

FINAL REPORT

ARCHAEOLOGICAL IMPACT ASSESSMENT OF THE COMAPLEX MELIADINE WEST GOLD PROJECT, RANKIN INLET, NUNAVUT

Submitted to:

**The Department of Culture, Language, Elders
and Youth (CLEY), Nunavut
Nunavut Permit No. 2008-003A**

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EXECUTIVE SUMMARY

During late July of 2008, Golder Associates Ltd. (Golder) conducted an Archaeological Impact Assessment (AIA) on behalf of Comaplex Minerals Corp. (Comaplex) for the proposed Meliadine West Gold Project (Project) all-weather road and adjacent borrow sources northwest of Rankin Inlet, Nunavut. The Meliadine West Gold Project is located within the basin of Meliadine Lake about 30 km northwest of Rankin Inlet on the western edge of Hudson Bay. All required fieldwork was completed under an Archaeological Permit (2008-003A) issued by the Department of Culture, Language, Elders and Youth (CLEY), Nunavut, to David Blower of Golder.

Low-level helicopter reconnaissance of the road alignment and adjacent borrow source areas was conducted in order to assess the locations of archaeological potential. This reconnaissance was continued daily while transiting to the study areas and during aerial photography by study investigators. Additionally, approximately 85% of the road alignment was assessed by pedestrian survey.

By conducting this AIA, it is recommended that Comaplex has fulfilled the requirements of the current program in their attempts to identify the potential for impact to heritage resources through the construction of an all-weather road. The AIA included the participation of Mark Inuar from the local community of Rankin Inlet who participated in identifying and recording heritage resource sites.

The investigations of the AIA identified 18 previously unrecorded and 12 revisited heritage resources. It is recommended that avoidance of these resources be considered for determining the final alignment and during the construction process. Recent markers/Inuksuit have been identified within the Project area and are briefly referred to in this report. While not meeting the technical requirements to be classified as heritage resources, they are cultural markers of recent occupation and activity; and, as such, it is also recommended that community input assist in an understanding of their value to the community and final disposition.

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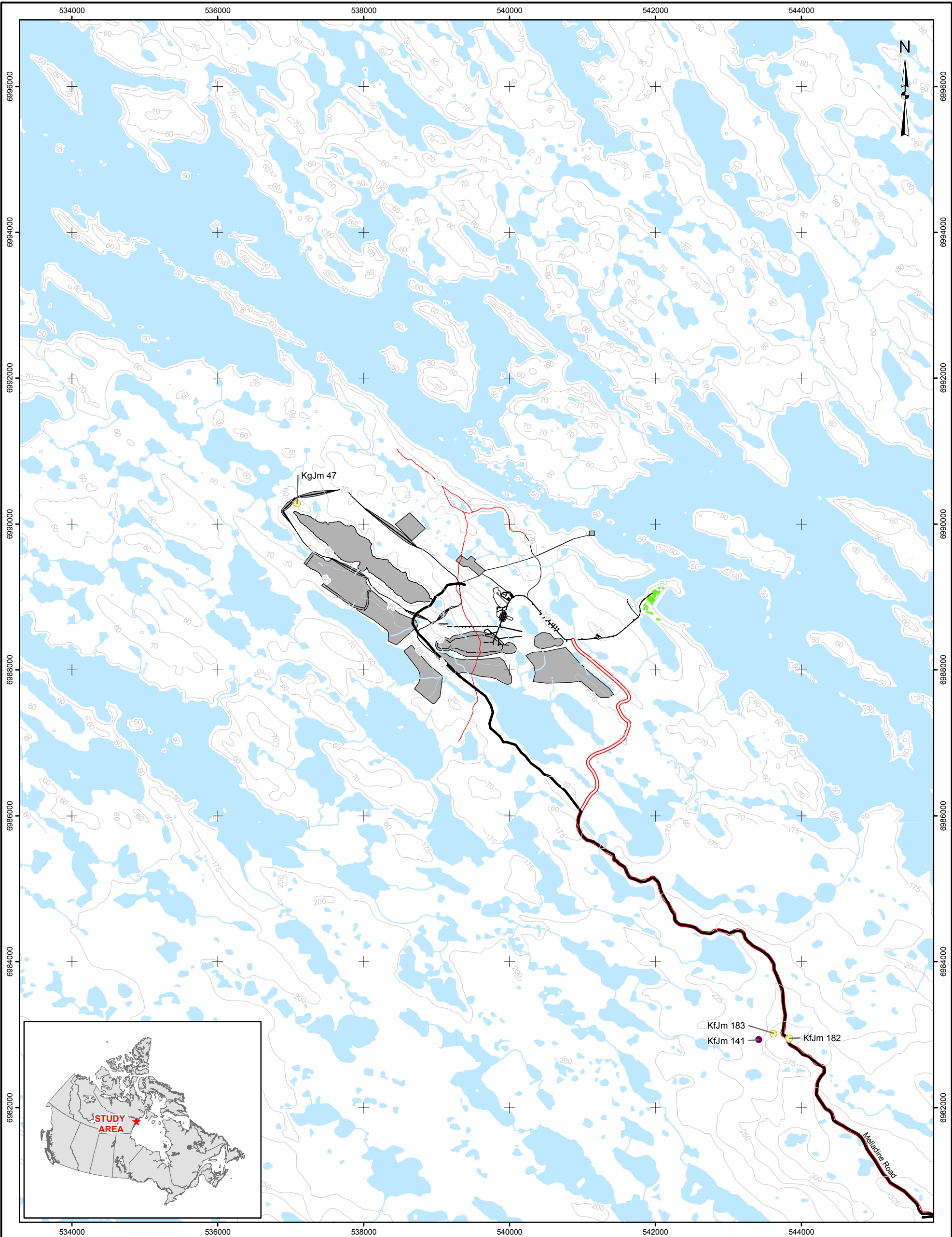
1. INTRODUCTION

During late July of 2008, Golder Associates Ltd. (Golder) conducted an Archaeological Impact Assessment (AIA) on behalf of Comaplex Minerals Corp. (Comaplex) for the proposed Meliadine West Gold Project (Project) all-weather road and adjacent borrow sources northwest of Rankin Inlet, Nunavut (Figure 1). All required fieldwork was completed under an Archaeological Permit (2008-003A) issued by the Department of Culture, Language, Elders and Youth (CLEY), Nunavut, to David Blower of Golder.

Low-level aerial reconnaissance of the road alignment and adjacent borrow sources areas was conducted by helicopter to assess the archaeological potential of locations within the development area. A systematic flyover of the entire road alignment and borrow sources was conducted at the start of the field program, and additional reconnaissance was conducted daily while transiting to/from the study areas and during aerial photography by investigators. Additionally, approximately 85% of the road alignment was assessed by pedestrian survey, bypassing only those areas identified from the air to be of low potential, due to low-lying, wet conditions. Assessment coverage of the road alignment included an approximate 500 m buffer on both sides of the proposed alignment centreline and around areas of potential borrow sources.

The AIA was intended to identify any artifacts or heritage resource areas that might be impacted by road construction and, as such, the proposed road alignment and borrow sources suitable for quarry materials and gravel were assessed.

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LEGEND

- NEWLY IDENTIFIED SITE
- PREVIOUSLY IDENTIFIED SITE
- ATV TRAIL
- CONTOUR
- ROAD - FIELD STUDY ALIGNMENT
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- CAMP
- PROPOSED MINE SITE AND RELATED INFRASTRUCTURE
- WATERBODY

REFERENCE

Archaeological data obtained from the Prince of Whales Northern Heritage Centre under license and field survey. Project infrastructure provided by Comaplex Minerals Inc. Digital base data obtained from the National Topographic Data Base (NTDB). Projection: UTM Zone 15 Datum: NAD 83




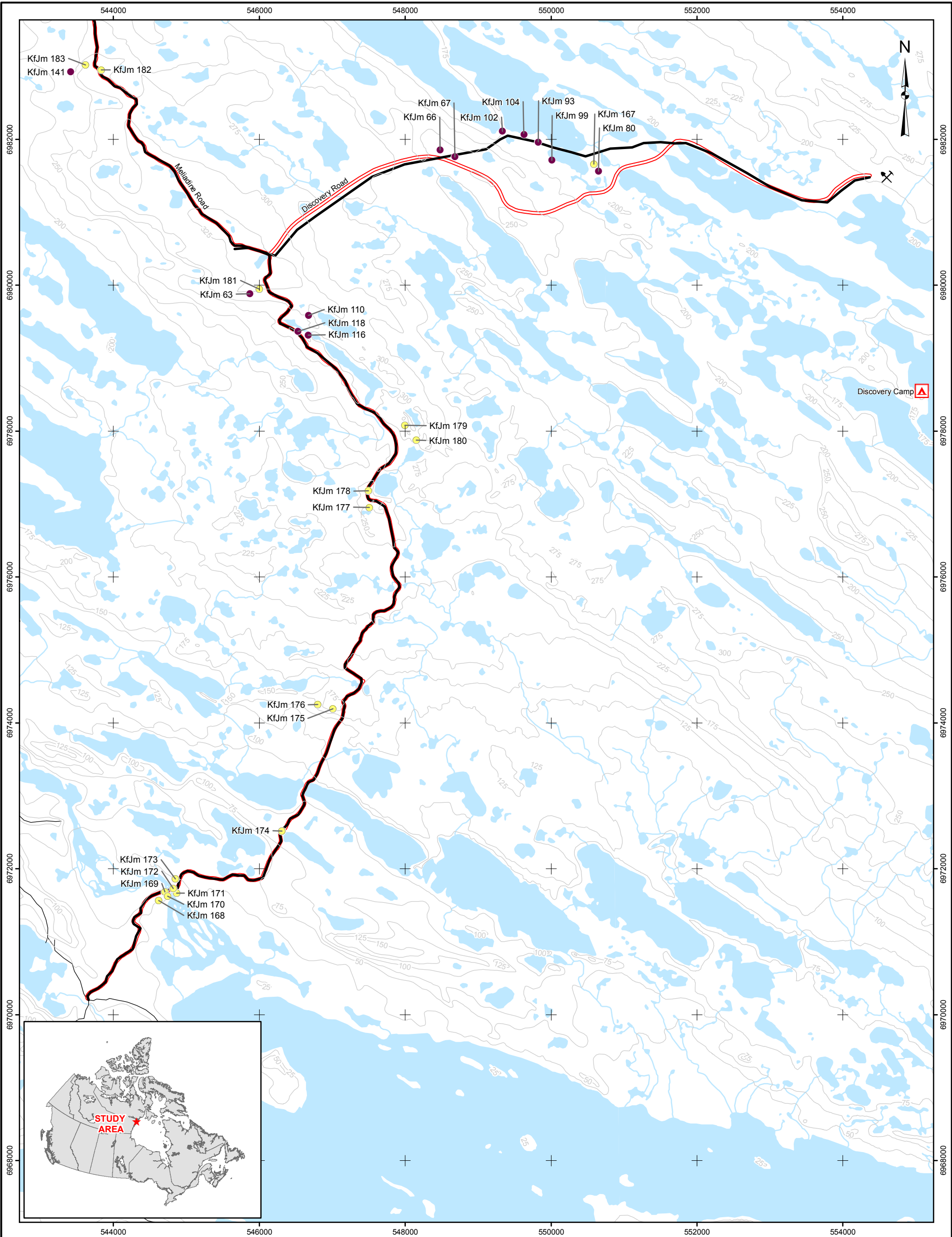
| | | | |
|--|--|---|-----------------|
| PROJECT | | COMAPLEX MINERALS MELIADINE WEST | |
| TITLE | | PROPOSED PROJECT LOCATION, ROAD ALIGNMENT AND ARCHAEOLOGICAL SITES | |
|  Golder Associates Calgary, Alberta | | PROJECT No. 07-1373-0055 | |
| | | DESIGN | DB 03 Sep. 2008 |
| | | GIS | DE 07 Oct. 2008 |
| | | CHECK | DB 20 Oct. 2008 |
| | | REVIEW | DG 20 Oct. 2008 |
| | | SCALE AS SHOWN | REV. 0 |

FIGURE: 1A

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LEGEND

- NEWLY IDENTIFIED SITE
- PREVIOUSLY IDENTIFIED SITE
- CONTOUR
- ROAD - FIELD STUDY ALIGNMENT
- ROAD - MUNICIPAL
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- WATERBODY

REFERENCE

Archaeological data obtained from the Prince of Whales Northern Heritage Centre under license and field survey. Project infrastructure provided by Comaplex Minerals Inc. Digital base data obtained from the National Topographic Data Base (NTDB). Projection: UTM Zone 15 Datum: NAD 83




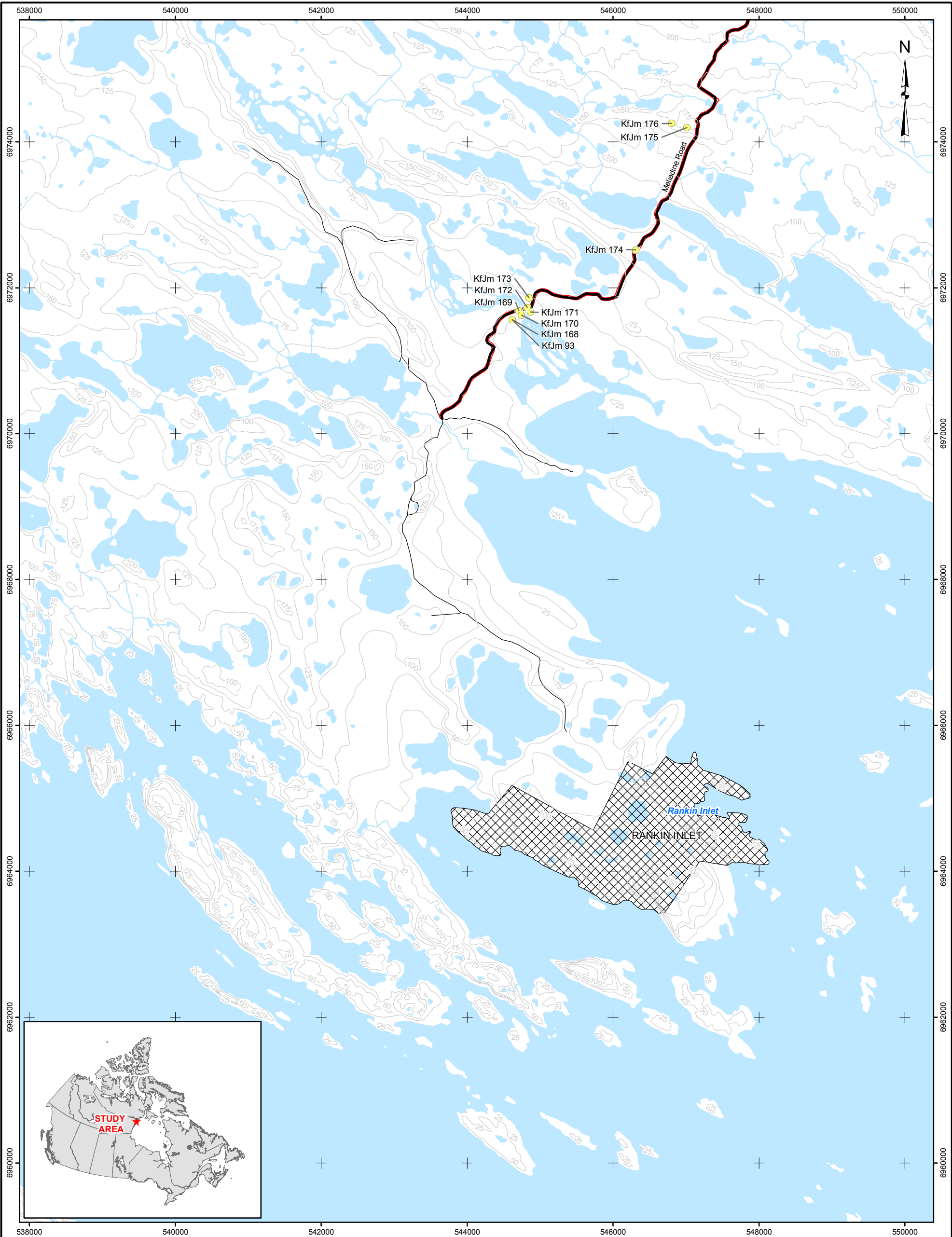
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| PROJECT | | COMAPLEX MINERALS MELIADINE WEST | |
| TITLE | | PROPOSED PROJECT LOCATION, ROAD ALIGNMENT AND ARCHAEOLOGICAL SITES | |
|  Golder Associates Calgary, Alberta | PROJECT No. 07-1373-0055 | | SCALE AS SHOWN |
| | DESIGN | DB 03 Sep. 2008 | REV. 0 |
| | GIS | DE 10 Oct. 2008 | |
| | CHECK | DB 20 Oct. 2008 | |
| | REVIEW | DG 20 Oct. 2008 | |

FIGURE: 1B

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LEGEND

- NEWLY IDENTIFIED SITE
- PREVIOUSLY IDENTIFIED SITE
- CONTOUR
- ROAD - FIELD STUDY ALIGNMENT
- ROAD - MUNICIPAL
- ROAD - PROPOSED ALIGNMENT
- WATERCOURSE
- RANKIN INLET FOOTPRINT
- WATERBODY

REFERENCE

Archaeological data obtained from the Prince of Whales Northern Heritage Centre under license and field survey. Project infrastructure provided by Comaplex Minerals Inc. Digital base data obtained from the National Topographic Data Base (NTDB). Projection: UTM Zone 15 Datum: NAD 83



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|---|--|---|----|----------------|
| PROJECT | | COMAPLEX MINERALS MELIADINE WEST | | |
| TITLE | | PROPOSED PROJECT LOCATION, ROAD ALIGNMENT AND ARCHAEOLOGICAL SITES | | |
|  Calgary, Alberta | | PROJECT No. 07-1373-0055 | | SCALE AS SHOWN |
| | | DESIGN | DB | 03 Sep. 2008 |
| | | GIS | DE | 07 Oct. 2008 |
| | | CHECK | DB | 20 Oct. 2008 |
| | | REVIEW | DG | 20 Oct. 2008 |
| | | FIGURE: 1C | | |

2. LOCATION, POTENTIAL IMPACTS, AND OBJECTIVES

2.1 Location

The Comaplex Meliadine West Gold Project is a proposed mining project located approximately 30 kilometres (km) northwest of Rankin Inlet. Mineral exploration by the Project has been ongoing since the early 1990's. In 1998, a heritage resources study was conducted and new sites reviewed by members of the local elders committee. Many of the sites were identified by the elders as representing recent land use and were not considered significant. Sites closer to Meliadine Lake, outside the area of impact were found to be of considerable age and were recommended for avoidance. The proposed road alignment extends inland southeast from the current exploration site to a point on an existing road outside of Rankin Inlet.

2.2 Project Objectives

The objective of the 2008 AIA is to ensure that heritage resources are not inadvertently impacted by the proposed Project, to evaluate the significance of those resources, and to make recommendations as to the most appropriate means of mitigating any potential impact that may result. Specifically, the field program was designed to:

- identify any heritage and/or cultural resource on the proposed road alignment, and on gravel or rock borrow sources; and
- confirm the locations of previously recorded heritage and/or cultural resource sites in the Project area and proposed road alignment.

3. PHYSICAL AND CULTURAL SETTING

3.1 Environmental Context

An understanding of past environmental conditions and the environmental factors that shape human approaches to subsistence and settlement patterns enable archaeologists to not only locate sites, but also to provide more accurate interpretations of individual sites. The physical aspects of the environs (topography, drainage, climate, and soils) as well as resource availability (flora, fauna, lithic materials, and water) are prime criteria for the identification of site location and function. Assessments of universal cultural activities related to site location, travel within and through variable terrain, and resource exploitation are key components of any archaeological site analysis.

The anthropological theory of environmental determinism suggests that, to a great extent, environmental factors condition human or patterns of behaviour. The environment has likely influenced many of the activities that contribute to the character of the regional prehistoric record. All available environmental variables must be considered as indicators of prehistoric use of the landscape.

The regional environment influences where specific activities and occupation are located in an overall pattern of seasonal movements according to the availability of resources: a seasonal round. The variables of archaeological site distribution can be identified and combined into useful criteria for suggesting the potential of an environment to hold heritage resources that includes a wide variety of landforms frequently associated with coastlines and lake shores, river banks, eskers and kames, and bedrock knolls in Arctic environs. Distribution patterns partially reflect environmental opportunities presented to human groups as well as cultural preferences demonstrated by site location. Topography influences much human activity including travel, communication, resource catchments, dwelling locations, and eventually constrains human activity areas to defined localities. Based on existing heritage resources, the environment is a key factor in human settlement patterns.

Prior to European contact, the people of North America developed economies that were intimately linked with the landscapes in which they lived. Changes in the vegetation communities have occurred throughout the region over time and the productivity of the landscape and how it was culturally manipulated in the past has changed.

The Project area is located on existing ATV trails in many places and takes advantage of eskers and kames for high well drained ground. The potential borrow sources of rock and gravel for road construction are located near to the alignment reducing the need to transport material great distances.

3.2 Heritage Resources

Archaeology is the study of human history through the material remains of culture, now known as heritage resources. The ultimate goal in archaeology is to describe the cultures and events responsible for the creation and deposition of the remains at a given archaeological site. As such, archaeologists use material remains to determine the nature and age of cultural occupations at a site. Artifacts, ecofacts, and features deposited into the natural environment, along with their inter-relationships, are the integral parts that make up an archaeological site. The Nunavut Archaeological and Palaeontological Sites Regulations (2003) define heritage resources as including:

“but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historical buildings and cairns.”

Predating the arrival of Europeans, precontact archaeological sites are comprised of artifacts, features, and residues of Inuit and First Nations origin typically characterized by modified bone and stone, and stone structures. Historic sites are those structures, features, and objects of European influence that date back to contact with Europeans but can also represent more recent activity of more than 50 years. Depending on the context, sites less than 50 years old may be considered to represent traditional land use and are identified to document continued use and occupation of an area to the present time. A

key component of the Historic Period record are the sites, artifacts, and affiliated resources relating to post-contact Aboriginal people's use of the landscape. These include both archaeological sites and objects such as standing and collapsed cabins, campsites, graves, and traditional sites and resources, such as special places, hunting and plant collecting areas, traplines and their associated remains, oral traditions and various documents. These latter resources are usually identified through community consultations.

As well as the sites where events took place in the past, heritage resources include, all of the objects that they contain and any of the contextual information that may be associated with them and will aid in their interpretation, including natural specimens and documents or verbal accounts.

Heritage resources are non-renewable and are susceptible to alteration, damage, and destruction by construction and development activities. The value of heritage resources cannot be measured in terms of individual artifacts or biological specimens, rather the value of these resources lies in the integrated information which is derived from the relationship of the individual artifacts and fossil specimens, associated features, spatial relationships (distribution), and contextual situations. Interpretation of heritage resource materials, and the ability to interpret the significance of particular sites in a landscape, is based on an understanding of the nature of the relationship between individual archaeological and palaeontological materials as well as the sediments and strata within which they are contained. As such, removal or mixing of cultural or fossil bearing sediments results in the permanent loss of information basic to the understanding of these resources. As a result, heritage resources are increasingly susceptible to destruction and depletion through disturbance.

Similarly, tundra areas north of the tree line are characterized by extremely slow rates of soil development and sediment accumulation. Accordingly, at repeatedly occupied sites, there is little chance of distinguishing occupations relating to different periods within the 9,000 year record of human occupation in the region without recovering a diagnostic

indicator. Some areas of high sediment deposition rates are present along the length of the study area, but these are not the typical scenario.

The lack of temporally diagnostic artifacts, the absence of materials suitable for radiocarbon dating, and the natural mixing of shallow archaeological deposits serve to limit the definition of the recognized prehistory for the region. In contrast, extant documents, records, and oral testimony provide a firmer basis for understanding the historic period of the region. This understanding is further complicated by the reuse of heritage resource sites by recent peoples. For the Project area, local inhabitants from Rankin Inlet continue to hunt on the land, making use of the numerous caches already in place for storage, modifying them, building new caches and creating new markers, or Inuksuit.

3.2.1 Cultural Chronology

A brief outline of the regional culture history can be summarized as a result of the archaeological work conducted in the study region since the mid 20th Century. It should be observed that throughout the millennia, peoples who lived in the Barrenlands relied almost exclusively on caribou for subsistence. The annual migration patterns of these animals would dictate the seasonal round of the highly mobile hunting and gathering populations that inhabited the region.

Occupation of the Barrenlands of Nunavut began shortly after the recession of the glaciers approximately 9,000 years before present (BP). The earliest recognized archaeological tradition is Northern Plano (8,000 to 6,500 BP), which is characterized by projectile points similar in form to Agate Basin points found in the plains of North America (Gordon 1996:219). These long lanceolate points with tapered and ground bases were manufactured largely out of quartzite. Radiocarbon dates from the Migod site (KkLn 4) on Grant Lake suggest that Northern Plano dates from at least 8,000 years BP (Gordon 1975). The concentration of Northern Plano materials on Grant Lake further

suggest the Dubawnt and Thelon Rivers were major caribou migration corridors exploited by Northern Plano peoples (Gordon 1996:219).

Approximately 6,500 years ago, Northern Plano evolved into Shield Archaic (6,500 to 3,500 BP) (Gordon 1996: 199). This cultural development coincided with a warming period that resulted in the expansion of the boreal forest as far north as Dubawnt Lake. Projectile points were also manufactured primarily out of quartzite, but differed from the preceding Northern Plano Tradition in that they were “side-notched lance heads with ground, rocker [convex] bases” (Gordon 1996:201).

The Shield Archaic Tradition was followed by the Pre-Dorset Tradition which lasted from approximately 3,450 to 2,650 BP (Gordon 1996:149). Pre-Dorset is part of the Arctic Small Tool Tradition (ASTt), well known in the high arctic. The migration of these early Pre-Inuit groups corresponded with a cooling trend that adversely affected maritime hunting. As a result, these arctic-adapted people were forced further south in their quest for food. They were able to exploit migrating caribou herds on the Barrenlands as a result of the southward retreating forest edge. The Pre-Dorset Tradition is characterized archaeologically by very small, finely retouched tools manufactured from fine grained, banded chert. Distinct tools include end and side blades used for harpoons and arrows, burins, and microcores.

The Taltheilei Tradition is the latest precontact archaeological culture identified in the study area, and dates from approximately 2,600 to 1,200 BP. (Gordon 1996). People representing this tradition moved into the region from the west after the preceding cooling period ended, and are generally regarded as ancestral Dene. The material culture of the Taltheilei Tradition is characterized by a continuum of lanceolate and notched points, distinct discoidal hide-working tools known as chithos, and a variety of scraping tools. This archaeological culture has been divided into three Periods based on projectile point style: the Early Period (2,600 to 1,800 BP.) characterized by long stemmed points; the Middle Period (1,800 to 1,300 B.P.) by unshouldered lanceolate points; and, the Late Period (1,300 to 200 B.P.) by small side and corner-notched points (Gordon 1996).

During the 18th Century, Dene groups were decimated by European diseases and abandoned the Barrenlands in favour of the forests to the south to engage in the fur trade (Gordon 1996:51). As a result of this abandonment, the historic Caribou Inuit moved into the region approximately 200 years ago, either from the central arctic or the east coast of Hudson's Bay (Burch 1979; Gordon 1996; Linnamae and Clark 1976). Their descendents have occupied much of the interior of Nunavut ever since, including the Kazan, Dubawnt and lower Thelon drainage basins. The margins of these major rivers and lakes are dominated by Inuit sites, which are characterized by stone features including Inuksuit, tent rings, caches, hunting blinds, and kayak stands (Friesen 1989:4.7). The precontact origins of the Caribou Inuit ultimately lie in the Thule Tradition, which spread across the central and eastern arctic approximately 1,000 BP.

In the 1950's the Canadian Government began a policy of settling the local Inuit into communities such as Baker Lake, Chesterfield Inlet, and Rankin Inlet (Stager 1977). Although year-round occupation of the Barrenland no longer occurs, seasonal caribou hunting and fishing are still important activities for local residents.

3.2.2 Historic Inhabitants

Early European exploration of the Barrenlands of what is now known as Nunavut began with the establishment of fur trade posts on the western shore of Hudson's Bay in 1670. The most notable were the travels of Samuel Hearne from Fort Prince of Wales to the mouth of the Coppermine River between 1769 and 1772 (Tyrell 1911). However, the first scientific exploration of the Barrenlands would not occur until the expedition of James Tyrell of the Geological Survey of Canada (Tyrell 1898). In 1893 Tyrell travelled north from Lake Athabasca, eventually ascending the Dubawnt River to the Thelon River, then eastward through Aberdeen and Baker Lakes to Chesterfield Inlet. In 1900 Tyrell embarked on another expedition, this time travelling eastward from Great Slave Lake along a series of rivers and lakes to the Thelon River, then on to Chesterfield Inlet. David Hanbury (1900; 1903) also explored and mapped the rivers of the Barrenlands at the turn of the century in two separate expeditions. He travelled westward through the

region by canoe in 1898-99 from Chesterfield Inlet, along the Thelon River to Great Slave Lake. In the second expedition of 1901, he travelled eastward along a similar route, this time embarking from Great Slave Lake. In 1922 Knud Rasmussen entered the region as part of the Fifth Thule Expedition (Rasmussen 1926). Members of his party travelled inland from Chesterfield Inlet to Baker Lake, then south along the Kazan River to Yathkyed Lake to conduct geographic and ethnographic research.

One of the earliest archaeological assessments of the Nunavut barrenlands, however, began with artifact collections by the Moffat Canoe expedition of 1955 (Harp 1955). Members of the expedition travelled from Black Lake, Saskatchewan, along the Chipman and Dubawnt Rivers to Baker Lake. A total of nine archaeological sites were recorded along this route south of Aberdeen Lake. This expedition was followed by an archaeological survey conducted by Elmer Harp in 1958 along Beverly, Aberdeen, and Schultz lakes, as well as the lower Thelon River (Harp 1960). A total of 42 new sites were recorded as a result of this survey. Harp proposed the first culture history of the region based on the data obtained from these sites. Subsequent research by Irving (1968) on the Upper Kazan River and in the North Henik and Dubawnt Lake areas would result in a revision of Harp's proposed cultural chronology.

Archaeological investigations continued in the region in the 1970's with more controlled excavations conducted at a number of sites first recorded by Harp. Wright (1972a,b; 1976) excavated at the Aberdeen (LdLl 2) and Grant Lake (KkLn 2) sites, while Gordon (1976) conducted excavations at the Migod (KkLn 4) site located north of Dubawnt Lake. These multi-component sites were significant in further refining the continuum of precontact occupation in the region. Additional surveys were also conducted by Gordon (1974) in the vicinity of the Baker Lake settlement. Five of Elmer Harp's sites were revisited and four new sites were recorded.

In the area around Rankin Inlet, archaeological assessments were conducted in 1975 by Urve Linnamae and Brenda Clark (1976) who recorded 29 sites. Additional areas were

assessed in 1998 for WMC at the Meliadine West Gold Project under Permit No. 98-876 by Elisa Hart.

The heritage resource surveys by Linnamae and Clark were conducted between the Meliadine River and Meliadine Lake. Hart expanded the assessments in that area by surveying west and north of the Meliadine Camp on the west side of Meliadine Lake, at the east and west quarry areas, and the winter roads. Twelve heritage resources sites were located and the sites recorded by Hart were subject to examination by elders from Rankin Inlet.

During these earlier studies a combination of oral history and archaeology was used to interpret recent Inuit land use of the Rankin Inlet area. The local participation of the Elders Steering Committee and the provision of a member on the field team helped to identify dwellings, inuksuit, caches, hearths, kayak related structures and other features. The current study had the participation of a local community member on the heritage resource study team, and the identified sites will be discussed with elders from Rankin Inlet. Similar to the previous studies, dwellings, Inuksuit, caches, hearths, structures, and other features were recorded.

4. METHODOLOGY

4.1 Field Inventory and Assessment

Archaeological field studies are conducted with the intent of identifying significant heritage and cultural resources that might be affected by proposed Project activities. Locations identified for assessment are investigated using a combination of surface and subsurface investigation techniques. Surface techniques include pedestrian reconnaissance of areas that are not water saturated or poorly suited for occupation, and visual inspection of any fortuitous subsurface exposures that might be present.

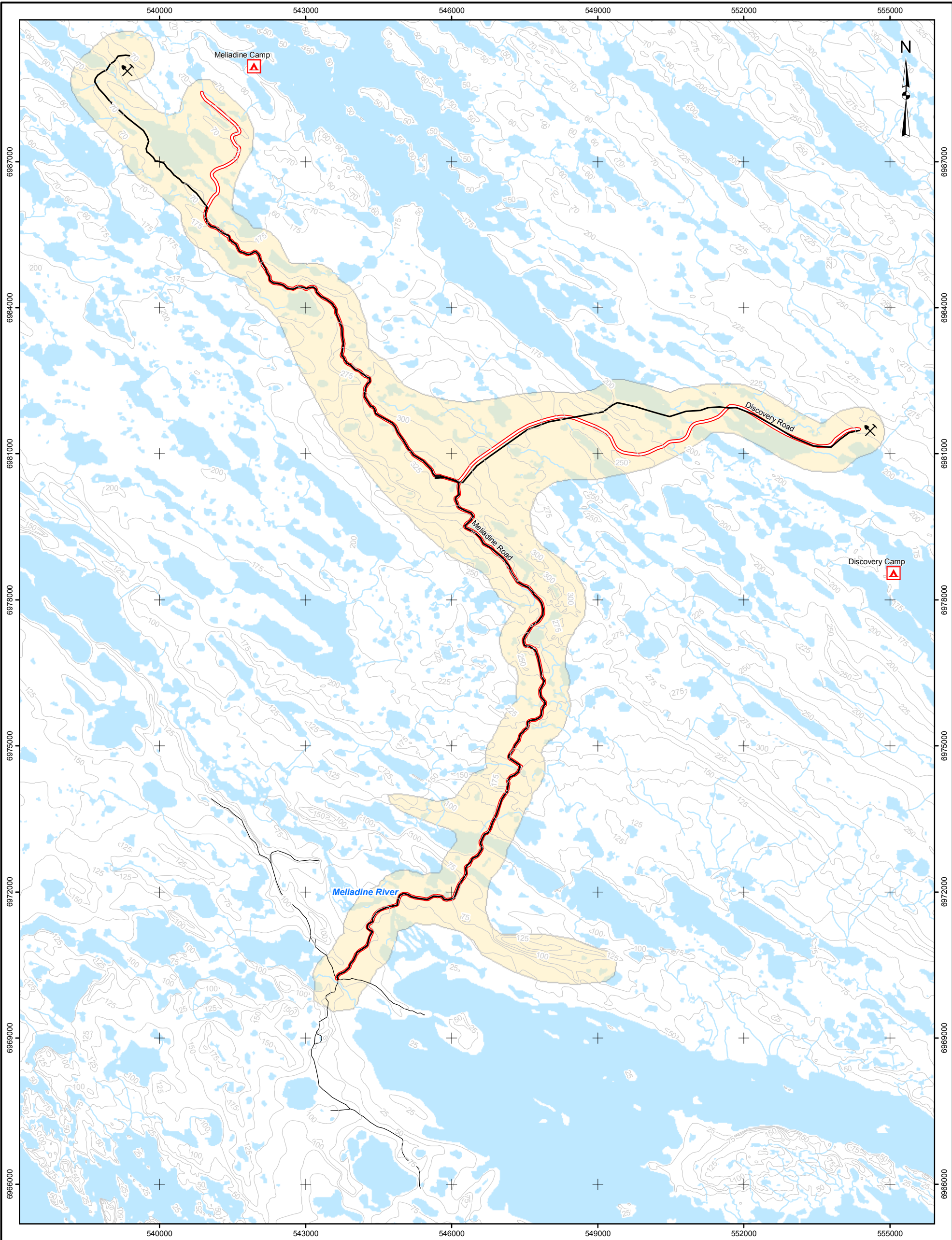
A low-level aerial reconnaissance of the road alignment and adjacent borrow source areas is systematically conducted by helicopter to assess the archaeological potential of locations within the development area and buffer zone, should the alignment need to be moved. This buffer zone is generally 500 metres on each side of the proposed alignment centreline, but is extended when designated borrow sources are identified outside the alignment (Figure 2).

Site evaluation is based on assessment of physical attributes, including site size, depth and character of deposits, assemblage density and diversity and current condition. Consideration is also given to traditional significance reported by local community representatives assisting on the project, to cultural historic context and to relative frequency in the region. Sites or areas of traditional significance that are not considered archaeological sites are also recorded in detail and evaluated in consultation with local advisors. These results are included in written submissions to CLEY as required by the permit to conduct the AIA, and discussed with the Chief Archaeologist of Nunavut.

4.2 Heritage Feature / Structure Evaluation

Evaluations of heritage features and standing structures are completed for features/structures that are observed during the investigations. These evaluations

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LEGEND

- CAMP
- PROPOSED MINE SITE
- CONTOUR
- ROAD - FIELD STUDY ALIGNMENT
- ROAD - PROPOSED ALIGNMENT
- ROAD - MUNICIPAL
- WATERCOURSE
- ROAD - FIELD STUDY ALIGNMENT BUFFER (500M) AND ADDITIONAL STUDY AREAS
- WATERBODY

REFERENCE

Archaeological data obtained from the Prince of Whales Northern Heritage Centre under license and field survey. Project infrastructure provided by Comaplex Minerals Inc. Digital base data obtained from the National Topographic Data Base (NTDB). Projection: UTM Zone 15 Datum: NAD 83



| | | | | |
|---------------------------------------|--------------------------|---|----------------|--------------|
| PROJECT | | COMAPLEX MINERALS MELIADINE WEST | | |
| TITLE | | FIELD STUDY ROAD ALIGNMENT WITH 500M BUFFER AND ADDITIONAL STUDY AREAS | | |
| Golder Associates Calgary, Alberta | PROJECT No. 07-1373-0055 | | SCALE AS SHOWN | REV. 0 |
| | DESIGN | DB | 03 Sep. 2008 | FIGURE: 2 |
| | GIS | DE | 08 Oct. 2008 | |
| | CHECK | DB | 20 Oct. 2008 | |
| | | REVIEW | DG | 20 Oct. 2008 |

consider perceived heritage resource value and community cultural value as well as the predicted impact from the proposed program. In general, disturbed sites with limited cultural remains would be assigned lower archaeological resource values than undisturbed sites, large sites with large amounts of cultural material, complex sites, and multicomponent sites. Undisturbed multicomponent sites would generally be assigned the highest heritage resource value.

Community input plays a role in the evaluation of site value, and the inclusion of a member of the local community on the field crew aides in the in-field discussions regarding site significance.

4.3 Reporting and Conservation

Analysis of collected artifacts includes cleaning, cataloguing, identification, inventory, and description of each individual piece for inclusion in the final report. GPS site information is provided to CLEY and the Canadian Museum of Civilization for archival purposes and is used for mapping features and important aspects of each identified site, but is not included in the final (public) versions of the report. Archaeological site maps, photographs, and artifact scans are prepared as digital files. Based on the cultural material collected and site observations, a recommendation regarding final site disposition relative to future projects is made.

Upon completion of the field components, a final permit report on the archaeological studies is prepared on behalf of Comaplex for review by CLEY. This report includes a project description, environmental setting, cultural and archaeological context for the project area, field methodology, and the results of the field reconnaissance. All identified sites are documented on appropriate site inventory forms.

In general, the following recommendations are employed:

- Avoidance is recommended, if feasible, at all sites assigned high archaeological resource value (this to include all constructed features: burials, tent rings, caches, hunting blinds, and hearths).
- Collection and documentation is undertaken as a mitigative option of sites with low archaeological resource value, or isolated artifacts, as a method of protecting the heritage resource from future undocumented impacts due to increased personnel activity in the vicinity.
- Acceptable methods of mitigation are discussed with CLEY and the Chief Archaeologist, and could lead to a recommendation for detailed mapping, collection, and/or test excavations at those sites assigned high archaeological resource value that cannot be avoided by Project relocation.

4.4 Community Consultation

Consultations regarding the Project and the development of the Comaplex Meliadine West Gold Mine are ongoing between Comaplex and the Rankin Inlet community. Elders from the local community have visited the area during previous heritage studies beginning in the late 1990's (Hart 1998) and continue to contribute their knowledge and opinions on the significance of heritage resources sites relative to the Project.

5. RESULTS

A search of the CLEY database indicated that previously recorded heritage resources sites were in proximity to the Project prior to conducting the AIA, but none are located directly within the current road alignment. Revisits were attempted to sites identified near the road alignment and on potential borrow sources. However, the vagaries of locational data collected over 30 years ago and minimal descriptions of site features in the database archives resulted in 12 previous heritage resources sites being confirmed at or near their recorded coordinates. In all cases, the data collected from the current program enhanced the information previously submitted.

Prior to the July 2008 field program, Comaplex had identified a number of archaeological sites and features along the road alignment and supplied the locations of these to the Project Archaeologist. These sites were also revisited as part of the program to confirm their status as heritage resources sites and to record them in a form that meets CLEY database requirements. In some cases, the number of features in these locations was increased and the site boundaries defined. Additionally, 18 new sites were identified and are reported below.

5.1 New Heritage Resource Sites

All segments of the road alignment from outside Rankin Inlet to the Project area on the west shore of Meliadine Lake, and the Discovery road extension east from the road alignment located south of Meliadine Lake were assessed. Also assessed for heritage resources were adjoining potential rock and gravel borrow source areas. Eighteen new heritage resources sites are identified and reported on below. Twelve revisits to previously recorded sites were made to confirm and update their status. The revisited sites were identified based on approximate locational data recorded in the 1970's by Linnaeae and Clark (1976), and on the data recorded by Hart (1998). Instead of recording them as new sites, efforts were made to cross-reference their location and descriptions with previous data, while allowing for variation in recording technologies. It

is believed that the twelve sites listed below are true revisits to known sites and enhances the information currently available on them.

5.1.1 KfJm 167 (GAL 2)

KfJm 167 (Plate 1) is approximately 35 m west of KfJm 80, but on a separate knoll overlooking a small lake to the north and a larger lake to the southwest. There are two hunting blinds and a cache on top of the knoll and a third hunting blind on the northern down slope of the knoll closer to the lake. The site area covers approximately 80 m by 20 m. According to Mark Inuar of Rankin Inlet, this is still a prime location for community hunting. There are several other possible caches or rings in the area but they are not well defined as they may have been scavenged for rocks and, as such, are not identified as features for this site.



Plate 1. View north from KfJm 167: hunting blind on esker at Meliadine Lake.

5.1.2 KfJm 168 (GAL 6)

This site is on the west side of the Meliadine River crossing and contains four tent rings and a hunting blind that appears to be recently rebuilt (Plate 2). The blind has been used recently and many shotgun shells are located within. The rings are in very good shape and consist of partially buried rocks for two of them which appear to be a more recent style, and larger piled surface rocks for the remaining two rings. The site extends over an area of 15 m by 50 m. The two types of tent ring construction may indicate multi-component use of the site and/or that the rings are from different seasons, or time periods. This site is adjacent to the south side of the proposed road alignment and the approach to the proposed bridge over the Meliadine River. The site may be avoided by construction activity and should be assessed by elders from Rankin Inlet for its community value.



Plate 2. View east of tent ring at KfJm 168 with rebuilt hunting blind in background.

5.1.3 KfJm 169 (GAL 7)

This site is adjacent to, and overlaps the road alignment on the north side of the proposed Meliadine River crossing. It is approximately 20 m from the river and extends over 20 m by 30 m. There are five collapsed fox traps and one single stone inukshuk (Plate 3). Based on uninterrupted lichen growth at the rock joins and colouring (orange, black and green lichens are present), the stones appear to have been untouched for a long time, although shotgun shells are abundant in the area indicating recent activity. The Inukshuk is located in the middle of the stone features and is positioned at the narrowest point of the river. There are no other cultural materials identified with any of the stone features. This site should be assessed in the same context as KfJm 168 by local elders.



Plate 3. View south of two of the fox traps and Inukshuk (left of yellow coat) at KfJm 169.

5.1.4 KfJm 170 (GAL 8)

KfJm 170 is on the south side of the proposed Meliadine River bridge crossing, and the south side of the road alignment, there are five rings and one stone feature overlooking the Narrows (Plate 4). The rings are spread over a 15 m by 20 m area and extend from the top of the esker down the south side slope overlooking the floodplain of the braided channel. There is evidence that one of the rings has been turned into a hunting blind for current use. The stone feature is comprised of a long narrow rock approximately 2 m long with a stone semi-circle extending from the ends of it. This area is congested with sites and stone features, and along with KfJm 168 and 169, should be assessed by the elders from Rankin Inlet.



Plate 4. View south at KfJm 170: of one of the tent rings.

5.1.5 KfJm 171 (GAL 10)

KfJm 171 is a large site located on an esker overlooking the east side of the Meliadine River narrows, approximately 100 m south of the road alignment (Plate 5). At least nine rings, two caches and two blinds are identified over an area of approximately 20 m by 80 m. There is also evidence of flat stone paving on the floor of at least one ring. There is much exposed rock in this area which provides building material and becomes more predominant from outcrops on the down slope to the floodplain. It is likely that that some of the rocks have been moved and some features have collapsed or scavenged for rocks. Recent use of the area is indicated by rusty cans, and pull-tab pop cans from the 1970's. The blinds have been rebuilt for recent hunting and face south into the lowland/river areas. Shotgun shells abound. Avoidance of these features in consultation with the community elders should be considered.



Plate 5. View west over one of the tent rings at KfJm 171.

5.1.6 KfJm 172 (GAL 11)

To the north of KfJm 171, is site KfJm 172 located on the east bank of the Meliadine River narrows, adjacent to the south side of the proposed road alignment (Plate 6). Two tent rings and one fox trap are present over an area of 5 m by 20 m. Half of one of the rings is missing due to erosion and undercutting on the river bank. This site is separated from KfJm 171 by approximately 40 m and a small drainage area. It may be related to KfJm 171 but its physical separation from that site, and the poor quality of the stone features warranted a separate designation to facilitate managing the heritage resource and the road alignment.



Plate 6. View northwest overlooking KfJm 172 at the Meliadine River narrows.

5.1.7 KfJm 173 (GAL 12)

This is a large erratic on the east side of the river that is highly visible (3 metres high) with a single stone Inukshuk on top (Plate 7). The marker is very clearly seen from the

Meliadine River narrows and beyond. The road alignment in this location turns north before reaching this site and there should be no impact from the proposed project.



Plate 7. View north of KfJm 173 east of the Meliadine River narrows.

5.1.8 KfJm 174 (GAL 13)

A single stone Inukshuk on the west side of the existing ATV trail that forms part of the proposed road alignment is site KfJm 174 (Plate 8). It can be lined up with other markers in the distance and may identify the route from Rankin Inlet through this region. It is on the esker which would be used for the road, and depending on how the road is constructed through this area it may be affected. It is possible that local elders or hunters/trappers could reposition the marker once the road alignment is completed; its scientific value is considered low but heritage value should be assigned by community members.



Plate 8. View northeast of KfJm 174 along existing ATV trail on alignment.

5.1.9 KfJm 175 (GAL 15)

This site extends over an L-shaped rocky ridge approximately 30 m the west side of the road alignment and covers an area of approximately 100 by 200 m. While it is not part of the road, it is located on a potential borrow source. There are 12 features that include six Inuksuit of varying design and condition, four caches, and two collapsed fox traps, one with a rusted leg-hold trap inside (Plates 9 and 10). Not all of the Inuksuit are contemporary. There is some indication that some of the features are relatively recent. The view from this ridge is extensive in all directions and provides excellent visibility of the Inuksuit and as a location for hunting. KfJm 176 is located at the base of the ridge on the southwest side. This area should be considered for avoidance, or subject to detailed mapping and documentation after input from the elders.



Plate 9. View south. Mark Inuar inspects a standing Inukshuk at KfJm 175.



Plate 10. View northwest of KfJm 175 with two of the standing Inuksuit visible.

5.1.10 KfJm 176 (GAL 16)

KfJm 176 is located at the southwest base of KfJm 175 and includes two caches that are located within 5 m of each other. They appear to have been dug out of the existing cobble piles, and caribou remains are intermingled with some of the surface rocks (Plate 11). The significance of this site is considered low.



Plate 11. Caribou bones in cache at KfJm 176.

5.1.11 KfJm 177 (GAL 19)

This site overlooks a small lake approximately 100 m west side of the road alignment and is located on a potential borrow source. There are two single stone inuksuit, one upright and the other fallen, within a few metres of each other on the top of a high rocky ridge (Plate 12). While they are on the edge of the borrow source, they may be impacted by the methods of removing the material and should be assessed by members of the local community for their significance to the overall network of Inuksuit in the region.



Plate 12. View south of two single stone Inuksuit at KfJm 177.

5.1.12 KfJm 178 (GAL 20)

KfJm 178 is the only lithic flake site identified on the road alignment. One small white quartzite flake scraper with use wear and nibbling on two sides, and a smaller flake were recovered along with several pieces of shatter. The artifacts are spread over an area of several metres and possibly impacted by use of the area as an ATV trail. The scraper is 3.5 cm by 2.4 cm in size and has several platform and dorsal scars (Plate 13; Appendix I). Most of the usewear is on one side. The site is located on a gravel bed between two small lakes through which the road alignment will pass north of KfJm 177 (Plate 14). An intensive search of the area did not produce any additional artifacts and it is thought that recovery of the artifacts and photography has mitigated the site. The site area is not considered to be significant but should be visited by Elders.



Plate 13. Lithic scraper at KfJm 178.



Plate 14. View south of KfJm 178 (between black bag and stake). KfJm 177 on high ridge in back on the right.

5.1.13 KfJm 179 (GAL 22)

KfJm 179 is one of the two largest multi-component sites identified during this AIA. It is located on a south facing terrace surrounded on three sides by a rocky ridge (Plate 15). Originally sighted during aerial reconnaissance, it appeared to be a group of caches created out of the large boulders that cover the terrace. Ground inspection revealed six large caches, all made of large boulders with sufficient lichen cover to indicate they have not been disturbed recently. Two more caches are identified as recent constructs and a hunting blind or recent remnants of a house feature are also present (Plate 16). Additionally, three Dorset style house outlines with central features are also present on the south and eastern edges of the boulder field where the transition to a flatter, less rocky surface begins.

The terrace overlooks the road alignment but will not be impacted by it. Use of this area as a borrow source will impact the site and it should be visited by elders from the local community to determine whether it is of local significance. If this site will be impacted it is recommended that detailed mapping be conducted.



Plate 15. View north of terrace where KfJm 179 is located. Note the discoloration on the cairn in the foreground (recent) and older cache in the centre.



Plate 16. House ring at KfJm 179 with central hearth feature.

5.1.14 KfJm 180 (GAL 23)

KfJm 180 is an Inukshuk that is located on a high promontory looking south towards Rankin Inlet (Plate 17). This Inukshuk overlooks the road alignment and is east of KfJm 179 in the area of the rock borrow source. To the north, a line of Inukshuk appear on four other peaks roughly paralleling a small ATV trail that extends through the area. The other visible Inuksuit are single stone markers and were not recorded, but should be mapped if this area is scheduled for resource extraction. The significance of this Inukshuk may be considered low if the other markers are removed due to development.



Plate 17. View southwest of KfJm 180.

5.1.15 KfJm 181 (GAL 28)

KfJm 181 is an Inukshuk of two rocks on a high ridge in a proposed borrow area. Beside the Inukshuk is an old rusted leg-hold trap (Plate 18). Close by in the bedrock is a vein of white quartzite that may have served as a tool material source. There does not appear to be much significance to this site, but the presence of the leg-hold trap may indicate that

this is an area of good hunting. Unless the community attaches a higher significance to this site it is considered to be low for scientific potential.



Plate 18. View southwest of KfJm 181. Leg-hold trap to the left on rock.

5.1.16 KfJm 182 (GAL 30)

This site is a single tent ring of embedded rocks on a small bench along the east side of an esker where the road alignment is proposed (Plate 19). It overlooks a small body of water and is made up of 39 stones and approximately three metres in diameter. As it is not on the top of the esker where the road will be located it is probably out of the impact zone for construction, but its significance should be assessed by the local community.

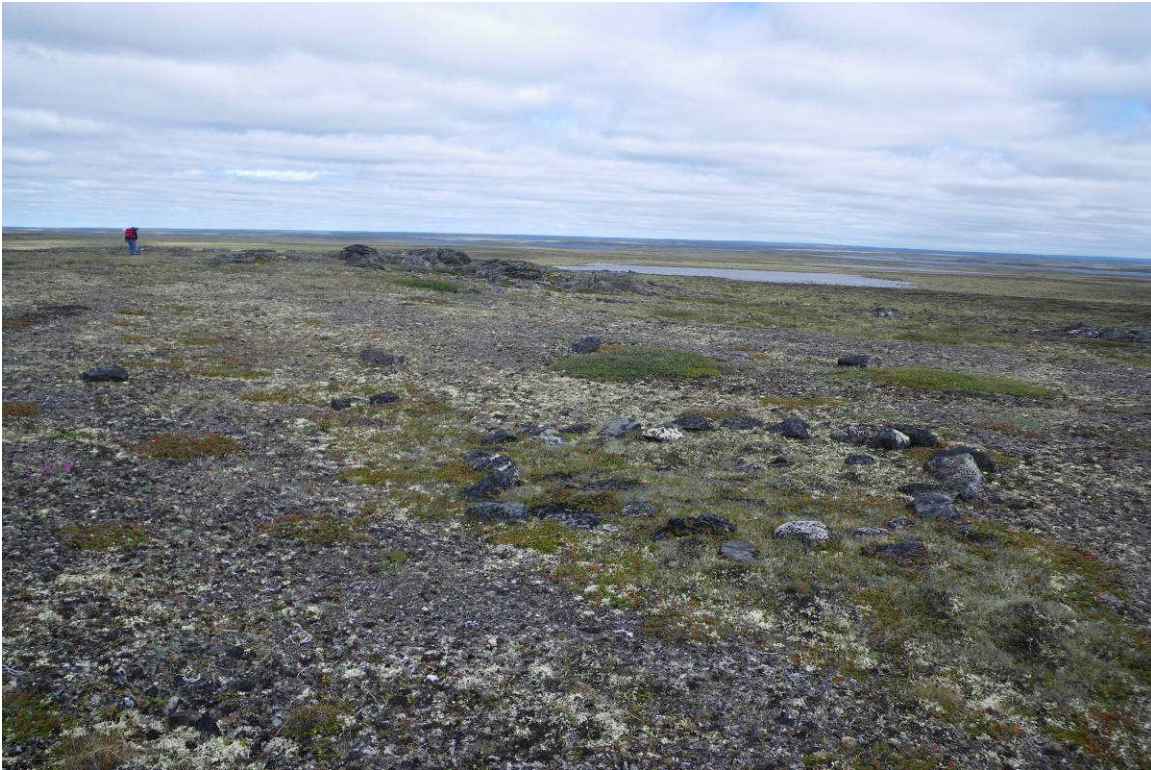


Plate 19. View north of KfJm 182, tent ring in foreground.

5.1.17 KfJm 183 (GAL 32)

KfJm 183 is a campsite located west of the proposed road, and northwest of KfJm 182 by approximately 150 m, on a rock borrow source area. The site includes a recent hunting blind, hearth, tent ring and two square/rectangular areas of smaller stones used to keep hides flat for drying, placed on top of the large flat rocks (Plate 20). The tent ring is located adjacent to the side of the rock ridge, as is the hearth. The hunting blind faces south towards an open wet area. The significance to this site appears to be its current location for hunting.



Plate 20. One of two hide drying areas at KfJm 183.

5.1.18 KgJm 47 (GAL 26)

This site is at the north end of the proposed Woody Lake tailings pond northwest of the existing Comaplex mining and camp area. A small mound of approximately 4 m by 4 m by 20 m has three features located on top (Plate 21). One is an Inukshuk and the other two are caches/cairns. Below, on the northwest side there are three other cache depressions in a small boulder field. The features on top of the mound appear to be relatively recent and not contemporaneous with the caches below. One of the features on top of KgJm 47 has a caribou bone placed in the middle of the cache. The significance of the mound is considered low scientifically but as to its value for use by the community it should be assessed by elders.



Plate 21. View south of KgJm 47 at the north end of Woody Lake.

5.2 Previously Identified Heritage Resource Sites

5.2.1 KfJm 63

KfJm 63 was previously identified as a campsite with a tent ring. The number of site features has been increased through this assessment and now includes seven features (4 tent rings and 3 caches). Like KfJm 179, this site is also on an elevated terrace, surrounded (and sheltered) by a rocky ridge, and exposed to the south overlooking the same vast plain (Plate 22). Also like KfJm 179, this site has a tent ring that is similar to the Dorset style with the central feature (Plate 23). Recent evidence of camp use in the form of metal tins is present. The site is spread over an area 20 by 50 m but there is a concentration of features in one location with an outlier that might be from a different chronological occupation. It is on the southern edge of the borrow source and could be avoided, but should be visited by members of the local community for input as to its significance.



Plate 22. View west of KfJm 63. Tent ring in foreground and caches being recorded.



Plate 23. View of tent ring with central feature at KfJm 63. Caches in background.

5.2.2 KfJm 66

This site revisit included identifying six single stone Inuksuit and one cache with caribou racks extending out of it (Plate 24). The single stone markers are aligned along a 70 m linear distance. This site and KfJm 67 to the southeast are located on a narrow rocky ridge slightly elevated above the surrounding barrens by only a few metres. Mark Inuar indicated that from this vantage point caribou could be hunted from either side of the ridge behind the markers. It is located west of the east end of Meliadine Lake and north of the proposed road alignment extension into the Discovery Exploration area. This area has many recent use sites, and surveyor/hunter made “Inuksuit” indicate the continuing use of the area.



Plate 24. View west of KfJm 66 cache with caribou bone and single stone markers in back on boulders.

5.2.3 KfJm 67

This is an ovoid stone feature on the same small rocky ridge/esker on which KfJm 66 is also located. It is in the approximate location of the original coordinates and is a feature of 60 stones measuring 3.2 m by 2.2 m (Plate 25). It appears to have collapsed and the extent of lichen growth indicates that it has not been recently built or disturbed. It may have been a sleeping area (siniktarvik) or hunting blind. It is located on the north side of the proposed road alignment extension into the Discovery exploration area and shares the same esker as KfJm 66 which is to the northwest.

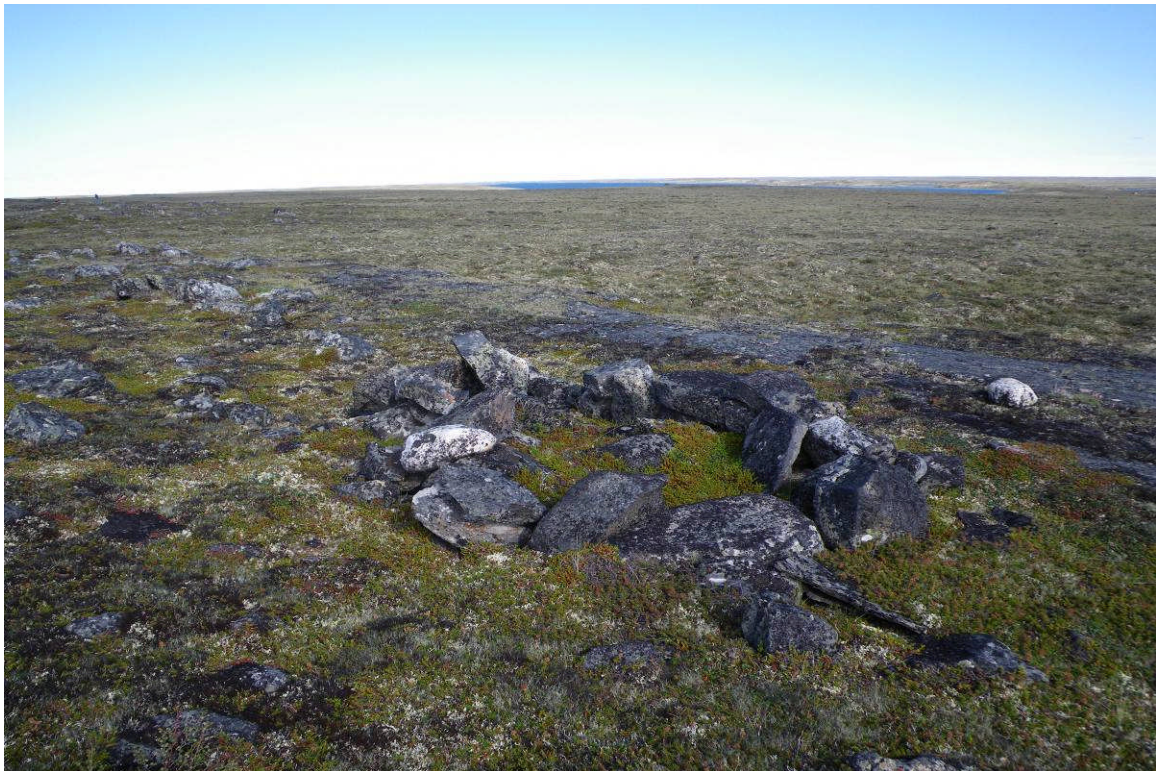


Plate 25. View north of KfJm 67 with Meliadine Lake in the distance.

5.2.4 KfJm 80 (GAL 1)

This is a previously recorded site containing two tent rings, two caches and a hunting blind. The two rings are adjacent to each other (Plate 26). Both are 4.5 m in diameter and situated on the highest part of the knoll providing good visibility in all directions.

The site is located several hundred metres southwest of an esker that may be used as road access into the Discovery exploration area but should not be impacted unless the area is required for road building materials. The hunting blind overlooks a small lake to the east. The site was identified during helicopter reconnaissance of the road alignment and visited due to its proximity to the road. No evidence of cultural material was identified and should this area be used for resource extraction, it is recommended that detailed mapping of this site and KfJm 167 to the north be conducted.

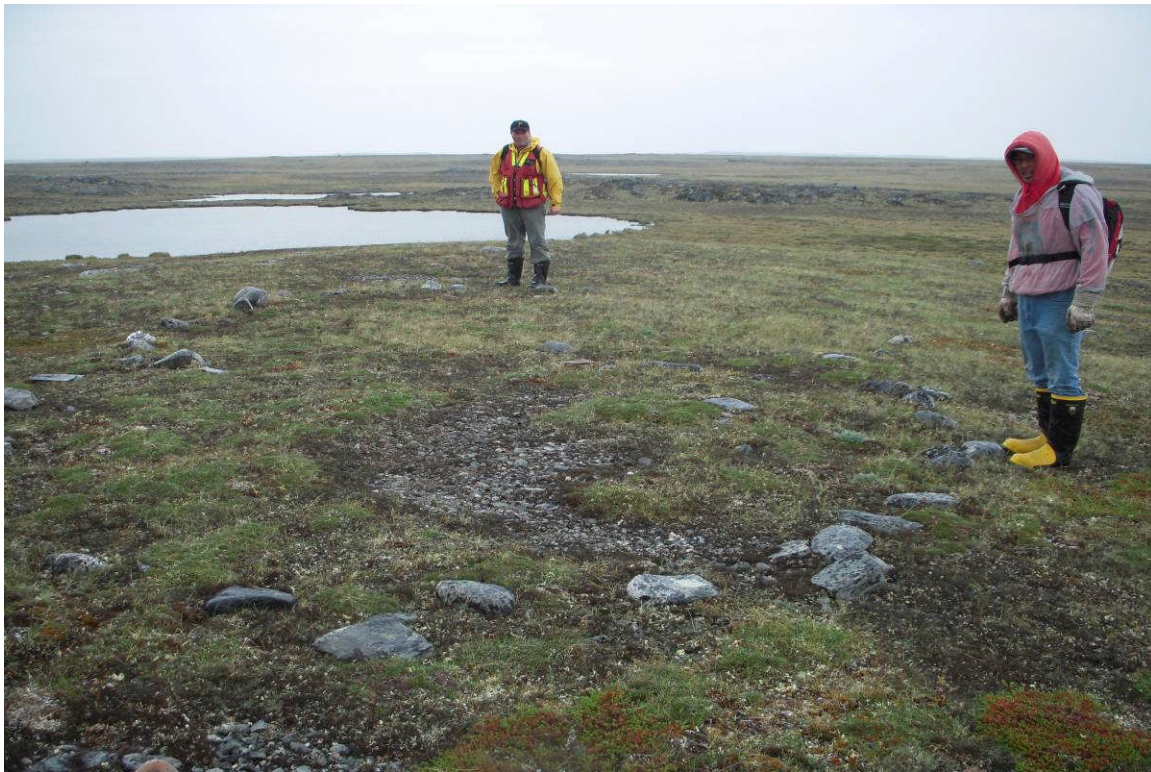


Plate 26. View west over two tent rings at KfJm 80

5.2.5 KfJm 93 (GAL 4)

This site is located on top of an esker at the east end of Meliadine Lake that will be used for the proposed road alignment extension into the Discovery exploration area. It is the highest point on the esker and includes a recent cairn with wood lathing inserted into it, a recent tent ring and a partially buried tent ring approximately 14 m to the northeast that is

also relatively recent in form and style (Plate 27). Recent use is evidenced by the presence of tin cans. It is a natural vantage point and overlooks the southern portion of the east basin of the lake. Also nearby is KfJm 104 which is a recent use Inukshuk on the eastern slope of the esker overlooking the lake. This area will be impacted by a road alignment that traverses the esker and its significance should be assessed by members of the local community.



Plate 27. Recent tent ring at KfJm 93 with partially buried ring in background.

5.2.6 KfJm 99

KfJm 99 is a single stone Inukshuk located on the west side of a small slough below the esker where the proposed road alignment extension into the Discovery exploration area will traverse (Plate 28). This site will not be impacted by development, but should be considered if elders from Rankin Inlet assess the sites on the esker and road alignment.



Plate 28 View east of KfJm 99 with road alignment esker in the background.

5.2.7 KfJm 102 (GAL 39)

KfJm 102 has seven features, including three older tent rings, one more recent tent ring, two caches and a recent component that includes stacks of building materials that may be used for constructing a cabin, and refuse that includes garbage and pieces of children's toys (Plate 29). This site is located at the southern tip of a bay at the east end of Meliadine Lake and is a recent staging area for boats to some of the cabins located along the shore of the lake. This area may be impacted by the proposed road alignment extension into the Discovery Exploration area and should be assessed by members of the local community.



Plate 29. View south of KfJm 102 showing Tent ring and building materials in background. The esker is to the left.

5.2.8 KfJm 104

This is an Inukshuk that overlooks the east end of Meliadine Lake on the east side slope of the esker where the proposed road alignment extension into the Discovery exploration area is planned (Plate 30). It is positioned above a steep drop off approximately 20 m above the water. The base appears to be older than the top half which appears to have been rebuilt from rocks dug out of the surrounding area. It may be that the original base of the Inukshuk was in place when the site was originally located and recorded in the 1970's. The local significance of this site should be determined by elders from Rankin Inlet.



Plate 30. View north up Meliadine Lake of KfJm 104.

5.2.9 KfJm 110

KfJm 110 is a series of five caches, four tent rings, and a collapsed Inukshuk located on the east side of a rocky ridge in an area of borrow sources south of the proposed road alignment extension into the Discovery exploration area (Plate 31). It is possible that the eastern feature which includes three of the caches may be KfJm 112 recorded in 1975 but there is not enough information available in the sites database to confirm that. Site KfJm 110 is a campsite in which each of the tent rings has a small hearth inside of the south wall, but there are also some stand-alone hearths (Plate 32). The collapsed Inukshuk is on top of the ridge close-by. Seventy-five metres to the east is the area where the three caches are located. Another ring and cache are located in a boulder field 40 m to the northwest. This is a large site and may have originally been identified separately and recorded as other sites, but there is not enough information on the existing site forms to discern whether that is actually the case.



Plate 31. View east of Feature 1 at KfJm 110, the largest of the tent rings.



Plate 32. Small hearth feature at KfJm 110.

5.2.10 KfJm 116

This is a large rock cache overlooking a small lake on the east side of an esker over which the road will traverse. The cache is made of more than 75 stones and is 2 m by 2 m in diameter (Plate 33). It is on the east side of the esker and should not be impacted by the construction of a road which will run along the west side of the esker. North across the small lake is the rocky ridge where KfJm 110 is located.



Plate 33. View east of cache at KfJm 116.

5.2.11 KfJm 118 (GAL 25)

This cache or siniktarvik is approximately 2 m in diameter and situated on the east side of the road alignment (Plate 34). It is on a side slope several hundred metres northwest of KfJm 116, and approximately 100 m southwest of KfJm 110 across a small slough. There is no evidence of recent use, or of any remaining cultural materials. However, the

slightly enhanced vegetation growth inside the cache area suggests that organic nutrients were once present inside the cache, probably from cached meat. Its significance is considered to be low.



Plate 34. View south of KfJm 118.

5.2.12 KfJm 141 (GAL 33)

KfJm 141 is located on a boulder ridge and includes four caches. They range from 1.5 m to 2.5 m in diameter and are made of large boulders (Plate 35). The area is in a proposed borrow source for the road alignment and should be assessed by members of the community, although there is low scientific significance attached to them.



Plate 35. Example of the caches at KfJm 141.

5.3 Recent Markers/Inuksuit

Many inuksuit appear on the landscape in this region. Only those that were located on the road alignment or on potential borrow sources were examined. Those that appeared to be undisturbed, or rebuilt, and showed an indication of age (through examination of lichen growth between the joints of rocks, and the colour matching of lichen type) were listed as newly identified sites. Remaining markers or inuksuit, that appeared more recent (as typified by ATV tires or the presence of relatively recent caribou bones in their construction; Plate 36), or which were identified by our community assistant as recent markers of hunting caches, were not included on the sites list, but are left for local elders to provide input as to their community significance.



Plate 36. Example of recently built Inukshuk in Project area.

5.4 Summary of Heritage Resources Sites

There are two areas of significant interest along the Project route. The first is the area on the east and west side of the proposed Meliadine River narrows bridge crossing (KfJm 168 to KfJm 172), and the other is the area of borrow source locations south of the proposed road alignment extension into the Discovery exploration area where the larger campsites are identified (KfJm 63, KfJm 110 and KfJm 179).

The Meliadine River narrows area is a natural location for heritage resources sites as it would not only have provided good fishing but is also situated overlooking the wetlands to the south where waterfowl could be targeted. The large number of prehistoric and recent stone features supports the continued use of the area into present day and requires the input of local elders into the significance of the area and how these heritage resources

sites can continue to be managed with the requirements of the proposed road and bridge in that location.

The area of the larger campsites is central to the need for building materials, but most of these heritage resources sites are located on the periphery of the borrow sources and may be avoided. Again, it is the community significance of these sites that must be determined and how they can best be managed.

Inuksuit are present throughout the Project area; some recent and some of antiquity. It will be up to members of the local community to attach significance to these and to discuss their importance.

5.5 Proposed Alignment Reroutes

Since the AIA was conducted, Comaplex has identified possible reroutes that take the road alignment away from several of the sites in the Discovery exploration area. The proposed reroute at Discovery will realign the road and avoid the locations of KfJm 80, 93, 99, 102, 104 and 167. The area of the reroute was subject to aerial reconnaissance and pedestrian survey during assessment of the general area and no heritage resources were identified in the new alignment area.

Sites KfJm 66 and 67 are now located on the north side of the Discovery road alignment and should be discussed with local Elders but may be avoided by the final alignment.

A potential realignment of the route as it enters the northeast side of the Comaplex mine site was discussed with Comaplex during the field investigation and assessed with negative results. No further assessment is recommended for those areas.

6. SUMMARY AND RECOMMENDATIONS

The AIA of the Comaplex Meliadine West Gold Project proposed all-weather road and associated borrow sites was conducted under Nunavut Permit 2008-003A. It produced the results as discussed in Section 5. Eighteen newly identified heritage resource sites were identified (Table 1) and twelve previously recorded sites (Table 2) were revisited during the program; all are documented as per the *Guidelines for Applicants and Holders of Nunavut Territory Archaeology and Palaeontology Permits* (Government of Nunavut 2003).

Low-level aerial reconnaissance of the road alignment and adjacent borrow source areas was conducted in order to assess the locations for archaeological potential. The entire road alignment and all borrow source areas were assessed by helicopter overflight to determine heritage resource potential and to support the identification of heritage resources. This reconnaissance was conducted daily while transiting to the study areas and from aerial photography conducted by the study team. Additionally, approximately 85% of the road alignment was assessed by pedestrian survey. Only those areas of low potential through low laying muskeg were avoided.

By conducting this AIA, it is recommended that Comaplex has fulfilled the requirements of the current program in their attempts to identify the potential for impact on heritage resources from the construction of an all-weather road as proposed. The investigations of the AIA identified 18 previously unidentified sites and visited 12 known heritage resource sites. It is recommended that elders from the Rankin Inlet community visit the road alignment and provide their input on the sites described in this report, and review and comment on the assessment of each site's significance. It is also recommended that strategies for avoidance of these resources be considered in final alignment selection and during construction. It must be noted that any new development areas not included in the assessed alignment should be reviewed by an archaeologist and that additional field work may be required by CLEY for significant deviations to the assessed route.

Recently constructed cultural resources have been identified within the Project area and are briefly referred to in this report. However, while not meeting the technical requirements to be classified as heritage resources, they are cultural markers of recent occupation and activity, and as such, it is also recommended that community input assist in an understanding of their value to the community and recommended disposition.

Table 1 Heritage Site Recommendations (Newly identified sites)

| Site | Type | Significance | Recommendations |
|-----------------|------------------------|---------------------|---|
| KfJm 167 | Campsite | Moderate | Avoid, or detailed mapping along with KfJm 80 |
| KfJm 168 | Campsite | Moderate | Avoid, or detailed mapping |
| KfJm 169 | Fox traps | Moderate | Avoid, or detailed mapping |
| KfJm 170 | Campsite | Moderate | Avoid, or detailed mapping |
| KfJm 171 | Campsite | Moderate | Avoid, or detailed mapping |
| KfJm 172 | Fox trap | Low | No concerns; elder input |
| KfJm 173 | Marker | Low | Not expected to be impacted |
| KfJm 174 | Marker | Low | Reposition with elder input |
| KfJm 175 | Blind/Marker, Fox trap | Moderate | Avoid, or detailed mapping with KfJm 176 |
| KfJm 176 | Caches | Low | Avoid, or detailed mapping with KfJm 175 |
| KfJm 177 | Markers | Low | No concerns; elder input |
| KfJm 178 | Flakes | Low | No diagnostic tools recovered; mitigated through collection of flakes |
| KfJm 179 | Campsite | Moderate | Due to the number of features and current condition, avoidance or detailed mapping is recommended |
| KfJm 180 | Inukshuk | Moderate | Elder input on importance |
| KgJm 47 | Inukshuk/Caches | Low | Elder input on importance |
| KfJm 181 | Inukshuk | Low | No concerns; elder input |
| KfJm 182 | Tent Ring | Low | No concerns; elder input |
| KfJm 183 | Campsite | Low-Mod | Avoid, or detailed mapping |

Table 2 Heritage Site Recommendations (Previously recorded sites)

| Site | Type | Significance | Recommendations |
|-----------------|-----------------|---------------------|---|
| KfJm 63 | Campsite/Dorset | Moderate | Avoidance or detailed mapping |
| KfJm 66 | Cache/Marker | Low-Mod | No concerns; elder input |
| KfJm 67 | Cache/Blind | Low-Mod | No concerns; elder input |
| KfJm 80 | Campsite | Low-Mod | Avoid, or detailed mapping along with KfJm 167 |
| KfJm 93 | Tent Ring | Low | Recent use |
| KfJm 99 | Marker | Low | No concerns; elder input |
| KfJm 102 | Campsite | Low-Mod | Elder input, may not be possible to avoid |
| KfJm 104 | Inukshuk | Low | No concerns; elder input |
| KfJm 110 | Campsite | Moderate | Due to the number of features and current condition, avoidance or detailed mapping is recommended |
| KfJm 116 | Cache | Low | No concerns; elder input |
| KfJm 118 | Cache | Low | No concerns; elder input |
| KfJm 141 | Caches | Low | No concerns; elder input |

7. CLOSURE

We trust the above meets your present requirements. If you have any questions or require additional details, please contact the undersigned.

GOLDER ASSOCIATES LTD.

Report prepared by:

Report reviewed by:

A handwritten signature in black ink, appearing to read 'David Blower', with a long horizontal flourish extending to the right.

David Blower, Ph.D., RPA
Senior Archaeologist,

A handwritten signature in blue ink, appearing to read 'D'Arcy Green', with a stylized, looped structure.

D'Arcy Green, M.A.
Associate, Senior Archaeologist

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APPENDIX I
ARTIFACT INVENTORY

KfJm-178

| Site | Cat. # | Weight (g) | Length (mm) | Width (mm) | Thickness (mm) | Artifact Type | Cortex | Dorsal Scar | Platform Scar | Colour | Material | Comments |
|----------|--------|------------|-------------|------------|----------------|---------------|--------|-------------|---------------|--------|-----------|--|
| KfJm-178 | 1 | 3.3 | 22.6 | 18.9 | 9.4 | Shatter | None | N/A | N/A | White | Quartzite | |
| KfJm-178 | 2 | 1.8 | 18.9 | 14 | 5.2 | Shatter | 1-25% | N/A | N/A | White | Quartzite | |
| KfJm-178 | 3 | 0.2 | 9.7 | 7.9 | 1.4 | Shatter | None | N/A | N/A | White | Quartzite | |
| KfJm-178 | 4 | 12.3 | 41.3 | 18.2 | 13.9 | Shatter | 1-25% | N/A | N/A | White | Quartzite | |
| KfJm-178 | 5 | 9.8 | 35.1 | 23.3 | 12.2 | Shatter | 1-25% | N/A | N/A | White | Quartzite | |
| KfJm-178 | 6 | 1.5 | 23.1 | 11.7 | 4 | Shaping | 1-25% | 2 | 1 | White | Quartzite | |
| KfJm-178 | 7 | 5.1 | 31.5 | 24.8 | 6.2 | Usewear | 1-25% | 1 | 2 | White | Quartzite | Usewear on lithic, rounded edges from use, size of a thumbnail scraper, length of usewear is 25.9mm-most apparent only on one side |