6.3 BJkq	<2.9	<0.61	2	<0.24	<0.17	<0.23	<0.22	<0.18	<0.16	<0.24	<0.18	<0.14	<0.17	<0.27	<0.12	<1.0	<0.63	<4.0	1.9	<0.17	<0.70	<0.24	<0.23	<0.64	<0.29	<0.45	<0.16	0.30 Jq	<0.43
OO		B69-00D34-DUP	B69-OO	34	07/18/2014	<5.5	<3.3	<0.70	0.26 Jq	<0.27	<0.20	<0.27	<0.25	<0.21	<0.19	<0.28	<0.20	<0.16	<0.20	<0.31	<0.13	<1.2	<0.72	<4.6	1.2	<0.20	<0.81	<0.27	<0.27	<0.73	<0.33	<0.52	<0.19	<0.24	<0.49
Z	B142	B142-ZD20-DUP	B142-Z	20	07/31/2014	28 Jq	5.2 Jq	<0.70	1.1	0.28 Jq	<0.20	<0.27	<0.25	<0.21	<0.19	<0.27	<0.20	<0.15	<0.19	<0.30	<0.13	<1.2	<0.71	<4.5	<0.45	<0.20	<0.80	<0.27	<0.26	<0.73	<0.33	<0.51	<0.18	<0.23	<0.49
Z	B143	B143-ZD20-DUP	B143-Z	20	07/31/2014	15 Jq	<3.6	<0.75	2.3	<0.29	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	0.57 Jq	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.52
Z	B144	B144-ZD20-DUP	B144-Z	20	07/31/2014	7.3 Jq	<3.9	<0.82	0.30 Jq	0.72 Jq	<0.23	<0.31	<0.29	<0.25	<0.22	<0.32	<0.24	<0.18	<0.23	<0.36	<0.16	<1.4	<0.84	<5.3	<0.53	<0.23	<0.94	<0.32	<0.31	<0.85	<0.39	<0.60	<0.22	<0.28	<0.57
Z	B145	B145-ZD20-DUP	B145-Z	20	07/31/2014	9.4 Jq	<3.6	<0.75	1.2	0.50 Jq	<0.21	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.14	<1.3	<0.77	<4.9	<0.49	<0.21	<0.86	<0.29	<0.28	<0.78	<0.35	<0.55	<0.20	<0.25	<0.53
Z	B146	B146-ZD19-20-DUP	B146-Z	19-20	07/31/2014	<5.3	3.6 Jq	<0.67	1.5	0.36 Jq	<0.19	<0.26	<0.24	<0.20	<0.18	<0.27	<0.19	<0.15	<0.19	<0.29	<0.13	<1.1	<0.69	<4.4	0.70 Jq	<0.19	<0.77	<0.26	<0.25	<0.70	<0.32	<0.50	<0.18	<0.23	<0.47
Z	B147	B147-ZD19-20-DUP	B147-Z	19-20	07/31/2014	<5.1	<3.1	<0.64	0.57 Jq	<0.25	<0.18	<0.25	<0.23	<0.19	<0.17	<0.25	<0.19	<0.14	<0.18	<0.28	<0.12	<1.1	<0.66	<4.2	<0.42	<0.18	<0.74	<0.25	<0.24	<0.67	<0.30	<0.48	<0.17	<0.22	<0.45
Z	B151	B151-ZD20-DUP	B151-Z	20	07/31/2014	35 Jq	8.8 Jq	<0.77	1.4	0.67 Jq	<0.22	<0.29	<0.27	<0.23	<0.20	<0.30	<0.22	<0.17	<0.21	<0.33	<0.15	<1.3	<0.79	<5.0	<0.50	<0.22	<0.88	<0.30	<0.29	<0.80	<0.36	<0.57	<0.20	<0.26	<0.54
Z	B152	B152-ZD20-DUP	B152-Z	20	07/31/2014	5.3 Jq	3.4 Jq	<0.64	1.3	0.37 Jq	<0.18	<0.24	<0.23	<0.19	<0.17	<0.25	<0.18	<0.14	<0.18	<0.28	<0.12	<1.1	<0.65	<4.2	0.66 Jq	<0.18	<0.73	<0.25	<0.24	<0.67	<0.30	<0.47	<0.17	<0.22	<0.45
Investigation Goal						500	6,500	21	1,100	820,000	68	24,000	610	22	200	1.4	580	7,400	72	2.5	780	1.3	3,600	75	690	70	49,000	200	1.8	5	790,000	62,000	2.3	2,300	2,300

Acronyms and Abbreviations:
AOC - Area of Concern
Notes:
All concentrations are in micrograms per kilogram (µg/kg).
Yellow highlighting indicates concentration is above the IG.
Gray shading indicates compound was not detected in sample.
a - The analyte was found in the method blank.
J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
q - The analyte detection was below the practical quantitation limit (PQL)
B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result is considered not to have originated from the environmental sample, because cross-contamination is suspected.
k - The analyte was found in a field blank.
r - The result is above the instrument's calibration range.
Key:
AOC DD – Former Airport Maintenance Shop and Yard
AOC EE – Former Cal Aero Restoration Yard
AOC FF – Building A440
AOC G - Former PAC Wash Rack Area
AOC GG – Former Aircraft Dismantling Area
AOC H – Former Waste Disposal Ponds
AOC HH – Buildings A230, A235, A340, A435
AOC JJ – Former UST C-15 and Sump I
AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC KK – Building A270, Yanks Museum
AOC LL – Former UST C-18
AOC M – Fuel Dump Area
AOC MM – Building A385
AOC N – Suspected Landfill
AOC NN - Former Building 30
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill
AOC OO – Former PAC Wash Rack Area Drain
AOC Z – Waste Water Discharge from Building A495

Table E.5
Chino Airport Consolidation Table: Semi-volatile Organic Compounds (Method SW8270C)
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Acenaphthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Dimethyl Phthalate	Fluoranthene	Indeno (1,2,3-c,d) Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
O	B39-OD4-5	B39-O	4-5	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B39-OD15-16	B39-O	15-16	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B39-OD19-20	B39-O	19-20	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B39-OD25-26	B39-O	25-26	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B39-OD28-30	B39-O	28-30	07/11/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B39-OD9-10	B39-O	9-10	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD5-6	B40-O	5-6	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B40-OD10-11	B40-O	10-11	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD15-16	B40-O	15-16	07/11/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B40-OD19-20	B40-O	19-20	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD25-26	B40-O	25-26	07/11/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B40-OD28-30	B40-O	28-30	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B46-0D3-4	B46-O	3-4	07/11/2014	<0.098	<0.085	<0.089	0.20 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B46-0D10-11	B46-O	10-11	07/11/2014	<0.097	<0.084	<0.088	0.22 Jq	<0.11	<0.097	<0.094	<0.093	<0.13	<0.11	<0.10
O	B46-0D17-18	B46-O	17-18	07/11/2014	<0.10	<0.086	<0.091	0.24 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B46-0D22-23	B46-O	22-23	07/11/2014	<0.099	<0.086	<0.090	0.27 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B46-0D26-27	B46-O	26-27	07/11/2014	<0.098	<0.085	<0.089	0.26 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B46-0D29-30	B46-O	29-30	07/11/2014	<0.099	<0.085	<0.090	0.32 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B47-0D1-2	B47-O	1-2	07/11/2014	<0.098	<0.085	<0.089	0.31 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B47-0D7-8	B47-O	7-8	07/11/2014	<0.10	<0.086	<0.091	0.34 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B47-0D13-14	B47-O	13-14	07/11/2014	<0.099	<0.086	<0.090	0.32 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B47-0D18-19	B47-O	18-19	07/11/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
O	B47-0D24-25	B47-O	24-25	07/11/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B48-0D4-5	B48-O	4-5	07/11/2014	<0.099	<0.085	<0.090	0.28 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
O	B48-0D12-13	B48-O	12-13	07/11/2014	<0.098	<0.085	<0.089	0.28 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
O	B48-0D18-19	B48-O	18-19	07/11/2014	<0.099	<0.086	<0.090	0.33 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
O	B48-0D25-26	B48-O	25-26	07/11/2014	<0.10	<0.086	<0.091	0.24 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
O	B48-0D29-30	B48-O	29-30	07/11/2014	<0.098	<0.085	<0.089	0.22 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND4-5	B70-N	4-5	07/21/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND10-11	B70-N	10-11	07/21/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
N	B70-ND15-16	B70-N	15-16	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B70-ND19-20	B70-N	19-20	07/21/2014	<0.099	<0.085	<0.090	0.19 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B70-ND25-26	B70-N	25-26	07/21/2014	<0.098	<0.085	<0.089	0.18 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B70-ND28-30	B70-N	28-30	07/21/2014	<0.099	<0.085	<0.090	0.19 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B86-ND4-5	B86-N	4-5	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND10-11	B86-N	10-11	07/21/2014	<0.099	<0.086	<0.090	0.24 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND15-16	B86-N	15-16	07/21/2014	<0.099	<0.085	<0.090	0.24 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B86-ND19-20	B86-N	19-20	07/21/2014	<0.098	<0.085	<0.089	0.23 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B86-ND25-26	B86-N	25-26	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B86-ND28-30	B86-N	28-30	07/21/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND4-5	B87-N	4-5	07/21/2014	<0.098	<0.085	<0.089	0.19 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B87-ND10-11	B87-N	10-11	07/21/2014	<0.098	<0.085	<0.089	0.22 Jq	<0.11	<0.098	<0.094	<0.094	<0.13	<0.11	<0.10
N	B87-ND14-15	B87-N	14-15	07/21/2014	<0.099	<0.085	<0.090	0.18 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B87-ND19-20	B87-N	19-20	07/21/2014	<0.10	<0.086	<0.091	0.23 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND25-26	B87-N	25-26	07/21/2014	<0.099	<0.086	<0.090	0.23 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B87-ND28-30	B87-N	28-30	07/21/2014	<0.099	<0.085	<0.090	0.23 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B88-ND4-5	B88-N	4-5	07/21/2014	<0.099	<0.085	<0.090	0.35 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B88-ND10-11	B88-N	10-11	07/21/2014	<0.098	<0.085	<0.089	0.23 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B88-ND15-16	B88-N	15-16	07/21/2014	<0.099	<0.086	<0.090	0.33 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND19-20	B88-N	19-20	07/21/2014	<0.10	<0.086	<0.091	0.27 Jq	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND25-26	B88-N	25-26	07/21/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B88-ND28-30	B88-N	28-30	07/21/2014	0.16 Jq	<0.086	<0.090	0.31 Jq	<0.11	<0.099	0.18 Jq	0.40 Jq	11	<0.12	<0.10
N	B89-ND4-5	B89-N	4-5	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B89-ND10-11	B89-N	10-11	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B89-ND15-16	B89-N	15-16	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B89-ND19-20	B89-N	19-20	07/22/2014	<0.099	<0.085	<0.090	<0.18	0.13 Jq	<0.099	<0.095	<0.095	<0.13	0.13 Jq	0.13 Jq
N	B89-ND24-25	B89-N	24-25	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10

Table E.5
Chino Airport Consolidation Table: Semi-volatile Organic Compounds (Method SW8270C)
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Acenaphthene	Benzo (a) Pyrene	Benzo (g,h,i) Perylene	Dimethyl Phthalate	Fluoranthene	Indeno (1,2,3-c,d) Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
N	B89-ND28-30	B89-N	28-30	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B90-ND4-5	B90-N	4-5	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B90-ND10-11	B90-N	10-11	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND15-16	B90-N	15-16	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B90-ND19-20	B90-N	19-20	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND25-26	B90-N	25-26	07/22/2014	<0.10	<0.086	<0.091	<0.18	<0.11	<0.10	<0.096	<0.095	<0.13	<0.12	<0.10
N	B90-ND28-30	B90-N	28-30	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND4-5	B91-N	4-5	07/21/2014	<0.098	<0.085	<0.089	0.31 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B91-ND10-11	B91-N	10-11	07/21/2014	<0.099	<0.085	<0.090	0.25 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND16-17	B91-N	16-17	07/21/2014	<0.099	<0.085	<0.090	0.37 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B91-ND22-23	B91-N	22-23	07/21/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B91-ND29-30	B91-N	29-30	07/21/2014	<0.099	<0.085	<0.090	0.26 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND4-5	B92-N	4-5	07/21/2014	<0.099	<0.086	<0.090	0.35 Jq	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B92-ND14-15	B92-N	14-15	07/21/2014	<0.099	<0.085	<0.090	0.28 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND20-21	B92-N	20-21	07/21/2014	<0.099	<0.085	<0.090	0.30 Jq	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B92-ND25-26	B92-N	25-26	07/21/2014	<0.098	<0.085	<0.089	0.24 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B92-ND29-30	B92-N	29-30	07/21/2014	<0.098	<0.085	<0.089	0.30 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND4-5	B96-N	4-5	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND10.5-11.5	B96-N	10.5-11.5	07/22/2014	<0.098	<0.085	<0.089	<0.18	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
N	B96-ND15-16	B96-N	15-16	07/22/2014	<0.099	<0.086	<0.090	<0.18	<0.11	<0.099	<0.096	<0.095	<0.13	<0.12	<0.10
N	B96-ND20-21	B96-N	20-21	07/22/2014	<0.099	<0.085	<0.090	<0.18	<0.11	<0.099	<0.095	<0.095	<0.13	<0.12	<0.10
N	B96-ND25-26	B96-N	25-26	07/22/2014	<0.098	0.12 Jq	0.15 Jq	<0.18	0.20 Jq	0.11 Jq	<0.095	<0.094	0.15 Jq	0.20 Jq	0.20 Jq
N	B96-ND28-30	B96-N	28-30	07/22/2014	<0.098	<0.085	<0.089	0.26 Jq	<0.11	<0.098	<0.095	<0.094	<0.13	<0.12	<0.10
Investigation Goal					16	0.015	27	0.035	40	0.15	16	0.25	3.6	11	85

Acronyms and Abbreviations:

AOC - Area of Concern

Notes:

All concentrations are in milligrams per kilogram (mg/kg).

Yellow highlighting indicates concentration is above the IG.

Gray shading indicates compound was not detected in sample.

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.

q - The analyte detection was below the practical quantitation limit (PQL)

k - The analyte was found in a field blank.

Key:

AOC N – Suspected Landfill

AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table E.6
Chino Airport Consolidation Table: Metals (Method 6010B/7471A)
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Arsenic	Antimony	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc
Background	B153-BD0.5-1	B153-B	0.5-1	08/01/2014	0.656 Jq	<0.146	153	0.267	0.356 Jq	6.53	15.9	23.7	11.0	0.0143 Jq	<0.129	9.23	0.295	<0.294	<0.149	33.3	70.7
Background	B153-BD14-15	B153-B	14-15	08/01/2014	<0.252	<0.145	138	0.522	<0.131	12.2	45.6	15.4	2.23	0.00746 Jq	<0.128	13.7	<0.0832	<0.291	<0.147	62.0	61.9
Background	B153-BD19-20	B153-B	19-20	08/01/2014	<0.253	<0.145	112	0.457	<0.132	10.9	23.2	13.9	2.02	<0.00607	<0.129	13.2	<0.0836	<0.292	<0.148	33.9	56.8
Background	B153-BD5-6	B153-B	5-6	08/01/2014	<0.258	<0.148	153	0.167 Jq	0.210 Jq	4.32	13.7	23.2	0.308 Jq	<0.00597	0.572	6.29	0.710	<0.298	<0.151	26.9	38.1
Background	B153-BD9-10	B153-B	9-10	08/01/2014	<0.262	<0.150	115	0.488	<0.137	20.4	53.4	12.0	5.60	<0.00607	<0.133	28.6	<0.0866	<0.303	<0.153	113	73.3
Background	B154-BD0.5-1	B154-B	0.5-1	08/01/2014	1.87	<0.145	163	0.268	0.249 Jq	6.92	15.4	14.0	8.12	<0.00607	<0.129	8.98	0.204 Jq	<0.292	<0.148	52.5	58.7
Background	B154-BD14-15	B154-B	14-15	08/01/2014	<0.254	<0.146	90.0	0.437	<0.133	7.51	29.2	8.81	2.87	<0.00607	<0.129	10.3	<0.0840	<0.294	<0.149	35.1	43.7
Background	B154-BD19-20	B154-B	19-20	08/01/2014	4.43	<0.150	123	0.443	<0.136	15.8	27.6	15.9	2.16	<0.00568	0.408	12.7	<0.0861	<0.301	<0.152	52.3	50.0
Background	B154-BD5-6	B154-B	5-6	08/01/2014	<0.260	<0.150	243	0.237 Jq	0.197 Jq	6.70	14.4	9.24	0.141 Jq	<0.00607	0.165 Jq	7.70	0.570	<0.301	<0.152	26.3	31.5
Background	B154-BD9-10	B154-B	9-10	08/01/2014	<0.253	<0.145	199	0.553	<0.132	14.9	38.6	19.6	4.76	<0.00559	0.619	20.3	<0.0836	<0.292	<0.148	51.9	63.4
O	B39-OD15-16	B39-O	15-16	07/11/2014	1.15	<0.149	131	0.550	<0.135	11.4	31.2	17.4	3.25	0.0166 Jq	<0.132	15.4	<0.0857	<0.300	<0.152	42.9	55.0
O	B39-OD19-20	B39-O	19-20	07/11/2014	2.18	<0.148	102	0.481	<0.135	11.3	34.8	18.6	3.17	0.00961 Jq	<0.131	14.7	<0.0853	<0.298	<0.151	51.7	49.7
O	B39-OD25-26	B39-O	25-26	07/11/2014	<0.266	<0.153	115	0.478	<0.139	11.9	28.5	17.6	2.21	0.00837 Jq	<0.135	15.7	<0.0879	<0.307	<0.156	47.3	54.6
O	B39-OD28-30	B39-O	28-30	07/11/2014	1.91	<0.145	150	0.457	<0.132	13.2	26.3	19.3	2.54	0.00942 Jq	<0.129	16.2	<0.0836	<0.292	<0.148	50.9	59.6
O	B39-OD28-30-DUP	B39-O	28-30	07/11/2014	1.88	<0.152	161	0.505	<0.138	15.1	26.2	21.0	2.73	0.00881 Jq	<0.135	17.5	<0.0875	<0.306	<0.155	54.2	62.3
O	B39-OD4-5	B39-O	41734	07/11/2014	3.27	<0.149 UJc	117	0.429	<0.135	10.5	22.8	12.7	2.55	<0.00587	<0.132	13.1	<0.0857	<0.300	<0.152	40.0	46.6
O	B39-OD9-10	B39-O	9-10	07/11/2014	0.376 Jq	<0.154	161	0.583	<0.140	13.5	31.1	26.7	3.86	0.0182 Jq	<0.137	17.1	<0.0888	<0.310	<0.157	46.5	62.4
O	B40-OD10-11	B40-O	10-11	07/11/2014	0.725 Jq	<0.147	156	0.626	<0.133	15.0	34.1	22.4	4.36	0.0151 Jq	<0.130	19.4	<0.0844	<0.295	<0.149	64.1	60.3
O	B40-OD15-16	B40-O	15-16	07/11/2014	1.50	<0.152	144	0.508	<0.138	13.2	28.0	17.0	3.87	0.00932 Jq	<0.135	17.1	<0.0875	<0.306	<0.155	44.7	50.6
O	B40-OD19-20	B40-O	19-20	07/11/2014	0.834	<0.147	77.4	0.535	<0.133	8.08	22.0	14.4	2.96	0.0193 Jq	<0.130	12.1	<0.0844	<0.295	<0.149	28.3	39.2
O	B40-OD25-26	B40-O	25-26	07/11/2014	<0.258	<0.148	100	0.311	<0.135	9.53	21.8	12.3	1.43	0.0216 Jq	<0.131	9.86	<0.0853	<0.298	<0.151	37.1	40.5
O	B40-OD28-30	B40-O	28-30	07/11/2014	0.774 Jf	<0.147	134	0.405	<0.133	12.7	21.2	15.3	2.39	0.0133 Jq	<0.130	14.1	<0.0844	<0.295	<0.149	43.9	52.9
O	B40-OD28-30-DUP	B40-O	28-30	07/11/2014	1.22 Jf	<0.146	151	0.447	<0.133	13.7	31.2	19.5	2.77	0.0104 Jq	<0.129	16.0	<0.0840	<0.294	<0.149	52.2	58.8
O	B40-OD5-6	B40-O	5-6	07/11/2014	4.51	<0.145	101	0.410	<0.132	9.37	21.8	12.7	2.52	0.00621 Jq	<0.129	13.1	<0.0836	<0.292	<0.148	39.4	48.0
O	B46-0D10-11	B46-O	10-11	07/11/2014	<0.262	<0.150	162	0.600	<0.137	14.1	36.7	22.4	4.20	0.00961 Jq	<0.133	18.4	<0.0866	<0.303	<0.153	56.7	59.4
O	B46-0D17-18	B46-O	17-18	07/11/2014	<0.254	<0.146	130	0.454	0.244 Jq	11.0	28.6	20.6	2.63	0.0158 Jq	<0.129	13.7	0.172 Jq	<0.294	<0.149	42.9	48.7
O	B46-0D22-23	B46-O	22-23	07/11/2014	1.62	<0.155	269	0.405	<0.141	12.6	23.7	14.3	2.91	<0.00568	0.382	13.9	<0.0893	<0.312	<0.158	54.1	45.1
O	B46-0D26-27	B46-O	26-27	07/11/2014	0.392 Jq	<0.151	94.0	0.407	<0.137	9.58	30.2	13.8	2.35	0.00996 Jq	<0.134	13.3	<0.0870	<0.304	<0.154	41.0	47.5
O	B46-0D29-30	B46-O	29-30	07/11/2014	0.595 Jq	<0.141	169	0.536	<0.128	12.1	22.7	12.9	3.16	0.0112 Jq	<0.125	15.1	<0.0812	<0.284	<0.144	46.5	50.9
O	B46-0D29-30-DUP	B46-O	29-30	07/11/2014	1.71	<0.150	183	0.538	<0.137	12.0	25.2	12.8	3.17	0.0101 Jq	0.206 Jq	15.1	<0.0866	<0.303	<0.153	48.3	53.9
O	B46-0D3-4	B46-O	3-4	07/11/2014	1.58	<0.143	195	0.500	<0.130	13.6	31.6	20.6	1.74	0.00794 Jq	<0.126	17.9	<0.0820	<0.287	<0.145	53.7	58.6
O	B47-0D1-2	B47-O	1-2	07/11/2014	1.31	<0.147	134	0.470	<0.133	11.4	24.1	13.3	2.14	<0.00597	<0.130	14.0	<0.0844	<0.295	<0.149	42.9	48.1
O	B47-0D13-14	B47-O	13-14	07/11/2014	<0.267	<0.154	155	0.481	<0.140	8.95	43.8	15.9	1.56	0.00671 Jq	<0.136	13.8	<0.0884	<0.309	<0.156	46.7	51.4
O	B47-0D18-19	B47-O	18-19	07/11/2014	5.10	<0.150	137	0.449	<0.137	10.9	25.8	16.5	3.41	<0.00578	<0.133	12.3	<0.0866	<0.303	<0.153	71.0	43.7
O	B47-0D24-25	B47-O	24-25	07/11/2014	0.407 Jq	<0.150	76.9	0.225 Jq	<0.137	7.71	25.3 Jf	10.8	2.03 Jf	0.00830 Jq	0.389	9.77	<0.0866	<0.303	<0.153	25.8	33.4
O	B47-0D24-25-DUP	B47-O	24-25	07/11/2014	0.566 Jq	<0.149	60.6	0.217 Jq	<0.135	6.63	52.8 Jf	7.76	1.20 Jf	0.00850 Jq	0.356	8.35	<0.0857	<0.300	<0.152	26.8	38.0
O	B47-0D7-8	B47-O	7-8	07/11/2014	1.78	<0.150	211	0.704	<0.137	13.8	44.6	21.0	3.64	0.0209 Jq	<0.133	17.0	<0.0866	<0.303	<0.153	51.6	58.0
O	B48-0D12-13	B48-O	12-13	07/11/2014	0.784	<0.147	126	0.435	<0.134	11.8	24.7	11.7	2.63	0.00588 Jq	<0.131	12.2	<0.0849	<0.297	<0.150	40.9	42.3
O	B48-0D18-19	B48-O	18-19	07/11/2014	<0.263	<0.151	77.3	0.355	<0.137	7.67	32.1	7.58	1.23	<0.00587	<0.134	8.48	<0.0870	<0.304	<0.154	26.2	35.6
O	B48-0D25-26	B48-O	25-26	07/11/2014	0.964	<0.154	80.2	0.387	<0.140	9.67	23.2	13.2	1.75	<0.00597	<0.136	12.7	<0.0884	<0.309	<0.156	39.2	41.3
O	B48-0D29-30	B48-O	29-30	07/11/2014	<0.259	<0.149 UJc	73.0	0.358	<0.135	8.50	22.8	10.8	2.04	<0.00587	<0.132	11.1	<0.0857	<0.300	<0.152	33.7	37.9
O	B48-0D4-5	B48-O	4-5	07/11/2014	1.06	<0.152	174	0.396	<0.138	9.66	20.8	12.6	1.38	<0.00587	<0.135	11.9	<0.0875	<0.306	<0.155	40.8	42.0
N	B70-ND10-11	B70-N	10-11	07/21/2014	<0.264	<0.152	187	0.557	0.160 Jq	10.7	61.7	11.7	3.81	0.00960 Jq	0.259	14.4	<0.0875	<0.306	<0.155	52.8	45.7
N	B70-ND15-16	B70-N	15-16	07/21/2014	<0.259	<0.149	131	0.697	<0.135	15.6	42.8	20.4	2.95	0.0167 Jq	<0.132	15.1	<0.0857	<0.300	<0.152	82.7	72.8
N	B70-ND19-20	B70-N	19-20	07/21/2014	<0.260	<0.150	128	0.635	<0.136	12.5	34.9	21.0	3.59	0.0117 Jq	<0.133	15.8	<0.0861	<0.301	<0.152	39.6	47.9
N	B70-ND25-26	B70-N	25-26	07/21/2014	2.52	<0.150	284	0.854	<0.137	26.5	37.6	32.9	7.86	0.00964 Jq	<0.133	28.1	<0.0866	<0.303	<0.153	74.7	70.8
N	B70-ND28-30	B70-N	28-30	07/21/2014	2.47	<0.149 UJcf	161	0.652	<0.135	14.7	35.2	23.3	3.66	0.0148 Jq	<0.132	18.1	<0.0857	<0.300	<0.152 UJc	68.8	63.3
N	B70-ND28-30-DUP	B70-N	28-30	07/21/2014	3.64	<0.149 UJcf	161	0.683	<0.135	12.8	36.5	22.8	3.62	0.0150 Jq	<0.132	17.7	<0.0857	<0.300	<0.152 UJc	70.9	63.3
N	B70-ND4-5	B70-N	4-5	07/21/2014	0.764	<0.145	232	0.198 Jq	0.403 Jq	5.20	32.0	11.4	2.17	<0.00587	1.50	7.22	0.551	<0.291	<0.147	27.5	33.5
N	B86-ND10-11	B86-N	10-11	07/21/2014	1.13	<0.151	158	0.595	<0.137	17.5	47.4	27.6	6.19	0.0211 Jq	1.89	23.8	<0.0870	<0.304	<0.154	96.3	63.2
N	B86-ND15-16	B86-N	15-16	07/21/2014	<0.259	<0.149	114	0.452	<0.135	8.89	61.2	12.8	2.60	<0.00587	<0.132	11.5	<0.0857	<0.300	<0.152	48.1	45.4
N	B86-ND19-20	B86-N	19-20	07/21/2014	<0.258	<0.148	113	0.600	<0.135	12.6	30.7	19.0	3.41	<0.00568	<0.131	15.9	<0.0853	<0.298	<0.151	46.7	49.6
N	B86-ND25-26	B86-N	25-26	07/21/2014	3.53	<0.145	151	0.901	<0.132	14.8	35.7	25.8	5.23	0.0183 Jq	<0.129	22.6	<0.0836	<0.292	<0.148	58.4	69.1
N	B86-ND28-30	B86-N	28-30	07/21/2014	0.390 Jq	<0.143	163	0.716	<0.130	22.6	43.3	31.2	7.49	0.0161 Jq	<0.126	23.1	<0.0820	<0.287	<0.145	80.2	66.9
N	B86-ND28-30-DUP	B86-N	28-30	07/21/2014	0.763	<0.149	153	0.728	<0.135	18.5	43.5	29.8	5.43	<0.00578	<0.132	22.4	<0.0857	<0.300	<0.152	74.1	66.5
N	B86-ND4-5	B86-N	4-5	07/21/2014	0.774	<0.150	176	0.272	2.76	6.24	111	28.1	21.2	0.0173 Jq	0.563	9.91	0.452	<0.303	<0.153	36.5	85.7
N	B87-ND10-11	B87-N	10-11	07/21/2014	2.84	<0.144	117	0.426	<0.131	13.4	34.6	21.6	4.51	0.0250 Jq	7.84	18.7	<0.0828	<0.289	<0.147	76.4	54.3
N	B87-ND14-15	B87-N	14-15	07/21/2014	0.935	<0.154	104	0.402	<0.140	9.44	25.7	7.61	1.30	0.0128 Jq	<0.136	11.7	<0.0884	<0.309	<0.156	49.2	45.8

Table E.6
Chino Airport Consolidation Table: Metals (Method 6010B/7471A)
Chino Airport, Chino, California

AOC	Sample Name	Locid	Depth	Sample Date	Arsenic	Antimony	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc
N	B87-ND19-20	B87-N	19-20	07/21/2014	1.08	<0.149	117	0.461	<0.135	10.6	52.1	13.1	2.44	<0.00587	<0.132	13.6	<0.0857	<0.300	<0.152	40.4	44.8
N	B87-ND25-26	B87-N	25-26	07/21/2014	<0.264	<0.152	122	0.775	<0.138	12.1	43.5	26.5	5.26	0.00790 Jq	<0.135	20.9	<0.0875	<0.306	<0.155	56.2	63.5
N	B87-ND28-30	B87-N	28-30	07/21/2014	3.54	<0.152	181	0.722	<0.138	24.1	40.5	26.9	4.83	<0.00587	<0.135	23.3	<0.0875	<0.306	<0.155	69.9	69.1
N	B87-ND28-30-DUP	B87-N	28-30	07/21/2014	4.08	<0.152	162	0.672	<0.138	19.4	35.8	24.5	5.00	0.00681 Jq	<0.135	19.5	<0.0875	<0.306	<0.155	62.8	64.6
N	B87-ND4-5	B87-N	4-5	07/21/2014	0.393 Jq	<0.154	204	0.252 Jq	0.474 Jq	7.00	24.6	12.1	3.26	<0.00607	0.464	9.26	0.375	<0.309	<0.156	39.1	40.6
N	B88-ND10-11	B88-N	10-11	07/21/2014	0.671 Jq	<0.143	118	0.701	<0.130	16.3	70.4	16.9	6.62	0.0238 Jq	<0.126	21.1	<0.0820	0.751	<0.145	130	58.8
N	B88-ND15-16	B88-N	15-16	07/21/2014	<0.247	<0.142	74.4	0.363	<0.129	10.4	27.5	14.3	3.16	<0.00597	0.981	14.7	<0.0816	<0.285	<0.144	40.5	43.0
N	B88-ND19-20	B88-N	19-20	07/21/2014	0.540 Jq	<0.145	93.9	0.401	<0.131	9.80	26.7	11.0	2.10	<0.00587	0.240 Jq	12.3	<0.0832	<0.291	<0.147	36.1	48.1
N	B88-ND25-26	B88-N	25-26	07/21/2014	<0.267	<0.154	99.5	0.325	<0.140	9.31	16.7	8.49	1.23	0.0102 Jq	0.394	10.1	<0.0884	<0.309	<0.156	39.8	46.3
N	B88-ND28-30	B88-N	28-30	07/21/2014	<0.263	<0.151	51.2	0.177 Jq	<0.137	5.00	10.3	3.95	0.755	<0.00578	0.646	5.51	<0.0870	<0.304	<0.154	19.8	25.7
N	B88-ND28-30-DUP	B88-N	28-30	07/21/2014	<0.266	<0.153	61.7	0.211 Jq	<0.139	6.04	11.5	5.19	0.814	<0.00568	0.889	6.29	<0.0879	<0.307	<0.156	23.9	33.7
N	B88-ND4-5	B88-N	4-5	07/21/2014	<0.270	<0.155	187	0.234 Jq	0.714	6.29	30.0	22.9	10.8	0.0163 Jq	0.232 Jq	8.60	0.176 Jq	<0.312	<0.158	39.2	58.1
N	B89-ND10-11	B89-N	10-11	07/22/2014	<0.258	<0.148	96.3	0.448	<0.135	11.5	63.5	20.6	5.22	0.0150 Jq	<0.131	17.3	<0.0853	<0.298	<0.151	64.4	52.6
N	B89-ND15-16	B89-N	15-16	07/22/2014	<0.260	<0.150	81.6	0.448	<0.136	12.8	37.6	23.8	5.58	0.0108 Jq	<0.133	19.7	<0.0861	<0.301	<0.152	43.8	58.0
N	B89-ND19-20	B89-N	19-20	07/22/2014	<0.254	<0.146	97.3	0.416	<0.133	9.45	28.6	14.9	2.39	0.00897 Jq	<0.129	12.3	<0.0840	<0.294	<0.149	35.9	45.9
N	B89-ND24-25	B89-N	24-25	07/22/2014	<0.255	<0.147	50.6	0.182 Jq	<0.133	4.46	8.70	4.62	1.16	0.0119 Jq	0.253	4.68	<0.0844	<0.295	<0.149	14.9	31.7
N	B89-ND28-30	B89-N	28-30	07/22/2014	0.436 Jq	<0.146	41.0	0.139 Jq	<0.133	3.50	5.89 Jf	3.63	0.786	0.0125 Jq	0.225 Jq	3.87 Jf	<0.0840	<0.294	<0.149	13.2	19.2
N	B89-ND28-30-DUP	B89-N	28-30	07/22/2014	0.451 Jq	<0.150	35.3	<0.138	<0.136	3.10	8.96 Jf	3.75	1.07	<0.00587	0.245 Jq	6.40 Jf	<0.0861	<0.301	<0.152	11.6	16.6
N	B89-ND4-5	B89-N	4-5	07/22/2014	3.18	<0.146	175	0.270	4.43	8.86	100	27.4	34.4	0.0183 Jq	0.527	12.3	<0.0840	<0.294	<0.149	69.1	95.1
N	B90-ND10-11	B90-N	10-11	07/22/2014	<0.257	<0.147	117	0.390	<0.134	11.2	49.0	20.2	4.27	0.0181 Jq	<0.131	16.9	<0.0849	<0.297	<0.150	48.9	52.2
N	B90-ND15-16	B90-N	15-16	07/22/2014	0.729 Jq	<0.148	95.8	0.345	<0.135	8.57	22.9	10.5	1.72	<0.00568	0.600	9.32	<0.0853	<0.298	<0.151	34.7	44.2
N	B90-ND19-20	B90-N	19-20	07/22/2014	<0.254	<0.146	74.5	0.258	<0.133	6.48	12.1	7.71	1.43	0.0126 Jq	<0.129	6.98	<0.0840	<0.294	<0.149	22.8	34.5
N	B90-ND25-26	B90-N	25-26	07/22/2014	<0.262	<0.150	35.4	0.142 Jq	<0.137	4.19	8.57	5.71	1.30	0.0108 Jq	0.874	4.04	<0.0866	<0.303	<0.153	14.8	22.9
N	B90-ND28-30	B90-N	28-30	07/22/2014	<0.257	<0.147	118	0.464	<0.134	11.6	21.0	16.7	2.86	0.0128 Jq	<0.131	12.9	<0.0849	<0.297	<0.150	36.3	52.2
N	B90-ND28-30-DUP	B90-N	28-30	07/22/2014	<0.255	<0.147	117	0.509	<0.133	11.7	21.9	17.9	3.33	<0.00618	<0.130	13.1	<0.0844	<0.295	<0.149	38.8	51.4
N	B90-ND4-5	B90-N	4-5	07/22/2014	0.381 Jq	<0.150	201	0.223 Jq	0.690	5.78	35.8	18.0	5.54	0.00861 Jq	0.402	8.45	0.285	<0.301	<0.152	35.6	43.1
N	B91-ND10-11	B91-N	10-11	07/21/2014	<0.260	<0.150	142	0.551	0.254 Jq	13.5	118	22.6	5.60	0.0147 Jq	<0.133	20.2	<0.0861	<0.301	<0.152	96.8	59.5
N	B91-ND16-17	B91-N	16-17	07/21/2014	<0.252	<0.145	99.4	0.438	1.01	11.2	43.3	19.9	12.9	0.0116 Jq	<0.128	15.0	<0.0832	<0.291	<0.147	40.1	62.0
N	B91-ND22-23	B91-N	22-23	07/21/2014	<0.259	<0.149	52.7	0.226 Jq	<0.135	5.40	11.0	5.26	0.996	0.00986 Jq	<0.132	5.51	<0.0857	<0.300	<0.152 UJc	22.6	27.2
N	B91-ND29-30	B91-N	29-30	07/21/2014	<0.263	<0.151	95.1	0.204 Jq	<0.137	9.30	11.7	5.76	0.494 Jq	0.00762 Jq	0.546	6.05	<0.0870	<0.304	<0.154	34.1	45.4
N	B91-ND4-5	B91-N	4-5	07/21/2014	0.674 Jq	<0.150	177	0.234 Jq	13.7	6.25	195	65.2	125	0.0582 Jq	0.339	9.01	0.218 Jq	<0.301	<0.152	34.7	195
N	B92-ND4-5	B92-N	4-5	07/21/2014	0.835	<0.143	184	0.196 Jq	1.06	5.15	26.1	14.2	9.04	0.0112 Jq	<0.127	7.18	0.235 Jq	<0.288	<0.146	34.2	50.0
N	B92-ND14-15	B92-N	14-15	07/21/2014	<0.258	<0.148	66.7	0.294	<0.135	9.00	30.2	13.6	2.70	<0.00587	<0.131	12.8	<0.0853	<0.298	<0.151	31.0	45.2
N	B92-ND20-21	B92-N	20-21	07/21/2014	0.463 Jq	<0.149	64.7	0.312	<0.135	9.01	24.9	12.0	2.60	0.0134 Jq	0.399	11.6	<0.0857	<0.300	<0.152	31.2	42.8
N	B92-ND25-26	B92-N	25-26	07/21/2014	<0.260	<0.150	89.9	0.683	<0.136	11.8	38.0	20.0	4.05	0.0163 Jq	<0.133	16.3	<0.0861	<0.301	<0.152	44.7	52.7
N	B92-ND29-30	B92-N	29-30	07/21/2014	5.17	<0.142	243	0.851	<0.129	17.9	46.9	42.9	6.61	0.0167 Jq	<0.126	28.6	<0.0816	<0.285	<0.144	80.9	81.4
N	B92-ND29-30-DUP	B92-N	29-30	07/21/2014	6.09	<0.149	287	0.867	<0.135	23.7	44.8	40.8	6.62	0.0130 Jq	<0.132	29.6	<0.0857	<0.300	<0.152	86.1	82.1
N	B96-ND10.5-11.5	B96-N	10.5-11.5	07/22/2014	1.49	<0.151	82.8	0.436	<0.137	11.9	52.2	14.5	3.35	0.0126 Jq	0.285	15.8	<0.0870	<0.304	<0.154	62.6	49.4
N	B96-ND15-16	B96-N	15-16	07/22/2014	1.40	<0.147	111	0.420	<0.133	11.1	39.5	16.6	3.67	0.0109 Jq	<0.130	13.6	<0.0844	<0.295	<0.149	44.6	54.6
N	B96-ND20-21	B96-N	20-21	07/22/2014	<0.258	<0.148	35.3	0.150 Jq	<0.135	4.02	9.41	4.18	1.76	<0.00607	0.636	5.01	<0.0853	<0.298	<0.151	13.7	20.3
N	B96-ND25-26	B96-N	25-26	07/22/2014	<0.255	<0.147	46.5	0.156 Jq	<0.133	4.28	7.88	4.21	1.04	<0.00559	0.468	4.52	<0.0844	<0.295	<0.149	15.4	21.8
N	B96-ND28-30	B96-N	28-30	07/22/2014	0.347 Jq	<0.150	48.7	0.167 Jq	<0.136	4.55	7.97	4.75	1.17	<0.00597	0.561	4.89	<0.0861	<0.301	<0.152	17.1	23.9
N	B96-ND28-30-DUP	B96-N	28-30	07/22/2014	0.313 Jq	<0.146	49.3	0.165 Jq	<0.133	4.54	7.70	4.63	1.15	<0.00578	0.525	4.85	<0.0840	<0.294	<0.149	16.5	23.0
N	B96-ND4-5	B96-N	4-5	07/22/2014	<0.255	<0.147	90.0	0.163 Jq	<0.133	3.87	36.3	6.19	0.810	<0.00607	<0.130	5.19	<0.0844	<0.295	<0.149	18.5	23.3

Acronyms and Abbreviations:
AOC - Area of Concern
J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
q - The analyte detection was below the practical quantitation limit (PQL)
Gray shading indicates compound was not detected in soil.
Notes:
All concentrations are in milligrams per kilogram (mg/kg).
Bold indicates analyte detected.
Key:
AOC N – Suspected Landfill
AOC O – U.S. Forest Service Area/Reported Solid Waste Landfill

Table E.7
Chino Airport Consolidation Table: Volatile Organic Compounds (Method TO-15) in Soil Gas
Chino Airport, Chino, California

AOC	Soil Gas Probe	Sample ID	Date Sampled	Acetone	Benzene	Carbon disulfide	Carbon tetrachloride	Chloroform (Trichloromethane)	Cyclohexane	Dichlorodifluoromethane	Ethylbenzene	n-Hexane	Propene	Tetrachloroethene	Tetrahydrofuran	Toluene (Methyl benzene)	Trichloroethene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	m,p-Xylenes	n-Heptane	Naphthalene
J-K	148	B148-JKD5	8/7/2014	14.4	5.11	7.59	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	8.61	3.06	3.92	<3.0	<4.0	4.76	<3.0	4.21	4.77	<2.0	<10
	149	B149-JKD5	8/7/2014	<10	6	7.63	<4.0	<3.0	7.84	<4.0	3.94	<2.0	<2.0	15.3	4.65	3.81	<3.0	<4.0	5.95	<3.0	4.23	6.12	<2.0	24.5
	B163	O-D12	11/10/2014	25.4	6.83	39.2	10.8	5.52	7.67	6.03	11.7	7.12	4.04	16.2	6.18	41.1	<3.0	6.63	9.48	6.83	13.5	38.3	8.44	<10
	B165	Q-D12	11/10/2014	13.6	5.46	8.19	22.9	7.13	4.03	<4.0	8.72	6.62	<2.0	42	4.68	32.4	39	14.1	6.58	5.16	9.81	28.1	4.96	<10
Z	135	B135-ZD11	8/6/2014	33.2	20.9	12.7	<4.0	<3.0	9.57	<4.0	5.86	5.88	<2.0	10	<2.0	17.1	<3.0	<4.0	11.4	6.83	8.07	20.3	<2.0	13
		B135-ZD15.5	8/6/2014	23.4	7.6	<3.0	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	8.01	3.96	<3.0	<4.0	<3.0	<3.0	<2.0	5.64	<2.0	10.8
	142	B142-ZD10	8/6/2014	30.2	16.8	34.9	<4.0	<3.0	9.22	<4.0	8.07	3.39	5.56	9.08	7.39	42.9	<3.0	9.27	10.8	5.9	10.8	29	<2.0	18.4
		B142-ZD17.5	8/6/2014	18.5	36.1	105	<4.0	<3.0	11.6	<4.0	12	7.61	14.1	<3.0	8.21	65.6	<3.0	9.38	11.4	6.09	14	44.6	5.2	10.1
	143	B143-ZD12.5	8/7/2014	10	<2.0	5.01	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	4.65	<2.0	<3.0	<4.0	7.91	4.03	3.96	5.43	<2.0	13
		B143-ZD19.5	8/7/2014	<10	<2.0	3.86	<4.0	<3.0	5.09	<4.0	3.47	<2.0	<2.0	<3.0	<2.0	5.35	<3.0	<4.0	9.73	4.22	6.03	12.8	<2.0	12.5
	144	B144-ZD10.5	8/7/2014	<10	<2.0	<3.0	<4.0	<3.0	<2.0	<4.0	<3.0	<2.0	<2.0	<3.0	<2.0	<2.0	<3.0	<4.0	7.27	3.78	3.47	4.77	<2.0	12.5
		B144-ZD16	8/7/2014	10.7	<2.0	<3.0	<4.0	<3.0	3.78	<4.0	<3.0	<2.0	<2.0	<3.0	<2.0	3.81	<3.0	<4.0	10.3	4.69	5.17	11.8	<2.0	<10
	145	B145-ZD11	8/7/2014	<10	<2.0	9.71	<4.0	<3.0	6.43	<4.0	3.46	<2.0	<2.0	<3.0	6.21	4.37	<3.0	<4.0	7.08	4.21	4.77	10.4	<2.0	<10
		B145-ZD17.5	8/7/2014	<10	<2.0	5.85	<4.0	<3.0	4.23	<4.0	3.61	<2.0	<2.0	<3.0	3.53	4.07	<3.0	<4.0	7.86	4.39	5.21	11.1	<2.0	28.7
	146	B146-ZD9.5	8/6/2014	13.4	7.06	21.9	<4.0	<3.0	9.01	<4.0	<3.0	<2.0	<2.0	<3.0	3.65	8.48	<3.0	<4.0	5.65	<3.0	<2.0	5.6	<2.0	<10
		B146-ZD13.5	8/6/2014	10	16.3	35.8	<4.0	<3.0	11.3	<4.0	4.86	<2.0	<2.0	<3.0	3.53	16.2	<3.0	<4.0	7.91	<3.0	6.81	15.3	<2.0	<10
	147	B147-ZD6.5	8/6/2014	20	8.81	6.66	<4.0	<3.0	18	<4.0	<3.0	<2.0	<2.0	9.69	7.71	<2.0	<3.0	<4.0	<3.0	<3.0	<2.0	<4.0	<2.0	<10
		B147-ZD15	8/6/2014	19.6	40.2	23.7	<4.0	<3.0	7.29	<4.0	7.51	<2.0	<2.0	<3.0	<2.0	32.2	<3.0	<4.0	9.53	6.14	9.38	23	<2.0	<10
	151	B151-ZD13.5	8/6/2014	<10	6.26	5.48	<4.0	<3.0	<2.0	<4.0	3.13	<2.0	<2.0	<3.0	<2.0	8.78	<3.0	<4.0	6.49	<3.0	4.25	10.4	3.54	13.9
		B151-ZD5	8/6/2014	31.3	<2.0	3.73	<4.0	<3.0	3.18	<4.0	<3.0	<2.0	<2.0	6.03	<2.0	3.35	<3.0	<4.0	4.87	<3.0	<2.0	5.51	<2.0	12.9
	152	B152-ZD10	8/6/2014	15.9	25.1	27.9	<4.0	<3.0	4.61	<4.0	10.1	3.56	<2.0	7.86	8.95	53.5	<3.0	<4.0	8.89	5.5	12.2	37.2	<2.0	12
		B152-ZD15	8/6/2014	<10	9.87	4.79	<4.0	<3.0	4.92	<4.0	5.21	6.55	<2.0	9.29	4.12	14.1	<3.0	<4.0	10.6	4.07	7.47	21.7	4.1	15.8

Acronyms and Abbreviations:
AOC - Area of Concern
Notes:
All concentrations are in microgram per cubic meter ($\mu g/m^3$).
VOCs were analyzed in all samples. Only detected constituents are shown in table.
Yellow highlighting indicates concentration is above the IG
Gray shading indicates compound was not detected in soil.
Key:
AOC J-K – PAC Paint Shop and Paint Shed Areas
AOC Z – Waste Water Discharge from Building A495

APPENDIX F

Appendix F

Statistical Comparison to Background for Soil Data within AOC N and AOC O at Chino Airport

Introduction

Metals detected in soils may be naturally occurring constituents. Accordingly, U.S. Environmental Protection Agency (USEPA, 1989) and Department of Toxic Substances Control (DTSC, 2015) guidance indicates that metals present at concentrations equivalent to (or, lower than) background do not represent a potential health concern. The results of the human health risk assessment (HHRA) identified that detected concentrations of arsenic and cobalt within AOC N and AOC O contributed to elevated risk or hazard levels. Therefore, a statistical evaluation was conducted for these metals to determine if site levels were detected at concentrations above naturally occurring background concentrations.

Soil investigations within AOC N, AOC O, and areas considered to be representative of background conditions were conducted from July through August 2014. Soil samples were collected from the surface (0.5 feet bgs) to 29 feet bgs. A total of 60 samples were collected within AOC N, 32 samples were collected within AOC O, and 10 samples were collected from areas considered to be representative of background conditions.

Statistical Analysis Methodology

All soil samples collected to represent each AOC and background were used in the statistical analyses. Statistical comparisons were made between the background dataset and the datasets associated with AOCs N and O.

Four types of statistical and graphical analyses recommended in DTSC guidance (DTSC 1997) were used in this evaluation. The results of these analyses are provided in Table F-1 and Figures F-1 through F-4.

For the first method, basic summary statistics were calculated for the background and AOC-specific data. The basic statistics included calculations for the total number of observations, percent observed above the detection limit, number of measurements below the detection limit, minimum value, maximum value, and mean value for each metal in each dataset. In general, data associated with one population will display a range of detected values no more than 2 orders of magnitude.

For the second method, a Goodness-of-fit analysis was performed using the W-test to determine the underlying probability distribution functions for the background and site datasets for arsenic and cobalt. Distributions will generally fail tests for both normality and lognormality if they contain either multiple populations or a high proportion of non-detects.

The third method consisted of a two-sample statistical test performed for the chemicals where sufficient detections were available in both the site and background datasets. The

statistical tests included a parametric two-sample t-test for distributions identified as normal or lognormal and a non-parametric two-sample Wilcoxon Rank Sum (WRS) test for distributions not identified as normal or lognormal. The test results are presented in Table F-1. Listed p-values greater than 0.05 indicate that the site data are statistically indistinguishable from background.

Finally, quantile-quantile distribution plots were prepared. These plots provide a visual review of the ranges of observed concentrations as well as differences, if present, in the distribution of measured concentrations between background and site soils.

The analyses described above were used to evaluate whether arsenic and cobalt levels are consistent with background levels. The results of this analysis are described below.

Results for AOC N

As indicated in the HHRA, within AOC N, the representative soil concentrations for arsenic and cobalt were the primary contributors to estimated risks or hazards that exceeded target risk or hazard levels.

Arsenic: As shown in Table F-1, the range of detected arsenic results is within 2 orders of magnitude and fit a lognormal distribution. However, arsenic data in AOC N was not statistically compared to background because there were too few detects associated with the background dataset. As shown in Table F-1 and Figure F-1, arsenic was detected in Area N soils in 31 of 60 samples, with only two concentrations (5.17 mg/kg and 6.09 mg/kg) slightly exceeding the maximum background concentration of 4.43 mg/kg. Based on the quantile plot of the arsenic data in Figure F-1, the distribution of arsenic in AOC N is similar to that of the background data. Lastly, it is noteworthy that the maximum detected concentration in AOC N is below the Southern California background concentration for arsenic of 12 mg/kg (DTSC 2008). This comparison suggests that arsenic detected in AOC N is representative of background levels and is not associated with site activities.

Cobalt: As shown in Table F-1, the range of detected cobalt results is within 2 orders of magnitude and fit a normal and lognormal distribution. The results of the statistical comparison to background indicated that the AOC N data was statistically indistinguishable from the background dataset (p-value greater than 0.05). Based on the quantile plot of the cobalt data in Figure F-2, the distribution of cobalt in AOC N is similar to that of the background data. The results of this evaluation suggest that cobalt detected in AOC N is likely representative of background levels and is not associated with site activities.

Results for AOC O

Similar to AOC N, within AOC O, the representative soil concentrations for arsenic and cobalt were the primary contributors to estimated risks or hazards that exceeded target risk or hazard levels.

Arsenic: As shown in Table F-1, the range of detected arsenic results is within 2 orders of magnitude and fit a lognormal distribution. However, arsenic data in AOC O was not

statistically compared to background because there were too few detects associated with the background dataset. As shown in Table F-1 and Figure F-3, arsenic was detected in Area O soils in 25 of 32 samples, with only two concentrations (4.51 mg/kg and 5.1 mg/kg) slightly exceeding the maximum concentration detected in background of 4.43 mg/kg. Based on the quantile plot of the arsenic data in Figure F-3, the maximum concentrations of the background AOC O data are similar, but the distributions differ at concentrations below 2 mg/kg. This may be due to the low number of detections associated with the background dataset. Additionally, it is noteworthy that the maximum detected concentration in AOC O is below the Southern California background concentration for arsenic of 12 mg/kg (DTSC 2008). This analysis suggests that arsenic levels in AOC O are likely representative of background levels and not associated with site activities.

Cobalt: As shown in Table F-1, the range of detected cobalt results is within 2 orders of magnitude and fit a normal and lognormal distribution. The results of the statistical comparison to background indicated that the AOC N data was statistically indistinguishable from the background dataset (p-value greater than 0.05). Based on the quantile plot of the cobalt data in Figure F-4, the distribution of cobalt in AOC O is similar to that of the background data. The results of this evaluation suggest that cobalt detected in AOC O is likely representative of background levels and is not associated with site activities.

Conclusions

The results of this statistical evaluation indicate that arsenic and cobalt in AOCs N and O are likely representative of background conditions and not associated with site activities.

References:

Department of Toxic Substances Control (DTSC). 1997. Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities – Final Policy. February.

Department of Toxic Substances Control (DTSC). 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil. G. Chernoff, W. Bosan, and D. Oudiz. Society of Toxicology Presentation. March.

Department of Toxic Substances Control (DTSC). 2015. Preliminary Endangerment Assessment: Guidance Manual. October.

U.S. Environmental Protection Agency (USEPA). 1989. Risk Assessment Guidance for Superfund (RAGS). Human Health Evaluation Manual Part A. Office of Emergency and Remedial Response. EPA/540/1-89/002.

Figure F

Quantile Plots for Metals Detected in Soil Samples at Area N and Area O, Chino Airport Site

Figure F-1. Arsenic in Area N

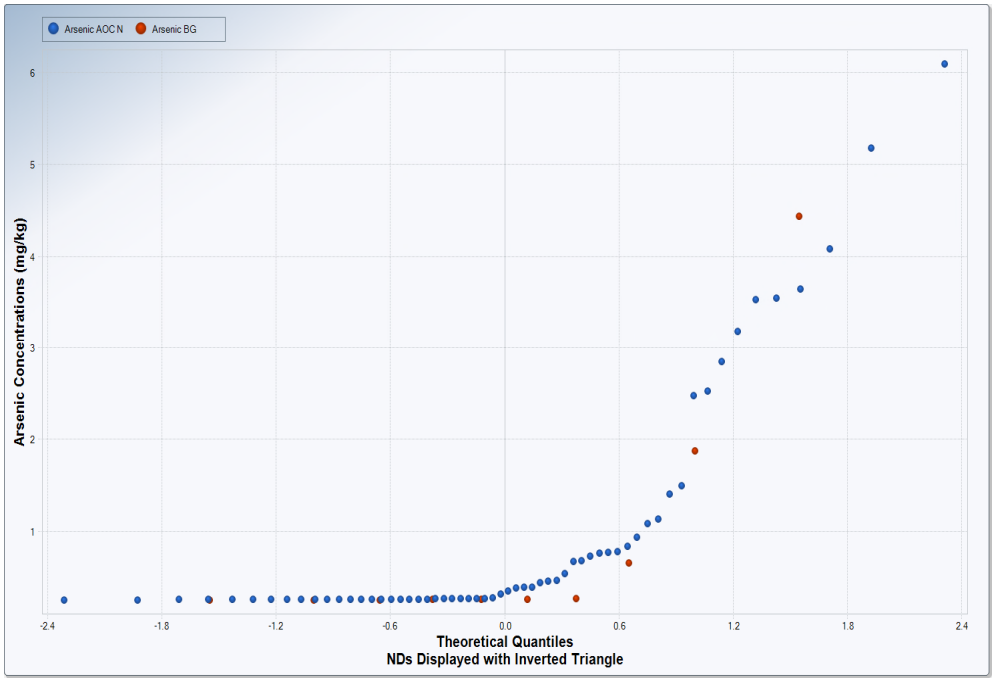


Figure F-2. Cobalt in AOC N

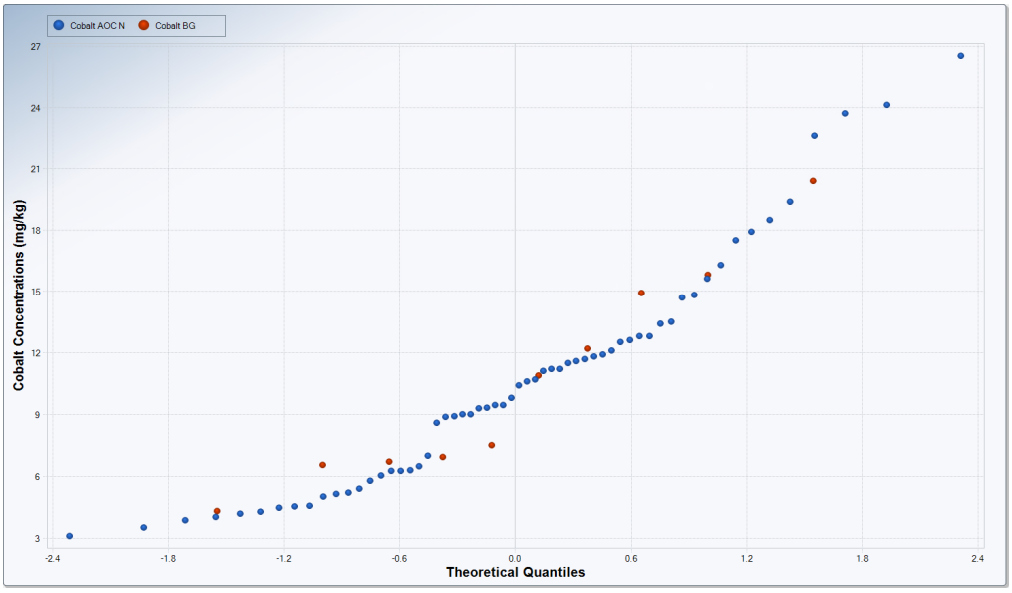


Figure F-3. Arsenic in AOC O

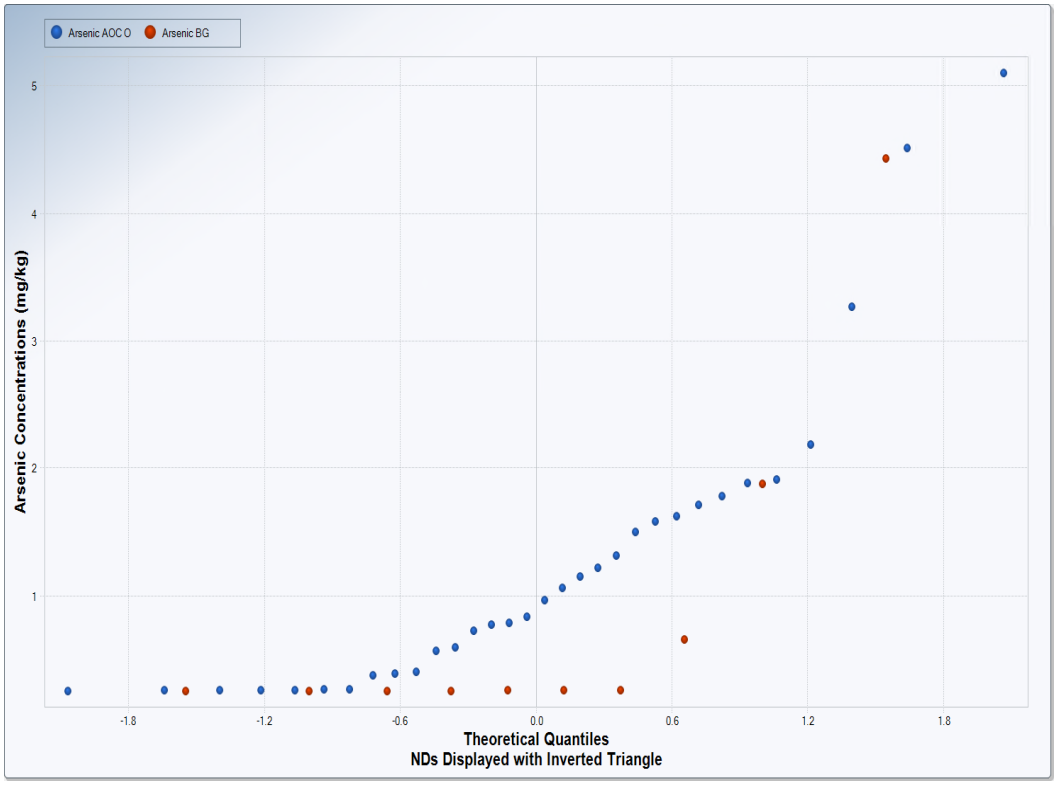


Figure F-4. Cobalt in AOC O

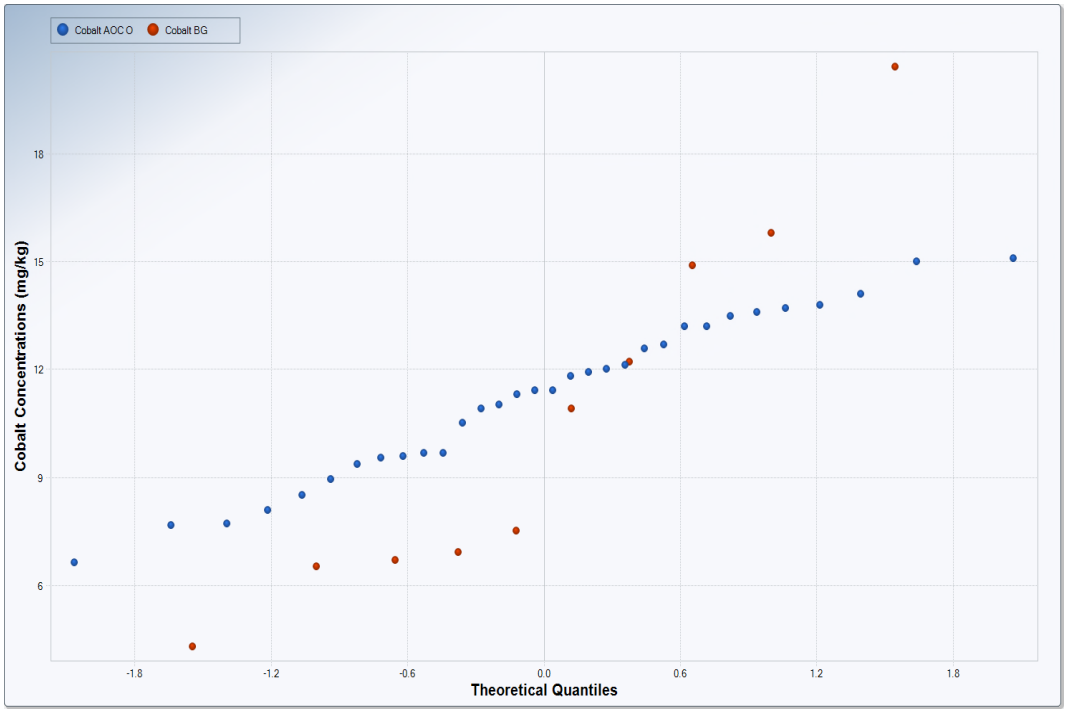


Table F-1
Summary Statistics for Statistical Comparison of Select Metals Detected in AOC N and AOC O to Site-Specific Background Data

	Background							AOC N							Comparison Results			
Metal	N	#D	%D	Min Detect	Max Detect	Mean	Distribution	N	#D	%D	Min Detect	Max Detect	Mean	Distribution	Test	Test Statistic	p-value	Result
Arsenic	10	3	30	0.656	4.43	0.82	too few detects	60	31	52	0.313	6.09	0.96	Lognormal	-	-	-	-
Cobalt	10	10	100	4.32	20.4	10.6	Normal, Lognormal	60	60	100	3.1	26.5	10.6	Normal, Lognormal	t-test	0.008	0.497	No significant difference
	Background							AOC O							Comparison Results			
Metal	N	#D	%D	Min Detect	Max Detect	Mean	Distribution	N	#D	%D	Min Detect	Max Detect	Mean	Distribution	Test	Test Statistic	p-value	Result
Arsenic	10	3	30	0.656	4.43	0.82	too few detects	32	25	78	0.376	5.1	1.2	Lognormal	-	-	-	-
Cobalt	10	10	100	4.32	20.4	10.6	Normal, Lognormal	32	32	100	6.63	15.1	11.3	Normal, Lognormal	t-test	0.558	0.29	No significant difference

Definitions:
N - number of samples
#D - number of detected results
%D - percentage of results that were detected