

1801 Highway 8, Suite 114 St. Paul, MN 55112 612/636-2427 FAX:612/636-8552

January 8, 1991

Minnesota Pollution Control Agency Hazardous Waste Division 520 Lafayette Road North Tanks and Spills Section St. Paul, MN 55155 Ms. Ann Bidwell

MPCA, HAZARDOUS JAN 1 0 1991

WASTE DIVISION

Subject:

General Mills, Inc., Checkerboard Grain Elevator Excavation Report for Petroleum Release Sites Petroleum Tank Release Report Checklist and Minneapolis, Minnesota Leak I.D. #00003101 Delta No. 10-90-264 3716 Dight Avenue

Dear Ann:

Delta Environmental Consultants, Inc. (Delta), is pleased to submit the attached Petroleum Tank Release Report Checklist and enclosed Excavation Report for Petroleum Release Sites (ERFPRS) addressing the above referenced site for your review and comment.

Control Agency and laboratory analytical data. Pertinent site figures are presented within the Figure Section. Based upon data generated during this investigation Delta recommends that no The ERFPRS Attachment Section contains pertinent correspondence to the Minnesota Pollution further investigative or corrective actions be undertaken, and that the file for Leak I.D. 00003101 be closed.

before March 31, 1991. If you have any questions or comments concerning this report, please Please provide your written comments concerning the report and its recommendations on or contact me at (612) 636-2427

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Bradley A. Barquest

Hydrogeologist/Project Manager

BAB/jmp

Enclosures

Mr. John Schevenius - General Mills, Inc. ပ္ပ

SITE NAME: Checkerboard Grain Elevator SITE ID NUMBER: LEAK 00003101

PETROLEUM TANK RELEASE REPORT CHECKLIST

facilitate report review, the MPCA staff requests your assistance in completing itch should be attached to all incoming reports. The form will be used to screen the site. order to 4 5 ū

this form which should be attached to all incoming reports. The form will b reports for completeness and to characterize the degree of contamination at strue managements.	conta	form vi mination	II b at
	TES	<u>8</u>	
<pre>Emergency: Vapor or explosive hazard? - if yes, has this been addressed? Actual drinking water supply impacts? - if yes, has alternate supply been provided?</pre>	1111	\bowtie	
Ground Water and Soil: Eas ground water been impacted? Is there free product? - if yes, has recovery been initiated? Are there downgradient receptors at risk? Did you answer "yes" to any question, 7 through 14, on the Hydrogeologic Setting		$\times \times \times $	
and Ground Water Characterization Worksheet? Is this a progress report? - if yes, is it quarterly or annual?			

ORT CONTENTS

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

[] Progress Reports	[] Introduction [] Background [] Corrective
[] CAD Report	[] Proposed CAD [] Appropriate sections of appendices [] Figures
	[] Introduction [] Prop Background, incl [] Appr Twp/Rng, Lat/Long sec app [] Excavation Form app [] RI Results [] Figu [] Figu [] Conclusions [] Recommendations [] Proposed CAD [] Appendices, incl IGWIS form [] Tables, figures [] Hydrogeologic Characterization Worksheet
검	· -
[4] Excavation Report Form [] RI Report	M All applicable sections completed M Figures M Lab reports with chain of custody forms
\supset	

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

venting, pump and treat, soil brief description (e.g., ત્ત is proposed, provide etc.) bioremediation, CAD ಗ

EXCAVATION REPORT FOR PETROLEUM RELEASE SITE

GENERAL MILLS, INC., CHECKERBOARD GRAIN ELEVATOR

3716 DIGHT AVENUE

MINNEAPOLIS, MINNESOTA

LEAK ID # 00003101

DELTA NO. 10-90-264

Prepared by:

Delta Environmental Consultants, Inc. 1801 Highway 8, Suite 114 St. Paul, MN 55112 (612) 636-2427

January 3, 1991



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EXCAVATION REPORT FOR PETROLEUM RELEASE SITES

Minnesota Pollution Control Agency Tanks and Spills Section April 25, 1990

site investigation reports (if encountered) should be included with this report. be done in accordance with the MPCA document "Excavation of Petroleum Contaminated Soil." Preliminary (MPCA) Tanks and Spills Section to document excavation of petroleum contaminated soil. Excavations must The information below should be completed and submitted to the Minnesota Pollution Control Agency

Additional pages may be attached. Please type or print clearly.

. BACKGROUND

P

Site: Street: General Mills, Inc., Checkerboard Grain Elevator

3716 Dight Avenue

County: City, Zip: Hennepin Minneapolis, MN 55406

MPCA Site ID #: LEAK00003101

₽. Tank Owner/Operator: same

Mailing Address: same

Street/Box:

Telephone: City, Zip:

S **Excavating Contractor:** Germundson Companies, Inc. (GCI)

Telephone: Contact: 612/422-1696 Brian Germundson

Tank Contractor Certification Number: 0021

Ď. Consultant: Delta Environmental Consultants, Inc.

Street/Box: Telephone: City, Zip: Contact: 612/636-2427 St. Paul, MN 55112 1801 Highway 8, Suite 114 Bradley A. Barquest

Ħ Others on site during site work (e.g., fire marshal, local officials, MPCA staff, etc.):

Minnesota. Ms. Karen Nordby -Department of Regulatory Services, City of Minneapolis, Minneapolis,

Note: address, and relationship to site on a separate attached sheet. If person other than tank owner and/or operator is conducting the cleanup, provide name,

Excavation Report for Petroleum Release Sites Page 2
April 25, 1990

II. DATES

A. Date release reported to MPCA: August 1990

B. Dates site work performed:

	of structural integrity concerns for adjacent structures.
	Services, City of Minneapolis, approved the inplace abandonment of the site's 6,000-gallon UST. The abandonment was recommended as a result
09/26/90	Ms. Karen Nordby, Pollution Inspector, Department of Regulatory
	6,000-gallon UST. Delta personnel conducted field screening of soils and collected soil samples for analyses.
09/24/90 - 09/28/90	Delta Environmental Consultants, Inc., (Delta) personnel supervised the removal of one 750-gallon UST and the inplace abandonment of one
	hydrocarbon analysis (sampling procedures and protocol are considered to be questionable).
08/09/90	Germundson Companies, Inc., personnel created two holes in the base of the 6,000-gallon fuel oil tank for the collection of soil samples for
	their removal.
08/09/90	Sludge and remnant fuel oil were removed from USTs in preparation for
Date	Work Performed

III. RELEASE INFORMATION

Provide the following information for all tanks which have been removed.

Tank 1: Capacity 750 gallon Type Fuel Oil No. 2 Age Unknown

Condition: Fair condition, no visible signs of leakage, surface rusting with only minor

area. Product History: Tank stored Fuel Oil No. 2 for a furnace used to heat facility's office

or in analyses performed on tank basin perimeter soils or excavated soils. Approximate quantity of petroleum released, if known: No petroleum release(s) are known to have occurred. No contamination was detected during field screening of soils

Cause of release: NA

Tank 2: Capacity 6,000 gallon Type Fuel Oil No. 2 Age Unknown

rust with little or no pitting. Condition: Good condition, no visible signs of leakage, surface exhibiting only minor

facility from Ralston Purina approximately 30 years ago. Prior to this purchase the product history is unknown, but it is believed that the UST was used to store Fuel Oil Product History: The tank has not been used since General Mills, Inc., purchased the facility from Ralston Purina approximately 30 years ago. Prior to this purchase the No. 2.

excavated soils or soil samples collected from hand auger borings adjacent to, and perimeter soils. beneath the UST by Delta personnel. known to have occurred. Contamination was not detected during field screening of Approximate quantity of petroleum released, if known: Contamination was not detected in tank basin No petroleum release(s) are

a result of the poor sampling protocol, contamination was introduced into the sample suggests that contamination due to a release is not present below the UST. media during sample collection and this was detected in the laboratory analyses. due to sludge or fuel oil material being introduced into the soil and obtaining "grab samples". It is Delta's opinion that the detected contamination was contaminant removal and tank cleaning prior to creating sample collection holes. Cause of release: Minor levels of contamination were detected in soil samples collected (by Germundson Companies, Inc.) by cutting through the base of the 6,000-gallon UST by incomplete B

B. Provide the following information for all existing tanks

003	002	001	Tank No.
8,000 gallon	6,000 gallon	750 gallon	Capacity
mineral spirits	Fuel Oil	Fuel Oil	Contents
1	No. 2	No. 2	Type
5 years	unknown	unknown	Age

Ω If the release was associated with the lines or dispensers, briefly describe the problem:

No release is believed to have occurred

D. If the release was a surface spill, briefly describe the problem:

No release is believed to have occurred.

Excavation Report for Petroleum Release Sites Page 4
April 25, 1990

IV. EXCAVATION

- Þ Dimensions of excavation: Basin No. 1 Width = 10 feet x Length = 12 feet x Depth = 10 feet Basin No. 2 Width = 18 feet x Length = 24 feet x Depth = 12 feet 12 feet
- B. Original tank backfill material (sand, gravel, etc.): sand
- C. Native soil type (clay, sand, etc.): silty sand
- D. Quantity of contaminated soil removed (cubic yards): Basin No. 1 = 0 cubic yards Basin No. 2 = 0 cubic yards 0 cubic yards
- İΠ Was ground water encountered or was there evidence of a seasonally high ground water table? below land surface. At what depth? Ground water was not encountered at or above a depth of approximately 25 feet
- Ħ Soil" for sand and silty sand native soils) describe the soil analytical and soil vapor headspace If a soil boring was necessary (as indicated in part VI of "Excavation of Petroleum Contaminated results. Attach the boring logs and laboratory results to this report.

and at 23 to 25 feet below landsurface from each boring. analysis were collected from 14 to 16 feet (a depth approximately two feet below the UST base) headspace analysis were collected from each boring at five foot intervals. Samples for laboratory 25 feet below land surface. The borings were advanced through the use of a hand auger. The borings were initiated within the excavated UST basin at a depth of approximately 12 feet below Three soil borings were advanced adjacent to the 6,000-gallon UST to a depth of approximately and surface and continued to a depth of approximately 25 feet below level surface. Samples for

Ω If ground water was encountered or if a soil boring was conducted, was there evidence of ground in contact with petroleum contaminated soil, water analytical results, etc. water contamination? Specify, e.g., free product (specify thickness), product sheen, ground water

encountered No, contamination detected in soil samples collected from borings and ground water was not

- Was bedrock encountered in the excavation? At what depth? No bedrock was encountered
- Were there other unique conditions associated with this site? If so, explain.

Statement supporting this discussion. Attachment A is a copy of Delta Environmental Consultants, Inc.'s, Department of Regulatory Services due to structural integrity concerns for adjacent buildings Delta Environmental Consultants, Inc., Germundson Companies Inc., and the city of Minneapolis, A discussion to abandon a 6,000-gallon UST in place was agreed upon by General Mills, Inc., Professional Engineers

V. SAMPLING

contaminated from uncontaminated soil: Briefly describe the field methods (including use of a photoionization detector) used to distinguish

Field screening of soils were conducted with the use of a photoionization detector (equipped with a 11.8 eV bulb) calibrated to an isobutylene mixture. Field screening of soils was conducted in Section, Document "Jar Headspace Analytical Screening Procedure", dated May 31, 1990. accordance with procedures outlined in the Minnesota Pollution Control Agency, Tanks and Spills

 \mathbf{B} List soil vapor headspace analysis results. Indicate sampling locations using sample codes (with sampling depths in parentheses), e.g. SV-1 (2'), SV-2 (10'), etc. Samples that were taken at different depths at the same location should be labeled SV-1A (2'), SV-1B (4'), SV-1C (6'), etc. These should correspond with the codes on the site map in part VI.

SV-6C	SV-6B	SV-6A	SV-5C	SV-5B	SV-5A	SV-4C	SV-4B	SV-4A	SV-3D	SV-3C	SV-3B	SV-3A	SV-2D	SV-2C	SV-2B	SV-2A	SV-1D	SV-1C	SV-1B	SV-1A	Code	Sample
SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND/FILL	SAND	SAND	SAND	SAND/FILL	SAND	SAND	SAND	SAND	SAND	Soil Type	
ND	ND	B	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	ND	0.4	2.0	ND	ND	ND	N	(<u>ppm)</u>	Reading
									***SB-3C	**SB-3B	*SB-3A	***SB-2C	**SB-2B	*SB-2A	***SB-1C	**SB-1B	*SB-1A	SV-7C	SV-7B	SV-7A	Code	Sample
									SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	SAND	Soil Type	
									ND	ND	ND	ND	ND	ND	ND	ND	UN	ND	ND	ND	(ppm)	Reading

Boring sample collected at a depth of 14 to 16 feet below land surface, 2 feet below tank base. Boring sample collected at a depth of 19 to 21 feet below land surface, 7 feet below tank base. Boring sample collected at a depth of 23 to 25 feet below land surface, 12 feet below tank base.

Figure 5 depicts soil boring and soil vapor sampling locations.

* * * *

Excavation Report for Petroleum Release Sites Page 6
April 25, 1990

Ç Briefly describe the soil sampling and handling procedures used:

segregated in this manner. were stockpiled in an appropriate manner on site. collected from the stockpiled soils. Samples were delivered to PACE, Incorporated, for analysis, from a depth of five feet beneath the UST, and from the perimeter of the UST basin. Samples were also Tank Basin 1: Any soil suspected of contamination through either PID screening or visual inspection d in an appropriate manner on site. Approximately 10 yds³ of suspect soils were Soil samples were collected from immediately beneath the removed UST

11 to 13 feet below the base of the abandoned UST. stockpiled soils, were analyzed at PACE, Incorporated. below land surface. Soil samples were collected for analyses at depths of approximately 2 to 4 feet and Soil samples were collected for PID screening at depths of 2 to 4 feet, 7 to 9 feet, and 11 to 13 feet Tanks Basin 2: Soils suspected of contamination as outlined above were stockpiled in an appropriate manner on site. Approximately 10 yds³ were segregated in this manner. Soil samples were collected from the perimeter of the UST basin and from three borings advanced adjacent to the abandoned UST. These samples, along with samples from the

Ŭ Ground Water Analysis at Petroleum Release Sites"). If the petroleum was not gasoline or fuel oil attach a separate table. Code the samples (with sampling depths in parentheses) SS-1 (8'), SS-2 (4'), List the appropriate soil sample analytical results below (refer to the MPCA document "Soil and These should correspond with codes on the site map in part VI.

Basin 2 Stockpiled Soils	Basin 1 Stockpiled Soils	B-3B (23-25')	B-3A (14'-16')	B-2B (23'-25')	B-2A (14'-16')	B-1B (23'-25')	B-1A (14'-16')	Basin 2	A-1C Excavation perimeter	A-1B Base of excavation	A-1A Tank Base	Basin 1	Sample Code
ND	ND	ND	ND	ND	ND	ND	B		ND	ND	B		THC as gas or FO (ppm)
ND	ND	Ŋ	AD N	ND	ND	ND	B		ND	ND	ND		Benzene (ppm)
ND	ND	ND	Ä	ND	ND	ND	ND		ND	ND	ND		Ethyl Benzene (ppm)
ND	B	ND	ND	ND	ND	Ä	ND		ND	ND	ND		Toluene (ppm)
D	Ŋ	ND	ND	ND	ND	Ŋ	ND		ND	ND	ND		Xylenes (ppm)
F			1	ı	ı	3	ı		f	ı	3		MTBE (ppm)
E	1	ł	1	1	i	1	1		E	1	1		Lead (ppm)

ND = Not detected at or above method detection limit.
-- = Not analyzed for.
Laboratory reports are presented in Attachment B.
Figure 6 depicts soil sample collection locations.

ATTACH COPIES OF LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS

VI. FIGURES

Attach the following figures to this report:

- Site location map.
 Site map(s) drawn
- 2. Site map(s) drawn to scale illustrating the following:
- Location (or former location) of all present and former tanks, lines, and dispensers
- b. Location of other structures (buildings, canopies, etc.).
- c. Adjacent city, township, or county roadways.
- d. Final extent of excavation.
- 9 SB-1). Location of soil vapor analyses (e.g. SV-1), soil samples (e.g. SS-1), and soil borings (e.g. Also, attach all boring logs
- f. North arrow and map legend.

VII. SUMMARY

Briefly summarize evidence indicating whether or not additional investigation is necessary at the site, as discussed in Part VI of the MPCA document "Excavation of Petroleum Contaminated Soils."

The no additional investigation/corrective action recommendation is based upon the following data: Delta's recommendation that no additional investigation or corrective action activities be undertaken. Based upon the results of tank removal and excavation activities for the above referenced site, it is

- 1) Field screening and headspace screening of soils from both tank basins did not indicate the presence of any petroleum contamination at or above MPCA action levels.
- 72 did not indicate the presence of petroleum contamination at or above analytical method detection Analyses of soil samples collected from both tank basins (including borings and stockpiled soils) limits (Attachment B).
- ω Ground water was not encountered in either of the tank basin excavations, or in the borings advanced at tank basin No. 2.
- 4 sample media resulting in erroneous results. of a so called "wiped-clean" UST and then grabbed by hand from inside the UST. This sampling due to poor sampling protocol; i.e. the sample was collected through holes cut through the bottom technique introduces several avenues by which petroleum products could be entered into the opinion, not representative of subsurface conditions. The detected contamination was probably collected by Germundson Companies, Inc. (Attachment C), on August 9, 1990, are, in Delta's The petroleum contamination detected beneath the 6,000-gallon fuel oil tank in soil samples

further investigative or corrective action be undertaken. Therefore Delta recommends that the file associated with Leak #00003101 be closed and no

April 25, 1990 Excavation Report for Petroleum Release Sites Page 9

VIII. CONSULTANT (OR OTHER) PREPARING THIS REPORT

Company Name: Delta Environmental Consultants, Inc.

Street/Box:

City, ZIP: 1801 Highway 8, Suite 114 St. Paul, MN 55112

Telephone: Contact: (612) 636-2427

Bradley A. Barquest

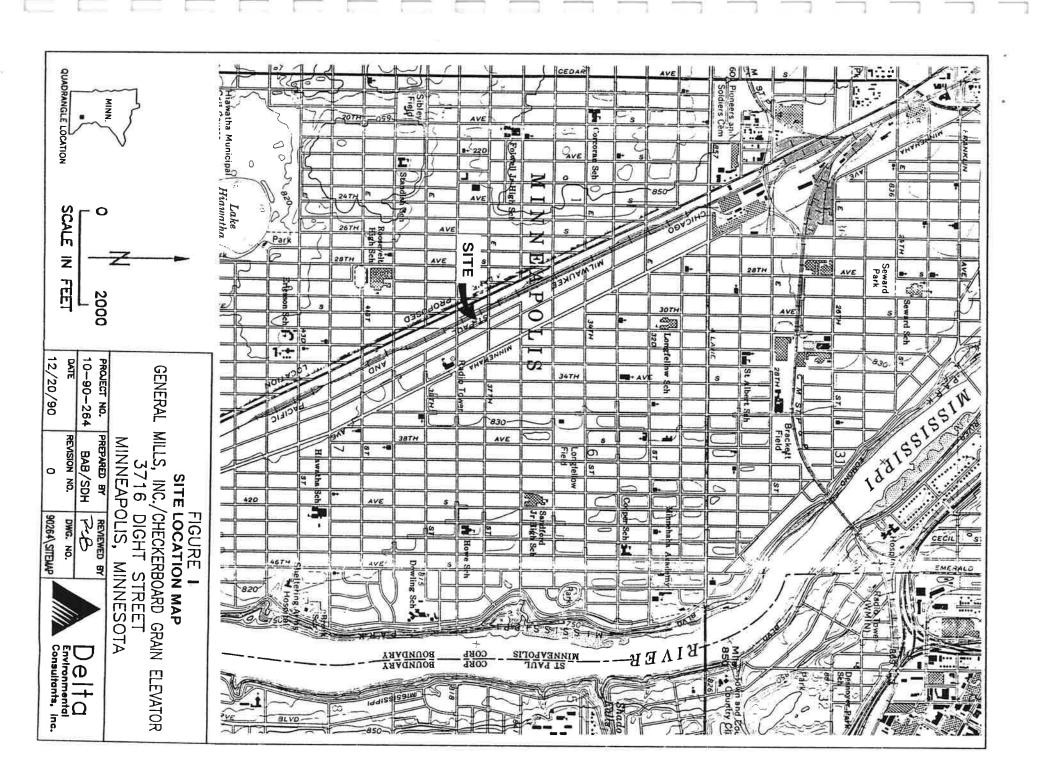
Signature: Date 12/19/90

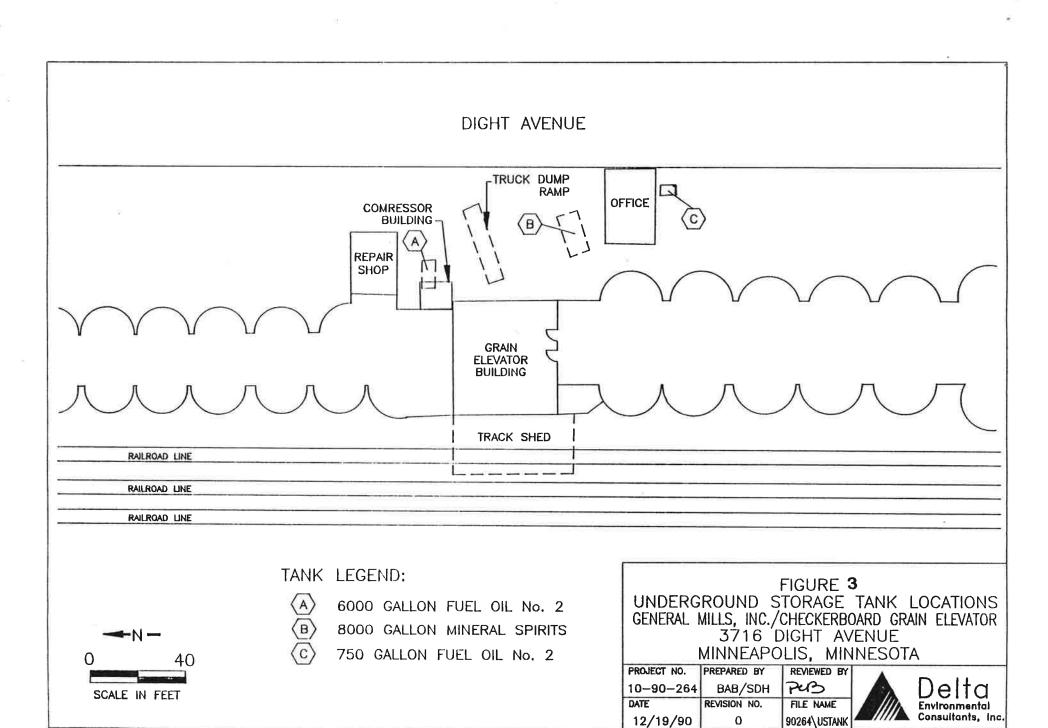
If additional investigation is not required at the site, please mail this form and all necessary attachments to:

Minnesota Pollution Control Agency

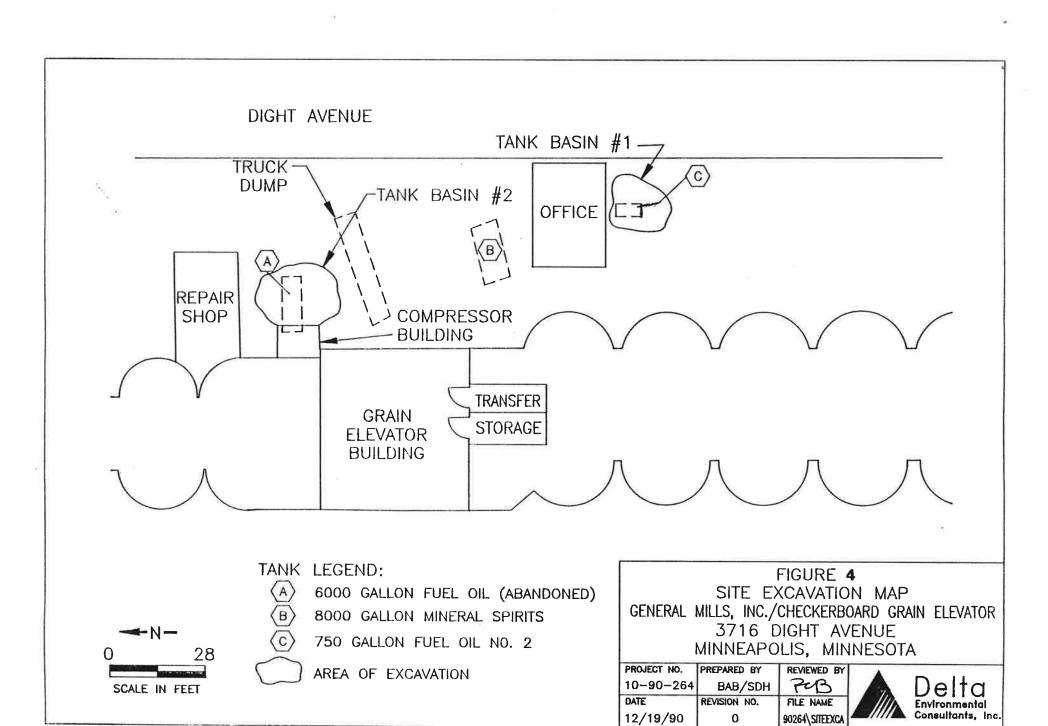
520 Lafayette Road North St. Paul, MN 55155 Tanks and Spills Section Hazardous Waste Division Attention: Ms. Ann Bidwell

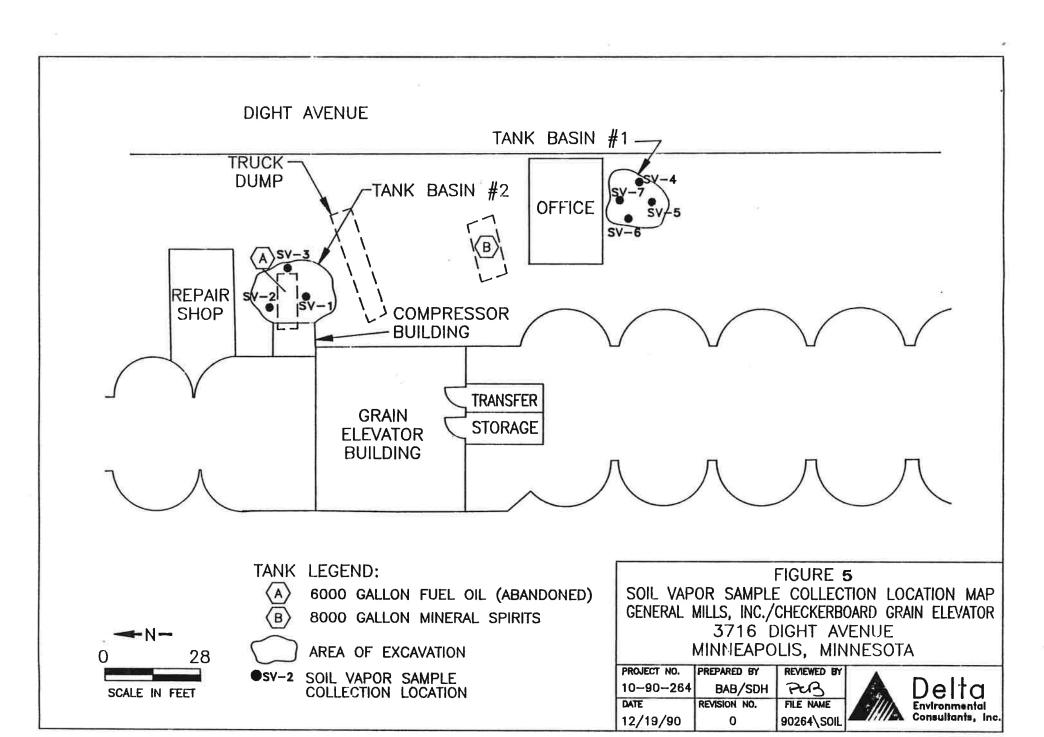
investigation (RI) is necessary will not be reviewed by MPCA staff until the RI has been completed. Investigation/Corrective Action Design Report. If additional investigation is required at the site, this form should be included as a section in the Remedial Excavation reports which indicate that a remedial

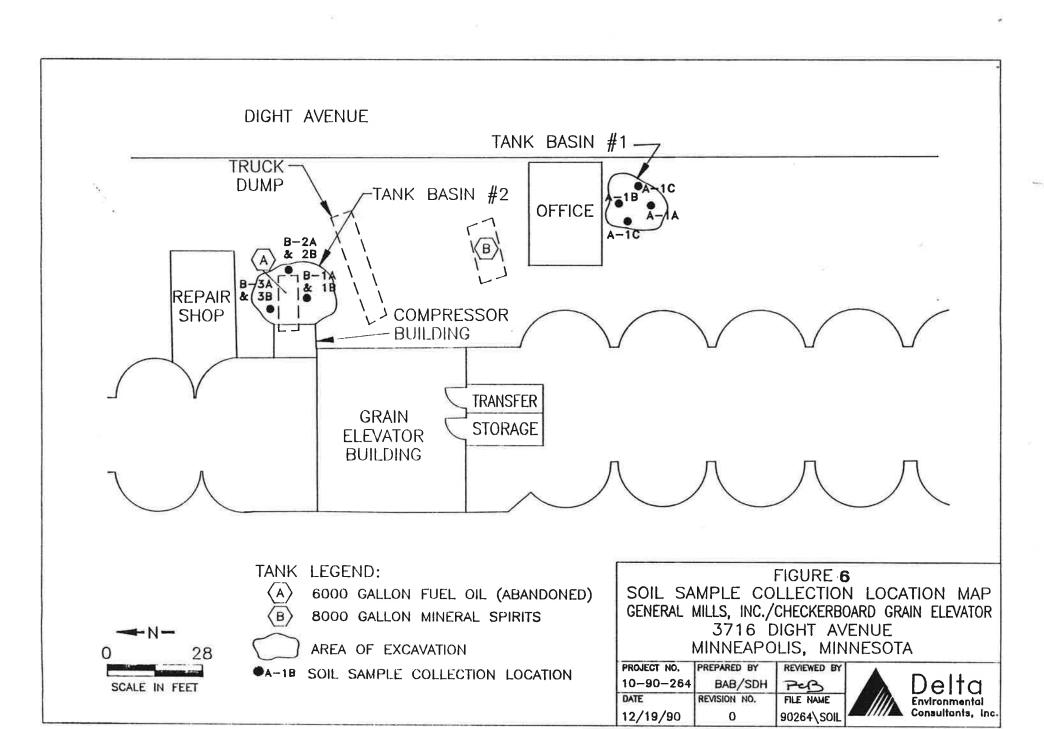




150 M C 755







ENGINEERING STATEMENT UST REMOVAL 3716 DIGHT STREET MINNEAPOLIS, MINNESOTA DELTA NO. 10-90-264

The discussion to abandon a 6,000-gallon underground storage tank (UST) in place at the General Mills/Checkerboard Grain Elevator, 3716 Dight Street, Minneapolis, Minnesota, was based upon the following criteria:

- building, as the UST extended approximately one foot beneath the footprint of that Field observation indicated a potential threat to the structural integrity of several buildings located adjacent to the UST basin. Of particular concern was the compressor
- could have been conducted. foundations. The lack of detailed design information or assessments concerning the adjacent building's This information may have provided data indicating a safe UST removal
- abandonment to ensure the safety of human life and the structural integrity of all buildings adjacent to the UST basin. Our present understanding of site conditions mandated a recommendation of tank

in unreasonable risks to the safety of all workers involved, and to the structural integrity of adjacent-building. Therefore, it is the opinion of Delta that any attempt to remove this UST would have resulted

Mr. Terry Huntrods, P.E.

Date

MN Regulation No. 12811

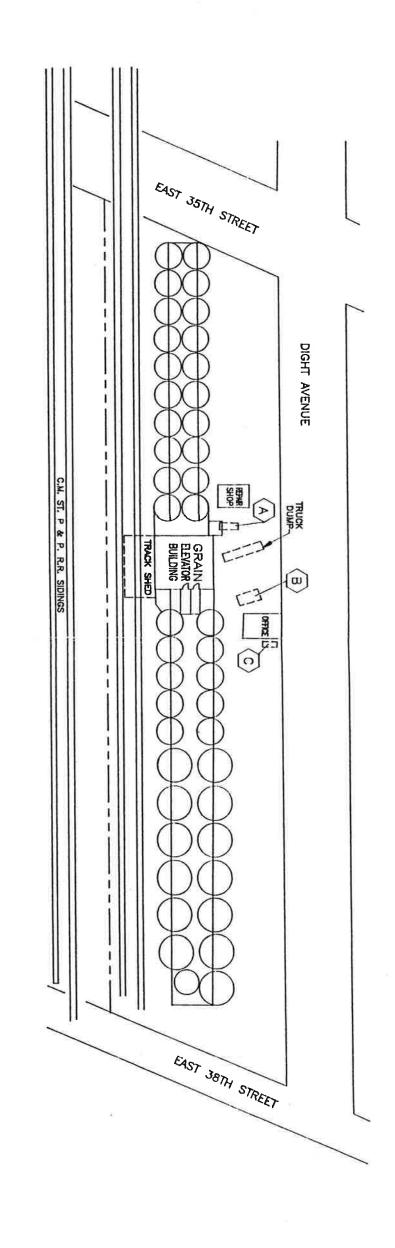
Engineering District Manager

Bradley A Barquest

Date

Hydrogeologist/Project Manager

BAB/alh



TANK LEGEND:

(A) 6000 GALLON FUEL OIL No. 2
(B) 8000 GALLON MINERAL SPIRITS
(C) 750 GALLON FUEL OIL No. 2

12/20/90	DATE	10-90-264	PROJECT NO.			GENERAL		
0	REVISION NO.	BAB/SDH PUS	PROJECT NO. PREPARED BY REVIEWED BY	MINNEAPOLIS, MINNESOTA	3716	MILLS, INC./	.(0	
90264\SITEMAP	DWG. NO.	R S	REVIEWED BY	OLIS, MI	3716 DIGHT STREET	CHECKERB	SITE MAP	FIGURE 2
			\	NNESOT	TREET	OARD GRA	Ü	2
Consultants, Inc.	Environmental) :	A		GENERAL MILLS, INC./CHECKERBOARD GRAIN ELEVATOR		