

+-----+
| MPCA Leaksite Re^uks Screen |
+-----+

Leak ID: 40

tss073

+-----+
| 12/23/92: JRM Called DPRA today and left a message for Richard Brude,
| the pm. I told them to ignore our recent wake-up letter dated 12/22/92.
| We had already received the RI report on 12/11/92 (Schwartz had it).
+-----+

| 6/16/93: File closure. Referred to Site Response section for follow
| up on non-petroleum related compounds found during the investigation,
| e.g. MEK, naphthalene, TCE, etc. Trichloroethene exceeded RAL's.

| 04/11/96 EMH- File sent to archives.
+-----+

Rpt Trkng (F11) Restore (F12) Save (F10) Quit (PF3) >

PETROLEUM TANK RELEASE COMPLIANCE CHECKLIST

SITE NAME SPUR STATION, RICE STREET LEAK0000 4089

Release Notification

OK Not OK

MPCA Date release was discovered: 6/5/91 Date release was discovered: 6/5/91
 Date release was reported: 6/5/91 Date release was reported: 6/5/91
 Was there additional environmental damage due to the reporting delay? Yes No
 Comments: _____

Tank Registration

OK Not OK

What Federal or State rules apply to the leaking tank? AST UST EXEMPT
 Is the tank registered? Yes No AST or USTIS number: 3902
 Date registered: 2/24/86 (USTs must be registered before 12/1/87, ASTs before 1/1/91)
 Comments: 14000 GAL GAS, 10,000 1/2 GALLONS UNLEAD GAS

UST Tank Removal

OK Not OK

Date of Tank Removal: 9/30/91
 Prior removal notice (applicable after 6/1/89)? Yes No N/A 1752
 Certified contractor (applicable after 7/10/90)? Yes No N/A 37
 Comments: _____

UST/AST Compliance

OK Not OK

Date tanks installed: 7/1/51
 Certified UST installer (applicable after 7/9/90)? Yes No N/A
 UST corrosion, spill or overflow protection? Yes No N/A
 AST secondary containment? Yes No N/A
 Comments: _____

Cooperation or Due Care Issues

OK Not OK

LAND APPLICATION
 Is this a land application site? Yes No
 Was approval given before soil was spread? Yes No
 Have soil monitoring results been received? Yes No
 Other cooperation and/or due care issues: _____

Form filled out by: STEPHEN GEYEN Date: 4/1/91

MINNESOTA POLLUTION CONTROL AGENCY
TANKS AND SPILLS SECTION

PETROLEUM TANK RELEASE REPORT

Report Taken by: *DD*

Date/Time Occurred:

Date/Time Reported: *6-5-91 10:25*

Date/Time Discovered: *6-5-91*

LEAK # *4089*

USTIS # *3902*

CALLER

Name: *ROBERT WALSTROM*

Phone: *227-6500*

Relationship to site:

DRA

SITE

Name: *SPUR STAKE #4413*

Street: *1440 RICE ST.*

City: *ST PAUL*

Zip: *55113*

County: *RAMSEY*

Region: *I*

SITE OPERATOR

Name:

Street:

City:

Contact Person:

Phone:

Zip:

TANK OWNER / OPERATOR

Name: *MURPHY OIL USA, INC.*

Street: ~~1115~~ *200 PEACH ST.*

City: *EL DORADO, AK*

Contact Person: *JIM SCHNEIDER*

Phone: *501-862-6411*

SITUATION

Material released/amount: *gas*

Source of release: *unknown - possibly UST*

Release discovery: *pre-drilling - boring*

TANK INFORMATION

Contents	Size	Age	Removed	Condition	Registered
<i>gas</i>	<i>14,000</i>	<i>1951</i>	<i>no</i>	<i>unknown</i>	<i>yes</i>
<i>oil gas</i>	<i>10,000</i>	<i>1951</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>
<i>oil gas</i>	<i>6,000</i>	<i>1951</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>

State or Federal

Notification prior to removal:

MPCA, Fire Marshal, Excavation Contractor, Consultant present:

SOIL

Contaminated soil: *✓*

Contaminated soil excavated: *✓*

Vapor readings: *420 ppm*

Soil samples:

Borings: *✓*

Soil type: *silty sand / fill*

Stockpiled properly:

Disposal arranged:

Was it a total excavation:

PRIORITY	SUPERVISOR DATE	STAFF
CONCLUSIONS		
INFORMATION SENT		
CONTACTS Local Fire/Police Local Officials Regional Staff Other	INSTRUCTIONS GIVEN Hire consultant Submit report Staff will call Contact staff	
SITE INFORMATION Description of the area: Previous release: Other possible sources:		
VAPOR Sewers: <i>N</i> Buildings: <i>N</i>		
WATER Groundwater in excavation: <i>15' - unknown - possibly pumped</i> Free product present: Groundwater: City water: Wells private/municipal: Surface water: <i>N</i> VAPOR Sewers: <i>N</i> Buildings: <i>N</i>		

STATE OF MINNESOTA

Department of Public Safety - Division of Emergency Management
444 Cedar St. Suite 223 St. Paul, MN 55101

MINNESOTA DUTY OFFICER

HAZARDOUS MATERIAL INCIDENT REPORT: TANKS

Report #: 7469 Report Date: 10/6/1999 Report Time: 15:38 DO#: 22

Caller Information:

Responsible Party/Property Owner:

Name: Rob Helmbach	Name: C.L. Russell
Company: DPRA	Company: Murphy Oil USA Inc
Address: East 1500 - 1st National Bank Building, 322 Minnesota St.	Address: PO Box 7000
City: St. Paul State: MN	City: El Dorado State: AK
Phone: (651) 227-6500 Ext:	Zip: 55101- Phone: (870) 864-6518 Ext:
Alt. Phone: Ext:	Zip 71731- Alt. Phone: Ext:

Site Location:

Site Name: Spur Station #4413
 Site Address: 1440 Rice St
 Site City: ST PAUL Site County: RAMSEY Site Zip:

Site Information:

Discovery Date: 10/6/1999 Discovery Time: 15:00 Previously Reported Site?: Yes Leak #: 4089 (Archived)

Tank Information:

Native Soil Type: silty sand Surface
 Monitoring Wells on Site?: no
 Contaminated Soil Excavated?: Quantity: Able to dig out Contamination?:
 Ground Water Encountered?: Yes Depth to Ground Water: 0 15 ft
 Free Product Found?: No Stained Soils?: Yes Petroleum Odors?: Yes
 Highest Vapor Reading: 350 ppm Analytical Results: pending
 If this incident involves an A.S.T. is there secondary containment around the tank?:
 Narrative: Closed leak site; did geoprobes

Send to Archived file #4089
 9/16/2006
 710522

Who Took: _____

Priority: _____ High
 _____ Action
 _____ No action

Action: _____ Advise
 _____ Visit by _____
 _____ State money spent
 _____ File
 _____ No File

PM: _____

REMARKS:

675, 751 out, remains, 400 gpd.
3 gpd out in 91 3 installed

PID's in same range as during excavation. When investigated
Probes completed in areas of likely source, towards tanks, to see if
Newer system has had release. No indication.

Copy To? _____

Send Packet?

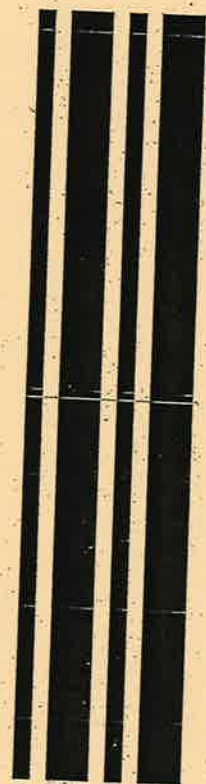
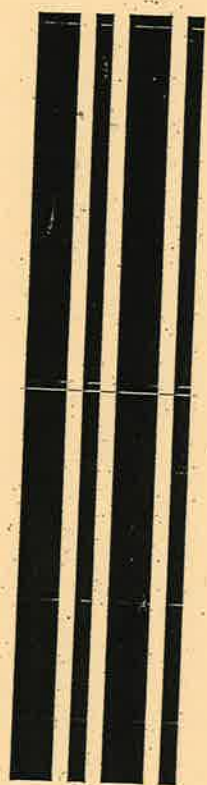
- _____ Disposal Packet
- _____ Reporting Packet
- _____ Spill Bill Packet
- _____ VIC Packet
- _____ VPIC Packet
- _____ Other _____

Quickie Closure:(circle one)

Why Closed:

- | | | |
|----------------------|-----------------------------|-----------------------|
| 1--Referred to LEAKS | 6--Referred to local/county | 10--No Response |
| 2--Referred to RCRA | 7--Referred to Region | Necessary |
| 3--Referred to AQ | 8--Referred to GWSW | 11--Closed for other |
| 4--Referred to WQ | 9--Response Completed | reasons (see remarks) |
| 5--Referred to VIC | | 12--AG Lead |

SPILL # _____





Minnesota Pollution Control Agency

June 16, 1993

Mr. Jim Schneider
Murphy Oil USA, Inc
200 Peach Street
Eldorado, Arkansas 71730

Dear Mr. Schneider:

RE: Petroleum Tank Release Site Closure/Referral for Additional Assessment of
Non-Petroleum Compounds
Site: Spur #4413, 1440 Rice Street, St. Paul
Site ID#: LEAK00004089

Minnesota Pollution Control Agency (MPCA) staff have reviewed the following reports for this site: "Remedial Investigation", DPRA #5623.011, December 1992; and a letter report detailing recent ground water monitoring results dated February 11, 1993. Based on the results of these reports, the MPCA Tanks and Spills (TS) staff has determined that the cleanup performed in response to the petroleum tank release at the site referenced above has adequately addressed the petroleum contamination, and therefore, the file regarding this release will be closed. This closure letter applies only to the petroleum release at the site.

On June 5, 1991, a petroleum tank release was reported to the MPCA. Since then, the following corrective actions have been taken in response to the release:

1. Three petroleum underground storage tanks (UST) were removed from the site.
 - one 14,000-gallon unleaded gasoline UST.
 - one 8,000-gallon unleaded gasoline UST.
 - one 6,000-gallon unleaded gasoline UST.
2. Approximately 750 cubic yards of contaminated soil were removed from the site. The soil was thermal treated by CleanSoils Inc., in New Brighton.
3. Six soil borings were completed to determine the extent of contamination. Contamination was detected in soil borings SB-1, SB-2, SB-3 and MW-4.
4. Three of the six soil borings were completed as monitoring wells. Laboratory analysis of samples collected from the monitoring wells over the last four monitoring events indicates a decreasing trend in the concentration of total hydrocarbons as gasoline.

Mr. Jim Schneider
Page 2

June 16, 1993

Based on available information, the MPCA TS staff concurs with the conclusions of your consultant that these actions have adequately addressed the petroleum tank release. Because you performed the requested work, the State may reimburse you for a major portion of your costs accrued to date in relation to the petroleum tank release. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petro Board. More specific eligibility rules are available from the Petro Board (612/297-4017 or 612/297-4203).

The MPCA TS staff does not intend to require any more investigation or cleanup work in response to the petroleum tank release. Even though closure status has been assigned to the petroleum release, the MPCA reserves the right to reopen this file and require additional work if in the future more work is determined to be necessary to address the petroleum tank contamination at the site. This letter does not release any party from liability for the petroleum contamination under Minn. Stat. § 115C (1990), and any other applicable state or federal laws.

Ground water non-fuel contaminants, including isopropylbenzene, methyl ethyl ketone, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,1,1-trichloroethane, trichloroethene, and trichlorotrifluoroethane, were discovered in ground water samples collected at the site. One of these compounds (trichloroethene) exceeded the Minnesota Department of Health's Recommended Allowable Limits (RALs) for drinking water. Because the MPCA TS staff is closing only the petroleum release portion of this site, the file will now be transferred to the MPCA Ground Water and Solid Waste (GWSW) Division for regulatory oversight of the non-fuel contamination at the above-referenced site. This letter does not release any party from liability for the non-fuel contamination under state or federal law. If you choose, the GWSW Site Response (SR) Property Transfer/Voluntary Cleanup (PT/VC) program staff will work with you in responding to investigate and/or remediate the non-fuel contamination.

You will find enclosed several fact sheets regarding the MPCA SR PT/VC program which the MPCA staff hopes will assist you in making an informed decision. As these fact sheets explain, the MPCA SR PT/VC staff will assist you in investigating and/or remediating the non-fuel contamination if you complete the enclosed application/request for technical assistance and return it to the MPCA within 90 days. In order for the owner of the property to be considered a "volunteer" in the SR PT/VC program, this application must be completed and returned within this time period.

Please be aware that if you do not voluntarily participate in the SR PT/VC program, the site will be referred to the MPCA GWSW Site Assessment Section and may be placed on the Comprehensive Environmental Response Compensation Liability Information System (CERCLIS). The CERCLIS database identifies properties as potential hazardous waste sites.

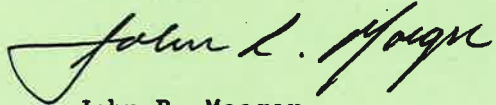
Mr. Jim Schneider

Page 3

June 16, 1993

Questions pertaining to the SR PT/VC program should be directed to Gerald Stahnke at 612/297-1459. If you have any other questions regarding this letter, please contact me at 612/297-8613 or MPCA staff hydrologist Jim Lundy at 612/297-8600.

Sincerely,



John R. Moeger
Project Leader
Tanks and Spills Section
Hazardous Waste Division

JRM:mmh

Enclosures

cc: Gerald Stahnke, MPCA, Site Response Section, Property Transfer/Voluntary
Cleanup Unit
Molly O'Rourke, City Clerk
Larry Carlson, Ramsey County
Richard Brude, DPRA, Inc.

HYDROLOGIC SITE REVIEW

VAX FILE NAME:[LUNDY.RI]4089.ri
LEAK NUMBER:4089
LEAKSITE NAME:Spur Store 4413
LOCATION:Rice Street, St. Paul

CONTRACTOR:DPRA
REPORT:Remedial Investigation Report
December 1992

PROJECT MANAGER:John Moeger
HYDROLOGIST:Jim Lundy
DATE OF REVIEW:May 28, 1993

LETTER REQUIRED:

CAD.APPROVAL
 CA.APPROVAL (with comments)

CLOSURE.LEAK#

(NO LETTER NECESSARY AT THIS TIME)

COMMENTS.RI
 COMMENTS.CA
 COMMENTS.CAD
 COMMENTS.receptorsurvey
 COMMENTS.monitoringreport

RE: Petroleum Tank Release File Closure / Referral for Additional Assessment
of Non-Fuel Compounds
Site: >
Site ID#: LEAK00004089

MPCA staff have reviewed the following reports for this site: "Remedial Investigation", DPRA #5623.011, December 1992; and a letter report detailing recent ground water monitoring results dated February 11, 1993. Based on the results of these reports, the Minnesota Pollution Control Agency (MPCA) Tanks and Spills (TS) staff has determined that the cleanup performed in response to the petroleum tank release at the site referenced above has adequately addressed the petroleum contamination, and therefore the file regarding this release will be closed. This closure letter applies only to the petroleum release at the site.

Based on available information, the MPCA TS staff concurs with the conclusions of your consultant that these actions have adequately addressed the petroleum tank release. Because you performed the requested work, the State may reimburse you for a major portion of your costs accrued to date in relation to the petroleum tank release. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petro Board. More specific eligibility rules are available from the Petro Board (612/297-4017 or 612/297-4203).

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work in response to the petroleum tank release. Even though closure status has been assigned to the petroleum release, the MPCA reserves the right to reopen this file and require additional work if in the future more work is determined to be necessary to address the petroleum tank contamination at the site. This letter does not release any party from liability for the petroleum contamination under Minn. Stat. 115C (1990), and any other applicable state or federal laws.

Ground water non-fuel contaminants, including isopropylbenzene, methyl ethyl ketone, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,1,1-trichloroethane, trichloroethene, and trichlorotrifluoroethane, were discovered in ground water samples collected at the site. One of these compounds (trichloroethene) exceeded the Minnesota Department of Health's Recommended Allowable Limits (RALs). Because the MPCA TS staff is closing only the petroleum release portion of this site the file will now be transferred to the MPCA Ground Water and Solid Waste (GWSW) Division for regulatory oversight of the non-fuel contamination at the above-referenced site. This letter does not release any party from liability for the non-fuel contamination under state or federal law. If you choose, the GWSW Site Response (SR) Property Transfer/Voluntary Cleanup (PT/VC) program staff will work with you in responding to investigate and/or remediate the non-fuel contamination.

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Please be aware that if you do not voluntarily participate in the SR PT/VC program, the site will be referred to the MPCA GWSW Site Assessment Section and may be placed on the Comprehensive Environmental Response Compensation Liability Information System (CERCLIS). The CERCLIS database identifies properties as potential hazardous waste sites.

Questions pertaining to the SR PT/VC program should be directed to Gerald Stahnke at (612/297-1459). If you have any other questions regarding this letter, please contact me at (612/297-5353) or MPCA staff hydrologist > at (612/297->), TDD 612/297-5353, Greater Minnesota TDD 1-800-627-3529.

Sincerely,

>
>
Tanks and Spills Section
Hazardous Waste Division

Enclosures

cc (without enclosures):

Gerald Stanke, MPCA, Site Response Section, Property Transfer/Voluntary Cleanup
Unit

- > consultant
- > county officials
- > city clerk
- > city fire official
- > regional specialist
- > property owner (if different than T/S RP)

bcc: Molly Murphy

SITE NAME: OPUR # 4413
 SITE ID NUMBER: LEAK 4089

PETROLEUM TANK RELEASE REPORT CHECKLIST

In order to facilitate report review, the MPCA staff requests your assistance in completing this form which should be attached to all incoming reports. The form will be used to screen reports for completeness and to characterize the degree of contamination at the site.

SITE CHARACTERIZATION

	<u>YES</u>	<u>NO</u>
Emergency:		
Vapor or explosive hazard?	—	X
- if yes, has this been addressed?	—	X
Actual drinking water supply impacts?	—	X
- if yes, has alternate supply been provided?	—	—
Ground Water and Soil:		
Has ground water been impacted?	X	—
Is there free product?	—	X
- if yes, has recovery been initiated?	—	X
Are there downgradient receptors at risk?	—	X
Did you answer "yes" to any question, 7 through 14, on the Hydrogeologic Setting and Ground Water Characterization Worksheet?	X	—
Is this a progress report?	X	—
- if yes, is it quarterly or annual?	—	—
	ANNUAL	—

REPORT CONTENTS

Check the appropriate report type and completed sections (as outlined in the "Petroleum Tank Release Reports" document).

<input type="checkbox"/> Excavation Report Form	<input type="checkbox"/> RI Report	<input type="checkbox"/> CAD Report	<input checked="" type="checkbox"/> Progress Reports
<input type="checkbox"/> All applicable sections completed	<input type="checkbox"/> Introduction	<input type="checkbox"/> Proposed CAD	<input checked="" type="checkbox"/> Introduction
<input type="checkbox"/> Figures	<input type="checkbox"/> Background, incl Twp/Rng, Lat/Long	<input type="checkbox"/> Appropriate sections of appendices	<input checked="" type="checkbox"/> Background
<input type="checkbox"/> Lab reports with chain of custody forms	<input type="checkbox"/> Excavation Form	<input type="checkbox"/> Figures	<input type="checkbox"/> Corrective action
	<input type="checkbox"/> RI Results		<input checked="" type="checkbox"/> Ground water monitoring results
	<input type="checkbox"/> Discussion		<input checked="" type="checkbox"/> Discussion
	<input type="checkbox"/> Conclusions		<input checked="" type="checkbox"/> Conclusions
	<input type="checkbox"/> Recommendations		<input checked="" type="checkbox"/> Recommendations
	<input type="checkbox"/> Proposed CAD		<input checked="" type="checkbox"/> Appendices
	<input type="checkbox"/> Appendices, incl IGWIS form		<input checked="" type="checkbox"/> Tables, figures
	<input type="checkbox"/> Tables, figures		
	<input type="checkbox"/> Hydrogeologic Characterization Worksheet		

If recommendations are included in the report, provide a brief description (e.g., no further action, modification of ground water recovery system, additional monitoring, etc.):

NO FURTHER ACTION

If a CAD is proposed, provide a brief description (e.g., soil venting, pump and treat, bioremediation, etc.):



E-1500 First National Bank Building St. Paul, Minnesota 55101 Telephone 612-227-6500 FAX 612-227-5522

March 12, 1993

Mr. John Moeger
Tanks and Spills Section
Hazardous Waste Division
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

RECEIVED
MAR 15 1993
MPCA, HAZARDOUS
WASTE DIVISION

RE: Spur Site No. 4413
1440 Rice Street
St. Paul, Minnesota
MPCA Site I.D. No. LEAK00004089

Dear Mr. Moeger:

Murphy Oil USA, Incorporated has requested that you receive a copy of the annual groundwater monitoring summary report for the above-referenced site. The attached letter documents the results of one year of groundwater sampling and observation. Based on the information obtained to date, DPRA Incorporated recommends that no further investigation or corrective action be performed at this site. Please call me with questions or comments at (612) 227-6500.

Sincerely,

Richard A. Brude
Associate Geo-Engineer/Geologist

RAB/vas
enc

cc: DPRA file 5263.011



February 11, 1993

Mr. Gary Andelin
Murphy Oil USA, Incorporated
4600 West 77th Street
Suite 304
Minneapolis, MN 55435

RECEIVED

MAR 15 1993

MPCA, HAZARDOUS
WASTE DIVISION

RE: Remedial Investigation
Spur Site No. 4413
1440 Rice Street
St. Paul, Minnesota

Dear Mr. Andelin:

1.0 Introduction

This letter summarizes the results of the most recent quarterly sampling of the monitoring wells at the above-referenced Murphy Oil USA, Incorporated (Murphy Oil) site in St. Paul, Minnesota (Project Site). The results of soil sampling from the excavations for new canopy foundations are also described. In addition, conclusions regarding the results of the remedial investigation and groundwater monitoring are discussed. One year of quarterly groundwater monitoring has been conducted in accordance with the December 1992 Remedial Investigation (RI) Report recommendations submitted to Murphy Oil.

2.0 Scope of Work

The scope of work performed during the most recent round of quarterly sampling was as follows:

1. Stabilize and sample each monitoring well. The depth to groundwater in each well was measured prior to sampling.
2. Submit groundwater samples from each well for analysis of volatile organic compounds (VOCs), or benzene, ethylbenzene, toluene, xylenes (BETX) and methyl tertiary butyl ether (MTBE); and gasoline range organics (GRO), in accordance with the Minnesota Pollution Control Agency (MPCA) guidance document "Soil and Groundwater Analysis at Petroleum Release Sites."
3. Collect, and submit for analysis, two (2) soil samples from the base of canopy foundation excavations. The soil samples were analyzed for BETX, MTBE, and GRO parameters.

Mr. Gary Andelin
Page 2
February 11, 1993

4. Prepare an annual summary letter-report presenting sampling and analysis results, as well as our conclusions and recommendation regarding the need for any additional investigation.

3.0 Results

3.1 Groundwater Sampling

The three wells at the site (MW-4, MW-5, and MW-6) were sampled on January 12, 1993. A sufficient volume of water was removed from each well prior to sampling to draw representative groundwater into the well casing. A sample of the groundwater from each well was then collected using a dedicated, disposable PVC bailer. The water samples were decanted into laboratory-cleaned, 40 ml glass vials with Teflon® septa. Where appropriate, the samples were treated with a preservative. The samples were stored on ice and transported to a laboratory for chemical analyses.

In accordance with MPCA quality assurance (QA) requirements, one duplicate sample was submitted for analysis.

3.2 Groundwater Chemical Analysis

The groundwater samples were analyzed for VOCs or BETX and MTBE, and GRO parameters outlined in the MPCA guidance document "Soil and Groundwater Analysis at Petroleum Release Sites." The analytical results are presented on the attached Table 1.

The analytical results indicate that groundwater at the location of well MW-4 contains dissolved concentrations of hydrocarbon contamination. None of the petroleum-hydrocarbon constituents included in the analysis were detected in the most recent water samples from MW-5 and MW-6. The water sample from well MW-4 contained a benzene concentration of 0.012 ppm and a GRO concentration of 6.5 ppm. Other hydrocarbons detected in the MW-4 water sample are listed in the attached laboratory report. Among other petroleum-type hydrocarbons included in the analysis, naphthalene was detected in the MW-4 sample at 0.089 ppm. These concentrations are slightly lower than levels detected during prior sampling events.

A number of non-petroleum VOC constituents were detected in the initial, March 1992, groundwater samples collected at the Project Site. Only one non-petroleum VOC was detected in the January 1993 water sample from MW-4. The MW-4 sample contained 0.11 ppm methyl ethyl ketone.

Mr. Gary Andelin
Page 3
February 11, 1993

3.3 Groundwater Elevation

The depth to groundwater was measured in the three wells at the site on January 12, 1993. The elevations were obtained by measuring the depth to groundwater in the wells and then referencing the depth measurement from each well to the previously surveyed elevation of the well riser pipe. Relative groundwater elevations were generally consistent with previous measurements.

The hydraulic gradients calculated from the groundwater elevations indicate that groundwater is migrating in a northwest direction. The northwest direction of groundwater movement places well MW-6 generally downgradient of the tank basin and MW-5 downgradient of the product dispensers. The hydraulic gradient calculated from the monitoring well groundwater elevation data was 0.009. This gradient is consistent with previously documented gradients at the Project Site.

3.4 Soil Sampling and Analysis

On December 28 and 29, 1992, soils were excavated for new canopy foundations. The excavations were located north and south of the existing dispenser island. Soils from the excavations were screened for organic vapors with a photoionization detector (PID) equipped with a 10.2 eV lamp. No significant organic vapor levels were detected. Two soil samples were collected for laboratory analysis, one from the base of each excavation. The sample locations are depicted on Figure 2.

The soil samples were analyzed for BETX, MTBE, and GRO parameters in accordance with the MPCA guidance document "Soil and Groundwater Analysis at Petroleum Release Sites." No petroleum hydrocarbons included in the analysis were detected in the soil samples. The laboratory report for the soil sample analysis is attached.

4.0 Conclusions and Recommendations

Monitoring well data accumulated since March 1992 suggest an overall northwest groundwater flow direction. The measured hydraulic gradient between the wells and the calculated in-situ hydraulic conductivity suggest that groundwater is migrating at very low seepage velocities.

The most recent sampling data indicates that groundwater contamination was only detected in monitoring well MW-4, southwest of the tank basin, but at generally lower concentrations than previous sampling events. Contaminant concentrations initially detected in samples from

Mr. Gary Andelin
Page 4
February 11, 1993

MW-5 and MW-6 decreased to very low and nondetectable levels during subsequent sampling events. Overall contaminant concentrations have decreased consistently following the initial sampling event in March 1992.

Only two of the chemical compounds detected in the January 1993 water samples exceed the Minnesota Department of Health (MDH) Recommended Allowable Limits (RALs) for drinking water. However, the concentrations of these two compounds did not exceed the anticipated cleanup standard of 100 times the RALs. In the MW-4 water sample 0.089 ppm naphthalene was detected; the RAL for naphthalene is 0.03 ppm. The MW-4 sample also contained 0.012 ppm benzene; the RAL for benzene is 0.01 ppm.

It appears impacted groundwater remains below the former underground storage tank (UST) basin and to the northwest of the basin near the property line. The analytical data from the monitoring well samples collected over the past year indicate a steady decrease in contamination concentrations. The decrease in concentrations could be attributed to biodegradation and the dispersion of the contaminant plume. A future increase in contaminant concentrations is not anticipated due to the elimination of the potential sources. The recent soil sample analyses from the canopy foundation excavations suggest that any residual soil contamination in the vicinity of the dispensers is not laterally extensive.

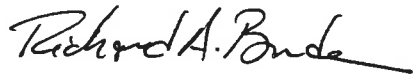
As was previously discussed in the December 1992 RI Report, the impacted aquifer in the vicinity of the Project Site has little potential for future use as a potable aquifer. There is currently only one private well recorded as being located within one mile downgradient of the site. This downgradient property is also supplied with city water which is available throughout the area. No impact to downgradient groundwater receptors is expected as a result of the residual soil and groundwater contamination at the Project Site. Based on the information discussed in the December 1992 RI Report and the data from the subsequent quarterly groundwater sampling event, DPRA recommends no further investigation or corrective action be conducted at the Project Site.

Mr. Gary Andelin
Page 5
February 11, 1993

5.0 Remarks

DPRA appreciates the opportunity to provide you environmental services on your project. If you have any questions regarding this letter, please contact us at (612) 227-6500.

Sincerely,



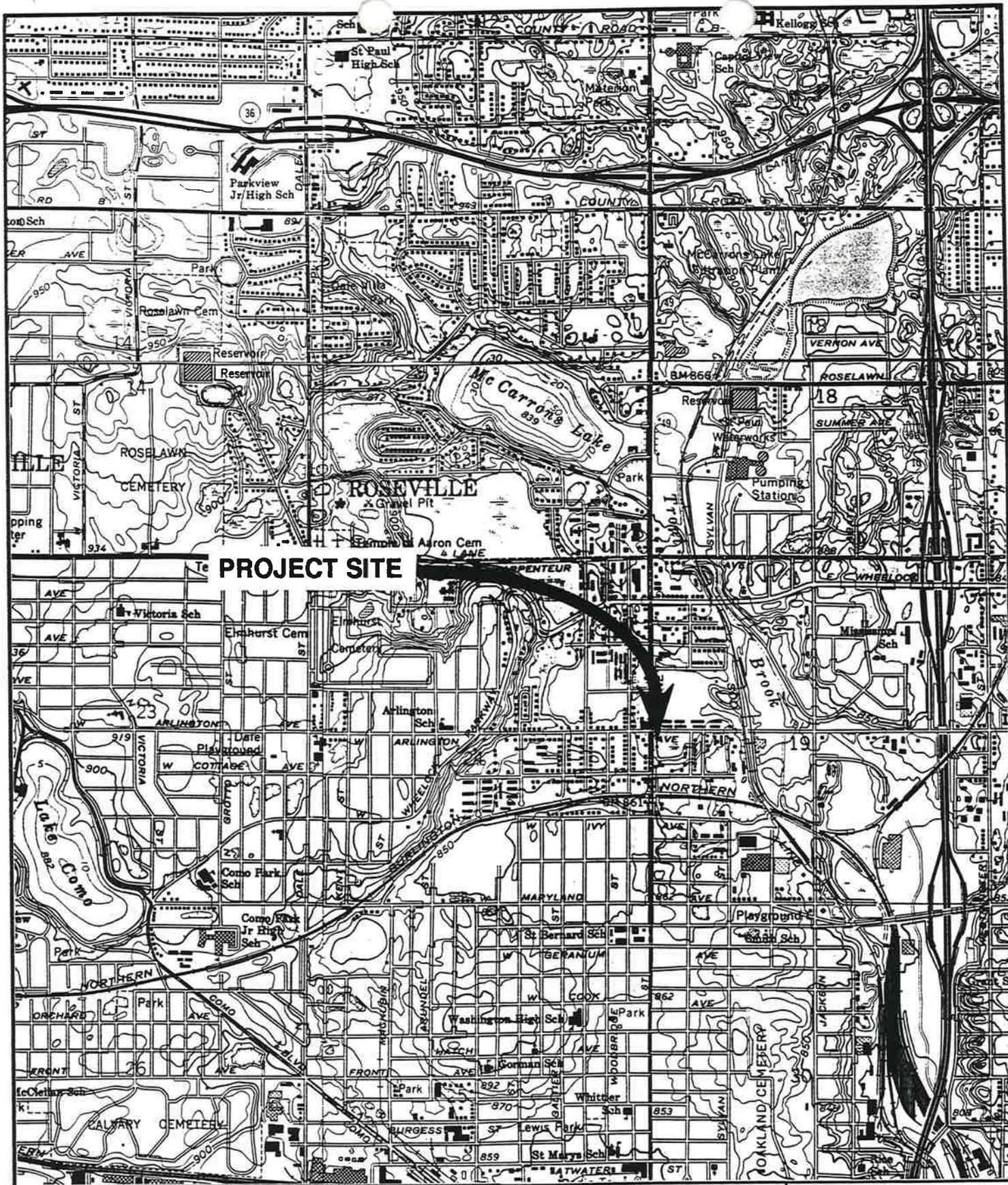
Richard A. Brude
Associate Geo-Engineer/Geologist



Robert J. Wahlstrom, P.E., C.P.G.
Director, Geo-Engineering Services

RAB/vas
atts

cc: Bob Billingsley, Murphy Oil
DPRA file 5263.011



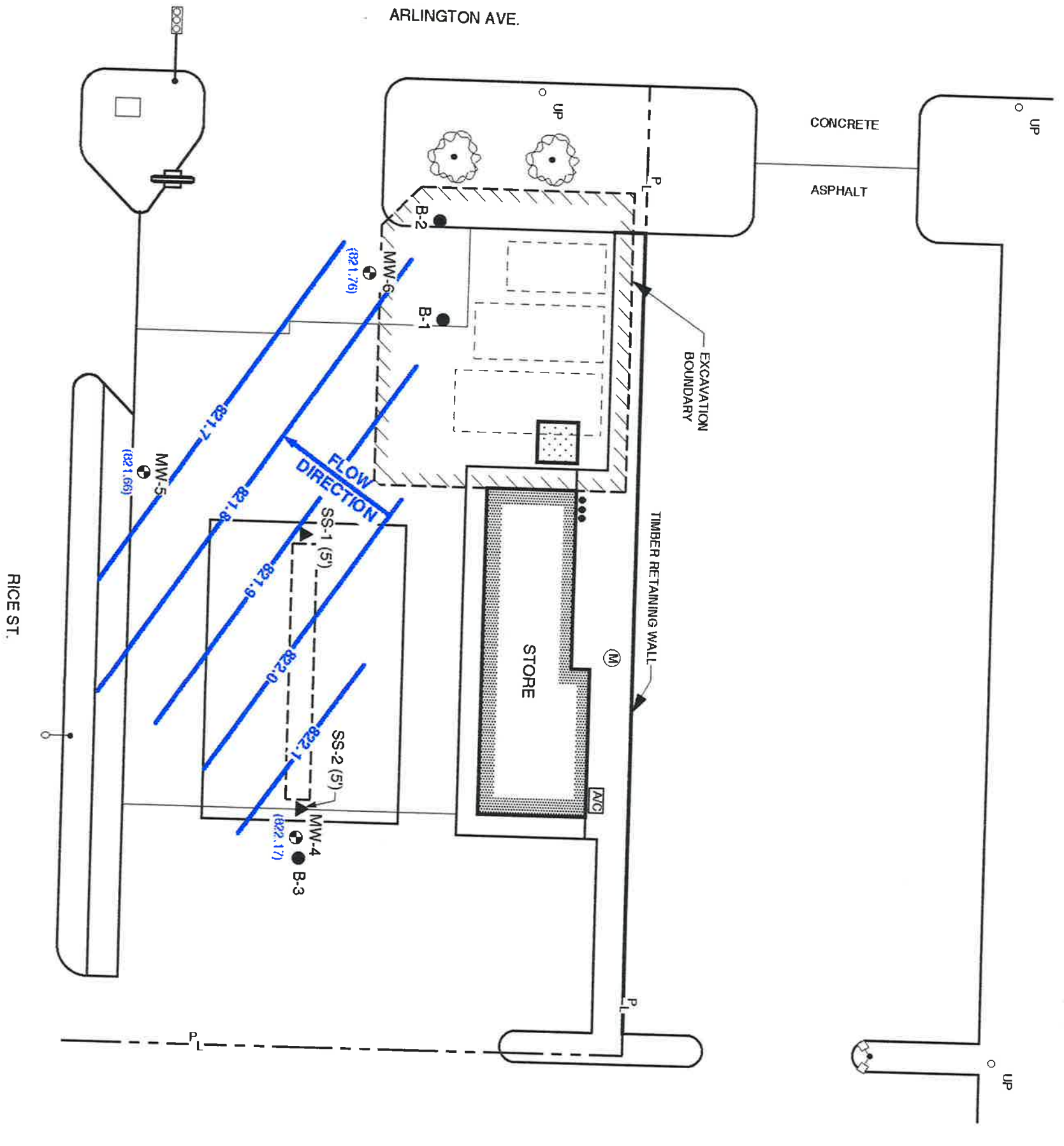
PROJECT SITE



**FIGURE 1
SITE LOCATION MAP**
SPUR SITE #4413
1440 RICE STREET
ST. PAUL, MINNESOTA



PROJECT NO. 5263.011



LEGEND

- VENT PIPE
- P-L- PROPERTY LINE
- STREET LIGHT
- ⊠ TRAFFIC SIGNAL
- ACG AIR CONDITIONING UNIT
- Ⓜ MANHOLE
- UTILITY POLE
- ⊕ MONITORING WELL
- SOIL BORING
- ▲ SOIL SAMPLE LOCATION (DEPTH)
- ⊠ APPROX. FORMER UST LOCATION
- (822.17) GROUNDWATER ELEVATION
- 821.8— INFERRED GROUNDWATER CONTOUR

NOTE: APPROXIMATE BUILDING AND UTILITY LOCATIONS. CALL GOPHER STATE TO VERIFY UTILITIES BEFORE STARTING ANY SUBSURFACE WORK.

FIGURE 2
INFERRED GROUNDWATER
FLOW MAP (1/12/93)

SPUR SITE #4413
 1440 RICE STREET
 ST. PAUL, MINNESOTA



PROJECT NO. 5263.011



TABLE 1
AQUEOUS ANALYTICAL RESULTS - MONITORING WELLS

Spur Site No. 4413
1440 Rice Street
St. Paul, Minnesota

<u>Sample</u>	<u>Date Sampled</u>	<u>Benzene mg/l</u>	<u>Ethyl-benzene mg/l</u>	<u>Toluene mg/l</u>	<u>Xylenes mg/l</u>	<u>MTBE mg/l</u>	<u>GRO or TH as Gasoline mg/l</u>	<u>Lead mg/l</u>
MW-4	03/05/92	ND	0.57	0.075	0.69	ND	8	ND
	07/02/92	ND	0.80	0.069	0.81	0.099	9.5	--
	10/16/92	0.026	0.72	0.071	0.82	ND	9	--
	10/16/92*	ND	0.70	0.065	0.78	ND	8.6	--
	01/12/93	0.012	0.56	0.055	0.68	0.014	6.5	--
MW-5	03/05/92	ND	ND	ND	ND	ND	ND	ND
	07/02/92	ND	ND	ND	ND	ND	ND	--
	10/16/92	ND	ND	ND	ND	ND	ND	--
	01/12/93	ND	ND	ND	ND	ND	ND	--
MW-6	03/05/92	ND	ND	ND	ND	ND	ND	ND
	07/02/92	ND	ND	ND	ND	ND	ND	--
	10/16/92	ND	ND	ND	ND	ND	ND	--
	01/12/93	ND	ND	ND	ND	ND	ND	--
	01/12/93*	ND	ND	ND	ND	ND	ND	--

MTBE = Methyl Tertiary Butyl Ether
 GRO/TH = Gasoline Range Organics/Total Hydrocarbons
 mg/l = Milligrams per liter which is equivalent to parts per million (ppm)
 ND = Analyzed but not detected above method detection limits
 --- = Not analyzed
 * Duplicate Sample

Note: Analyses conducted by Twin City Testing Corporation, St. Paul, Minnesota.

TABLE 2

GROUNDWATER ELEVATIONS

Spur Site No. 4413
 1440 Rice Street
 St. Paul, Minnesota

<u>Well</u>	<u>Date Measured</u>	<u>Top of Casing Elevation⁽¹⁾ (feet)</u>	<u>Depth to Groundwater⁽²⁾ (feet)</u>	<u>Groundwater Elevation (feet)</u>
MW-4	03/05/92	835.89	13.30	822.59
	07/02/92		13.00	822.89
	07/28/92		12.82	823.07
	10/16/92		13.05	822.84
	01/12/93		13.72	822.17
MW-5	03/05/92	835.19	13.07	822.12
	07/02/92		12.76	822.43
	07/28/92		12.58	822.61
	10/16/92		12.76	822.43
	01/12/93		13.53	821.66
MW-6	03/05/92	834.87	12.30	822.57
	07/02/92		12.34	822.53
	07/28/92		12.22	822.65
	10/16/92		12.42	822.45
	01/12/93		13.11	821.76

⁽¹⁾ Referenced to benchmark elevation of 839.02 feet on the top nut of the fire hydrant on the northwest corner of Rice Street and Arlington Avenue.

⁽²⁾ Measured from top of well casing



twin city testing
corporation

662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

REPORT OF: CHEMICAL ANALYSES

PROJECT: SPUR #4413, 5263.001 Oil

DATE: December 31, 1992

REPORTED TO: DPRA Inc
Attn: Rich Brude
332 Minnesota St
E-1500 1st National Bank Bldg
St. Paul, MN 55101

LABORATORY NO: 4410 93-0715

INTRODUCTION

This report presents the results of the analyses of two samples received on December 29, 1992, from a representative of DPRA Inc. The scope of our services was limited to the parameters listed in the attached table.

METHODOLOGY

Analyses are performed according to Twin City Testing Standard Operating Procedures. The procedures are based on the references stated in the analytical results table.

RESULTS

The results are listed in the attached table.

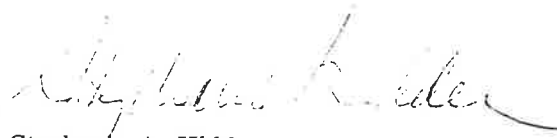
REMARKS

The samples were collected on December 28 and 29, 1992. If samples are not consumed in the analysis, they are held for three months from the date of sample receipt and then disposed, unless written instructions to the contrary are received.

TWIN CITY TESTING CORPORATION

Nancy J. Whaley
Project Manager

NJW\SAK\ct


Stephame A. Kidder
Laboratory Manager

**PETROLEUM VOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8020**

(All values are in mg/Kg which is equal to parts-per-million)

Client ID:	SS-1, 5'	SS-2, 5'	Method Blank	
TCT ID:	305525 ¹	305526 ¹		
Parameter:				PQL
Benzene	ND	ND	ND	0.050
Toluene	ND	ND	ND	0.050
Ethyl benzene	ND	ND	ND	0.050
Total xylenes	ND	ND	ND	0.050
Methyl-tert-Butyl Ether	ND	ND	ND	0.050
Surrogate Recovery:				
α,α,α-Trifluorotoluene	103%	103%	106%	
Gasoline Range Organics	ND	ND	ND	10
Surrogate Recovery:				
α,α,α-Trifluorotoluene	100%	101%	103%	
Date Collected:	12-28-92	12-29-92		
Date Extracted:	12-28-92	12-29-92		
Date Analyzed:	12-30-92	12-30-92	12-30-92	

¹Sample lost an unknown amount of methanol in transit.

All results are reported on a dry weight basis.

PQL = Practical Quantitation Limit
ND = Not Detected

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

Wisconsin Department of Natural Resources, PUBL-SW-140, April 1992.

LABORATORY NO: 4410 93-0715

FEB 01 1993



REPORT OF: CHEMICAL ANALYSES

662 CROMWELL AVENUE
ST. PAUL, MN 55114
PHONE 612/645-3601

PROJECT: SPUR SITE #4413, 5263.011

DATE: January 26, 1993

REPORTED TO: DPRA Inc
Attn: Rob Wahlstrom
332 Minnesota St
E 1500 1st National Bank Bldg
St. Paul, MN 55101

LABORATORY NO: 4410 93-0801

INTRODUCTION

This report presents the results of the analyses of four samples received on January 12, 1993, from a representative of DPRA Inc. The scope of our services was limited to the parameters listed in the attached tables.

METHODOLOGY

Analyses are performed according to Twin City Testing Standard Operating Procedures. The procedures are based on the references stated in the analytical results tables.

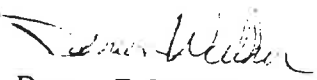
RESULTS

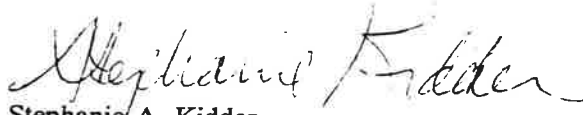
The results are listed in the attached tables.

REMARKS

The samples were collected on January 12, 1993. If samples are not consumed in the analysis, they are held for three months from the date of sample receipt and then disposed, unless written instructions to the contrary are received.

TWIN CITY TESTING CORPORATION


Deneen E. Walker
Project Manager


Stephanie A. Kidder
Laboratory Manager

DEW\SAK\ct

**PETROLEUM VOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8020**

(All values are in $\mu\text{g/L}$ which is equivalent to parts-per-billion)

Client ID: MW-4

TCT ID: 306414

<u>Parameter:</u>		<u>PQL</u>
Gasoline Range Organics	6500	300

Surrogate Recovery:

α,α,α -Trifluorotoluene 97%

Date Collected: 1-12-93
Date Analyzed: 1-13-93

PQL = Practical Quantitation Limit
ND = Not Detected

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.
Wisconsin Department of Natural Resources, PUBL-SW-140, April 1992.

LABORATORY NO: 4410 93-0801

**PETROLEUM VOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8020**

(All values are in $\mu\text{g/L}$ which is equivalent to parts-per-billion)

Client ID:	MW-5	MW-6	MW-6 Duplicate	Method Blank	
TCT ID:	304415	306416	306417		
Parameter:					PQL
Benzene	ND	ND	ND	ND	5
Toluene	ND	ND	ND	ND	5
Ethyl benzene	ND	ND	ND	ND	5
Total xylenes	ND	ND	ND	ND	5
Methyl-tert-Butyl Ether	ND	ND	ND	ND	5
Surrogate Recovery:					
α,α,α -Trifluorotoluene	107%	106%	107%	105%	
Gasoline Range Organics	ND	ND	ND	ND	30
Surrogate Recovery:					
α,α,α -Trifluorotoluene	104%	104%	105%	102%	
Date Collected:	1-12-93	1-12-93	1-12-93		
Date Analyzed:	1-12-93	1-12-93	1-12-93	1-13-93	

PQL = Practical Quantitation Limit
ND = Not Detected

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

Wisconsin Department of Natural Resources, PUBL-SW-140, April 1992.

LABORATORY NO: 4410 93-0801

**VOLATILE ORGANIC COMPOUNDS
MNDH METHOD 465D**

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: MW-4

TCT ID: 306414

<u>Compound:</u>		<u>PQL</u>
Acetone	ND	100
Allyl Chloride	ND	100
Benzene	12	10
Bromobenzene	ND	10
Bromochloromethane	ND	10
Bromodichloromethane	ND	10
Bromoform	ND	50
Bromomethane	ND	20
n-Butylbenzene	81	10
sec-Butylbenzene	ND	10
tert-Butylbenzene	ND	10
Carbon tetrachloride	ND	10
Chlorobenzene	ND	10
Chloroethane	ND	20
Chloroform	ND	10
Chloromethane	ND	50
2-Chlorotoluene	ND	10
4-Chlorotoluene	ND	10
1,2-Dibromo-3-chloropropane	ND	50
Dibromochloromethane	ND	10
1,2-Dibromoethane	ND	20
Dibromomethane	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	10
1,2-Dichloroethane	ND	10
1,1-Dichloroethene	ND	10
cis-1,2-Dichloroethene	ND	10
trans-1,2-Dichloroethene	ND	10
Dichlorofluoromethane	ND	20
1,2-Dichloropropane	ND	10
1,3-Dichloropropane	ND	10
2,2-Dichloropropane	ND	10

(continued)

PQL = Practical Quantitation Limit
ND = Not Detected

LABORATORY NO: 4410 93-0801

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465D

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: MW-4

TCT ID: 306414

<u>Compound:</u>		<u>PQL</u>
1,1-Dichloropropene	ND	10
cis-1,3-Dichloropropene	ND	10
trans-1,3-Dichloropropene	ND	10
Ethyl Ether	ND	50
Ethylbenzene	560	10
Hexachlorobutadiene	ND	10
Isopropylbenzene	39	10
p-Isopropyltoluene	ND	10
Methyl Ethyl Ketone	110	50
Methyl Isobutyl Ketone	ND	50
Methyl-tert-Butyl Ether	14	10
Methylene chloride	ND	10
Naphthalene	89	10
n-Propylbenzene	120	10
1,1,1,2-Tetrachloroethane	ND	10
1,1,2,2-Tetrachloroethane	ND	10
Tetrachloroethene	ND	10
Tetrahydrofuran	ND	100
Toluene	55	10
1,2,3-Trichlorobenzene	ND	10
1,2,4-Trichlorobenzene	ND	10
-1,1,1-Trichloroethane	ND	20
1,1,2-Trichloroethane	ND	10
-Trichloroethene	ND	10
Trichlorofluoromethane	ND	20
1,2,3-Trichloropropane	ND	10
-Trichlorotrifluoroethane	ND	10
1,2,4-Trimethylbenzene	630	25
1,3,5-Trimethylbenzene	120	10
Vinyl chloride	ND	20
o-Xylene, Styrene ¹	190	10
m-p-Xylenes ¹	490	10

Date Analyzed: 1/19-21/93

¹Compounds not separated by this method.

PQL = Practical Quantitation Limit

ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.

LABORATORY NO: 4410 93-0801

VOLATILE ORGANIC COMPOUNDS
MNDH METHOD 465D

(All values are in $\mu\text{g/L}$ which is equivalent to parts-per-billion)

Client ID: Method Blank Method Blank

TCT ID:

<u>Compound:</u>			<u>PQL</u>
Acetone	ND	ND	10
Allyl Chloride	ND	ND	10
Benzene	ND	ND	1
Bromobenzene	ND	ND	1
Bromochloromethane	ND	ND	1
Bromodichloromethane	ND	ND	1
Bromoform	ND	ND	5
Bromomethane	ND	ND	2
n-Butylbenzene	ND	ND	1
sec-Butylbenzene	ND	ND	1
tert-Butylbenzene	ND	ND	1
Carbon tetrachloride	ND	ND	1
Chlorobenzene	ND	ND	1
Chloroethane	ND	ND	1
Chloroform	ND	ND	2
Chloromethane	ND	ND	1
2-Chlorotoluene	ND	ND	5
4-Chlorotoluene	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	1
Dibromochloromethane	ND	ND	5
1,2-Dibromoethane	ND	ND	1
Dibromomethane	ND	ND	2
1,2-Dichlorobenzene	ND	ND	1
1,3-Dichlorobenzene	ND	ND	1
1,4-Dichlorobenzene	ND	ND	1
Dichlorodifluoromethane	ND	ND	1
1,1-Dichloroethane	ND	ND	5
1,2-Dichloroethane	ND	ND	1
1,1-Dichloroethene	ND	ND	1
cis-1,2-Dichloroethene	ND	ND	1
trans-1,2-Dichloroethene	ND	ND	1
Dichlorofluoromethane	ND	ND	1
1,2-Dichloropropane	ND	ND	2
1,3-Dichloropropane	ND	ND	1
2,2-Dichloropropane	ND	ND	1
	ND	ND	1

(continued)

PQL = Practical Quantitation Limit
 ND = Not Detected

LABORATORY NO: 4410 93-0801

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465D

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: **Method Blank** **Method Blank**

TCT ID:

<u>Compound:</u>			<u>PQL</u>
1,1-Dichloropropene	ND	ND	1
cis-1,3-Dichloropropene	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	1
Ethyl Ether	ND	ND	5
Ethylbenzene	ND	ND	1
Hexachlorobutadiene	ND	ND	1
Isopropylbenzene	ND	ND	1
p-Isopropyltoluene	ND	ND	1
Methyl Ethyl Ketone	ND	ND	5
Methyl Isobutyl Ketone	ND	ND	5
Methyl-tert-Butyl Ether	ND	ND	1
Methylene chloride	ND	ND	1
Naphthalene	ND	ND	1
n-Propylbenzene	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	1
Tetrachloroethene	ND	ND	1
Tetrahydrofuran	ND	ND	10
Toluene	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	1
1,1,1-Trichloroethane	ND	ND	2
1,1,2-Trichloroethane	ND	ND	1
Trichloroethene	ND	ND	1
Trichlorofluoromethane	ND	ND	2
1,2,3-Trichloropropane	ND	ND	1
Trichlorotrifluoroethane	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	1
Vinyl chloride	ND	ND	2
o-Xylene, Styrene ¹	ND	ND	1
m-p-Xylenes ¹	ND	ND	1

Date Analyzed: 1/19-20/93 1/20-21/93

¹Compounds not separated by this method.

PQL = Practical Quantitation Limit

ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.

LABORATORY NO: 4410 93-0801



Minnesota Pollution Control Agency

Celebrating our 25th anniversary and the 20th anniversary of the Clean Water Act

December 22, 1992

Mr. Jim Schneider
Murphy Oil USA, Inc.
200 Peach Street
Eldorado, Arkansas 71730

Dear Mr. Schneider:

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Spur #4413, 1440 Rice Street, St. Paul
Site ID# LEAK00004089

The Minnesota Pollution Control Agency (MPCA) staff, is requesting an update on the Remedial Investigation (RI) at the above-referenced site. Our records indicate that this site has been inactive since February 1992. Therefore, we are requesting that a status report be submitted for the above site. The report should include, but not be limited to; status of the remedial investigation (RI) and/or the initiation of any corrective actions, a schedule of when an RI/corrective action design report will be submitted, if applicable, submittal of required quarterly monitoring reports where applicable, and final disposition of the excavated contaminated soil for all sites including MPCA approval.

If you do perform the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petroleum Tank Release Compensation Board (Petro Board). More specific eligibility rules are available from the Petro Board (612/297-4017).

We look forward to receiving a report of the full extent of the release and a revised corrective action design for the site.

Should you have any questions concerning this letter you may contact me at 612/297-8613. Thank You.

Sincerely,

John R. Moeger
Project Leader
Tanks and Spills Section
Hazardous Waste Division

JRM:baj

cc: Richard Brude, DPRA, E-1500 First National Bank

open
JRM

RS

MINNESOTA POLLUTION CONTROL AGENCY
COMMISSIONER'S SITE REPORT
TO THE PETROLEUM TANK RELEASE
COMPENSATION BOARD

Site ID#:	Release Site:	Applicant:
LEAK00002281 Date of UST Registration:	Amigo Service Center	Amigo Service Center May 29, 1986
LEAK00004089 Date of UST Registration:	Murphy Oil USA, Inc.	Murphy Oil USA, Inc. February 24, 1986
LEAK00001408 Date of AST Registration:	Nyhlen's Used Oil Service	Nyhlen, John August 19, 1989
LEAK00002501 Date of UST Registration:	Lyle Robeck	Lyle Robeck May 5, 1986
LEAK00003893 Date of UST Registration:	St. Louis County Public Works Department	St. Louis County Public Works Department May 13, 1986
LEAK00004268 Date of UST Registration:	United Parcel Service	United Parcel Service April 15, 1986

1. Eligibility Determination

I hereby make the determinations, regarding the above-referenced petroleum tank release site, that the corrective action taken by the applicant was appropriate in terms of protecting public health, welfare, and the environment and that the applicant is eligible for Petroleum Tank Release Compensation Account reimbursement, pursuant to Minn. Stat. § 115C.09, subd. 2, items (a) and (c) (1990).

2. Compliance with Applicable Requirements: ADEQUATE

Information readily available to the MPCA staff shows that the applicant has complied with the applicable requirements of Minn. Stat. § 115C.09, subd. 3(d)(1990).

The determinations in this report are made solely for the purpose of determining eligibility for reimbursement under Minn. Stat. § 115C.09, subds. 2 and 3 (1990). Nothing in this site report releases any person from liability, and the MPCA does not waive any of its authority to require additional corrective action at the above-referenced site or to enforce other provisions of state law.

Dated: April 9 1992

Michael Kanner
Michael Kanner, Manager
Tanks and Spills Section
Hazardous Waste Division



DPRA

E-1500 First National Bank

St. Paul, Minnesota 55101

Telephone 612-227-6500

Fax 612-227-5522

December 10, 1992

Mr. Ron Schwartz
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Section
520 Lafayette Road
St. Paul, MN 55155-3898

RECEIVED

DEC 11 1992

MPCA, HAZARDOUS
WASTE DIVISION

RE: Spur No. 4413
1440 Rice Street, St. Paul, MN
MPCA Site I.D.#: LEAK00004089

Dear Mr. Schwartz:

At the request of Murphy Oil USA, Incorporated, I am forwarding to you a copy of the remedial investigation (RI) report completed by DPRA Incorporated for the above-referenced site. Please call me with questions at (612) 227-6500.

Sincerely,

Richard Brude
Associate Geo-Engineer/Geologist

RB/js
enc

cc: Bob Billingsley, Murphy Oil
Ken Rittmueller, Murphy Oil
DPRA file 5263.011



E-1500 First National Bank St. Paul, Minnesota 55101 Telephone 612-227-6500 Fax 612-227-5522

February 10, 1992

Mr. Ron Schwartz
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Section
520 Lafayette Road
St. Paul, MN 55101

RECEIVED
FEB 12 1992
MPCA, HAZARDOUS
WASTE DIVISION

RE: Spur No. 4413
St. Paul, Minnesota
MPCA LEAK No. 4089

Dear Mr. Schwartz:

On behalf of Murphy Oil USA, Inc., DPRA Incorporated is conducting a remedial investigation (RI) regarding the petroleum release at the above-referenced site. We anticipate the RI will involve soil borings and groundwater monitoring wells.

The field work is expected to begin within the next few weeks. The subsurface exploration and RI report preparation will likely require more than 120 days to complete.

Please call me with questions at (612) 227-6500.

Sincerely,

Richard A. Brude
Geo-Engineer/Geologist

RAB/llq

cc: Jim Schneider, Murphy Oil USA, Inc.
Gary Andelin, Murphy Oil USA, Inc.
DPRA file 5263.011



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155-3898

Telephone (612) 296-6300

January 17, 1992

Mr. Jim Schneider
Murphy Oil USA, Inc.
200 Peach Street
Eldorado, Arkansas 71730

Dear Mr. Schneider:

RE: Contaminated Soil Corrective Action Plan Approval
Site: Spur #4413, 1440 Rice Street, St. Paul
Site ID#: LEAK00004089

The Minnesota Pollution Control Agency (MPCA) staff has received your Contaminated Soil Corrective Action Plan dated October 24, 1991, documenting the approval of treatment of contaminated soil and additional information relating to the petroleum tank release(s) at the above-referenced site. The MPCA staff hereby approves this plan.

This approval qualifies you under Minn. Stat. § 115C.09, subd. 2(a)(1) (1991) to be eligible for Petrofund reimbursement of eligible cleanup costs incurred up to the date of this letter. Applications for reimbursement must be made directly to the Petrofund. The Petro Board makes the final decision on reimbursement. Reimbursement decisions are based on factors such as the adequacy of cleanup, reasonableness of cost, compliance with notification laws and cooperativeness with the MPCA.

You will be eligible to apply for reimbursement at several subsequent cleanup stages, provided that the necessary additional investigation and cleanup is conducted. The enclosed MPCA fact sheet "Petroleum Tank Release Compensation Account Reimbursement Process" outlines these subsequent stages and the necessary submittals required at these stages.

The MPCA requests that the necessary additional investigation and cleanup continue and that the results are submitted in accordance with the following comments:

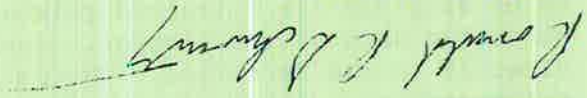
1. Complete all necessary investigation and cleanup and report the results in accordance with the MPCA document "Petroleum Tank Release Reports" (May 1991) and other appropriate MPCA technical documents.

Mr. Jim Schneider
Page 2
January 17, 1992

2. The completed Remedial Investigation/Corrective Action Design (or Excavation Report, if excavation alone addressed the release) should be submitted to the MPCA no later than 120 days after the date of this letter. If you are unable to meet this deadline, please contact me. Failure to proceed in a timely manner with the necessary additional investigation and corrective action may result in a recommendation for reduction of Petrofund reimbursement.

If you have any questions, you may contact me at 612/297-8606.

Sincerely,



Ronald R. Schwartz

Project Leader

Tanks and Spills Section

Hazardous Waste Division

RRS:np

Enclosure

cc: Rich Brude, DPPRA, St. Paul

CleanSoils

CleanSoils Inc. 84 2nd Avenue S.E., New Brighton, MN 55112 • (612) 639-8811 • FAX (612) 639-8813

October 24, 1991

Mr. Jim Schneider
Murphy Oil USA, Inc.
200 Peach Street
El Dorado, AR 71730

RRS open

Dear Mr. Schneider:

RE: Final Report on Soil Treatment and Notification of Post-Burn Sampling Results

Site: Spur #4413, 1440 Rice St., St. Paul, MN
MPCA Leak ID#: 4089
CleanSoils Project #: 91.195

CleanSoils has successfully completed the thermal treatment of petroleum contaminated soil from the above referenced site. The treated soil meets all MPCA requirements. Attached please find a copy of independent post-burn soil analyses for BTEX and TPH. Below is other information regarding the soil treated.

Quantity of Soil: 1,052.49 tons
Completion Date: 10-14-91
Post-Burn Samples: 91.195-1
Final Disposition of Soil: Road Base

If you should have any questions regarding this project, please contact me at (612) 639-8811.

Sincerely,

Troy D. Watling
Fixed Base Coordinator

attachments

pc: File
Bob Dullinger, MPCA
Consultant

RRS



SERCO Laboratories

1931 West County Road C2, St. Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178



LABORATORY ANALYSIS REPORT NO: 8595
10/22/91

PAGE 1

CleanSoils, Inc.
84 2nd Ave. S.E.
New Brighton, MN 55112

DATE COLLECTED: 10/09/91; 10/15/91
DATE RECEIVED: 10/17/91
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : SOIL

Attn: David Kress

SERCO SAMPLE NO:

SAMPLE DESCRIPTION:

ANALYSIS:

Benzene, mg/kg
Toluene, mg/kg
Ethylbenzene, mg/kg
Xylene, mg/kg
FID Scan, mg/kg, as gasoline

FID Scan, mg/kg, as #2 fuel oil

SERCO SAMPLE NO: 111991

SAMPLE DESCRIPTION: 91.195-1

ANALYSIS:

Benzene, mg/kg 0.043
Toluene, mg/kg 0.029
Ethylbenzene, mg/kg 0.005
Xylene, mg/kg 0.050
FID Scan, mg/kg, as gasoline 1.6
FID Scan, mg/kg, as #2 fuel oil <2.0



RPS - open

RPS

MINNESOTA POLLUTION CONTROL AGENCY
APPLICATION TO TREAT PETROLEUM CONTAMINATED SOIL
May 1991

I. Minnesota Pollution Control Agency Site ID Number: LEAK# 4089

II: MPCA Project Manager:

III: Source of Soil:

Facility Name: SPUR # 4413
Street Address: 1440 RICE ST
City, State, Zip: ST PAUL MN

Contact Name: JIM SCHNEIDER
Telephone: (501) 862-6411

IV: Contamination Details:

Weight of soil (Tons): 1052.9

Type Petroleum Contamination: Gasoline, diesel fuel,
No. 2 F.O., waste oil*

Contamination Concentration (parts per million)

Benzene	<u>ND</u>				
Toluene	<u>2.9</u>				
Ethyl Benzene	<u>1.8</u>				
Xylene	<u>5.8</u>				
Total Lead					
TPH as F.O. or <u>Gas</u>	<u>220</u>				

Soil Type (sand, silt, clay, etc.) SILTY SAND

*Note: If the petroleum contamination is waste oil, chromium, cadmium, and PCB analyses will also be necessary.)

V. Thermal Treatment Unit:

Name: CleanSoils Inc.
Address: 398 East Richmond Street
South St. Paul, MN 55075

Plant Number or Model: CleanSoils Thermal Desorber™ CR/C3-1

Contact Name: David Kress Title: Project Manager
Office Number: (612) 639-8811 Site Number: (612) 532-0815
Air Quality Permit Number: 2307B-90-OT-1

10.3.91
Date

[Signature]
Signature of Authorized Thermal
Treatment Unit Representative

Application to Treat Petroleum Contaminated Soil

Page 2

May 1991

VI. Date treatment will be completed: 12-3-91 (If stockpiled before being treated, all petroleum contaminated soil must be properly managed, handled, and protected from run-on, infiltration and run-off.) POST BURN TESTING IS REQUIRED.

VII. Final Disposition of Treated Soil: (how used, location)

ROAD BASE

VIII. Individual Submitting Request:

Company Name:

DPPA INC

Address:

E-1600 FIRST NAT'L BANK BLDG

City, State, Zip:

ST PAUL, MN 55101

Contact Name:

RICHARD BRUDE

Telephone:

(612) 227-6500

Signature:

Richard A. Brude

Date:

9-30-91

Mail to: Project Manager
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Section
520 Lafayette Road
St. Paul, Minnesota 55155
Fax No.: 612/642-0465

Facsimile Transmission From 

Date: 1-9-92 **Number of Pages:** 3
(including cover sheet)

TO: RON SCHWARTZ
Company/Agency: MPCA - TANK & SPILLS
At FAX Number (ext.): 297-8676
Verification Number (ext.):

From (name): RICH BRUDE

DPRA Project/Proposal No.: 5263.011

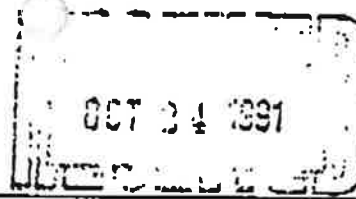
Sent by:

Message:
CLEAN SOILS CORRESPONDENCE
RE: LEAK 4089
PLEASE CALL IF YOU NEED
ANYTHING ELSE

FROM:	Office Location	FAX Number	Verification Number
	St. Paul, MN	(612) 227-5522	(612) 227-6500



SERCO Laboratories



1931 West County Road C2, St. Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 8595
10/22/91

PAGE 1

CleanSoils, Inc.
34 2nd Ave. S.E.
New Brighton, MN 55112

DATE COLLECTED: 10/09/91; 10/15/91
DATE RECEIVED: 10/17/91
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : SOIL

Attn: David Kress

SERCO SAMPLE NO:

SAMPLE DESCRIPTION:

ANALYSIS:

Benzene, mg/kg
Toluene, mg/kg
Ethylbenzene, mg/kg
Xylene, mg/kg
FID Scan, mg/kg, as gasoline
FID Scan, mg/kg, as #2 fuel oil

SERCO SAMPLE NO: 111991

SAMPLE DESCRIPTION: 711199-1

ANALYSIS:

Benzene, mg/kg 0.045
Toluene, mg/kg 1.029
Ethylbenzene, mg/kg 0.005
Xylene, mg/kg 0.030
FID Scan, mg/kg, as gasoline 1.5
FID Scan, mg/kg, as #2 fuel oil <2.0



OCT 28 1991

CleanSoils

CleanSoils Inc. 84 2nd Avenue S.E., New Brighton, MN 55112 • (612) 639-8811 • FAX (612) 639-8813

October 24, 1991

Mr. Jim Schneider
Murphy Oil USA, Inc.
200 Peach Street
El Dorado, AR 71730

Dear Mr. Schneider:

RE: Final Report on Soil Treatment and Notification of Post-Burn Sampling Results

Site: Spur #4413, 1440 Rice St., St. Paul, MN
MPCA Leak ID#: 4089
CleanSoils Project #: 91.195

CleanSoils has successfully completed the thermal treatment of petroleum contaminated soil from the above referenced site. The treated soil meets all MPCA requirements. Attached please find a copy of independent post-burn soil analyses for BTEX and TPH. Below is other information regarding the soil treated.

Quantity of Soil: 1,052.49 tons
Completion Date: 10-14-91
Post-Burn Samples: 91.195-1
Final Disposition of Soil: Road Base

If you should have any questions regarding this project, please contact me at (612) 639-8811.

Sincerely,

Troy D. Walling
Fixed Base Coordinator

attachments

pc: File
Bob Dullinger, MPCA
Consultant



E-1500 First National Bank Building, St. Paul, Minnesota 55101, Telephone 612-227-6500 Fax 612-227-5522

RECEIVED

OCT 25 1991
MPCA, HAZARDOUS
WASTE DIVISION

October 24, 1991


Mr. Ron Schwartz
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks & Spills Section
520 Lafayette Road North
St. Paul, MN 55155

RE: Petroleum Contaminated Soil Corrective Action Worksheet
Spur #4413
1440 Rice Street
St. Paul, Minnesota

Dear Mr. Schwartz:

Enclosed is the Corrective Action Worksheet for the above-referenced site. If you have any questions, please contact me at 612/227-6500.

Sincerely,


Richard A. Brude
Geo-Engineer/Geologist

RAB/llq

enc

cc: DPRA File 5263.011

**PETROLEUM CONTAMINATED SOIL
CORRECTIVE ACTION WORKSHEET**

Minnesota Pollution Control Agency
Tanks and Spills Section
May 1991

To be eligible for Petroleum Tank Release Compensation Account (Petrofund) reimbursement of costs incurred up to the point that petroleum contaminated soil corrective action plans are approved, this worksheet must be submitted to the Minnesota Pollution Control Agency (MPCA) Tanks and Spills Section for review and approval.

Please complete the following:

- 1) Obtain approval for soil treatment from MPCA staff. (As of May 1, 1991, if thermal treatment is the treatment option, then MPCA approval is granted via the thermal treatment facility; however, the procedures in the MPCA document "Thermal Treatment of Petroleum Contaminated Soil" (April 1991) must have been followed and the MPCA-permitted thermal treatment facility must have agreed to accept the soil).
- 2) Adequately complete this worksheet. The worksheet is an integral element of a soil corrective action plan.
- 3) Send a copy of this worksheet to the MPCA project manager for review and approval. If approved, an approval letter will be sent to the responsible party (or volunteer).
- 4) Submit your Petrofund application to the Department of Commerce accompanied by a copy of the MPCA approval letter. Reimbursable costs are limited to those eligible costs incurred up to the date of the MPCA approval letter that you receive in response to this worksheet. (Note: As of October 1, 1991, the Petrofund application can be submitted to the Department of Commerce at the same time that this worksheet is submitted to the MPCA).

Since the information requested in this worksheet does not cover all aspects of the cleanup and investigation, submittal of the appropriate reports and, possibly, additional site work will still be necessary. For sites involving soil excavation, an excavation report should be prepared in accordance with the MPCA document "Excavation Report for Petroleum Release Sites" (May 1, 1991). If the excavation results indicate that additional investigation or corrective action is necessary at your site, you should begin the investigation promptly and the excavation report should not be submitted until the remedial investigation is complete. The excavation report should then be included as a section of the Remedial Investigation (RI) report.

Additional investigation and corrective action should be conducted in accordance with the MPCA document "Petroleum Tank Release Reports" (May 1, 1991). Results of the additional investigation should be submitted to the MPCA no later than 120 days after the date of the MPCA letter that you will receive in response to this worksheet, approving the proposed soil corrective action plans. If you are unable to meet

this deadline, contact the MPCA project manager. An extension may be given on a site-specific basis. Failure to proceed in a timely manner with the necessary additional investigation and corrective action may result in a recommendation for reduction of Petrofund reimbursement.

I. SITE INFORMATION

Site: Spur #4413
Street: 1440 Rice Street
City, Zip: St. Paul, MN 55117
County: Ramsey

MPCA Site ID#: LEAK00004089

Tank owner/operator (or volunteer): Murphy Oil USA, Inc.
Street/Box: 200 Peach Street
City, Zip: El Dorado, AR 71730
Telephone: (501) 862-6411

II. TANK INFORMATION AND COMPLIANCE

A. Underground Storage Tanks. Complete the following information to reflect the status of your underground storage tanks at the time the release was discovered. Refer to the attachments "Do Underground Storage Tanks And Piping Requirements Apply to Your Petroleum Tank?" and "What Do You Have To Do?/When Do You Have To Act?" to determine the applicability of registration, leak detection, corrosion protection, and spill/overfill protection. Indicate "YES" or "NO" for the presence or absence of leak detection, corrosion protection and spill/overfill protection.

Tank	Contents	Capacity	Type of Tank	Date Installed	Date Registered	Date Tank & Piping Removed
1	Unleaded Gasoline	14,000 gallons	Steel	07/01/51	02/24/86	09/30/91
2	Unleaded Gasoline	10,000 gallons	Steel	07/01/51	02/24/86	09/30/91
3	Unleaded Gasoline	6,000 gallons	Steel	07/01/51	02/24/86	09/30/91

Tank	Tank			Piping		
	Leak Detection	Corrosion Protection	Spill/Overfill Protection	Type of Piping	Leak Detection	Corrosion Protection
1	Yes	No	No	Fiberglass	No	No
2	Yes	No	No	Fiberglass	No	No
3	Yes	No	No	Fiberglass	No	No

- Date 10-day tank removal notice given to MPCA: Prior to 09/20/91
- If the tank(s) involved in the release were removed after July 9, 1990, complete the following:

Removal Contractor: Petroleum Maintenance
 Certification Number: 37

- If the tank(s) involved in the release were installed after July 9, 1990, complete the following:

Installation Contractor: N/A
 Certification Number: _____

B. Aboveground Storage Tanks. Complete the following information to reflect the status of aboveground storage tanks at the time the release was discovered. The registration requirement for aboveground storage tanks are based on the same criteria as the registration requirements for underground storage tanks--refer to the attachments "Do Underground Storage Tank And Piping Requirements Apply to Your Petroleum Tank?" In describing your secondary containment, specify the materials used in the construction of both the base and the walls.

N/A

Aboveground Storage Tanks					
Tank	Contents	Capacity	Date Installed	Date Registered	Description of Secondary Containment
1					
2					
3					
4					
5					

III. SOIL TREATMENT APPROVAL INFORMATION

Treatment used/proposed: ("X" the option)

- Landfarming
- Thermal Treatment (indicate treatment facility CleanSoils Inc.)
- Other (Specify _____)

Date MPCA approved soil treatment*: 09/30/91

* If thermal treatment was used/proposed after May 1, 1991, indicate date that the MPCA-permitted thermal treatment facility agreed to accept the soil. Also, unless previously submitted, attach a copy of the thermal treatment application signed by the thermal treatment facility.

IV. PRELIMINARY SITE INVESTIGATION RESULTS

1. Was all soil contaminated above action levels removed from the base and side walls of the excavation? (Soil action levels are described in the MPCA document "Excavation of Petroleum Contaminated Soil" (May 1, 1991))

YES NO

2. Have petroleum vapors been noticed in utilities or buildings?

YES NO

**If ground water has not been encountered up to this point in the investigation, go to section V;
If ground water has been encountered, continue.**

3. Was free product observed on ground water (including perched ground water) in the excavation, soil borings, or in monitoring wells?

YES NO

If free product is found, it must be reported to the MPCA within 24 hours as described in the MPCA document "Petroleum Tank Release Reports" (May 1, 1991). If more than 0.1 foot (approximately one inch) of product is present you will most likely be required to install a product recovery system. Preparations for a product recovery system should begin immediately. All recoverable free product should be removed from the excavation and properly disposed of. Notify the MPCA Tanks and Spills staff of the design and installation of the product recovery system, but do not wait to start the system--it is crucial to begin product recovery as soon as possible. If less than 0.1 foot of product is found, the need for recovery will be based on the results of the Remedial Investigation.

5. Was there a petroleum sheen on the ground water?

YES NO

6. Are there any shallow wells on the site or adjoining properties?

YES NO

Petroleum Contaminated Soil Corrective Action Worksheet
Page 6
May 1991

V. INDIVIDUAL PREPARING THIS WORKSHEET

Company Name: DPRA Incorporated
Street/Box: E-1500 First National Bank Building
City, Zip: St. Paul, MN 55101
Telephone: (612) 227-6500
Contact: Richard Brude

Signature Richard A. Brude Date: 10/24/91

Please mail this worksheet and all necessary attachments to:

Ron Schwartz
Minnesota Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Section
520 Lafayette Road North
Saint Paul, Minnesota 55155



Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155-3898

Telephone (612) 296-6300



June 12, 1991

Mr. Jim Schneider
Murphy Oil USA, Inc.
200 Peach Street
Eldorado, Arkansas 71730

Dear Mr. Schneider:

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Spur Store #4413, 1440 Rice Street, St. Paul
Site ID#: LEAK00004089

The Minnesota Pollution Control Agency (MPCA) has received notification that a release of petroleum has occurred from storage tank facilities which you own and/or operate.

Federal and state laws require that persons legally responsible for storage tank releases notify the MPCA of the release, investigate the extent of the release and take actions needed to ensure that the release is cleaned up. A person is generally considered legally responsible for a tank release if the person owned or operated the tank either during or after the release.

We are aware that an initial investigation of the site has occurred and petroleum contaminated soils and/or ground water have been identified. The MPCA staff is therefore requesting you to take the necessary steps to investigate and clean up the release in accordance with the enclosed MPCA technical documents. If you have not already done so, we recommend that you hire a qualified consulting firm who has experience in conducting petroleum release site investigations and taking corrective actions. In addition, you must notify the MPCA within 24 hours if you discover free-floating petroleum product on the surface of the ground water.

If you do perform the requested work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petroleum Tank Release Compensation Board (Petro Board). More specific eligibility rules are available from the Petro Board (612/297-4017).

Mr. Jim Schneider
Page 2
June 12, 1991

Please respond to this letter either in writing or by telephone within 30 days after you receive it. Indicate whether or not you intend to proceed with the necessary actions, whom you have chosen to do the work, and a schedule for implementation. Please use the site ID number at the top of this page on all written communication.

If you do not respond within 30 days, MPCA staff will assume you do not intend to comply with this request. In this event, the MPCA Commissioner may order you to take corrective action at the site. If you do not comply with the Commissioner's order, it may be enforced in court or, alternatively, the MPCA could spend its own money cleaning up the release and then seek to recover its costs from you or other responsible persons through legal action. Failure to cooperate with the MPCA in a timely manner may also result in reduced reimbursement from the Petro Board.

If you conclude that the release in question is not from any tank which you have owned or operated, please notify the MPCA immediately and explain the basis of your conclusion.

A packet of fact sheets is enclosed for your information.

For site specific questions, contact the site's project manager, Ronald R. Schwartz, at 612/643-3465. In addition, all future correspondence should be addressed to the above mentioned project manager. If you have any general questions regarding the leaking underground storage tank program please call me at 612/643-3594.

Thank you.

Sincerely,



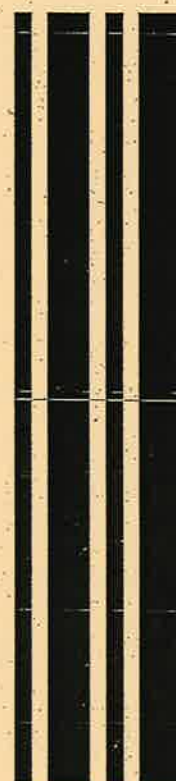
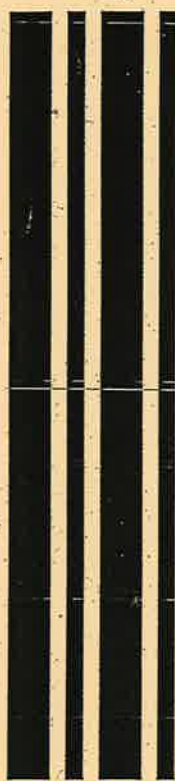
Dawn Davison
Pollution Control Specialist

Tanks and Spills Section
Hazardous Waste Division

DD:np

Enclosures

cc: Al Olson, City Clerk, St. Paul
Stephen Conroy, Fire Chief, St. Paul
Robert Walstrom, DPPA, Inc., St. Paul



S

OL →
Removal

4089

JRM

MINNESOTA PETROLEUM TANK RELEASE COMPENSATION BOARD
Application for Reimbursement

PR# 1133

PART I APPLICATION PROCESS

Back JUN 06 1995

(Check One) Check appropriate Phase and complete the information requested for the Phase checked (See Application Guide).

- Phase 1. MPCA approval of Soil Corrective Action Plan (SCAP)**
a) Date of SCAP approval / / (Attach Copy)
b) Date SCAP was submitted to MPCA / /

MAY 09 1995

- Phase 2. Submission of Documentation of Soil Treatment**
Date Documentation was submitted to MPCA / /

- Phase 3. MPCA approval of Comprehensive Corrective Action Plan (CCAP)**
a) Date of CCAP approval / / (Attach Copy)
b) Date CCAP was submitted to MPCA / /

- Phase 4. Submission of CCAP Installation Letter to MPCA**
Date of CCAP Installation Letter / / (Attach Copy)

- Ongoing Expenses Following Phase 4 Reimbursement or MPCA Site Closure or Conditional Closure**

Handwritten notes and stamps on the right side of the page.

PART II APPLICATION INFORMATION

Please be advised that the information used to support this application is subject to audit by the MPCA and MDOC.

- 1. "Responsible Person" "Volunteer" or "Non-Responsible Person"
(check one) (see application guide)

Name: Murphy Oil USA, Inc.

- 2. Mailing Address: Attn: Charles Burge
200 Peach Street
PO Box 7000
El Dorado, AR 71731-7000

Phone: 501/864-6561

- 3. Site ID: Leak # 4089

- 4. The applicant is a: Corporation Partnership Individual Other _____

5. Applicant was the owner or operator of the tank from 7/1/51 to 9/30/91.

6. "Volunteer" Applicant owned property from / / to / / .

7. Has applicant executed any Petrofund assignment agreements? yes__ no X

Name of assignee(s) (attach copy of agreement)

PART III TANK FACILITY

1. Name of "Tank Facility" (see application guide) where the petroleum release occurred:

Spur Station #4413

2. Tank Facility address: 1440 Rice Street
St. Paul, MN

3. Contact person at Tank Facility: NA
Phone: NA

4. To the best of your knowledge, list all other persons besides the applicant who were owners or operators of the tank during or after the petroleum release: None

5. Did any of the persons listed in question 4 incur corrective action costs related to this petroleum release? yes__ no__ If yes, list name and address if known:

6. Date when petroleum release was detected: 6/5/91

What test was performed to initially establish that a release occurred?

Soil boring adjacent to tanks.

7. Date when petroleum release was reported to the MPCA: 6/5/91

8.a. Which tanks (or associated piping) were the source of the release at this facility? (see application guide)

Unknown.

b. What was the cause of the release?

Unknown.

9. Was this tank(s) used only to store heating oil for consumptive use on the premises where stored?
 (check one) YES [] NO [X]

PART IV TANK INFORMATION AND COMPLIANCE

(Note: If you do not know if tanks are registered and/or prior tank removal notice was given, enter "unk" (unknown) for these items. Please do not contact the MPCA for this information.)

- A. **Underground Storage Tanks.** Complete the following information to reflect the status of your underground storage tanks at the time the release was discovered. Refer to the attachment "Do Underground Storage Tanks and Piping Requirements Apply to Your Petroleum Tank?" and "What Do You Have to Do?/When Do You Have to Act?" to determine the applicability of registration, leak detection, corrosion protection, and spill/overflow protection.

Tank	Petroleum Product	Capacity	Type of Tank	Date Installed	Registered Yes/No/Unk	Date Removed
1	Unleaded gasoline	14000	Steel	7/1/51	Yes	9/30/91
2	Unleaded gasoline	10000	Steel	7/1/51	Yes	9/30/91
3	Unleaded gasoline	6000	Steel	7/1/51	Yes	9/30/91

Tanks				Piping		
Tank	Leak Detection (Methods)	Corrosion Protection (Yes/No)	Spill/Overfill Protection (Yes/No)	Type of Piping	Leak Detection (Methods)	Corrosion Protection (Yes/No)
1	Inventory control- tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No
2	Inventory control - tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No

3	Inventory control- tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No
---	---	----	----	------------	--	----

Tank	Tank Tightness Test Dates	Piping Tightness Test Dates
1	6/18/90	6/18/90
2	6/18/90	6/18/90
3	6/18/90	6/18/90

* Was 10-day prior tank removal notice given to the MPCA? (YES/NO/UNK) YES

* Which MPCA office was notified:

St. Paul	<u>X</u>
Duluth	—
Brainerd	—
Detroit Lakes	—
Marshall	—
Rochester	—

* If the tank(s) involved in the release was removed after July 9, 1990, complete the following:

Removal Contractor: Petroleum Maintenance

MPCA Contractor (NOT Supervisor) Certification Number: 0037

* If the tank(s) involved in the release was installed after July 9, 1990, complete the following:

Installation Contractor:

MPCA Contractor (NOT Supervisor) Certification Number:

B. **Aboveground Storage Tanks.** Complete the following information to reflect the status of the aboveground tanks involved in the release at the time the release was discovered.

In describing your secondary containment, specify:

- * materials used to construct both the base and the walls, including type and thickness of materials (e.g., 6" compacted clay, 30 mil HDPE, reinforced concrete slab floor/concrete block walls, none)
- * how material specifications are known (e.g., permeability tests/dates, installation specifications)
- * is the volume of the secondary containment area adequate for the contents of the largest tank (Y/N)

Tank	Contents	Capacity	Date Installed	Registered Yes/No/Unk	Description of Secondary Containment			
					Walls	Base	Verification	Vol.
Sample	unleaded	15,000	1/1/47	Y	Concrete Block	6" compact clay/6" gravel fill	Perm test on (date)	N
1								
2								
3								

Are there any special circumstances you would like the persons reviewing your application to be aware of? Please explain:

PART V ELIGIBLE COSTS

1. The Eligible Cost Worksheets attached are for INVESTIGATION costs, CLEAN-UP costs, and CONSULTANT costs. These worksheets must be completed listing each corrective action for which you are requesting reimbursement.
2. Invoices submitted with this application cover the period from 7/26/94 to 2/25/95.
3. Are any of the costs listed in the Eligible Cost Worksheet in dispute? yes__ no X
(see application guide)
4. At this time, do you anticipate incurring any Ongoing corrective action costs relative to the petroleum release at this Tank Facility? yes__ no X

If yes, explain briefly what work will be done and an approximate cost of that work.

5. a. Please state the total amount of contaminated soil which was excavated at this site (cubic yards or tons): 1052.49 tons
- b. What was the soil contamination concentration (total hydrocarbons)? up to 6,000 ppm
6. Has the applicant been eligible to recover cleanup costs arising from this petroleum release under any insurance policy at any time since June 4, 1987? yes__ no X

If yes, provide the following:

<u>Insurance Co.</u>	<u>Policy #</u>	<u>Policy Limits</u>	<u>Deductible</u>	<u>Period Covered</u>
----------------------	-----------------	----------------------	-------------------	-----------------------

7. Total of all eligible costs as listed in the Eligible Cost Worksheets:

2755.49
\$ 2754.63
x 90%

= \$ 2479.17

Insurance Reimbursement (Subtract) - \$ ()

Total Reimbursement Request (see application guide) = \$ 2479.17

PART VI CONTRACTORS/CONSULTANTS

1. Complete the following for all contractors, subcontractors, consultants, engineering firms or others who performed corrective actions at this release site. (see application guide) **Failure to provide this information for ALL persons who performed corrective action may result in an action to recover any reimbursement which may be paid.** (Attach additional sheets if necessary.)

Name of individual or firm: DPRA Incorporated

Mailing address: 332 Minnesota Street
E-1500 First National Bank Building
St. Paul, MN 55101

Contact person: Rich Brude/Rob Wahlstrom
Phone: 612/227-6500

Name of individual or firm: Twin City Testing Corporation

Mailing address: 662 Cromwell Avenue
St. Paul, MN 55114

Contact person: Nancy Whaley
Phone: 612/645-3601

Name of individual or firm: Barott Drilling Services

Mailing address: 681 Birch Street
Lino Lakes MN, 55014

Contact person:
Phone: 612/484-0198

Name of individual or firm: B & R contracting

Mailing address: 5680 West 193 St.
Farmington MN 55024

Contact person: Russ Newberg
Phone: 612/463-4567

2. Describe below any relationship, financial or otherwise, between the applicant and any contractor who performed work at this site: None

PART VII CERTIFICATION (see application guide)

A. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete."

"I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay these invoices within 30 days of receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or any portion of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement, plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty."

C.H. Burge
Signature of Applicant
C. H. Burge
Name (Please Print)
5/4/95
Date

Witnessed by:
Martha Wood
Name
5-4-95
Date

Every applicant must sign Part A. above. If applicant is a corporation or partnership, the following certification must also be made:

"I further certify that I am authorized to sign and submit this application on behalf of

Murphy Oil USA, Inc."

C.H. Burge
Signature

C. H. Burge
Name (Please Print)

Environmental Supervisor
Title (see application guide, Part VI)

5/4/95
Date

Please send this application and accompanying documents to:

**Petroleum Tank Release Compensation Board
Minnesota Department of Commerce
133 East Seventh Street
St. Paul, Minnesota 55101
(612) 297-4203
(612) 297-1119**

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

A. SOIL BORINGS/MONITORING WELLS - ETC.

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Well abandonment of (3) 2" PVC near grade wells, removed 4X4 pads and replaced with concrete	Barott Drilling Services	4849			
Well abandonment			62 ft	15.50	961.00
Travel cost, drill rig					120.00
Removal of concrete off site			3 MH	130.00	390.00
Busting up concrete			1	175.00	175.00
TOTAL					1,646.00

B. LABORATORY TESTS AND ANALYSIS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

C. EXCAVATION

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

D. SOIL DISPOSAL

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

E. WATER TREATMENT

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

F. TRUCKING

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

G. EMERGENCY and TEMPORARY HAZARD CONTROL (see application guide)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

H. SITE RESTORATION and CLOSURE

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

I. OTHER CLEAN-UP or INVESTIGATION COSTS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Reimbursement application	DPRA	27	3.5	45.00	157.50
Other Direct Costs (see attached job status reports OR Monthly Progress Reports)					3.50
Project Management	DPRA	26	0.5	95.00	47.50
Project Management			0.5	65.00	32.50
Reimbursement application			2	45.00	90.00
Other Direct Costs (see attached job status reports OR Monthly Progress Reports)					3.00
Project Management	DPRA	25	0.5	95.00	47.50
Project Management			1.2	65.00	78.00
Project Management	DPRA	24	1	95.00	95.00
Project Management			4.5	65.00	292.50
Other Direct Costs (see attached job status reports)					0.54
TOTAL					847.54

K. MARK-UP

Description	Firm Name	General Contractor Invoice #	Sub-Contractor Invoice #	Mark Up %	Sub-Total
THESE MARK UPS WEREN'T APPLIED FOR FROM THE FIRST APPLICATION					
Mark up on Russ Newberg's Invoice of 90.00	DPRA	1 6/25/91	6/11	15	13.50
Mark up on Twin City Testing's Invoice of 1083.70	DPRA	1	4220-91-1194	15	162.55
Mark up on Twin City Testing's Invoice of 570.00	DPRA	2 7/25/91	4410-91-3470	15	85.50
TOTAL					261.55

L. OTHER CONSULTANT SERVICES (specify)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
TOTAL					0.00

Supplemental

closed file
4089

MINNESOTA PETROLEUM TANK RELEASE COMPENSATION BOARD
Application for Reimbursement

PART I

APPLICATION PROCESS

Due back 6/8/94

PR# 1133

JRM/
CZ

(Check One)

Check appropriate Phase and complete the information requested for the Phase checked (See Application Guide).

- Phase 1. MPCA approval of Soil Corrective Action Plan (SCAP)
a) Date of SCAP approval (Attach Copy)
b) Date SCAP was submitted to MPCA

State of Minnesota
FEB 04 1994

- Phase 2. Submission of Documentation of Soil Treatment
Date Documentation was submitted to MPCA

Dept. of Commerce

- Phase 3. MPCA approval of Comprehensive Corrective Action Plan (CCAP)
a) Date of CCAP approval (Attach Copy)
b) Date CCAP was submitted to MPCA

- Phase 4. Submission of CCAP Installation Letter to MPCA
Date of CCAP Installation Letter (Attach Copy)

- Ongoing Expenses Following Phase 4 Reimbursement or MPCA Site Closure or Conditional Closure

PART II

APPLICATION INFORMATION

Please be advised that the information used to support this application is subject to audit by the MPCA and MDOC.

- 1. "Responsible Person" "Volunteer" or "Non-Responsible Person"
(check one) (see application guide)

Name: Murphy Oil USA, Inc.

- 2. Mailing Address: Attn: Bob Billingsley
200 Peach Street
PO Box 7000
El Dorado, AR 71731-7000

Phone: 501/862-6411

- 3. Site ID: Leak # 4089

- 4. The applicant is a: Corporation Partnership Individual Other

RECEIVED

MAY 13 1994

MPCA, HAZARDOUS
WASTE DIVISION

5. Applicant was the owner or operator of the tank from 7/1/51 to 9/30/91.
6. "Volunteer" Applicant owned property from /// to ///.
7. Has applicant executed any Petrofund assignment agreements? yes__ no X
- Name of assignee(s) (attach copy of agreement)

PART III TANK FACILITY

1. Name of "Tank Facility" (see application guide) where the petroleum release occurred:
Spur Station #4413
2. Tank Facility address: 1440 Rice Street
St. Paul, MN
3. Contact person at Tank Facility: NA
Phone: NA
4. To the best of your knowledge, list all other persons besides the applicant who were owners or operators of the tank during or after the petroleum release: None
5. Did any of the persons listed in question 4 incur corrective action costs related to this petroleum release? yes__ no__ If yes, list name and address if known:
6. Date when petroleum release was detected: 6/5/91
- What test was performed to initially establish that a release occurred?
Soil boring adjacent to tanks.
7. Date when petroleum release was reported to the MPCA: 6/5/91
- 8.a. Which tanks (or associated piping) were the source of the release at this facility? (see application guide)
Unknown.
- b. What was the cause of the release?
Unknown.

9. Was this tank(s) used only to store heating oil for consumptive use on the premises where stored?
 (check one) YES [] NO [X]

PART IV TANK INFORMATION AND COMPLIANCE

(Note: If you do not know if tanks are registered and/or prior tank removal notice was given, enter "unk" (unknown) for these items. Please do not contact the MPCA for this information.)

- A. **Underground Storage Tanks.** Complete the following information to reflect the status of your underground storage tanks at the time the release was discovered. Refer to the attachment "Do Underground Storage Tanks and Piping Requirements Apply to Your Petroleum Tank?" and "What Do You Have to Do?/When Do You Have to Act?" to determine the applicability of registration, leak detection, corrosion protection, and spill/overflow protection.

Tank	Petroleum Product	Capacity	Type of Tank	Date Installed	Registered Yes/No/Unk	Date Removed
1	Unleaded gasoline	14000	Steel	7/1/51	Yes	9/30/91
2	Unleaded gasoline	10000	Steel	7/1/51	Yes	9/30/91
3	Unleaded gasoline	6000	Steel	7/1/51	Yes	9/30/91

Tanks				Piping		
Tank	Leak Detection (Methods)	Corrosion Protection (Yes/No)	Spill/Overfill Protection (Yes/No)	Type of Piping	Leak Detection (Methods)	Corrosion Protection (Yes/No)
1	Inventory control- tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No
2	Inventory control - tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No

3	Inventory control- tank tightness testing	No	No	Fiberglass	Inventory control and tank tightness testing	No
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Tank	Tank Tightness Test Dates	Piping Tightness Test Dates
1	6/18/90	6/18/90
2	6/18/90	6/18/90
3	6/18/90	6/18/90

* Was 10-day prior tank removal notice given to the MPCA? (YES/NO/UNK) YES

* Which MPCA office was notified:

St. Paul X
Duluth —
Brainerd —
Detroit Lakes —
Marshall —
Rochester —

* If the tank(s) involved in the release was removed after July 9, 1990, complete the following:

Removal Contractor: Petroleum Maintenance

MPCA Contractor (NOT Supervisor) Certification Number: 0037

* If the tank(s) involved in the release was installed after July 9, 1990, complete the following:

Installation Contractor:

MPCA Contractor (NOT Supervisor) Certification Number:

B. Aboveground Storage Tanks. Complete the following information to reflect the status of the aboveground tanks involved in the release at the time the release was discovered.

In describing your secondary containment, specify:

* materials used to construct both the base and the walls, including type and thickness of

materials (e.g., 6" compacted clay, 30 mil HDPE, reinforced concrete slab floor/concrete block walls, none)

- * how material specifications are known (e.g., permeability tests/dates, installation specifications)
- * is the volume of the secondary containment area adequate for the contents of the largest tank (Y/N)

Tank	Contents	Capacity	Date Installed	Registered Yes/No/Unk	Description of Secondary Containment			
					Walls	Base	Verification	Vol.
Sample	unleaded	15,000	1/1/47	Y	Concrete Block	6" compact clay/6" gravel fill	Perm test on (date)	N
1								
2								
3								

Are there any special circumstances you would like the persons reviewing your application to be aware of ? Please explain:

PART V ELIGIBLE COSTS

1. The Eligible Cost Worksheets attached are for INVESTIGATION costs, CLEAN-UP costs, and CONSULTANT costs. These worksheets must be completed listing each corrective action for which you are requesting reimbursement.
2. Invoices submitted with this application cover the period from 12/26/91 to 8/31/93
3. Are any of the costs listed in the Eligible Cost Worksheet in dispute? yes__ no X
(see application guide)
4. At this time, do you anticipate incurring any Ongoing corrective action costs relative to the petroleum release at this Tank Facility? yes X no__

If yes, explain briefly what work will be done and an approximate cost of that work.

Abandon monitoring wells and final client report Approx. \$3,000.

5. a. Please state the total amount of contaminated soil which was excavated at this site (cubic yards or tons): 1052.49 tons
- b. What was the soil contamination concentration (total hydrocarbons)? up to 6,000 ppm
6. Has the applicant been eligible to recover cleanup costs arising from this petroleum release under any insurance policy at any time since June 4, 1987? yes__ no X

If yes, provide the following:

<u>Insurance Co.</u>	<u>Policy #</u>	<u>Policy Limits</u>	<u>Deductible</u>	<u>Period Covered</u>
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7.	Total of all eligible costs as listed in the Eligible Cost Worksheets:			\$ 33842.15 x 90%
			=	\$ 30457.94
		Insurance Reimbursement (Subtract)	-	\$ ()
		Total Reimbursement Request (see application guide)	=	\$ 30457.94

PART VI CONTRACTORS/CONSULTANTS

1. Complete the following for all contractors, subcontractors, consultants, engineering firms or others who performed corrective actions at this release site. (see application guide) **Failure to provide this information for ALL persons who performed corrective action may result in an action to recover any reimbursement which may be paid.** (Attach additional sheets if necessary.)

Name of individual or firm: DPRA Incorporated

Mailing address: 332 Minnesota Street
E-1500 First National Bank Building
St. Paul, MN 55101

Contact person: Rich Brude/Rob Wahlstrom
Phone: 612/227-6500

Name of individual or firm: Twin City Testing Corporation

Mailing address: 662 Cromwell Avenue
St. Paul, MN 55114

Contact person: Nancy Whaley
Phone: 612/645-3601

Name of individual or firm: B & R Contracting

Mailing address: 5680 West 193 St.
Farmington, MN 55024

Contact person: Russ Newberg
Phone: 612/463-4567

Name of individual or firm: American Engineering Testing, Inc.

Mailing address: 2102 University Ave., W.
St. Paul, MN 55114


Contact person: Pat Francis
Phone: 612/659-9001

2. Describe below any relationship, financial or otherwise, between the applicant and any contractor who performed work at this site: None

PART VII CERTIFICATION (see application guide)

A. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete."

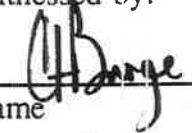
"I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay these invoices within 30 days of receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or any portion of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement, plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty."



Signature of Applicant
B. C. Billingsley

Name (Please Print)
2-1-94

Date

Witnessed by:


Name
2/1/94

Date

Every applicant must sign Part A. above. If applicant is a corporation or partnership, the following certification must also be made:

"I further certify that I am authorized to sign and submit this application on behalf of

PROPERTY OF THE INC.

Signature
MAN STATION OPERATIONS

Title (see application guide, Part VI)

B.C. Billingsley

Name (Please Print)
2-1-94

Date

Please send this application and accompanying documents to:

**Petroleum Tank Release Compensation Board
Minnesota Department of Commerce
133 East Seventh Street
St. Paul, Minnesota 55101
(612) 297-4203
(612) 297-1119**

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

A. SOIL BORINGS/MONITORING WELLS - ETC.

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Installation of monitoring wells - mobilization	American Engineering Testing, Inc.	920596	1	600.00	600.00
Borehole advancement			62	14.00	868.00
Furnish and install screens			3	75.00	225.00
Furnish & install riser pipe			29.5	7.00	206.50
Furnish and install filter sand			9	10.00	90.00
Cement grout and bentonite			23.8	5.00	119.00
Well installations- near grade			3	450.00	1350.00
Well permits MN Dept. of Health					225.00
TOTAL					3,683.50

B. LABORATORY TESTS AND ANALYSIS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
VOA - 465D	Twin City Testing Corp.	4410-93-0801	1	180.00	180.00
GRO			1	85.00	85.00

B. LABORATORY TESTS AND ANALYSIS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
BTEX/GRO/MTBE			3	95.00	285.00
BTEX/MTBE/GRO	Twin City Testing Corp.	4410-93-0715	2	95.00	190.00
BTEX/GRO/MTBE	Twin City Testing Corp.	4410-93-0131	1	90.00	90.00
GRO			3	85.00	255.00
VOA -465D			3	180.00	540.00
TH- MTBE	Twin City Testing Corp.	4410-92-2132	3	85.00	255.00
VOA - 465D			3	180.00	540.00
Gas/MTBE	Twin City Testing Corp.	4410-92-1206	3	85.00	255.00
MnDH			3	165.00	495.00
Lead			3	25.00	75.00
BTX/MTBE/Gas	Twin City Testing Corp.	4410-92-1112	1	95.00	95.00
TOTAL					3,340.00

C. EXCAVATION

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

D. SOIL DISPOSAL

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

E. WATER TREATMENT

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

F. TRUCKING

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Haul soil cuttings	B&R Contracting	3/26/92			120.00
TOTAL					120.00

G. EMERGENCY and TEMPORARY HAZARD CONTROL (see application guide)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

H. SITE RESTORATION and CLOSURE

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

I. OTHER CLEAN-UP or INVESTIGATION COSTS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Project management, complete MPCA forms	DPRA	000021	3.0	62.00	186.00
Word processing and clerical support			.5	35.00	17.50
Other direct costs: computer and photocopies					2.65
Project management	DPRA Incorporated	0000020	1.0	95.00	95.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Complete MPCA forms, project management			4.5	62.00	279.00
Petrofund application preparation			5.0	50.00	250.00
Word processing and clerical support			1.5	35.00	52.50
Other direct costs: computer fees, photocopies					25.45
Project management	DPRA Incorporated	000019	2.5	95.00	237.50
Report preparation			2.5	62.00	155.00
Other direct costs: computer fees					1.50
Project management	DPRA Incorporated	000018	2.0	95.00	190.00
Report preparation			5.0	62.00	310.00
Drafting			1.0	40.00	40.00
Word processing and clerical support			1.5	35.00	52.50
Other direct costs: computer fees 9.50, copies 6.78					16.28
Project management	DPRA Incorporated	000017	2.0	95.00	190.00
Report preparation, client correspondence			6.5	62.00	403.00
Field sampling/measurements			14.0	50.00	700.00
Drafting			1.0	40.00	40.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Other direct costs: computer fees 8.00, copies .36					8.36
Vehicle: refer to vehicle and equipment report					109.50
Equipment: refer to vehicle and equipment report					137.50
Project management, client correspondence	DPRA Incorporated	0000016	3.5	95.00	332.50
Report preparation, data compilation			13.0	62.00	806.00
Drafting			2.5	50.00	125.00
Word processing and clerical support			11.5	35.00	402.50
Other direct costs: computer 18.00, copies 87.24					105.24
Project management, report preparation	DPRA Incorporated	000015	8.0	95.00	760.00
Report preparation			10.5	62.00	651.00
Drafting			1.5	50.00	75.00
Drafting			8.5	40.00	340.00
Word processing and clerical support			1.5	35.00	52.50
Other direct costs: computer fees 57.50, copies 3.12					60.62

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Project management	DPRA Incorporated	000014	1.0	95.00	95.00
Work plan preparation, coordination, project management and report preparation			26.0	62.00	1612.00
Field sampling/measurements			1.5	50.00	75.00
Field sampling/measurements			6.5	40.00	260.00
Word processing and clerical support			5.0	35.00	175.00
Other direct costs: computer fees 29.00, photocopies 7.02					36.02
Vehicle: refer to vehicle and equipment report					36.00
Equipment: refer to vehicle and equipment report					48.00
Project management	DPRA Incorporated	000013	2.5	95.00	237.50
Report preparation			24.5	62.00	1519.00
Field sampling/measurements			2.5	50.00	125.00
Field sampling/measurements			1.5	40.00	60.00
Word processing and clerical support			2.0	35.00	70.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Other direct costs: computer fees 7.00, copies 7.50					14.50
Project management, coordination	DPRA Incorporated	000012	4.5	95.00	427.50
Report preparation			5.5	62.00	341.00
Report preparation, field sampling/measurements			60.0	50.00	3000.00
Word processing and clerical support			3.5	35.00	122.50
Travel: use of personal vehicle for project work			18	.25	4.50
Other direct costs: computer fees 16.50, copies 56.28					72.78
Vehicle: refer to vehicle and equipment report					32.00
Equipment: refer to vehicle and equipment report					136.50
Project management	DPRA Incorporated	000011	3.5	95.00	332.50
Report preparation, correspondence			3.5	62.00	217.00
Field sampling, slug test, data reduction, report preparation			56.5	50.00	2825.00
Drafting			1.5	40.00	60.00
Word processing and clerical support			5.0	35.00	175.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Other direct costs: computer fees 19.50, copies 13.57					33.07
Vehicle: refer to vehicle and equipment report					42.00
Equipment: refer to vehicle and equipment report					37.00
Project management	DPRA Incorporated	00010	2.0	95.00	190.00
Work plan preparation			3.5	62.00	217.00
Field sampling, data compilation			27.5	50.00	1375.00
Drafting			1.0	40.00	40.00
Word processing and clerical support			1.5	35.00	52.50
Other direct costs: computer fees 31.00, copies 4.50					35.50
Equipment: refer to vehicle and equipment report					30.00
Project management	DPRA Incorporated	000009	1.0	95.00	95.00
Field sampling			13.5	50.00	675.00
Word processing and clerical support			1.5	35.00	52.50

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Other direct costs:computer fees 4.50, copies .78, misc. sampling supplies; ice, foil, etc. 2.93					8.21
Vehicle: refer to vehicle and equipment report					95.50
Equipment: refer to vehicle and equipment report					211.50
Project management	DPRA Incorporated	000008	2.0	95.00	190.00
Report preparation			2.0	62.00	124.00
Field sampling			32.0	50.00	1600.00
Word processing and clerical support			2.0	35.00	70.00
Other direct costs: computer fees 15.00, copies 10.38					25.38
Project management, work plan preparation	DPRA Incorporated	000007	5.5	85.00	467.50
Work plan preparation			10.5	48.00	504.00
Word processing and clerical support			3.5	35.00	122.50
Other direct costs: computer fees 9.00, copies 6.06					15.06
TOTAL					25,627.12

K. MARK-UP

Description	Firm Name	General Contractor Invoice #	Sub-Contractor Invoice #	Mark Up %	Sub-Total
Twin City Testing \$550.00	DPRA Incorporated	000018	4410-93-0801	15	82.50
Twin City Testing \$190.00	DPRA Incorporated	000017	4410-93-0715	15	28.50
Twin City Testing \$885.00	DPRA Incorporated	000015	4410-93-0131	15	132.75
Twin City Testing \$795.00	DPRA Incorporated	000012	4410-92-2132	15	119.25
Twin City Testing \$825.00	DPRA Incorporated	000010	4410-92-1206	15	123.75
B&R Contracting \$120.00	DPRA Incorporated	000010	3/26/92	15	18.00
American Engineering Testing, Inc. \$3683.50	DPRA Incorporated	000009	920596	15	552.53
Twin City Testing \$95.00	DPRA Incorporated	000009	4410-92-1112	15	14.25
Twin City Testing \$435.00	DPRA Incorporated	00005	4410-92-0012	15	65.25
Twin City Testing \$955.00	DPRA Incorporated	000005	4410-92-0052	15	143.25
TOTAL					1,280.03

L. OTHER CONSULTANT SERVICES (specify)

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

Leak #4089

MINNESOTA PETROLEUM TANK RELEASE
COMPENSATION BOARD
Application for Reimbursement

PART I APPLICATION PROCESS

(Check One) Check appropriate Phase and complete the information requested for the Phase checked (See Application Guide).

 Phase 1. MPCA approval of Soil Corrective Action Plan (SCAP)
a) Date of SCAP approval 1/17/92 (Attach Copy)
b) Date SCAP was submitted to MPCA 10/24/91

 Phase 2. Submission of Soil Treatment Letter to MPCA
Date of Soil Treatment Letter 10/24/91 (Attach Copy)

 Phase 3. MPCA approval of Comprehensive Corrective Action Plan (CCAP)
a) Date of CCAP approval / / (Attach Copy)
b) Date CCAP was submitted to MPCA / /

 Phase 4. Submission of CCAP Installation Letter to MPCA
Date of CCAP Installation Letter / / (Attach Copy)

 Ongoing Expenses
Closure Letter from MPCA (Attach Copy)

FEB 2 1992

PART II APPLICATION INFORMATION

1. "Responsible Person" "Volunteer" or "Non-Responsible Person"
(check one) (see application guide)

Name: Murphy Oil USA, Inc.

2. Mailing Address: Mr. Jim Schneider
 200 Peach Street
 El Dorado, AR 71730

Phone: 501/862-6411

3. Site ID: Leak #4089

4. The applicant is a: Corporation Partnership Individual Other _____

5. Applicant was the owner or operator of the tank from 7/1/51 to 9/30/91.

6. Has applicant executed any Petrofund assignment agreements? yes__ no X

Name of assignee (attach copy of agreement)

PART III TANK FACILITY

1. Name of "Tank Facility" (see application guide) where the petroleum release occurred:

Spur Station #4413

2. Tank Facility address: 1440 Rice Street
St. Paul, MN

3. Contact person at Tank Facility: NA
Phone: NA

4. Date when petroleum release was detected: 6/5/91

What test was performed to initially establish that a release occurred?

Soil boring adjacent to tanks

5. Date when petroleum release was reported to the MPCA: 6/5/91

6. Please complete the following information on the tanks at this Tank Facility.
(see application guide)

<u>Tank #</u>	<u>Capacity</u>	<u>Petroleum Product</u>	<u>"X" if tank removed</u>	<u>Date of Removal</u>
1	14,000 gal.	Unleaded Gasoline	X	9/30/91
2	10,000 gal.	Unleaded Gasoline	X	9/30/91
3	6,000 gal.	Unleaded Gasoline	X	9/30/91

7. a. Which tanks were the source of the release at this facility? (see application guide)

All three tanks may have contributed to the release

b. What was the cause of the release?

The release was likely due to piping leakage

8. What date was the MPCA notified of the existence of the tanks as required by Minnesota Statute 116.48? 2/24/86
9. To the best of your knowledge, list all other persons besides the applicant who were owners or operators of the tank during or after the petroleum release:
None
10. Did any of the persons listed in question 9 incur corrective action costs related to this petroleum release? yes__ no X If yes, list name and address if known:

PART IV ELIGIBLE COSTS

1. The Eligible Cost Worksheets attached are for INVESTIGATION costs, CLEAN-UP costs, and CONSULTANT costs. These worksheets must be completed listing each corrective action for which you are requesting reimbursement.
2. Invoices submitted with this application cover the period from 6/30/91 to 12/31/91
3. Are any of the costs listed in the Eligible Cost Worksheet in dispute? yes__ no X
4. a. Please state the total amount of contaminated soil which was excavated at this site (cubic yards or tons): 1052.49 tons
- b. What was the soil contamination concentration (total hydrocarbons)? up to 6,000 ppm
5. Has the applicant been eligible to recover cleanup costs arising from this petroleum release under any insurance policy at any time since June 4, 1987? yes__ no X

If yes, provide the following:

<u>Insurance Co.</u>	<u>Policy #</u>	<u>Policy Limits</u>	<u>Deductible</u>	<u>Period Covered</u>
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- | | | | | |
|---|------------------------------------|--|---|---------------------|
| 6. Total of all eligible costs as listed in the Eligible Cost Worksheets: | | | | \$ <u>63,409.96</u> |
| | | | | x 90% |
| | | | = | \$ <u>57,068.96</u> |
| | Insurance Reimbursement (Subtract) | | - | \$ (<u>0.00</u>) |
| | Total Reimbursement Request | | = | \$ <u>57,068.96</u> |

(see application guide)

7. At this time, do you anticipate incurring any Ongoing corrective action costs relative to the petroleum release at this Tank Facility? yes X no__

If yes, explain briefly what work will be done and an approximate cost of that work.

Monitoring wells will be installed and sampled. Groundwater and in-situ soil remediation may also be required. Approximately \$100,000 to \$150,000.

PART V CONTRACTORS/CONSULTANTS

1. Complete the following for all contractors, subcontractors, consultants, engineering firms or others who performed corrective actions at this release site. (see application guide) **Failure to provide this information for ALL persons who performed corrective action may result in an action to recover any reimbursement which may be paid.** (Attach additional sheets if necessary.)

Name of individual or firm: DPRA Incorporated
Mailing address: E1500 First National Bank Building
332 Minnesota Street
St. Paul, MN 55101

Contact person: Rich Brude
Phone: 612/227-6500

Name of individual or firm: Russell Newberg
Mailing address: 701 Heritage Way
Farmington, MN 55024

Contact person: Russell Newberg
Phone: 612/463-4567

Name of individual or firm: Twin City Testing
Mailing address: 662 Cromwell Avenue
St. Paul, MN 55114

Contact person: Joel Pitman
Phone: 612/645-3601

Name of individual or firm: CleanSoils Inc.
Mailing address: 84 2nd Avenue SE
New Brighton, MN 55112
Contact person: Troy Watling
Phone: 612/639-8811
Name of individual or firm: Petroleum Maintenance Co.
Mailing address: 3172 Spruce Street
St. Paul, MN 55117
Contact person: Ed
Phone: 612/484-8264
Name of individual or firm: Majestic Electric, Inc.
Mailing address: 11576 Valley Creek Road
Woodbury, MN 55125
Contact person: Steve
Phone: 612/436-1010

2. Describe below any relationship, financial or otherwise, between the applicant and any contractor who performed work at this site:

None

PART VI CERTIFICATION (see application guide)

- A. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete."

"I certify that if I have submitted invoices for costs that I have incurred but that remain unpaid, I will pay these invoices within 30 days of receipt of reimbursement from the board. I understand that if I fail to do so, the board may demand return of all or any portion of reimbursement paid to me and that if I fail to comply with the board's demand, that the board may recover the reimbursement, plus administrative and legal expenses in a civil action in district court. I understand that I may also be subject to a civil penalty."

J.E. Schneider
Signature of Applicant
J.E. SCHNEIDER
Name (Please Print)
2-17-92
Date

Witnessed by:
Martha Wood
Name
2-17-92
Date

Every applicant must sign Part A. above. If applicant is a corporation or partnership, the following certification must also be made:

"I further certify that I am authorized to sign and submit this application on behalf of

Murphy Oil USA, Inc.
J.E. Schneider
Signature
MANAGER - STATION OPERATIONS
Title (see application guide, Part VI)

J.E. SCHNEIDER
Name (Please Print)
2-17-92
Date

Please send this application and accompanying documents to:

Petroleum Tank Release Compensation Board
Minnesota Department of Commerce
133 East Seventh Street
St. Paul, Minnesota 55101
(612) 297-4017

PART IV ELIGIBLE COST WORKSHEET - INVESTIGATION AND CLEAN-UP

- * Descriptions must be specific as to work performed.
- * Invoices must be submitted for each cost listed below.
- * Invoices must contain sufficient detail to verify costs and services entered below.
- * Duplicate this form if additional worksheets are needed.

A. SOIL BORINGS/MONITORING WELLS - ETC.					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Three borings: Technician charge	Twin City Testing	4220 91-1194			15.60
Mob. and Demob. of Drill rig and crew	Twin City Testing	4220 91-1194			147.00
Field work	Twin City Testing	4220 91-1194			921.10
TOTAL					1,083.70

B. LABORATORY TESTS AND ANALYSIS					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
BTEX, MTBE, TH as Gas	Twin City Testing	4410 91-3470	4	142.50	570.00
Total Lead	Twin City Testing	4410 92-0052	4	25.00	100.00
BTEX, MTBE, TH as Gas	Twin City Testing	4410 92-0052	9	95.00	855.00

B. LABORATORY TESTS AND ANALYSIS					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Sieve Analysis - Rush	Twin City Testing	4410 92-0012	1	90.00	90.00
Moisture - Rush	Twin City Testing	4410 92-0012	1	22.50	22.50
BTEX - Rush	Twin City Testing	4410 92-0012	2	142.50	285.00
Lead	Twin City Testing	4410 92-0012	1	37.50	37.50
TOTAL					1,960.00

C. EXCAVATION					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Move and haul out contaminated soil: Loader	Petroleum Maintenance Co.	11/8/91	2	70.00	140.00
Trackhoe			2	105.00	210.00
End Dump			3.5	55.00	192.50
Tandem			3.5	45.00	157.50
Labor			1	38.50	38.50
Dig out contaminated soil: Trackhoe	Petroleum Maintenance Co.	11/8/91	9.5	105.00	997.50
Tandem			24.25	45.00	1091.25
End dump			23	55.00	1265.00

C. EXCAVATION					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Tri axle			8.5	50.00	425.00
Move and load contaminated soil: Trackhoe	Petroleum Maintenance Co.	11/8/91	3	105.00	315.00
Loader			1	70.00	70.00
Pipe and fittings					341.08
Tandem			2.5	45.00	112.50
Labor			7	38.50	269.50
Remove paving, sidewalk and curb	Petroleum Maintenance Co.	11/8/91	1080	1.50	1620.00
TOTAL					7,245.33

D. SOIL DISPOSAL					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Soil remediation - weigh fee	CleanSoils Inc.	91.195-1	61	5.00	305.00
Process soil	CleanSoils Inc.	91.195-1	1052.49	34.00	35784.66

D. SOIL DISPOSAL					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					36,089.66

E. WATER TREATMENT					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

F. TRUCKING					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Haul contaminated soils	Russell Newberg	6/11			90.00

F. TRUCKING					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
TOTAL					90.00

G. EMERGENCY and TEMPORARY HAZARD CONTROL (see application guide)					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
TOTAL					0.00

H. SITE RESTORATION and CLOSURE					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Fill and tamp back to grade for hold down slab:	Petroleum Maintenance Co.	11/8/91			
Bobcat			3	50.00	150.00
Tamper			1		50.00
Loader			8	70.00	560.00
Labor			19	38.50	731.50

H. SITE RESTORATION and CLOSURE					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Repair landscaping due to contaminated soil removal: 1 Roll Poly	Petroleum Maintenance Co.	11/8/91			59.40
Bobcat			5	50.00	250.00
Labor			16	38.50	616.00
Bobcat			2	50.00	100.00
Dump truck			1	45.00	45.00
Labor			14.5	38.50	558.25
Sand needed to replace contamination: Sand	Petroleum Maintenance Co.	11/8/91	372	3.50	1302.00
Tandems			26	45.00	1170.00
Labor			16	38.50	616.00
2 Tampers					100.00
Replace concrete curb, sidewalk and paving: Curb	Petroleum Maintenance Co.	11/8/91	57		550.00
Dual purpose sidewalk					544.50
8" paving			842		2403.50
Replace damaged wire to price sign: material	Majestic Electric, Inc.	11263			61.11
labor			3.5	44.00	154.00
TOTAL					10,021.26

I. OTHER CLEAN-UP or INVESTIGATIVE COSTS

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
TOTAL					0.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Project management	DPRA Incorporated	0001	3.5	85.00	297.50
Project administration	DPRA Incorporated	0001	1.5	60.00	90.00
Work plan preparation and field sampling	DPRA Incorporated	0001	27	48.00	1296.00
Word processing and clerical assistance	DPRA Incorporated	0001	3.5	35.00	122.50
Vehicle mileage	DPRA Incorporated	0001			15.12
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0001			11.34

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Field vehicle	DPRA Incorporated	0001			54.50
Test equipment: various sampling and surveying equipment and misc. sampling supplies	DPRA Incorporated	0001			151.00
Project management	DPRA Incorporated	0002	.5	85.00	42.50
Project management	DPRA Incorporated	0002	1	60.00	60.00
Report preparation	DPRA Incorporated	0002	6	48.00	288.00
Drafting	DPRA Incorporated	0002	4	40.00	160.00
Word processing	DPRA Incorporated	0002	2.5	35.00	87.50
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0002			41.58
Project management	DPRA Incorporated	0003	2	85.00	170.00
Project management	DPRA Incorporated	0003	.5	60.00	30.00
Work plan preparation	DPRA Incorporated	0003	1	48.00	48.00
Work plan preparation	DPRA Incorporated	0003	2	40.00	80.00
Word processing	DPRA Incorporated	0003	.5	35.00	17.50

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0003			9.20
Project management	DPRA Incorporated	0004	2.5	85.00	212.50
Project management	DPRA Incorporated	0004	.5	60.00	30.00
Soil treatment processing, data compilation, report preparation	DPRA Incorporated	0004	20.5	48.00	984.00
Tank excavation monitoring and sampling	DPRA Incorporated	0004	25	40.00	1000.00
Word processing	DPRA Incorporated	0004	5	35.00	175.00
Vehicle mileage	DPRA Incorporated	0004			16.44
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0004			22.23
Test vehicle	DPRA Incorporated	0004			60.00
Test equipment: various sampling and surveying equipment and misc. sampling supplies	DPRA Incorporated	0004			236.00
Project management	DPRA Incorporated	0005	1	85.00	85.00

J. REPORT PREPARATION; DATA COLLECTION; OPERATION OVERSIGHT AND MAINTENANCE; SYSTEM MONITORING; CORRESPONDENCE; MILEAGE; POSTAGE; PER DIEM

Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub- Total
Project management	DPRA Incorporated	0005	1	60.00	60.00
Work plan preparation	DPRA Incorporated	0005	1	48.00	48.00
Drafting	DPRA Incorporated	0005	2	40.00	80.00
Word processing	DPRA Incorporated	0005	1	35.00	35.00
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0005			50.14
Project management	DPRA Incorporated	0006	1.5	85.00	127.50
Report preparation	DPRA Incorporated	0006	10.5	48.00	504.00
Drafting	DPRA Incorporated	0006	1	40.00	40.00
Word processing	DPRA Incorporated	0006	2	35.00	70.00
Other Direct Costs, including computer charges, photocopies and telephone calls	DPRA Incorporated	0006	2	35.00	11.96
TOTAL					6,920.01

K. MARK-UP					
Description	Firm Name	General Contractor Invoice #	Sub-Contractor Invoice #	Mark Up %	Sub-Total
TOTAL					0.00

L. OTHER CONSULTANT SERVICES (specify)					
Description	Firm Name	Invoice # or Date	Total Units	Unit Costs	Sub-Total
TOTAL					0.00

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465D

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: **MW-5** Method Blank

TCT ID: 299159

<u>Compound:</u>			<u>PQL</u>
1,1-Dichloropropene	ND	ND	1
cis-1,3-Dichloropropene	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	1
Ethyl Ether	ND	ND	5
Ethylbenzene	ND	ND	1
Hexachlorobutadiene	ND	ND	1
Isopropylbenzene	ND	ND	1
p-Isopropyltoluene	ND	ND	1
Methyl Ethyl Ketone	ND	ND	5
Methyl Isobutyl Ketone	ND	ND	5
Methyl Tertiary Butyl Ether	ND	ND	1
Methylene chloride	ND	ND	1
Naphthalene	ND	ND	1
n-Propylbenzene	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	1
Tetrachloroethene	ND	ND	1
Tetrahydrofuran	ND	ND	10
Toluene	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	1
1,1,1-Trichloroethane	ND	ND	2
1,1,2-Trichloroethane	ND	ND	1
Trichloroethene	ND	ND	1
Trichlorofluoromethane	ND	ND	2
1,2,3-Trichloropropane	ND	ND	1
Trichlorotrifluoroethane	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	1
Vinyl chloride	ND	ND	2
o-Xylene, Styrene ¹	ND	ND	1
m-p-Xylenes ¹	ND	ND	1

Date Analyzed: **10/26/92** 10/26-27/92

¹Compounds not separated by this method.

PQL = Practical Quantitation Limit
 ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.

LABORATORY NO: 4410 93-0131

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465D

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: MW-4

TCT ID: 289161

<u>Compound:</u>		<u>PQL</u>
1,1-Dichloropropene	ND	25
cis-1,3-Dichloropropene	ND	25
trans-1,3-Dichloropropene	ND	25
Ethyl Ether	ND	25
Ethylbenzene	800	120
Hexachlorobutadiene	ND	25
Isopropylbenzene	64	25
p-Isopropyltoluene	ND	25
Methyl Ethyl Ketone	ND	120
Methyl Isobutyl Ketone	ND	120
Methyl Tertiary Butyl Ether	ND	25
Methylene chloride	ND	25
Naphthalene	170	25
n-Propylbenzene	190	25
1,1,1,2-Tetrachloroethane	ND	25
1,1,2,2-Tetrachloroethane	ND	25
Tetrachloroethene	ND	25
Tetrahydrofuran	ND	250
Toluene	69	25
1,2,3-Trichlorobenzene	ND	25
1,2,4-Trichlorobenzene	ND	25
1,1,1-Trichloroethane	150 *	25
1,1,2-Trichloroethane	ND	25
Trichloroethene	53 *	25
Trichlorofluoromethane	ND	50
1,2,3-Trichloropropane	ND	25
Trichlorotrifluoroethane	ND	25
1,2,4-Trimethylbenzene	1,100	25
1,3,5-Trimethylbenzene	280	25
Vinyl chloride	ND	50
o-Xylene, Styrene ¹	220	25
m-p-Xylenes ¹	810	25

RAL

600

30

Date Analyzed: 7/13-14/92

¹Compounds not separated by this method.

PQL = Practical Quantitation Limit
ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.

LABORATORY NO: 4410 92-2132

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465D

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID:	MW-5	MW-6	Method Blank
TCT ID:	289162	289163	

<u>Compound:</u>				<u>PQL</u>
1,1-Dichloropropene	ND	ND	ND	1
cis-1,3-Dichloropropene	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	1
Ethyl Ether	ND	ND	ND	5
Ethylbenzene	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	1
p-Isopropyltoluene	ND	ND	ND	1
Methyl Ethyl Ketone	ND	ND	ND	5
Methyl Isobutyl Ketone	ND	ND	ND	5
Methyl Tertiary Butyl Ether	ND	ND	ND	1
Methylene chloride	ND	ND	ND	1
Naphthalene	ND	ND	ND	1
n-Propylbenzene	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	1
Tetrachloroethene	ND	ND	ND	1
Tetrahydrofuran	ND	ND	ND	10
Toluene	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	1
1,1,1-Trichloroethane	ND	4 *	ND	1
1,1,2-Trichloroethane	ND	ND	ND	1
Trichloroethene	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	2
1,2,3-Trichloropropane	ND	ND	ND	1
Trichlorotrifluoroethane	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	1
Vinyl chloride	ND	ND	ND	2
o-Xylene, Styrene ¹	ND	ND	ND	1
m-p-Xylenes ¹	ND	ND	ND	1

Date Analyzed:	7/13/92	7/13/92	7/13-14/92
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¹Compounds not separated by this method.

PQL = Practical Quantitation Limit
 ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.

LABORATORY NO: 4410 92-2132

**VOLATILE ORGANIC COMPOUNDS
MNDH METHOD 465C**

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID:	Method	MW-5	MW-6
	Blank		
TCT ID:		278451	278452

<u>Compound:</u>				<u>MDL</u>
Acetone	ND	ND	ND	10
Ethyl ether	ND	ND	ND	5
Benzene	ND	ND	ND	1
Toluene	ND	ND	ND	1
Cumene	ND	ND	ND	1
o-Xylene	ND	ND	ND	1
p-m-Xylenes ¹	ND	ND	ND	1
Tetrahydrofuran	ND	ND	ND	10
Methyl ethyl ketone	ND	ND	ND	5
Ethyl benzene	ND	ND	ND	1
Methyl isobutyl ketone	ND	ND	ND	5
Chloromethane	ND	ND	ND	2
Vinyl chloride	ND	ND	ND	2
Chloroethane	ND	ND	ND	2
Methylene chloride	ND	ND	1	1
Allyl chloride	ND	ND	ND	10
1,1-Dichloroethane	ND	ND	ND	1
Cis-1,2-dichloroethylen	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	1
1,1,1-Trichloroethane	ND	17	6	1
Bromodichloromethane	ND	ND	ND	1
1,1-Dichloro-1-propene	ND	ND	ND	1
Trichloroethylene	ND	7	ND	1
Dibromochloromethane	ND	ND	ND	1
Cis-1,3-dichloro-1-propene	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	1

(continued)

3/13/92

¹Compounds not separated by this method.

MDL = Method Detection Limit

ND = Not Detected

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465C

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID:	Method			
	Blank	MW-5	MW-6	
TCT ID:		278451	278452	
Compound:				MDL
1,1,2-Trichlorotrifluoroethane	ND	4	5	1
Dichlorodifluoromethane	ND	ND	ND	2
Bromomethane	ND	ND	ND	2
Dichlorofluoromethane	ND	ND	ND	2
Trichlorofluoromethane	ND	ND	ND	2
<u>1,1-Dichloroethylene</u>	ND	10	ND	2
Trans-1,2-Dichloroethylene	ND	ND	ND	1
Chloroform	ND	1	ND	1
Dibromomethane	ND	ND	ND	1
Carbon tetrachloride	ND	ND	ND	5
1,2-Dichloropropane	ND	ND	ND	1
Trans-1,3-dichloro-1-propene	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	1
1,2-Dibromoethane	ND	ND	ND	1
Bromoform	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	5
Tetrachloroethylene	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	1
1,2-Dichlorobenzene	ND	ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	1
Date Analyzed:	3/13/92	3/13/92	3/13/92	

RAL
6

MDL = Method Detection Limit
 ND = Not Detected

Reference: Minnesota Department of Health, Method 465C.

**VOLATILE ORGANIC COMPOUNDS
MNDH METHOD 465C**

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: **MW-4**

TCT ID: 278450

<u>Compound:</u>		<u>MDL</u>
Acetone	ND	500
Ethyl ether	ND	250
Benzene	ND	50
Toluene	75	50
Cumene	55	50
o-Xylene	290	50
p-m-Xylenes ¹	690	50
Tetrahydrofuran	ND	500
Methyl ethyl ketone	ND	250
Ethyl benzene	570	50
Methyl isobutyl ketone	ND	250
Chloromethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	50
Allyl chloride	ND	500
1,1-Dichloroethane	ND	50
Cis-1,2-dichloroethylene	ND	50
1,2-Dichloroethane	ND	50
1,1,1-Trichloroethane	ND	50
Bromodichloromethane	ND	50
1,1-Dichloro-1-propene	ND	50
Trichloroethylene	ND	50
Dibromochloromethane	ND	50
Cis-1,3-dichloro-1-propene	ND	50
1,1,1,2-Tetrachloroethane	ND	50
1,1,2,2-Tetrachloroethane	ND	50

(continued)

3/12/92

*RAE
600
30
Detection
Limits
7 RAE
for several
compounds*

¹Compounds not separated by this method.

MDL = Method Detection Limit

ND = Not Detected

VOLATILE ORGANIC COMPOUNDS (continued)
MNDH METHOD 465C

(All values are in µg/L which is equivalent to parts-per-billion)

Client ID: **MW-4**

TCT ID: 278450

<u>Compound:</u>		<u>MDL</u>	
1,1,2-Trichlorotrifluoroethane	100 *?	50	RAL
Dichlorodifluoromethane	ND	2	14
Bromomethane	ND	2	
Dichlorofluoromethane	ND	2	
Trichlorofluoromethane	ND	2	
1,1-Dichloroethylene	ND	50	
Trans-1,2-Dichloroethylene	ND	50	
Chloroform	ND	50	
Dibromomethane	ND	250	
Carbon tetrachloride	ND	50	
1,2-Dichloropropane	ND	50	
Trans-1,3-dichloro-1-propene	ND	50	
1,3-Dichloropropane	ND	50	
1,1,2-Trichloroethane	ND	50	
1,2-Dibromoethane	ND	100	
Bromoform	ND	250	
1,2,3-Trichloropropane	ND	50	
Tetrachloroethylene	ND	50	
Chlorobenzene	ND	50	
1,2-Dichlorobenzene	ND	50	
1,3-Dichlorobenzene	ND	50	
1,4-Dichlorobenzene	ND	50	

Date Analyzed: 3/13/92

MDL = Method Detection Limit

ND = Not Detected

Reference: Minnesota Department of Health, Method 465C.

METHOD 465D (continued)
 (All values are in ppb, which is equivalent to parts-per-billion)

MW-4

306414

Compound:

Compound	Result	Notes	PQL
1,1-Dichloropropene	ND	RTC	
cis-1,3-Dichloropropene	ND		10
trans-1,3-Dichloropropene	ND		10
Ethyl Ether	ND		10
Ethylbenzene	ND		50
Hexachlorobutadiene	560		10
Isopropylbenzene	ND		10
p-Isopropyltoluene	39	300	10
Methyl Ethyl Ketone	ND		10
Methyl Isobutyl Ketone	110	300	50
Methyl-tert-Butyl Ether	ND		50
Methylene chloride	14		10
Naphthalene	ND		10
n-Propylbenzene	89	30	10
1,1,1,2-Tetrachloroethane	120		10
1,1,2,2-Tetrachloroethane	ND		10
Tetrachloroethene	ND		10
Tetrahydrofuran	ND		10
Toluene	ND		100
1,2,3-Trichlorobenzene	55		10
1,2,4-Trichlorobenzene	ND		10
1,1,1-Trichloroethane	ND		10
1,1,2-Trichloroethane	ND	601 $\frac{4}{7.2.92}$	20
Trichloroethene	ND	80 $\frac{50}{MW-4/7.2.92}$	10
Trichlorofluoromethane	ND		10
1,2,3-Trichloropropane	ND		20
Trichlorotrifluoroethane	ND		10
1,2,4-Trimethylbenzene	ND		10
1,3,5-Trimethylbenzene	630		25
Vinyl chloride	120		10
o-Xylene, Styrene ¹	ND		20
m-p-Xylenes ¹	190		10
	490		10

Date Analyzed:

1/19-21/93

¹Compounds not separated by this method.

PQL = Practical Quantitation Limit
 ND = Not Detected

Reference: Minnesota Department of Health, Method 465D.