



790 Marvella Lane  
Green Bay, WI 54304

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September 5, 2000

Mr. Scott Miller  
Wisconsin Department of Natural Resources  
1125 N. Military Avenue  
P.O. Box 10448  
Green Bay, Wisconsin 54307-0448



**Re: Addendum to Site Investigation Work Plan  
Ness Service Center Site, Green Bay Wisconsin  
Envirogen Project No. 990423  
WDNR ID No. 03-05-000017  
PECFA Claim No. 54303-1765-75**

Dear Mr. Miller:

Envirogen, Inc. (Envirogen) is submitting this addendum to the Site Investigation Work Plan previously submitted by Robert E. Lee & Associates, Inc. (REL) in March 1995, in order to complete a limited site investigation at the Ness Service Center site located in Green Bay, Wisconsin. Figures and tables referenced in this report are included as Attachments A and B, respectively. Soil boring/monitoring well construction logs and laboratory analytical reports from soil samples collected during test boring advancement are provided as Attachments C and D, respectively.

**Site Description**

The Ness Service Center Site is located at 975 West Mason Street in Green Bay, Wisconsin. The site is located on the south-west corner of the intersection of Mason Street and 14<sup>th</sup> Avenue in the City of Green Bay, Brown County, Wisconsin. Figure 1 illustrates the site location.

The Ness Service Center building is located in the approximate center of the site, which is primarily asphalt- and concrete-covered. One 4,000-gallon gasoline underground storage tank (UST) and associated pump islands were formerly located at the northeast corner of the site. One 500-gallon waste oil UST was formerly located near the northwest corner of the building. One 6,000-gallon and two 8,000-gallon gasoline USTs, along with the associated pump islands and canopy, are currently located near the northeast corner of the Ness Service Center building. The site is bordered by West Mason Street to the north, and 14<sup>th</sup> Avenue to the east. Residential properties border the site to the



south and west. Figure 2 illustrates the site configuration and Table 1 summarizes the details of the USTs utilized on-site.

### **Site History**

In November 1994, the 6,000-gallon unleaded gasoline UST was removed from the site under supervision of REL personnel. During tank removal activities, soil samples were collected from the sidewalls of the excavation and beneath the tanks and associated piping. The samples were field-analyzed using a photoionization detector, and select samples were sent to a state-certified laboratory for analysis of gasoline range organics (GRO). Laboratory analytical results indicated GRO was present in excess of the Wisconsin Administrative Code (WAC) NR 720 generic soil standard in several samples. Laboratory analytical results from the samples are summarized in Table 2. Figure 3 illustrates the UST removal soil sampling locations.

On March 30, 2000, Envirogen oversaw the removal of the 500-gallon waste oil UST. A soil sample was collected during UST removal activities and submitted to a state-certified laboratory for analysis of diesel range organics (DRO). Analytical results indicate that DRO was detected; however, the concentration was below the WAC NR 720 generic soil standard. The laboratory results are also summarized in Table 2.

### **Contaminant Sources Assessment**

Utility trenches located near the site and on-site are possible pathways for contaminant migration and, will be evaluated during the site investigation.

Based on a review of the National register of Historic Places and State Register of Historic Places in Wisconsin, there are no historical or archeological sites on or adjacent to the site. Based on a review of NR 102.10 and NR 102.11, Lake Michigan is designated as an outstanding resource water, and is located approximately five miles from the site, but should not be affected by the contamination.

Information regarding nearby sources of contamination was reviewed to evaluate the potential for off-site contaminants to migrate onto the site and to identify nearby sites for which Wisconsin Department of Natural Resources (WDNR) information would be available. The WDNR information could provide specific information about geology and hydrogeology in the area of the site. To locate potential sources of contamination that exist within a 1,200-foot radius of the site, Envirogen has reviewed the following records lists:

- Hazard Ranking List
- List of Active Leaking Underground Storage Tank (LUST) Sites
- Registry of Waste Disposal Sites in Wisconsin



- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List
- Spills Summary Report
- Superfund: Progress at National Priority List Sites: Wisconsin

Envirogen has identified up to three properties within approximately a 1,200-foot radius of the Ness Service Center site as potential contaminant sources. The potential impact from these off-site sources will be evaluated during the site investigation.

### **Previous Site Investigation Activities**

REL personnel advanced a total of 11 test borings on- and off-site on three different occasions. One boring was converted into a groundwater monitoring well. Test boring and monitoring well locations are illustrated in Figure 4. Soil samples were collected from each boring location and submitted to a state-certified laboratory for analysis of petroleum compounds.

Samples from test borings installed off-site in the road way on March 29, 1995, indicated low detections of GRO and DRO. Soil samples from test borings advanced in May 1995, indicated the presence of GRO, DRO, and volatile organic compounds (VOCs). However, the detections of VOCs were believed to be the result of laboratory contamination, not of actual site conditions. Because of the suspected laboratory contaminants, a third test boring event was performed to collect representative soil samples for VOC analysis. These borings were located in the same locations as the May 1995 borings and soil samples were collected at the same depths as those previously collected. Analytical results of these samples indicate no VOC contamination at levels exceeding laboratory method detection limits with the exception of one low detection of toluene. Table 3 summarizes the site investigation soil sample laboratory analytical results. Figures 5 and 6 illustrate soil GRO and DRO distributions, respectively.

### **Proposed Supplemental Site Investigation Activities**

Envirogen is proposing to install several additional monitoring wells to determine the extent of potential groundwater contamination and further define the extent of soil contamination. Soil samples collected during the installation of the monitoring wells will be sent to a state-certified laboratory for analysis of petroleum volatile organic compounds, GRO, DRO, polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls, lead, and/or cadmium. The laboratory analytical methods and limits of detection are provided in Envirogen's Standard Operating Procedures (SOP), which is available upon request. Envirogen's chemists will review the results.

Monitoring wells will be installed at locations selected based on soil investigation observations. One monitoring well will be installed in the waste oil UST basin source area. The remaining wells will be installed inside or at the perimeter of the soil contaminant plume for complete definition of



contamination and to facilitate monitoring of the dissolved-phase contaminants. The locations of the proposed supplemental monitoring wells are illustrated in Figure 7.

Groundwater samples will be collected from the monitoring wells and submitted to a state-certified laboratory for analysis of VOCs, GRO, DRO, dissolved lead, PAHs, and natural attenuation indicator parameters. The laboratory analytical methods and limits of detection are summarized in Envirogen's SOP. All laboratory analytical results will be reviewed by Envirogen's chemist.

Envirogen personnel will survey the site, including all monitoring well tops-of-casing. Elevations will be referenced to a site datum and recorded to the 0.01 foot. Depth-to-water measurements will be taken at every well location and groundwater elevation measurements will be calculated to generate a potentiometric surface map and hydraulic gradient. A report will then be generated which will summarize all site investigation findings and provide recommendations for future work at the site.

**Conditions and Certifications**

This Site Investigation Work Plan has been prepared in accordance with generally accepted engineering and hydrogeologic principles and practices of this time and location.

The recommended scope of services presented herein has been developed from consideration of the project characteristics and interpretation of available information. Because only limited information is available, Envirogen reserves the right to modify actual site activities based on subsequent findings.

The locations of the soil borings and monitoring wells have been selected to delineate the extent of contamination. If the contamination is found to be more or less than originally anticipated, appropriate modifications to the Site Investigation Work Plan may be necessary.

This Site Investigation Work Plan was prepared by ENVIROGEN, INC.

I, Mark O. Love, hereby certify that I am a scientist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

A handwritten signature in blue ink that reads "Mark O. Love".

Mark O. Love  
Professional Soil Scientist

cc: Mr. Greg Ness

**Attachment A**

**Figures**

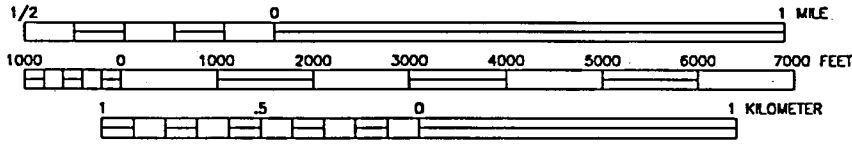
## LIST OF FIGURES

- 1 Site Location Map
- 2 Site Plan View
- 3 UST Removal Soil Sampling Locations
- 4 Test Boring/Monitoring Well Configuration
- 5 Soil GRO Distribution
- 6 Soil DRO Distribution
- 7 Proposed Supplemental Monitoring Well Locations



(USGS 1982)  
GREEN BAY WEST QUADRANGLE

SCALE  
1:24000



CONTOUR INTERVAL 10 FEET



LOCATION



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COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

790 Marvella Lane  
Green Bay, Wisconsin 54304

SITE LOCATION MAP

NESS SERVICE CENTER SITE  
GREEN BAY, WISCONSIN

FIGURE NO.

1

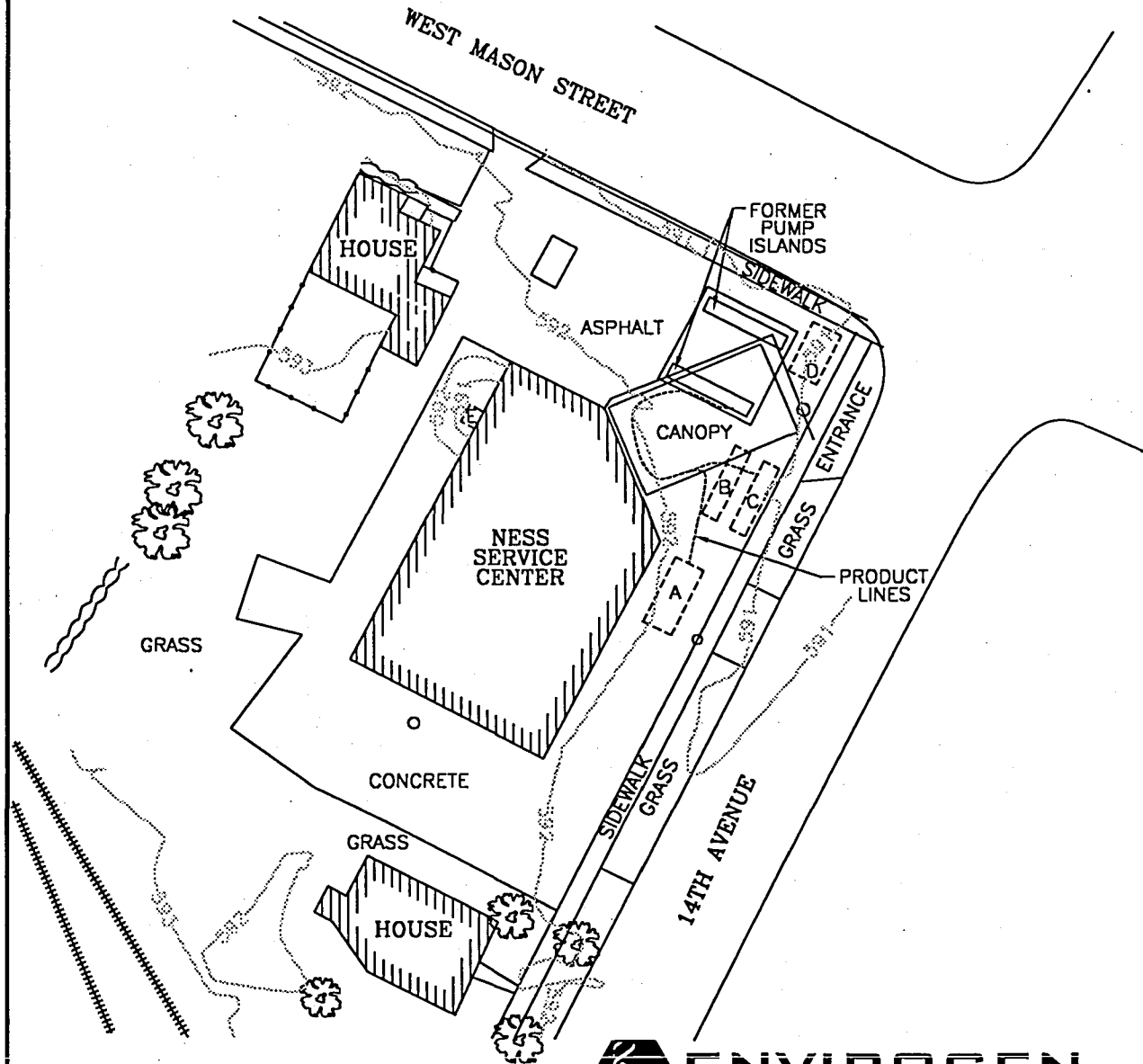
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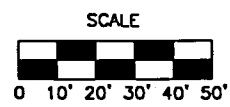
- +++++ RAILROAD TRACKS
- ⊗ TREE
- UNDERGROUND STORAGE TANK

**TANK LEGEND**

- A 6,000-GALLON UNLEADED GASOLINE UST (FORMERLY CONTAINED DIESEL FUEL)
- B 8,000-GALLON LEADED GASOLINE UST
- C 8,000-GALLON LEADED GASOLINE UST
- D FORMER 4,000-GALLON UNLEADED GASOLINE UST
- E FORMER 500-GALLON WASTE OIL UST



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SITE PLAN VIEW		FIGURE NO.
NESS SERVICE CENTER SITE GREEN BAY, WISCONSIN		2

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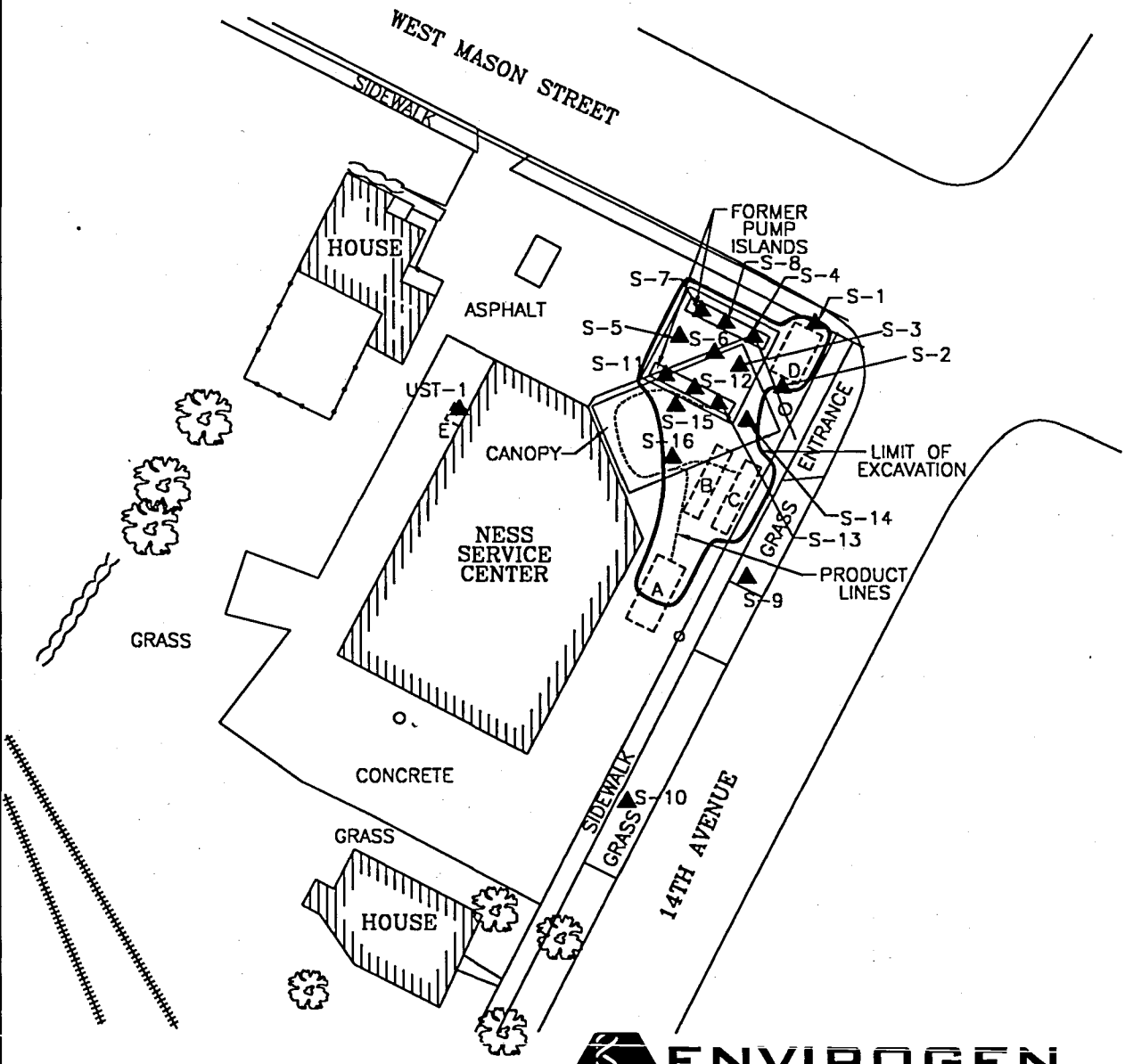
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- ⊗ TREE
- UNDERGROUND STORAGE TANK
- ▲ UST REMOVAL SOIL SAMPLE

**TANK LEGEND**

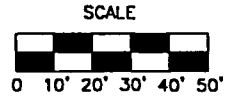
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- B 8,000-GALLON LEADED GASOLINE UST
- C 8,000-GALLON LEADED GASOLINE UST
- D FORMER 4,000-GALLON UNLEADED GASOLINE UST
- E FORMER 500-GALLON WASTE OIL UST



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UST REMOVAL  
 SOIL SAMPLING LOCATIONS  
 NESS SERVICE CENTER SITE  
 GREEN BAY, WISCONSIN

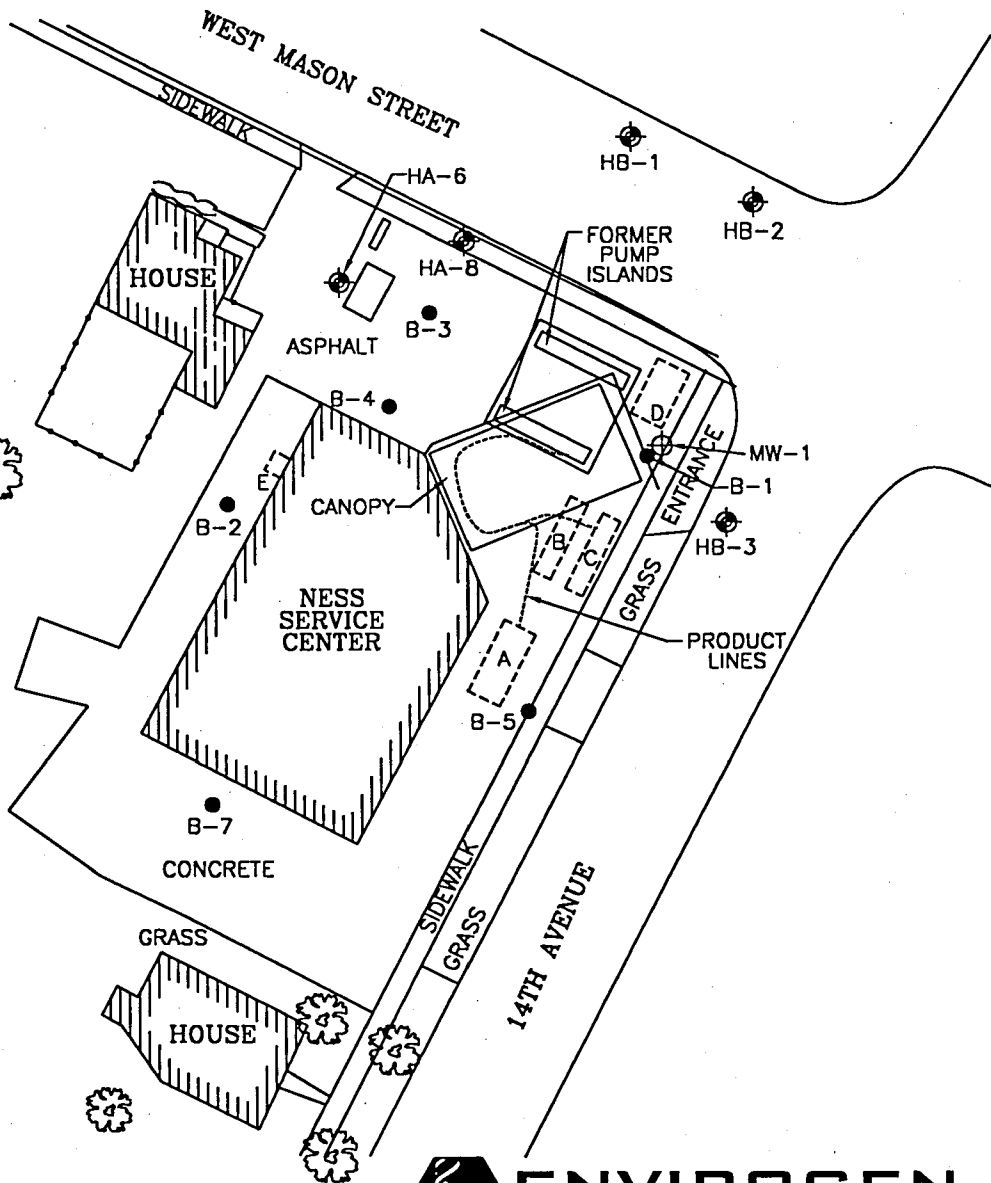
FIGURE NO.  
**3**

**LEGEND**

- ##### RAILROAD TRACKS
- ⊗ TREE
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- SOIL BORING
- ⊙ HAND AUGER BORING

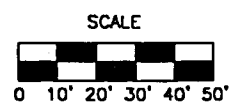
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- B 8,000-GALLON LEADED GASOLINE UST
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790 Marvella Lane  
 Green Bay, Wisconsin 54304



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TEST BORING/MONITORING  
 WELL CONFIGURATION  
 NESS SERVICE CENTER SITE  
 GREEN BAY, WISCONSIN

FIGURE NO.  
**4**

**LEGEND**

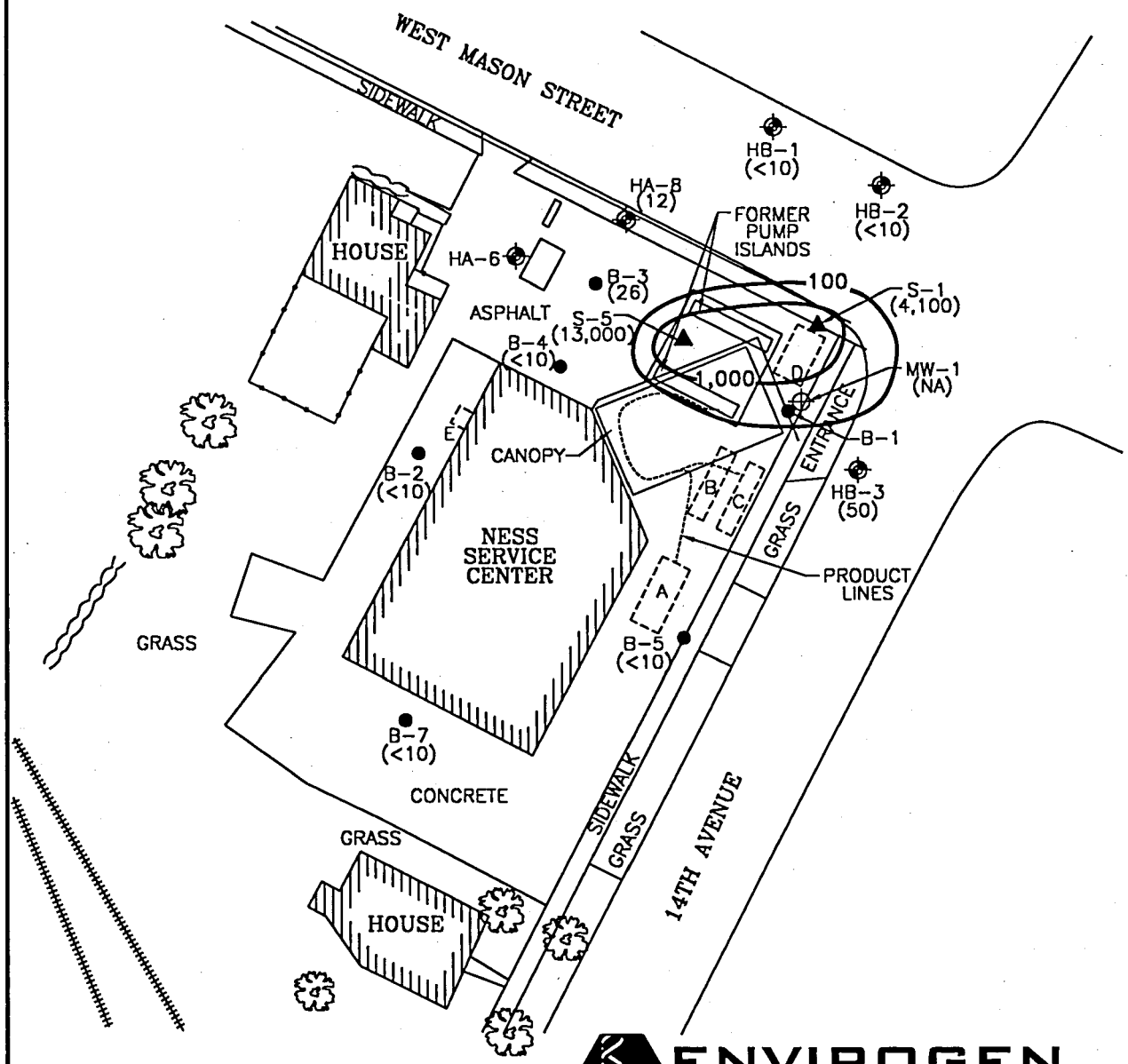
- RAILROAD TRACKS
- ⊙ TREE
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- SOIL BORING
- ⊙ HAND AUGER BORING
- ( ) GRO CONCENTRATION IN ppm
- (NA) NOT ANALYZED
- 100 ISOCONCENTRATION CONTOUR

**TANK LEGEND**

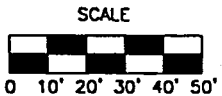
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- E FORMER 500-GALLON WASTE OIL UST



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 Green Bay, Wisconsin 54304



SOIL GRO DISTRIBUTION

NESS SERVICE CENTER SITE  
 GREEN BAY, WISCONSIN

FIGURE NO.

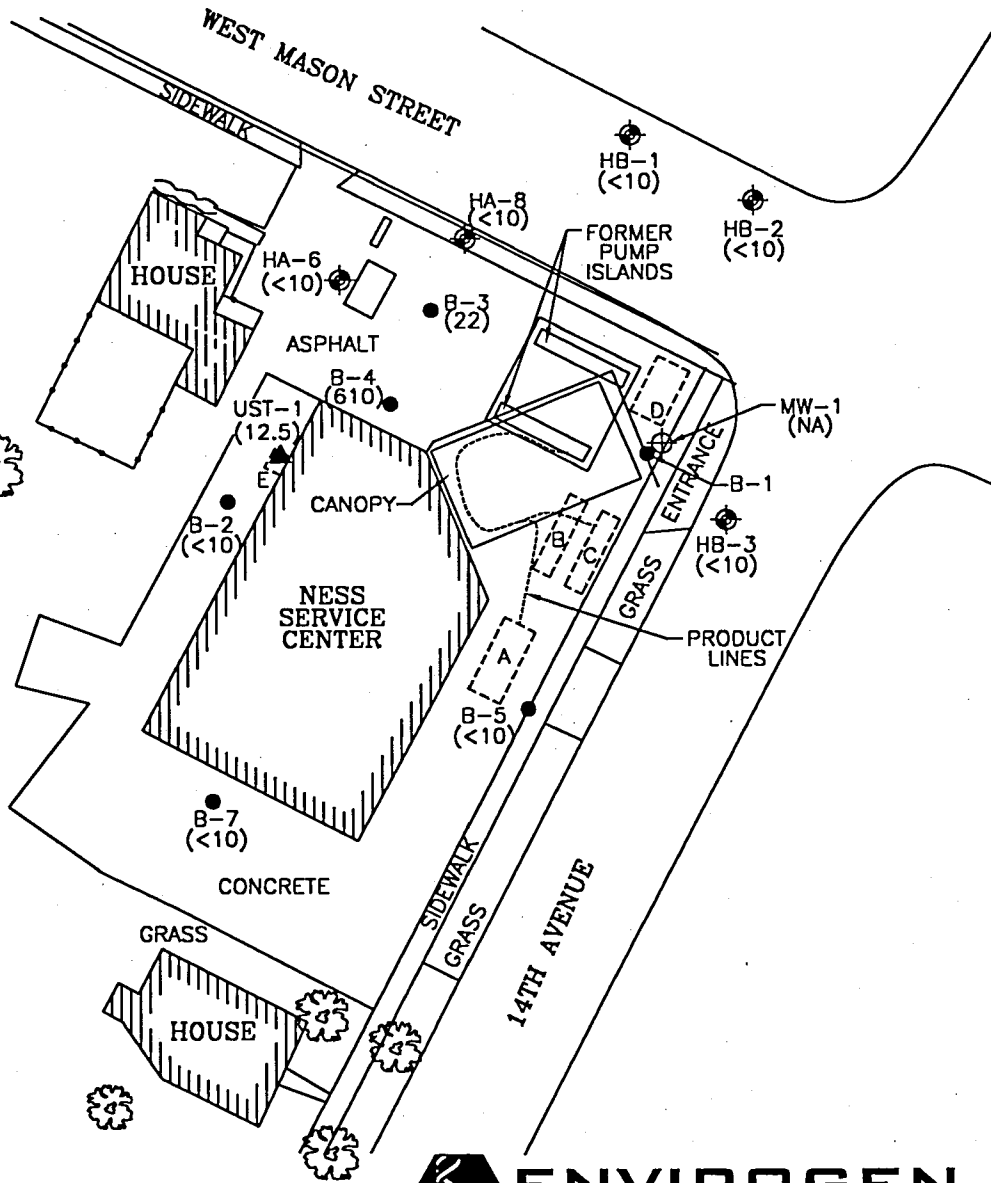
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**LEGEND**

- +++++ RAILROAD TRACKS
- ⊙ TREE
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- SOIL BORING
- ⊙ HAND AUGER BORING
- ( ) DRO CONCENTRATION IN ppm
- (NA) NOT ANALYZED
- 100 ISOCONCENTRATION CONTOUR

**TANK LEGEND**

- A 6,000-GALLON UNLEADED GASOLINE UST (FORMERLY CONTAINED DIESEL FUEL)
- B 8,000-GALLON LEADED GASOLINE UST
- C 8,000-GALLON LEADED GASOLINE UST
- D FORMER 4,000-GALLON UNLEADED GASOLINE UST
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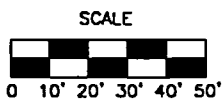
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790 Marvella Lane  
Green Bay, Wisconsin 54304



SOIL DRO DISTRIBUTION	FIGURE NO.
NESS SERVICE CENTER SITE GREEN BAY, WISCONSIN	6

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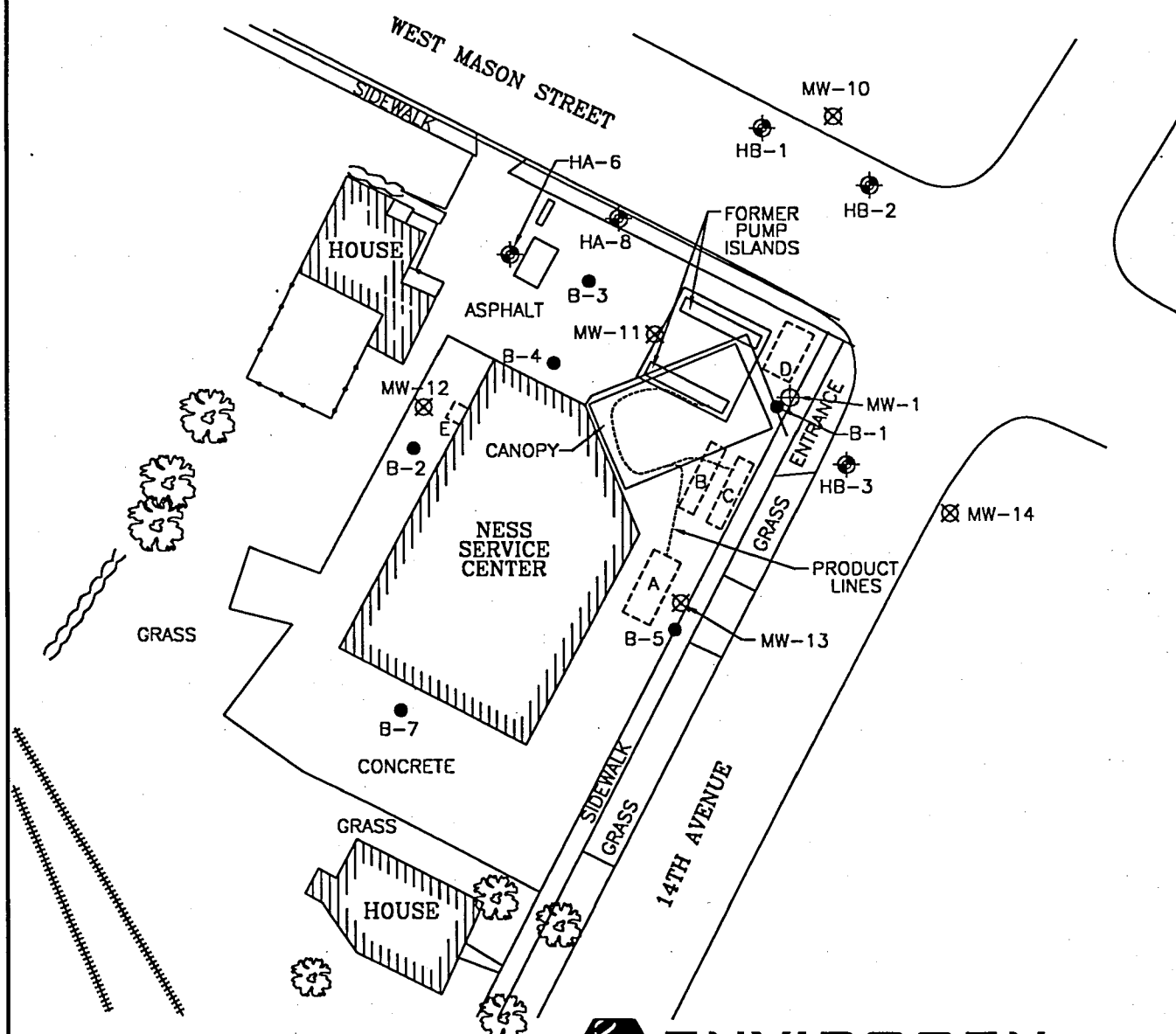
- ##### RAILROAD TRACKS
- ⊗ TREE
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- SOIL BORING
- ⊙ HAND AUGER BORING
- ⊗ PROPOSED MONITORING WELL

**TANK LEGEND**

- A 6,000-GALLON UNLEADED GASOLINE UST (FORMERLY CONTAINED DIESEL FUEL)
- B 8,000-GALLON LEADED GASOLINE UST
- C 8,000-GALLON LEADED GASOLINE UST
- D FORMER 4,000-GALLON UNLEADED GASOLINE UST
- E FORMER 500-GALLON WASTE OIL UST



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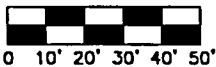


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COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

790 Marvella Lane  
Green Bay, Wisconsin 54304

SCALE



PROPOSED SUPPLEMENTAL  
MONITORING WELL  
NESS SERVICE CENTER SITE  
GREEN BAY, WISCONSIN

FIGURE NO.

7

**Attachment B**

**Tables**

**LIST OF TABLES**

1	UST Inventory
2	UST Removal Soil Sample Laboratory Analytical Results
3	Site Investigation Soil Sample Laboratory Analytical Results

Table 1

UST Inventory  
Ness Service Center Site  
Green Bay, Wisconsin

Size (gallons)	COMM Registration Number	Product	UST Composition	Installation Date	Status
6,000	255781	Unleaded Gasoline (formerly diesel fuel)	Coated Steel	Unknown	Removed November 1994
500	256395	Waste Oil/Motor Oil	Coated Steel	Unknown	Removed March 30, 2000
4,000	256396	Unleaded Gasoline	Fiberglass	Unknown	Currently in Use
8,000	255779	Unleaded Gasoline	Fiberglass	Unknown	Currently in Use
8,000	255780	Unleaded Gasoline	Fiberglass	Unknown	Currently In Use

(COMM n.d.)

Notes:

UST: Underground storage tank  
COMM: Wisconsin Department of Commerce

Checked by: Me  
Approved by: la




Table 2

**UST Removal Soil Sample Laboratory Analytical Results**  
**Ness Service Center Site**  
**Green Bay, Wisconsin**  
**November 7 through 14, 1994, and March 30, 2000**

Sample ID	Sample Location	Sample Depth (ft)	PID Reading	GRO	DRO	
S-1	North sidewall	3	655	4,100	NA	
S-2	South sidewall	3	501	NA	NA	
S-3	Beneath distribution line between pumps 1 and 6	3	795	NA	NA	
S-4	Beneath pump #1	3	694	NA	NA	
S-5	Beneath distribution line between pumps 3 and 4	3	561	13,000	NA	
S-6	Beneath distribution line between pumps 2 and 5	3	403	NA	NA	
S-7	Beneath pump #3	3	702	NA	NA	
S-8	Beneath pump #2	3	7430	NA	NA	
S-9	Utility Trench	3.5	619	NA	NA	
S-10	Utility Trench	3	0	NA	NA	
S-11	Beneath pump #4	2	533	NA	NA	
S-12	Beneath pump # 5	2	233	NA	NA	
S-13	Beneath pump # 6	2	333	NA	NA	
S-14	Beneath distribution line to 8,000 gallon UST	2	111	NA	NA	
S-15	Beneath distribution line from pump #5	3	370	NA	NA	
S-16	Beneath distribution line to 6,000 gallon UST	3	221	NA	NA	
UST-1	Beneath center of waste oil UST	8	NA	NA	61	
				NR 720 Generic Soil Standard	100	100

## Notes:

All results provided in ppm

 Shading indicates value equals or exceeds the NR 720 generic soil standard

NA: Not analyzed

UST: Underground storage tank

PID: Photoionization detector

Checked by: Ma Approved by: Ma

Table 3

**Site Investigation Soil Sample Laboratory Analytical Results**  
**Ness Service Center Site**  
**Green Bay, Wisconsin**

Sample Location	Sample Date	Sample Depth (ft bls)	Parameters										
			Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Naphthalene	GRO (ppm)	DRO (ppm)	Lead (ppm)	
HB-1	3/29/95	5-6	<5.8	<5.8	<5.8	<17.8	<11.6	<5.8	<0.33	<10	<10	6.96	
HB-2		4-5	<6.1	<6.1	<6.1	<18.1	<12.2	<6.1	<0.33	<10	<10	3.57	
HB-3		4.5-5	<5.7	780	370	4,200	7,200	31	<0.33	50	<10	4.27	
B-2*	5/9-11/95 and 8/18/95	6-8	<25	<25	<25	<75	<50	<25	<25	<10	<10	3.51	
B-3*		6-8	<25	<25	170	<75	<50	<50	<25	26	22	3.22	
B-4*		2-4	<25	<25	<25	<75	<50	<25	<25	<10	<10	2.49	
B-5*		4-6	<25	<25	<25	<75	<50	<25	<25	<10	<10	3.74	
B-7*		4-6	<25	<25	<25	<75	<50	<25	<25	<10	<10	3.35	
HA-6*		4-5	<25	<25	<25	<75	<50	<25	<25	<10	10	2.60	
HA-8*		4-5	NS	NS	NS	NS	NS	NS	NS	NS	12	<10	2.25
NR 720 Generic Soil Standards			5.5	2,900	1,500	4,100	NS	NS	NS	100	100	50	

## Notes:

All results are reported in ppb, unless noted otherwise

Shading indicates value equals or exceeds the NR 720 generic soil standard

bls: Below land surface

TMB: Trimethylbenzenes

MTBE: Methyl t-butyl ether

GRO: Gasoline range organics

DRO: Diesel range organics

\*: Samples were re-analyzed for volatile organic compounds on 8/18/95 because of suspected laboratory contamination on 5/9/95 and 5/11/95.

Checked by: Mon

Approved by: Mon

**Attachment C**

**Soil Boring Log Information, Well/Drillhole/Borehole Abandonment Forms,  
and a Monitoring Well Construction Report**

Facility/Project Name SS SERVICE STATION		License/Permit/Monitoring Number -----		Boring Number B-B. MW-1	
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/09/95 MM/DD/YY	Date Drilling Completed 05/09/95 MM/DD/YY	Drilling Method H.S.A.	
DNR Facility Well No.	WI Unique Well No.	Common Well Name		Final Static Water Level ____ Feet MSL	Surface Elevation ____ Feet MSL
Boring Location State Plane _____ N _____ E S/C/N _____ Lat _____ NE 1/4 of NW 1/4 of Section 35 T 24 N R 20 (E/W) Long _____		Local Grid Location (if applicable) ____ Feet <input type="checkbox"/> N <input type="checkbox"/> E ____ Feet <input type="checkbox"/> S <input type="checkbox"/> W			
County BROWN		DNR County Code 05	Civil Town/City/or Village GREEN BAY		

Sample Type	Length, Att. Recorded (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PD/FD	Soil Properties					RD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Inde	P 200		
			2	Brown SAND and GRAVEL. Moist											
1-SS		11	4	Brown SAND, some Gravel. Wet				150							
2-SS		5	6	6" Layer of Pea Gravel				210							
3-SS		4	8												No Recovery
4-SS		4	10												No Recovery
5-SS		3	12	Grayish Brown Silty SAND. little Clay, trace Gravel. Moist				180							
6-SS		81	14	Grayish Brown Silty CLAY. trace Sand and Gravel				50							
			14	END OF BORING: 13 1/2'											
			16	Water encountered at 3' during drilling											

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


Signature: *[Signature]* Firm: MIDWEST ENGINEERING SERVICES, INC.

This form is authorized by Chapters 144.14 and 162. Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Route To:  
 Solid Waste  
 Emergency Response  
 Wastewater  
 Superfund  
 Haz. Waste  
 Underground Tanks  
 Water Resources  
 Other

Facility/Project Name NESS SERVICE STATION		License/Permit/Monitoring Number -----		Boring Number B-1A	
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/09/95 MM/DD/YY		Date Drilling Completed 05/09/95 MM/DD/YY	
DNR Facility Well No.		Wt. Unique Well No.		Common Well Name	
Final Static Water Level _____ Feet MSL		Surface Elevation _____ Feet MSL		Borehole Diameter 6.0 inches	
Boring Location State Plane NE 1/4 of NW 1/4 of Section 35 T 24 N R 20 (E/W)		Lat _____ Long _____		Local Grid Location (if applicable) <input type="checkbox"/> N _____ Feet <input type="checkbox"/> E <input type="checkbox"/> S _____ Feet <input type="checkbox"/> W	
County BROWN		DNR County Code 05		Civil Town/City/or Village GREEN BAY	

Number and Type	Sample Length, Aft. & Recorded (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PD/FD	Soil Properties					RCD/Comments				
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200					
	I-SS	11	2	Brown SAND and GRAVEL														
			3	3" of Pea Gravel at 3'				ND										
			4	END OF BORING: 4'														
			6	Water encountered at 3' during drilling														
			7	Boring caved at 2'														
			8	Boring terminated due to possible trench backfill														

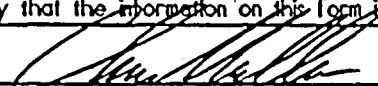
I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature:  Firm: MIDWEST ENGINEERING SERVICES, INC.

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.



Facility/Project Name NESS SERVICE STATION		License/Permit/Monitoring Number -----	Boring Number B-3
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/09/95 MM/DD/YY	Date Drilling Completed 05/09/95 MM/DD/YY
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Drilling Method HSA
Boring Location State Plane _____ N _____ E S/C/N _____ Lat _____ NE 1/4 of NW 1/4 of Section 35 T 24 N R 20 (E) W Long _____		Final Static Water Level _____ Feet MSL	Surface Elevation _____ Feet MSL
County BROWN		DNR County Code 05	Local Grid Location (if applicable) _____ Feet <input type="checkbox"/> N <input type="checkbox"/> E _____ Feet <input type="checkbox"/> S _____ Feet <input type="checkbox"/> W
Civil Town/City/or Village GREEN BAY		Borehole Diameter 6.0 inches	

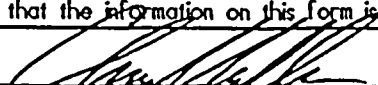
Number and Type	Sample Length Att. Recorded (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PD/FD	Soil Properties					RD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
				Note A: Grayish Brown fine Sandy SLT. Moist											
	1-SS	23	2	Brown Silty SAND. Moist				ND							
			4	Wet at 3'											
	2-SS	33	6	Brown Clayey SLT. little Sand. trace Gravel. Moist				110							
	3-SS	67	8					180							
	4-SS	43	10	Grayish Brown Clayey SLT. trace Sand. Moist				ND							
	5-SS	88	12	END OF BORING: 12'				ND							
			14	Water encountered at 3' during drilling											
			16	Boring caved and dry at 9' upon completion											
			18	Note A: 2" +/- Asphaltic Concrete 4" +/- Concrete											
			20												

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature:  Firm: MIDWEST ENGINEERING SERVICES, INC.

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Locality/Project Name LESS SERVICE STATION		License/Permit/Monitoring Number -----		Boring Number B-4	
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/09/95 MM/DD/YY		Date Drilling Completed 05/09/95 MM/DD/YY	
DNR Facility Well No. -----		WI Unique Well No. -----		Common Well Name	
Find Static Water Level ----- Feet MSL		Surface Elevation ----- Feet MSL		Borehole Diameter 6.0 inches	
Boring Location State Plane _____ N _____ E S/C/N NE 1/4 of NW 1/4 of Section 35, T 24 N, R 20 (E) W		Lat _____ ° _____ ' _____ "		Local Grid Location (if applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
County BROWN		DNR County Code 05		Civil Town/City/or Village GREEN BAY	

Sample Type	Length Att. Recorded (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PD/FD	Soil Properties					RD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			2	Note A: Brown Silty SAND, trace Clay, Moist										
1-SS	10		4	Wet at 3'				ND						
2-SS	47		6	Brown Clayey SLT, trace Sand and Gravel Moist				ND						
3-SS	118		8					ND						
4-SS	96		10	Brownish Gray Clayey SLT, trace Sand, Moist				ND						
5-SS	106		12	END OF BORING: 12'				ND						
			14	Water encountered at 3' during drilling Boring caved and dry at 9' upon completion										
			16	Note A: 2" +/- Asphaltic Concrete 4" +/- Concrete										
			18											
			20											

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature:  Firm: MIDWEST ENGINEERING SERVICES, INC.


This form is authorized by Chapters 144, 147 and 152, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 152.06, Wis. Stats.



Facility/Project Name NESS SERVICE STATION		License/Permit/Monitoring Number -----		Boring Number B-5	
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/10/95 M M D D Y Y		Date Drilling Completed 05/10/95 M M D D Y Y	
DNR Facility Well No. -----		WI Unique Well No. -----		Common Well Name -----	
Final Static Water Level ----- Feet MSL		Surface Elevation ----- Feet MSL		Borehole Diameter 6.0 inches	
Boring Location State Plane N _____ E S/C/N _____ NE 1/4 of NW 1/4 of Section 35 T 24 N R 20 (E/W)		Lat _____ Long _____		Local Grid Location (if applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
County BROWN		DNR County Code 05		Civil Town/City/or Village GREEN BAY	

Number and Type	Length Att. Recorded (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PD/FD	Soil Properties					RD/Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Inde	P 200		
			2	2" +/- Asphaltic Concrete 6" +/- Brown SAND and GRAVEL											
	1-SS	10	4	Brown Silty SAND, trace Clay, Moist				N							
	2-SS	19	6	Brown to Grayish Brown Clayey SILT, trace Sand, Moist				S							
	3-SS	45	8					N							
	4-SS	25	10					N							
	5-SS	31	12	Dark Grayish Brown Clayey SILT, trace Sand, Moist				N							
			14	END OF BORING: 12'											
			16	Water encountered at 3' during drilling											
			18	Boring caved and dry at 7' upon completion											
			20												

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

Signature:  Firm: MIDWEST ENGINEERING SERVICES, INC.

Locality/Project Name ESS SERVICE STATION		License/Permit/Monitoring Number -----		Boring Number B-7	
Boring Drilled By (Firm name and name of crew chief) MIDWEST ENGINEERING SERVICES, INC.		Date Drilling Started 05/10/95 MM/DD/YY		Date Drilling Completed 05/10/95 MM/DD/YY	
DNR Facility Well No.		WI Unique Well No.		Common Well Name	
Final Static Water Level _____ Feet MSL		Surface Elevation _____ Feet MSL		Borehole Diameter 6.0 inches	
Boring Location State Plane _____ N _____ E S/C/N _____ Lat _____ NE 1/4 of NW 1/4 of Section 35 T 24 N R 20 (E) W Long _____		Local Grid Location (if applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S _____ Feet <input type="checkbox"/> W _____ Feet			
County BROWN		DNR County Code 05		Civil Town/City/or Village GREEN BAY	

Sample Type	Length Int. Recorded (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PD/FD	Soil Properties				RD/ Comments
									Compressive Strength		Inde	P 200	
			0	2" +/- Asphaltic Concrete 6" +/- Brown SAND and GRAVEL									
			2	Brown Silty CLAY. trace Sand. Moist									
	1-SS	7	4					ND					
	2-SS	12	6	Brown Clayey SLT. little Sand. Moist				ND					
	3-SS	85	8	Grayish Brown Clayey SLT. little Sand. trace Gravel. Moist				ND					
	4-SS	88	10					ND					
	5-SS	70	12					ND					
			12	END OF BORING: 12'									
			14	Water encountered at 3' during drilling									
			16	Boring caved and dry at 7' upon completion									
			18										
			20										

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature: *[Signature]* Firm: MIDWEST ENGINEERING SERVICES, INC.

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All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instruction on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
NE 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If applicable)		Present Well Owner Ness Service Station	
Gov't Lot _____	Grid Number _____	Street or Route 975 W. Mason Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Green Bay, Wisconsin	
Civil Town Name Hobart		Facility Well No. &/or Name (If Applicable) B-1A	WI Unique Well No. _____
Street Address of Well 975 W. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/9/95	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>5/9/95</u>	<b>(4) Depth to Water (Feet)</b> <u>N/A</u>
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable If No, Explain _____
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	<b>(5) Required Method of Placing Sealing Material</b> <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input checked="" type="checkbox"/> Gravity
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	<b>(6) Sealing Materials</b> For Monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite
Total Borehole Depth (ft.) <u>4</u> (From ground surface)	
Casing Depth (ft.) _____	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, to What Depth? _____ Feet	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
3/8" Chipped Bentonite	Surface	2	1/2 Bag	

<b>(8) Comments:</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
<b>(9) Name of Person or Firm Doing Sealing Work</b> Midwest Engineering Services, Inc.		Date Received/Inspected	District/Court
		Reviewer/Inspector	
Signature of Person Doing Work 	Date Signed 5/26/95	Follow-up Necessary	
Street or Route 1280 Van Dyke Road, Unit 4	Telephone Number (414) 735-1200		
City, State, Zip Code Appleton, Wisconsin 54915		DNR/COUNTY	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instruction on back.

1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
NE 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 [ ] W [x] E		Present Well Owner Ness Service Station	
If Applicable) Gov't Lot _____ Grid Number _____		Street or Route 975 W. Mason Street	
Grid Location _____ ft. [ ] N. [ ] S. _____ ft. [ ] E. [ ] W.		City, State, Zip Code Green Bay, Wisconsin	
Town Name Libert		Facility Well No. &/or Name (If Applicable) B-2	WI Unique Well No. _____
Street Address of Well 975 W. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/9/95	

3) Original Well/Drillhole/Borehole Construction Completed On Date) 5/9/95		(4) Depth to Water (Feet) _____ N/A	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Pump & Piping Removed? [ ] Yes [ ] No [x] Not Applicable Liner(s) Removed? [ ] Yes [ ] No [x] Not Applicable Screen Removed? [ ] Yes [ ] No [x] Not Applicable Casing Left in Place? [ ] Yes [ ] No [x] Not Applicable If No, Explain _____	
Construction Report Available? <input checked="" type="checkbox"/> Yes [ ] No		Was Casing Cut Off Below Surface? [ ] Yes [x] No Did Sealing Material Rise to Surface? [ ] Yes [x] No Did Material Settle After 24 Hours? [ ] Yes [x] No If Yes, Was Hole Retopped? [ ] Yes [x] No	
Construction Type: <input checked="" type="checkbox"/> Drilled [ ] Driven (Sandpoint) [ ] Dug <input type="checkbox"/> Other (Specify) _____		(5) Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity [ ] Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer [x] Gravity	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation [ ] Bedrock		(6) Sealing Materials For Monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete [ ] Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry [ ] Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry [ ] Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite	
Borehole Depth (ft.) _____ 12 (From ground surface)			
Casing Depth (ft.) _____			
Well Annular Space Grouted? [ ] Yes [ ] No [ ] Unknown If Yes, to What Depth? _____ Feet			

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
3/8" Chipped Bentonite	Surface	8	2 Bags	

(8) Comments:		(10) FOR DNR OR COUNTY USE ONLY	
		Date Received/Inspected	District/Court
(9) Name of Person or Firm Doing Sealing Work Midwest Engineering Services, Inc.		Reviewer/Inspector	
Signature of Person Doing Work	Date Signed 3/26/95		
Street or Route 150 Van Dyke Road, Unit 4	Telephone Number (414) 735-1200	Follow-up Necessary	
City, State, Zip Code Appleton, Wisconsin 54915	DNR/COUNTY		

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instruction on back.

<b>1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
NE 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 [ ] E [x] W		Present Well Owner Ness Service Station	
If applicable) Gov't Lot _____ Grid Number _____		Street or Route 975 W. Mason Street	
Grid Location _____ ft. [ ] N. [ ] S. _____ ft. [ ] E. [ ] W.		City, State, Zip Code Green Bay, Wisconsin	
Civil Town Name Libert		Facility Well No.&/or Name (If Applicable) B-3	WI Unique Well No. _____
Street Address of Well 975 W. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/9/95	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 5/9/95	<b>(4) Depth to Water (Feet)</b> N/A
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Pump & Piping Removed? [ ] Yes [ ] No [x] Not Applicable Liner(s) Removed? [ ] Yes [ ] No [x] Not Applicable Screen Removed? [ ] Yes [ ] No [x] Not Applicable Casing Left in Place? [ ] Yes [ ] No [x] Not Applicable If No, Explain _____
Construction Report Available? <input checked="" type="checkbox"/> Yes [ ] No	Was Casing Cut Off Below Surface? [ ] Yes [x] No Did Sealing Material Rise to Surface? [ ] Yes [x] No Did Material Settle After 24 Hours? [ ] Yes [x] No If Yes, Was Hole Retopped? [ ] Yes [x] No
Construction Type: <input checked="" type="checkbox"/> Drilled [ ] Driven (Sandpoint) [ ] Dug <input type="checkbox"/> Other (Specify) _____	<b>(5) Required Method of Placing Sealing Material</b> <input type="checkbox"/> Conductor Pipe-Gravity [ ] Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer [x] Gravity
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation [ ] Bedrock	<b>(6) Sealing Materials</b> For Monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete [ ] Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry [ ] Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry [ ] Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite
Total Borehole Depth (ft.) 12 (From ground surface)	
Casing Depth (ft.) _____	
Was Well Annular Space Grouted? [ ] Yes [ ] No [ ] Unknown If Yes, to What Depth? _____ Feet	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
3/8" Chipped Bentonite	Surface	9	2 1/2 Bags	

<b>(8) Comments:</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
<b>(9) Name of Person or Firm Doing Sealing Work</b> Midwest Engineering Services, Inc.		Date Received/Inspected	District/Court
		Reviewer/Inspector	
Signature of Person Doing Work 	Date Signed 5/24/95	Follow-up Necessary	
Street or Route 1280 Van Dyke Road, Unit 4	Telephone Number (414) 735-1200		
City, State, Zip Code Appleton, Wisconsin 54915	DNR/COUNTY		

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instruction on back.

<b>1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
NE 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 [ ] E [ ] W		Present Well Owner Ness Service Station	
If applicable) Gov't Lot _____ Grid Number _____		Street or Route 975 W. Mason Street	
Grid Location _____ ft. [ ] N. [ ] S. _____ ft. [ ] E. [ ] W.		City, State, Zip Code Green Bay, Wisconsin	
Well Town Name Robert		Facility Well No.&/or Name (If Applicable) B-4	WI Unique Well No. _____
Street Address of Well 97 N. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/9/95	

<b>3) ORIGINAL WELL/DRILLHOLE/BOREHOLE CONSTRUCTION COMPLETED ON</b> Date) <u>5/9/95</u>		<b>(4) Depth to Water (Feet)</b> <u>N/A</u>	
<input type="checkbox"/> Monitoring Well <input checked="" type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes [ ] No	Pump & Piping Removed? [ ] Yes [ ] No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? [ ] Yes [ ] No <input checked="" type="checkbox"/> Not Applicable Screen Removed? [ ] Yes [ ] No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? [ ] Yes [ ] No <input checked="" type="checkbox"/> Not Applicable If No, Explain _____	
		Was Casing Cut Off Below Surface? [ ] Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? [ ] Yes <input checked="" type="checkbox"/> No Did Material Settle After 24 Hours? [ ] Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? [ ] Yes <input checked="" type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled [ ] Driven (Sandpoint) [ ] Dug <input type="checkbox"/> Other (Specify) _____		<b>(5) Required Method of Placing Sealing Material</b>	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation [ ] Bedrock		<input type="checkbox"/> Conductor Pipe-Gravity [ ] Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input checked="" type="checkbox"/> Gravity	
Borehole Depth (ft.) <u>12</u> From ground surface		<b>(6) Sealing Materials</b>	
Casing Depth (ft.) _____		For Monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete [ ] Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry [ ] Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry [ ] Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite	
Well Annular Space Grouted? [ ] Yes [ ] No [ ] Unknown If Yes, to What Depth? _____ Feet			

Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
3/8" Chipped Bentonite	Surface	9	2 1/2 Bags	

<b>(8) Comments:</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
<b>(9) Name of Person or Firm Doing Sealing Work</b> Midwest Engineering Services, Inc. Signature of Person Doing Work _____ Date Signed <u>5/20/95</u>		Date Received/Inspected _____ District/Court _____	
		Reviewer/Inspector _____	
Street or Route 1277 Van Dyke Road, Unit 4 Appleton, Wisconsin 54915		Telephone Number (414) 735-1200	
State, Zip Code Appleton, Wisconsin 54915		Follow-up Necessary _____	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instruction on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
NE 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If applicable)		Present Well Owner Ness Service Station	
Gov't Lot _____	Grid Number _____	Street or Route 975 W. Mason Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Green Bay, Wisconsin	
Civil Town Name Hobart		Facility Well No. &/or Name (If Applicable) B-5	WI Unique Well No. _____
Street Address of Well 975 W. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/10/95	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>5/10/95</u>		<b>(4) Depth to Water (Feet)</b> <u>N/A</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable If No, Explain _____	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<b>(5) Required Method of Placing Sealing Material</b> <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input checked="" type="checkbox"/> Gravity	
Total Borehole Depth (ft.) <u>12</u> (From ground surface)		<b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite	
Casing Depth (ft.) _____			
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, to What Depth? _____ Feet			

<b>(7) Sealing Material Used</b>	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
3/8" Chipped Bentonite	Surface	7	2 Bags	

<b>(8) Comments:</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
		Date Received/Inspected	District/Court
<b>(9) Name of Person or Firm Doing Sealing Work</b> Midwest Engineering Services, Inc.		Reviewer/Inspector	
Signature of Person Doing Work <i>[Signature]</i>	Date Signed 5/24/95	Follow-up Necessary	
Street or Route 1280 Van Dyke Road, Unit 4	Telephone Number (414) 735-1200		
City, State, Zip Code Appleton, Wisconsin 54915	DNR/COUNTY		

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112, or NR 141, Wis. Admin. Code, whichever is applicable. Also, see Instruction on back.

<b>1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b>	
Well/Drillhole/Borehole Location	County Brown	Original Well Owner (If Known)	
[ ] E [x] 1/4 of NW 1/4 of Sec. 35; T. 24 N; R. 20 [ ] W		Present Well Owner Ness Service Station	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route 975 W. Mason Street	
3rd Location _____ ft. [ ] N. [ ] S. _____ ft. [ ] E. [ ] W.		City, State, Zip Code Green Bay, Wisconsin	
Town Name Hobart		Facility Well No. &/or Name (If Applicable) B-7	WI Unique Well No. _____
Street Address of Well 975 W. Mason Street		Reason For Abandonment Borehole Only	
City, Village Green Bay		Date of Abandonment 5/10/95	

<b>3) Original Well/Drillhole/Borehole Construction Completed On</b> Date) <u>5/10/95</u>		<b>(4) Depth to Water (Feet)</b> <u>N/A</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Pump & Piping Removed? [ ] Yes [ ] No [x] Not Applicable Liner(s) Removed? [ ] Yes [ ] No [x] Not Applicable Screen Removed? [ ] Yes [ ] No [x] Not Applicable Casing Left in Place? [ ] Yes [ ] No [x] Not Applicable If No, Explain _____	
Construction Report Available? <input checked="" type="checkbox"/> Yes [ ] No		Was Casing Cut Off Below Surface? [ ] Yes [x] No Did Sealing Material Rise to Surface? [ ] Yes [x] No Did Material Settle After 24 Hours? [ ] Yes [x] No If Yes, Was Hole Retopped? [ ] Yes [x] No	
<b>Construction Type:</b> <input checked="" type="checkbox"/> Drilled [ ] Driven (Sandpoint) [ ] Dug <input type="checkbox"/> Other (Specify) _____		<b>(5) Required Method of Placing Sealing Material</b>	
<b>Formation Type:</b> <input checked="" type="checkbox"/> Unconsolidated Formation [ ] Bedrock		<input type="checkbox"/> Conductor Pipe-Gravity [ ] Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer [x] Gravity	
Total Borehole Depth (ft.) <u>12</u> (From ground surface)		<b>(6) Sealing Materials</b>	
Casing Depth (ft.) _____		For Monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete [ ] Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry [ ] Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry [ ] Bentonite-Cement-Grout <input checked="" type="checkbox"/> Chipped Bentonite	
Well Annular Space Grouted? [ ] Yes [ ] No [ ] Unknown If Yes, to What Depth? _____ Feet			

Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks	Mix Ratio or
			Sealant or Volume	Mud Weight
3/8" Chipped Bentonite	Surface	7	2 Bags	

<b>(8) Comments:</b>		<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
<b>(9) Name of Person or Firm Doing Sealing Work</b> Midwest Engineering Services, Inc.		Date Received/Inspected	District/Court
		Reviewer/Inspector	
Signature of Person Doing Work	Date Signed	Follow-up Necessary	
Street or Route	Telephone Number		
City, State, Zip Code			
Appleton, Wisconsin 54915		DNR/COUNTY	



City/Project Name <b>Ness Service Station</b>	Local Grid Location of Well _____ ft. <input type="checkbox"/> N _____ ft. <input type="checkbox"/> E _____ ft. <input type="checkbox"/> S _____ ft. <input type="checkbox"/> W	Well Name <b>MW-1B</b>
City 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 <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed <u>0</u> <u>5</u> / <u>0</u> <u>9</u> / <u>9</u> <u>5</u> m m d d y y
Distance Well Is From Waste/Source Boundary _____ ft.	Section Location of Waste/Source <b>NE 1/4 of NW 1/4 of Sec. 35, T.24 N, R.20</b> <input type="checkbox"/> E, <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Dean Anderson</b>
Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<b>Midwest Engineering Services</b>

Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: _____ in. <u>2.0</u> b. Length: _____ ft. <u>1.0</u> c. Material: _____ Steel <input checked="" type="checkbox"/> 04 Flushmount Other <input type="checkbox"/>
Land surface elevation _____ ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Locking Expandable Cap</u>
Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: _____ Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: _____ Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight . . . . Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite . . . . Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: _____ Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
Drilling method used: _____ Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: _____ a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. _____ Chips Other <input type="checkbox"/>
Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. <u>Badger Mining 40/60</u> b. Volume added <u>0.25</u> ft <sup>3</sup>
Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. <u>Badger Mining .85/.95</u> b. Volume added <u>2.5</u> ft <sup>3</sup>
Describe _____	9. Well casing: _____ Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
Source of water (attach analysis): _____	10. Screen material: _____ PVC a. Screen type: _____ Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
Bentonite seal, top _____ ft. MSL or <u>1.0</u> ft.	b. Manufacturer <u>Diedrich</u> c. Slot size: _____ 0.010 in. d. Slotted length: _____ 10.0 ft.
Fine sand, top _____ ft. MSL or <u>2.0</u> ft.	11. Backfill material (below filter pack): _____ None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
Filter pack, top _____ ft. MSL or <u>2.5</u> ft.	
Screen joint, top _____ ft. MSL or <u>3.0</u> ft.	
Well bottom _____ ft. MSL or <u>13.0</u> ft.	
Filter pack, bottom _____ ft. MSL or <u>13.5</u> ft.	
Borehole, bottom _____ ft. MSL or <u>13.5</u> ft.	
Borehole, diameter <u>8.0</u> in.	
O.D. well casing <u>2.00</u> in.	
I.D. well casing <u>2.40</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature \_\_\_\_\_ Firm **Midwest Engineering Services, 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 \$1000 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.

**Attachment D**

**Soil Sample Laboratory Analytical Reports**



**MONTGOMERY WATSON**  
Analytical Testing Services

RECEIVED

APR 20 1995

ROBERT E. LEE & ASSOC., INC.

April 19, 1995

Ms. Charlene T. Stinson  
Robert E. Lee & Associates, Inc.  
Engineering, Surveying, Laboratory Services  
2825 South Webster Avenue  
P.O. Box 2100  
Green Bay, Wisconsin 54306-2100

Re: Ness Service Center/2390-002

Dear Ms. Stinson:

Enclosed are the analytical results and chain-of-custody for the samples collected March 29, 1995 and received March 31, 1995. Our lab certification number is 113138300. Also enclosed is our Invoice No. ML265.

Please feel free to call if you have any questions.

Sincerely,

**MONTGOMERY WATSON**  
Analytical Testing Services

Dennis J. Linley  
Lab Services Coordinator

Enclosures: As stated

cc: D. Linley  
K. Killian

SMT/dsk/GLG  
G:\DMGMT\LETTERS\42860220.DOC  
L10453



## STANDARD REPORT FOOTNOTES

- A1 Elevated quantitation limit due to low sample volume.
- A2 Elevated quantitation limit necessary to overcome interference.
- A4 Result should be considered estimated due to sample-related problems encountered during analysis.
- A11 Sample received past recommended hold time.
- A12 Analysis requested past recommended hold time.
- A13 Initial analysis performed within hold time; confirmation analysis performed past recommended hold time. Results from repeat analysis are reported.
- A14 Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.
- A15 Result should be considered estimated; analyte detected in method blank.
- A17 Result should be considered estimated as indicated by method QC.
- M3 Total analysis performed due to insufficient solid for TCLP extraction.
- G1 Result should be considered estimated, concentration exceeds working calibration range.
- G2 Elevated quantitation limit due to the concentration of petroleum hydrocarbons in the sample.
- G3 Elevated quantitation limit due to the concentration of non-specific hydrocarbons in the sample.
- G4 Analyte coelutes with \_\_\_\_\_; result calculated from calibration standards in a 1:1 ratio of these two compounds.
- G5 Sample required extensive cleanup; Endrin Aldehyde is not recovered from these techniques.
- G6 Petroleum-type odor detected from this sample.
- G7 Elevated quantitation limit due to the concentration of PCBs in the sample.
- G8 Result should be considered estimated due to coelution with an additional hydrocarbon product.
- G9 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products.
- G10 Presence of one or more unidentified peaks eluting earlier than the retention time window.
- G11 Presence of one or more unidentified peaks eluting later than the retention time window.
- G12 Result is estimated. The method used is a screening procedure for this compound.
- G13 Measurement performed using test strips.
- G15 n-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from Diphenylamine.
- G16 Measurement upon receipt performed using test strips. Adjusted to pH <2.
- G17 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products. Final results pending GC/MS confirmation.



**METHOD REFERENCES**

Analytes	Soil/Groundwater				Wastewater			
	ICP	Flame	Furnace	CV	ICP	Flame	Furnace	CV
Aluminium	6010	7020	-	-	200.7	202.1	-	-
Antimony	6010	7040	7041	-	200.7	-	204.2	-
Arsenic	6010	-	7060	-	200.7	-	206.2	-
Barium	6010	7080	7081	-	200.7	208.1	208.2	-
Beryllium	6010	7090	7091	-	200.7	210.1	210.2	-
Boron	6010	-	-	-	200.7	-	-	-
Cadmium	6010	7130	7131	-	200.7	213.1	213.2	-
Calcium	6010	7140	-	-	200.7	215.1	-	-
Chromium, Total	6010	7190	7191	-	200.7	218.1	218.2	-
Cobalt	6010	7200	-	-	200.7	219.1	-	-
Copper	6010	7210	-	-	200.7	220.1	-	-
Iron	6010	7380	-	-	200.7	236.1	-	-
Lead	6010	7420	7421	-	200.7	239.1	239.2	-
Magnesium	6010	7450	-	-	200.7	242.1	-	-
Manganese	6010	7460	-	-	200.7	243.1	-	-
Mercury	-	-	-	7470/7471	-	-	-	245.1
Molybdenum	6010	7480	-	-	200.7	246.1	-	-
Nickel	6010	7520	-	-	200.7	249.1	-	-
Potassium	-	SM3500D	-	-	-	SM3500D	-	-
Selenium	6010	-	7740	-	200.7	-	270.2	-
Silver	6010	7760	7761	-	200.7	272.1	272.2	-
Sodium	6010	SM3500D	-	-	200.7	SM3500D	-	-
Strontium	6010	-	-	-	200.7	-	-	-
Thallium	6010	7840	7841	-	200.7	279.1	279.2	-
Tin	6010	-	-	-	200.7	-	-	-
Titanium	6010	-	-	-	200.7	-	-	-
Vanadium	6010	7910	7911	-	200.7	286.1	286.2	-
Zinc	6010	7950	-	-	200.7	289.1	-	-

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Chemical Analysis of Water and Wastes", March 1984.

Standard Methods for the Examination of Water and Wastewater", 17th Edition, 1989.



**METHOD REFERENCES**

Compounds	Soil/Groundwater	Wastewater
Alcohol	8015*	8015*
BEXT	8020***	602
DRO	Modified DRO	Modified DRO
GRO	Modified GRO***	Modified GRO
Herbicides	8150	8150
Pesticides	8080	608
Pesticide/PCBs	8080	608
PCBs	8080**	608
PCBs	8080****	608
PCP Screen	8040****	8040****
PNA (GC/MS)	8270	8270
PNA (HPLC)	8310	8310
PVOCs	8020***	8020
SVOCs	8270	8270
TPH	D-3328-78*	D-3328-78*
TRPH	418.1 & 9073	418.1 & 9073
VOCs	8021	8021
VOCs	8010/8020***	601/602
Solids, Total	160.3	160.3

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Organic Chemical Analysis of Water and Wastes",  
March, 1984.

ASTM, "Annual Book of ASTM Standards", 1990.

Wisconsin DNR Modified 9073 TRPH, PUBL-SW-140, Wisconsin DNR,  
April 1992.

Wisconsin DNR Modified DRO, PUBL-SW-141, Wisconsin DNR, July 1993.

Wisconsin DNR Modified GRO, PUBL-SW-140, Wisconsin DNR, July 1993.

\* With Modifications

\*\* With Modifications for Oil Matrix

\*\*\* With Modifications for Soil Gas Matrix

\*\*\*\* With Modifications for Wipe Matrix



**INORGANIC REPORT**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #: L10453-001  
Description: HB1 (5'-6')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	6.96	5	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	85.8		0.5	Solid	%		03-APR-95	

Sample #: L10453-002  
Description: HB2 (4'-5')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	3.57	1	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	81.7		0.5	Solid	%		03-APR-95	

Sample #: L10453-003  
Description: HB3 (4.5'-5')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	4.27	1	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	87.6		0.5	Solid	%		03-APR-95	

Note: Results in mg/kg are reported on a dry weight basis.

MDL = Method Detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *DK* App'd: *CAW*  
Date App'd: 4.20.95



**GASOLINE RANGE ORGANICS (GRO)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #	Description	Test	Result	Reporting Limit	Matrix	Units	Petroleum Odor	Footnotes
L10453-001	HB1 (5'-6')	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	03-APR-95					
L10453-002	HB2 (4'-5')	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	03-APR-95					
L10453-003	HB3 (4.5'-5')	Gasoline Range Organics	50	10	Solid	mg/kg	Detected	
		Sample Date:	29-MAR-95					
		Analysis Date:	05-APR-95					
L10453-004	METHANOL TRIP BLANK	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	05-APR-95					

Note: Results in mg/kg are reported on a dry weight basis.





PETROLEUM PETROLEUM VOLATILE ORGANIC (PVOC) UNPRES  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
10453-001	HB1 (5'-6')	Benzene	< 5.8	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	< 5.8	5	5.0	Solid	ug/kg	
		Ethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		Toluene	< 5.8	5	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		1,3,5-Trimethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		m + p-Xylene	< 12	5	10	Solid	ug/kg	
		o-Xylene	< 5.8	5	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07-APR-95					
		Analyst:	AJK					
10453-002	HB2 (4'-5')	Benzene	< 6.1	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	< 6.1	5	5.0	Solid	ug/kg	
		Ethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		Toluene	< 6.1	5	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		1,3,5-Trimethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		m + p-Xylene	< 12	5	10	Solid	ug/kg	
		o-Xylene	< 6.1	5	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07-APR-95					
		Analyst:	AJK					
10453-003	HB3 (4.5'-5')	Benzene	< 5.7	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	31	5	5.0	Solid	ug/kg	
		Ethylbenzene	780	250	5.0	Solid	ug/kg	
		Toluene	370	250	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	5300	500	5.0	Solid	ug/kg	A14, A17
		1,3,5-Trimethylbenzene	1900	250	5.0	Solid	ug/kg	
		m + p-Xylene	2900	250	10	Solid	ug/kg	
		o-Xylene	1300	250	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07, 12, 13-APR-95					
		Analyst:	AJK					

Note: Results in ug/kg are reported on a dry weight basis.

Dil = Dilution  
MDL = Method detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *BSK* App'd: *CAW*  
Date App'd: 4.20.95



**PNA/PAH (HPLC) ORGANIC REPORT**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Reporting Limit	Matrix	Units	Footnotes
L10453-001	HB1 (5'-6')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	0.0095	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	0.0050	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	0.0062	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	0.011	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	0.012	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Reporting		Matrix	Units	Footnotes
			Result	Limit			
0453-002	HB2 (4'-5')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.

Lab Certification ID#: 113138300

Chk'd: *RSK* App'd: *AAW*  
Date App'd: 4.20.95



PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/KESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Reporting Limit	Matrix	Units	Footnotes
L10453-003	HB3 (4.5'-5')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	0.0057	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	0.0053	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.



**DIESEL RANGE ORGANICS (DRO)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #	Description	Test	Result	Reporting Limit	Matrix	Units	Petroleum Odor	Footnotes
L10453-001	HB1 (5'-6')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					
L10453-002	HB2 (4'-5')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					
L10453-003	HB3 (4.5'-5')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					

Note: Results in mg/kg are reported on a dry weight basis.



**INORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/ Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95

**Date Received:** 3/31/95

**Date Analyzed:** 4/03/95

**Analyst:** JS

**Matrix Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>%Recovery</u>	<u>Control Limits</u>
Lead	36197	83	77-128% Recovery

**Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Sample Results (%)</u>	<u>DUP Results (%)</u>	<u>% RPD</u>	<u>Control Limits</u>
Lead	36266	231	256	10.3	27
Solids, Total	35899	85.8	85.0	0.9	5.0



**GASOLINE RANGE ORGANICS (GRO)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95  
**Date Received:** 3/31/95  
**Date Analyzed:** 3/31/95  
**Analyst:** AJK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
GRO #1	36071	119.8	117.5	1.9	80-120% recovery, 20% RPD
GRO #2	36071	98.7	105.0	6.2	80-120% recovery, 20% RPD
GRO #3	36071	93.9	99.2	5.5	80-120% recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
GRO #1	36071	117.3	70-140% recovery
GRO #2	36071	102.3	70-140% recovery
GRO #3	36071	102.8	70-140% recovery



**PETROLEUM VOLATILE ORGANIC (PVOC)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95  
**Date Received:** 3/31/95  
**Date Analyzed:** 4/7-12/95  
**Analyst:** AJK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Checks**

<u>Compound</u>	<u>Batch Number</u>	<u>MC-4/07/95</u>	<u>MC-4/11/95</u>	<u>MC-4/12/95</u>
Benzene	36172	108	92	82
Toluene	36172	106	90	81

**Method Blank Results**

All associated method blanks were below method detection limits.

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>MS Recovery Batch Number</u>	<u>MSD Recovery %</u>	<u>RPD %</u>	<u>%</u>	<u>Control Limits</u>
Benzene	36172	89	94	6	63-133% recovery, 25% RPD
Toluene	36172	86	91	5	58-116% recovery, 27% RPD





**MONTGOMERY WATSON**  
Analytical Testing Services

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**PETROLEUM VOLATILE ORGANIC (PVOC)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95

**Date Received:** 3/31/95

**Date Analyzed:** 4/7-12/95

**Analyst:** AJK

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>a,a,a-Trifluorotoluene Recovery (%) (PID Detector)</u>	<u>Control Limits</u>
Blank4-07	36172	109	51-116% recovery
Blank 4-11	36172	93	51-116% recovery
Blank 4-12	36172	79	51-116% recovery
L10453-001	36172	84	51-116% recovery
L10453-002	36172	90	51-116% recovery
L10453-003 1/250	36172	98	51-116% recovery
L10453-003 1/500	36172	68	51-116% recovery



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled::** 3/27/95  
**Date Received:** 3/29/95  
**Date Extracted:** 4/06/95  
**Date Analyzed:** 4/07/95  
**Analyst:** CMK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Method Check/Method Check Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MC Recovery (%)</u>	<u>MCD Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
Naphthalene	36163	71	N/A	N/A	64-113% Recovery, 27% RPD
Acenaphthylene	36163	77	N/A	N/A	69-108% Recovery, 26% RPD
Acenaphthene	36163	78	N/A	N/A	69-110% Recovery, 24% RPD
Fluorene	36163	82	N/A	N/A	71-116% Recovery, 23% RPD
Phenanthrene	36163	84	N/A	N/A	70-125% Recovery, 24% RPD
Anthracene	36163	79	N/A	N/A	61-123% Recovery, 24% RPD
Fluoranthene	36163	89	N/A	N/A	74-120% Recovery, 19% RPD
Pyrene	36163	95	N/A	N/A	71-141% Recovery, 31% RPD
Benzo(a)anthracene	36163	91	N/A	N/A	72-126% Recovery, 23% RPD
Chrysene	36163	92	N/A	N/A	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	36163	90	N/A	N/A	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	36163	89	N/A	N/A	69-115% Recovery, 20% RPD
Benzo(a)pyrene	36163	74	N/A	N/A	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	36163	78	N/A	N/A	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	36163	81	N/A	N/A	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	36163	80	N/A	N/A	56-123% Recovery, 23% RPD



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/27/95  
**Date Received:** 3/29/95  
**Date Extracted:** 4/06/95  
**Date Analyzed:** 4/07/95  
**Analyst:** CMK

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
Naphthalene	36163	105	126(a)	19	64-113% Recovery, 27% RPD
Acenaphthylene	36163	92	124(a)	30(b)	69-108% Recovery, 26% RPD
Acenaphthene	36163	132(a)	231(a)	54(b)	69-110% Recovery, 24% RPD
Fluorene	36163	107	189(a)	56(b)	71-116% Recovery, 23% RPD
Phenanthrene	36163	113	178(a)	45(b)	70-125% Recovery, 24% RPD
Anthracene	36163	108	101	6	61-123% Recovery, 24% RPD
Fluoranthene	36163	137(a)	182(a)	28(b)	74-120% Recovery, 19% RPD
Pyrene	36163	147(a)	193(a)	27	71-141% Recovery, 31% RPD
Benzo(a)anthracene	36163	99	108	8	72-126% Recovery, 23% RPD
Chrysene	36163	112	118	6	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	36163	100	98	1	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	36163	98	97	0.7	69-115% Recovery, 29% RPD
Benzo(a)pyrene	36163	103	102	0.2	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	36163	91	91	0.8	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	36163	97	97	0.5	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	36163	95	94	0.9	56-123% Recovery, 23% RPD

(a) Elevated recoveries due to detects of PNAs in sample. Sample L10415-001 was flagged with an "A4" footnote. The other soils associated with this batch were not flagged.

(b) Exceeded control limits. Sample appears nonhomogeneous. Sample L10415-001 was flagged with an "A4" footnote. The other soils associated with this batch were not flagged.



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled::** 3/27/95  
**Date Received:** 3/29/95  
**Date Extracted:** 4/06/95  
**Date Analyzed:** 4/07/95  
**Analyst:** CMK

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>Carbazole (VWD)</u>		<u>DFBP (VWD)</u>	
		<u>Recovery (%)</u>	<u>Control Limits</u>	<u>Recovery (%)</u>	<u>Control Limits</u>
RB B/157	36163	90	61-113% Recovery	96	52-108% Recovery
MC B/157	36163	80	61-113% Recovery	81	52-108% Recovery
L10453-001	36163	86	61-113% Recovery	85	52-108% Recovery
L10453-002	36163	86	61-113% Recovery	87	52-108% Recovery
L10453-003	36163	86	61-113% Recovery	79	52-108% Recovery



**DIESEL RANGE ORGANICS (DRO)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

Location: Sparta, Wisconsin

Date Sampled: 3/29/95  
Date Received: 3/31/95  
Date Extracted: 4/05/95  
Date Analyzed: 4/05/95  
Analyst: CMK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
DRO	36017	101.4	94.4	7.18	80-120% recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
DRO	36017	83.5	60-130% recovery





**MONTGOMERY WATSON**  
Analytical Testing Services

June 7, 1995

Ms. Charlene T. Stinson  
Robert E. Lee & Associates, Inc.  
Engineering, Surveying, Laboratory Services  
2825 South Webster Avenue  
P.O. Box 2100  
Green Bay, Wisconsin 54306-2100

Re: Ness Service Center/2390-002

Dear Ms. Stinson:

Enclosed are the analytical results and chain-of-custody for the samples collected May 9 & 11, 1995 and received May 12, 1995. Our lab certification number is 113138300. Also enclosed is a copy of our Invoice No. ML378. The original has been sent to Ness Service Center.

Please feel free to call if you have any questions.

Sincerely,

**MONTGOMERY WATSON**  
Analytical Testing Services

  
Dennis J. Linley  
Lab Services Coordinator

Enclosures: As stated

cc: D. Linley  
K. Killian

SMT/dsk/GLG  
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L10714



## STANDARD REPORT FOOTNOTES

- A1 Elevated quantitation limit due to low sample volume.
- A2 Elevated quantitation limit necessary to overcome interference.
- A4 Result should be considered estimated due to sample-related problems encountered during analysis.
- A11 Sample received past recommended hold time.
- A12 Analysis requested past recommended hold time.
- A13 Initial analysis performed within hold time; confirmation analysis performed past recommended hold time. Results from repeat analysis are reported.
- A14 Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.
- A15 Result should be considered estimated; analyte detected in method blank.
- A17 Result should be considered estimated as indicated by method QC.
- M3 Total analysis performed due to insufficient solid for TCLP extraction.
- G1 Result should be considered estimated, concentration exceeds working calibration range.
- G2 Elevated quantitation limit due to the concentration of petroleum hydrocarbons in the sample.
- G3 Elevated quantitation limit due to the concentration of non-specific hydrocarbons in the sample.
- G4 Analyte coelutes with \_\_\_\_\_; result calculated from calibration standards in a 1:1 ratio of these two compounds.
- G5 Sample required extensive cleanup; Endrin Aldehyde is not recovered from these techniques.
- G6 Petroleum-type odor detected from this sample.
- G7 Elevated quantitation limit due to the concentration of PCBs in the sample.
- G8 Result should be considered estimated due to coelution with an additional hydrocarbon product.
- G9 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products.
- G10 Presence of one or more unidentified peaks eluting earlier than the retention time window.
- G11 Presence of one or more unidentified peaks eluting later than the retention time window.
- G12 Result is estimated. The method used is a screening procedure for this compound.
- G13 Measurement performed using test strips.
- G15 n-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from Diphenylamine.
- G16 Measurement upon receipt performed using test strips. Adjusted to pH <2.
- G17 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products. Final results pending GC/MS confirmation.





**METHOD REFERENCES**

Analytes	Soil/Groundwater				Wastewater			
	ICP	Flame	Furnace	CV	ICP	Flame	Furnace	CV
Aluminium	6010	7020	-	-	200.7	202.1	-	-
Antimony	6010	7040	7041	-	200.7	-	204.2	-
Arsenic	6010	-	7060	-	200.7	-	206.2	-
Barium	6010	7080	7081	-	200.7	208.1	208.2	-
Beryllium	6010	7090	7091	-	200.7	210.1	210.2	-
Boron	6010	-	-	-	200.7	-	-	-
Cadmium	6010	7130	7131	-	200.7	213.1	213.2	-
Calcium	6010	7140	-	-	200.7	215.1	-	-
Chromium, Total	6010	7190	7191	-	200.7	218.1	218.2	-
Cobalt	6010	7200	-	-	200.7	219.1	-	-
Copper	6010	7210	-	-	200.7	220.1	-	-
Iron	6010	7380	-	-	200.7	236.1	-	-
Lead	6010	7420	7421	-	200.7	239.1	239.2	-
Magnesium	6010	7450	-	-	200.7	242.1	-	-
Manganese	6010	7460	-	-	200.7	243.1	-	-
Mercury	-	-	-	7470/7471	-	-	-	245.1
Molybdenum	6010	7480	-	-	200.7	246.1	-	-
Nickel	6010	7520	-	-	200.7	249.1	-	-
Potassium	-	SM3500D	-	-	-	SM3500D	-	-
Selenium	6010	-	7740	-	200.7	-	270.2	-
Silver	6010	7760	7761	-	200.7	272.1	272.2	-
Sodium	6010	SM3500D	-	-	200.7	SM3500D	-	-
Strontium	6010	-	-	-	200.7	-	-	-
Thallium	6010	7840	7841	-	200.7	279.1	279.2	-
Tin	6010	-	-	-	200.7	-	-	-
Titanium	6010	-	-	-	200.7	-	-	-
Vanadium	6010	7910	7911	-	200.7	286.1	286.2	-
Zinc	6010	7950	-	-	200.7	289.1	-	-

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Chemical Analysis of Water and Wastes", March 1984.

Standard Methods for the Examination of Water and Wastewater", 17th Edition, 1989.



**METHOD REFERENCES**

Compounds	Soil/Groundwater	Wastewater
Alcohol	8015*	8015*
BEXT	8020***	602
DRO	Modified DRO	Modified DRO
GRO	Modified GRO***	Modified GRO
Herbicides	8150	8150
Pesticides	8080	608
Pesticide/PCBs	8080	608
PCBs	8080**	608
PCBs	8080****	608
PCP Screen	8040****	8040****
PNA (GC/MS)	8270	8270
PNA (HPLC)	8310	8310
PVOCs	8020***	8020
SVOCs	8270	8270
TPH	D-3328-78*	D-3328-78*
TRPH	418.1 & 9073	418.1 & 9073
VOCs	8021	8021
VOCs	8010/8020***	601/602
Solids, Total	160.3	160.3

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Organic Chemical Analysis of Water and Wastes",  
March, 1984.

ASTM, "Annual Book of ASTM Standards", 1990.

Wisconsin DNR Modified 9073 TRPH, PUBL-SW-140, Wisconsin DNR,  
April 1992.

Wisconsin DNR Modified DRO, PUBL-SW-141, Wisconsin DNR, July 1993.

Wisconsin DNR Modified GRO, PUBL-SW-140, Wisconsin DNR, July 1993.

- \* With Modifications
- \*\* With Modifications for Oil Matrix
- \*\*\* With Modifications for Soil Gas Matrix
- \*\*\*\* With Modifications for Wipe Matrix



INORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L10714-001  
Description: B-4 2-4  
Sample Date: 09-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	2.49	1	0.15	Solid	mg/kg	HJM	23-MAY-95	A15
Solids, Total	83.8	1	0.5	Solid	%	WRM	15-MAY-95	

Sample #: L10714-002  
Description: B-3 6-8  
Sample Date: 09-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	3.22	1	0.15	Solid	mg/kg	HJM	17-MAY-95	
Solids, Total	88.6	1	0.5	Solid	%	WRM	15-MAY-95	

Sample #: L10714-003  
Description: B-2 6-8  
Sample Date: 09-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	3.51	1	0.15	Solid	mg/kg	HJM	17-MAY-95	
Solids, Total	88.5	1	0.5	Solid	%	WRM	15-MAY-95	

Note: Results in mg/kg are reported on a dry weight basis.



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
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Madison, Wisconsin 53711  
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**INORGANIC REPORT**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L10714-004  
Description: B-5 4-6  
Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Lead	3.74	1	0.15	Solid	mg/kg	HJH	17-MAY-95	
Solids, Total	86.8	1	0.5	Solid	%	WRH	15-MAY-95	

Sample #: L10714-005  
Description: HA-6 4-5  
Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Lead	2.60	1	0.15	Solid	mg/kg	HJH	17-MAY-95	
Solids, Total	84.6	1	0.5	Solid	%	WRH	15-MAY-95	

Sample #: L10714-006  
Description: B-7 4-6  
Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Lead	3.35	1	0.15	Solid	mg/kg	HJH	17-MAY-95	
Solids, Total	84.0	1	0.5	Solid	%	WRH	15-MAY-95	

Note: Results in mg/kg are reported on a dry weight basis.

MDL = Method Detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *D&K* App'd: *CAW*  
Date App'd: 6-7-95



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INORGANIC REPORT  
INORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L10714-007  
Description: HA-8 4-6  
Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Lead	2.25	1	0.15	Solid	mg/kg	HJM	17-MAY-95	
Solids, Total	84.7	1	0.5	Solid	%	WRM	15-MAY-95	

MDL = Method Detection Limit  
WI Lab Certification ID#: 113138300

chk'd: *[Signature]* App'd: CAW  
Date App'd: 6/12/95  
*[Signature]*



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-001	Benzene	25	60	320	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-4 2-4	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	A17
	n-Butylbenzene	25	60	27 J	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	41 J	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	< 25	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-001	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	26 J	1	NR	ug/kg	
-4 2-4	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	40 J	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	34 J	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 09-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 16-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
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\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-002	Benzene	25	60	400	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-3 6-8	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	A17
	n-Butylbenzene	25	60	570	1	NR	ug/kg	
	sec-Butylbenzene	25	60	81	1	NR	ug/kg	
	tert-Butylbenzene	25	60	44 J	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	< 25	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	1800	5	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required

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NC = Not confirmed

NA = Per client's request, confirmation not addressed

LOD = Limit of detection

LOQ = Limit of quantitation

J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.





LUST VOLATILE ORGANIC REPORT (8021)

ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI

Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-002 Solid -3 6-8	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
	Isopropylbenzene	25	60	270	1	NR	ug/kg	
	p-Isopropyltoluene	25	60	78	1	NR	ug/kg	A17
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	450	1	NR	ug/kg	
	n-Propylbenzene	25	60	31 J	1	NR	ug/kg	A17
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	100	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,2,4-Trimethylbenzene	25	60	3000	5	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	610	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	100	1	NR	ug/kg	
m + p-Xylene	50	120	2400	5	NR	ug/kg		

Sample Date : 09-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 16, 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-003	Benzene	25	60	340	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-2 6-8	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	A17
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	39 J	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	< 25	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
C = Confirmed  
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NA = Per client's request, confirmation not addressed  
LOD = Limit of detection  
LOQ = Limit of quantitation  
J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-003	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	27 J	1	NR	ug/kg	
#-2 6-8	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	32 J	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	45 J	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 09-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 16-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-004	Benzene	25	60	330	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-5 4-6	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	A17
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	36 J	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	< 25	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	29 J	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-004	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
8-5 4-6	p-Isopropyltoluene	25	60	25 J	1	NR	ug/kg	A17
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	31 J	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 16-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

WI Lab Certification ID#: 113138300

Chk'd: *D&K* App'd: *CAO*  
 Date App'd: *6-1-95*



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-005	Benzene	25	60	290	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
HA-6 4-5	Bromodichloromethane	25	60	44 J	1	NR	ug/kg	A15, A17
	n-Butylbenzene	25	60	81	1	NR	ug/kg	A17
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	40 J	1	NR	ug/kg	A15, A17
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	45 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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**MONTGOMERY WATSON**  
Analytical Testing Services

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LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-005	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
A-6 4-5	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	76	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	59 J	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

WI Lab Certification ID#: 113138300

chk'd: *RSK* App'd: *CAW*  
 Date App'd: 6-7-95



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-006	Benzene	25	60	310	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-7 4-6	Bromodichloromethane	25	60	45 J	1	NR	ug/kg	A15, A17
	n-Butylbenzene	25	60	28 J	1	NR	ug/kg	A17
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	43 J	1	NR	ug/kg	A15, A17
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	43 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
C = Confirmed  
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NA = Per client's request, confirmation not addressed  
LOD = Limit of detection  
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\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.





**MONTGOMERY WATSON**  
Analytical Testing Services

LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-006	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
-7 4-6	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	52 J	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	49 J	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	56 J	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	66	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	47 J	1	NR	ug/kg	A17
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	52 J	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	30 J	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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\*\*\*\* for footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-007	Benzene	25	60	390	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
HA-8 4-6	Bromodichloromethane	25	60	44 J	1	NR	ug/kg	A15, A17
	n-Butylbenzene	25	60	920	1	NR	ug/kg	A17
	sec-Butylbenzene	25	60	84	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	44 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	360	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**

ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI

Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-007	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	110	1	NR	ug/kg	
NA-8 4-6	p-Isopropyltoluene	25	60	42 J	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	260	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	370	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	89	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	1800	5	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	560	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	220	1	NR	ug/kg	
	m + p-Xylene	50	120	960	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

Chk'd: BSK App'd: CAD  
 Date App'd: 6/12/95  
 KESAW



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-008	Benzene	25	60	300	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
TRIP BLANK	Bromodichloromethane	25	60	39 J	1	NR	ug/kg	A15, A17
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	37 J	1	NR	ug/kg	A15, A17
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	39 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	27 J	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
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**MONTGOMERY WATSON**  
Analytical Testing Services

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LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-008	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
RIP BLANK	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	44 J	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	30 J	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	59 J	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 09-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

WI Lab Certification ID#: 113138300

Chk'd: [Signature] App'd: CAW  
 Date App'd: 6-1-95



**LUST VOLATILE ORGANIC REPORT (8021)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-009	Benzene	25	60	310	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
TRIP BLANK	Bromodichloromethane	25	60	38 J	1	NR	ug/kg	A15, A17
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	36 J	1	NR	ug/kg	A15, A17
	Chloroethane	25	60	< 1000	1	NR	ug/kg	A2
	Chloroform	25	60	37 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-009	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
RIP BLANK	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	43 J	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	27 J	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	57 J	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes:
- NR = Confirmation not required
  - C = Confirmed
  - NC = Not confirmed
  - NA = Per client's request, confirmation not addressed
  - LOD = Limit of detection
  - LOQ = Limit of quantitation
  - J = Value between LOD and LOQ, and should be considered estimated

\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

WI Lab Certification ID#: 113138300

chk'd: *RSK* App'd: *CAW*  
 Date App'd: *6-9-95*



**GASOLINE RANGE ORGANICS (GRO)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-001	B-4 2-4	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-002	B-3 6-8	Gasoline Range Organics	26	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-003	B-2 6-8	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-004	B-5 4-6	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.





**GASOLINE RANGE ORGANICS (GRO)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-005	HA-6 4-5	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
10714-006	B-7 4-6	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
0714-007	HA-8 4-6	Gasoline Range Organics	12	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-008	TRIP BLANK	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.

chk'd: *[Signature]* App'd: *[Signature]*  
Date App'd: 6/12/95  
*[Signature]*



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**GASOLINE RANGE ORGANICS (GRO)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-009	TRIP BLANK	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	

Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95  
Analysis Date: 19-MAY-95  
Analyst: AJK  
Dilution: 1

Note: Results in mg/kg are reported on a dry weight basis.

WI Lab Certification ID#: 113138300

GRO - 3

Chk'd: *BCK* App'd: *CAW*  
Date App'd: *6-1-95*



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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
0714-001	B-4 2-4	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 09-MAY-95  
Receipt Date: 12-MAY-95  
Extract Date: 13-MAY-95  
Analysis Date: 15-MAY-95  
Analyst: CMK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution  
MDL = Method detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *MAC* App'd: *CAW*  
Date App'd: 6-7-95



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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
L10714-002	B-3 6-8	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	0.0039	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	0.37	1	0.33	Solid	mg/kg	

Sample Date: 09-MAY-95  
 Receipt Date: 12-MAY-95  
 Extract Date: 13-MAY-95  
 Analysis Date: 15-MAY-95  
 Analyst: CMK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution

MDL = Method detection Limit

WI Lab Certification ID#: 113138300

chk'd: *DSK* App'd: *AW*  
 Date App'd: 6-1-95



PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
10714-003	B-2 6-8	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	0.0087	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 09-MAY-95  
 Receipt Date: 12-MAY-95  
 Extract Date: 13-MAY-95  
 Analysis Date: 15-MAY-95  
 Analyst: CMK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution

MDL = Method detection Limit

WI Lab Certification ID#: 113138300

chk'd: *BSK* App'd: *CRW*  
 Date App'd: *6-1-95*



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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
L10714-004	B-5 4-6	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 11-MAY-95  
 Receipt Date: 12-MAY-95  
 Extract Date: 13-MAY-95  
 Analysis Date: 15-MAY-95  
 Analyst: CHK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution  
 MDL = Method detection Limit  
 WI Lab Certification ID#: 113138300

Chk'd: *CHK* App'd: *CAW*  
 Date App'd: *6-1-95*



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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
10714-005	HA-6 4-5	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95  
Extract Date: 13-MAY-95  
Analysis Date: 15-MAY-95  
Analyst: CHK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution  
MDL = Method detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *NSK* App'd: *UAD*  
Date App'd: 6-7-95



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PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
L10714-006	B-7 4-6	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 11-MAY-95  
 Receipt Date: 12-MAY-95  
 Extract Date: 13-MAY-95  
 Analysis Date: 15-MAY-95  
 Analyst: CMK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution  
 MDL = Method detection Limit  
 WI Lab Certification ID#: 113138300

Chk'd: *PSK* App'd: *CAW*  
 Date App'd: 6-7-95





**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

**PNA/PAH (HPLC) ORGANIC REPORT**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
110714-007	HA-8 4-6	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 11-MAY-95  
 Receipt Date: 12-MAY-95  
 Extract Date: 13-MAY-95  
 Analysis Date: 15-MAY-95  
 Analyst: CHK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution  
 MDL = Method detection Limit  
 WI Lab Certification ID#: 113138300

chk'd: *CHK* App'd: *CAW*  
 Date App'd: *6/12/95*  
*rebow*



**DIESEL RANGE ORGANICS (DRO)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-001	B-4 2-4	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
L10714-002	B-3 6-8	Diesel Range Organics	22	10	Solid	mg/kg	None	G10
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
L10714-003	B-2 6-8	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
L10714-004	B-5 4-6	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.



**DIESEL RANGE ORGANICS (DRO)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-005	HA-6 4-5	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
10714-006	B-7 4-6	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
10714-007	HA-8 4-6	Diesel Range Organics	10	10	Solid	mg/kg	None	G10
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.



## INORGANIC QUALITY CONTROL REPORT

Project: Robert E. Lee/ Ness Service Center

Project #: 4286.0220

### Continuing Calibration Verification

All ICV/CCV's were within acceptable control limits.

#### Laboratory Control Sample

<u>Compound</u>	<u>Batch Number</u>	<u>%Recovery</u>	<u>Control Limits</u>
Lead	37049	99	80-120% Recovery

#### Blanks

<u>Compound</u>	<u>Batch Number</u>	<u>Digested Blank</u>	<u>ICB/CCB</u>
Solids, Total	36999	---	<0.5%
Lead	37049	<0.15mg/kg	all <0.0015mg/L
Lead	37219	0.38mg/kg(a)	all <0.0015mg/L

(a) Affected data (L10714-001) is flagged with an "A15" qualifier.

#### MS/MSD and Duplicate Results

<u>Compound</u>	<u>Batch Number</u>	<u>Value 1</u>	<u>Value 2</u>	<u>% RPD</u>	<u>Control Limits</u>
Solids, Total	36999	83.8	87.3	0.6	5.3% RPD
Lead	37219	4.73	4.55	3.9	27% RPD

<u>Compound</u>	<u>Batch Number</u>	<u>% Recovery</u>	<u>Control Limits</u>
Lead	37219	95	65-117% Recovery
Lead	37219	94	65-117% Recovery



## VOLATILE ORGANIC (VOC) QUALITY CONTROL REPORT

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

### Sample Specific Notes

The methanol trip blanks provided with the samples contained detects of a variety of compounds at levels above the LOQ. The samples also contain detects at similar concentrations. Further investigation into this contamination problem indicates the source of contamination may be coming from the septa. Efforts are being taken to resolve this problem.

### Continuing Calibration Verification

Continuing calibration verification standards met acceptable criteria with the following exceptions. The CCV associated with batch 37048 exceeded control limits for chloroform, bromoform, dichlorobromomethane, p-isopropyltoluene, and n-propylbenzene. Affected data are flagged with an "A17" qualifier. The CCV associated with batch 37139 exceeded control limits for n-butylbenzene, naphthalene, chloroform, dichlorobromomethane, chlorodibromomethane, and 1,1,1-trichloroethane. Affected data are flagged with an "A17" qualifier.

### Method Blank Results

The method blank and samples associated with batches 37048 and 37139 contained an unknown interference that eluted at the same retention time as chloromethane, chloroethane, trichlorofluoromethane, and dichlorodifluoromethane. As a result, the reporting limits for these compounds are elevated.

The method blank associated with batch 37139 also contained 0.80 ug/L benzene, 0.73 ug/L bromodichloromethane, 0.73 ug/L chlorodibromomethane, 0.84 ug/L naphthalene, and 260 ug/L dichlorodifluoromethane. Affected data are flagged with an "A15" qualifier.



**VOLATILE ORGANIC (VOC)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/ Ness Service Center

Project #: 4286.0220

**Method Checks**

Batch Number - 37048

<u>Compounds</u>	<u>MC -5/15/95 % Recovery</u>	<u>MC -5/16/95 % Recovery</u>	<u>Control Limits</u>
1,1-Dichloroethene	76.2	127	43-141% Recovery
Trichloroethene	66.7	97.8	65-116% Recovery
Benzene	84.5	120	82-146% Recovery
Toluene	77.4(a)	109	79-135% Recovery
Chlorobenzene	65.6	87.7	63-102% Recovery

(a) Exceeded control limits. No action taken as other toluene QC was acceptable.

Batch Number -37139

<u>Compounds</u>	<u>MC -5/16/95 % Recovery</u>	<u>MC -5/17/95 % Recovery</u>	<u>Control Limits</u>
1,1-Dichloroethene	85.0	91.8	43-141% Recovery
Trichloroethene	121(a)	128(a)	65-116% Recovery
Benzene	117	124	82-146% Recovery
Toluene	96.2	105	79-135% Recovery
Chlorobenzene	94.0	97.0	63-102% Recovery

(a) Elevated recovery. No action taken as TCE was not detected in any samples associated with this batch.



**VOLATILE ORGANIC (VOC)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery</u>	<u>MSD Recovery</u>	<u>RPD</u>	<u>Control Limits</u>
		<u>%</u>	<u>%</u>	<u>%</u>	
1,1-Dichloroethene	37048	73.3	91.8	22	53-131% recovery, 27% RPD
Trichloroethene	37048	54.9(a)	78.6	36(a)	57-111% recovery, 33% RPD
Benzene	37048	75.4	105	33(a)	63-137% recovery, 27% RPD
Toluene	37048	72.2	98.8	31	61-138% recovery, 37% RPD
Chlorobenzene	37048	60.1	83.7	33	43-101% recovery, 33% RPD

(a) Exceeded control limits. No action taken as other QC was acceptable.

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery</u>	<u>MSD Recovery</u>	<u>RPD</u>	<u>Control Limits</u>
		<u>%</u>	<u>%</u>	<u>%</u>	
1,1-Dichloroethene	37139	89.2	112	23	53-131% recovery, 27% RPD
Trichloroethene	37139	115(a)	134(a)	15	57-111% recovery, 33% RPD
Benzene	37139	89.6	106	17	63-137% recovery, 27% RPD
Toluene	37139	83.2	100	18	61-138% recovery, 37% RPD
Chlorobenzene	37139	86.0	108(a)	23	43-101% recovery, 33% RPD

(a) Elevated recovery. No action taken since chlorobenzene and TCE were not detected in any samples associated with this batch.



**VOLATILE ORGANIC (VOC)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/ Ness Service Center

Project #: 4286.0220

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>Recovery (%)</u> <u>(PID Detector)</u>	<u>Control Limits</u>	<u>Recovery (%)</u> <u>(HALL Detector)</u>	<u>Control Limits</u>
Blank 5-15	37048	101	51-116% recovery	96.3	43-109% recovery
Blank 5-16	37048	93.4	51-116% recovery	99.8	43-109% recovery
Blank 5-16	37139	103	51-116% recovery	144(a)	43-109% recovery
Blank 5-17	37139	119(a)	51-116% recovery	167(a)	43-109% recovery
L10714-001	37048	105	51-116% recovery	114(a)	43-109% recovery
L10714-002	37048	100	51-116% recovery	107	43-109% recovery
L10714-002 1/5	37048	77.3	51-116% recovery	86.3	43-109% recovery
L10714-003	37048	83.3	51-116% recovery	94.9	43-109% recovery
L10714-004	37048	94.9	51-116% recovery	104	43-109% recovery
L10714-005	37139	142(a)	51-116% recovery	156(a)	43-109% recovery
L10714-005 MS	37139	131(a)	51-116% recovery	163(a)	43-109% recovery
L10714-005 MSD	37139	135(a)	51-116% recovery	162(a)	43-109% recovery
L10714-006	37139	132(a)	51-116% recovery	162(a)	43-109% recovery
L10714-007	37139	135(a)	51-116% recovery	163(a)	43-109% recovery
L10714-007 1/5	37139	72.8	51-116% recovery	146(a)	43-109% recovery
L10714-008	37139	133(a)	51-116% recovery	155(a)	43-109% recovery
L10714-009	37139	134(a)	51-116% recovery	154(a)	43-109% recovery

(a) Elevated recovery. Since the blank and CCV surrogate was also high, it was concluded that the surrogate mix was biased high. The mix was remade on 5/22/95 and the instrument recalibrated on 5/24/95.





**GASOLINE RANGE ORGANICS (GRO)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
GRO (5/17/95)	37191	103.4	95.4	8.0	80-120% recovery, 20% RPD
GRO (5/18/95)	37191	100.7	102.7	2.0	80-120% recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
GRO (5/17/95)	37191	113.1	70-140% recovery, 20% RPD
GRO (5/18/95)	37191	105.2	70-140% recovery, 20% RPD



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Method Check/Method Check Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MC Recovery(%)</u>	<u>MCD Recovery(%)</u>	<u>RPD(%)</u>	<u>Control Limits</u>
Naphthalene	37006	79.9	NA	NA	64-113% Recovery, 27% RPD
Acenaphthylene	37006	80.6	NA	NA	69-108% Recovery, 26% RPD
Acenaphthene	37006	87.5	NA	NA	69-110% Recovery, 24% RPD
Fluorene	37006	90.5	NA	NA	71-116% Recovery, 23% RPD
Phenanthrene	37006	92.0	NA	NA	70-125% Recovery, 24% RPD
Anthracene	37006	73.2	NA	NA	61-123% Recovery, 24% RPD
Fluoranthene	37006	96.4	NA	NA	74-120% Recovery, 19% RPD
Pyrene	37006	100.6	NA	NA	71-141% Recovery, 31% RPD
Benzo(a)anthracene	37006	90.2	NA	NA	72-126% Recovery, 23% RPD
Chrysene	37006	95.5	NA	NA	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	37006	92.3	NA	NA	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	37006	89.6	NA	NA	69-115% Recovery, 17% RPD
Benzo(a)pyrene	37006	59.3	NA	NA	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	37006	79.9	NA	NA	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	37006	79.8	NA	NA	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	37006	92.0	NA	NA	56-123% Recovery, 23% RPD



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery(%)</u>	<u>RPD(%)</u>	<u>Control Limits</u>
Naphthalene	37006	71.4	74.2	3.87	64-113% Recovery, 27% RPD
Acenaphthylene	37006	74.1	75.8	2.19	69-108% Recovery, 26% RPD
Acenaphthene	37006	79.1	80.5	1.66	69-110% Recovery, 24% RPD
Fluorene	37006	81.0	82.0	1.15	71-116% Recovery, 23% RPD
Phenanthrene	37006	83.5	86.2	3.18	70-125% Recovery, 24% RPD
Anthracene	37006	71.5	78.3	9.11	61-123% Recovery, 24% RPD
Fluoranthene	37006	88.2	89.5	1.47	74-120% Recovery, 19% RPD
Pyrene	37006	93.4	94.6	1.29	71-141% Recovery, 31% RPD
Benzo(a)anthracene	37006	86.8	86.4	0.46	72-126% Recovery, 23% RPD
Chrysene	37006	89.4	88.0	1.64	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	37006	88.9	86.5	2.75	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	37006	87.5	85.5	2.37	69-115% Recovery, 17% RPD
Benzo(a)pyrene	37006	71.4	75.3	5.31	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	37006	80.8	78.9	2.38	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	37006	87.5	86.2	1.55	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	37006	96.6	94.8	1.94	56-123% Recovery, 23% RPD



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>Carbazole (VWD)</u>		<u>DFBP (VWD)</u>	
		<u>Recovery (%)</u>	<u>Control Limits</u>	<u>Recovery (%)</u>	<u>Control Limits</u>
RB B/170	37006	77.5	61-113% Recovery	74.8	52-108% Recovery
MC B/170	37006	88.4	61-113% Recovery	84.5	52-108% Recovery
10714-001	37006	85.0	61-113% Recovery	81.0	52-108% Recovery
10714-002	37006	80.3	61-113% Recovery	75.1	52-108% Recovery
10714-003	37006	76.6	61-113% Recovery	74.4	52-108% Recovery
10714-004	37006	80.7	61-113% Recovery	73.2	52-108% Recovery
10714-005	37006	82.0	61-113% Recovery	78.8	52-108% Recovery
10714-005S	37006	82.7	61-113% Recovery	74.8	52-108% Recovery
10714-005T	37006	82.6	61-113% Recovery	78.0	52-108% Recovery
10714-006	37006	74.6	61-113% Recovery	72.1	52-108% Recovery
10714-007	37006	74.0	61-113% Recovery	70.0	52-108% Recovery



**DIESEL RANGE ORGANICS (DRO)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
DRO	36997	108.3	92.9	15.31	80-120% Recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
DRO	36997	96.0	60-130% recovery

Invoice Date

Invoice Number

07-JUN-95

ML378

REMIT TO:

MONTGOMERY WATSON Analytical Testing Services  
Dept. 00757, Milwaukee, WI 53259-0757

I N V O I C E

BILL TO:

MR. GREG NESS  
NESS SERVICE CENTER  
975 WEST MASON STREET

GREEN BAY, WI 54303

Project: 4286.0220 ROBERT E. LEE/N  
Start:  
End:  
Acctnum: 55

Sales1:

Terms: Upon Receipt

Sales2:

PO#: 2390-002

Sample Id: L10714-001, L10714-002, L10714-003, L10714-004, L10714-005,  
L10714-006, L10714-007, L10714-008, L10714-009

Client Id: B-4 2-4, B-3 6-8, B-2 6-8, B-5 4-6, HA-6 4-5, B-7  
4-6, B-7 4-6, TRIP BLANK, TRIP BLANK

Qty	Matrix	Analysis	Description	Unit Price	Total Price
7	Solid	DIGCOMP	COMP METAL DIGESTION	\$ 0.00	\$ 0.00
7	Solid	DRO	DIESEL RANGE ORGANIC	\$ 44.10	\$ 308.70
9	Solid	GRO	GASOLINE RANGE ORGAN	\$ 40.50	\$ 364.50
7	Solid	PB	LEAD	\$ 7.20	\$ 50.40
7	Solid	PNA8310	HPLC POLYNUCLEAR ARO	\$ 90.00	\$ 630.00
7	Solid	TS	SOLIDS, TOTAL	\$ 0.00	\$ 0.00
9	Solid	VOCWIL8021P	VOLATILES 8021 METHA	\$ 94.50	\$ 850.50

Redo  
Pay 1353.60

COPY

9 Samples; 53 Analyses; Total Amount Due: \$ 2204.10



MONTGOMERY WATSON

# CHAIN OF CUSTODY RECORD

Robert E. Lee 4286.0220

SPECIAL INSTRUCTIONS:

- PECFA
- WI LUST
- ACT 307
- REPORT DRY WT
- OTHER:

TURNAROUND

- 2 WEEKS (standard)
- 1 WEEK
- 3 DAYS
- 1 DAY

PROJECT NAME: Ness Service		PROJECT #: 2390002		NO. OF CONTAINERS	GRO	DRO	VOC	PAH	LEAD, IS	REMARKS	LAB USE ONLY			
CITY: Green Bay		STATE: WI									MATRIX	LAB NO.		
SAMPLER(S): Tom Bishop		COLLECTION DATE	COLLECTION TIME								GRAB/COMP	SAMPLE ID		
5-9-95	10:45	GRAB	TRIP								Blank	2	1	-
5-9-95	11:00	GRAB	B-4	2-4	8	2	2	2	1	1		10714-50		
5-9-95	12:30	GRAB	B-3	6-8	8	2	2	2	1	1		-50		
5-9-95	2:15	GRAB	B-2	6-8	8	2	2	2	1	1		-50		
5-11-95	8:30	GRAB	TRIP	Blank	2	1	-	1	-	-		-50		
5-11-95	9:00	GRAB	B-5	4-6	8	2	2	2	1	1		-50		
5-11-95	10:00	GRAB	HA-6	4-5	8	2	2	2	1	1		-50		
5-11-95	11:10	GRAB	B-7	4-6	8	2	2	2	1	1		-50		
5-11-95	12:30	GRAB	HA-8	4-5	8	2	2	2	1	1		-50		

SOLIDS

SPECIAL INSTRUCTIONS:

RECEIVED:  INTACT  ON ICE TEMP \_\_\_\_\_ OF

PROJ. MGR.: D. LINLEY

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
Tom Bishop	Tom Bishop	REL TECH	5/11/95	3:55pm
Baraka Ondiek	BARAKA ONDIEK	MWATS	5/12/95	10:00am

C-O-C No. 011008

NAME OF COURIER: \_\_\_\_\_

AIRBILL NUMBER: \_\_\_\_\_



**MONTGOMERY WATSON**  
Analytical Testing Services

June 13, 1995

Mr. Steven M. Grenier  
Robert E. Lee & Associates, Inc.  
Engineering, Surveying, Laboratory Services  
2825 South Webster Avenue  
P.O. Box 2100  
Green Bay, Wisconsin 54306-2100

Re: Ness Service Center/2390-002

Dear Mr. Grenier:

Enclosed are the reissued pages for sample L10714-007 with the corrected identification of "HA-8 4-6" that was collected May 8 & 9, 1995 and received May 12, 1995.

Please feel free to call if you have any questions.

Sincerely,

MONTGOMERY WATSON  
Analytical Testing Services



Dennis J. Linley  
Lab Services Coordinator

Enclosures:  
INORG -3  
VOC -13 & 14  
GRO -2  
PNA -7  
DRO -2

cc: D. Linley

SMT/dsk/GLG  
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L10714





**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

**DIESEL RANGE ORGANICS (DRO)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
L10714-005	HA-6 4-5	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
L10714-006	B-7 4-6	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					
L10714-007	B-7 4-6	Diesel Range Organics	10	10	Solid	mg/kg	None	G10
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Extract Date:	13-MAY-95					
		Analysis Date:	15-MAY-95					
		Analyst:	CHK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.

WI Lab Certification ID#: 113138300

DRO - 2

Chk'd: *CHK* App'd: *CAW*  
Date App'd: *6-7-95*



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MDL	Matrix	Units	Footnotes
L10714-007	B-7 4-6	Naphthalene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	1	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	1	0.33	Solid	mg/kg	
		Fluorene	< 0.066	1	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	1	0.033	Solid	mg/kg	
		Anthracene	< 0.033	1	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	1	0.066	Solid	mg/kg	
		Pyrene	< 0.033	1	0.033	Solid	mg/kg	
		Chrysene	< 0.033	1	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	1	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	1	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	1	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	1	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	1	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	1	0.33	Solid	mg/kg	

Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95  
Extract Date: 13-MAY-95  
Analysis Date: 15-MAY-95  
Analyst: CMK

Note: Results in mg/kg are reported on a dry weight basis.

Dil = Dilution

MDL = Method detection Limit

WI Lab Certification ID#: 113138300

Chk'd: *[Signature]* App'd: *[Signature]*  
Date App'd: 6-7-95



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

INORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L10714-007  
Description: B-7 4-6  
Sample Date: 11-MAY-95  
Receipt Date: 12-MAY-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Lead	2.25	1	0.15	Solid	mg/kg	HJM	17-MAY-95	
Solids, Total	84.7	1	0.5	Solid	%	WRM	15-MAY-95	

Note: Results in mg/kg are reported on a dry weight basis.

MDL = Method Detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *RSK* App'd: *CAO*  
Date App'd: *6-7-95*



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
10714-007 Solid 7-6-6 HA-8	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
	Isopropylbenzene	25	60	110	1	NR	ug/kg	
	p-Isopropyltoluene	25	60	42 J	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	
	Naphthalene	25	60	260	1	NR	ug/kg	A15, A17
	n-Propylbenzene	25	60	370	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	89	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	1800	5	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	560	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	220	1	NR	ug/kg	
	m + p-Xylene	50	120	960	1	NR	ug/kg	

Sample Date : 11-MAY-95  
 Receipt Date : 12-MAY-95  
 Analysis Date : 17-MAY-95  
 Confirmation Date : None  
 Analyst : LH

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L10714-007	Benzene	25	60	390	1	NR	ug/kg	A15
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-74-6	Bromodichloromethane	25	60	44 J	1	NR	ug/kg	A15, A17
HA-8	n-Butylbenzene	25	60	920	1	NR	ug/kg	A17
	sec-Butylbenzene	25	60	84	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	44 J	1	NR	ug/kg	A17
	Chloromethane	25	60	< 1000	1	NR	ug/kg	A2
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 1000	1	NR	ug/kg	A2
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	360	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**GASOLINE RANGE ORGANICS (GRO)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Method Detection Limit	Matrix	Units	Petroleum Odor	Footnotes
10714-005	HA-6 4-5	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-006	B-7 4-6	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
10714-007	B-7 4-6 HA 8	Gasoline Range Organics	12	10	Solid	mg/kg	None	
		Sample Date:	11-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					
L10714-008	TRIP BLANK	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	09-MAY-95					
		Receipt Date:	12-MAY-95					
		Analysis Date:	18-MAY-95					
		Analyst:	AJK					
		Dilution:	1					

Note: Results in mg/kg are reported on a dry weight basis.



**MONTGOMERY WATSON**  
Analytical Testing Services

September 7, 1995

**R E C E I V E D .**

**SEP 08 1995**

**ROBERT E. LEE & ASSOC., INC.**

Ms. Charlene T. Stinson  
Robert E. Lee & Associates, Inc.  
Engineering, Surveying, Laboratory Services  
2825 South Webster Avenue  
P.O. Box 2100  
Green Bay, Wisconsin 54306-2100

Re: Ness Service Center/2561005

Dear Ms. Stinson:

Enclosed are the analytical results and chain-of-custody for the samples collected August 18, 1995 and received August 22, 1995. Our lab certification number is 113138300. Also enclosed is a copy of our Invoice No. ML678. The original has been sent to Ness Service Center.

Please feel free to call if you have any questions.

Sincerely,

**MONTGOMERY WATSON**  
Analytical Testing Services

Dennis J. Linley  
Lab Services Coordinator

Enclosures: As stated

SMT/dsk/GLG  
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L11452



## STANDARD REPORT FOOTNOTES

- A1 Elevated quantitation limit due to low sample volume.
- A2 Elevated quantitation limit necessary to overcome interference.
- A4 Result should be considered estimated due to sample-related problems encountered during analysis.
- A11 Sample received past recommended hold time.
- A12 Analysis requested past recommended hold time.
- A13 Initial analysis performed within hold time; confirmation analysis performed past recommended hold time. Results from repeat analysis are reported.
- A14 Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.
- A15 Result should be considered estimated; analyte detected in method blank. CL2F2CH @ 1400
- A17 Result should be considered estimated as indicated by method QC.
- M3 Total analysis performed due to insufficient solid for TCLP extraction.
- G1 Result should be considered estimated, concentration exceeds working calibration range.
- G2 Elevated quantitation limit due to the concentration of petroleum hydrocarbons in the sample.
- G3 Elevated quantitation limit due to the concentration of non-specific hydrocarbons in the sample.
- G4 Analyte coelutes with \_\_\_\_\_; result calculated from calibration standards in a 1:1 ratio of these two compounds.
- G5 Sample required extensive cleanup; Endrin Aldehyde is not recovered from these techniques.
- G6 Petroleum-type odor detected from this sample.
- G7 Elevated quantitation limit due to the concentration of PCBs in the sample.
- G8 Result should be considered estimated due to coelution with an additional hydrocarbon product.
- G9 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products.
- G10 Presence of one or more unidentified peaks eluting earlier than the retention time window.
- G11 Presence of one or more unidentified peaks eluting later than the retention time window.
- G12 Result is estimated. The method used is a screening procedure for this compound.
- G13 Measurement performed using test strips.
- G15 n-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from Diphenylamine.
- G16 Measurement upon receipt performed using test strips. Adjusted to pH <2.
- G17 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products. Final results pending GC/MS confirmation.
- G18 An LCS/LCS duplicate was performed in lieu of an MS/MSD due to insufficient sample volume available for the MS/MSD analysis.
- G19 Sample was filtered and preserved in the laboratory upon receipt.





**METHOD REFERENCES**

Compounds	Soil/Groundwater	Wastewater
Alcohol	8015*	8015*
BEXT	8020***	602
DRO	Modified DRO	Modified DRO
GRO	Modified GRO***	Modified GRO
Fatty Acids	8015*	8015*
Herbicides	8150	8150
Pesticides	8080	608
Pesticide/PCBs	8080	608
PCBs	8080**	608
PCBs	8080****	608
PCP/PHEN	8040****	8040****
PNA (GC/MS)	8270	8270
PNA (HPLC)	8310	8310
PVOCs	8020***	8020
SVOCs	8270	8270
TPH	D-3328-78*	D-3328-78*
TRPH	418.1 & 9073	418.1 & 9073
VOCs	8021	8021
VOCs	8010/8020***	601/602
Solids, Total	160.3	160.3

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Organic Chemical Analysis of Water and Wastes",  
March, 1984.

ASTM, "Annual Book of ASTM Standards", 1990.

Wisconsin DNR Modified 9073 TRPH, PUBL-SW-140, Wisconsin DNR,  
April 1992.

Wisconsin DNR Modified DRO, PUBL-SW-141, Wisconsin DNR, July 1993.

Wisconsin DNR Modified GRO, PUBL-SW-140, Wisconsin DNR, July 1993.

- \* With Modifications
- \*\* With Modifications for Oil Matrix
- \*\*\* With Modifications for Soil Gas Matrix
- \*\*\*\* With Modifications for Wipe Matrix



INORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L11452-002  
Description: B-4 2-4  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	85.7	1	0.5	Solid	%	AD	23-AUG-95	

Sample #: L11452-003  
Description: B-3 6-8  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	72.0	1	0.5	Solid	%	AD	23-AUG-95	

Sample #: L11452-004  
Description: B-2 6-8  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	86.8	1	0.5	Solid	%	AD	23-AUG-95	



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

**INORGANIC REPORT**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L11452-005  
Description: HA-6 4-5  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	84.6	1	0.5	Solid	%	AD	23-AUG-95	

Sample #: L11452-006  
Description: B-7 4-6  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	86.3	1	0.5	Solid	%	AD	23-AUG-95	

Sample #: L11452-007  
Description: B-5 4-6  
Sample Date: 18-AUG-95  
Receipt Date: 22-AUG-95

Test	Result	Dilution	MDL	Matrix	Units	Analysis		Footnotes
						Analyst	Date	
Solids, Total	87.2	1	0.5	Solid	%	AD	23-AUG-95	

MDL = Method Detection Limit  
WI Lab Certification ID#: 113138300

Chk'd: *[Signature]* App'd: *[Signature]*  
Date App'd: 9.7.95



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-001	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
TRIP BLANK	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 25	1	NR	ug/kg	A17
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)

ROBERT E. LEE/NESS SERVICE CENTER

GREEN BAY WI

Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-001	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
olid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
IP BLANK	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	A17
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 24-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes:
- NR = Confirmation not required
  - C = Confirmed
  - NC = Not confirmed
  - NA = Per client's request, confirmation not addressed
  - LOD = Limit of detection
  - LOQ = Limit of quantitation
  - J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.

WI Lab Certification ID#: 113138300

chk'd: *DK* App'd: *(MD)*  
 Date App'd: 9.1.95



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-002	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-4 2-4	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	920	1	NR	ug/kg	A15
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
C = Confirmed  
NC = Not confirmed  
NA = Per client's request, confirmation not addressed  
LOD = Limit of detection  
LOQ = Limit of quantitation  
J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-002	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
3-4 2-4	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-003	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-3 6-8	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	78	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
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 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.





LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-003	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	77	1	NR	ug/kg	
3 6-8	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	60 J	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	170	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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 NC = Not confirmed  
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 LOD = Limit of detection  
 LOQ = Limit of quantitation  
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**LUST VOLATILE ORGANIC REPORT (8021)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-004	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-2 6-8	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
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 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-004	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid #-2 6-8	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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 LOD = Limit of detection  
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\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-005	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
KA-6 4-5	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes:
- NR = Confirmation not required
  - C = Confirmed
  - NC = Not confirmed
  - NA = Per client's request, confirmation not addressed
  - LOD = Limit of detection
  - LOQ = Limit of quantitation
  - J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
111452-005	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
A-6 4-5	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
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 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



**LUST VOLATILE ORGANIC REPORT (8021)**  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-006	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-7 4-6	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	980	1	NR	ug/kg	A15
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

- Abbreviation codes: NR = Confirmation not required  
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 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-006	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
-7 4-6	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).  
 Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
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 LOD = Limit of detection  
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\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.



LUST VOLATILE ORGANIC REPORT (8021)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-007	Benzene	25	60	< 25	1	NR	ug/kg	
Solid	Bromobenzene	25	60	< 25	1	NR	ug/kg	
B-5 4-6	Bromodichloromethane	25	60	< 25	1	NR	ug/kg	
	n-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	sec-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	tert-Butylbenzene	25	60	< 25	1	NR	ug/kg	
	Carbon tetrachloride	25	60	< 25	1	NR	ug/kg	
	Chlorobenzene	25	60	< 25	1	NR	ug/kg	
	Chlorodibromomethane	25	60	< 25	1	NR	ug/kg	
	Chloroethane	25	60	< 25	1	NR	ug/kg	
	Chloroform	25	60	< 25	1	NR	ug/kg	
	Chloromethane	25	60	< 25	1	NR	ug/kg	A17
	2-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	4-Chlorotoluene	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromo-3-chloropropane	25	60	< 25	1	NR	ug/kg	
	1,2-Dibromoethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,3-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,4-Dichlorobenzene	25	60	< 25	1	NR	ug/kg	
	Dichlorodifluoromethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	cis-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	trans-1,2-Dichloroethene	25	60	< 25	1	NR	ug/kg	
	1,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	1,3-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	2,2-Dichloropropane	25	60	< 25	1	NR	ug/kg	
	Di-isopropyl ether	25	60	< 25	1	NR	ug/kg	A17
	Ethylbenzene	25	60	< 25	1	NR	ug/kg	

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

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 J = Value between LOD and LOQ, and should be considered estimated

\*\*\*\* For footnotes codes, please refer to 'STANDARD REPORT FOOTNOTES' page.





**LUST VOLATILE ORGANIC REPORT (8021)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample Information	Compound	LOD	LOQ	Result	Dil	Confirmation	Units	Footnotes ****
L11452-007	Hexachlorobutadiene	25	60	< 25	1	NR	ug/kg	
Solid -5 4-6	Isopropylbenzene	25	60	< 25	1	NR	ug/kg	
	p-Isopropyltoluene	25	60	< 25	1	NR	ug/kg	
	Methylene chloride	25	60	< 25	1	NR	ug/kg	
	Methyl tert-butyl ether	25	60	< 25	1	NR	ug/kg	A17
	Naphthalene	25	60	< 25	1	NR	ug/kg	
	n-Propylbenzene	25	60	< 25	1	NR	ug/kg	
	1,1,2,2-Tetrachloroethane	25	60	< 25	1	NR	ug/kg	
	Tetrachloroethene	25	60	< 25	1	NR	ug/kg	
	Toluene	25	60	< 25	1	NR	ug/kg	
	1,2,3-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trichlorobenzene	25	60	< 25	1	NR	ug/kg	
	1,1,1-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	1,1,2-Trichloroethane	25	60	< 25	1	NR	ug/kg	
	Trichloroethene	25	60	< 25	1	NR	ug/kg	
	Trichlorofluoromethane	25	60	< 25	1	NR	ug/kg	
	1,2,4-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	1,3,5-Trimethylbenzene	25	60	< 25	1	NR	ug/kg	
	Vinyl chloride	25	60	< 25	1	NR	ug/kg	
	o-Xylene	25	60	< 25	1	NR	ug/kg	
	m + p-Xylene	50	120	< 50	1	NR	ug/kg	

Sample Date : 18-AUG-95  
 Receipt Date : 22-AUG-95  
 Analysis Date : 23-AUG-95  
 Confirmation Date : None  
 Analyst : RT

Note: "Detects" are reported on a dry weight basis. "Non-detects" are reported on wet weight basis.

Method Reference: Initial analysis - SW846, Method 8021A (with modifications).

Confirmation analysis - SW846, Method 8021A (with modifications using an alternate column).

Abbreviation codes: NR = Confirmation not required  
 C = Confirmed  
 NC = Not confirmed  
 NA = Per client's request, confirmation not addressed  
 LOD = Limit of detection  
 LOQ = Limit of quantitation  
 J = Value between LOD and LOQ, and should be considered estimated

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**INORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/ Ness Service Center

**Project #:** 4286.0220

**Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Sample Results (%)</u>	<u>DUP Results (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
Solids, Total	39561	92.6	91.7	1.0	5.3% RPD
Solids, Total	39561	85.7	85.3	0.5	5.3% RPD

**Method Blank Results**

All associated method blanks were below method detection limits.



**VOLATILE ORGANIC (VOC)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/ Ness Service Center

**Project #:** 4286.0220

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria except for dichlorodifluoromethane, diisopropylether, MTBE, and 1,2,4-trimethylbenzene. Affected data are flagged "A17".

**Method Checks**

<u>Compounds</u>	<u>MC -8/23/95 % Recovery</u>	<u>MC -8/24/95 % Recovery</u>	<u>Control Limits</u>
1,1-Dichloroethene	165 (a)	92	55-144% Recovery
Trichloroethene	104	84	59-127% Recovery
Benzene	139	98	71-147% Recovery
Toluene	110	86	78-128% Recovery
Chlorobenzene	105 (a)	81	63-102% Recovery

(a) Exceeded control limits. 1,1-Dichloroethene detects were confirmed by another instrument. No action taken for chlorobenzene.

**Method Blank Results**

All associated method blanks were below method detection limits except for dichlorodifluoromethane (1400 ug/kg). Detects are flagged "A15".



**VOLATILE ORGANIC (VOC)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/ Ness Service Center

Project #: 4286.0220

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery</u> %	<u>MSD Recovery</u> %	<u>RPD</u> %	<u>Control Limits</u>
1,1-Dichloroethene	39585	66	76	14	31-130% recovery, 33% RPD
Trichloroethene	39585	82	83.2	1	66-127% recovery, 32% RPD
Benzene	39585	99	96.8	2	73-140% recovery, 26% RPD
Toluene	39585	81	75.8	6	70-132% recovery, 28% RPD
Chlorobenzene	39585	81	85	5	64-116% recovery, 28% RPD

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>Recovery (%)</u> <u>(PID Detector)</u>	<u>Control Limits</u>	<u>Recovery (%)</u> <u>(HALL Detector)</u>	<u>Control Limits</u>
L11452-001	39585	91.5	48-144% recovery	79.3	22-138% recovery
L11452-002	39585	59.8	48-144% recovery	55.1	22-138% recovery
L11452-003	39585	89	48-144% recovery	63.3	22-138% recovery
L11452-004	39585	76.2	48-144% recovery	70.9	22-138% recovery
L11452-005	39585	85.8	48-144% recovery	80	22-138% recovery
L11452-006	39585	67.5	48-144% recovery	62.8	22-138% recovery
L11452-007	39585	96.4	48-144% recovery	83.6	22-138% recovery

Invoice Date

07 SEP-95

Invoice Number

ML678

REMIT TO:

MONTGOMERY WATSON Analytical Testing Services  
Dept. 00757, Milwaukee, WI 53259-0757

I N V O I C E

BILL TO:

MR. GREG NESS  
NESS SERVICE CENTER  
975 WEST MASON STREET

GREEN BAY, WI 54303

Project: 4286.0220 ROBERT E. LEE/N  
Start:  
End:  
Acctnum: 55

Sales1:

Sales2:

Terms: Upon Receipt

PO#: 2390-002

Sample Id: L11452-001, L11452-002, L11452-003, L11452-004, L11452-005,  
L11452-006, L11452-007

Client Id: TRIP BLANK, B-4 2-4, B-3 6-8, B-2 6-8, HA-6 4-5, B-7  
4-6, B-5 4-6

Qty Matrix	Analysis	Description	Unit Price	Total Price
------------	----------	-------------	------------	-------------

6 Solid	TS	SOLIDS, TOTAL	\$ 0.00	\$ 0.00
7 Solid	VOCWIL8021P	VOLATILES 8021 METHA	\$ 105.00	\$ 735.00

COPY

7 Samples; 13 Analyses; Total Amount Due: \$ 735.00



**MONTGOMERY WATSON**  
Analytical Testing Services

September 7, 1995

Mr. Greg Ness  
Ness Service Center  
975 West Mason Street  
Green Bay, Wisconsin 54303

Re: 2561005

Dear Mr. Ness:

Enclosed is our Invoice No. ML678 for the samples collected August 18, 1995 and received August 22, 1995. Please feel free to call if you have any questions.

Sincerely,

**MONTGOMERY WATSON**  
Analytical Testing Services

Dennis J. Linley  
Lab Services Coordinator

Enclosures: As stated

cc: C. Stinson

SMT/dsk/GLG  
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L11452



MONTGOMERY WATSON

# CHAIN OF CUSTODY RECORD

ROBERT E. LEE

SPECIAL INSTRUCTIONS:

- 2 WEEKS (standard)
- 1 WEEK
- 3 DAYS
- 1 DAY

- PECFA
- WI LUST
- ACT 307
- REPORT DRY WT
- OTHER:

PROJECT NAME:		PROJECT #:		NO. OF CONTAINERS	VOC-SOLIDS										LAB USE ONLY	
Ness Service		4286.0220 2561005													MATRIX	LAB NO.
CITY:	STATE:	COLLECTION DATE	COLLECTION TIME												GRAB / COMP	SAMPLE ID
Green Bay	WI															
SAMPLER(S): Tom Bishop/mes																
8-18-95	10:45	GRAB	TRIP	Blank	1	1	-						7	11452-001		
8-18-95	10:50	GRAB	B-4	2-4	3	2	1							-002		
8-18-95	11:15	GRAB	B-3	6-8	3	2	1							-003		
8-18-95	11:35	GRAB	B-2	6-8	3	2	1							-004		
8-18-95	11:40	GRAB	HA-6	4-5	3	2	1							-005		
8-18-95	12:00	GRAB	B-7	4-6	3	2	1							-006		
8-18-95	12:15	GRAB	B-5	4-6	3	2	1							-007		

SPECIAL INSTRUCTIONS:

RECEIVED:  INTACT  ON ICE TEMP \_\_\_\_\_ OF

PROJ. MGR.: D. Linley

\* Sample PARS do not contain Septal  
 \* AVG wt of JAR = 88.78g

SIGNATURE	PRINT NAME	COMPANY / TITLE	DATE	TIME
RELINQUISHED BY: Tom Bishop	Tom Bishop	REL TECH		
RECEIVED BY:				
RELINQUISHED BY: L. Collins	L. Collins	M. Watson	8/22/03	10:30 AM
RECEIVED BY:				

C-O-C No. 010782

NAME OF COURIER: \_\_\_\_\_  
AIRBILL NUMBER: \_\_\_\_\_



**MONTGOMERY WATSON**  
Analytical Testing Services

RECEIVED

APR 24 1995

ROBERT E. LEE & ASSOC., INC.

April 19, 1995

Ms. Charlene T. Stinson  
Robert E. Lee & Associates, Inc.  
Engineering, Surveying, Laboratory Services  
2825 South Webster Avenue  
P.O. Box 2100  
Green Bay, Wisconsin 54306-2100

Re: Ness Service Center/2390-002

Dear Ms. Stinson:

Enclosed are the analytical results and chain-of-custody for the samples collected March 29, 1995 and received March 31, 1995. Our lab certification number is 113138300. Also enclosed is our Invoice No. ML265.

Please feel free to call if you have any questions.

Sincerely,

**MONTGOMERY WATSON**  
Analytical Testing Services

Dennis J. Linley  
Lab Services Coordinator

Enclosures: As stated

cc: D. Linley  
K. Killian

SMT/dsk/GLG  
G:\DMGMT\LETTERS\42860220.DOC  
L10453





## STANDARD REPORT FOOTNOTES

- A1 Elevated quantitation limit due to low sample volume.
- A2 Elevated quantitation limit necessary to overcome interference.
- A4 Result should be considered estimated due to sample-related problems encountered during analysis.
- A11 Sample received past recommended hold time.
- A12 Analysis requested past recommended hold time.
- A13 Initial analysis performed within hold time; confirmation analysis performed past recommended hold time. Results from repeat analysis are reported.
- A14 Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.
- A15 Result should be considered estimated; analyte detected in method blank.
- A17 Result should be considered estimated as indicated by method QC.
- M3 Total analysis performed due to insufficient solid for TCLP extraction.
- G1 Result should be considered estimated, concentration exceeds working calibration range.
- G2 Elevated quantitation limit due to the concentration of petroleum hydrocarbons in the sample.
- G3 Elevated quantitation limit due to the concentration of non-specific hydrocarbons in the sample.
- G4 Analyte coelutes with \_\_\_\_\_; result calculated from calibration standards in a 1:1 ratio of these two compounds.
- G5 Sample required extensive cleanup; Endrin Aldehyde is not recovered from these techniques.
- G6 Petroleum-type odor detected from this sample.
- G7 Elevated quantitation limit due to the concentration of PCBs in the sample.
- G8 Result should be considered estimated due to coelution with an additional hydrocarbon product.
- G9 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products.
- G10 Presence of one or more unidentified peaks eluting earlier than the retention time window.
- G11 Presence of one or more unidentified peaks eluting later than the retention time window.
- G12 Result is estimated. The method used is a screening procedure for this compound.
- G13 Measurement performed using test strips.
- G15 n-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from Diphenylamine.
- G16 Measurement upon receipt performed using test strips. Adjusted to pH <2.
- G17 Results are influenced by the presence of extraneous peaks which are not representative of petroleum hydrocarbon products. Final results pending GC/MS confirmation.



**METHOD REFERENCES**

Analytes	Soil/Groundwater				Wastewater			
	ICP	Flame	Furnace	CV	ICP	Flame	Furnace	CV
Aluminium	6010	7020	-	-	200.7	202.1	-	-
Antimony	6010	7040	7041	-	200.7	-	204.2	-
Arsenic	6010	-	7060	-	200.7	-	206.2	-
Barium	6010	7080	7081	-	200.7	208.1	208.2	-
Beryllium	6010	7090	7091	-	200.7	210.1	210.2	-
Boron	6010	-	-	-	200.7	-	-	-
Cadmium	6010	7130	7131	-	200.7	213.1	213.2	-
Calcium	6010	7140	-	-	200.7	215.1	-	-
Chromium, Total	6010	7190	7191	-	200.7	218.1	218.2	-
Cobalt	6010	7200	-	-	200.7	219.1	-	-
Copper	6010	7210	-	-	200.7	220.1	-	-
Iron	6010	7380	-	-	200.7	236.1	-	-
Lead	6010	7420	7421	-	200.7	239.1	239.2	-
Magnesium	6010	7450	-	-	200.7	242.1	-	-
Manganese	6010	7460	-	-	200.7	243.1	-	-
Mercury	-	-	-	7470/7471	-	-	-	245.1
Molybdenum	6010	7480	-	-	200.7	246.1	-	-
Nickel	6010	7520	-	-	200.7	249.1	-	-
Potassium	-	SM3500D	-	-	-	SM3500D	-	-
Selenium	6010	-	7740	-	200.7	-	270.2	-
Silver	6010	7760	7761	-	200.7	272.1	272.2	-
Sodium	6010	SM3500D	-	-	200.7	SM3500D	-	-
Strontium	6010	-	-	-	200.7	-	-	-
Thallium	6010	7840	7841	-	200.7	279.1	279.2	-
Tin	6010	-	-	-	200.7	-	-	-
Titanium	6010	-	-	-	200.7	-	-	-
Vanadium	6010	7910	7911	-	200.7	286.1	286.2	-
Zinc	6010	7950	-	-	200.7	289.1	-	-

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Chemical Analysis of Water and Wastes", March 1984.

Standard Methods for the Examination of Water and Wastewater", 17th Edition, 1989.



**METHOD REFERENCES**

Compounds	Soil/Groundwater	Wastewater
Alcohol	8015*	8015*
BEXT	8020***	602
DRO	Modified DRO	Modified DRO
GRO	Modified GRO***	Modified GRO
Herbicides	8150	8150
Pesticides	8080	608
Pesticide/PCBs	8080	608
PCBs	8080**	608
PCBs	8080****	608
PCP Screen	8040****	8040****
PNA (GC/MS)	8270	8270
PNA (HPLC)	8310	8310
PVOCs	8020***	8020
SVOCs	8270	8270
TPH	D-3328-78*	D-3328-78*
TRPH	418.1 & 9073	418.1 & 9073
VOCs	8021	8021
VOCs	8010/8020***	601/602
Solids, Total	160.3	160.3

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Organic Chemical Analysis of Water and Wastes",  
March, 1984.

ASTM, "Annual Book of ASTM Standards", 1990.

Wisconsin DNR Modified 9073 TRPH, PUBL-SW-140, Wisconsin DNR,  
April 1992.

Wisconsin DNR Modified DRO, PUBL-SW-141, Wisconsin DNR, July 1993.

Wisconsin DNR Modified GRO, PUBL-SW-140, Wisconsin DNR, July 1993.

- \* With Modifications
- \*\* With Modifications for Oil Matrix
- \*\*\* With Modifications for Soil Gas Matrix
- \*\*\*\* With Modifications for Wipe Matrix



INORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #: L10453-001  
Description: HB1 (5'-6')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	6.96	5	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	85.8		0.5	Solid	%		03-APR-95	

Sample #: L10453-002  
Description: HB2 (4'-5')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	3.57	1	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	81.7		0.5	Solid	%		03-APR-95	

Sample #: L10453-003  
Description: HB3 (4.5'-5')  
Sample Date: 29-MAR-95  
Receipt Date: 31-MAR-95

Test	Result	Dilution	MDL	Matrix	Units	Analyst	Analysis	
							Date	Footnotes
Lead	4.27	1	0.15	Solid	mg/kg	JB	13-APR-95	
Solids, Total	87.6		0.5	Solid	%		03-APR-95	

Note: Results in mg/kg are reported on a dry weight basis.



GASOLINE RANGE ORGANICS (GRO)  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Test	Result	Reporting Limit	Matrix	Units	Petroleum Odor	Footnotes
L10453-001	HB1 (5'-6')	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	03-APR-95					
L10453-002	HB2 (4'-5')	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	03-APR-95					
L10453-003	HB3 (4.5'-5')	Gasoline Range Organics	50	10	Solid	mg/kg	Detected	
		Sample Date:	29-MAR-95					
		Analysis Date:	05-APR-95					
L10453-004	METHANOL TRIP BLANK	Gasoline Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Analysis Date:	05-APR-95					

Note: Results in mg/kg are reported on a dry weight basis.



PETROLEUM PETROLEUM VOLATILE ORGANIC (PVOC) UNPRES  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Dil	MOL	Matrix	Units	Footnotes
10453-001	HB1 (5'-6')	Benzene	< 5.8	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	< 5.8	5	5.0	Solid	ug/kg	
		Ethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		Toluene	< 5.8	5	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		1,3,5-Trimethylbenzene	< 5.8	5	5.0	Solid	ug/kg	
		m + p-Xylene	< 12	5	10	Solid	ug/kg	
		o-Xylene	< 5.8	5	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07-APR-95					
		Analyst:	AJK					
10453-002	HB2 (4'-5')	Benzene	< 6.1	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	< 6.1	5	5.0	Solid	ug/kg	
		Ethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		Toluene	< 6.1	5	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		1,3,5-Trimethylbenzene	< 6.1	5	5.0	Solid	ug/kg	
		m + p-Xylene	< 12	5	10	Solid	ug/kg	
		o-Xylene	< 6.1	5	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07-APR-95					
		Analyst:	AJK					
10453-003	HB3 (4.5'-5')	Benzene	< 5.7	5	5.0	Solid	ug/kg	
		Methyl tert-butyl ether	31	5	5.0	Solid	ug/kg	
		Ethylbenzene	780	250	5.0	Solid	ug/kg	
		Toluene	370	250	5.0	Solid	ug/kg	
		1,2,4-Trimethylbenzene	5300	500	5.0	Solid	ug/kg	A14, A17
		1,3,5-Trimethylbenzene	1900	250	5.0	Solid	ug/kg	
		m + p-Xylene	2900	250	10	Solid	ug/kg	
		o-Xylene	1300	250	5.0	Solid	ug/kg	
		Sample Date:	29-MAR-95					
		Receipt Date:	31-MAR-95					
		Analysis Date:	07, 12, 13-APR-95					
		Analyst:	AJK					

Note: Results in ug/kg are reported on a dry weight basis.

Dil = Dilution

MOL = Method detection Limit

WI Lab Certification ID#: 113138300

Chk'd: *[Signature]* App'd: CAW  
Date App'd: 4.20.95



PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Reporting Limit	Matrix	Units	Footnotes
L10453-001	HB1 (5'-6')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	0.0095	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	0.0050	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	0.0062	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	0.011	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	0.012	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

PHA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Reporting Limit	Matrix	Units	Footnotes
10453-002	HB2 (4'-5')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.

Lab Certification ID#: 113138300

Chk'd: *BSK* App'd: *DAW*  
Date App'd: 4-20-95





PNA/PAH (HPLC) ORGANIC REPORT  
ROBERT E. LEE/NESS SERVICE CENTER  
GREEN BAY WI  
Project Number: 4286.0220

Sample #	Description	Compound	Result	Reporting Limit	Matrix	Units	Footnotes
L10453-003	HB3 (4.5'-5')	Naphthalene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthylene	< 0.33	0.33	Solid	mg/kg	
		Acenaphthene	< 0.33	0.33	Solid	mg/kg	
		Fluorene	< 0.066	0.066	Solid	mg/kg	
		Phenanthrene	< 0.033	0.033	Solid	mg/kg	
		Anthracene	< 0.033	0.033	Solid	mg/kg	
		Fluoranthene	< 0.066	0.066	Solid	mg/kg	
		Pyrene	< 0.033	0.033	Solid	mg/kg	
		Chrysene	< 0.033	0.033	Solid	mg/kg	
		Benzo(a)anthracene	0.0057	0.0033	Solid	mg/kg	
		Benzo(b)fluoranthene	< 0.0059	0.0059	Solid	mg/kg	
		Benzo(k)fluoranthene	< 0.0033	0.0033	Solid	mg/kg	
		Benzo(a)pyrene	0.0053	0.0033	Solid	mg/kg	
		Indeno(1,2,3-cd)pyrene	< 0.0033	0.0033	Solid	mg/kg	
		Dibenzo(a,h)anthracene	< 0.0066	0.0066	Solid	mg/kg	
		Benzo(g,h,i)perylene	< 0.0066	0.0066	Solid	mg/kg	
		1-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	
		2-Methylnaphthalene	< 0.33	0.33	Solid	mg/kg	

Sample Date: 29-MAR-95  
Extract Date: 06-APR-95  
Analysis Date: 07-APR-95

Note: Results in mg/kg are reported on a dry weight basis.



**DIESEL RANGE ORGANICS (DRO)**  
**ROBERT E. LEE/NESS SERVICE CENTER**  
**GREEN BAY WI**  
Project Number: 4286.0220

Sample #	Description	Test	Result	Reporting Limit	Matrix	Units	Petroleum Odor	Footnotes
L10453-001	HB1 (5'-6')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					
L10453-002	HB2 (4'-5')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					
L10453-003	HB3 (4.5'-5')	Diesel Range Organics	< 10	10	Solid	mg/kg	None	
		Sample Date:	29-MAR-95					
		Extract Date:	05-APR-95					
		Analysis Date:	05-APR-95					

Note: Results in mg/kg are reported on a dry weight basis.



**MONTGOMERY WATSON**  
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**INORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/ Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95

**Date Received:** 3/31/95

**Date Analyzed:** 4/03/95

**Analyst:** JS

**Matrix Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>%Recovery</u>	<u>Control Limits</u>
Lead	36197	83	77-128% Recovery

**Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Sample Results (%)</u>	<u>DUP Results (%)</u>	<u>% RPD</u>	<u>Control Limits</u>
Lead	36266	231	256	10.3	27
Solids, Total	35899	85.8	85.0	0.9	5.0



**GASOLINE RANGE ORGANICS (GRO)  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

Location: Green Bay, Wisconsin

Date Sampled: 3/29/95  
Date Received: 3/31/95  
Date Analyzed: 3/31/95  
Analyst: AJK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
GRO #1	36071	119.8	117.5	1.9	80-120% recovery, 20% RPD
GRO #2	36071	98.7	105.0	6.2	80-120% recovery, 20% RPD
GRO #3	36071	93.9	99.2	5.5	80-120% recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
GRO #1	36071	117.3	70-140% recovery
GRO #2	36071	102.3	70-140% recovery
GRO #3	36071	102.8	70-140% recovery



**PETROLEUM VOLATILE ORGANIC (PVOC)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95

**Date Received:** 3/31/95

**Date Analyzed:** 4/7-12/95

**Analyst:** AJK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Checks**

<u>Compound</u>	<u>Batch Number</u>	<u>MC-4/07/95</u>	<u>MC-4/11/95</u>	<u>MC-4/12/95</u>
Benzene	36172	108	92	82
Toluene	36172	106	90	81

**Method Blank Results**

All associated method blanks were below method detection limits.

**Matrix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>MS Recovery Batch Number</u>	<u>MSD Recovery %</u>	<u>RPD %</u>	<u>%</u>	<u>Control Limits</u>
Benzene	36172	89	94	6	63-133% recovery, 25% RPD
Toluene	36172	86	91	5	58-116% recovery, 27% RPD



**PETROLEUM VOLATILE ORGANIC (PVOC)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/29/95

**Date Received:** 3/31/95

**Date Analyzed:** 4/7-12/95

**Analyst:** AJK

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>a,a,a-Trifluorotoluene Recovery (%) (PID Detector)</u>	<u>Control Limits</u>
Blank4-07	36172	109	51-116% recovery
Blank 4-11	36172	93	51-116% recovery
Blank 4-12	36172	79	51-116% recovery
L10453-001	36172	84	51-116% recovery
L10453-002	36172	90	51-116% recovery
L10453-003 1/250	36172	98	51-116% recovery
L10453-003 1/500	36172	68	51-116% recovery



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

Project: Robert E. Lee/Ness Service Center

Project #: 4286.0220

Location: Green Bay, Wisconsin

Date Sampled:: 3/27/95  
Date Received: 3/29/95  
Date Extracted: 4/06/95  
Date Analyzed: 4/07/95  
Analyst: CMK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Method Check/Method Check Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MC Recovery (%)</u>	<u>MCD Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
Naphthalene	36163	71	N/A	N/A	64-113% Recovery, 27% RPD
Acenaphthylene	36163	77	N/A	N/A	69-108% Recovery, 26% RPD
Acenaphthene	36163	78	N/A	N/A	69-110% Recovery, 24% RPD
Fluorene	36163	82	N/A	N/A	71-116% Recovery, 23% RPD
Phenanthrene	36163	84	N/A	N/A	70-125% Recovery, 24% RPD
Anthracene	36163	79	N/A	N/A	61-123% Recovery, 24% RPD
Fluoranthene	36163	89	N/A	N/A	74-120% Recovery, 19% RPD
Pyrene	36163	95	N/A	N/A	71-141% Recovery, 31% RPD
Benzo(a)anthracene	36163	91	N/A	N/A	72-126% Recovery, 23% RPD
Chrysene	36163	92	N/A	N/A	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	36163	90	N/A	N/A	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	36163	89	N/A	N/A	69-115% Recovery, 20% RPD
Benzo(a)pyrene	36163	74	N/A	N/A	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	36163	78	N/A	N/A	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	36163	81	N/A	N/A	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	36163	80	N/A	N/A	56-123% Recovery, 23% RPD



**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lec/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled:** 3/27/95  
**Date Received:** 3/29/95  
**Date Extracted:** 4/06/95  
**Date Analyzed:** 4/07/95  
**Analyst:** CMK

**Matix Spike/Matrix Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
Naphthalene	36163	105	126(a)	19	64-113% Recovery, 27% RPD
Acenaphthylene	36163	92	124(a)	30(b)	69-108% Recovery, 26% RPD
Acenaphthene	36163	132(a)	231(a)	54(b)	69-110% Recovery, 24% RPD
Fluorene	36163	107	189(a)	56(b)	71-116% Recovery, 23% RPD
Phenanthrene	36163	113	178(a)	45(b)	70-125% Recovery, 24% RPD
Anthracene	36163	108	101	6	61-123% Recovery, 24% RPD
Fluoranthene	36163	137(a)	182(a)	28(b)	74-120% Recovery, 19% RPD
Pyrene	36163	147(a)	193(a)	27	71-141% Recovery, 31% RPD
Benzo(a)anthracene	36163	99	108	8	72-126% Recovery, 23% RPD
Chrysene	36163	112	118	6	75-119% Recovery, 34% RPD
Benzo(b)fluoranthene	36163	100	98	1	73-118% Recovery, 17% RPD
Benzo(k)fluoranthene	36163	98	97	0.7	69-115% Recovery, 29% RPD
Benzo(a)pyrene	36163	103	102	0.2	44-126% Recovery, 26% RPD
Dibenzo(ah)anthracene	36163	91	91	0.8	58-111% Recovery, 26% RPD
Benzo(ghi)perylene	36163	97	97	0.5	59-128% Recovery, 20% RPD
Indeno(123cd)pyrene	36163	95	94	0.9	56-123% Recovery, 23% RPD

(a) Elevated recoveries due to detects of PNAs in sample. Sample L10415-001 was flagged with an "A4" footnote. The other soils associated with this batch were not flagged.

(b) Exceeded control limits. Sample appears nonhomogeneous. Sample L10415-001 was flagged with an "A4" footnote. The other soils associated with this batch were not flagged.





**PNA/PAH (HPLC) ORGANIC  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Green Bay, Wisconsin

**Date Sampled::** 3/27/95  
**Date Received:** 3/29/95  
**Date Extracted:** 4/06/95  
**Date Analyzed:** 4/07/95  
**Analyst:** CMK

**Surrogate Recoveries**

<u>Lab Number</u>	<u>Batch Number</u>	<u>Carbazole (VWD) Recovery (%)</u>	<u>Control Limits</u>	<u>DFBP (VWD) Recovery (%)</u>	<u>Control Limits</u>
RB B/157	36163	90	61-113% Recovery	96	52-108% Recovery
MC B/157	36163	80	61-113% Recovery	81	52-108% Recovery
L10453-001	36163	86	61-113% Recovery	85	52-108% Recovery
L10453-002	36163	86	61-113% Recovery	87	52-108% Recovery
L10453-003	36163	86	61-113% Recovery	79	52-108% Recovery



**DIESEL RANGE ORGANICS (DRO)  
QUALITY CONTROL REPORT**

**Project:** Robert E. Lee/Ness Service Center

**Project #:** 4286.0220

**Location:** Sparta, Wisconsin

**Date Sampled:** 3/29/95  
**Date Received:** 3/31/95  
**Date Extracted:** 4/05/95  
**Date Analyzed:** 4/05/95  
**Analyst:** CMK

**Continuing Calibration Verification**

Continuing calibration verification standards met acceptable criteria.

**Method Blank Results**

All associated method blanks were below method detection limits.

**Water Spike/Water Spike Duplicate Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Water Spike Recovery (%)</u>	<u>Water Spike Dup. Recovery (%)</u>	<u>RPD (%)</u>	<u>Control Limits</u>
DRO	36017	101.4	94.4	7.18	80-120% recovery, 20% RPD

**Soil Spike Results**

<u>Compound</u>	<u>Batch Number</u>	<u>Soil Spike Recovery (%)</u>	<u>Control Limits</u>
DRO	36017	83.5	60-130% recovery

4286.0220



MONTGOMERY WATSON

# CHAIN OF CUSTODY RECORD

ROBERT E. LEE

SPECIAL INSTRUCTIONS:

RECFA  
 W/ LUST  
 ACT 307  
 REPORT DRY WT  
 OTHER:

TURNAROUND

2 WEEKS (standard)  
 1 WEEK  
 3 DAYS  
 1 DAY

PROJECT NAME:		PROJECT #:		NO. OF CONTAINERS	GRO	DRO	PDOC	LEAD	PAH TS	REMARKS	LAB USE ONLY							
CITY:		STATE:									MATRIX	LAB NO.						
SAMPLER(S):		COLLECTION DATE	COLLECTION TIME								GRAB / COMP	SAMPLE ID						
Ness Service Center		2390002																
Green Bay		WI																
GLENN WILLEMS																		
		3/29/95	12:15	GRAB	HB1 (5'-6')	2	2	2	1	1	Field Screen Residue = 41 ppm	S07L	10453-01					
			12:30		HB2 (4'-5')						= 21 ppm		02					
			1:00		HB3 (4.5'-5')						= 2548 ppm		03					
			2:30		METHANOL TRIP BLANK	1							04					

SPECIAL INSTRUCTIONS:

RECEIVED:  INTACT  ON ICE TEMP \_\_\_\_\_ OF

PROJ. MGR.: JOE J. PASQUALUCCI

Submit Results to CHARLENE STINSON

SIGNATURE	PRINT NAME	COMPANY / TITLE	DATE	TIME
<i>Glenn Willemms</i>	GLENN WILLEMS	ROBERT E. LEE & ASSOCIATES, INC.	3/29/95	4:15
<i>Dan Husker #150</i>				
<i>Randy Meinholz</i>	RANDY MEINHOIZ	M. W. Zub Loy Inc	3-31-95	8:50

C-O-C No. 011847

NAME OF COURIER: *Dan Husker #150*  
AIRBILL NUMBER: \_\_\_\_\_