TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-38 RTCM-IA007-14 1/30/2012		12CR01-40 RTCM-IA007-16 1/30/2012		12CR01-41 RTCM-IA008-14 1/30/2012		12CR01-43 RTCM-IA008-16 1/30/2012		12CR01-35 RTCM-IA006-14 1/25/2012		12CR01-37 RTCM-IA006-16 1/25/2012	
PAH																	
1-Methylnaphthalene					μ/m^3	0.053	J			0.13				0.27			
2-Methylnaphthalene	NA	None	NA		μ/m^3	0.074				0.21				0.35			
Acenaphthene	NA	None	None		μ/m^3	0.51	U			0.5	U			0.51	U		
Acenaphthylene					μ/m^3	0.51	U			0.5	U			0.51	U		
Anthracene					μ/m^3	0.51	U			0.5	U			0.51	U		
Fluoranthene					μ/m^3	0.51	U			0.5	U			0.51	U		
Fluorene	NA	None	None		μ/m^3	0.51	U			0.5	U			0.51	U		
Naphthalene	0.07	0.072	9	0.0716	μ/m^3	0.17	J			0.3				0.77	J		
Phenanthrene					μ/m^3	0.51	U			0.5	U			0.51	U		
Pyrene	NA	none	None		μ/m^3	0.51	U			0.5	U			0.51	U		
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	μ/m^3			0.03				0.04				0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	μ/m^3			0.03				0.03				0.11	
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	μ/m^3			1.65	J			1.96				0.48	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	μ/m^3			0.02				0.03				0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	μ/m^3			0.93				0.008	U			0.008	U
1,1-Dichloroethene	None	210	200	200	μ/m^3			0.03				0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	μ/m^3			0.57	J			1.21	J			0.64	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	μ/m^3			0.04	U			0.04	U			0.04	U
1,2,4-Trimethylbenzene	None	7.3	7	7	μ/m^3			0.42	J			0.44	J			0.32	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	μ/m^3			0.02				0.02	U			NR	
1,2-Dichlorobenzene	None	210	200	200	μ/m^3			0.02				0.02				0.02	U
1,2-Dichloroethane	None	0.094	0.4	0.094	μ/m^3			0.63				0.48				0.16	
1,2-Dichloropropane	None	0.24	4	0.24	μ/m^3			0.008	U			0.008	U			0.04	
1,3,5-Trimethylbenzene	None	None	6	6	μ/m^3			0.19	J			0.31	J			0.18	J
1,3-Butadiene	None	0.081	0.3	0.081	μ/m^3			0.82				1.74				0.8	
1,3-Dichlorobenzene	None	None	NA		μ/m^3			0.02	U			0.02	U			0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	μ/m^3			0.1				0.07				0.14	
1,4-Dioxane	0.32	0.32	None	0.32	μ/m^3			0.14	J			0.15	J			0.09	UJ
1-Butanol	None	None	None		μ/m^3			0.36	J			0.005	UJ			0.62	J
2-Hexanone	None	31	NA	31	μ/m^3			0.03	UJ			0.17	J			0.09	J
2-Pentanone	None	None	None		μ/m^3			0.27	J			0.36	J			0.43	J
2-Propanol	None	7300	7000	7000	μ/m^3			66.7	J			0.04	UJ			10.9	J
3-Hexanone	None	None	None		μ/m^3			0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		μ/m^3			0.18	J			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	μ/m^3			0.14	J			0.23	J			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-38 RTCM-IA007-14 1/30/2012		12CR01-40 RTCM-IA007-16 1/30/2012		12CR01-41 RTCM-IA008-14 1/30/2012		12CR01-43 RTCM-IA008-16 1/30/2012		12CR01-35 RTCM-IA006-14 1/25/2012		12CR01-37 RTCM-IA006-16 1/25/2012	
Acetone	None	32000	31000	31000	µ/m^3			22	J			0.01	UJ			77.3	J
Acetonitrile	None	63	None	63	µ/m^3			2.2	J			3.35	J			5.65	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			2.78	J			4.05	J			2.23	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			2.83				4.02				1.54	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	UJ			0.01	UJ			0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.01	U			0.01	U			0.01	
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ			0.02	UJ			0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3			0.76				0.007	U			0.05	
Butanal	None		None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Carbon disulfide	None	730	700	700	µ/m^3			0.51	J			3.64	J			1.24	J
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.45				0.47				0.42	
Chlorobenzene	None	52	50	50	µ/m^3			0.08				0.08				0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			0.09	UJ			0.09	UJ			0.85	J
Chloroethane	None	10000	10000	10000	µ/m^3			0.38				0.43				0.38	
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.17				0.7				0.13	
Chloromethane	None	94	90	90	µ/m^3			3.8				4.78				2.11	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.04				0.04				0.008	U
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.71	J			0.95	J			0.36	J
Cyclopentane	None	None	None		µ/m^3			0.49	J			0.55	J			0.1	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3			1.87	J			2.26	J			2.06	
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.8	J			1.2				0.09	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.65	J			0.84	J			1.53	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	U			0.02	U			0.02	UJ
Isobutene	None	None	None		µ/m^3			2.29	J			3.43	J			3.27	J
Isoprene	None	None	None		µ/m^3			5.01	J			11.7	J			9.19	J
m,p-Xylene	100	730	100	100	µ/m^3			1.02	J			1.39	J			1.81	J
Methacrolein	None	None	None		µ/m^3			0.71	J			0.86	J			0.72	J
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			2.45	J			3.13	J			2.91	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.02	J			0.004	UJ			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3			1.38	J			1.35	J			0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3			1.2				1.44				0.27	
n-Hexane	None	730	2000	730	µ/m^3			1.88	J			2.39	J			0.59	J
o-Xylene	100	730	100	100	µ/m^3			0.68	J			0.91	J			1.12	J
Pentanal	None	None	None		µ/m^3			1.34	J			1.93	J			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3			3.17	J			5.72	J			0.07	UJ
Propanal	None	None	None		µ/m^3			21	J			35.3	J			0.06	UJ
Propene	None	3100	3000	3000	µ/m^3			7.8				13.5				7.92	
Styrene	None	1000	1000	1000	µ/m^3			0.34	J			0.47	J			0.46	J

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Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-38 RTCM-IA007-14 1/30/2012		12CR01-40 RTCM-IA007-16 1/30/2012		12CR01-41 RTCM-IA008-14 1/30/2012		12CR01-43 RTCM-IA008-16 1/30/2012		12CR01-35 RTCM-IA006-14 1/25/2012		12CR01-37 RTCM-IA006-16 1/25/2012	
Tetrachloroethene	0.41	9.4	20	0.41	μ/m^3			0.55	J			0.59	J			0.23	J
Toluene	5000	5200	5000	5000	μ/m^3			5.67	J			7.09	J			5.21	J
trans-1,3-Dichloropropene	None	None	20	20	μ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	μ/m^3			0.59				0.63				0.04	
Trichlorofluoromethane	None	730	700	700	μ/m^3			1.95				2.05				1.42	
Vinyl chloride	0.553	0.16	1	0.16	μ/m^3			0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-32 RTCM-IA005-14 1/30/2012[a]		12CR01-44 RTCM-IA009-14 1/30/2012		12CR01-46 RTCM-IA009-16 1/30/2012		12CR01-50 RTCM-IA011-14 1/31/2012		12CR01-52 RTCM-IA011-16 1/30/2012		12CR01-47 RTCM-IA010-14 1/25/2012		12CR01-49 RTCM-IA010-16 1/25/2012	
PAH																			
1-Methylnaphthalene					µ/m^3	0.057	J	0.05	U			0.054				0.08			
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.074		0.072				0.086				0.16			
Acenaphthene	NA	None	None		µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Acenaphthylene					µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Anthracene					µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Fluoranthene					µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Fluorene	NA	None	None		µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	1.3	J	0.3	J			0.27				0.26			
Phenanthrene					µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
Pyrene	NA	none	None		µ/m^3	0.51	U	0.5	U			0.51	U			0.56	U		
VOC																			
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3					0.32	J			0.03				0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3					0.01	U			0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3					1.52	J			1.85				0.46	J
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3					0.02				0.02				0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3					0.62				0.73				0.008	U
1,1-Dichloroethene	None	210	200	200	µ/m^3					0.006	U			0.02				0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3					0.8	J			0.71	J			0.25	
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3					0.04	U			0.04	U			0.04	UJ
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3					0.28	J			0.36	J			0.29	
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3					0.02				0.02	U			0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3					0.02	U			0.02	U			0.02	UJ
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3					0.32				0.3				0.95	
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3					0.06				0.07				0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3					0.26	J			0.21	J			0.008	U
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3					0.33				0.21				0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3					0.02	U			0.02	U			0.02	UJ
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3					0.06				0.05				0.02	UJ
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3					0.15	J			0.13	J			0.09	UJ
1-Butanol	None	None	None		µ/m^3					0.54	J			0.5	J			0.005	UJ
2-Hexanone	None	31	NA	31	µ/m^3					0.03	UJ			0.03	UJ			0.03	UJ
2-Pentanone	None	None	None		µ/m^3					0.12	J			0.09	UJ			0.25	J
2-Propanol	None	7300	7000	7000	µ/m^3					5.4	J			4.73	J			0.04	UJ
3-Hexanone	None	None	None		µ/m^3					0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3					0.09	UJ			0.09	J			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3					0.09	J			0.09	J			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-32 RTCM-IA005-14 1/30/2012[a]		12CR01-44 RTCM-IA009-14 1/30/2012		12CR01-46 RTCM-IA009-16 1/30/2012		12CR01-50 RTCM-IA011-14 1/31/2012		12CR01-52 RTCM-IA011-16 1/30/2012		12CR01-47 RTCM-IA010-14 1/25/2012		12CR01-49 RTCM-IA010-16 1/25/2012	
Acetone	None	32000	31000	31000	µ/m^3					8.65	J			9.01	J			33.2	J
Acetonitrile	None	63	None	63	µ/m^3					0.42	J			0.46	J			0.41	J
Acrolein	0.02	0.021	None	0.021	µ/m^3					1.2	J			1.46	J			1.19	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3					2.54				2.6				0.87	J
Benzyl chloride	None	0.05	1	0.05	µ/m^3					0.02	J			0.01	UJ			0.01	U
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3					0.03				0.07				0.01	U
Bromoform	None	2.2	9	2.2	µ/m^3					0.03	J			0.05	J			0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3					0.5				0.51				0.007	UJ
Butanal	None		None		µ/m^3					1.25	J			1.33	J			0.07	UJ
Carbon disulfide	None	730	700	700	µ/m^3					2.82	J			2.95	J			1.13	J
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3					0.46				0.47				0.43	
Chlorobenzene	None	52	50	50	µ/m^3					0.06				0.06				0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3					0.09	UJ			0.09	UJ			1.07	J
Chloroethane	None	10000	10000	10000	µ/m^3					0.24				0.26				0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3					0.12				0.56				0.17	
Chloromethane	None	94	90	90	µ/m^3					2.44				2.43				1.49	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3					0.04				0.05				0.008	U
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3					0.006	UJ			0.13	J			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3					0.95	J			0.9	J			0.34	J
Cyclopentane	None	None	None		µ/m^3					0.47	J			0.4	J			0.41	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3					1.48	J			2.31	J			3.91	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3					0.51	J			0.57				0.1	J
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3					0.69	J			0.6	J			0.84	
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3					0.02	U			0.02	U			0.02	UJ
Isobutene	None	None	None		µ/m^3					1.31	J			2.18	J			0.77	J
Isoprene	None	None	None		µ/m^3					1.18	J			0.2	J			4.6	J
m,p-Xylene	100	730	100	100	µ/m^3					1.2	J			1.03	J			1	
Methacrolein	None	None	None		µ/m^3					0.39	J			0.38	J			0.5	J
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3					1.92	J			1.95	J			2.19	J
Methyl iodide	None	None	None		µ/m^3					0.15	UJ			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3					0.01	J			0.01	J			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3					1.36	J			1.42	J			0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3					1.04				1.13				0.24	
n-Hexane	None	730	2000	730	µ/m^3					2.38	J			2.24	J			0.68	J
o-Xylene	100	730	100	100	µ/m^3					0.87	J			0.74	J			0.55	
Pentanal	None	None	None		µ/m^3					1.14	J			0.72	J			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3					4.64	J			4.41	J			0.07	UJ
Propanal	None	None	None		µ/m^3					13.5	J			0.06	UJ			0.06	UJ
Propene	None	3100	3000	3000	µ/m^3					6.17				8.12				0.004	U
Styrene	None	1000	1000	1000	µ/m^3					0.16	J			0.17	J			0.3	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-32 RTCM-IA005-14 1/30/2012[a]		12CR01-44 RTCM-IA009-14 1/30/2012		12CR01-46 RTCM-IA009-16 1/30/2012		12CR01-50 RTCM-IA011-14 1/31/2012		12CR01-52 RTCM-IA011-16 1/30/2012		12CR01-47 RTCM-IA010-14 1/25/2012		12CR01-49 RTCM-IA010-16 1/25/2012	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3					0.52	J			0.49	J			0.009	UJ
Toluene	5000	5200	5000	5000	µ/m^3					5.13	J			4.7	J			2.52	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3					0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	µ/m^3					0.57				0.45				0.009	U
Trichlorofluoromethane	None	730	700	700	µ/m^3					1.57				1.46				3.99	
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3					0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-20 RTCM-IA001-14 1/25/2012		12CR01-22 RTCM-IA001-16 1/25/2012		12CR01-23 RTCM-IA002-14 1/24/2012		12CR01-25 RTCM-IA002-16 1/25/2012	
PAH													
1-Methylnaphthalene					μ/m^3	0.064				0.05	U		
2-Methylnaphthalene	NA	None	NA		μ/m^3	0.13				0.1	U		
Acenaphthene	NA	None	None		μ/m^3	0.5	U			0.5	U		
Acenaphthylene					μ/m^3	0.5	U			0.5	U		
Anthracene					μ/m^3	0.5	U			0.5	U		
Fluoranthene					μ/m^3	0.5	U			0.5	U		
Fluorene	NA	None	None		μ/m^3	0.5	U			0.5	U		
Naphthalene	0.07	0.072	9	0.0716	μ/m^3	0.22	J			0.062	J		
Phenanthrene					μ/m^3	0.5	U			0.5	U		
Pyrene	NA	none	None		μ/m^3	0.5	U			0.5	U		
VOC													
1,1,1-Trichloroethane	None	5200	5000	5000	μ/m^3			0.03				0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	μ/m^3			0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	μ/m^3			0.5	J			0.55	J
1,1,2-Trichloroethane	None	0.15	0.6	0.15	μ/m^3			0.007	U			0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	μ/m^3			0.008	U			0.008	U
1,1-Dichloroethene	None	210	200	200	μ/m^3			0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	μ/m^3			0.37				1.05	
1,2,4-Trichlorobenzene	None	2.1	4	2.1	μ/m^3			0.04	UJ			0.04	UJ
1,2,4-Trimethylbenzene	None	7.3	7	7	μ/m^3			0.008	U			0.35	
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	μ/m^3			0.02	U			0.02	U
1,2-Dichlorobenzene	None	210	200	200	μ/m^3			0.02	UJ			0.02	UJ
1,2-Dichloroethane	None	0.094	0.4	0.094	μ/m^3			0.34				0.009	U
1,2-Dichloropropane	None	0.24	4	0.24	μ/m^3			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	μ/m^3			0.008	U			0.32	
1,3-Butadiene	None	0.081	0.3	0.081	μ/m^3			0.003	U			0.2	
1,3-Dichlorobenzene	None	None	NA		μ/m^3			0.02	UJ			0.02	UJ
1,4-Dichlorobenzene	None	0.22	60	0.22	μ/m^3			0.32	J			0.02	UJ
1,4-Dioxane	0.32	0.32	None	0.32	μ/m^3			0.09	UJ			0.09	UJ
1-Butanol	None	None	None		μ/m^3			0.005	UJ			0.76	J
2-Hexanone	None	31	NA	31	μ/m^3			0.19	J			0.03	UJ
2-Pentanone	None	None	None		μ/m^3			0.49	J			0.09	UJ
2-Propanol	None	7300	7000	7000	μ/m^3			0.04	UJ			0.04	UJ
3-Hexanone	None	None	None		μ/m^3			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		μ/m^3			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	μ/m^3			0.12	J			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-20 RTCM-IA001-14 1/25/2012		12CR01-22 RTCM-IA001-16 1/25/2012		12CR01-23 RTCM-IA002-14 1/24/2012		12CR01-25 RTCM-IA002-16 1/25/2012	
Acetone	None	32000	31000	31000	μ/m^3			52.4	J			0.01	UJ
Acetonitrile	None	63	None	63	μ/m^3			0.04	UJ			0.31	J
Acrolein	0.02	0.021	None	0.021	μ/m^3			1.79	J			0.02	UJ
Benzene	0.312	0.31	4.5	0.31	μ/m^3			1.51	J			2.32	J
Benzyl chloride	None	0.05	1	0.05	μ/m^3			0.01	U			0.01	U
Bromodichloromethane	0.007	0.066	NA	0.007	μ/m^3			0.01	U			0.01	U
Bromoform	None	2.2	9	2.2	μ/m^3			0.02	UJ			0.02	UJ
Bromomethane	None	5.2	5	5	μ/m^3			0.007	UJ			0.007	UJ
Butanal	None		None		μ/m^3			0.07	UJ			0.07	UJ
Carbon disulfide	None	730	700	700	μ/m^3			1.94	J			1.4	J
Carbon Tetrachloride	None	0.41	0.7	0.41	μ/m^3			0.47				0.43	
Chlorobenzene	None	52	50	50	μ/m^3			0.02	U			0.02	U
Chlorodifluoromethane	None	52000	None	52000	μ/m^3			0.09	UJ			1.4	J
Chloroethane	None	10000	10000	10000	μ/m^3			0.004	U			0.004	U
Chloroform	0.11	0.11	100	0.11	μ/m^3			0.19				0.17	
Chloromethane	None	94	90	90	μ/m^3			1.48				2.51	
cis-1,2-Dichloroethene	63	None	NA	63	μ/m^3			0.008	U			0.008	U
cis-1,3-Dichloropropene	None	None	20	20	μ/m^3			0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	μ/m^3			1.55	J			1.26	J
Cyclopentane	None	None	None		μ/m^3			0.75	J			1.27	J
Dichlorodifluoromethane	104	100	200	100	μ/m^3			1.16	J			3.1	J
Dichlorotetrafluoroethane	None	None	NA		μ/m^3			0.09	J			0.1	J
Ethylbenzene	0.973	0.97	1000	0.97	μ/m^3			0.39				1.01	
Hexachloro-1,3-Butadiene	None	None	None		μ/m^3			0.02	UJ			0.02	UJ
Isobutene	None	None	None		μ/m^3			0.96	J			1.3	J
Isoprene	None	None	None		μ/m^3			6.02	J			1.48	J
m,p-Xylene	100	730	100	100	μ/m^3			0.63				1.62	
Methacrolein	None	None	None		μ/m^3			0.7	J			0.07	UJ
Methyl ethyl ketone	None	5200	5000	5000	μ/m^3			2.85	J			8.58	J
Methyl iodide	None	None	None		μ/m^3			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	μ/m^3			0.004	UJ			0.004	UJ
Methyl vinyl ketone	None	None	None		μ/m^3			0.07	UJ			0.07	UJ
Methylene chloride	None	5.2	20	5.2	μ/m^3			0.27				0.27	
n-Hexane	None	730	2000	730	μ/m^3			3.41	J			2.74	J
o-Xylene	100	730	100	100	μ/m^3			0.39				1.1	
Pentanal	None	None	None		μ/m^3			0.09	UJ			0.09	UJ
Pentane	None	1000	None	1000	μ/m^3			0.07	UJ			0.07	UJ
Propanal	None	None	None		μ/m^3			0.06	UJ			0.06	UJ
Propene	None	3100	3000	3000	μ/m^3			0.004	U			0.004	U
Styrene	None	1000	1000	1000	μ/m^3			0.49	J			0.2	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-20 RTCM-IA001-14 1/25/2012		12CR01-22 RTCM-IA001-16 1/25/2012		12CR01-23 RTCM-IA002-14 1/24/2012		12CR01-25 RTCM-IA002-16 1/25/2012	
Tetrachloroethene	0.41	9.4	20	0.41	μ/m^3			0.009	UJ			0.009	UJ
Toluene	5000	5200	5000	5000	μ/m^3			7.51	J			7.73	J
trans-1,3-Dichloropropene	None	None	20	20	μ/m^3			0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	μ/m^3			0.14				0.009	U
Trichlorofluoromethane	None	730	700	700	μ/m^3			2.33				4.47	
Vinyl chloride	0.553	0.16	1	0.16	μ/m^3			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-29 RTCM-IA004-14 1/26/2012		12CR02-02 RTCM-IA004FD-14 1/26/2012		12CR01-31 RTCM-IA004-16 1/26/2012		12CR02-04 RTCM-IA004FD-16 1/26/2012[c]		12CR01-26 RTCM-IA003-14 1/26/2012		12CR01-28 RTCM-IA003-16 1/30/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.22		0.22						0.12			
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.5		0.54						0.16			
Acenaphthene	NA	None	None		µ/m^3	0.5	U	0.5	U					0.5	U		
Acenaphthylene					µ/m^3	0.5	U	0.5	U					0.5	U		
Anthracene					µ/m^3	0.5	U	0.5	U					0.5	U		
Fluoranthene					µ/m^3	0.5	U	0.5	U					0.5	U		
Fluorene	NA	None	None		µ/m^3	0.5	U	0.5	U					0.5	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.44		0.5						0.05	U		
Phenanthrene					µ/m^3	0.5	U	0.5	U					0.5	U		
Pyrene	NA	none	None		µ/m^3	0.5	U	0.5	U					0.5	U		
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3					0.03		0.03				0.03	J
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3					0.12		0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3					0.47		0.47				0.5	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3					0.007	U	0.007	U			0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3					0.02		0.008	U			0.008	U
1,1-Dichloroethene	None	210	200	200	µ/m^3					0.01		0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3					0.28	J	0.34	J			0.42	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3					0.04	U	0.04	U			0.04	U
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3					0.18	J	0.22	J			0.19	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3					NR		NR				0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3					0.02	U	0.02	U			0.02	U
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3					0.08		0.07				0.07	J
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3					0.008	U	0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3					0.1	J	0.11	J			0.12	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3					0.06		0.07				0.22	
1,3-Dichlorobenzene	None	None	NA		µ/m^3					0.02	U	0.02	U			0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3					0.12		0.08				0.07	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3					0.09	UJ	0.09	UJ			0.09	UJ
1-Butanol	None	None	None		µ/m^3					0.3	J	0.21	J			0.005	UJ
2-Hexanone	None	31	NA	31	µ/m^3					0.03	J	0.03	UJ			0.03	UJ
2-Pentanone	None	None	None		µ/m^3					0.18	J	0.09	UJ			0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3					0.04	UJ	3.64	J			2.66	J
3-Hexanone	None	None	None		µ/m^3					0.1	UJ	0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3					0.09	UJ	0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3					0.01	UJ	0.01	UJ			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-29 RTCM-IA004-14 1/26/2012		12CR02-02 RTCM-IA004FD-14 1/26/2012		12CR01-31 RTCM-IA004-16 1/26/2012		12CR02-04 RTCM-IA004FD-16 1/26/2012[c]		12CR01-26 RTCM-IA003-14 1/26/2012		12CR01-28 RTCM-IA003-16 1/30/2012	
Acetone	None	32000	31000	31000	µ/m^3					13.1	J	12.6	J			5.33	J
Acetonitrile	None	63	None	63	µ/m^3					0.51	J	0.54	J			0.04	UJ
Acrolein	0.02	0.021	None	0.021	µ/m^3					1.3	J	1.24	J			0.31	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3					0.64		0.64				1.34	
Benzyl chloride	None	0.05	1	0.05	µ/m^3					0.01	UJ	0.01	UJ			0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3					0.01	U	0.01	U			0.01	U
Bromoform	None	2.2	9	2.2	µ/m^3					0.02	UJ	0.02	UJ			0.09	J
Bromomethane	None	5.2	5	5	µ/m^3					0.02		0.02				0.03	
Butanal	None		None		µ/m^3					1.05	J	1.01	J			0.07	UJ
Carbon disulfide	None	730	700	700	µ/m^3					0.82	J	0.63	J			0.005	UJ
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3					0.4		0.41				0.43	J
Chlorobenzene	None	52	50	50	µ/m^3					0.02	U	0.02	U			0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3					42.3	J	44.4	J			1.05	J
Chloroethane	None	10000	10000	10000	µ/m^3					0.004	U	0.004	U			0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3					0.08		0.07				0.44	
Chloromethane	None	94	90	90	µ/m^3					1.06		1.07				1.11	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3					0.008	U	0.008	U			0.1	
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3					0.006	UJ	0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3					0.26	J	0.29	J			0.59	J
Cyclopentane	None	None	None		µ/m^3					0.21	J	0.21	J			0.07	UJ
Dichlorodifluoromethane	104	100	200	100	µ/m^3					1.08		2.14				1.2	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3					0.09		0.09				0.08	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3					0.23	J	0.25	J			0.32	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3					0.02	U	0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3					0.81	J	0.84	J			0.74	J
Isoprene	None	None	None		µ/m^3					1.04	J	1.33	J			0.31	J
m,p-Xylene	100	730	100	100	µ/m^3					0.33	J	0.36	J			0.71	J
Methacrolein	None	None	None		µ/m^3					0.27	J	0.19	J			0.07	UJ
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3					1.22	J	1.08	J			0.56	J
Methyl iodide	None	None	None		µ/m^3					0.15	UJ	0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3					0.01	J	0.01	J			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3					0.07	UJ	0.3	J			0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3					0.25		0.26				0.44	
n-Hexane	None	730	2000	730	µ/m^3					0.49	J	0.45	J			1.05	J
o-Xylene	100	730	100	100	µ/m^3					0.26	J	0.28	J			0.54	J
Pentanal	None	None	None		µ/m^3					1.35	J	1.27	J			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3					0.07	UJ	0.07	UJ			2.33	J
Propanal	None	None	None		µ/m^3					1.44	J	1.33	J			0.06	UJ
Propene	None	3100	3000	3000	µ/m^3					0.004	U	0.004	U			2.36	
Styrene	None	1000	1000	1000	µ/m^3					0.4	J	0.57	J			0.41	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-29 RTCM-IA004-14 1/26/2012		12CR02-02 RTCM-IA004FD-14 1/26/2012		12CR01-31 RTCM-IA004-16 1/26/2012		12CR02-04 RTCM-IA004FD-16 1/26/2012[c]		12CR01-26 RTCM-IA003-14 1/26/2012		12CR01-28 RTCM-IA003-16 1/30/2012	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3					0.28	J	0.29	J			0.009	UJ
Toluene	5000	5200	5000	5000	µ/m^3					3.15	J	3.3	J			2.45	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3					0.008	UJ	0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	µ/m^3					0.08		0.06				0.06	
Trichlorofluoromethane	None	730	700	700	µ/m^3					1.86		1.88				1.16	J
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3					0.003	U	0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-90 RTCM-IA035-14 1/27/2012		12CR02-92 RTCM-IA035-16 1/27/2012		12CR02-59 RTCM-IA025-14 1/27/2012		12CR02-61 RTCM-IA025-16 1/27/2012		12CR02-38 RTCM-IA015-14 1/25/2012		12CR02-40 RTCM-IA015-16 1/25/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.05	U			0.052				0.083			
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.053				0.084				0.1	U		
Acenaphthene	NA	None	None		µ/m^3	0.5	U			0.51	U			0.5	U		
Acenaphthylene					µ/m^3	0.5	U			0.51	U			0.5	U		
Anthracene					µ/m^3	0.5	U			0.51	U			0.5	U		
Fluoranthene					µ/m^3	0.5	U			0.51	U			0.5	U		
Fluorene	NA	None	None		µ/m^3	0.5	U			0.51	U			0.5	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.76				0.097				0.16	J		
Phenanthrene					µ/m^3	0.5	U			0.51	U			0.5	U		
Pyrene	NA	none	None		µ/m^3	0.5	U			0.51	U			0.5	U		
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.009	U			0.03	J			0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.01	U			0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.12	J			0.59				0.53	J
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U			0.008	U			0.008	U
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.006	U			0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.02	J			0.16	J			0.23	
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	U			0.04	U			0.04	UJ
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.008	UJ			0.05	J			0.008	U
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			NR				0.02	U			0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	U			0.02	U			0.02	UJ
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.02				0.12	J			0.009	U
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.008	UJ			0.08	J			0.008	U
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.009				0.14				0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	U			0.02	U			0.02	UJ
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			0.03				0.02				0.02	UJ
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.02	J			0.005	UJ			0.005	UJ
2-Hexanone	None	31	NA	31	µ/m^3			0.03	UJ			0.03	UJ			0.03	UJ
2-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3			0.5	J			7.21	J			0.04	UJ
3-Hexanone	None	None	None		µ/m^3			0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.01	UJ			0.01	UJ			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-90 RTCM-IA035-14 1/27/2012		12CR02-92 RTCM-IA035-16 1/27/2012		12CR02-59 RTCM-IA025-14 1/27/2012		12CR02-61 RTCM-IA025-16 1/27/2012		12CR02-38 RTCM-IA015-14 1/25/2012		12CR02-40 RTCM-IA015-16 1/25/2012	
Acetone	None	32000	31000	31000	µ/m^3			1.01	J			10.2	J			7.29	J
Acetonitrile	None	63	None	63	µ/m^3			0.08	J			0.53	J			0.2	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			0.1	J			0.3	J			0.42	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			0.11				0.59				0.63	J
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	UJ			0.01	UJ			0.01	U
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.01	U			0.01	UJ			0.01	U
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ			0.02	UJ			0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3			0.007	U			0.03				0.007	UJ
Butanal	None		None		µ/m^3			0.07	UJ			0.07	UJ			0.59	J
Carbon disulfide	None	730	700	700	µ/m^3			0.33	J			0.005	UJ			0.005	UJ
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.1	J			0.48	J			0.42	
Chlorobenzene	None	52	50	50	µ/m^3			0.02	U			0.02	U			0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			0.16	J			0.75	J			0.95	J
Chloroethane	None	10000	10000	10000	µ/m^3			0.004	U			0.004	U			0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.02				0.3				0.01	U
Chloromethane	None	94	90	90	µ/m^3			0.25				1.26				1.78	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.008	U			0.008	U			0.008	U
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.06	J			0.33	J			0.29	J
Cyclopentane	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Dichlorodifluoromethane	104	100	200	100	µ/m^3			1.24	J			5.6	J			9.52	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.02				0.09				0.09	J
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.02	J			0.14	J			0.16	
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	U			0.02	U			0.02	UJ
Isobutene	None	None	None		µ/m^3			0.16	J			0.6	J			0.39	J
Isoprene	None	None	None		µ/m^3			0.12	J			1.6	J			0.09	J
m,p-Xylene	100	730	100	100	µ/m^3			0.03	J			0.24	J			0.25	
Methacrolein	None	None	None		µ/m^3			0.07	UJ			0.13	J			0.07	UJ
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			0.07	UJ			0.72	J			0.7	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.004	UJ			0.004	UJ			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.07				0.26				0.25	
n-Hexane	None	730	2000	730	µ/m^3			0.09	J			0.27	J			0.37	J
o-Xylene	100	730	100	100	µ/m^3			0.03	J			0.18	J			0.19	
Pentanal	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3			0.19	J			0.07	UJ			0.07	UJ
Propanal	None	None	None		µ/m^3			0.06	UJ			1.59	J			0.58	J
Propene	None	3100	3000	3000	µ/m^3			0.15				1.34				0.004	U
Styrene	None	1000	1000	1000	µ/m^3			0.01	J			0.03	J			0.007	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-90 RTCM-IA035-14 1/27/2012		12CR02-92 RTCM-IA035-16 1/27/2012		12CR02-59 RTCM-IA025-14 1/27/2012		12CR02-61 RTCM-IA025-16 1/27/2012		12CR02-38 RTCM-IA015-14 1/25/2012		12CR02-40 RTCM-IA015-16 1/25/2012	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3			0.009	UJ			0.34	J			0.009	UJ
Toluene	5000	5200	5000	5000	µ/m^3			0.24	J			1.19	J			1.79	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	µ/m^3			0.009	U			0.02				0.009	U
Trichlorofluoromethane	None	730	700	700	µ/m^3			0.31	J			1.22	J			1.39	
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3			0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-41 RTCM-IA019-14 1/24/2012		12CR02-43 RTCM-IA019-16 1/24/2012		12CR02-44 RTCM-IA020-14 1/27/2012		12CR02-11 RTCM-IA020FD-14 1/27/2012		12CR02-46 RTCM-IA020-16 1/27/2012		12CR02-13 RTCM-IA020FD-16 1/27/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.05	U			0.05	U	0.05	U				
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.1	U			0.06		0.18					
Acenaphthene	NA	None	None		µ/m^3	0.5	U			0.5	U	0.5	U				
Acenaphthylene					µ/m^3	0.5	U			0.5	U	0.5	U				
Anthracene					µ/m^3	0.5	U			0.5	U	0.5	U				
Fluoranthene					µ/m^3	0.5	U			0.5	U	0.5	U				
Fluorene	NA	None	None		µ/m^3	0.5	U			0.5	U	0.5	U				
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.33				0.13		0.19					
Phenanthrene					µ/m^3	0.5	U			0.5	U	0.5	U				
Pyrene	NA	none	None		µ/m^3	0.5	U			0.5	U	0.5	U				
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.08						0.03		0.04	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.01	U					0.01	U	0.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.72	J					0.49		0.48	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U					0.007	U	0.01	
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U					0.01		0.03	
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.006	U					0.01		0.02	
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.31						0.17	J	0.17	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	UJ					0.04	U	0.04	
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.16						0.55	J	0.27	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			0.02	U					NR		NR	
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	UJ					0.03		0.04	
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.009	U					0.11		0.11	
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U					0.008	U	0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.2						0.04	J	0.05	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.16						0.003	U	0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	UJ					0.02	U	0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			0.32	J					21.3		17.4	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ					0.09	UJ	0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.14	J					0.53	J	0.005	UJ
2-Hexanone	None	31	NA	31	µ/m^3			0.03	UJ					0.05	J	0.08	J
2-Pentanone	None	None	None		µ/m^3			0.09	UJ					0.34	J	0.32	J
2-Propanol	None	7300	7000	7000	µ/m^3			3.96	J					0.04	UJ	44.5	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ					0.1	UJ	0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ					0.09	UJ	0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.01	UJ					0.01	UJ	0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-41 RTCM-IA019-14 1/24/2012		12CR02-43 RTCM-IA019-16 1/24/2012		12CR02-44 RTCM-IA020-14 1/27/2012		12CR02-11 RTCM-IA020FD-14 1/27/2012		12CR02-46 RTCM-IA020-16 1/27/2012		12CR02-13 RTCM-IA020FD-16 1/27/2012	
Acetone	None	32000	31000	31000	µ/m^3			12.5	J					17.1	J	15.4	J
Acetonitrile	None	63	None	63	µ/m^3			1.07	J					0.27	J	0.25	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			0.6	J					1.71	J	1.46	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			0.86	J					0.53		0.51	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	U					0.01	UJ	0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.01	U					0.01	U	0.02	
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ					0.02	J	0.04	J
Bromomethane	None	5.2	5	5	µ/m^3			0.007	UJ					0.03		0.03	
Butanal	None		None		µ/m^3			0.07	UJ					0.07	UJ	1.24	J
Carbon disulfide	None	730	700	700	µ/m^3			1.36	J					0.49	J	0.89	J
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.44						0.47		0.47	
Chlorobenzene	None	52	50	50	µ/m^3			0.02	U					0.02	U	0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			0.92	J					2.3	J	0.09	UJ
Chloroethane	None	10000	10000	10000	µ/m^3			0.3						0.75		0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.01	U					0.19		0.19	
Chloromethane	None	94	90	90	µ/m^3			1.76						1.18		1.09	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.008	U					0.008	U	0.01	
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ					0.006	UJ	0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.26	J					0.21	J	0.21	J
Cyclopentane	None	None	None		µ/m^3			0.13	J					0.15	J	0.14	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3			9.65	J					10.3		7.13	
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.09	J					0.09		0.1	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.24						0.33	J	0.39	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	UJ					0.02	U	0.03	
Isobutene	None	None	None		µ/m^3			0.69	J					0.49	J	0.47	J
Isoprene	None	None	None		µ/m^3			1.01	J					1.31	J	1.21	J
m,p-Xylene	100	730	100	100	µ/m^3			0.38						0.26	J	0.28	J
Methacrolein	None	None	None		µ/m^3			0.09	J					0.18	J	0.16	J
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			0.74	J					1.91	J	1.86	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ					0.15	UJ	0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.004	UJ					0.01	J	0.02	J
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ					0.07	UJ	0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.25						0.28		0.27	
n-Hexane	None	730	2000	730	µ/m^3			0.51	J					0.35	J	0.32	J
o-Xylene	100	730	100	100	µ/m^3			0.26						0.18	J	0.19	J
Pentanal	None	None	None		µ/m^3			0.09	UJ					3.02	J	2.46	J
Pentane	None	1000	None	1000	µ/m^3			0.07	UJ					0.07	UJ	0.07	UJ
Propanal	None	None	None		µ/m^3			0.06	UJ					0.06	UJ	0.06	UJ
Propene	None	3100	3000	3000	µ/m^3			1.39						5.89		5.41	
Styrene	None	1000	1000	1000	µ/m^3			0.13	J					0.14	J	0.13	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-41 RTCM-IA019-14 1/24/2012		12CR02-43 RTCM-IA019-16 1/24/2012		12CR02-44 RTCM-IA020-14 1/27/2012		12CR02-11 RTCM-IA020FD-14 1/27/2012		12CR02-46 RTCM-IA020-16 1/27/2012		12CR02-13 RTCM-IA020FD-16 1/27/2012	
Tetrachloroethene	0.41	9.4	20	0.41	μ/m^3			0.009	UJ					0.23	J	0.24	J
Toluene	5000	5200	5000	5000	μ/m^3			2.15	J					1.17	J	1.09	J
trans-1,3-Dichloropropene	None	None	20	20	μ/m^3			0.008	UJ					0.008	UJ	0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	μ/m^3			0.009	U					0.05		0.05	
Trichlorofluoromethane	None	730	700	700	μ/m^3			1.46						1.32		1.31	
Vinyl chloride	0.553	0.16	1	0.16	μ/m^3			0.003	U					0.003	U	0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-48 RTCM-IA021-15 1/27/2012		12CR02-49 RTCM-IA021-16 1/27/2012		12CR02-50 RTCM-IA022-14 1/25/2012		12CR02-52 RTCM-IA022-16 1/25/2012		12CR02-53 RTCM-IA023-14 1/27/2012		12CR02-55 RTCM-IA023-16 1/27/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.073	U			0.072				0.076			
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.099				0.17				0.12			
Acenaphthene	NA	None	None		µ/m^3	0.73	U			0.5	U			0.5	U		
Acenaphthylene					µ/m^3	0.73	U			0.5	U			0.5	U		
Anthracene					µ/m^3	0.73	U			0.5	U			0.5	U		
Fluoranthene					µ/m^3	0.73	U			0.5	U			0.5	U		
Fluorene	NA	None	None		µ/m^3	0.73	U			0.5	U			0.5	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.15				1.2	J			0.14			
Phenanthrene					µ/m^3	0.73	U			0.5	U			0.5	U		
Pyrene	NA	none	None		µ/m^3	0.73	U			0.5	U			0.5	U		
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.05				0.03				0.03	J
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.03				0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.46				0.47	J			0.47	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U			0.008	U			0.008	U
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.03				0.006	U			0.01	
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.18	J			0.97				0.15	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	U			0.04	UJ			0.04	U
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.32	J			0.65				0.34	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			NR				0.02	U			0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	U			0.02	UJ			0.02	U
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.33				0.34				0.13	J
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.05	J			0.008	U			0.04	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.07				0.003	U			0.05	
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	U			0.02	UJ			0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			0.14				1.07	J			0.05	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.34	J			0.005	UJ			0.1	J
2-Hexanone	None	31	NA	31	µ/m^3			0.07	J			0.12	J			0.24	J
2-Pentanone	None	None	None		µ/m^3			0.55	J			0.43	J			0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3			0.04	UJ			0.04	UJ			81.4	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.01	UJ			0.01	UJ			0.22	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-48 RTCM-IA021-15 1/27/2012		12CR02-49 RTCM-IA021-16 1/27/2012		12CR02-50 RTCM-IA022-14 1/25/2012		12CR02-52 RTCM-IA022-16 1/25/2012		12CR02-53 RTCM-IA023-14 1/27/2012		12CR02-55 RTCM-IA023-16 1/27/2012	
Acetone	None	32000	31000	31000	µ/m^3			30.2	J			0.01	UJ			17.4	J
Acetonitrile	None	63	None	63	µ/m^3			0.55	J			0.04	UJ			0.04	UJ
Acrolein	0.02	0.021	None	0.021	µ/m^3			1.35	J			0.97	J			0.75	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			0.66				0.79	J			0.64	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	UJ			0.01	U			0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.03				0.01	U			0.01	UJ
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	J			0.02	UJ			0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3			0.03				0.007	UJ			0.03	
Butanal	None		None		µ/m^3			1.05	J			0.07	UJ			0.5	J
Carbon disulfide	None	730	700	700	µ/m^3			1.46	J			2.44	J			0.53	J
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.44				0.46				0.42	J
Chlorobenzene	None	52	50	50	µ/m^3			0.02	U			0.02	U			0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			1.57	J			1.51	J			0.72	J
Chloroethane	None	10000	10000	10000	µ/m^3			0.28				0.004	U			0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.37				0.15				0.12	
Chloromethane	None	94	90	90	µ/m^3			1.33				1.17				1.18	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.009				0.008	U			0.008	U
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.55	J			0.006	UJ			0.3	J
Cyclopentane	None	None	None		µ/m^3			0.91	J			7.7	J			0.13	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3			16.4				24.7	J			5.39	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.09				0.09	J			0.09	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.21	J			0.58				0.21	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	U			0.02	UJ			0.02	U
Isobutene	None	None	None		µ/m^3			0.72	J			1.07	J			0.32	J
Isoprene	None	None	None		µ/m^3			5.08	J			0.67	J			1.25	J
m,p-Xylene	100	730	100	100	µ/m^3			0.26	J			0.84				0.3	J
Methacrolein	None	None	None		µ/m^3			0.48	J			0.38	J			0.09	J
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			1.63	J			13.2	J			0.41	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.009	J			0.004	UJ			0.008	J
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.34				0.4				0.37	
n-Hexane	None	730	2000	730	µ/m^3			0.35	J			0.68	J			0.36	J
o-Xylene	100	730	100	100	µ/m^3			0.19	J			0.62				0.22	J
Pentanal	None	None	None		µ/m^3			3.95	J			0.09	UJ			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Propanal	None	None	None		µ/m^3			0.06	UJ			0.06	UJ			0.06	UJ
Propene	None	3100	3000	3000	µ/m^3			0.004	U			0.004	U			0.004	U
Styrene	None	1000	1000	1000	µ/m^3			0.28	J			2.91	J			0.12	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-48 RTCM-IA021-15 1/27/2012		12CR02-49 RTCM-IA021-16 1/27/2012		12CR02-50 RTCM-IA022-14 1/25/2012		12CR02-52 RTCM-IA022-16 1/25/2012		12CR02-53 RTCM-IA023-14 1/27/2012		12CR02-55 RTCM-IA023-16 1/27/2012	
Tetrachloroethene	0.41	9.4	20	0.41	μ/m^3			0.88	J			0.009	UJ			0.009	UJ
Toluene	5000	5200	5000	5000	μ/m^3			2.64	J			5.36	J			1.6	J
trans-1,3-Dichloropropene	None	None	20	20	μ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	μ/m^3			0.46				0.009	U			0.02	
Trichlorofluoromethane	None	730	700	700	μ/m^3			1.61				1.47				1.44	J
Vinyl chloride	0.553	0.16	1	0.16	μ/m^3			0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-56 RTCM-IA024-14 1/25/2012		12CR02-58 RTCM-IA024-16 1/25/2012		12CR02-17 RTCM-IA013-14 1/26/2012		12CR02-19 RTCM-IA013-16 1/26/2012		12CR02-20 RTCM-IA014-14 1/26/2012		12CR02-22 RTCM-IA014-16 1/26/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.05	U			0.062				0.05	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.12				0.1				0.053			
Acenaphthene	NA	None	None		µ/m^3	0.5	U			0.5	U			0.5	U		
Acenaphthylene					µ/m^3	0.5	U			0.5	U			0.5	U		
Anthracene					µ/m^3	0.5	U			0.5	U			0.5	U		
Fluoranthene					µ/m^3	0.5	U			0.5	U			0.5	U		
Fluorene	NA	None	None		µ/m^3	0.5	U			0.5	U			0.5	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.24	J			0.24				0.16			
Phenanthrene					µ/m^3	0.5	U			0.5	U			0.5	U		
Pyrene	NA	none	None		µ/m^3	0.5	U			0.5	U			0.5	U		
VOC																	
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.03				0.03				0.16	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.01	U			0.01	U			0.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.55	J			0.51				0.6	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U			0.007	U			0.02	
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U			0.02				0.02	
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.006	U			0.02				0.01	
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.24				0.22	J			0.49	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	UJ			0.04	U			0.07	
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.008	U			0.14	J			0.22	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			0.02	U			NR				NR	
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	UJ			0.02	U			0.03	
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.21				0.13				0.17	
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U			0.008	U			0.03	
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.008	U			0.06	J			0.16	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.003	U			0.09				0.06	
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	UJ			0.02	U			0.03	
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			0.02	UJ			0.11				0.21	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.005	UJ			0.05	J			0.64	J
2-Hexanone	None	31	NA	31	µ/m^3			0.03	UJ			0.09	J			0.1	J
2-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3			0.04	UJ			7.7	J			6.41	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.01	UJ			0.01	UJ			0.01	UJ

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-56 RTCM-IA024-14 1/25/2012		12CR02-58 RTCM-IA024-16 1/25/2012		12CR02-17 RTCM-IA013-14 1/26/2012		12CR02-19 RTCM-IA013-16 1/26/2012		12CR02-20 RTCM-IA014-14 1/26/2012		12CR02-22 RTCM-IA014-16 1/26/2012	
Acetone	None	32000	31000	31000	µ/m^3			0.01	UJ			7.05	J			0.01	UJ
Acetonitrile	None	63	None	63	µ/m^3			0.04	UJ			0.52	J			0.26	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			0.7	J			0.44	J			0.53	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			0.62	J			0.89				0.91	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	U			0.01	UJ			0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.01	U			0.01	U			0.02	
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ			0.02	UJ			0.04	J
Bromomethane	None	5.2	5	5	µ/m^3			0.007	UJ			0.03				0.03	
Butanal	None		None		µ/m^3			0.99	J			1.16	J			0.92	J
Carbon disulfide	None	730	700	700	µ/m^3			1.91	J			0.79	J			0.91	J
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.44				0.44				0.47	
Chlorobenzene	None	52	50	50	µ/m^3			0.02	U			0.02	U			0.03	
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			0.77	J			2.71	J			1.11	J
Chloroethane	None	10000	10000	10000	µ/m^3			0.004	U			1.73				0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.29				0.09				0.12	
Chloromethane	None	94	90	90	µ/m^3			1.02				1.11				1.06	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.008	U			0.008	U			0.009	
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ			0.006	UJ			0.01	J
Cyclohexane	None	6300	6000	6000	µ/m^3			0.22	J			0.21	J			1.04	J
Cyclopentane	None	None	None		µ/m^3			0.09	J			0.11	J			0.58	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3			32.9	J			1.98				2.36	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.09	J			0.1				0.09	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.17				0.19	J			0.34	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	UJ			0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3			0.78	J			0.62	J			0.42	J
Isoprene	None	None	None		µ/m^3			0.6	J			0.62	J			0.72	J
m,p-Xylene	100	730	100	100	µ/m^3			0.26				0.28	J			0.57	J
Methacrolein	None	None	None		µ/m^3			0.14	J			0.12	J			0.14	J
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			0.72	J			1.28	J			1.38	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.004	UJ			0.01	J			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.28	J			0.91	J
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.25				0.26				1.02	
n-Hexane	None	730	2000	730	µ/m^3			0.41	J			0.37	J			2.46	J
o-Xylene	100	730	100	100	µ/m^3			0.21				0.2	J			0.38	J
Pentanal	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3			0.07	UJ			1.19	J			0.07	UJ
Propanal	None	None	None		µ/m^3			0.06	UJ			0.06	UJ			0.06	UJ
Propene	None	3100	3000	3000	µ/m^3			0.004	U			0.004	U			2.11	
Styrene	None	1000	1000	1000	µ/m^3			0.007	UJ			0.14	J			0.14	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-56 RTCM-IA024-14 1/25/2012		12CR02-58 RTCM-IA024-16 1/25/2012		12CR02-17 RTCM-IA013-14 1/26/2012		12CR02-19 RTCM-IA013-16 1/26/2012		12CR02-20 RTCM-IA014-14 1/26/2012		12CR02-22 RTCM-IA014-16 1/26/2012	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3			0.009	UJ			0.27	J			5.15	J
Toluene	5000	5200	5000	5000	µ/m^3			1.83	J			1.87	J			2.94	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.008	UJ			0.008	UJ			0.01	J
Trichloroethene	0.59	0.43	3	0.43	µ/m^3			0.009	U			0.07				0.08	
Trichlorofluoromethane	None	730	700	700	µ/m^3			1.59				1.21				4.2	
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3			0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-23 RTCM-IA018-14 1/24/2012		12CR02-25 RTCM-IA018-16 1/24/2012		12CR01-01 RTCM-IA016-14 1/30/2012		12CR01-03 RTCM-IA016-16 1/31/2012		12CR01-04 RTCM-IA017-14 1/30/2012		12CR02-14 RTCM-IA017FD-14 1/30/2012		12CR01-06 RTCM-IA017-16 1/30/2012[c]		12CR02-16 RTCM-IA017FD-16 1/30/2012	
PAH																					
1-Methylnaphthalene					µ/m^3	0.071				0.049	U			0.05	U	0.05	U				
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.11				0.049	U			0.05	U	0.05	U				
Acenaphthene	NA	None	None		µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Acenaphthylene					µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Anthracene					µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Fluoranthene					µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Fluorene	NA	None	None		µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.3				0.049	J			0.056	J	0.058	J				
Phenanthrene					µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
Pyrene	NA	none	None		µ/m^3	0.52	U			0.49	U			0.5	U	0.5	U				
VOC																					
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.03				0.03						0.03		0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.01	U			0.01	U					0.01	U	0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.49	J			0.83						0.66		0.75	J
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U			0.007	U					0.007	U	0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U			0.11						0.33		0.36	
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.05				0.006	U					0.006	U	0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.53				0.11	J					0.1	J	0.09	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	UJ			0.04	U					0.04	U	0.04	U
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.33				0.06	J					0.06	J	0.05	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			0.02	U			0.02	U					0.02	U	0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	UJ			0.02	U					0.02	U	0.02	U
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.96				0.09						0.14		0.15	
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U			0.02						0.02		0.03	
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.14				0.04	J					0.07	J	0.06	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.13				0.04						0.04		0.04	
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	UJ			0.02	U					0.02	U	0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			35.2	J			0.02						0.02		0.02	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ			0.09	UJ					0.09	UJ	0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.005	UJ			0.1	J					0.14	J	0.09	J
2-Hexanone	None	31	NA	31	µ/m^3			0.15	J			0.03	UJ					0.03	UJ	0.03	UJ
2-Pentanone	None	None	None		µ/m^3			0.43	J			0.09	UJ					0.09	UJ	0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3			0.04	UJ			2.48	J					1.71	J	0.83	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ			0.1	UJ					0.1	UJ	0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ					0.09	UJ	0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.1	J			0.03	J					0.01	UJ	0.02	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-23 RTCM-IA018-14 1/24/2012		12CR02-25 RTCM-IA018-16 1/24/2012		12CR01-01 RTCM-IA016-14 1/30/2012		12CR01-03 RTCM-IA016-16 1/31/2012		12CR01-04 RTCM-IA017-14 1/30/2012		12CR02-14 RTCM-IA017FD-14 1/30/2012		12CR01-06 RTCM-IA017-16 1/30/2012[c]		12CR02-16 RTCM-IA017FD-16 1/30/2012	
Acetone	None	32000	31000	31000	µ/m^3			9.66	J			3.71	J					3.12	J	2.75	J
Acetonitrile	None	63	None	63	µ/m^3			0.47	J			0.16	J					0.11	J	0.09	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			1.28	J			0.16	J					0.22	J	0.25	J
Benzene	0.312	0.31	4.5	0.31	µ/m^3			1.08	J			0.77						0.81		0.86	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	U			0.01	UJ					0.01	UJ	0.01	UJ
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.11				0.01	U					0.01	U	0.01	U
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ			0.02	UJ					0.02	UJ	0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3			0.03	J			0.03						0.33		0.37	
Butanal	None		None		µ/m^3			0.07	UJ			0.32	J					0.23	J	0.14	J
Carbon disulfide	None	730	700	700	µ/m^3			3.24	J			3.21	J					2.72	J	0.005	UJ
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.56				0.48						0.43		0.45	
Chlorobenzene	None	52	50	50	µ/m^3			0.18				0.02	U					0.02	U	0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			1.4	J			1.65	J					37.9	J	0.09	UJ
Chloroethane	None	10000	10000	10000	µ/m^3			1.13				0.04						0.004	U	0.004	U
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.25				0.07						0.07		0.07	
Chloromethane	None	94	90	90	µ/m^3			1.3				1.29						1.78		1.93	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.04				0.008	U					0.008	U	0.008	U
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ			0.006	UJ					0.006	UJ	0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.42	J			0.23	J					0.26	J	0.2	J
Cyclopentane	None	None	None		µ/m^3			0.07	UJ			0.07	UJ					0.07	UJ	0.07	UJ
Dichlorodifluoromethane	104	100	200	100	µ/m^3			1.2	J			1.67	J					1.27	J	1.97	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.09				0.15						0.51		0.74	J
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.67				0.1	J					0.12	J	0.08	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	UJ			0.02	U					0.02	U	0.02	U
Isobutene	None	None	None		µ/m^3			1.2	J			0.29	J					0.47	J	0.43	J
Isoprene	None	None	None		µ/m^3			2.48	J			0.09	J					0.07	UJ	0.07	UJ
m,p-Xylene	100	730	100	100	µ/m^3			1.27				0.15	J					0.19	J	0.12	J
Methacrolein	None	None	None		µ/m^3			0.35	J			0.07	UJ					0.07	UJ	0.07	UJ
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			2.45	J			0.44	J					0.38	J	0.12	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ					0.15	UJ	0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.04	J			0.004	UJ					0.008	J	0.009	J
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.07	UJ					0.26	J	0.33	J
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.32				0.34						0.49		0.54	
n-Hexane	None	730	2000	730	µ/m^3			0.92	J			0.38	J					0.36	J	0.36	J
o-Xylene	100	730	100	100	µ/m^3			0.79				0.12	J					0.14	J	0.1	J
Pentanal	None	None	None		µ/m^3			0.09	UJ			0.09	UJ					0.09	UJ	0.84	J
Pentane	None	1000	None	1000	µ/m^3			0.07	UJ			0.76	J					0.72	J	0.66	J
Propanal	None	None	None		µ/m^3			0.06	UJ			0.47	J					0.47	J	0.36	J
Propene	None	3100	3000	3000	µ/m^3			8.01				0.72						0.81		0.85	
Styrene	None	1000	1000	1000	µ/m^3			0.4	J			0.02	J					0.02	J	0.02	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR02-23 RTCM-IA018-14 1/24/2012		12CR02-25 RTCM-IA018-16 1/24/2012		12CR01-01 RTCM-IA016-14 1/30/2012		12CR01-03 RTCM-IA016-16 1/31/2012		12CR01-04 RTCM-IA017-14 1/30/2012		12CR02-14 RTCM-IA017FD-14 1/30/2012		12CR01-06 RTCM-IA017-16 1/30/2012[c]		12CR02-16 RTCM-IA017FD-16 1/30/2012	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3			0.009	UJ			0.22	J					0.24	J	0.009	UJ
Toluene	5000	5200	5000	5000	µ/m^3			21.3	J			0.75	J					0.7	J	0.66	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.02	J			0.008	UJ					0.008	UJ	0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	µ/m^3			0.09				0.1						0.13		0.13	
Trichlorofluoromethane	None	730	700	700	µ/m^3			2.25				1.22						1.38		0.01	U
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3			0.003	U			0.003	U					0.003	U	0.003	U

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-86 RTCM-OA026-17 1/24/2012		12CR01-88 RTCM-OA026-19 1/24/2012		12CR01-89 RTCM-OA027-17 1/26/2012		12CR02-86 RTCM-OA027FD-17 1/26/2012		12CR01-91 RTCM-OA027-19 1/25/2012[b]		12CR01-92 RTCM-OA028-17 1/31/2012		12CR01-94 RTCM-OA028-19 1/30/2012[c]	
PAH																			
1-Methylnaphthalene					µ/m^3	0.05	U			0.051	U	0.05	U			0.05	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.1	U			0.1	U	0.05	U			0.05	U		
Acenaphthene	NA	None	None		µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Acenaphthylene					µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Anthracene					µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Fluoranthene					µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Fluorene	NA	None	None		µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Naphthalene	0.07	0.072	9	0.0716	µ/m^3	0.075				0.051	U	0.05	U			0.05	U		
Phenanthrene					µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
Pyrene	NA	none	None		µ/m^3	0.5	U			0.51	U	0.5	U			0.5	U		
VOC																			
1,1,1-Trichloroethane	None	5200	5000	5000	µ/m^3			0.03						0.02				0.03	
1,1,2,2-Tetrachloroethane	None	0.042	0.2	0.042	µ/m^3			0.01	U					0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	30000	30000	µ/m^3			0.55	J					0.51				0.66	
1,1,2-Trichloroethane	None	0.15	0.6	0.15	µ/m^3			0.007	U					0.007	U			0.007	U
1,1-Dichloroethane	None	1.5	500	1.5	µ/m^3			0.008	U					0.008	U			0.02	
1,1-Dichloroethene	None	210	200	200	µ/m^3			0.006	U					0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	5.2	None	5.2	µ/m^3			0.008	U					0.07	J			0.7	J
1,2,4-Trichlorobenzene	None	2.1	4	2.1	µ/m^3			0.04	UJ					0.04	U			0.04	U
1,2,4-Trimethylbenzene	None	7.3	7	7	µ/m^3			0.008	U					0.02	J			0.21	J
1,2-Dibromoethane (EDB)	None	0.0041	0.02	0.0041	µ/m^3			0.02	U					NR				0.02	U
1,2-Dichlorobenzene	None	210	200	200	µ/m^3			0.02	UJ					0.02	U			0.02	U
1,2-Dichloroethane	None	0.094	0.4	0.094	µ/m^3			0.009	U					0.04				0.06	
1,2-Dichloropropane	None	0.24	4	0.24	µ/m^3			0.008	U					0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	6	6	µ/m^3			0.008	U					0.05	J			0.24	J
1,3-Butadiene	None	0.081	0.3	0.081	µ/m^3			0.003	U					0.06				0.21	
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	UJ					0.02	U			0.02	U
1,4-Dichlorobenzene	None	0.22	60	0.22	µ/m^3			0.02	UJ					0.02				0.06	
1,4-Dioxane	0.32	0.32	None	0.32	µ/m^3			0.09	UJ					0.09	UJ			0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.005	UJ					0.005	UJ			0.22	J
2-Hexanone	None	31	NA	31	µ/m^3			0.03	UJ					0.03	UJ			0.03	UJ
2-Pentanone	None	None	None		µ/m^3			0.09	UJ					0.09	UJ			0.09	UJ
2-Propanol	None	7300	7000	7000	µ/m^3			0.66	J					0.7	J			1.85	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ					0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ					0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	3100	3000	3000	µ/m^3			0.01	UJ					0.01	UJ			0.02	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-86 RTCM-OA026-17 1/24/2012		12CR01-88 RTCM-OA026-19 1/24/2012		12CR01-89 RTCM-OA027-17 1/26/2012		12CR02-86 RTCM-OA027FD-17 1/26/2012		12CR01-91 RTCM-OA027-19 1/25/2012[b]		12CR01-92 RTCM-OA028-17 1/31/2012		12CR01-94 RTCM-OA028-19 1/30/2012[c]	
Acetone	None	32000	31000	31000	µ/m^3			0.01	UJ					3.94	J			5.56	J
Acetonitrile	None	63	None	63	µ/m^3			0.18	J					0.14	J			0.19	J
Acrolein	0.02	0.021	None	0.021	µ/m^3			0.16	J					0.02	UJ			0.02	UJ
Benzene	0.312	0.31	4.5	0.31	µ/m^3			0.56	J					0.58				1.34	
Benzyl chloride	None	0.05	1	0.05	µ/m^3			0.01	U					0.01	UJ			0.02	J
Bromodichloromethane	0.007	0.066	NA	0.007	µ/m^3			0.01	U					0.01	U			0.01	U
Bromoform	None	2.2	9	2.2	µ/m^3			0.02	UJ					0.02	UJ			0.02	UJ
Bromomethane	None	5.2	5	5	µ/m^3			0.007	UJ					0.03				0.03	
Butanal	None		None		µ/m^3			0.07	UJ					0.07	UJ			1.44	J
Carbon disulfide	None	730	700	700	µ/m^3			1.4	J					0.005	UJ			0.005	UJ
Carbon Tetrachloride	None	0.41	0.7	0.41	µ/m^3			0.44						0.39				0.45	
Chlorobenzene	None	52	50	50	µ/m^3			0.02	U					0.02	U			0.02	U
Chlorodifluoromethane	None	52000	None	52000	µ/m^3			0.78	J					0.79	J			1.29	J
Chloroethane	None	10000	10000	10000	µ/m^3			0.004	U					0.02				0.02	
Chloroform	0.11	0.11	100	0.11	µ/m^3			0.01	U					0.05				0.11	
Chloromethane	None	94	90	90	µ/m^3			1.03						0.96				1.05	
cis-1,2-Dichloroethene	63	None	NA	63	µ/m^3			0.008	U					0.008	U			0.01	
cis-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.006	UJ					0.006	UJ			0.006	UJ
Cyclohexane	None	6300	6000	6000	µ/m^3			0.16	J					0.2	J			0.55	J
Cyclopentane	None	None	None		µ/m^3			0.07	UJ					0.09	J			0.19	J
Dichlorodifluoromethane	104	100	200	100	µ/m^3			1.33	J					1.44				2.28	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.1	J					0.09				0.11	
Ethylbenzene	0.973	0.97	1000	0.97	µ/m^3			0.11						0.09	J			0.48	J
Hexachloro-1,3-Butadiene	None	None	None		µ/m^3			0.02	UJ					0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3			0.06	UJ					0.9	J			0.56	J
Isoprene	None	None	None		µ/m^3			0.07	UJ					0.07	UJ			0.09	J
m,p-Xylene	100	730	100	100	µ/m^3			0.15						0.14	J			0.86	J
Methacrolein	None	None	None		µ/m^3			0.07	UJ					0.16	J			0.07	UJ
Methyl ethyl ketone	None	5200	5000	5000	µ/m^3			0.28	J					0.31	J			1.44	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ					0.15	UJ			0.15	UJ
Methyl tert-butyl ether	None	9.4	3000	9.4	µ/m^3			0.004	UJ					0.004	UJ			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ					0.07	UJ			0.21	J
Methylene chloride	None	5.2	20	5.2	µ/m^3			0.21						0.25				1.41	
n-Hexane	None	730	2000	730	µ/m^3			0.43	J					0.4	J			1.06	J
o-Xylene	100	730	100	100	µ/m^3			0.12						0.11	J			0.63	J
Pentanal	None	None	None		µ/m^3			0.09	UJ					0.09	UJ			0.09	UJ
Pentane	None	1000	None	1000	µ/m^3			0.97	J					1.14	J			2.18	J
Propanal	None	None	None		µ/m^3			0.49	J					1.21	J			0.44	J
Propene	None	3100	3000	3000	µ/m^3			0.72						0.92				1.86	
Styrene	None	1000	1000	1000	µ/m^3			0.007	UJ					0.01	J			0.09	J

TABLE 3

Round 2 Indoor and Outdoor Air Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Indoor Air	USEPA Residential Air	MPCA Residential ISV	Minimum Criteria		12CR01-86 RTCM-OA026-17 1/24/2012		12CR01-88 RTCM-OA026-19 1/24/2012		12CR01-89 RTCM-OA027-17 1/26/2012		12CR02-86 RTCM-OA027FD-17 1/26/2012		12CR01-91 RTCM-OA027-19 1/25/2012[b]		12CR01-92 RTCM-OA028-17 1/31/2012		12CR01-94 RTCM-OA028-19 1/30/2012[c]	
Tetrachloroethene	0.41	9.4	20	0.41	µ/m^3			0.009	UJ					0.009	UJ			0.23	J
Toluene	5000	5200	5000	5000	µ/m^3			0.69	J					0.76	J			3.29	J
trans-1,3-Dichloropropene	None	None	20	20	µ/m^3			0.008	UJ					0.008	UJ			0.008	UJ
Trichloroethene	0.59	0.43	3	0.43	µ/m^3			0.009	U					0.03				0.05	
Trichlorofluoromethane	None	730	700	700	µ/m^3			1.12						1.04				1.18	
Vinyl chloride	0.553	0.16	1	0.16	µ/m^3			0.003	U					0.003	U			0.005	

Notes:

Site Specific Residential Indoor Air Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value.

MPCA Residential ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009.

[a]The TO-15 Indoor Air Sample collected at this location was not retrieved by the field team and not submitted.

[b]The OA027 Outdoor Air TO-15 sample duplicate regulator malfunctioned and did not adequately fill the canister; TO-15 data are not reported for the duplicate sample.

[c]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-71 RTCM-SS007-11 1/30/2012		12CR01-73 RTCM-SS007-13 1/30/2012		12CR01-74 RTCM-SS008-11 1/30/2012		12CR01-76 RTCM-SS008-13 1/30/2012[a]		12CR01-68 RTCM-SS006-11 1/25/2012		12CR01-70 RTCM-SS006-13 1/25/2012[a]	
PAH																	
1-Methylnaphthalene					µ/m^3	0.35	U			0.37	J			0.36	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.35	U			0.47				0.71	U		
Acenaphthene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.6	U		
Acenaphthylene		None			µ/m^3	3.5	U			3.6	U			3.6	U		
Anthracene		None			µ/m^3	3.5	U			3.6	U			3.6	U		
Fluoranthene		None			µ/m^3	3.5	U			3.6	U			3.6	U		
Fluorene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.6	U		
Naphthalene	0.72	0.72	90	0.716	µ/m^3	0.35	U			9.9	J			0.57			
Phenanthrene		None			µ/m^3	3.5	U			3.6	U			3.6	U		
Pyrene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.6	U		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3			0.04	J			0.03	J			0.04	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3			0.01	U			0.01	U			0.1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3			0.95				0.93				0.63	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3			0.008	U			0.008	U			0.09	
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3			0.006	U			0.006	U			0.01	
1,2,3-Trimethylbenzene	None	None	None		µ/m^3			0.5	J			0.33	J			0.57	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3			0.04	U			0.04	U			0.17	J
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3			0.21	J			0.18	J			0.86	
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3			0.02	U			0.02	U			NR	
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3			0.02	U			0.02	U			0.07	
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3			0.2	J			0.14	J			0.09	
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3			0.008	U			0.008	U			0.03	
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3			0.09	J			0.13	J			0.13	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3			0.53				0.003	U			0.1	
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.04				0.02				0.07	
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3			0.26				0.21				1.33	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3			0.35	J			0.09	UJ			0.22	J
1-Butanol	None	None	None		µ/m^3			32.9	J			1.62	J			3.62	J
2-Hexanone	None	310	NA	310	µ/m^3			1.05	J			0.36	J			0.75	J
2-Pentanone	None	None	None		µ/m^3			1.09	J			0.45	J			1.14	J
2-Propanol	None	73000	70000	70000	µ/m^3			77.9	J			71.5	J			10.6	J
3-Hexanone	None	None	None		µ/m^3			2.38	J			0.1	UJ			1.46	J
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.36	J
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3			0.93	J			0.36	J			0.5	J

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-71 RTCM-SS007-11 1/30/2012		12CR01-73 RTCM-SS007-13 1/30/2012		12CR01-74 RTCM-SS008-11 1/30/2012		12CR01-76 RTCM-SS008-13 1/30/2012[a]		12CR01-68 RTCM-SS006-11 1/25/2012		12CR01-70 RTCM-SS006-13 1/25/2012[a]	
Acetone	None	320000	310000	310000	μ/m^3			54	J			20.8	J			18.8	J
Acetonitrile	None	630	None	630	μ/m^3			0.99	J			1.28	J			0.04	UJ
Acrolein	2.1	0.21	None	0.21	μ/m^3			0.02	UJ			0.89	J			0.67	J
Benzene	3.1	3.1	45	3.1	μ/m^3			1.2				0.72				0.79	
Benzyl chloride	None	0.5	10	0.5	μ/m^3			0.01	UJ			0.01	UJ			0.06	J
Bromodichloromethane	0.07	0.66	NA	0.07	μ/m^3			0.01	UJ			0.01	UJ			0.01	U
Bromoform	None	22	90	22	μ/m^3			0.02	UJ			0.02	UJ			0.03	J
Bromomethane	None	52	50	50	μ/m^3			0.007	U			0.007	U			0.03	
Butanal	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			2.97	J
Carbon disulfide	None	7300	7000	7000	μ/m^3			0.75	J			0.49	J			0.81	J
Carbon Tetrachloride	None	4.1	7	4.1	μ/m^3			0.39	J			0.26	J			0.47	
Chlorobenzene	None	520	500	500	μ/m^3			0.06				0.05				0.03	
Chlorodifluoromethane	None	520000	None	520000	μ/m^3			5.14	J			0.09	UJ			1.1	J
Chloroethane	None	100000	100000	100000	μ/m^3			0.17				0.12				0.85	
Chloroform	1.1	1.1	1000	1.1	μ/m^3			0.1				0.22				0.09	
Chloromethane	None	940	900	900	μ/m^3			2				0.83				0.94	
cis-1,2-Dichloroethene	630	None	NA	630	μ/m^3			0.06				0.02				0.36	
cis-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.006	UJ			0.006	UJ			0.02	J
Cyclohexane	None	63000	60000	60000	μ/m^3			0.006	UJ			0.006	UJ			0.006	U
Cyclopentane	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	μ/m^3			9.44	J			2.14	J			3.39	J
Dichlorotetrafluoroethane	None	None	NA		μ/m^3			0.21				0.3				0.12	
Ethylbenzene	9.7	9.7	10000	9.7	μ/m^3			0.35	J			0.18	J			0.52	
Hexachloro-1,3-Butadiene	None	None			μ/m^3			0.02	U			0.02	U			0.02	U
Isobutene	None	None	None		μ/m^3			2.12	J			0.98	J			1.12	J
Isoprene	None	None	None		μ/m^3			3.36	J			0.49	J			0.83	J
m,p-Xylene	1000	7300	1000	1000	μ/m^3			0.61	J			0.35	J			0.78	J
Methacrolein	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.15	J
Methyl ethyl ketone	None	52000	50000	50000	μ/m^3			3.75	J			2.96	J			2.43	J
Methyl iodide	None	None	None		μ/m^3			0.45	J			0.23	J			0.2	J
Methyl tert-butyl ether	None	94	30000	94	μ/m^3			0.004	UJ			0.004	UJ			0.04	J
Methyl vinyl ketone	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methylene chloride	None	52	200	52	μ/m^3			0.59				0.42				0.25	
n-Hexane	None	7300	20000	7300	μ/m^3			0.73	J			0.24	J			0.46	J
o-Xylene	1000	7300	1000	1000	μ/m^3			0.52	J			0.26	J			0.59	
Pentanal	None	None	None		μ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	10000	None	10000	μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Propanal		None			μ/m^3			0.06	UJ			0.06	UJ			0.06	UJ
Propene	None	31000	30000	30000	μ/m^3			5.99				0.77				1.21	
Styrene	None	10000	10000	10000	μ/m^3			0.38	J			0.2	J			0.46	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-71 RTCM-SS007-11 1/30/2012		12CR01-73 RTCM-SS007-13 1/30/2012		12CR01-74 RTCM-SS008-11 1/30/2012		12CR01-76 RTCM-SS008-13 1/30/2012[a]		12CR01-68 RTCM-SS006-11 1/25/2012		12CR01-70 RTCM-SS006-13 1/25/2012[a]	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			0.51	J			0.39	J			2.81	
Toluene	52000	52000	50000	50000	μ/m^3			2.13	J			1.25	J			4.09	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ			0.03	J
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.33				0.32				0.45	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			1.33	J			1.18	J			1.91	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			0.003	U			0.22	

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-65 RTCM-SS005-11 1/30/2012		12CR01-67 RTCM-SS005-13 1/30/2012[a]		12CR01-77 RTCM-SS009-11 1/30/2012		12CR01-79 RTCM-SS009-13 1/30/2012		12CR01-83 RTCM-SS011-11 1/31/2012		12CR01-85 RTCM-SS011-13 1/30/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.37	U			0.38	U			0.4	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.37	U			0.38	U			0.4	U		
Acenaphthene	NA	None	None		µ/m^3	3.7	U			3.8	U			4	U		
Acenaphthylene		None			µ/m^3	3.7	U			3.8	U			4	U		
Anthracene		None			µ/m^3	3.7	U			3.8	U			4	U		
Fluoranthene		None			µ/m^3	3.7	U			3.8	U			4	U		
Fluorene	NA	None	None		µ/m^3	3.7	U			3.8	U			4	U		
Naphthalene	0.72	0.72	90	0.716	µ/m^3	0.37	U			0.58	J			0.4	U		
Phenanthrene		None			µ/m^3	3.7	U			3.8	U			4	U		
Pyrene	NA	None	None		µ/m^3	3.7	U			3.8	U			4	U		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3			0.04	J			5.29	J			0.04	J
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3			0.11				0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3			0.85				0.7				0.67	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3			0.008	U			0.58				0.008	U
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3			0.006	U			0.02				0.006	U
1,2,3-Trimethylbenzene	None	None	None		µ/m^3			0.32	J			0.24	J			0.25	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3			0.04	U			0.04	U			0.04	U
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3			0.17	J			0.19	J			0.38	J
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3			0.02	U			0.02	U			0.02	U
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3			0.02	U			0.23				0.19	
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3			0.15	J			0.09	J			0.09	J
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3			0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3			0.06	J			0.04	J			0.04	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3			0.003	U			0.003	U			0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.03				0.03				0.03	
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3			0.22				0.31				0.63	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3			0.09	UJ			0.19	J			0.27	J
1-Butanol	None	None	None		µ/m^3			0.005	UJ			5.58	J			1.84	J
2-Hexanone	None	310	NA	310	µ/m^3			0.7	J			0.4	J			0.7	J
2-Pentanone	None	None	None		µ/m^3			0.46	J			0.39	J			0.39	J
2-Propanol	None	73000	70000	70000	µ/m^3			29.5	J			15.7	J			23.9	J
3-Hexanone	None	None	None		µ/m^3			0.73	J			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3			0.79	J			0.32	J			0.55	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-65 RTCM-SS005-11 1/30/2012		12CR01-67 RTCM-SS005-13 1/30/2012[a]		12CR01-77 RTCM-SS009-11 1/30/2012		12CR01-79 RTCM-SS009-13 1/30/2012		12CR01-83 RTCM-SS011-11 1/31/2012		12CR01-85 RTCM-SS011-13 1/30/2012	
Acetone	None	320000	310000	310000	μ/m^3			45.5	J			16.3	J			10.4	J
Acetonitrile	None	630	None	630	μ/m^3			0.45	J			0.54	J			0.87	J
Acrolein	2.1	0.21	None	0.21	μ/m^3			0.9	J			0.96	J			0.57	J
Benzene	3.1	3.1	45	3.1	μ/m^3			0.51				0.42				0.41	
Benzyl chloride	None	0.5	10	0.5	μ/m^3			0.01	UJ			0.01	UJ			0.01	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	μ/m^3			0.1	J			0.01	UJ			0.01	UJ
Bromoform	None	22	90	22	μ/m^3			0.02	UJ			0.02	UJ			0.02	UJ
Bromomethane	None	52	50	50	μ/m^3			0.007	U			0.007	U			0.007	U
Butanal	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Carbon disulfide	None	7300	7000	7000	μ/m^3			0.005	UJ			0.3	J			0.32	J
Carbon Tetrachloride	None	4.1	7	4.1	μ/m^3			0.27	J			0.25	J			0.1	J
Chlorobenzene	None	520	500	500	μ/m^3			0.05				0.03				0.07	
Chlorodifluoromethane	None	520000	None	520000	μ/m^3			4.78	J			0.09	UJ			0.09	UJ
Chloroethane	None	100000	100000	100000	μ/m^3			0.004	U			0.12				0.004	U
Chloroform	1.1	1.1	1000	1.1	μ/m^3			0.44				0.18				0.08	J
Chloromethane	None	940	900	900	μ/m^3			0.71				0.62				0.44	
cis-1,2-Dichloroethene	630	None	NA	630	μ/m^3			0.03				1.61				0.01	
cis-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	63000	60000	60000	μ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclopentane	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	μ/m^3			2.19	J			2.13	J			1.72	J
Dichlorotetrafluoroethane	None	None	NA		μ/m^3			0.26				0.19				0.21	
Ethylbenzene	9.7	9.7	10000	9.7	μ/m^3			0.23	J			0.15	J			0.14	J
Hexachloro-1,3-Butadiene	None	None			μ/m^3			0.02	U			0.02	U			0.02	U
Isobutene	None	None	None		μ/m^3			0.68	J			0.87	J			1.07	J
Isoprene	None	None	None		μ/m^3			0.07	UJ			0.07	J			0.07	UJ
m,p-Xylene	1000	7300	1000	1000	μ/m^3			0.36	J			0.29	J			0.27	J
Methacrolein	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methyl ethyl ketone	None	52000	50000	50000	μ/m^3			1.78	J			1.74	J			1.91	J
Methyl iodide	None	None	None		μ/m^3			0.2	J			0.29	J			0.18	J
Methyl tert-butyl ether	None	94	30000	94	μ/m^3			0.004	UJ			0.004	UJ			0.004	UJ
Methyl vinyl ketone	None	None	None		μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methylene chloride	None	52	200	52	μ/m^3			0.39				0.29				0.26	
n-Hexane	None	7300	20000	7300	μ/m^3			0.19	J			0.23	J			0.17	J
o-Xylene	1000	7300	1000	1000	μ/m^3			0.32	J			0.23	J			0.23	J
Pentanal	None	None	None		μ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	10000	None	10000	μ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Propanal		None			μ/m^3			0.06	UJ			0.06	UJ			0.06	UJ
Propene	None	31000	30000	30000	μ/m^3			0.17				0.45				0.39	
Styrene	None	10000	10000	10000	μ/m^3			0.32	J			0.14	J			0.18	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-65 RTCM-SS005-11 1/30/2012		12CR01-67 RTCM-SS005-13 1/30/2012[a]		12CR01-77 RTCM-SS009-11 1/30/2012		12CR01-79 RTCM-SS009-13 1/30/2012		12CR01-83 RTCM-SS011-11 1/31/2012		12CR01-85 RTCM-SS011-13 1/30/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			0.66	J			7.5	J			1	J
Toluene	52000	52000	50000	50000	μ/m^3			0.9	J			0.74	J			1.86	J
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.39				2.14				0.23	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			1.13	J			9.79	J			1.52	J
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			0.45				0.003	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-80 RTCM-SS010-11 1/25/2012		12CR01-82 RTCM-SS010-13 1/25/2012[a]		12CR01-53 RTCM-SS001-11 1/25/2012		12CR01-55 RTCM-SS001-13 1/25/2012[a]		12CR01-56 RTCM-SS002-11 1/24/2012		12CR01-58 RTCM-SS002-13 1/25/2012[a]	
PAH																	
1-Methylnaphthalene					µ/m^3	0.35	U			0.36	U			1.1	J		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.7	U			0.71	U			2.3	J		
Acenaphthene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.5	U		
Acenaphthylene		None			µ/m^3	3.5	U			3.6	U			3.5	U		
Anthracene		None			µ/m^3	3.5	U			3.6	U			3.5	U		
Fluoranthene		None			µ/m^3	3.5	U			3.6	U			3.5	U		
Fluorene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.5	U		
Naphthalene	0.72	0.72	90	0.716	µ/m^3	0.35	U			0.43	J			2.3	J		
Phenanthrene		None			µ/m^3	3.5	U			3.6	U			3.5	U		
Pyrene	NA	None	None		µ/m^3	3.5	U			3.6	U			3.5	U		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3			0.03				0.11				0.03	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3			0.01	UJ			0.01	UJ			0.01	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3			0.59				0.53				0.58	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3			0.008	U			0.03				0.008	U
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3			0.006	U			0.006	U			0.006	U
1,2,3-Trimethylbenzene	None	None	None		µ/m^3			0.4	J			0.47	J			0.48	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3			0.04	UJ			0.04	UJ			0.04	UJ
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3			0.008	U			0.008	U			0.008	U
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3			0.02	U			0.02	U			0.02	U
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3			0.02	U			0.03				0.02	U
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3			0.77				0.07				0.009	U
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3			0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3			0.09	J			0.1	J			0.1	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3			0.08				0.003	U			0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02	U			0.03				0.02	U
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3			0.22				0.59				7.15	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3			0.09	UJ			0.1	J			0.09	UJ
1-Butanol	None	None	None		µ/m^3			0.78	J			3.83	J			2.43	J
2-Hexanone	None	310	NA	310	µ/m^3			0.03	UJ			0.53	J			0.03	UJ
2-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.37	J			0.61	J
2-Propanol	None	73000	70000	70000	µ/m^3			11.5	J			50.1	J			25.9	J
3-Hexanone	None	None	None		µ/m^3			0.1	UJ			0.1	UJ			0.1	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3			0.01	UJ			0.31	J			0.24	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-80 RTCM-SS010-11 1/25/2012		12CR01-82 RTCM-SS010-13 1/25/2012[a]		12CR01-53 RTCM-SS001-11 1/25/2012		12CR01-55 RTCM-SS001-13 1/25/2012[a]		12CR01-56 RTCM-SS002-11 1/24/2012		12CR01-58 RTCM-SS002-13 1/25/2012[a]	
Acetone	None	320000	310000	310000	µ/m^3			37.5	J			36.7	J			33.3	J
Acetonitrile	None	630	None	630	µ/m^3			1.03	J			0.65	J			0.66	J
Acrolein	2.1	0.21	None	0.21	µ/m^3			0.76	J			0.52	J			0.61	J
Benzene	3.1	3.1	45	3.1	µ/m^3			0.91				0.37				0.32	
Benzyl chloride	None	0.5	10	0.5	µ/m^3			0.01	UJ			0.01	UJ			0.01	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	µ/m^3			0.07				0.01	U			0.01	U
Bromoform	None	22	90	22	µ/m^3			0.04	J			0.02	UJ			0.02	UJ
Bromomethane	None	52	50	50	µ/m^3			0.03				0.007	U			0.007	U
Butanal	None	None	None		µ/m^3			1.58	J			2.05	J			2.8	J
Carbon disulfide	None	7300	7000	7000	µ/m^3			0.2	J			0.38	J			0.7	J
Carbon Tetrachloride	None	4.1	7	4.1	µ/m^3			0.42				0.07				0.21	
Chlorobenzene	None	520	500	500	µ/m^3			0.02	U			0.03				0.03	
Chlorodifluoromethane	None	520000	None	520000	µ/m^3			0.8	J			0.86	J			0.82	J
Chloroethane	None	100000	100000	100000	µ/m^3			0.04				0.004	U			0.004	U
Chloroform	1.1	1.1	1000	1.1	µ/m^3			0.13				0.12				0.06	
Chloromethane	None	940	900	900	µ/m^3			1.34				0.45				0.006	U
cis-1,2-Dichloroethene	630	None	NA	630	µ/m^3			0.02				0.05				0.03	
cis-1,3-Dichloropropene	None	None	200	200	µ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	63000	60000	60000	µ/m^3			0.34				0.006	U			0.006	U
Cyclopentane	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	µ/m^3			5.7	J			2.31	J			5.67	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.11				0.1				0.1	
Ethylbenzene	9.7	9.7	10000	9.7	µ/m^3			0.73	J			0.5	J			0.45	J
Hexachloro-1,3-Butadiene	None	None			µ/m^3			0.02	U			0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3			0.9	J			1.16	J			1.13	J
Isoprene	None	None	None		µ/m^3			6.49	J			0.13	J			0.19	J
m,p-Xylene	1000	7300	1000	1000	µ/m^3			0.88	J			0.81	J			0.76	J
Methacrolein	None	None	None		µ/m^3			0.25	J			0.29	J			0.07	UJ
Methyl ethyl ketone	None	52000	50000	50000	µ/m^3			1.68	J			1.76	J			3.01	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.23	J			0.2	J
Methyl tert-butyl ether	None	94	30000	94	µ/m^3			0.004	UJ			0.004	UJ			0.05	J
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Methylene chloride	None	52	200	52	µ/m^3			0.31				0.2				0.13	
n-Hexane	None	7300	20000	7300	µ/m^3			0.64	J			0.17	J			0.29	J
o-Xylene	1000	7300	1000	1000	µ/m^3			0.54				0.64				0.54	
Pentanal	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	10000	None	10000	µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Propanal		None			µ/m^3			0.06	UJ			0.06	UJ			1.89	J
Propene	None	31000	30000	30000	µ/m^3			1.91				0.45				0.92	
Styrene	None	10000	10000	10000	µ/m^3			0.22	J			0.55	J			0.62	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-80 RTCM-SS010-11 1/25/2012		12CR01-82 RTCM-SS010-13 1/25/2012[a]		12CR01-53 RTCM-SS001-11 1/25/2012		12CR01-55 RTCM-SS001-13 1/25/2012[a]		12CR01-56 RTCM-SS002-11 1/24/2012		12CR01-58 RTCM-SS002-13 1/25/2012[a]	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			0.28				1.03				4.34	
Toluene	52000	52000	50000	50000	μ/m^3			2.54				2.19				11.3	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.04				0.18				0.2	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			4.13				6.38				3.09	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			0.003	U			0.003	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-62 RTCM-SS004-11 1/26/2012		12CR02-05 RTCM-SS004FD-11 1/26/2012		12CR01-64 RTCM-SS004-13 1/26/2012[a]		12CR02-07 RTCM-SS004FD-13 1/26/2012		12CR01-59 RTCM-SS003-11 1/26/2012		12CR01-61 RTCM-SS003-13 1/30/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.36	U	0.37	U					0.38	UJ		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.72	U	0.74	U					0.75	UJ		
Acenaphthene	NA	None	None		µ/m^3	3.6	U	3.7	U					3.8	UJ		
Acenaphthylene		None			µ/m^3	3.6	U	3.7	U					3.8	UJ		
Anthracene		None			µ/m^3	3.6	U	3.7	U					3.8	UJ		
Fluoranthene		None			µ/m^3	3.6	U	3.7	U					3.8	UJ		
Fluorene	NA	None	None		µ/m^3	3.6	U	3.7	U					3.8	UJ		
Naphthalene	0.72	0.72	90	0.716	µ/m^3	0.36	UJ	1	J					0.38	UJ		
Phenanthrene		None			µ/m^3	3.6	U	3.7	U					3.8	UJ		
Pyrene	NA	None	None		µ/m^3	3.6	U	3.7	U					3.8	UJ		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3					0.05		0.05				0.03	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3					0.13		0.3				0.04	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3					0.51		0.57				0.62	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3					0.02		0.01				0.02	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3					0.02		0.01				0.03	U
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3					0.02		0.02				0.02	U
1,2,3-Trimethylbenzene	None	None	None		µ/m^3					0.53	J	0.47	J			0.57	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3					1.65	J	0.3	J			0.13	UJ
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3					0.008	U	0.6				0.02	U
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3					NR		NR				0.05	U
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3					0.46		0.12				0.05	U
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3					0.06		0.06				0.06	
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3					0.008	U	0.02				0.03	U
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3					0.18	J	0.12	J			0.11	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3					0.003	U	0.05				0.01	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3					0.37		0.09				0.08	
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3					0.96		0.36				1.21	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3					0.29	J	0.14	J			0.29	UJ
1-Butanol	None	None	None		µ/m^3					3.14	J	0.15	J			1.53	J
2-Hexanone	None	310	NA	310	µ/m^3					0.7	J	0.24	J			0.09	UJ
2-Pentanone	None	None	None		µ/m^3					0.09	UJ	0.37	J			0.28	UJ
2-Propanol	None	73000	70000	70000	µ/m^3					5.93	J	13.3	J			14.9	J
3-Hexanone	None	None	None		µ/m^3					0.9	J	0.47	J			0.33	UJ
3-Pentanone	None	None	None		µ/m^3					0.09	UJ	0.15	J			0.28	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3					0.42	J	0.3	J			0.04	UJ

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-62 RTCM-SS004-11 1/26/2012		12CR02-05 RTCM-SS004FD-11 1/26/2012		12CR01-64 RTCM-SS004-13 1/26/2012[a]		12CR02-07 RTCM-SS004FD-13 1/26/2012		12CR01-59 RTCM-SS003-11 1/26/2012		12CR01-61 RTCM-SS003-13 1/30/2012	
Acetone	None	320000	310000	310000	µ/m^3					11.3	J	19.2	J			25.3	J
Acetonitrile	None	630	None	630	µ/m^3					0.5	J	1.17	J			0.67	J
Acrolein	2.1	0.21	None	0.21	µ/m^3					1.1	J	0.99	J			1.12	J
Benzene	3.1	3.1	45	3.1	µ/m^3					0.3		0.48				0.59	
Benzyl chloride	None	0.5	10	0.5	µ/m^3					0.01	UJ	0.15	J			0.04	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	µ/m^3					0.01	U	0.01	U			0.03	U
Bromoform	None	22	90	22	µ/m^3					0.07	J	0.03	J			0.06	UJ
Bromomethane	None	52	50	50	µ/m^3					0.007	U	0.09				0.02	U
Butanal	None	None	None		µ/m^3					3.07	J	2.78	J			0.23	UJ
Carbon disulfide	None	7300	7000	7000	µ/m^3					0.29	J	0.21	J			0.02	UJ
Carbon Tetrachloride	None	4.1	7	4.1	µ/m^3					0.16		0.29				0.35	
Chlorobenzene	None	520	500	500	µ/m^3					0.09		0.03				0.07	U
Chlorodifluoromethane	None	520000	None	520000	µ/m^3					5.3	J	16.6	J			1.15	J
Chloroethane	None	100000	100000	100000	µ/m^3					0.004	U	0.59				0.01	U
Chloroform	1.1	1.1	1000	1.1	µ/m^3					0.04		0.06				0.2	
Chloromethane	None	940	900	900	µ/m^3					0.3		0.65				0.38	
cis-1,2-Dichloroethene	630	None	NA	630	µ/m^3					0.03		0.02				0.05	
cis-1,3-Dichloropropene	None	None	200	200	µ/m^3					0.006	UJ	0.01	J			0.02	UJ
Cyclohexane	None	63000	60000	60000	µ/m^3					0.006	U	0.21				0.02	U
Cyclopentane	None	None	None		µ/m^3					0.07	UJ	0.45	J			0.23	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	µ/m^3					52.3	J	36.8	J			10.5	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3					0.12		0.12				0.12	
Ethylbenzene	9.7	9.7	10000	9.7	µ/m^3					0.29		0.29				0.46	
Hexachloro-1,3-Butadiene	None	None			µ/m^3					0.26		0.17				0.08	U
Isobutene	None	None	None		µ/m^3					0.64	J	0.93	J			1.37	J
Isoprene	None	None	None		µ/m^3					0.08	J	1.16	J			0.22	UJ
m,p-Xylene	1000	7300	1000	1000	µ/m^3					0.47	J	0.48	J			0.62	J
Methacrolein	None	None	None		µ/m^3					0.28	J	0.22	J			0.31	J
Methyl ethyl ketone	None	52000	50000	50000	µ/m^3					1.73	J	1.91	J			1.95	J
Methyl iodide	None	None	None		µ/m^3					0.21	J	0.15	J			0.46	UJ
Methyl tert-butyl ether	None	94	30000	94	µ/m^3					0.01	J	0.01	J			0.01	UJ
Methyl vinyl ketone	None	None	None		µ/m^3					0.07	UJ	0.76	J			0.93	J
Methylene chloride	None	52	200	52	µ/m^3					0.1		0.17				0.21	
n-Hexane	None	7300	20000	7300	µ/m^3					0.15	J	0.36	J			0.2	J
o-Xylene	1000	7300	1000	1000	µ/m^3					0.38		0.38				0.5	
Pentanal	None	None	None		µ/m^3					0.09	UJ	2.22	J			1.94	J
Pentane	None	10000	None	10000	µ/m^3					0.07	UJ	2.55	J			0.23	UJ
Propanal		None			µ/m^3					0.06	UJ	2.11	J			2.75	J
Propene	None	31000	30000	30000	µ/m^3					0.37		1.19				1.18	
Styrene	None	10000	10000	10000	µ/m^3					0.31	J	0.5	J			1.79	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-62 RTCM-SS004-11 1/26/2012		12CR02-05 RTCM-SS004FD-11 1/26/2012		12CR01-64 RTCM-SS004-13 1/26/2012[a]		12CR02-07 RTCM-SS004FD-13 1/26/2012		12CR01-59 RTCM-SS003-11 1/26/2012		12CR01-61 RTCM-SS003-13 1/30/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3					0.83		0.64				0.93	
Toluene	52000	52000	50000	50000	μ/m^3					2.86		3.1				1.95	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3					0.008	UJ	0.01	J			0.02	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3					0.15		0.08				0.17	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3					7.57		5.77				2.28	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3					0.003	U	0.006				0.01	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-93 RTCM-SS035-11 1/27/2012		12CR02-95 RTCM-SS035-13 1/27/2012		12CR02-83 RTCM-SS025-11 1/27/2012		12CR02-85 RTCM-SS025-13 1/27/2012		12CR02-68 RTCM-SS020-11 1/27/2012		12CR02-08 RTCM-SS020FD-11 1/27/2012	
PAH																	
1-Methylnaphthalene					μ/m^3	0.36	U			0.36	U			0.61		0.36	U
2-Methylnaphthalene	NA	None	NA		μ/m^3	0.36	U			0.36	U			1.2		0.72	U
Acenaphthene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
Acenaphthylene		None			μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
Anthracene		None			μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
Fluoranthene		None			μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
Fluorene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
Naphthalene	0.72	0.72	90	0.716	μ/m^3	0.36	U			0.38				0.54		0.36	U
Phenanthrene		None			μ/m^3	3.6	U			3.6	U			6		3.6	U
Pyrene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.6	U	3.6	U
VOC					μ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	μ/m^3			0.15				0.1					
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	μ/m^3			0.01	U			0.01	U				
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	μ/m^3			0.52				0.17					
1,1,2-Trichloroethane	None	1.5	6	1.5	μ/m^3			0.03				0.007	U				
1,1-Dichloroethane	None	15	5000	15	μ/m^3			0.01				0.009					
1,1-Dichloroethene	None	2100	2000	2000	μ/m^3			0.01				0.02					
1,2,3-Trimethylbenzene	None	None	None		μ/m^3			0.71	J			0.16	J				
1,2,4-Trichlorobenzene	None	21	40	21	μ/m^3			0.33	J			0.04	UJ				
1,2,4-Trimethylbenzene	None	73	70	70	μ/m^3			0.46				0.008	U				
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	μ/m^3			NR				0.02	U				
1,2-Dichlorobenzene	None	2100	2000	2000	μ/m^3			0.36				0.15					
1,2-Dichloroethane	None	0.94	4	0.94	μ/m^3			0.03				0.01					
1,2-Dichloropropane	None	2.4	40	2.4	μ/m^3			0.008	U			0.008	U				
1,3,5-Trimethylbenzene	None	None	60	60	μ/m^3			0.22	J			0.04	J				
1,3-Butadiene	None	0.81	3	0.81	μ/m^3			0.01				0.003	U				
1,3-Dichlorobenzene	None	None	NA		μ/m^3			0.28				0.02	U				
1,4-Dichlorobenzene	None	2.2	600	2.2	μ/m^3			0.72				0.14					
1,4-Dioxane	3	3.2	None	3.2	μ/m^3			0.19	J			0.09	UJ				
1-Butanol	None	None	None		μ/m^3			8.38	J			10.6	J				
2-Hexanone	None	310	NA	310	μ/m^3			0.03	UJ			0.23	J				
2-Pentanone	None	None	None		μ/m^3			0.35	J			0.16	J				
2-Propanol	None	73000	70000	70000	μ/m^3			86	J			32.2	J				
3-Hexanone	None	None	None		μ/m^3			0.1	UJ			0.1	UJ				
3-Pentanone	None	None	None		μ/m^3			0.09	UJ			0.09	UJ				
4-Methyl-2-pentanone	None	31000	30000	30000	μ/m^3			0.55	J			0.15	J				

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-93 RTCM-SS035-11 1/27/2012		12CR02-95 RTCM-SS035-13 1/27/2012		12CR02-83 RTCM-SS025-11 1/27/2012		12CR02-85 RTCM-SS025-13 1/27/2012		12CR02-68 RTCM-SS020-11 1/27/2012		12CR02-08 RTCM-SS020FD-11 1/27/2012	
Acetone	None	320000	310000	310000	µ/m^3			0.23	UJ			11.5	J				
Acetonitrile	None	630	None	630	µ/m^3			0.04	UJ			0.38	J				
Acrolein	2.1	0.21	None	0.21	µ/m^3			0.7	J			0.29	J				
Benzene	3.1	3.1	45	3.1	µ/m^3			0.26				0.18					
Benzyl chloride	None	0.5	10	0.5	µ/m^3			0.01	UJ			0.01	UJ				
Bromodichloromethane	0.07	0.66	NA	0.07	µ/m^3			0.01	U			0.01	U				
Bromoform	None	22	90	22	µ/m^3			0.05	J			0.02	UJ				
Bromomethane	None	52	50	50	µ/m^3			0.007	U			0.007	U				
Butanal	None	None	None		µ/m^3			1.83	J			0.07	UJ				
Carbon disulfide	None	7300	7000	7000	µ/m^3			0.18	J			0.14	J				
Carbon Tetrachloride	None	4.1	7	4.1	µ/m^3			0.09				0.13					
Chlorobenzene	None	520	500	500	µ/m^3			0.07				0.02	U				
Chlorodifluoromethane	None	520000	None	520000	µ/m^3			3.17	J			0.56	J				
Chloroethane	None	100000	100000	100000	µ/m^3			0.004	U			0.004	U				
Chloroform	1.1	1.1	1000	1.1	µ/m^3			0.08				0.36					
Chloromethane	None	940	900	900	µ/m^3			0.27				0.17					
cis-1,2-Dichloroethene	630	None	NA	630	µ/m^3			0.02				0.02					
cis-1,3-Dichloropropene	None	None	200	200	µ/m^3			0.006	UJ			0.006	UJ				
Cyclohexane	None	63000	60000	60000	µ/m^3			0.006	U			0.006	U				
Cyclopentane	None	None	None		µ/m^3			0.07	UJ			0.17	J				
Dichlorodifluoromethane	1043	1000	2000	1000	µ/m^3			1180	J			3330	J				
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.1				0.04					
Ethylbenzene	9.7	9.7	10000	9.7	µ/m^3			0.39				0.22					
Hexachloro-1,3-Butadiene	None	None			µ/m^3			0.02	U			0.02	U				
Isobutene	None	None	None		µ/m^3			0.79	J			0.41	J				
Isoprene	None	None	None		µ/m^3			0.07	UJ			0.08	J				
m,p-Xylene	1000	7300	1000	1000	µ/m^3			0.65	J			0.37	J				
Methacrolein	None	None	None		µ/m^3			0.18	J			0.11	J				
Methyl ethyl ketone	None	52000	50000	50000	µ/m^3			1.58	J			1.13	J				
Methyl iodide	None	None	None		µ/m^3			0.19	J			0.15	UJ				
Methyl tert-butyl ether	None	94	30000	94	µ/m^3			0.03	J			0.01	J				
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.29	J				
Methylene chloride	None	52	200	52	µ/m^3			0.12				0.07					
n-Hexane	None	7300	20000	7300	µ/m^3			0.18	J			0.09	J				
o-Xylene	1000	7300	1000	1000	µ/m^3			0.57				0.27					
Pentanal	None	None	None		µ/m^3			1.75	J			0.09	UJ				
Pentane	None	10000	None	10000	µ/m^3			0.07	UJ			0.19	J				
Propanal		None			µ/m^3			0.06	UJ			1.4	J				
Propene	None	31000	30000	30000	µ/m^3			0.24				0.23					
Styrene	None	10000	10000	10000	µ/m^3			0.51	J			0.16	J				

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-93 RTCM-SS035-11 1/27/2012		12CR02-95 RTCM-SS035-13 1/27/2012		12CR02-83 RTCM-SS025-11 1/27/2012		12CR02-85 RTCM-SS025-13 1/27/2012		12CR02-68 RTCM-SS020-11 1/27/2012		12CR02-08 RTCM-SS020FD-11 1/27/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			1.22				0.4					
Toluene	52000	52000	50000	50000	μ/m^3			1.18				0.53					
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ				
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.08				0.04					
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			2.37				0.45					
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			0.003	U				

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-70 RTCM-SS020-13 1/27/2012		12CR02-10 RTCM-SS020FD-13 1/27/2012[a]		12CR02-71 RTCM-SS021-11 1/27/2012		12CR02-73 RTCM-SS021-13 1/27/2012		12CR02-74 RTCM-SS022-11 1/27/2012		12CR02-76 RTCM-SS022-13 1/27/2012	
PAH																	
1-Methylnaphthalene					µ/m^3					0.37	UJ			0.36	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3					0.37	UJ			0.36	U		
Acenaphthene	NA	None	None		µ/m^3					3.7	UJ			3.6	U		
Acenaphthylene		None			µ/m^3					3.7	UJ			3.6	U		
Anthracene		None			µ/m^3					3.7	UJ			3.6	U		
Fluoranthene		None			µ/m^3					3.7	UJ			3.6	U		
Fluorene	NA	None	None		µ/m^3					3.7	UJ			3.6	U		
Naphthalene	0.72	0.72	90	0.716	µ/m^3					0.37	UJ			0.36	U		
Phenanthrene		None			µ/m^3					3.7	UJ			3.6	U		
Pyrene	NA	None	None		µ/m^3					3.7	UJ			3.6	U		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3	2.59		2.85	J			0.33				0.14	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3	0.01	U	0.01	U			0.01	U			0.01	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3	0.31		0.45				0.54				0.61	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3	0.007	U	0.007	U			0.03				0.007	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3	0.25		0.26				0.03				0.008	U
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3	0.03		0.02				0.12				0.006	U
1,2,3-Trimethylbenzene	None	None	None		µ/m^3	0.43	J	0.58	J			0.27	J			0.19	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3	0.04	UJ	0.04	U			0.08	J			0.04	UJ
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3	0.008	U	0.23	J			0.008	U			0.008	U
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3	0.02	U	0.02	U			NR				0.02	U
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3	0.14		0.02	U			0.08				0.08	
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3	0.05		0.04	J			0.06				0.03	
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3	0.008	U	0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3	0.1	J	0.16	J			0.07	J			0.03	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3	0.01		0.003	U			0.02				0.003	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3	0.03		0.02	U			0.07				0.02	U
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3	0.84		1.26				0.69				0.5	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3	0.1	J	0.17	J			0.23	J			0.09	UJ
1-Butanol	None	None	None		µ/m^3	4.75	J	2.53	J			6.1	J			3.86	J
2-Hexanone	None	310	NA	310	µ/m^3	0.3	J	0.48	J			0.03	UJ			0.35	J
2-Pentanone	None	None	None		µ/m^3	0.39	J	0.52	J			0.38	J			0.09	UJ
2-Propanol	None	73000	70000	70000	µ/m^3	25.5	J	12.7	J			9.03	J			10.5	J
3-Hexanone	None	None	None		µ/m^3	0.1	UJ	0.1	UJ			0.42	J			0.34	J
3-Pentanone	None	None	None		µ/m^3	0.09	UJ	0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3	0.23	J	0.45	J			0.17	J			0.22	J

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-70 RTCM-SS020-13 1/27/2012		12CR02-10 RTCM-SS020FD-13 1/27/2012[a]		12CR02-71 RTCM-SS021-11 1/27/2012		12CR02-73 RTCM-SS021-13 1/27/2012		12CR02-74 RTCM-SS022-11 1/27/2012		12CR02-76 RTCM-SS022-13 1/27/2012	
Acetone	None	320000	310000	310000	µ/m^3	14.2	J	17.5	J			0.26	UJ			11.2	J
Acetonitrile	None	630	None	630	µ/m^3	0.46	J	0.47	J			0.64	J			0.46	J
Acrolein	2.1	0.21	None	0.21	µ/m^3	0.33	J	0.14	J			0.78	J			0.82	J
Benzene	3.1	3.1	45	3.1	µ/m^3	0.33		0.41				0.48				0.27	
Benzyl chloride	None	0.5	10	0.5	µ/m^3	0.01	UJ	0.01	UJ			0.05	J			0.01	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	µ/m^3	0.08		0.07	J			0.05				0.01	U
Bromoform	None	22	90	22	µ/m^3	0.02	UJ	0.02	UJ			0.06	J			0.02	UJ
Bromomethane	None	52	50	50	µ/m^3	0.01		0.007	U			0.02				0.007	U
Butanal	None	None	None		µ/m^3	2.37	J	0.07	UJ			2.74	J			2.72	J
Carbon disulfide	None	7300	7000	7000	µ/m^3	0.17	J	0.24	J			0.23	J			0.005	UJ
Carbon Tetrachloride	None	4.1	7	4.1	µ/m^3	0.13		0.14	J			0.22				0.03	
Chlorobenzene	None	520	500	500	µ/m^3	0.05		0.07				0.04				0.02	U
Chlorodifluoromethane	None	520000	None	520000	µ/m^3	2.14	J	0.09	UJ			0.91	J			1.12	J
Chloroethane	None	100000	100000	100000	µ/m^3	0.004	U	0.004	U			0.004	U			0.004	U
Chloroform	1.1	1.1	1000	1.1	µ/m^3	44.7	J	44.5	J			6.35				0.1	
Chloromethane	None	940	900	900	µ/m^3	0.23		0.24				0.55				0.22	
cis-1,2-Dichloroethene	630	None	NA	630	µ/m^3	0.43		0.43				0.03				0.008	U
cis-1,3-Dichloropropene	None	None	200	200	µ/m^3	0.006	UJ	0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	63000	60000	60000	µ/m^3	0.17		0.22	J			0.006	U			0.006	U
Cyclopentane	None	None	None		µ/m^3	0.07	UJ	0.07	UJ			0.07	UJ			0.07	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	µ/m^3	2760	J	2940	J			1150	J			4580	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3	0.09		0.08				0.11	J			0.09	
Ethylbenzene	9.7	9.7	10000	9.7	µ/m^3	0.57	J	0.83	J			0.2				0.13	
Hexachloro-1,3-Butadiene	None	None			µ/m^3	0.03		0.02	U			0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3	1.54	J	1.47	J			1.15	J			0.6	J
Isoprene	None	None	None		µ/m^3	0.12	J	0.19	J			0.16	J			0.07	UJ
m,p-Xylene	1000	7300	1000	1000	µ/m^3	0.94	J	1.37	J			0.33	J			0.26	J
Methacrolein	None	None	None		µ/m^3	0.22	J	0.19	J			0.28	J			0.2	J
Methyl ethyl ketone	None	52000	50000	50000	µ/m^3	1.43	J	1.78	J			1.52	J			1.24	J
Methyl iodide	None	None	None		µ/m^3	0.15	UJ	0.15	UJ			0.24	J			0.27	J
Methyl tert-butyl ether	None	94	30000	94	µ/m^3	0.03	J	0.02	J			0.07	J			0.004	UJ
Methyl vinyl ketone	None	None	None		µ/m^3	0.7	J	0.07	UJ			0.07	UJ			0.61	J
Methylene chloride	None	52	200	52	µ/m^3	0.08		0.08				0.14				0.05	
n-Hexane	None	7300	20000	7300	µ/m^3	0.21	J	0.32	J			0.43	J			0.16	J
o-Xylene	1000	7300	1000	1000	µ/m^3	0.66		0.96	J			0.24				0.19	
Pentanal	None	None	None		µ/m^3	0.09	UJ	0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	10000	None	10000	µ/m^3	0.07	UJ	0.07	UJ			0.07	UJ			0.07	UJ
Propanal		None			µ/m^3	0.06	UJ	0.06	UJ			0.06	UJ			2.41	J
Propene	None	31000	30000	30000	µ/m^3	0.88		2.42				0.62				0.2	
Styrene	None	10000	10000	10000	µ/m^3	0.99	J	1.51	J			0.18	J			0.15	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-70 RTCM-SS020-13 1/27/2012		12CR02-10 RTCM-SS020FD-13 1/27/2012[a]		12CR02-71 RTCM-SS021-11 1/27/2012		12CR02-73 RTCM-SS021-13 1/27/2012		12CR02-74 RTCM-SS022-11 1/27/2012		12CR02-76 RTCM-SS022-13 1/27/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3	2.07		2.91	J			8.67				1.49	
Toluene	52000	52000	50000	50000	μ/m^3	3.85		5.95	J			1.36				0.94	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3	0.008	UJ	0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3	0.55		0.77				0.09				0.06	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3	1.06		1.17	J			1.48				1.31	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3	0.13		0.09				0.003	U			0.003	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-77 RTCM-SS023-11 1/27/2012		12CR02-79 RTCM-SS023-13 1/27/2012		12CR02-80 RTCM-SS024-11 1/31/2012		12CR02-82 RTCM-SS024-13 1/30/2012[a]		12CR02-29 RTCM-SS013-11 1/26/2012		12CR02-31 RTCM-SS013-13 1/26/2012[a]	
PAH																	
1-Methylnaphthalene					μ/m^3	0.36	U			0.36	U			0.35	U		
2-Methylnaphthalene	NA	None	NA		μ/m^3	0.36	U			0.36	U			0.71	U		
Acenaphthene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.5	U		
Acenaphthylene		None			μ/m^3	3.6	U			3.6	U			3.5	U		
Anthracene		None			μ/m^3	3.6	U			3.6	U			3.5	U		
Fluoranthene		None			μ/m^3	3.6	U			3.6	U			3.5	U		
Fluorene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.5	U		
Naphthalene	0.72	0.72	90	0.716	μ/m^3	0.44				0.36	U			0.35	U		
Phenanthrene		None			μ/m^3	3.6	U			3.6	U			3.5	U		
Pyrene	NA	None	None		μ/m^3	3.6	U			3.6	U			3.5	U		
VOC					μ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	μ/m^3			0.24				2.21	J			0.35	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	μ/m^3			0.01	U			0.01	U			0.07	
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	μ/m^3			0.5				0.57				0.78	
1,1,2-Trichloroethane	None	1.5	6	1.5	μ/m^3			0.007	U			0.007	U			0.007	U
1,1-Dichloroethane	None	15	5000	15	μ/m^3			0.008	U			6.4				0.04	
1,1-Dichloroethene	None	2100	2000	2000	μ/m^3			0.02				0.04				0.006	U
1,2,3-Trimethylbenzene	None	None	None		μ/m^3			0.3	J			0.48	J			0.27	J
1,2,4-Trichlorobenzene	None	21	40	21	μ/m^3			0.04	UJ			0.04	U			0.04	UJ
1,2,4-Trimethylbenzene	None	73	70	70	μ/m^3			0.008	U			0.3	J			0.59	
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	μ/m^3			NR				0.02	U			NR	
1,2-Dichlorobenzene	None	2100	2000	2000	μ/m^3			0.02	U			0.02	U			0.02	
1,2-Dichloroethane	None	0.94	4	0.94	μ/m^3			0.05				0.74	J			0.01	
1,2-Dichloropropane	None	2.4	40	2.4	μ/m^3			0.008	U			0.008	U			0.008	U
1,3,5-Trimethylbenzene	None	None	60	60	μ/m^3			0.08	J			0.1	J			0.06	J
1,3-Butadiene	None	0.81	3	0.81	μ/m^3			0.07				0.003	U			0.009	
1,3-Dichlorobenzene	None	None	NA		μ/m^3			0.02	U			0.02				0.03	
1,4-Dichlorobenzene	None	2.2	600	2.2	μ/m^3			0.14				0.31				1.22	
1,4-Dioxane	3	3.2	None	3.2	μ/m^3			0.09	UJ			0.39	J			0.09	UJ
1-Butanol	None	None	None		μ/m^3			0.35	J			0.92	J			2.86	J
2-Hexanone	None	310	NA	310	μ/m^3			0.06	J			0.76	J			0.34	J
2-Pentanone	None	None	None		μ/m^3			0.09	UJ			0.09	UJ			0.35	J
2-Propanol	None	73000	70000	70000	μ/m^3			7.93	J			34	J			2.61	J
3-Hexanone	None	None	None		μ/m^3			0.1	UJ			0.1	UJ			0.3	J
3-Pentanone	None	None	None		μ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	μ/m^3			0.07	J			0.77	J			0.24	J

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-77 RTCM-SS023-11 1/27/2012		12CR02-79 RTCM-SS023-13 1/27/2012		12CR02-80 RTCM-SS024-11 1/31/2012		12CR02-82 RTCM-SS024-13 1/30/2012[a]		12CR02-29 RTCM-SS013-11 1/26/2012		12CR02-31 RTCM-SS013-13 1/26/2012[a]	
Acetone	None	320000	310000	310000	µ/m^3			9.6	J			24.9	J			13.5	J
Acetonitrile	None	630	None	630	µ/m^3			1.17	J			0.75	J			0.36	J
Acrolein	2.1	0.21	None	0.21	µ/m^3			0.1	J			0.55	J			0.7	J
Benzene	3.1	3.1	45	3.1	µ/m^3			0.63				0.55				0.18	
Benzyl chloride	None	0.5	10	0.5	µ/m^3			0.01	UJ			0.01	UJ			0.02	J
Bromodichloromethane	0.07	0.66	NA	0.07	µ/m^3			0.01	U			0.01	UJ			0.01	U
Bromoform	None	22	90	22	µ/m^3			0.02	UJ			0.02	UJ			0.02	UJ
Bromomethane	None	52	50	50	µ/m^3			0.02				0.007	U			0.007	U
Butanal	None	None	None		µ/m^3			0.88	J			0.07	UJ			1.99	J
Carbon disulfide	None	7300	7000	7000	µ/m^3			0.11	J			0.005	UJ			0.84	J
Carbon Tetrachloride	None	4.1	7	4.1	µ/m^3			0.33				0.12	J			0.31	
Chlorobenzene	None	520	500	500	µ/m^3			0.02	U			0.04				0.02	U
Chlorodifluoromethane	None	520000	None	520000	µ/m^3			1.83	J			3.76	J			0.44	J
Chloroethane	None	100000	100000	100000	µ/m^3			0.004	U			0.09				0.26	
Chloroform	1.1	1.1	1000	1.1	µ/m^3			0.12				0.09				1.34	
Chloromethane	None	940	900	900	µ/m^3			0.79				0.62				0.17	
cis-1,2-Dichloroethene	630	None	NA	630	µ/m^3			0.008	U			6.67				0.03	
cis-1,3-Dichloropropene	None	None	200	200	µ/m^3			0.006	UJ			0.006	UJ			0.006	UJ
Cyclohexane	None	63000	60000	60000	µ/m^3			0.2				0.16	J			0.006	U
Cyclopentane	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			0.17	J
Dichlorodifluoromethane	1043	1000	2000	1000	µ/m^3			572	J			3700	J			3.32	J
Dichlorotetrafluoroethane	None	None	NA		µ/m^3			0.11				0.16				0.15	
Ethylbenzene	9.7	9.7	10000	9.7	µ/m^3			0.23				0.39	J			0.15	
Hexachloro-1,3-Butadiene	None	None			µ/m^3			0.02	U			0.02	U			0.02	U
Isobutene	None	None	None		µ/m^3			0.47	J			0.76	J			0.47	J
Isoprene	None	None	None		µ/m^3			0.41	J			0.5	J			0.07	J
m,p-Xylene	1000	7300	1000	1000	µ/m^3			0.39	J			0.56	J			0.26	J
Methacrolein	None	None	None		µ/m^3			0.07	UJ			0.27	J			0.09	J
Methyl ethyl ketone	None	52000	50000	50000	µ/m^3			0.73	J			1.18	J			1.96	J
Methyl iodide	None	None	None		µ/m^3			0.15	UJ			0.15	UJ			0.47	J
Methyl tert-butyl ether	None	94	30000	94	µ/m^3			0.09	J			0.07	J			0.01	J
Methyl vinyl ketone	None	None	None		µ/m^3			0.07	UJ			0.07	UJ			1	J
Methylene chloride	None	52	200	52	µ/m^3			1.52				0.33				0.05	
n-Hexane	None	7300	20000	7300	µ/m^3			0.4	J			0.25	J			0.1	J
o-Xylene	1000	7300	1000	1000	µ/m^3			0.27				0.45	J			0.21	
Pentanal	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			0.09	UJ
Pentane	None	10000	None	10000	µ/m^3			0.07	UJ			0.07	UJ			0.07	UJ
Propanal		None			µ/m^3			0.88	J			0.06	UJ			1.7	J
Propene	None	31000	30000	30000	µ/m^3			0.86				0.48				0.19	
Styrene	None	10000	10000	10000	µ/m^3			0.07	J			0.53	J			0.28	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-77 RTCM-SS023-11 1/27/2012		12CR02-79 RTCM-SS023-13 1/27/2012		12CR02-80 RTCM-SS024-11 1/31/2012		12CR02-82 RTCM-SS024-13 1/30/2012[a]		12CR02-29 RTCM-SS013-11 1/26/2012		12CR02-31 RTCM-SS013-13 1/26/2012[a]	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			1.98				13.5	J			1.06	
Toluene	52000	52000	50000	50000	μ/m^3			1.51				2.15	J			1.39	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ			0.008	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.09				1.46				0.06	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			1.39				1.08	J			5.05	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			1.22				0.003	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-32 RTCM-SS014-11 1/26/2012		12CR02-34 RTCM-SS014-13 1/26/2012		12CR02-35 RTCM-SS018-11 1/24/2012		12CR02-37 RTCM-SS018-13 1/24/2012		12CR01-07 RTCM-SS016-11 1/30/2012		12CR01-09 RTCM-SS016-13 1/30/2012	
PAH																	
1-Methylnaphthalene					µ/m^3	0.36	U			0.36	U			0.36	U		
2-Methylnaphthalene	NA	None	NA		µ/m^3	0.36	U			0.71	U			0.36	U		
Acenaphthene	NA	None	None		µ/m^3	3.6	U			3.6	U			3.6	U		
Acenaphthylene		None			µ/m^3	3.6	U			3.6	U			3.6	U		
Anthracene		None			µ/m^3	3.6	U			3.6	U			3.6	U		
Fluoranthene		None			µ/m^3	3.6	U			3.6	U			3.6	U		
Fluorene	NA	None	None		µ/m^3	3.6	U			3.6	U			3.6	U		
Naphthalene	0.72	0.72	90	0.716	µ/m^3	0.36	U			0.36	U			0.48	J		
Phenanthrene		None			µ/m^3	3.6	U			3.6	U			3.6	U		
Pyrene	NA	None	None		µ/m^3	3.6	U			3.6	U			3.6	U		
VOC					µ/m^3												
1,1,1-Trichloroethane	None	52000	50000	50000	µ/m^3			0.16				0.03				0.16	
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	µ/m^3			0.09				0.01	UJ			0.21	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	µ/m^3			0.46				0.43				1.98	
1,1,2-Trichloroethane	None	1.5	6	1.5	µ/m^3			0.007	U			0.007	U			0.11	U
1,1-Dichloroethane	None	15	5000	15	µ/m^3			0.01				0.008	U			0.12	U
1,1-Dichloroethene	None	2100	2000	2000	µ/m^3			0.006	U			0.006	U			0.09	U
1,2,3-Trimethylbenzene	None	None	None		µ/m^3			0.34	J			0.32	J			1.43	J
1,2,4-Trichlorobenzene	None	21	40	21	µ/m^3			0.04	U			0.05	J			0.64	UJ
1,2,4-Trimethylbenzene	None	73	70	70	µ/m^3			0.008	UJ			0.008	UJ			1.69	
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	µ/m^3			NR				0.02	U			0.26	U
1,2-Dichlorobenzene	None	2100	2000	2000	µ/m^3			0.02	U			0.02	U			0.27	U
1,2-Dichloroethane	None	0.94	4	0.94	µ/m^3			0.02				0.04				0.32	
1,2-Dichloropropane	None	2.4	40	2.4	µ/m^3			0.008	U			0.008	U			0.13	U
1,3,5-Trimethylbenzene	None	None	60	60	µ/m^3			0.07	J			0.06	J			0.33	J
1,3-Butadiene	None	0.81	3	0.81	µ/m^3			0.01				0.003	U			0.05	U
1,3-Dichlorobenzene	None	None	NA		µ/m^3			0.02				0.02	U			0.26	U
1,4-Dichlorobenzene	None	2.2	600	2.2	µ/m^3			0.65				2.24				0.37	
1,4-Dioxane	3	3.2	None	3.2	µ/m^3			0.15	J			0.09	UJ			1.41	UJ
1-Butanol	None	None	None		µ/m^3			0.005	UJ			3.38	J			4.04	J
2-Hexanone	None	310	NA	310	µ/m^3			0.25	J			0.03	UJ			0.45	UJ
2-Pentanone	None	None	None		µ/m^3			0.3	J			0.37	J			1.37	UJ
2-Propanol	None	73000	70000	70000	µ/m^3			20	J			18.7	J			24.5	J
3-Hexanone	None	None	None		µ/m^3			0.55	J			0.3	J			1.6	UJ
3-Pentanone	None	None	None		µ/m^3			0.09	UJ			0.09	UJ			1.37	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	µ/m^3			0.32	J			0.22	J			0.19	UJ

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-32 RTCM-SS014-11 1/26/2012		12CR02-34 RTCM-SS014-13 1/26/2012		12CR02-35 RTCM-SS018-11 1/24/2012		12CR02-37 RTCM-SS018-13 1/24/2012		12CR01-07 RTCM-SS016-11 1/30/2012		12CR01-09 RTCM-SS016-13 1/30/2012	
Acetone	None	320000	310000	310000	μ/m^3			33.6	J			21.9	J			120	J
Acetonitrile	None	630	None	630	μ/m^3			0.44	J			0.79	J			2.49	J
Acrolein	2.1	0.21	None	0.21	μ/m^3			0.1	J			0.6	J			0.36	UJ
Benzene	3.1	3.1	45	3.1	μ/m^3			0.26				0.39				2.54	
Benzyl chloride	None	0.5	10	0.5	μ/m^3			0.01	UJ			0.01	UJ			0.21	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	μ/m^3			0.01	U			0.01	U			0.16	U
Bromoform	None	22	90	22	μ/m^3			0.02	UJ			0.02	UJ			0.28	UJ
Bromomethane	None	52	50	50	μ/m^3			0.007	U			0.007	U			0.1	U
Butanal	None	None	None		μ/m^3			1.36	J			1.98	J			9.22	J
Carbon disulfide	None	7300	7000	7000	μ/m^3			0.16	J			1.22	J			0.08	UJ
Carbon Tetrachloride	None	4.1	7	4.1	μ/m^3			0.06				0.12				0.6	
Chlorobenzene	None	520	500	500	μ/m^3			0.02	U			0.02				0.32	U
Chlorodifluoromethane	None	520000	None	520000	μ/m^3			0.36	J			0.59	J			1.38	UJ
Chloroethane	None	100000	100000	100000	μ/m^3			0.004	U			0.004	U			0.45	
Chloroform	1.1	1.1	1000	1.1	μ/m^3			0.05				0.05				2	
Chloromethane	None	940	900	900	μ/m^3			0.24				0.63				2.89	
cis-1,2-Dichloroethene	630	None	NA	630	μ/m^3			0.01				0.02				0.14	
cis-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.006	UJ			0.006	UJ			0.09	UJ
Cyclohexane	None	63000	60000	60000	μ/m^3			0.006	UJ			0.006	U			0.09	U
Cyclopentane	None	None	None		μ/m^3			0.07	UJ			1.14	J			1.12	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	μ/m^3			142	J			4.45	J			127	J
Dichlorotetrafluoroethane	None	None	NA		μ/m^3			0.22				0.1				0.65	
Ethylbenzene	9.7	9.7	10000	9.7	μ/m^3			0.21	J			0.25	J			1.39	
Hexachloro-1,3-Butadiene	None	None			μ/m^3			0.02	U			0.02	U			0.38	U
Isobutene	None	None	None		μ/m^3			0.58	J			0.51	J			6.39	J
Isoprene	None	None	None		μ/m^3			0.12	J			0.07	UJ			1.09	UJ
m,p-Xylene	1000	7300	1000	1000	μ/m^3			0.41	J			0.43	J			1.78	J
Methacrolein	None	None	None		μ/m^3			0.21	J			0.16	J			1.12	UJ
Methyl ethyl ketone	None	52000	50000	50000	μ/m^3			1.86	J			1.97	J			8.82	J
Methyl iodide	None	None	None		μ/m^3			0.15	UJ			0.32	J			2.92	J
Methyl tert-butyl ether	None	94	30000	94	μ/m^3			0.004	UJ			0.04	J			0.06	UJ
Methyl vinyl ketone	None	None	None		μ/m^3			0.57	J			0.42	J			1.21	J
Methylene chloride	None	52	200	52	μ/m^3			0.08				0.1				1.5	
n-Hexane	None	7300	20000	7300	μ/m^3			0.16	J			0.24	J			2.16	J
o-Xylene	1000	7300	1000	1000	μ/m^3			0.27	J			0.32				1.72	
Pentanal	None	None	None		μ/m^3			1.74	J			1.77	J			1.37	UJ
Pentane	None	10000	None	10000	μ/m^3			0.07	UJ			0.52	J			1.15	UJ
Propanal		None			μ/m^3			0.06	UJ			1.68	J			0.93	UJ
Propene	None	31000	30000	30000	μ/m^3			0.19				0.24				4.49	
Styrene	None	10000	10000	10000	μ/m^3			0.24	J			0.33	J			0.94	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR02-32 RTCM-SS014-11 1/26/2012		12CR02-34 RTCM-SS014-13 1/26/2012		12CR02-35 RTCM-SS018-11 1/24/2012		12CR02-37 RTCM-SS018-13 1/24/2012		12CR01-07 RTCM-SS016-11 1/30/2012		12CR01-09 RTCM-SS016-13 1/30/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3			2.4	J			1.23				4.16	
Toluene	52000	52000	50000	50000	μ/m^3			1.2	J			5.84				5.49	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3			0.008	UJ			0.008	UJ			0.12	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3			0.07				0.08				1.04	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3			201	J			1.56				58.5	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3			0.003	U			0.003	U			0.05	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-10 RTCM-SS017-11 1/30/2012		12CR02-26 RTCM-SS017FD-11 1/30/2012		12CR01-12 RTCM-SS017-13 1/30/2012		12CR02-28 RTCM-SS017FD-13 1/30/2012	
PAH													
1-Methylnaphthalene					μ/m^3	0.36	U	0.36	U				
2-Methylnaphthalene	NA	None	NA		μ/m^3	0.36	U	0.36	U				
Acenaphthene	NA	None	None		μ/m^3	3.6	U	3.6	U				
Acenaphthylene		None			μ/m^3	3.6	U	3.6	U				
Anthracene		None			μ/m^3	3.6	U	3.6	U				
Fluoranthene		None			μ/m^3	3.6	U	3.6	U				
Fluorene	NA	None	None		μ/m^3	3.6	U	3.6	U				
Naphthalene	0.72	0.72	90	0.716	μ/m^3	1.6	J	0.36	UJ				
Phenanthrene		None			μ/m^3	3.6	U	3.6	U				
Pyrene	NA	None	None		μ/m^3	3.6	U	3.6	U				
VOC					μ/m^3								
1,1,1-Trichloroethane	None	52000	50000	50000	μ/m^3					0.03		0.08	U
1,1,2,2-Tetrachloroethane	None	0.42	2	0.42	μ/m^3					0.03	U	0.12	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	None	None	300000	300000	μ/m^3					0.73		1.35	
1,1,2-Trichloroethane	None	1.5	6	1.5	μ/m^3					0.01	U	0.06	U
1,1-Dichloroethane	None	15	5000	15	μ/m^3					0.02	U	0.07	U
1,1-Dichloroethene	None	2100	2000	2000	μ/m^3					0.01	U	0.05	U
1,2,3-Trimethylbenzene	None	None	None		μ/m^3					0.45	J	0.72	J
1,2,4-Trichlorobenzene	None	21	40	21	μ/m^3					0.08	UJ	0.38	UJ
1,2,4-Trimethylbenzene	None	73	70	70	μ/m^3					0.01	U	0.21	
1,2-Dibromoethane (EDB)	None	0.041	0.2	0.041	μ/m^3					0.03	U	0.15	U
1,2-Dichlorobenzene	None	2100	2000	2000	μ/m^3					0.03	U	0.16	U
1,2-Dichloroethane	None	0.94	4	0.94	μ/m^3					0.12		0.35	
1,2-Dichloropropane	None	2.4	40	2.4	μ/m^3					0.02	U	0.07	U
1,3,5-Trimethylbenzene	None	None	60	60	μ/m^3					0.09	J	0.17	J
1,3-Butadiene	None	0.81	3	0.81	μ/m^3					0.04		0.23	
1,3-Dichlorobenzene	None	None	NA		μ/m^3					0.09		0.15	U
1,4-Dichlorobenzene	None	2.2	600	2.2	μ/m^3					0.19		0.35	
1,4-Dioxane	3	3.2	None	3.2	μ/m^3					0.18	UJ	0.83	UJ
1-Butanol	None	None	None		μ/m^3					1.85	J	0.05	UJ
2-Hexanone	None	310	NA	310	μ/m^3					0.06	UJ	0.26	UJ
2-Pentanone	None	None	None		μ/m^3					0.32	J	0.81	UJ
2-Propanol	None	73000	70000	70000	μ/m^3					10.6	J	10.9	J
3-Hexanone	None	None	None		μ/m^3					0.2	UJ	0.94	UJ
3-Pentanone	None	None	None		μ/m^3					0.17	UJ	0.81	UJ
4-Methyl-2-pentanone	None	31000	30000	30000	μ/m^3					0.36	J	0.11	UJ

TABLE 2
Round 2 Subslab Analytical Results
Reilly Tar and Chemical Company Superfund Site
Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-10 RTCM-SS017-11 1/30/2012		12CR02-26 RTCM-SS017FD-11 1/30/2012		12CR01-12 RTCM-SS017-13 1/30/2012		12CR02-28 RTCM-SS017FD-13 1/30/2012	
Acetone	None	320000	310000	310000	μ/m^3					15.5	J	30.3	J
Acetonitrile	None	630	None	630	μ/m^3					0.77	J	1.52	J
Acrolein	2.1	0.21	None	0.21	μ/m^3					0.98	J	0.21	UJ
Benzene	3.1	3.1	45	3.1	μ/m^3					0.87		2.65	
Benzyl chloride	None	0.5	10	0.5	μ/m^3					0.03	UJ	0.13	UJ
Bromodichloromethane	0.07	0.66	NA	0.07	μ/m^3					0.02	U	0.09	U
Bromoform	None	22	90	22	μ/m^3					0.03	UJ	0.16	UJ
Bromomethane	None	52	50	50	μ/m^3					0.05		0.06	U
Butanal	None	None	None		μ/m^3					5.91	J	8.48	J
Carbon disulfide	None	7300	7000	7000	μ/m^3					0.01	UJ	0.05	UJ
Carbon Tetrachloride	None	4.1	7	4.1	μ/m^3					0.4		0.58	
Chlorobenzene	None	520	500	500	μ/m^3					0.04	U	0.19	U
Chlorodifluoromethane	None	520000	None	520000	μ/m^3					2.05	J	0.82	UJ
Chloroethane	None	100000	100000	100000	μ/m^3					0.12		0.04	U
Chloroform	1.1	1.1	1000	1.1	μ/m^3					0.09		0.43	
Chloromethane	None	940	900	900	μ/m^3					1.33		2.85	
cis-1,2-Dichloroethene	630	None	NA	630	μ/m^3					0.02	U	0.07	U
cis-1,3-Dichloropropene	None	None	200	200	μ/m^3					0.01	UJ	0.05	UJ
Cyclohexane	None	63000	60000	60000	μ/m^3					0.44		1.5	
Cyclopentane	None	None	None		μ/m^3					0.14	UJ	0.66	UJ
Dichlorodifluoromethane	1043	1000	2000	1000	μ/m^3					1.58	J	19.6	J
Dichlorotetrafluoroethane	None	None	NA		μ/m^3					0.17		0.53	
Ethylbenzene	9.7	9.7	10000	9.7	μ/m^3					0.46		0.68	
Hexachloro-1,3-Butadiene	None	None			μ/m^3					0.05	U	0.22	U
Isobutene	None	None	None		μ/m^3					1.76	J	6.23	J
Isoprene	None	None	None		μ/m^3					0.14	J	1.38	J
m,p-Xylene	1000	7300	1000	1000	μ/m^3					0.61	J	0.93	J
Methacrolein	None	None	None		μ/m^3					0.32	J	0.66	UJ
Methyl ethyl ketone	None	52000	50000	50000	μ/m^3					1.43	J	0.75	J
Methyl iodide	None	None	None		μ/m^3					0.28	UJ	1.34	UJ
Methyl tert-butyl ether	None	94	30000	94	μ/m^3					0.03	J	0.04	UJ
Methyl vinyl ketone	None	None	None		μ/m^3					0.14	UJ	0.66	UJ
Methylene chloride	None	52	200	52	μ/m^3					0.39		1.48	
n-Hexane	None	7300	20000	7300	μ/m^3					0.91	J	1.87	J
o-Xylene	1000	7300	1000	1000	μ/m^3					0.69		0.89	
Pentanal	None	None	None		μ/m^3					5.21	J	0.81	UJ
Pentane	None	10000	None	10000	μ/m^3					0.14	UJ	0.68	UJ
Propanal		None			μ/m^3					4.06	J	9.12	J
Propene	None	31000	30000	30000	μ/m^3					1.46		3.01	
Styrene	None	10000	10000	10000	μ/m^3					0.13	J	0.36	J

TABLE 2

Round 2 Subslab Analytical Results

Reilly Tar and Chemical Company Superfund Site

Saint Louis Park, Minnesota

	Site Specific Residential Subslab Soil Gas	USEPA 10x Residential Air	MPCA Residential 10X ISV	Minimum Criteria		12CR01-10 RTCM-SS017-11 1/30/2012		12CR02-26 RTCM-SS017FD-11 1/30/2012		12CR01-12 RTCM-SS017-13 1/30/2012		12CR02-28 RTCM-SS017FD-13 1/30/2012	
Tetrachloroethene	4.1	94	200	4.1	μ/m^3					0.48		2.26	
Toluene	52000	52000	50000	50000	μ/m^3					2.75		4.6	
trans-1,3-Dichloropropene	None	None	200	200	μ/m^3					0.01	UJ	0.07	UJ
Trichloroethene	5.9	4.3	30	4.3	μ/m^3					0.15		0.62	
Trichlorofluoromethane	None	7300	7000	7000	μ/m^3					1.29		2.03	
Vinyl chloride	5.5	1.6	10	1.6	μ/m^3					0.006	U	0.03	U

Notes:

Site Specific Residential Subslab Soil Gas Screening Level: Vapor Intrusion Screening Levels for the Reilly Tar and Chemical Company Memorandum, February 16, 2011, updated November 8, 2011.

USEPA 10x Residential Air Screening Level: EPA Residential Air Regional Screening Levels, April 2012, the lower of the Carcinogenic or the non-Carcinogenic value multiplied by 10.

MPCA Residential 10X ISV: Minnesota Pollution Control Agency Intrusion Screening Level (ISV), February 2009, multiplied by 10.

[a]24-hour TO-15 sample container collected with no remaining vacuum and submitted for analysis.