ARCHAEOLOGICAL MITIGATION AT THE TRAVEL MANITOBA IDEA CENTRE AT THE FORKS

Prepared for

TRAVEL MANITOBA
MANITOBA INDUSTRY, TRADE AND TOURISM

QUATERNARY
CONSULTANTS
LIMITED

May, 1994

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1.0 Introduction

During the archaeological monitoring of the Stage I Construction Program at The Forks, five archaeological strata were encountered in the vicinity of the Travel Manitoba Idea Centre (Kroker and Goundry 1990:36-40). The depths of these horizons ranged from 150 to 280 cm below grade. At that time, approximately one meter of railroad cinder fill (1888 - 1988) was present.

As part of the planning of the Travel Manitoba Idea Centre, information concerning the potential for impact upon archaeological resources was provided by the Site Archaeologist for The Forks Renewal Corporation. This information was made available during the early conceptualization, in 1990. During the evolution of the concept design, the potential for impact upon archaeological resources was continually borne in mind. The final design resulted in minimal disturbance below the cinder horizon. To minimize impact, the building support pilings were driven into place and excavation only occurred at the elevator location in the southwest corner of the building and around the upper portions of the piles for foundation pouring.

Because of the high probability of encountering archaeological resources which would require mitigation, Quaternary Consultants Ltd. (QCL) undertook to monitor the limited sub-surface operations during the construction phase. The monitoring and subsequent mitigative excavation of the archaeological resource within the impact area was done under Heritage Permit #A38-93 (Appendix A).

1.1 Study Team

The field operations were directed by Sid Kroker (Senior Archaeologist). Field personnel consisted of Sid Kroker and Pat Carroll. Laboratory operations were directed by Pam Goundry (Research Archaeologist) with assistance from Pat Carroll and Paul Speidel. Computer data entry was undertaken by Pam Goundry utilizing the CHIN archaeological data base. Artifact analysis was carried out by Pam Goundry, Sid Kroker, Paul Speidel, and Geoff Marr. Soil analysis and botanical analysis was undertaken by Donalee Deck. Report preparation has been completed by Sid Kroker and Pam Goundry.

1.2 Scope of Project

The backhoe operator for Regent Construction excavated around each of the pilings. An area for the elevator shaft was excavated in the southwest corner of the site. Archaeological staff monitored all mechanized excavation and recorded relevant archaeological and stratigraphic data.

An archaeological horizon containing Precontact ceramics was encountered adjacent to the north wall of the Johnston Terminal (Figure 1) and, in fact, appears to have been largely eradicated by the construction of the Terminal in 1928. The horizon occurred at a depth of 45 cm below the cinder fill. Mitigative excavations were undertaken for this horizon which covered approximately two square meters.

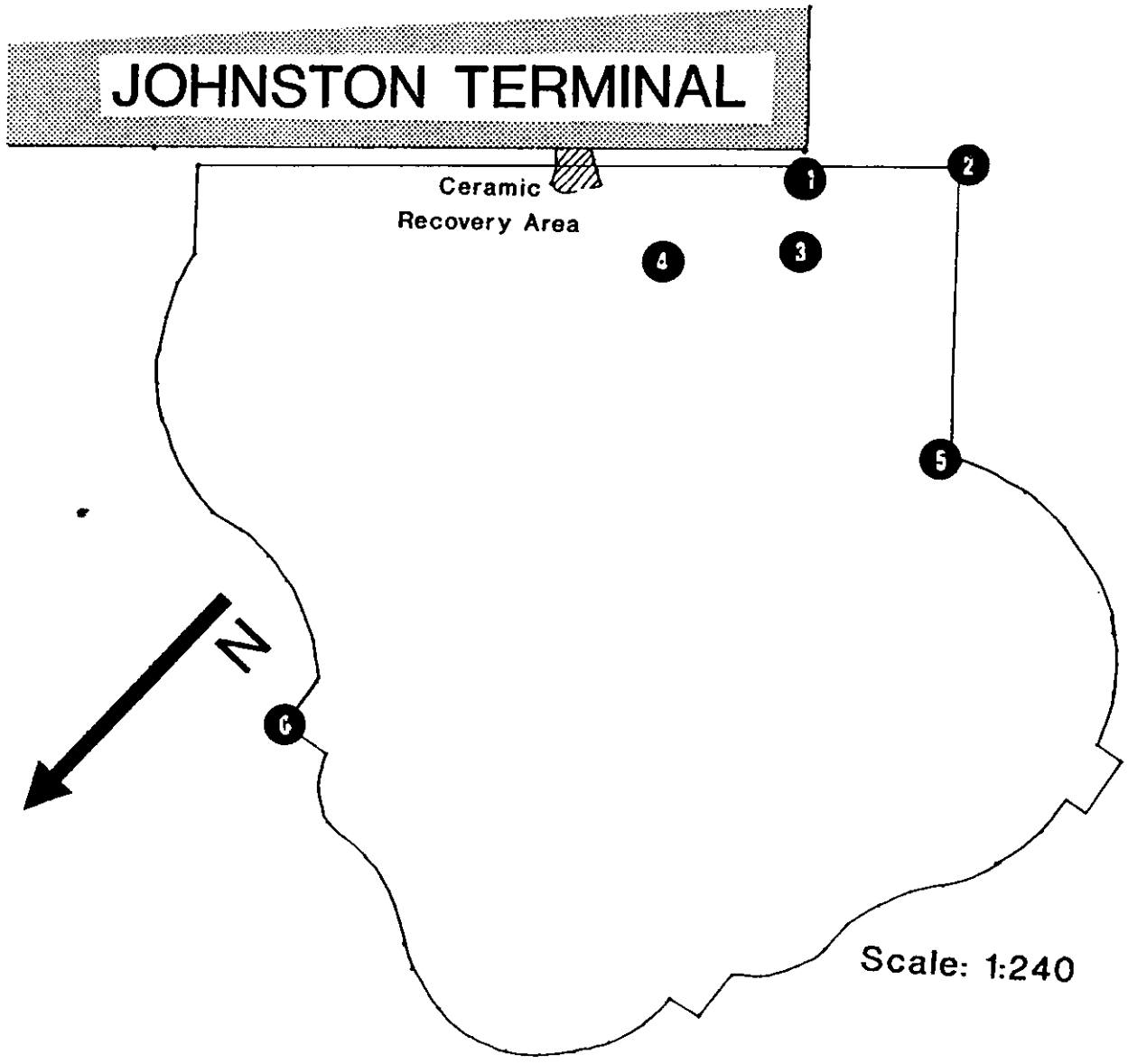

Figure 1: Location of the Travel Manitoba Idea Centre Mitigative Operations

1.3 Methodology

The cultural horizon was removed by hand excavation. A soil sample was taken for analysis of environmental parameters, i.e., seeds, charcoal, etc. Recovered artifacts were placed in field unit bags and brought to the laboratory facilities of Quaternary Consultants Ltd., where they were washed and sorted by material class. Material of the same type (i.e., ceramic body sherds or catfish pectoral spines) were combined under a single catalogue number. Identification was carried to the limit obtainable by available reference works and staff expertise. Faunal remains were, where possible, identified to element and species.

Each artifact, or cluster of artifacts, received a sequential catalogue number which consisted of the Borden designation for The Forks (DlLg-33), followed by the project designator (93F - indicating the sixth archaeological project of 1993 at The Forks) and the specimen number (e.g., DlLg-33:93F/123). All pertinent data associated with each artifact were entered into the computer cataloguing system. The cataloguing system is based upon the Canadian Heritage Inventory Network (CHIN) system (Manitoba Museum of Man and Nature 1986; FRC 1988:110, 171).

Processed artifacts were prepared for storage by inserting the specimens and the catalogue card into a standard plastic storage bag and stapling the bag closed. After analysis, the processed artifacts were sorted into sequence, preparatory for ultimate storage at the Manitoba Museum of Man and Nature. All recovered artifacts will be housed at the Museum which has been designated as the repository for artifacts and documentation of archaeological projects undertaken within the jurisdiction of The Forks Renewal Corporation (FRC 1988:129).

The location of the recovery was surveyed into The Forks Archaeological Survey Grid which is used for correlating all archaeological activities within the East Yard. It is based upon the City of Winnipeg survey marker (87R548), at the north end of the Low Line Bridge, as the Site Datum. This marker has been assigned the arbitrary provenience of 1000N/1000W. The 1000E/W Baseline extends from the marker to the second concrete pier (to the south of the embankment) of the Canadian National Railway Main Line Bridge (Kroker 1989:9).

1.4 Stratigraphy

The upper materials were railroad fill, i.e., cinder and gravels, overlying undisturbed riverine sediments (sands, silts, and clays). These had been removed preparatory to construction. The depths of excavation around the pilings were not uniform across the site. Individual pilings were to be sheared off at different elevations, dependant upon which portion of the structure's foundation they were supporting. Thus, the stratigraphic record was not assessed to the same depth at all locations within the construction area. Selected locations, depicted on Figure 1, are discussed below.

The ceramic-bearing cultural horizon occurred within a black, charcoal-rich, buried soil layer at a depth of 45 cm below the levelled working surface. A second black soil layer was present immediately below the cultural horizon. The configuration of these two strata suggest that they represent the Double A relict soil stratum, first recorded during the North Assiniboine Node

Assessment (Kroker 1989:173). Traces of thin, discontinuous relict soil layers were observed below the cultural horizon at a depth of 75 to 80 cm. These were archaeologically sterile.

The Double A stratum was observed in the excavations at the east wall of the elevator area. The Double A was clearly defined at 50 cm at the southeastern corner (Figure 1-1). The lower strata consisted of sequences of riverine-deposited silts, silty clays, and clays. A thin scatter of nearly totally decomposed fish bone was observed at 170 cm. The faunal material was incorporated within a silty clay matrix, rather than on a former soil zone. At a depth of 215 cm, a circular deposit of grey ash, black charcoal, and reddish orange clay was observed. This feature is the result of the burning of the trunk of a large tree. Another occurrence of decomposed fish bone within a clay matrix was recorded at 235 cm.

The stratigraphy was similar at the northeastern piling (Figure 1-3), although the Double A horizon was less distinct. In addition, no faunal material was present as in the previous excavation. The Double A was also present at a shallow excavation (85 cm) toward the interior of the construction area (Figure 1-4), but no cultural material was present.

The excavations along the west side of the construction area (Figure 1-2, 1-5) encountered sand and gravel fill from previous construction. The remaining pile excavations (approximately thirty-five) encountered stratigraphy similar to that at locations 1, 3, and 4. In most of the cases, the excavations were not deep enough to reach the Double A stratum. When this horizon was observed (Figure 1-6), it was less clearly defined than at the ceramic recovery area.

2.0 Artifact Recoveries

A total of 1375 artifacts were recovered (Appendix B). These encompassed the categories of lithic material, ceramic sherds, faunal remains, and floral specimens.

2.1 Lithic Artifacts

Fourteen specimens of lithic material were recovered from the archaeological deposits. Six of these were small fire-cracked fragments of granite (DlLg-33:93F/111). The absence of ash and large fragments of charcoal suggest that these were relocated from a nearby hearth.

Minor evidence of lithic tool manufacture or modification was recovered. Five flakes of Selkirk chert (DlLg-33:93F/116) and one flake of Swan River chert (DlLg-33:93F/115) were present. Again, the sparseness of the recoveries would suggest that this location was at the extreme periphery of a lithic production area, or that the flakes had been relocated. Two possible mechanisms of relocation are by floodwater (unlikely due to the *in situ* presence of small ceramic sherds) or by adhesion to the bottom of footwear of the people who occupied the site.

Two minuscule fragments of hematite were recovered (DlLg-33:93F/119, 131). These may have been waste material, discarded during the preparation of an ochre coating for the ceramic vessels.

2.2 Ceramic Artifacts

Ceramic sherds were the predominate recovery. A total of 912 earthenware artifacts, weighing 3,030 grams, were excavated from the cultural horizon. The specimens ranged in size from large body sherds measuring more than 50 mm x 50 mm to minuscule sherdlets less than 1 mm in diameter. Most of the artifacts were body sherds, although 48 rim sherds were recovered.

2.2.1 Rim Sherds

Examination of the rim sherds indicate that portions of at least two vessels are present. Definition of different vessels is based upon curvature of the neck (Figure 2), curvature of the lip, shape of the lip (Figure 3), decoration of the lip or neck, the surface finish of the exterior of the vessel, and the texture of the earthenware paste. Two different curvatures of the neck are discernable from the recovered sherds: a slightly in-curving neck (Figure 2a), where the lip diameter is smaller than that of the neck (exemplified by DlLg-33:93F/6) and a vertical neck profile (Figure 2b) as demonstrated by DlLg-33:93F/13. These two specimens are the extremes. Several of the rim sherds do not have a sufficient portion of the neck below the lip to determine curvature. Those that do tend to cluster closer to the vertical profile, albeit with a slight degree of in-curving. Based upon this criterion, at least two and probably three vessels are represented.

The curvature of the lip can be used to determine the probable diameter of the vessel. Measurement of the chord of the arc represented by the sherd and the distance from the chord to the outer edge of the arc will permit calculation of the diameter of the entire vessel. Naturally, the smaller the fragment, the less reliable the calculation. To minimize the error factor, sequences of rim sherds which fit together were used, thereby providing a greater arc. Two sets of fitting rim sherds were measured. One group, with a combined chord length of 126 mm, indicated a vessel diameter of 38.9 cm (10% factor provides a range from 35.4 cm to 43.2 cm). A second group, with a combined chord length of 85 mm, indicated a vessel diameter of 45.5 cm (10% error factor provides a range from 41.5 cm to 50.5 cm). The measurements indicate that these groups may derive from different vessels, although there is an overlap when potential measuring error is considered. Additionally, these vessels were individually crafted and it is unlikely that the total circumference of the rim of each vessel would be mathematically exact. Thus, lip curvature studies do not permit the designation of individual vessels.

The shapes of the lip on the rim sherds have considerable variability. They range from rounded (Figure 3a - DlLg-33:93F/6), to vertical flat (Figure 3b - DlLg-33:93F/13), to flat wedge (Figure 3c - DlLg-33:93F/5), to flat bevelled wedge (Figure 3d - DlLg-33:93F/4), to minor L-shaped (Figure 3e - DlLg-33:93F/12), to major L-shaped (DlLg-33:93F/10). The thicknesses of these rims is also variable, ranging from 5.1 mm to 10.1 mm. Based solely upon types of lip shape, it would appear that five different vessels are present. However, a group of rim sherds that fit together (DlLg-33:93F/2, 3, 5, 8) display both flat and wedge rims, with the thickness ranging from 5.5 to 9.1 mm. Another group (DlLg-33:93F/4,17,19) grades from a flat bevelled wedge to vertical flat over a distance of 50 mm. The variations of the L-shaped lip are present on two sherds which fit together. It may be that the variations of the flat lip all occur on a single vessel and are the result

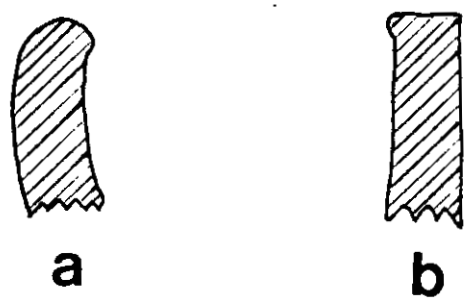

Figure 2: Ceramic Neck Profiles

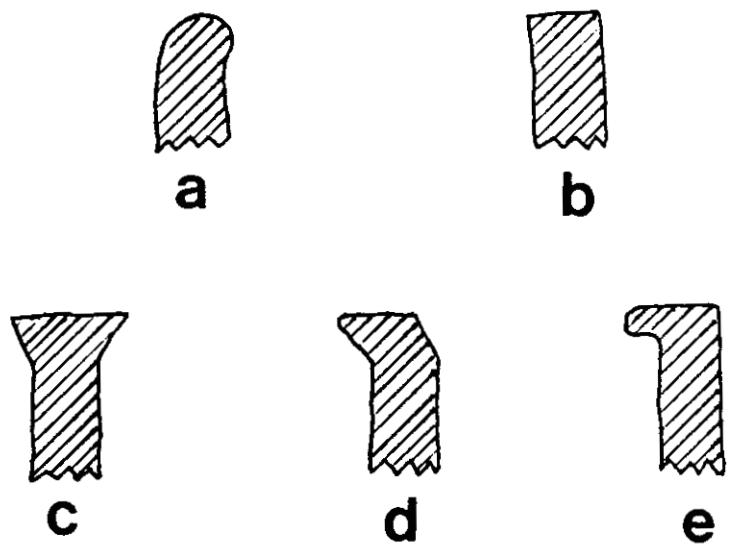

Figure 3: Types of Lips on Recovered Rim Sherds

of smoothing, or flattening, the lip. If this is the case, then only two distinct lip shapes are present: the rounded lip and the variable flat lip. Five rim sherds have a rounded lip (DlLg-33:93F/6, 15, 24, 25, 26). All others have one or more of the flat lip variations.

Three decorated neck sherds were recovered, one of which (DlLg-33:93F/27) fits with a rim sherd (DlLg-33:93F/2). The decorations consist of two horizontal punctates, with one directly above the other. These were produced by obliquely impressing the moist clay with a squarish implement. The punctates parallel the lip and are positioned 31 mm below the lip. The punctates are 4.5 mm wide, 9.7 mm long, and 3.7 mm deep. Minimal bossing occurs on the interior which suggests that an interior brace was used while making the punctates. As the thickness of the vessels average 7.5 mm, an indentation of 3.7 mm would result in a corresponding protuberance unless an interior brace was used. No fingerprint or other impressions are present on the interior surface which would suggest that the interior brace was smooth-textured (e.g., hide or wood). The other two decorated neck sherds are, as yet, not fitted to any other sherds. The sparse number of decorated sherds suggests that only one vessel was decorated and rather minimally at that.

The surface finish of the rim sherds is also variable. Some are definitely fabric-impressed (DlLg-33:93F/2), others appear to have had the fabric impressions partially obliterated by smoothing, while still others are totally smooth. Some degree of smoothing is present on all rim sherds, particularly near the lip. Additionally, fine striae are present on most of the sherds. The striae, on the surface of the lip as well as the neck below the lip, are shallow and discontinuous. These fine scratches would be the result of smoothing the moist clay by hand or with a piece of hide, as fine particles of the grit in the clay would be dragged across the surface. This characteristic occurs on both the rounded lip and flat lip specimens and indicates a similar method of manufacture.

The texture of the rim sherds is relatively uniform, a grey-brown clay base matrix with the admixture of medium to coarse grit. The grit consists of both fine sand and finely ground granite. Variability of the ratio of grit to clay appears to be a function of the degree of mixing rather than different proportions for the mix.

2.2.2 Body Sherds

The majority of the ceramic recoveries were body sherds, which is not surprising when the diameter of the vessels is considered. Body sherds can often be assigned to specific vessels based upon surface finish and texture. The surface finish indicates the method of manufacture: coiling, bag container molding, paddling, or combinations of these. It can also indicate post-molding treatments, such as washing the exterior with an ochre preparation to provide a reddish coloured surface or adding a fine clay slip to give a smooth surface.

Several of the body sherds show coil breaks indicting that a portion of the vessels were made by building up the body of the pot by rows of coils of clay. All of the coil breaks are at a curvature juncture, perhaps the union of the body and the base or the body and the shoulder of the pot. Some internal bracing is also evident on these sherds. Whether the examples of coil break all derive from a single vessel is still undetermined.

Two other manufacturing techniques are observed. Paddling of the exterior of the vessels is a method of thinning the clay and making it more cohesive. This is often done when molding a coil-constructed vessel. In the examples within this assemblage, it appears that the paddle was wrapped with parallel bands of cordage, resulting in a ribbed exterior surface. Because the vessel is round, these ribs are not continuous and also are not necessarily oriented in the same direction. In addition to the cord-wrapped paddle impression, body sherds showing the impression of a fabric are present. Vessels can be manufactured by using a woven fabric bag as the mold, whereby the clay is pressed outward and the shape of the bag is the resultant shape of the ceramic vessel. Many of the recovered sherds have fabric impressions, some of which have been partially obliterated by smoothing.

Post-molding treatment is evident. Several sherds have had the addition of a clay slip before firing. This thin clay slurry can be applied by dipping the vessel or by painting it on. The consistency of the slurry is such that it will adhere to the partially dried vessel and provide a thin exterior coat. The specimens with evidence of a clay slip have a red-orange tinge, indicating that either the clay was iron-rich, resulting in the formation of ferrous oxide during firing, or that pulverized hematite (red ochre) was added to the slurry. Other sherds do not have the clay slip but do have the distinctive ochre colouring. This could result from either of two possibilities: the vessel was painted with an ochre mix or that the clay slip has deteriorated and exfoliated over time, with the ochre colouration from the slip having penetrated the outer surface of the vessel.

Some of the sherds, both rim sherds and body sherds have an orange-red colour resulting from exposure to heat. Some sherds are discoloured on one surface, some on both faces and yet others have been subjected to sufficient heat to result in the discolouration encompassing the entire thickness of the sherd. This discolouration is likely due to post-depositional exposure to heat, as some of the fracture edges are discoloured. Grass or forest fires can produce sufficient heat to cause this type of discolouration.

In addition, many of the sherds are carbon-encrusted on the interior surface—the residue from food preparation. Due to post-depositional factors, the degree of encrustation is variable. Sherds which are encrusted fit with other sherds which are not.

A detailed analysis of the ceramic recoveries, including reconstruction of the vessel(s), lies beyond the scope of a mitigative project. Fortunately, an archaeologist has volunteered to undertake the effort of reconstruction and will be doing further research upon these recoveries.

2.3 Faunal Remains

A total of 432 faunal specimens were recovered. This included 415 specimens deriving from cultural activities, 2 samples obtained during flotation, and 15 specimens which are the result of natural deposition. The two samples recovered from fine-screening the soil matrix sample are mixed fragments of fish bone, mammal bone, and shell. The combined weight of the samples is 4.0 grams.

2.3.1 Mammal

A total of 105 mammal remains were recovered. All are considered to be butchering remains and represent food procurement by the occupants of the site. The identifications and frequency of the various taxons are depicted in Table 1.

TAXON	Quantity	Frequency	Weight	Frequency
Large Mammal	2	1.9	1.5	1.0
Large/Medium Mammal	32	30.5	29.8	20.5
Medium Mammal	33	31.4	14.5	10.0
Small Mammal	2	1.9	0.1	0.1
Indeterminate Size	6	5.7	0.9	0.6
Sub-Total	75	71.4	46.8	32.2
Artiodactyla	6	5.7	45.8	31.5
Carnivora				
Canidae	2	1.9	0.4	0.3
Canis lupus	7	6.7	38.7	26.6
Vulpes vulpes	10	9.5	7.8	5.4
Lagomorpha				
Leporidae				
Lepus	5	4.8	5.9	4.1
Sub-Total	30	28.6	98.6	67.9
TOTAL	105	100.0	145.4	100.1

Table 1: Mammal Recoveries

The specimens that could not be identified to taxon due to their fragmentary nature probably derive from the species that have been identified from distinguishable elements. The large and large/ medium specimens would represent artiodactyls. The medium elements probably derive from the identified carnivores—wolf and fox.

The artiodactyl specimens consist of rib, vertebrae, and long bone fragments. Although none could be identified to species, the size of the elements suggest that the possible choices are bison, moose, or elk.

The wolf remains consist of a calcaneus (DlLg-33:93F/118), an astragalus (DlLg-33:93F/96), and a fragmented portion of the left mandible (DlLg-33:93F/85) with attendant molars and canine teeth. The ten fox remains include two femurs but, as both a left and a right of the same size are present, only one individual is represented. Two canine teeth fragments (DlLg-33:93F/110) were identified to the Family level of Canidae.

The rabbit specimens consist of five mandible fragments, four left and one right, indicating that a minimum of four individuals are present. One specimen (DlLg-33:93F/88) is charred. Both unidentified small mammal specimens (DlLg-33:93F/122) were recovered from the soil matrix sample. They are calcined, indicating prolonged exposure to heat. They could be small, unidentifiable fragments of rabbit bone. Alternatively, they may be the result of natural deposition, where the bones had been incorporated in the soil prior to the establishment of a hearth.

2.3.2 Fish

All fish remains are assumed to be the result of food procurement. A total of 289 artifacts, with a weight of 16.8 grams, were recovered. Of these, 47 derived from the soil matrix sample and consisted of small fragments of elements that were recovered on various fine mesh screens. These are 34 scale fragments, 8 vertebral fragments, one rib, one hypohyal and three unidentifiable fish bones.

The remaining 242 specimens were recovered during the excavation. A high proportion of the artifacts were severely fragmented resulting in 120 unidentifiable specimens (49.6%). A further 64 specimens were vertebrae (26.5%) and 29 ribs (24.2%) which cannot be ascribed to species. Three taxa were identified from the recoveries: pike (*Esox lucius*), catfish (*Ictalurus* sp.), and sucker (Catostomidae family). The pike were represented by eight otoliths indicating that a minimum of four pike occur. Catfish are represented by eight fragments which were identified to element. However, only one catfish could provide all of the specimens. Two maxilla fragments represent a single sucker.

2.3.3 Shellfish

Shellfish recoveries consisted of one largely complete valve from *Proptera alata*, the pink heelsplitter (DlLg-33:93F/83) and 20 fragments which could only be identified as Unionidae. The soil matrix sample produced 15 specimens of naturally deposited freshwater snail. These were so fragmented that they could not be identified even to Order.

2.4 Floral Specimens

Sixteen floral specimens were recovered during the flotation of the soil sample (DlLg-33/93F-117). Five specimens were identified as oak (*Quercus*), one as ash (*Fraxinus*), and two as poplar (*Populus*). Four specimens could be identified to type of wood, i.e., hardwood (2), ring porous (1), and diffuse porous (1). The remaining four specimens, less than 1.0 mm in diameter, could not be identified as other than organic.

3.0 Discussion

The small area of the archaeological recovery location (two square meters) and the generally undiagnostic nature of the recovered artifacts provide minimal data for interpretation of the cultural attributes and adaptive strategies of the peoples who occupied the site. It appears that the majority of the occupation area occurred to the south and was eradicated in 1928 when the basement of the Johnston Terminal was excavated. This location may have been a minor refuse deposit at the periphery of the occupation area. The mix of species in the faunal assemblage supports this interpretation and the relatively small quantities suggest that it was not the main, or even a major, deposit. Evidence of a hearth or other features indicative of the habitation area are lacking.

The ceramic recoveries are identified as a Plains Woodland type of ceramic—mainly by a process of elimination rather than positive identification. The rim sherds do not bear the diagnostic hallmarks of Blackduck, Rainy River Complex, or Selkirk wares. Undecorated, utilitarian ware is present in assemblages dominated by any of the three wares. However, as there are at least two distinct vessels, it is more probable that the vessels represent the relatively plain ware manufactured by the Plains cultures during the Late Woodland period.

In terms of time of occupation, the Plains Woodland ceramic cultures were contemporaneous with both the cultures represented by the Rainy River Complex and the Selkirk Phase (A.D. 1200 - 1750). The occupation horizon occurred at a depth of 45 cm below the original soil horizon of 1888, when the railroad first arrived. It has been suggested that an average rate of accretion . . The Forks is one meter per thousand years (Kroker and Goundry 1990:162). If that rate is valid at this specific location, the date of occupation would be circa A.D. 1550. However, given the variability of riverine deposition regimes, that estimate could vary by two centuries plus or minus.

4.0 Bibliography

Forks Renewal Corporation, The (FRC)

1988 *The Forks Archaeological Impact Assessment and Development Plan (The Forks Archaeological Plan)*. The Forks Renewal Corporation, Winnipeg.

Kroker, Sid

1989 *North Assiniboine Node Archaeological Impact Assessment*. The Forks Renewal Corporation, Winnipeg.

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APPENDIX A

HERITAGE PERMIT

The Heritage Resources Act (Subsection 14(2) and Sections 52 and 53)

Manitoba
Culture, Heritage
and Citizenship

Heritage Permit No. A38-93

FORM 11

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

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

ATTENTION Mr Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

Monitor mechanized excavation of several localized areas within the Travel Manitoba Idea Centre Building site, at The Forks (DlLg-33) in Downtown Winnipeg to record the presence or absence of heritage resources and their nature and extent if present;

during the period:

September 20 to 30, 1993

This permit is issued subject to the following conditions:

(1) That the information provided in the application for this permit dated the 20th day of September 1993, 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:

March 31, 1994

(4) That this permit is not transferable;

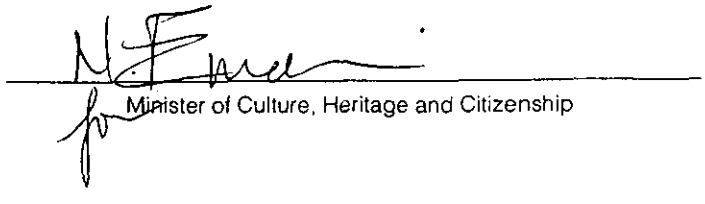
(5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;

(6) Special Conditions:

a. All surface collections, excavations, etc. are to be carried out using the provenience system established for use at The Forks and this project will be designated 93F;
b. All heritage objects (artifacts) recovered from The Forks are to be catalogued according to the CHIN system and the relevant Borden designation will be DlLg-33/93F;
c. All heritage objects from The Forks are to be deposited with the Manitoba Museum of Man and Nature by March 31, 1994, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
d. 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;
e. All computer systems and programs employed in archaeological research should be compatible with the computer system established for The Forks;
f. Appropriate arrangements and funds should be made available for the conservation of perishable heritage objects collected from The Forks;
g. In the event that any human remains are encountered during the excavations, all activity in that particular locus will cease immediately, and the Historic Resources Branch notified immediately so that appropriate action can be determined and taken;
h. The Permittee will be on-site supervising all aspects of the field work, including the removal of the railroad overburden during site preparation, at least 75% of the time, but when the Permittee must be absent, a qualified designate acceptable to Historic Resources Branch (copy of vita to be filed prior to commencement of field work) shall be present;
i. The Permittee shall be responsible for the conduct of the laboratory analysis of recovered heritage objects and information to be included in the permit report;
j. The report identified in #3 above shall conform at a minimum to "The Contents and Format of a Heritage Resource Impact Assessment" (copy attached)
k. 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.

8280h

Dated at the City of Winnipeg, in Manitoba , this 20th day of September 1993.



for Minister of Culture, Heritage and Citizenship

APPENDIX B

CATALOGUE OF ARTIFACTS

SPECIMEN CATALOGUE RECORD

Site: DLLG-33:93F THE FORKS Area: RED RIVER

Client: TOURISM MANITOBA Acc. No.:

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
1	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
2	2	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
3	2	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
4	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
5	3	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
6	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
7	2	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
8	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
9	2	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
10	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
11	1	RIM SHERD LI[illegible] NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
12	2	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
13	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
14	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
15	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
16	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
17	1	RIM SHERD LIP	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
18	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
19	1	RIM SHERD LIP	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
20	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
21	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
22	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
23	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
24	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
25	1	RIM SHERD LIP	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921

SPECIMEN CATALOGUE RECORD

Site: DLLG-33:93F THE FORKS Area: RED RIVER

Client: TOURISM MANITOBA Acc. No.:

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
26	1	RIM SHERD LIP	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
27	1	RIM SHERD NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
28	1	RIM SHERD NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
29	1	RIM SHERD NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
30	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
31	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
32	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
33	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
34	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
35	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
36	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
37	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
38	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
39	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
40	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
41	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
42	20	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
43	4	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
44	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
45	126	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
46	38	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
47	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
48	90	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
49	30	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
50	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921

SPECIMEN CATALOGUE RECORD

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Client: TOURISM MANITOBA Acc. No.:

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
51	80	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
52	31	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
53	12	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
54	4	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
55	46	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
56	10	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
57	28	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
58	11	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
59	162	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
60	6	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
61	1	BODY SHERD BODY	..RTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
62	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
63	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
64	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
65	1	RIM SHERD LIP; NECK	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
66	1	BODY SHERD BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
67	25	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
68	32	VERTEBRA FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
69	2	CORACOID ICTALURUS	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
70	8	OTOLITH ESOX LUCIUS	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
71	1	MAXILLA CATOSTOMIDAE	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
72	12	RIB FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
73	6	CLEITHRUM ICTALURUS	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
74	1	MAXILLA CATOSTOMIDAE	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
75	2	PREOPERCULUM FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921

SPECIMEN CATALOGUE RECORD

Site: DLLG-33:93F THE FORKS Area: RED RIVER

Client: TOURISM MANITOBA Acc. No.:

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
76	8	IDENTIFIABLE FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
77	87	UNIDENTIFIED FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
78	1	PREOPERCULUM FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
79	17	RIB FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
80	33	UNIDENTIFIED FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
81	32	VERTEBRA FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
82	20	VALVE UNIONIDAE	SHELL PLAINS WOODLAND	TOURIST CENTRE	19930921
83	1	VALVE UNIONIDAE	SHELL PLAINS WOODLAND	TOURIST CENTRE	19930921
84	23	LONG BONE MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
85	5	MANDIBLE; TOOTH CANIS LUPUS	BONE; TOOTH PLAINS WOODLANT	TOURIST CENTRE	19930921
86	2	MANDIBLE; TOOTH LEPUS	BONE; TOOTH PLAINS WOODLAND	TOURIST CENTRE	19930921
87	2	MANDIBLE; TOOTH LEPUS	BONE; TOOTH PLAINS WOODLAND	TOURIST CENTRE	19930921
88	1	MANDIBLE; TOOTH LEPUS	BONE; TOOTH PLAINS WOODLAND	TOURIST CENTRE	19930921
89	1	TIBIA VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
90	1	HUMERUS VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
91	1	FEMUR VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
92	1	FEMUR VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
93	1	PHALANX VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
94	1	PHALANX VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
95	4	LONG BONE VULPES	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
96	1	ASTRAGALUS CANIS LUPUS	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
97	7	RIB MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
98	16	SKULL MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
99	3	INNOMINATE MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
100	1	INNOMINATE MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921

SPECIMEN CATALOGUE RECORD

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Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
101	3	VERTEBRA MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
102	4	SCAPULA MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
103	2	INNOMINATE MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
104	2	INNOMINATE MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
105	1	RIB ARTIODACTYLA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
106	2	VERTEBRA ARTIODACTYLA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
107	1	VERTEBRA ARTIODACTYLA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
108	2	LONG BONE ARTIODACTYLA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
109	2	SKULL MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
110	2	CANINE CANIDAE	TOOTH PLAINS WOODLAND	TOURIST CENTRE	19930921
111	6	FIRE-CRACKED ROCK	GRANITE PLAINS WOODLAND	TOURIST CENTRE	19930921
112	1	RIB MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
113	3	FEMUR MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
114	6	UNIDENTIFIED MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
115	1	FLAKE	SWAN RIVER CHERT PLAINS WOODLAND	TOURIST CENTRE	19930921
116	5	FLAKE	SELKIRK CHERT PLAINS WOODLAND	TOURIST CENTRE	19930921
117	1	SAMPLE	SOIL PLAINS WOODLAND	TOURIST CENTRE	19930921
118	1	CALCANEUS CANIS LUPUS	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
119	1	OCHRE	HEMATITE PLAINS WOODLAND	TOURIST CENTRE	19930921
120	48	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
121	1	SAMPLE UNDETERMINED	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
122	2	UNIDENTIFIED MAMMALIA	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
123	28	SCALE FISH	SCALE PLAINS WOODLAND	TOURIST CENTRE	19930921
124	5	SNAIL GASTROPODA	SHELL PLAINS WOODLAND	TOURIST CENTRE	19930921
125	1	CHARCOAL QUERCUS	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921

SPECIMEN CATALOGUE RECORD

Site: DLLG-33:93F THE FORKS Area: RED RIVER

Client: TOURISM MANITOBA Acc. No.:

Cat. #	Qty	Object Name / Object Type	Material / Cultural Phase	Location / Unit	Coll. Date
126	1	HYPOHYAL FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
127	1	VERTEBRA FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
128	1	RIB FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
129	3	UNIDENTIFIED FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
130	71	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
131	1	OCHRE	HEMATITE PLAINS WOODLAND	TOURIST CENTRE	19930921
132	6	SCALE FISH	SCALE PLAINS WOODLAND	TOURIST CENTRE	19930921
133	7	VERTEBRA FISH	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
134	1	SAMPLE UNDETERMINED	BONE PLAINS WOODLAND	TOURIST CENTRE	19930921
135	4	CHARCOAL QUERCUS	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
136	1	CHARCOAL FRAXINUS	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
137	2	CHARCOAL POPULUS	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
138	2	CHARCOAL ANGIOSPERMAE	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
139	1	CHARCOAL ANGIOSPERMAE	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
140	1	CHARCOAL ANGIOSPERMAE	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
141	4	CHARCOAL ANGIOSPERMAE	CHARCOAL PLAINS WOODLAND	TOURIST CENTRE	19930921
142	4	SNAIL GASTROPODA	SHELL PLAINS WOODLAND	TOURIST CENTRE	19930921
143	11	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921
144	6	SNAIL GASTROPODA	SHELL PLAINS WOODLAND	TOURIST CENTRE	19930921
145	2	BODY SHERDLET BODY	EARTHENWARE PLAINS WOODLAND	TOURIST CENTRE	19930921