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

February 21, 1992

Donald Milless
Minnesota Pollution Control Agency
Tanks And Spills Section
520 Lafayette Road
St Paul, MN 55155-3898

**MPCA, HAZARDOUS
WASTE DIVISION**

Dear Mr. Milless:

Subject: Project Status Report
MPCA Leak #4981
International Plaza
TCT Project #4231 92-630

1.0 INTRODUCTION

Twin City Testing Corporation (TCT) requests your approval of this closure report concerning recovery of hydraulic oil that leaked from an elevator system at the International Plaza site. The oil leaked into an elevator well. The well has a total depth of 50 feet with approximately 3.5 feet of sediment in the bottom. The well is cased with 20 inch diameter steel casing but is open on the bottom. Approximately 30 gallons of hydraulic oil was reportedly released into the well. Given the casing diameter, there should be approximately 2 feet of oil on the water surface.

Two representatives of TCT conducted an initial site assessment on February 3, 1992. A transparent bailer was used to assess the product thickness. There was 0.8 feet of product at the surface and a 1.2 foot zone of an apparent oil/water mix. The fluid level was 5.15 feet below the top of casing.

A MSDS sheet for the oil is attached. The oil is listed as non-hazardous. It is defined as a solvent-dewaxed heavy paraffinic petroleum distillate. The specific gravity is listed as 0.87 so it should all be floating on the water surface. The solubility was not listed.

2.0 WORK SCOPE

TCT completed the following tasks to remove the free product, and assess potential groundwater impacts.

Task 1 - Development of a work plan.

Task 2 - Product removal.

Task 3 - Groundwater Quality assessment.

Task 4 - Groundwater treatment.

3.0 RESULTS

Product Removal

A TCT technician was deployed to the International Plaza site on 2/13/92 to supervise the removal of the oil from the elevator well. Determan Welding arrived and pumped the oil off of the surface of the water with a centrifugal pump and into 55 gallon barrels in the back of a truck. Initially 1.5 feet were pumped off leaving approximately 2 inches of product on the surface. Since the pump hose would lose its prime when pumping from the surface, the remaining product was bailed out of the shaft using a 5 gallon bucket and the liquid pumped from the bucket.

After 15 gallons were removed, the sides of the well were washed off using a brush and liquid soap. This washing was repeated twice more. Next, an additional 50 gallons of the surficial well water was pumped out to make sure that all free product was removed. Determan was responsible for disposal of the product and water and is a licensed waste oil hauler. A total of 100 gallons were removed.

After the product was removed a sheen was still apparent on the surface. This was absorbed using an absorbent pad designed to remove oil from water.

Water Quality Assessment

Once the product was removed, the TCT technician collected a sample of the water in the well to assess its suitability for discharge to the storm sewer system. The sample was collected using a laboratory cleaned bailer but the well was not purged prior to sampling. Once the water sample had been collected, it was placed in a cooler for transport to the TCT laboratory for analyses. The sample was logged in and a chain of custody form completed.

The sample was analyzed for total petroleum hydrocarbons as fuel oil (THFO), benzene, toluene, ethylbenzene, and xylenes (BTEX). The results of the analyses are indicated on the attached preliminary chemistry report. BTEX compounds were not detected in excess of Minnesota Department of Health Recommended Allowable Limits (RALs).

Water Treatment

TCT is currently seeking a MWCC permit to discharge the remaining water into the sanitary sewer. This will be the final disposal of any residual dissolved phase hydrocarbons that may remain.

4.0 DISCUSSION AND RECOMMENDATIONS

The water level measured to 0.01 foot did not recharge in the well over a one hour time interval, after water sampling was completed. This indicates that there was no exchange between the water in the well and the surrounding aquifer water. If there was no exchange or contact between the impacted water and the groundwater, there were no possible groundwater impacts.

TCT recommends site closure with no further action, beyond pumping of the remaining water into the sanitary sewer, for the following reasons:

- 1) The free product has been removed from the water in the elevator well
- 2) The analytical results of the remaining water do not show BTEX concentrations in excess of the RALs, and
- 3) There are no groundwater impacts.

A MWCC Permit must be approved prior to discharge to the sanitary sewer.

5.0 STANDARD OF CARE

The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

TCT would appreciate a timely review of this closure request.

Sincerely,



Kevin Pierson
Senior Project Manager/Hydrogeologist

KBP

Enclosure

Normandale

PROJECT NAME: E114-Normad.1

Work Order Number: 4410-03-1056

BTEX RESULTS

#276769
W-1 3' Above
Casing Bottom

Parameter	Casing Bottom	POL (µg/L)
Benzene	ND	5
Toluene	↓	↓
Total xylenes	26 27 28	
Ethyl benzene	6	
Methyl-tert-butyl ether	NA	
1,3,5-Trimethylbenzene	↓	
1,2,4-Trimethylbenzene	↓	
Surrogate Recovery: α,α,α-Trifluorotoluene	101%	

Total hydrocarbons as gasoline 150* 30

Surrogate Recovery:
α,α,α-Trifluorotoluene 103%

Fuel Oil **14 ppm (mg/L) 0.2 mg/L

All values are in µg/L (parts-per-billion)

* Chromatographic profile also contains higher-boiling hydrocarbons

** Higher boiling hydrocarbons are detected

PQL = Practical Quantitation Limit Not typical of #2 fuel oil
 ND = Not Detected
 NA = Not Analyzed:

Date Extracted: _____

Date Analyzed: 2-18-92

Analyst: Erleen J. Kok

Date 2-18-92

Reviewed by: Cray S. F. F. F.

Date 2-18-92

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