


de maximis, inc.

200 Day Hill Road
Suite 200
Windsor, CT 06095
(860) 298-0541
(860) 298-0561 FAX

December 2, 2011

Ms. Karen Lumino
Remedial Project Manager
USEPA Region 1
5 Post Office Square, Suite 100
Mailcode OSRR07-4
Boston, MA 02109

Subject: SRSNE Site – Vapor Intrusion Technical Memorandum

Dear Ms. Lumino:

Pursuant to Section V, paragraph 11.b of the Consent Decree (CD) for the Remedial Design/Remedial Action at the Solvents Recovery Service of New England, Inc. Superfund Site entered on March 26, 2009 by the United States District Court for the District of Connecticut in connection with Civil Actions No. 3:08cv1509 (SRU) and No. 3:08cv1504 (WWE) and Section V.C.1.k of the Statement of Work attached as Appendix B to the CD, enclosed please a technical memorandum summarizing the September 2011 groundwater sampling performed in response to EPA's June 2011 comments on the revised Vapor Intrusion Technical Memorandum (ARCADIS, June 2011).

Please contact me if you have any questions.

Sincerely,



Bruce Thompson
Project Coordinator
Enclosure

cc: Tom RisCassi, CTDEP
SRSNE Executive Committee
Jeffrey Holden, P.E., LEP, ARCADIS



MEMO

To:
Bruce Thompson
de maximis, inc.
200 Day Hill Road, Suite 200
Windsor, CT 06095

Copies:
John Hunt, **de maximis, inc.**
Nadine Weinberg, ARCADIS
Mike Gefell, ARCADIS

ARCADIS U.S., Inc.
160 Chapel Road
Suite 201
Manchester
Connecticut 06042-1625
Tel 860 645 1084
Fax 860 645 1090

From:
Jeffrey S. Holden, P.E., LEP

Date:
November 30, 2011

ARCADIS Project No.:
B0054634.0000.01900

Subject:
September 2011 Groundwater Sampling for Vapor Intrusion Evaluation
SRSNE Superfund Site, Southington, CT

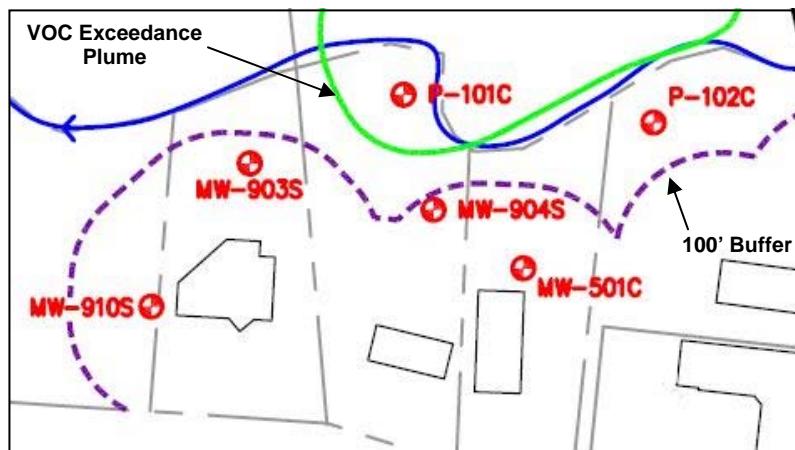
In a memorandum dated June 3, 2011, ARCADIS summarized the results of a third round of sampling associated with the evaluation of potential vapor intrusion (VI) issues at the referenced site. The sampling was conducted on March 29 and 30, 2011, which corresponded to a period of high groundwater levels based on historical data, as requested by the United States Environmental Protection Agency (USEPA). The March 2011 event included sampling at the six monitoring wells that had been subject to VI-related sampling during the two prior events (listed below). Such monitoring was performed in accordance with the procedures described in the *Vapor Intrusion Study Work Plan*¹, which evaluated the potential for migration of Site-related constituents of potential concern (COPCs) from shallow groundwater into the indoor air of nearby buildings. The June 3 memorandum identified the estimated extent of shallow groundwater exceeding the established VI screening levels and concluded that groundwater exceeding VI screening levels is not present within 100 feet of the occupied buildings. Accordingly, the contingent step-wise activities specified in the *Vapor Intrusion Study Work Plan* were not triggered.

¹ Attachment K to the *Remedial Design Work Plan* (ARCADIS 2009); modified to address responses to United States Environmental Protection Agency (USEPA) comments provided on December 3, 2009 and January 6, 2010, and approved by USEPA on September 20, 2010. The work plan initially proposed two VI-related sampling events; two additional events (March 2011 and September 2011) have been performed based on subsequent direction from the USEPA.

Upon review of the June 3, 2011 memorandum, and as a condition of approval, the USEPA, in an email correspondence dated June 15, 2011, requested that the six monitoring wells be re-sampled to ensure that each well had both spring and fall sampling to confirm that no additional VI studies are required. The purpose of this memorandum is to summarize the scope and results of the additional sampling.

On September 26 and 27, 2011, ARCADIS re-sampled six shallow overburden monitoring wells indicated by the USEPA: MW-501C, MW-903S, MW-904S, MW-910S, P-101C and P-102C. Four of these wells (MW-501C, MW-903S, MW-904S and MW-910S) are within 100 feet of occupied structures. The remaining two wells (P-101C and P-102C) are greater than 100 feet from occupied structures. P-102C had been included as part of the original VI sampling approach as summarized in an October 27, 2010 memorandum from **de maximis, inc.** to the USEPA. P-101C was not one of the wells included as part of the original VI sampling in the vicinity of occupied structures, but was sampled in May 2010 as part of the comprehensive groundwater sampling event; this well was included in the supplemental rounds of VI-related sampling (March 2011 and September 2011) at the direction of the USEPA.

Volatile organic compound (VOC) analytical results for the groundwater samples collected from the six monitoring wells on September 26 and 27, 2011 are presented on Table 1. Consistent with previous data (Table 2), five of the six wells (excluding P-101C) did not contain concentrations of VOCs above VI screening levels. Monitoring well P-101C contained concentrations of benzene and vinyl chloride above screening levels, which is also consistent with prior results. For convenience, Table 2 summarizes VOC analytical data from 2010 and 2011 sampling events for all shallow groundwater wells that were included in the assessment of the extent of shallow groundwater exceeding VI screening levels, as presented in previous memoranda. Those well locations are also shown on the attached Figure 1. The figure below is an excerpt from the figure included with an October 2010 VI technical memorandum, and shows that P-101C was interpreted to be within the zone of shallow groundwater exceeding VI screening levels based on the May 2010 data for this well. However, four other wells located closer to occupied structures all continue to show VOC concentrations below VI screening levels.



VI wells sampled September 26 and 27, 2011; from Figure 8, *Summary of Initial (2010) Comprehensive Groundwater Sampling Event*.

Consistent with previous data, the undiluted laboratory reporting limits for carbon tetrachloride and vinyl chloride exceed their respective VI screening levels. An evaluation of the usability of these data in light of the elevated reporting limits was conducted and presented in the October 2010 *Vapor Intrusion Technical Memorandum*. In summary, the evaluation concluded that the laboratory would have had the ability to detect these compounds at concentrations below the screening concentration, if present. The same factors cited in the June 3, 2011 memorandum are applicable to the carbon tetrachloride and vinyl chloride detection limits associated with the September 2011 data.

Summary and Conclusions

The September 2011 groundwater analytical data associated with the six monitoring wells corroborate the previous data and conclusions presented in the earlier VI technical memoranda. A minimum of three (and in most cases four) rounds of groundwater samples have been evaluated and support the findings that groundwater exceeding VI screening levels is not present within 100 feet of occupied buildings. Based on these results, no further evaluation of VI potential is planned. Data from future comprehensive groundwater sampling events will be compared to VI screening levels to ensure conditions remain protective of the VI pathway.

ARCADIS

Tables

Table 1
 VOCs for Comparison to Vapor Intrusion
 Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site
 Southington, Connecticut
 September 2011

Sample Location Sample Date Location Near Buildings Hydrostratigraphic Zone Field Sample ID	MW-501C	MW-903S	MW-903S	MW-904S	MW-910S	P-101C	P-102C
	9/27/2011	9/26/2011	9/26/2011	9/26/2011	9/27/2011	9/26/2011	9/26/2011
	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Greater than 100 ft	Greater than 100 ft
	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden
	MW-501C-09272011	DUP-GW-09262011	MW-903S-09262011	MW-904S-09262011	MW-910S-09272011	P-101C-09262011	P-102C-09262011
Analyte	CAS No.	Unit	Screening Level				
VOCs (8260B)							
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	2	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	ug/L	3100	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/L	4.11	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/L	2200	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/L	190	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/L	3400	0.5	UJ	0.5	UJ
1,2-Dichlorobenzene	95-50-1	ug/L	2600	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/L	2.34	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/L	1400 (a)	0.5	U	0.5	U
2-Butanone (MEK)	78-93-3	ug/L	50000	2	U	2	U
2-Hexanone	591-78-6	ug/L	NE	2	U	2	U
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	13000	2	U	2	U
Acetone	67-64-1	ug/L	50000	2	UJ	0.63	UJ
Benzene	71-43-2	ug/L	1.36	0.5	U	0.5	U
Bromomethane	74-83-9	ug/L	20	1	U	1	U
Carbon disulfide	75-15-0	ug/L	560	0.5	U	0.5	U
Carbon tetrachloride	56-23-5	ug/L	0.14	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/L	390	0.5	U	0.5	U
Chloroethane	75-00-3	ug/L	12000	1	U	1	U
Chloroform	67-66-3	ug/L	0.71	0.5	U	0.5	U
Chloromethane	74-87-3	ug/L	6.7	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	ug/L	210	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/L	3.04	0.5	U	0.5	U
Hexachlorobutadiene	87-68-3	ug/L	NE	0.5	UJ	0.5	UJ
Methylene Chloride	75-09-2	ug/L	58	2	UJ	0.22	UJ
Naphthalene	91-20-3	ug/L	150 (a)	0.5	UJ	0.5	UJ
Styrene	100-42-5	ug/L	3100	0.5	U	0.5	U
Tetrachloroethene	127-18-4	ug/L	0.55	0.5	U	0.5	U
Tetrahydrofuran	109-99-9	ug/L	NE	2	U	3	U
Toluene	108-88-3	ug/L	1500	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	ug/L	180	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/L	0.84	0.5	U	0.5	U
Trichloroethene	79-01-6	ug/L	2.89	0.5	U	0.5	U
Vinyl chloride	75-01-4	ug/L	0.32	0.5	U	0.5	U
Xylenes, Total	1330-20-7	ug/L	8700	1	U	2.1	--

Notes:

- U = Analyte not detected above the laboratory reporting limit
- J = Analyte result is estimated
- NE = not established
- VOCs = volatile organic compounds
- ug/L = micrograms per liter
- Screening Level = Groundwater Screening Level protective of vapor intrusion
- Minimum Residential Value used from USEPA and CTDEP guidance
- Bold** = Analyte detected above the laboratory's Reporting Limit
- Shaded Cell** = Analyte detected above the Screening Level
- (a) The calculated industrial standard is less than the minimum residential standard due to recent updates in toxicity values that are not reflected in USEPA (2002) guidance

Table 2
 VOCs for Comparison to Vapor Intrusion
 Select Shallow and Middle Overburden Wells
 Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site
 Southington, Connecticut

Sample Location Sample Date Location Near Buildings Hydrostratigraphic Zone Field Sample ID	MW-415	MW-415	MW-501C	MW-501C	MW-501C	MW-501C	MW-501C	MW-703S	MW-704S	MW-707S	MW-902M
	5/25/2010	5/25/2010	2/24/2010	2/24/2010	5/21/2010	3/29/2011	9/27/2011	5/11/2010	5/13/2010	5/12/2010	5/24/2010
	Greater than 100 ft	Greater than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft
	Middle Overburden	Middle Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Middle Overburden
DUP-GW-05252010-#1	MW-415-05252010	DUP-GW-02242010-#1	MW-501C-02242010	MW-501C-05212010	MW-501C-032911	MW-501C-09272011	MW-703S-05112010	MW-704S-05132010	MW-707S-05122010	DUP-GW-05242010-#1	
Analyte	CAS	Unit	Screening Level								
VOCs (8260B)											
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	2	100	U	500	U	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	ug/L	3100	2300	--	2200	--	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/L	4.11	54	J	500	UJ	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/L	2200	15000	--	14000	--	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/L	190	840	--	920	--	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/L	3400	100	U	500	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/L	2600	100	U	500	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/L	2.34	74	J	500	UJ	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/L	1400 (a)	100	U	500	U	0.5	U	0.5	U
2-Butanone (MEK)	78-93-3	ug/L	50000	4800	--	4700	--	2	U	2	U
2-Hexanone	591-78-6	ug/L	NE	400	U	2000	U	2	U	2	U
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	13000	3300	J	3200	J	2	U	2	U
Acetone	67-64-1	ug/L	50000	2100	J	5300	J	2	UJ	2	UJ
Benzene	71-43-2	ug/L	1.36	57	J	500	U	0.5	U	0.5	U
Bromomethane	74-83-9	ug/L	20	200	U	1000	U	1	U	1	U
Carbon disulfide	75-15-0	ug/L	560	100	U	500	U	0.5	U	0.5	U
Carbon tetrachloride	56-23-5	ug/L	0.14	100	U	500	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/L	390	51	J	500	UJ	0.5	U	0.5	U
Chloroethane	75-00-3	ug/L	12000	8900	J	8400	J	1	U	1	U
Chloroform	67-66-3	ug/L	0.71	25	J	500	UJ	0.5	U	0.5	U
Chloromethane	74-87-3	ug/L	6.7	100	U	500	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	ug/L	210	75000	--	74000	--	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/L	3.04	1900	--	1500	--	0.5	U	0.5	U
Hexachlorobutadiene	87-68-3	ug/L	NE	100	UJ	500	UJ	0.5	U	0.5	UJ
Methylene Chloride	75-09-2	ug/L	58	2000	J	2900	UJ	2	U	2	UJ
Naphthalene	91-20-3	ug/L	150 (a)	37	J	500	UJ	0.5	U	0.5	U
Styrene	100-42-5	ug/L	3100	100	U	500	U	0.5	U	0.5	U
Tetrachloroethene	127-18-4	ug/L	0.55	36	J	500	UJ	0.5	U	0.5	U
Tetrahydrofuran	109-99-9	ug/L	NE	250	J	2000	UJ	1	U	1	U
Toluene	108-88-3	ug/L	1500	23000	--	22000	--	0.5	U	1.2	--
trans-1,2-Dichloroethene	156-60-5	ug/L	180	62	J	500	UJ	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/L	0.84	100	U	500	U	0.5	U	0.5	U
Trichloroethene	79-01-6	ug/L	2.89	75	J	160	J	0.5	U	0.5	U
Vinyl chloride	75-01-4	ug/L	0.32	2500	--	2400	--	0.5	U	0.5	U
Xylenes, Total	1330-20-7	ug/L	8700	3800	J	2600	J	1	U	1	U
VOCs (8260C)											
1,4-Dioxane	123-91-1	ug/L	NE	72		64	--	2	U	2	U

Notes:

U = Analyte not detected above the laboratory reporting limit

J = Analyte result is estimated

NE = not established

VOCs = volatile organic compounds

ug/L = micrograms per liter

Screening Level = Groundwater Screening Level protective of vapor intrusion - Minimum Residential Value used from USEPA and CTDEP guidance

Bold = Analyte detected above the laboratory's Reporting Limit

Shaded Cell = Analyte detected above the Screening Level

(a) The calculated industrial standard is less than the minimum residential standard due to recent updates in toxicity values that are not reflected in USEPA (2002) guidance

Table 2
 VOCs for Comparison to Vapor Intrusion
 Select Shallow and Middle Overburden Wells
 Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site
 Southington, Connecticut

Sample Location Sample Date Location Near Buildings Hydrostratigraphic Zone Field Sample ID	MW-902M	MW-903S	MW-903S	MW-903S	MW-903S	MW-903S	MW-904S	MW-904S	MW-904S	MW-904S	MW-910S
	5/24/2010	2/24/2010	5/25/2010	3/30/2011	9/26/2011	9/26/2011	2/24/2010	5/26/2010	3/30/2011	9/26/2011	6/7/2010
	Greater than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft	Less than 100 ft
	Middle Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden
MW-902M-05242010	MW-903S-02242010	MW-903S-05252010	MW-903S-033011	MW-903S-09262011	DUP-GW-09262011	MW-904S-02242010	MW-904S-05262010	MW-904S-033011	MW-904S-09262011	MW-910S-06072010	
Analyte	CAS	Unit	Screening Level								
VOCs (8260B)											
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	2	10	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	ug/L	3100	4.2	J	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/L	4.11	10	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/L	2200	57	--	0.3	J	0.32	J	0.5	U
1,1-Dichloroethene	75-35-4	ug/L	190	10	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/L	3400	10	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/L	2600	4.2	J	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/L	2.34	10	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/L	1400 (a)	10	U	0.5	U	0.5	U	0.5	U
2-Butanone (MEK)	78-93-3	ug/L	50000	40	UJ	2	U	2	U	2	U
2-Hexanone	591-78-6	ug/L	NE	40	U	2	U	2	U	2	U
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	13000	40	U	2	U	2	U	2	U
Acetone	67-64-1	ug/L	50000	41	UJ	2	UJ	2	U	2	UJ
Benzene	71-43-2	ug/L	1.36	11	--	0.5	U	0.14	J	0.5	U
Bromomethane	74-83-9	ug/L	20	20	U	1	U	1	U	1	U
Carbon disulfide	75-15-0	ug/L	560	10	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	56-23-5	ug/L	0.14	10	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/L	390	5.8	J	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	ug/L	12000	2900	J	0.52	J	0.83	J	1	U
Chloroform	67-66-3	ug/L	0.71	10	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/L	6.7	10	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	ug/L	210	140	--	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/L	3.04	1500	--	0.5	U	0.5	0.21	J	0.5
Hexachlorobutadiene	87-68-3	ug/L	NE	10	UJ	0.5	U	2	UJ	0.5	UJ
Methylene Chloride	75-09-2	ug/L	58	72	J	2	U	2	UJ	0.22	UJ
Naphthalene	91-20-3	ug/L	150 (a)	12	J	0.5	U	0.59	J	0.5	UJ
Styrene	100-42-5	ug/L	3100	10	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	127-18-4	ug/L	0.55	10	U	0.5	U	0.5	U	0.5	U
Tetrahydrofuran	109-99-9	ug/L	NE	25	J	1	U	3.1	J	13	--
Toluene	108-88-3	ug/L	1500	1700	--	0.5	U	0.5	U	0.42	J
trans-1,2-Dichloroethene	156-60-5	ug/L	180	10	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/L	0.84	10	U	0.5	U	0.5	U	0.5	U
Trichloroethene	79-01-6	ug/L	2.89	10	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	75-01-4	ug/L	0.32	240	--	0.5	U	0.5	U	0.5	U
Xylenes, Total	1330-20-7	ug/L	8700	1100	--	1	U	1.1	U	2.1	--
VOCs (8260C)											
1,4-Dioxane	123-91-1	ug/L	NE	8.9	--	3.2	--	1.9	--	--	1

Notes:

U = Analyte not detected above the laboratory reporting limit

J = Analyte result is estimated

NE = not established

VOCs = volatile organic compounds

ug/L = micrograms per liter

Screening Level = Groundwater Screening Level protective of vapor intrusion - Minimum Residential Value used from USEPA and CTDEP guidance

Bold = Analyte detected above the laboratory's Reporting Limit

Shaded Cell = Analyte detected above the Screening Level

(a) The calculated industrial standard is less than the minimum residential standard due to recent updates in toxicity values that are not reflected in USEPA (2002) guidance

Table 2
 VOCs for Comparison to Vapor Intrusion
 Select Shallow and Middle Overburden Wells
 Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site
 Southington, Connecticut

Sample Location Sample Date Location Near Buildings Hydrostratigraphic Zone Field Sample ID	MW-910S	MW-910S	MW-910S	MWL-303	MWL-304	MWL-307	MWL-309	MWL-312	MWL-313	P-101C	P-101C
	3/29/2011	3/29/2011	9/27/2011	5/20/2010	5/24/2010	5/24/2010	5/20/2010	5/20/2010	5/14/2010	5/13/2010	3/29/2011
	Less than 100 ft	Less than 100 ft	Less than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft
	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden
Analyte	CAS	Unit	Screening Level								
VOCs (8260B)											
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	2	0.5	U	0.5	U	0.5	U	10	U
1,1,1-Trichloroethane	71-55-6	ug/L	3100	0.5	U	0.5	U	0.5	U	350	--
1,1,2-Trichloroethane	79-00-5	ug/L	4.11	0.5	U	0.5	U	0.5	U	3.4	J
1,1-Dichloroethane	75-34-3	ug/L	2200	0.5	U	0.5	U	0.5	U	410	--
1,1-Dichloroethene	75-35-4	ug/L	190	0.5	U	0.5	U	0.5	U	17	--
1,2,4-Trichlorobenzene	120-82-1	ug/L	3400	0.5	U	0.5	U	0.5	U	10	U
1,2-Dichlorobenzene	95-50-1	ug/L	2600	0.5	U	0.5	U	0.5	U	10	U
1,2-Dichloroethane	107-06-2	ug/L	2.34	0.5	U	0.5	U	0.5	U	6.7	J
1,4-Dichlorobenzene	106-46-7	ug/L	1400 (a)	0.5	U	0.5	U	0.5	U	10	U
2-Butanone (MEK)	78-93-3	ug/L	50000	2	U	2	U	2	U	40	U
2-Hexanone	591-78-6	ug/L	NE	2	U	2	U	2	U	40	U
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	13000	2	U	2	U	2	U	68	--
Acetone	67-64-1	ug/L	50000	2.5	U	0.85	U	2	U	40	U
Benzene	71-43-2	ug/L	1.36	0.5	U	0.5	U	0.5	U	11	--
Bromomethane	74-83-9	ug/L	20	1	UJ	1	UJ	1	UJ	20	U
Carbon disulfide	75-15-0	ug/L	560	0.5	U	0.5	U	0.5	U	10	U
Carbon tetrachloride	56-23-5	ug/L	0.14	0.5	U	0.5	U	0.5	U	10	U
Chlorobenzene	108-90-7	ug/L	390	0.5	U	0.5	U	0.5	U	3.1	J
Chloroethane	75-00-3	ug/L	12000	1	U	1	U	1	U	29	J
Chloroform	67-66-3	ug/L	0.71	0.5	U	0.5	U	0.5	U	10	U
Chloromethane	74-87-3	ug/L	6.7	0.5	UJ	0.5	UJ	0.5	U	10	U
cis-1,2-Dichloroethene	156-59-2	ug/L	210	0.5	U	1.4	U	0.5	U	2700	--
Ethylbenzene	100-41-4	ug/L	3.04	0.5	U	0.5	U	0.5	U	280	--
Hexachlorobutadiene	87-68-3	ug/L	NE	0.5	UJ	0.5	UJ	0.5	UJ	10	UJ
Methylene Chloride	75-09-2	ug/L	58	2	UJ	2	UJ	2	U	40	U
Naphthalene	91-20-3	ug/L	150 (a)	0.5	UJ	0.5	UJ	0.5	UJ	2.2	J
Styrene	100-42-5	ug/L	3100	0.5	U	0.5	U	0.5	U	10	U
Tetrachloroethene	127-18-4	ug/L	0.55	0.5	U	0.5	U	0.5	U	10	U
Tetrahydrofuran	109-99-9	ug/L	NE	2	U	2	U	2	U	57	--
Toluene	108-88-3	ug/L	1500	1.1	U	0.5	UJ	0.5	U	1100	--
trans-1,2-Dichloroethene	156-60-5	ug/L	180	0.5	U	0.5	U	0.5	U	10	U
trans-1,3-Dichloropropene	10061-02-6	ug/L	0.84	0.5	U	0.5	U	0.5	U	10	U
Trichloroethene	79-01-6	ug/L	2.89	0.5	U	0.5	U	0.5	U	10	U
Vinyl chloride	75-01-4	ug/L	0.32	0.5	U	0.5	U	0.5	U	1800	--
Xylenes, Total	1330-20-7	ug/L	8700	1	U	1	U	1	U	400	--
VOCs (8260C)											
1,4-Dioxane	123-91-1	ug/L	NE	--	--	--	--	--	--	1	U

Notes:

U = Analyte not detected above the laboratory reporting limit

J = Analyte result is estimated

NE = not established

VOCs = volatile organic compounds

ug/L = micrograms per liter

Screening Level = Groundwater Screening Level protective of vapor intrusion - Minimum Residential Value used from USEPA and CTDEP guidance

Bold = Analyte detected above the laboratory's Reporting Limit

Shaded Cell = Analyte detected above the Screening Level

(a) The calculated industrial standard is less than the minimum residential standard due to recent updates in toxicity values that are not reflected in USEPA (2002) guidance

Table 2
 VOCs for Comparison to Vapor Intrusion
 Select Shallow and Middle Overburden Wells
 Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site
 Southington, Connecticut

Sample Location Sample Date Location Near Buildings Hydrostratigraphic Zone Field Sample ID	P-101C	P-101C	P-102C	P-102C	P-102C	P-102C	P-11B	P-13	P-3B	P-5B	TW-08A
	5/24/2011	9/26/2011	2/24/2010	5/18/2010	3/29/2011	9/26/2011	5/17/2010	5/12/2010	5/18/2010	5/21/2010	5/25/2010
	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft	Greater than 100 ft
	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Shallow Overburden	Middle Overburden
Analyte	CAS	Unit	Screening Level								
VOCs (8260B)											
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	2	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	ug/L	3100	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	ug/L	4.11	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	ug/L	2200	12	--	9.4	--	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	ug/L	190	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	ug/L	3400	0.5	UJ	0.5	UJ	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	ug/L	2600	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	ug/L	2.34	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	ug/L	1400 (a)	0.5	U	0.17	J	0.5	U	0.5	U
2-Butanone (MEK)	78-93-3	ug/L	50000	2	U	2	U	2	U	2	U
2-Hexanone	591-78-6	ug/L	NE	2	U	2	U	2	U	2	U
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	13000	2	U	2	U	2	U	2	U
Acetone	67-64-1	ug/L	50000	2	UJ	2	UJ	2	U	2	UJ
Benzene	71-43-2	ug/L	1.36	4.6	--	3	--	0.5	U	0.5	U
Bromomethane	74-83-9	ug/L	20	1	U	1	U	1	UJ	1	U
Carbon disulfide	75-15-0	ug/L	560	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	56-23-5	ug/L	0.14	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	ug/L	390	1.5	--	1.1	--	0.5	U	0.5	U
Chloroethane	75-00-3	ug/L	12000	2.3	--	1	U	1	UJ	1	U
Chloroform	67-66-3	ug/L	0.71	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	ug/L	6.7	0.5	U	0.5	U	0.5	UJ	0.5	U
cis-1,2-Dichloroethene	156-59-2	ug/L	210	5.7	--	3.7	--	0.5	U	0.5	U
Ethylbenzene	100-41-4	ug/L	3.04	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	87-68-3	ug/L	NE	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
Methylene Chloride	75-09-2	ug/L	58	0.17	UJ	0.13	UJ	2	U	2	U
Naphthalene	91-20-3	ug/L	150 (a)	0.5	UJ	0.5	UJ	0.5	U	0.5	U
Styrene	100-42-5	ug/L	3100	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	127-18-4	ug/L	0.55	0.5	U	0.5	U	0.5	U	0.5	U
Tetrahydrofuran	109-99-9	ug/L	NE	7.6	--	6.4	--	1	U	2	U
Toluene	108-88-3	ug/L	1500	0.29	J	0.5	U	0.5	U	0.45	J
trans-1,2-Dichloroethene	156-60-5	ug/L	180	0.49	J	0.38	J	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	ug/L	0.84	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene	79-01-6	ug/L	2.89	0.15	J	0.32	J	0.5	U	0.13	J
Vinyl chloride	75-01-4	ug/L	0.32	18	--	13	--	0.5	U	0.5	U
Xylenes, Total	1330-20-7	ug/L	8700	1	U	1	U	1	U	1	U
VOCs (8260C)											
1,4-Dioxane	123-91-1	ug/L	NE	--	--	--	2	U	1	U	--
								--	--	380	--
									1	U	25
									--	1	U
										41	--

Notes:

U = Analyte not detected above the laboratory reporting limit

J = Analyte result is estimated

NE = not established

VOCs = volatile organic compounds

ug/L = micrograms per liter

Screening Level = Groundwater Screening Level protective of vapor intrusion - Minimum Residential Value used from USEPA and CTDEP guidance

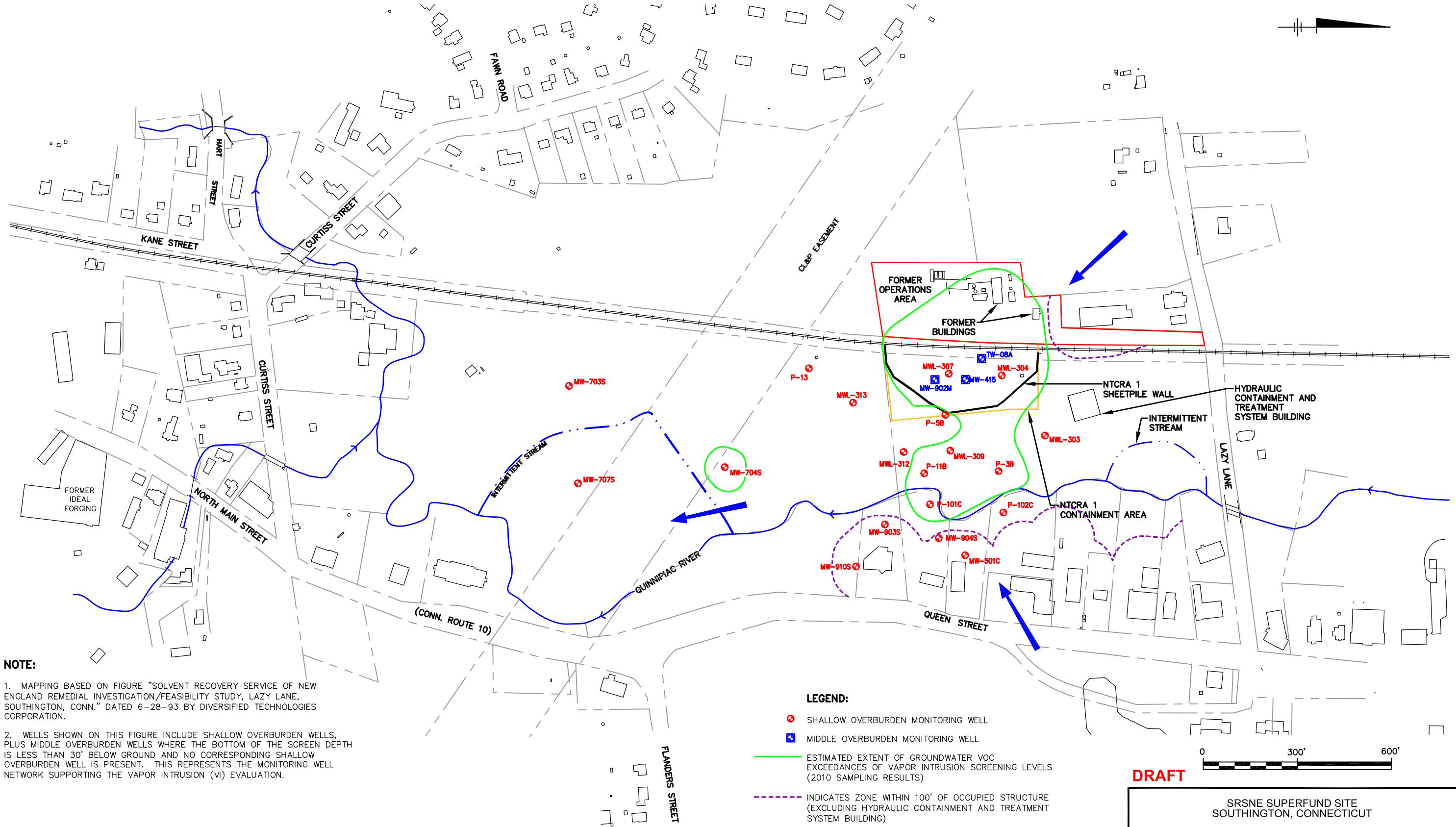
Bold = Analyte detected above the laboratory's Reporting Limit

Shaded Cell = Analyte detected above the Screening Level

(a) The calculated industrial standard is less than the minimum residential standard due to recent updates in toxicity values that are not reflected in USEPA (2002) guidance

ARCADIS

Figure



DRAFT

SRSNE SUPERFUND SITE
 SOUTHBURG, CONNECTICUT

VAPOR INTRUSION WELLS