Supplemental Information for:

A Comparison of the Johnson-Ettinger Vapor Intrusion Screening Model Predictions with Full Three-Dimensional Model Results.

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Table 1. Results from the J-E model as implemented on the EPA spreadsheet (SG-ADV-Feb04), in which soil diffusivity equals in-crack diffusivity

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
2	3	1E-10	1.04E-03	180	1.04e-5	1.04e-5	6.25E-03
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	2.64E-03
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	3.89E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	7.62E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	5.55E-05
	5	1E-10	1.04E-03	180	1.04e-5	1.04e-5	2.32E-03
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	1.54E-03
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	3.52E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	7.46E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	5.47E-05
	8	1E-10	1.04E-03	180	1.04e-5	1.04e-5	1.19E-03
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	9.45E-04
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	3.08E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	7.24E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	5.35E-05
	11	1E-10	1.04E-03	180	1.04e-5	1.04e-5	8.02E-04
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	6.82E-04
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	2.74E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	7.04E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	5.23E-05
	14	1E-10	1.04E-03	180	1.04e-5	1.04e-5	6.05E-04
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	5.34E-04
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	2.46E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	6.84E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	5.12E-05
	18	1E-10	1.04E-03	180	1.04e-5	1.04e-5	4.55E-04
		1E-11	1.04E-04	180	1.04e-5	1.04e-5	4.14E-04
		1E-12	1.04E-05	180	1.04e-5	1.04e-5	2.17E-04
		1E-13	1.04E-06	180	1.04e-5	1.04e-5	6.59E-05
		1E-14	1.04E-07	180	1.04e-5	1.04e-5	4.99E-05

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
0.1	3	1E-10	1.89E-03	100	1.04e-5	1.04e-5	1.38E-03
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	1.19E-03
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	4.87E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	9.28E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	5.54E-05
	5	1E-10	1.89E-03	100	1.04e-5	1.04e-5	8.26E-04
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	7.51E-04
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	3.93E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	8.88E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	5.39E-05
	8	1E-10	1.89E-03	100	1.04e-5	1.04e-5	5.14E-04
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	4.84E-04
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	3.05E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	8.33E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	5.19E-05
	11	1E-10	1.89E-03	100	1.04e-5	1.04e-5	3.74E-04
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	3.57E-04
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	2.49E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	7.85E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	5.00E-05
	14	1E-10	1.89E-03	100	1.04e-5	1.04e-5	2.93E-04
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	2.83E-04
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	2.11E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	7.43E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	4.82E-05
	18	1E-10	1.89E-03	100	1.04e-5	1.04e-5	2.29E-04
		1E-11	1.89E-04	100	1.04e-5	1.04e-5	2.22E-04
		1E-12	1.89E-05	100	1.04e-5	1.04e-5	1.75E-04
		1E-13	1.89E-06	100	1.04e-5	1.04e-5	6.93E-05
		1E-14	1.89E-07	100	1.04e-5	1.04e-5	4.61E-05

Table 2. Results from the J-E model as implemented on the EPA spreadsheet (SG-ADV-Feb04), in which in-crack diffusivity for the contaminant is its diffusivity in air

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
2	3	1E-10	4.57E-04	180	1.04e-5	7.4e-5	5.22E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	1.46E-03
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	4.50E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	3.72E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	3.65E-04
	5	1E-10	4.57E-04	180	1.04e-5	7.4e-5	2.16E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	1.04E-03
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	4.01E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	3.38E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	3.32E-04
	8	1E-10	4.57E-04	180	1.04e-5	7.4e-5	1.15E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	7.32E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	3.45E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	2.97E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	2.92E-04
	11	1E-10	4.57E-04	180	1.04e-5	7.4e-5	7.83E-04
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	5.64E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	3.02E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	2.65E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	2.61E-04
	14	1E-10	4.57E-04	180	1.04e-5	7.4e-5	5.93E-04
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	4.59E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	2.69E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	2.39E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	2.36E-04
	18	1E-10	4.57E-04	180	1.04e-5	7.4e-5	4.49E-04
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	3.67E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	2.35E-04
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	2.12E-04
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	2.09E-04

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
0.1	3	1E-10	7.69E-04	100	1.04e-5	7.4e-5	1.35E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	9.62E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	3.98E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	3.11E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	3.02E-04
	5	1E-10	7.69E-04	100	1.04e-5	7.4e-5	8.13E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	6.54E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	3.33E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	2.70E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	2.63E-04
	8	1E-10	7.69E-04	100	1.04e-5	7.4e-5	5.09E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	4.42E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	2.68E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	2.25E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	2.21E-04
	11	1E-10	7.69E-04	100	1.04e-5	7.4e-5	3.71E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	3.34E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	2.24E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	1.93E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	1.90E-04
	14	1E-10	7.69E-04	100	1.04e-5	7.4e-5	2.92E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	2.68E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	1.92E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	1.69E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	1.67E-04
	18	1E-10	7.69E-04	100	1.04e-5	7.4e-5	2.29E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	2.13E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	1.62E-04
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	1.45E-04
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	1.43E-04

Table 3. Results from the J-E model as implemented on the EPA spreadsheet, except air diffusivity in the crack and the mass conservation ratio applied to the result

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	D_{eff} (m^2/s)	D^{crack} (m^2/s)	r_f	α
2	3	1E-10	4.57E-04	180	1.04e-5	7.4e-5	2.26	3.06E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.59	4.41E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.14	7.04E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.10	5.31E-05
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.10	5.11E-05
	5	1E-10	4.57E-04	180	1.04e-5	7.4e-5	2.80	2.30E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.75	3.11E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.14	4.82E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.12	3.22E-05
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.11	3.08E-05
	8	1E-10	4.57E-04	180	1.04e-5	7.4e-5	3.14	1.65E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.84	2.11E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.17	3.19E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.13	2.13E-05
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.12	2.03E-05
	11	1E-10	4.57E-04	180	1.04e-5	7.4e-5	3.18	1.26E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.86	1.58E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.17	2.37E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.13	1.58E-05
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.12	1.51E-05
	14	1E-10	4.57E-04	180	1.04e-5	7.4e-5	3.20	1.00E-03
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.87	1.25E-04
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.17	1.88E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.13	1.25E-05
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.12	1.19E-05
	18	1E-10	4.57E-04	180	1.04e-5	7.4e-5	3.20	7.91E-04
		1E-11	4.57E-05	180	1.04e-5	7.4e-5	0.88	9.89E-05
		1E-12	4.57E-06	180	1.04e-5	7.4e-5	0.17	1.47E-05
		1E-13	4.57E-07	180	1.04e-5	7.4e-5	0.13	9.74E-06
		1E-14	4.57E-08	180	1.04e-5	7.4e-5	0.12	9.30E-06

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$A_f(m^2)$	D_{eff} (m^2/s)	D^{crack} (m^2/s)	r_f	α
0.1	3	1E-10	7.69E-04	100	1.04e-5	7.4e-5	2.41	3.06E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.37	4.41E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.06	7.04E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	5.31E-05
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	5.11E-05
	5	1E-10	7.69E-04	100	1.04e-5	7.4e-5	2.97	2.30E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.41	3.11E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.06	4.82E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	3.22E-05
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	3.08E-05
	8	1E-10	7.69E-04	100	1.04e-5	7.4e-5	3.37	1.65E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.44	2.11E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.07	3.19E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	2.13E-05
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	2.03E-05
	11	1E-10	7.69E-04	100	1.04e-5	7.4e-5	3.50	1.26E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.44	1.58E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.07	2.37E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	1.58E-05
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	1.51E-05
	14	1E-10	7.69E-04	100	1.04e-5	7.4e-5	3.53	1.00E-03
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.44	1.25E-04
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.07	1.88E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	1.25E-05
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	1.19E-05
	18	1E-10	7.69E-04	100	1.04e-5	7.4e-5	3.55	7.91E-04
		1E-11	7.69E-05	100	1.04e-5	7.4e-5	0.45	9.89E-05
		1E-12	7.69E-06	100	1.04e-5	7.4e-5	0.07	1.47E-05
		1E-13	7.69E-07	100	1.04e-5	7.4e-5	0.04	9.74E-06
		1E-14	7.69E-08	100	1.04e-5	7.4e-5	0.04	9.30E-06

Table 4. Results from 3-D simulations as presented in Figure 3 of the manuscript

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
2	3	1E-10	4.24E-04	1.04e-5	7.4e-5	7.03E-03
		1E-11	4.24E-05	1.04e-5	7.4e-5	1.31E-03
		1E-12	4.24E-06	1.04e-5	7.4e-5	2.88E-04
		1E-13	4.24E-07	1.04e-5	7.4e-5	2.20E-04
		1E-14	4.24E-08	1.04e-5	7.4e-5	2.14E-04
	5	1E-10	4.68E-04	1.04e-5	7.4e-5	5.58E-03
		1E-11	4.68E-05	1.04e-5	7.4e-5	1.02E-03
		1E-12	4.68E-06	1.04e-5	7.4e-5	1.84E-04
		1E-13	4.68E-07	1.04e-5	7.4e-5	1.54E-04
		1E-14	4.68E-08	1.04e-5	7.4e-5	1.49E-04
	8	1E-10	4.50E-04	1.04e-5	7.4e-5	4.08E-03
		1E-11	4.50E-05	1.04e-5	7.4e-5	7.34E-04
		1E-12	4.50E-06	1.04e-5	7.4e-5	1.44E-04
		1E-13	4.50E-07	1.04e-5	7.4e-5	1.06E-04
		1E-14	4.50E-08	1.04e-5	7.4e-5	1.03E-04
	11	1E-10	4.52E-04	1.04e-5	7.4e-5	2.94E-03
		1E-11	4.52E-05	1.04e-5	7.4e-5	5.56E-04
		1E-12	4.52E-06	1.04e-5	7.4e-5	1.09E-04
		1E-13	4.52E-07	1.04e-5	7.4e-5	7.98E-05
		1E-14	4.52E-08	1.04e-5	7.4e-5	7.73E-05
	14	1E-10	4.52E-04	1.04e-5	7.4e-5	2.21E-03
		1E-11	4.52E-05	1.04e-5	7.4e-5	4.43E-04
		1E-12	4.52E-06	1.04e-5	7.4e-5	8.67E-05
		1E-13	4.52E-07	1.04e-5	7.4e-5	6.37E-05
		1E-14	4.52E-08	1.04e-5	7.4e-5	6.17E-05
	18	1E-10	4.56E-04	1.04e-5	7.4e-5	1.64E-03
		1E-11	4.56E-05	1.04e-5	7.4e-5	3.50E-04
		1E-12	4.56E-06	1.04e-5	7.4e-5	6.84E-05
		1E-13	4.56E-07	1.04e-5	7.4e-5	5.02E-05
		1E-14	4.56E-08	1.04e-5	7.4e-5	4.86E-05

$d_f(m)$	$d_{source}(m)$	$k(m^2)$	$Q_{ck}(m^3/s)$	$D_{eff}(m^2/s)$	$D^{crack}(m^2/s)$	α
0.1	3	1E-10	6.80E-04	1.04e-5	7.4e-5	3.00E-03
		1E-11	6.80E-05	1.04e-5	7.4e-5	4.44E-04
		1E-12	6.80E-06	1.04e-5	7.4e-5	6.95E-05
		1E-13	6.80E-07	1.04e-5	7.4e-5	4.63E-05
		1E-14	6.80E-08	1.04e-5	7.4e-5	4.42E-05
	5	1E-10	6.80E-04	1.04e-5	7.4e-5	2.31E-03
		1E-11	6.80E-05	1.04e-5	7.4e-5	3.12E-04
		1E-12	6.80E-06	1.04e-5	7.4e-5	4.77E-05
		1E-13	6.80E-07	1.04e-5	7.4e-5	3.16E-05
		1E-14	6.80E-08	1.04e-5	7.4e-5	3.02E-05
	8	1E-10	6.80E-04	1.04e-5	7.4e-5	1.67E-03
		1E-11	6.80E-05	1.04e-5	7.4e-5	2.11E-04
		1E-12	6.80E-06	1.04e-5	7.4e-5	3.18E-05
		1E-13	6.80E-07	1.04e-5	7.4e-5	2.11E-05
		1E-14	6.80E-08	1.04e-5	7.4e-5	2.01E-05
	11	1E-10	6.80E-04	1.04e-5	7.4e-5	1.27E-03
		1E-11	6.80E-05	1.04e-5	7.4e-5	1.58E-04
		1E-12	6.80E-06	1.04e-5	7.4e-5	2.36E-05
		1E-13	6.80E-07	1.04e-5	7.4e-5	1.56E-05
		1E-14	6.80E-08	1.04e-5	7.4e-5	1.50E-05
	14	1E-10	6.80E-04	1.04e-5	7.4e-5	9.96E-04
		1E-11	6.80E-05	1.04e-5	7.4e-5	1.25E-04
		1E-12	6.80E-06	1.04e-5	7.4e-5	1.87E-05
		1E-13	6.80E-07	1.04e-5	7.4e-5	1.24E-05
		1E-14	6.80E-08	1.04e-5	7.4e-5	1.19E-05
	18	1E-10	6.84E-04	1.04e-5	7.4e-5	7.76E-04
		1E-11	6.84E-05	1.04e-5	7.4e-5	9.87E-05
		1E-12	6.84E-06	1.04e-5	7.4e-5	1.47E-05
		1E-13	6.84E-07	1.04e-5	7.4e-5	9.71E-06
		1E-14	6.84E-08	1.04e-5	7.4e-5	9.27E-06

Field data comparison

Data and map based upon Immediate Response action Completion Report and remedial Monitoring Report No. 11, RTN 3-23246, prepared by GEI consultants, November 2009. This is a site contaminated with chlorinated solvents.

Figure 1. A portion of the site location showing the structure of interest. This is a residential neighborhood, consisting of many small parcels. The location of numerous groundwater monitoring wells is shown. Soil vapor was measured through the basement slab and indoor air concentration measured in the basement of the indicated building, which was located several hundred feet from the source area.

TABLE 5. Model Input Parameters

Building/foundation parameters	Contaminant vapor source properties
	Contaminant: PCE
Foundation foot print length: 14 m, width: 8 m	Diffusivity of PCE in air $\left(D^{air}\right)$: 7.4 x10^{-6} m^2/s
Depth of foundation $\left(d_f\right)$: 1 m bgs	Effective diffusivity of PCE in soil $\left(D_{eff}\right)$: 1.01 x10^{-6} m^2/s
Crack/foundation slab thickness$\left(d_{ck}\right)$: 0.15 m	Measured contaminant concentration in groundwater: 198-261 ug/L
Crack width$\left(w_{ck}\right)$: 0.005 m	Henry's Law constant: 0.7
Crack area$\left(A_{ck}\right)$: 0.22 m^2	Measured indoor air concentration$\left(c_{indoor}\right)$: 163 ug/m^3
Volume of intruded area $\left(V_b\right)$: 1008 m^3	
Air exchange rate in intruded volume $\left(A_e\right)$: 0.45 hr^{-1}	Measured subslab soil vapor concentration$\left(c_{ck}\right)$: 16400-21600 ug/m^3
Depth to groundwater/source $\left(d_{source}\right)$: 3.5 m bgs	**Soil gas flow properties**
Pressure difference at the crack (Δp): -5 and -20 Pa	Viscosity of air/soil gas $\left(\mu_g\right)$: 1.8648 x10^{-5} kg/m/s
	Density of air/soil gas $\left(\rho_g\right)$: 1.1614kg/m^3
	Soil permeability (k): 1 x 10^{-11} m^2

Note regarding the application mass conservation corrections to the J-E model results presented in Table 4 of the paper.

It is important to note that although Figure 6 (b) of the paper is for foundations with a depth of 0.1 and 2 m bgs, the influence of foundation depth is not very significant for cases with a permeability of 10^{-11} m^2, which means the mass conservation ratio can still be estimated from that figure for the 1 m deep basement of interest here. The small correction applied to the EPA J-E model does not result in much difference in this case, because R_f is around 1 for the given permeability.