ALPHA TERRA
SCIENCE

February 24, 2009



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Ms. Denise Nettesheim
WDNR
3911 Fish Hatchery Road
Madison, WI 53711

**RE: Vapor Results and Next Step In Project, DERF Remedial Action, Former Robinson Cleaners, 1819 Milwaukee Street, Janesville, WI BRRTS # 02-54-248342**

Dear Denise,

The purpose of this letter is to present the results of the indoor vapor sample and determine the next step in the project.

## SCOPE OF WORK

### Remedial Excavation and Sampling

As previously described in our February 2008 report, the following actions have been completed at the Vogue Cleaners site in Janesville (Figure 1):

- Hot Spot Soil Excavation and Disposal
- Soil Sampling
- Groundwater Sampling – Two Rounds After Excavation
- Sub-Slab Vapor Sampling

Since then, discussions were held with the property owner and responsible parties (Mr. Ray Gehrig and representatives of Robin, Inc.), the Wisconsin Department of Health and Family Services (WDHFS) project manager Mr. Henry Nehls-Lowe, and the WDNR project manager Ms. Denise Nettesheim, regarding the site conditions and additional project requirements. It was determined a vapor sample from the southwest tenant space of the building should be obtained for evaluation of the indoor vapor chemistry.

### Indoor Vapor Sampling

The facility no longer operates as a "wet" drycleaner, and all clothing is sent off-site to another location for drycleaning using Stoddard solvent as the cleaning solution. However, despite discontinued operation as a wet drycleaning facility, WDHFS indicated that due to storage and handling of clothing that has been recently treated with drycleaning solvent, the indoor air within the Vogue Cleaners site is expected to exceed the commercial indoor air quality concentrations for drycleaning chemicals. This is considered acceptable for the drycleaning portion of the property, as there is an expectation by employees of a drycleaning store that there will be some exposure to drycleaning chemicals.

The southwest portion of the building is partitioned by walls into an office for a "Checks for Cash" store. The entire building has shared heating, ventilation and air conditioning (HVAC), with separate

thermostat controls. Evaluation of the indoor air within the "Checks for Cash" store was considered necessary prior to consideration of closure for the facility.

On October 28, 2008, Kyle Kutcher of Alpha Terra Science obtained a vapor sample from the indoor air in the Checks for Cash store. The summa canister was provided by the laboratory (State Laboratory of Hygiene, Madison, WI) and one sample was obtained of the air from the approximate breathing level (4 feet above the floor) within the Checks for Cash store. A regulator on the 6-liter summa canister was used to obtain an 8-hour integrated sample from the store. The sample was obtained from approximately 5:30 PM to 1:30 AM, primarily during hours when the store was closed.

The "Checks for Cash" store consists of a carpeted office measuring approximately 25 by 40 feet (Figure 2). The store has one office and a storage area that are separated from the rest of the store by dividers, but there are no floor to ceiling interior walls. Air can freely move within the entire 1,000 square foot retail space.

The canister was recovered on the morning of October 29 and sent to the State Laboratory of Hygiene, Madison, WI for analysis of VOCs using the TO-15 method. Results are provided in Attachment A, and summarized on Table 1.

Previous results obtained from subslab vapors beneath the Vogue Cleaners floor were obtained in June 2007 and tested for an abbreviated list of chlorinated solvents using the Microseeps method. The vapor probes are sealed with a threaded plug but are still present.

## RESULTS

### Vapor Chemistry Standards

The results indicate the presence of sixteen VOC compounds in the indoor air of the "Checks for Cash" store. The laboratory analytical results are included in Attachment A, and have been converted to ug/cubic meter using temperature dependent conversion factors from the USEPA "On-line Tools for Site Assessment Calculation" found on the EPA vapor intrusion web site[1]. A temperature of 68 degrees Fahrenheit was used for conversion, as the sample was obtained from the indoor air of the office.

To evaluate the significance of the results, the data was compared to information on the USEPA risk based concentration table values for industrial indoor vapor[2]. Conversion of the EPA values to WDHFS / WDNR values was performed based on information for tetrachloroethene and subslab to indoor air vapor attenuation presented by WDHFS at a recent vapor intrusion conference. A presentation entitled "Evaluating for Vapor Intrusion" by Henry Nehls-Lowe of WDHFS indicates the following principles can be used to establish ceiling concentrations for indoor and subslab vapor data:

- Calculated USEPA Risk Based Concentrations for vapor exposure in an industrial setting assumes a 1 in 1,000,000 increased risk of cancer, while WDHFS utilizes a 1 in 100,000 increased risk of cancer for vapor exposure in a commercial setting (10X higher value assumed by WDHFS for commercial setting when compared to EPA industrial table values)

[1] http://www.epa.gov/athens/learn2model/part-two/onsite/ia_unit_conversion.htm
[2] http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

- Subslab vapors should assume a 10X attenuation factor for comparison to indoor exposure values (Assume that a 10X higher concentration beneath the floor is acceptable when compared to indoor air risk values)

## Indoor Vapor Results

The indoor vapor results from the "Checks for Cash" store indicate the concentration of PCE and TCE exceed the WDNR / WDHFS commercial indoor air standard by approximately 2 to 3 times. The standard for PCE is 21 ug/$m^3$, and the standard for TCE is 61 ug/$m^3$. Concentrations at or above these levels will theoretically results in a 1 in 100,000 increased risk of cancer, assuming the exposure assumptions of inhalation of air from the store for a period of eight hours per day, 250 days per year for a lifetime employee exposure period of 25 years.

Other detected compounds are present in the indoor air from the store, including several petroleum constituents, but the concentrations of these compounds in the indoor air are below levels that pose a risk to human health.

## Subslab Vapor Results

In June 2007, subslab vapors were retained beneath the Vogue Cleaners floor at four locations, and a fifth sample was retained from the passive exhaust vent (no fan operating). The results are shown on Table 1 and compared to WDNR / WDHFS standards for subslab air, which assumes a 10 fold increase (10X dilution factor) between the indoor exposure limit and the subfloor vapor.

The subslab results indicate levels of PCE at all tested locations exceed the theoretical limit for vapors beneath a building. The subslab level for TCE exceeds the theoretical limit at one location. These results mean that if the vapors beneath the building enter the building at the typical rate that subslab vapors migrate into buildings, there will be an increased risk to human health.

## REMEDIAL OPTIONS

The indoor air results indicate steps should be taken to prevent further employee exposure via vapor intrusion to the "Checks for Cash" portion of the building. Subslab vapors indicate vapor intrusion through the floor is likely occurring beneath the Vogue Cleaners portion of the building, but current use as a drycleaner renders this exposure route of minimal concern at this time. However; if future use of the building changes, the subslab vapor results beneath the Vogue Cleaners portion of the building indicate steps should be taken to minimize potential vapor intrusion.

Three alternatives to address the vapor intrusion issue have been considered:

**Option One:** Modify the HVAC system in the building. If a positive pressure ventilation system were installed that utilized outside air, subslab migration of vapors into the building would be greatly minimized. Segregated HVAC systems for each portion of the building may also be desirable. Testing of indoor vapors following installation and operation of the new HVAC system will be necessary to demonstrate effectiveness.

Comment: This option requires operation of the HVAC system(s) to prevent exposure. If the system is shut off, for example, during spring and fall during periods of nice weather, the positive pressure system would not be operating to prevent subslab vapor migration into the building.

**Option Two:** Installation of a low-powered fan on the existing subslab ventilation system piping to withdraw contaminated subslab vapors from beneath the existing Vogue Cleaners building. Powering the existing subslab ventilation system piping may remove elevated subslab vapors from beneath the building, and may also help reduce vapors in the "Checks for Cash" store. Testing of subslab and indoor vapors must be performed following fan operation to evaluate effectiveness.

Comment: The existing vapor mitigation piping was installed along the building north wall at the base of the building footing at a depth of approximately 4.5 feet below grade. The depth of the extraction pipe may be too great to be in direct connection with the shallow contaminated vapors immediately under the building floor. Testing should reveal whether there is vapor connection between the piping and the building subslab vapors. Powering a fan on the existing vapor mitigation piping could be effective as long as the fan is operating.

**Option Three:** Installation of a subslab vapor mitigation system for the entire building. A radon mitigation contractor should be hired to design and install an effective vapor mitigation system for the building. Typically, the system would consist of a penetration through the building floor that taps into the subslab fill. A low-voltage fan and extraction piping would be installed and operated to withdraw air from the subsurface and vent it outside. Testing of indoor, subslab, and exhaust vapors following system installation will be necessary to demonstrate effectiveness.

Comment: If properly designed, the subslab system would likely be effective as long as the fan is operating.

## RECOMMENDATIONS

Based on the results and site conditions, no further work is needed for soil or groundwater evaluation. Further work related to minimizing vapor intrusion is necessary.

This report should be submitted to the WDNR and WDHFS for discussion purposes. The significance of the results and feedback on the report, including potential remedial options should be obtained from WDNR and WDHFS. Costs for implementation of the selected alternative should be defined and approved under the DERF process. Upon approval of the costs, the system should be installed and operated, and verification sampling performed.

Once a vapor mitigation system has been installed, is operating, and has been demonstrated to be effective, the project can be closed.

I trust this information meets your needs. If you have any questions, please give me a call.

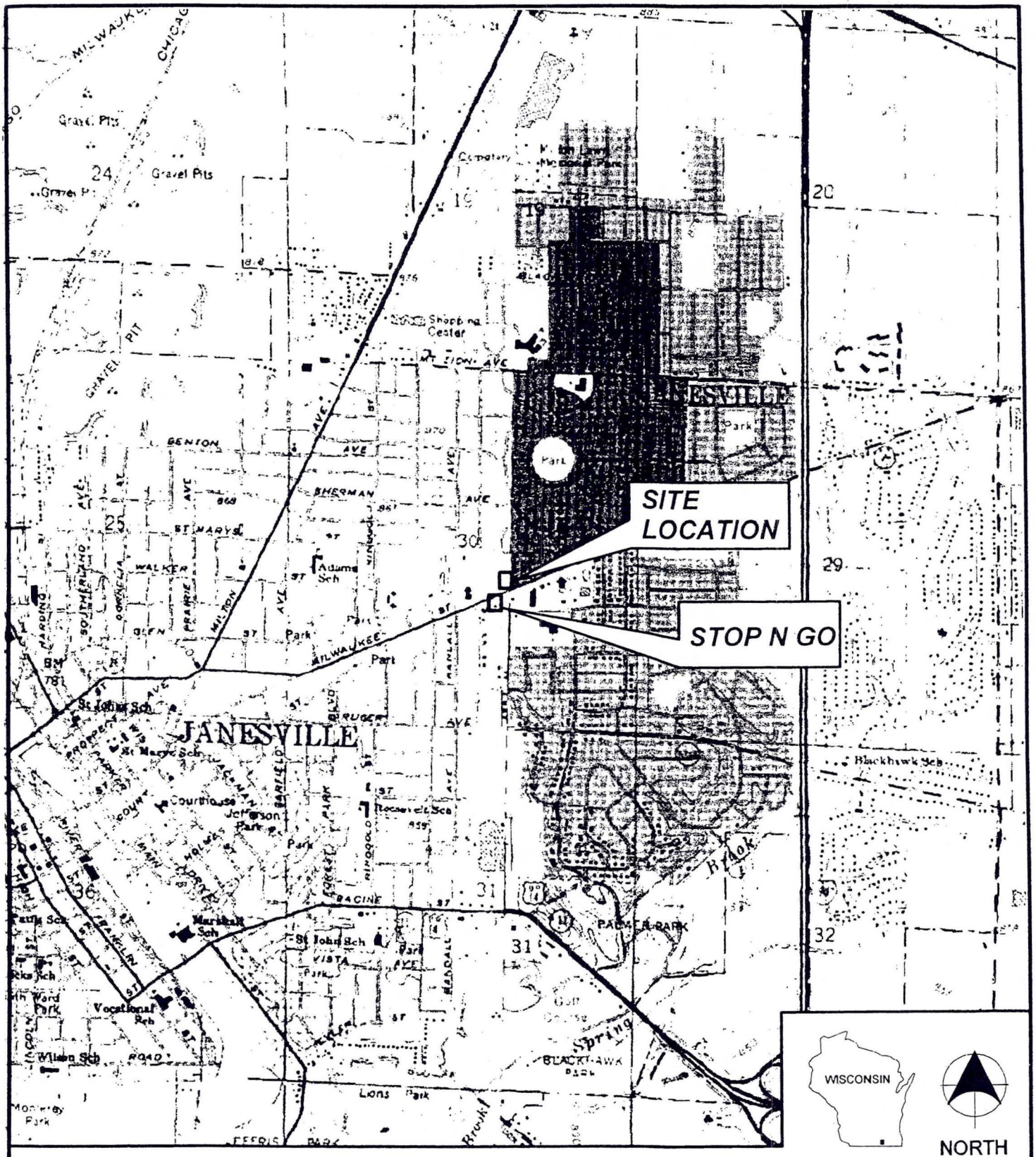
I look forward to hearing from you.

Sincerely,

Ken Ebbott, P.G.
Director of Remediation Services

Attachments: Figure 1: Site Location and Local Topography
Figure 2: Site Layout and Sample Locations
Table 1: Vapor Analytical Results – Detected VOC Parameters
A: Vapor Sample Laboratory Analytical Results

cc: Mr. Henry Nehls-Lowe, WDHFS, Madison, WI w/ Attachments
Ms. Marion Matteson, Robin, Inc., P.O. Box 348, Janesville, WI 53547 w/ Attachments
Mr. Ray Gehrig, 5110 North Conner Street, Janesville, WI 53545 w/ Attachments
Mr. Don Gallo, Reinhart Boerner, et.al., P.O. Box 2265, Waukesha, WI 53187-2265 w/ Attachments




MAP SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES, JANESVILLE EAST AND JANESVILLE WEST, WISCONSIN, 1981.

RSV ENGINEERING, INC.
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ROBINSON CLEANERS
EAST MILWAUKEE STREET
JANESVILLE, WISCONSIN
SITE LOCATION MAP

**FIGURE 1**

| DRAWN BY | PROJ. No. | DATE | FILE NAME |
|---|---|---|---|
| RN | 03-085 | 2 APR 05 | SITE LOC |

Residence

Asphalt

Grass

MW-1
H2O
PCE 3.4+

Grass

Telephone

5' <25
5' <25 X X 10' <25 X 5' <25
5' <25

B-3
30' 36

2' 770
10' 68

HA 1002
PCE 2' 210
4' <25

2' 5100 X 10' 460
X 12' 42
X 13' 59 X 2' 780 10' 34
4.5' 94 10' 210
4.5' 180 9' 130
PCE 34,469 TCE 105
VP-E
AC Unit

Dental Office

Press
Bathrooms
Boiler Room
DCM
VP-D
PCE 186,133
TCE 1,320
Drain
At Drain
2.5' 610
VP-B
PCE 17,924
TCE 132
VP-A
PCE 23,439
TCE 286

Asphalt

Grass

I Beam
Vogue Cleaner Operations
VP-C
PCE 26,886
TCE 226
* INSIDE BUILDING
PCE 47.57
TCE 181.5

MW-2S
H2O
PCE 4.65+
MW-2D
H2O
PCE <0.45

1817: Checks For Cash

I Beam

1819: Vogue Cleaners Front Desk

Grass

Richards Court

Asphalt

MW-3
H2O
PCE 1.7+

# Milwaukee Street

## LEGEND

- MW-1 Monitoring Well
- B-8 Boring
- X 2' 5100 10' 460 — SOIL SAMPLE DEPTH & PCE CONCENTRATION (ug/kg)
- Vapor Probes
  - VAPOR CHEMISTRY
  - PCE 26,886 June 2007
  - TCE 226 Tetrachloroethene (ug/m3)
  - Trichloroethene (ug/m3)
- PCE 4.65+ — GROUNDWATER CHEMISTRY RESULTS Sept 2007 (ug/l) + Exceeds NR140 PAL
- Approximate Excavation Limits

*NOTE: SAMPLE INSIDE BUILDING OBTAINED OCT 28, 2008

N

20 10 0 20 40

SCALE = 1"=20'

SITE LAYOUT AND CHEMISTRY RESULTS
Robin Inc., Janesville, WI

| | DATE | DESCRIPTION | APPVD |
|---|---|---|---|
| | | | |
| | | SCALE: 1" = 20' | |

ALPHA TERRA SCIENCE

DATE: 2/20/09 DRAWING: Basemap.skf

APPROVED: KAE

Figure 2

**TABLE 1**
**VAPOR ANALYTICAL RESULTS - DETECTED VOC PARAMETERS**
**Former Robinson Cleaners, 1819 Milwaukee Ave, Janesville, WI**

| Sample ID | Sample Date | Sample Location | Sample Details | PCE ppbv | PCE ug/m³ | PCE CF* | TCE ppbv | TCE ug/m³ | TCE CF* | cis-1,2 DCE ppbv | cis-1,2 DCE ug/m³ | cis-1,2 DCE CF* | Vinyl Chloride ppbv | Vinyl Chloride ug/m³ | Vinyl Chloride CF* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-A | 6/12/07 | NE by Sewing Station | Sub Slab Grab | 3,400 | **23439** | 6.89 | 52.000 | 286 | 5.5 | <20 | <80 | 4.03 | <1000 | <2600 | 2.60 |
| VP-B | 6/12/07 | N Center by Washing Machine | Sub Slab Grab | 2,600 | **17924** | 6.89 | 24.000 | 132 | 5.5 | <20 | <80 | 4.03 | <1000 | <2600 | 2.60 |
| VP-C | 6/12/07 | S Center by I-Beam | Sub Slab Grab | 3,900 | **26886** | 6.89 | 41.000 | 226 | 5.5 | <20 | <80 | 4.03 | <1000 | <2600 | 2.60 |
| VP-D | 6/12/07 | NW by Steam Press | Sub Slab Grab | 27,000 | **186133** | 6.89 | 240.000 | **1320** | 5.5 | <20 | <80 | 4.03 | <1000 | <2600 | 2.60 |
| VP-E | 6/12/07 | Passive Vent Extraction Piping | Sub Slab Grab | 5,000 | **34469** | 6.89 | 19.0 | 105 | 5.5 | <20 | <80 | 4.03 | <1000 | <2600 | 2.60 |
| **INSIDE BUILDING** | | | | | | | | | | | | | | | |
| Checks for Cash | 10/28/2008 | Inside Checks for Cash | Indoor Air 8 hr | 6.9 | **47.57** | 6.89 | 33 | **181.50** | 5.5 | <1.0 | <4.03 | 4.03 | <1.0 | <2.6 | 2.60 |
| WDNR / WDHFS Commercial Subslab | | | | **210 ug/m³ C** | | | **610 ug/m³ C** | | | NS | | | 280 ug/m³ C | | |
| WDNR / WDHFS Commercial Indoor Air | | | | **21 ug/m³ C** | | | **61 ug/m³ C** | | | NS | | | 28 ug/m³ C | | |

| Sample ID | Sample Date | Sample Location | Sample Details | Benzene ppbv | Benzene ug/m³ | Benzene CF* | Ethyl-benzene ppbv | Ethyl-benzene ug/m³ | Ethyl-benzene CF* | Toluene ppbv | Toluene ug/m³ | Toluene CF* | Xylenes ppbv | Xylenes ug/m³ | Xylenes CF* | TMBs[1] ppbv | TMBs[1] ug/m³ | TMBs[1] CF* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-A | 6/12/07 | NE by Sewing Station | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-B | 6/12/07 | N Center by Washing Machine | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-C | 6/12/07 | S Center by I-Beam | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-D | 6/12/07 | NW by Steam Press | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-E | 6/12/07 | Passive Vent Extraction Piping | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **INSIDE BUILDING** | | | | | | | | | | | | | | | | | | |
| Checks for Cash | 10/28/2008 | Inside Checks for Cash | Indoor Air 8 hr | 3.10 | 10.08 | 3.25 | 4.20 | 18.52 | 4.41 | 40.0 | 153.20 | 3.83 | 14.7 | 64.83 | 4.41 | 4.20 | 21.00 | 5.00 |
| WDNR / WDHFS Commercial Subslab | | | | 160 ug/m³ C | | | 490 ug/m³ C | | | 2200000 ug/m³ N | | | 44000 ug/m³ N | | | 2600 ug/m³ N | | |
| WDNR / WDHFS Commercial Indoor Air | | | | 16 ug/m³ C | | | 49 ug/m³ C | | | 220000 ug/m³ N | | | 4400 ug/m³ N | | | 260 ug/m³ N | | |

| Sample ID | Sample Date | Sample Location | Sample Details | Acetone ppbv | Acetone ug/m³ | Acetone CF* | Dichlorodifluoromethane ppbv | Dichlorodifluoromethane ug/m³ | Dichlorodifluoromethane CF* | Methyl Ethyl Ketone ppbv | Methyl Ethyl Ketone ug/m³ | Methyl Ethyl Ketone CF* | Hexane ppbv | Hexane ug/m³ | Hexane CF* | Ethyl Acetate ppbv | Ethyl Acetate ug/m³ | Ethyl Acetate CF* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-A | 6/12/07 | NE by Sewing Station | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-B | 6/12/07 | N Center by Washing Machine | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-C | 6/12/07 | S Center by I-Beam | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-D | 6/12/07 | NW by Steam Press | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-E | 6/12/07 | Passive Vent Extraction Piping | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **INSIDE BUILDING** | | | | | | | | | | | | | | | | | | |
| Checks for Cash | 10/28/2008 | Inside Checks for Cash | Indoor Air 8 hr | 17 | 41 | 2.41 | 3.70 | 18.57 | 5.02 | 7.90 | 23.7 | 3.00 | 4.50 | 16.11 | 3.58 | 3.70 | 1.136 | 3.66 |
| WDNR / WDHFS Commercial Subslab | | | | 14000000 ug/m³ N | | | 88000 ug/m³ N | | | 2200000 ug/m³ N | | | 310000 ug/m³ N | | | NS | | |
| WDNR / WDHFS Commercial Indoor Air | | | | 1400000 ug/m³ N | | | 8800 ug/m³ N | | | 220000 ug/m³ N | | | 31000 ug/m³ N | | | NS | | |

| Sample ID | Sample Date | Sample Location | Sample Details | Tetra hydro furan ppbv | Tetra hydro furan ug/m³ | Tetra hydro furan CF* | Cyclo hexane ppbv | Cyclo hexane ug/m³ | Cyclo hexane CF* | Carbon Disulfide ppbv | Carbon Disulfide ug/m³ | Carbon Disulfide CF* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VP-A | 6/12/07 | NE by Sewing Station | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-B | 6/12/07 | N Center by Washing Machine | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-C | 6/12/07 | S Center by I-Beam | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-D | 6/12/07 | NW by Steam Press | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| VP-E | 6/12/07 | Passive Vent Extraction Piping | Sub Slab Grab | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **INSIDE BUILDING** | | | | | | | | | | | | |
| Checks for Cash | 10/28/2008 | Inside Checks for Cash | Indoor Air 8 hr | 7.70 | **21.8** | 2.83 | 4.50 | 16.5 | 3.66 | 5.7 | 18.07 | 3.17 |
| WDNR / WDHFS Commercial Subslab | | | | NS | | | 2600000 ug/m3 N | | | 310000 ug/m³ N | | |
| WDNR / WDHFS Commercial Indoor Air | | | | NS | | | 260000 ug/m3 N | | | 31000 ug/m³ N | | |

| Heptane ppbv |
|---|
| NA |
| NA |
| NA |
| NA |
| NA |
| 3.70 |
| NS |
| NS |

Notes
* =68 degrees F (20 C) used in conversion factor based on estimated sample temperature (July)
N = Noncarcinogen; C = Carcinogen
BOLD : Exceeds Subslab Vapor Standard
BOLD and BOXED Exceeds Indoor Air Standard
NA=Not Analyzed
NS : No Standards

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# Laboratory Report

D.F. Kurtycz, M.D., Medical Director • Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division — Organic Chemistry

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB WI00007 WI DATCP ID: 105-415

**Supplement to test report#:** 9161545

**WSLH Sample: OT001938**

**KEN EBBOTT**
**1237 PILGRIM RD**
**PLYMOUTH, WI 53073**

Bill To
Billing ID: 7305879
Customer ID: 320225
TRACKING 4920
2601 AGRICULTURAL DRIVE
MADISON WI 53718

Field #: R1
Collection Start:
Collection End:
Collected By: KYLE KUTCHER
County:
Sample Source:
Sample Depth:
Sample Information:

ID#:
Waterbody/Outfall Id:
Point/Well:
Account #: LH034
Project No:
Date Received: 11/07/2008 08:04:00
Date Reported: 11/26/2008
Sample Reason:

Sample Location: 1817 MILWAUKEE ST NEXT TO OLD ROBIN DRYCLEANER
Sample Description: 8 HR INSIDECHECKS FOR CASH

Analyses and Results:

| Analysis Date | Lab Comment |
|---|---|
| 11/13/2008 | SEE OT001938.MM1 |

| Analysis Method | Result | Units | LOD | LOQ | Report Limit |
|---|---|---|---|---|---|
| PROPENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| DICHLORODIFLUOROMETHANE | 3.7 | PPB V | 0.10 | 0.33 | |
| CHLOROMETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,2-DICHLOROTETRAFLUOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| VINYL CHLORIDE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,3-BUTADIENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| BROMOMETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| CHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| ACROLEIN | *ES *D<5.0 | PPB V | 0.50 | 1.65 | |
| ACETONE | *QU 17. | PPB V | 0.50 | 1.65 | |
| HALOCARBON 11 | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,1-DICHLOROETHENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| METHYLENE CHLORIDE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| CARBON DISULFIDE | 5.7 | PPB V | 0.10 | 0.33 | |
| 1,1,2-TRICHLOROTRIFLUOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |

Wisconsin State Laboratory of Hygiene
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Madison, WI 53707-7996
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http://www.slh.wisc.edu

# Laboratory Report

D.F. Kurtycz, M.D., Medical Director • Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division — Organic Chemistry

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB WI00007 WI DATCP ID: 105-415

**Supplement to test report#:** 9161545

**WSLH Sample: OT001938**

| Analysis Method | Result | Units | LOD | LOQ | Report Limit |
|---|---|---|---|---|---|
| TRANS-1,2-DICHLOROETHYLENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,1-DICHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| TERT-BUTYL METHYL ETHER | *D <1.0 | PPB V | 0.10 | 0.33 | |
| VINYL ACETATE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| METHYL ETHYL KETONE | 7.9 | PPB V | 0.10 | 0.33 | |
| CIS-1,2-DICHLOROETHYLENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| HEXANE | 4.5 | PPB V | 0.10 | 0.33 | |
| CHLOROFORM | *D <1.0 | PPB V | 0.10 | 0.33 | |
| ETHYL ACETATE | 3.7 | PPB V | 0.10 | 0.33 | |
| TETRAHYDROFURAN | 7.7 | PPB V | 0.50 | 1.65 | |
| 1;2-DICHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,1,1-TRICHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| BENZENE | 3.1 | PPB V | 0.10 | 0.33 | |
| CARBON TETRACHLORIDE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| CYCLOHEXANE | 4.5 | PPB V | 0.10 | 0.33 | |
| 1,2-DICHLOROPROPANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| BROMODICHLOROMETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| TRICHLOROETHYLENE | 33. | PPB V | 0.10 | 0.33 | |
| 1,4-DIOXANE | *D <5.0 | PPB V | 0.5 | 1.65 | |
| HEPTANE | 3.7 | PPB V | 0.10 | 0.33 | |
| CIS-1,3-DICHLOROPROPENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| METHYL ISOBUTYL KETONE | *D <5.0 | PPB V | 0.50 | 1.65 | |
| TRANS-1,3-DICHLOROPROPENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,1,2-TRICHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| TOLUENE | 40. | PPB V | 0.10 | 0.33 | |
| METHYL N-BUTYL KETONE | *D <5.0 | PPB V | 0.50 | 1.65 | |
| DIBROMOCHLOROMETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,2-DIBROMOETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| TETRACHLOROETHYLENE | 6.9 | PPB V | 0.10 | 0.33 | |
| CHLOROBENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| ETHYLBENZENE | 4.2 | PPB V | 0.10 | 0.33 | |
| M/P-XYLENE | 10. | PPB V | 0.20 | 0.66 | |
| BROMOFORM | *D <1.0 | PPB V | 0.10 | 0.33 | |
| STYRENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,1,2,2-TETRACHLOROETHANE | *D <1.0 | PPB V | 0.10 | 0.33 | |

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 • FAX (608)224-6213
http://www.slh.wisc.edu

# Laboratory Report

D.F. Kurtycz, M.D., Medical Director • Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division — Organic Chemistry

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB WI00007 WI DATCP ID: 105-415

**Supplement to test report#:** 9161545

**WSLH Sample: OT001938**

| Analysis Method | Result | Units | LOD | LOQ | Report Limit |
|---|---|---|---|---|---|
| O-XYLENE | 4.7 | PPB V | 0.10 | 0.33 | |
| 1-ETHYL-4-METHYL BENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,3,5-TRIMETHYL BENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,2,4-TRIMETHYL BENZENE | 4.2 | PPB V | 0.10 | 0.33 | |
| CHLOROMETHYL BENZENE (ALPHA) | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,3-DICHLOROBENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,4-DICHLOROBENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,2-DICHLOROBENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| 1,2,4-TRICHLOROBENZENE | *D <1.0 | PPB V | 0.10 | 0.33 | |
| HEXACHLORO-1,3-BUTADIENE | *D <1.0 | PPB V | 0.10 | 0.33 | |

```
OT001938.MM1:

WISCONSIN STATE LABORATORY OF HYGIENE SAMPLE OT001938 CONTAINS THE
FOLLOWING FLAGS.

UPPER QC LIMIT FOR CALIBRATION CHECK EXCEEDED - *QU.
COMPOUND QUANTITATED WITH EXPIRED STANDARD - *ES.
LOD NOT ACHIEVABLE DUE TO DILUTION - *D.
THE SYSTEM BLANK CONTAINED THE FOLLOWING COMPOUNDS;
                ACETONE
   ACROLEIN
                VINYL ACETATE

IF YOU HAVE ANY QUESTIONS, CONTACT STEVE GEIS AT (608) 224-6269.
```

Analysis Date: 11/13/2008 — Lab Comment:

| Analysis Method | Result | Units | LOD | LOQ | Report Limit |
|---|---|---|---|---|---|
| TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR T015 - PREP | COMPLETE | | | | 1 |

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# Laboratory Report

D.F. Kurtycz, M.D., Medical Director • Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division Organic Chemistry

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB WI00007 WI DATCP ID: 105-415

**Supplement to test report#:** 9161545

**WSLH Sample: OT001938**

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/nelap/

**List of Abbreviations:**

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD

Responsible Party: Steve Geis

If there are questions about this report, please contact Steve Geis at 608-224-6269.



Report #: 9161557

State of Wisconsin
Department of Natural Resources
and Laboratory of Hygiene

# Organic Test Request

Form 4800-016 (R 4/06) Page 1 of 2

| ID, License, Permit or STORET Number | Point or Outfall Number | Field Number | County No. | Program Code | Region |
|---|---|---|---|---|---|
| | | [redacted] | | | |

Waterbody Number

Sample Address or Location: [redacted] ST next to old Robin dry cleaner

Sample Point Description / Sampling Device: [redacted] for cosh

**Send Report To**

DNR User ID

Date Results Needed (mm/dd/yyyy)

Name (Last, First): [redacted]

Address: [redacted]

City: [redacted] State: [redacted] ZIP: 53073

Account Number: LH034

Collected By: [redacted]

Lakes Grant or Project Number

Telephone Number

Begin or Grab Date (mm/dd/yyyy)

Begin Time (24-hr clock)

End Date - For Composite Samples Only (mm/dd/yyyy)

End Time (24-hr clock) - For Composite Samples Only

Enforcement? ☐ Yes ☐ No (If yes, include chain of custody form.)

**Sample Type** (select one)

- ☐ SU Surface Water
- ☐ NP Storm Water
- ☐ SE Sediment
- ☐ SL Sludge
- ☐ LE Leachate
- ☐ TI Tissue
- ☐ E Public Drinking Entry Point
- ☐ W Public Drinking Well/Source
- ☐ D Public Drinking Distribution
- ☐ EF Effluent (Treated Wastewater)
- ☐ IF Influent (Untreated Wastewater)
- ☐ MW Monitoring Well
- ☐ LY Lysimeter
- ☐ SO Soil
- ☐ OI Oil
- ☐ OW Waste
- ☐ PO Private Well
- ☐ X Non-Potable Well

For Lab Use: Priority

**Sample Reason** (Drinking Water - select one)

- ☐ N New Well
- ☐ I Investigation
- ☐ W Raw water (drinking)
- ☐ C Confirmation (follow up)
- ☐ D Compliance

Depth of Sample (feet or meters) ____ F or M

Is Sample Disinfected? ☐ Yes ☐ No If Yes, how? ____

**VOCs Water / Soil** (check one of the following)

- ☐ Quantification (EPA Method 8260)
- ☐ Quantification (Drinking Water-EPA Method 524.2)

**Priority Pollutant Scan** (Non-VOC)

- ☐ Priority Pollutant Pesticides
- ☐ Priority Pollutant Base/Neutral/Acid

**PCBs**

- ☐ Aroclor Identification
- ☐ Congeners AIRTOI5

**Petroleum Products**

- ☐ Petroleum Fingerprint
- ☐ PAHs (HPLC)

**Pesticides**

- ☐ List in additional parameters section to the right

**Others**

- ☐ Algal Toxins
- ☐ Total Organic Carbon
- ☐ Dissolved Organic Carbon (Field Filtered? ☐ Yes ☐ No )
- ☐ Glycols

**Toxicity Characteristic Leaching Procedure (TCLP)**
(Check one or more of the following)

- ☐ VOCs - TCLP
- ☐ Ignitability (Haz. Waste Char.)

Additional parameters

PID reading [redacted]

(2187)

| For Lab Use: | Date Received | Sample ID |
|---|---|---|
| Temp °C ____ | | |
| Analyst ____ | | |

11/07/08
08:04

OT001938