

**ARCHAEOLOGICAL MONITORING  
OF GAS PIPELINE INSTALLATION  
ALONG YORK AVENUE  
(MAIN ST. TO WATERFRONT DR.)**

Submitted to

Manitoba Hydro

**QUATERNARY  
CONSULTANTS  
LIMITED**

June, 2004

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## **1.0 INTRODUCTION**

Manitoba Hydro decided to install a natural gas pipeline from an existing line at the east side of the intersection of York Avenue with Main Street to an existing line at the east side of the intersection of York Avenue with Waterfront Drive. This was to be done with a direction drill, thereby only requiring two vertical shafts—one at Main Street and the second at Waterfront Drive. Due to the proximity of known archaeological resources to the vertical shaft at Waterfront Drive, Quaternary Consultants Ltd. was contracted to provide heritage resource management services. The archaeological monitoring of the mechanized excavation of the vertical shafts was undertaken under the terms of Heritage Permit A29-04, issued by Historic Resources Branch, Manitoba Culture, Heritage and Tourism. The excavations occurred on May 14, 2004.

## **2.0 METHODOLOGY**

The monitoring archaeologist, Sid Kroker (Senior Archaeologist), observed the excavations and watched for buried soil horizons and changes in soil texture which could indicate possible former ground surfaces. The indicators watched for are charcoal layers, ash lenses, and/or reddish stained soil. The colour change is usually indicative of oxidation of the iron particles in Red River silt by heat—the more intense the heat, the redder the soil. These features can indicate either a natural event such as a brush or prairie fire or a cultural event such as a campfire. When evidence of fire is observed, the layer is investigated to ascertain if the cause was natural or cultural. The presence of food remains, particularly mammal or fish bones, resting upon a buried soil is a positive indicator of an archaeological occupation horizon. Other positive indicators are fragments of earthenware containers and lithic flakes resulting from tool manufacture.

If a cultural horizon had been encountered during the backhoe excavations, the horizon, along with the encapsulating matrix, would have been removed from the excavation hole and placed to the side of the active area where it would have been processed by the monitoring archaeologist. Bulk recovery, which can often consist of several pails of soil and cultural material, would have been conducted with the soil matrix being brought to the laboratory facilities of Quaternary Consultants for wet-screening through fine mesh. This process results in the recovery of many minute artifacts.

## **3.0 OBSERVATIONS AND DISCUSSION**

The soil stratigraphy was recorded for each of the two vertical shafts (Table 1). Buried soil horizons were observed but no cultural material was present in either of the two shafts.

The buried soil horizon at 197 cm below surface at the Waterfront Drive shaft contained considerable charcoal and indications of fire-hardened clay. The stratigraphic position indicates that this level possibly correlates with one of the cultural horizons located at the south side of the intersection at depths of 220 cm and 228 cm below the surface (Kroker and Goundry 1990:30). It likely correlates with Horizon B, identified during The Forks Access Project at a depth of 200 cm below surface at the southern extent of the assessment trench (Quaternary 1999:9, 103). This horizon is extremely widespread, extending south and east into the parking lot area of The Forks North Portage Partnership (Quaternary 1989,

2000a, 2000b, 2004), northeast into the city land east of Waterfront Drive (Quaternary 2004), west along York Avenue (Quaternary 1998), north-northwest into the city land west of Waterfront Drive (Quaternary 1990a, 1990b, 1990c), and north across Water Avenue (Quaternary 1996, 2000c, 2001, 2003a, 2003b). The indicators of fire at the excavation shaft could indicate the presence of a campfire, although the absence of cultural material suggests that, if this was the case, it was not used for cooking.

	Main Street	Waterfront Drive
Concrete	0 - 25	0 - 25
Gravel Fill	25 - 124	25 - 134
Sub-drain pipe		134 - 155
Old clay fill	124 - 190	
Diesel stained silty clay	190 - 223	
Relict soil horizon	223 - 224	
Diesel stained silty clay	224 - 251	
Medium brown silty clay		155 - 197
<b>Relict soil horizon</b>		<b>197 - 200</b>
Silty clay		200 - 260

Table 1: Stratigraphic Profile of Vertical Shafts

## 4.0 DISCUSSION

During the monitoring of the excavations, no cultural resources were present at either of the vertical shafts. If the gas line is extended to the east from its eastern terminus, archaeological monitoring will be necessary due to the presence of known archaeological resources.

## 5.0 BIBLIOGRAPHY

Kroker, Sid and Pamela Goundry

- 1990 *Archaeological Monitoring of the Stage I Construction Program*. The Forks Renewal Corporation, Winnipeg.

Quaternary Consultants Ltd.

- 1989 *Provencher Bridge Project Archaeological Impact Assessment*. On file with Wardrop Engineering Inc. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.

- 1990a *Heritage Resources Impact Assessment for Proposed York & St. Mary Avenue Extensions (Main Street - Pioneer Boulevard)*. On file with I.D. Systems Ltd. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.

- 1990b *Assessment of Archaeological Resources within the St. Mary Avenue Extension Right-of-Way*. On file with I.D. Systems Ltd. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 1990c *St. Mary Archaeological Recovery Project: Interim Report*. On file with City of Winnipeg, Streets and Transportation Department and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 1996 *Heritage Resources Impact Assessment of the Portage East Site*. On file with Spirit of Manitoba and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch.
- 1998 *Archaeological Monitoring of the York Avenue Underpass Reconstruction Project*. On file with Stanley Consulting Group Ltd. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 1999 *Archaeological Monitoring of The Forks Access Project: South of Water Avenue (DILg-33:97A)*. On file with Reid Crowther & Partners and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 2000a *Archaeological Impact Assessment of the Legacy Estates Project at The Forks*. On file with The Forks North Portage Partnership and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 2000b *Archaeological Monitoring of the Construction Components of Festival Park at The Forks*. On file with The Forks North Portage Partnership and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 2000c *Archaeological Mitigation of the CanWest Global Park Baseball Facility*. On file with The Dominion Company and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 2001 *Geo-technical Monitoring and Heritage Resource Management Program for the West Roads Project*. On file with Wardrop Engineering Inc. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.
- 2003a *Archaeological Monitoring and Mitigation of the West Roads Project*. On file with Wardrop Engineering Inc. and Historic Resources Branch, Manitoba Culture, Heritage and Tourism.
- 2003b *Archaeological Monitoring of the CanWest Global Park Baseball Facility Expansion*. On file with Pre-Con Builders and Historic Resources Branch, Manitoba Culture, Heritage and Tourism.
- 2004 *Archaeological Impact Assessment for the Proposed Canadian Museum for Human Rights at The Forks*. On file with Friends of the Canadian Museum for Human Rights inc. and Manitoba Culture, Heritage and Citizenship, Historic Resources Branch, Winnipeg.

**APPENDIX A**  
**HERITAGE PERMIT**



## Heritage Permit No. A29-04

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Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Quaternary Consultants Ltd.  
Address: 130 Fort Street  
Winnipeg MB R3C 1C7

ATTENTION: Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

monitor the mechanized excavation of vertical shafts for the installation of natural gas pipe on York Avenue between Main Street and Waterfront Drive in the City of Winnipeg, in order to record the soil stratigraphy and recover significant heritage objects if present;

during the period:

May 10 – 31, 2004.

This permit is issued subject to the following conditions:

- (1) That the information provided in the application for this permit dated the 7<sup>th</sup> day of May 2004, is true in substance and in fact;
- (2) That the Permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; **Please note attachment re custody and ownership of heritage objects**
- (3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:  
December 31, 2004;
- (4) That this permit is not transferable;
- (5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;



(6) Special Conditions:



- a. All heritage objects are to be deposited with the Manitoba Museum by December 31, 2004, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
- b. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with the Manitoba Museum of Man and Nature upon completion of the archaeological research, or sooner if required, and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
- c. Neither the Government of Manitoba nor the party issuing this permit be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

Dated at the City of Winnipeg, in Manitoba, this 17<sup>th</sup> day of May 2004.

for Donna Dul  
Minister of Culture, Heritage and Tourism