HERITAGE RESOURCES IMPACT ASSESSMENT

KIT RESOURCES NWT LTD.
GOOSE LAKE PROJECT

PERMIT 97-844

FEDIRCHUK McCULLOUGH & ASSOCIATES LTD.

FMA

HERITAGE RESOURCES CONSULTANTS

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Prepared For

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October 1997

FEDIRCHUK McCULLOUGH & ASSOCIATES LTD.
HERITAGE RESOURCES CONSULTANTS

October 10, 1997

Norecol Dames & Moore
1900, 650 West Georgia Street
Vancouver, British Columbia
V6B 4N7

Attention: Mr. Bruce Ott

Dear Mr. Ott:

I am pleased to submit to you this report entitled ***Heritage Resources Impact Assessment, Kit Resources NWT Ltd., Goose Lake Project***.

Should you have any questions, please do not hesitate to contact me.

Sincerely yours,

FEDIRCHUK McCULLOUGH & ASSOCIATES LTD.

Gloria J. Fedirchuk, Ph.D.

GJF/g

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Executive Summary

On behalf of Kit Resources NWT Ltd., an Heritage Resources Impact Assessment was conducted on the proposed Goose Lake Project. The study consisted of assessment of two proposed mine development locations, the existing camp, and two potential airstrip locations. In addition, an overview was completed on a segment of the proposed winter road between Goose Lake and approximately Latitude N 65º40' on the river system north of Beechey Lake.

No archaeological sites were identified during these studies. One site, (LkNi 1), reported by the helicopter pilot, was visited to record and document the site. Situated on the Western River, it is not associated with the proposed developments at either Goose Lake or the proposed winter road.

No further archaeological study relative to either the proposed mine development, airstrip locations or the winter road between Goose Lake and the river system north of Beechey Lake to approximately Latitude N 65º 40' is recommended.

Project Personnel

SENIOR ARCHAEOLOGISTS	:	G. J. Fedirchuk, Ph.D.
	:	W. J. Unfreed, M.A.
REPORT AUTHOR	:	G. J. Fedirchuk, Ph.D.

Table of Contents

List of Figures

List of Plates

INTRODUCTION

On behalf of Kit Resources NWT Ltd., Fedirchuk McCullough & Associates Ltd. conducted an impact assessment of archaeological and historical resources on proposed mine facility locations in the Goose Lake Project area consisting of two mine development areas, the existing camp, and two airstrip locations. The Goose Lake Project area lies adjacent to Goose Lake, located between the Ellice River and Beechey Lake, District of Mackenzie, Northwest Territories (Figure 1). In addition, an archaeological overview was also conducted of a segment of the proposed route for a winter road linking the Goose Lake Project area with the George Lake site (Figure 1).

OBJECTIVES

The goal of the Goose Lake study was to provide an archaeological and historical site inventory associated with potential facility locations and provide recommendations regarding mitigation of identified heritage resource sites relative to perceived impact from project development and operation. The specific objectives of the study were identified as the following:

1. inventory heritage resource sites within the proposed development zones,
2. evaluate the scientific significance of individual sites identified;

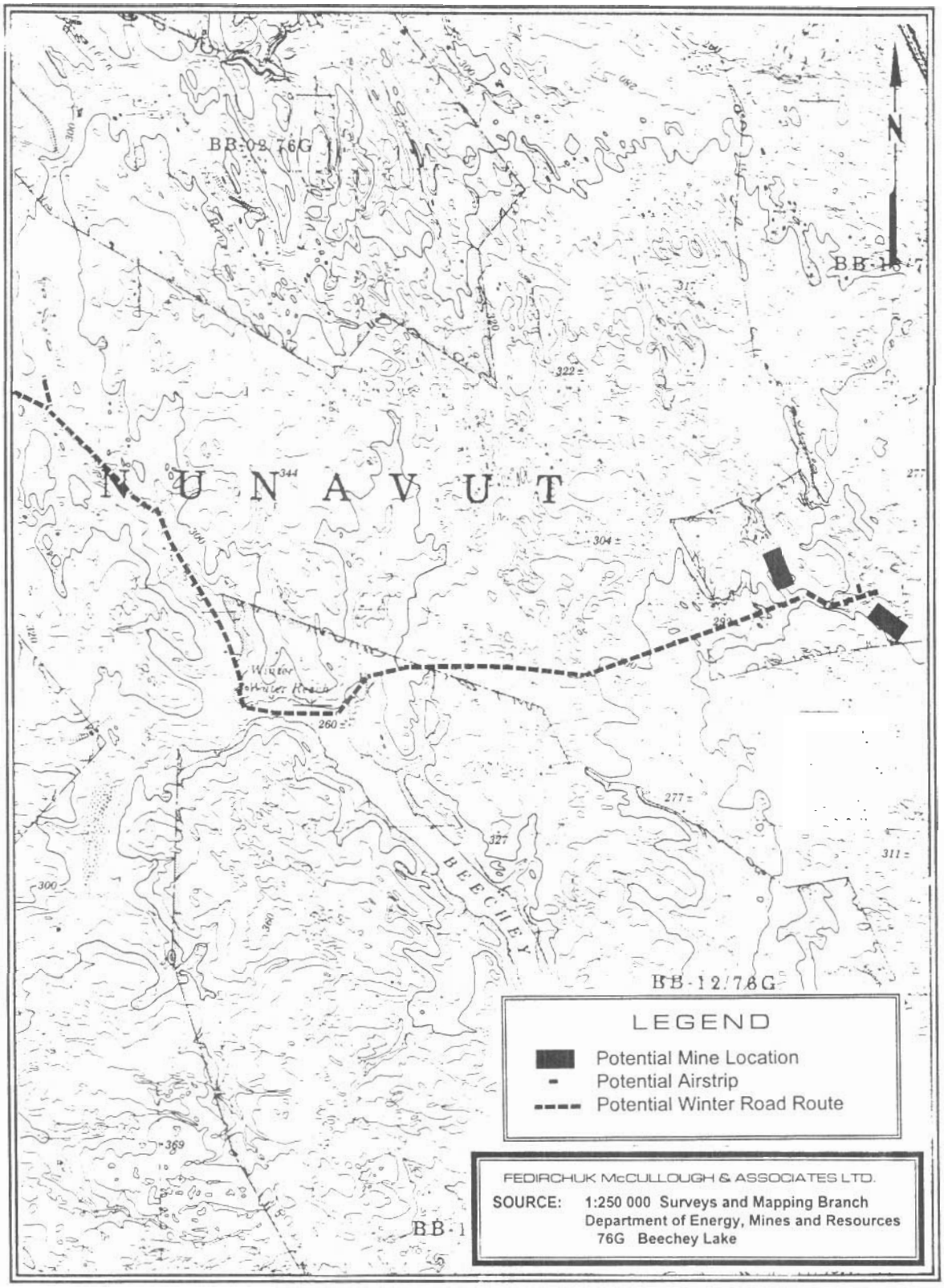

Figure 1 Location of Goose Lake Project components

3. forecast the nature and magnitude of site-specific impacts; and

4. recommend an acceptable site-specific mitigation program which would significantly eliminate adverse impacts to identified sites prior to construction.

The objective of the overview component of the study was to provide in field information on specific locations along the proposed winter road which were considered to be archaeologically sensitive and make recommendations regarding conservation of archaeological resources associated with these locales.

SCOPE OF WORK

The scope of work for Heritage Resources Impact Assessments undertaken by Fedirchuk McCullough & Associates Ltd. consists of the following components:

1. **Record Review** - to identify previously recorded sites which could be affected by the proposed development project and to determine the nature of the data base in the area.

2. **Ground Reconnaissance** - to relocate, in the field, heritage resource sites which may have been previously recorded and to discover sites which have not yet been documented. Site discovery to be based primarily on surficial inspection of the proposed development areas.

3. **Site Evaluation** - to evaluate the nature of the existing resource data base, the quantity and quality of observable remains (e.g. site condition, content, uniqueness, and complexity), and the potential of the site to contribute to public enjoyment and education. Sites are evaluated by inspection of fortuitous exposures or by a standard shovel testing program.

4. **Site Assessment** - to delineate the magnitude of forecasted impacts to the identified heritage resource sites and to recommend site-specific mitigative measures commensurate with the assigned value of the site.

ENVIRONMENTAL SETTING

INTRODUCTION

The economic strategy as well as many aspects of material culture of precontact populations were intimately related to the opportunities and constraints provided by the regional environment which they inhabited. In many respects, it also strongly influenced where certain activities were conducted and consequently where archaeological sites, testimony to precontact use and occupation, are located. Although the distribution of previously recorded precontact sites within the Canadian Shield region includes a wide variety of land forms, habitation sites are frequently associated with lake shores, river and creek margins, and elevated features such as eskers. Outcrops of lithic material suitable for tool manufacture are commonly associated with quarries. These distribution patterns partially reflect environmental opportunities presented to human populations but also cultural preferences in site locations. Terrain influenced many forms of human activity, directing travel, biasing routes of communication, enhancing or restricting resource procurement and restricting occupation areas to selected localities. As a result, human populations were not uniformly distributed across the landscape, but were non-randomly clustered within the most suitable habitats. Because of the close relationship which precontact occupants had with the environment, a brief description of the regional and local environments is provided.

REGIONAL ENVIRONMENT

Contained within the Bear-Slave Upland of the Canadian Shield (Dyke and Dredge 1989) (Figure 2), the study area lies well beyond the northern limit of coniferous trees. In the general study area, extensive tracts of lowlying undulating plain (Plate 1) are broken by bedrock controlled hills of PreCambrian age which occur as rugged, boulder strewn, hills (Plate 2), low, massive, bedrock hills (Plate 3), and subdued, vegetation covered, hills (Plate 4). Lakes are common (Plate 5). Continuous boulder flows (Plate 6) are relatively common whereas kames are rare (Plate 7). Varying amounts of shrub growth, primarily birch, occupies much of the lower areas in the exposed shield and is present where Quaternary deposits have become concentrated and moisture levels permit (Plate 8).

LOCAL ENVIRONMENT

The most obvious physical features in the mine area at Goose Lake are represented by Goose Lake (Plates 9, 10), undulating plains, vegetation covered hills to the south (Plate 4), small unnamed lakes, as well as bedrock exposures (Plate 11). The potential mine areas consist of a long low hill and associated swale (Plate 12) south of Goose Lake and an area of undulating topography (Plate 13) associated with several small unnamed lakes (Plates 14, 15) which lie west and north of Goose Lake. The west end of Goose Lake is characterized by rugged exposed bedrock (Plate 16) and massive boulder flows (Plate 6). A bedrock knoll provides the setting for the camp (Plate 17). The existing airstrip corresponds to a kame deposit across the neck of Goose Lake north of the camp (Plate 18) whereas the alternate airstrip location represents an extension of the proposed mine development directly south of the camp (Plates 4, 11). This alternate airstrip would potentially be located at the extreme northern end of the low hill south of the camp.

The proposed route of the winter road crosses overland from the Goose Lake location to Winter Water Reach of Beechey Lake (Plate 19) and continues northwest through a series of lakes along the river (Plate 20) system toward the lenticular, unnamed lake (Plate 21), east of Tikiraq Lake.

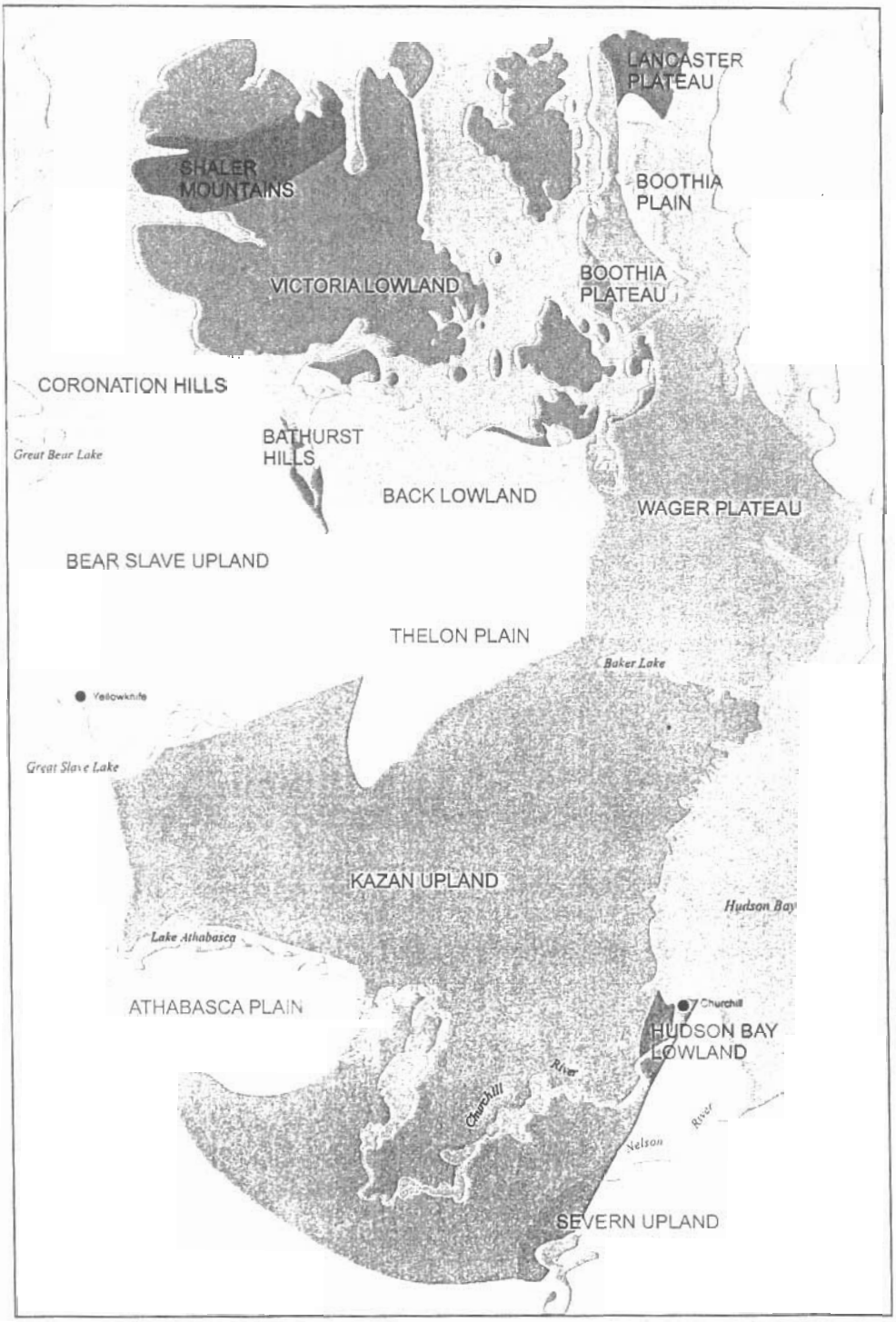

Figure 2 Major physiographic units of the northwestern Shield (Bostock 1970)

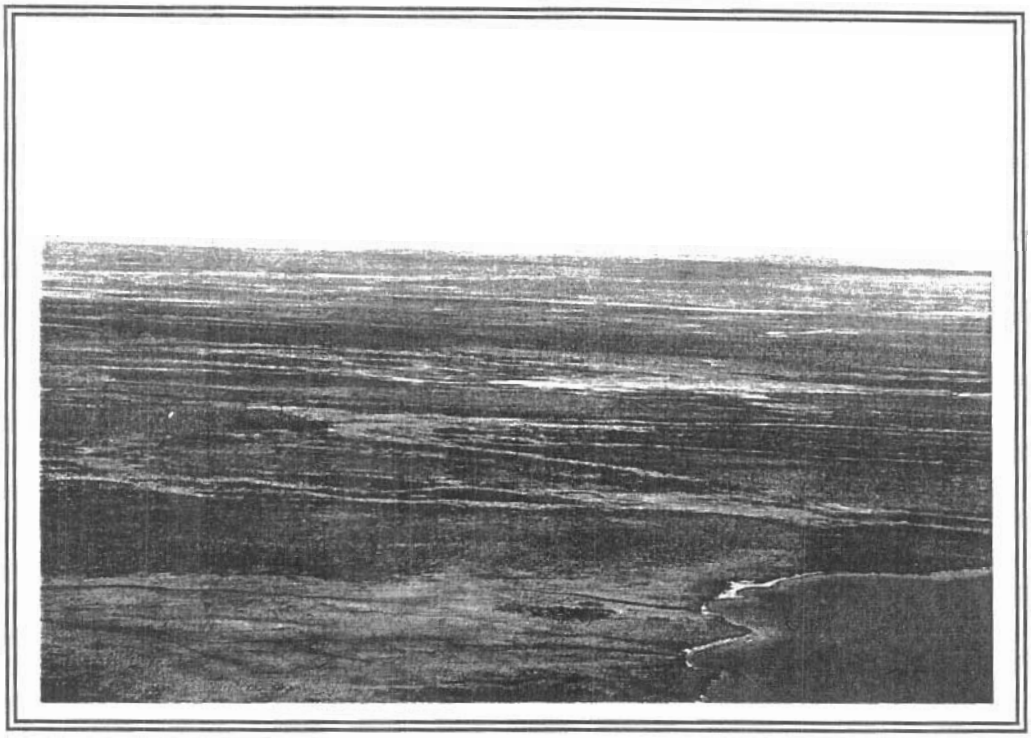

Plate 1 Generally undulating tundra northwest of Goose Lake project area.

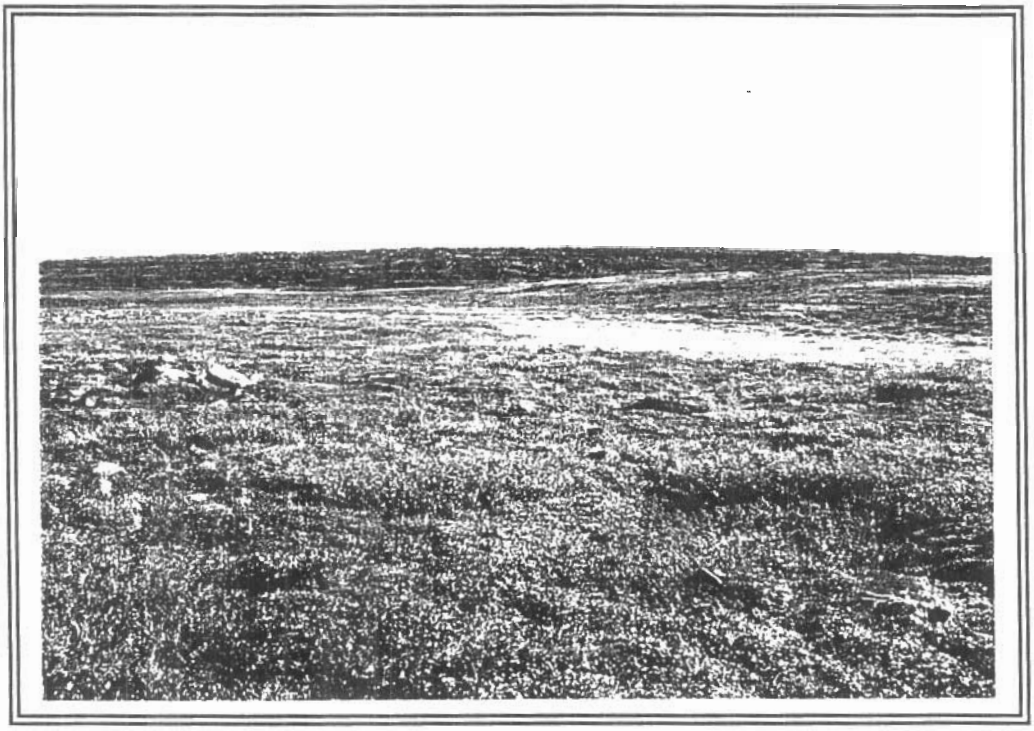

Plate 2 Boulder strewn, bedrock controlled, ridge on north end of Beechey Lake. General view west.

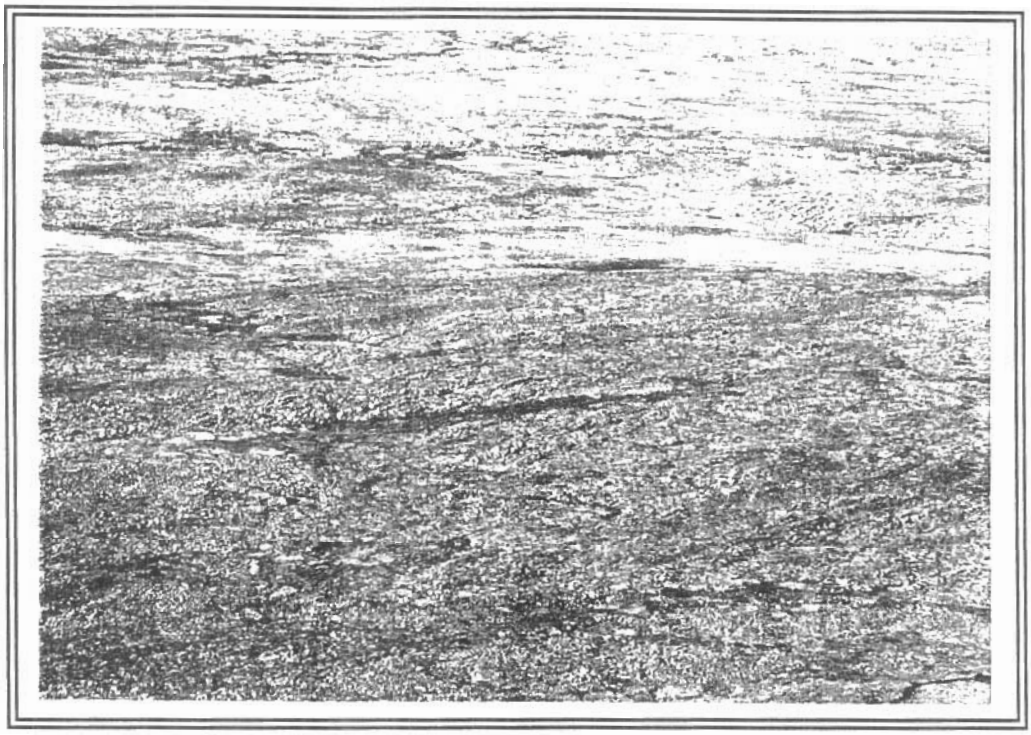

Plate 3 Massive bedrock exposures in the Beechey Lake area.

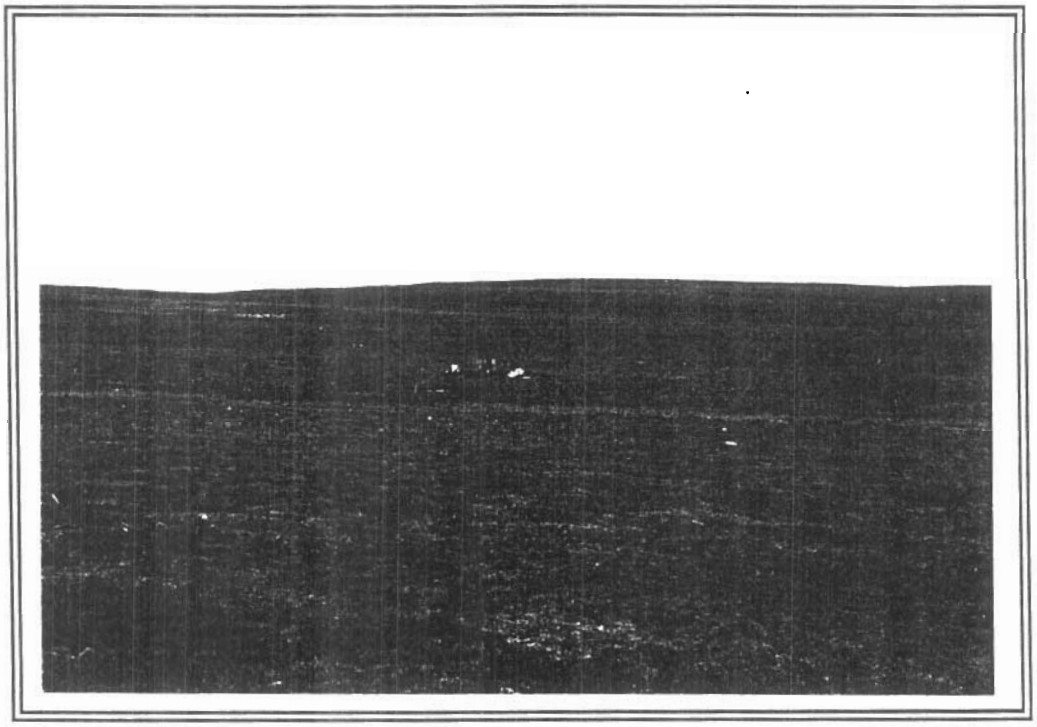

Plate 4 Vegetation covered bedrock controlled ridge south of Goose Lake. General view southwest.

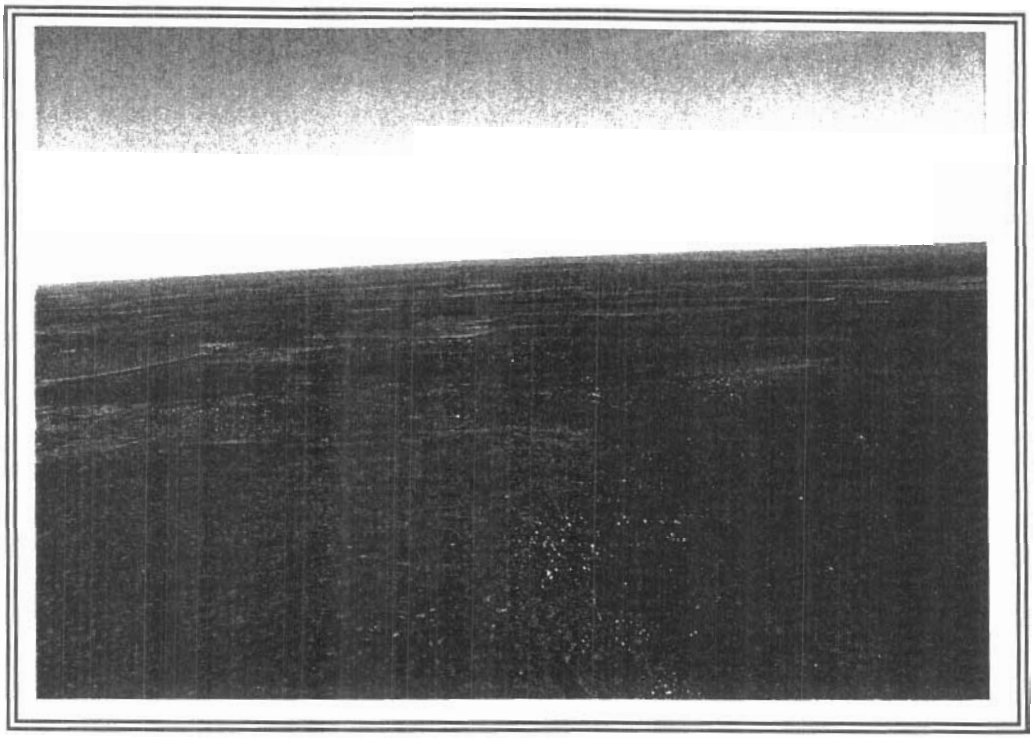

Plate 5 Numerous unnamed lakes in the general project area. General view north.

Plate 6 Massive boulder flow draining into the west end of Goose Lake. General view east.

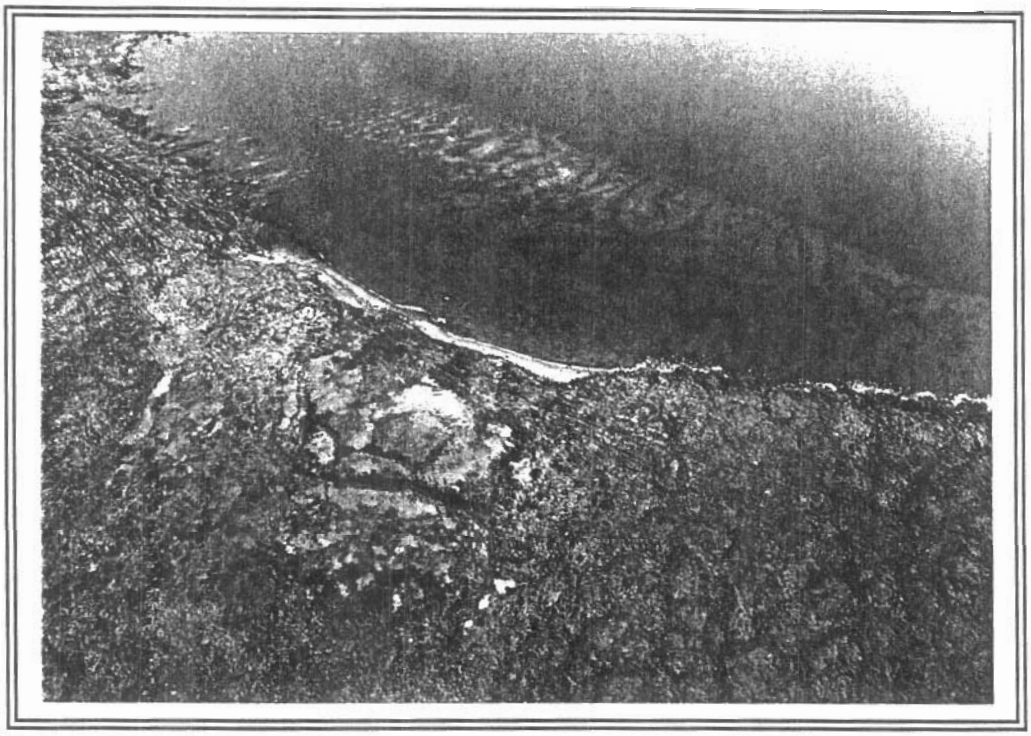

Plate 7 Typical small kame along lake shore in project area.

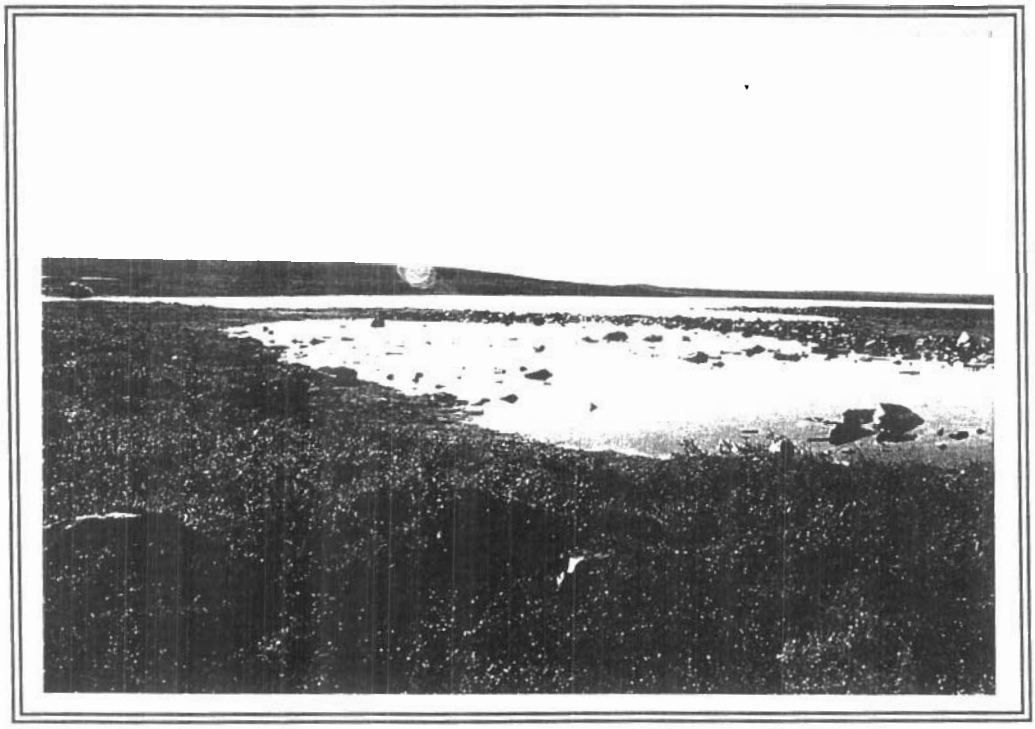

Plate 8 Dense shrub (birch) growth along north end of Beechey Lake General view south.

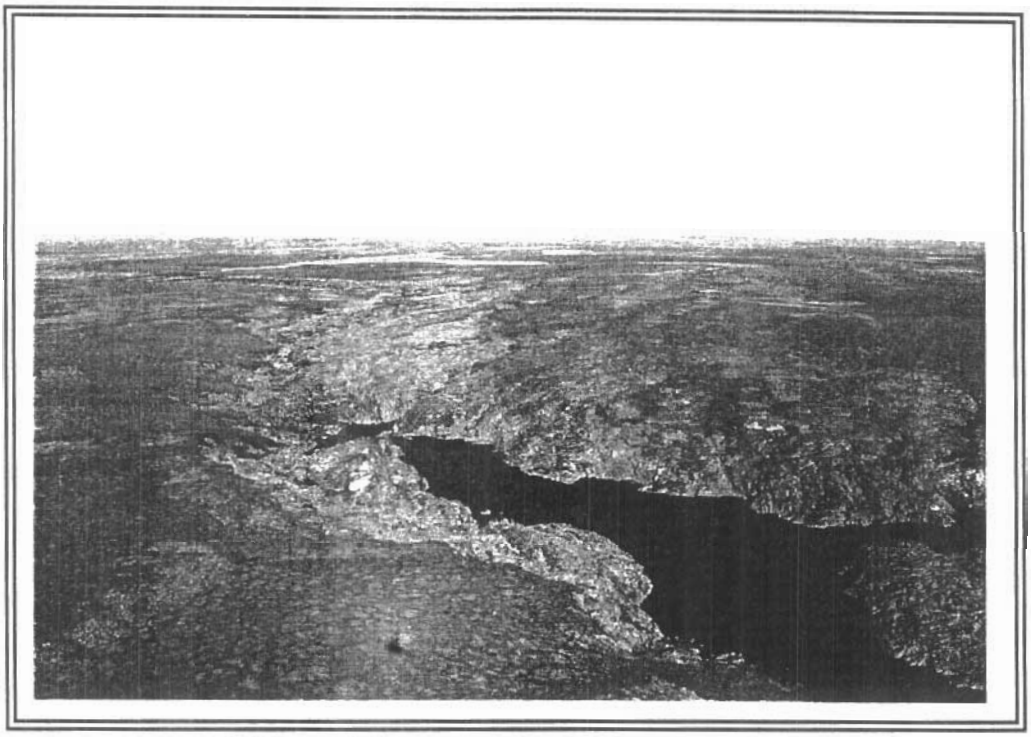

Plate 9 Western inlet of Goose Lake. Proposed mine development area at left extending to two larger lakes in background.

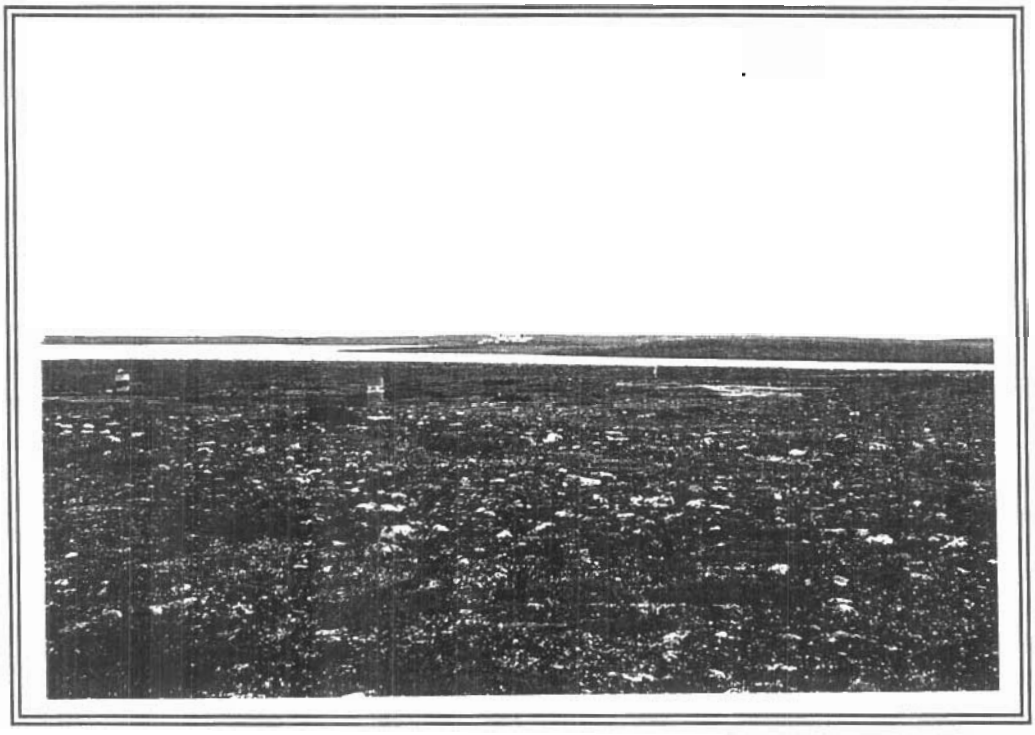

Plate 10 General view southeast of Goose Lake across neck toward camp. Proposed mine development area and airstrip on low hill in background at right.

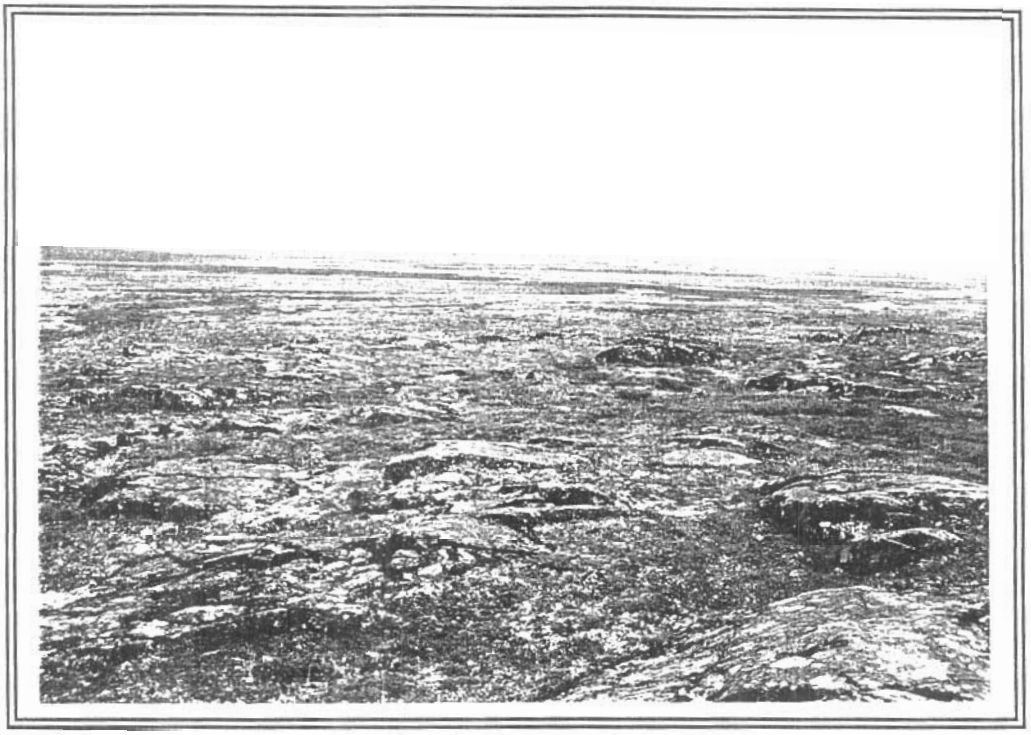

Plate 11 Bedrock exposures at eastern end of knoll on which Goose Lake camp is situated. General view southeast.

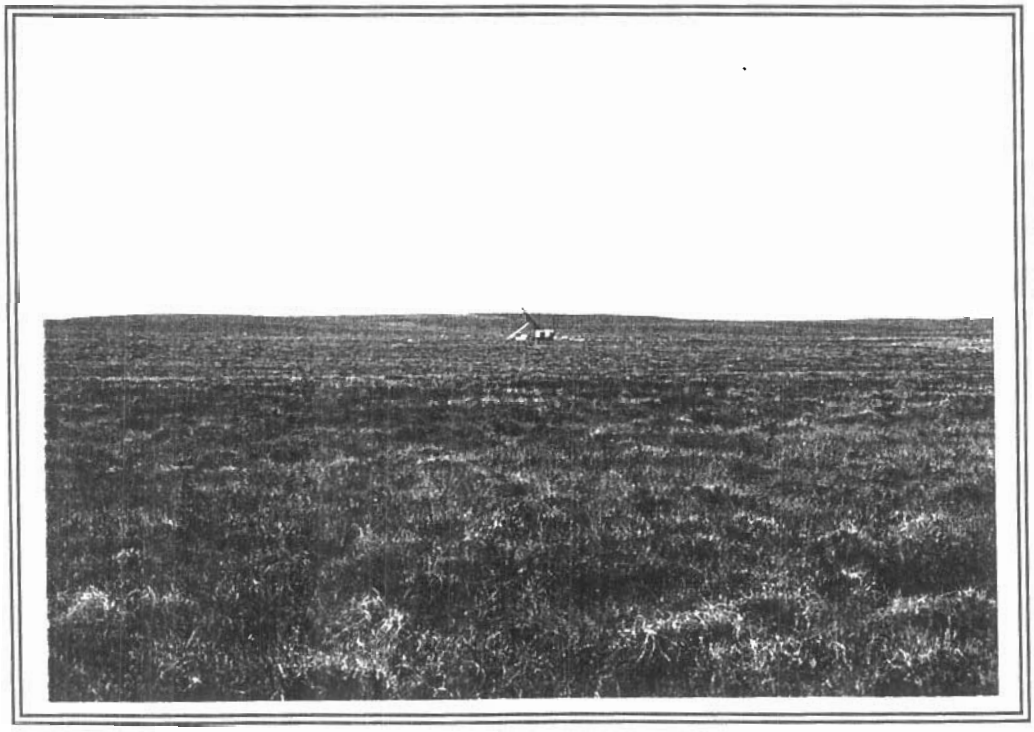

Plate 12 Low ridge and adjacent swale comprising proposed mine development area south of Goose Lake. General view south.

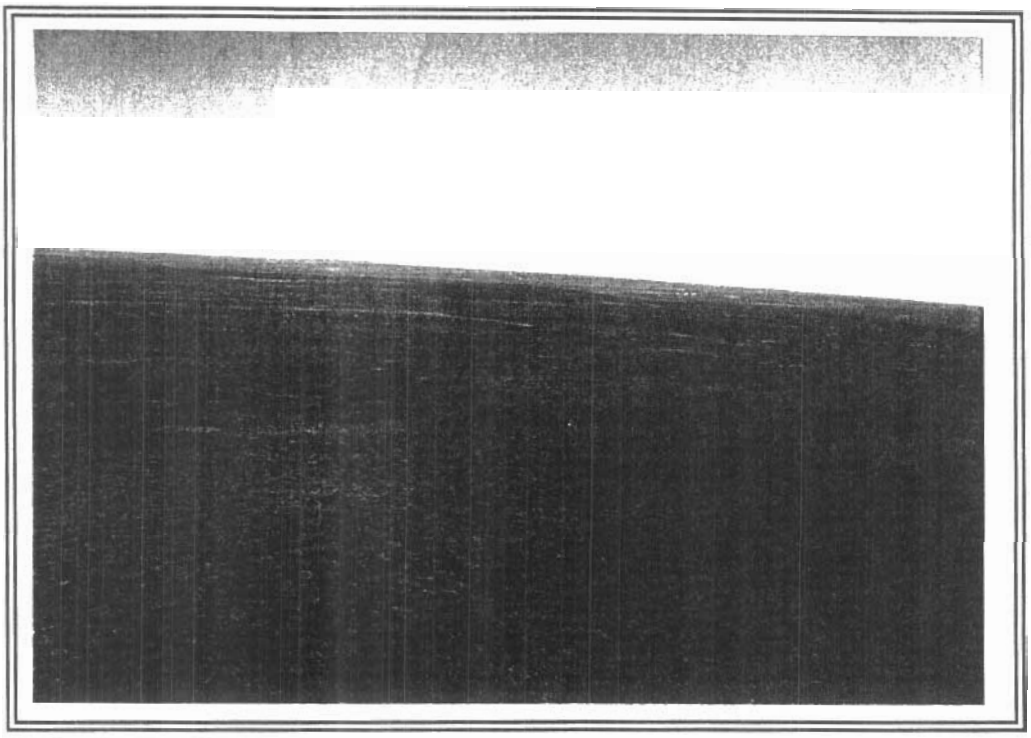

Plate 13 Undulating topography in proposed mine development area northwest of Goose Lake. General view southeast.

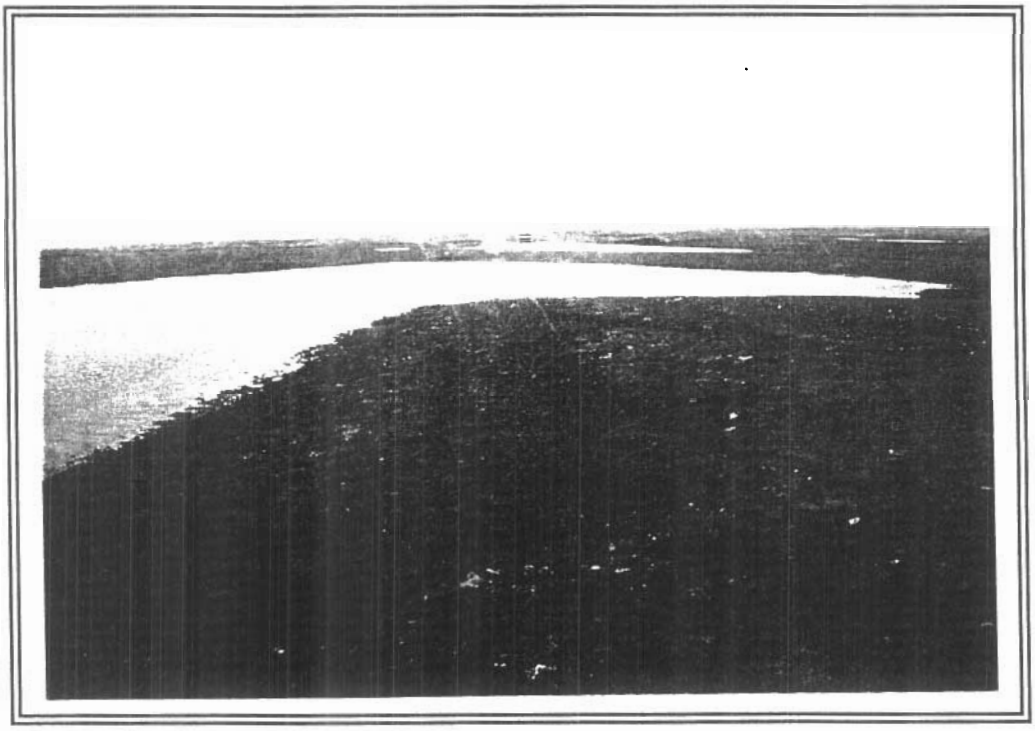

Plate 14 Bedrock controlled ridge west of northernmost unnamed lake in proposed mine area northwest of Goose Lake. General view southeast.

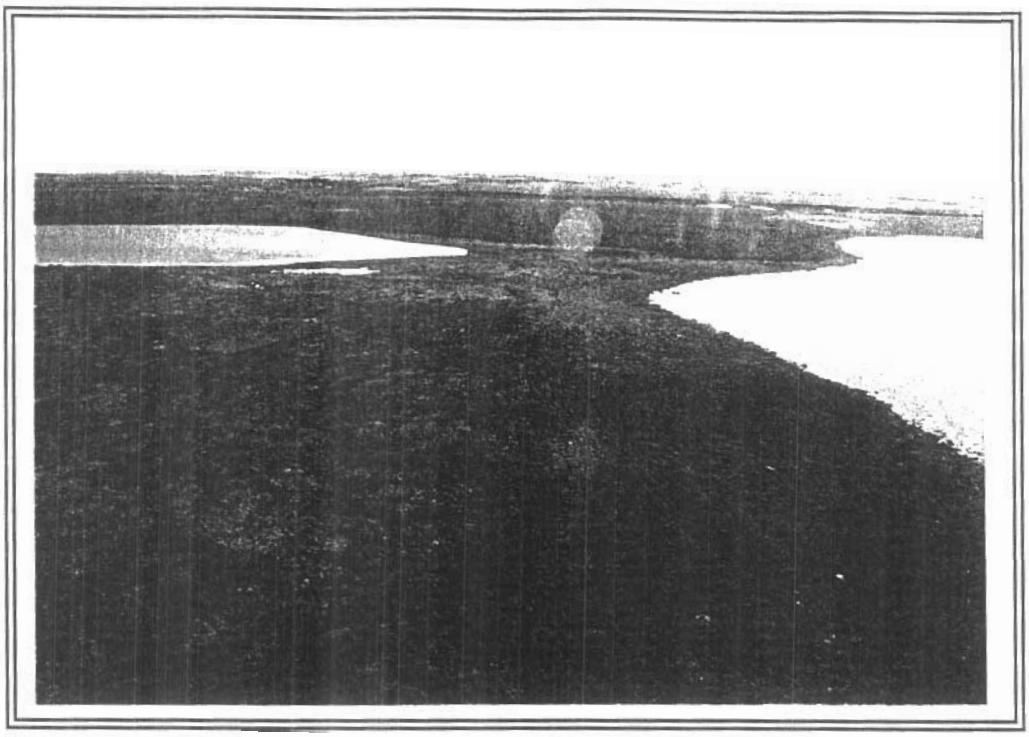

Plate 15 High ground north of constriction between southernmost two unnamed lakes in proposed mine development area northwest of Goose Lake. General view southeast.

Plate 16 Rugged exposed bedrock in proposed mine development area west of Goose Lake. General view southeast.

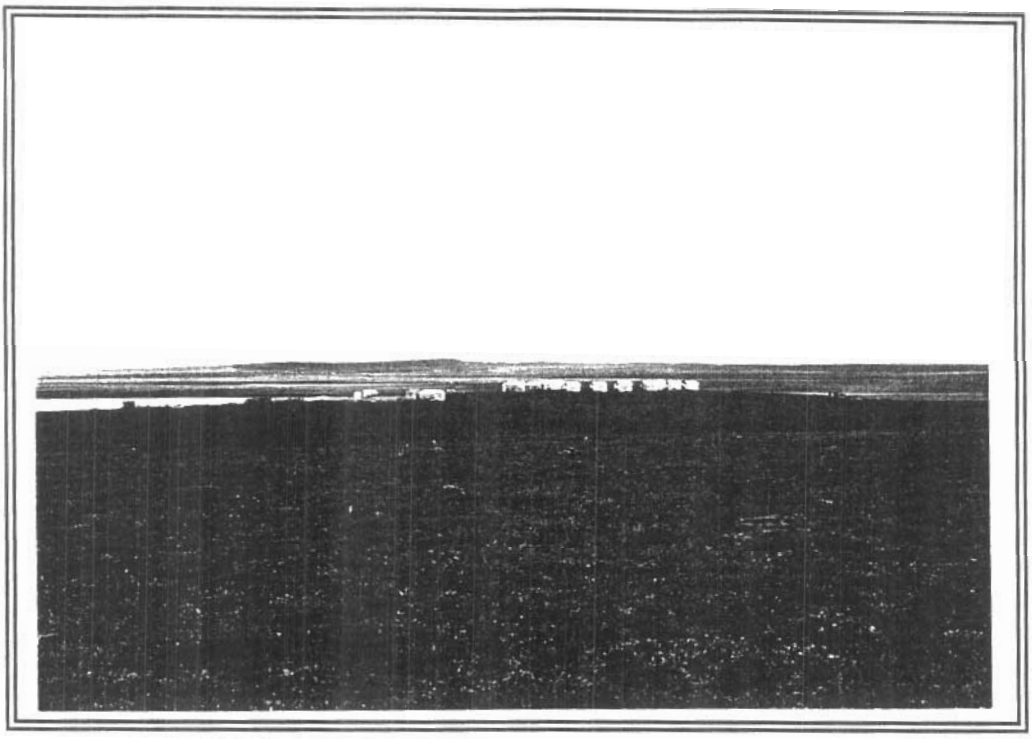

Plate 17 Goose Lake camp on bedrock knoll south of Goose Lake. General view northeast.

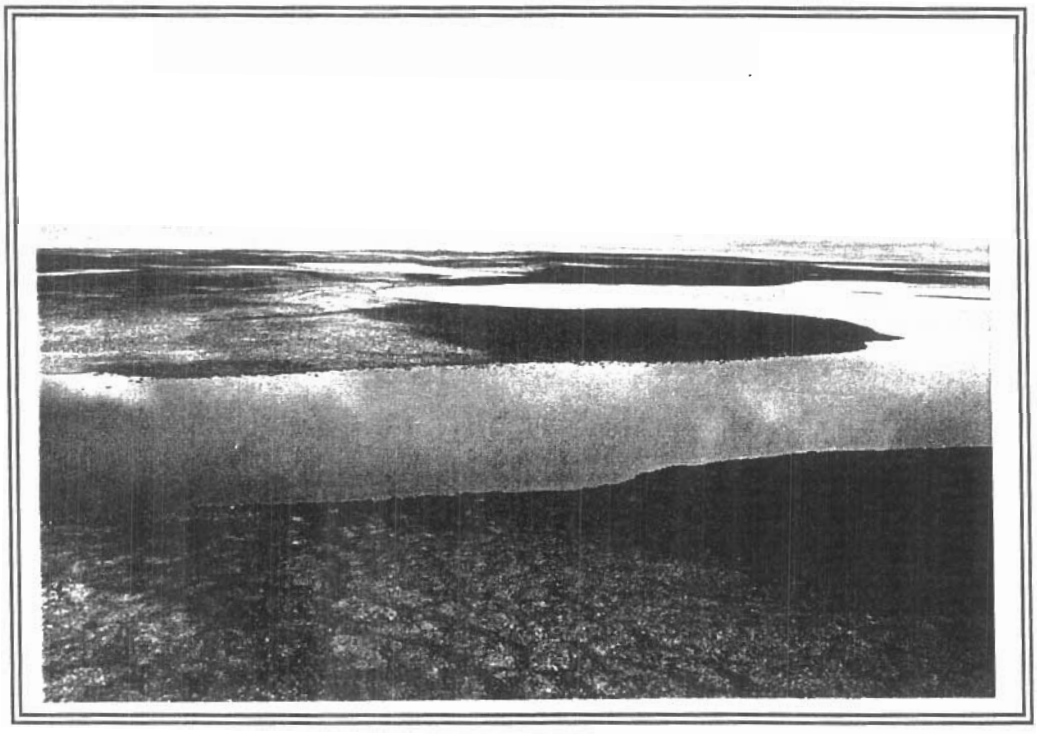

Plate 18 Proposed airstrip on kame across neck of Goose Lake. General view north.

Plate 19 Winter Water Reach, Beechey Lake. General view west.

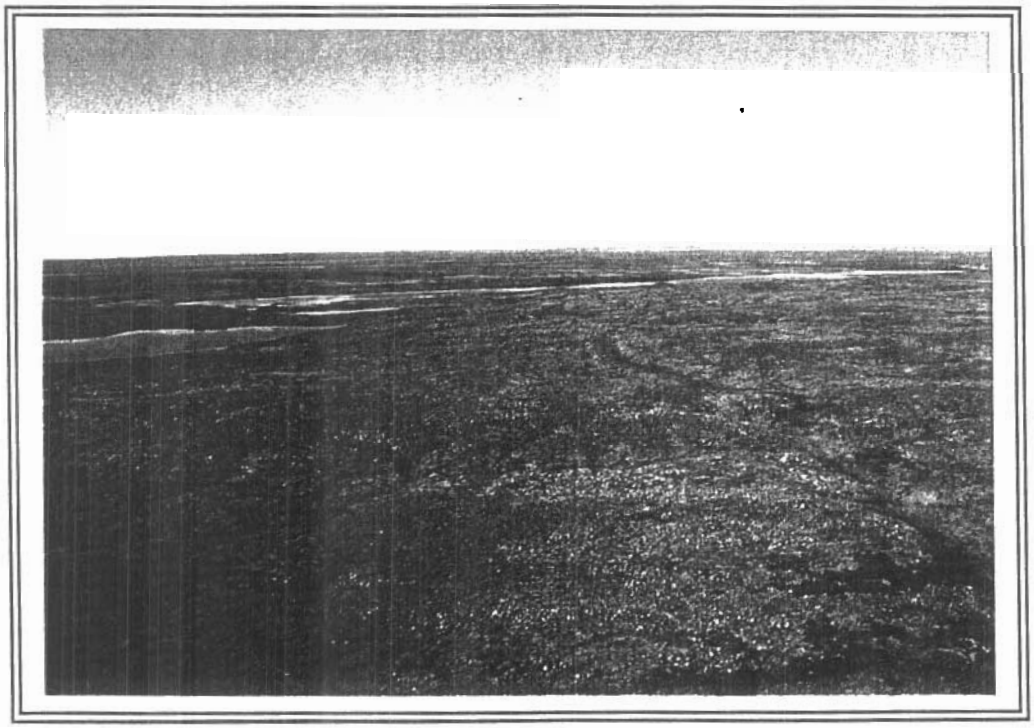

Plate 20 Series of lakes, north of Beechey Lake, through which proposed winter road will pass. General view north.

Plate 21 Second lenticular lake north of Beechey Lake through which the proposed winter road will pass. General view north.

HERITAGE RESOURCE BACKGROUND

DEFINITION

Precontact, historic, and palaeontological sites are defined as heritage resources. Precontact sites are comprised of artifacts, features, and residues of native origin. They predate the arrival of Europeans and are typically characterized by modified bone and stone, and stone structures. Historic sites are characterized by post-contact structures, features, and objects. Buildings and building remains represent the most prominent type of historic sites. Palaeontological sites are areas where fossils of animals or plants have been preserved. Palaeontological sites include only those sites which contain fossils of multicellular invertebrates, vertebrates, and plants.

POTENTIAL ADVERSE IMPACTS

Precontact, historic, and palaeontological sites occur on the surface and beneath recent sedimentation and may be altered, damaged or destroyed by development projects which modify the landscape. The predicted impact on heritage resource sites may be primary or secondary. Primary impacts are predictable, planned disturbance factors necessitated by the objectives of the project. Secondary impacts occur during the operational phase of the facility

but may also occur during construction as a result of project expansion and minor modifications to project design.

MITIGATIVE OPTIONS

Adverse primary impacts to heritage resource sites identified prior to the construction stage of development can be significantly reduced or eliminated by avoidance or adequate study. Site avoidance can be achieved by relocation of the proposed facilities or by restriction of the construction zones. Adequate study generally involves scientific investigations which are designed to systematically explore and reconstruct the activities which were carried out at the site. These investigations usually involve excavation of buried sites, systematic controlled collection of surface sites, detailed mapping, and photographic documentation. In some instances, however, photographic documentation, recording, and if necessary, the collection of specimens are deemed to be sufficient mitigative measures. Adverse secondary impacts which may occur during the construction phase can usually be effectively managed by close liaison between project planners and construction personnel.

REGIONAL OVERVIEW

ARCHAEOLOGICAL RESOURCES

Early intensive archaeological field study in the interior Canadian Shield focussed on the central barren lands and is largely restricted to the work of Noble (1971) with some areally defined surveys by Gordon (1975) and Metcalf (1979). More recently, intensive impact assessment studies of defined project areas have been completed in the interior shield, for example see Bussey (1994, 1995, 1997), Fedirchuk (1995, 1996a, 1996b), Kroker (1996), and Unfreed (1997). Regional syntheses have been provided by Gordon (1976), Noble (1977), and Wright (1981). A summary of the chronological framework is presented below.

In the interior, the earliest archaeological materials that occur in the general region are collectively referred to as the Northern Plano Tradition. These remains are recognized on the basis of the presence of lenticular Agate Basin and Acasta notched projectile points. Sites of this time period are widely scattered in the barren grounds. In the southern Keewatin District sites of this time period are associated with major caribou crossings or fisheries (Harp 1961). Westward, eskers figure prominently in site association (Noble 1981: 97). The similarity in style to projectile points found further south has prompted the suggestion that people of the northwestern plains seasonally exploited the barrens (Wright 1981: 87). Although the basic economic lifestyle did not change in the succeeding Shield Archaic Period between approximately 4,000 and perhaps 1,000 B.C., lanceolate projectile points continue to serve as horizon markers during this period. Sites of the Shield Archaic occur northward along the Kazan-Dubawnt-Thelon river system. The Shield Archaic is replaced by the Arctic Small Tool Tradition, attributable to *Palaeo-Eskimo* peoples.

Some time after approximately 3,500 B.C., Palaeo-Eskimo populations began to take up occupation along the coast of the central Arctic stretching eastward to Greenland. Identifiable on the basis of specialized microlithic and diagnostic standard size tools as well as a variety of bone, antler and ivory materials, these early occupations are assigned to either Pre-Dorset/Independence I (2200-800 B.C.), a transitional phase, or Dorset (500 B.C. – A.D. 1450) temporal affiliations (Maxwell 1984). Early, Palaeo-Eskimo, sites occur at Dismal Lake (Harp 1958) and Bloody Falls (McGhee 1970). Both sea mammal and terrestrial ungulates (primarily caribou) were exploited; undoubtedly fish and fowl were also included in the subsistence pattern. The succeeding Dorset sites in the eastern and High Arctic suggest an increasing emphasis on sea mammals for winter subsistence and perhaps an increasing use of caribou in summer at inland lakes and of fishing weirs. The final archaeological phase is termed Thule and represented by the 'typical Eskimo' sites in the arctic (McGhee 1984). Thought to have developed in northern Alaska, it rapidly spread eastward to Greenland after approximately A.D. 1000. Characteristic of Thule culture was a dependence on whale hunting,

supplemented by seal, fish, caribou and foul, and winter villages consisting of several semisubterranean houses as well as the appropriate hunting and survival tools and material goods.

HISTORIC INHABITANTS

The project area falls within the traditional territory of the Copper Eskimo (Damas 1984) stretching from approximately Perry River on the east to Wise Point south to the east end of Great Bear Lake on the west and south to the approximate latitude of Contwoyto Lake. Historic documentation of Copper Eskimo use of Beechey Lake in the project area is provided by Rasumussen (1932). The seasonal round of the Copper Eskimo consisted of wintering in the igloo winter villages on the coast and moving inland to hunt caribou, fish, and catch fowl from May to November. Although the winter range focused on sea mammals along the ocean edge, summer economic exploits concentrated on the interior tundra where caribou hunting, fowling, and fishing were carried out. With the onset of summer (May), the Copper Eskimo departed from their winter snow houses on the sea ice. As they moved into the interior in spring and early summer, ice fishing was a notable subsistence activity. Waterfowl also provided a dietary supplement in summer. Caribou hunting did not become a major pursuit until August when they were fattest and the skins were prime. A short period of intensive fishing for arctic char also occurred in fall. In December, the groups returned to the coast to rebuild the winter villages which were strategically located for hunting seals at breathing holes.

Availability of seasonal resources was largely responsible for the nature and size of the communal groups. During winter, sealing villages comprised of population congregations were characteristic whereas during the summer months, the bands dispersed into smaller hunting units to more easily take advantage of scattered food resources.

The Copper Eskimo depended on communal drives for taking large herds of caribou. At major crossings during migration, the caribou were speared from kayaks. Fishing was also conducted communally, by weirs and spear in late summer. In winter, individual ice fishing was practised. Waterfowl were taken by bow and arrow.

The material culture of the Copper Eskimo was comprised of a variety of available materials. A number of elements were used in the manufacture of tools, hunting equipment, items of transport, shelter, and clothing. Wood, bone, antler, sealskin, whalebone, copper, and stone as well as caribou hide were used. Caribou hide was predominantly used for the construction of tents and the manufacture of clothing.

EXPLORATION

The first well documented European to enter the study area was Samuel Hearne. He left Churchill in 1770 with his guide, Matonabbee, and a party of Chipewyan. His objectives were to improve trading relations established by Matonabbee ten years earlier, to initiate trade with native peoples not previously contacted, to explore for a northwest passage, and to evaluate reports of northern mineral wealth. He encountered the Yellowknives in the area of Contwoyto Lake in late June of the following year (Hearne 1911). Moving northwest, Matonabbee and his Yellowknife guides eventually met with the Eskimo at Bloody Falls on the 17th of July. In the succeeding 20 years, fur traders penetrated far into the northwest. Their establishments then served as convenient points of departure for other explorers.

Between 1848 and 1849, John Richardson and John Rae also explored the region between the Mackenzie River and the Coppermine River in search of John Franklin who had disappeared in the central Arctic. Subsequent to these searching expeditions, a number of individuals also traversed the region. However, their objectives concerned scientific inquiry and religious proselytism rather than sole exploration of the region.

METHODOLOGY

PREFIELD ACTIVITIES

The prefield activities consisted of a search of the site survey records maintained by the Archaeological Survey of Canada in Ottawa, a review of relevant literature, and preparation of a permit application. The permit application included provision for Inuit individuals to participate in the field study and address traditional land use practises in the general region.

GROUND RECONNAISSANCE

An intensive ground reconnaissance was undertaken of each of the following identified locations: two potential mine development areas, two potential airstrip locations, and the existing camp (Figure 3). Survey of proposed mine areas focussed on well drained topography in proximity to lakes; interior undifferentiated terrain received less attention. Low lying and poorly drained interior areas were eliminated from the field inspection. The kame on which the existing airstrip is located was examined in its entirety; the alternate potential airstrip is located contiguous to the mine and was also examined. Existing ground exposures in the camp area and adjacent bedrock exposures were examined for cultural material. A short section of lakeshore adjacent to the camp was also examined for evidence of past human use (Plate 22).

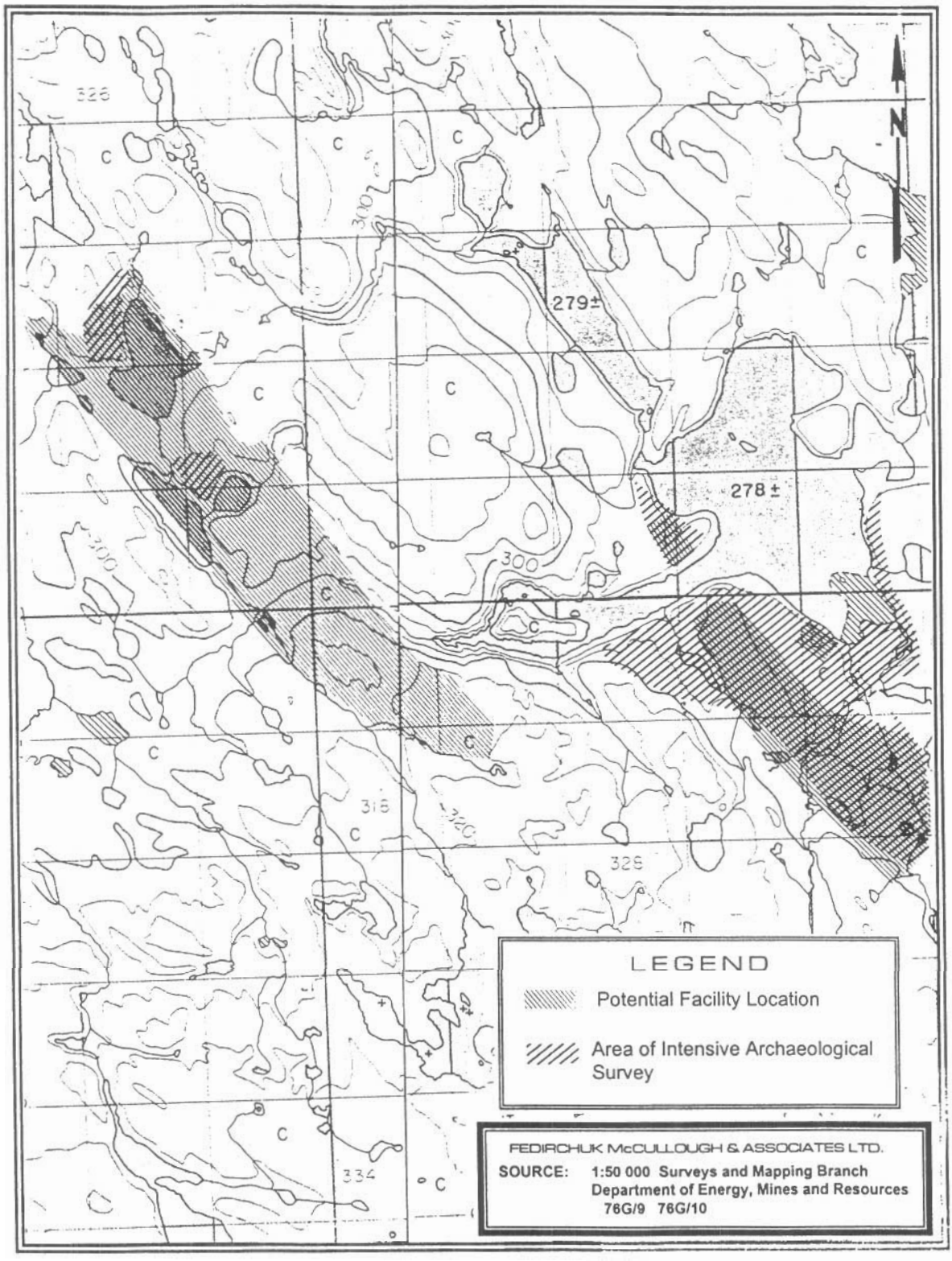

Figure 3 Proposed development areas and nature of field reconnaissance

Plate 22 Section of lake shore, between pier at right and extreme left side of photograph, examined during field reconnaissance. General view east.

Archaeological inspection of the proposed winter road between the Goose Lake camp and approximately North Latitude 65° 40' consisted primarily of an overview. At the time of the field overview, the area north of this latitude was not subjected to an overview because a definite route had not been selected. Based on examination of 1:50,000 NTS maps, the proposed route of the winter road, and the anticipated impact from use of the winter road, three localities representing the areas of greater sensitivity for archaeological sites were selected for ground inspection during the overflight of the proposed winter road (Figure 4). These localities consisted of the inlet at the east end of Winter Water Reach (Plate 23), the western narrows at Winter Water Reach (Plate 24), and an area of rapids on the north end of the lenticular body of water north of Winter Water Reach (Plate 25). These areas were considered to have high probability for site occurrence. Sites in these areas could potentially be impacted during use of the winter road because of their proximity to shallows and/or rapids.

The route was flown by helicopter and the identified areas selected for on the ground examination were visited. In field inspection of these locales consisted of foot traverse and intensive surficial examination of the low lying flood plain adjacent to the lake/stream as well as more cursory examination of the adjacent upland. The remainder of the route north to approximately North Latitude 65° 40' was inspected through a helicopter overflight with the objective of identifying areas of archaeological potential which would require ground truthing should impact be anticipated.

A site reported by the helicopter pilot was also visited and documented at the conclusion of the field study.

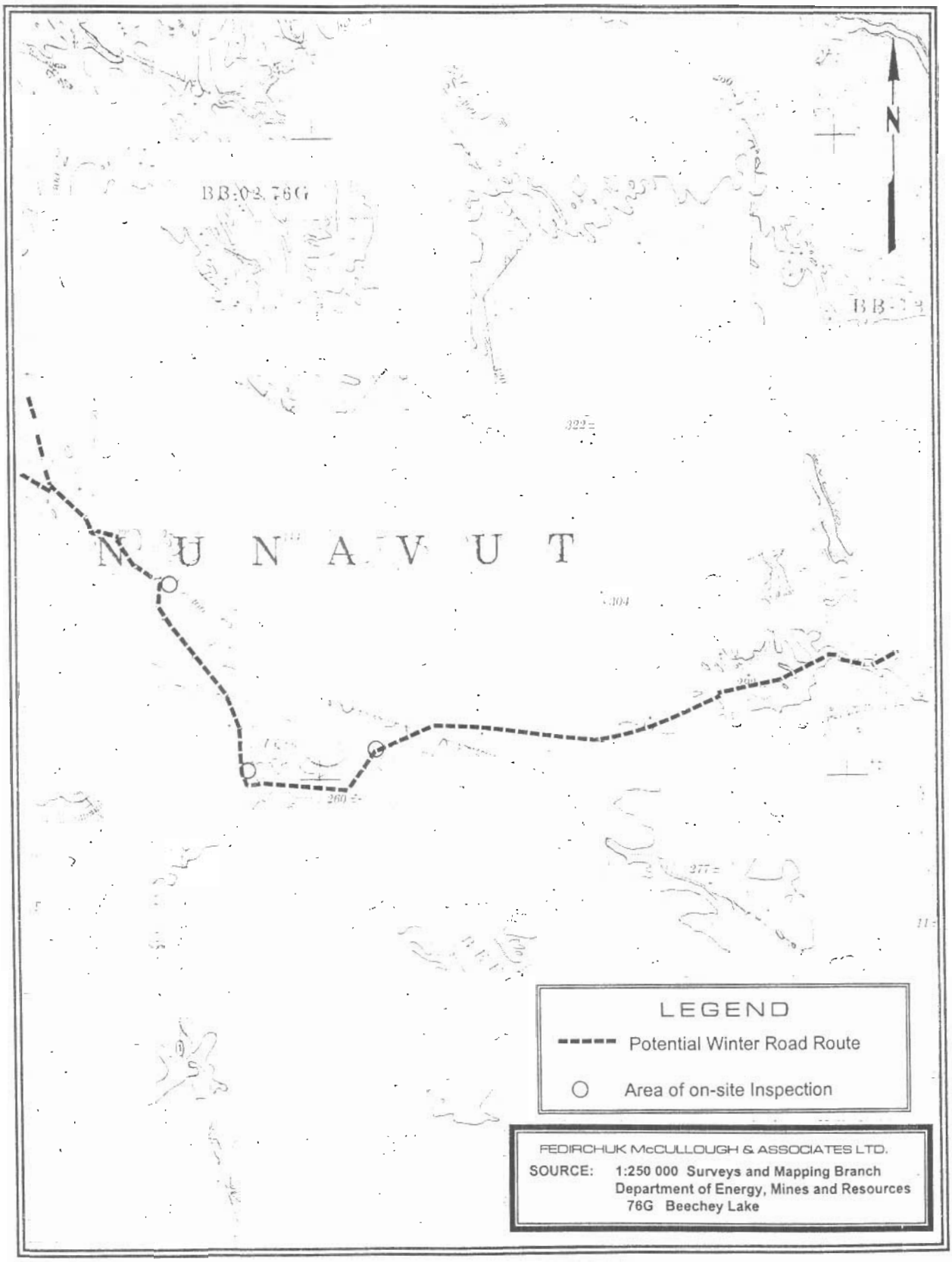

Figure 4 Location of proposed winter road and nature of overview conducted

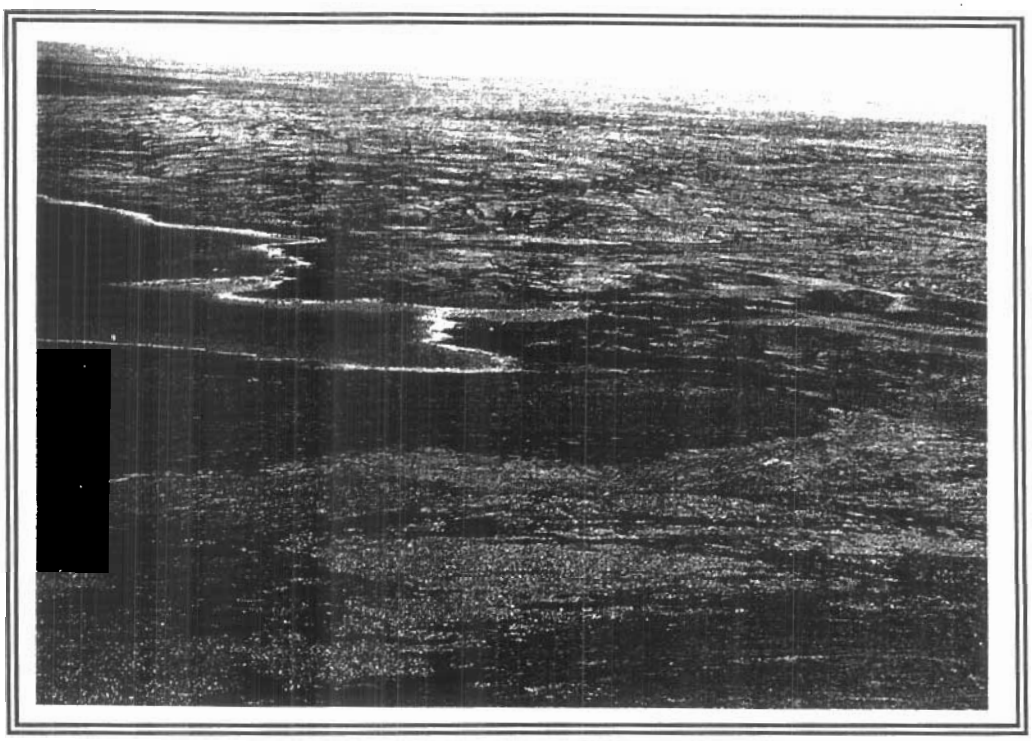

Plate 23 General view west of eastern end of Winter Water Reach where proposed winter road will enter Beechey Lake.

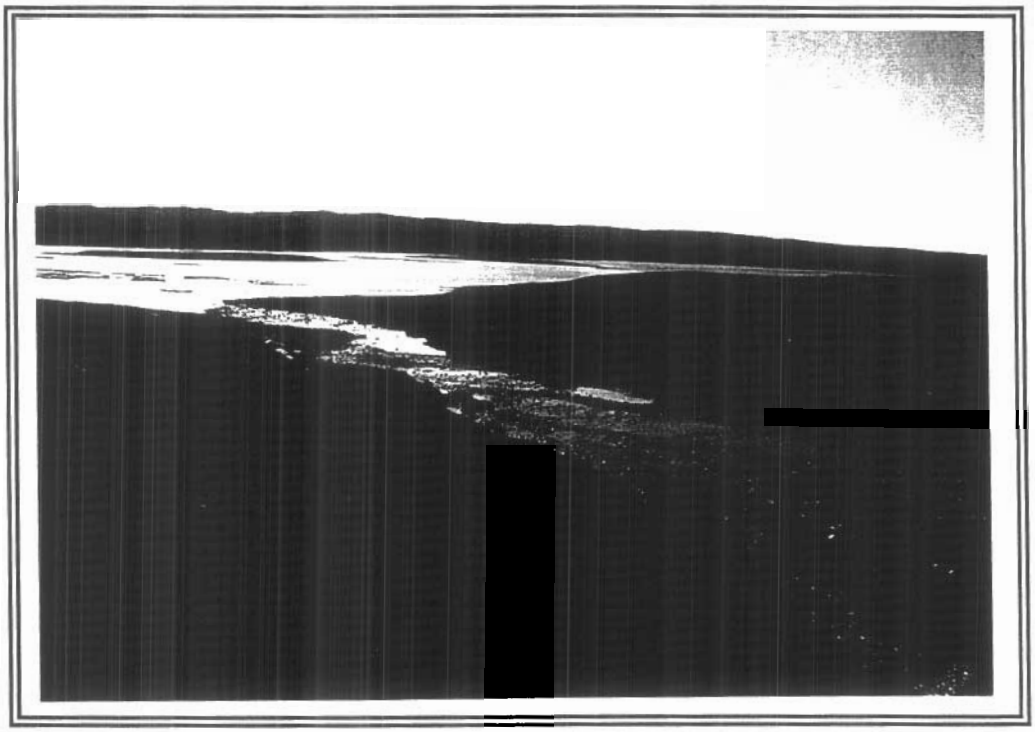

Plate 24 General view south of narrows at west end of Winter Water Reach, Beechey Lake.

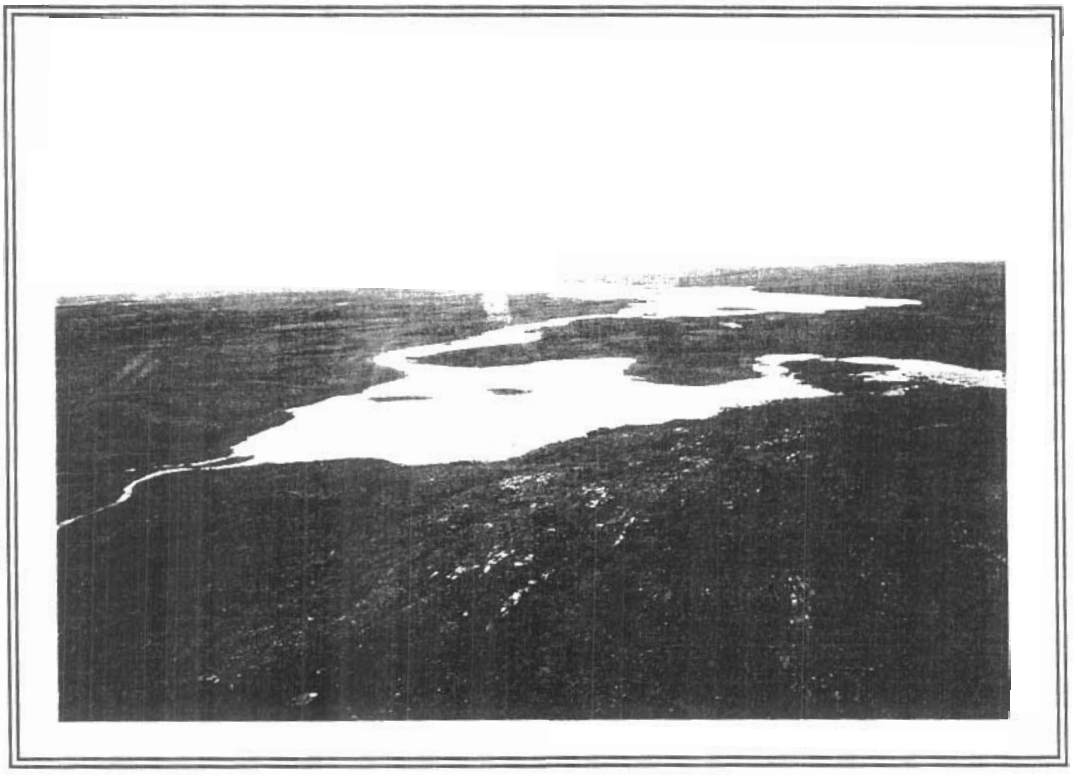

Plate 25 Rapids at north end of lenticular lake north of Winter Water Reach. General view south.

SITE DESIGNATION

The sites identified are referred to by a Borden Number which consists of a four letter symbol accompanied by a number (i.e. LdNs 11). This uniform site designation scheme for archaeological sites in Canada was developed by geographer Charles Borden (1954) (Figure 5). Within this system, north of latitude 62°, the upper case letters represent major blocks 2° by 4° in size (i.e. L = 64° to 66° latitude, N = 104° to 112° longitude) and the lower case letters denote 10' and 20' units within the major block (d = 30' to 40' latitude; s = 0' to 20' longitude). The numbers refer to specific sites within the units and are assigned by the Archaeological Survey of Canada, Canadian Museum of Civilization.

SITE DOCUMENTATION

As part of conventional site documentation, the location of sites encountered during a ground reconnaissance are recorded using Global Positioning System (GPS) coordinates and the relationship of each site to the adjacent physical features is denoted. Site locations are then plotted on 1:50,000 National Topographic Series map sheets to the nearest one hundred meters using the Universal Transverse Mercator (UTM) Grid Reference. The condition of each site and site characteristics are documented, including apparent site integrity, estimated site dimensions, content, setting, and complexity. Each site is photographically documented.

In the following section of the report, the single archaeological site recorded during this study is referred to by a *Borden Number*. An Archaeological Survey of Canada Site Entry Form has been completed for the site (Appendix I).

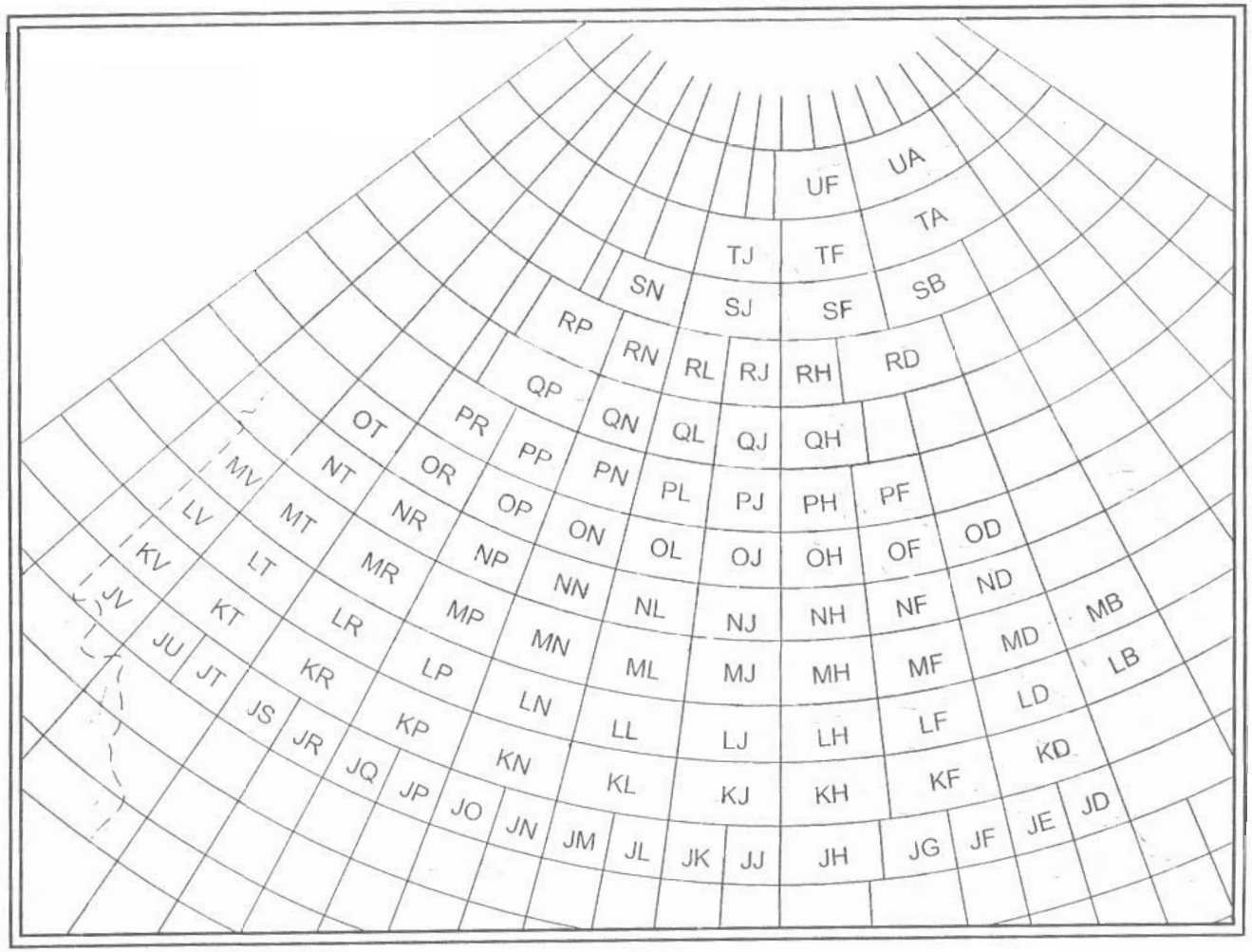

Figure 5 Borden units in the Northwest Territories

SITE CLASSIFICATION

The precontact site identified is classified on the basis of its primary physical attributes and/or predicted primary function. Five primary site classes are utilized: 1) isolated find, 2) artifact scatter, 3) habitation site, 4) stone feature, and 4) quarry. Isolated finds consist of a single disassociated artifact. Artifact scatters differ from habitation sites in that the latter contain evidence of campsite activities such as hearths, structural elements, burned bone, or tools indicative of domestic activities. Stone feature sites contain configurations of stone attributable to a variety of uses. Quarries are recognized by the direct association of lithic scatters with raw material; in the project area these consist of quartz/quartzite veins in bedrock.

SITE ASSESSMENT AND SIGNIFICANCE EVALUATION

Because the recorded site is not associated with any known development plans, site assessment was not undertaken. However, a considerable portion of the landform was traversed in order to provide an estimate of the number and type of features present which formed the basis for a preliminary evaluation as to scientific significance.

FORMULATION OF RECOMMENDATIONS

Site specific recommendations are formulated primarily on the basis of the level of available information and the perceived site significance within the context of the predicted impact. A sufficient level of information on site content and structure are mandatory for development of recommendations which accurately reflect site significance. However, because the site identified is not in conflict with any known development, only a general recommendation was made as to future studies at the site.

RESULTS

RECORD REVIEW

The results of the record review indicated that four archaeological sites had been previously recorded in the general study region (Figure 6). Two sites contain tent rings (LkNh 1, LkNk 1) and were recorded by F. H. Campbell and M. Bertulli in 1975 and 1991 respectively. One is a campsite with an associated burial (LkNh 2) recorded by F. H. Campbell in 1975. The final site (LiNj 1) was recorded by Warburton Pike in 1890 and consists of a *house* and *hearth.* Only site LiNj 1 was identified as historic in age. None of the sites are associated with the identified developments of the Goose Lake Project.

FIELD STUDIES

PROPOSED GOOSE LAKE MINE DEVELOPMENT AREAS

Results

Archaeological sites were not recorded during the ground reconnaissance of the two proposed mine development areas, the two proposed airstrip locations, and the existing camp location. Although a quartz vein was observed in the bedrock exposures immediately east of the camp (Plate 26), no cultural material was associated.

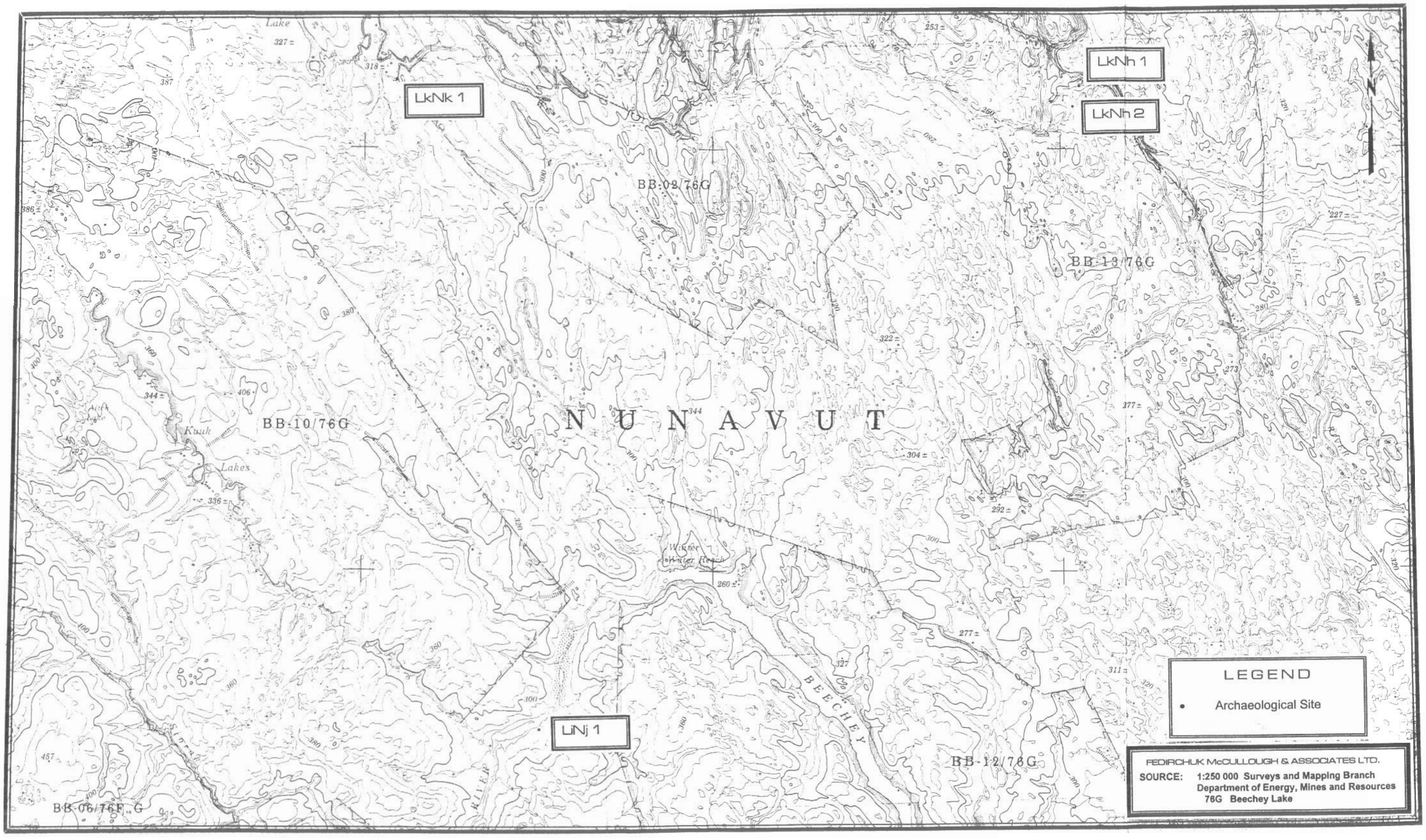

Figure 6 Previously recorded sites in general project region

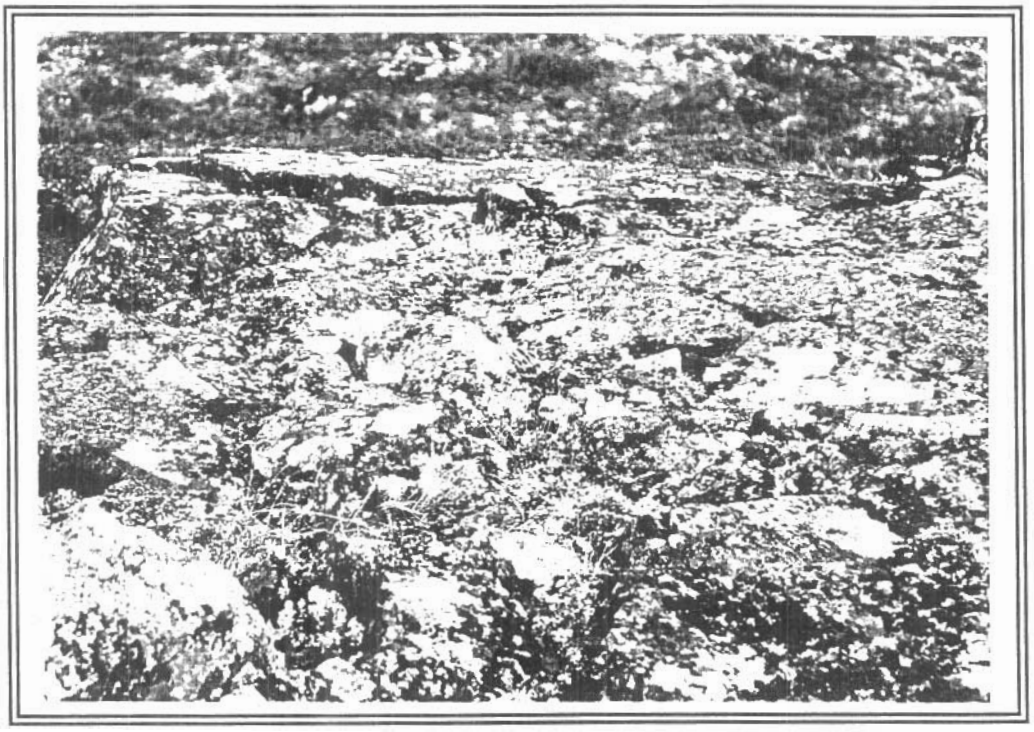

Plate 26 Bedrock exposure containing quartz vein immediately southeast of Goose Lake camp.

Evaluation

Much of the study area is associated with broad, flat and relatively featureless plains (Plate 27). Prominent eskers do not occur in the Goose Lake area. Although caribou and caribou trails were observed in the identified facility areas, the main herds do not pass through the study area during migration (J. Howe 1997 personal communication). Fish are available in the larger local lakes and migrating waterfowl, for example Canada Geese, were observed resting and feeding in the project area. The combination of local physical features and available resources do not appear to have attracted sufficient populations of precontact peoples to leave archaeologically visible cultural remains. The terrain examined holds little potential for substantial archaeological remains and no further study of the identified areas is warranted.

PROPOSED WINTER ROAD OVERVIEW

Results

Archaeological sites were not observed during either the overflight or the on-site examination of the three selected localities. Exposures of quartz were not observed on any of the bedrock ridges on which pedestrian traverses were conducted.

Evaluation

The eastern end of Winter Water Reach is relatively low with a number of areas of boulder flows and boulder streams (Plate 28). Few areas suitable for summer camps are present in the area of the inlet. Numerous, and deeply worn caribou trails, were observed in this area. The western end of Winter Water Reach, in the area of the rapids, contains well defined and well drained shores (Plate 29). The terrain adjacent to the most northerly rapids visited is characterized by tracts of wet marsh and extensive areas of boulder flow (Plate 30).

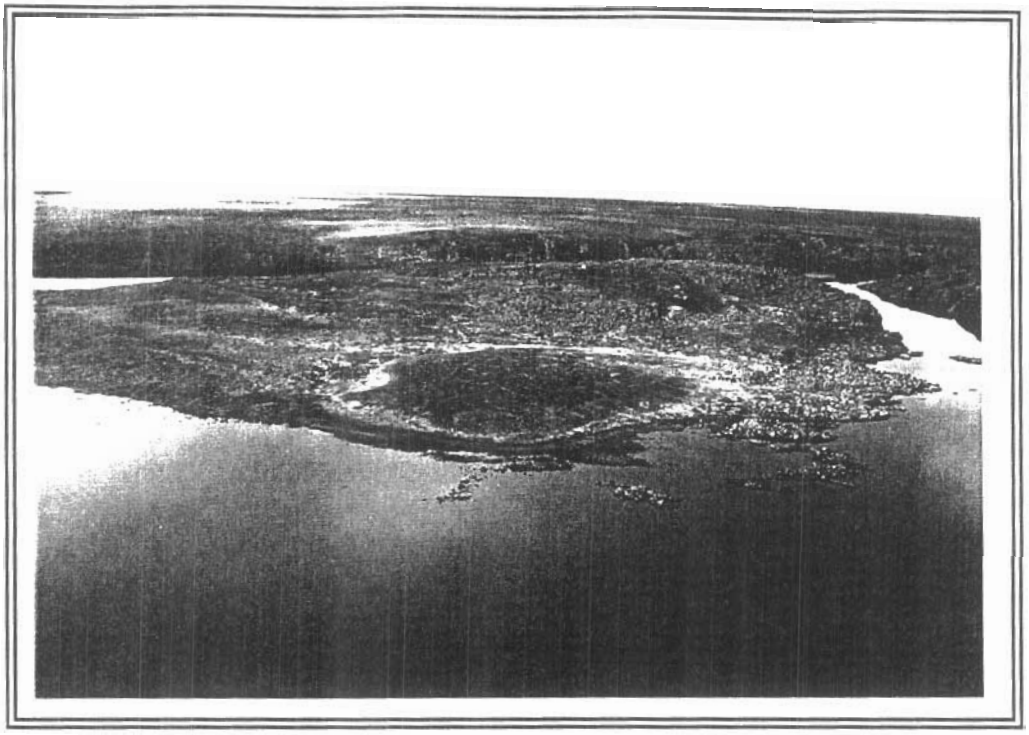

Plate 27 General view southwest of proposed mine development areas illustrating flat, generally featureless, plain assessed.

Plate 28 General view west of eastern end of Beechey Lake and proposed route of winter road.

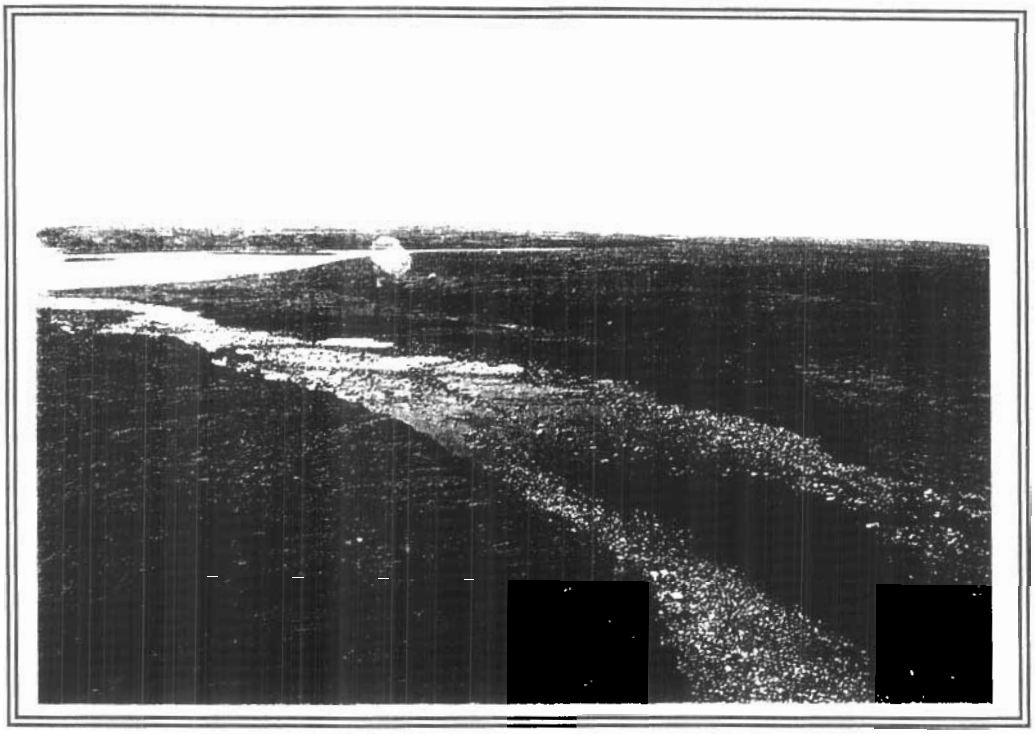

Plate 29 Well drained shores of rapids at western end of Beechey Lake. General view south.

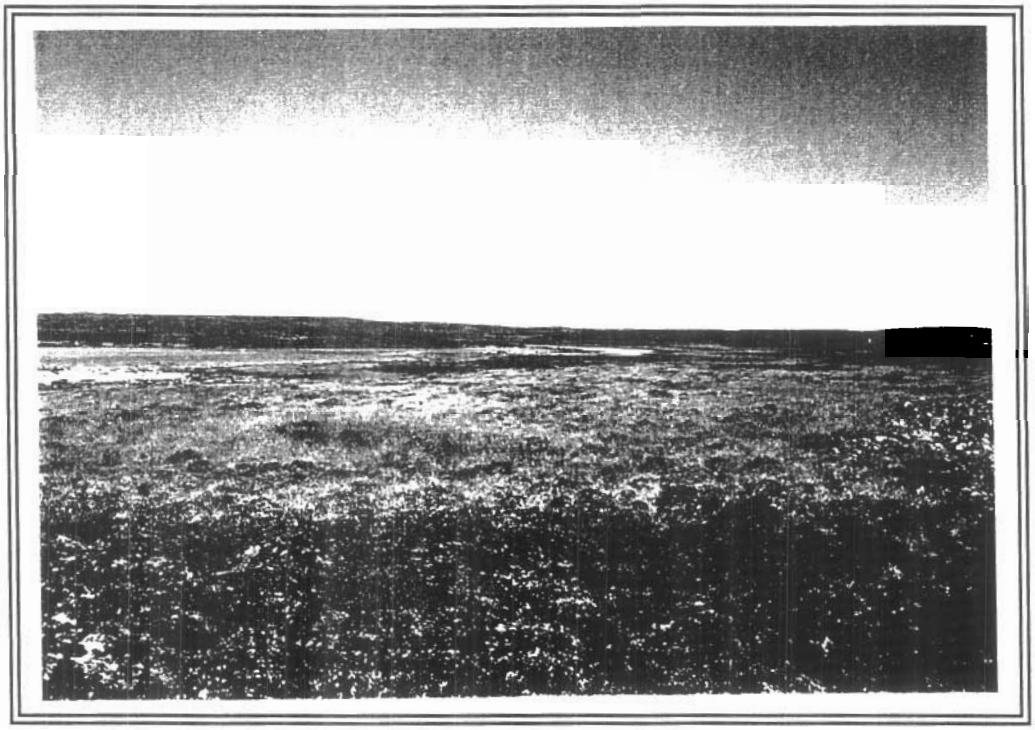

Plate 30 Wet areas and associated boulder flows at north end of lenticular lake north of Winter Water Reach. General view northwest.

Based on the known distribution of sites in the region, the Back River, Beechey Lake, and associated tributaries are considered to have good potential for archaeological sites. Although no sites were identified during the overview, it is recommended that heritage resource impact assessments be completed prior to any future developments in this area. However, no further study relative to the proposed winter road between Goose Lake, Beechey Lake, and the river system to approximately Latitude N 65° 40' is recommended.

SITE LkNi 1

Identified by Ralph Ronza, the helicopter pilot, site LkNi 1 is located on the edge of a gravel terrace overlooking a set of rapids in the Western River (Figure 7) (Plates 31, 32). Located on the eastern shore of the river, the identified features extend from the rim of the terrace (Plate 33) to approximately 50 or 60 meters inland. Between 25 and 30 features were observed consisting of complete stone circles (Plates 34, 35), semicircles with as few as three rocks (Plate 36), cairns, and hearth features (Plate 37). Many of the rings are double and triple walled and many are smaller than 1.5 meters in diameter. One of the features is oval, heavily walled and 2.5 to 3.0 meters in longest dimension (Plate 38). It is filled with a dense growth of willow. A number of 'deeply buried' (Plate 39) features were observed in the till terrace. These may represent natural configurations of boulders but some are suggestive of early in-filled features and may indicate some antiquity to site use.

The site appears to have functioned primarily as a caribou ambush in which many of the stone circles and arcs, particularly those situated on the rim of the terrace, were used as blinds. Numerous caribou trails were observed on the shore below the site. The shallow rapids and constriction of the river below the site indicate that the location represents an excellent place to ambush caribou during migration. Many of the cairns may represent caches whereas the 'open' cairns may represent hearths. Although a relatively intensive visual inspection was conducted of the ground surface both on the terrace top where the features are located and the lower, poorly drained shore of the rapids, neither artifacts nor bone was observed.

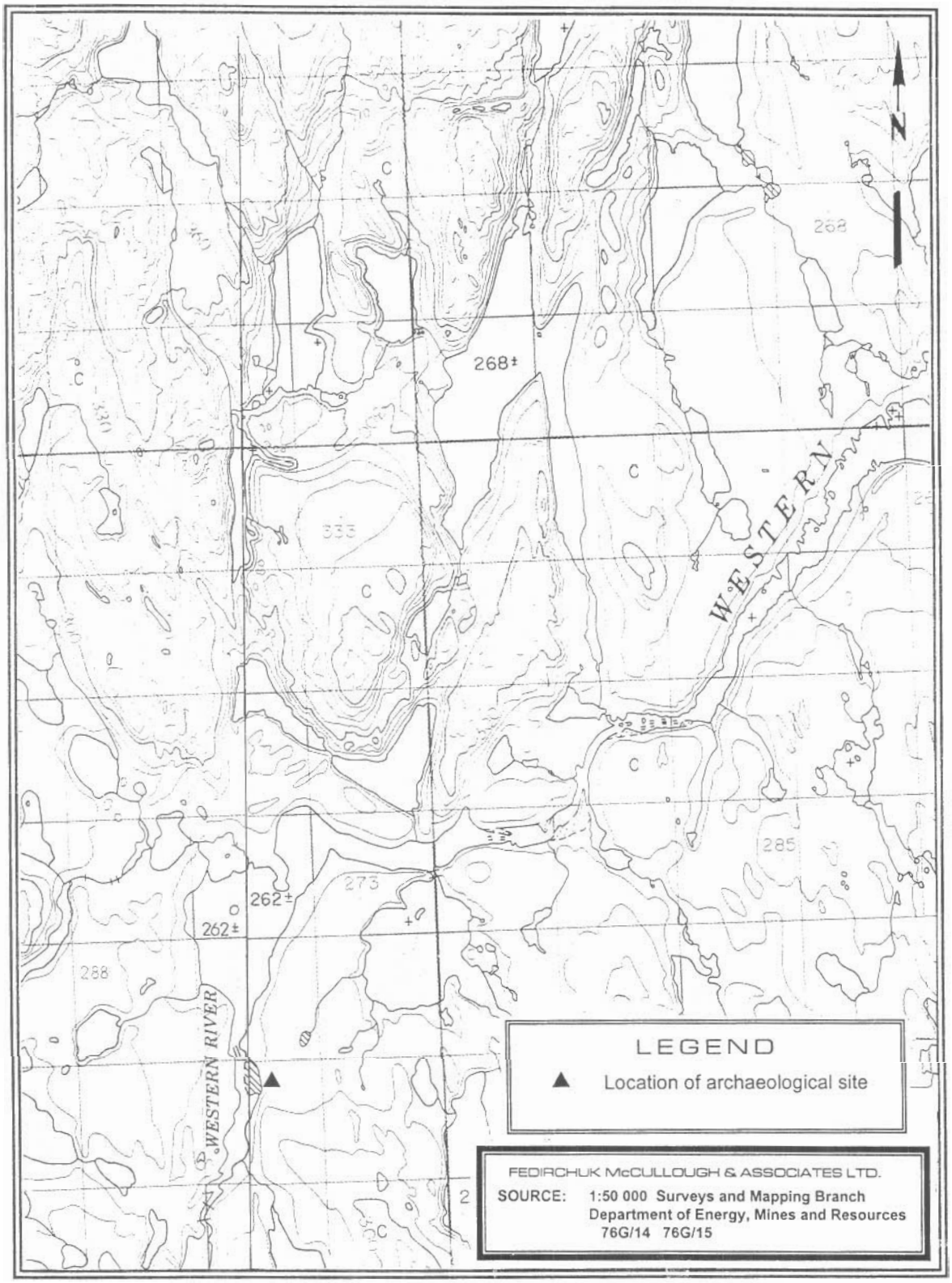

Figure 7 Location of site LkNi 1

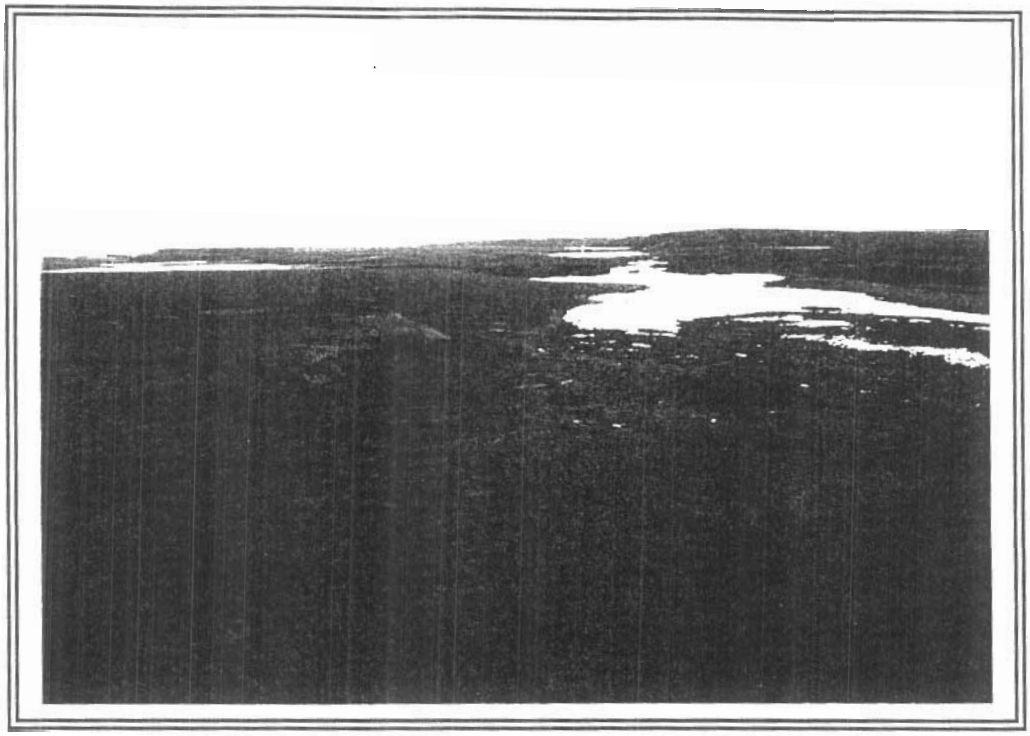

Plate 31 Location of site LkNi 1 along edge of terrace at left overlooking constriction in the Western River. General view south.

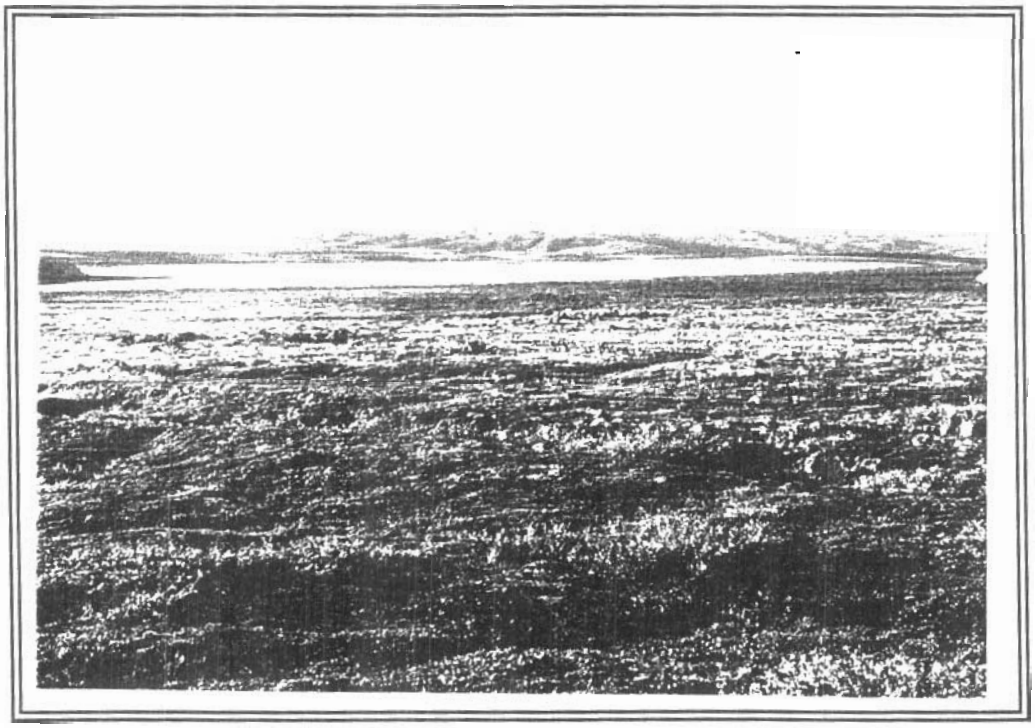

Plate 32 Site LkNi 1 in foreground. Western River hills in background. General view north.

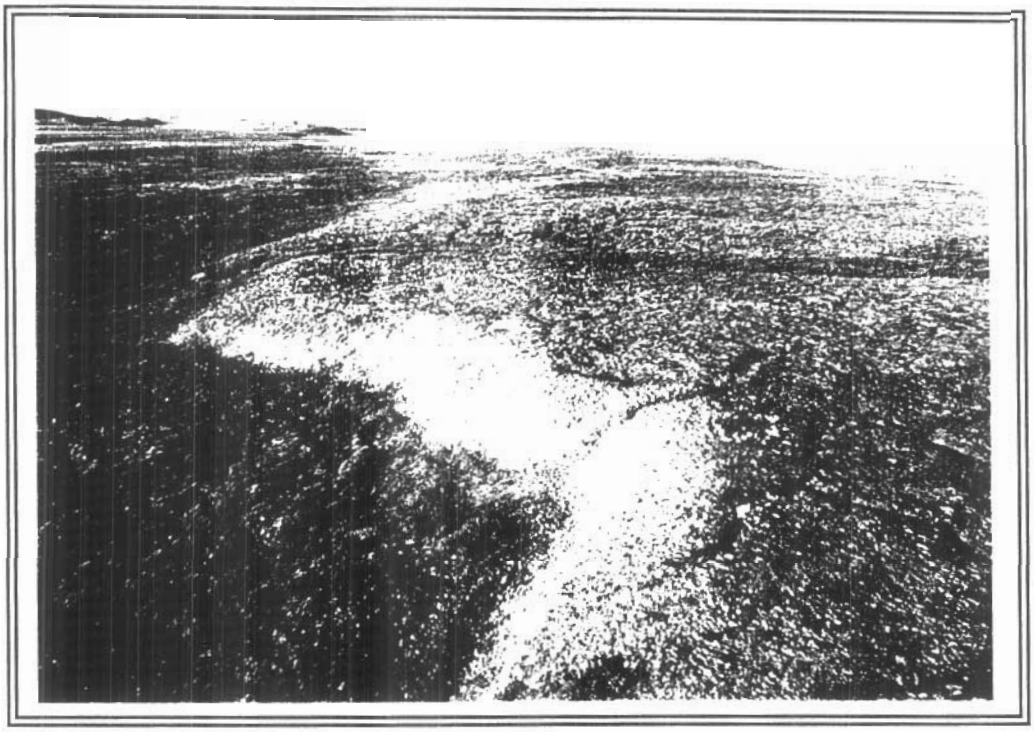

Plate 33 Aerial view of site LkNi 1 along terrace edge. Note features along rim, extending into background. General view north.

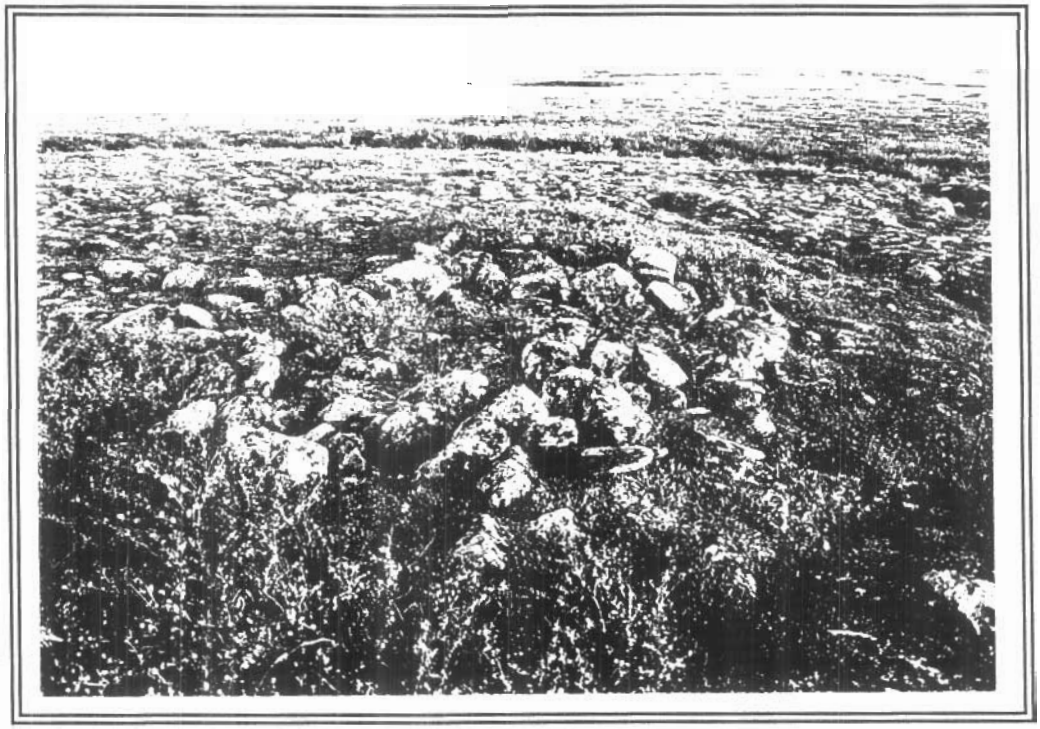

Plate 34 Typical triple walled stone circle, LkNi 1. General view south.

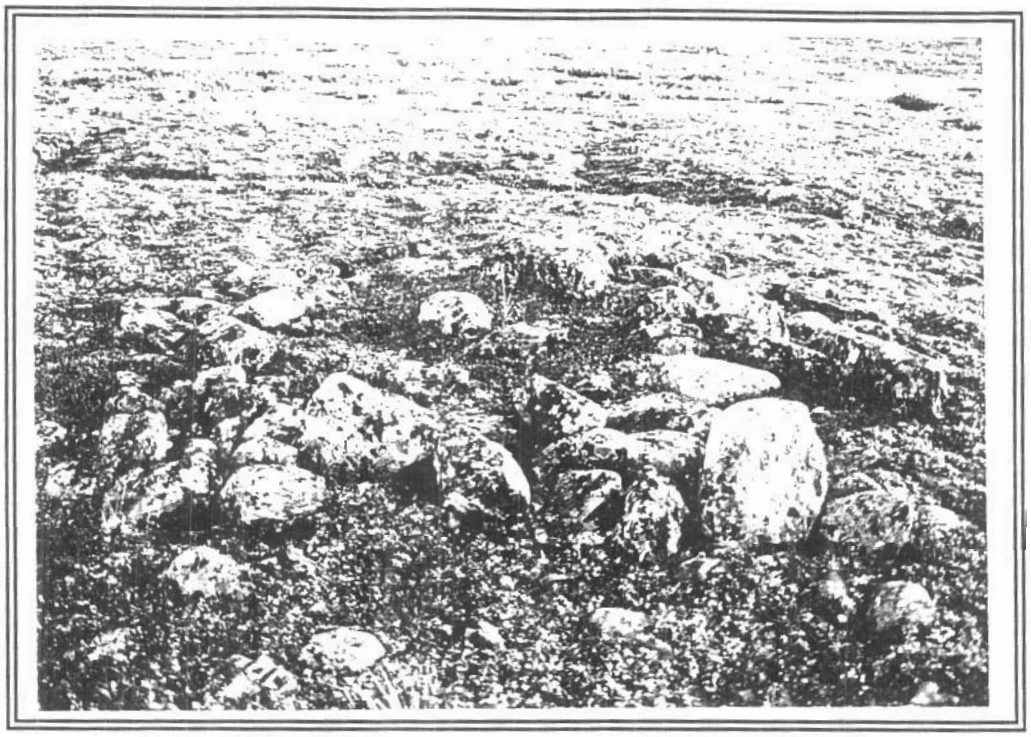

Plate 35 Weighted heavily walled stone circle, LkNi 1. General view south.

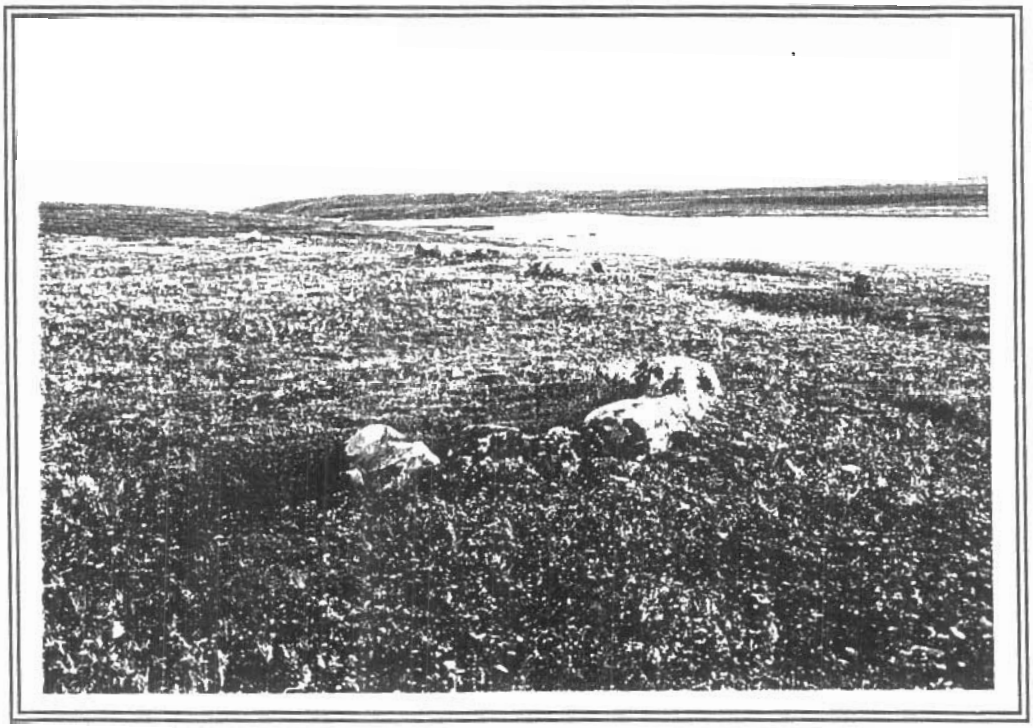

Plate 36 Stone semicircle near terrace edge, LkNi 1. General view south. Note additional similar arcs stretching into background.

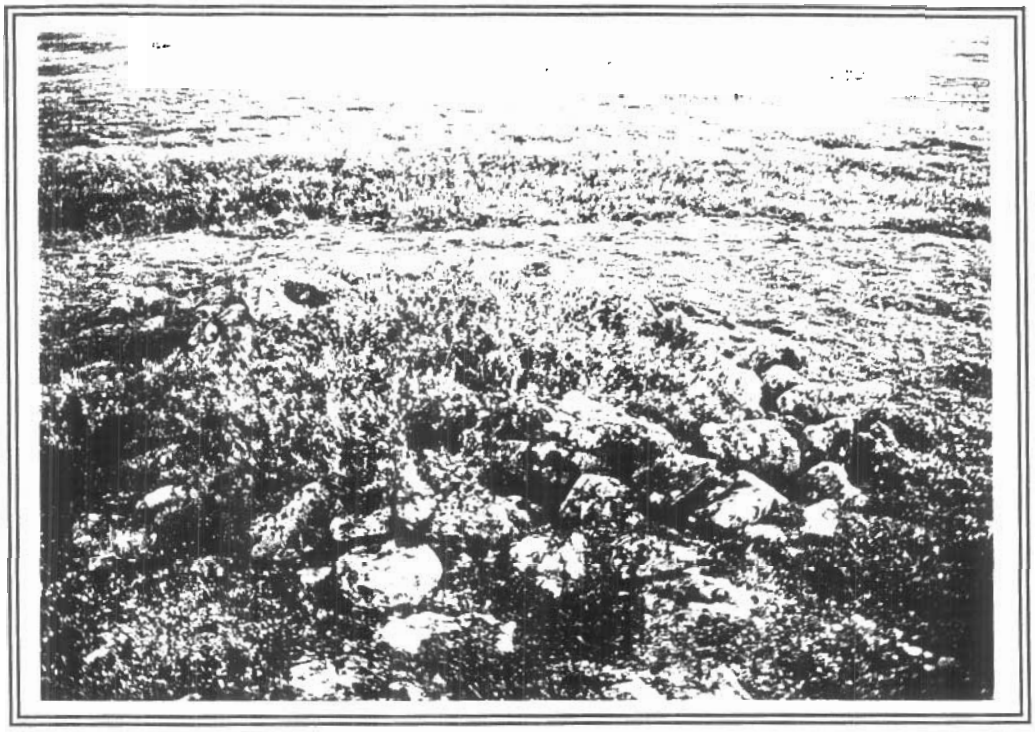

Plate 37 Larger stone circle, LkNi 1, some distance inland from terrace edge. General view west.

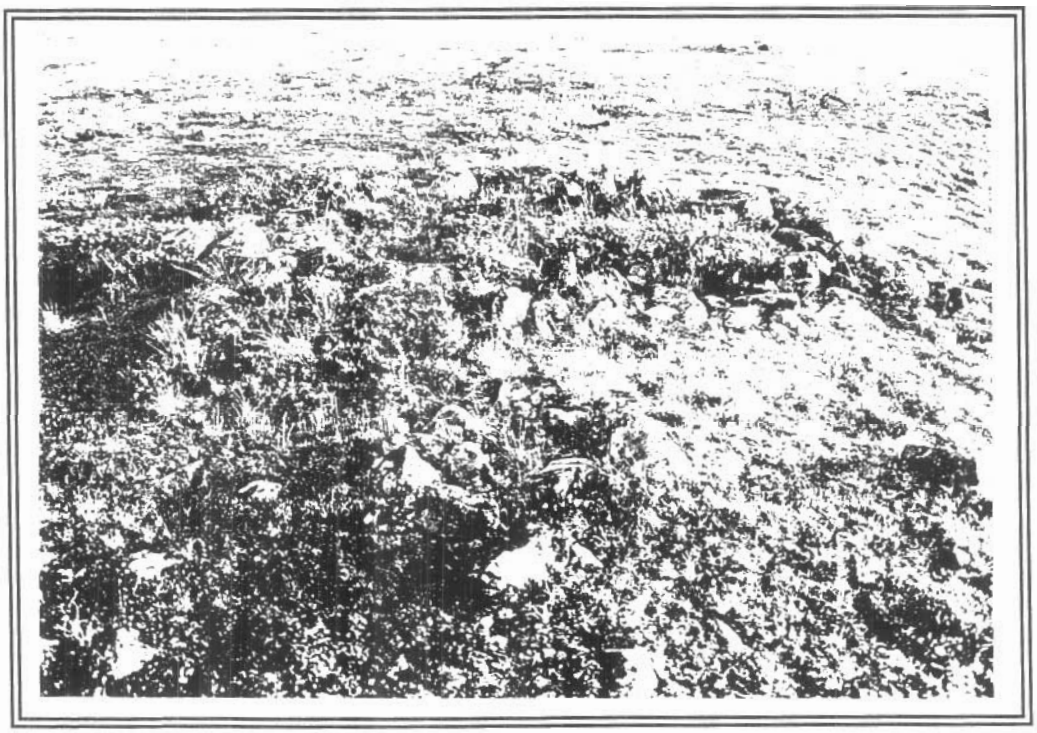

Plate 38 Oval stone feature, LkNi 1, with interior dense growth of birch. General view south.

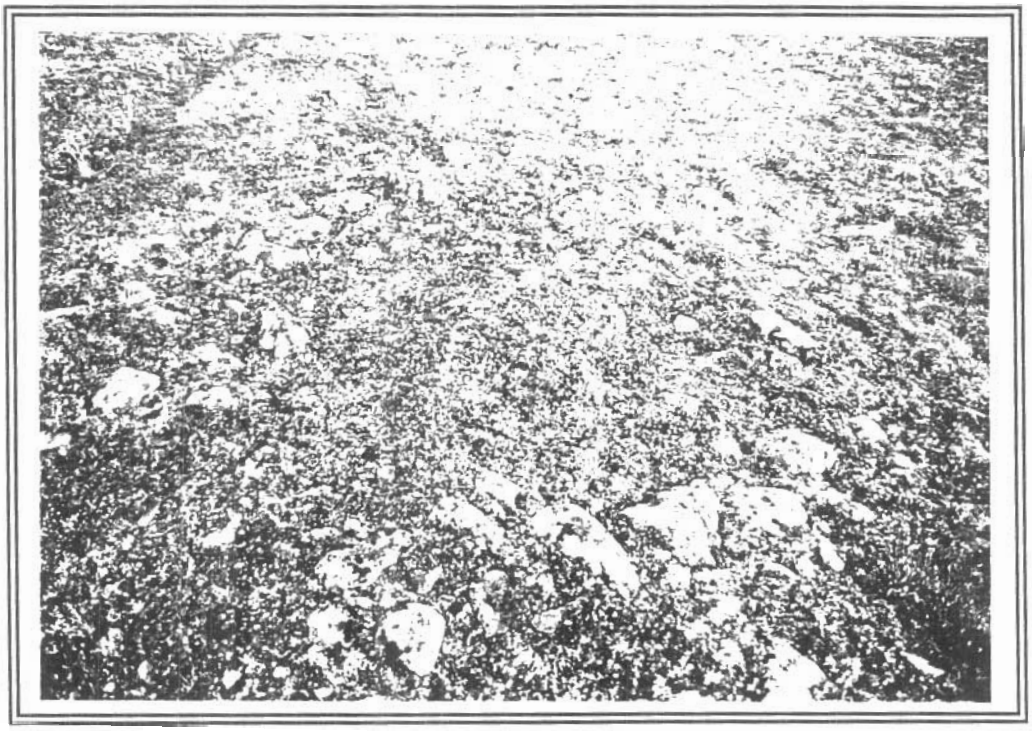

Plate 39 Apparently deeply buried stone circle, LkNi 1.

Although the site is not associated with any of the proposed developments associated with the Goose Lake Project, it is recommended that should any future development be planned in the area, the site be fully documented, assessed, and avoided.

SUMMARY AND RECOMMENDATIONS

On behalf of Kit Resources NWT Ltd., an heritage resources impact assessment was conducted on two proposed mine development locations, the existing camp location, and two proposed airstrip locations. In addition, an overview was completed on a segment of the proposed winter road route between Goose Lake, Beechey Lake, and the associated river system north to approximately Latitude N 65° 40'. No archaeological sites were identified during these studies.

An archaeological site (LkNi 1) reported by the helicopter pilot, Ralph Ronza, was visited and documented. Situated on the Western River, it is not associated with the proposed developments associated with the Goose Lake Project.

No further archaeological study is recommended relative to the Goose Lake Project at either of the proposed the mine developments, the two proposed airstrip locations or the winter road between Goose Lake, Beechey Lake, and the associated river system north to Latitude N 65° 40'.

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APPENDIX I

ARCHAEOLOGICAL SURVEY OF CANADA - SITE ENTRY FORM

BORDEN NUMBER (BN) LkNi 001

UPPER BORDEN NUMBER L N LOWER BORDEN (LB) k i SEQUENCE NO.(SN) 001

SITE NAME (NAM) _____ REPORTER NO. (RN) _____

CONTRACT NO. (CN) _____ PERMIT NO. (PN) 97-844

PROJECT (PRO) Kit Resources NWT Ltd. Goose Lake Heritage Resource Studies

ERRORS (ER): Nature of Error: _____

Action Taken: _____

LOCATION (LOC) Terrace overlooking constriction in Western River; southeast of Lost Lake.

TERRITORY (TER) NWT DISTRICT (DIST) Mackenzie MAP REFERENCE (MR) 76G/15

JURIDICTION (JUR) federal X federal - PARKSCAN _____ provincial _____

LAT. (LAT) 65° 45.78' LONG.(LNG) 106° 59.76' UTM 12W E 04086 N 72949

AIR PHOTO (AIR) _____ ELEVATION (EL) 400 masl SIZE (SIZ) 200 X 60 metres

CONDITION (CON) Undisturbed surficial features on till ridge.

SITE TYPE CLASS (TYC) prehistoric x indigenous historic x? historic x

contemporary _____ natural _____ undetermined _____

SITE FEATURES (FE) 25-30 stone features consisting of rings, arcs, caches/cairns, hearths

SITE TYPE (TY) Rock feature

CULTURE (CU) Unknown prehistoric/historic DATES (DAT) Unknown

RESEARCHER (RES) G. J. Fedirchuk, Fedirchuk McCullough & Associates Ltd YEAR OBSERVED (OD) 1997

	year	collector	permanent repository
COLLECTION (COL)			

PUBLISHED REFERENCES (PRE) _____

UNPUBLISHED REFERENCES (UPRE): ASC ARCHIVES Ms _____, _____, _____, _____

REMARKS (RE) Observed between 25 and 30 stone features along the edge of the terrace and perhaps 50-60 metres inland. Appears to represent a caribou ambush site with numerous blinds. Some antiquity is suggested by in-filled stone circles.