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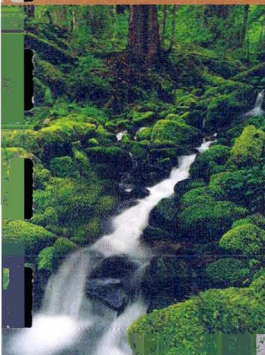
## **SITE INVESTIGATION REPORT AND CASE CLOSURE REQUEST**

**Coonen Oil Station  
1043 Ivory Street  
Seymour, Wisconsin**

**(BRRTS CASE # 02-31-216366)  
(PECFA CLAIM # 54165-1682-43)**

**December 28, 2004**

03-45-213120



 **Northern Environmental**<sup>SM</sup>  
Hydrologists • Engineers • Surveyors • Scientists

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CASE CLOSURE REQUEST**

**Coonen Oil Station  
1043 Ivory Street  
Seymour, Wisconsin**

December 29, 2004

Prepared For:

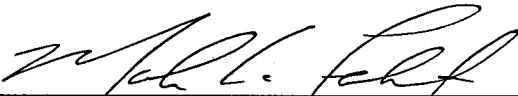
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Seymour, Wisconsin 54165

(BRRTS CASE # 03-45-213120)  
(PECFA CLAIM # 54165-1682-43)

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## 1.0 EXECUTIVE SUMMARY

Northern Environmental Technologies, Incorporated (Northern Environmental) was retained by Coonen, Inc. to perform a site investigation of a petroleum release at the Coonen, Inc. gasoline station located at 1043 Ivory Street, Seymour, Wisconsin (the Site). The purpose of the investigation was to determine the magnitude and extent of a petroleum release identified at the Site during removal of an underground storage tank UST system during December 1998. Between November 1999 and August 2004 four soil borings, four monitoring wells and six rounds of groundwater sampling were completed at the Site. Based on results of the site investigation, the extents of petroleum compounds in soil and groundwater have been adequately characterized and defined. Investigation results also indicate the Site meets the classification of a high risk site, and as a result falls under the administrative authority of the Wisconsin Department of Natural Resources (WDNR).

Soil investigation results indicate soil contamination in a limited area in the former UST bed at concentrations in excess of Chapter NR720, Wisconsin Administrative Code (Wis. Adm. Code) residual contaminant levels (RCLs). Specifically, gasoline range organics GRO, diesel range organics DRO, benzene, toluene and xylenes remain at concentrations in excess of RCLs. In addition, naphthalene was detected at a concentration in excess of the suggested RCL and Chapter NR746, Wis. Adm. Code Table 1 value. The Chapter NR746 Table 1 value was established as an indicator of potential free product. However, free product was not encountered at the Site, indicating that remediation to address the Table 1 exceedance is not necessary. **Northern Environmental does not recommend any additional soil investigation or remediation for the Site. Inclusion of the Site in the Geographic Information System of Closed Remediation Sites will be used to address the residual soil contamination.**

Groundwater sampling results indicate petroleum compounds remain in excess of Chapter NR140 Wis. Adm. Code enforcement standards (ES) in groundwater at the Site. The compounds exhibiting ES exceedances include benzene, naphthalene, and trimethylbenzenes. The highest contaminant concentrations were detected in monitoring well MW300, installed upgradient of the source area. Based on the contaminant concentration distribution, it appears that a contaminant plume originating at an upgradient off site source has migrated onto the property. Regardless, Mann Kendall statistical analysis indicates stable or decreasing trends in contaminants exhibiting ES exceedances. We believe the petroleum compounds will continue to naturally degrade to concentrations below the ES in a reasonable period of time. **Northern Environmental does not recommend any additional groundwater investigation or remediation at this time. We recommend the Site be included in the Geographic Information System Registry of Closed Remediation Sites to address the residual groundwater contamination.**

**On behalf of Coonen, Inc., Northern Environmental is requesting that the Site be reviewed for case closure by the WDNR.**

## 2.0 INTRODUCTION AND BACKGROUND

### 2.1 Site Location

Northern Environmental Technologies, Incorporated (Northern Environmental) has completed an investigation of a petroleum release at the Coonen Oil Station, 1043 Ivory Street, Seymour, Wisconsin (the Site). The Site is in the southwest quarter of the southwest quarter of Section 33, Township 24 North, Range 18 East (44 degrees, 30 minutes, 3 seconds north latitude; 88 degrees, 19 minutes, 45 seconds west longitude) in the City of Seymour, Outagamie County, Wisconsin. The Site location is shown in Figure 1 (USGS 1974).

The Site is bordered to the north by a playground, to the east by Ivory Street, to the south by State Highway 54/55 and to the west by commercial property. Two known leaking underground storage tank (LUST) sites are located near the property. The former Dunbar Service Station LUST site (WDNR BRRTS #03-45-000013) is the property immediately west of the Site. The Seymour Mobil LUST site (WDNR BRRTS #03-45-153996) is located south of the Site across State Highway 54/55.

### 2.2 Background

Coonen Oil Company operates a retail gasoline station at the Site. According to Wisconsin Department of Commerce (WDCOMM) records, three underground storage tanks (USTs) are currently in use at the Site. The UST system consists of one 15,000-gallon unleaded gasoline, one 8,000-gallon unleaded gasoline and one 8,000-gallon diesel fuel USTs and associated piping and dispensers. The UST system currently in use was installed during November 1998. The Site layout is shown in Figure 2.

A UST system consisting of two 8,000-gallon unleaded gasoline, one 8,000-gallon diesel fuel and one 4,000-gallon unleaded gasoline USTs and associated piping was removed from the Site during December 1998. A UST closure assessment was performed by Robert E. Lee and Associates (Robert E. Lee) at the time of UST removal. As part of the UST closure assessment, Robert E. Lee collected three soil samples from the tank excavation and one soil sample near the dispenser island. The soil samples were laboratory analyzed for a combination of gasoline range organics (GRO) and diesel range organics (DRO). Laboratory analysis of one of the soil samples (E-3) collected from the tank bed detected GRO at a concentration of 223 milligrams per kilogram (mg/kg). Analysis of the remaining soil samples did not detect significant GRO or DRO concentrations.

Based on the GRO detection at E-3, a petroleum release was reported to the WDNR on December 21, 1998. The WDNR subsequently assigned Bureau of Remediation and Redevelopment Tracking System #03-45-213120 to the site and requested that an investigation be performed to determine the magnitude and extent of contamination. On August 23, 1999, Northern Environmental was retained by Coonen, Inc. to complete the site investigation and remedial activities if necessary.

This report presents and interprets the results of the investigation and requests the Site be considered for case closure. A list of project contacts is included as Appendix A.

### 3.0 METHODS OF INVESTIGATION

#### 3.1 Summary of Investigative Activities

- November 30, 1999 One soil boring (B100) was installed near the location of Robert E. Lee UST closure assessment sample E-3 to further evaluate the extent of the soil contamination. The soil boring was completed by Environmental Drilling Services (EDS) using a drill rig equipped with hollow stem augers (HSA) until the bedrock surface was encountered at approximately 8 feet below grade (fbg). The boring was further advanced into the bedrock using the air rotary drilling method to install a monitoring well (MW100) to evaluate groundwater conditions. One soil sample from the boring was submitted under chain-of-custody protocol to U.S. Analytical Lab (WDNR Certification #445027660) for analysis of DRO (WDNR Modified Method), GRO (WDNR Modified Method), volatile organic compounds (VOCs) (EPA Method 8260B), polynuclear aromatic hydrocarbons (PAHs) (EPA Method 8270) and lead (EPA Method 6010B).
- December 17, 1999 Northern Environmental personnel developed MW100.
- December 29, 1999 Northern Environmental personnel collect a sample from MW100. The groundwater sample is submitted to U.S. Analytical Lab for analysis for VOCs (EPA Method 8021A) and lead (EPA Method 7421).
- March 28, 2000 Three additional soil borings (B200 through B400) were installed on site to further evaluate the extent of soil and groundwater contamination. Soil borings were completed by EDS using a drill rig equipped with HSA until the bedrock surface was encountered. The borings were further advanced into the bedrock for the purpose of installing monitoring wells (MW200 through MW400) using the air rotary drilling method. One soil sample from each boring was submitted under chain-of-custody protocol to U.S. Analytical Lab for analysis for DRO, GRO, PAHs and petroleum volatile organic compounds (PVOCs), and lead.
- April 13, 2000 Northern Environmental personnel collect a round of water levels and develop the newly installed monitoring wells.
- May 1, 2000 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples collected from MW200 through MW400 are submitted to U.S. Analytical Lab for analysis for VOCs, PAHs and lead. The groundwater sample collected from MW100 is submitted to U.S. Analytical Lab for PAH analysis.
- May 19, 2000 Northern Environmental personnel collect a round of water levels.
- June 8, 2000 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples are submitted to Commonwealth Technology, Inc. (WDNR Certification #157066030) for analysis for PVOCs and naphthalene.

- May 2, 2003 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples are submitted to Enchem, Inc. (WDNR Certification #405132750) for analysis for PVOCs and naphthalene.
- August 11, 2003 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples are submitted to Enchem, Inc. for analysis for PVOCs and naphthalene.
- March 15, 2004 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples are submitted to Enchem, Inc. for analysis for PVOCs and naphthalene.
- August 20, 2004 Northern Environmental personnel collect a round of water levels and samples from each of the monitoring wells. The groundwater samples are submitted to Test America (WDNR Certification #128053530) for analysis for PVOCs and naphthalene. The groundwater samples are also laboratory analyzed for dissolved iron (EPA Method 236.1), dissolved manganese (EPA Method 243.1), sulfate (EPA Method 300.0) and nitrate + nitrite (EPA Method 353.2) as natural attenuation indicators.

### **3.2 Soil Investigation**

The purpose of the soil investigation was to define the degree and extent of impact of the petroleum release on soil quality. Four soil borings (B100 through B400) were completed at the Site. Each of the soil borings was completed with a drilling rig equipped with HSAs until bedrock was encountered. Each boring was further advanced into the bedrock using the air rotary drilling method for the purpose of installing monitoring wells. Soil boring locations are shown in Figure 3.

Soil samples were collected from the borings at 2-foot intervals until the bedrock surface was encountered. Each soil sample was properly containerized for field-screening and possible laboratory analysis. Soil sample collection, handling, and field-screening procedures followed WDNR guidance. Field screening was performed using a Thermal Environmental Instruments, Incorporated Model 580S or 580B photoionization detector (PID) outfitted with a 10.6 eV lamp and calibrated daily for direct response to isobutylene.

Soil boring logs were prepared on WDNR forms in general conformance with American Society for Testing and Materials (ASTM) Standard Method 2488. The logs include information on soil type (USCS classification), geologic origin, color (Munsell notation), relative moisture content, texture, odor, and the presence of volatile constituents as indicated by PID readings. The soil boring logs are included as Appendix B1. Soil cuttings from the soil borings were stored on site in drums and subsequently removed and disposed at a blacktop processing plant by Advanced Tank Service, Inc. Documentation of the soil cuttings disposal is included in Appendix C.

The soil sample collected from the 5 to 7 fbg interval was preserved and submitted under chain-of-custody protocol to U.S. Analytical for laboratory analysis. The soil samples were analyzed for a combination of DRO, GRO, PAHs, VOCs, PVOCs, and lead.



### 3.3 Groundwater Investigation

The purpose of the groundwater investigation was to evaluate groundwater flow direction and the impact of the petroleum release on groundwater. A total of four monitoring wells (MW100 through MW400) were installed at the Site. The monitoring wells were constructed with 10-feet of 2-inch diameter schedule 40 PVC with 0.01-slot screen positioned between 10 and 20 fbg. Each of the monitoring wells was completed within the bedrock. Monitoring well locations are shown in Figure 4.

Construction and development of the monitoring wells was conducted in accordance with NR 141, Wis. Admin. Code. Monitoring well sampling was conducted in accordance with WDNR guidance (WDNR, 1996). WDNR Monitoring Well Construction and Well Development Forms are included as Appendix B2. The WDNR Groundwater Monitoring Well Information Form is included as Appendix B3. Monitoring well development and purge water was temporarily stored on-site in 55-gallon metal drums. The purge and development water generated during the installation and sampling of the wells prior to May 2003 was removed and disposed by Advanced Tank Services at the Eau Claire wastewater treatment plant. Disposal documentation is also included in Appendix C. The water generated during subsequent sampling is currently stored on site in one 55-gallon drum and will be disposed upon case closure.

Six rounds of samples have been collected from the monitoring wells. The groundwater samples were submitted under chain-of-custody protocol to U.S. Analytical, Commonwealth Technology, Inc., En Chem, Inc. and Test America for analysis of a combination of VOCs, PAHs, PVOCs, naphthalene and lead. Inorganic indicators of natural attenuation were also measured in groundwater at the Site. Specifically, measurements of DO and ORP were collected in the field during May and August 2003 and March and August 2004 sampling events. The groundwater samples collected during the August 2004 sampling event were laboratory analyzed for nitrate, sulfate and dissolved iron and manganese by Test America.

### 4.0 APPLICABLE CLEANUP CRITERIA

The Wis. Admin. Code establishes soil cleanup standards for several petroleum-related compounds. These standards, or residual contaminant levels (RCLs), are presented in Chapter NR 720, Wis. Admin. Code. Under NR 720, soil cleanup standards for GRO-and DRO-contaminated soil have been established at 100 mg/kg for permeable soils and 250 mg/kg for less permeable soils. Permeable soils are described as soils having a saturated hydraulic conductivity greater than  $1 \times 10^{-5}$  centimeters per second (cm/sec). Less permeable soils are described as soils having a saturated hydraulic conductivity less than  $1 \times 10^{-5}$  cm/sec. By these standards, silt and sand overlying the bedrock at the Site is a permeable soil.

Generic RCLs have also been established for benzene, toluene, ethylbenzene, xylene, and 1,2-DCA in soil. The RCLs are 5.5, 1,500, 2,900, 4,100, and 4.9 micrograms per kilogram, respectively. Generic RCLs are established to protect groundwater quality in typical Wisconsin environments and are generally conservative. Suggested RCLs have also been developed for PAHs, which are presented in the WDNR document titled *Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance* (WDNR, 1997). The suggested PAH RCLs are too numerous to list in this section.

Soil screening levels indicative of residual petroleum product in soil pores have been established in Table 1 of Chapter NR 746.06, Wis. Admin. Code. The screening levels for benzene, 1,2-DCA, ethylbenzene, toluene, xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylebenzene, and naphthalene are 8.5, 0.6, 4.6, 38, 42, 83, 11, and 2.7mg/kg, respectively. Risk-based cleanup numbers protective of human health from direct contact have also been established for benzene and 1, 2-DCA in Table 2 of Chapter NR 746.06,

Wis. Admin. Code. The direct contact concentrations for benzene and 1,2-DCA are 1.1 and 0.54 mg/kg, respectively, and only apply to soil present within 4 feet of ground surface.

The United States Environmental Protection Agency (EPA) has created the *Soil Screening Guidance* Web page for establishing generic soil screening levels (SSLs) that are protective of human exposure pathways for various volatile compounds. Northern Environmental calculated SSLs for compounds not listed in Table 2 of Chapter NR 746.06, Wis. Admin. Code at the Site using the Wisconsin default values listed in the WDNR Guidance, *Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site Pub-RR-682* (January, 2002). SSLs were calculated using the EPA web site for those compounds detected within the top four feet of soil at the Site. Petroleum compounds detected at the Site and not listed in Table 2 were compared to the SSLs listed for ingestion and inhalation pathways.

Water quality standards for groundwater are established in Chapter NR 140, Wis. Admin. Code. A preventive action limit (PAL) and enforcement standard (ES) are established for some of the polynuclear aromatic hydrocarbons and many VOCs. If the concentration of any compound exceeds its PAL, a wide range of actions may be required, ranging from no action to active remediation to restoration of groundwater quality. If the concentration of any compound exceeds the ES, some action must be taken. This ranges from monitoring to active remediation, depending on characteristics of the contaminants and the site.

## 5.0 RESULTS OF INVESTIGATION

### 5.1 Hydrogeology

Surface topography at the Site is relatively flat with the ground surface elevation being approximately 840 feet mean sea level (fmsl). Topography in the vicinity of the Site generally slopes to the east and northeast toward an intermittent tributary to Black Creek. The intermittent tributary is located approximately 2,000 feet east of the Site. The ground surface at the site is predominantly covered by asphalt and concrete. Soil encountered during completion the soil borings generally consisted of silt and sand. Ordovician-aged dolomite of the Prairie du Chien Group was encountered between 7.5 and 8 fbg.

Regional information available for the area reveals two distinct aquifers, a shallow glacial drift aquifer and the underlying bedrock aquifer. The glacial drift aquifer consists of unconsolidated sediment above the bedrock. The bedrock aquifer consists of Ordovician-aged dolomite of the Prairie du Chien Group and underlying the dolomite is Cambrian-aged sandstone. Due to the presence of shallow bedrock, the glacial drift is not a significant aquifer at the Site.

Potable water at the Site and surrounding properties is supplied by the city of Seymour's municipal distribution system, which obtains its water from two municipal wells constructed in the bedrock aquifer. The municipal wells are located northwest of the Site at 328 Elizabeth Street and 638 North Main Street, approximately 5,000 and 6,000 feet respectively from the Site. The wells are completed to 406 and 500 fbg. According to the well construction reports, it appears that bedrock was encountered at approximately 130 and 170 fbg during construction of these wells. Copies of the well construction reports obtained from the WDNR's web site are included in Appendix D.

To measure the shallow groundwater flow direction and estimated horizontal hydraulic gradient, several water level measurements were taken at the groundwater monitoring wells. Water levels in the monitoring wells were found to exhibit significant seasonal variation. Overall, water elevations have fluctuated approximately 5 to 6 feet seasonally at the Site. The shallowest water elevations in MW100 through MW300 (between 3.85 and 4.62 fbg) were observed during the March 2004 sampling event. The shallowest elevation in MW400 (5.42 fbg) was observed during the June 2000 sampling event. The deepest elevation in MW100 and MW400 (9.90 and 10.36 fbg, respectively) was observed during the April 2000 sampling event. The deepest elevations in MW200 and MW300 (9.62 and 9.02, respectively fbg) were observed during the August 2004 sampling event. Groundwater elevation data is summarized in Table 1.

Initial water table measurements generally indicated a northeasterly flow direction. However, the three most recent measurements (August 2003 and March and August 2004) have indicated a westerly flow direction. A potential discharge point for the aquifer is the intermittent tributary to Black Creek located east and northeast of the Site. Surface topography also slopes to the east and northeast toward the intermittent stream. Therefore, a northeasterly flow direction would be anticipated. The groundwater contaminant concentration distribution also indicates a northeasterly groundwater flow direction. The shallow groundwater flow direction based on June 2000 data is shown on Figure 4.

## **5.2 Extent of Petroleum Compounds in Soil**

Field screening of the soil samples produced PID readings ranging from 0 to 316 instrument units as isobutylene. The highest PID response was observed in soil sample S102 collected from 5 to 7 fbg in boring B100. Significant PID readings were not noted in the remaining soil borings. Laboratory analysis detected concentrations of DRO, GRO, benzene, toluene and xylenes in excess of Chapter NR720, Wisconsin Wis. Admin. Code RCLs in soil sample S102 collected from B100. The concentration of naphthalene in S102 was also in excess of the WDNR suggested PAH RCL and the Chapter NR 746.06 Table 1 value. Petroleum compounds were not detected in excess of the RCL in any of the remaining soil samples. Soil field-screening and laboratory analytical results are summarized in Tables 2 and 3, respectively.

Based on the soil sampling results, a limited amount of petroleum-contaminated soil is present in the vicinity of Northern Environmental soil sample S102 and Robert E. Lee UST closure assessment sample E-3. Sample S102 was collected from 5 to 7 fbg and sample E-3 was collected at 8 fbg. Based on water elevation data collected from MW100, both soil samples were collected below the water table. Although naphthalene concentrations were detected in excess of the Chapter NR 746.06 Table 1 value, measurable free product has not been observed in MW100. The estimated extent of petroleum compounds exceeding RCLs is shown in Figure 3. Copies of the laboratory reports and chain of custody forms for the soil samples are included in Appendix E1.

## **5.3 Extent of Petroleum Compounds in Groundwater**

Laboratory analysis periodically detected contaminant concentrations in excess of chapter NR140 Wis. Admin. Code ESs in each of the monitoring wells. The most recent round of sampling (August 20, 2004) indicated ES exceedances in MW200 and MW300. The greatest concentrations have been consistently detected in MW300, hydraulically upgradient from the UST system, indicating the potential migration of a contaminant plume onto the property from an upgradient, off site source.


Laboratory results of the groundwater samples are summarized in Table 4. Copies of the laboratory reports

and chain-of-custody forms are included in Appendix E2. The estimated extent of groundwater contamination is shown in Figure 5.

Inorganic groundwater sampling results were reviewed to assist in determining whether or not indicators of the occurrence of natural attenuation were present. Inorganic groundwater quality did not exhibit the expected relationship between contaminant concentrations and electron acceptor/reduction products within the groundwater plume. This may be due to the plume being located in shallow bedrock and seasonal variation of the water table. The strongest evidence of natural attenuation at this site may be the contaminant concentration trends. Inorganic groundwater quality data is summarized in Table 5.

### 6.0 JUSTIFICATION FOR CASE CLOSURE

Based on the site investigation results, Northern Environmental believes the Site meets the requirements of Chapter NR 746.07 (4) Wis. Admin. Code. The case closure requirements listed in NR746.07(4) are presented below in italics, with our evaluation following each item.

1. *The Site meets all of the risk screening criteria in s. NR 746.06 (2)*
  - (a) *None of the following environmental factors are present at the Site:*
    - (1) *Documented expansion of plume margin.*
    - (2) *Verified contaminant concentrations in a private or public potable well that attains or exceeds the preventive action limit.*
    - (3) *Contamination within bedrock or within 1 meter (3.28 ft) of bedrock.*
    - (4) *Petroleum product that is not in the dissolved phase is present with a thickness of 0.01 feet or more, and has been verified by more than one sampling event.*
    - (5) *Documented contamination discharges to a surface water or wetland.*
      - (1) Stable or decreasing contaminant concentration trends have been observed in downgradient monitoring well MW200, indicating the plume margin is not expanding.
      - (2) Private wells are not located at the Site. The nearest municipal well is located approximately 5,000 feet north of the site. Based on groundwater sampling results, the groundwater plume does not expand or threaten to expand to the municipal well.
      - (3) The groundwater contaminant plume is located in bedrock. 
      - (4) Free phase petroleum product has not been observed at the Site.
      - (5) The groundwater plume does not discharge to any surface waters or wetlands.

- (b) *No soil contamination is present at the site that exceeds any of the soil screening levels in Table 1.*

Table 1

Benzene	8.5 mg/kg	[8,500 µg/kg]
1,2-DCA	0.6 mg/kg	[600 µg/kg]
Ethylbenzene	4.6 mg/kg	[4,600 µg/kg]
Toluene	38 mg/kg	[38,000 µg/kg]
Xylenes	42 mg/kg	[42,000 µg/kg]
1,2,4-Trimethylbenzene	83 mg/kg	[83,000 µg/kg]
1,3,5-Trimethylbenzene	11 mg/kg	[11,000 µg/kg]
Naphthalene	2.7 mg/kg	[2,700 µg/kg]

Table 1 values are indicators of the potential for free phase petroleum product to be present in soil pores. Naphthalene was detected in excess of the Table 1 value in soil sample S102 collected from B100 at a depth of 5 to 7 fbg. Free phase petroleum product was not detected in monitoring well MW100, installed in boring B100. Based on the lack of free product, Northern Environmental does not believe the naphthalene Table 1 exceedance justifies further investigation or remediation at the Site.

- (c) *There is no soil contamination within 4 feet of the ground surface that exceeds any of the direct contact soil contaminant concentrations for the substances listed in Table 2.*

Benzene	1.10 mg/kg	[1,100 µg/kg]
1,2-DCA	0.54 mg/kg	[540 µg/kg]

Field screening did not indicate petroleum contamination in the upper 4 feet of soil at the Site, therefore, soil samples were not collected. Based on the lack of significant field screening readings, we do not believe Table 2 exceedances are present in the upper 4 feet of soil at the Site.

- (d) *For substances not listed in Table 2 that are present within 4 feet of the ground surface and have been approved by the agency with administrative authority for the site as contaminants of concern as defined in s. NR 720.03 (2), any potential human health risk from direct contact has been addressed.*

Again, field screening did not indicate petroleum contamination in the upper 4 feet of soil at the Site, therefore, soil samples were not collected. Based on the lack of significant field screening readings, we do not believe a direct contact threat exists in the upper 4 feet of soil at the Site.

- (e) *If there are petroleum-product contaminants in soil or groundwater, the most recent release that caused or contributed to the contamination is more than 10 years old.*

The age of the release is unknown. The previous UST system was removed during December 1998. Therefore, the age of the release at a minimum is greater than 6 years.

- (f) *There is no evidence of migration of petroleum product contamination within a utility corridor or within a permeable material or soil along which vapors, free product or contaminated water may flow.*

No underground utilities were identified within the contaminant plumes at the Site.

- (g) *There is no evidence of migration or imminent migration of petroleum product contamination to building foundation drain tile, sumps or other points of entry into a basement or other enclosed structure where petroleum vapors could collect and create odors or an adverse impact on indoor air quality or where the contaminants may pose an explosion hazard.*

The station building is constructed slab on grade and therefore, does not have a foundation or basement. There is no evidence of migration or imminent migration of petroleum product contamination to building foundation drain tile, sumps or other points of entry into a basement or other enclosed structure where petroleum vapors could collect and create odors or an adverse impact on indoor air quality or where the contaminants may pose an explosion hazard.

- (h) *No enforcement standard is attained or exceeded in any groundwater within 1000 feet of a well operated by a public utility, as defined in s. 196.01 (5), Stats., or within 100 feet of any other well used to provide water for human consumption.*

The closest municipal well serving the city of Seymour water supply system is located approximately 5,000 feet north of the Site.

2. *The requirements of ch. NR726 have been satisfied including the signing and recording of any required deed restriction or deed notice.*

Petroleum compounds remain in soil at concentrations in excess of Chapter NR720, Wis. Admin. Code RCLs at soil samples S102 and E-3, in the former UST bed. Northern Environmental proposes the Site be included in the Geographic Information System (GIS) Registry of Closed Remediation Sites to address the remaining soil contamination.

Contaminants remain in groundwater at concentrations in excess of the ES. Inclusion of the Site in the GIS Registry of Closed Remediation Sites will also be used to address the remaining groundwater contamination.

3. *One of the following tests has been satisfied:*

1. *There is a minimum of 4 rounds of sampling data that are free of seasonal variation, and those sample results establish, through the use of the Mann Kendall statistical test that is set forth in Appendix A, that the concentrations of contaminants with confirmed exceedances of enforcement standards are decreasing at the downgradient perimeter and along the centerline of the contaminant plume.*
2. *For sampling data not free of seasonal variation, an appropriate number and frequency of sampling rounds has been conducted consistent with the requirements of Appendix A, and the sample results establish, through use of the Mann Whitney U statistical test that is set forth in*

*Appendix A, that the concentrations of contaminants with confirmed exceedances of enforcement standards are decreasing at the downgradient perimeter and along the centerline of the contaminant plume.*

Because of the significant fluctuation of water elevations, the data may not be free of seasonal variation. The Mann Whitney U statistical test could not be completed because eight rounds of quarterly samples have not been collected from the Site. Therefore, the Mann-Kendall statistical test was used to evaluate the concentration trends in wells exhibiting ES exceedances (MW100, MW200 and MW300).

The Mann-Kendall test indicated stable or decreasing contaminant concentrations trends in each of the wells. Copies of the Mann Kendall statistical test results are included in Appendix F.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

Investigative activities have adequately characterized and evaluated the extent of soil and groundwater impacted by the petroleum release at the Site. Soil analytical and field-screening results indicate a limited amount of soil contamination in the former UST bed. Contaminant concentrations exceed generic RCLs and the naphthalene concentration is excess of Chapter NR746.06 Wis. Admin. Code Table 1 value. However, since the groundwater plume has exhibited stable or decreasing contaminant concentrations and free product has not been observed at the Site, **Northern Environmental does not recommend soil remediation at this time. Inclusion of the Site in the GIS Registry of Closed Remediation Sites is recommended to address the remaining soil contamination.**

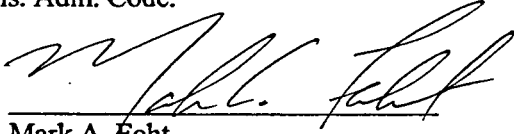
Petroleum compounds were detected in groundwater at concentrations in excess of the ES in each of the monitoring wells installed at the Site. The highest contaminant concentrations were detected in monitoring well MW300, installed upgradient of the source area. Based on the contaminant concentration distribution, it appears that a contaminant plume originating at an upgradient off site source has migrated onto the property. Based on the August 2004 groundwater monitoring results, ES exceedances remain at MW200 and MW300. Regardless, Mann Kendall statistical analysis indicates stable or decreasing trends in all contaminant concentrations exhibiting ES exceedances. **Northern Environmental recommends no further groundwater investigation or remediation be required at this time. We request the Site be included in the GIS Registry of Closed Remediation Sites to address the remaining groundwater contamination.**

**On behalf of Coonen Oil Company, Northern Environmental is requesting that the Site be reviewed for case closure by the WDNR.**

The results of this study are based on interpretation of the information available to Northern Environmental. Northern Environmental has assumed the information provided by the cited references is complete and correct. Northern Environmental does not warrant that this report represents an exhaustive study of all possible environmental concerns potentially associated with the Site. However, the items investigated as part of this study do represent the most likely sources of environmental concerns associated with the release and are, consequently, believed to adequately address the responsible party's needs at this time.

**8.0 PROFESSIONAL CERTIFICATIONS**

I, Mark A. Foht, hereby certify that I am a hydrogeologist 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.



Mark A. Foht  
Senior Project Geologist

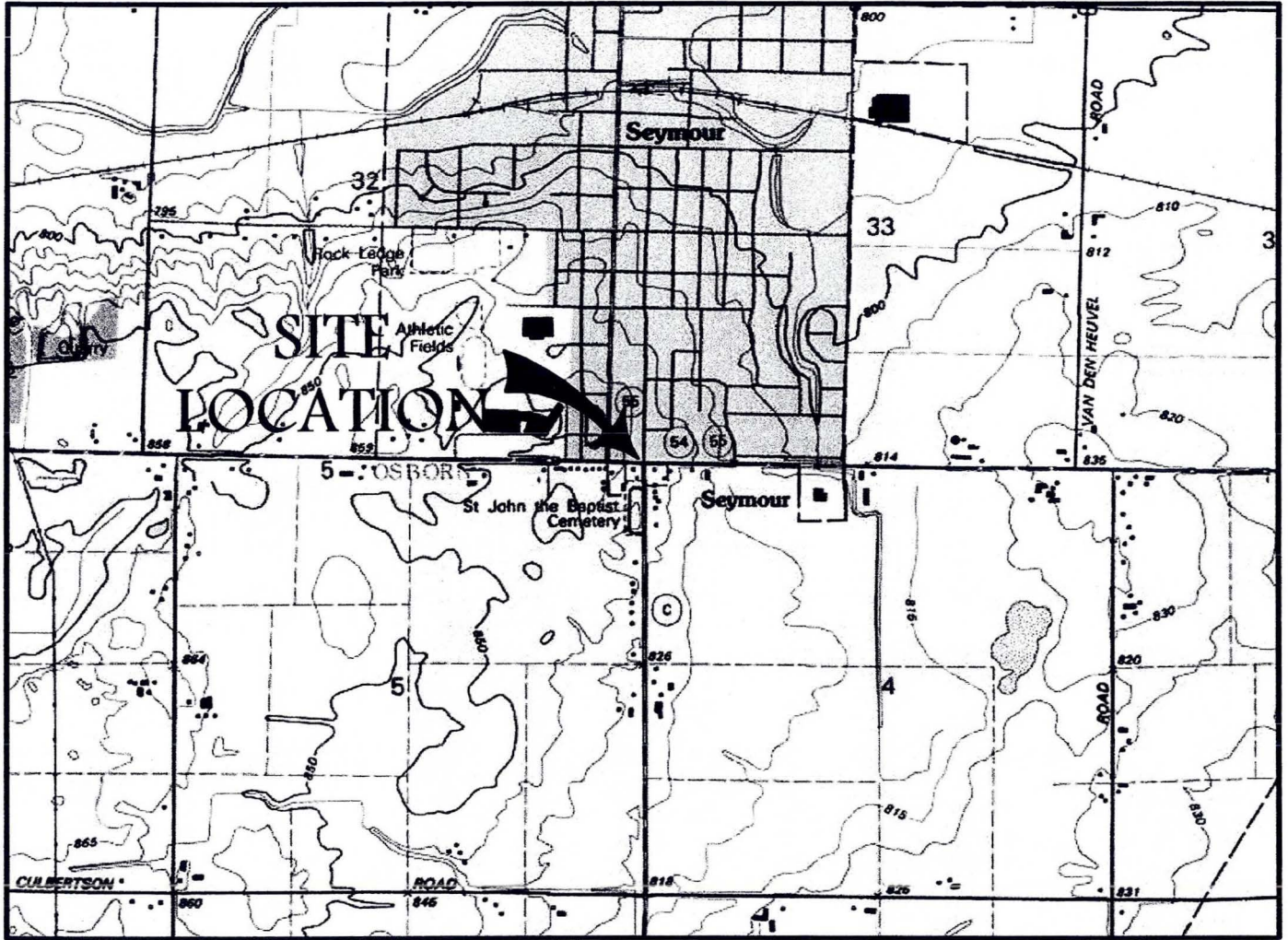
12/29/04  
Date



## 9.0 REFERENCES

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- Wisconsin Department of Natural Resources, "Guidance for Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site", Pub-RR-682, January 2002.
- Wisconsin Department of Natural Resources, "Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance", Pub-RR-519-97, April 1997.





SCALE IN FEET

1" = 2000'



CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929



BASE MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE, FREEDOM, WISCONSIN, 1992 (NATIONAL GEOGRAPHIC TOPO! 2001)

BASE MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE, SEYMOUR, WISCONSIN, 1992 (NATIONAL GEOGRAPHIC TOPO! 2001)

QUADRANGLE LOCATION



**Northern Environmental** SM  
Hydrologists • Engineers • Geologists

954 Circle Drive, Green Bay, Wisconsin  
Phone: 800-854-0606 Fax 920-592-8444  
Website: www.northernenvironmental.com

WISCONSIN ▲ MICHIGAN ▲ ILLINOIS ▲ IOWA

SITE LOCATION AND LOCAL TOPOGRAPHY

COONEN OIL COMPANY  
SEYMOUR, WISCONSIN

CREATION DATE: 12/22/04

DRAWN BY: KRE

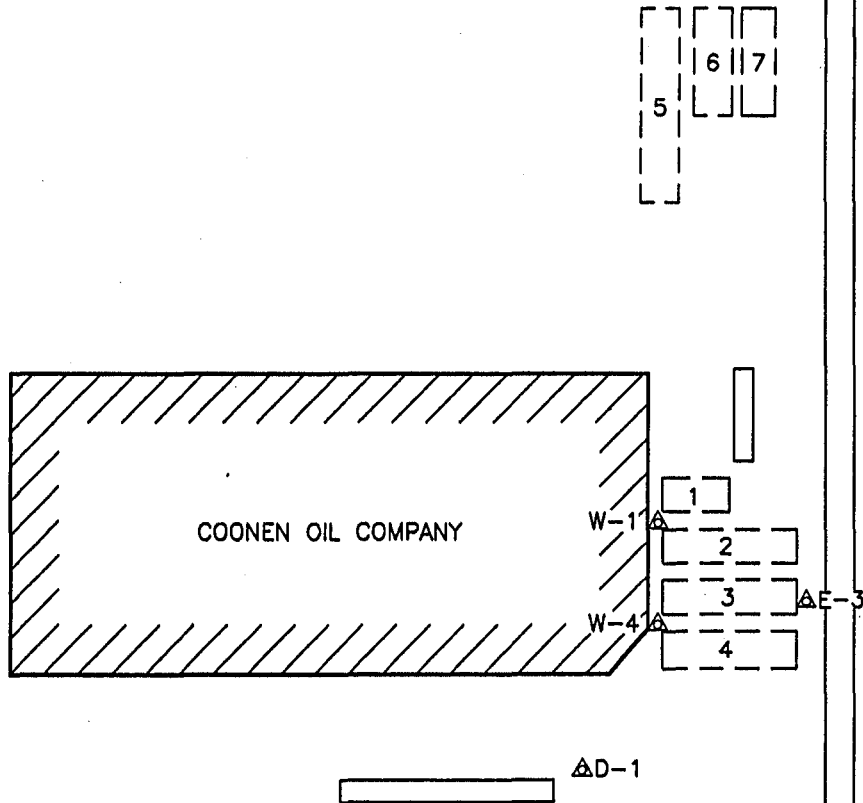
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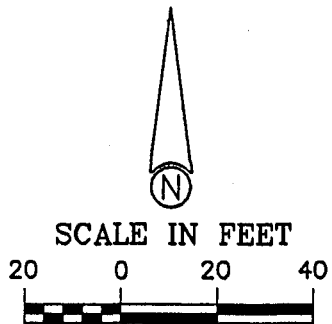
PROJECT NUMBER: DCPO3-0407-0952

FIGURE 1

S:\PROJ\DCP\04070952\DRAWINGS\091599-2.DWG



HWY. 54-55



DRAWN BY: SXM PROJECT: DCP-0952 DATE: 9/15/99

REV. DATE  
12/22/04

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**LEGEND**



DISPENSER ISLAND



FORMER UST LOCATION

- 1: 4,000 GALLON GASOLINE UST
- 2: 8,000 GALLON GASOLINE UST
- 3: 8,000 GALLON GASOLINE UST
- 4: 8,000 GALLON DIESEL UST



EXISTING UST LOCATION

- 5: 15,000 GALLON GASOLINE UST
- 6: 8,000 GALLON GASOLINE UST
- 7: 8,000 GALLON GASOLINE UST



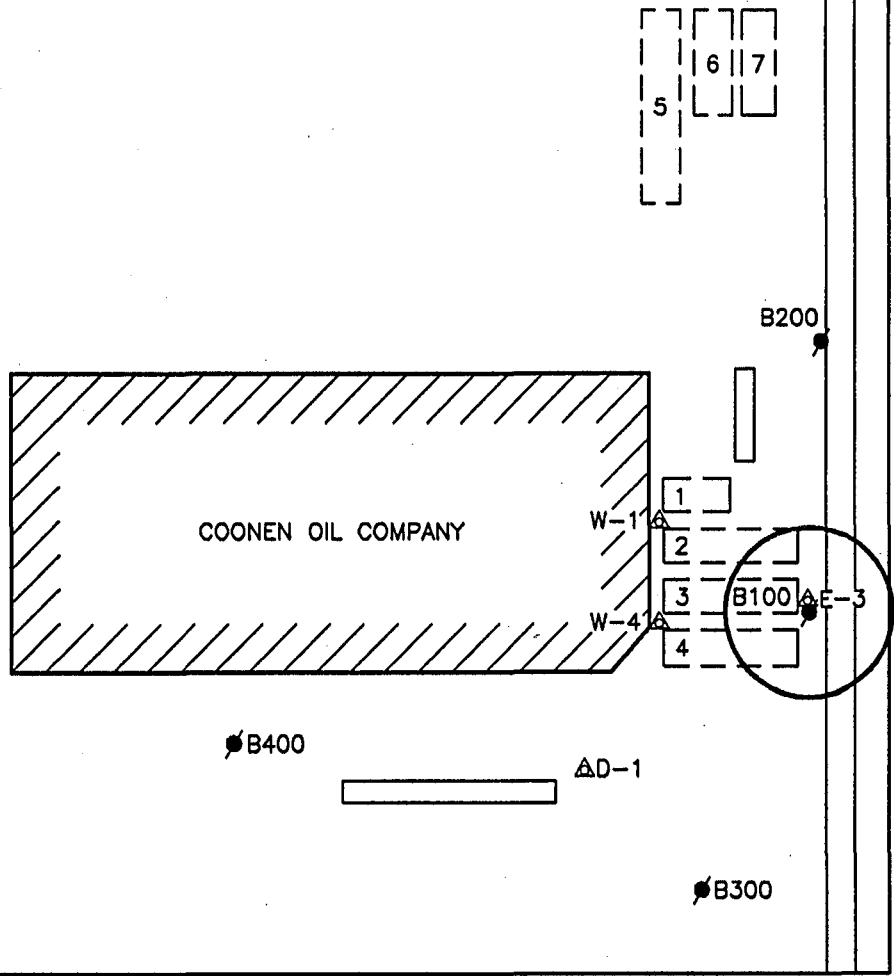
ROBERT E. LEE UST CLOSURE ASSESSMENT SOIL SAMPLE LOCATION

COONEN OIL COMPANY  
SEYMOUR, WISCONSIN

SITE LAYOUT







FIGURE 2

S:\PROJ\DCP\04070952\DRAWINGS\110601-1.DWG



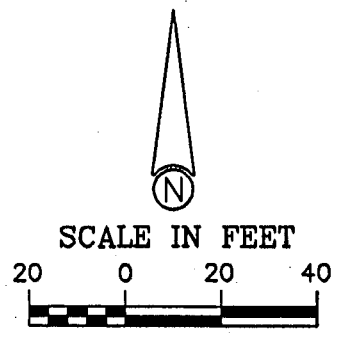
IVORY STREET

**LEGEND**

-  DISPENSER ISLAND
-  FORMER UST LOCATION
  - 1: 4,000 GALLON GASOLINE UST
  - 2: 8,000 GALLON GASOLINE UST
  - 3: 8,000 GALLON GASOLINE UST
  - 4: 8,000 GALLON DIESEL UST
-  EXISTING UST LOCATION
  - 5: 15,000 GALLON GASOLINE UST
  - 6: 8,000 GALLON GASOLINE UST
  - 7: 8,000 GALLON GASOLINE UST
-  ROBERT E. LEE UST CLOSURE ASSESSMENT SOIL SAMPLE LOCATION
-  SOIL BORING LOCATION
-  ESTIMATED EXTENT OF SOIL CONTAMINATION BASED ON RCL EXCEEDANCES

COONEN OIL COMPANY  
SEYMOUR, WISCONSIN

**SOIL BORING LOCATIONS AND ESTIMATED EXTENT OF SOIL CONTAMINATION**



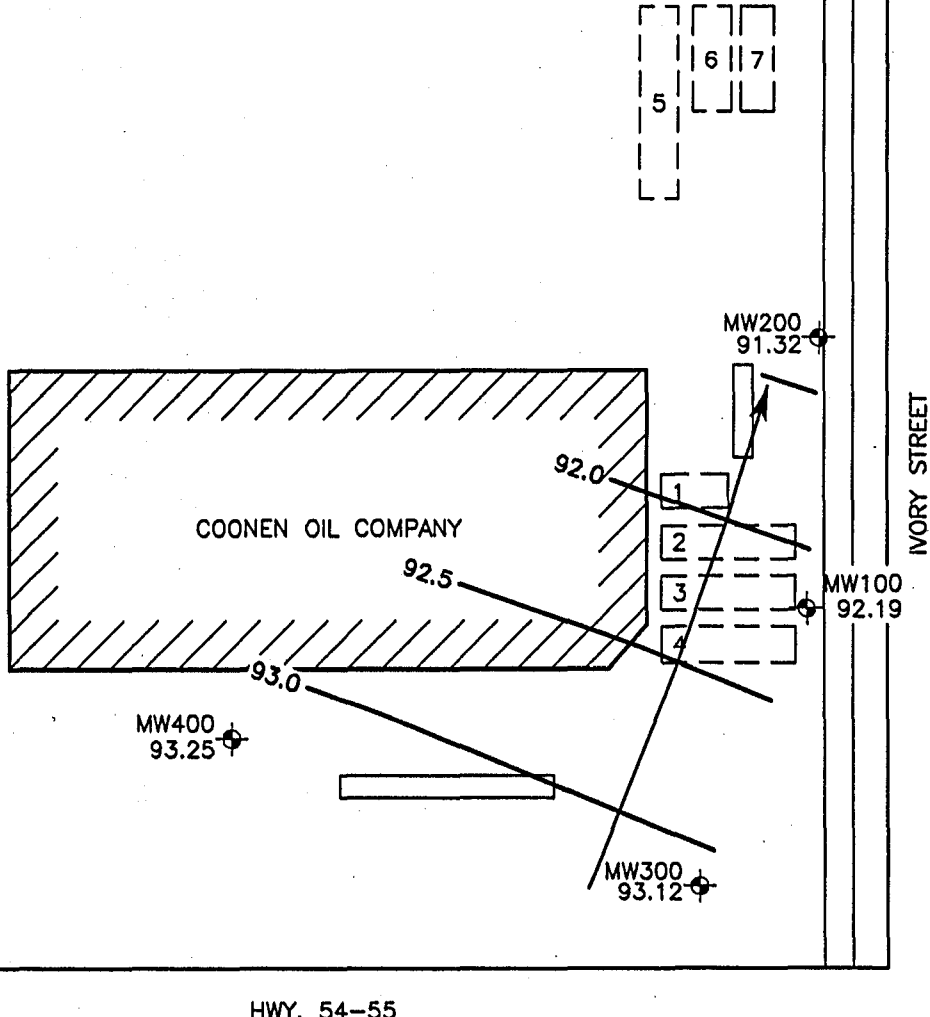
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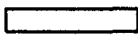







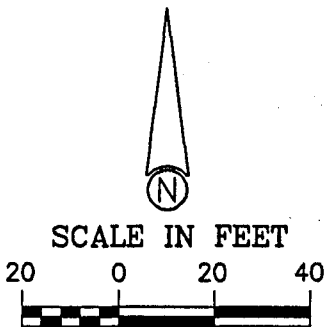
FIGURE 3


S:\PROJ\DCP\04070952\DRAWINGS\062700-1.DWG



**LEGEND**

-  DISPENSER ISLAND
-  FORMER UST LOCATION
  - 1: 4,000 GALLON GASOLINE UST
  - 2: 8,000 GALLON GASOLINE UST
  - 3: 8,000 GALLON GASOLINE UST
  - 4: 8,000 GALLON DIESEL UST
-  EXISTING UST LOCATION
  - 5: 15,000 GALLON GASOLINE UST
  - 6: 8,000 GALLON GASOLINE UST
  - 7: 8,000 GALLON GASOLINE UST
-  MW100 MONITORING WELL LOCATION AND GROUNDWATER ELEVATION ON 6/8/00
-  100.0 GROUNDWATER CONTOUR LINE CONTOUR LINE INTERVAL = 0.5 FEET
-  GROUNDWATER FLOW DIRECTION



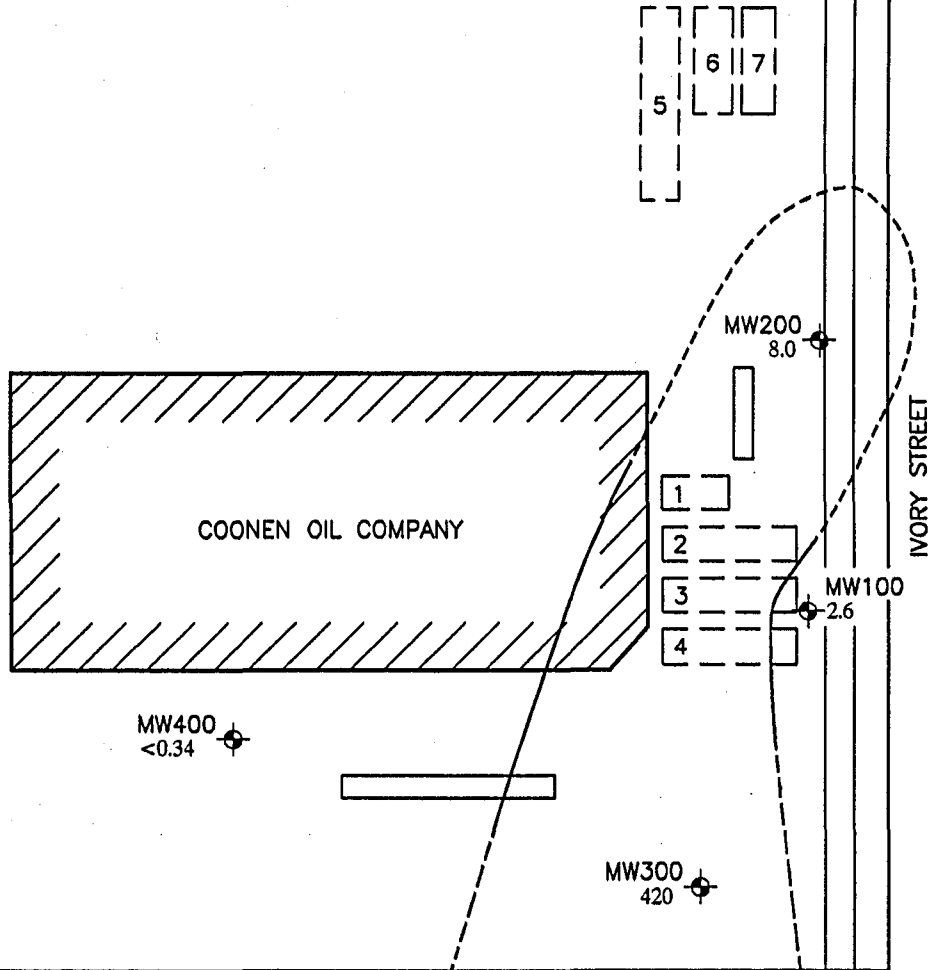
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COONEN OIL COMPANY  
SEYMOUR, WISCONSIN

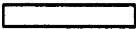




**MONITORING WELL LOCATION AND  
GROUNDWATER CONTOUR  
MAP (06/08/00)**

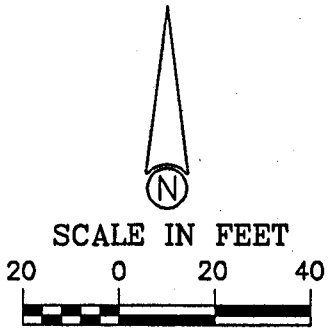
FIGURE 4


S:\PROJ\DCP\04070952\DRAWINGS\04\_1222\_5.DWG



**LEGEND**

-  DISPENSER ISLAND
-  FORMER UST LOCATION
  - 1: 4,000 GALLON GASOLINE UST
  - 2: 8,000 GALLON GASOLINE UST
  - 3: 8,000 GALLON GASOLINE UST
  - 4: 8,000 GALLON DIESEL UST
-  EXISTING UST LOCATION
  - 5: 15,000 GALLON GASOLINE UST
  - 6: 8,000 GALLON GASOLINE UST
  - 7: 8,000 GALLON GASOLINE UST
-  MW100 2.6 MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g/L}$ ) ON 08/20/04
-  ESTIMATED EXTENT OF GROUNDWATER CONTAMINATION DASHED WHERE INFERRED



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COONEN OIL COMPANY  
SEYMOUR, WISCONSIN

**ESTIMATED EXTENT OF  
GROUNDWATER CONTAMINATION**

FIGURE 5





**Table 1 Water Level Data, Coonen Oil Company, Seymour, Wisconsin**

Well I.D.	Ground Surface Elevation (feet)	Reference Point Elevation (feet)	Date	Depth to Water (feet)		Water Table Elevation (feet)
				Below Riser	Below Grade	
MW100	97.36	96.77	04/13/00	9.31	9.90	87.46
			05/01/00	7.51	8.10	89.26
			05/19/00	6.19	6.78	90.58
			06/08/00	4.58	5.17	92.19
			05/02/03	4.49	5.08	92.28
			08/11/03	4.26	4.85	92.51
			03/15/04	3.26	3.85	93.51
			08/20/04	7.00	7.59	89.77
MW200	96.68	96.12	04/13/00	8.04	8.60	88.08
			05/01/00	7.44	8.00	88.68
			05/19/00	6.23	6.79	89.89
			06/08/00	4.80	5.36	91.32
			05/02/03	5.00	5.56	91.12
			08/11/03	5.32	5.88	90.80
			03/15/04	4.06	4.62	92.06
			08/20/04	9.06	9.62	87.06
MW300	97.81	97.27	04/13/00	8.35	8.89	88.92
			05/01/00	6.93	7.47	90.34
			05/19/00	5.13	5.67	92.14
			06/08/00	4.15	4.69	93.12
			05/02/03	4.98	5.52	92.29
			08/11/03	4.45	4.99	92.82
			03/15/04	3.40	3.94	93.87
			08/20/04	8.48	9.02	88.79
MW400	98.67	98.27	04/13/00	9.96	10.36	88.31
			05/01/00	7.94	8.34	90.33
			05/19/00	5.53	5.93	92.74
			06/08/00	5.02	5.42	93.25
			05/02/03	6.01	6.41	92.26
			08/11/03	9.95	10.35	88.32
			03/15/04	8.39	8.79	89.88
			08/20/04	8.70	9.10	89.57

Key:

-- = Not analyzed

**Table 2 Soil Field Screening Results, Coonen Oil Company, Seymour, Wisconsin**

Boring Number	Sample Label	Depth (feet)	Petroleum Odor	Sample Description	Date Collected	PID Headspace Analysis		
						Time Collected	Time Analyzed	PID Response (iui)
B100	S101	2.5-4.5	Slight	Silt and Sand	11/30/99	1403	1443	60
	S102*	5-7	Strong	Sand	11/30/99	1405	1443	316
B200	S201	2.5-4.5	None	Silt	3/28/00	829	936	30
	S202*	5-7	None	Silt	3/28/00	831	936	0
B300	S301	2.5-4.5	No recovery					
	S302*	5-7	Slight	Silt	3/28/00	949	1045	2
B400	S401	2.5-4.5	None	Silt	3/28/00	1057	1200	0
	S402*	5-7	None	Silt	3/28/00	1101	1200	0

*Note:*

PID = Photoionization Detector

iui = instrument units as isobutylene

\* = Submitted for laboratory analysis

Table 3 Soil Analytical Results, Coonen Oil Station, Seymour, Wisconsin

Boring Number	Sample Number	Sample Depth (feet)	Date Sampled	DRO (mg/kg)	GRO (mg/kg)	Lead (mg/kg)	Relevant and Significant Analytical Results (µg/kg)															
							Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes	Acenaphthene	Anthracene	Benzo(A)Anthracene	
NR 720.09 Residual Contaminant Level				100	100	50	5.5	NE	NE	2900	NE	NE	NE	NE	1500	NE	NE	4100	38000*	3000000*	17000*	48
NR 746.06 Table 1 Value				NE	NE	NE	8500	NE	NE	4600	NE	NE	2700	NE	38000	83000	11000	42000	NE	NE	NE	NE
NR 746.06 Table 2 Value				NE	NE	NE	1100	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NA	W-1**	8	12/15/98	3.6	< 0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NA	W-4**	8	12/15/98	2.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NA	E-3**	8	12/15/98	—	223	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NA	D-1**	4	12/15/98	—	< 0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B100	S102	5-7	11/30/99	1600	590	< 6	350	5400	630	1500	400	490	11000	740	2800	76000	26000	36000	180 "J"	210 "J"	660	34
B200	S202	5-7	03/28/00	< 10	< 10	—	< 25	< 25	—	< 25	—	—	—	< 25	< 25	< 25	< 75	< 21	< 36	< 23	—	—
B300	S302	5-7	03/28/00	< 10	< 10	—	< 25	< 25	—	< 25	—	—	—	< 25	32	< 25	< 75	< 21	< 36	< 23	—	—
B400	S402	5-7	03/28/00	< 10	< 10	—	< 25	< 25	—	< 25	—	—	—	< 25	< 25	< 25	< 75	< 21	< 36	< 23	—	—

- Key:
- GRO = Gasoline Range Organics
  - DRO = Diesel Range Organics
  - NA = Not Applicable
  - mg/kg = milligrams per kilogram
  - µg/kg = micrograms per kilogram
  - = Not Analyzed
  - J = Analyte detected between the Limit of Detection and the Limit of Quantitation
  - NE = Not Established by Wisconsin Administrative Code
  - \* = WDNR Suggested Residual Contaminant Level
  - 100 = Exceeds NR 720.09 Residual Contaminant Level
  - \*\* = Robert E. Lee UST Closure Assessment Soil Sample

Table 4 Groundwater Analytical Results, Coonen Oil Company, Seymour, Wisconsin

Well ID	Date Sampled	Lead	Relevant and Significant Analytical Results (µg/l) (VOCs)											Relevant and Significant Analytical Results (µg/l) (P)						
			Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	MTBE	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	Acenaphthene	Acenaphthylene	Anthracene	Benzo(k)fluoranthene	Fluoranthene	Fluorene	
WAC PAL (µg/l)			1.5	0.5	NE	NE	140	NE	12	8	NE	200	96	1000	NE	NE	600	NE	80	80
WAC ES (µg/l)			15	5	NE	NE	700	NE	60	40	NE	1000	480	10000	NE	NE	3000	NE	400	400
MW100	12/29/99	3.8	1700	310	< 68	1600	89 *J	< 62	400 *J	400	2800	3000	9200	—	—	—	—	—	—	—
	05/01/00	—	—	—	—	—	—	—	—	—	—	—	—	14	40	0.74	0.049	2.4	4.5	—
	06/08/00	—	360	—	—	170	—	25	120 *J	—	180	1100	950	—	—	—	—	—	—	—
	05/02/03	—	45	—	—	89	—	10	22	—	12	462	186	—	—	—	—	—	—	—
	08/11/03	—	10	—	—	45	—	2 *J	31	—	6.4	375	187	—	—	—	—	—	—	—
	03/15/04	—	29	—	—	85	—	7.3	49	—	15	426	380	—	—	—	—	—	—	—
08/20/04	—	2.6	—	—	9.6	—	4.0	11	—	1.2	98.7	37	—	—	—	—	—	—	—	
MW200	05/01/00	< 1	100	290	35	570	60	31	190	210	210	1490	2560	< 0.17	23	0.038	< 0.01	< 0.36	< 0.1	
	06/08/00	—	94 *J	—	—	550	—	< 30	170 *J	—	120 *J	1250	2310	—	—	—	—	—	—	
	05/02/03	—	220	—	—	690	—	20	170	—	55	1110	1693	—	—	—	—	—	—	
	08/11/03	—	110	—	—	190	—	6.2	41	—	8	224	354	—	—	—	—	—	—	
	03/15/04	—	130	—	—	210	—	16	40	—	15	258	398	—	—	—	—	—	—	
	08/20/04	—	8.8	—	—	72	—	5.4	20	—	< 2.2	139	76	—	—	—	—	—	—	
MW300	05/01/00	< 1	650	290	44	1100	94	12 *J	310	300	610	2130	4700	< 0.17	50	.032 *J	< 0.01	< 0.36	< 0.1	
	06/08/00	—	330	—	—	1200	—	< 30	360	—	430	2890	5100	—	—	—	—	—	—	
	05/02/03	—	250	—	—	470	—	22	210	—	27	1850	1340	—	—	—	—	—	—	
	08/11/03	—	350	—	—	440	—	51	160	—	52	1650	1350	—	—	—	—	—	—	
	03/15/04	—	330	—	—	500	—	67	170	—	55	1520	1370	—	—	—	—	—	—	
	08/20/04	—	420	—	—	300	—	< 22	120	—	18	1050	770	—	—	—	—	—	—	
MW400	05/01/00	< 1	56	200	21	430	38	< 4.7	95	140	290	760	1490	< 0.17	18	< 0.01	< 0.01	< 0.36	< 0.1	
	06/08/00	—	< 50	—	—	740	—	< 30	170 *J	—	540	1240	2780	—	—	—	—	—	—	
	05/02/03	—	< 0.30	—	—	1.2 *J	—	1.4 *J	< 0.58	—	< 0.58	16.76 *J	< 1.84	—	—	—	—	—	—	
	08/11/03	—	< 0.30	—	—	2.1	—	2.8	2.3	—	< 0.58	46.54 *J	< 1.84	—	—	—	—	—	—	
	03/15/04	—	< 0.14	—	—	3.7	—	5.5	2.7	—	< 0.36	22.4	2.2 *J	—	—	—	—	—	—	
	08/20/04	—	< 0.34	—	—	1.4	—	5.9	0.86	—	0.26	28	0.49	—	—	—	—	—	—	

Key:  
 MTBE = Methyl-Tertiary-Butyl-Ether  
 µg/l = micrograms per liter  
 WAC = Wisconsin Administrative Code  
 PAL = Preventive Action Limit  
 ES = Enforcement Standard  
 NE = Not established by WAC  
 \*J = Analyte detected between Limit of Detection and Limit of Quantitation  
 — = Not analyzed  

32	= WAC Preventive Action Limit Exceeded
32	= WAC Enforcement Standard Exceeded

**Table 5 Inorganic Groundwater Quality Data, Coonen Oil Company, Seymour, Wisconsin**

Well Number	Sample Date	Temperature (°F)	pH (su)	Conductivity (µmho/cm)	O.R.P. (mV)	D.O. (mg/l)	Nitrate (mg/l)	Iron (mg/l)	Manganese (mg/l)	Sulfate (mg/l)
MW100	05/02/03	49.1	6.83	380	-60	0.85	---	---	---	---
	08/11/03	63.0	7.08	240	-70	0.40	---	---	---	---
	03/15/04	46.4	7.25	380	-80	2.51	---	---	---	---
	08/20/04	62.6	7.15	210	<-80	3.48	< 0.024	5.5	0.35	130
MW200	05/02/03	47.1	6.92	200	<-80	0.80	---	---	---	---
	08/11/03	61.0	6.99	200	-40	0.83	---	---	---	---
	03/15/04	43.9	7.38	240	-75	2.57	---	---	---	---
	08/20/04	60.3	7.21	150	<-80	3.12	< 0.024	0.42	0.38	84
MW300	05/02/03	47.8	7.10	200	-60	0.73	---	---	---	---
	08/11/03	63.0	7.15	170	<-80	1.14	---	---	---	---
	03/15/04	44.2	7.76	250	<-80	1.50	---	---	---	---
	08/20/04	62.2	7.20	190	<-80	3.83	< 0.024	8.8	0.49	13
MW400	05/02/03	48.2	7.38	170	110	0.82	---	---	---	---
	08/11/03	57.7	7.30	200	-65	3.55	---	---	---	---
	03/15/04	46.00	7.73	250	-40	4.91	---	---	---	---
	08/20/04	60.10	7.48	150	<-80	3.17	2.90	0.077	< 0.0018	89

Key:  
D.O. = dissolved oxygen  
O.R.P. = oxygen-reduction potential  
mg/l = milligrams per liter  
mV = millivolts  
su = standard units  
µMho/cm = microMhos per centimeter



**APPENDIX A**  
**PROJECT CONTACTS**

**PROJECT CONTACTS**

Site Owner:

Coonen Oil Company  
Mr. Mark Coonen  
Post Office Box 266  
Seymour, Wisconsin 54165  
920-833-2391

Project Consultant:

Northern Environmental Technologies, Incorporated  
954 Circle Drive  
Green Bay, Wisconsin 54304  
(920) 592-8400

Drilling Contractor:

Environmental Drilling Services  
3671 Monroe Road  
De Pere, Wisconsin 54115  
(920) 337-9600

WDNR-Certified Laboratories:

En Chem, Inc.  
1241 Bellevue Street  
Suite 9  
Green Bay, Wisconsin 54302  
(920) 469-8827  
WDNR Certification #405132750

CT Laboratories (formerly Commonwealth Technologies, Inc.)  
1230 Lange Court  
Baraboo, Wisconsin 53913  
(608) 356-2760  
WDNR Certification #15-7066030

Test America  
602 Commerce Drive  
Watertown, WI 53094  
(920) 261-8120  
WDNR Certification #128053530



**APPENDIX B**  
**WDNR FORMS**

**APPENDIX B1**  
**SOIL BORING LOGS**  
**(FORM 4400-122)**


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

Facility/Project Name <b>Coonen Oil Company</b>		License/Permit/Monitoring Number <b>0</b>		Boring Number <b>B100</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Plant Craig Environmental Drilling Service</b>		Date Drilling Started <b>11/30/1999</b>		Date Drilling Completed <b>11/30/1999</b>	
Drilling Method <b>air rotary</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>MW100</b>		Final Static Water Level <b>Feet Site</b>		Surface Elevation <b>Feet Site</b>	
Borehole Diameter <b>8.0 inches</b>		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane <b>N, E S/C/N</b>		Lat <b>44° 30' 3.0"</b>		<input type="checkbox"/> N <input type="checkbox"/> E	
<b>SW 1/4 of SW 1/4 of Section 33, T 24 N, R 18 E</b>		Long <b>88° 19' 45.0"</b>		<input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County <b>Outagamie</b>	County Code <b>45</b>	Civil Town/City/ or Village <b>Seymour</b>
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Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	CONCRETE											
			2	Blind drilled to 2.5 feet. Lithology assumed to be SILT and SAND.	SM										
S101 SS	24 24	3 2 3 2	3	SILT and SAND, fine grained, trace gravel, reddish brwon (5YR 4/4), slight petroleum odor. (SM, Middle Inlet Member of the Kewaunee Formation)	SM			60							
S102 SS	24 12	3 3 3 3	5	SAND, poorly graded, fien to medium grained, trace coarse grained, strong petroleum odor. (SP, Middle Inlet Member of the Kewaunee Formation)	SP			316							
S103 SS	6 6	8 25/2	8	Ordivician-aged dolomite of the Prairie du Chein Group.											

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

Signature 	Firm <b>Northern Environmental</b> 954 Circle Drive Green Bay, WI 54304	Tel: (920) 592-8400 Fax: (920) 592-8444
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This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

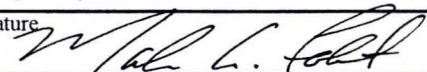


Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Coonen Oil Company</b>			License/Permit/Monitoring Number <b>0</b>		Boring Number <b>B200</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Plant Craig Environmental Drilling Service</b>			Date Drilling Started <b>3/28/2000</b>		Date Drilling Completed <b>3/28/2000</b>	Drilling Method <b>air rotary</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name <b>MW200</b>	Final Static Water Level <b>Feet Site</b>		Surface Elevation <b>Feet Site</b>	Borehole Diameter <b>8.0 inches</b>
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/> State Plane <b>SW 1/4 of SW 1/4 of Section 33, T 24 N, R 18 E</b>			Lat <b>44° 30' 3.0"</b> Long <b>88° 19' 45.0"</b>		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Outagamie</b>	County Code <b>45</b>	Civil Town/City/ or Village <b>Seymour</b>		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200			
			1	CONCRETE												
			2	Blind drilled to 2.5 feet. Lithology assumed to be SILT.	ML											
S201 SS	24 24	2 2 2 3	3	SILT, some sand, trace clay and rounded pebbles, reddish brown (5YR 4/4) no odor. (ML, Middle Inlet Member of the Kewaunee Formation)				0								
S202 SS	20 24	2 3 3 4	5		ML			0								
			6													
			7													
			8	Ordovician-aged dolomite of the Prairie du Chein Group.												
			9													
			10													
			11													
			12													

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

Signature 	Firm <b>Northern Environmental</b> 954 Circle Drive Green Bay, WI 54304	Tel: (920) 592-8400 Fax: (920) 592-8444
--------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------	--------------------------------------------

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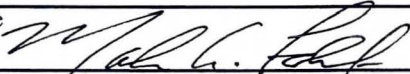


Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Coonen Oil Company</b>			License/Permit/Monitoring Number <b>0</b>		Boring Number <b>B300</b>		
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Plant Craig Environmental Drilling Service</b>			Date Drilling Started <b>3/28/2000</b>		Date Drilling Completed <b>3/28/2000</b>		
WI Unique Well No.		DNR Well ID No.	Common Well Name <b>MW300</b>		Final Static Water Level <b>Feet Site</b>		
					Surface Elevation <b>Feet Site</b>		
					Borehole Diameter <b>8.0 inches</b>		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location				
State Plane <b>N, E S/C/N</b>			Lat <b>44° 30' 3.0"</b>				
<b>SW 1/4 of SW 1/4 of Section 33, T 24 N, R 18 E</b>			Long <b>88° 19' 45.0"</b>				
Facility ID		County <b>Outagamie</b>		County Code <b>45</b>		Civil Town/City/ or Village <b>Seymour</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			1	CONCRETE											
			2	Blind drilled to 2.5 feet. Lithology assumed to be SILT.	ML										
S301 SS	24 0	2 3 3 4	3	SILT, some sand, trace clay and rounded pebbles, reddish brown (5YR 4/4) no odor from (2.5 to 5) feet, slight petroleum odor from (5 to 7) feet. (ML, Middle Inlet Member of the Kewaunee Formation)	ML										
S302 SS	24 0	3 3 4 4	5		ML			2							
			8	Ordovician-aged dolomite of the Prairie du Chien Group.											
			9												
			10												
			11												
			12												

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

Signature 	Firm <b>Northern Environmental</b> 954 Circle Drive Green Bay, WI 54304	Tel: (920) 592-8400 Fax: (920) 592-8444
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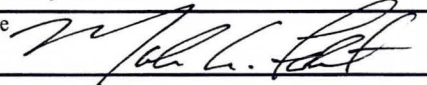


Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Coonen Oil Company</b>			License/Permit/Monitoring Number <b>0</b>		Boring Number <b>B400</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Plant Craig Environmental Drilling Service</b>			Date Drilling Started <b>3/28/2000</b>		Date Drilling Completed <b>3/28/2000</b>	
WI Unique Well No.		DNR Well ID No.	Common Well Name <b>MW400</b>		Final Static Water Level <b>Feet Site</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>		State Plane <b>N, E S/C/N</b>		Local Grid Location Lat <b>44° 30' 3.0"</b>		<input type="checkbox"/> N <input type="checkbox"/> E
<b>SW 1/4 of SW 1/4 of Section 33, T 24 N, R 18 E</b>		Long <b>88° 19' 45.0"</b>		Feet <input type="checkbox"/> S <input type="checkbox"/> W		Borehole Diameter <b>8.0 inches</b>
Facility ID		County <b>Outagamie</b>		County Code <b>45</b>		Civil Town/City/ or Village <b>Seymour</b>

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties						RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200			
			1	CONCRETE												
			2	Blind drilled to 2.5 feet. Lithology assumed to be SILT.	ML											
S401 SS	24 24	2 3 3 3	3	SILT, some sand, trace clay and rounded pebbles, reddish brown (5YR 4/4) no odor. (ML, Middle Inlet Member of the Kewaunee Formation)				0								
S402 SS	24 18	5 6 25/2	5 6		ML			0								
			8	Ordovician-aged dolomite of the Prairie du Chein Group.												

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

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

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



**APPENDIX B2**

**MONITORING WELL CONSTRUCTION FORMS (FORM 4400-113A) and  
MONITORING WELL DEVELOPMENT FORMS (FORM 4400-113B)**

Facility/Project Name <b>COONEN OIL STATION</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>MW-100</b>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ Long. _____ or _____	Wis. Unique Well No. <b>P4054</b> DNR Well ID No. _____
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <b>11/30/1999</b> m m d d y y y y
Type of Well Well Code <b>1</b>	Section Location of Waste/Source <b>1/4 of 1/4 of Sec. T. N, R. <input type="checkbox"/> E <input type="checkbox"/> W</b>	Well Installed By: Name (first, last) and Firm <b>Craig Plant</b>
Distance from Waste/Source _____ ft.	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>E.D.S.</b>

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <b>9.0 in.</b>
C. Land surface elevation _____ ft. MSL	b. Length: <b>2.0 ft.</b>
D. Surface seal, bottom _____ ft. MSL or <b>1.0 ft.</b>	c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
12. 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 checked="" type="checkbox"/>	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" 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
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
Describe _____	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 chips <input type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
17. Source of water (attach analysis, if required): _____	7. Fine sand material: Manufacturer, product name & mesh size a. <b>N/A</b>
E. Bentonite seal, top _____ ft. MSL or <b>1.0 ft.</b>	b. Volume added _____ ft <sup>3</sup>
F. Fine sand, top _____ ft. MSL or <b>9.0 ft.</b>	8. Filter pack material: Manufacturer, product name & mesh size a. <b>20/40 Badger</b>
G. Filter pack, top _____ ft. MSL or <b>9.0 ft.</b>	b. Volume added _____ ft <sup>3</sup>
H. Screen joint, top _____ ft. MSL or <b>10.0 ft.</b>	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"/>
I. Well bottom _____ ft. MSL or <b>20.0 ft.</b>	10. Screen material: <b>PVC</b>
J. Filter pack, bottom _____ ft. MSL or <b>21.0 ft.</b>	a. Screen type: Factory cut <input type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
K. Borehole, bottom _____ ft. MSL or <b>21.0 ft.</b>	b. Manufacturer <b>Tim Co</b>
L. Borehole, diameter <b>6.0 in.</b>	c. Slot size: <b>0.010 in.</b>
M. O.D. well casing <b>2.37 in.</b>	d. Slotted length: <b>10.0 ft.</b>
N. I.D. well casing <b>2.04 in.</b>	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>

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

Signature [Signature] Firm **NORTHERN ENV.**

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

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Coonen Oil Station</u>	County Name <u>Outagamie</u>	Well Name <u>MW100</u>
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number
		DNR Well ID Number

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other

3. Time spent developing well 53 min.

4. Depth of well (from top of well casing) 19.3 ft.

5. Inside diameter of well 2.04 in.

6. Volume of water in filter pack and well casing 1.7 gal.

7. Volume of water removed from well 6.5 gal.

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

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>17.43</u> ft.	<u>15.32</u> ft.
Date	b. <u>12/17/1999</u> m m d d y y y y	<u>12/29/1999</u> m m d d y y y y
Time	c. <u>07:28</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>07:20</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.0</u> inches	<u>0.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLOUDY</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)

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

14. Total suspended solids \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

15. COD \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: SEAN Last Name: FENRECH

Firm: NORTHERN ENV.

Name and Address of Facility Contact/Owner/Responsible Party

First Name: MARK Last Name: COONEN

Facility/Firm: COONEN, INC

Street: 1043 IVORY ST

City/State/Zip: SEYMOUR, WI

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

Signature: [Signature]

Print Name: MARK FOHT

Firm: NORTHERN ENV.

Facility/Project Name <u>Cooper O.I. Station</u>	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 <u>MW-200</u>
Facility License, Permit or Monitoring Number _____	Grid Origin Location Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.	Wis. Unique Well Number <u>P10627</u> DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source _____ 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ <input type="checkbox"/> E. <input type="checkbox"/> W.	Date Well Installed <u>03/28/00</u> m m d d y y
Distance Well Is From Waste/Source Boundary _____ ft.	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	Well Installed By: (Person's Name and Firm) <u>Craig Plant</u> <u>EDS</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>9.0</u> in. b. Length: <u>10</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or <u>1.0</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. 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 checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input checked="" 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
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input 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. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. <u>N/A</u> b. Volume added _____ ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. <u>20/40 Badger</u> b. Volume added _____ 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"/>
17. Source of water (attach analysis): _____	10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or <u>1.0</u> ft.	b. Manufacturer <u>Tim CO</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>10.0</u> ft.
F. Fine sand, top _____ ft. MSL or <u>9.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
G. Filter pack, top _____ ft. MSL or <u>9.0</u> ft.	
H. Screen joint, top _____ ft. MSL or <u>10.0</u> ft.	
I. Well bottom _____ ft. MSL or <u>20.0</u> ft.	
J. Filter pack, bottom _____ ft. MSL or <u>21.0</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>21.0</u> ft.	
L. Borehole, diameter <u>6.0</u> in.	
M. O.D. well casing <u>2.37</u> in.	
N. I.D. well casing <u>2.04</u> in.	

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

Signature Craig Plant Firm EDS

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

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Coonen Oil Station</u>	County Name <u>Outagamie</u>	Well Name <u>MW200</u>
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number
		DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other
3. Time spent developing well 45 min.
4. Depth of well (from top of well casing) 18.08 ft.
5. Inside diameter of well 2.04 in.
6. Volume of water in filter pack and well casing 9.5 gal.
7. Volume of water removed from well 8.5 gal.
8. Volume of water added (if any) 0.0 gal.
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?  Yes  No  
(If yes, attach results) N/A

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>8.04</u> ft.	<u>7.44</u> ft.
Date	b. <u>04/13/2000</u> m m d d y y y y	<u>05/01/2000</u> m m d d y y y y
Time	c. <u>01:14</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>10:14</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.0</u> inches	<u>0.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLOUDY</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>SEAN</u>	Last Name: <u>FENRICH</u>
Firm:	<u>NORTHERN ENV.</u>	

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party

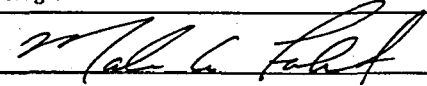
First Name: MARK Last Name: COONEN

Facility/Firm: COONEN, INC

Street: 1043 IVORY ST

City/State/Zip: SEYMOUR, WI

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

Signature: 

Print Name: MARK FONT

Firm: NORTHERN ENV.

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

Facility/Project Name <i>Cooper O.I. Station</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <i>MW-300</i>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or _____	Wis. Unique Well Number <i>P10628</i> DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N. _____ ft. E.	Date Well Installed <i>03/28/00</i> m m d d y y
Distance Well Is From Waste/Source Boundary ft.	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <i>Craig Platt</i>
Is 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	<i>E.D.S.</i>

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <i>9.0</i> in.
C. Land surface elevation _____ ft. MSL	b. Length: <i>20</i> ft.
D. Surface seal, bottom _____ ft. MSL or <i>1.0</i> ft.	c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>

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

13. Sieve analysis attached?  Yes  No

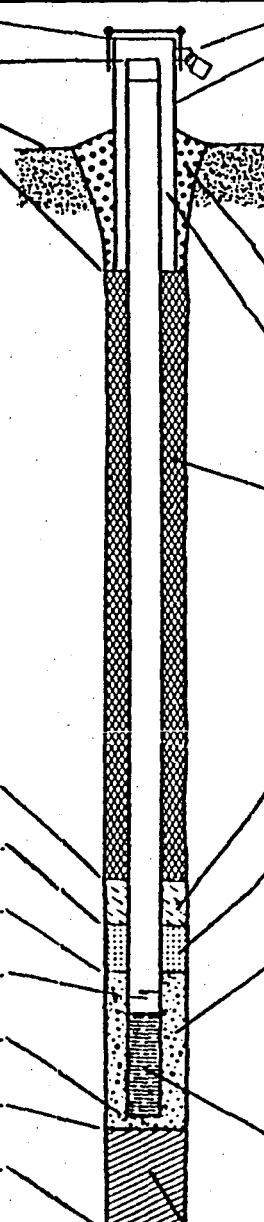
14. Drilling method used: Rotary  50  
Hollow Stem Auger  41  
Other

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

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_



d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
Concrete  01  
Other

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

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

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

7. Fine sand material: Manufacturer, product name & mesh size  
a. *N/A*  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name and mesh size  
a. *20/40 Badger*  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: *PVC*  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer *Tim CO*  
c. Slot size: *0.010* in.  
d. Slotted length: *10* ft.

11. Backfill material (below filter pack): None  14  
Other

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or *1.0* ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or *9.0* ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or *9.0* ft.

H. Screen joint, top \_\_\_\_\_ ft. MSL or *10.0* ft.

I. Well bottom \_\_\_\_\_ ft. MSL or *20.0* ft.

J. Filter pack, bottom \_\_\_\_\_ ft. MSL or *21.0* ft.

K. Borehole, bottom \_\_\_\_\_ ft. MSL or *21.0* ft.

L. Borehole, diameter *6.0* in.

M. O.D. well casing *2.37* in.

N. I.D. well casing *2.04* in.

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

Signature *Craig Platt* Firm *E.D.S.*

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



Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Coonen Oil Station</u>	County Name <u>Outagamie</u>	Well Name <u>MW300</u>
Facility License, Permit or Monitoring Number	County Code	DNR Well ID Number

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other

3. Time spent developing well 62 min.

4. Depth of well (from top of well casing) 19.3 ft.

5. Inside diameter of well 2.04 in.

6. Volume of water in filter pack and well casing 99 gal.

7. Volume of water removed from well 240 gal.

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

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>8.35</u> ft.	<u>6.93</u> ft.
Date	b. <u>04/13/2000</u> m m d d y y y y	<u>05/01/2000</u> m m d d y y y y
Time	c. <u>01:36</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>10:11</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.0</u> inches	<u>0.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Muddy</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>Clear</u>

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

14. Total suspended solids \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

15. COD \_\_\_\_\_ mg/l \_\_\_\_\_ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: SEAN Last Name: FENRICH

Firm: NORTHERN ENV.

Name and Address of Facility Contact/Owner/Responsible Party

First Name: MARK Last Name: COONEN

Facility/Firm: COONEN, INC

Street: 1043 IVORY ST

City/State/Zip: SEYMOUR, WI

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

Signature: \_\_\_\_\_

Print Name: MARK FOHT

Firm: NORTHERN ENV.

Facility/Project Name <i>Cooper Oil Station</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <i>MW-400</i>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.	Wis. Unique Well Number <i>PI0628</i> DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ <input type="checkbox"/> E. <input type="checkbox"/> W.	Date Well Installed <i>03/28/00</i> m m d d y y
Distance Well Is From Waste/Source Boundary ft.	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	Well Installed By: (Person's Name and Firm) <i>Craig Plant</i>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No		<i>E.D.S.</i>

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <i>9.0</i> in. b. Length: <i>2.0</i> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or <i>1.0</i> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. 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 checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input checked="" 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
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input 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. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. <i>N/A</i> b. Volume added _____ ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. <i>20/40 Badger</i> b. Volume added _____ 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"/>
17. Source of water (attach analysis):	10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or <i>1.0</i> ft.	b. Manufacturer <i>Tim CO</i>
F. Fine sand, top _____ ft. MSL or <i>9.0</i> ft.	c. Slot size: <i>0.010</i> in.
G. Filter pack, top _____ ft. MSL or <i>9.0</i> ft.	d. Slotted length: <i>10.0</i> ft.
H. Screen joint, top _____ ft. MSL or <i>10.0</i> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
I. Well bottom _____ ft. MSL or <i>20.0</i> ft.	
J. Filter pack, bottom _____ ft. MSL or <i>21.0</i> ft.	
K. Borehole, bottom _____ ft. MSL or <i>21.0</i> ft.	
L. Borehole, diameter <i>6.0</i> in.	
M. O.D. well casing <i>2.37</i> in.	
N. I.D. well casing <i>2.04</i> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature *Craig Plant* Firm *E.D.S.*

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Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <u>Coonen Oil Station</u>	County Name <u>Outagamie</u>	Well Name <u>MW400</u>
Facility License, Permit or Monitoring Number	County Code	DNR Well ID Number

1. Can this well be purged dry?  Yes  No
2. Well development method
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - Other
3. Time spent developing well 110 min.
4. Depth of well (from top of well casing) 19.2 ft.
5. Inside diameter of well 2.04 in.
6. Volume of water in filter pack and well casing 8.4 gal.
7. Volume of water removed from well 6.0 gal.
8. Volume of water added (if any) 0.0 gal.
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?  Yes  No  
(If yes, attach results) N/A

- |                                              | Before Development                                                                                     | After Development                                                                                      |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 11. Depth to Water (from top of well casing) | a. <u>9.96</u> ft.                                                                                     | <u>7.94</u> ft.                                                                                        |
| Date                                         | b. <u>04/13/2000</u>                                                                                   | <u>05/01/2000</u>                                                                                      |
| Time                                         | c. <u>1:12</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.                             | <u>10:10</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.                    |
| 12. Sediment in well bottom                  | <u>0.0</u> inches                                                                                      | <u>0.0</u> inches                                                                                      |
| 13. Water clarity                            | Clear <input checked="" type="checkbox"/> 10<br>Turbid <input type="checkbox"/> 15<br>(Describe) _____ | Clear <input checked="" type="checkbox"/> 20<br>Turbid <input type="checkbox"/> 25<br>(Describe) _____ |
- Fill in if drilling fluids were used and well is at solid waste facility:
14. Total suspended solids \_\_\_\_\_ mg/l
15. COD \_\_\_\_\_ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: SEAN Last Name: FENRICH

Firm: NORTHERN ENV.

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party

First Name: MARK Last Name: COONEN

Facility/Firm: COONEN, INC

Street: 1043 IVORY ST

City/State/Zip: SEYMOUR, WI

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

Signature: [Signature]

Print Name: MARK FOHT

Firm: NORTHERN ENV.

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

**APPENDIX B3**  
**GROUNDWATER MONITORING WELL INFORMATION FORM**  
**(FORM 4400-89)**



**APPENDIX C**

**SOIL CUTTING AND DEVELOPMENT AND PURGE WATER DISPOSAL  
DOCUMENTATION**

**ADVANCED TANK SERVICE, INC.**

**P. O. BOX 1072**

**EAU CLAIRE, WI 54702**

# Invoice

DATE	INVOICE NO.
9/11/'00	20244

<b>BILL TO</b>
Coonen Oil c/o Northern Environmental 954 Circle Drive Green Bay, WI 54304

<b>TERMS</b>	<b>REP</b>	<b>PROJECT</b>
Net 10 days	I RL	Coonen Oil

ITEM	DESCRIPTION	QUANTITY	AMOUNT
Water Dis...	Water Disposal - 2 BBL's @ \$60.00/bbl	2	120.00
			0.00

A Service Charge of 1 1/2% per Month will be added to past due accounts.

**Total** \$120.00

**ADVANCED TANK SERVICE, INC.**

**P. O. BOX 1072**

**EAU CLAIRE, WI 54702**

**Invoice**

DATE	INVOICE NO.
9/11/'00	20245

**BILL TO**  
 Coonen Oil  
 c/o Northern Environmental  
 954 Circle Drive  
 Green Bay, WI 54304

<b>TERMS</b>	<b>REP</b>	<b>PROJECT</b>
Net 10 days	SRL	Coonen Oil

ITEM	DESCRIPTION	QUANTITY	AMOUNT
Project Soil Disp...	Ivory Street Soil Disposal - 6 BBL's @ \$102.00/bbl	6	612.00
			0.00

A Service Charge of 1 1/2% per Month will be added to past due accounts.

**Total** \$612.00



**APPENDIX D**

**MUNICIPAL WELL CONSTRUCTION INFORMATION**

**Well Construction Report For  
WISCONSIN UNIQUE WELL NUMBER AT094**

Property Owner **CITY OF SEYMOUR** Telephone Number **414 - 833 - 2397**

Mailing Address **800 W PEARL**

City **SEYMOUR** State **WI** Zip Code **54165**

County of Well Location **OUTAGAMIE** Co. Well Permit No. \_\_\_\_\_ Well Completion Date **December 30, 1989**

Cnty **45** Well Constructor (Business Name) **C T W CORP** License # **0364** 2. Dates **01/16/90** Rec'd

Dist **4** Address **PO BOX 994**

City **WAUKESHA** State **WI** Zip Code **53187** 12/16/98 Create

**M** M=Munic. O=OTM N=NonCom P=Priv Z=Other X=Non-Pot. A=Anode L=Loop H=Drillhole 12/20/91 Last FM

1. Well Location **C** T=Town C=City V=Village Fire # (If avail.) of **SEYMOUR**

Grid or Street Address or Road Name and Number \_\_\_\_\_

Subdivision Name \_\_\_\_\_ Lot # \_\_\_\_\_ Block # \_\_\_\_\_

Gov't Lot # \_\_\_\_\_ or **NW** 1/4 of **NW** 1/4 of Section **33**, T **24** N; R **18** E (E/W)

3. Well Type **3** 1=New 2=Replacement 3=Reconstruction of previous unique well # \_\_\_\_\_ constructed in 19 **47** Reason for new, replaced or reconstructed well?

**QUALITY IMPROVEMENT**

**1** 1=Drilled 2=Driven Point 3=Jetted 4=Other

4. Well serves \_\_\_\_\_ # of homes and or \_\_\_\_\_ High Capacity: Well? **Y** Property? \_\_\_\_\_

5. Well located on highest point of property, consistent with the general layout and surroundings? Well located in floodplain? \_\_\_\_\_

- Distance in Feet From Well To Nearest:
- Landfill
  - Building Overhang
  - Septic or Holding Tank (circle one)
  - Sewage Absorption Unit
  - Nonconforming Pit
  - Buried Home Heating Oil Tank
  - Buried Petroleum Tank
  - Shoreline/Swimming Pool
  - Downspout/Yard Hydrant
  - Privy
  - Foundation Drain to Clearwater
  - Foundation Drain to Sewer
  - Building Drain  
1 = Cast Iron or Plastic 2 = Other
  - Building Sewer  
1 = Cast Iron or Plastic 2 = Other
  - Collector or Street Sewer
  - Clearwater Sump

- Wastewater Sump
- Paved Animal Barn Pen
- Animal Yard or Shelter
- Silo - Type
- Barn Gutter
- Manure Pipe 1=Gravity 2=Pressure  
1 = Cast Iron or Plastic 2 = Other
- Other Manure Storage  
Other NR 112 Waste Source
- 

6. Drillhole Dimensions			Method of constructing upper enlarged drillhole only.	DNR USE ONLY	9. Geology Type, Caving/Noncaving, Color, Hardness, Etc.	Flag	From (ft.)	To (ft.)
Dia. (in.)	From (ft.)	To (ft.)						
15.0	surface	270	1. Rotary - Mud Circulation 2. Rotary - Air 3. Rotary - Foam 4. Reverse Rotary X 5. Cable-tool Bit _____ in. dia. 6. Temp. Outer Casing <b>16</b> in. dia. Removed? <b>N</b> <b>GROUTED</b> 7. Other _____				Surface	0
12.0	270	390						0
								0
								0
								0
								0
								0

7. Dia. (in.)	Casing, Liner, Screen Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
16.0	STEEL CASING-EXISTING	surface	148
10.0	GW-EXISTING STEEL CASING	1	270
			0
			0
			0
			0
			0
			0
			0
			0

10. Static Water Level	12. Well Is:
123.0 ft. B ground surface	12 in. A Grade
	A=Above B=Below
11. Pump Test	Developed? <b>Y</b>
Pumping Level 189.0 ft. below ground surface	Disinfected? <b>Y</b>
Pumping at 520.0 GPM	Capped? <b>Y</b>
<b>24.00</b> hrs	Depth (feet) <b>J270.00</b>

8. Method	Grout or Other Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
	CEMENT-EXISTING	surface	270.0	

13. Did you permanently seal all unused, noncomplying, or unsafe wells? If no, explain \_\_\_\_\_

14. Signature of Point Driver or Licensed Supervisory Driller **WAC** Date Signed \_\_\_\_\_  
Signature of Drill Rig Operator (Mandatory unless same as above) \_\_\_\_\_ Date Signed \_\_\_\_\_

Additional Comments? **Y** More Geo? Owner Sent Label? \_\_\_\_\_ **0.0**  
\_\_\_\_\_ **0.0**

## Well Construction Reports



<b>WI Unique Well No:</b>	BG586	<b>High Capacity Well No:</b>	83486
<b>County Well Location:</b>		<b>DNR Region:</b>	Northeast
<b>County:</b>	Outagamie	<b>Muni Type:</b>	C
<b>Municipality:</b>	SEYMOUR	<b>Completion Date:</b>	01/01/1934 mm/dd/yyyy
<b>DNR Received Date:</b>		<b>Constructor:</b>	FASBENDER BROS
<b>Constructor Address:</b>		<b>Constructor City:</b>	
<b>Constructor State:</b>		<b>Constructor Zip:</b>	
<b>Status:</b>	New Well	<b>Original Year:</b>	
<b>Replacement Reason:</b>		<b>Previous WI Well No:</b>	
<b>Replacement WI Well No:</b>		<b>Construction Type:</b>	1
<b>Other Const. Type:</b>		<b>Category:</b>	Municipal/Community
<b>Well Depth:</b>	406 ft	<b># Services:</b>	
<b>Facility Type:</b>		<b>Highest Point on Property:</b>	
<b>In Floodplain:</b>		<b>Rotary - Mud Circulation:</b>	
<b>Rotary - Air:</b>		<b>Rotary - Foam:</b>	
<b>Reverse Rotary:</b>		<b>Cable Tool Bit:</b>	
<b>Cable Bit Diameter:</b>	in	<b>Temp Outer Casing:</b>	
<b>Temp Casing Diameter:</b>	in	<b>Temp Casing Removed:</b>	
<b>Why not removed?:</b>		<b>Other Drilling method:</b>	
<b>Other Drilling Description:</b>		<b>Screen Diameter:</b>	inches
<b>Screen Description:</b>		<b>Screen From:</b>	feet
<b>Screen To:</b>	feet	<b>Sealant Method:</b>	
<b>Static Water level:</b>	40 feet	<b>Pumping level:</b>	110 feet
<b>Pumping at:</b>	590	<b>Pumping units:</b>	Minutes
<b>For:</b>	0 Hour(s)	<b>Well Starting Depth:</b>	inches
<b>Developed:</b>		<b>Disinfected:</b>	
<b>Capped:</b>		<b>Proper Seal:</b>	
<b>Seal Description:</b>		<b>Contractor Signed on:</b>	
<b>Rig Operator Signed on:</b>		<b>Geologic Log Number:</b>	
<b>Common Well Number:</b>	001	<b>Calculated Specific Capacity:</b>	8.4
<b>DNR Facility ID:</b>	445033710	<b>Well Name:</b>	MAIN STREET WELL #1

**Water Quality**

Comments:

**Drilling Difficulty:**

**Exception Areas:**

**Water Quantity**

Comments:

**Other Driller Comments:** REHABBED IN JULY 1982

**Exception Area**

Comments:

PUMP CAPACITY IS 650 GPM

## Distances in Feet to Nearest Objects

No Records returned

## Drillhole Dimensions

Diameter (in)	From Depth (ft.)	To Depth (ft.)
12	0	202.5
10	202.5	406

## Casing & Liner

Diameter (inches)	Description	From Depth (ft.)	To Depth (ft.)
12	DRIVE PIPE	0	158
8	LINER	0	204
10	LINER	141.5	202.5

## Grout or Other Sealant Materials

Kind of Sealing Material	From Depth (ft.)	To Depth (ft.)	Amount	Units
GROUT	0	204		
CONCRETE	141.5	202.5		

## Geology

Geology	Geology Description	Driller's Description	USGS Code	From Depth (feet)	To Depth (feet)
R-TC	Red; Till; Clay;	GLACIAL TILL		0	45
R-CL	Red; Clay; Limestone/Dolomite;	CLAY		45	60
G-TL	Gray; Till; Limestone/Dolomite;	GLACIAL TILL		60	100
G-S-	Gray; Sand;	SAND		100	130
--HN	Shale; Sandstone;	SHALE STP		130	154
-AN-	Coarse; Sandstone;	SANDSTONE STP		154	165
--H-	Shale;	SHALE STP		165	168
-MN-	Medium; Sandstone;	SANDSTONE STP		168	185
R-H-	Red; Shale;	SHALE-ST PETER		185	195
--N-	Sandstone;	SANDSTONE-TREMPEALEAU		195	235
-SLS	Soft/Loose; Limestone/Dolomite; Sand;	DOLOMITE-TREMPEALEAU		235	260
--NL	Sandstone; Limestone/Dolomite;	SANDSTONE-FRANCONIAN		260	352
--NL	Sandstone; Limestone/Dolomite;	SANDSTONE-DREBACH		352	406

## Samples

Sample Date	Collected By	Description	Laboratory	Lab Sample ID
08/01/1996	ELMERGREEN	*WELL DISCHARGE SAMPLE FAUCET* * CITY OF SEYMOUR*800 W PEARL ST*SEYMOUR WI	Wisconsin State Laboratory of Hygiene	BH009854
10/21/1996	ELMERGREEN	*WELL DISCHARGE FAUCET* * CITY OF SEYMOUR*800 W PEARL ST*SEYMOUR WI *41483	Wisconsin State Laboratory of Hygiene	BH030114
02/26/1997	RICH	*WELL DISCHARGE FAUCET WELL 1* * *638 N MAIN ST*SEYMOUR WI *4148332397	Wisconsin State Laboratory of Hygiene	BH053553
06/23/1997	ELMERGREEN	*WELL DISCHARGE FAUCET* * *638 N MAIN ST*SEYMOUR WI *4148332397	Wisconsin State Laboratory of Hygiene	BH077999
09/10/1997		*WELL DISCHARGE FAUCET** 638 N MAIN ST*SEYMOUR WI*9208332397*45	Wisconsin State Laboratory of Hygiene	BI018136
09/18/1997	ELMERGREEN	*WELL DISCHARGE FAUCET** *638 N MAIN ST*SEYMOUR WI*9208332397	Wisconsin State Laboratory of Hygiene	BI019939
02/17/1998	ELMERGREEN	*WELL PUMP SAMPLE FAUCET** *638 N MAIN ST*SEYMOUR WI*9208332397	Wisconsin State Laboratory of Hygiene	BI047822

05/18/1998	ELMERGREEN	ROUTINE CHECK*WELL DISCHARGE FAUCET** ***9208332397	Wisconsin State Laboratory of Hygiene	BI064853
10/27/1998	ELMERGREEN	*** *638 N MAIN ST*SEYMOUR WI*9208332397	Wisconsin State Laboratory of Hygiene	BJ029659
09/08/1999	SCHOEN	*WELL DISCHARGE SAMPLE TAP** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*920	Wisconsin State Laboratory of Hygiene	BK018079
01/12/2000	SCHOEN	ROUTINE CHECK*WELL DISCHARGE PIPE** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOU	Wisconsin State Laboratory of Hygiene	BK042585
04/04/2000	SCHOEN	*WELL DISCHARGE TAP** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*920833231	Wisconsin State Laboratory of Hygiene	BK056859
07/11/2000	SCHOEN	*WELL DISCHARGE TAP** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*920833239	Wisconsin State Laboratory of Hygiene	BL002155
10/11/2000	SCHOEN	*WELL DISCHARGE PIPE** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*92083323	Wisconsin State Laboratory of Hygiene	BL024217
01/03/2001	SCHOEN	*ROUTINE CHECK** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*9208332397	Wisconsin State Laboratory of Hygiene	BL038654
04/03/2001	SCHOEN	ROUTINE CHECK WELL DISCHARGE TAP*638 N MAIN ST	Wisconsin State Laboratory of Hygiene	BL054967
07/24/2001	SCHOEN	WELL DISCHARGE TAP*638 N MAIN ST	Wisconsin State Laboratory of Hygiene	BM006083
10/17/2001	SCHOEN	WELL DISCHARGE TAP*638 N MAIN ST	Wisconsin State Laboratory of Hygiene	BM026476
01/07/2002	SCHOEN	WELL DISCHARGE TAP*638 N MAIN ST	Wisconsin State Laboratory of Hygiene	BM039475

Records 1 to 19 of 19

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- [Abandonment \(0 Rows\)](#)
- [Variances \(0 Rows\)](#)
- [Rehabilitation/Redevelopment \(0 Rows\)](#)



## DNR Drinking Water System: High Capacity Wells



<b>DNR Approval Number:</b>	83487	<b>WI Unique Well No:</b>	
<b>DNR Region:</b>	Northeast	<b>County:</b>	Outagamie
<b>Water Basin:</b>	112 - Wolf River	<b>DNR Facility ID:</b>	445033710
<b>Operator's Well ID:</b>	002	<b>Owner's Well Id:</b>	002
<b>W.G. &amp; N.H. Log #:</b>		<b>Owner:</b>	SEYMOUR(CITY OF)-UTILITY
<b>Owner Address:</b>	800 W PEARL	<b>Owner City:</b>	SEYMOUR
<b>Owner State:</b>	WI	<b>Owner Phone:</b>	
<b>Operator:</b>	SEYMOUR(CITY OF)-UTILITY	<b>Operator Address:</b>	800 W PEARL
<b>Operator City:</b>	SEYMOUR	<b>Operator State:</b>	WI
<b>Well Name:</b>	ELIZABETH ST	<b>Operator Phone:</b>	
<b>County Approval No:</b>	0007	<b>File Ref. #:</b>	45-9-0007
<b>Classification:</b>	Municipal Water Supply	<b>Status:</b>	Active
<b>Chief Aquifer:</b>	Sandstone	<b>Approved Date:</b>	06/30/1988 mm/dd/yyyy
<b>Completed Date:</b>	12/30/1989 mm/dd/yyyy	<b>Driller:</b>	CTWNCORPRTHWEST CO
<b>Driller License No:</b>	364	<b>Normal pumpage:</b>	79000 gpd
<b>Maximum Pumpage:</b>	461000 gpd	<b>Pump Capacity:</b>	320 gpm
<b>Gravel Pack:</b>		<b>Well Depth:</b>	390 feet
<b>Depth to Rock:</b>	170 feet	<b>Type of Rock:</b>	Limestone or Dolomite
<b>Multiple Aquifers:</b>	N	<b>Drilling Method:</b>	
<b>Enlarged Drillhole Depth:</b>	270 feet	<b>Enlarged Drillhole Diameter:</b>	15 inches
<b>Lower Drillhole Diameter:</b>	12 inches	<b>Lower Drillhole Length:</b>	230 feet
<b>More than 2 drillholes:</b>	N	<b>Primary Casing Diameter:</b>	10 inches
<b>Primary Casing Depth:</b>	270 feet	<b>Liner Casing Diameter:</b>	inches
<b>Liner Casing Length:</b>	feet	<b>Liner Casing Depth:</b>	feet
<b>Screen Diameter:</b>	inches	<b>Screen Length:</b>	feet
<b>Screen Type:</b>		<b>Sealing Material</b>	Cement Grout

Sealing Material Depth: 270 feet

Yield Test Pump Rate: 520 gpm

Pumping Water Level: 189 feet

Type:

Yield Test Time: 48 Hours

Static Water Level: 123 feet

Specific Capacity: 7.9 gpm/foot

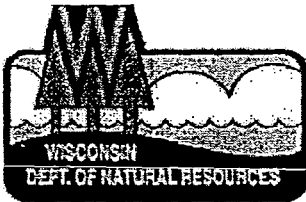
## Geologic Formations

Geology	Thickness in feet
Unconsolidated Sand	170
Ancell (St. Peter)	25
Prairie du Chien	305

## Annual Well Pumpage (gallons)

No Records returned

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## Well Construction Reports



<b>WI Unique Well No:</b>	AT094	<b>High Capacity Well No:</b>	<u>83487</u>
<b>County Well Location:</b>		<b>DNR Region:</b>	Northeast
<b>County:</b>	Outagamie	<b>Muni Type:</b>	C
<b>Municipality:</b>	SEYMOUR	<b>Completion Date:</b>	12/30/1989 mm/dd/yyyy
<b>DNR Received Date:</b>	01/16/1990	<b>Constructor:</b>	C T W CORP
<b>Constructor Address:</b>	PO BOX 994	<b>Constructor City:</b>	WAUKESHA
<b>Constructor State:</b>	WI	<b>Constructor Zip:</b>	53187-0994
<b>Status:</b>	Reconstruction	<b>Original Year:</b>	47
<b>Replacement Reason:</b>	QUALITY IMPROVEMENT	<b>Previous WI Well No:</b>	
<b>Replacement WI Well No:</b>		<b>Construction Type:</b>	1
<b>Other Const. Type:</b>		<b>Category:</b>	Municipal/Community
<b>Well Depth:</b>	ft	<b># Services:</b>	
<b>Facility Type:</b>		<b>Highest Point on Property:</b>	
<b>In Floodplain:</b>		<b>Rotary - Mud Circulation:</b>	
<b>Rotary - Air:</b>		<b>Rotary - Foam:</b>	
<b>Reverse Rotary:</b>		<b>Cable Tool Bit:</b>	Yes
<b>Cable Bit Diameter:</b>	in	<b>Temp Outer Casing:</b>	
<b>Temp Casing Diameter:</b>	16 in	<b>Temp Casing Removed:</b>	No
<b>Why not removed?:</b>	GROUTED	<b>Other Drilling method:</b>	
<b>Other Drilling Description:</b>		<b>Screen Diameter:</b>	inches
<b>Screen Description:</b>		<b>Screen From:</b>	feet
<b>Screen To:</b>	feet	<b>Sealant Method:</b>	
<b>Static Water</b>	123 feet	<b>Pumping level:</b>	189 feet

**level:**

**Pumping at:** 520  
**For:** 24 Hour(s)

**Pumping units:**  
**Well Starting Depth:** 12 inches Above Ground

**Developed:** Yes  
**Capped:** Yes

**Disinfected:** Y  
**Proper Seal:**

**Seal Description:**

**Contractor Signed on:**

**Rig Operator Signed on:**

**Geologic Log Number:**

**Common Well Number:** 002

**Calculated Specific Capacity:** 79

**DNR Facility ID:** 445033710

**Well Name:**

**Water Quality Comments:**

**Water Quantity Comments:**

**Drilling Difficulty:**

**Other Driller Comments:** 12" DRILLHOLE ORIGINALLY EXTENDED TO 500' -- BACK FILLED TO 400' WITH CHLORINATED PEAROCK. 390-400 WITH NEAT CEMENT PLUG

**Exception Areas:**

**Exception Area Comments:**

**Distances in Feet to Nearest Objects**

No Records returned

**Drillhole Dimensions**

Diameter (in)	From Depth (ft.)	To Depth (ft.)
15	0	270
12	270	390

**Casing & Liner**

Diameter (inches)	Description	From Depth (ft.)	To Depth (ft.)
16	STEEL CASING-EXISTING	0	148
10	GW1-EXISTING STEEL CASING	1	270

**Grout or Other Sealant Materials**

Kind of Sealing Material	From Depth (ft.)	To Depth (ft.)	Amount	Units
CEMENT-EXISTING	0	270		

## Geology

No Records returned

## Samples

Sample Date	Collected By	Description	Laboratory	Lab Sample ID
02/05/1990	RICHARD UDMERGREEN	***SEYMOUR CITY OF*800 W PEARL*SEYMOUR, WI 54165*4148332397	STATE LABORATORY OF HYGIENE	062808000
07/11/2000	SCHOEN	*WELL DISCHARGE PIPE** CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR WI*92083323	Wisconsin State Laboratory of Hygiene	BL002154
10/11/2000	SCHOEN	*WELL PUMP DISCHARGE SAMPLE TAP** CITY OF SEYMOUR*328 N MAIN ST*SEYMOUR WI*9	Wisconsin State Laboratory of Hygiene	BL024218
01/03/2001	SCOEN	*WELL DISCHARGE TAP*ROUTINE CHECK* CITY OF SEYMOUR*445 MUNICIPAL DR*SEYMOUR	Wisconsin State Laboratory of Hygiene	BL038655
07/24/2001	SCHOEN	WELL DISCHARGE*328 ELIZABETH ST	Wisconsin State Laboratory of Hygiene	BM006084
10/17/2001	SCHOEN	WELL DISCHARGE TAP*328 ELIZABETH ST	Wisconsin State Laboratory of Hygiene	BM026477
01/07/2002	SCHOEN	WELL DISCHARGE TAP*328 ELIZABETH ST	Wisconsin State Laboratory of Hygiene	BM039476

Records 1 to 7 of 7

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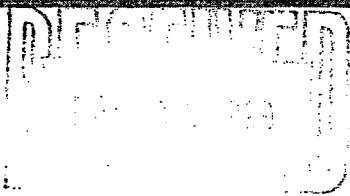
- [Abandonment \(0 Rows\)](#)
- [Variances \(0 Rows\)](#)
- [Rehabilitation/Redevelopment \(0 Rows\)](#)
- **Other DNR information on this Well**
  - [Public Water Supply System](#)
  - [Groundwater Retrieval Network Data](#)

**APPENDIX E**  
**LABORATORY ANALYTICAL REPORTS**

**APPENDIX E1**

**SOIL SAMPLES**

# U.S. Analytical Lab



SEAN FENRICH  
NORTHERN ENVIRONMENTAL  
954 CIRCLE DRIVE  
GREEN BAY WI 54304

Project # DCP03-0407-0952  
Project Name SEYMOUR  
Invoice # E28075

Report Date 20-Dec-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5028075A						Sample Type	Soil	
Sample ID	S102						Sample Date	11/30/99	

## Inorganic

### General

Solids Percent	96.3	%				1	12/2/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Lead	< 6	mg/kg	6	20	1	1	12/6/99	6010B	JLA	1
------	-----	-------	---	----	---	---	---------	-------	-----	---

## Organic

### General

Diesel Range Organics	1600	mg/kg	4.6	15	10		12/3/99	DRO95	BNR	1 43
Gasoline Range Organics	590	mg/kg	0.3	1.1	1		12/3/99	GRO95	JDB	1 46

### PAH's

Acenaphthene	180 "J"	ug/kg	110	350	5		12/14/99	M8270	DJM	1
Acenaphthylene	< 120	ug/kg	120	400	5		12/14/99	M8270	DJM	1
Anthracene	210 "J"	ug/kg	180	600	5		12/14/99	M8270	DJM	1
Benzo(a)anthracene	660	ug/kg	120	390	5		12/14/99	M8270	DJM	1
Benzo(a)pyrene	340 "J"	ug/kg	170	570	5		12/14/99	M8270	DJM	1
Benzo(b)fluoranthene	430 "J"	ug/kg	230	770	5		12/14/99	M8270	DJM	1
Benzo(g,h,i)perylene	340 "J"	ug/kg	150	490	5		12/14/99	M8270	DJM	1
Benzo(k)fluoranthene	450 "J"	ug/kg	240	800	5		12/14/99	M8270	DJM	1
Chrysene	910	ug/kg	210	700	5		12/14/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 90	ug/kg	90	300	5		12/14/99	M8270	DJM	1
Fluoranthene	1300	ug/kg	190	640	5		12/14/99	M8270	DJM	1
Fluorene	270 "J"	ug/kg	240	790	5		12/14/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	240 "J"	ug/kg	90	300	5		12/14/99	M8270	DJM	1
1-Methyl naphthalene	4700	ug/kg	160	520	5		12/14/99	M8270	DJM	1
2-Methyl naphthalene	5300	ug/kg	110	350	5		12/14/99	M8270	DJM	1
Naphthalene	4100	ug/kg	150	500	5		12/14/99	M8270	DJM	1
Phenanthrene	900	ug/kg	180	590	5		12/14/99	M8270	DJM	1
Pyrene	2100	ug/kg	230	750	5		12/14/99	M8270	DJM	1

### VOC's

Benzene	350	ug/kg	62	210	10		12/3/99	8260B	CJR	1
Bromobenzene	< 250	ug/kg	43	140	10		12/3/99	8260B	CJR	1
Bromochloromethane	< 250	ug/kg	46	150	10		12/3/99	8260B	CJR	1
tert-Butylbenzene	< 250	ug/kg	65	220	10		12/3/99	8260B	CJR	1
sec-Butylbenzene	630	ug/kg	41	140	10		12/3/99	8260B	CJR	1
n-Butylbenzene	5400	ug/kg	31	100	10		12/3/99	8260B	CJR	1
Carbon Tetrachloride	< 250	ug/kg	40	130	10		12/3/99	8260B	CJR	1

# U.S. Analytical Lab

SEAN FENRICH  
NORTHERN ENVIRONMENTAL  
954 CIRCLE DRIVE  
GREEN BAY WI 54304

Project # DCP03-0407-0952  
Project Name SEYMOUR  
Invoice # E28075

Report Date 20-Dec-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5028075A								
Sample ID	S102								
						Sample Type	Soil		
						Sample Date	11/30/99		
Chlorobenzene	<250	ug/kg	53	180	10	12/3/99	8260B	CJR	1
Chloroethane	<250	ug/kg	110	370	10	12/3/99	8260B	CJR	3 4 7
Chloroform	<250	ug/kg	31	100	10	12/3/99	8260B	CJR	1
Chloromethane	<250	ug/kg	69	230	10	12/3/99	8260B	CJR	1
2-Chlorotoluene	<250	ug/kg	46	150	10	12/3/99	8260B	CJR	1
4-Chlorotoluene	<250	ug/kg	44	150	10	12/3/99	8260B	CJR	1
1,2-Dibromo-3-chloropropane	<250	ug/kg	110	370	10	12/3/99	8260B	CJR	1
Dibromochloromethane	<250	ug/kg	54	180	10	12/3/99	8260B	CJR	1
1,4-Dichlorobenzene	<250	ug/kg	44	150	10	12/3/99	8260B	CJR	1
1,3-Dichlorobenzene	<250	ug/kg	44	150	10	12/3/99	8260B	CJR	1
1,2-Dichlorobenzene	<250	ug/kg	36	120	10	12/3/99	8260B	CJR	1
Dichlorodifluoromethane	<250	ug/kg	110	370	10	12/3/99	8260B	CJR	4
1,2-Dichloroethane	<250	ug/kg	83	280	10	12/3/99	8260B	CJR	1
1,1-Dichloroethane	<250	ug/kg	47	160	10	12/3/99	8260B	CJR	2
1,1-Dichloroethene	<250	ug/kg	45	150	10	12/3/99	8260B	CJR	1
cis-1,2-Dichloroethene	<250	ug/kg	50	170	10	12/3/99	8260B	CJR	1
trans-1,2-Dichloroethene	<250	ug/kg	45	150	10	12/3/99	8260B	CJR	1
1,2-Dichloropropane	<250	ug/kg	42	140	10	12/3/99	8260B	CJR	1
2,2-Dichloropropane	<250	ug/kg	40	130	10	12/3/99	8260B	CJR	2
1,3-Dichloropropane	<250	ug/kg	43	150	10	12/3/99	8260B	CJR	1
Di-isopropyl ether	<250	ug/kg	30	100	10	12/3/99	8260B	CJR	1
EDB (1,2-Dibromoethane)	<250	ug/kg	35	120	10	12/3/99	8260B	CJR	1
Ethylbenzene	1500	ug/kg	44	150	10	12/3/99	8260B	CJR	1
Hexachlorobutadiene	<250	ug/kg	75	250	10	12/3/99	8260B	CJR	1
Isopropylbenzene	400	ug/kg	52	170	10	12/3/99	8260B	CJR	1
p-Isopropyltoluene	490	ug/kg	31	100	10	12/3/99	8260B	CJR	1
Methylene chloride	<250	ug/kg	110	350	10	12/3/99	8260B	CJR	1
MTBE	<250	ug/kg	56	190	10	12/3/99	8260B	CJR	1
Naphthalene	11000	ug/kg	42	140	10	12/3/99	8260B	CJR	1
n-Propylbenzene	740	ug/kg	45	150	10	12/3/99	8260B	CJR	1
1,1,2,2-Tetrachloroethane	<250	ug/kg	34	110	10	12/3/99	8260B	CJR	2
Tetrachloroethene	<250	ug/kg	61	210	10	12/3/99	8260B	CJR	1
Toluene	2800	ug/kg	53	180	10	12/3/99	8260B	CJR	1
1,2,4-Trichlorobenzene	<250	ug/kg	44	150	10	12/3/99	8260B	CJR	1
1,2,3-Trichlorobenzene	<250	ug/kg	40	140	10	12/3/99	8260B	CJR	1
1,1,1-Trichloroethane	<250	ug/kg	67	220	10	12/3/99	8260B	CJR	1
1,1,2-Trichloroethane	<250	ug/kg	37	120	10	12/3/99	8260B	CJR	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28075

Report Date 20-Dec-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5028075A		Sample Type		Soil				
Sample ID	S102		Sample Date		11/30/99				
Trichloroethene	< 250	ug/kg	45	150	10	12/3/99	8260B	CJR	1
Trichlorofluoromethane	< 250	ug/kg	140	450	10	12/3/99	8260B	CJR	3 4 7
1,2,4-Trimethylbenzene	76000	ug/kg	45	150	10	12/3/99	8260B	CJR	1.
1,3,5-Trimethylbenzene	26000	ug/kg	41	140	10	12/3/99	8260B	CJR	1
Vinyl Chloride	< 250	ug/kg	56	190	10	12/3/99	8260B	CJR	1
m&p-Xylene	24000	ug/kg	82	270	10	12/3/99	8260B	CJR	1
o-Xylene	12000	ug/kg	25	84	10	12/3/99	8260B	CJR	1

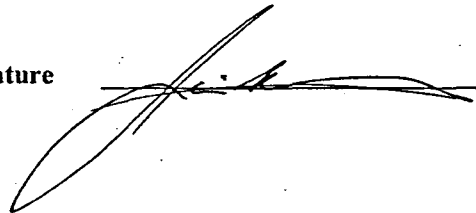
LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
7	The LCS spike recovery failed to meet acceptable QC limits.
43	Chromatogram indicates possible gasoline contamination.
46	Chromatogram indicates contamination outside of the specified window.

Authorized Signature

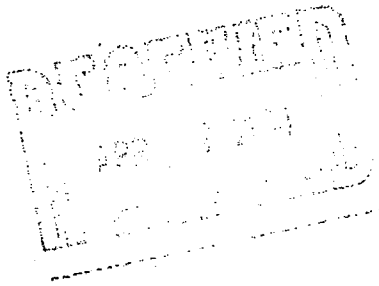






# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304



Project # DCP03-0407-0952  
 Project Name NEW LONDON  
 Invoice # E29302

Report Date 06-Apr-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029302A						Sample Type	Soil	
Sample ID	S202						Sample Date	3/28/00	

**Inorganic**

**General**

Solids Percent	87.5	%				1	3/31/00	5021	KAH	1
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**Organic**

**General**

Diesel Range Organics	< 10	mg/kg	0.38	1.3	1		4/4/00	DRO95	SAD	1
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**GRO/PVOC**

Gasoline Range Organics	< 10	mg/kg	0.84	2.7	1		4/3/00	GRO95	JDB	1
Benzene	< 25	ug/kg	9.1	30	1		4/3/00	GRO95	JDB	1
Ethylbenzene	< 25	ug/kg	7.9	26	1		4/3/00	GRO95	JDB	1
MTBE	< 25	ug/kg	11	38	1		4/3/00	GRO95	JDB	1
Toluene	< 25	ug/kg	6.7	22	1		4/3/00	GRO95	JDB	1
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1		4/3/00	GRO95	JDB	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1		4/3/00	GRO95	JDB	1
Xylene's	< 75	ug/kg	23	74	1		4/3/00	GRO95	JDB	1

**PAH's**

Acenaphthene	< 21	ug/kg	21	70	1		4/1/00	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1		4/1/00	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1		4/1/00	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1		4/1/00	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1		4/1/00	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1		4/1/00	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1		4/1/00	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1		4/1/00	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1		4/1/00	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1		4/1/00	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1		4/1/00	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1		4/1/00	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1		4/1/00	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1		4/1/00	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1		4/1/00	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1		4/1/00	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1		4/1/00	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1		4/1/00	M8270	DJM	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name NEW LONDON  
 Invoice # E29302

Report Date 06-Apr-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029302B						Sample Type	Soil	
Sample ID	S302						Sample Date	3/28/00	

**Inorganic**

**General**

Solids Percent	87.7	%				1	3/31/00	5021	KAH	1
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**Organic**

**General**

Diesel Range Organics	< 10	mg/kg	0.38	1.3	1	1	4/4/00	DRO95	SAD	1
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**GRO/PVOC**

Gasoline Range Organics	< 10	mg/kg	0.84	2.7	1	1	4/3/00	GRO95	JDB	1
Benzene	< 25	ug/kg	9.1	30	1	1	4/3/00	GRO95	JDB	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	1	4/3/00	GRO95	JDB	1
MTBE	< 25	ug/kg	11	38	1	1	4/3/00	GRO95	JDB	1
Toluene	< 25	ug/kg	6.7	22	1	1	4/3/00	GRO95	JDB	1
1,2,4-Trimethylbenzene	32	ug/kg	6.9	23	1	1	4/3/00	GRO95	JDB	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	1	4/3/00	GRO95	JDB	1
Xylene's	< 75	ug/kg	23	74	1	1	4/3/00	GRO95	JDB	1

**PAH's**

Acenaphthene	< 21	ug/kg	21	70	1	1	4/1/00	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	1	4/1/00	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	1	4/1/00	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	1	4/1/00	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	1	4/1/00	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	1	4/1/00	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	1	4/1/00	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	1	4/1/00	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	1	4/1/00	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	1	4/1/00	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	1	4/1/00	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	1	4/1/00	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	1	4/1/00	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	1	4/1/00	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1	1	4/1/00	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	1	4/1/00	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	1	4/1/00	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	1	4/1/00	M8270	DJM	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name NEW LONDON  
 Invoice # E29302

Report Date 06-Apr-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029302C								
Sample ID	S402								
Sample Type	Soil								
Sample Date	3/28/00								

**Inorganic**

**General**

Solids Percent	89.0	%				1	3/31/00	5021	KAH	1
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**Organic**

**General**

Diesel Range Organics	< 10	mg/kg	0.38	1.3	1	4/4/00	DRO95		SAD	1
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**GRO/PVOC**

Gasoline Range Organics	< 10	mg/kg	0.84	2.7	1	4/3/00	GRO95		JDB	1
Benzene	< 25	ug/kg	9.1	30	1	4/3/00	GRO95		JDB	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	4/3/00	GRO95		JDB	1
MTBE	< 25	ug/kg	11	38	1	4/3/00	GRO95		JDB	1
Toluene	< 25	ug/kg	6.7	22	1	4/3/00	GRO95		JDB	1
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	4/3/00	GRO95		JDB	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	4/3/00	GRO95		JDB	1
Xylene's	< 75	ug/kg	23	74	1	4/3/00	GRO95		JDB	1

**PAH's**

Acenaphthene	< 21	ug/kg	21	70	1	4/3/00	M8270		DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	4/3/00	M8270		DJM	1
Anthracene	< 36	ug/kg	36	120	1	4/3/00	M8270		DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	4/3/00	M8270		DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	4/3/00	M8270		DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	4/3/00	M8270		DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	4/3/00	M8270		DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	4/3/00	M8270		DJM	1
Chrysene	< 42	ug/kg	42	140	1	4/3/00	M8270		DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	4/3/00	M8270		DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	4/3/00	M8270		DJM	1
Fluorene	< 47	ug/kg	47	160	1	4/3/00	M8270		DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	4/3/00	M8270		DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	4/3/00	M8270		DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1	4/3/00	M8270		DJM	1
Naphthalene	< 30	ug/kg	30	100	1	4/3/00	M8270		DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	4/3/00	M8270		DJM	1
Pyrene	< 45	ug/kg	45	150	1	4/3/00	M8270		DJM	1

# U.S. Analytical Lab

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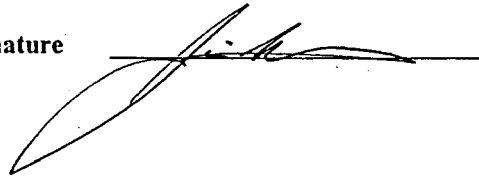
SEAN FENRICH  
NORTHERN ENVIRONMENTAL  
954 CIRCLE DRIVE  
GREEN BAY WI 54304

Project # DCP03-0407-0952  
Project Name NEW LONDON  
Invoice # E29302

Report Date 06-Apr-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection	"J" Flag: Analyte detected between LOD and LOQ								LOQ Limit of Quantitation
<i>Code</i>	<i>Comment</i>								
1	All laboratory QC requirements were met for this sample.								

Authorized Signature



- Check office originating request
- 1214 W. Venture Ct.  
Mequon, WI 53092  
414-241-3133  
FAX 414-241-8222
  - 372 West County Road D  
New Brighton, MN 55112  
651-635-9100  
FAX 651-635-0643
  - 954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444
  - 330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
FAX 715-762-1844
  - 1203 Storbeck Drive  
Waupun, WI 53963  
920-324-8600  
FAX 920-324-3023
  - 3211 Arnold Lane  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552
  - 2222 Hwy 52 North, Ste 210  
Rochester, MN 55901  
507-282-3800  
FAX 507-282-3100
  - 31628 Glendale Ave. Ste 100  
Livonia, MI 48150  
734-422-2624  
FAX 734-422-3530

5029302

Project No: <u>DCP03-0407-0952</u>		Task No:		Laboratory: <u>U.S. Oil Analytical Lab</u>			Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input checked="" type="checkbox"/> yes <input type="checkbox"/> no																					
Project Location: (city) <u>New London</u>		Wisconsin DNR Certification #: <u>445027660</u>			Method of shipment: <u>_____</u>			Contents Temperature: <u>_____</u> °C Refrigerator No. <u>_____</u>																				
Project Manager: <u>Mark Felt</u>				Laboratory Contact: <u>Jim Stevens</u>			<b>ANALYSES REQUESTED</b>																					
Sampler: (name) <u>Sean Ferrich</u>		Price Quote:			<table style="width: 100%; border-collapse: collapse;"> <tr> <td>DRO (WI Modified Method)</td> <td>GRO (WI Modified Method)</td> <td>BETX (EPA Method 8020)</td> <td>PVOC (EPA Method 8020)</td> <td>VOC (EPA Method 8021)</td> <td>PAH (EPA Method _____)</td> <td>Pb (EPA Method _____)</td> </tr> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">Y</td> </tr> </table>										DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method _____)	Pb (EPA Method _____)	Y	Y	Y	Y	Y	Y	Y
DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)											PAH (EPA Method _____)	Pb (EPA Method _____)												
Y	Y	Y	Y	Y											Y	Y												
Sampler: (Signature) <u>[Signature]</u>		<b>TURNAROUND TIME REQUIRED</b>																										
Sampling Date(s): <u>3/28/00</u>		<input type="checkbox"/> Normal <input type="checkbox"/> Rush																										
Reports to be Sent to: <u>Sean Ferrich</u>				Date Needed: _____																								
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb													
		Date	Time		Water	Soil	Other																					
<u>5029302 A</u>	<u>S202</u>	<u>3/28</u>	<u>831</u>	<u>2-10ml-2.2oz</u>		<u>X</u>		<u>Ice</u>	<u>X</u>	<u>X</u>		<u>Y</u>		<u>Y</u>														
<u>B</u>	<u>S302</u>	<u>↓</u>	<u>949</u>	<u>↓</u>		<u>X</u>		<u>L</u>	<u>X</u>	<u>Y</u>		<u>Y</u>		<u>X</u>														
<u>C</u>	<u>S402</u>	<u>↓</u>	<u>1101</u>	<u>↓</u>		<u>X</u>		<u>L</u>	<u>X</u>	<u>Y</u>		<u>Y</u>		<u>Y</u>														

Packed for Shipping by: <u>Kevin Eibenholz</u>		Comments:									
Shipment Date: <u>3-29-00</u>											
Relinquished By: <u>[Signature]</u>	Date: <u>3-29-00</u>	Relinquished By: <u>[Signature]</u>	Date: <u>3-29-00</u>	Relinquished By:	Date:						
Company: <u>NETI</u>	Time: <u>7:13</u>	Company: <u>U.S. Oil</u>	Time: <u>2:50</u>	Company:	Time:						
Received By: <u>[Signature]</u>	Date: <u>3-29-00</u>	Received By: <u>[Signature]</u>	Date: <u>3/29/00</u>	Received By:	Date:						
Company: <u>U.S. Oil</u>	Time: <u>7:13</u>	Company: <u>U.S. Oil</u>	Time: <u>2:50</u>	Company:	Time:						

**APPENDIX E2**  
**GROUNDWATER SAMPLES**

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28397

Report Date 14-Jan-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5028397A						Sample Type	Water	
Sample ID	MW100						Sample Date	12/29/99	

Inorganic

Metals

Lead	3.8	ug/l	1	3.33	1	1/10/00	7421	VLC	1
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Organic

VOC's

Benzene	1700	ug/l	64	220	200	1/7/00	8021A	CAH	1
Bromobenzene	< 64	ug/l	64	220	200	1/7/00	8021A	CAH	1
Bromodichloromethane	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
tert-Butylbenzene	< 66	ug/l	66	220	200	1/7/00	8021A	CAH	1
sec-Butylbenzene	< 68	ug/l	68	220	200	1/7/00	8021A	CAH	1
n-Butylbenzene	310	ug/l	46	160	200	1/7/00	8021A	CAH	1
Carbon Tetrachloride	< 94	ug/l	94	320	200	1/7/00	8021A	CAH	1
Chlorobenzene	< 62	ug/l	62	200	200	1/7/00	8021A	CAH	1
Chloroethane	< 26	ug/l	26	84	200	1/7/00	8021A	CAH	1
Chloroform	< 80	ug/l	80	260	200	1/7/00	8021A	CAH	1
Chloromethane	< 36	ug/l	36	120	200	1/7/00	8021A	CAH	4
2-Chlorotoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
4-Chlorotoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 44	ug/l	44	150	200	1/7/00	8021A	CAH	1
Dibromochloromethane	< 74	ug/l	74	240	200	1/7/00	8021A	CAH	1
1,4-Dichlorobenzene	< 56	ug/l	56	180	200	1/7/00	8021A	CAH	1
1,3-Dichlorobenzene	< 56	ug/l	56	190	200	1/7/00	8021A	CAH	1
1,2-Dichlorobenzene	< 58	ug/l	58	190	200	1/7/00	8021A	CAH	1
Dichlorodifluoromethane	< 56	ug/l	56	180	200	1/7/00	8021A	CAH	4
1,2-Dichloroethane	< 72	ug/l	72	240	200	1/7/00	8021A	CAH	1
1,1-Dichloroethane	< 68	ug/l	68	260	200	1/7/00	8021A	CAH	1
1,1-Dichloroethene	< 78	ug/l	78	260	200	1/7/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 64	ug/l	64	220	200	1/7/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
1,2-Dichloropropane	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
2,2-Dichloropropane	< 110	ug/l	110	380	200	1/7/00	8021A	CAH	1
Di-isopropyl ether	< 64	ug/l	64	210	200	1/7/00	8021A	CAH	4
EDB (1,2-Dibromoethane)	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
Ethylbenzene	1600	ug/l	68	220	200	1/7/00	8021A	CAH	1
Hexachlorobutadiene	< 54	ug/l	54	180	200	1/7/00	8021A	CAH	1
Isopropylbenzene	89 "J"	ug/l	68	220	200	1/7/00	8021A	CAH	1



# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28397

Report Date 14-Jan-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code 5028397A</b>							<b>Sample Type Water</b>		
<b>Sample ID MW100</b>							<b>Sample Date 12/29/99</b>		
p-Isopropyltoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
Methylene chloride	< 400	ug/l	400	1200	200	1/7/00	8021A	CAH	1
MTBE	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
Naphthalene	400 "J"	ug/l	180	580	200	1/7/00	8021A	CAH	1
n-Propylbenzene	400	ug/l	61	200	200	1/7/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 150	ug/l	150	500	200	1/7/00	8021A	CAH	1
Tetrachloroethene	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
Toluene	2800	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 82	ug/l	82	280	200	1/7/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 90	ug/l	90	300	200	1/7/00	8021A	CAH	1
1,1,1-Trichloroethane	< 90	ug/l	90	300	200	1/7/00	8021A	CAH	1
1,1,2-Trichloroethane	< 74	ug/l	74	240	200	1/7/00	8021A	CAH	1
Trichloroethene	< 100	ug/l	100	320	200	1/7/00	8021A	CAH	1
Trichlorofluoromethane	< 30	ug/l	30	100	200	1/7/00	8021A	CAH	1
1,2,4-Trimethylbenzene	2000	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,3,5-Trimethylbenzene	1000	ug/l	130	420	200	1/7/00	8021A	CAH	1
Vinyl Chloride	< 30	ug/l	30	100	200	1/7/00	8021A	CAH	1
m&p-Xylene	6500	ug/l	130	440	200	1/7/00	8021A	CAH	1
o-Xylene	2700	ug/l	64	220	200	1/7/00	8021A	CAH	1

<b>Lab Code 5028397B</b>							<b>Sample Type Water</b>		
<b>Sample ID DUPLICATE</b>							<b>Sample Date 12/29/99</b>		

Organic

VOC's

Benzene	1900	ug/l	64	220	200	1/7/00	8021A	CAH	1
Bromobenzene	< 64	ug/l	64	220	200	1/7/00	8021A	CAH	1
Bromodichloromethane	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
tert-Butylbenzene	< 66	ug/l	66	220	200	1/7/00	8021A	CAH	1
sec-Butylbenzene	< 68	ug/l	68	220	200	1/7/00	8021A	CAH	1
n-Butylbenzene	330	ug/l	46	160	200	1/7/00	8021A	CAH	1
Carbon Tetrachloride	< 94	ug/l	94	320	200	1/7/00	8021A	CAH	1
Chlorobenzene	< 62	ug/l	62	200	200	1/7/00	8021A	CAH	1
Chloroethane	< 26	ug/l	26	84	200	1/7/00	8021A	CAH	1
Chloroform	< 80	ug/l	80	260	200	1/7/00	8021A	CAH	1
Chloromethane	< 36	ug/l	36	120	200	1/7/00	8021A	CAH	4

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28397

Report Date 14-Jan-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5028397B		Sample Type		Water				
Sample ID	DUPLICATE		Sample Date		12/29/99				
2-Chlorotoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
4-Chlorotoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 44	ug/l	44	150	200	1/7/00	8021A	CAH	1
Dibromochloromethane	< 74	ug/l	74	240	200	1/7/00	8021A	CAH	1
1,4-Dichlorobenzene	< 56	ug/l	56	180	200	1/7/00	8021A	CAH	1
1,3-Dichlorobenzene	< 56	ug/l	56	190	200	1/7/00	8021A	CAH	1
1,2-Dichlorobenzene	< 58	ug/l	58	190	200	1/7/00	8021A	CAH	1
Dichlorodifluoromethane	< 56	ug/l	56	180	200	1/7/00	8021A	CAH	4
1,2-Dichloroethane	< 72	ug/l	72	240	200	1/7/00	8021A	CAH	1
1,1-Dichloroethane	< 68	ug/l	68	260	200	1/7/00	8021A	CAH	1
1,1-Dichloroethene	< 78	ug/l	78	260	200	1/7/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 64	ug/l	64	220	200	1/7/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
1,2-Dichloropropane	< 76	ug/l	76	260	200	1/7/00	8021A	CAH	1
2,2-Dichloropropane	< 110	ug/l	110	380	200	1/7/00	8021A	CAH	1
Di-isopropyl ether	< 64	ug/l	64	210	200	1/7/00	8021A	CAH	4
EDB (1,2-Dibromoethane)	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
Ethylbenzene	1800	ug/l	68	220	200	1/7/00	8021A	CAH	1
Hexachlorobutadiene	< 54	ug/l	54	180	200	1/7/00	8021A	CAH	1
Isopropylbenzene	80 "J"	ug/l	68	220	200	1/7/00	8021A	CAH	1
p-Isopropyltoluene	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
Methylene chloride	< 400	ug/l	400	1200	200	1/7/00	8021A	CAH	1
MTBE	< 62	ug/l	62	210	200	1/7/00	8021A	CAH	1
Naphthalene	320 "J"	ug/l	180	580	200	1/7/00	8021A	CAH	1
n-Propylbenzene	430	ug/l	61	200	200	1/7/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 150	ug/l	150	500	200	1/7/00	8021A	CAH	1
Tetrachloroethene	< 70	ug/l	70	240	200	1/7/00	8021A	CAH	1
Toluene	3100	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 82	ug/l	82	280	200	1/7/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 90	ug/l	90	300	200	1/7/00	8021A	CAH	1
1,1,1-Trichloroethane	< 90	ug/l	90	300	200	1/7/00	8021A	CAH	1
1,1,2-Trichloroethane	< 74	ug/l	74	240	200	1/7/00	8021A	CAH	1
Trichloroethene	< 100	ug/l	100	320	200	1/7/00	8021A	CAH	1
Trichlorofluoromethane	< 30	ug/l	30	100	200	1/7/00	8021A	CAH	1
1,2,4-Trimethylbenzene	2100	ug/l	70	240	200	1/7/00	8021A	CAH	1
1,3,5-Trimethylbenzene	1000	ug/l	130	420	200	1/7/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28397

Report Date 14-Jan-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5028397B							<b>Sample Type</b> Water		
<b>Sample ID</b> DUPLICATE							<b>Sample Date</b> 12/29/99		
Vinyl Chloride	< 30	ug/l	30	100	200	1/7/00	8021A	CAH	1
m&p-Xylene	7300	ug/l	130	440	200	1/7/00	8021A	CAH	1
o-Xylene	2900	ug/l	64	220	200	1/7/00	8021A	CAH	1
<b>Lab Code</b> 5028397C							<b>Sample Type</b> Water		
<b>Sample ID</b> TRIP							<b>Sample Date</b> 12/29/99		

Organic

VOC's

Benzene	< 0.32	ug/l	0.32	1.1	1	1/5/00	8021A	CJR	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	1/5/00	8021A	CJR	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	1/5/00	8021A	CJR	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	1/5/00	8021A	CJR	1
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	1/5/00	8021A	CJR	1
n-Butylbenzene	< 0.23	ug/l	0.23	0.78	1	1/5/00	8021A	CJR	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	1/5/00	8021A	CJR	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	1/5/00	8021A	CJR	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	1/5/00	8021A	CJR	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	1/5/00	8021A	CJR	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	1/5/00	8021A	CJR	1
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	1/5/00	8021A	CJR	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	1/5/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	1/5/00	8021A	CJR	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	1/5/00	8021A	CJR	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	1/5/00	8021A	CJR	1
1,3-Dichlorobenzene	< 0.28	ug/l	0.28	0.94	1	1/5/00	8021A	CJR	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	1/5/00	8021A	CJR	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	1/5/00	8021A	CJR	1
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	1/5/00	8021A	CJR	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	1/5/00	8021A	CJR	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	1/5/00	8021A	CJR	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	1/5/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	1/5/00	8021A	CJR	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	1/5/00	8021A	CJR	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	1/5/00	8021A	CJR	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	1/5/00	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	1/5/00	8021A	CJR	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E28397

Report Date 14-Jan-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5028397C							Sample Type Water		
Sample ID TRIP							Sample Date 12/29/99		
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	1/5/00	8021A	CJR	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	1/5/00	8021A	CJR	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	1/5/00	8021A	CJR	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	1/5/00	8021A	CJR	1
Methylene chloride	< 2	ug/l	2	6	1	1/5/00	8021A	CJR	1
MTBE	< 0.31	ug/l	0.31	1	1	1/5/00	8021A	CJR	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	1/5/00	8021A	CJR	1
n-Propylbenzene	< 0.3	ug/l	0.3	1	1	1/5/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	1/5/00	8021A	CJR	1
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	1/5/00	8021A	CJR	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	1/5/00	8021A	CJR	1
Toluene	< 0.35	ug/l	0.35	1.2	1	1/5/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	1/5/00	8021A	CJR	4
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	1/5/00	8021A	CJR	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	1/5/00	8021A	CJR	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	1/5/00	8021A	CJR	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	1/5/00	8021A	CJR	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	1/5/00	8021A	CJR	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	1/5/00	8021A	CJR	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	1/5/00	8021A	CJR	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	1/5/00	8021A	CJR	1
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	1/5/00	8021A	CJR	1
o-Xylene	< 0.32	ug/l	0.32	1.1	1	1/5/00	8021A	CJR	1

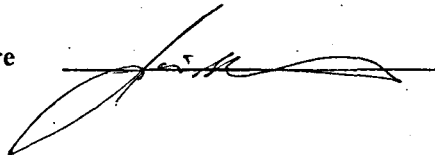
LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
4	The check standard failed to meet acceptable QC limits.

Authorized Signature



- Check office originating request
- 1214 W. Venture Ct.  
Mequon, WI 53092  
414-241-3133  
FAX 414-241-8222
  - 372 West County Road D  
New Brighton, MN 55112  
651-635-9100  
FAX 651-635-0643
  - 954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444
  - 330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
FAX 715-762-1844
  - 1203 Storbeck Drive  
Waupun, WI 53963  
920-324-8600  
FAX 920-324-3023
  - 3211 Arnold Lane  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552
  - 2222 Hwy 52 North, Ste 210  
Rochester, MN 55901  
507-282-3800  
FAX 507-282-3100
  - 31628 Glendale Ave. Ste 100  
Livonia, MI 48150  
734-422-2624  
FAX 734-422-3530

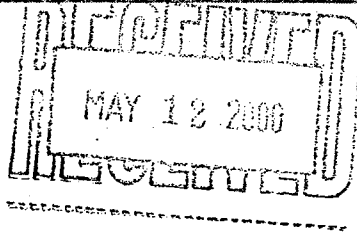
5028397

Project No: <u>DCP 03 04070952</u> Task No: _____		Laboratory: <u>US OIL</u>		Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input checked="" type="checkbox"/> yes <input type="checkbox"/> no																	
Project Location (city): <u>Seymour</u>		Wisconsin DNR Certification #: <u>445027060</u>		Method of shipment: _____ °C Refrigerator No. <u>ice</u>																	
Project Manager: <u>Sean Fenrick</u>		Laboratory Contact: <u>J Stevens</u>		Contents Temperature: _____ °C																	
Sampler (name): <u>Luke Cieslewicz</u>		Price Quote: _____		<b>ANALYSES REQUESTED</b>																	
Sampler (Signature): <u>[Signature]</u>		<b>TURNAROUND TIME REQUIRED</b>		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">DRO (WI Modified Method)</td> <td style="width: 5%;">GRO (WI Modified Method)</td> <td style="width: 5%;">BETX (EPA Method 8020)</td> <td style="width: 5%;">PVOC (EPA Method 8020)</td> <td style="width: 5%;">VOC (EPA Method 8021)</td> <td style="width: 5%;">PAH (EPA Method _____)</td> <td style="width: 5%;">Pb (EPA Method _____)</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>				DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method _____)	Pb (EPA Method _____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)					VOC (EPA Method 8021)	PAH (EPA Method _____)	Pb (EPA Method _____)											
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
Sampling Date(s): <u>12/29/99</u>		<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush																			
Reports to be Sent to: <u>S. Fenrick</u>		Date Needed: _____																			
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method _____)	Pb (EPA Method _____)						
		Date	Time		Water	Soil	Other														
5028397A	MW100	12/29	7:35	3-40L/1-500	X			Hcl/ANO					X		X						
B	Duplicate	1	-	2-40L	X			L					X								
C	TAP	1	-	1-40L	X								X								

Packed for Shipping by: <u>JFC</u>	Comments:
Shipment Date: <u>12-30-99</u>	

Relinquished By: <u>JFC</u>	Date: <u>12-30-99</u>	Relinquished By: _____	Date: _____	Relinquished By: <u>Leo Huss</u>	Date: <u>12-30-99</u>
Company: <u>NETE</u>	Time: <u>7:40</u>	Company: _____	Time: _____	Company: <u>US OIL</u>	Time: <u>5:10</u>
Received By: <u>Leo Huss</u>	Date: <u>12-30-99</u>	Received By: _____	Date: _____	Received By: <u>P. Woods</u>	Date: <u>12-30-99</u>
Company: <u>US OIL</u>	Time: <u>7:40</u>	Company: _____	Time: _____	Company: <u>US OIL</u>	Time: <u>7:10</u>

# U.S. Analytical Lab



SEAN FENRICH  
NORTHERN ENVIRONMENTAL  
954 CIRCLE DRIVE  
GREEN BAY WI 54304

Project # DCP03-0407-0952  
Project Name SEYMOUR  
Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029627A						Sample Type	Water	
Sample ID	MW100						Sample Date	5/1/00	

Organic

PAH's

Acenaphthene	14	ug/l	0.17	0.55	1	5/9/00	8310	TJW	1
Acenaphthylene	40	ug/l	1	3.2	1	5/9/00	8310	TJW	1
Anthracene	0.74	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Benzo(a)anthracene	< 0.074	ug/l	0.074	0.25	1	5/9/00	8310	TJW	1
Benzo(a)pyrene	< 0.1	ug/l	0.1	0.34	1	5/9/00	8310	TJW	1
Benzo(b)fluoranthene	< 0.065	ug/l	0.065	0.22	1	5/9/00	8310	TJW	1
Benzo(g,h,i)perylene	< 0.52	ug/l	0.52	1.7	1	5/9/00	8310	TJW	1
Benzo(k)fluoranthene	0.049	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Chrysene	< 0.7	ug/l	0.7	2.4	1	5/9/00	8310	TJW	1
Dibenzo(a,h)anthracene	< 0.42	ug/l	0.42	1.4	1	5/9/00	8310	TJW	1
Fluoranthene	2.4	ug/l	0.36	1.2	1	5/9/00	8310	TJW	1
Fluorene	4.9	ug/l	0.33	1.1	1	5/9/00	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.59	ug/l	0.59	2	1	5/9/00	8310	TJW	1
1-Methyl naphthalene	56	ug/l	0.21	0.7	1	5/9/00	8310	TJW	1
2-Methyl naphthalene	63	ug/l	0.2	0.67	1	5/9/00	8310	TJW	1
Naphthalene	180	ug/l	2.2	7.4	10	5/9/00	8310	TJW	1
Phenanthrene	9.2	ug/l	0.037	0.12	1	5/9/00	8310	TJW	1
Pyrene	0.6	ug/l	0.059	0.2	1	5/9/00	8310	TJW	1

Lab Code	5029627B						Sample Type	Water	
Sample ID	MW200						Sample Date	5/1/00	

Inorganic

Metals

Lead	< 1	ug/l	1	3.33	1	5/8/00	7421	JLA	1
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Organic

PAH's

Acenaphthene	< 0.17	ug/l	0.17	0.55	1	5/9/00	8310	TJW	1
Acenaphthylene	23	ug/l	1	3.2	1	5/9/00	8310	TJW	1
Anthracene	0.038	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Benzo(a)anthracene	< 0.074	ug/l	0.074	0.25	1	5/9/00	8310	TJW	1
Benzo(a)pyrene	< 0.1	ug/l	0.1	0.34	1	5/9/00	8310	TJW	1
Benzo(b)fluoranthene	< 0.065	ug/l	0.065	0.22	1	5/9/00	8310	TJW	1
Benzo(g,h,i)perylene	< 0.52	ug/l	0.52	1.7	1	5/9/00	8310	TJW	1
Benzo(k)fluoranthene	< 0.01	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5029627B							<b>Sample Type</b> Water		
<b>Sample ID</b> MW200						<b>Sample Date</b> 5/1/00			
Chrysene	< 0.7	ug/l	0.7	2.4	1	5/9/00	8310	TJW	1
Dibenzo(a,h)anthracene	< 0.42	ug/l	0.42	1.4	1	5/9/00	8310	TJW	1
Fluoranthene	< 0.36	ug/l	0.36	1.2	1	5/9/00	8310	TJW	1
Fluorene	< 0.33	ug/l	0.33	1.1	1	5/9/00	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.59	ug/l	0.59	2	1	5/9/00	8310	TJW	1
1-Methyl naphthalene	53	ug/l	0.21	0.7	1	5/9/00	8310	TJW	1
2-Methyl naphthalene	150	ug/l	2	6.7	10	5/9/00	8310	TJW	1
Naphthalene	130	ug/l	2.2	7.4	10	5/9/00	8310	TJW	1
Phenanthrene	1.7	ug/l	0.037	0.12	1	5/9/00	8310	TJW	1
Pyrene	< 0.059	ug/l	0.059	0.2	1	5/9/00	8310	TJW	1
<b>VOC's</b>									
Benzene	100	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromobenzene	< 3.9	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromodichloromethane	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
tert-Butylbenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
sec-Butylbenzene	35	ug/l	4.8	16	10	5/5/00	8021A	CAH	1
n-Butylbenzene	290	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
Carbon Tetrachloride	< 5.5	ug/l	5.5	18	10	5/5/00	8021A	CAH	1
Chlorobenzene	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1
Chloroethane	< 1.5	ug/l	1.5	4.8	10	5/5/00	8021A	CAH	1
Chloroform	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
Chloromethane	< 11	ug/l	11	35	10	5/5/00	8021A	CAH	1
2-Chlorotoluene	< 4.7	ug/l	4.7	15	10	5/5/00	8021A	CAH	1
4-Chlorotoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 6.7	ug/l	6.7	22	10	5/5/00	8021A	CAH	1
Dibromochloromethane	< 5	ug/l	5	17	10	5/5/00	8021A	CAH	1
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	15	10	5/5/00	8021A	CAH	1
1,2-Dichlorobenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Dichlorodifluoromethane	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	4
1,2-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethene	< 6.6	ug/l	6.6	22	10	5/5/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 4.3	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
1,2-Dichloropropane	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code 5029627B</b>						<b>Sample Type</b>	<b>Water</b>		
<b>Sample ID MW200</b>						<b>Sample Date</b>	<b>5/1/00</b>		
2,2-Dichloropropane	< 5.9	ug/l	5.9	20	10	5/5/00	8021A	CAH	4
Di-isopropyl ether	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 6.5	ug/l	6.5	22	10	5/5/00	8021A	CAH	1
Ethylbenzene	570	ug/l	4	13	10	5/5/00	8021A	CAH	1
Hexachlorobutadiene	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	1
Isopropylbenzene	60	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
p-Isopropyltoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Methylene chloride	< 5.7	ug/l	5.7	19	10	5/5/00	8021A	CAH	1
MTBE	31	ug/l	4.7	16	10	5/5/00	8021A	CAH	1
Naphthalene	190	ug/l	5.3	18	10	5/5/00	8021A	CAH	1
n-Propylbenzene	210	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 6.8	ug/l	6.8	23	10	5/5/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 9.3	ug/l	9.3	31	10	5/5/00	8021A	CAH	1
Tetrachloroethene	< 3.4	ug/l	3.4	11	10	5/5/00	8021A	CAH	1
Toluene	210	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 6	ug/l	6	20	10	5/5/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 4.9	ug/l	4.9	16	10	5/5/00	8021A	CAH	1
1,1,1-Trichloroethane	< 5.4	ug/l	5.4	18	10	5/5/00	8021A	CAH	1
1,1,2-Trichloroethane	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichloroethene	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichlorofluoromethane	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	2
1,2,4-Trimethylbenzene	1100	ug/l	4	13	10	5/5/00	8021A	CAH	1
1,3,5-Trimethylbenzene	390	ug/l	6.3	21	10	5/5/00	8021A	CAH	1
Vinyl Chloride	< 8.7	ug/l	8.7	29	10	5/5/00	8021A	CAH	1
m&p-Xylene	2000	ug/l	7.9	26	10	5/5/00	8021A	CAH	1
o-Xylene	560	ug/l	6.4	21	10	5/5/00	8021A	CAH	1

<b>Lab Code 5029627C</b>						<b>Sample Type</b>	<b>Water</b>		
<b>Sample ID MW300</b>						<b>Sample Date</b>	<b>5/1/00</b>		

**Inorganic**

**Metals**

Lead < 1 ug/l 1 3.33 1 5/8/00 7421 JLA 1

**Organic**

**PAH's**

Acenaphthene < 0.17 ug/l 0.17 0.55 1 5/9/00 8310 TJW 1  
 Acenaphthylene 50 ug/l 1 3.2 1 5/9/00 8310 TJW 1



# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5029627C						<b>Sample Type</b> Water			
<b>Sample ID</b> MW300						<b>Sample Date</b> 5/1/00			
Anthracene	0.032 "J"	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Benzo(a)anthracene	< 0.074	ug/l	0.074	0.25	1	5/9/00	8310	TJW	1
Benzo(a)pyrene	< 0.1	ug/l	0.1	0.34	1	5/9/00	8310	TJW	1
Benzo(b)fluoranthene	< 0.065	ug/l	0.065	0.22	1	5/9/00	8310	TJW	1
Benzo(g,h,i)perylene	< 0.52	ug/l	0.52	1.7	1	5/9/00	8310	TJW	1
Benzo(k)fluoranthene	< 0.01	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Chrysene	< 0.7	ug/l	0.7	2.4	1	5/9/00	8310	TJW	1
Dibenzo(a,h)anthracene	< 0.42	ug/l	0.42	1.4	1	5/9/00	8310	TJW	1
Fluoranthene	< 0.36	ug/l	0.36	1.2	1	5/9/00	8310	TJW	1
Fluorene	< 0.33	ug/l	0.33	1.1	1	5/9/00	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.59	ug/l	0.59	2	1	5/9/00	8310	TJW	1
1-Methyl naphthalene	58	ug/l	0.21	0.7	1	5/9/00	8310	TJW	1
2-Methyl naphthalene	150	ug/l	2	6.7	10	5/9/00	8310	TJW	1
Naphthalene	200	ug/l	2.2	7.4	10	5/9/00	8310	TJW	1
Phenanthrene	1.7	ug/l	0.037	0.12	1	5/9/00	8310	TJW	1
Pyrene	< 0.059	ug/l	0.059	0.2	1	5/9/00	8310	TJW	1
<b>VOC's</b>									
Benzene	650	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromobenzene	< 3.9	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromodichloromethane	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
tert-Butylbenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
sec-Butylbenzene	44	ug/l	4.8	16	10	5/5/00	8021A	CAH	1
n-Butylbenzene	290	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
Carbon Tetrachloride	< 5.5	ug/l	5.5	18	10	5/5/00	8021A	CAH	1
Chlorobenzene	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1
Chloroethane	< 1.5	ug/l	1.5	4.8	10	5/5/00	8021A	CAH	1
Chloroform	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
Chloromethane	< 11	ug/l	11	35	10	5/5/00	8021A	CAH	1
2-Chlorotoluene	< 4.7	ug/l	4.7	15	10	5/5/00	8021A	CAH	1
4-Chlorotoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 6.7	ug/l	6.7	22	10	5/5/00	8021A	CAH	1
Dibromochloromethane	< 5	ug/l	5	17	10	5/5/00	8021A	CAH	1
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	15	10	5/5/00	8021A	CAH	1
1,2-Dichlorobenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Dichlorodifluoromethane	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	4

# U.S. Analytical Lab

SEAN FENRICH  
NORTHERN ENVIRONMENTAL  
954 CIRCLE DRIVE  
GREEN BAY WI 54304

Project # DCP03-0407-0952  
Project Name SEYMOUR  
Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029627C		Sample Type		Water				
Sample ID	MW300		Sample Date		5/1/00				
1,2-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethene	< 6.6	ug/l	6.6	22	10	5/5/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 4.3	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
1,2-Dichloropropane	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1
2,2-Dichloropropane	< 5.9	ug/l	5.9	20	10	5/5/00	8021A	CAH	4
Di-isopropyl ether	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 6.5	ug/l	6.5	22	10	5/5/00	8021A	CAH	1
Ethylbenzene	1100	ug/l	4	13	10	5/5/00	8021A	CAH	1
Hexachlorobutadiene	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	1
Isopropylbenzene	94	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
p-Isopropyltoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Methylene chloride	< 5.7	ug/l	5.7	19	10	5/5/00	8021A	CAH	1
MTBE	12 "J"	ug/l	4.7	16	10	5/5/00	8021A	CAH	1
Naphthalene	310	ug/l	5.3	18	10	5/5/00	8021A	CAH	1
n-Propylbenzene	300	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 6.8	ug/l	6.8	23	10	5/5/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 9.3	ug/l	9.3	31	10	5/5/00	8021A	CAH	1
Tetrachloroethene	< 3.4	ug/l	3.4	11	10	5/5/00	8021A	CAH	1
Toluene	610	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 6	ug/l	6	20	10	5/5/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 4.9	ug/l	4.9	16	10	5/5/00	8021A	CAH	1
1,1,1-Trichloroethane	< 5.4	ug/l	5.4	18	10	5/5/00	8021A	CAH	1
1,1,2-Trichloroethane	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichloroethene	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichlorofluoromethane	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	2
1,2,4-Trimethylbenzene	1600	ug/l	4	13	10	5/5/00	8021A	CAH	1
1,3,5-Trimethylbenzene	530	ug/l	6.3	21	10	5/5/00	8021A	CAH	1
Vinyl Chloride	< 8.7	ug/l	8.7	29	10	5/5/00	8021A	CAH	1
m&p-Xylene	3600	ug/l	7.9	26	10	5/5/00	8021A	CAH	1
o-Xylene	1100	ug/l	6.4	21	10	5/5/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029627D						Sample Type	Water	
Sample ID	MW400						Sample Date	5/1/00	

**Inorganic**

**Metals**

Lead	< 1	ug/l	1	3.33	1	5/8/00	7421	JLA	1
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**Organic**

**PAH's**

Acenaphthene	< 0.17	ug/l	0.17	0.55	1	5/9/00	8310	TJW	1
Acenaphthylene	18	ug/l	1	3.2	1	5/9/00	8310	TJW	1
Anthracene	< 0.01	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Benzo(a)anthracene	< 0.074	ug/l	0.074	0.25	1	5/9/00	8310	TJW	1
Benzo(a)pyrene	< 0.1	ug/l	0.1	0.34	1	5/9/00	8310	TJW	1
Benzo(b)fluoranthene	< 0.065	ug/l	0.065	0.22	1	5/9/00	8310	TJW	1
Benzo(g,h,i)perylene	< 0.52	ug/l	0.52	1.7	1	5/9/00	8310	TJW	1
Benzo(k)fluoranthene	< 0.01	ug/l	0.01	0.033	1	5/9/00	8310	TJW	1
Chrysene	< 0.7	ug/l	0.7	2.4	1	5/9/00	8310	TJW	1
Dibenzo(a,h)anthracene	< 0.42	ug/l	0.42	1.4	1	5/9/00	8310	TJW	1
Fluoranthene	< 0.36	ug/l	0.36	1.2	1	5/9/00	8310	TJW	1
Fluorene	< 0.33	ug/l	0.33	1.1	1	5/9/00	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.59	ug/l	0.59	2	1	5/9/00	8310	TJW	1
1-Methyl naphthalene	23	ug/l	0.21	0.7	1	5/9/00	8310	TJW	1
2-Methyl naphthalene	58	ug/l	0.2	0.67	1	5/9/00	8310	TJW	1
Naphthalene	62	ug/l	0.22	0.74	1	5/9/00	8310	TJW	1
Phenanthrene	0.17	ug/l	0.037	0.12	1	5/9/00	8310	TJW	1
Pyrene	< 0.059	ug/l	0.059	0.2	1	5/9/00	8310	TJW	1

**VOC's**

Benzene	56	ug/l	3.9	13	10	5/6/00	8021A	CAH	1
Bromobenzene	< 3.9	ug/l	3.9	13	10	5/6/00	8021A	CAH	1
Bromodichloromethane	< 3.8	ug/l	3.8	13	10	5/6/00	8021A	CAH	1
tert-Butylbenzene	< 4.4	ug/l	4.4	15	10	5/6/00	8021A	CAH	1
sec-Butylbenzene	21	ug/l	4.8	16	10	5/6/00	8021A	CAH	1
n-Butylbenzene	200	ug/l	4.3	14	10	5/6/00	8021A	CAH	1
Carbon Tetrachloride	< 5.5	ug/l	5.5	18	10	5/6/00	8021A	CAH	1
Chlorobenzene	< 4	ug/l	4	13	10	5/6/00	8021A	CAH	1
Chloroethane	< 1.5	ug/l	1.5	4.8	10	5/6/00	8021A	CAH	1
Chloroform	< 3.8	ug/l	3.8	13	10	5/6/00	8021A	CAH	1
Chloromethane	< 11	ug/l	11	35	10	5/6/00	8021A	CAH	4
2-Chlorotoluene	< 4.7	ug/l	4.7	15	10	5/6/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5029627D							<b>Sample Type</b> Water		
<b>Sample ID</b> MW400						<b>Sample Date</b> 5/1/00			
4-Chlorotoluene	< 4.4	ug/l	4.4	15	10	5/6/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 6.7	ug/l	6.7	22	10	5/6/00	8021A	CAH	34
Dibromochloromethane	< 5	ug/l	5	17	10	5/6/00	8021A	CAH	1
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	14	10	5/6/00	8021A	CAH	1
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	15	10	5/6/00	8021A	CAH	1
1,2-Dichlorobenzene	< 4.4	ug/l	4.4	15	10	5/6/00	8021A	CAH	1
Dichlorodifluoromethane	< 3.7	ug/l	3.7	12	10	5/6/00	8021A	CAH	4
1,2-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/6/00	8021A	CAH	1
1,1-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/6/00	8021A	CAH	1
1,1-Dichloroethene	< 6.6	ug/l	6.6	22	10	5/6/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 3.7	ug/l	3.7	12	10	5/6/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 4.3	ug/l	4.3	14	10	5/6/00	8021A	CAH	1
1,2-Dichloropropane	< 4	ug/l	4	13	10	5/6/00	8021A	CAH	1
2,2-Dichloropropane	< 5.9	ug/l	5.9	20	10	5/6/00	8021A	CAH	34
Di-isopropyl ether	< 3.7	ug/l	3.7	12	10	5/6/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 6.5	ug/l	6.5	22	10	5/6/00	8021A	CAH	4
Ethylbenzene	430	ug/l	4	13	10	5/6/00	8021A	CAH	1
Hexachlorobutadiene	< 6.2	ug/l	6.2	21	10	5/6/00	8021A	CAH	1
Isopropylbenzene	38	ug/l	3.8	13	10	5/6/00	8021A	CAH	1
p-Isopropyltoluene	< 4.4	ug/l	4.4	15	10	5/6/00	8021A	CAH	1
Methylene chloride	< 5.7	ug/l	5.7	19	10	5/6/00	8021A	CAH	1
MTBE	< 4.7	ug/l	4.7	16	10	5/6/00	8021A	CAH	1
Naphthalene	95	ug/l	5.3	18	10	5/6/00	8021A	CAH	1
n-Propylbenzene	140	ug/l	4.2	14	10	5/6/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 6.8	ug/l	6.8	23	10	5/6/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 9.3	ug/l	9.3	31	10	5/6/00	8021A	CAH	1
Tetrachloroethene	< 3.4	ug/l	3.4	11	10	5/6/00	8021A	CAH	1
Toluene	290	ug/l	3.7	12	10	5/6/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 6	ug/l	6	20	10	5/6/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 4.9	ug/l	4.9	16	10	5/6/00	8021A	CAH	4
1,1,1-Trichloroethane	< 5.4	ug/l	5.4	18	10	5/6/00	8021A	CAH	1
1,1,2-Trichloroethane	< 4.6	ug/l	4.6	15	10	5/6/00	8021A	CAH	1
Trichloroethene	< 4.6	ug/l	4.6	15	10	5/6/00	8021A	CAH	1
Trichlorofluoromethane	< 6.2	ug/l	6.2	21	10	5/6/00	8021A	CAH	3
1,2,4-Trimethylbenzene	490	ug/l	4	13	10	5/6/00	8021A	CAH	1
1,3,5-Trimethylbenzene	270	ug/l	6.3	21	10	5/6/00	8021A	CAH	1
Vinyl Chloride	< 8.7	ug/l	8.7	29	10	5/6/00	8021A	CAH	4

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5029627D						<b>Sample Type</b> Water			
<b>Sample ID</b> MW400						<b>Sample Date</b> 5/1/00			
m&p-Xylene	1000	ug/l	7.9	26	10	5/6/00	8021A	CAH	1
o-Xylene	490	ug/l	6.4	21	10	5/6/00	8021A	CAH	1

<b>Lab Code</b> 5029627E						<b>Sample Type</b> Water			
<b>Sample ID</b> DUPLICATE						<b>Sample Date</b> 5/1/00			

Organic

VOC's

Benzene	69	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromobenzene	< 3.9	ug/l	3.9	13	10	5/5/00	8021A	CAH	1
Bromodichloromethane	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
tert-Butylbenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
sec-Butylbenzene	40	ug/l	4.8	16	10	5/5/00	8021A	CAH	1
n-Butylbenzene	360	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
Carbon Tetrachloride	< 5.5	ug/l	5.5	18	10	5/5/00	8021A	CAH	1
Chlorobenzene	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1
Chloroethane	< 1.5	ug/l	1.5	4.8	10	5/5/00	8021A	CAH	1
Chloroform	< 3.8	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
Chloromethane	< 11	ug/l	11	35	10	5/5/00	8021A	CAH	1
2-Chlorotoluene	< 4.7	ug/l	4.7	15	10	5/5/00	8021A	CAH	1
4-Chlorotoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 6.7	ug/l	6.7	22	10	5/5/00	8021A	CAH	1
Dibromochloromethane	< 5	ug/l	5	17	10	5/5/00	8021A	CAH	1
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	15	10	5/5/00	8021A	CAH	1
1,2-Dichlorobenzene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Dichlorodifluoromethane	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	4
1,2-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethane	< 3.5	ug/l	3.5	12	10	5/5/00	8021A	CAH	1
1,1-Dichloroethene	< 6.6	ug/l	6.6	22	10	5/5/00	8021A	CAH	4
cis-1,2-Dichloroethene	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 4.3	ug/l	4.3	14	10	5/5/00	8021A	CAH	1
1,2-Dichloropropane	< 4	ug/l	4	13	10	5/5/00	8021A	CAH	1
2,2-Dichloropropane	< 5.9	ug/l	5.9	20	10	5/5/00	8021A	CAH	4
Di-isopropyl ether	< 3.7	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 6.5	ug/l	6.5	22	10	5/5/00	8021A	CAH	1
Ethylbenzene	500	ug/l	4	13	10	5/5/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5029627E						<b>Sample Type</b>	Water		
<b>Sample ID</b> DUPLICATE						<b>Sample Date</b>	5/1/00		
Hexachlorobutadiene	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	1
Isopropylbenzene	58	ug/l	3.8	13	10	5/5/00	8021A	CAH	1
p-Isopropyltoluene	< 4.4	ug/l	4.4	15	10	5/5/00	8021A	CAH	1
Methylene chloride	< 5.7	ug/l	5.7	19	10	5/5/00	8021A	CAH	1
MTBE	36	ug/l	4.7	16	10	5/5/00	8021A	CAH	1
Naphthalene	220	ug/l	5.3	18	10	5/5/00	8021A	CAH	1
n-Propylbenzene	230	ug/l	4.2	14	10	5/5/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 6.8	ug/l	6.8	23	10	5/5/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 9.3	ug/l	9.3	31	10	5/5/00	8021A	CAH	1
Tetrachloroethene	< 3.4	ug/l	3.4	11	10	5/5/00	8021A	CAH	1
Toluene	150	ug/l	3.7	12	10	5/5/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 6	ug/l	6	20	10	5/5/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 4.9	ug/l	4.9	16	10	5/5/00	8021A	CAH	1
1,1,1-Trichloroethane	< 5.4	ug/l	5.4	18	10	5/5/00	8021A	CAH	1
1,1,2-Trichloroethane	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichloroethene	< 4.6	ug/l	4.6	15	10	5/5/00	8021A	CAH	1
Trichlorofluoromethane	< 6.2	ug/l	6.2	21	10	5/5/00	8021A	CAH	2
1,2,4-Trimethylbenzene	1200	ug/l	4	13	10	5/5/00	8021A	CAH	1
1,3,5-Trimethylbenzene	420	ug/l	6.3	21	10	5/5/00	8021A	CAH	1
Vinyl Chloride	< 8.7	ug/l	8.7	29	10	5/5/00	8021A	CAH	1
m&p-Xylene	1800	ug/l	7.9	26	10	5/5/00	8021A	CAH	1
o-Xylene	520	ug/l	6.4	21	10	5/5/00	8021A	CAH	1

<b>Lab Code</b> 5029627F						<b>Sample Type</b>	Water		
<b>Sample ID</b> TRIP						<b>Sample Date</b>	5/1/00		

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	5/4/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	5/4/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	5/4/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	5/4/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	5/4/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	5/4/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	5/4/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	5/4/00	8021A	CAH	1
Chloroethane	< 0.15	ug/l	0.15	0.48	1	5/4/00	8021A	CAH	1

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code	
Lab Code	5029627F					Sample Type	Water			
Sample ID	TRIP					Sample Date	5/1/00			
Chloroform	< 0.38	ug/l	0.38	1.3	1	5/4/00	8021A	CAH	1	
Chloromethane	< 1.1	ug/l	1.1	3.5	1	5/4/00	8021A	CAH	1	
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	5/4/00	8021A	CAH	1	
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	5/4/00	8021A	CAH	1	
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	5/4/00	8021A	CAH	1	
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	5/4/00	8021A	CAH	1	
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	5/4/00	8021A	CAH	1	
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	5/4/00	8021A	CAH	1	
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	5/4/00	8021A	CAH	1	
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	5/4/00	8021A	CAH	4	
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	5/4/00	8021A	CAH	1	
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	5/4/00	8021A	CAH	1	
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	5/4/00	8021A	CAH	4	
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.2	1	5/4/00	8021A	CAH	1	
trans-1,2-Dichloroethene	< 0.43	ug/l	0.43	1.4	1	5/4/00	8021A	CAH	1	
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	5/4/00	8021A	CAH	1	
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	5/4/00	8021A	CAH	4	
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	5/4/00	8021A	CAH	1	
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	5/4/00	8021A	CAH	1	
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	5/4/00	8021A	CAH	1	
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	5/4/00	8021A	CAH	1	
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	5/4/00	8021A	CAH	1	
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	5/4/00	8021A	CAH	1	
Methylene chloride	< 0.57	ug/l	0.57	1.9	1	5/4/00	8021A	CAH	1	
MTBE	< 0.47	ug/l	0.47	1.6	1	5/4/00	8021A	CAH	1	
Naphthalene	< 0.53	ug/l	0.53	1.8	1	5/4/00	8021A	CAH	1	
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	5/4/00	8021A	CAH	1	
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	5/4/00	8021A	CAH	1	
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	5/4/00	8021A	CAH	1	
Tetrachloroethene	< 0.34	ug/l	0.34	1.1	1	5/4/00	8021A	CAH	1	
Toluene	< 0.37	ug/l	0.37	1.2	1	5/4/00	8021A	CAH	1	
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	5/4/00	8021A	CAH	1	
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	5/4/00	8021A	CAH	1	
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	5/4/00	8021A	CAH	1	
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	5/4/00	8021A	CAH	1	
Trichloroethene	< 0.46	ug/l	0.46	1.5	1	5/4/00	8021A	CAH	1	
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	5/4/00	8021A	CAH	2	

# U.S. Analytical Lab

SEAN FENRICH  
 NORTHERN ENVIRONMENTAL  
 954 CIRCLE DRIVE  
 GREEN BAY WI 54304

Project # DCP03-0407-0952  
 Project Name SEYMOUR  
 Invoice # E29627

Report Date 10-May-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5029627F						Sample Type	Water	
Sample ID	TRIP						Sample Date	5/1/00	
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	5/4/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	5/4/00	8021A	CAH	1
Vinyl Chloride	< 0.87	ug/l	0.87	2.9	1	5/4/00	8021A	CAH	1
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	5/4/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	5/4/00	8021A	CAH	1

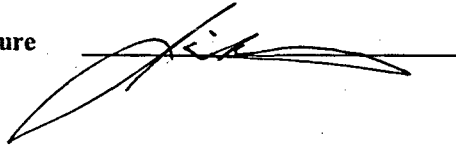
LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
4	The check standard failed to meet acceptable QC limits.

Authorized Signature





- Check office originating request
- 1214 W. Venture Ct.  
Mequon, WI 53092  
262-241-3133  
FAX 262-241-8222
  - 372 West County Road D  
New Brighton, MN 55112  
651-635-9100  
FAX 651-635-0643
  - 954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444
  - 330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
FAX 715-762-1844
  - 1203 Storbeck Drive  
Waupun, WI 53963  
920-324-8600  
FAX 920-324-3023
  - 3211 Arnold Lane  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552
  - 2222 Hwy 52 North, Ste 210  
Rochester, MN 55901  
507-282-3800  
FAX 507-282-3100
  - 31628 Glendale Ave. Ste 100  
Livonia, MI 48150  
734-422-2624  
FAX 734-422-3530

5029627

Project No: <u>DCP03-0407-0952</u>		Task No:		Laboratory: <u>U.S. Oil Analytical Lab</u>			Sample Integrity - To be completed by receiving lab																													
Project Location: <u>Seymour</u>		Wisconsin DNR Certification #: <u>445027660</u>			Seal intact upon receipt <input checked="" type="checkbox"/> yes <input type="checkbox"/> no			Method of shipment <u>Common</u>																												
Project Manager: <u>Mark Fokt</u>		Laboratory Contact: <u>Jim Stewart</u>			Price Quote:			Contents Temperature _____ °C Refrigerator No. <u>Ice</u> <u>PW</u>																												
Sampler: (name) <u>Sean Ferrich</u>		TURNAROUND TIME REQUIRED <input type="checkbox"/> Normal <input type="checkbox"/> Rush			<b>ANALYSES REQUESTED</b>																															
Sampler: (Signature) <u>[Signature]</u>					DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )																									
Sampling Date(s): <u>5/1/00</u>																																				
Reports to be Sent to: <u>Sean Ferrich</u>		Date Needed _____																																		
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )																					
		Date	Time		Water	Soil	Other																													
<u>029627A</u>	<u>MW100</u>	<u>5/1/00</u>	<u>1315</u>	<u>2-2L</u>	<u>X</u>			<u>Ice</u>					<u>X</u>																							
<u>B</u>	<u>MW200</u>		<u>1250</u>	<u>3-40ml 11-90ml 2-2L</u>	<u>X</u>			<u>HCL/HNO<sub>3</sub>/HCL</u>					<u>X</u>	<u>X</u>	<u>X</u>																					
<u>C</u>	<u>MW300</u>		<u>1230</u>	<u>"</u>	<u>X</u>			<u>"</u>					<u>X</u>	<u>X</u>	<u>X</u>																					
<u>D</u>	<u>MW400</u>		<u>1212</u>	<u>"</u>	<u>X</u>			<u>"</u>					<u>X</u>	<u>X</u>	<u>X</u>																					
<u>E</u>	<u>Duplicate</u>		<u>-</u>	<u>3-40ml</u>	<u>X</u>			<u>HCL/ICE</u>					<u>X</u>																							
<u>F</u>	<u>Tip</u>		<u>-</u>	<u>1-40ml</u>	<u>X</u>			<u>"</u>					<u>X</u>																							
Packed for Shipping by: <u>Kevin Eibenholz</u>				Comments:																																
Shipment Date: <u>5-2-00</u>																																				
Relinquished By: <u>[Signature]</u>		Date: <u>5-2-00</u>		Relinquished By: <u>Clay Perazzo</u>		Date: <u>5/2/00</u>		Relinquished By:		Date:		Relinquished By:		Date:		Relinquished By:		Date:																		
Company: <u>NETI</u>		Time: <u>0713</u>		Company: <u>US Oil</u>		Time: <u>2:29</u>		Company:		Time:		Company:		Time:		Company:		Time:																		
Received By: <u>Clay Perazzo</u>		Date: <u>5/2/00</u>		Received By: <u>P. Woods</u>		Date: <u>5-2-00</u>		Received By:		Date:		Received By:		Date:		Received By:		Date:																		
Company: <u>US Oil</u>		Time: <u>7:13</u>		Company: <u>US Oil</u>		Time: <u>14:29</u>		Company:		Time:		Company:		Time:		Company:		Time:																		



**ANALYTICAL REPORT**

1 of 3

NORTHERN ENVIRONMENTAL  
SEAN FENRICH  
954 CIRCLE DRIVE  
GREEN BAY, WI 54304

Project Name: SEYMOUR  
Contract #: 1595  
Project #: DCP03-0407-0952  
Folder #: 5810  
Purchase Order #: INV 6402  
Arrival Temperature Deg. C: 5.0  
Report Date: 6/22/00  
Date Received: 6/9/00

CTI LAB#:	21401	Sample Description:	MW100	Sampled:	6/8/00
-----------	-------	---------------------	-------	----------	--------

Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
<b>Organic Results</b>										
Benzene	360	ug/L	5.0	15	10			6/18/00	JBB	EPA 8020
Ethylbenzene	170	ug/L	5.0	17	10			6/18/00	JBB	EPA 8020
Methyl tert-butyl ether	25	ug/L	3.0	9.0	10			6/18/00	JBB	EPA 8020
Toluene	180	ug/L	5.0	16	10			6/18/00	JBB	EPA 8020
1,2,4-Trimethylbenzene	960	ug/L	50	160	100			6/18/00	JBB	EPA 8020
1,3,5-Trimethylbenzene	140	ug/L	5.0	17	10			6/18/00	JBB	EPA 8020
m & p-Xylene	810	ug/L	10	33	10			6/18/00	JBB	EPA 8020
o-Xylene	140	ug/L	5.0	14	10			6/18/00	JBB	EPA 8020
Naphthalene	120	ug/L	100 *	330	100	B		6/18/00	JBB	EPA 8020

CTI LAB#:	21402	Sample Description:	MW200	Sampled:	6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
<b>Organic Results</b>										
Qualifiers applying to all Analytes of Method EPA 8020: V										
Benzene	94	ug/L	50 *	150	100			6/20/00	JBB	EPA 8020
Ethylbenzene	550	ug/L	50	170	100			6/20/00	JBB	EPA 8020
Methyl tert-butyl ether	<30	ug/L	30	90	100			6/20/00	JBB	EPA 8020
Toluene	120	ug/L	50 *	160	100			6/20/00	JBB	EPA 8020
1,2,4-Trimethylbenzene	1000	ug/L	50	160	100			6/20/00	JBB	EPA 8020
1,3,5-Trimethylbenzene	250	ug/L	50	170	100			6/20/00	JBB	EPA 8020

WI DNR Lab Certification Number: 157066030  
DATCP Certification Number: 289



CTI LAB#:	21402	Sample Description:	MW200	Sampled:	6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8020: V										
m & p-Xylene	1800	ug/L	100	330	100			6/20/00	JBB	EPA 8020
o-Xylene	510	ug/L	50	140	100			6/20/00	JBB	EPA 8020
Naphthalene	170	ug/L	100 *	330	100	B		6/20/00	JBB	EPA 8020

CTI LAB#:	21403	Sample Description:	MW300	Sampled:	6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Organic Results										
Qualifiers applying to all Analytes of Method EPA 8020: V										
Benzene	330	ug/L	50	150	100			6/20/00	JBB	EPA 8020
Ethylbenzene	1200	ug/L	50	170	100			6/20/00	JBB	EPA 8020
Methyl tert-butyl ether	<30	ug/L	30	90	100			6/20/00	JBB	EPA 8020
Toluene	430	ug/L	50	160	100			6/20/00	JBB	EPA 8020
1,2,4-Trimethylbenzene	2300	ug/L	50	160	100			6/20/00	JBB	EPA 8020
1,3,5-Trimethylbenzene	590	ug/L	50	170	100			6/20/00	JBB	EPA 8020
m & p-Xylene	3800	ug/L	100	330	100			6/20/00	JBB	EPA 8020
o-Xylene	1300	ug/L	50	140	100			6/20/00	JBB	EPA 8020
Naphthalene	360	ug/L	100	330	100	B		6/20/00	JBB	EPA 8020

CTI LAB#:	21404	Sample Description:	MW400	Sampled:	6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Organic Results										
Qualifiers applying to all Analytes of Method EPA 8020: V										
Benzene	<50	ug/L	50	150	100			6/20/00	JBB	EPA 8020
Ethylbenzene	740	ug/L	50	170	100			6/20/00	JBB	EPA 8020
Methyl tert-butyl ether	<30	ug/L	30	90	100			6/20/00	JBB	EPA 8020
Toluene	540	ug/L	50	160	100			6/20/00	JBB	EPA 8020



CTI LAB#: 21404	Sample Description: MW400	Sampled: 6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Qualifiers applying to all Analytes of Method EPA 8020: V										
1,2,4-Trimethylbenzene	960	ug/L	50	160	100			6/20/00	JBB	EPA 8020
1,3,5-Trimethylbenzene	280	ug/L	50	170	100			6/20/00	JBB	EPA 8020
m & p-Xylene	1900	ug/L	100	330	100			6/20/00	JBB	EPA 8020
o-Xylene	880	ug/L	50	140	100			6/20/00	JBB	EPA 8020
Naphthalene	170	ug/L	100 *	330	100	B		6/20/00	JBB	EPA 8020

CTI LAB#: 21405	Sample Description: TB	Sampled: 6/8/00
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Analyte	Result	Units	LOD	LOQ	Dilution	Qualifier	Prep Date	Analysis Date	Analyst	Method
Organic Results										
Benzene	<0.50	ug/L	0.50	1.5	1			6/16/00	JBB	EPA 8020
Ethylbenzene	<0.50	ug/L	0.50	1.7	1			6/16/00	JBB	EPA 8020
Methyl tert-butyl ether	<0.30	ug/L	0.30	0.90	1			6/16/00	JBB	EPA 8020
Toluene	<0.50	ug/L	0.50	1.6	1			6/16/00	JBB	EPA 8020
1,2,4-Trimethylbenzene	<0.50	ug/L	0.50	1.6	1			6/16/00	JBB	EPA 8020
1,3,5-Trimethylbenzene	<0.50	ug/L	0.50	1.7	1			6/16/00	JBB	EPA 8020
m & p-Xylene	<1.0	ug/L	1.0	3.3	1			6/16/00	JBB	EPA 8020
o-Xylene	<0.50	ug/L	0.50	1.4	1			6/16/00	JBB	EPA 8020

Notes: \* Indicates Value in between LOD and LOQ.

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without written approval of this laboratory. The Chain of Custody is attached.

Submitted by: Pml

Record Reviewer

## QC Qualifiers

<u>Code</u>	<u>Description</u>
B	Analyte detected in associated Method Blank.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Toxicity present in BOD sample.
Q	Laboratory Control Sample outside acceptance limits.
S	Surrogate and/or internal standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.
J	Estimated value. The result is less than the reporting limit, but greater than the MDL.

- Check office originating request
- 1214 W. Venture Ct.  
Mequon, WI 53092  
262-241-3133  
FAX 262-241-8222
  - 1203 Storbeck Drive  
Waupun, WI 53963  
920-324-8600  
FAX 920-324-3023

- 372 West County Road D  
New Brighton, MN 55112  
651-635-9100  
FAX 651-635-0643
- 3211 Arnold Lane  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552

- 954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444
- 2222 Hwy 52 North, Ste 210  
Rochester, MN 55901  
507-282-3800  
FAX 507-282-3100

- 330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
FAX 715-762-1844
- 31628 Glendale Ave. Ste 100  
Livonia, MI 48150  
734-422-2624  
FAX 734-422-3530

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5810

Project No: <u>DCP03-0407-0952</u>		Task No: _____		Laboratory: <u>Commonwealth Tech</u>			Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input checked="" type="checkbox"/> yes <input type="checkbox"/> no														
Project Location: <u>Seymour</u>		Wisconsin DNR Certification #:		Laboratory Contact: <u>Jesset Faivre</u>			Method of shipment _____ Contents Temperature <u>5.0</u> °C Refrigerator No. _____														
Project Manager: <u>Mark Fohrt</u>		Price Quote:		TURNAROUND TIME REQUIRED			<b>ANALYSES REQUESTED</b>  DRO (WI Modified Method) _____ GRO (WI Modified Method) _____ BETX (EPA Method 8020) _____ PVOC (EPA Method 8020) _____ VOC (EPA Method 8021) _____ PAH (EPA Method _____) _____ Pb (EPA Method _____) _____ <u>Megathunder</u>														
Sampler: (name) <u>Sean Ferrich</u>		Date Needed _____		<input type="checkbox"/> Normal <input type="checkbox"/> Rush																	
Sampler: (Signature) <u>[Signature]</u>		Date Needed _____		Date Needed _____																	
Sampling Date(s): <u>6/8/00</u>		Date Needed _____		Date Needed _____																	
Reports to be Sent to: <u>Sean Ferrich</u>		Date Needed _____		Date Needed _____																	
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb	Megathunder					
		Date	Time		Water	Soil	Other									1	2	3	4	5	
	MW100	6/8	1140	3-40ml	X			HCL/ICC				X			X		2	1	4	0	1
	MW200		1145	↓	X						X				X		2	1	4	0	2
	MW300		1135	↓	X						X				X		2	1	4	0	3
	MW400		1130	↓	X						X				X		2	1	4	0	4
	Tip			1-40ml	X						X				X		2	1	4	0	5
Packed for Shipping by: <u>Sean Ferrich</u>		Shipment Date: <u>6/8/00</u>		Comments:																	
Relinquished By: <u>[Signature]</u>		Date: <u>6/8</u>		Relinquished By:		Date:		Relinquished By:		Date:		Relinquished By: <u>[Signature]</u>					Date: <u>6/9/00</u>				
Company: <u>NETE</u>		Time: <u>4:00</u>		Company:		Time:		Company:		Time:		Company:					Time:				
Received By:		Date:		Received By:		Date:		Received By:		Date:		Received By:					Date:				
Company:		Time:		Company:		Time:		Company:		Time:		Company:					Time:				



Corporate Office & Laboratory  
1241 Bellevue Street, Suite 9 • Green Bay, WI 54302  
920-469-2436 • FAX: 920-469-8827 • 800-7-ENCHEM  
www.enchem.com

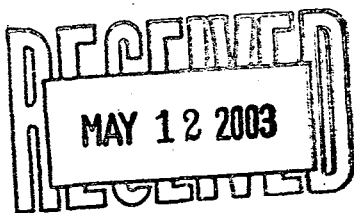
Analytical Report Number: 833969

Client : NORTHERN ENVIRONMENTAL

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

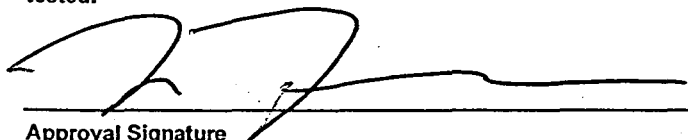
Lab Sample Number	Field ID	Matrix	Collection Date
833969-001	MW100	WATER	05/02/03
833969-002	MW200	WATER	05/02/03
833969-003	MW300	WATER	05/02/03
833969-004	MW400	WATER	05/02/03
833969-005	TRIP	WATER	05/02/03
833969-006	FIELD	WATER	05/02/03
833969-007	DUP	WATER	05/02/03



ORIGINAL

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. Reported results shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested.

  
Approval Signature

5/8/03  
Date

# En Chem, Inc. Cooler Receipt Log

Batch No. 833969

Project Name or ID DCP 03-0407-0952 No. of Coolers: 1 Temps: ROT

A. Receipt Phase: Date cooler was opened: 5-5-03 By: AY

- 1: Were samples received on ice? (Must be ≤ 6 C).....YES<sup>1</sup> NO<sup>2</sup>
- 2: Was there a Temperature Blank?.....YES NO
- 3: Were custody seals present and intact? (Record on COC).....YES NO
- 4: Are COC documents present?.....YES<sup>1</sup> NO<sup>2</sup>
- 5: Does this Project require quick turn around analysis?.....YES NO
- 6: Is there any sub-work?.....YES NO
- 7: Are there any short hold time tests?.....YES NO
- 8: Are any samples nearing expiration of hold-time? (Within 2 days).....YES<sup>1</sup> NO Contacted by/Who \_\_\_\_\_
- 9: Do any samples need to be Filtered or Preserved in the lab?.....YES<sup>1</sup> NO Contacted by/Who \_\_\_\_\_

B. Check-in Phase: Date samples were Checked-in: 5-5-03 By: AY

- 1: Were all sample containers listed on the COC received and intact?.....YES NO<sup>2</sup> NA
- 2: Sign the COC as received by En Chem. Completed.....YES NO
- 3: Do sample labels match the COC?.....YES NO<sup>2</sup>
- 4: Completed pH check on preserved samples. ....YES NO NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
- 5: Do samples have correct chemical preservation?.....YES NO<sup>2</sup> NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
- 6: Are dissolved parameters field filtered?.....YES NO<sup>2</sup> NA
- 7: Are sample volumes adequate for tests requested? .....YES<sup>1</sup> NO<sup>2</sup>
- 8: Are VOC samples free of bubbles >6mm .....YES<sup>1</sup> NO<sup>2</sup> NA
- 9: Enter samples into logbook. Completed.....YES<sup>1</sup> NO
- 10: Place laboratory sample number on all containers and COC. Completed.....YES<sup>1</sup> NO
- 11: Complete Laboratory Tracking Sheet (LTS). Completed.....YES NO NA
- 12: Start Nonconformance form. ....YES NO NA
- 13: Initiate Subcontracting procedure. Completed.....YES NO NA
- 14: Check laboratory sample number on all containers and COC. ....JR YES<sup>1</sup> NO NA

**Short Hold-time tests:**

48 Hours or less Coliform (6 hrs) Hexavalent Chromium (24 Hrs) BOD Nitrite or Nitrate Low Level Mercury Ortho Phosphorus Turbidity Surfactants Sulfite En Core Preservation Color	7 days Flashpoint TSS Total Solids TDS Sulfide Free Liquids Total Volatile Solids Aqueous Extractable Organics- ALL Unpreserved VOC's Ash	Footnotes 1 Notify proper lab group immediately. 2 Complete nonconformance memo.
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------

Rev. 4/11/03, Attachment to 1-REC-5.  
Subject to QA Audit.

Reviewed by/date 07/5/03



En Chem Inc.

# Analysis Summary by Laboratory

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436  
800-7-ENCHEM  
Fax: 920-469-8827

Test Group Name	833969-001	833969-002	833969-003	833969-004	833969-005	833969-006	833969-007
PVOC + NAPHTHALENE	G	G	G	G	G	G	G

WISCONSIN Certification	
G = En Chem Green Bay	405132750
K = En Chem Kimberly	445134030
S = Subcontracted Analysis	

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : MW100

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-001

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	450	1.6	5.1		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	12	1.3	4.1		ug/l		05/06/03	SW846 M8021B
Benzene	45	0.75	2.4		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	89	1.5	4.8		ug/l		05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	10	1.4	4.5		ug/l		05/06/03	SW846 M8021B
Naphthalene	22	1.4	4.5		ug/l		05/06/03	SW846 M8021B
Toluene	12	1.4	4.5		ug/l		05/06/03	SW846 M8021B
Xylene, o	46	1.6	5.1		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	140	3.0	9.6		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	105				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : MW200

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-002

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	880	3.3	11		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	230	2.6	8.3		ug/l		05/06/03	SW846 M8021B
Benzene	220	1.5	4.8		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	690	3.0	9.6		ug/l		05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	20	2.9	9.2		ug/l		05/06/03	SW846 M8021B
Naphthalene	170	2.9	9.2		ug/l		05/06/03	SW846 M8021B
Toluene	55	2.9	9.2		ug/l		05/06/03	SW846 M8021B
Xylene, o	93	3.2	10		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	1600	6.0	19		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	101				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : MW300

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-003

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	1500	6.6	21		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	350	5.2	17		ug/l		05/06/03	SW846 M8021B
Benzene	250	3.0	9.6		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	470	6.0	19		ug/l		05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	22	5.8	18		ug/l		05/06/03	SW846 M8021B
Naphthalene	210	5.8	18		ug/l		05/06/03	SW846 M8021B
Toluene	27	5.8	18		ug/l		05/06/03	SW846 M8021B
Xylene, o	340	6.4	20		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	1000	12	38		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	97				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : MW400

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-004

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	16	0.66	2.1		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	0.76	0.52	1.7		ug/l	Q	05/06/03	SW846 M8021B
Benzene	< 0.30	0.30	0.96		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	1.2	0.60	1.9		ug/l	Q	05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	1.4	0.58	1.8		ug/l	Q	05/06/03	SW846 M8021B
Naphthalene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Toluene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Xylene, o	< 0.64	0.64	2.0		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	< 1.2	1.2	3.8		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	105				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : TRIP

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-005

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	< 0.66	0.66	2.1		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	< 0.52	0.52	1.7		ug/l		05/06/03	SW846 M8021B
Benzene	< 0.30	0.30	0.96		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	< 0.60	0.60	1.9		ug/l		05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Naphthalene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Toluene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Xylene, o	< 0.64	0.64	2.0		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	< 1.2	1.2	3.8		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	101				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : FIELD

Matrix Type : WATER  
 Collection Date : 05/02/03  
 Report Date : 05/08/03  
 Lab Sample Number : 833969-006

**PVOC + NAPHTHALENE**

Prep Method: SW846 5030B

Prep Date: 05/06/03

Analyst: SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	< 0.66	0.66	2.1		ug/l		05/06/03	SW846 M8021B
1,3,5-Trimethylbenzene	< 0.52	0.52	1.7		ug/l		05/06/03	SW846 M8021B
Benzene	< 0.30	0.30	0.96		ug/l		05/06/03	SW846 M8021B
Ethylbenzene	< 0.60	0.60	1.9		ug/l		05/06/03	SW846 M8021B
Methyl-tert-butyl-ether	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Naphthalene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Toluene	< 0.58	0.58	1.8		ug/l		05/06/03	SW846 M8021B
Xylene, o	< 0.64	0.64	2.0		ug/l		05/06/03	SW846 M8021B
Xylenes, m + p	< 1.2	1.2	3.8		ug/l		05/06/03	SW846 M8021B
a,a,a-Trifluorotoluene	101				%Recov		05/06/03	SW846 M8021B

**Analytical Report Number: 833969**

**Client :** NORTHERN ENVIRONMENTAL  
**Project Name :** SEYMOUR  
**Project Number :** DCP03-0407-0952  
**Field ID :** DUP

**Matrix Type :** WATER  
**Collection Date :** 05/02/03  
**Report Date :** 05/08/03  
**Lab Sample Number :** 833969-007

**PVOC + NAPHTHALENE**

**Prep Method:** SW846 5030B

**Prep Date:** 05/07/03

**Analyst:** SMT

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,2,4-Trimethylbenzene	1500	3.3	11		ug/l		05/07/03	SW846 M8021B
1,3,5-Trimethylbenzene	350	2.6	8.3		ug/l		05/07/03	SW846 M8021B
Benzene	260	1.5	4.8		ug/l		05/07/03	SW846 M8021B
Ethylbenzene	480	3.0	9.6		ug/l		05/07/03	SW846 M8021B
Methyl-tert-butyl-ether	24	2.9	9.2		ug/l		05/07/03	SW846 M8021B
Naphthalene	210	2.9	9.2		ug/l		05/07/03	SW846 M8021B
Toluene	29	2.9	9.2		ug/l		05/07/03	SW846 M8021B
Xylene, o	340	3.2	10		ug/l		05/07/03	SW846 M8021B
Xylenes, m + p	1100	6.0	19		ug/l		05/07/03	SW846 M8021B
a,a,a-Trifluorotoluene	95				%Recov		05/07/03	SW846 M8021B



Check office originating request

954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
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330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
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647 Academy Dr.  
Northbrook, IL 60062  
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3349 Southgate Court SW #102  
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1214 W. Venture Ct.  
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262-241-3133  
FAX 262-241-8222

1203 Storbeck Drive  
Waupun, WI 53963  
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FAX 920-324-3023

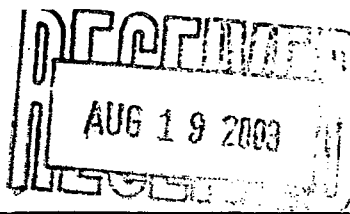
801 East Mt. Hope  
Lansing, MI 48910  
517-702-0470  
FAX 517-702-0477

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Project No: <u>DEP 03-0407-0952</u>		Task No: <u>102</u>		Laboratory: <u>En Chem</u>			Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input type="checkbox"/> yes <input type="checkbox"/> no Method of shipment _____ Contents Temperature _____ °C Refrigerator No. _____																													
Project Location: <u>Seymour</u>				Wisconsin DNR Certification #: <u>445134030</u>			<p style="text-align: center;"><b>ANALYSES REQUESTED</b></p> <table border="1"> <tr> <td>DRO (WI Modified Method)</td> <td>GRO (WI Modified Method)</td> <td>BETX (EPA Method 8020)</td> <td>PVOC (EPA Method 8020)</td> <td>VOC (EPA Method 8021)</td> <td>PAH (EPA Method )</td> <td>Pb (EPA Method )</td> <td><u>Naphthalene</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )	<u>Naphthalene</u>																
DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )							<u>Naphthalene</u>																							
Project Manager: <u>Mark Folt</u>				Laboratory Contact: <u>Chris Zedel</u>																																
Sampler: (name) <u>Jeff Brand</u>				Price Quote: <u>PECFA</u>																																
Sampler: (Signature) <u>Jeff Brand</u>				<p style="text-align: center;"><b>TURNAROUND TIME REQUIRED</b></p> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush																																
Sampling Date(s): <u>5-2-03</u>																																				
Reports to be Sent to: <u>Mark Folt</u>				Date Needed _____																																
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb	<u>Naphthalene</u>																				
		Date	Time		Water	Soil	Other																													
<u>001</u>	<u>MW 100</u>	<u>5-2-03</u>	<u>1453</u>	<u>3-40ml</u>	<u>X</u>			<u>HCL</u>				<u>X</u>				<u>X</u>				<u>3) 40 ml vials</u>																
<u>002</u>	<u>MW 200</u>	<u>↓</u>	<u>1500</u>	<u>↓</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>↓</u>																
<u>003</u>	<u>MW 300</u>	<u>↓</u>	<u>1443</u>	<u>↓</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>↓</u>																
<u>004</u>	<u>MW 400</u>	<u>↓</u>	<u>1434</u>	<u>↓</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>↓</u>																
<u>005</u>	<u>Teip</u>	<u>↓</u>	<u>1430</u>	<u>1-40ml</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>↓</u>																
<u>006</u>	<u>Field</u>	<u>↓</u>	<u>1447</u>	<u>3-40ml</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>3) 40 ml vials</u>																
<u>007</u>	<u>DUP</u>	<u>↓</u>		<u>↓</u>	<u>X</u>							<u>X</u>				<u>X</u>				<u>↓</u>																
Packed for Shipping by:				Comments:																																
Shipment Date:				<u>833969</u>																																
Relinquished By: <u>A. Kopywsky</u>		Date: <u>5-5-03</u>		Relinquished By: <u>B. Kemper</u>		Date: <u>5/5/03</u>		Relinquished By:		Date:																										
Company: <u>NFTI</u>		Time: <u>8:55am</u>		Company: <u>En Chem</u>		Time: <u>12:20</u>		Company:		Time:																										
Received By: <u>B. Kemper</u>		Date: <u>5/5/03</u>		Received By: <u>Annette Yank</u>		Date: <u>5-5-03</u>		Received By:		Date:																										
Company: <u>En Chem</u>		Time: <u>0855</u>		Company: <u>En-Chem</u>		Time: <u>1520</u>		Company:		Time:																										

on-entri 5-5-03 P

En Chem Inc.



ORIGINAL

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436  
800-7-ENCHEM  
Fax: 920-469-8827

**Analytical Report Number: 837586..**

Client : NORTHERN ENVIRONMENTAL

Matrix Type : WATER

Project Name : SEYMOUR

Collection Date : 08/11/03

Project Number : DCP03-0407-0952

Report Date : 08/15/03

Field ID : MW100

Lab Sample Number : 837586-001

**PVOC + NAPHTHALENE**

Prep Date: 08/14/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	360	1.6	5.5		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	15	1.3	4.3		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Benzene	10	0.75	2.5		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Ethylbenzene	45	1.5	5.0		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	2.0	1.4	4.8		2.5	ug/l	Q	08/14/03	SW846 5030B	SW846 M8021
Naphthalene	31	1.4	4.8		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Toluene	6.4	1.4	4.8		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Xylene, o	47	1.6	5.3		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
Xylenes, m + p	140	3.0	10		2.5	ug/l		08/14/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	104				1	%Recov		08/14/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

**Client :** NORTHERN ENVIRONMENTAL  
**Project Name :** SEYMOUR  
**Project Number :** DCP03-0407-0952  
**Field ID :** MW200

**Matrix Type :** WATER  
**Collection Date :** 08/11/03  
**Report Date :** 08/15/03  
**Lab Sample Number :** 837586-002

**PVOC + NAPHTHALENE**

**Prep Date:** 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	180	0.66	2.2		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	44	0.52	1.7		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Benzene	110	0.30	1.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	190	0.60	2.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	6.2	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	41	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	8.0	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	14	0.64	2.1		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	340	1.2	4.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	115				1	%Recov		08/13/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : MW300

Matrix Type : WATER  
 Collection Date : 08/11/03  
 Report Date : 08/15/03  
 Lab Sample Number : 837586-003

**PVOC + NAPHTHALENE**

Prep Date: 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	1300	6.6	22		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	350	5.2	17		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Benzene	350	3.0	10		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	440	6.0	20		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	51	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	160	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	52	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	250	6.4	21		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	1100	12	40		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	101				1	%Recov		08/13/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL

Matrix Type : WATER

Project Name : SEYMOUR

Collection Date : 08/11/03

Project Number : DCP03-0407-0952

Report Date : 08/15/03

Field ID : MW400

Lab Sample Number : 837586-004

**PVOC + NAPHTHALENE**

Prep Date: 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	46	0.66	2.2		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	0.54	0.52	1.7		1	ug/l	Q	08/13/03	SW846 5030B	SW846 M8021
Benzene	< 0.30	0.30	1.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	2.1	0.60	2.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	2.8	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	2.3	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	< 0.64	0.64	2.1		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	< 1.2	1.2	4.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	111				1	%Recov		08/13/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : TRIP

Matrix Type : WATER  
 Collection Date : 08/11/03  
 Report Date : 08/15/03  
 Lab Sample Number : 837586-005

**PVOC + NAPHTHALENE**

Prep Date: 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	< 0.66	0.66	2.2		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	< 0.52	0.52	1.7		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Benzene	< 0.30	0.30	1.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	< 0.60	0.60	2.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyltert-butyl-ether	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	< 0.64	0.64	2.1		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	< 1.2	1.2	4.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	102				1	%Recov		08/13/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL

Matrix Type : WATER

Project Name : SEYMOUR

Collection Date : 08/11/03

Project Number : DCP03-0407-0952

Report Date : 08/15/03

Field ID : FIELD

Lab Sample Number : 837586-006

**PVOC + NAPHTHALENE**

Prep Date: 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	< 0.66	0.66	2.2		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	< 0.52	0.52	1.7		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Benzene	< 0.30	0.30	1.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	< 0.60	0.60	2.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	< 0.58	0.58	1.9		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	< 0.64	0.64	2.1		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	< 1.2	1.2	4.0		1	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	101				1	%Recov		08/13/03	SW846 5030B	SW846 M8021

**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL  
 Project Name : SEYMOUR  
 Project Number : DCP03-0407-0952  
 Field ID : DUP

Matrix Type : WATER  
 Collection Date : 08/11/03  
 Report Date : 08/15/03  
 Lab Sample Number : 837586-007

**PVOC + NAPHTHALENE**

Prep Date: 08/13/03

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Analysis Date	Prep Method	Analysis Method
1,2,4-Trimethylbenzene	1300	6.6	22		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	350	5.2	17		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Benzene	360	3.0	10		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Ethylbenzene	460	6.0	20		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	49	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Naphthalene	170	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Toluene	54	5.8	19		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylene, o	260	6.4	21		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
Xylenes, m + p	1200	12	40		10	ug/l		08/13/03	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	100				1	%Recov		08/13/03	SW846 5030B	SW846 M8021



## Qualifier Codes

Flag	Applies To	Explanation
A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis using the inductively coupled plasma (ICP), the serial dilution failed to meet the established control limits of 0-10% and the sample concentration is greater than 50 times the IDL (100 times the IDL for analysis done on the ICP-MS). The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
H	All	Preservation, extraction or analysis performed past holding time.
J	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
J	Organic	Concentration detected is greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
N	All	Spiked sample recovery not within control limits.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

**En Chem Inc.**

**Analysis Summary by Laboratory**

1241 Bellevue Street  
Green Bay, WI 54302

1090 Kennedy Avenue  
Kimberly, WI 54136

Test Group Name	837586-001	837586-002	837586-003	837586-004	837586-005	837586-006	837586-007
PVOC + NAPHTHALENE	G	G	G	G	G	G	G

Wisconsin Certification	
G = En Chem Green Bay	405132750 / DATCP: 105 000444
K = En Chem Kimberly	445134030
S = Subcontracted Analysis	

## En Chem, Inc, Cooler Receipt Log

Batch No. 837586

Project Name or ID N. Environmental No. of Coolers: 1 Temps: 10F

A. Receipt Phase: Date cooler was opened: 8/12/03 By: CK

- 1: Were samples received on ice? (Must be  $\leq 6$  C).....YES  NO<sup>2</sup>
- 2: Was there a Temperature Blank?.....YES  NO
- 3: Were custody seals present and intact? (Record on COC).....YES  NO
- 4: Are COC documents present?.....YES  NO<sup>2</sup>
- 5: Does this Project require quick turn around analysis?.....YES  NO
- 6: Is there any sub-work?.....YES  NO
- 7: Are there any short hold time tests?.....YES  NO
- 8: Are any samples nearing expiration of hold-time? (Within 2 days)..... YES<sup>1</sup>  Contacted by/Who \_\_\_\_\_
- 9: Do any samples need to be Filtered or Preserved in the lab?..... YES<sup>1</sup>  Contacted by/Who \_\_\_\_\_

B. Check-in Phase: Date samples were Checked-in: 8/12/03 By: CK

- 1: Were all sample containers listed on the COC received and intact?.....YES  NO<sup>2</sup> NA
- 2: Sign the COC as received by En Chem. Completed.....YES  NO
- 3: Do sample labels match the COC? .....YES  NO<sup>2</sup>
- 4: Completed pH check on preserved samples.....YES  NO
- 5: Do samples have correct chemical preservation?.....YES  NO<sup>2</sup>
- 6: Are dissolved parameters field filtered?.....YES  NO<sup>2</sup>
- 7: Are sample volumes adequate for tests requested? .....YES  NO<sup>2</sup>
- 8: Are VOC samples free of bubbles >6mm .....YES  NO<sup>2</sup> NA
- 9: Enter samples into logbook. Completed.....YES  NO
- 10: Place laboratory sample number on all containers and COC. Completed.....YES  NO
- 11: Complete Laboratory Tracking Sheet (LTS). Completed.....YES  NO
- 12: Start Nonconformance form. ....YES  NO
- 13: Initiate Subcontracting procedure. Completed.....YES  NO
- 14: Check laboratory sample number on all containers and COC. .... JR YES  NO NA

**Short Hold-time tests:**

48 Hours or less Coliform (6 hrs) Hexavalent Chromium (24 Hrs) BOD Nitrite or Nitrate Low Level Mercury Ortho Phosphorus Turbidity Surfactants Sulfite En Core Preservation Color	7 days Flashpoint TSS Total Solids TDS Sulfide Free Liquids Total Volatile Solids Aqueous Extractable Organics- ALL Unpreserved VOC's Ash	Footnotes 1 Notify proper lab group immediately. 2 Complete nonconformance memo.
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Rev. 4/11/03, Attachment to 1-REC-5.  
 Subject to QA Audit.

Reviewed by/date 8/13/03

Check office originating request

954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444

330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
FAX 715-762-1844

647 Academy Dr.  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552

3349 Southgate Court SW #102  
Cedar Rapids, IA 52404  
319-365-0466  
FAX 319-365-0464

1214 W. Venture Ct.  
Mequon, WI 53092  
262-241-3133  
FAX 262-241-8222

1203 Storbeck Drive  
Waupun, WI 53983  
920-324-8600  
FAX 920-324-3023

801 East Mt. Hope  
Lansing, MI 48910  
517-702-0470  
FAX 517-702-0477

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project No: <u>DCP 03-0407-0952</u> Task No: <u>102</u>		Laboratory: <u>En Chem</u>		Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input type="checkbox"/> yes <input type="checkbox"/> no															
Project Location: <u>Scuyman</u> (city)		Wisconsin DNR Certification #: <u>445134030</u>		Method of shipment _____ Contents Temperature _____ °C Refrigerator No. _____															
Project Manager: <u>Mark Foht</u>		Laboratory Contact: <u>Laurie Woodl</u>		<b>ANALYSES REQUESTED</b>															
Sampler: (name) <u>Jeff Brand</u>		Price Quote: _____		DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )	<u>Naphthalene</u>								
Sampler: (Signature) <u>Jeff Brand</u>		<b>TURNAROUND TIME REQUIRED</b>																	
Sampling Date(s): <u>8-11-03</u>		<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush																	
Reports to be Sent to: <u>Ann K.</u>		Date Needed _____																	
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb	Naphthalene			
		Date	Time		Water	Soil	Other												
<u>001</u>	<u>mw100</u>	<u>8-11-03</u>	<u>1434</u>	<u>3-40ml</u>	<u>X</u>			<u>HCL</u>				<u>X</u>			<u>X</u>	<u>3-40ml</u>			
<u>002</u>	<u>mw200</u>	<u>↓</u>	<u>1441</u>	<u>↓</u>	<u>X</u>						<u>X</u>				<u>X</u>				
<u>003</u>	<u>mw300</u>	<u>↓</u>	<u>1416</u>	<u>↓</u>	<u>X</u>						<u>X</u>				<u>X</u>				
<u>004</u>	<u>mw400</u>	<u>↓</u>	<u>1425</u>	<u>↓</u>	<u>X</u>						<u>X</u>				<u>X</u>				
<u>005</u>	<u>Trip</u>	<u>↓</u>	<u>1430</u>	<u>1-40ml</u>	<u>X</u>						<u>X</u>				<u>X</u>	<u>1-40ml H<sub>2</sub>O T.D.</u>			
<u>006</u>	<u>Field</u>	<u>↓</u>	<u>1438</u>	<u>3-40ml</u>	<u>X</u>						<u>X</u>				<u>X</u>	<u>3-40ml</u>			
<u>007</u>	<u>Dup</u>	<u>↓</u>		<u>↓</u>	<u>X</u>						<u>X</u>				<u>X</u>	<u>↓</u>			
Packed for Shipping by: <u>MAIF</u>		Comments: <u>837586</u>																	
Shipment Date: <u>8/12/03</u>																			
Relinquished By: <u>[Signature]</u>		Date: <u>8/12/03</u>		Relinquished By: <u>[Signature]</u>		Date: <u>8/12/03</u>		Relinquished By: _____		Date: _____		Relinquished By: _____		Date: _____		Relinquished By: _____		Date: _____	
Company: <u>NETI</u>		Time: <u>12:56</u>		Company: <u>En Chem Inc</u>		Time: <u>1340</u>		Company: _____		Time: _____		Company: _____		Time: _____		Company: _____		Time: _____	
Received By: <u>[Signature]</u>		Date: <u>8/12/03</u>		Received By: <u>[Signature]</u>		Date: <u>8/12/03</u>		Received By: _____		Date: _____		Received By: _____		Date: _____		Received By: _____		Date: _____	
Company: <u>En Chem</u>		Time: <u>1300</u>		Company: _____		Time: <u>1340</u>		Company: _____		Time: _____		Company: _____		Time: _____		Company: _____		Time: _____	



Corporate Office & Laboratory  
1241 Bellevue Street, Suite 9, Green Bay, WI 54302  
920-469-2436, 800-7-ENCHEM, Fax: 920-469-8827  
www.enchem.com

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**Analytical Report Number: 837586**

Client : NORTHERN ENVIRONMENTAL

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Lab Sample Number	Field ID	Matrix	Collection Date
837586-001	MW100	WATER	08/11/03
837586-002	MW200	WATER	08/11/03
837586-003	MW300	WATER	08/11/03
837586-004	MW400	WATER	08/11/03
837586-005	TRIP	WATER	08/11/03
837586-006	FIELD	WATER	08/11/03
837586-007	DUP	WATER	08/11/03

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I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. Reported results shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested.

  
Approval Signature

8/18/03  
Date

En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Field ID : MW 100

Matrix Type : WATER

Collection Date : 03/15/04

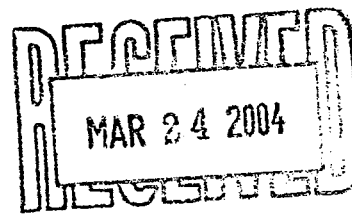
Report Date : 03/22/04

Lab Sample Number : 844484-001

PVOC + NAPHTHALENE

Prep Date: 03/19/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	390	0.98	3.3		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	36	0.99	3.3		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Benzene	29	0.34	1.1		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Ethylbenzene	85	1.0	3.3		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	7.3	0.90	3.0		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Naphthalene	49	1.2	3.9		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Toluene	15	0.89	3.0		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Xylene, o	100	0.90	3.0		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
Xylenes, m + p	280	1.9	6.2		2.5	ug/L		03/19/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	107				1	%Recov		03/19/04	SW846 5030B	SW846 M8021



En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Field ID : MW 200

Matrix Type : WATER

Collection Date : 03/15/04

Report Date : 03/22/04

Lab Sample Number : 844484-002

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	200	0.39	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	58	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	130	0.14	0.46		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	210	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	16	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	40	0.47	1.6		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	15	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	18	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	380	0.74	2.5		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	115				1	%Recov		03/18/04	SW846 5030B	SW846 M8021

En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Field ID : MW 300

Matrix Type : WATER

Collection Date : 03/15/04

Report Date : 03/22/04

Lab Sample Number : 844484-003

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	1200	3.9	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	320	4.0	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	330	1.4	4.6		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	500	4.0	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	67	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	170	4.7	16		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	55	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	270	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	1100	7.4	25		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	104				1	%Recov		03/18/04	SW846 5030B	SW846 M8021



En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Field ID : MW 400

Matrix Type : WATER

Collection Date : 03/15/04

Report Date : 03/22/04

Lab Sample Number : 844484-004

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	21	0.39	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	1.4	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	< 0.14	0.14	0.46		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	3.7	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	5.5	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	2.7	0.47	1.6		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	2.2	0.74	2.5		1	ug/L	Q	03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	112				1	%Recov		03/18/04	SW846 5030B	SW846 M8021

En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name : SEYMOUR

Project Number : DCP03-0407-0952

Field ID : FIELD

Matrix Type : WATER

Collection Date : 03/15/04

Report Date : 03/22/04

Lab Sample Number : 844484-005

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	< 0.39	0.39	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	< 0.40	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	< 0.14	0.14	0.46		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	< 0.40	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	< 0.47	0.47	1.6		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	< 0.74	0.74	2.5		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	104				1	%Recov		03/18/04	SW846 5030B	SW846 M8021

En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client : NORTHERN ENVIRONMENTAL-GREEN BAY  
Project Name : SEYMOUR  
Project Number : DCP03-0407-0952  
Field ID : DUP

Matrix Type : WATER  
Collection Date : 03/15/04  
Report Date : 03/22/04  
Lab Sample Number : 844484-006

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	1300	3.9	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	330	4.0	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	340	1.4	4.6		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	510	4.0	13		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	64	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	180	4.7	16		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	56	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	280	3.6	12		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	1100	7.4	25		10	ug/L		03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	104				1	%Recov		03/18/04	SW846 5030B	SW846 M8021

En Chem Inc.

Analytical Report Number: 844484

1241 Bellevue Street  
Green Bay, WI 54302  
920-469-2436

Client: NORTHERN ENVIRONMENTAL-GREEN BAY

Project Name: SEYMOUR

Project Number: DCP03-0407-0952

Field ID: TRIP

Matrix Type: WATER

Collection Date: 03/15/04

Report Date: 03/22/04

Lab Sample Number: 844484-007

PVOC + NAPHTHALENE

Prep Date: 03/18/04

Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	< 0.39	0.39	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene	< 0.40	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Benzene	< 0.14	0.14	0.46		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Ethylbenzene	< 0.40	0.40	1.3		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Naphthalene	< 0.47	0.47	1.6		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Toluene	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylene, o	< 0.36	0.36	1.2		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
Xylenes, m + p	< 0.74	0.74	2.5		1	ug/L		03/18/04	SW846 5030B	SW846 M8021
a,a,a-Trifluorotoluene	104				1	%Recov		03/18/04	SW846 5030B	SW846 M8021

## Qualifier Codes

Flag	Applies To	Explanation
A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
H	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
J	Organic	Concentration detected is greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
O	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

**En Chem Inc.**

**Analysis Summary by Laboratory**

1241 Bellevue Street  
Green Bay, WI 54302

1090 Kennedy Avenue  
Kimberly, WI 54136

Test Group Name	844484-001	844484-002	844484-003	844484-004	844484-005	844484-006	844484-007
PVOC + NAPHTHALENE	G	G	G	G	G	G	G

Wisconsin Certification	
G = En Chem Green Bay	405132750 / DATCP: 105 000444
K = En Chem Kimberly	445134030
S = En Chem Superior	Not Applicable
C = Subcontracted Analysis	

Batch No. 844484

### En Chem, Inc. Cooler Receipt Log

Project Name or ID 102 No. of Coolers: 1 Temps: 105

A. Receipt Phase: Date cooler was opened: 3/16/04 By: J. Wang

- 1: Were samples received on ice? (Must be ≤ 6 C).....  YES NO<sup>2</sup> NA
- 2: Was there a Temperature Blank?..... YES  NO
- 3: Were custody seals present and intact on cooler? (Record on COC)..... YES  NO
- 4: Are COC documents present?.....  YES NO<sup>2</sup>
- 5: Does this Project require quick turn around analysis?..... YES  NO
- 6: Is there any sub-work?..... YES  NO
- 7: Are there any short hold time tests?..... YES  NO
- 8: Are any samples nearing expiration of hold-time? (Within 2 days)..... YES<sup>1</sup>  NO Contacted by/Who \_\_\_\_\_
- 9: Do any samples need to be Filtered or Preserved in the lab?..... YES<sup>1</sup>  NO Contacted by/Who \_\_\_\_\_

B. Check-in Phase: Date samples were Checked-in: 3/16/04 By: J. Wang

- 1: Were all sample containers listed on the COC received and intact?.....  YES NO<sup>2</sup> NA
- 2: Sign the COC as received by En Chem. Completed.....  YES NO
- 3: Do sample labels match the COC? .....  YES NO<sup>2</sup>
- 4: Completed pH check on preserved samples. .... YES NO  NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
- 5: Do samples have correct chemical preservation?..... YES NO<sup>2</sup>  NA  
*(This statement does not apply to water: VOC, O&G, TOC, DRO, Total Rec. Phenolics)*
- 6: Are dissolved parameters field filtered?..... YES NO<sup>2</sup>  NA
- 7: Are sample volumes adequate for tests requested? .....  YES NO<sup>2</sup>
- 8: Are VOC samples free of bubbles >6mm .....  YES NO<sup>2</sup> NA
- 9: Enter samples into logbook. Completed.....  YES NO
- 10: Place laboratory sample number on all containers and COC. Completed.....  YES NO
- 11: Complete Laboratory Tracking Sheet (LTS). Completed..... YES NO  NA
- 12: Start Nonconformance form. .... YES NO  NA
- 13: Initiate Subcontracting procedure. Completed..... YES NO  NA
- 14: Check laboratory sample number on all containers and COC. .... JK  YES NO NA

**Short Hold-time tests:**

24 Hours or less	48 Hours	7 days	Footnotes
Coliform	BOD	Ash	1 Notify proper lab group immediately.
Corrosivity = pH	Color	Aqueous Extractable Organics- ALL	2 Complete nonconformance memo.
Dissolved Oxygen	Nitrite or Nitrate	Flashpoint	
Hexavalent Chromium	Ortho Phosphorus	Free Liquids	
HPC	Surfactants	Sulfide	
Ferrous Iron	Turbidity	TDS	
Eh	En Core Preservation	TSS	
Odor	Power stop preservation	Total Solids	
Residual Chlorine		TVS	
Sulfite		TVSS	
		Unpreserved VOC's	

Rev. 2/05/04, Attachment to 1-REC-5.  
Subject to QA Audit.

Reviewed by/date W 3/18/04



Corporate Office & Laboratory  
1241 Bellevue Street, Suite 9, Green Bay, WI 54302  
920-469-2436, Fax: 920-469-8827  
www.enchem.com

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**Analytical Report Number: 844484**

Client: NORTHERN ENVIRONMENTAL-GREEN BAY

Lab Contact: Laurie Woelfel

Project Name: SEYMOUR

Project Number: DCP03-0407-0952

Lab Sample Number	Field ID	Matrix	Collection Date
844484-001	MW 100	WATER	03/15/04
844484-002	MW 200	WATER	03/15/04
844484-003	MW 300	WATER	03/15/04
844484-004	MW 400	WATER	03/15/04
844484-005	FIELD	WATER	03/15/04
844484-006	DUP	WATER	03/15/04
844484-007	TRIP	WATER	03/15/04

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I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. Reported results shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested.

Laurie Woelfel  
Approval Signature

3/23/04  
Date



Check office originating request

954 Circle Drive  
Green Bay, WI 54304  
920-592-8400  
FAX 920-592-8444

330 South 4th Avenue  
Park Falls, WI 54552  
715-762-1544  
Fax 715-762-1844

647 Academy Drive  
Northbrook, IL 60062  
847-562-8577  
FAX 847-562-8552

3349 Southgate Court SW #102  
Cedar Rapids, IA 52404  
319-365-0466  
FAX 319-365-0464

1214 W. Venture Ct.  
Mequon, WI 53092  
262-241-3133  
FAX 262-241-8222

1203 Storbeck Drive  
Waupun, WI 53963  
920-324-8600  
FAX 920-324-3023

203 West Upham Street  
Marshfield, WI 54449  
715-486-1300  
FAX 715-486-1313

15851 S. U.S. 27 - Bldg. 30, Suite 318  
Lansing, MI 48908  
517-702-0470  
FAX 517-702-0477

Project No: <u>DCP 03-0407-0952</u>		Task No: <u>102</u>		Laboratory: <u>En Chem</u>			Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input type="checkbox"/> yes <input type="checkbox"/> no Method of shipment _____ Contents Temperature _____ °C Refrigerator No. _____																																																																			
Project Location: (city) <u>Scuyman</u>		Wisconsin DNR Certification #: <u>445134030</u>			<b>ANALYSES REQUESTED</b>																																																																					
Project Manager: <u>Mark Felt</u>		Laboratory Contact: <u>Laurie Woodfel</u>																																																																								
Sampler: (name) <u>Jeff Brand</u>		Price Quote: <u>PECA</u>																																																																								
Sampler: (Signature) <u>[Signature]</u>		TURNAROUND TIME REQUIRED <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush																																																																								
Sampling Date(s): <u>3/15/04</u>		Date Needed _____			<table border="1"> <tr> <td>DRO (WI Modified Method)</td> <td>GRO (WI Modified Method)</td> <td>BETX (EPA Method 8020)</td> <td>PVOC (EPA Method 8020)</td> <td>VOC (EPA Method 8021)</td> <td>PAH (EPA Method )</td> <td>Pb (EPA Method )</td> <td colspan="4"><u>raphene</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="4" rowspan="7" style="text-align: center; vertical-align: middle;"><u>844484</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)	PAH (EPA Method )	Pb (EPA Method )	<u>raphene</u>											<u>844484</u>																																													
DRO (WI Modified Method)	GRO (WI Modified Method)	BETX (EPA Method 8020)	PVOC (EPA Method 8020)	VOC (EPA Method 8021)							PAH (EPA Method )	Pb (EPA Method )	<u>raphene</u>																																																													
													<u>844484</u>																																																													
Reports to be Sent to: <u>Ann K.</u>																																																																										
Lab ID No.	Sample No.	Collection		No. of Containers, Size & Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb	raphene																																																										
		Date	Time		Water	Soil	Other																																																																			
001	MW 100	3/15/04	1235	3-40ml	X			HCL				X				X																																																										
002	MW 200		1220		X						X					X																																																										
003	MW 300		1203		X						X					X																																																										
004	MW 400		1213		X						X					X																																																										
005	Field		1225		X						X					X																																																										
006	DUP				X						X					X																																																										
007	Trip			1-40ml	X						X					X																																																										

Packed for Shipping by: <u>Jeff Brand</u>		Comments: <u>NOI</u>			
Shipment Date: <u>3/16/04</u>					
Relinquished By: <u>[Signature]</u>	Date: <u>3/16/04</u>	Relinquished By: <u>B Kemper</u>	Date: <u>3/16/04</u>	Relinquished By:	Date:
Company: <u>Northern Environmental</u>	Time: <u>13:25</u>	Company: <u>En Chem</u>	Time: <u>1400</u>	Company:	Time:
Received By: <u>[Signature]</u>	Date: <u>3/16/04</u>	Received By: <u>[Signature]</u>	Date: <u>3/16/04</u>	Received By:	Date:
Company: <u>En Chem</u>	Time: <u>13:25</u>	Company: <u>En Chem</u>	Time: <u>14:00</u>	Company:	Time:

## ANALYTICAL REPORT

Mr. Mark Foht  
NORTHERN ENVIRONMENTAL  
954 Circle Drive  
Green Bay, WI 54304

09/03/2004

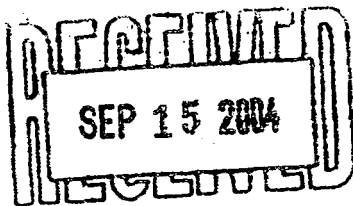
Job No: 04.08587

Page 1 of 7

The following samples were received by TestAmerica for analysis:

DCP 03-0407-0952 Task 102 Seymour

Sample Number	Sample Description	Date Taken	Date Received
584940	MW100	08/20/2004	08/24/2004
584941	MW200	08/20/2004	08/24/2004
584942	MW300	08/20/2004	08/24/2004
584943	MW400	08/20/2004	08/24/2004



**ORIGINAL**

A handwritten signature in black ink, appearing to read "David W. Havick".

David W. Havick  
Laboratory Manager

NORTHERN ENVIRONMENTAL  
Job No: 04.08587

09/03/2004  
Page 2 of 7

## KEY TO DATA FLAGS

The attached sample(s) may have a result flag shown on the report. The following are the result flag definitions:

A = Analyzed/extracted past hold time	B = Blank is contaminated
C = Standard outside of control limits	D = Diluted for analysis
E = TCLP extraction outside of method required temperature range	G = Received past hold time
F = Sample filtered in lab	I = Improperly handled sample
H = Late eluting hydrocarbons present	L = Common lab solvent
J = Estimated concentration	P = Improperly preserved sample
M = Matrix interference	S = Sediment present
Q = Result confirmed via re-analysis	W = BOD re-set due to missed dilution
T = Does not match typical pattern	Z = Internal standard outside limits
X = Unidentified compound(s) present	
* = See Case Narrative	

## KEY TO ANALYST INITIALS

The attached sample(s) may have been analyzed by another certified laboratory. If a number appears in the Analyst Initials field, the following are the appropriate certifications (if the lab code does not appear below, that means that certification is not required for the work performed):

Lab Code	Certification Number
008	WDNR - 999766900
009	WDNR - 241293690
020	WDNR - 999447680
030	ILNELAC - 100230; WDNR - 998294430
060	ILNELAC - 100221; WDNR - 999447130
070	IA - 007; ILNELAC - 000668; MDH - 019-999-319; WDNR - 999917270
130	WDNR - 632021390
147	WDNR - 721026460
300	FLNELAC - 87358; IA - 131; MDH - 047-999-345; WDNR - 998020430
400	WDNR - 113133790
510	WDNR - 241249360
520	WDNR - 999518190; ILNELAC - 100439
700	WDNR - 113289110

TestAmerica Watertown Certifications: WI DNR - 128053530; IL NELAC - 100453; IA DNR - 294; MN DoH - 055-999-366; ND DoH R-046; AR DEQ - 88-0808

Unless sub-contracted (see above), volatiles analyses (including VOC, PVOC, GRO, BTEX and TPH Gasoline) performed by TestAmerica Watertown at 1101 Industrial Drive, Units 9&10. All other analyses performed at 602 Commerce Drive, Watertown WI 53094.

Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

For questions regarding this report, please contact Dan Milewsky or Warren Topel.

## ANALYTICAL REPORT

Mr. Mark Foht  
 NORTHERN ENVIRONMENTAL  
 954 Circle Drive  
 Green Bay, WI 54304

09/03/2004  
 Job No: 04.08587  
 Sample No: 584940  
 Account No: 53481  
 Page 3 of 7

JOB DESCRIPTION: DCP 03-0407-0952 Task 102 Seymour  
 PROJECT DESCRIPTION: Groundwater Analysis  
 SAMPLE DESCRIPTION: MW100  
 Rec'd at 3 degrees C

Date/Time Taken: 08/20/2004 10:58

Date Received: 08/24/2004

Parameter	Results	Units	MDL	LOQ	Method	Date		Prep/Run
						Analyzed	Analyst	
N-Nitrate + Nitrite	<0.024	mg/L	0.024	0.084	EPA 353.2	08/26/2004	tds	1692
Sulfate, IC	130	mg/L	2.0	6.7	EPA 300.0	09/02/2004	tds	1838
Iron, Dissolved	5.5	mg/L	0.042	0.14	EPA 236.1	08/25/2004	gaf	2269
Manganese, Dissolved	0.35	mg/L	0.0018	0.0063	EPA 243.1	08/25/2004	gaf	1459
PVOC - AQUEOUS	H							
Benzene	2.6	ug/L	0.25	0.88	SW 8020	08/25/2004	jsm	1143
Ethylbenzene	9.6	ug/L	0.22	0.76	SW 8020	08/25/2004	jsm	1143
Methyl-t-butyl ether	4.0	ug/L	0.23	0.76	SW 8020	08/25/2004	jsm	1143
Toluene	1.2	ug/L	0.11	0.36	SW 8020	08/25/2004	jsm	1143
1,2,4-Trimethylbenzene	95	ug/L	0.25	0.86	SW 8020	08/25/2004	jsm	1143
1,3,5-Trimethylbenzene	3.7	ug/L	0.19	0.67	SW 8020	08/25/2004	jsm	1143
Xylenes, Total	37	ug/L	0.39	1.3	SW 8020	08/25/2004	jsm	1143
Surr: Bromofluorobenzene	100	‡		80-	SW 8020	08/25/2004	jsm	1143
Naphthalene	11	ug/L	0.50	1.7	SW 8020	08/25/2004	jsm	6175

## ANALYTICAL REPORT

Mr. Mark Foht  
NORTHERN ENVIRONMENTAL  
954 Circle Drive  
Green Bay, WI 54304

09/03/2004  
Job No: 04.08587  
Sample No: 584941  
Account No: 53481  
Page 4 of 7

JOB DESCRIPTION: DCP 03-0407-0952 Task 102 Seymour  
PROJECT DESCRIPTION: Groundwater Analysis  
SAMPLE DESCRIPTION: MW200  
Rec'd at 3 degrees C

Date/Time Taken: 08/20/2004 10:45

Date Received: 08/24/2004

Parameter	Results	Units	MDL	LOQ	Method	Date		Prep/Run	
						Analyzed	Analyst	Batch	
N-Nitrate + Nitrite	<0.024	mg/L	0.024	0.084	EPA 353.2	08/26/2004	tds		1693
Sulfate, IC	84	mg/L	2.0	6.7	EPA 300.0	09/01/2004	tds		1836
Iron, Dissolved	0.42	mg/L	0.042	0.14	EPA 236.1	08/25/2004	gaf		2269
Manganese, Dissolved	0.38	mg/L	0.0018	0.0063	EPA 243.1	08/25/2004	gaf		1459
PVOC - AQUEOUS									
Benzene	8.0	ug/L	0.25	0.88	SW 8020	08/25/2004	jsm		1143
Ethylbenzene	72	ug/L	0.22	0.76	SW 8020	08/25/2004	jsm		1143
Methyl-t-butyl ether	5.4	ug/L	0.23	0.76	SW 8020	08/25/2004	jsm		1143
Toluene	<2.2	ug/L	0.11	0.36	SW 8020	08/25/2004	jsm		1143
1,2,4-Trimethylbenzene	110	ug/L	0.25	0.86	SW 8020	08/25/2004	jsm		1143
1,3,5-Trimethylbenzene	29	ug/L	0.19	0.67	SW 8020	08/25/2004	jsm		1143
Xylenes, Total	76	ug/L	0.39	1.3	SW 8020	08/25/2004	jsm		1143
Surr: Bromofluorobenzene	96	%		80-	SW 8020	08/25/2004	jsm		1143
Naphthalene	20	ug/L	0.50	1.7	SW 8020	08/25/2004	jsm		6175

## ANALYTICAL REPORT

Mr. Mark Foht  
NORTHERN ENVIRONMENTAL  
954 Circle Drive  
Green Bay, WI 54304

09/03/2004  
Job No: 04.08587  
Sample No: 584942  
Account No: 53481  
Page 5 of 7

JOB DESCRIPTION: DCP 03-0407-0952 Task 102 Seymour  
PROJECT DESCRIPTION: Groundwater Analysis  
SAMPLE DESCRIPTION: MW300  
Rec'd at 3 degrees C

Date/Time Taken: 08/20/2004 11:08

Date Received: 08/24/2004

Parameter	Results	Units	MDL	LOQ	Method	Date		Prep/Run
						Analyzed	Analyst	
N-Nitrate + Nitrite	<0.024	mg/L	0.024	0.084	EPA 353.2	08/26/2004	tds	1693
Sulfate, IC	13	mg/L	2.0	6.7	EPA 300.0	09/01/2004	tds	1836
Iron, Dissolved	8.8	mg/L	0.042	0.14	EPA 236.1	08/25/2004	gaf	2269
Manganese, Dissolved	0.49	mg/L	0.0018	0.0063	EPA 243.1	08/25/2004	gaf	1459
PVOC - AQUEOUS	H							
Benzene	420	ug/L	0.25	0.88	SW 8020	08/25/2004	jsm	1143
Ethylbenzene	300	ug/L	0.22	0.76	SW 8020	08/25/2004	jsm	1143
Methyl-t-butyl ether	M <22	ug/L	0.23	0.76	SW 8020	08/25/2004	jsm	1143
Toluene	18	ug/L	0.11	0.36	SW 8020	08/25/2004	jsm	1143
1,2,4-Trimethylbenzene	890	ug/L	0.25	0.86	SW 8020	08/25/2004	jsm	1143
1,3,5-Trimethylbenzene	160	ug/L	0.19	0.67	SW 8020	08/25/2004	jsm	1143
Xylenes, Total	770	ug/L	0.39	1.3	SW 8020	08/25/2004	jsm	1143
Surr: Bromofluorobenzene	94	%		80-	SW 8020	08/25/2004	jsm	1143
Naphthalene	120	ug/L	0.50	1.7	SW 8020	08/25/2004	jsm	6175

## ANALYTICAL REPORT

Mr. Mark Foht  
NORTHERN ENVIRONMENTAL  
954 Circle Drive  
Green Bay, WI 54304

09/03/2004  
Job No: 04.08587  
Sample No: 584943  
Account No: 53481  
Page 6 of 7

JOB DESCRIPTION: DCP 03-0407-0952 Task 102 Seymour  
PROJECT DESCRIPTION: Groundwater Analysis  
SAMPLE DESCRIPTION: MW400  
Rec'd at 3 degrees C

Date/Time Taken: 08/20/2004 10:35

Date Received: 08/24/2004

Parameter	Results	Units	MDL	LOQ	Method	Date		Prep/Run	
						Analyzed	Analyst	Batch	
N-Nitrate + Nitrite	2.9	mg/L	0.024	0.084	EPA 353.2	08/26/2004	tds		1693
Sulfate, IC	89	mg/L	2.0	6.7	EPA 300.0	09/01/2004	tds		1836
Iron, Dissolved	0.077	mg/L	0.042	0.14	EPA 236.1	08/25/2004	gaf		2269
Manganese, Dissolved	<0.0018	mg/L	0.0018	0.0063	EPA 243.1	08/25/2004	gaf		1459
PVOC - AQUEOUS									
Benzene	H M <0.34	ug/L	0.25	0.88	SW 8020	08/26/2004	jsm		1143
Ethylbenzene	1.4	ug/L	0.22	0.76	SW 8020	08/26/2004	jsm		1143
Methyl-t-butyl ether	5.9	ug/L	0.23	0.76	SW 8020	08/26/2004	jsm		1143
Toluene	0.26	ug/L	0.11	0.36	SW 8020	08/26/2004	jsm		1143
1,2,4-Trimethylbenzene	28	ug/L	0.25	0.86	SW 8020	08/26/2004	jsm		1143
1,3,5-Trimethylbenzene	<0.19	ug/L	0.19	0.67	SW 8020	08/26/2004	jsm		1143
Xylenes, Total	0.49	ug/L	0.39	1.3	SW 8020	08/26/2004	jsm		1143
Surr: Bromofluorobenzene	95	%		80-	SW 8020	08/26/2004	jsm		1143
Naphthalene	0.86	ug/L	0.50	1.7	SW 8020	08/26/2004	jsm		6177

## QUALITY CONTROL REPORT BLANKS

09/03/2004

Mr. Mark Foht  
NORTHERN ENVIRONMENTAL  
954 Circle Drive  
Green Bay, WI 54304

Job No: 04.08587  
Account No: 53481

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Job Description: DCP 03-0407-0952 Task 102 Seymour

Parameter	Prep Batch	Run Batch	Blank Result	MDL	LOQ	Units
N-Nitrate + Nitrite		1692	<0.024	0.024	0.084	mg/L
N-Nitrate + Nitrite		1693	<0.024	0.024	0.084	mg/L
N-Nitrate + Nitrite		1693	<0.024	0.024	0.084	mg/L
Sulfate, IC		1836	<2.0	2.0	6.7	mg/L
Sulfate, IC		1838	<2.0	2.0	6.7	mg/L
Iron, Dissolved		2269	<0.042	0.042	0.14	mg/L
Manganese, Dissolved		1459	<0.0014	0.0018	0.0063	mg/L
PVOC - AQUEOUS						
Benzene		11430	<0.25	0.25	0.88	ug/L
Ethylbenzene		11430	<0.22	0.22	0.76	ug/L
Methyl-t-butyl ether		11430	<0.23	0.23	0.76	ug/L
Toluene		11430	<0.11	0.11	0.36	ug/L
1,2,4-Trimethylbenzene		11430	<0.25	0.25	0.86	ug/L
1,3,5-Trimethylbenzene		11430	<0.19	0.19	0.67	ug/L
Xylenes, Total		11430	<0.39	0.39	1.3	ug/L
Surr: Bromofluorobenzene		11430	98.0		80-	%
PVOC - AQUEOUS						
Benzene		11432	<0.25	0.25	0.88	ug/L
Ethylbenzene		11432	<0.22	0.22	0.76	ug/L
Methyl-t-butyl ether		11432	<0.23	0.23	0.76	ug/L
Toluene		11432	<0.11	0.11	0.36	ug/L
1,2,4-Trimethylbenzene		11432	<0.25	0.25	0.86	ug/L
1,3,5-Trimethylbenzene		11432	<0.19	0.19	0.67	ug/L
Xylenes, Total		11432	<0.39	0.39	1.3	ug/L
Surr: Bromofluorobenzene		11432	100.0		80-	%
Naphthalene		6175	<0.50	0.50	1.7	ug/L
Naphthalene		6177	<0.50	0.50	1.7	ug/L

Method blank results exceed control limits when results are higher than the highest of any of the following: 1 - The limit of detection; 2 - Five percent of the regulatory limit for that analyte; 3 - Five percent of the measured concentration in the sample. NR149.14 (3)d





**APPENDIX F**  
**MANN KENDALL STATISTICAL ANALYSIS RESULTS**

### Mann-Kendall Statistical Test

Site Name = Coonen Oil Company, Seymour, WI      BRRTS No. = 03-45-213120      Well Number = MW100

Event Number	Compound -> Sampling Date (most recent: last)	Benzene Concentration (leave blank if no data)	Ethylbenzene Concentration (leave blank if no data)	Naphthalene Concentration (leave blank if no data)	Toluene Concentration (leave blank if no data)	Total TMB Concentration (leave blank if no data)	Total Xylenes Concentration (leave blank if no data)
1	29-Dec-99	1700.00	1,600.00	400.00	2,800.00	3,000.00	9,200.00
2	8-Jun-00	360.00	170.00	120.00	180.00	1100.00	950.00
3	2-May-03	45.00	89.00	22.00	12.00	462.00	186.00
4	11-Aug-03	10.00	45.00	31.00	6.40	375.00	187.00
5	15-Mar-04	29.00	85.00	49.00	15.00	426.00	380.00
6	20-Aug-04	2.60	9.60	11.00	1.20	98.70	37.00
7	#N/A						
8	#N/A						
9	#N/A						
10	#N/A						

Mann Kendall Statistic (S) =	-13.0	-13.0	-9.0	-11.0	-13.0	-9.0
Number of Rounds (n) =	6	6	6	6	6	6
Average =	357.77	333.10	105.50	502.43	910.28	1823.33
Standard Deviation =	671.504	622.965	149.389	1127.668	1075.508	3627.963
Coefficient of Variation (CV) =	1.877	1.870	1.416	2.244	1.182	1.990

Error Check, Blank if No Errors Detected

Trend ≥ 80% Confidence Level	DECREASING	DECREASING	DECREASING	DECREASING	DECREASING	DECREASING
Trend ≥ 90% Confidence Level	DECREASING	DECREASING	DECREASING	DECREASING	DECREASING	DECREASING
Stability Test, If No Trend Exists at 80% Confidence Level	NA	NA	NA	NA	NA	NA

Data Entry By = MAF      Date = 15-Nov-04      Checked By = ???

### Mann-Kendall Statistical Test

Site Name = Coonen Oil Company, Seymour, WI      BRRTS No. = 03-45-213120      Well Number = MW200

Event Number	Compound -> Sampling Date (most recent last)	Benzene Concentration (leave blank if no data)	Ethylbenzene Concentration (leave blank if no data)	Naphthalene Concentration (leave blank if no data)	Toluene Concentration (leave blank if no data)	Total TMB Concentration (leave blank if no data)	Total Xylenes Concentration (leave blank if no data)
1	1-May-00	100.00		190.00		1,490.00	
2	8-Jun-00	94.00		170.00		1250.00	
3	2-May-03	220.00		170.00		1,110.00	
4	11-Aug-03	110.00		41.00		224.00	
5	15-Mar-04	130.00		40.00		258.00	
6	20-Aug-04	8.00		20.00		139.00	
7	#N/A						
8	#N/A						
9	#N/A						
10	#N/A						

Mann Kendall Statistic (S) =	-1.0	0.0	-14.0	0.0	-13.0	0.0
Number of Rounds (n) =	6	0	6	0	6	0
Average =	110.33	#DIV/0!	105.17	#DIV/0!	745.17	#DIV/0!
Standard Deviation =	68.205	#DIV/0!	79.020	#DIV/0!	603.178	#DIV/0!
Coefficient of Variation(CV)=	0.618	#DIV/0!	0.751	#DIV/0!	0.809	#DIV/0!

Error Check, Blank if No Errors Detected      n<4      n<4      n<4

Trend ≥ 80% Confidence Level	No Trend	n<4	DECREASING	n<4	DECREASING	n<4
Trend ≥ 90% Confidence Level	No Trend	n<4	DECREASING	n<4	DECREASING	n<4
Stability Test, If No Trend Exists at 80% Confidence Level	CV ≤ 1 STABLE	n<4 n<4	NA	n<4 n<4	NA	n<4 n<4

Data Entry By = MAF      Date = 15-Nov-04      Checked By = ???

### Mann-Kendall Statistical Test

Site Name = Coonen Oil Company, Seymour, WI				BRRTS No. = 03-45-213120		Well Number = MW300	
Compound ->		Benzene Concentration (leave blank if no data)	Ethylbenzene Concentration (leave blank if no data)	Naphthalene Concentration (leave blank if no data)	Toluene Concentration (leave blank if no data)	Total TMB Concentration (leave blank if no data)	Total Xylenes Concentration (leave blank if no data)
Event Number	Sampling Date (most recent last)						
1	1-May-00	650.00	1,100.00	310.00		2,130.00	
2	8-Jun-00	330.00	1,200.00	360.00		2890.00	
3	2-May-03	250.00	470.00	210.00		1,850.00	
4	11-Aug-03	350.00	440.00	160.00		1,650.00	
5	15-Mar-04	330.00	500.00	170.00		1,520.00	
6	20-Aug-04	420.00	300.00	120.00		1,050.00	
7	#N/A						
8	#N/A						
9	#N/A						
10	#N/A						
Mann Kendall Statistic (S) =		0.0	-9.0	-11.0	0.0	-13.0	0.0
Number of Rounds (n) =		6	6	6	0	6	0
Average =		388.33	668.33	221.67	#DIV/0!	1848.33	#DIV/0!
Standard Deviation =		139.200	380.653	93.684	#DIV/0!	624.321	#DIV/0!
Coefficient of Variation (CV) =		0.358	0.570	0.423	#DIV/0!	0.338	#DIV/0!
Error Check, Blank if No Errors Detected:				n<4		n<4	
Trend ≥ 80% Confidence Level		No Trend	DECREASING	DECREASING	n<4	DECREASING	n<4
Trend ≥ 90% Confidence Level		No Trend	DECREASING	DECREASING	n<4	DECREASING	n<4
Stability Test, If No Trend Exists at 80% Confidence Level		CV ≤ 1 STABLE	NA	NA	n<4 n<4	NA	n<4 n<4
Data Entry By = MAF			Date = 15-Nov-04		Checked By = ???		