

JUN 15 2010

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Minnesota Pollution Control Agency
Southwest Regional
Office - MPCA - Marshall

Corrective Action Excavation Report Worksheet

Guidance Document 3-02a

Complete this worksheet to document excavation and treatment of petroleum contaminated soil removed as a Minnesota Pollution Control Agency-approved (MPCA) corrective action after a site investigation has been completed. Please type or print clearly. Do not revise or delete text or questions from this report form.

MPCA Site ID: Leak000 17141

Date: 6/14/10

Responsible Party Information

Name: South Central Grain & Energy

Phone #: 3208482273

Mailing Address: PO Box 338

City: Hector Zip Code: 55342

Alternate Contact (if any) for Responsible Party: Dan Filzen

Phone #: Same

Leak Site Information

Leak Site Name: South Central Grain & Energy

Phone #: 3208482273

Leak Site Address: 212 Bryant Avenue

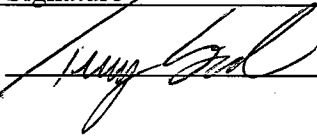
City: Hector Zip Code: 55342 County: Renville

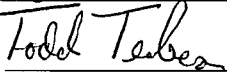


Environmental Professional Information

By signing this document, I/we acknowledge that we are submitting this document on behalf of and as agents of the responsible person or volunteer for this leak site. I/we acknowledge that if information in this document is inaccurate or incomplete, it will delay the completion of remediation and may harm the environment and may result in a reduction in Petrofund reimbursement. In addition, I/we acknowledge on behalf of the responsible person or volunteer for this leak site that if this document is determined to contain a false material statement, representation, or certification, or if it omits material information, the responsible person or volunteer may be found to be in violation of Minn. Stat. § 115.075 (2007) or Minn. R. 7000.0300 (Duty of Candor), and that the responsible person or volunteer may be liable for civil penalties.

MPCA staff are instructed to reject unsigned reports and reports that have been altered.

Name and Title of Report Author(s)	Signature	Date Signed
Terry Sieck		6/14/10

Name and Title of Report Reviewer(s)	Signature	Date Signed
Todd Terhaar		6/14/10

Name(s) of Field Technician(s): _____

Company and Mailing Address: Glacial Lakes Environmental Consulting, Inc.
PO Box 1082
Willmar, MN
56201

Project Manager E-mail Address: tsieck@gl-ec.com

Phone: 320-235-8370

Fax: 866-313-1692



Section 1: Corrective Action Information

- A. Was the corrective action excavation for contaminated surface soil only? Yes No
- B. List the title, date, and author (name and affiliation) of the report that proposed the soil excavation corrective action design (CAD).
Conceptual Corrective Action Design Workshhet (CCAD), dated December 11, 2008. Terry Sieck, Project Manager, Glacial Lakes Environmental Consutling, Inc.
- C. Date the MPCA approved and, if applicable, modified the proposed soil excavation CAD: Jaunuary 30, 2009
- D. List any MPCA-imposed modifications to the proposed soil excavation CAD when it was approved.
- E. List the **in-place** volume (cubic yards) of contaminated soil originally approved by the MPCA for removal and treatment: 67
- F. Total **in-place** volume (cubic yards) of contaminated soil actually removed for treatment: 110
- G. If the approved volume (item E) is different from the volume actually removed (item F), discuss the circumstances under which this occurred including whether MCPA approval was given for this difference. If approval was given, provide the name of the MPCA staff who granted approval, the approval date, and the means by which it was received (e.g., letter, phone, e-mail, fax, etc.).

Following the intial approved excavation of 67 cubic yards, GLEC collected sidewall samples of the excavation as indicated in the MPCA approval letter. Sidewall PID readings indicated soil remained at concentrations above 10 ppm. GLEC contacted Nancy Hennen on May 4, 2009 at the MPCA to discuss possible further excavation. Based on the elevated PID readings that remained in the sidewalls, Ms. Hennen approved the removal of an additional 40 cubic yards of contmainated soil. GLEC completed the additional 40 cubic yards of excavation. Following the completion of the excavation, the total volume excavated was calculated at approximately 110 cubic yards based on excavation measurements.

- H. Provide a chronological list of excavation tasks and site work completed (e.g., site preparation, pre-excavation sampling, dewatering, soil excavation activities, final excavation sampling, backfilling, site restoration, stockpile sampling, contaminated soil loading and hauling, soil treatment, etc.) and the dates or time periods each task was completed.

<u>Task</u>	<u>Date(s)</u>
Excavated contaminated soil	5/4/09
Collected sidewall samples from completed excavation for screening purposes	5/4/09
Backfilled excavation	5/4/09
Collected soil samples from stockpile for analysis	5/4/09

Faint, illegible text centered on the page, possibly bleed-through from the reverse side.



- I. Discuss the site work performed. Include in your discussion whether any problems or unexpected outcomes were encountered during CAD implementation.

The approved excavation was completed on May 4, 2009 by Tradesman Construction of Alexandria, Minnesota. As the excavation was completed, sidewall samples were collected to be screened with a photoionization detector to determine whether or not additional horizontal excavation was necessary to remove surficial petroleum-contaminated soil. The results of the field screening are below.

~~The site is currently under construction and the excavated soil stockpile was put on plastic and also covered with plastic upon completion of the corrective action. Due to the small size of the construction site, the stockpile is temporarily not accessible due to the construction activities.~~

- J. Discuss ground water occurrence and how it affected excavation activities. If dewatering occurred, discuss the planning, method, timing, extraction rates, total volume removed (gallons), and results of dewatering activities. Discuss how removed water was managed (e.g., transport, treatment, disposal, permits).

No ground water was encountered during excavation activities.

- K. Discuss the layout and dimensions (length, width, and depth) of the final excavation. If multiple pits were dug, reference each pit separately. Illustrate these features in a detailed site map.

The excavation was located north of and adjacent to the site building in the former AST secondary containment location. The entire excavation was completed to a depth of 2 feet below land surface. The area of the excavation was 1,152 square feet with the layout and dimensions depicted on the attached Figure 3.0.

- L. Provide calculations differentiating the total in-place volume of soil excavated into uncontaminated or contaminated soil (i.e., overburden versus that removed for treatment). If multiple pits were dug, show calculations for each pit separately. The calculations must be consistent with the detailed site map showing the final excavation extent(s) and depth contours.

As the corrective action consisted of a surficial soil excavation, no uncontaminated overburden was encountered. All of the excavated soil was handled as petroleum-contaminated soil.

- M. Discuss how uncontaminated soil (overburden) was managed and its final endpoint. If used as excavation backfill, describe where and at what depth it was placed.

NA

Section 2: Sampling Information

- A. Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil.

The dimensions of the proposed corrective action excavation were based on soil sampling that was conducted during the completion of an LSI at the site. Soil sampling and field screening during the excavation consisted of collecting sidewall samples for field analyses to determine the horizontal extent of the contamination. The soil sample locations are depicted on the attached Figure 4.0.



During the excavation, soil samples were examined for visual or olfactory indications of contamination. In addition, the soil samples were screened for the presence and concentration of organic vapors with a photoionization detector (PID) and using the bag-headspace procedure recommended by the Minnesota Pollution Control Agency (MPCA). The PID was equipped with a 10.6 electron-volt lamp and calibrated to an isobutylene standard to provide direct readings of relative organic vapor concentrations in parts per million (ppm). The bag-headspace analytical procedure was used to field-screen organic vapor levels in soils. The procedure consisted of half-filling a new polyethylene freezer bag. Upon sealing the bag, headspace development was allowed to proceed for at least 10 minutes. The bag was shaken vigorously for 15 seconds, both at the beginning and the end of the headspace development period. After headspace development, the PID probe was pierced through the side of the bag and inserted to a point of one-half the headspace depth. The highest reading observed on the PID was then recorded.

- B. List soil headspace analysis results collected during excavation. Code the samples with sampling depths in parentheses as follows: sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; bottom samples B-1 (13 feet), B-2 (14 feet), removed soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc. **Be sure the sample codes correspond to sample locations shown on the site map required in Section 5.**

Sample Code	Soil Type	Reading (ppm)	Sample Code	Soil Type	Reading (ppm)
S-1	Clayey Sand	ND	S-11	Clayey Sand	18
S-2	Clayey Sand	45	S-12	Clayey Sand	ND
S-3	Clayey Sand	7	S-13	Clayey Sand	ND
S-4	Clayey Sand	28	S-14	Clayey Sand	27
S-5	Clayey Sand	ND			
S-6	Clayey Sand	ND			
S-7	Clayey Sand	15			
S-8	Clayey Sand	12			
S-9	Clayey Sand	20			
S-10	Clayey Sand	34			

- C. Briefly describe the soil analytical sampling methods and procedures used for sidewall, bottom, and stockpile or treatment characterization samples.

As the corrective action excavation consisted of a surficial soil excavation, no post-excavation soil samples were collected for laboratory analyses. It was known prior to the excavation that contaminated soil would remain in the bottom of the excavation upon completion.

- D. If post-excavation soil analytical sampling was required as part of the MPCA-approved CAD, list below all soil analytical results from bottom and sidewall samples collected after excavation as well as any stockpile or treatment characterization samples. Code the samples by location with sampling depths in parentheses as follows: final sidewall samples S-1 (8 feet), S-2 (4 feet), etc.; final bottom samples B-1 (13 feet), B-2 (14 feet), etc.; removed (during the excavation) soil R-1 (4 feet), R-1 (8 feet), etc.; stockpile samples SP-1, etc. **Be sure the sample codes correspond to sample locations shown on the site map required in Section 5.**

Sample Code	GRO/ DRO	Benzene (mg/kg)	Ethyl- benzene (mg/kg)	Toluene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
SP-1	110.8/41.7	386	1917	<125	9855	<125	NA
SP-2	709/2830	<250	769	299	1718	<250	NA

Note: Include copies of laboratory analytical reports and chain-of-custody forms in Section 6.

Section 3: Soil Treatment Information

- A. Soil treatment method used (thermal, land application, composting, other). If you choose "other," specify treatment method:
- B. Location of treatment site/facility:
- C. Date MPCA approved soil treatment (if thermal treatment was used, indicate date that the MPCA-permitted thermal treatment facility agreed to accept soil):
- D. Identify the location of stockpiled contaminated soil:
- E. If the contaminated soil was transported to a site or facility located outside the state of Minnesota for treatment, provide documentation from the facility verifying the date(s) and volume(s) of soil they received.

Section 4: Conclusions and Recommendations

- A. Discuss any contaminated soil left in place (i.e., unexcavated) and whether the CAD objectives were accomplished.

As noted above, the corrective action excavation consisted of a surficial soil excavation that was completed to a depth of 2 feet below land surface. Based on the results of the LSI conducted at the site, petroleum contaminated soil exists at depths below 2 feet. However, it was determined during the LSI that the risks associated with the petroleum-contaminated soil at depth are minimal. Based on the results of the excavation, our CAD objectives were accomplished and the risk associated with surficial soil contamination at the site have been mitigated.

- B. Recommendation for site: site closure
 additional investigation or corrective action

- C. Justify and/or explain the recommendation.

The corrective action stockpiled soil remains covered on-site. Renville County Landfill has agreed to place the soil in their landfill; however, they are in the process of constructing a new pod in the landfill and will not accept the soil until the completion of the new pod. It is anticipated that the completion date for the new pod will be late summer 2010. Once the new pod is completed, GLEC will coordinate the disposal of the stockpiled soil and upon completion report to the MPCA.

The corrective action excavation appears to have mitigated any risks associated with surficial soil contamination at the site. Also, it was previously determined that the risks associated with any remaining soil and/or ground water contamination are minimal. We therefore recommend that this leaksite file be closed without any additional investigation and/or corrective actions once the contaminated soil stockpile has been disposed of.

Section 5: Figures

Attach the following figures to this report:

1. Site location map using a U.S. Geological Survey 7.5 minute quadrangle map.
2. Site map(s) drawn to scale illustrating the following:
 - a. Location of all present and former tanks, piping, and dispensers;
 - b. Footprint of surface and/or subsurface soil contamination;
 - c. Footprint of other structures (buildings, canopies, roads, utilities, etc.);
 - d. Footprint of the final dimensions of excavation(s) with contour lines (maximum 2-foot contour intervals) showing the final depths of the excavation(s);
 - e. Location of soil headspace and analytical samples (e.g., R-1, S-2, B-3, etc.); and
 - f. North arrow, bar scale, and map legend.

Section 6: Appendices (please list)

Appendix A Laboratory Analytical Reports

Appendix B

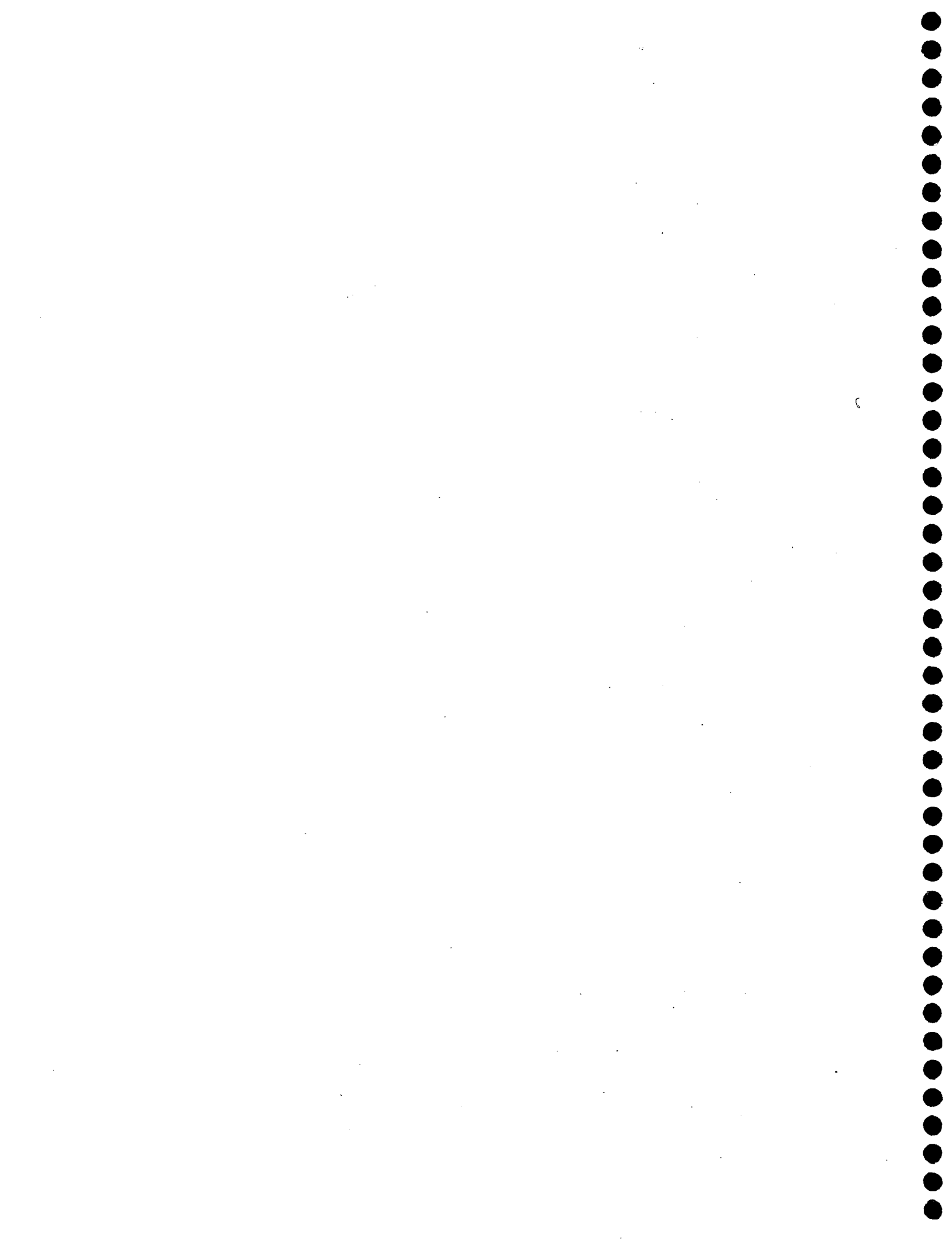
Appendix C

Appendix D

Add additional rows as needed.

Web pages and phone numbers

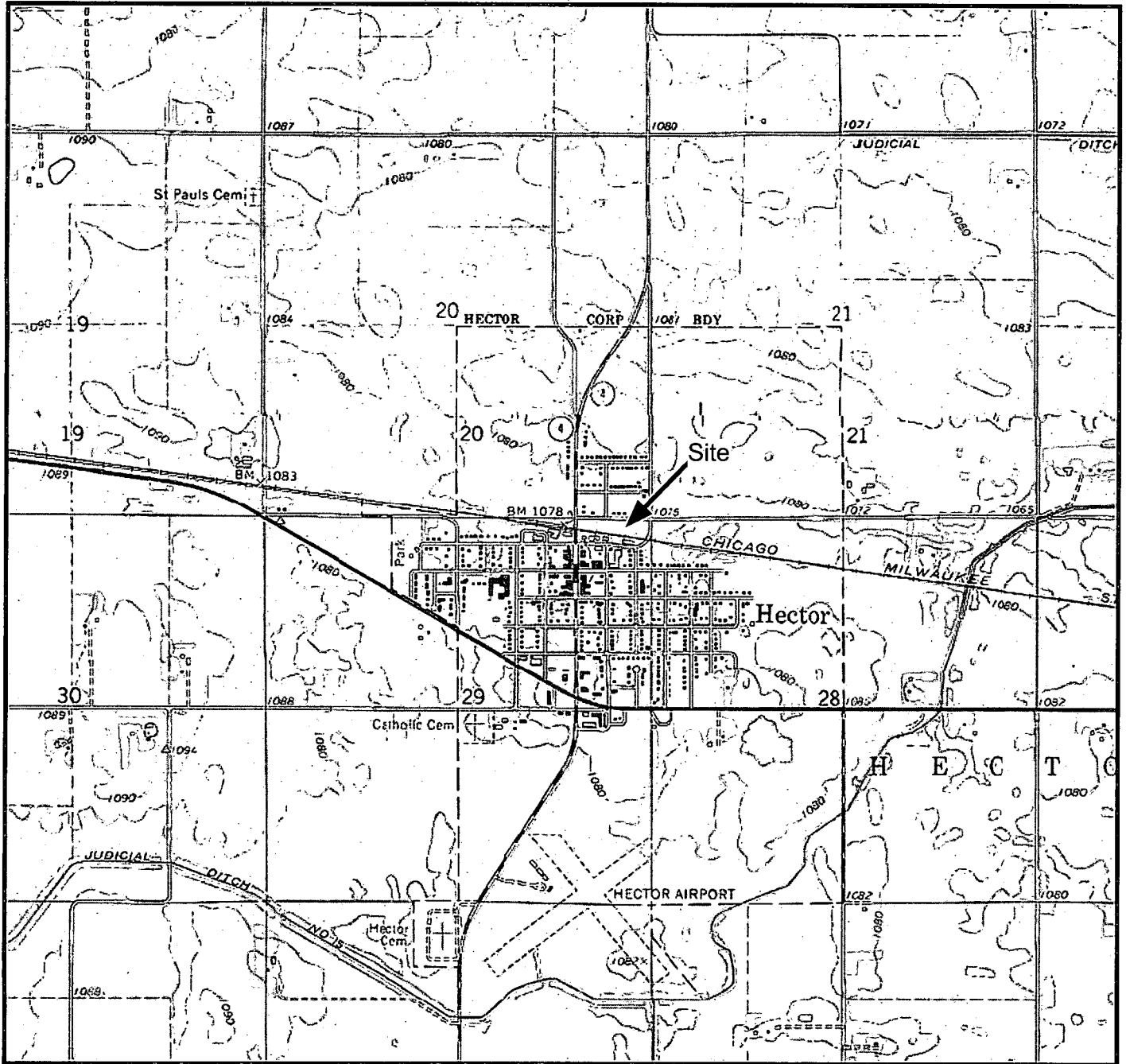
MPCA staff	http://www.pca.state.mn.us/pca/staff/index.cfm
MPCA toll free	1-800-657-3864
Petroleum Remediation Program web page	http://www.pca.state.mn.us/programs/lust_p.html
MPCA Info. Request	http://www.pca.state.mn.us/about/inforequest.html
MPCA Petroleum Brownfields Program	http://www.pca.state.mn.us/programs/vpic_p.html
Petrofund Web Page	http://www.state.mn.us/cgi-bin/portal/mn/jsp/content.do?id=-536881377&agency=Commerce



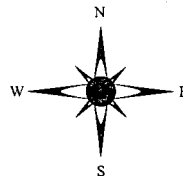
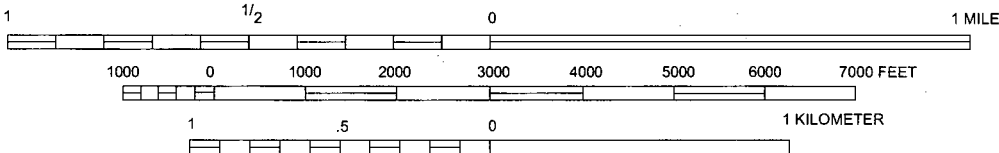
Petrofund Phone	651-215-1775, or 1-800-638-0418
State Duty Officer	651-649-5451 or 1-800-422-0798

Upon request, this document can be made available in other formats, including Braille, large print and audio tape. TTY users call 651/282-5332 or 1-800-657-3864 (voice/TTY).

Printed on recycled paper containing at least 10 percent fibers from paper recycled by consumers.



Scale for Topo Map (1" = 2,000')



Glacial Lakes
 GLECO
 ENVIRONMENTAL CONSULTING, INC.

P.O. Box 1082, Willmar, MN 56201 320-235-8370

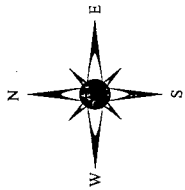
Figure 1.0 LEAK #17141
 Property Location Map
 South Central Grain & Energy
 212 Bryant Avenue
 Hector, MN

Date
 6/11/10

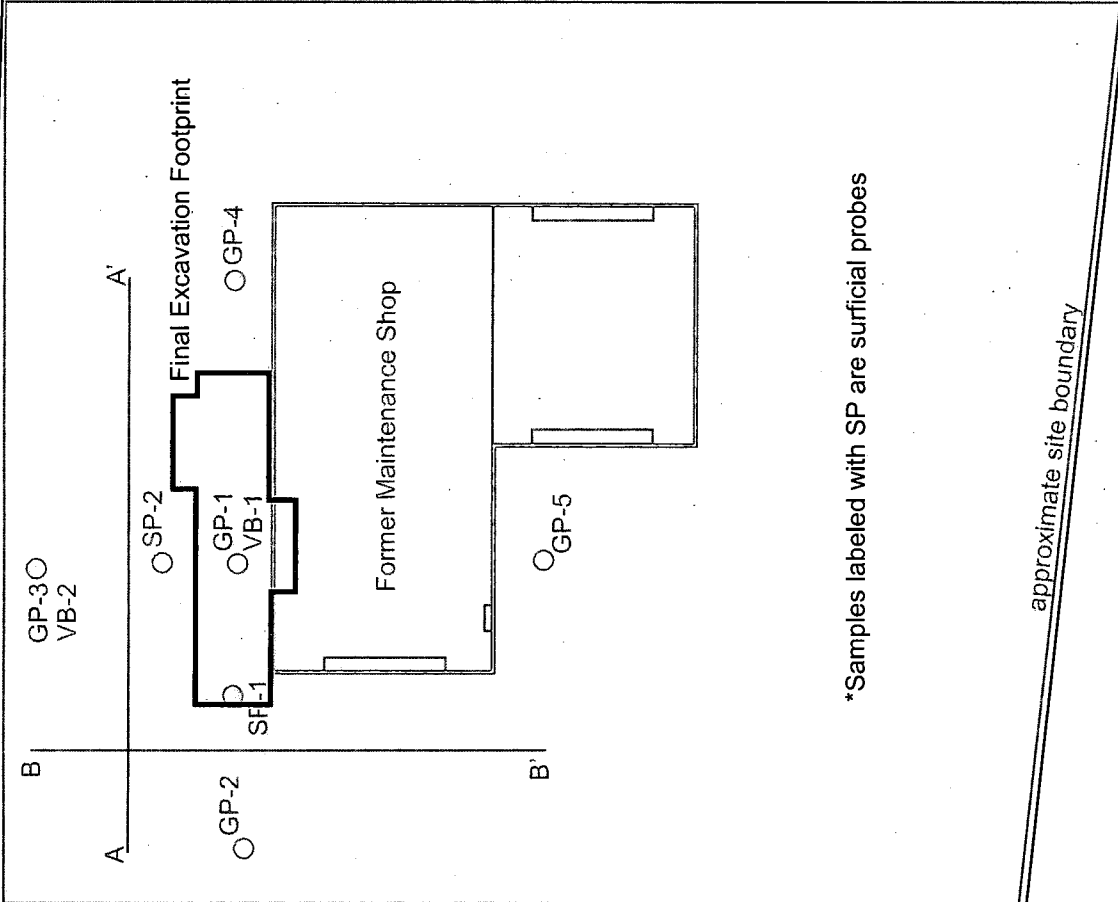
Created by
 TJS

Residential

Bryant Avenue



gravel lot

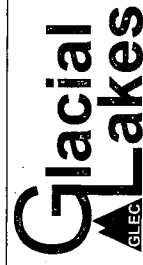


Grain Storage Bins

Former Dry Fertilizer Building
Concrete Slab

Railroad Corridor

Grain Elevator



P.O. Box 1082, Willmar, MN 56201 320-235-8370

Figure 2.0 LEAK #17141

Final Excavation

Footprint Sketch

South Central Grain & Energy

212 Bryant Avenue

Hector, Minnesota

Scale

30'

Revised

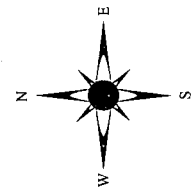
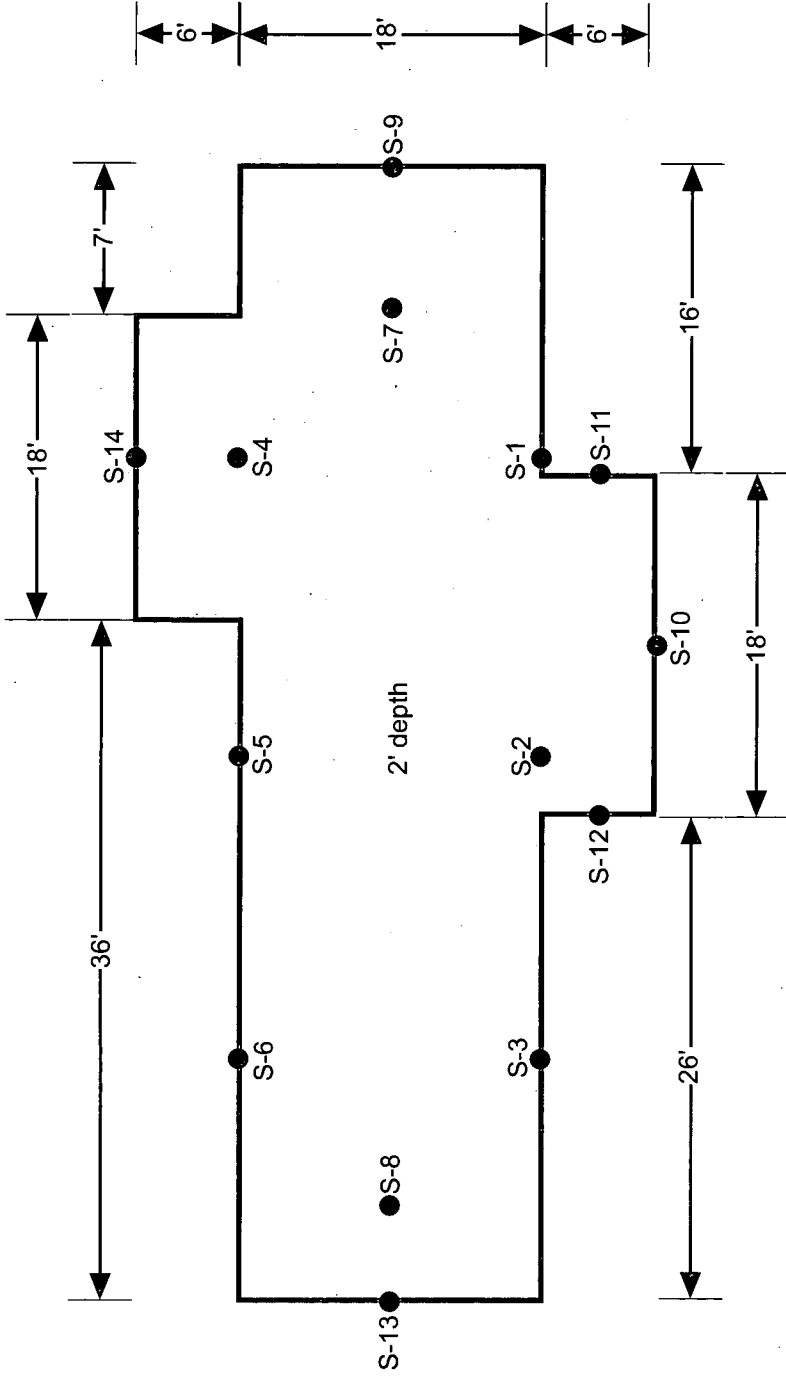
6/11/10



ENVIRONMENTAL CONSULTING, INC.
P.O. Box 1082, Willmar, MN 56201 320-235-8370

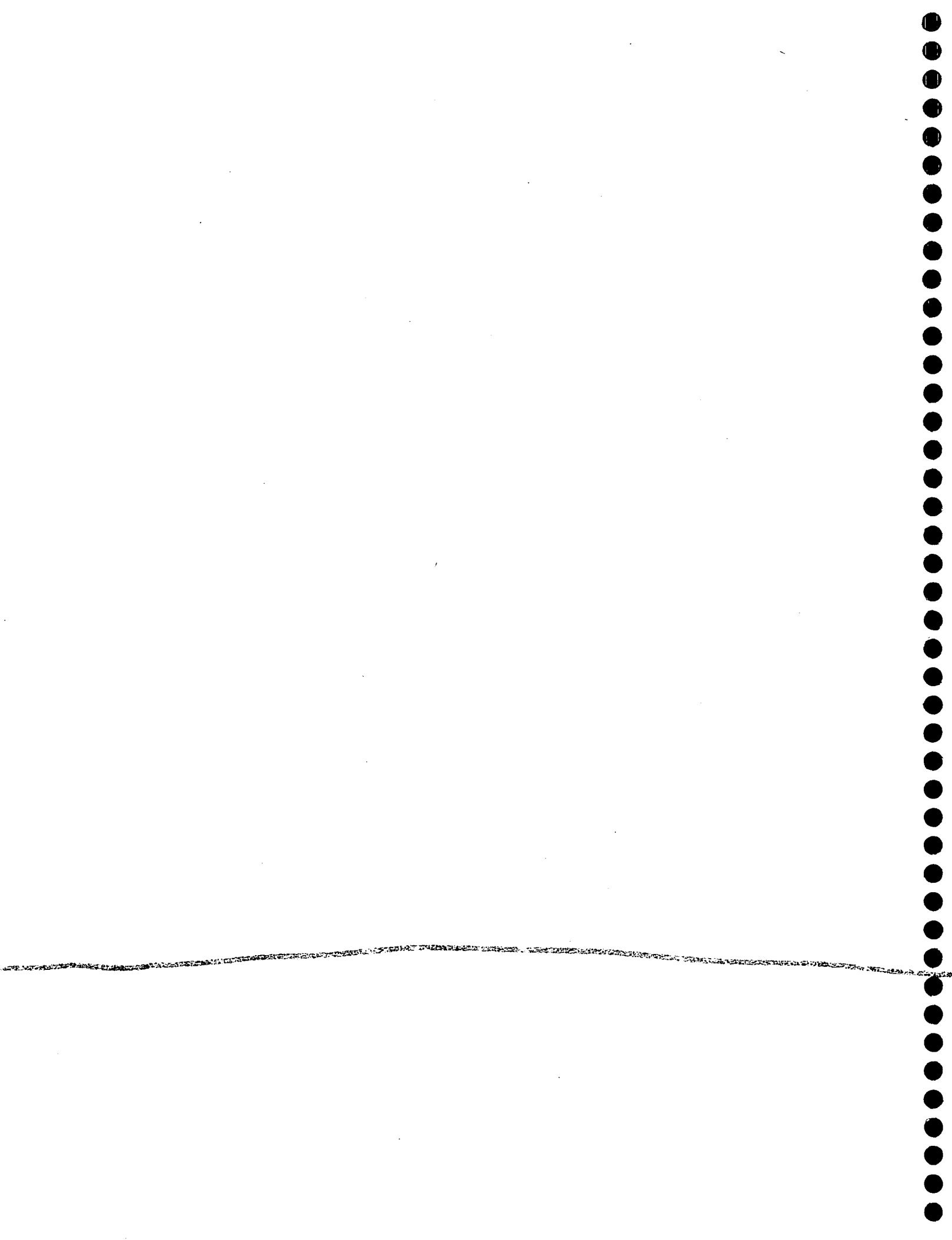
Figure 3.0 LEAK #17141
Excavation Dimensions and
Sampling Locations
South Central Grain & Energy
212 Bryant Avenue
Hector, Minnesota

Scale \longleftrightarrow 10' \longleftrightarrow
Revised 6/11/10



APPENDIX A

Laboratory Report



MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
 1411 S. 12th St. ~ Bismarck, ND 58502 ~ 800-279-6885 ~ Fax 701-258-9724
 51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER
ACIL

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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Page: 1 of 1

TERRY SIECK
 GLACIAL LAKES ENV. CONSULTING
 PO BOX 1082
 WILLMAR MN 56201

Report Date: 20 May 09
 Lab Number: 09-N4067
 Work Order #: 22-2165
 Account #: 022072
 Sample Matrix: SOIL
 Date Sampled: 4 May 09 11:00
 Date Received: 7 May 09
 PO #: 08-006

Project Name: HECTOR-PETRO
 Project Number: 08-006
 Sample Description: STOCKPILE #1

Temp at Receipt: 6.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
DRO Solvent Addition					7 May 09	SP
DRO Extraction					8 May 09	CJW
Percent Moisture	19.4	%	N/A	WI LUST	12 May 09	CJW
Methyl Tert-Butyl Ether	* < 125 #	ppb	25	GRO WILUST	12 May 09	JG
Benzene	* 386	ppb	25	GRO WILUST	12 May 09	JG
Toluene	* < 125 #	ppb	25	GRO WILUST	12 May 09	JG
Ethyl Benzene	* 1917	ppb	25	GRO WILUST	12 May 09	JG
Xylenes (Total)	* 9855	ppb	75	GRO WILUST	12 May 09	JG
Sample Concentration For GRO	* 110.8	ppm	3.0	GRO WILUST	12 May 09	JG
Sample Concentration For DRO	* 41.7	ppm	2.8	DRO WILUST	15 May 09	CJW

BTEX SURROGATE RECOVERY: 106 %

* DRO, GRO, and BTEX reported on Dry basis.

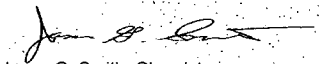
**GRO sample weight is less than the weight minimum set by Wisconsin DNR, Leaking Underground Storage Tanks (LUST) Analytical Guidance SW-141.

The PVOC's were analyzed with the GRO from the methanol extract.

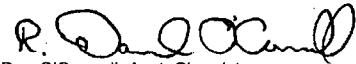
Other heavier hydrocarbons present after the DRO window.

Other lighter hydrocarbons present before the DRO window.

Approved by:


 Jason G. Smith, Chemistry
 Laboratory Manager New Ulm, MN

or


 Dan O'Connell, Asst. Chemistry
 Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
 ! = Due to sample quantity + = Due to extract volume
 ^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022



MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

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 51 W. Lincoln Way ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

MEMBER
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Page: 1 of 1

TERRY SIECK
 GLACIAL LAKES ENV. CONSULTING
 PO BOX 1082
 WILLMAR MN 56201

Report Date: 20 May 09
 Lab Number: 09-N4068
 Work Order #: 22-2165
 Account #: 022072
 Sample Matrix: SOIL
 Date Sampled: 4 May 09 11:15
 Date Received: 7 May 09
 PO #: 08-006

Project Name: HECTOR-PETRO
 Project Number: 08-006
 Sample Description: STOCKPILE #2

Temp at Receipt: 6.0 C

	As Received Result		Method RL	Method Reference	Date Analyzed	Analyst
DRO Solvent Addition					7 May 09	SP
DRO Extraction					8 May 09	CJW
Percent Moisture	10.4	%	N/A	WI LUST	12 May 09	CJW
Methyl Tert-Butyl Ether	* < 250 #	ppb	25	GRO WILUST	12 May 09	JG
Benzene	* < 250 #	ppb	25	GRO WILUST	12 May 09	JG
Toluene	* 299	ppb	25	GRO WILUST	12 May 09	JG
Ethyl Benzene	* 769	ppb	25	GRO WILUST	12 May 09	JG
Xylenes (Total)	* 1718	ppb	75	GRO WILUST	12 May 09	JG
Sample Concentration For GRO	* 709.6	ppm	3.0	GRO WILUST	12 May 09	JG
Sample Concentration For DRO	* 2830	ppm	2.8	DRO WILUST	18 May 09	CJW

BTEX SURROGATE RECOVERY: 105 %

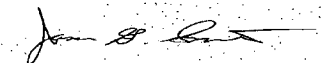
* DRO, GRO, and BTEX reported on Dry basis.

**GRO sample weight is less than the weight minimum set by Wisconsin DNR, Leaking Underground Storage Tanks (LUST) Analytical Guidance SW-141.

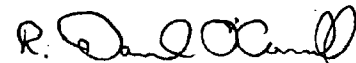
The PVOC's were analyzed with the GRO from the methanol extract.

Other heavier hydrocarbons present after the GRO window.

Approved by:


 Jason G. Smith, Chemistry
 Laboratory Manager New Ulm, MN

or


 Dan O'Connell, Asst. Chemistry
 Laboratory Manager New Ulm, MN

RL = Reporting Limit

Elevated "Less Than Result" (<): @ = Due to sample matrix # = Due to sample concentration
 ! = Due to sample quantity + = Due to extract volume
 ^ = Due to instrument performance at RL

CERTIFICATION: MN LAB # 027-015-125 WI LAB # 999447680 ND MICRO # 1013-M ND WW/DW # R-040 IA LAB #: 132 IA LAB #: 022

