O'BRIEN & GERE

May 15, 2009

William S. Ottaway, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, NY 12233-7014

Re: Results of February 2009
Soil Vapor Sampling at the
Schenectady (Broadway)
Former MGP Site, Schenectady, NY

File: 1118/42895

Dear Mr. Ottaway:

The following presents results for the soil vapor sampling conducted on February 17 and 18, 2009 at the National Grid Schenectady (Broadway) Former MGP Site (Site) located at 734 Broadway, Schenectady, New York. The sampling activities were conducted by O'Brien & Gere on behalf of National Grid to evaluate: 1) potential off-site migration of MGP-related soil vapor and 2) MGP-related soil vapor under two on-site buildings. In addition, as a separate objective not required by NYSDEC, soil vapor sampling at the Site's west property line was conducted to confirm previous soil vapor results collected in that area.

Sampling was conducted following general procedures specified in National Grid's Soil Vapor Work Plan for the Site dated January 2008, as amended by National Grid's letter dated October 15, 2008 and email dated December 23, 2008, and letter of approval by NYSDEC dated January 20, 2009. Sampling was conducted both at the Site and off-site at an adjacent property. On-site sampling consisted of three sub-slab vapor samples, one soil vapor sample and one ambient air sample. Off-site sampling consisted of two soil vapor samples and one ambient air sample west of the Site on the DiGesualdo property located at 1302 Lower Broadway (Christy's). Figure 1 shows the sample locations, and Tables 1 and 2 present a summary of the validated soil vapor and sub-slab vapor sample results.

Validated laboratory results of all compounds analyzed and the Data Usability Summary Report (DUSR) are provided in Attachment 1. The DUSR concluded that 100 percent of the data is considered complete and usable for qualitative and quantitative purposes. Minor excursions of calibration criteria for some constituents that were flagged either by the laboratory or as a result of data validation are also noted in Tables 1 and 2.

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In general, the results of this sampling program provide evidence suggesting that:

- No offsite migration of MGP-related soil vapors west of the Site is evidenced. Therefore, no further off-site investigation is warranted.
- No sub-slab vapors under the occupied Site buildings appear related to MGP contamination. Therefore, no further Site MGP VI investigation is warranted.

SOIL VAPOR SAMPLING SUMMARY AND RESULTS

Soil vapor sampling was conducted on February 17, 2009, consisting of two off-site soil vapor samples on the DiGesualdo property located at 1302 Lower Broadway, Schenectady, New York (Christy's), one on-site soil vapor sample near the Site west property line, and one ambient air sample. Sample locations are shown in Figure 1 and described as follows:

- SV-11 (SV-11-NG-021709) – Off-site soil vapor sample located near the corner of the garage located along Delaware Avenue on the backside of Christy's
- SV-12 (SV-12-NG-021709) – Off-site soil vapor sample located east of Christy's between Delaware Avenue and the train tracks
- AMBIENT-4 (AMB-NG-021709) – Off-site ambient air sample located adjacent to Christy's
- SV-2a (SV-2a-NG-021709) – On-site soil vapor sample located next to the west fence line of the Site near a previous on-site soil vapor sampling point (SV-2)

The soil vapor samples were collected from temporary soil vapor sampling points installed at depths no closer than one foot above the water table. Soil vapor sampling points were installed using a manual drive rod to create a bore hole into which a stainless-steel sample point surrounded by glass beads and connected to Teflon® sample tubing (probe) was placed to the desired depth of approximately 5 to 6 feet below ground surface (bgs). After completion of the probe installation (as described in the work plan), the probe was purged 2 to 3 probe volumes before soil vapor sampling was initiated. Helium tracer gas screening was conducted before and after sample collection to confirm there was no sample probe leak or entrainment of ambient air into the bore hole. All tracer gas screenings showed that soil vapor probes did not leak and ambient air was not entrained into the bore hole. Results of these screenings were documented on field forms.

Each soil vapor or ambient air sample was collected over a 2-hour period using batch-certified clean 6-liter SUMMA® canisters and dedicated flow controllers. The ambient air sample was collected at a height of 3 to 5 feet above grade. After sample collection, sample canisters were shipped overnight under routine chain-of-custody to a subcontracted laboratory, TestAmerica Laboratories, Inc. of Knoxville, Tennessee, where they were analyzed by USEPA Method TO-15. Chain-of-custody records can be found in Attachment 2. Sample identifications, canister vacuum readings, sampling equipment identification numbers, and other relevant information were recorded on field forms, presented in Attachment 3.

The soil vapor sample results are presented in Table 1. The west property line soil vapor sample at SV-2a indicates that BTEX, trimethylbenzene, n-decane and n-undecane were detected, but at relatively low levels. Most notably, Benzene was detected at only 8 $\mu g/m^3$, which is significantly lower that previous soil vapor sample results at SV-2 for benzene of 2,300 $\mu g/m^3$. Further, results are more consistent with soil vapor results previously measured at SV-1 that indicated benzene

concentrations less than 7 $\mu g/m^3$. This suggests that the elevated contaminant concentrations previously measured at SV-2 may be an anomaly, and not representative of the general soil vapor concentrations along the Site's west property line.

Offsite soil vapor sample results at SV-11 and SV-12 indicate that except for nonane all MGP-related constituents were detected at either low concentrations or below reporting limits. Nonane was detected at 40 $\mu g/m^3$ at SV-12 near the railroad tracks, but was not detected above reporting limits at SV-11 near Christy's. Further, the highest detected compounds, all of which are refrigerants or common petroleum constituents from sources such as gasoline and motor/hydraulic oils. Therefore, based on the soil vapor sample results, off-site migration of MGP-related contaminants is not indicated, and no further soil vapor investigation at off-site properties is warranted.

SUB-SLAB SAMPLING SUMMARY AND RESULTS

Sub-slab vapor sampling was conducted on-site on February 18, 2009 within two slab-on-grade buildings: the Storage Building and the Garage/Office Building. Sample locations are depicted in Figure 1, and are described as follows:

- SS-1 (SS-1- NG-021809) – Storage Building break-room area
- SS-2 (SS-2- NG-021809) – Garage/Office Building 1st floor office
- SS-3 (SS-3- NG-021809) – Garage/Office Building locker room
- AMBIENT-5 (AMB- NG-021809) – Outdoors along the Site south property line, west of the Garage/Office Building

During sampling, a building survey was completed for each building sampled. The surveys documented the general use of the space, layout of the building's 1st floor, and an inventory of VOC-containing chemical products in the building. The inventory also included the quantity of each product, and its ingredients when listed. Copies of the surveys and building sketches are provided in Attachment 3.

In addition to and concurrent with the sub-slab sampling, an ambient air sample was collected upwind of the sampled buildings to evaluate ambient air concentrations. The ambient air sample was located near the fence line to the southwest of the Garage/Office Building, as shown on Figure 1, and was collected at 3 to 5 feet above grade.

Sub-slab sample points were prepared by 1) drilling small holes in the building's slab, 2) inserting sampling tubing, 3) sealing the tubing to the floor with beeswax to prevent sampling of indoor air, and 4) purging the sample tubing of ambient air. Each sub-slab vapor or ambient air sample was collected concurrently over an 8-hour period using batch-certified clean 6-liter SUMMA® canisters and dedicated flow controllers. After sample collection, sample canisters were shipped overnight under routine chain-of-custody to a subcontracted laboratory, TestAmerica Laboratories, Inc. of Knoxville, Tennessee, where they were analyzed by USEPA Method TO-15. Chain-of-custody records can be found in Attachment 2. Sample identifications, canister vacuum readings, sampling equipment identification numbers, and other relevant information were recorded on field forms, presented in Attachment 3.

Storage Building. Compounds found in the sub-slab vapors beneath the Storage Building are primarily refrigerants (dichlorodifluoromethane) and low levels of petroleum-related compounds (alkanes, BTEX, trimethylbenzenes), chlorinated organic compounds, alcohols, and ketones. MGP-related constituents were detected only at low concentrations or below reporting limits. Though the storage of several petroleum-related compounds and solvents were noted in the building survey, the building's current and historical use has been for vehicle and transformer storage and generally not for vehicle maintenance. Therefore, a connection between compounds detected beneath the Storage Building with use of VOC-containing products inside the building is not established. Nevertheless, since MGP-related constituents were not detected at significantly elevated levels, no further investigation of MGP-related vapor intrusion in the Storage Building is warranted.

Garage/Office Building. Compounds found in the sub-slab vapors beneath the Garage/Office Building were primarily chlorinated compounds (1,1,1-trichloroethane (TCA)) and petroleum-related compounds including alkanes, BTEX, and trimethylbenzenes. Building chemical inventory forms (Attachment 3) document the current use and storage of several petroleum products (gasoline, diesel, motor oils, hydraulic oils) in the Garage/Office Building. Since petroleum products have been used in and around the Garage/Office Building both currently and during the recent past as part of the garage's vehicle maintenance activities, such compounds would be expected to be detected under the building. Further, the highest detected contaminant concentration found beneath the Garage/Office building was TCA, which, as indicated in the attached chemical inventory, was found as a constituent in the Tapecoat Coldprime liquid adhesive currently used in the garage area. Therefore, the sub-slab soil vapor is more likely due to building-related chemical use than to MGP-related soil contaminant residues because of the more recent use of petroleum-compounds in the building (days to years before sampling) versus the advanced age of MGP coal tar (decades old). As such, no further action to investigate the potential for MGP-related vapor intrusion is warranted.

If you have any questions regarding this report, please contact me at (315) 437-6100.

Very truly yours,

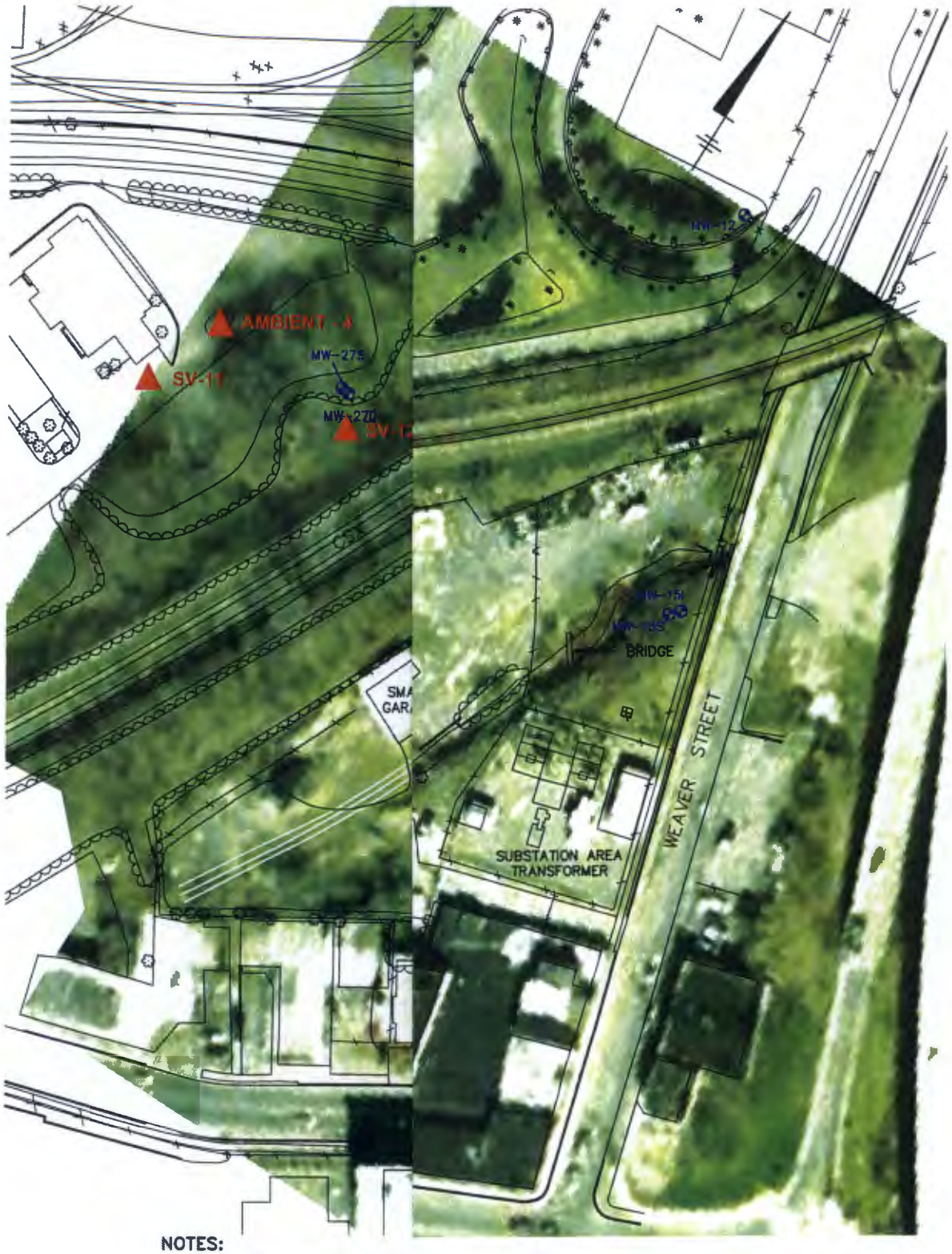
O'BRIEN & GERE ENGINEERS, INC.

Scott Manchester
Project Manager

Attachments: Figure 1 – VI Sampling Locations
Table 1 – Soil Vapor Sampling Results
Table 2 – On-Site Sub-Slab Vapor Sampling Results
Attachment 1 – Data Usability Summary Report
Attachment 2 – Sample Chain of Custody Records
Attachment 3 – Sample Collection Field Forms and Building Surveys

cc: Maureen Schuck – NYSDOH
Brian Stearns – National Grid
Mark Distler – O'Brien & Gere

FIGURES



NOTES:

1. BASE MAP PROVIDED BY NIAGARA
MOHAWK POWER CORPORATION SU
SCALE OF 1"=100'.
2. HISTORICAL STRUCTURE LOCATION
AND SCRUBBER WERE DIGITIZED F
STRUCTURES, PREVIOUS SAMPLE I
SCRUBBER BASED ON HISTORICAL
3. ALL LOCATIONS ARE APPROXIMATI
4. MONITORING WELL LOCATIONS SUR
5. SAMPLING LOCATIONS ARE PRELIM
PRE-SAMPLING BUILDING WALKTHR

NATIONAL GRID
SCHENECTADY (BROADWAY) SERVICE CENTER
SCHENECTADY, NEW YORK

VI SAMPLING LOCATIONS

(MODIFIED BY O'BRIEN & GERE, MAY 2009)

ARCADIS

FIGURE
1

TABLES

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Table 1

Soil Vapor Sampling Results
National Grid - Broadway Schenectady Former MGP Site

			Ambient Air		West Property Line		Near Cristy's		Near Railroad	
		Location	AMBIENT-4		SV-2a		SV-11		SV-12	
		Sample I.D.:	AMB-NG-021709		SV-2A-NG-021709		SV-11-NG-021709		SV-12-NG-021709	
Compound	CAS No.	Sample Date:	2/17/09		2/17/09		2/17/09		2/17/09	
Benzene	71-43-2		0.60	J	**8.2**		0.44	J	**1.3**	
Toluene	108-88-3		0.66	J	**5.8**		**0.93**		**1.1**	
Ethylbenzene	100-41-4		0.87	U	**1.6**		0.87	U	0.49	J
o-Xylene	95-47-6		0.87	U	**8.4**		0.87	U	0.30	J
m-Xylene & p-Xylene	136777-61-2		0.87	U	**16**		0.87	U	0.69	J
Naphthalene	91-20-3		2.6	UJ	0.51	J	2.6	UJ	2.6	UJ
Indene	95-13-6		1.9	U	3.0	J	1.9	U	1.9	U
Indane	496-11-7		0.97	U	1.6	J	0.97	U	0.97	U
1,2,3-Trimethylbenzene	526-73-8		0.98	U	9.9	J	0.98	U	0.98	U
1,2,4-Trimethylbenzene	95-63-6		0.98	U	**12**		0.98	U	0.98	U
1,3,5-Trimethylbenzene	108-67-8		0.98	U	**7.9**		0.98	U	0.98	U
1,2,3,4-tetramethylbenzene	488-23-3		TIC		TIC		TIC		TIC	
1,2,3,5-tetramethylbenzene	527-53-7		TIC		TIC		TIC		TIC	
1,2,4,5-tetramethylbenzene	95-93-2		TIC		TIC		TIC		TIC	
Nonane	111-84-2		2.6	U	1.0	J	2.6	U	**40**	
n-Decane	124-18-5		5.8	U	**15**		5.8	U	**13**	
n-Undecane	1120-21-4		6.4	U	**41**		6.4	U	2.5	J
n-Dodecane	112-40-3		7.0	UJ	21	J	7.0	UJ	7.0	UJ
Trichloroethene	79-01-6		1.1	U	1.1	U	1.1	U	1.1	U
Carbon tetrachloride	56-23-5		0.44	J	1.3	U	1.3	U	1.3	U
Vinyl chloride	75-01-4		0.51	U	0.51	U	0.51	U	0.51	U
Tetrachloroethene	127-18-4		1.4	U	1.4	U	1.4	U	1.4	U
1,1,1-Trichloroethane	71-55-6		1.1	U	1.1	U	1.1	U	0.23	J
1,1-Dichloroethane	75-34-3		0.81	U	0.81	U	0.81	U	0.81	U
cis-1,2-Dichloroethene	156-59-2		0.79	U	0.79	U	0.79	U	0.79	U
Acetone	67-64-1		5.9	J	23	J	11	J	10	J
Carbon disulfide	75-15-0		1.6	U	**3.9**		0.17	J	0.70	J
2-Butanone (MEK)	78-93-3		0.61	J	2.8	J	0.91	J	2.7	J
n-Butane	106-97-8		**1.1**		**2.3**		**1.9**		**110**	
Dichlorodifluoromethane	75-71-8		**2.1**		**1.9**		**2.1**		**2.4**	
1,3-Butadiene	106-99-0		0.88	U	**1.7**		0.88	U	0.88	U
Cyclohexane	110-82-7		1.7	U	1.4	J	1.7	U	1.7	U
Methylene chloride	75-09-2		1.0	J	1.2	J	**7.3**		1.1	J
Styrene	100-42-5		0.85	U	**1.2**		0.85	U	0.85	U
Pentane	109-66-0		0.37	J	0.93	J	0.73	J	**130**	
Trichlorofluoromethane	75-69-4		1.1	J	0.62	J	**1.4**		1.0	J
n-Hexane	110-54-3		0.28	J	0.47	J	0.98	J	**94**	
n-Heptane	142-82-5		0.25	J	0.46	J	2.0	U	**72**	
Isopropyl alcohol	67-63-0		0.22	J	0.35	J	0.49	J	0.73	J
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		0.50	J	0.34	J	0.46	J	0.42	J
n-Octane	111-65-9		1.9	U	0.25	J	1.9	U	**53**	
trans-1,3-Dichloropropene	10061-02-6		0.91	U	0.91	U	0.91	U	0.91	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2		1.4	U	1.4	U	1.4	U	1.4	U
1,4-Dioxane	123-91-1		1.8	U	1.8	U	1.8	U	1.8	U

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Table 1

Soil Vapor Sampling Results
National Grid - Broadway Schenectady Former MGP Site

			Ambient Air		West Property Line		Near Cristy's		Near Railroad	
		Location	AMBIENT-4		SV-2a		SV-11		SV-12	
		Sample I.D.:	AMB-NG-021709		SV-2A-NG-021709		SV-11-NG-021709		SV-12-NG-021709	
Compound	CAS No.	Sample Date:	2/17/09		2/17/09		2/17/09		2/17/09	
Hexachlorobutadiene	87-68-3		11	U	11	U	11	U	11	U
2-Hexanone	591-78-6		2.0	U	2.0	U	2.0	U	0.25	J
2,2,4-Trimethylpentane	540-84-1		2.3	U	2.3	U	2.3	U	0.71	J
tert-Butyl alcohol	75-65-0		6.1	U	6.1	U	0.21	J	0.18	J
2-Methylnaphthalene	91-57-6		15	UJ	15	UJ	15	UJ	15	UJ
1,1,2,2-Tetrachloroethane	79-34-5		1.4	U	1.4	U	1.4	U	1.4	U
1,2,4-Trichlorobenzene	120-82-1		7.4	UJ	7.4	UJ	7.4	UJ	7.4	UJ
1,1,2-Trichloroethane	79-00-5		1.1	U	1.1	U	1.1	U	1.1	U
1-Methylnaphthalene	90-12-0		15	U	15	U	15	U	15	U
Methyl tert-butyl ether	1634-04-4		3.6	U	3.6	U	3.6	U	3.6	U
Bromodichloromethane	75-27-4		1.3	U	1.3	U	1.3	U	1.3	U
1,2-Dibromoethane (EDB)	106-93-4		1.5	U	1.5	U	1.5	U	1.5	U
4-Methyl-2-pentanone (MIBK)	108-10-1		2.0	U	2.0	U	2.0	U	0.58	J
Vinyl bromide	593-60-2		0.87	U	0.87	U	0.87	U	0.87	U
Bromoform	75-25-2		2.1	U	2.1	U	2.1	U	2.1	U
Bromomethane	74-83-9		0.78	U	0.78	U	0.78	U	0.78	U
4-Ethyltoluene	622-96-8		2.0	U	2.0	U	2.0	U	2.0	U
Thiophene	110-02-1		0.69	U	0.69	U	0.69	U	0.69	U
Chlorobenzene	108-90-7		0.92	U	0.92	U	0.92	U	0.92	U
Dibromochloromethane	124-48-1		1.7	U	1.7	U	1.7	U	1.7	U
Chloroethane	75-00-3		0.53	U	0.53	U	0.53	U	0.53	U
Chloroform	67-66-3		0.98	U	0.98	U	0.30	J	0.21	J
Chloromethane	74-87-3		**1.1**		1.0	U	1.0	U	1.0	U
3-Chloropropene	107-05-1		0.63	U	0.63	U	0.63	U	0.63	U
2-Chlorotoluene	95-49-8		2.1	U	2.1	U	2.1	U	2.1	U
1,2-Dichlorobenzene	95-50-1		1.2	U	1.2	U	1.2	U	1.2	U
1,3-Dichlorobenzene	541-73-1		1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	106-46-7		1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2		0.81	U	0.81	U	0.81	U	0.81	U
1,1-Dichloroethene	75-35-4		0.79	U	0.79	U	0.79	U	0.79	U
trans-1,2-Dichloroethene	156-60-5		0.79	U	0.79	U	0.79	U	0.79	U
1,2-Dichloropropane	78-87-5		0.92	U	0.92	U	0.92	U	0.92	U
cis-1,3-Dichloropropene	10061-01-5		0.91	U	0.91	U	0.91	U	0.91	U

Note: Results are reported in units of micrograms per cubic meter (mg/m3).
TIC - Non-detected tentatively identified compound.
U - Indicates that the compound was analyzed for, but was not detected. The associated value indicates the approximate sample concentration necessary to be detected.
J - Indicates that the detected compound is present but the reported value may not be accurate or precise. The result should be considered an approximate value.
UJ - Indicates that the compound was not detected and the quantitation limit (QL) may be inaccurate or imprecise. The result should be considered an approximate value.
Bold - Values presented in bold typeface are results detected above their repective reporting limit.

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Table 2

On-Site Sub-Slab Vapor Sampling Results
National Grid - Broadway Schenectady Former MGP Site

			Ambient Air		Storage Building		Garage/Office Building			
		Location	AMBIENT-5		SS-1		SS-2		SS-3	
		Sample I.D.:	AMB-NG-021809		SS-1-NG-021809		SS-2-NG-021809		SS-3-NG-021809	
Compound	CAS No.	Sample Date:	2/18/09		2/18/09		2/18/09		2/18/09	
Benzene	71-43-2		**1.5**		**3.8**		**1.9**		41	U
Toluene	108-88-3		**3.1**		**20**		**11**		15	J
Ethylbenzene	100-41-4		0.41	J	**3.0**		**3.8**		56	U
o-Xylene	95-47-6		0.29	J	**3.1**		**32**		56	U
m-Xylene & p-Xylene	136777-61-2		**0.98**		**9.5**		**79**		56	U
Naphthalene	91-20-3		2.6	UJ	2.6	UJ	8.2	J	170	UJ
Indene	95-13-6		1.9	U	1.9	U	1.9	U	120	U
Indane	496-11-7		0.97	U	0.97	U	79	J	63	U
1,2,3-Trimethylbenzene	526-73-8		0.98	U	1.0	J	210	J	64	U
1,2,4-Trimethylbenzene	95-63-6		0.96	J	**2.5**		**420**		64	U
1,3,5-Trimethylbenzene	108-67-8		0.98	U	0.86	J	**130**		64	U
1,2,3,4-tetramethylbenzene	488-23-3		TIC		TIC		TIC		TIC	
1,2,3,5-tetramethylbenzene	527-53-7		TIC		TIC		TIC		TIC	
1,2,4,5-tetramethylbenzene	95-93-2		TIC		TIC		4.3 ppb	J	TIC	
Nonane	111-84-2		2.6	U	1.9	J	**31**		170	U
n-Decane	124-18-5		5.8	U	2.7	J	**240**		380	U
n-Undecane	1120-21-4		6.4	U	1.9	J	**160**		410	U
n-Dodecane	112-40-3		7.0	UJ	1.5	J	15	J	450	UJ
Trichloroethene	79-01-6		1.1	U	1.1	U	1.1	U	70	U
Carbon tetrachloride	56-23-5		0.41	J	0.25	J	0.33	J	82	U
Vinyl chloride	75-01-4		0.51	U	0.51	U	0.51	U	33	U
Tetrachloroethene	127-18-4		0.28	J	**6.0**		**1.3**		**170**	
1,1,1-Trichloroethane	71-55-6		1.1	U	**7.4**		**660**		**8800**	
1,1-Dichloroethene	75-35-4		0.79	U	0.29	J	0.79	U	51	U
cis-1,2-Dichloroethene	156-59-2		0.79	U	0.79	U	0.79	U	51	U
Dichlorodifluoromethane	75-71-8		**2.2**		**1600**		**2.3**		64	U
Acetone	67-64-1		13	J	130	J	220	J	770	UJ
n-Heptane	142-82-5		0.55	J	**40**		**35**		62	J
Pentane	109-66-0		1.5	J	**17**		**3.7**		190	U
n-Butane	106-97-8		**3.2**		**17**		**5.0**		17	J
Isopropyl alcohol	67-63-0		0.53	J	**11**		**12**		320	U
2-Butanone (MEK)	78-93-3		0.89	J	**9.1**		**3.8**		190	U
Trichlorofluoromethane	75-69-4		**1.2**		**6.5**		**1.5**		73	U
n-Hexane	110-54-3		0.91	J	**5.8**		**2.6**		110	U
Carbon disulfide	75-15-0		1.6	U	**3.4**		0.71	J	100	U
1,4-Dioxane	123-91-1		1.8	U	**2.7**		**4.2**		120	U
tert-Butyl alcohol	75-65-0		6.1	U	2.4	J	2.0	J	390	U
Methylene chloride	75-09-2		**3.1**		**2.4**		1.4	J	16	J
4-Methyl-2-pentanone (MIBK)	108-10-1		2.0	U	**2.1**		1.2	J	130	U
2,2,4-Trimethylpentane	540-84-1		0.38	J	1.7	J	0.78	J	150	U
n-Octane	111-65-9		1.9	U	1.4	J	5.4		120	U
Chloromethane	74-87-3		**1.2**		0.89	J	0.52	J	67	U
2-Hexanone	591-78-6		2.0	U	0.58	J	0.44	J	130	U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		0.51	J	0.57	J	0.45	J	99	U

O'BRIEN & GERE

Table 2

On-Site Sub-Slab Vapor Sampling Results
National Grid - Broadway Schenectady Former MGP Site

			Ambient Air		Storage Building		Garage/Office Building			
		Location	AMBIENT-5		SS-1		SS-2		SS-3	
		Sample I.D.:	AMB-NG-021809		SS-1-NG-021809		SS-2-NG-021809		SS-3-NG-021809	
Compound	CAS No.	Sample Date:	2/18/09		2/18/09		2/18/09		2/18/09	
1,3-Butadiene	106-99-0		0.17	J	0.48	J	0.23	J	57	U
trans-1,3-Dichloropropene	10061-02-6		0.91	U	0.91	U	0.91	U	59	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2		1.4	U	1.4	U	1.4	U	91	U
Hexachlorobutadiene	87-68-3		11	U	11	U	11	U	690	U
2-Methylnaphthalene	91-57-6		15	UJ	15	UJ	15	UJ	940	UJ
Styrene	100-42-5		0.85	U	0.85	U	0.31	J	55	U
1,1,2,2-Tetrachloroethane	79-34-5		1.4	U	1.4	U	1.4	U	89	U
1,2,4-Trichlorobenzene	120-82-1		7.4	UJ	7.4	UJ	7.4	UJ	480	UJ
1,1,2-Trichloroethane	79-00-5		1.1	U	1.1	U	1.1	U	71	U
1-Methylnaphthalene	90-12-0		15	U	15	U	15	U	940	U
Methyl tert-butyl ether	1634-04-4		3.6	U	3.6	U	3.6	U	230	U
Bromodichloromethane	75-27-4		1.3	U	1.3	U	1.3	U	87	U
1,2-Dibromoethane (EDB)	106-93-4		1.5	U	1.5	U	1.5	U	100	U
Vinyl bromide	593-60-2		0.87	U	0.87	U	0.87	U	57	U
Bromoform	75-25-2		2.1	U	2.1	U	2.1	U	130	U
Bromomethane	74-83-9		0.78	U	0.78	U	0.78	U	50	U
4-Ethyltoluene	622-96-8		2.0	U	2.0	U	**80**		130	U
Thiophene	110-02-1		0.69	U	0.69	U	0.69	U	45	U
Chlorobenzene	108-90-7		0.92	U	0.92	U	0.92	U	60	U
Dibromochloromethane	124-48-1		1.7	U	1.7	U	1.7	U	110	U
Chloroethane	75-00-3		0.53	U	0.53	U	0.53	U	34	U
Chloroform	67-66-3		0.98	U	0.98	U	0.98	U	63	U
3-Chloropropene	107-05-1		0.63	U	0.63	U	0.63	U	41	U
2-Chlorotoluene	95-49-8		2.1	U	2.1	U	2.1	U	130	U
Cyclohexane	110-82-7		0.28	J	1.7	U	**3.1**		110	U
1,2-Dichlorobenzene	95-50-1		1.2	U	1.2	U	1.2	U	78	U
1,3-Dichlorobenzene	541-73-1		1.2	U	1.2	U	1.2	U	78	U
1,4-Dichlorobenzene	106-46-7		1.2	U	1.2	U	1.1	J	78	U
1,1-Dichloroethane	75-34-3		0.81	U	0.81	U	0.81	U	53	U
1,2-Dichloroethane	107-06-2		0.81	U	0.81	U	0.81	U	53	U
trans-1,2-Dichloroethene	156-60-5		0.79	U	0.79	U	0.79	U	51	U
1,2-Dichloropropane	78-87-5		0.92	U	0.92	U	0.92	U	60	U
cis-1,3-Dichloropropene	10061-01-5		0.91	U	0.91	U	0.91	U	59	U

Note: Results are reported in units of micrograms per cubic meter (mg/m3).
TIC - Non-detected tentatively identified compound.
U - Indicates that the compound was analyzed for, but was not detected. The associated value indicates the approximate sample concentration necessary to be detected.
J - Indicates that the detected compound is present but the reported value may not be accurate or precise. The result should be considered an approximate value.
UJ - Indicates that the compound was not detected and the quantitation limit (QL) may be inaccurate or imprecise. The result should be considered an approximate value.
Bold - Values presented in bold typeface are results detected abovet their repective reporting limit.

ATTACHMENTS

ATTACHMENT 1

Data Usability Summary Report

To: Scott Manchester *cc:*
From: KA Storne
Re: DUSR for sampling for the National Grid Vapor Intrusion Investigation, Sampling Performed February 2009
File: 1118/42895.600.601
Date: April 21, 2009

This data usability summary report (DUSR) memorandum provides the data validation results for the soil vapor, sub-slab, and ambient samples collected for the National Grid Vapor Intrusion Site, in Schenectady, New York. O'Brien & Gere conducted sample collection activities on February 17 and February 18, 2009.

The following table summarizes the analysis performed for this sampling event.

Table 1-1. *Analytical method and reference*

Parameter	Method	Reference
VOCs	USEPA Method TO-15*	1

Note:
1. United States Environmental Protection Agency. 1999. *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air.* Cincinnati, Ohio.

VOCs indicates volatile organic compounds.
* Expanded target analyte list utilized.

TestAmercia Laboratories, Inc. of Knoxville, Tennessee (TA Knoxville) performed the analyses. The laboratory packages generated by TA Knoxville contained quality control analysis and supportive raw data.

Full validation was performed on the samples collected for this sampling event. The analytical data generated for this investigation were evaluated by O'Brien & Gere using the quality assurance/quality control (QA/QC) criteria presented in the following documents:

- United States Environmental Protection Agency (USEPA). 1999. *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air.* Cincinnati, Ohio.
- Arcadis 2008. *National Grid Soil Vapor Sampling Work Plan.* Syracuse, New York (Work Plan).

Data affected by excursions from these QA/QC criteria were qualified using the following USEPA data validation guidance and professional judgment:

- USEPA. 1994. *Region II Validating Canisters of Volatile Organics in Ambient Air,* HW-18, Revision 0. New York, New York.

The application of this validation guideline has been modified to reflect the requirements of the method utilized by TA Knoxville.

In accordance with the USEPA guidance, and utilizing professional judgment, the following qualifiers are used in this type of data validation:

"U" Indicates that the analyte was analyzed for, but was not detected. The associated value indicates the approximate sample concentration necessary to be detected.

"J" Indicates that the detected analyte is present but the reported value may not be accurate or precise. The result should be considered approximate based on excursions from QA/QC criteria.

"UJ" Indicates that the analyte was not detected and the quantitation limit (QL) may be inaccurate or imprecise. The result should be considered approximate based on excursions from QA/QC criteria.

"R" Indicates that the QL or sample result is unreliable and has been rejected due to a major excursion from QA/QC criteria. The analyte may or may not be present in the sample. The data should not be used for qualitative or quantitative purposes.

The validation included checking the following parameters:

- Chain-of-custody records
- Sample collection
- Laboratory compliance with work plan
- Holding times
- Calibrations
- Blank analysis
- Laboratory control sample (LCS) analysis
- Field duplicate analysis
- Internal standards performance
- Gas chromatography/mass spectrometry (GC/MS) instrument performance check
- Target analyte quantitation, identification, and quantitation limit (QL)
- Documentation completeness.

The samples that were submitted for data validation are listed in Table 1.

The following sections of this memorandum present the results of the comparison of the analytical data to the QA/QC criteria specified above. Based on the QA/QC information review, an overall evaluation of data usability is also presented in the final section.

VALIDATION APPROACH

The following approach is used to evaluate calibration data for USEPA Method TO-15:

- VOC target analytes are evaluated using the criteria of 30% relative standard deviation (RSD) or correlation coefficient criteria of 0.990 for initial calibration curves.

- Calibration verifications were evaluated using a criterion of 30 percent difference (%D) for target analytes.

- Initial calibrations and calibration verifications were evaluated using the criterion of a response factor (RF) value of greater than or equal to 0.01 for poor responding target analytes and for 0.05 for the remaining target analytes.

Quality control data were evaluated using the following approach:

- Laboratory established control limits are used to assess LCS data.

- If percent recoveries are less than laboratory control limits but greater than ten percent, non-detected and detected results are qualified as approximate (UJ, J).

- If percent recoveries are greater than laboratory control limits, detected results are qualified as approximate (J) to indicate minor excursions. Non-detected results are not qualified.

- If percent recoveries are less than ten percent, detected results are qualified as approximate (J) and non-detected results are qualified as rejected (R) to indicate major excursions.

- Field duplicate data are evaluated against relative percent difference (RPD) criteria of less than 25 percent for air samples when results are greater than five times the quantitation limit (QL). When sample results for field duplicate pairs are less than five times the QL, the data are evaluated using control limits of plus or minus two times the QL. If RPDs for field duplicates are outside of laboratory control limits, detected and non-detected results are qualified as approximate (UJ, J) to indicate minor excursions.

- If RPDs for field duplicates are outside of validation criteria, detected and non-detected results in the field duplicate pair are qualified as approximate (UJ, J).

Final data qualifiers are assigned based on the cumulative effect of the various QA/QC excursions. For example, if a sample result is affected by low LCS recovery for which the "J" qualifier is applied, but low internal standard recoveries result in the rejection of the sample result (R), the final qualifier is "R".

LABORATORY COMPLIANCE WITH WORK PLANS

The QLs for the following target analytes were greater than the QLs listed in the Work Plan: 1,3-butadiene (0.4 ppbv), 2-butanone (1.0 ppbv), chloromethane (0.5 ppbv), 2-chlorotoluene (0.4ppbv), cyclohexane (0.5 ppbv), 4-ethyltoluene (0.4 ppbv), n-heptane (0.5 ppbv), hexachlorobutadiene (1.0 ppbv), n-hexane (0.5 ppbv), methyl tert butyl ether (1.0 ppbv), 1,2,4-trichlorobenzene (1.0 ppbv), and 2,2,4-trimethylpentane (0.5 ppbv).

CHAIN-OF-CUSTODY RECORDS AND SAMPLE COLLECTION

The chain-of-custody records were completed properly with the following exception:

- The pressures that were listed on the Chain-of-Custody Record were notated incorrectly; the negative sign notation was not listed where appropriate.

A field duplicate was not collected for this sampling event.

A canister blank was not collected for this sampling event.

DOCUMENTATION COMPLETENESS

Supplemental information was requested during the validation process. This information was necessary to complete the validation process.

VOCs IN AIR DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results:

- Holding times
- Blank analysis
- Internal standards performance
- GC/MS instrument performance check
- Target analyte identification

Excursions from method or validation criteria are summarized in the following section. Additional observations are described below.

I. Calibrations

Results for acetone and n-dodecane in the following samples were qualified as approximate (UJ, J) since the RSD for the target analytes were outside of the validation criterion in the initial calibration: SV-2A-NG-021709, SV-11-NG-021709, SV-12-NG-021709, AMB-NG-021709, SS-1-NG-021809, SS-2-NG-021809, SS-3-NG-021809, and AMB-NG-021809.

Results for 2-methylnaphthalene in the following samples were qualified as approximate (UJ, J) since the response factors were outside of the validation criterion in the calibration verifications with a value of 0.03: SV-2A-NG-021709, SV-11-NG-021709, SV-12-NG-021709, AMB-NG-021709, SS-1-NG-021809, SS-2-NG-021809, SS-3-NG-021809, and AMB-NG-021809. The minimum response factor validation criterion for poor responding target analytes, such as 2-methylnaphthalene, is 0.01.

Results for 1,2,4-trichlorobenzene and naphthalene in the following sample were qualified as approximate (UJ, J) since the %D values were outside of the validation criterion in the calibration verification: SS-2-NG-021809.

Quantitation of the following results was performed using a single point calibration: thiophene, 1,2,3-trimethylbenzene, indane, indene, 2-methylnaphthalene, and 1-methylnaphthalene. The detected results for the following target analytes were qualified as approximate (J) since only a single point calibration was utilized:

- Indane in samples SV-2A-NG-021709 and SS-2-NG-021809.
- Indene in sample SV-2A-NG-021709.
- 1,2,3-trimethylbenzene in samples SV-2A-NG-021709, SS-1-NG-021809, and SS-2-NG-021809.

The results for 1,2,3,4- tetramethylbenzene, 1,2,3,5- tetramethylbenzene, and 1,2,4,5- tetramethylbenzene were reported by the laboratory using a library search technique. An associated QL was not reported. The GC/MS instrument was not calibrated for these target analytes since standards of these target analytes were not available to the laboratory. Therefore, the detected result reported for 1,2,4,5-tetramethylbenzene in sample SS-2-NG-021809 was qualified as approximate (J) since the concentration of the target analyte was based on an approximate response factor of 1.0 as the result of the library search technique. The Project Manager indicated that the library search results were adequate for the project requirements.

Quantitation for the remaining target analytes was performed using a five-point calibration curve.

II. LCS analysis

The following target analytes were not included in the LCS spike analysis: thiophene, 1,2,3-trimethylbenzene, indane, indene, 2-methylnaphthalene, 1-methylnaphthalene, and tetramethylbenzenes. Therefore, evaluation of the recovery for these target analytes for this method could not be performed.

The results for the following target analytes were qualified as approximate (UJ, J) due to minor LCS recovery excursions:

- 1,2,4-trichlorobenzene and naphthalene in samples SV-2A-NG-021709, SV-11-NG-021709, SV-12-NG-021709, AMB-NG-021709, SS-1-NG-021809, SS-2-NG-021809, SS-3-NG-021809, and AMB-NG-021809.

III. Target analyte quantitation and QLs

Sample results were reported to the QL.

Dilutions were performed for the following samples due to elevated concentrations of target analytes and due to the pressurization required for sample analysis: SS-1-NG-021809, SS-2-NG-021809, SS-3-NG-021809.

DATA USABILITY

Overall data usability with respect to completeness for the final sample results reported is 100 percent for the VOC air data. The VOC air data set is usable for qualitative and quantitative purposes. Based on the validation performed, the typical completeness goal of 95 percent was met for these analyses.

Table 1. Sample Cross Reference Table

Laboratory Name	Laboratory Identification	Client Identification	Date Collected	Matrix	Analysis Requested
TA Knoxville	H9B200192-001	SV-2A-NG-021709	2/17/2009	Soil Vapor	USEPA Method TO15
TA Knoxville	H9B200192-002	SV-11-NG-021709	2/17/2009	Soil Vapor	USEPA Method TO15
TA Knoxville	H9B200192-003	SV-12-NG-021709	2/17/2009	Soil Vapor	USEPA Method TO15
TA Knoxville	H9B200192-004	AMB-NG-021709	2/17/2009	Ambient Air	USEPA Method TO15
TA Knoxville	H9B200192-005	SS-1-NG-021809	2/18/2009	Sub-Slab	USEPA Method TO15
TA Knoxville	H9B200192-006	SS-2-NG-021809	2/18/2009	Sub-Slab	USEPA Method TO15
TA Knoxville	H9B200192-007	SS-3-NG-021809	2/18/2009	Sub-Slab	USEPA Method TO15
TA Knoxville	H9B200192-008	AMB-NG-021809	2/18/2009	Ambient Air	USEPA Method TO15

Note:
TA Knoxville indicates Test America Laboratories of Knoxville, Tenessee.

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-2A-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 001 Work Order # K7HJA1AD Matrix.....: AIR

Date Sampled...: 02/17/2009 Date Received..: 02/20/2009
Prep Date.....: 02/23/2009 Analysis Date... 02/23/2009
Prep Batch #.....: 9055102
Dilution Factor.: 1 Method.....: TO-15

DUQ

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	9.7 J	5.0	23 J	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethylbenzene	0.36	0.20	1.6	0.87
Trichlorofluoromethane	0.11	0.20	0.62 J	1.1
n-Heptane	0.11	0.50	0.46 J	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.13	0.50	0.47 J	1.8
* 2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Isopropyl alcohol	0.14	2.0	0.35 J	4.9
tert-Butyl alcohol	ND	2.0	ND	6.1
Methylene chloride	0.35	0.50	1.2 J	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	0.097 J	0.50	0.51 J J	2.6
Benzene	2.6	0.20	8.2	0.64
n-Octane	0.054	0.40	0.25 J	1.9
Pentane	0.31	1.0	0.93 J	3.0
Styrene	0.29	0.20	1.2	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	1.5	0.20	5.8	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.045	0.20	0.34 J	1.5
1,2,4-Trimethylbenzene	2.5	0.20	12	0.98
1,3,5-Trimethylbenzene	1.6	0.20	7.9	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	1.9	0.20	8.4	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	2.6	1.0	15	5.8
n-Dodecane	3.0 J	1.0	21 J	7.0
n-Undecane	6.4	1.0	41	6.4
Nonane	0.20	0.50	1.0 J	2.6
m-Xylene & p-Xylene	3.8	0.20	16	0.87

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-2A-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 001 Work Order # K7HJA1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	0.95	1.0	2.8 J	2.9
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND	2.0
Vinyl bromide	ND	0.20	ND	0.87
n-Butane	0.98	0.40	2.3	0.95
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
Indene	0.64 J	0.40	3.0 J	1.9
1,3-Butadiene	0.78	0.40	1.7	0.88
4-Ethyltoluene	ND	0.40	ND	2.0
Thiophene	ND	0.20	ND	0.69
Carbon disulfide	1.2	0.50	3.9	1.6
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
1,2,3-Trimethylbenzene	2.0 J	0.20	9.9 J	0.98
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	ND	0.20	ND	0.53
Chloroform	ND	0.20	ND	0.98
Chloromethane	ND	0.50	ND	1.0
3-Chloropropene	ND	0.20	ND	0.63
Indane	0.33 J	0.20	1.6 J	0.97
2-Chlorotoluene	ND	0.40	ND	2.1
Cyclohexane	0.42	0.50	1.4 J	1.7
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	0.39	0.20	1.9	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-2A-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 001 Work Order # K7HJA1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-11-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 002 Work Order # K7HJE1AD Matrix.....: AIR

Date Sampled...: 02/17/2009 Date Received..: 02/20/2009
Prep Date.....: 02/23/2009 Analysis Date... 02/23/2009
Prep Batch #.....: 9055102
Dilution Factor.: 1 Method.....: TO-15

DUQ

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	4.8 J	5.0	11 J (J)	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethylbenzene	ND	0.20	ND	0.87
Trichlorofluoromethane	0.25	0.20	1.4	1.1
n-Heptane	ND	0.50	ND	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.28	0.50	0.98 (J)	1.8
2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Isopropyl alcohol	0.20	2.0	0.49 (J)	4.9
tert-Butyl alcohol	0.069	2.0	0.21 (J)	6.1
Methylene chloride	2.1	0.50	7.3	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	ND UJ	0.50	ND UJ	2.6
Benzene	0.14	0.20	0.44 (J)	0.64
n-Octane	ND	0.40	ND	1.9
Pentane	0.25	1.0	0.73 (J)	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	0.25	0.20	0.93	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.060	0.20	0.46 (J)	1.5
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	ND	0.20	ND	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	ND	1.0	ND	5.8
n-Dodecane	ND UJ	1.0	ND UJ	7.0
n-Undecane	ND	1.0	ND	6.4
Nonane	ND	0.50	ND	2.6

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-11-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 002 Work Order # K7HJE1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
m-Xylene & p-Xylene	ND	0.20	ND	0.87
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	**0.31**	**1.0**	**0.91** J	**2.9**
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND	2.0
Vinyl bromide	ND	0.20	ND	0.87
n-Butane	**0.80**	**0.40**	**1.9**	**0.95**
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
Indene	ND	0.40	ND	1.9
1,3-Butadiene	ND	0.40	ND	0.88
4-Ethyltoluene	ND	0.40	ND	2.0
Thiophene	ND	0.20	ND	0.69
Carbon disulfide	**0.053**	**0.50**	**0.17** J	**1.6**
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
1,2,3-Trimethylbenzene	ND	0.20	ND	0.98
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	ND	0.20	ND	0.53
Chloroform	**0.062**	**0.20**	**0.30** J	**0.98**
Chloromethane	ND	0.50	ND	1.0
3-Chloropropene	ND	0.20	ND	0.63
Indane	ND	0.20	ND	0.97
2-Chlorotoluene	ND	0.40	ND	2.1
Cyclohexane	ND	0.50	ND	1.7
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	**0.43**	**0.20**	**2.1**	**0.99**
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-11-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 002 Work Order # K7HJE1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-12-NG-021709

GC/MS Volatiles

Lot-Sample #	H9B200192 - 003	Work Order #	K7HJG1AD	Matrix.....:	AIR

Date Sampled...:	02/17/2009	Date Received..:	02/20/2009
Prep Date.....:	02/23/2009	Analysis Date...	02/24/2009
Prep Batch #.....:	9055102		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	4.3 J	5.0	10 J (J)	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethylbenzene	0.11	0.20	0.49 (J)	0.87
Trichlorofluoromethane	0.18	0.20	1.0 (J)	1.1
n-Heptane	17	0.50	72	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	27	0.50	94	1.8
2-Hexanone	0.062	0.50	0.25 (J)	2.0
2,2,4-Trimethylpentane	0.15	0.50	0.71 (J)	2.3
Isopropyl alcohol	0.30	2.0	0.73 (J)	4.9
tert-Butyl alcohol	0.060	2.0	0.18 (J)	6.1
Methylene chloride	0.31	0.50	1.1 (J)	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	ND UJ	0.50	ND UJ	2.6
Benzene	0.41	0.20	1.3	0.64
n-Octane	11	0.40	53	1.9
Pentane	43	1.0	130	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	0.30	0.20	1.1	0.75
1,2,4-Trichlorobenzene	UJ ND	1.0	ND UJ	7.4
1,1,1-Trichloroethane	0.042	0.20	0.23 (J)	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.054	0.20	0.42 (J)	1.5
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	0.068	0.20	0.30 (J)	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	2.3	1.0	13	5.8
n-Dodecane	ND UJ	1.0	ND UJ	7.0
n-Undecane	0.40	1.0	2.5 (J)	6.4
Nonane	7.6	0.50	40	2.6
m-Xylene & p-Xylene	0.16	0.20	0.69 (J)	0.87

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-12-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 003 Work Order # K7HJG1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND		1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND		1.5
2-Butanone (MEK)	0.93	1.0	2.7	J	2.9
4-Methyl-2-pentanone (MIBK)	0.14	0.50	0.58	J	2.0
Vinyl bromide	ND	0.20	ND		0.87
n-Butane	45	0.40	110		0.95
Bromoform	ND	0.20	ND		2.1
Bromomethane	ND	0.20	ND		0.78
Indene	ND	0.40	ND		1.9
1,3-Butadiene	ND	0.40	ND		0.88
4-Ethyltoluene	ND	0.40	ND		2.0
Thiophene	ND	0.20	ND		0.69
Carbon disulfide	0.22	0.50	0.70	J	1.6
Carbon tetrachloride	ND	0.20	ND		1.3
Chlorobenzene	ND	0.20	ND		0.92
1,2,3-Trimethylbenzene	ND	0.20	ND		0.98
Dibromochloromethane	ND	0.20	ND		1.7
Chloroethane	ND	0.20	ND		0.53
Chloroform	0.043	0.20	0.21	J	0.98
Chloromethane	ND	0.50	ND		1.0
3-Chloropropene	ND	0.20	ND		0.63
Indane	ND	0.20	ND		0.97
2-Chlorotoluene	ND	0.40	ND		2.1
Cyclohexane	ND	0.50	ND		1.7
1,2-Dichlorobenzene	ND	0.20	ND		1.2
1,3-Dichlorobenzene	ND	0.20	ND		1.2
1,4-Dichlorobenzene	ND	0.20	ND		1.2
Dichlorodifluoromethane	0.48	0.20	2.4		0.99
1,1-Dichloroethane	ND	0.20	ND		0.81
1,2-Dichloroethane	ND	0.20	ND		0.81
1,1-Dichloroethene	ND	0.20	ND		0.79
cis-1,2-Dichloroethene	ND	0.20	ND		0.79
trans-1,2-Dichloroethene	ND	0.20	ND		0.79
1,2-Dichloropropane	ND	0.20	ND		0.92
cis-1,3-Dichloropropene	ND	0.20	ND		0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SV-12-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 003 Work Order # K7HJG1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 004 Work Order # K7HJH1AD Matrix.....: AIR

Date Sampled...: 02/17/2009 Date Received..: 02/20/2009
Prep Date.....: 02/23/2009 Analysis Date... 02/24/2009
Prep Batch #.....: 9055102
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	2.5 J	5.0	5.9 J (J)	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethylbenzene	ND	0.20	ND	0.87
Trichlorofluoromethane	0.19	0.20	1.1 (J)	1.1
n-Heptane	0.061	0.50	0.25 (J)	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.080	0.50	0.28 (J)	1.8
2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Isopropyl alcohol	0.091	2.0	0.22 (J)	4.9
tert-Butyl alcohol	ND	2.0	ND	6.1
Methylene chloride	0.30	0.50	1.0 (J)	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	ND UJ	0.50	ND UJ	2.6
Benzene	0.19	0.20	0.60 (J)	0.64
n-Octane	ND	0.40	ND	1.9
Pentane	0.13	1.0	0.37 (J)	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	0.17	0.20	0.66 (J)	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.065	0.20	0.50 (J)	1.5
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	ND	0.20	ND	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	ND	1.0	ND	5.8
n-Dodecane	ND UJ	1.0	ND UJ	7.0
n-Undecane	ND	1.0	ND	6.4
Nonane	ND	0.50	ND	2.6

O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 004 **Work Order #** K7HJH1AD **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
m-Xylene & p-Xylene	ND	0.20	ND		0.87
Bromodichloromethane	ND	0.20	ND		1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND		1.5
2-Butanone (MEK)	**0.21**	**1.0**	**0.61**	J	**2.9**
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND		2.0
Vinyl bromide	ND	0.20	ND		0.87
n-Butane	**0.47**	**0.40**	**1.1**		**0.95**
Bromoform	ND	0.20	ND		2.1
Bromomethane	ND	0.20	ND		0.78
Indene	ND	0.40	ND		1.9
1,3-Butadiene	ND	0.40	ND		0.88
4-Ethyltoluene	ND	0.40	ND		2.0
Thiophene	ND	0.20	ND		0.69
Carbon disulfide	ND	0.50	ND		1.6
Carbon tetrachloride	**0.070**	**0.20**	**0.44**	J	**1.3**
Chlorobenzene	ND	0.20	ND		0.92
1,2,3-Trimethylbenzene	ND	0.20	ND		0.98
Dibromochloromethane	ND	0.20	ND		1.7
Chloroethane	ND	0.20	ND		0.53
Chloroform	ND	0.20	ND		0.98
Chloromethane	**0.51**	**0.50**	**1.1**		**1.0**
3-Chloropropene	ND	0.20	ND		0.63
Indane	ND	0.20	ND		0.97
2-Chlorotoluene	ND	0.40	ND		2.1
Cyclohexane	ND	0.50	ND		1.7
1,2-Dichlorobenzene	ND	0.20	ND		1.2
1,3-Dichlorobenzene	ND	0.20	ND		1.2
1,4-Dichlorobenzene	ND	0.20	ND		1.2
Dichlorodifluoromethane	**0.43**	**0.20**	**2.1**		**0.99**
1,1-Dichloroethane	ND	0.20	ND		0.81
1,2-Dichloroethane	ND	0.20	ND		0.81
1,1-Dichloroethene	ND	0.20	ND		0.79
cis-1,2-Dichloroethene	ND	0.20	ND		0.79
trans-1,2-Dichloroethene	ND	0.20	ND		0.79
1,2-Dichloropropane	ND	0.20	ND		0.92
cis-1,3-Dichloropropene	ND	0.20	ND		0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021709

GC/MS Volatiles

Lot-Sample # H9B200192 - 004 Work Order # K7HJH1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-1-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 005 Work Order # K7HJK1AD Matrix.....: AIR

Date Sampled...: 02/18/2009 Date Received..: 02/20/2009
Prep Date.....: 02/23/2009 Analysis Date... 02/24/2009
Prep Batch #.....: 9055102
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	53 J	5.0	130 J	12
1,4-Dioxane	0.76	0.50	2.7	1.8
Ethylbenzene	0.70	0.20	3.0	0.87
Trichlorofluoromethane	1.2	0.20	6.5	1.1
n-Heptane	9.7	0.50	40	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	1.6	0.50	5.8	1.8
2-Hexanone	0.14	0.50	0.58 J	2.0
2,2,4-Trimethylpentane	0.36	0.50	1.7 J	2.3
Isopropyl alcohol	4.4	2.0	11	4.9
tert-Butyl alcohol	0.78	2.0	2.4 J	6.1
Methylene chloride	0.69	0.50	2.4	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	ND UJ	0.50	ND UJ	2.6
Benzene	1.2	0.20	3.8	0.64
n-Octane	0.31	0.40	1.4 J	1.9
Pentane	5.7	1.0	17	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	0.89	0.20	6.0	1.4
Toluene	5.2	0.20	20	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane	1.4	0.20	7.4	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.074	0.20	0.57 J	1.5
1,2,4-Trimethylbenzene	0.50	0.20	2.5	0.98
1,3,5-Trimethylbenzene	0.18	0.20	0.86 J	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	0.71	0.20	3.1	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	0.47	1.0	2.7 J	5.8
n-Dodecane	0.21 J	1.0	1.5 J J	7.0
n-Undecane	0.30	1.0	1.9 J	6.4
Nonane	0.36	0.50	1.9 J	2.6
m-Xylene & p-Xylene	2.2	0.20	9.5	0.87

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-1-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 005 Work Order # K7HJK1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND		1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND		1.5
2-Butanone (MEK)	3.1	1.0	9.1		2.9
4-Methyl-2-pentanone (MIBK)	0.52	0.50	2.1		2.0
Vinyl bromide	ND	0.20	ND		0.87
n-Butane	7.1	0.40	17		0.95
Bromoform	ND	0.20	ND		2.1
Bromomethane	ND	0.20	ND		0.78
Indene	ND	0.40	ND		1.9
1,3-Butadiene	0.22	0.40	0.48	J	0.88
4-Ethyltoluene	ND	0.40	ND		2.0
Thiophene	ND	0.20	ND		0.69
Carbon disulfide	1.1	0.50	3.4		1.6
Carbon tetrachloride	0.039	0.20	0.25	J	1.3
Chlorobenzene	ND	0.20	ND		0.92
1,2,3-Trimethylbenzene	0.21 J	0.20	1.0 J		0.98
Dibromochloromethane	ND	0.20	ND		1.7
Chloroethane	ND	0.20	ND		0.53
Chloroform	ND	0.20	ND		0.98
Chloromethane	0.43	0.50	0.89	J	1.0
3-Chloropropene	ND	0.20	ND		0.63
Indane	ND	0.20	ND		0.97
2-Chlorotoluene	ND	0.40	ND		2.1
Cyclohexane	ND	0.50	ND		1.7
1,2-Dichlorobenzene	ND	0.20	ND		1.2
1,3-Dichlorobenzene	ND	0.20	ND		1.2
1,4-Dichlorobenzene	ND	0.20	ND		1.2
Dichlorodifluoromethane	330 ~~170~~	40 ~~0.20~~	1600 ~~840~~	~~J~~	~~0.99~~ 20
1,1-Dichloroethane	ND	0.20	ND		0.81
1,2-Dichloroethane	ND	0.20	ND		0.81
1,1-Dichloroethene	0.073	0.20	0.29	J	0.79
cis-1,2-Dichloroethene	ND	0.20	ND		0.79
trans-1,2-Dichloroethene	ND	0.20	ND		0.79
1,2-Dichloropropane	ND	0.20	ND		0.92
cis-1,3-Dichloropropene	ND	0.20	ND		0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-1-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 005 Work Order # K7HJK1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	70 - 130

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-1-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 005 Work Order # K7HJK2AD Matrix.....: AIR

Date Sampled...: 02/18/2009 Date Received..: 02/20/2009
Prep Date.....: 02/26/2009 Analysis Date... 02/26/2009
Prep Batch #.....: 9058108
Dilution Factor.: 20 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	330	4.0	1600	D	20

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	70 - 130

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-2-NG-021809

GC/MS Volatiles

Lot-Sample #	H9B200192 - 006	Work Order #	K7HJL1AD	Matrix.....:	AIR
Date Sampled...:	02/18/2009	Date Received..:	02/20/2009		
Prep Date.....:	02/26/2009	Analysis Date...	02/26/2009		
Prep Batch #.....:	9058108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone J 92	~~83~~	~~5.0~~ 20 J 220	~~200 E~~	~~12~~ 48
1,4-Dioxane	1.2	0.50	4.2	1.8
Ethylbenzene	0.87	0.20	3.8	0.87
Trichlorofluoromethane	0.26	0.20	1.5	1.1
n-Heptane	8.6	0.50	35	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.73	0.50	2.6	1.8
2-Hexanone	0.11	0.50	0.44 J	2.0
2,2,4-Trimethylpentane	0.17	0.50	0.78 J	2.3
Isopropyl alcohol	4.9	2.0	12	4.9
tert-Butyl alcohol	0.66	2.0	2.0 J	6.1
Methylene chloride	0.39	0.50	1.4 J	1.7
2-Methylnaphthalene	ND ~~UJ~~ UJ	2.5	ND ~~UJ~~ UJ	15
Naphthalene	1.6 J	0.50	8.2 J	2.6
Benzene	0.61	0.20	1.9	0.64
n-Octane	1.2	0.40	5.4	1.9
Pentane	1.2	1.0	3.7	3.0
Styrene	0.073	0.20	0.31 J	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	0.20	0.20	1.3	1.4
Toluene	2.8	0.20	11	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane 120	~~110~~	~~0.20~~ 0.8	600 ~~580 E~~	~~1.1~~ 4.4
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.059	0.20	0.45 J	1.5
1,2,4-Trimethylbenzene 86	~~82~~ 0.80	~~0.20~~	420 ~~400 E~~	~~0.98~~ 3.9
1,3,5-Trimethylbenzene	27	0.20	130	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	7.4	0.20	32	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	42	1.0	240	5.8
n-Dodecane J	2.1	1.0	15 J	7.0
n-Undecane	24	1.0	160	6.4
Nonane	5.9	0.50	31	2.6
m-Xylene & p-Xylene	18	0.20	79	0.87

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-2-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 006 Work Order # K7HJL1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	1.3	1.0	3.8	2.9
4-Methyl-2-pentanone (MIBK)	0.28	0.50	1.2 J	2.0
Vinyl bromide	ND	0.20	ND	0.87
n-Butane	2.1	0.40	5.0	0.95
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
Indene	ND	0.40	ND	1.9
1,3-Butadiene	0.11	0.40	0.23 J	0.88
4-Ethyltoluene	16	0.40	80	2.0
Thiophene	ND	0.20	ND	0.69
Carbon disulfide	0.23	0.50	0.71 J	1.6
Carbon tetrachloride	0.053	0.20	0.33 J	1.3
Chlorobenzene	ND	0.20	ND	0.92
1,2,3-Trimethylbenzene	43 J	0.20	210 J	0.98
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	ND	0.20	ND	0.53
Chloroform	ND	0.20	ND	0.98
Chloromethane	0.25	0.50	0.52 J	1.0
3-Chloropropene	ND	0.20	ND	0.63
Indane	16 J	0.20	79 J	0.97
2-Chlorotoluene	ND	0.40	ND	2.1
Cyclohexane	0.91	0.50	3.1	1.7
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	0.18	0.20	1.1 J	1.2
Dichlorodifluoromethane	0.46	0.20	2.3	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
Benzene, 1,2,4,5-tetramethyl- J	4.3	ppb(v/v)
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-2-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 006 Work Order # K7HJL1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	70 - 130

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-2-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 006 Work Order # K7HJL2AD Matrix.....: AIR

Date Sampled...: 02/18/2009 Date Received..: 02/20/2009
Prep Date.....: 02/26/2009 Analysis Date... 02/27/2009
Prep Batch #.....: 9058108
Dilution Factor.: 4 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
Acetone	92	20	220	D	48
1,1,1-Trichloroethane	120	0.80	660	D	4.4
1,2,4-Trimethylbenzene	86	0.80	420	D	3.9

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	70 - 130

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-3-NG-021809

GC/MS Volatiles

Lot-Sample #	H9B200192 - 007	Work Order #	K7HJM1AD	Matrix.....:	AIR

Date Sampled...:	02/18/2009	Date Received..:	02/20/2009
Prep Date.....:	02/23/2009	Analysis Date...	02/24/2009
Prep Batch #.....:	9055102		
Dilution Factor.:	64.91	Method.....:	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	13	ND	59
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	13	ND	91
Acetone	ND UJ	320	ND UJ	770
1,4-Dioxane	ND	32	ND	120
Ethylbenzene	ND	13	ND	56
Trichlorofluoromethane	ND	13	ND	73
n-Heptane	15	32	62 J	130
Hexachlorobutadiene	ND	65	ND	690
n-Hexane	ND	32	ND	110
2-Hexanone	ND	32	ND	130
2,2,4-Trimethylpentane	ND	32	ND	150
Isopropyl alcohol	ND	130	ND	320
tert-Butyl alcohol	ND	130	ND	390
Methylene chloride	4.7	32	16 J	110
2-Methylnaphthalene	ND UJ	160	ND UJ	940
Naphthalene	ND UJ	32	ND UJ	170
Benzene	ND	13	ND	41
n-Octane	ND	26	ND	120
Pentane	ND	65	ND	190
Styrene	ND	13	ND	55
1,1,2,2-Tetrachloroethane	ND	13	ND	89
Tetrachloroethene	25	13	170	88
Toluene	4.0	13	15 J	49
1,2,4-Trichlorobenzene	ND UJ	65	ND UJ	480
1,1,1-Trichloroethane	1600	13	8800	71
1,1,2-Trichloroethane	ND	13	ND	71
Trichloroethene	ND	13	ND	70
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	13	ND	99
1,2,4-Trimethylbenzene	ND	13	ND	64
1,3,5-Trimethylbenzene	ND	13	ND	64
Vinyl chloride	ND	13	ND	33
o-Xylene	ND	13	ND	56
1-Methylnaphthalene	ND	160	ND	940
Methyl tert-butyl ether	ND	65	ND	230
n-Decane	ND	65	ND	380
n-Dodecane	ND UJ	65	ND UJ	450
n-Undecane	ND	65	ND	410
Nonane	ND	32	ND	170

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-3-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 007 Work Order # K7HJM1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
m-Xylene & p-Xylene	ND	13	ND	56
Bromodichloromethane	ND	13	ND	87
1,2-Dibromoethane (EDB)	ND	13	ND	100
2-Butanone (MEK)	ND	65	ND	190
4-Methyl-2-pentanone (MIBK)	ND	32	ND	130
Vinyl bromide	ND	13	ND	57
n-Butane	7.2	26	17 (J)	62
Bromoform	ND	13	ND	130
Bromomethane	ND	13	ND	50
Indene	ND	26	ND	120
1,3-Butadiene	ND	26	ND	57
4-Ethyltoluene	ND	26	ND	130
Thiophene	ND	13	ND	45
Carbon disulfide	ND	32	ND	100
Carbon tetrachloride	ND	13	ND	82
Chlorobenzene	ND	13	ND	60
1,2,3-Trimethylbenzene	ND	13	ND	64
Dibromochloromethane	ND	13	ND	110
Chloroethane	ND	13	ND	34
Chloroform	ND	13	ND	63
Chloromethane	ND	32	ND	67
3-Chloropropene	ND	13	ND	41
Indane	ND	13	ND	63
2-Chlorotoluene	ND	26	ND	130
Cyclohexane	ND	32	ND	110
1,2-Dichlorobenzene	ND	13	ND	78
1,3-Dichlorobenzene	ND	13	ND	78
1,4-Dichlorobenzene	ND	13	ND	78
Dichlorodifluoromethane	ND	13	ND	64
1,1-Dichloroethane	ND	13	ND	53
1,2-Dichloroethane	ND	13	ND	53
1,1-Dichloroethene	ND	13	ND	51
cis-1,2-Dichloroethene	ND	13	ND	51
trans-1,2-Dichloroethene	ND	13	ND	51
1,2-Dichloropropane	ND	13	ND	60
cis-1,3-Dichloropropene	ND	13	ND	59

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: SS-3-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 007 Work Order # K7HJM1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 008 Work Order # K7HJP1AD Matrix.....: AIR

Date Sampled...: 02/18/2009 Date Received..: 02/20/2009
Prep Date.....: 02/23/2009 Analysis Date... 02/24/2009
Prep Batch #.....: 9055102
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	5.4 J	5.0	13 J	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethylbenzene	0.094	0.20	0.41 J	0.87
Trichlorofluoromethane	0.22	0.20	1.2	1.1
n-Heptane	0.14	0.50	0.55 J	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.26	0.50	0.91 J	1.8
2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	0.081	0.50	0.38 J	2.3
Isopropyl alcohol	0.22	2.0	0.53 J	4.9
tert-Butyl alcohol	ND	2.0	ND	6.1
Methylene chloride	0.89	0.50	3.1	1.7
2-Methylnaphthalene	ND UJ	2.5	ND UJ	15
Naphthalene	ND UJ	0.50	ND UJ	2.6
Benzene	0.46	0.20	1.5	0.64
n-Octane	ND	0.40	ND	1.9
Pentane	0.52	1.0	1.5 J	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	0.041	0.20	0.28 J	1.4
Toluene	0.82	0.20	3.1	0.75
1,2,4-Trichlorobenzene	ND UJ	1.0	ND UJ	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.067	0.20	0.51 J	1.5
1,2,4-Trimethylbenzene	0.19	0.20	0.96 J	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	0.066	0.20	0.29 J	0.87
1-Methylnaphthalene	ND	2.5	ND	15
Methyl tert-butyl ether	ND	1.0	ND	3.6
n-Decane	ND	1.0	ND	5.8
n-Dodecane	ND UJ	1.0	ND UJ	7.0
n-Undecane	ND	1.0	ND	6.4
Nonane	ND	0.50	ND	2.6
m-Xylene & p-Xylene	0.23	0.20	0.98	0.87

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1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

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O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 008 Work Order # K7HJP1AD Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)		REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND		1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND		1.5
2-Butanone (MEK)	**0.30**	**1.0**	**0.89**	J	**2.9**
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND		2.0
Vinyl bromide	ND	0.20	ND		0.87
n-Butane	**1.3**	**0.40**	**3.2**		**0.95**
Bromoform	ND	0.20	ND		2.1
Bromomethane	ND	0.20	ND		0.78
Indene	ND	0.40	ND		1.9
1,3-Butadiene	**0.079**	**0.40**	**0.17**	J	**0.88**
4-Ethyltoluene	ND	0.40	ND		2.0
Thiophene	ND	0.20	ND		0.69
Carbon disulfide	ND	0.50	ND		1.6
Carbon tetrachloride	**0.066**	**0.20**	**0.41**	J	**1.3**
Chlorobenzene	ND	0.20	ND		0.92
1,2,3-Trimethylbenzene	ND	0.20	ND		0.98
Dibromochloromethane	ND	0.20	ND		1.7
Chloroethane	ND	0.20	ND		0.53
Chloroform	ND	0.20	ND		0.98
Chloromethane	**0.60**	**0.50**	**1.2**		**1.0**
3-Chloropropene	ND	0.20	ND		0.63
Indane	ND	0.20	ND		0.97
2-Chlorotoluene	ND	0.40	ND		2.1
Cyclohexane	**0.082**	**0.50**	**0.28**	J	**1.7**
1,2-Dichlorobenzene	ND	0.20	ND		1.2
1,3-Dichlorobenzene	ND	0.20	ND		1.2
1,4-Dichlorobenzene	ND	0.20	ND		1.2
Dichlorodifluoromethane	**0.44**	**0.20**	**2.2**		**0.99**
1,1-Dichloroethane	ND	0.20	ND		0.81
1,2-Dichloroethane	ND	0.20	ND		0.81
1,1-Dichloroethene	ND	0.20	ND		0.79
cis-1,2-Dichloroethene	ND	0.20	ND		0.79
trans-1,2-Dichloroethene	ND	0.20	ND		0.79
1,2-Dichloropropane	ND	0.20	ND		0.92
cis-1,3-Dichloropropene	ND	0.20	ND		0.91

TENTATIVELY INDENTIFIED COMPOUNDS	RESULT	UNITS
1,2,3,4-tetramethylbenzene	ND	ppb(v/v)
1,2,3,5-tetramethylbenzene	ND	ppb(v/v)
1,2,4,5-tetramethylbenzene	ND	ppb(v/v)

O'Brien & Gere Engineers, Inc.

Client Sample ID: AMB-NG-021809

GC/MS Volatiles

Lot-Sample # H9B200192 - 008 Work Order # K7HJP1AD Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	70 - 130

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

ATTACHMENT 2

Sample Chain of Custody Records

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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Site/location: Broadway, Schenectady
PO#: Order 8122

Project Manager: Scott Manchester
Phone: 315-437-6100
Site Contact: —
TAL Contact: Jamie McKinney

Analysis Turnaround Time
Standard (Specify) ✓
Rush (Specify)

Sampled By: Christopher Finke

1 of 2 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 26C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-2A-NG-021709	2/17/09	1357	1601	28.9	7.1	K341	12264												
SV-11-NG-021709	↓	1403	1618	29.8	5.4	K449	1540												
SV-12-NG-021709	↓	1408	1619	29.9	5.7	K382	92070												
AMB-NG-021709	↓	1412	1642	29.5	3.5	K402	93186												
SS-1-NG-021809	2/18/09	0729	1450	29.0	2.5	K448	6588												
SS-2-NG-021809	↓	0758	1558	29.0	5.8	K166	93097												

Sampled by: Chr J. Finke

42895.600.601

Temperature (Fahrenheit)

	Interior	Ambient	
Start	NA	31°F	2/17/09
Stop	~70°F	28°F	2/18/09

Pressure (Inches of Hg)

	Interior	Ambient	
Start	—	30.20	2/17/09
Stop	—	29.95	2/18/09

Special Instructions/QC Requirements & Comments:

Ref: 42895.600.601
Dep:
Date: 02/19/2009
Wgt: 29.0 LBS
DV: 0.00

SHIPPING: 58.75
SPECIAL: 0.59
HANDLING: 0.00
TOTAL: 59.34

Svcs: STANDARD OVERNIGHT
TRCK: 9300 3342 9525

Ref: 42895.600.601
Dep:
Date: 02/19/2009
Wgt: 54.0 LBS
DV: 0.00

SHIPPING: 95.75
SPECIAL: 0.96
HANDLING: 0.00
TOTAL: 96.71

Svcs: STANDARD OVERNIGHT
TRCK: 9300 3342 9536

Canisters Shipped by: Chr J. Finke	Date/Time: 2/19/09 1500	Canisters ... by:	
Samples Relinquished by:	Date/Time:	Received:	
Relinquished by:	Date/Time:	Received	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	
Company:	O'Brien & Gere
Address:	5000 Brittonfield Pkwy
City/State/Zip	E. Syracuse, NY 13057
Phone:	315-437-6100
FAX:	315-463-7554
Project Name:	National Grid MGP
Site/location:	Broadway, Schenectady
PO #	Order 8122

Project Manager: Scott Manchester
Phone: 315-437-6100
Site Contact: –
TAL Contact: Jamie McKinney

Sampled By: Christopher Finke

2 of 2 COCs

Analysis Turnaround Time
Standard (Specify) ✓
Rush (Specify)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SS-3-NG-021809	2/18/09	0807	1515	29.0	7.6	K119	12646												
AMB-NG-021809	2/18/09	0753	1606	28.7	4.9	K108	6680												

Sampled by: Chris J. Finke

Temperature (Fahrenheit)	Interior	Ambient	
Start	NA	31°F	2/17/09
Stop	~70°F	28°F	2/18/09

Pressure (inches of Hg)	Interior	Ambient	
Start	–	30.20	2/17/09
Stop	–	29.95	2/18/09

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Chris J. Finke	Date/Time: 2/19/09 1500	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

ATTACHMENT 3

Sample Collection Field Forms and Building Surveys

nationalgrid

Ambient Air (Canister) Sample Collection Field Form

Project #	42895	Consultant	OBG
Project Name	National Grid Broadway MGP	Collector	Finlee / Lim

Sample ID	AMB-NG-021709	Vacuum gauge "zero" ("Hg)	0
Start Date/Time	2/17/09 1412	Start Pressure ("Hg)	-29.5
End Date/Time	2/17/09 1642	End Pressure ("Hg)	-3.5
Canister ID	93186	End pressure > "zero"?	No
Flow controller ID	K402	Sampling duration (intended)	2 hrs

Tubing type used: ~~Teflon~~ ~~N/A~~ None Teflon Length of tubing NA cm Tubing volume NA cc

Volume purged NA cc @ NA min 1 to 3 volumes purged @ < 200cc/min? NA

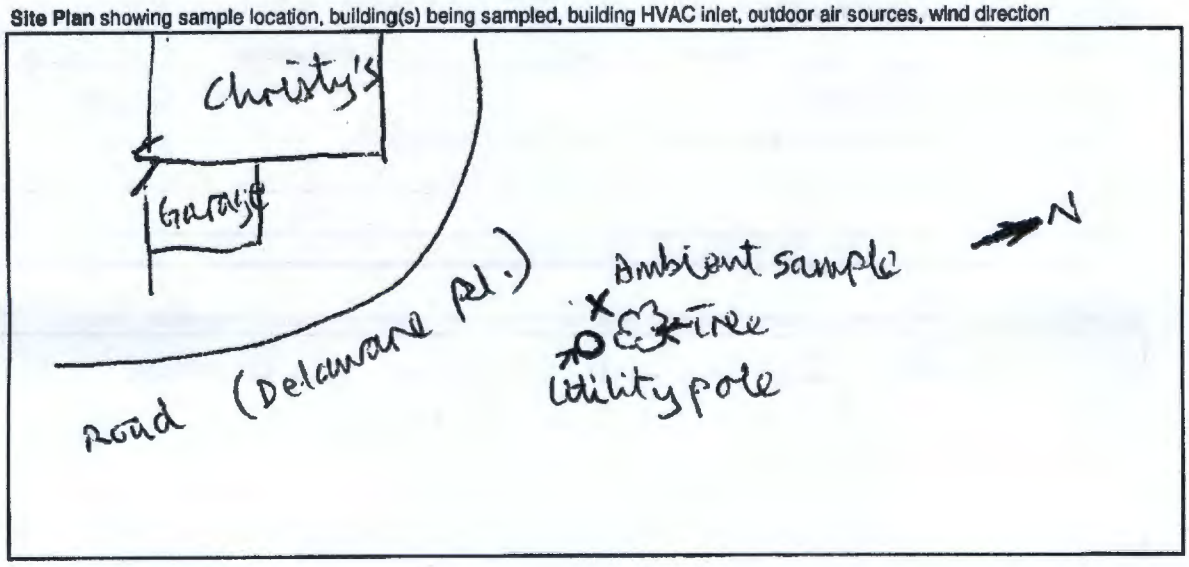
Weather Conditions at Start of Sampling:

Air temperature (°F)	31	Rainfall	None	Wind direction	NW
Barometric pressure	30.20	Relative humidity		Wind speed (mph)	0-5

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Site Plan showing sample location, building(s) being sampled, building HVAC inlet, outdoor air sources, wind direction



Comments:

nationalgrid

Soil Vapor (Canister) Sample Collection Field Form

Project # 42895

Consultant 0136

Project Name National Grid Broadway MGP

Collector Finke / Lim

Sample ID SV-2a - NG - 021709

Vacuum gauge "zero" ("Hg) 0

Start Date/Time 2/17/09 1357

Start Pressure ("Hg) -28.9

End Date/Time 2/17/09 1601

End Pressure ("Hg) -7.1

Canister ID 12264

End pressure > "zero"? No

Flow controller ID K341

Sampling duration (intended) 2 hrs

Associated ambient air sample ID AMB-NG-021709

Depth of sample point below grade 4 ft

Tubing type used Teflon

Length of tubing 7 ft ~~cm~~

Tubing volume 38 cc

Volume purged 76 cc @ 1 min

1 to 3 volumes purged @ < 200cc/min? Yes

Chamber tracer gas conc. >90% / >90% (PRE / POST)

Tracer gas conc. during purging 0% / 0% (PRE / POST)

Weather Conditions during Probe Installation:

Air temperature (°F) 31

Rainfall None

Wind direction NW

Barometric pressure 30.20

Wind speed (mph) 0-5

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Weather Conditions at Start of Sampling:

Air temperature (°F) 31

Rainfall None

Wind direction 0-5 mph

Barometric pressure 30.20

Wind speed (mph) NW

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

No.

Site Plan showing sample location, buildings, landmarks, potential soil vapor and outdoor air sources, preferential pathways

Sample was located in same location as specified by the work plan sample location figure. Approx. 36" away from fence.

Comments: Soil @ SV-2a appeared slightly dark and had an oily, fuel odor.

nationalgrid

Soil Vapor (Canister) Sample Collection Field Form

Project # 42895 Consultant OBG

Project Name National Grid Broadway MGP Collector Finke/Him

Sample ID SV-11-NG-021709

Vacuum gauge "zero" ("Hg) 0

Start Date/Time 1403 / Date: 2/17/09 Start Pressure ("Hg) -29.8

End Date/Time 2/17/09 / 1618 End Pressure ("Hg) -5.4

Canister ID 1540 End pressure > "zero"? No

Flow controller ID K449 Sampling duration (intended) 2hrs

Associated ambient air sample ID AMB-NG-021709 Depth of sample point below grade 4 ft

Tubing type used Teflon Length of tubing 8 ft ~~cm~~ Tubing volume 43 cc

Volume purged 87 cc @ 1 min 1 to 3 volumes purged @ < 200cc/min? Yes

Chamber tracer gas conc. >90% / >90% (Pre / Post) Tracer gas conc. during purging 0% / 0% (PRE / Post)

Weather Conditions during Probe Installation:

Air temperature (°F) 31 Rainfall None Wind direction NW

Barometric pressure 30.20 Wind speed (mph) 0-5mph

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

Weather Conditions at Start of Sampling:

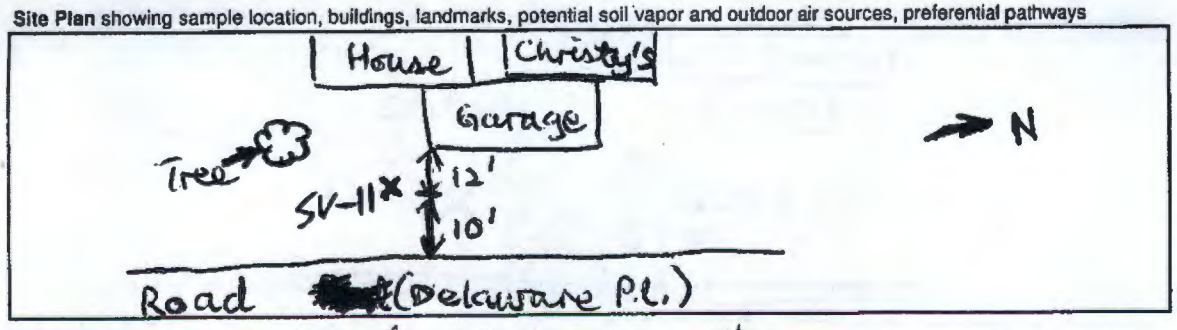
Air temperature (°F) 31 Rainfall None Wind direction NW

Barometric pressure 30.20 Wind speed (mph) 0-5

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

No.

Site Plan showing sample location, buildings, landmarks, potential soil vapor and outdoor air sources, preferential pathways



Comments: Soil found while installing point @ SV-11 appeared black and oily, but had little odor.

nationalgrid

Soil Vapor (Canister) Sample Collection Field Form

Project # 42895 Consultant OBG

Project Name National Grid Broadway MGP Collector Finke/Lim

Sample ID SV-12-NG-021709

Vacuum gauge "zero" ("Hg) 0

Start Date/Time 2/17/09 / 1408 Start Pressure ("Hg) -29.9

End Date/Time 2/17/09 / 1619 End Pressure ("Hg) -5.7

Canister ID 92070 End pressure > "zero"? No

Flow controller ID K382 Sampling duration (intended) 2hrs

Associated ambient air sample ID AMB-NG-021709 Depth of sample point below grade 4ft

Tubing type used Teflon Length of tubing 7ft Tubing volume 35 cc

Volume purged 76 cc @ 1 min 1 to 3 volumes purged @ < 200cc/min? Yes

Chamber tracer gas conc. >90% PRE / >90% POST Tracer gas conc. during purging @ 50% 0% PRE / 0% POST

Weather Conditions during Probe Installation:

Air temperature (°F) 31 Rainfall None Wind direction NW

Barometric pressure 30.20 Wind speed (mph) 0-5mph

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Weather Conditions at Start of Sampling:

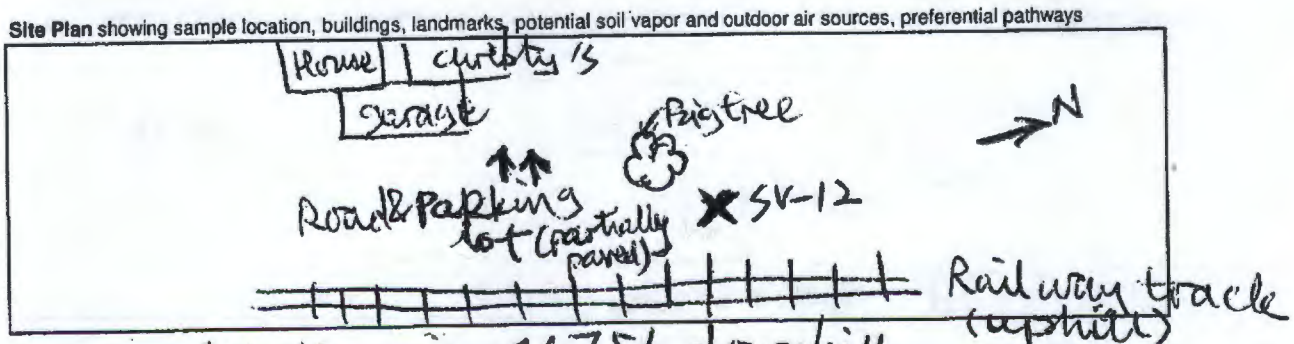
Air temperature (°F) 31 Rainfall None Wind direction NW

Barometric pressure 30.20 Wind speed (mph) 0-5

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Site Plan showing sample location, buildings, landmarks, potential soil vapor and outdoor air sources, preferential pathways



Comments: SV-12 is ~75' downhill from railway track & ~130' from closest corner of the garage.

nationalgrid

Ambient Air (Canister) Sample Collection Field Form

Project #	42895	Consultant	OBG
Project Name	National Grid Broadway MGP	Collector	Finke. / Lim

Sample ID	AMB-NG-021809	Vacuum gauge "zero" ("Hg)	0
Start Date/Time	2/18/09 0753	Start Pressure ("Hg)	-28.7
End Date/Time	2/18/09 1606	End Pressure ("Hg)	-4.9
Canister ID	6680	End pressure > "zero"?	No
Flow controller ID	K108	Sampling duration (intended)	8-hr

Tubing type used: Teflon Length of tubing: 12 in ~~cm~~ Tubing volume: 5 cc

Volume purged: 20 cc @ NA min 1 to 3 volumes purged @ < 200cc/min? NA

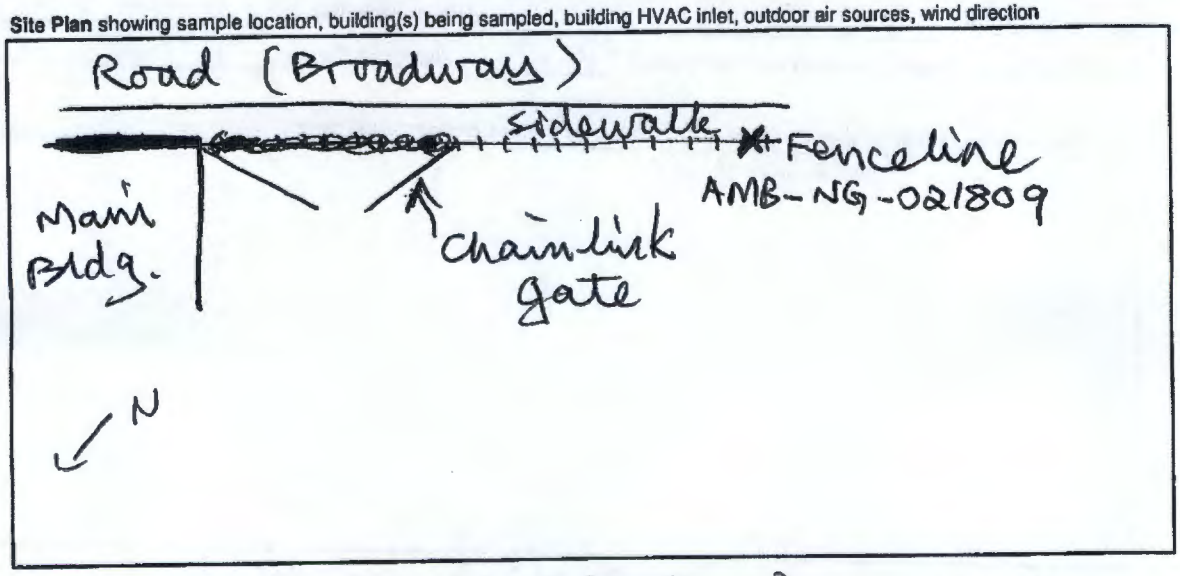
Weather Conditions at Start of Sampling:

Air temperature (°F)	31°	Rainfall	None	Wind direction	SW-South
Barometric pressure	30.20	Relative humidity	—	Wind speed (mph)	0-5 mph

Substantial changes in weather conditions during sampling ~~or over the past 24 to 48 hrs~~:

Yes. Snow storm occurred at 1400.

Site Plan showing sample location, building(s) being sampled, building HVAC inlet, outdoor air sources, wind direction



Comments: Sample was located along fence - SE of parking lot

nationalgrid **Sub-slab Vapor (Canister) Sample Collection Field Form**

Project # 42.895

Project Name National Grid Broadway MGP

Consultant OBG

Collector Finke / Lim

Sample ID SS-1-NG-021809

Start Date/Time 02/18/09 0729

End Date/Time 02/18/09 1450

Canister ID 6588

Flow controller ID K448

Associated indoor air sample ID —

Vacuum gauge "zero" ("Hg) 0

Start Pressure ("Hg) -29.0

End Pressure ("Hg) -2.5

End pressure > "zero"? No

Sampling duration (intended) 8 hrs

Associated ambient air sample ID AMB-NG-021809

Tubing type used Teflon

Length of tubing 3 ft

Tubing volume 16 [redacted] cc

Volume purged 22 cc @ 1 min

1 to 3 volumes purged @ < 200cc/min? Yes

Weather Conditions at Start of Sampling:

Air temperature (°F) 28°F

Rainfall None

Wind direction Calm - south

Wind speed (mph) 0-5 mph

Barometric pressure 29.95

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Indoor air temp (°F) ~ 65°

Indoor relative humidity (%) —

Building Survey and Chemical Inventory Form Completed? Yes

Photograph IDs X Photos were taken

Floor Plan showing sample location, HVAC equipment, indoor air sources, preferential pathways

see Building sketch

Comments: Slab is 7 1/4" thick at SV-1.

nationalgrid **Sub-slab Vapor (Canister) Sample Collection Field Form**

Project # 42895 Consultant OBG

Project Name National Grid Broadway MGP Collector Finke / Lim

Sample ID SS-2-NG-021809

Vacuum gauge "zero" ("Hg) 0

Start Date/Time 02/18/09 0758 Start Pressure ("Hg) -29.0

End Date/Time 02/18/09 1558 End Pressure ("Hg) -5.8

Canister ID 93097 End pressure > "zero"? No

Flow controller ID K166 Sampling duration (intended) 8 Hr

Associated ~~indoor~~ ambient air sample ID AMB-NG-021809 Associated ambient air sample ID —

Tubing type used Teflon Length of tubing 3 ft ~~cm~~ Tubing volume 16 cc

Volume purged 22 cc @ 1 min 1 to 3 volumes purged @ < 200cc/min? Yes

Weather Conditions at Start of Sampling:

Air temperature (°F) 28°F Rainfall None Wind direction Calm - south

Barometric pressure 29.95 Wind speed (mph) 0.5 mph

Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Indoor air temp (°F) ~68° Indoor relative humidity (%) —

Building Survey and Chemical Inventory Form Completed? Yes Photograph IDs Photos were taken

Floor Plan showing sample location, HVAC equipment, indoor air sources, preferential pathways

see building sketch

Comments: Slab is 5½" thick at SS-2.

nationalgrid **Sub-slab Vapor (Canister) Sample Collection Field Form**

Project # 42895 Consultant OBG

Project Name National Grid Broadway MGP Collector Finke / Kim

Sample ID SS-3-NG-021809

Vacuum gauge "zero" ("Hg) 0

Start Date/Time 02/18/09 0807 Start Pressure ("Hg) -29.0

End Date/Time 02/18/09 1515 End Pressure ("Hg) -7.6

Canister ID 12646 End pressure > "zero"? No

Flow controller ID @ [redacted] K119 Sampling duration (intended) 8 Hr

Associated indoor air sample ID — Associated ambient air sample ID AMB-NG-021809

Tubing type used Teflon Length of tubing 3 ft @ cm Tubing volume 16 cc

Volume purged 22 cc @ X@ 1 min 1 to 3 volumes purged @ < 200cc/min? Yes

Weather Conditions at Start of Sampling:

Air temperature (°F) 28°F Rainfall None Wind direction Calm - South

Barometric pressure 29.95 Wind speed (mph) 0-5 mph

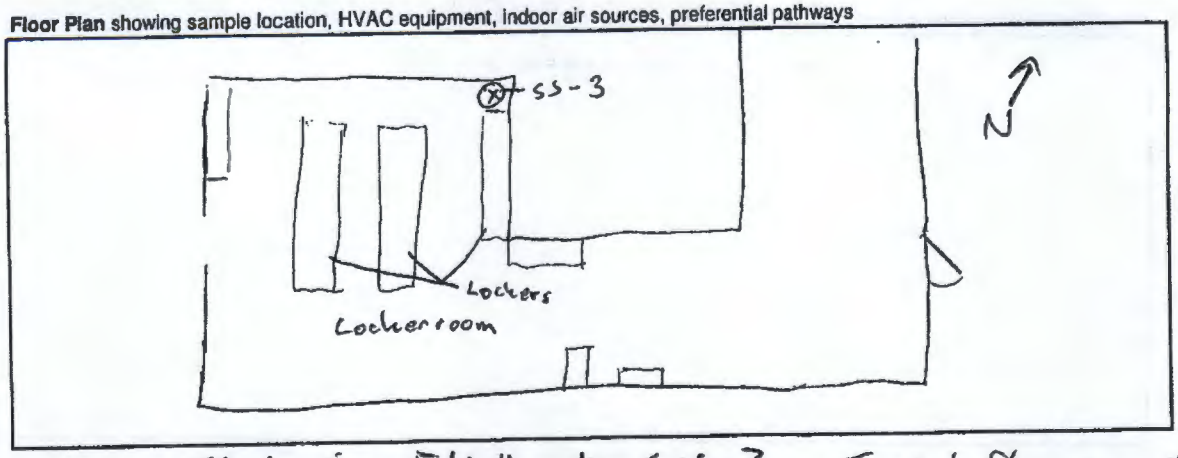
Substantial changes in weather conditions during sampling or over the past 24 to 48 hrs:

None

Indoor air temp (°F) ~ 73°F Indoor relative humidity (%) —

Building Survey and Chemical Inventory Form Completed? Yes Photograph IDs Photos were taken

Floor Plan showing sample location, HVAC equipment, indoor air sources, preferential pathways

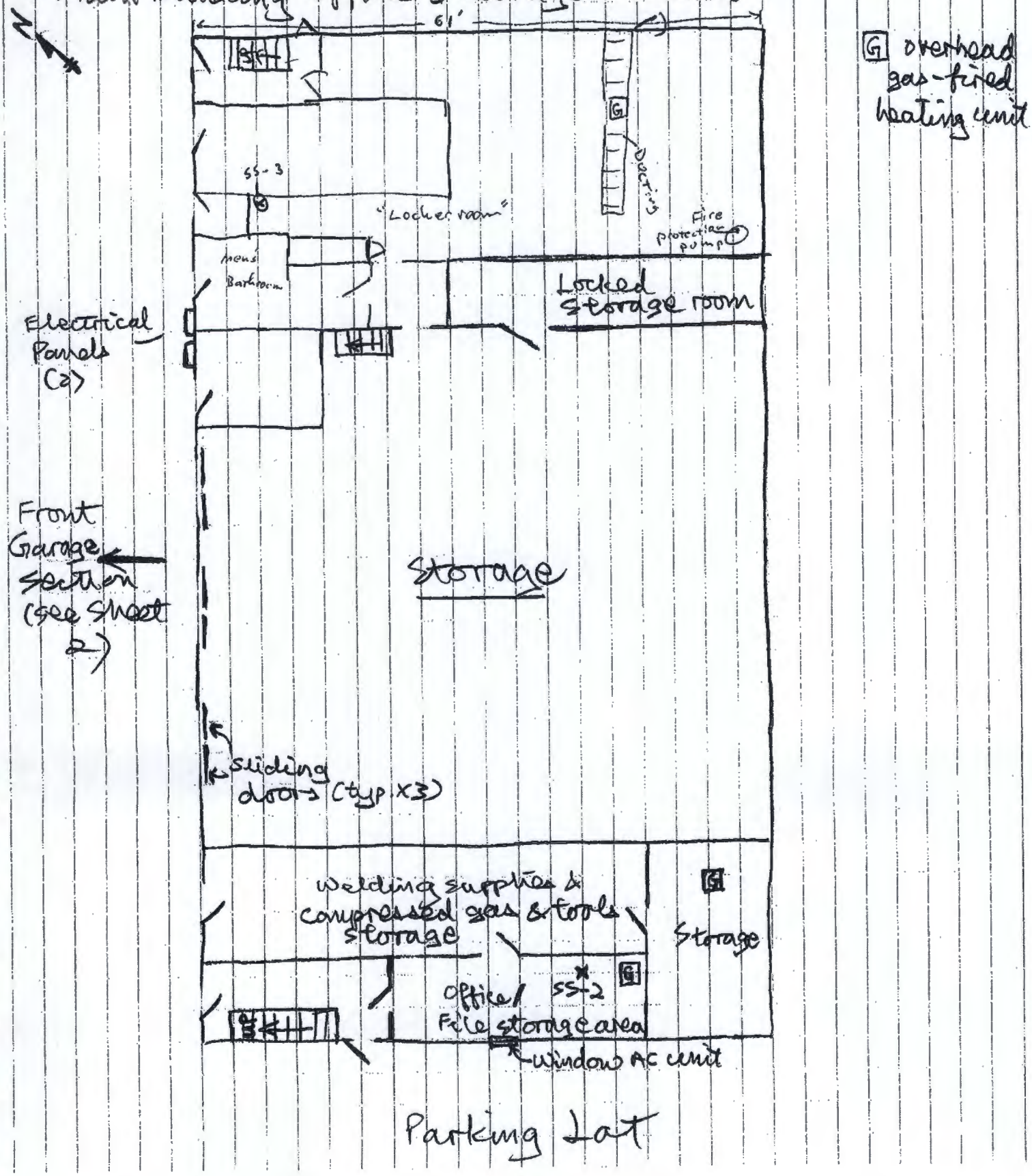


Comments: Slab is 5 1/2" at SV-3. Initial flow controller K452 was exchanged for K119 (Back-up). K452 is faulty.

O'BRIEN & GERE

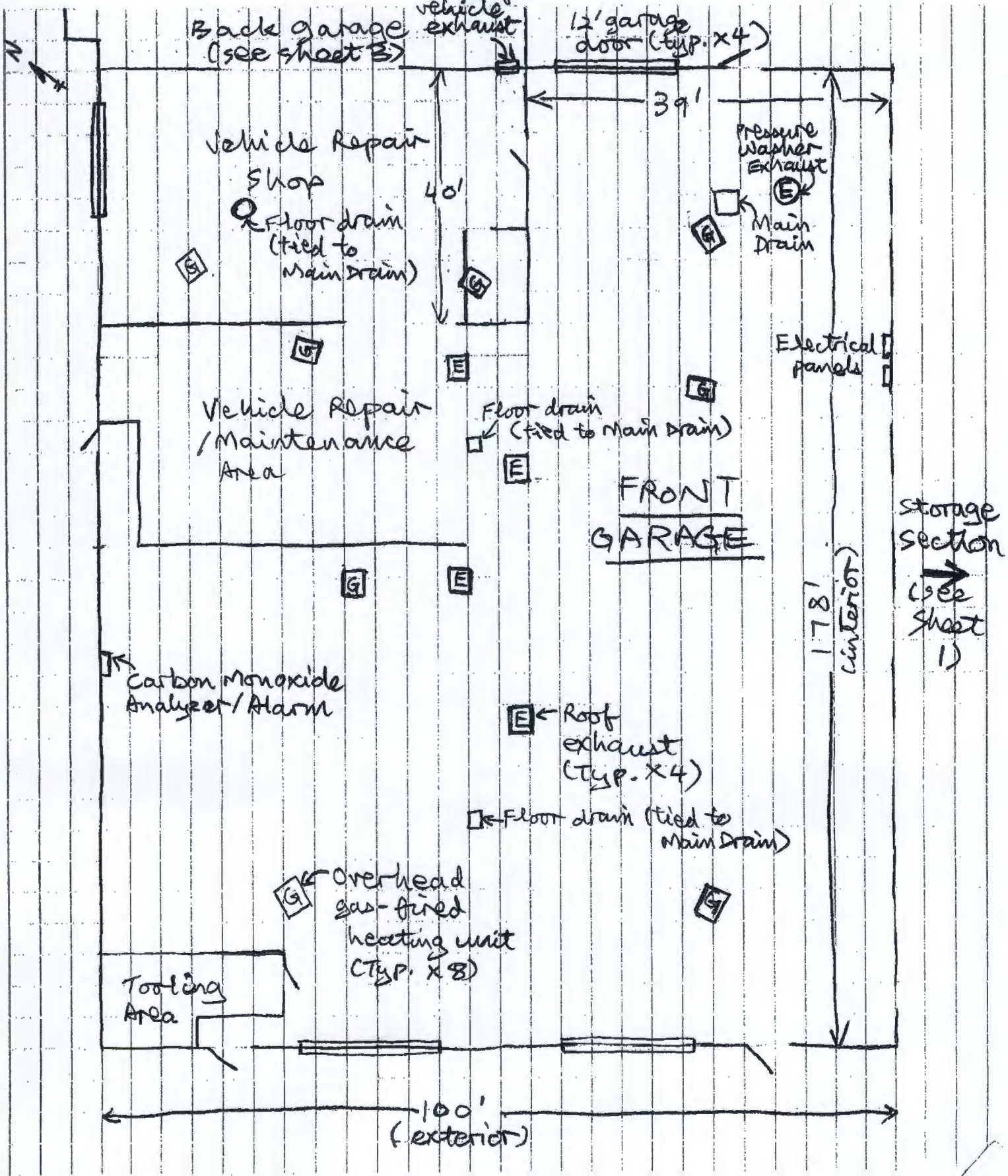
SUBJECT	SHEET	BY	DATE	JOB NO.
National Grid Broadway MGP	1/3	Jim/ Finke	2/18/09	

Main Building Office & Storage Section



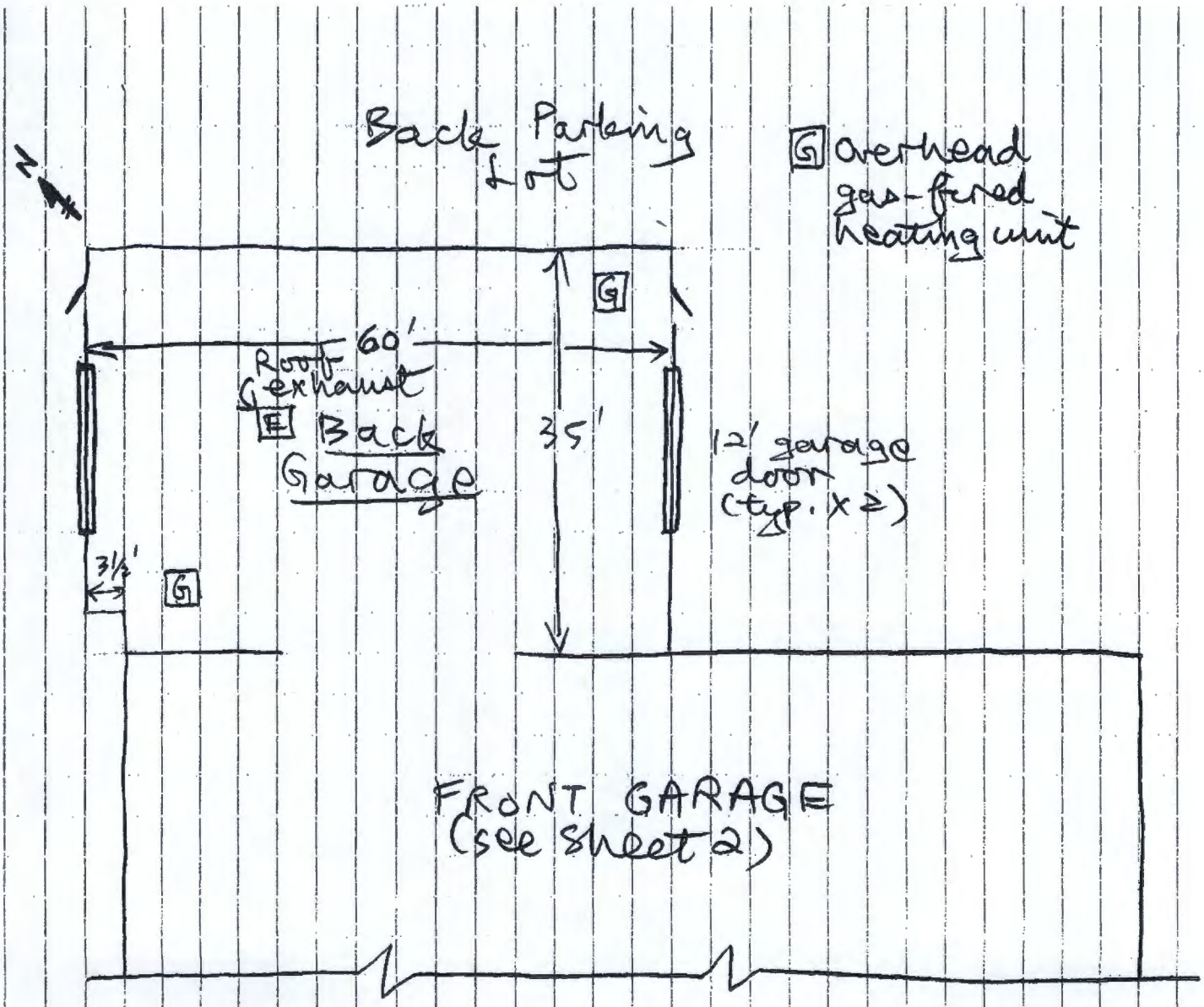
O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
National Grid Broadway MGP	2/3	Lian	2/18/09	



O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
National Grid Broadway MGP	3/3	Lem	2/18/09	



O'BRIEN & GERE

Indoor Air Quality Building Survey

Date: 2/18/09
Collector: CJF, NL
Affiliation: O'Brien & Gere

Access Contact: Steve Plansker
Phone: 518-433-3957
Best time to contact: NA

Address: National Grid Service Center - Broadway, Schenectady, NY
Main Gansel Office Bldg.
Tax ID: —

Owner [ ] Renter [ ] Other [X]

Access Agreement Signed?: NO

Date built: unknown
Yrs. of residence: unknown
No. of occupants: unknown

Building type:
Residential [ ] Commercial [X] School [ ] Church [ ] Industrial [ ] Other ____

Check all that apply:

Ranch [ ] Cape [ ] 3-Family [ ] Raised Ranch [ ] Colonial [ ] Mobile Home [ ] 2-Family [ ] Duplex [ ] Other (specify) 2 story office with attached garage Apartments [ ] Condominium [ ]

Above grade building construction

Wood frame [ ] Brick [X] Poured concrete [ ] Concrete block [ ] Stone [ ] Other ____

Foundation construction

Fieldstone [ ] Poured concrete [ ] Solid top concrete block [ ] Open top concrete block [ ] Slab on grade [X] Other ____

Is the owner aware of any additions made to the original design of the structure? (please specify)
Garage appears to be an addition to the ~~original~~ original office structure.

Utilities

Sewer: Public [X] Private [ ] Other ____

Water: Public [X] Private [ ] Other ____ Spring [ ] Well [ ]

Hot water heater type: Gas [X] Oil [ ] Electric [ ] Other ____

Heating, ventilation, and air conditioning systems

Primary heat type: Hot air [X] Hot water [ ] Steam radiator [ ] Electric [ ] Other ____

Fuel type (heat): Natural gas [X] Fuel oil [ ] Electric [ ] Wood [ ] Other ____

Secondary heat type: Kerosene [ ] Wood stove [ ] Electric [ ] Propane [ ] Other ____

Ventilation types: Attic fan [ ] Kitchen hood [ ] Bathroom fan [ ] Other Roof vents - electric

Whole house fan [ ] Air filtration [ ] Induced fireplace [ ] Other ____

Air conditioning: Window units [X] Furnance unit [X] Electric [ ] Other ____

Basement type

None	☐	Half	☐	Vented crawlspace	☐	Other	
Full	☐	Slab on grade	☑	Unvented crawlspace	☐		

If slab on grade, is there a garage with occupied space above? NO

Basement depth below grade (feet)

Front — Rear — Side 1 — Side 2 —

Basement characteristics

General:		Floor:		Walls:			
No. of rooms	6	Earth	☐	Finished	☒	Paneling	☐
Bathroom	☐	Concrete	☒	Unfinished	☒	Tile	☐
Basement use	Garage - Maint. of vehical storage	Tile	☐	Painted	☒	Insulated	☐
		Carpet	☐	Sheetrock	☒	Uninsulated	☒
		Other		Other	Brick interior walls (partial)		

Check if present:

Fireplace	☐	Elevator	☐	French drain	☐
Sump pump	☐	Ash cleanout	☐	Floor cracks	☒
Floor drains	☒	Water damage	☐	Wall cracks	☐
Interior walls	☐	Jacuzzi/hot tub	☐	Other	

Seperate drains for vehical wash

Does the basement have a moisture problem? NO

Does the basement ever flood? (specify frequency) NO

Does the basement have a radon system installed? NO

Has there been recent purchases of furnishings (carpets, rugs, linoleum, tile, or funiture) or remodeling (new construction,roofing, or floor stripping? (please specify) Not observed.

Chemical usage, exposure and storage

Identify occupant hobbies:

Painting	☐	Electronics	☐	Model making	☐
Stained glass	☐	Woodworking	☐	Auto repair	☒
Jewelry making	☐	Furniture refinishing	☐	Other	storage of pipe fittings, and other equipment.

Where in the structure are these hobbies conducted? Garage - Auto Maint.

Does the occupants' job require chemical exposure? None other than above.

If so, where are the occupants clothes cleaned? —

Has the structure been fumigated in the last year? Nearby Creek is treated annually

If so, is fumigation regularly performed? (how often) —

Are pesticides frequently applied to lawn or garden? NO

If so, are they stored on the property? —

Identify chemicals stored in the basement/1st floor living space, or garage if structure is slab on grade (include fuels, solvents, cleaners, etc.). Use separate inventory sheet for each area surveyed

Brand	Product	Amount stored	PID Reading
Please see attached pages for inventory.			

Background PID readings ranged from >0 to 150ppb. 1,1,1,TCA was found in a liquid adhesive (Tapecoat) with PID readings of 1.5ppm, however, it is likely that the garage contains a number of ~~TCE~~, TCA and products that contain chlorinated solvents. Also, vehical maintenance is performed in the garage including fluid changes. Many BTEX containing products were observed in the garage area including gasoline, diesel fuel, and large amounts of motor oil.

Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources for chemical contaminents to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

Please see above section.

Identify photographs taken as additional documentation of existing conditions.

Photo ID	Description of photo
	Numerous photos were taken of the building conditions, sample locations, and chemical inventory. These photos are available upon request.

Sketch lot and sample location layout (if applicable)

See attached diagrams

National Grid Broadway MGP N. Lim 2/18/09 ①

Main Bldg, office / File storage area

- Flammable liq. storage cabinet:
  - Anti-freeze solution for MCM's copper sulfate electrodes (32 fl. oz.) → M.C. Miller Co. Ringwood, NJ
  - $CuSO_4$ crystals (2.5 lbs)
  - ACE acrylic flat latex paint (1 gal)
  - ACE rust-stop gray primer (1 gal) x2
  - " " red primer (1 gal)
  - " " safety orange (1 gal)
  - Rust-oleum high performance protective enamel oil-based (1 gal) x2
  - Rust-oleum high perf. metal primer (1 gal)
  - Ace lacquer thinner (1 gal)
  - Ace rust-stop aluminum enamel
  - Carlon Medium grade gray PVC solvent cement (1 qt.) 78-93-3, 109-99-9, 9002-88-2, 108-94-1, 112945-52-5, & 67-64-1.
  - Tapecoat Coldprime liquid adhesive (1 gal.) x3 Toluene & 1,1,1-TCA. 1.5 ppm
  - Super tech RV & Marine antifreeze (1 gal)
  - Black Swan light cutting oil (1 gal)
  - Enerpac Premium Hydraulic Oil (1 gal) x 2
  - Hammerhead lubricating oil (1 gal) x 5
  - Grundo Oil Tool lubricant (1 gal)
- Natural-gas fired heating unit (1) – Not operating
- Window A.C. unit (1) – Not operating

O'BRIEN & GERE

SUBJECT:	PAGE:	BY:	DATE:	JOB NUMBER:
National Grid MGP	2	Jim	2/18/09	

Main Bldg, storage area next to office:
- Gasoline-fueled tampers (4) - 500 ppb
- Gasoline-fueled small generators (3) - 38 ppm on one of the gens.
- Nat'l gas fired heating unit (1) operating.
- 70 ppb background in room

Welding supplies area next to office:
- Air compressor equipment / tools - not found above background
- Fire extinguishers (7)
- CO_2 mini cartridges for extinguishers
- WD-40 (1 can)
- Crown methanol gasline dryer & anti-freeze 5-gal (3)

- Main Bldg. walls are brick, metal roof, concrete floors are in good condition

O'BRIEN & GERE

SUBJECT:	PAGE: 3	BY: tim	DATE: 2/18/09	JOB NUMBER:

Main Bldg. garage (front)
- Gasoline-fueled pumps (10)
- " " piping machine (1)
- Diesel fuel cans (2)
- Gasoline can (1)
- Gas fired heating units (6)
- Trucks, vans, & Nat'l Grid vehicles (diesel & gasoline)
- Drums of grease, oil, waste oil, anti-freeze, etc.
- Background 150 ppb

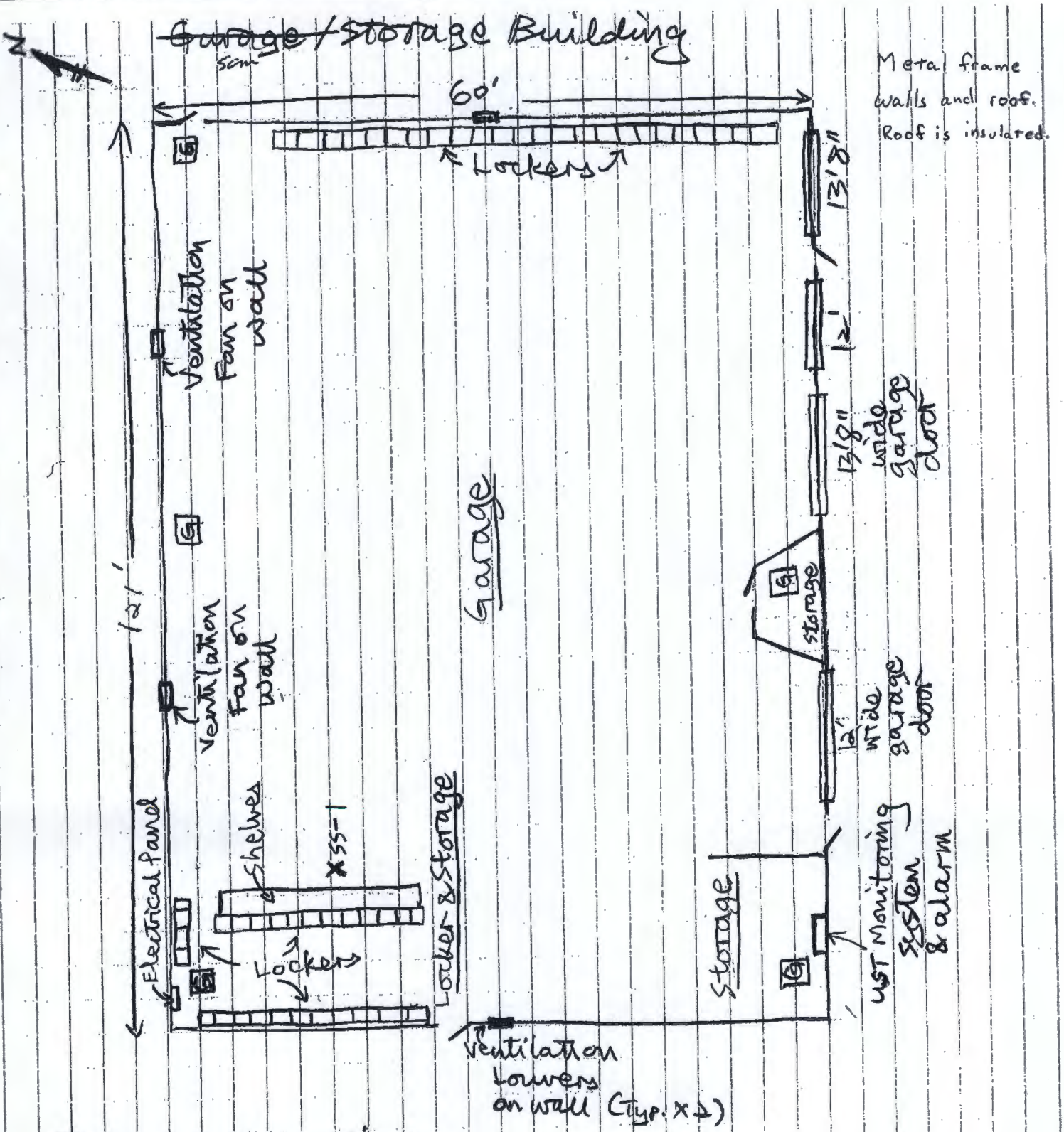
- Back garage background 1 ppm
- " " 4 gas fired heating units

- Vehicle maintenance area has ~~two~~ one motor oil storage tank
- Back garage two motor oil storage tanks and one Solvent Klean parts washer storage / Garage Bldg
- Background 70-110 ppb
- Flammable storage cabinet 1 ppm

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO.
National Grid Broadway MGP	1/1	Lean	2/18/09	

~~Garage~~ / Storage Building



O'BRIEN & GERE

Indoor Air Quality Building Survey

Date: 2/18/09
Collector:
Affiliation: O'Brien & Gere

Access Contact: Steve Plansker
Phone: 518-433-3957
Best time to contact: NA

Address: National Grid Service Center - Broadway, Schenectady, NY
Tax ID: ~~Bank garage/storage~~ Bldg.

Owner [ ] Renter [ ] Other [X]

Access Agreement Signed?: No

Date built: Unknown
Yrs. of residence: "
No. of occupants: "

maybe in the 1970's

Building type:
Residential [ ] Commercial [X] School [ ] Church [ ] Industrial [ ] Other

Check all that apply:

Ranch [ ] Cape [ ] 3-Family [ ]
Raised Ranch [ ] Colonial [ ] Mobile Home [ ]
2-Family [ ] Duplex [ ] Other (specify) Slab-on-grade garage
Apartments [ ] Condominium [ ]

Above grade building construction

Wood frame [ ] Brick [ ]
Poured concrete [ ] Concrete block [ ]
Stone [ ] Other Metal Frame

Foundation construction

Fieldstone [ ] Poured concrete [ ]
Solid top concrete block [ ] Open top concrete block [ ]
Slab on grade [X] Other

Is the owner aware of any additions made to the original design of the structure? (please specify)

None

Utilities

Sewer: None
Public [ ] Private [ ] Other

Water: None
Public [ ] Private [ ] Other

Spring [ ] Well [ ]

Hot water heater type:
Gas [X] Oil [ ] Electric [ ] Other

Heating, ventilation, and air conditioning systems

Primary heat type:
Hot air [X]
Hot water [ ]
Steam radiator [ ]
Electric [ ]
Other

Fuel type (heat):
Natural gas [X]
Fuel oil [ ]
Electric [ ]
Wood [ ]
Other

Secondary heat type:
Kerosene [ ]
Wood stove [ ]
Electric [ ]
Propane [ ]
Other

Ventilation types:
Attic fan [ ]
Kitchen hood [ ]
Bathroom fan [ ]
Other

Whole house fan [X]
Air filtration [ ]
Induced fireplace [ ]
Other

Air conditioning:
Window units [ ]
Furnance unit [ ]
Electric [ ]
Other

Exhaust fans on walls

Basement type

None	☐	Half	☐	Vented crawlspace	☐	Other	
Full	☐	Slab on grade	☒	Unvented crawlspace	☐		

If slab on grade, is there a garage with occupied space above? _____

Basement depth below grade (feet)

Front _____ Rear _____ Side 1 _____ Side 2 _____

Basement characteristics

General:		Floor:		Walls:			
No. of rooms	1	Earth	☐	Finished	☐	Paneling	☐
Bathroom	☐	Concrete	☒	Unfinished	☒	Tile	☐
Basement use		Tile	☐	Painted	☐	Insulated	☒
Vehical Storage, Lockers, Electrical Transformer Storage.		Carpet	☐	Sheetrock	☐	Uninsulated	☐
		Other		Other			

Check if present:

Fireplace	☐	Elevator	☐	French drain	☐
Sump pump	☐	Ash cleanout	☐	Floor cracks	☐
Floor drains	☐	Water damage	☐	Wall cracks	☐
Interior walls	☐	Jacuzzi/hot tub	☐	Other	

Does the basement have a moisture problem? No

Does the basement ever flood? (specify frequency) No

Does the basement have a radon system installed? No

Has there been recent purchases of furnishings (carpets, rugs, linoleum, tile, or funiture) or remodeling (new construction,roofing, or floor stripping? (please specify) No

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Chemical usage, exposure and storage

Identify occupant hobbies:

Painting	☐	Electronics	☒ Storage	Model making	☐
Stained glass	☐	Woodworking	☐	Auto ~~repair~~ @	☒
Jewelry making	☐	Furniture refinishing	☐	Other Storage	

Where in the structure are these hobbies conducted? NA

Does the occupants' job require chemical exposure? NA

If so, where are the occupants clothes cleaned? NA

Has the structure been fumigated in the last year? Unknown

If so, is fumigation regularly performed? (how often) —

Are pesticides frequently applied to lawn or garden? No

If so, are they stored on the property? —

Identify chemicals stored in the basement/1st floor living space, or garage if structure is slab on grade (include fuels, solvents, cleaners, etc.) Use separate inventory sheet for each area surveyed

Brand	Product	Amount stored	PID Reading
See attached inventory on separate page.			

Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources for chemical contaminents to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

Transformer and vehical storage may cause some elevated indoor air VOC concentrations, however, frequent use of overhead doors allows ambient air infiltration. No slab penetrations were observed.

Identify photographs taken as additional documentation of existing conditions.

Photo ID	Description of photo
	Photos were taken of inventory, sample location and Bldg. characteristics. Photos are available upon request.

Sketch lot and sample location layout (if applicable)

Please see attached sketch.

O'BRIEN & GERE

SUBJECT: Storage Building ~~Garage~~ Chem. Inventory	PAGE: 4	BY: CJF	DATE: 2/18/09	JOB NUMBER:

- ~~Garage~~ Storage Bldg located in back of property (ES-1 location)

9 x 16oz cans Plasti-Weld PVC cement - MEK, Cyclohexanone, Tetrahydrofuran, PVC resin, Acetone

- 3 x 12oz Rustoleum spray paint - Toluene, Acetone
- 4 x 8oz Coulston's Duranon Tick Repellant
- 1 x 20oz Hi-LCO Lube - spray - Pat. Distributors
- WD 40 - 1 can - Pertell Dist.
- ~~Kim~~ 3 x 16oz cans Kimball Midwest spray paint - Xylene
- Power Services 1 x 32 oz Bottle Diesel fuel supplement
- 1 Bottle transmission fluid
- Diesel Trucks and forklifts use garage regularly to park, - Overhead Doors are open often

3 x 2.5 Gallons of gasoline

- No PID readings above background ~ 70 ppb