Appendix B

RAGS D TABLE 1 AND TABLE 2s

TABLE 1
SELECTION OF EXPOSURE PATHWAYS
RIVERFRONT OU4

Scenario Timeframe	Medium	Exposure Medium	Exposure Point(s)	Receptor Population	Receptor Age	Exposure Route	On-Site/Off-Site	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Water	Surface Water	Surface Water in 210 Tributary	Industrial Worker	Adult	Dermal Absorption	On/Off-site	Quant	Adult Industrial Workers may be exposed to contaminants in 210 Tributary.
						Ingestion	On/Off-site	Quant	Adult Industrial Workers may be exposed to contaminants in 210 Tributary (incidental ingestion of creek surface water).
				Construction Worker	Adult	Dermal Absorption	On/Off-site	Quant	Adult Construction Workers may be exposed to contaminants in 210 Tributary.
						Ingestion	On/Off-site	Quant	Adult Construction Workers may be exposed to contaminants in 210 Tributary (incidental ingestion of creek surface water).
				Resident	Adult	Dermal Absorption	On/Off-site	Quant	Adult residents may be exposed to contaminants in 210 Tributary.
						Ingestion	On/Off-site	Quant	Adult residents may be exposed to contaminants in 210 Tributary (incidental ingestion of creek surface water).
					Child	Dermal Absorption	On/Off-site	Quant	Child residents may be exposed to contaminants in 210 Tributary.
						Ingestion	On/Off-site	Quant	Child residents may be exposed to contaminants in 210 Tributary (incidental ingestion of creek surface water).
					Adult/Child	Dermal Absorption	On/Off-site	Quant	Adult/child cancer risk combined for exposure to contaminants in 210 Tributary.
						Ingestion	On/Off-site	Quant	Adult/child cancer risk combined for exposure to contaminants in 210 Tributary (incidental ingestion of creek surface water).
	Sediment	Sediment	Sediment in 210 Tributary	Industrial Worker	Adult	Dermal Absorption	On/Off-site	Quant *	Adult Industrial Workers may be exposed to contaminants in 210 Tributary. However, no COPCs were selected for sediment.
						Ingestion	On/Off-site	Quant *	Adult Industrial Workers may be exposed to contaminants in 210 Tributary (incidental ingestion). However, no COPCs were selected for sediment.
				Construction Worker	Adult	Dermal Absorption	On/Off-site	Quant *	Adult Construction Workers may be exposed to contaminants in 210 Tributary. However, no COPCs were selected for sediment.
						Ingestion	On/Off-site	Quant *	Adult Construction Workers may be exposed to contaminants in 210 Tributary (incidental ingestion). However, no COPCs were selected for sediment.
				Resident	Adult	Dermal Absorption	On/Off-site	Quant *	Adult residents may be exposed to contaminants in 210 Tributary. However, no COPCs were selected for sediment.
						Ingestion	On/Off-site	Quant *	Adult residents may be exposed to contaminants in 210 Tributary (incidental ingestion). However, no COPCs were selected for sediment.
					Child	Dermal Absorption	On/Off-site	Quant *	Child residents may be exposed to contaminants in 210 Tributary. However, no COPCs were selected for sediment.
						Ingestion	On/Off-site	Quant *	Child residents may be exposed to contaminants in 210 Tributary (incidental ingestion). However, no COPCs were selected for sediment.
					Adult/Child	Dermal Absorption	On/Off-site	Quant *	Adult/child cancer risk combined for exposure to contaminants in 210 Tributary. However, no COPCs were selected for sediment.
						Ingestion	On/Off-site	Quant *	Adult/child cancer risk combined for exposure to contaminants in 210 Tributary (incidental ingestion). However, no COPCs were selected for sediment.
Current/Future	Soil	Surface Soil	On-site OU4 Surface Soil	Resident (Current Only)	Adult	Dermal Absorption	On-site	Quant **	Adult Residents may be exposed to surface soils during activities on the site.
						Ingestion	On-site	Quant	Adult Residents may be exposed to surface soils during activities on the site.
					Child	Dermal Absorption	On-site	Quant **	Child Residents may be exposed to surface soils during activities on the site.
						Ingestion	On-site	Quant	Child Residents may be exposed to surface soils during activities on the site.
					Adult/Child	Dermal Absorption	On-site	Quant **	Adult/child cancer risk combined for Residents exposed to surface soils during activities on the site.
						Ingestion	On-site	Quant	Adult/child cancer risk combined for Residents exposed to surface soils during activities on the site.
	Soil	Total Soil (Surface + Subsurface)	On-site OU4 Total Soil (Surface + Subsurface)	Industrial Worker	Adult	Dermal Absorption	On-site	Quant **	Industrial Workers may be exposed to contaminants while performing maintenance activities.
						Inhalation	On-site	Quant	Industrial Workers may be exposed to vapors while performing maintenance activities.
						Ingestion	On-site	Quant	Industrial Workers may be exposed to contaminants while performing maintenance activities.
				Construction Worker	Adult	Dermal Absorption	On-site	Quant **	Construction Workers may be exposed to contaminants while performing excavation activities (e.g., building foundations).
						Inhalation	On-site	Quant	Construction Workers may be exposed to vapors while performing excavation activities (e.g., building foundataions).
						Ingestion	On-site	Quant	Construction Workers may be exposed to contaminants while performing excavation activities (e.g., building foundations).
				Resident (Future Only)	Adult	Dermal Absorption	On-site	Quant **	Adult Residents may be exposed to contaminants in combined surface and subsurface soil.
						Inhalation	On-site	Quant	Adult Residents may be exposed to vapors from combined surface and subsurface soils during activities on the site.
						Ingestion	On-site	Quant	Adult Residents may be exposed to contaminants in combined surface and subsurface soil.
					Child	Dermal Absorption	On-site	Quant **	Child Residents may be exposed to contaminants in combined surface and subsurface soil.
						Inhalation	On-site	Quant	Child Residents may be exposed to vapors from combined surface and subsurface soils during activities on the site.
						Ingestion	On-site	Quant	Child Residents may be exposed to contaminants in combined surface and subsurface soil.
					Adult/Child	Dermal Absorption	On-site	Quant **	Adult/child cancer risk combined for Residents exposed to contaminants in combined surface and subsurface soil.
						Inhalation	On-site	Quant	Adult/child cancer risk combined for Residents exposed to vapors from combined surface and subsurface soil.
						Ingestion	On-site	Quant	Adult/child cancer risk combined for Residents exposed to contaminants in combined surface and subsurface soil.
Current/Future	Water	Sanitary Sewer Water	On-site OU4	Construction Worker	Adult	Dermal Absorption	On-site	Quant	Construction Workers may be exposed to contaminants while performing construction activities in sanitary sewer system.
						Inhalation	On-site	Quant	Construction Workers may be exposed to contaminants while performing construction activities in sanitary sewer system.
						Ingestion	On-site	Quant	Construction Workers may be exposed to contaminants while performing construction activities in sanitary sewer system.
Current/Future	Air	Indoor Air (Vapor intrusion pathway)	On-site OU4	Industrial Worker	Adult	Inhalation	On-site	Quant	Industrial Workers may be exposed to indoor vapors from subsurface intrusion.
				Resident	Adult	Inhalation	On-site	Quant	Adult Residents may be exposed to indoor vapors from subsurface intrusion.
					Child	Inhalation	On-site	Quant	Child Residents may be exposed to indoor vapors from subsurface intrusion.
					Adult/Child	Inhalation	On-site	Quant	Adult/child cancer risk combined for Residents exposed to indoor vapors from subsurface intrusion.
Future	Groundwater	Groundwater	On-site OU4	Resident	Adult	Dermal Absorption	On-site	Quant	Residents may install hypothetical private well in future.
						Ingestion	On-site	Quant	Residents may install hypothetical private well in future.
					Child	Dermal Absorption	On-site	Quant	Residents may install hypothetical private well in future.
						Ingestion	On-site	Quant	Residents may install hypothetical private well in future.
					Adult/Child	Dermal Absorption	On-site	Quant	Cancer risk combined for adult/child resident who may install hypothetical private well in future.
						Ingestion	On-site	Quant	Cancer risk combined for adult/child resident who may install hypothetical private well in future.
		Air (Indoor Vapors from Groundwater Use)	On-site OU4	Resident	Adult	Inhalation	On-site	Quant	Hypothetical on-site residents may install private well in the event of future onsite residential development.
					Child	Inhalation	On-site	Quant	Hypothetical on-site residents may install private well in the event of future onsite residential development.
					Adult/Child	Inhalation	On-site	Quant	Hypothetical on-site residents may install private well in the event of future onsite residential development.

Notes:
* Although sediment was initially identified for quantitative evaluation, no COPCs were identified for sediment. Consequently, exposure to sediments was not quantified.
** Although dermal absorption of soil was identified for quantitative evaluation, all COPCs were VOCs. Consequently, exposure to soil through dermal absorption was not quantified.
Industrial Worker is defined as the worker who maintains the grounds (groundskeeper), lawn mower and other light industrial activities.
Construction Worker is defined as the worker who is involved with earth moving activities such as plumbiing pipe (utility) repairs, cable line (utility) installations, building construction activites.
Exposure to resident through inhalation of vapors from groundwater use is evaluated for adults and children.

Table 2.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: 210 Tributary Surface Water

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (nc/ca) (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min.	Max.									
Surface Water 210 Tributary	67-64-1	Acetone	3.8	J	23		ug/L	OUX-SW-EC03	3 / 7	10	10	23		NA	550	nc	NA	NA	N	BSL
	74-87-3	Chloromethane	0.34	J	0.34	J	ug/L	OU4-SW-210TB-C6	1 / 12	1	2	0.34	J	NA	19	nc	NA	NA	N	BSL
	156-59-2	cis-1,2-Dichloroethene	0.23	J	1.9		ug/L	OU4-SW-210TB-C6	14 / 15	0.1	1	1.9		NA	6.1	nc	NA	NA	N	BSL
	540-59-0	1,2-Dichloroethene (total)	1.6		1.7		ug/L	OUX-SW-EC03	5 / 7	1	1	1.7		NA	6.1	nc	NA	NA	N	BSL
	75-09-2	Methylene Chloride	0.28	J	0.35	J	ug/L	OU4-SW-210TB-C6	5 / 11	1	5	0.35	J	NA	4.3	ca	NA	NA	N	BSL
	91-20-3	Naphthalene	0.42	J	0.42	J	ug/L	OU4-SW-210TB-C6	1 / 5	1	1	0.42	J	NA	0.62	nc	NA	NA	N	BSL
	127-18-4	**Tetrachloroethene (PCE)**	0.36	J	35		ug/L	OU4-SW-210TB-C6	13 / 15	0.1	1	35		NA	0.1	ca	NA	NA	**Y**	**ASL**
	108-88-3	Toluene	0.74	J	0.74	J	ug/L	OUX-SW-EC03	1 / 15	0.1	1	0.74	J	NA	230	nc	NA	NA	N	BSL
	79-01-6	**Trichloroethene (TCE)**	0.36	J	2.1		ug/L	OU4-SW-210TB-C6	12 / 15	0.1	1	2.1		NA	0.028	ca	NA	NA	**Y**	**ASL**
	75-01-4	**Vinyl Chloride**	0.55	J	0.55	J	ug/L	OUX-SW-EC03	1 / 15	0.2	2	0.55	J	NA	0.015	ca	NA	NA	**Y**	**ASL**
	1330-20-7	Xylenes (Total)	2.2		2.2		ug/L	OUX-SW-EC03	1 / 12	1	2	2.2		NA	20	nc	NA	NA	N	BSL

Footnotes

NA = Not available
ug/L = micrograms per liter
(1) J = Analyte present. Reported value may not be accurate or precise.
(2) The maximum detected concentration was used for screening.
(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.
(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Water (EPA, 2008b). For surface water, the Residential Water MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)
(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level.

Table 2.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: 210 Tributary Sediment

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min	Max									
Sediment 210 Tributary	67-64-1	Acetone	19	J	19	J	ug/kg	OUX-SD-ECO3	1 / 2	24	33	19	J	NA	1400000	nc	NA	NA	N	BSL
	75-09-2	Methylene Chloride	1.1	J	1.8	J	ug/kg	OUX-SD-ECO3	2 / 2	5.9	8.2	1.8	J	NA	8900	ca	NA	NA	N	BSL

Footnotes

NA = Not available
ug/kg = micrograms per kilogram
(1) J = Analyte present. Reported value may not be accurate or precise.
(2) The maximum detected concentration was used for screening.
(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.
(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Soil (EPA, 2008b). For sediment, the Residential Soil MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)
(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level

Table 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: OU4 Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (nc/ca) (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min	Max									
Surface Soil OU4	74-87-3	Chloromethane	99	J	99	J	ug/kg	OU4-SO-ML408	1 / 11	12	680	99	J	NA	11000	nc	NA	NA	N	BSL
	156-59-2	cis-1,2-Dichloroethene	13		1000		ug/kg	OU4-SO-ML406	2 / 11	3	160	1000		NA	4300	nc	NA	NA	N	BSL
	75-09-2	Methylene Chloride	1.3	J	1.9	J	ug/kg	OUX-SO-ECO4	2 / 8	6	340	1.9	J	NA	8900	ca	NA	NA	N	BSL
	127-18-4	**Tetrachloroethene (PCE)**	10		1500		ug/kg	OU4-SO-ML408	4 / 8	6	340	1500		NA	550	ca	NA	NA	**Y**	**ASL**
	79-01-6	**Trichloroethene (TCE)**	17		400		ug/kg	OU4-SO-ML406	3 / 11	6	340	400		NA	43	ca	NA	NA	**Y**	**ASL**
	75-01-4	**Vinyl Chloride**	180	J	180	J	ug/kg	OU4-SO-ML406	1 / 11	6.4	640	180	J	NA	43	ca	NA	NA	**Y**	**ASL**

Footnotes

NA = Not available
ug/kg = micrograms per kilogram
(1) J = Analyte present. Reported value may not be accurate or precise.
(2) The maximum detected concentration was used for screening.
(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.
(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Soil (EPA, 2008b). For soil, the Residential Soil MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)
(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level

Table 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current/Future
Medium: Surface and Subsurface Soil Combined
Exposure Medium: OU4 Combined Surface and Subsurface Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min	Max									
Surface and Subsurface Soil Combined OU4	67-64-1	Acetone	4.3	J	1800	J	ug/kg	OU4-SO-ML204	4 / 22	24	310000	1800	J	NA	1400000	nc	NA	NA	N	BSL
	75-15-0	Carbon Disulfide	0.3	J	0.3	J	ug/kg	OU4-SO-ML405	1 / 25	6	77000	0.3	J	NA	72000	nc	NA	NA	N	BSL
	108-90-7	Chlorobenzene	0.13	J	0.13	J	ug/kg	OU4-SO-ML405	1 / 23	6	77000	0.13	J	NA	27000	nc	NA	NA	N	BSL
	74-87-3	Chloromethane	99	J	99	J	ug/kg	OU4-SO-ML408	1 / 25	12	150000	99	J	NA	11000	nc	NA	NA	N	BSL
	156-59-2	cis-1,2-Dichloroethene	8.7		3000		ug/kg	OU4-SO-ML204	7 / 25	3	39000	3000		NA	4300	nc	NA	NA	N	BSL
	156-60-5	trans-1,2-Dichloroethene	7.8		7.8		ug/kg	OU4-SO-ML405	1 / 25	3	39000	7.8		NA	12000	nc	NA	NA	N	BSL
	540-59-0	1,2-Dichloroethene (Total)	8.7		3000		ug/kg	OU4-SO-ML204	7 / 25	6	77000	3000		NA	4300	nc	NA	NA	N	BSL
	100-41-4	Ethylbenzene	48	J	48	J	ug/kg	OU4-SO-ML204	1 / 25	6	77000	48	J	NA	23000	nc	NA	NA	N	BSL
	78-93-3	Methyl Ethyl Ketone	770	J	68000	J	ug/kg	OU4-SO-ML204	2 / 25	24	310000	68000	J	NA	3200000	nc	NA	NA	N	BSL
	75-09-2	Methylene Chloride	1.3	J	1.9	J	ug/kg	OUX-SO-ECO4	2 / 15	6	35000	1.9	J	NA	8900	ca	NA	NA	N	BSL
	127-18-4	**Tetrachloroethene (PCE)**	0.55	J	6100000		ug/kg	OU4-SO-ML408	13 / 21	6	77000	6100000		NA	550	ca	NA	NA	**Y**	**ASL**
	108-88-3	Toluene	0.3	J	110	J	ug/kg	OU4-SO-ML204	3 / 21	6	77000	110	J	NA	52000	nc	NA	NA	N	BSL
	79-01-6	**Trichloroethene (TCE)**	3.1	J	7700		ug/kg	OU4-SO-ML204	8 / 25	6	77000	7700		NA	43	ca	NA	NA	**Y**	**ASL**
	75-01-4	**Vinyl Chloride**	180	J	200		ug/kg	OU4-SO-ML405	2 / 25	6.4	150000	200		NA	43	ca	NA	NA	**Y**	**ASL**
	1330-20-7	Xylenes	0.81	J	290	J	ug/kg	OU4-SO-ML204	2 / 25	6	77000	290	J	NA	21000	nc	NA	NA	N	BSL

Footnotes
NA = Not available
ug/kg = micrograms per kilogram
(1) J = Analyte present. Reported value may not be accurate or precise.
(2) The maximum detected concentration was used for screening.
(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.
(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Soil (EPA, 2008b). For soil, the Residential Soil MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)
(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level.

Table 2.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min	Max									
Groundwater	103-09-3	2-Ethylhexyl Acetate	1.7	JN	620	JN	ug/l	OU4-GW-BW-13	8 / 8	NA	NA	620	JN	NA	NA		NA	NA	N	TIC
	67-64-1	**Acetone**	3.2	J	2100		ug/l	OU4-GW-TW3	6 / 81	10	27000	2100		NA	550	nc	NA	NA	**Y**	**ASL**
	156-59-2	**cis-1,2-Dichloroethene**	0.16	J	8000		ug/l	OU4-GW-TW-2	33 / 81	1	2700	8000		NA	6.1	nc	NA	NA	**Y**	**ASL**
	156-60-5	**trans-1,2-Dichloroethene**	1.6	J	14	J	ug/l	OU4-GW-TW-1	3 / 81	1	2700	14	J	NA	11	nc	NA	NA	**Y**	**ASL**
	540-59-0	**1,2-Dichloroethene (total)**	0.16	J	4800		ug/l	OU4-GW-TW-2	23 / 58	1	2700	4800		NA	6.1	nc	NA	NA	**Y**	**ASL**
	544-76-3	Hexadecane	2.2	JN	2.2	JN	ug/l	OU4-GW-BW-04S	1 / 1	NA	NA	2.2	JN	NA	NA		NA	NA	N	TIC
	127-18-4	**Tetrachloroethene (PCE)**	0.34	J	71000		ug/l	OU4-GW-TW-2	68 / 81	1	2700	71000		NA	0.1	ca	NA	NA	**Y**	**ASL**
	79-01-6	**Trichloroethene (TCE)**	0.23	J	7900		ug/l	OU4-GW-TW-2	43 / 81	1	2700	7900		NA	0.028	ca	NA	NA	**Y**	**ASL**

Footnotes

NA = Not available

ug/l = micrograms per liter

(1) J = Analyte present. Reported value may not be accurate or precise.
N = Tentatively Identified Chemical.

(2) The maximum detected concentration was used for screening.

(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.

(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Water (EPA, 2008b). For groundwater, the Residential Water MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)

(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level, "TIC" = Tentitively Identified Chemical.

Table 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current/Future
Medium: Water
Exposure Medium: Sanitary Sewer System Manhole Inflow

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)		Background Value (3)	Screening Toxicity Value (nc/ca) (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
										Min	Max									
Sanitary Sewer System Manhole Inflow	67-64-1	Acetone	45		510	Q	ug/l	OUX-WA-MH063	6 / 7	10	40	510	Q	NA	550	nc	NA	NA	N	BSL
	74-83-9	**Bromomethane**	2.2		2.2		ug/l	OUX-WA-MH057W	1 / 7	2	8	2.2		NA	0.87	nc	NA	NA	**Y**	**ASL**
	67-66-3	**Chloroform**	0.6	J	7.5		ug/l	OUX-WA-MH051	6 / 7	1	4	7.5		NA	0.17	ca	NA	NA	**Y**	**ASL**
	74-87-3	Chloromethane	3.8		4.5		ug/l	OUX-WA-MH051	2 / 7	2	8	4.5		NA	19	nc	NA	NA	N	BSL
	75-09-2	Methylene Chloride	1.5	J	1.5	J	ug/l	OUX-WA-MH063	1 / 2	5	20	1.5	J	NA	4.3	ca	NA	NA	N	BSL
	127-18-4	**Tetrachloroethene (PCE)**	1.3		5		ug/l	OUX-WA-MH051	6 / 7	1	4	5		NA	0.1	ca	NA	NA	**Y**	**ASL**
	108-88-3	Toluene	0.21	J	0.42	J	ug/l	OUX-WA-MH051	5 / 7	1	4	0.42	J	NA	230	nc	NA	NA	N	BSL

Footnotes

NA = Not available

ug/l = micrograms per liter

(1) J = Analyte present. Reported value may not be accurate or precise.
Q = Elevated reporting limit. The reporting limit is elevated due to high analyte levels..

(2) The maximum detected concentration was used for screening.

(3) Background values were not appropriate for purposes of this screening. "NA" = not available at time of screening.

(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Residential Water (EPA, 2008b). For sanitary sewer water, the Residential Water MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)

(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level.

Table 2.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
RIVERFRONT OU4 RI/FS

Scenario Timeframe: Current/Future
Medium: Indoor Air
Exposure Medium: Indoor Air

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits		Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (4)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (5)
								Min.	Max.								
Indoor Air	67-64-1	Acetone	5.6	270	ug/m^3	7-021104	18 / 20	1.8	2.1	270	ND - 6	330	nc	NA	NA	N	BSL
	71-43-2	Benzene	3.6	15	ug/m^3	2-021104	12 / 20	2.3	3.2	15	ND	0.25	ca	NA	NA	N	(6)
	78-93-3	2-Butanone	2.7	20	ug/m^3	22-021204	15 / 20	2.2	2.7	20	ND	520	nc	NA	NA	N	BSL
	56-23-5	Carbon Tetrachloride	0.2	0.2	ug/m^3	8-051503	1 / 20	4.2	7	0.2	ND - 0.23	0.13	ca	NA	NA	N	(7)
	67-66-3	**Chloroform**	0.038	1.2	ug/m^3	1-021104	14 / 20	0.034	0.047	1.2	ND - 0.65	0.084	ca	NA	NA	**Y**	**ASL (8)**
	74-87-3	Chloromethane	0.29	6.3	ug/m^3	20FD-021204	20 / 20	NA	NA	6.3	0.29 - 0.5	9.4	nc	NA	NA	N	BSL
	75-71-8	Dichlorodifluoromethane	5	11	ug/m^3	14-021204	7 / 20	3.3	4.8	11	ND	21	nc	NA	NA	N	BSL
	107-06-2	1,2-Dichloroethane	0.036	0.95	ug/m^3	2-021104	12 / 20	0.028	0.04	0.95	ND -0.058	0.074	ca	NA	NA	N	(6)
	75-35-4	1,1-Dichloroethene	0.039	0.31	ug/m^3	9-021104	9 / 20	0.027	0.044	0.31	ND	21	nc	NA	NA	N	BSL
	156-59-2	cis-1,2-Dichloroethene	0.039	0.93	ug/m^3	22-021204	6 / 20	0.027	0.039	0.93	ND	3.7	nc	NA	NA	N	BSL
	100-41-4	Ethylbenzene	4	32	ug/m^3	2-021104	14 / 20	3.1	4.3	32	ND	110	nc	NA	NA	N	BSL
	142-82-5	Heptane	3.8	23	ug/m^3	2-021104	11 / 20	2.9	4.6	23	ND	NA		NA	NA	N	(9)
	110-54-3	Hexane	11	97	ug/m^3	7-021104	11 / 20	2.5	3.9	97	ND - 10	73	nc	NA	NA	N	(6)
	75-09-2	Methylene Chloride	0.11	12	ug/m^3	5-021104	20 / 20	NA	NA	12	0.42 - 1.1	4.1	ca	NA	NA	N	(10)
	108-10-1	4-Methyl-2-Pentanone	5.8	23	ug/m^3	20-021204	5 / 20	3	4.2	23	ND	310	nc	NA	NA	N	BSL
	100-42-5	Styrene	4.8	4.8	ug/m^3	2-021104	1 / 20	3.1	4.8	4.8	ND	110	nc	NA	NA	N	BSL
	79-34-5	1,1,2,2-Tetrachloroethane	0.084	1.1	ug/m^3	2-021104	17 / 20	0.049	0.06	1.1	ND - 0.29	0.033	ca	NA	NA	N	(6)
	127-18-4	**Tetrachloroethene (PCE)**	0.076	11	ug/m^3	8-051503	26 / 26	NA	NA	11	0.061 -6.1	0.33	ca	NA	NA	**Y**	**ASL (8)**
	108-88-3	Toluene	3.4	340	ug/m^3	7-021104 & 8-021104	19 / 20	3.1	3.1	340	ND -65	520	nc	NA	NA	N	BSL
	71-55-6	1,1,1-Trichloroethane	0.061	18	ug/m^3	2-021104	20 / 20	NA	NA	18	0.072 -0.39	520	nc	NA	NA	N	BSL
	79-01-6	**Trichloroethene (TCE)**	0.06	7.6	ug/m^3	22-021204	25 / 26	0.046	0.046	7.6	0.071 - 1.5	0.017	ca	NA	NA	**Y**	**ASL (8)**
	75-69-4	Trichlorofluoromethane	5.4	9.1	ug/m^3	15-021204	5 / 20	3.7	5.7	9.1	ND	73	nc	NA	NA	N	BSL
	95-63-6	1,2,4-Trimethylbenzene	5	65	ug/m^3	2-021104	18 / 20	3.4	3.9	65	ND	0.63	nc	NA	NA	N	(6)
	108-67-8	1,3,5-Trimethylbenzene	4.1	17	ug/m^3	2-021104	13 / 20	3.5	4.3	17	ND	0.62	nc	NA	NA	N	(6)
	75-01-4	Vinyl Chloride	0.075	0.075	ug/m^3	22-021204	1 / 20	0.017	0.029	0.075	ND	0.16	ca	NA	NA	N	BSL
		m,p-Xylene	7.5	93	ug/m^3	2-021104	16 / 20	5.7	7.5	93	ND	10	nc	NA	NA	N	(10)
		o-Xylene	5.3	33	ug/m^3	2-021104	15 / 20	3.1	3.8	33	ND	NA		NA	NA	N	(10)
	1330-20-7	Total Xylenes	7.5	126	ug/m^3	2-021104	16 / 20	5.7	7.5	126	ND	10	nc	NA	NA	N	(10)

Footnotes

NA = Not available

ug/m^3 = micrograms per cubic meter

(1) There were no data qualifiers on any of the indoor air data for OU4.

(2) The maximum detected concentration was used for screening.

(3) Background values were used as appropriate for purposes of this screening. "ND" = not detected.

(4) The toxicity screening values were obtained from the EPA Region 6 Human Health Medium-Specific Screening Levels (MSSL) for Ambient Air (EPA, 2008b). For indoor air, the Ambient Air MSSL was used.
Codes used nc = noncarcinogenic, ca = carcinogenic (Cancer risk at 1E-06, Non-Cancer Hazard at HI = 0.1)

(5) Codes used for the "Rationale for Selection or Deletion": "BSL" = Below Screening Level, "ASL" = Above Screening Level. Also refer to additional notes.

(6) Constituent concentration exceeds screening level and was either not detected in background or exceeded the background range; however this chemical was not detected in soil, groundwater or sanitary sewer water. In addition, this constituent is not a degradation product of any COPC selected for soil, groundwater or sanitary sewer water. Therefore, it was determined that this chemical is present due to a source other than Riverfront OU4 and it was not selected as a COPC for indoor air.

(7) Constituent concentration exceeds screening level however was within range detected in background. In addition, this chemical was not detected in soil, groundwater, or sanitary sewer water.

(8) Constituent concentration exceeds screening level and background level. This constituent was also detected and selected as a COPC in other media.

(9) There is no screening level available for this constituent and it was either not detected in background or exceeded the background range; however this chemical was not detected in soil, groundwater or sanitary sewer water. In addition, this constituent is not a degradation product of any COPC selected for soil, groundwater or sanitary sewer water. Therefore, it was determined that this chemical is present due to a source other than Riverfront OU4 and it was not selected as a COPC for indoor air.

(10) Constituent concentration exceeds screening level and was either not detected in background or exceeded the background range. Tthis chemical was detected in at least one other source media, however it was not selected as a COPC in any of these media and it is not known to be a degradation product of any COPC selected for soil, groundwater or sanitary sewer water. Therefore, it was determined that this chemical is present due to a source other than Riverfront OU4 (ie. lab contamination) and it was not selected as a COPC for indoor air.