From: Schultz, Josie M - DNR
Sent: Thursday, June 6, 2024 1:02 PM
To: Andy Delforge
Cc: Ken Juza
Subject: Closure revisions needed for V&L Stripping, BRRTS # 02-05-216722
Attachments: Lost MW Development Forms.pdf; Vapor Results.pdf

Hi Andy,

Thanks for taking the time to have a Teams call with me this morning to go over the revisions needed for V&L Stripping's closure request.

Below are the revisions that were noted during DNR's review of the closure packet. I've attached the monitoring well construction and development forms for the lost wells, and historic vapor sampling results to save you some time searching through the site file. The first two pages of the vapor results PDF are pulled from the November 18, 2010 Groundwater and Air Sampling September, 2010, report submitted by Shaw. This is followed by the report submitted by the Department of Health and Family Services that include vapor sampling results from 2003.

Revisions:

- Closure Form
  - Page 1 – site address is 864 Mather
  - 4.B. – VMS is considered an interim action, needs to be added here.
  - Table 5 – iv. Monitoring wells not abandoned on Source Property and ROW need to be checked
    - MW-400, MW-600, MW-2000, TW-800 were destroyed during road construction.
  - Page 10 – Att. E - check that not all monitoring wells can be located
  - Attachment G table
    - Check box for monitoring wells not abandoned for Mather St ROW
    - Check box for residual volatile contamination poses future risk of VI for 714 Lincoln and 856 Mather.
- Tables A.2.a, A.2.b, A.2.c
  - Include Industrial direct contact RCLs on table
- Table A.3 – Residual Soil Contamination
  - Include Industrial direct contact RCLs on table
  - Add samples B200, B500, B800, B1100, B2400, B2800, B2900 to table
- Table A.4.a – Ambient Air Sampling Results
  - Include 9/28/2010 indoor air sample results on table 5 of the 11/18/2010 AC 43:
    - 856 Mather St
    - Indoor air of on-site building
    - Ambient outdoor air
  - Include the following vapor air results from 8/5/2003 DHFS letter (in site file):
    - Ambient Air (outside north side of on-site building)

        - Basement Indoor air (basement air from 856 Mather)
- Table A.4.b, Sub-Slab Vapor Results
    - Include 9/28/2010 sub-slab vapor sample results for SSM, SSW and SSE from 11/18/2010 AC 43, Table 4
    - Include following sub-slab sample results from 8/5/2003 DHFS letter (in site file):
        - Soil Vapor (VP3600 on maps, from SG probe outside of 714 Lincoln residence)
        - Sub-Slab Vapor (VP3700 on maps, from basement of 856 Mather)
- Table A.4.c, Sewer Vapor Sampling Results
    - Include SSGSL standards on table and include VAL standards for the cleanout sample as this would be compared to the VAL.
- **<u>All Figures</u>**
    - **Include site boundary**
    - **Change addresses on affected properties to 714 Lincoln and 856 Mather. They're currently labeled at 716 Lincoln and 866 Mather.**
- Figure B.1.b, Detailed Site Map
    - Include parcel number for the site
    - Include site boundary
- Figure B.2.a, Soil Contamination Map
    - Include delineation around B1400 for non-industrial direct contact exceedance for CVOCs
    - Identify that the hashed purple outline is residual soil contamination exceeding groundwater pathway RCLs for CVOCs
    - Include area of excavation in purple hashed area because excavation did not go down to the water table.
    - Include B3400 on the map
- Figure B.2.b, Residual Soil Contamination
    - Delineation around B1400 should say residual soil contamination exceeding non-industrial direct contact for CVOCs
    - Hashed purple delineation should say residual soil contamination exceeding groundwater pathway RCLs for CVOCs
    - Add the following points to the map and include them in the gw pathway delineation: B200, B500, B800 (unless removed during road construction), B1100, B2400, B2800, B2900.
    - Include excavation area in residual contamination because the excavation only went down to 5', which isn't below the water table.
- Figure B.3.a, Geologic Cross Section
    - Include and identify isoconcentration contour for non-industrial direct contact exceedances for CVOCs in soil at TW1400.
    - Include and identify isoconcentration contour for GW pathway exceedances for CVOCs in soil.

    - Include and identify isoconcentration contour, horizontal and vertical extent, for groundwater exceeding the ES for CVOCs.
    - Include recent excavation extent and show that it was backfilled with pit run sand.
- Have a single B.3.b figure for groundwater contamination rather than one for each individual contaminant.
    - Dark blue isoconcentration line should say ES exceedance for CVOCs in groundwater and should include: MW100, MW200, MW300, MW400, MW600, TW900, MW800, TW1100, TW1300, TW1400, MW1500,
    - Light blue isoconcentration line should say PAL exceedance for CVOCs in groundwater and should include: TW1500, MW2100, MW3200, PZ1700,
    - Include Site boundary
    - Off-site addresses should say 714 Lincoln and 856 Mather.
- Figure B.3.d, Monitoring Wells
    - Needs to clearly designate wells that are proposed to be abandoned, cannot be located (e.g. destroyed during road construction), and have been abandoned.
    - Destroyed: MW400, TW800, TW1300, MW2000, MW600 (RMSC)
    - Properly abandoned as part of Randys Mobil: MW300, MW700, MW800, MW900, MW1100, MW1200
    - Temp Wells properly abandoned without abandonment forms available: TW1100, TW1500, TW3100, TW3500
    - To be abandoned: MW100, MW200, MW300, MW800, TW900, TW1400, MW1500, MW2000R, MW2100
- Figure B.4.a
    - Site boundary needs to be added
    - Indoor air sample locations need to be added
    - Communication (PFE) testing locations need to be added
    - Needs to include residual soil and groundwater contamination
    - Sump pit sample ID at 714 Lincoln needs to be added
    - Needs to include soil and groundwater contamination isoconcentrations along with concentrations at each vapor monitoring point.
- Attachment E
    - Include description of efforts to find lost wells on cover page
    - Include MW construction & development forms for wells destroyed during road construction:
        - MW-400
        - MW-600
        - MW-2000
        - TW-800
        - TW-1300
        - TW1100, TW1500, TW3100, TW3500
- Att D - Vapor Mitigation System OM&M Plan

- Figures D.2.a and D.2.b are missing; these should show system details
- Double check that manometer by fan is permanent (looks similar to the one used for the VP PFE testing)
- Annual submittal of inspection log to DNR is required. Need to perform by September 30th and submitted to DNR by October 15th
- Include vapor ports in the inspection log with photos

Please let me know if you have any questions.

Thanks,
Josie

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Josie M. Schultz
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Wisconsin Department of Natural Resources
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Cell Phone: 920-366-5685
Josie.Schultz@Wisconsin.gov

dnr.wi.gov

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: V+L STRIPPING	Local Grid Location of Well: ____ ft. ☐N. ☐S. ____ ft. ☐E. ☐W.	Well Name: MW-100
Facility License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. ____ Long. ____ or	Wis. Unique Well Number / DNR Well Number
Type of Well: Water Table Observation Well ☒ 11; Piezometer ☐ 12	St. Plane ____ ft. N, ____ ft. E.	Date Well Installed: 08/26/98 (mm/dd/yy)
Distance Well Is From Waste/Source Boundary: ____ ft.	Section Location of Waste/Source: NW 1/4 of __ 1/4 of Sec. 1, T. 24 N, R. 20 ☒E. ☐W.	Well Installed By: (Person's Name and Firm): BRIAN REPINSKI / EDS
Is Well A Point of Enforcement Std. Application? ☐ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☒ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation 594.18 ft. MSL
C. Land surface elevation 594.7 ft. MSL
D. Surface seal, bottom 593.7 ft. MSL or ____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

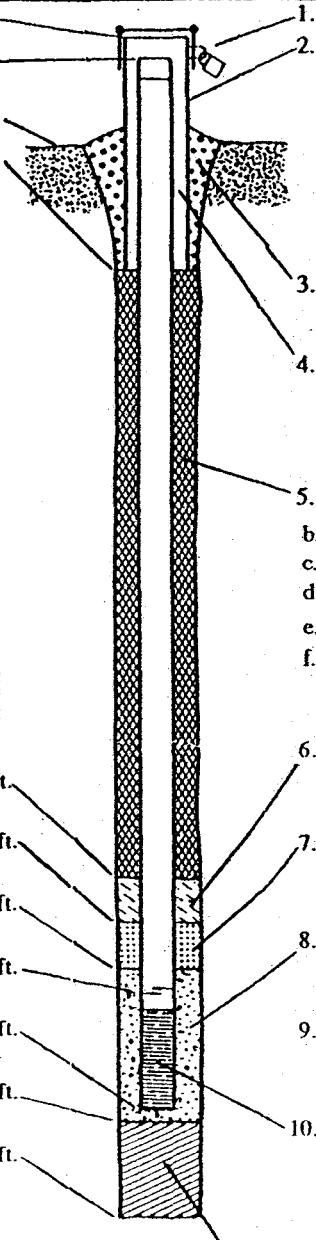
14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☒ 41; Other ☐ ____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis):

E. Bentonite seal, top 593.7 ft. MSL or 1.0 ft.
F. Fine sand, top 591.7 ft. MSL or 3.0 ft.
G. Filter pack, top 591.7 ft. MSL or 3.0 ft.
H. Screen joint, top 591.2 ft. MSL or 3.5 ft.
I. Well bottom 581.2 ft. MSL or 13.5 ft.
J. Filter pack, bottom 580.2 ft. MSL or 14.5 ft.
K. Borehole, bottom 580.2 ft. MSL or 14.5 ft.
L. Borehole, diameter 8.0 in.
M. O.D. well casing 2.37 in.
N. I.D. well casing 2.04 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 1.0 ft.
c. Material: Steel ☒ 04; Other ☐ ____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30; Concrete ☒ 01; Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☒ 30; Annular space seal ☐ ____; Other ☐ ____
5. Annular space seal: a. Granular Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. ____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. N/A
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name and mesh size
a. BMC 20-40
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ ____
10. Screen material: BOART
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐ ____
b. Manufacturer BOART
c. Slot size: 0.010 in.
d. Slotted length: ____ ft.
11. Backfill material (below filter pack): None ☒ 14; Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Brian Repinski | Firm: EDS

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 6-97

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	County	Well Name
Former V & L Stripping, Inc.	Brown	MW400

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
	5		

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method:

surged with bailer and bailed	☐	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed, and pumped	☐	70
compressed air	☐	20
bailed only	☒	10
pumped only	☐	51
pumped slowly	☐	50
other _____	☐	

3. Time spent developing well 22 min.

4. Depth of well (from top of well casing) 14.5 ft.

5. Inside diameter of well 2.04 in.

6. Volume of water in filter pack and well casing 7.0 gal.

7. Volume of water removed from well 12.0 gal.

8. Volume of water added (if any) gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

		Before Development	After Development
11. Depth to Water (from top of well casing)	a.	7.48 ft.	7.60 ft.
Date	b.	08/28/1998	09/15/1998
Time	c.	12:00 pm	12:00 am
12. Sediment in well bottom		inches	inches
13. Water clarity		Clear ☒ 10 Turbid ☐ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids		mg/l	mg/l
15. COD		mg/l	mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Person's Name and Firm

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: _____

Firm: _____

Street: _____

City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Jeremy Klaas

Print Name: Jeremy Klaas

Firm: Northern Environmental

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Former V & L Stripping

Facility License, Permit or Monitoring Number: _____

Type of Well — Water Table Observation Well ■ 11 — Piezometer ☐ 12

Distance Well Is From Waste/Source Boundary: _____ ft.

Is Well A Point of Enforcement Std. Application? ☐ Yes ☐ No

Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.

Grid Origin Location: Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.

Section Location of Waste/Source: ___ 1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐ E. ☐ W.

Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known

Well Name: MW2000

Wis. Unique Well Number / DNR Well Number: OW360 / _____

Date Well Installed: 11 / 15 / 02 (m m / d d / y y)

Well Installed By: (Person's Name and Firm): Mike Gerrits — EDS, Inc.

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 10 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ■ No

14. Drilling method used: Rotary ☐ 50 — Hollow Stem Auger ■ 41 — Other ☐ _____

15. Drilling fluid used: Water ☐ 02 — Air ☐ 01 — Drilling Mud ☐ 03 — None ■ 99

16. Drilling additives used? ☐ Yes ■ No

Describe _____

17. Source of water (attach analysis): _____

E. Bentonite seal, top _____ ft. MSL or 0 0 ft.

F. Fine sand, top _____ ft. MSL or 2 5 ft.

G. Filter pack, top _____ ft. MSL or 2 5 ft.

H. Screen joint, top _____ ft. MSL or 3 5 ft.

I. Well bottom _____ ft. MSL or 13 5 ft.

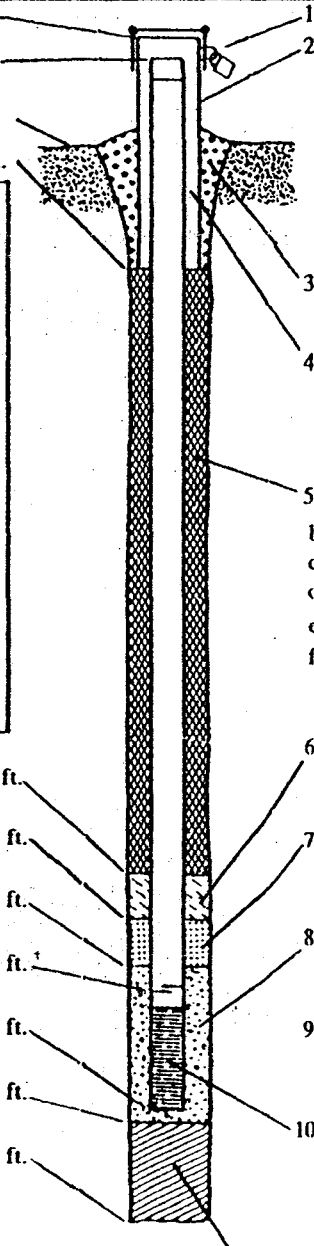
J. Filter pack, bottom _____ ft. MSL or 14 0 ft.

K. Borehole, bottom _____ ft. MSL or 14 0 ft.

L. Borehole, diameter 80 in.

M. O.D. well casing 2 37 in.

N. I.D. well casing 2 04 in.



1. Cap and lock? ■ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8 0 in.
b. Length: 1 0 ft.
c. Material: Steel ■ 04 — _____ Other ☐ _____
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ■ 30 — Concrete ☐ 01 — _____ Other ☐ _____

4. Material between well casing and protective pipe:
Bentonite ■ 30 — Annular space seal ☐ _____ — _____ Other ☐ _____

5. Annular space seal: a. Granular Bentonite ■ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 — Tremie pumped ☐ 02 — Gravity ■ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ■ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. Badger Mining 40/60
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name and mesh size
a. Badger Mining 20/40
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ■ 23 — Flush threaded PVC schedule 80 ☐ 24 — Johnson Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ■ 11 — Continuous slot ☐ 01 — _____ Other ☐ _____
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted length: 100 ft.

11. Backfill material (below filter pack): None ■ 14 — _____ Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Sue Image for EDS | Firm: EDS, Inc.

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ■ Other ☐

Facility/Project Name	County	Well Name
Ken Juza Property	Brown	MW2000

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
	5	OW360	

1. Can this well be purged dry? ■ Yes ☐ No

2. Well development method:

surged with bailer and bailed	■	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed, and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	■	50
other _____	☐	

3. Time spent developing well: 192 min.

4. Depth of well (from top of well casing): 14.5 ft.

5. Inside diameter of well: 2.06 in.

6. Volume of water in filter pack and well casing: 1.64 gal.

7. Volume of water removed from well: 15 gal.

8. Volume of water added (if any): 0 gal.

9. Source of water added: NA

10. Analysis performed on water added? ☐ Yes ■ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	7.14 ft.	ft.
Date b.	11/22/02	
Time c.	853 ■ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
12. Sediment in well bottom	0 inches	0 inches
13. Water clarity	Clear ☐ 10 Turbid ■ 15 (Describe) cloudy	Clear ■ 20 Turbid ☐ 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm
Jeff Brand Northern Environmental

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address

Name: Kenneth Juza
Firm:
Street: 1478 Norfield Road
City/State/Zip: Suamico, WI 54173

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Jeff Brand
Print Name: Jeff Brand
Firm: Northern Environmental

State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name	Local Grid Location of Well	Well Name
Former V&L Stripping	____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	TW800
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☒	**Wis. Unique Well No.** / **DNR Well Number**
02-05-216722	Lat. 44° 31' 37.0" Long. 88° 1' 27.0" or	
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	**Date Well Installed**
		10/10/2002
Type of Well	**Section Location of Waste/Source** ☒ E ☐ W	**Well Installed By: (Person's Name and Firm)**
Well Code 11/mw	NW 1/4 of SW 1/4 of Sec. 25, T. 25 N, R. 20	Mike Olsen
Distance from Waste/ Source ____ ft. / **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / **Gov. Lot Number** ____	ATS

A. Protective pipe, top elevation 594.74 ft. MSL
B. Well casing, top elevation 594.51 ft. MSL
C. Land surface elevation 594.7 ft. MSL
D. Surface seal, bottom 594.2 ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

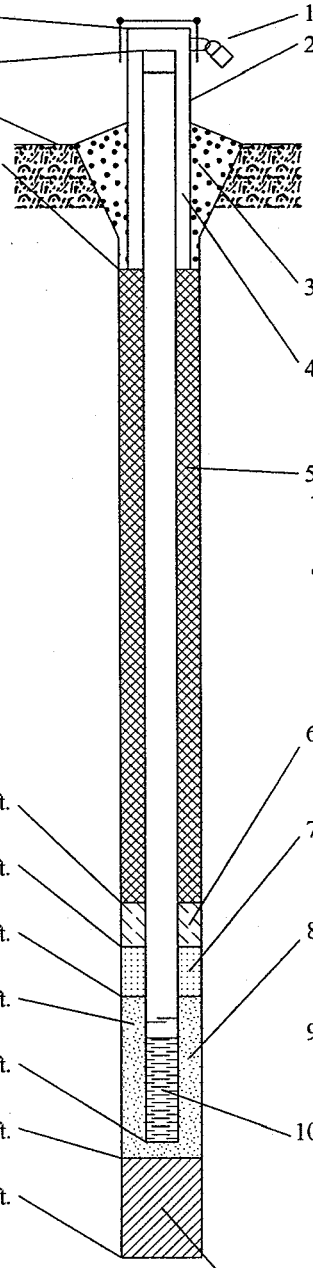
14. Drilling method used: Rotary ☐ 5 0 / Hollow Stem Auger ☐ 4 1 / ____ Other ☐

15. Drilling fluid used: Water ☐ 0 2 Air ☐ 0 1 Drilling Mud ☐ 0 3 None ☒ 9 9

16. Drilling additives used? ☒ Yes ☐ No
Describe N

17. Source of water (attach analysis, if required):
____

E. Bentonite seal, top 594.7 ft. MSL or 0.0 ft.
F. Fine sand, top ____ ft. MSL or ____ ft.
G. Filter pack, top 593.7 ft. MSL or 1.0 ft.
H. Screen joint, top 592.7 ft. MSL or 2.0 ft.
I. Well bottom 583.3 ft. MSL or 11.5 ft.
J. Filter pack, bottom 582.7 ft. MSL or 12.0 ft.
K. Borehole, bottom 582.7 ft. MSL or 12.0 ft.
L. Borehole, diameter 2.0 in.
M. O.D. well casing 1.25 in.
N. I.D. well casing 1.00 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: ____ in.
b. Length: ____ ft.
c. Material: Steel ☒ 0 4 / ____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 3 0 / Concrete ☒ 0 1 / ____ Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ 3 0 / ____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 3 3
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 3 5
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 3 1
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 5 0
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 0 1 / Tremie pumped ☐ 0 2 / Gravity ☒ 0 8
6. Bentonite seal: a. Bentonite granules ☒ 3 3
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 3 2
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #10 Red Flint Sand
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 / Flush threaded PVC schedule 80 ☐ 2 4 / ____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 1 1 / Continuous slot ☐ 0 1 / ____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): n / None ☐ 1 4 / Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Sue Knabe for ATS Firm Northern Environmental, 954 Circle Drive Green Bay, WI 54304 Tel: (920) 592-8400 Fax: (920) 592-8444

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Ken Juza Property	Brown	TW 800
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	5		

1. Can this well be purged dry? ■ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	■ 50
Other _____	☐

3. Time spent developing well 10 min.

4. Depth of well (from top of well casisng) 12.0 ft.

5. Inside diameter of well 1.03 in.

6. Volume of water in filter pack and well casing 0.5 gal.

7. Volume of water removed from well 0.3 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added NA

10. Analysis performed on water added? ☐ Yes ■ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.96 ft.	7.96 ft.
Date	b. 10/10/2002 (m m d d y y y y)	12/04/2002 (m m d d y y y y)
Time	c. 16:02 ☐ a.m. ■ p.m.	8:27 ■ a.m. ☐ p.m.
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ■ 15 (Describe)	Clear ■ 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Jeff Last Name: Brand
Firm: Northern Environmental

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Kenneth Last Name: Juza
Facility/Firm: _____
Street: 1478 Nocfield Road
City/State/Zip: Suamico, WI 54173

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Jeff Brand
Print Name: Jeff Brand
Firm: Northern Environmental

NOTE: See instructions for more information including a list of county codes and well type codes.

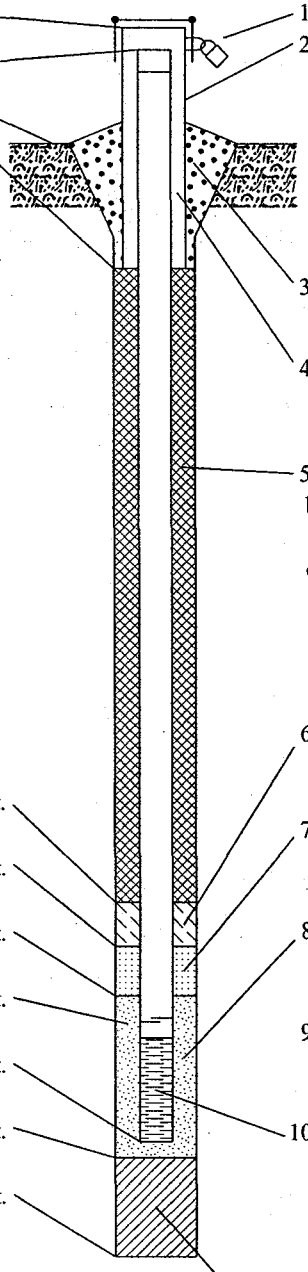
State of Wisconsin
Department of Natural Resources

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☒ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Former V&L Stripping	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: TW1300
Facility License, Permit or Monitoring No.: 02-05-216722	Local Grid Origin ☐ (estimated: ☐) or Well Location ☒ Lat. 44° 31' 37.0" Long. 88° 1' 27.0" or	Wis. Unique Well No. / DNR Well Number
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 10/10/2002
Type of Well: Well Code 11/mw	Section Location of Waste/Source: NW 1/4 of SW 1/4 of Sec. 25, T. 25 N, R. 20 ☒ E ☐ W	Well Installed By: (Person's Name and Firm) Mike Olsen / ATS
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



A. Protective pipe, top elevation 594.71 ft. MSL
B. Well casing, top elevation 594.51 ft. MSL
C. Land surface elevation 594.7 ft. MSL
D. Surface seal, bottom 594.2 ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☒ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☐ 41 / ____ Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01 / Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☒ Yes ☐ No

Describe N

17. Source of water (attach analysis, if required):

E. Bentonite seal, top 594.7 ft. MSL or 0.0 ft.
F. Fine sand, top ____ ft. MSL or ____ ft.
G. Filter pack, top 593.7 ft. MSL or 1.0 ft.
H. Screen joint, top 592.7 ft. MSL or 2.0 ft.
I. Well bottom ____ ft. MSL or ____ ft.
J. Filter pack, bottom 582.7 ft. MSL or 12.0 ft.
K. Borehole, bottom 582.7 ft. MSL or 12.0 ft.
L. Borehole, diameter 2.0 in.
M. O.D. well casing 1.25 in.
N. I.D. well casing 1.00 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: ____ in.
b. Length: ____ ft.
c. Material: Steel ☒ 04 / ____ Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ____
3. Surface seal: Bentonite ☐ 30 / Concrete ☒ 01 / ____ Other ☐
4. Material between well casing and protective pipe: Bentonite ☒ 30 / ____ Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☐ 02 / Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
c. ____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ____
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #10 Red Flint Sand
b. Volume added ____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 / Flush threaded PVC schedule 80 ☐ 24 / ____ Other ☐
10. Screen material: PVC
a. Screen Type: Factory cut ☒ 11 / Continuous slot ☐ 01 / ____ Other ☐
b. Manufacturer Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): n / None ☐ 14 / Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Sue Knabe for ATS
Firm: Northern Environmental, 954 Circle Drive Green Bay, WI 54304
Tel: (920) 592-8400 Fax: (920) 592-8444

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Ken Joza Property	Brown	TW1300
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number**	**DNR Well ID Number**
	5	_____	___

1. Can this well be purged dry? ■ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	■ 50
Other _____	☐

3. Time spent developing well __15 min.

4. Depth of well (from top of well casisng) __12.0 ft.

5. Inside diameter of well __1.03 in.

6. Volume of water in filter pack and well casing __0.4 gal.

7. Volume of water removed from well __0.3 gal.

8. Volume of water added (if any) __0.0 gal.

9. Source of water added NA

10. Analysis performed on water added? ☐ Yes ■ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. __7.90 ft.	__7.98 ft.
Date	b. 10/10/2002 (m m d d y y y y)	12/04/2002 (m m d d y y y y)
Time	c. 16:13 ☐ a.m. ■ p.m.	8:22 ■ a.m. ☐ p.m.
12. Sediment in well bottom	__0.0 inches	__0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ■ 15 (Describe)	Clear ■ 20 Turbid ☐ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Sue Last Name: Knabe
Firm: Northern Environmental

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Kenneth Last Name: Joza
Facility/Firm: _____
Street: 1478 Norfield Road
City/State/Zip: Suamico, WI 54173

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Jeff Brand
Print Name: Jeff Brand
Firm: Northern Environmental

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☒ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: **Randy's Mobil Service**	Local Grid Location of Well: _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.	Well Name: **MW600**
Facility License, Permit or Monitoring Number: _ _ _ _ _ _ _	Grid Origin Location: Lat. 44 31 97 Long. 88 1 37 or	Wis. Unique Well Number / DNR Well Number: _____
Type of Well: Water Table Observation Well ☒ 11; Piezometer ☐ 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed: 0 3 / 0 4 / 9 7 (m m d d y y)
Distance Well Is From Waste/Source Boundary: _____ ft.	Section Location of Waste/Source: NW 1/4 of ___ 1/4 of Sec. 1, T. 24 N, R. 20 ☒ E. ☐ W.	Well Installed By: (Person's Name and Firm): Mike W. / M&K Environmental Drilling
Is Well A Point of Enforcement Std. Application? ☐ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation _ _ _ _ _ _ ft. MSL

B. Well casing, top elevation _ _594.19_ ft. MSL

C. Land surface elevation _ _594.6 ft. MSL

D. Surface seal, bottom _ _593.6_ ft. MSL or _ _1.0_ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; **Probe Rig**; Other ☒

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

_____

E. Bentonite seal, top _ _593.6_ ft. MSL or _ _1.0_ ft.

F. Fine sand, top _ _591.6_ ft. MSL or _ _3.0_ ft.

G. Filter pack, top _ _591.1_ ft. MSL or _ _3.5_ ft.

H. Screen joint, top _ _590.6_ ft. MSL or _ _4.0_ ft.

I. Well bottom _ _580.6_ ft. MSL or _ _14.0_ ft.

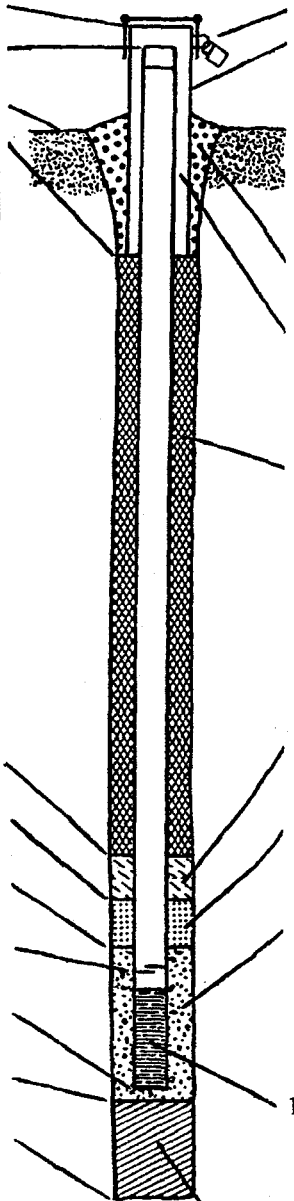
J. Filter pack, bottom _ _580.1_ ft. MSL or _ _14.5_ ft.

K. Borehole, bottom _ _580.1_ ft. MSL or _ _14.5_ ft.

L. Borehole, diameter _ 8.00 in.

M. O.D. well casing _ 2.25 in.

N. I.D. well casing _ 2.00 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: _10.00 in.
b. Length: _1.0 ft.
c. Material: Steel ☒ 04; Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30; Concrete ☒ 01; Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30; Annular space seal ☐; Other ☐ _____

5. Annular space seal: a. Granular Bentonite ☒ 33
b. _____ Lbs/gal mud weight..Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. _____ Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. **#40-#60 Badger Mining Sand**
b. Volume added .16 ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. **#65-#75 Badger Mining Sand**
b. Volume added 3.52 ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ _____

10. Screen material: **PVC**
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐ _____
b. Manufacturer **Bedrock Industries**
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None ☒ 14; Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Martha J. Nimmer

Firm: **Northern Environmental Technologies, Inc.**
954 Circle Drive, Green Bay, WI 54304 (414) 592-8400

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs 144,147 & 160, Wis Stats, and ch NR 141, Wis Ad Code. In accordance with ch 144, Wis Stats, failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch 147, Wis Stats, failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

RMS330478

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Randy's Mobil Service	**05**	**MW600**

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well Number
_ _ _ _ _ _ _	_ _	_ _ _ _ _ _ _ _	_ _ _ _

1. Can this well be purged dry ? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☒	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	

3. Time spent developing well **158** min.

4. Depth of well (from top of well casing) **14.2** ft.

5. Inside diameter of well **2.00** in.

6. Volume of water in filter pack and well casing **1.1** gal.

7. Volume of water removed from well **9.0** gal.

8. Volume of water added (if any) **0** gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☒ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. **12.85** ft.	**7.71** ft.
Date	b. **03/04/97** mm dd yy	**03/17/97** mm dd yy
Time	c. **12:23** ☐ a.m. ☒ p.m.	**10:54** ☒ a.m. ☐ p.m.
12. Sediment in well bottom	_ _ inches	_ _ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15	Clear ☒ 20 Turbid ☐ 25
	(Describe) **slightly cloudy**	(Describe) **clear**

Fill in if drilling fluids were used and well is at solid waste facility :

14. Total suspended solids	_ _ _ _ mg/l	_ _ _ _ mg/l
15. COD	_ _ _ _ mg/l	_ _ _ _ mg/l

16. Additional comments on development:

Well developed by : Person's Name and Firm

Name: **Martha F. Nimmer**

Firm: **Northern Environmental Technologies, Inc**

I hereby certify that the above information is true and correct to the best of my knowledge

Signature: Martha F. Nimmer

Print Initials: M F N

Northern Environmental Technologies, Inc.
Firm: 954 Circle Drive, Green Bay, WI 54304 (414) 592-8400

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

RMS330478

No Exceedances
> Residential VAL
> Residential VRSL

> Commercial VAL
> Small Commercial VRSL
> Large Commercial VRSL

Table 4

Summary of Sub-Slab Vapor Results
V&L Stripping
864 Mather Street
Green Bay, Wiscosin

Sample Location	Units	[1]EPA Region 3 RSL Commercial/Residential (Target Risk = 1E-06)	[2]WDNR Guidance RSL Commercial/Residential (Target Risk = 1E-05)	WDNR Guidance Subslab to Indoor (AF = 0.1)	Sub Slab Middle (SSM) - Center of Main Floor of 864 Mather Street (V&L Stripping)	Sub Slab West (SSW) - West Area of Main Floor of 864 Mather Street (V&L Stripping)	Sub Slab East (SSE) - East Area of Main Floor of 864 Mather Street (V&L Stripping)
Sample Date					9/28/2010	9/28/2010	9/28/2010
Exposure/Sample Duration					24-hr	24-hr	24-hr
Benzene	µg/m^3	0.31	3.1	*31*	<1100	<69	<59
Bromoform	µg/m^3	0.05	0.5	*5*	<3700	<220	<190
Bromomethane	µg/m^3	5.2	52	*520*	<1400	<84	<72
Carbon Tetrachloride	µg/m^3	0.41	4.1	*41*	<2300	<140	<120
Chlorobenzene	µg/m^3	52	520	*5200*	<1600	<99	<86
Chloroethane	µg/m^3	NES			<940	<57	<49
Chloroform	µg/m^3	0.11	1.1	*11*	<1700	<110	<91
Chloromethane	µg/m^3	94	940	*9400*	<1800	<110	<96
1,2-Dibromoethane	µg/m^3	0.0041	0.041	*0.41*	<2800	<170	<140
1,2-Dichlorobenzene	µg/m^3	210	2100	*21000*	<2200	<130	<110
1,3-Dichlorobenzene	µg/m^3	NES			<2200	<130	<110
1,4-Dichlorobenzene	µg/m^3	0.22	2.2	*22*	<2200	<130	<110
Dichlorodifluoromethane	µg/m^3	210	2100	*21000*	<1800	<110	<92
1,1-Dichloroethane	µg/m^3	1.5	15	*150*	<1400	<87	<75
1,2-Dichloroethane	µg/m^3	0.094	0.94	*9.4*	<1400	<87	<75
1,1-Dichloroethene	µg/m^3	210	2100	*21000*	<1400	<85	<74
cis-1,2-Dichloroethene (DCE	µg/m^3	NES			<1400	<85	<74
1,2-Dichloropropane	µg/m^3	0.24	2.4	*24*	<1700	<100	<86
cis-1,3-Dichloropropene	µg/m^3	NES			<1600	<98	<84
trans-1,3-Dichloropropene	µg/m^3	NES			<1600	<98	<84
Dichlorotetrafluoroethane	µg/m^3	NES			<2500	<150	<130
Ethylbenzene	µg/m^3	0.97	9.7	*97*	<1600	<94	<81
Hexachlorobutadiene	µg/m^3	0.11	1.1	*11*	<19000	<1100	<990
Methylene Chloride	µg/m^3	5.2	52	*520*	<3100	<190	<160
Styrene	µg/m^3	1000	10000	*100000*	<1500	<92	<79
1,1,2,2-Tetrachloroethane	µg/m^3	0.042	0.42	*4.2*	<2500	<150	<130
Tetrachloroethene (PCE)	µg/m^3	0.41	~~4.1~~ 180	~~41~~ 6000	*450000*	*19000*	*17000*
Toluene	µg/m^3	5200	52000	*520000*	<1300	<81	<70
1,2,4-Trichlorobenzene	µg/m^3	2.1	21	*210*	<13000	<800	<690
1,1,1-Trichloroethane	µg/m^3	5200	52000	*520000*	<2000	<120	<100
1,1,2-Trichloroethane	µg/m^3	0.15	1.5	*15*	<2000	<120	<100
Trichloroethene (TCE)	µg/m^3	1.2	~~12~~ 8.8	~~120~~ 293	*4200*	*250*	<100
Trichlorofluormethane	µg/m^3	730	7300	*73000*	<2000	<120	<100
1,1,2-Trichlorotrifluoroethan	µg/m^3	NES			<2700	<170	<140
1,2,4-Trimethylbenzene	µg/m^3	7.3	73	*730*	<1800	<110	<91
1,3,5-Trimethylbenzene	µg/m^3	NES			<1800	<110	<91
Vinyl Chloride	µg/m^3	0.16	1.6	*16*	<920	<55	<48
Xylene, o	ug/m^3	730	7300	*73000*	<1600	<94	<81
Xylenes, m + p	ug/m^3	730	7300	*73000*	<1600	<94	<81

NOTES:
1 USEPA Region 3 - *Regional Screening Level (RSL) Table Residential Air May 2010.* Carcinogenic Target Risk (TR) = 1E-06.
2 WDNR "Draft Addressing Vapor Intrustion at Remediation and Redevelopment Sites in Wisconsin' guidance June 2010. Carcinogenic Target Risk (TR) = 1E-05.
AF attenuation factor
NES no established standard
Green/Italic = Exceeds the WDNR Guidnace Standard for Subslab to Indoor with an attenutation factor (AF) of 0.1
Blue = Exceeds the WDNR Guidnace Standard for Soil Gas to Indoor with an attenutation factor (AF) of 0.01
Red/Bold = Exceeds the WDNR Guidance - Residential/Commercial (indoor air)

No Exceedances
> Residential VAL
> Residential VRSL

> Commercial VAL
> Small Commercial VRSL
> Large Commercial VRSL

Table 5

Summary of Air Monitoring Results
V&L Stripping
864 Mather Street
Green Bay, Wiscosin

Sample Location		[1]EPA Region 3 RSL Commercial/Residential (Target Risk = 1E-06)	[2] WDNR Guidance RSL Commercial/Residential (Target Risk = 1E-05)	WDNR Guidance Subslab to Indoor (AF = 0.1)	856 Mather Street (Residence) West Wall of Basement (Residence) West	Ambient Air Indoor (AAI) - Center of Main Floor of 864 Mather Street (V7L Stripping) (AAI) - Center of Main	Ambient Air Outdoor (AAO) - Northwest Outer Corner of 864 Mather Street (V&L Stripping) Outdoor (AAO) -
Sample Date	Units				9/28/2010	9/28/2010	9/28/2010
Exposure/Sample Duration					24-hr	24-hr	24-hr
Benzene	µg/m³	0.31	~~3.1~~ 3.6	~~31~~ 120	0.96	5.4	0.67
Bromoform	µg/m³	0.05	0.5	5	<2.1	<2.1	<2.1
Bromomethane	µg/m³	5.2	52	520	<0.78	<0.78	<0.78
Carbon Tetrachloride	µg/m³	0.41	4.1	41	<1.3	<1.3	<1.3
Chlorobenzene	µg/m³	52	520	5200	<0.92	<0.92	<0.92
Chloroethane	µg/m³	NES			<0.53	<0.53	<0.53
Chloroform	µg/m³	0.11	~~1.1~~ 1.2	~~11~~ 40	14	<0.98	<0.98
Chloromethane	µg/m³	94	940	9400	1.9	1.3	<1.0
1,2-Dibromoethane	µg/m³	0.0041	0.041	0.41	<1.5	<1.5	<1.5
1,2-Dichlorobenzene	µg/m³	210	2100	21000	<1.2	<1.2	<1.2
1,3-Dichlorobenzene	µg/m³	NES			<1.2	<1.2	<1.2
1,4-Dichlorobenzene	µg/m³	0.22	2.2	22	<1.2	<1.2	<1.2
Dichlorodifluoromethane	µg/m³	210	2100	21000	2.6	2.3	2.3
1,1-Dichloroethane	µg/m³	1.5	15	150	<0.81	<0.81	<0.81
1,2-Dichloroethane	µg/m³	0.094	0.94	9.4	<0.81	<0.81	<0.81
1,1-Dichloroethene	µg/m³	210	2100	21000	<0.79	<0.79	<0.79
cis-1,2-Dichloroethene (DCE	µg/m³	NES			<0.79	<0.79	<0.79
1,2-Dichloropropane	µg/m³	0.24	2.4	24	<0.92	<0.92	<0.92
cis-1,3-Dichloropropene	µg/m³	NES			<0.91	<0.91	<0.91
trans-1,3-Dichloropropene	µg/m³	NES			<0.91	<0.91	<0.91
Dichlorotetrafluoroethane	µg/m³	NES			<1.4	<1.4	<1.4
Ethylbenzene	µg/m³	0.97	9.7	97	2.8	2.4	<0.87
Hexachlorobutadiene	µg/m³	0.11	1.1	11	<11	<11	<11
Methylene Chloride	µg/m³	5.2	52	520	13	<1.7	<1.7
Styrene	µg/m³	1000	10000	100000	<0.85	<0.85	<0.85
1,1,2,2-Tetrachloroethane	µg/m³	0.042	0.42	4.2	<1.4	<1.4	<1.4
Tetrachloroethene (PCE)	µg/m³	0.41	~~4.1~~ 42	~~41~~ 1480	<1.4	180	<1.4
Toluene	µg/m³	5200	52000	520000	46	26	5
1,2,4-Trichlorobenzene	µg/m³	2.1	21	210	<7.4	5.7	<7.4
1,1,1-Trichloroethane	µg/m³	5200	52000	520000	<1.1	<1.1	<1.1
1,1,2-Trichloroethane	µg/m³	0.15	1.5	15	<1.1	<1.1	<1.1
Trichloroethene (TCE)	µg/m³	1.2	~~12~~ 2.1	~~120~~ 700	<1.1	2.4	<1.1
Trichlorofluormethane	µg/m³	730	7300	73000	2	1.5	1.4
1,1,2-Trichlorotrifluoroethan	µg/m³	NES			<1.5	<1.5	<1.5
1,2,4-Trimethylbenzene	µg/m³	7.3	73	730	2	<7.4	<0.98
1,3,5-Trimethylbenzene	µg/m³	NES			<0.98	1.5	<0.98
Vinyl Chloride	µg/m³	0.16	1.6	16	<0.51	<0.51	<0.51
Xylene, o	ug/m³	730	7300	73000	2.2	3.1	<0.87
Xylenes, m + p	ug/m³	730	7300	73000	9.3	9.2	<0.87

NOTES:
1 USEPA Region 3 - *Regional Screening Level (RSL) Table Residential Air May 2010.* Carcinogenic Target Risk (TR) = 1E-06.
2 WDNR "Draft Addressing Vapor Intrustion at Remediation and Redevelopment Sites in Wisconsin' guidance June 2010. Carcinogenic Target Risk (TR) = 1E-05.
AF attenuation factor
NES no established standard
Green/Italic = Exceeds the WDNR Guidnace Standard for Subslab to Indoor with an attenutation factor (AF) of 0.1
Blue = Exceeds the WDNR Guidnace Standard for Soil Gas to Indoor with an attenutation factor (AF) of 0.01
Red/Bold = Exceeds the WDNR Guidance - Residential/Commercial (indoor air)

Jim Doyle
Governor

Helene Nelson
Secretary

State of Wisconsin

Department of Health and Family Services

DIVISION OF PUBLIC HEALTH

1 WEST WILSON STREET
P O BOX 2659
MADISON WI 53701-2659

608-266-1251
FAX: 608-267-2832
www.dhfs.state.wi.us

August 5, 2003

Sue Knabe & Lynelle Caine
Northern Environmental, Inc.
954 Circle Drive
Green Bay, WI 54304

Subject: Results from June 19th Sampling – V&L Stripping Property
BRRTS # 02-05-216722

Dear Ms. Knabe and Ms. Caine:

I have received the sample results for the sampling we jointly conducted on June 19th, 2003 (copies attached). The results of those samples indicate that a vapor intrusion potential does exist for the property to the east of the business. Based on the sub-slab sample taken from 856 Mather Street, it is unlikely that the pathway could be ruled out for this residence without active mitigation. Active remediation of the contaminant source area should also be conducted to reduce the low potential for additional off-site impacts due to soil vapor migration.

Background

The V&L Stripping site, also known as the Ken Juza property, is a former dry cleaning business with previously confirmed groundwater and soil contamination. The primary contaminants of concern are chlorinated solvents including tetrachloroethylene, trichloroethylene, and other related contaminants. Based on the groundwater and soil investigation DHFS and DNR staff have concluded that some source remediation will be needed at the site. After reviewing the site investigation data for soils and groundwater at this site, DHFS and DNR recommended additional sampling in June 2003 to better characterize the vapor intrusion pathway from the site to nearby residents.

On June 19th, Sue Knabe and I collected four samples to evaluate the vapor intrusion migration pathway at the V&L Stripping property, 864 Mather Street, Green Bay. The samples were collected from 1) the ambient air on the property, 2) the soil vapor probe installed by Northern Environmental across the alley from the site (710 Lincoln Street), 3) sub-slab soil vapor beneath the basement of the adjacent residential property (856 Mather Street), and 4) basement indoor air of the adjacent residential property (856 Mather Street). The samples were collected in six liter evacuated stainless steel canisters. Each sample was analyzed for volatile organic compounds (VOCs) at the State Laboratory of Hygiene using EPA method TO-14. The results of the analysis are summarized in Table 1. Photos of the sample collection for each sample are at the end of this letter (Figures 1 to 4).

The **ambient air sample** (outdoor air) was collected as a reference because ambient air quality can have an effect on the air quality of each of the other samples. This sample was located behind the building on the northeastern part of the property (864 Mather). Analysis of this sample identified low concentrations of a number of VOCs including acetylene, benzene, carbon tetrachloride, propene, toluene, and xylenes. The benzene and carbon tetrachloride levels are slightly above the health-based comparison values included in the table. These levels are consistent with our knowledge of ambient air quality around the state. Although we do not have health based comparison values for acetylene and propene, the levels detected in these samples do not indicate exposures of health concern. The primary contaminant of concern, tetrachloroethylene, was not detected in the ambient air sample.

The **soil vapor sample** was collected from the back yard of the residence north of the site at 710 Lincoln Street. This sample was collected to find out if site related contaminants were migrating in soil vapor towards residential properties to the north and northeast in soil vapor. The soil vapor sample contained tetrachloroethylene and a low-level detection of chloroform. Chloroform has not been found as a contaminant of concern in the past at the site. It is not clear if the chloroform detected is from degradation of site contaminants or from another source. The tetrachloroethylene detected indicates some soil vapor migration from the site.

Table 1
TO-14 Air Sample Results – June 19, 2003
V&L Stripping Property, Green Bay

VOC	Ambient Air	Soil Vapor[d]	Sub-Slab Vapor[d]	Basement Indoor Air	Comparison Value (EPA)
Acetylene	0.35	ND	ND	0.64	NA
Benzene	**0.14**	ND	ND	**0.44**	0.1
Carbon tetrachloride	**0.1**	ND	ND	**0.11**	0.026
Chlorobenzene	ND	ND	ND	0.22	13
Chloroform	ND	**0.54**	ND	**0.09**	0.022
Ethylbenzene	ND	ND	ND	0.35	0.51
Methylene chloride	ND	ND	**18**	**51**	1.2
n-Octane	ND	ND	ND	0.32	NA
Propene	0.1	ND	ND	0.40	NA
Styrene	ND	ND	ND	0.28	230
Tetrachloroethylene	ND	**26**	**670**	**0.12**	0.12
Toluene	0.28	ND	5.6	17	110
1,1,1-Trichloroethane	ND	ND	ND	0.61	400
m/p-Xylene	0.14	ND	ND	1.5	1600
o-Xylene	0.064	ND	ND	0.46	1600

(EPA) –from Table 2c of EPA Draft Guidance for Evalutating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils

All units - parts per billion by volume (ppbv)

ND – Chemical Not Detected

NA – Comparison Value Not Available

[d] – Results approximate due to dilution technique

Concentrations below the comparison values shown in Table 1 are not likely to be of health concern under any circumstances. Chemical concentrations in indoor air above those levels are not necessarily a health hazard, but warrant a closer evaluation. Although both chemicals exceeded their respective health based comparison values, these concentrations are not relevant to public health since they weren't measured at a point of possible exposure.

The **sub-slab sample** taken beneath the basement at 856 Mather Street contained a relatively high level of tetrachloroethylene along with methylene chloride and toluene. The purpose of the sub-slab sample was to determine if contaminants had migrated from the source area to the foundation of the adjacent building. Because the contaminant source area in soil is close to the residence we didn't expect to find a *clean* soil vapor sample between them. The tetrachloroethylene result indicates that contaminants do migrate from the source area to the foundation of this home. The source of the methylene chloride and toluene detections is less clear, since the concentrations of each were considerably higher in the corresponding indoor air sample.

The results of the **indoor air sample** from 856 Mather Street show a variety of VOCs which could have originated from ambient air, soil vapor, and indoor sources. This sample was collected for comparison to the sub-slab sample result. Because of the variability of indoor air quality as it relates to vapor intrusion, this sample is of limited use in making decisions for the site. Of the fifteen chemicals detected, only the tetrachloroethylene in this sample is plausibly linked to a soil vapor source. However, there are potential household sources of tetrachloroethylene that cannot be ruled out as a source for this sample. It is important to note that this indoor air sample was a short-term (grab) sample that is not likely to be representative of long-term air quality in the basement, and even less predictive of long-term air quality in the living area of the home. The sub-slab conditions are expected to remain more consistent over time and as such are a better predictor of the vapor intrusion pathway.

Discussion

As is common with air sampling, there were a variety of chemicals detected that are unrelated to the contaminant source area at the site. The sample from the basement indoor air contains numerous chemicals, that could have come from several containers of chemicals on the basement shelves. The concentrations of the various chemicals are low, and the containers and storage area were in generally good condition. Removing these chemicals from the home may provide a small improvement in indoor air quality. (See Figure 5)

Both the soil vapor and sub-slab sample indicate that tetrachloroethylene from the site is available for off-site vapor intrusion. Neither the ambient air sample or basement indoor air sample indicated a source of tetrachloroethylene that could otherwise explain these results.

EPA in its draft vapor intrusion guidance assumes a minimum attenuation factor of ten for shallow soil vapor migrating to indoor air. This means that a sub-slab measurement of 670 ppbv is expected to result in an indoor air concentration no greater than 67 ppbv under worst case conditions. Although data from a number of sites evaluated by EPA indicate that the attenuation factor is likely much higher (leading to lower indoor air concentrations), the measured sub-slab

concentration at this site would not allow us to rule out the vapor intrusion pathway without extensive and long-term monitoring of both indoor air and soil vapor.

The short-term basement indoor air sample found tetrachloroethylene at 0.12 ppbv. This result indicates with limited confidence, that there isn't currently a strong tendency towards vapor intrusion into the home. However, the sample was taken over a short period during the summer months when fresh air exchange is greatest and the influence of a stack effect would be largely absent.

The lower level of tetrachloroethylene found in the soil vapor sample at 710 Lincoln Street is also higher than EPA's screening values for tetrachloroethylene in shallow soil vapor. However, the tetrachloroethylene concentration is much lower and additional characterization could allow us to rule out the pathway on this property.

The remediation of the source area of the site should have an effect on soil vapor and shallow groundwater contaminant concentrations. If remediation of the source area takes place, additional sampling resources related to the 710 Lincoln Street property would be best spent on confirmation sampling to ensure that the action is effectively controlling off-site migration.

Health Implications

Daily exposures for many years to high concentrations of tetrachloroethylene (such as in an occupational setting) can result in liver and kidney damage and may result in an increased risk of developing some forms of cancer. Long-term exposure to tetrachloroethylene levels relevant to what could be found at this site are not likely to result in an increase in health problems. Even though the risks are low, DHFS considers them unnecessary and prudent to avoid.

Conclusions

- Tetrachloroethylene from the V&L Stripping site impacts soil vapor on two neighboring residential properties.
- Remediation of the source area on the site would likely lower the risk of off-site vapor migration.
- It is unlikely that additional investigation would allow us to rule out vapor intrusion as a source of human exposure at 856 Mather Street.
- The soil vapor sample collected at 710 Lincoln Street indicates a very low potential for vapor intrusion into the home on that property. Additional sampling may rule out this pathway. However, remediation of the source area may also result in eliminating this potential migration pathway.

Recommendations

- The adjacent property owners and occupants should be advised of the results of this sampling. I will contact them with these results and explain the health implications of the results to them.
- Source remediation should be designed specifically to reduce the potential for off-site vapor migration.
- The remedial action should be monitored for its effectiveness at source removal and control of off-site soil vapor migration.

- Because of the high tetrachloroethylene concentrations in the sub-slab soil vapor at 856 Mather Street, I recommend the installation of a sub-slab depressurization system by an approved radon mitigation contractor. Based on the analytical data there is no need to install this system immediately. It can be installed as part of the site remediation. I would recommend that the system installed no later than November 30, 2003.

If you have questions about my evaluation of the sample results and site conditions, or if I can be of further assistance in addressing these recommendations, please contact me at (608) 267-3732. Thank you.

Sincerely,

Chuck Warzecha
Health Hazard Evaluation
Bureau of Environmental Health

Cc: Kristin DuFresne – DNR, Green Bay
Robin Schmidt/Jeff Soellner – DNR, Madison

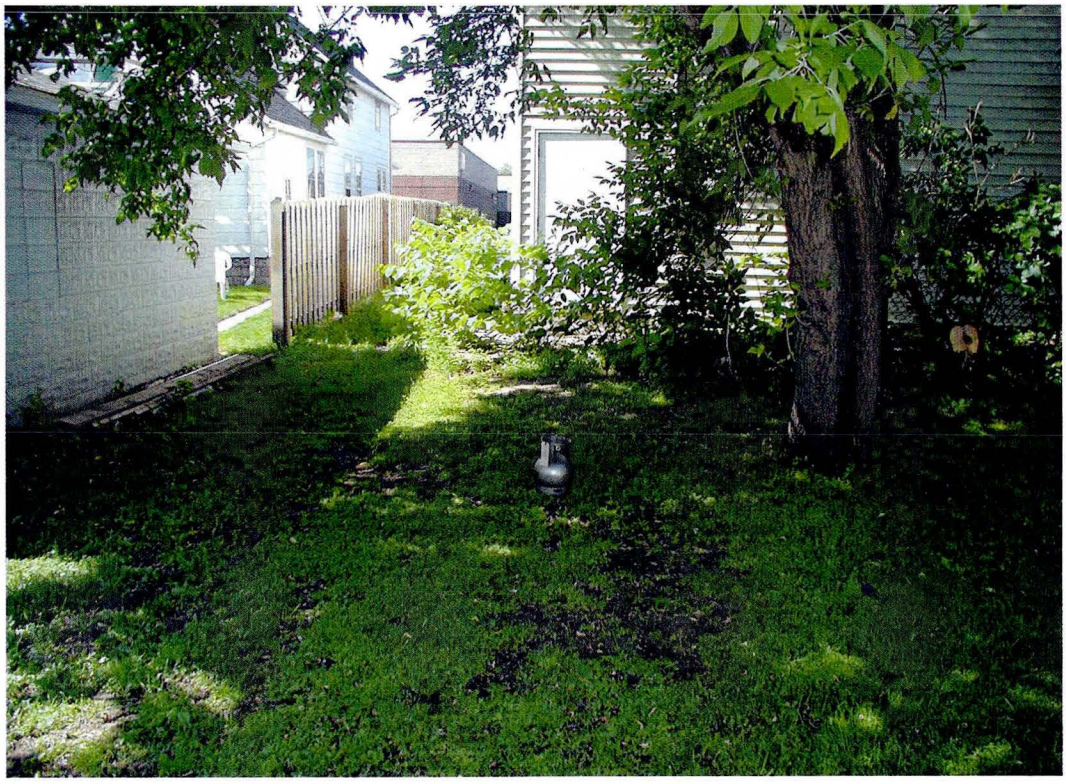


Figure 1 : Ambient air sample.

Figure 2 : Soil vapor sample.

Figure 3 : Sub-slab sample.

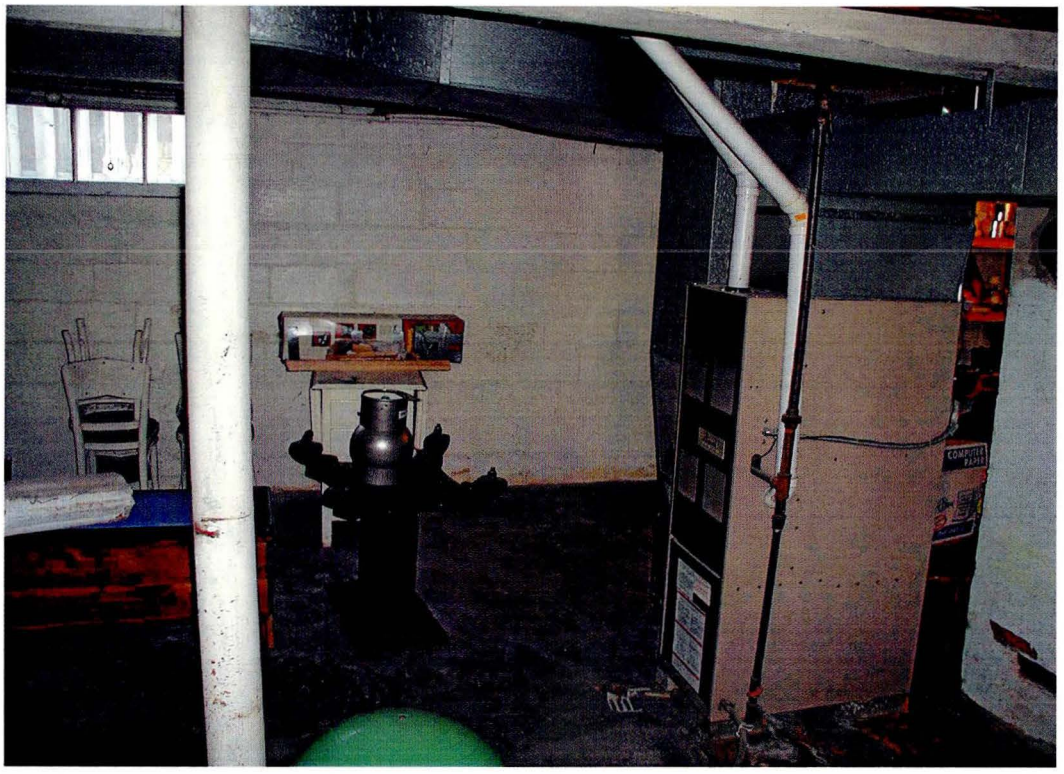


Figure 4 : Indoor air sample.

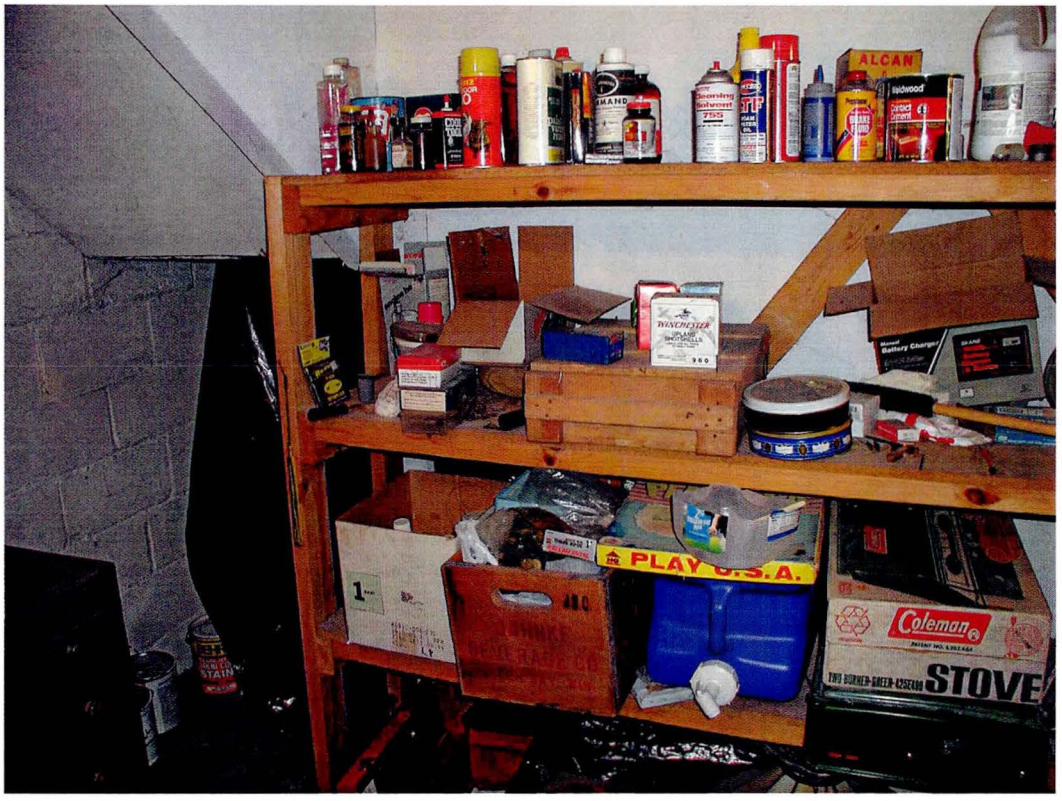


Figure 5 : Basement chemical storage.

Wisconsin State Lab Environment Data
Laboratory Report

Laboratory:

Wisconsin State Lab of Hiegiene
2601 Agriculture Dr
Madison WI 53705
Phone: 800-442-4618 Fax Phone: 608-224-6276

Sample:

Field #: **GBBASEMENT**
Collection Start: **2003-06-19 10:17:00.0**
Collected by: **WARZECHA**
ID #:
County:
Sample Location:
Sample Description: **BASEMENT IAQ SAMPLE TO-14 ANALYSIS**
Sample Source: **Air**
Date Reported: **2003-07-18 14:58:18.0**
Project No:

Sample #: **ON002548**
Collection End: **2003-06-19 10:22:00.0**
Waterbody/Outfall Id:
ID Point #:
Account #: **DH052**
Sample Depth:
Sample Status: **COMPLETE**

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR - T014	2003-07-07 00:00:00.0	SEE ON002548.MM1

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
43828	BROMODICHLOROMETHANE	75272	<0.050	PPB V		0.050	
43824	TRICHLOROETHENE	79016	<0.050	PPB V		0.050	
43831	CIS-1,3-DICHLOROPROPENE	542756	<0.10	PPB V		0.10	
43830	TRANS-1,3-DICHLOROPROPENE	10061026	<0.10	PPB V		0.10	
43820	1,1,2-TRICHLOROETHANE	79005	<0.10	PPB V		0.10	
45202	TOLUENE	108883	17.	PPB V		0.050	
43832	DIBROMOCHLOROMETHANE	124481	<0.050	PPB V		0.050	
43233	N-OCTANE	111659	0.32	PPB V		0.050	
43817	TETRACHLOROETHENE	127184	0.12	PPB V		0.050	
45801	CHLOROBENZENE	108907	0.22	PPB V		0.050	
45203	ETHYLBENZENE	100414	0.35	PPB V		0.050	
45109	M/P-XYLENE	NA	1.5	PPB V		0.10	
43806	BROMOFORM	75252	<0.10	PPB V		0.10	
45220	STYRENE	100425	0.28	PPB V		0.10	
45204	O-XYLENE	1330207	0.46	PPB V		0.050	
43818	1,1,2,2-TETRACHLOROETHANE	79345	<0.10	PPB V		0.10	
45210	ISOPROPYLBENZENE	98828	<0.050	PPB V		0.050	
45806	1,3-DICHLOROBENZENE	54173	<0.10	PPB V		0.10	
45807	1,4-DICHLOROBENZENE	106467	<0.10	PPB V		0.10	
43206	ACETYLENE	74862	0.64	PPB V		0.10	
43205	PROPENE	115071	0.40	PPB V		0.10	
43801	CHLOROMETHANE	74873	*I <85.	PPB V		0.30	
43860	VINYL CHLORIDE	75014	<0.10	PPB V		0.10	
43218	1,3-BUTADIENE	106990	<0.10	PPB V		0.10	
43819	BROMOMETHANE	74839	<0.10	PPB V		0.10	
43812	CHLOROETHANE	75003	<0.10	PPB V		0.10	
43802	METHYLENE CHLORIDE	75092	51.	PPB V		0.10	
43838	TRANS-1,2-DICHLOROETHENE	156605	<0.10	PPB V		0.10	
43835	CHLOROPRENE	126998	<0.10	PPB V		0.10	
43803	CHLOROFORM	67663	0.090	PPB V		0.050	
43815	1,2-DICHLOROETHANE	10762	<0.10	PPB V		0.10	
43814	1,1,1-TRICHLOROETHANE	71556	0.61	PPB V		0.050	
45201	BENZENE	71432	0.44	PPB V		0.050	
43804	CARBON TETRACHLORIDE	56235	0.11	PPB V		0.050	
43829	1,2-DICHLOROPROPANE	78875	<0.10	PPB V		0.10	
45805	1,2-DICHLOROBENZENE	95501	<0.10	PPB V		0.10	

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR T014 - PREP	2003-07-07 00:00:00.0	

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*

Wisconsin State Lab Environment Data
Laboratory Report

Laboratory:

Wisconsin State Lab of Hiegiene
2601 Agriculture Dr
Madison WI 53705
Phone: 800-442-4618 Fax Phone: 608-224-6276

Sample:

Field #: **GB-SUBSLAB**
Collection Start: **2003-06-19 10:45:00.0**
Collected by: **WARZECHA**
ID #:
County:
Sample Location:
Sample Description: **BASEMENT SUB-SLAB SAMPLE TO-14 ANALYSIS (VP3700)**
Sample Source: **Air**
Date Reported: **2003-07-18 14:58:18.0**
Project No:

Sample #: **ON002547**
Collection End: **2003-06-19 10:53:00.0**
Waterbody/Outfall Id:
ID Point #:
Account #: **DH052**
Sample Depth:
Sample Status: **COMPLETE**

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR - T014	2003-07-10 00:00:00.0	SEE ON002547.MM1

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
43832	DIBROMOCHLOROMETHANE	124481	*D <2.3	PPB V		0.050	
43233	N-OCTANE	111659	*D <2.3	PPB V		0.050	
43817	TETRACHLOROETHENE	127184	*DT 670.	PPB V		0.050	
45801	CHLOROBENZENE	108907	*D <2.3	PPB V		0.050	
45203	ETHYLBENZENE	100414	*D <2.3	PPB V		0.050	
45109	M/P-XYLENE	NA	*D <4.6	PPB V		0.10	
43806	BROMOFORM	75252	*D <4.6	PPB V		0.10	
45220	STYRENE	100425	*D <4.6	PPB V		0.10	
45204	O-XYLENE	1330207	*D <4.6	PPB V		0.050	
43818	1,1,2,2-TETRACHLOROETHANE	79345	*D <4.6	PPB V		0.10	
45210	ISOPROPYLBENZENE	98828	*D <2.3	PPB V		0.050	
45806	1,3-DICHLOROBENZENE	54173	*D <4.6	PPB V		0.10	
45807	1,4-DICHLOROBENZENE	106467	*D <4.6	PPB V		0.10	
45805	1,2-DICHLOROBENZENE	95501	*D <4.6	PPB V		0.10	
43206	ACETYLENE	74862	*D <4.6	PPB V		0.10	
43205	PROPENE	115071	*D <4.6	PPB V		0.10	
43801	CHLOROMETHANE	74873	*D <14.	PPB V		0.30	
43860	VINYL CHLORIDE	75014	*D <4.6	PPB V		0.10	
43218	1,3-BUTADIENE	106990	*D <4.6	PPB V		0.10	
43819	BROMOMETHANE	74839	*D <4.6	PPB V		0.10	
43812	CHLOROETHANE	75003	*D <4.6	PPB V		0.10	
43802	METHYLENE CHLORIDE	75092	*DT 18.	PPB V		0.10	
43838	TRANS-1,2-DICHLOROETHENE	156605	*D <4.6	PPB V		0.10	
43835	CHLOROPRENE	126998	*D <4.6	PPB V		0.10	
43803	CHLOROFORM	67663	*D <2.3	PPB V		0.050	
43815	1,2-DICHLOROETHANE	10762	*D <4.6	PPB V		0.10	
43814	1,1,1-TRICHLOROETHANE	71556	*D <2.3	PPB V		0.050	
45201	BENZENE	71432	*D <2.3	PPB V		0.050	
43804	CARBON TETRACHLORIDE	56235	*D <2.3	PPB V		0.050	
43829	1,2-DICHLOROPROPANE	78875	*D <4.6	PPB V		0.10	
43828	BROMODICHLOROMETHANE	75272	*D <2.3	PPB V		0.050	
43824	TRICHLOROETHENE	79016	*D <2.3	PPB V		0.050	
43831	CIS-1,3-DICHLOROPROPENE	542756	*D <4.6	PPB V		0.10	
43830	TRANS-1,3-DICHLOROPROPENE	10061026	*D <4.6	PPB V		0.10	
43820	1,1,2-TRICHLOROETHANE	79005	*D <4.6	PPB V		0.10	
45202	TOLUENE	108883	*DT 5.6	PPB V		0.050	

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR T014 - PREP	2003-07-10 00:00:00.0	

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*

Wisconsin State Lab Environment Data
Laboratory Report

Laboratory: **Wisconsin State Lab of Hiegiene**
2601 Agriculture Dr
Madison WI 53705
Phone: 800-442-4618 Fax Phone: 608-224-6276

Sample:

Field #: **GB-AMBIENT** *Sample #:* **ON002546**
Collection Start: **2003-06-19 09:35:00.0** *Collection End:* **2003-06-19 11:00:00.0**
Collected by: **WARZECHA** *Waterbody/Outfall Id:*
ID #: *ID Point #:*
County: *Account #:* **DH052**
Sample Location:
Sample Description: **AMBIENT AIR SAMPLE TO-14 ANALYSIS**
Sample Source: **Air** *Sample Depth:*
Date Reported: **2003-07-18 14:58:18.0** *Sample Status:* **COMPLETE**
Project No:

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR - T014	2003-07-07 00:00:00.0	SEE ON002546.MM1

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
43206	ACETYLENE	74862	0.35	PPB V		0.10	
43205	PROPENE	115071	0.10	PPB V		0.10	
43801	CHLOROMETHANE	74873	*I <0.46	PPB V		0.30	
43860	VINYL CHLORIDE	75014	<0.10	PPB V		0.10	
43218	1,3-BUTADIENE	106990	<0.10	PPB V		0.10	
43819	BROMOMETHANE	74839	<0.10	PPB V		0.10	
43812	CHLOROETHANE	75003	<0.10	PPB V		0.10	
43802	METHYLENE CHLORIDE	75092	<0.10	PPB V		0.10	
43838	TRANS-1,2-DICHLOROETHENE	156605	<0.10	PPB V		0.10	
43835	CHLOROPRENE	126998	<0.10	PPB V		0.10	
43803	CHLOROFORM	67663	<0.050	PPB V		0.050	
43815	1,2-DICHLOROETHANE	10762	<0.10	PPB V		0.10	
43814	1,1,1-TRICHLOROETHANE	71556	<0.050	PPB V		0.050	
45201	BENZENE	71432	0.14	PPB V		0.050	
43804	CARBON TETRACHLORIDE	56235	0.10	PPB V		0.050	
43829	1,2-DICHLOROPROPANE	78875	<0.10	PPB V		0.10	
43828	BROMODICHLOROMETHANE	75272	<0.050	PPB V		0.050	
43824	TRICHLOROETHENE	79016	<0.050	PPB V		0.050	
43831	CIS-1,3-DICHLOROPROPENE	542756	<0.10	PPB V		0.10	
43830	TRANS-1,3-DICHLOROPROPENE	10061026	<0.10	PPB V		0.10	
43820	1,1,2-TRICHLOROETHANE	79005	<0.10	PPB V		0.10	
45202	TOLUENE	108883	0.28	PPB V		0.050	
43832	DIBROMOCHLOROMETHANE	124481	<0.050	PPB V		0.050	
43233	N-OCTANE	111659	<0.050	PPB V		0.050	
43817	TETRACHLOROETHENE	127184	<0.050	PPB V		0.050	
45801	CHLOROBENZENE	108907	<0.050	PPB V		0.050	
45203	ETHYLBENZENE	100414	<0.050	PPB V		0.050	
45109	M/P-XYLENE	NA	0.14	PPB V		0.10	
43806	BROMOFORM	75252	<0.10	PPB V		0.10	
45220	STYRENE	100425	<0.10	PPB V		0.10	
45204	O-XYLENE	1330207	0.064	PPB V		0.050	
43818	1,1,2,2-TETRACHLOROETHANE	79345	<0.10	PPB V		0.10	
45210	ISOPROPYLBENZENE	98828	<0.050	PPB V		0.050	
45806	1,3-DICHLOROBENZENE	54173	<0.10	PPB V		0.10	
45807	1,4-DICHLOROBENZENE	106467	<0.10	PPB V		0.10	
45805	1,2-DICHLOROBENZENE	95501	<0.10	PPB V		0.10	

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR T014 - PREP	2003-07-07 00:00:00.0	

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*

Wisconsin State Lab Environment Data
Laboratory Report

Laboratory: **Wisconsin State Lab of Hiegiene**
2601 Agriculture Dr
Madison WI 53705
Phone: 800-442-4618 Fax Phone: 608-224-6276

Sample:

Field #: **GBSOILVAPO**
Collection Start: **2003-06-19 09:55:00.0**
Collected by: **WARZECHA**
ID #:
County:
Sample Location:
Sample Description: **SOIL VAPOR (VP3600) TO14 ANALYSIS**
Sample Source: **Air**
Date Reported: **2003-07-18 14:58:17.0**
Project No:

Sample #: **ON002545**
Collection End: **2003-06-19 10:07:00.0**
Waterbody/Outfall Id:
ID Point #:
Account #: **DH052**
Sample Depth:
Sample Status: **COMPLETE**

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR - T014	2003-07-08 00:00:00.0	SEE ON002545.MM1

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
43804	CARBON TETRACHLORIDE	56235	*D <1.0	PPB V		0.050	
43829	1,2-DICHLOROPROPANE	78875	*D <2.0	PPB V		0.10	
43828	BROMODICHLOROMETHANE	75272	*D <1.0	PPB V		0.050	
43824	TRICHLOROETHENE	79016	*D <1.0	PPB V		0.050	
43831	CIS-1,3-DICHLOROPROPENE	542756	*D <2.0	PPB V		0.10	
43830	TRANS-1,3-DICHLOROPROPENE	10061026	*D <2.0	PPB V		0.10	
43820	1,1,2-TRICHLOROETHANE	79005	*D <2.0	PPB V		0.10	
45202	TOLUENE	108883	*D <1.0	PPB V		0.050	
43832	DIBROMOCHLOROMETHANE	124481	*D <1.0	PPB V		0.050	
43233	N-OCTANE	111659	*D <2.0	PPB V		0.050	
43817	TETRACHLOROETHENE	127184	*DT 26.	PPB V		0.050	
45801	CHLOROBENZENE	108907	*D <1.0	PPB V		0.050	
45203	ETHYLBENZENE	100414	*D <1.0	PPB V		0.050	
45109	M/P-XYLENE	NA	*D <2.0	PPB V		0.10	
43806	BROMOFORM	75252	*D <2.0	PPB V		0.10	
45220	STYRENE	100425	*D <2.0	PPB V		0.10	
45204	O-XYLENE	1330207	*D <2.0	PPB V		0.050	
43818	1,1,2,2-TETRACHLOROETHANE	79345	*D <2.0	PPB V		0.10	
45210	ISOPROPYLBENZENE	98828	*D <1.0	PPB V		0.050	
45806	1,3-DICHLOROBENZENE	54173	*D <2.0	PPB V		0.10	
45807	1,4-DICHLOROBENZENE	106467	*D <2.0	PPB V		0.10	
45805	1,2-DICHLOROBENZENE	95501	*D <2.0	PPB V		0.10	
43206	ACETYLENE	74862	*D <2.0	PPB V		0.10	
43801	CHLOROMETHANE	74873	*D <6.0	PPB V		0.30	
43205	PROPENE	115071	*D <2.0	PPB V		0.10	
43860	VINYL CHLORIDE	75014	*D <2.0	PPB V		0.10	
43218	1,3-BUTADIENE	106990	*D <2.0	PPB V		0.10	
43819	BROMOMETHANE	74839	*D <2.0	PPB V		0.10	
43812	CHLOROETHANE	75003	*D <2.0	PPB V		0.10	
43802	METHYLENE CHLORIDE	75092	*D <2.0	PPB V		0.10	
43838	TRANS-1,2-DICHLOROETHENE	156605	*D <2.0	PPB V		0.10	
43835	CHLOROPRENE	126998	*D <2.0	PPB V		0.10	
43803	CHLOROFORM	67663	*DT 0.54	PPB V		0.050	
43815	1,2-DICHLOROETHANE	10762	*D <2.0	PPB V		0.10	
43814	1,1,1-TRICHLOROETHANE	71556	*D <1.0	PPB V		0.050	
45201	BENZENE	71432	*D <1.0	PPB V		0.050	

Analyses and Results

Analysis Method	*Analysis Date*	*Lab Comments*
TOXIC ORGANIC COMPOUNDS IN AMBIENT AIR T014 - PREP	2003-07-08 00:00:00.0	

Code	*Description*	*CAS No*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*