Legend

- ᖃᖏᒐᐃᓐᓇᓂᑦ ᐊᕐᔪᒪᑎᒃᐅᓕᖅ
  All-Season Road
- ᐊᐅᖏᑎᓐᓇᖏᑐᑦ ᐅᑭᐅᓂᒃᑕᖅ ᐊᕐᔪᒪᑎ
  Meadowbank All-Season Road
- ᐅᒃᑭᐅᓂᑦ (ᐊᕐᔪᒪᑎᒃᐅᓕᒫᒃᑖᖏᑐᖅ ᐊᑐᖏᑕᐅᓕᒫᒃᑖᖏᑐᖅ)
  Winter Road (Preferred Option)
- ᑭᒃᓚᐃᐅᑦ ᓄᖏᓇᖓ
  Kiggavik Site

N

Tehek Lake

Amarulik Lake

Schultz Lake
ᖃᒪᓂᖅ ᑐᓴᖅ
Qamaniq Tugliq

Qamanaarjuk Lake
ᖃᒪᓐᓇᕐᒃ

Thelon River
ᑲᓕᓂ ᔭᑦ ᑯᒪ
Kangirjuup Kuunga

Whitehills Lake
ᑕᓯᔨᐊᖅ
Tasirjuaq

Itigulik Lake
ᐃᑎᒍᓪᓗ

Ajaktukvik Lake
ᐊᒃᑐᕐᕕᒃ

Kavisilik Lake
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Aberdeen Lake
ᖃᒪᓂᐅᔾᔪᑎᑦᓯᖅ
Qamaniq Ungalliq

Squiggly Lake

Skinny Lake
ᖃᕕᓯᓂᓪᓗ

ALL-SEASON ROAD
ᖃᖏᒐᐃᓐᓇᓂᑦ ᐊᕐᔪᒪᑎᒃᐅᓕᖅ

MEADOWBANK ALL-SEASON ROAD (EXISTING)
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Siamese Lake
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Long Lake
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Qatgiqtalik Lake
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Crossing Point Lake
ᓇᓐᓂᐊᖅᓱᖅ

Tunuhuk Lake
ᑐᓐᓄᕼᐊᓪᓗ

Thom Lake
ᑕᕐᑐᐊᖅ
Tasi'tuaq

Tupik Lake

Baker Lake

Gerhard Lake

Lobster Lake

Judge Sissons Lake
ᖁᑭᖅᑕᑦ ᓴᐊᓕᓪᓗ
Qikiqtarjualik

Qamanaugaq Lake
ᖃᒪᓇᐅᒃᓗᒃ

WINTER ROAD (PREFERRED OPTION)
ᐅᒃᑭᐅᓂᑦ (ᐊᕐᔪᒪᑎᒃᐅᓕᒫᒃᑖᖏᑐᖅ ᐊᑐᖏᑕᐅᓕᒫᒃᑖᖏᑐᖅ)

Qikiqtarjualuk River
ᖁᑭᖅᑕᔪᐊᓘᒃᑲᓂᖅ ᑯᒪ
Qikiqtarjualuup Kuunga

Audra Lake
ᐊᐅᑐᖅ ᑕᓴᖅ
Aniguq

Qinnguq Bay
ᖁᓂᖅᓗᖅ

Marjorie Lake

Buzzard Lake

Turtle Lake

Murriittuq Lake
ᒧᕐᕿᑐᖅ

Aniguq River
ᐊᓂᓗ ᔭᑦ ᑯᒪ
Aniguup Kuunga

Qamanaugakuluk Lake
ᖃᒪᓇᐅᒃᓚᓗᒃ

Baker Lake
ᖃᒪᓂᑐᐊᖅ

Dragon Lake

Quglungnil'naaq Lake
ᖁᓪᓗᖓᓂᓕᓐᓇᖅ

Mihaluk Lake
ᒥᐱᐊᓗᒃ

Rocket Lake

Samarook Lake

Pistol Lake

Iqaluik Lake
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Mallery Lake
ᑕᓯᔨᐊᕐᒃᐊᑯᓪᓗᒃ

Princess Mary Lake
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Tasirjuaq Tugliqpaaq

Pitz Lake
ᑕᓯᓗᓂᔨᐊᕐᒃ
Tasilugjuaq

Gull Lake

Kazan River

ᐃᓄᐃᑦ ᖃᐅᔨᓴᓕᖅᑐᖃᖅᑐᑦ
Inuit Qaujimajatuqangit Legend

- ᐱᑭᐅᕕᑦ ᐊᖏᕐᕋᓐᓂ ᖃᓄᓂᖅᓱᓂ
  Caching Area
- ᑐᐃᑦ ᒪᖃᐃᕕᐅᒃ ᒪᖃᐃᑐᖅ
  Caribou Hunting Area
- ᑎᓴᖅᒥᐊᖅ ᒥᕋᑎᑦ ᒪᖃᐃᕕᐅᒃ ᒪᖃᐃᑐᖅ
  Goose Hunting Area
- ᐅᓪᒥᖅᓪᒪᒃ ᒪᖃᐃᕕᐅᒃ ᒪᖃᐃᑐᖅ
  Muskox Hunting Area
- ᐊᓚᒪᖅ ᑐᐃᑦ ᒪᖃᐃᕕᐅᒃ ᒪᖃᐃᑐᖅ
  Wolf/Caribou Hunting Area

Projection: NAD 1983 UTM Zone 14N
Compiled:TL
Date: 04/08/2014 Scale: 1:500,000
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, Baker Lake Elders, AREVA Resources Canada Inc.*

FIGURE 4.2-3
IDENTIFIED HUNTING AND CACHING AREAS FROM IQ

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 3 - PART 2

10 0 10
Kilometers

KIGGAVIK PROJECT

AREVA

File: Q:\SHEQ\GIS\KIGGAVIK\2014\EIS\Volume 3 - Public Engagement and IQ\Volume 3 - Tier 2\IQ - Part 2\Maps\MXD\Figure 4.2-3 IDENTIFIED HUNTING AND CACHING AREAS FROM (IQ).mxd

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The literature review showed that the land far north of Baker Lake, between Shultz Lake and the north coast (outside the study area), as well as northwest of Beverly Lake was irregularly used in the past by Baker Lake residents for trapping Arctic fox and hunting caribou (IQ-Riewe 1992:149). Additionally, the area adjacent to the east shore of Baker Lake was commonly used for caribou hunting by residents of Baker Lake and Chesterfield Inlet (IQ-Riewe 1992: 254). During focus group discussions, Baker Lake hunters said they do not go as far as they used to for caribou. While they used to travel large distances to harvest caribou, they now hunt close to the community adding that they did not need to go further than 40 miles (64 km), as caribou were "just there" (IQ-BLH 2009). While Baker Lake caribou hunters most frequently hunt within approximately 10 km north of the community, some hunters travel as far as 300 km to hunt (IQ-Kendrick and Manseau 2008). Comparing travel distances in lifetime hunting patterns, Kendrick and Manseau noted that younger hunters accumulated larger distances than Elders possibly due to the use of snowmobiles (IQ-Kendrick and Manseau 2008).

Five different caribou herd ranges overlap the Baker Lake area, which is the closest community to the calving grounds of both the Beverly and Qamanirjuaq caribou herds (IQ-Kendrick and Manseau 2008; GeoVector Management Inc 2008:35). During Project interviews, Elders indicated various caribou crossings and movements surrounding Baker Lake (Figure 4.2-1). Qikiqqtarjualik Lake (Judge Sissons Lake), just south of the Project lease area, was a main caribou crossing area (IQ-BL01 2008), along with Annigguq Lake (IQ-BL02 2008), and Qikiqqtalik, the narrows situated at the west end of Aberdeen Lake (IQ-BL04 2008). While interviews, focus groups, and the literature review indicated that the Project was not in an area frequently used for hunting or trapping, the Judge Sissons Lake area has been infrequently used for hunting, trapping, and as a travel route in the past (Figure 4.1-2) (IQ-Riewe 1992:149[34]). Project interviews identified a caching area west of the Project on the east shore of Aberdeen Lake.

The literature review indicated that caribou crossings are located north of Baker Lake near Whitehills Lake and adjacent to the Meadowbank all-weather road (Meadowbank road) (Figure 4.1-1). The literature review also indicated that in the past when caribou wintered in the Whitehills Lake and Tehek Lake areas, hunting and trapping was done from fall through spring near Whitehills Lake and also around the northeast shore of Baker Lake in summer and fall (IQ-Riewe 1992:254[35]). *In the past, caribou were hunted along other lakes south of the Project depending on the availability of caribou near Baker Lake* (IQ-Riewe 1992:188).

[34] IQ-Riewe 1992;149: *The land far north of Baker Lake, between Shulz Lake and the north coast (outside the study area), as well as northwest of Beverly Lake was irregularly used in the past by Baker Lake residents for trapping Arctic fox and hunting caribou.*

[35] IQ-Riewe 1992:254*: The area adjacent to the east shore of Baker Lake was commonly used for caribou hunting by residents of Baker Lake and Chesterfield Inlet.*

The results of the 2011 community review meetings suggest that although caribou are the main food source for hunters from Baker Lake, other land mammals play a minor role.People from Baker Lake also hunt wolves and wolverines Wolves are valuable for their fur, which the interview participants said can be sold at a high price (IQ-BLHT 2011[36]). *Wolves are seen close to town near the snow-fence when it is cold* (IQ-BLHT 2011). According to the interviewed Elders, *wolves are hunted in the Aberdeen Lake and Shultz Lake areas during the winter* (IQ-BLE 2011). The Aberdeen Lake and Shultz Lake areas were also described as "*good caribou hunting areas*" (IQ-BLHT 2011). *The Elders reported that summer is the best time to hunt wolverine, because wolverines are very dangerous and can disappear into the snow during winter; although the wolverine is small, it is fast and clever and can circle around an unsuspecting hunter* (IQ-BLE 2011). There are also many grizzly bears around Baker Lake and people often hunt them for food and for their skins The literature review also indicated that the number of wolves and grizzly bears harvested has increased (IQ-Cumberland 2005[37]).

In the past, trapping around the Baker Lake community mostly occurred during November and December. Trapping in February and March was focused on the areas near Whitehills Lake and lower Quoich River (IQ-Riewe 1992:254). Arctic fox was trapped along the southeast end of Baker Lake in late winter (IQ-Riewe 1992:149) and along the east side of Princess Mary Lake (IQ-Mannik 1998:239).

During interviews, Elders did not identify musk ox as an important food source. One Elder said that for many years, they were not aware that they could eat musk ox (IQ-BL10 2008), and others said they didn't harvest them because they were protected (IQ-BL02 2008). The literature review indicated that there used to be an important musk ox hunting area southeast of Baker Lake near Gibson Lake (IQ-Riewe 1992:173). Also, there have been increasing numbers of musk ox reported near the Baker Lake area (IQ-Cumberland 2005).

The literature review indicated that the area along the Kazan River, south of Baker Lake, and the area east to Bissett Lake and Parker Lake were used year-round by residents of Baker Lake (IQ-Riewe 1992:173).

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[36] IQ-BLHT 2011: *do people hunt wolves? yes, the fur is big bucks. When it is really cold they come into town and near the snowfence. : do people hunt wolverines? yes." Do you go out strictly for wolves, wolverines? yes some people do this depending on the time of year*

[37] IQ-Cumberland 2005: *The number of wolves and grizzly bears harvested has increased. Pelts are very valuable.*

While interviews, focus groups, and the literature review indicated that marine mammals are rarely hunted by residents of Baker Lake, a few hunters said *they travel down to Chesterfield Inlet to hunt marine mammals* (IQ-BLH 2009) and one Elder from Chesterfield Inlet *recalled hunting walrus with a man from Baker Lake in the area of Chesterfield Inlet* (IQ-Mannik 1998:181). During focus group discussions, hunters said that that *although the Baker Lake people rarely harvest marine mammals, some seals are observed in Baker Lake itself. In 2008, seals were seen three times, and these included harbour, ring, and the occasional bearded seal.* (IQ-BLH 2009) The interview participants at the community review meeting in 2011 agreed that *Stony Point is a good location for hunting seals* (IQ-BLHT 2011). *A killer whale (orca) was seen in Baker Lake around 1978, and beluga whales have been seen in Baker Lake every couple of years* (IQ-BLH 2009).

Residents from as far south as Arviat and Whale Cove used the Copperneedle River, Kaminak Lake, and Kaminuriak Lake route to travel northwest to Baker Lake (IQ-Riewe 1992:173). Arviat Elders and younger hunters have indicated that lifetime hunting travel areas have extended to the Baker Lake area (IQ-Kendrick and Manseau 2008).

4.2.2 Birds and Egg Harvesting

Figure 4.2-3 shows the location of goose hunting, and goose nesting areas identified during interviews and focus group discussions in Baker Lake. Both the literature review and Project interviews *identified the mouth of the Kazan River, on the south shore of Baker Lake, as an area where geese were harvested* (IQ-Riewe 1992:254). During previous interviews conducted in Baker Lake by Hatti Mannik, one Elder said that *in his younger days there were not as many waterfowl around Baker Lake as there were at the time of the interview* (IQ-Mannik 1998:97). The literature review also indicated that *between Baker Lake and Beverly Lake (to the northwest of Baker Lake) many areas were used for goose hunting, duck hunting, and egg collection during the spring* (IQ-Freeman 1976:105). *Harvesting ducks, geese, and eggs was sometimes also done north of the Dubawnt River and Dubawnt delta far west of the Project* (IQ-Riewe 1992:149). During interviews, some interviewees commented that *a bridge over the Thelon River might prevent people from taking their boats up river to pick goose eggs* (IQ-BL06 2008). Ptarmigan was mentioned *as an important species of hunted bird* at the 2011 community review meeting (IQ-BLHT 2011).

4.2.3 Fishing

Figure 4.2-4 shows fishing areas identified during interviews and focus group discussions. The west shore of Baker Lake and Judge Sissons Lake were identified as fishing areas, as well as numerous fishing lakes in the Baker Lake region including areas close to the Project lease area, such as Siamese Lake and the east shore of Aberdeen Lake. Elders also said that *all of the little lakes in the region were fishing lakes* (IQ-BL16 2008). Fish species caught include whitefish, trout and Arctic char. *Arctic char run from the middle to the end of August, and spawn later in October, after the ice*

forms (IQ-BL01 2008). According to Riewe (1992:174), ciscos were also caught in the past. *Fishing also occurred at spawning beds after the lakes were frozen* (IQ-Bennett and Rowley 2004:74).

Some Elders said that while the quality of water hasn't changed, the fish are skinnier and are not very good (IQ-BL12 2008), and that Annigguq Lake now has unhealthy trout due to the drilling occurring in the region around the lake (IQ-BL02 2008). One of the Elders added that the rivers flowing into Pointer Lake have caused the fish there to die, and that the same will happen to Judge Sissons Lake when mining operations start to get close to the lake (IQ-BL02 2008).

The literature review indicated that important fishing sites include Tehek Lake, Whitehills Lake, Baker Lake, Parker Lake, Judge Sissons Lake, Bissett Lake, and the mouths of the Prince River and Kazan River (IQ-Riewe 1992:174). Fishing *at the southeast end of Tehek Lake and Whitehills Lake often provided food during hunting and trappi*ng trips (IQ-Riewe 1992:254). In the past, it was common for residents of Baker Lake to travel north to Whitehills Lake in spring and summer to fishing camps (Riewe 1992:254). Additionally, the area along the north shore of Baker Lake was heavily used all year, and local residents often occupied weekend and seasonal camps. Even though the south shore of Baker Lake was not easily accessible, fishing camps were still common (IQ-Riewe 1992:254).

At the community review meeting with HTO representatives in 2011, AREVA agreed to schedule a future meeting to discuss fish habitat compensation with consultants and the Department of Fisheries and Oceans (DFO) (BLHT 2011). AREVA then discussed the fisheries offset plan with the BL HTO in 2014 where AREVA asked the HTO for input to help develop the plan. A meeting was also held with the DFO in 2014. Refer to Volume 3 part A, Engagement and Volume 5, Fish and Fish Habitat.

Legend

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Winter Road (Preferred Option)
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Kiggavik Site

Schultz Lake
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Squiggly Lake

Skinny Lake
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ALL-SEASON ROAD
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Thom Lake
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Tasi'tuaq

Tupik Lake

Baker Lake

WINTER ROAD (PREFERRED OPTION)
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Gerhard Lake

Lobster Lake

Judge Sissons Lake
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Qikiqtarjualik

Qamanaugaq Lake
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Qikiqtarjualiup Kuunga River
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Buzzard Lake

Turtle Lake

Murriittuq Lake
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Audra Lake
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Anigguq

Anigguq River
Aniggiuup Kuunga

Qinnguq Bay
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Qamanaugakuluk Lake
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Dragon Lake

Rocket Lake

Samarook Lake

Pistol Lake

Quglungnil'naaq Lake
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Iqaluik Lake
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Tasilugjuaq

Gull Lake

Princess Mary Lake
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Tasirjuaq Tugliqpaaq

N

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Inuit Qaujimajatuqangit Legend
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Fishing Area

Projection: NAD 1983 UTM Zone 14N
Compiled:TL
Date: 04/08/2014 Scale: 1:400,000
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, Baker Lake Elders, AREVA Resources Canada Inc.*

FIGURE 4.2-4
IDENTIFIED FISHING AREAS FROM IQ

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 3 - PART 2

10 0 10
Kilometers

KIGGAVIK PROJECT

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File: Q:\SHEQ\GIS\KIGGAVIK\2014\EIS\Volume 3 - Public Engagement and IQ\Volume 3 - Tier 2\IQ - Part 2\Maps\MXD\Figure 4.2-4 IDENTIFIED FISHING AREAS FROM (IQ).mxd

4.2.4 Plants

The plants that were traditionally gathered in the past were used for bedding, insulation, fire starter, food, and medicine (IQ-Bennett and Rowley 2004:78). During focus groups, Elders said that traditional cures were no longer used, adding that crowberries, blueberries, blackberries, and 'red' berries were harvested for food (IQ-BLE 2009). In previous interviews conducted by Hatti Mannik (Mannik 1998:159), cloudberries were also named as one of the types of berries picked by the people of the Baker Lake area and were used to make tea (IQ-BLE 2009). People started using dried ground plants and leaves such as those from the cloudberry bush, after the introduction of tea by Europeans (IQ-Mannik 1998:88).

In the past, other plants such kanguuyat (cotton grass) were used as wicks for lanterns and brown mosses were used in lanterns, as a match to start fires, and to create smoke to ward off mosquitoes. *Lichen was also collected for fire* (IQ-Mannik 1998:71,127,192,244). *Heather moss and 'urju' (sphagnum moss) were used as fuel and to keep food moist during cooking* (IQ-Bennett and Rowley 2004:83). *Dwarf willows were used to make 'avaalaqiat', the water proof bottom for bedding* (IQ-Bennett and Rowley 2004:238).

Although the Elders said during focus groups that there are no special places for collecting plants, they did acknowledge that the *area around Judge Sissons Lake was good for harvesting red berries and that plants were found everywhere* (IQ-BLE 2009).

4.2.5 Camps, Trails, Burials, and Cultural Sites

During the transition period to the settlement at Baker Lake, which lasted well into the 1960s, most camps were used by people who spent the majority of their time in Baker Lake (IQ-Freeman 1976:105). Some of the camps were as far away as 200 km and people would spend more than a month away from the community (IQ-Freeman 1976:105). During interviews, Elders said that Baker Lake people lived in various camps situated west of Baker Lake. The camps were also caribou caching areas (IQ-BL08 2008). Figure 4.2-5 shows the camping areas described during interviews. Camping areas were described near Shultz Lake (IQ-BL05 2008), Judge Sissons Lake, and Anniguqq Lake (IQ-BL02 2008). While some of the Elders said they camped around Kiggavik, others indicated they did not. People also described camping in the region between Kiggavik and Baker Lake (IQ-BL02 2008; BL03 2008), and one family described camping at Kazan River in the winter, and moving to Anigguq Lake in the spring (IQ-BL10 2008).

In previous interviews, Baker Lake Elders said there were *campsites all around the Kazan River and Thirty Mile Lake south of Baker Lake* (IQ-Mannik 1998:222). Sites along the travel corridor between Baker Lake and Back River to the north were described by Elders to be *very spiritual, with grave sites along Second Portage Lake and throughout the area between Baker Lake and Meadowbank* (IQ-Cumberland 2005). *Along the Thelon River were caribou crossing points, and former camps*

*used by nomadic hunter groups of the region which are considered important. Concerns for the protection of the sites have been note*d (IQ-GeoVector Management Inc 2008: iii).

Gravesites, spiritually significant sites, and archaeological sites identified during interviews and focus groups are shown in Figure 4.2-5. Regarding archaeological sites, Elders said that *inuksuk were used to show where various families may have moved* (IQ-BL01 2008; BL13 2008), *and that rock placements also functioned as fish pointers* (IQ-BL03 2008). Others *described sod houses located between Kazan River and Rankin Inlet* (IQ-BL14 2008), *and bones located south of Qikkiqqtarjualik Lake* (IQ-BL10 2008) and at *Unurniqtalik on Aberdeen Lake* (IQ-BL11 2008). The Elders related various stories associated with spiritual areas. During the 2014 meeting with the BL HTO, the members noted that areas identified as having spiritual significance on Figure 4.2-5 coincide with areas that are often foggy which are areas that are to be avoided to prevent from getting lost.

In 2011, interview participants reported that all the lakes and rivers, including the Thelon River, are important to the caribou hunt and that the hunters will go anywhere they can find caribou; the limitations are the fuel required to cover large distances and the time of year (IQ-BLHT 2011). Hunters can travel by snow mobile across frozen lakes in the winter, but in summer, when there is no ice, the hunters are limited in where they can hunt because they have to go by boat (IQ-BLHT 2011). The hunters believe that it is easier to cross frozen water than to travel by boat (IQ-BLHT 2011). People may travel down the inlet by snowmobile during the winter but this is not common (IQ-BLE 2011). In the winter, hunters will take their snowmobiles up the Thelon River for hunting (IQ-BLE 2011). The Thelon River is very important for accessing hunting areas in the summer as well .In the summer, hunters will boat up the Thelon River to access lakes for camping and hunting Boating is the most common form of travel for hunters during the summer, and cabins are used all summer long During the summer, people will travel by boat down towards Chesterfield Inlet, hunting caribou along the way Also, in the summer there are ATV routes along parts of the Thelon River (IQ-BLE 2011).

People will use other rivers for travel but the Thelon was described as the most important; the Kazan River is also used One of the participants reported using [Kazan River] to reach Qurluqtuq, south of Baker Lake, where some falls are located, and noted that if people want to go further than Qurluqtuq, they will use the creeks Beverly Lake was reported to be a good hunting area by the Elders According to the Elders, there are usually a lot of caribou around the Agnico Eagle Mine (Meadowbank) Some of the participants said they use the Meadowbank road for hunting (IQ-BLE 2011).

With respect to the placement of the Proposed AREVA dock site (about half a kilometre east of the Agnico Eagle dock) at least four cabins were identified in the vicinity of the proposed dock by the HTO representatives in 2011 *They reported that these cabins are all used throughout the spring and summer, and that there are some cabins located west of Thelon River, where the people hunt in the summer*(IQ-BLHT2011).

Legend

All-Season Road

Meadowbank All-Season Road

Winter Road (Preferred Option)

Kiggavik Site

Inuit Qaujimajatuqangit Legend

Cabin

Camp

Camping Area

Human Travel Route

Tent Rings and Sod Houses

Spiritual Wolf-like Creatures

Spirit-like Caribou

Areas of Spiritual Significance

(Foggy Areas)

Non-Inuit Grave

Grave

Schultz Lake
Qamaniq Tugliq

Qamanaarjuk Lake

Thelon River
Kangirjuup Kuunga

Whitehills Lake
Tasirjuaq

Aberdeen Lake
Qamaniq Ungalliq

Kavisilik Lake

Itigulik Lake

Ajaktukvik Lake

Squiggly Lake

Skinny Lake

ALL-SEASON ROAD

MEADOWBANK ALL-SEASON ROAD (EXISTING)

Siamese Lake
Tasira'tuaq / Nurravik

Long Lake

Qatgiqtalik Lake

Crossing Point Lake

Tunuhuk Lake

Thom Lake
Tasi'tuaq

Tupik Lake

Gerhard Lake

Qamanaugaq Lake

Judge Sissons Lake
Qikiqtarjualik

Qikiqtarjualik River
Qikiqtarjualiup Kuunga

WINTER ROAD (PREFERRED OPTION)

Audra Lake

Aniggug

Qinnguq Bay

Buzzard Lake

Murriittuq Lake

Aniggug River
Aniggugiup Kuunga

Baker Lake

Qamanaugakuluk Lake

Dragon Lake

Quglungnil'naaq Lake

Mihaluk Lake

Samarook Lake

Iqaluik Lake

Pistol Lake

Pitz Lake
Tasilugjuaq

Gull Lake

Princess Mary Lake

N

10 0 10
Kilometers

Projection: NAD 1983 UTM Zone 14N
Compiled:TL
Date: 04/08/2014 Scale: 1:400,000
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, Baker Lake Elders, AREVA Resources Canada Inc.*

FIGURE 4.2-5
IDENTIFIED AREAS OF CAMPING, HUMAN TRAVEL ROUTES & SPIRITUTAL SIGNIFICANCE FROM IQ

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 3 - PART 2

KIGGAVIK PROJECT

AREVA

File: Q:\SHEQ\GIS\KIGGAVIK\2014\EIS\Volume 3 - Public Engagement and IQ\Volume 3 - Tier 2\IQ - Part 2\Maps\MXD\Figure 4.2-5 IDENTIFIED AREAS OF CAMPING, HUMAN TRAVEL ROUTES & SPIRITUAL SIGNIFICANCE FROM IQ).mxd

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4.2.6 The Project

Interviews, focus group discussions, and the literature review suggest that although the Project lease area was not used for harvesting or camping activities, people did travel through the lease area and conducted harvesting-related and camping activities in the larger area around the lease area.

Although people depend mainly on caribou for food, they view the ecosystem in a holistic way. They believe it is important to protect the whole environment, including migration routes, bird nesting areas, and marine mammals (IQ-BLH 2009). Elders are concerned that mining will take away land from the hunting grounds, or that uranium may escape and contaminate the grounds; especially the land along the Thelon River, or on the south side of Baker Lake For some, there is a larger concern that people may become contaminated by the Project (IQ-BLE 2009). During the 2014 meeting, the HTO members expressed concern that it's not possible to not have impacts, mining is short term, and caribou might be impacted permanently (IQ-BLHTO April 2014).

During the interviews, most of the Elders indicated that they would support a bridge over the Thelon River, and would not like to see any development near Hagliq. In particular, a bridge at either Anaqtalik or Kinngarjuit (Half Way Hills) was described as a good option (IQ-BL13 2008). Another person thought that a ferry would be better than a bridge (IQ-BL18 2008). One of the Elders said they would not support any development south of Baker Lake as that is an important caribou route, and that the area around Hagliq is too shallow for barges or boats (IQ-BL09 2008). Others said that Hagliq is an important fishing area (IQ-BL06 2008; BL17 2008). Three people were concerned that a bridge over the Thelon River might prevent people from taking their boats up river to pick goose eggs (IQ-BL06 2008), or would cause problems with ice being pushed up onto shore, or possible damage to the bridge from ice (IQ-BL04 2008; BL10 2008).

One of the Elders suggested that the experience with the Meadowbank mine was that the mine did not affect the caribou, and that the young people would benefit from employment at the mine The same person noted that once people moved into Baker Lake, they did not go out on the land much to teach their children traditional ways (IQ-BL06 2008). During focus groups, young people indicated that traditional skills are being adapted into modern ones and that providing for their family now means earning money They added that they feel under a lot of pressure to get a higher education, get employment and learn traditional ways (IQ-BLY 2009). Rotational workers said that having employment means they can afford hunting gear, such as ATVs or snowmobiles, and that combined with a two-week-on and two-week-off rotation, they can go on the land and hunt more than they were able to prior to employment (IQ-BLRW 2009).

Road construction for the Kiggavik site was a concern for the HTO members at the community review meeting in 2011. The management of the Kiggavik Road was a major source of concern for the HTO participants, specifically the impact of roads on the wildlife (ie. habitat fragmentation, noise,

the potential for animal-vehicle collisions, and dust) In particular, the interview participants were most concerned for the migrating caribou

The interview participants explained that although roads do provide easier access to caribou for hunters, they can also have negative impacts One hunter said that the road to Meadowbank is a good example of how roads can impact the caribou, because road produces a lot of dust in the summer, and then the caribou feed on dusty grass by the roadside, which is not good for them One participant warned industry to minimize dust on the roads The interview participants also reported that the daily traffic on the Meadowbank road is altering the caribou's pattern of migration and affecting them in a negative way They warned that the road to Kiggavik will only exacerbate this problem. For example, some of the participants suggested that the movement of caribou coming in from the west and south may be altered Another participant said that he was disturbed in the summer of 2010 to see an industry truck driving without regard for the caribou trying to cross the road The participants expressed concern that mining and roads associated with the Kiggavik site would impact the migrating caribou in a negative way (IQ-BLHT 2011).

One hunter said that there should be three or four wildlife monitors employed to supervise the construction [and operation] of the AREVA road to Kiggavik, noting that the single monitor employed at the Meadowbank road is not sufficient .The timing for wildlife monitors to be present on the Kiggavik road would depend on the timing of the caribou migration, but one participant estimated that June through to December would probably be a good time (IQ-BLHT 2011). "AREVA" agreed to schedule a future meeting dedicated to the sole purpose of discussing Kiggavik road management with the Baker Lake HTO. The HTO representatives from Baker Lake also expressed concern about the possibility of limited access due to development, and expressed frustration with previous projects creating barriers and obstructions such as barrels and litter on the landscape, disturbing both caribou and people Some participants expressed concern that If AREVA were to succeed at building a road through the Baker Lake area, then their access to traditional hunting grounds would be restricted (IQ-BLHT 2011).

The HTO representatives requested to be notified when the reports about their IQ meetings have been prepared, because they would like to see what the Elders and other people have said about the interview topics They emphasized that IQ data about caribou crossings should be clearly marked on Project maps (IQ-BLHT 2011).

4.3 Chesterfield Inlet

Chesterfield Inlet has served as a prominent route of travel between Baker Lake and Hudson Bay for people as far north as Wager Bay and as far south as Arviat (IQ-Freeman 1976:90). In the winters prior to 1954, people of Chesterfield Inlet lived mainly on caribou meat and frozen fish that had been cached in the fall. They occasionally hunted wolf, wolverine, Arctic hare, and ptarmigan. In the spring and summer people moved to the shores around Chesterfield Inlet to fish and hunt marine

mammals, and in the fall people moved back inland to hunt caribou (IQ-Freeman 1976:91). After 1954 most people lived in the permanent community of Chesterfield Inlet (Chesterfield) and spent less time moving back to the land, but people still travelled long distances to hunt, including the occasional trip to Walrus Island off of Southampton Island (IQ-Freeman 1976:108). Project interviews indicate that the people of Chesterfield Inlet continue to be primarily dependent on caribou, fish, and seal. Consuming country foods is not considered 'ritual food' but the daily way of life (IQ-CIHT 2009). Details from the 2009 interviews and focus group discussions, 2011 community review meeting and the 2014 meeting with the HTO, are available in Attachment I of Appendix 3B IQ Documentation.

4.3.1 Wildlife and Harvesting

Figure 4.3-1 show land based hunting and land use information gathered during interviews and focus group discussions in Chesterfield Inlet. Figure 4.3-2 shows information on marine mammals and land use gathered during the interviews and focus group discussions.

The area extending north and east from Chesterfield Inlet was used in the past by Chesterfield Inlet and Baker Lake residents for hunting and trapping. *Now, Chesterfield hunters focus more on hunting along the coastal areas rather than inland* (IQ-Riewe 1992:173). Interviews with Chesterfield Inlet Elders indicated that hunting is currently concentrated on both sides of Chesterfield Inlet and along the north and south shores extending away from Chesterfield Inlet.

Elders take young people out and transfer traditional skills through watching and learning, and young people that do not want to learn are left behind and may end up on a 'wrong path' in life (IQ-CIHY 2009). During focus group discussions, young hunters said that they tend to hunt in groups for financial reasons, such as to share the cost of gasoline or the use of snow machines. Women tend not to hunt during the coldest months (December and January). Other women said they would like to go hunting more often but are busy looking after their children (IQ-CIYA 2009). Trapping died out in Chesterfield several years ago, partly due to the requirement to adopt 'instant kill' traps, which were dangerous to use and resulted in many accidents (IQ-CIE 2009).

4.3.2 Caribou

Caribou sometimes wintered along parts of Chesterfield Inlet and were hunted regularly. . Residents of Rankin Inlet and Chesterfield Inlet regularly used the area extending along the southern shore of Chesterfield Inlet west to Gibson Lake. Some trapping occurred along Gibson Lake, and wolves were hunted throughout the area when they were encountered (IQ-Riewe 1992:173). Lifetime harvesting maps of both Arviat and Baker Lake show that Elders and active hunters have used the area along Chesterfield Inlet and further south for hunting caribou. North of Chesterfield Inlet was less intensely used (IQ-Kendrick and Manseau 2008). In the past, caribou were generally hunted in spring and fall, but stray caribou were also hunted in summer and winter. The area north of

Kamiuriak Lake was a prominent calving ground for caribou and was also used for hunting (IQ-Riewe 1992:173). This area was identified as a calving ground during Project interviews in 2009 (Figure 4.3-1).

Legend

- Archaeological Site
- Cabin
- Cabin Area
- Camp
- Graves
- Stone Weir

Caribou Movement

- Winter Caribou Movement
- Summer Caribou Movement
- Spring Caribou Movement
- Fall Caribou Movement

Caribou Gathering Area

- Caribou Calving Area
- Qamanirjuaq Herd
- Lorillard River Herd

Land-Based Hunting Areas

- Caribou Hunting Area
- Egg Collection Area
- Fishing Area
- Grizzly Hunting Area
- Muskox Hunting Area
- Ptarmigan Hunting Area
- Waterfowl Hunting Area
- Winter Hunting Area
- Wolf Hunting Area
- Wolverine Hunting Area

N

ker Lake
Quoich River
Fehet Lake
Connery River
Pungak Lake
Armit Lake
Kummel Lake
Saqvaqjuaq River
Arlug Island
Big Hips Island
Tanataluk Islands
Boulder Bay
Shell Island
Rio Island
Bowell Islands
Long Island
Primrose Island
Richard Lake
Ranger Seal Bay
Kazan River
Martell Lake
Clearwater River
Andrews Lake
Cross Bay
Centre Island
Big Island
Moor Island
Ellis Island
Ptarmigan Island
Chesterfield Inlet
Bissett Lake
Brown Lake
Parker Lake
Gibson Lake
Josephine Lake
Meliadine Lake
Rankin Inlet

Projection: NAD 1983 UTM Zone 14N
Compiled: TL Drawn: TL
Date: 9/17/2014 Scale: 1:1,000,000
Data Sources: *Natural Resources Canada, Geobase®,Elder Focus Groups, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 4.3-1
LAND USE IQ FROM CHESTERFIELD INLET

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 3 - PART 2

25 0 25
Kilometers

KIGGAVIK PROJECT

AREVA

File:Q:\SHEQ\GIS\KIGGAVIK\2014\EIS\Volume 3 - Public Engagement and IQ\Volume 3 - Tier 2\IQ - Part 2\Maps\MXD\Figure 4.3-1 Land Use from Chesterfield Inlet.mxd

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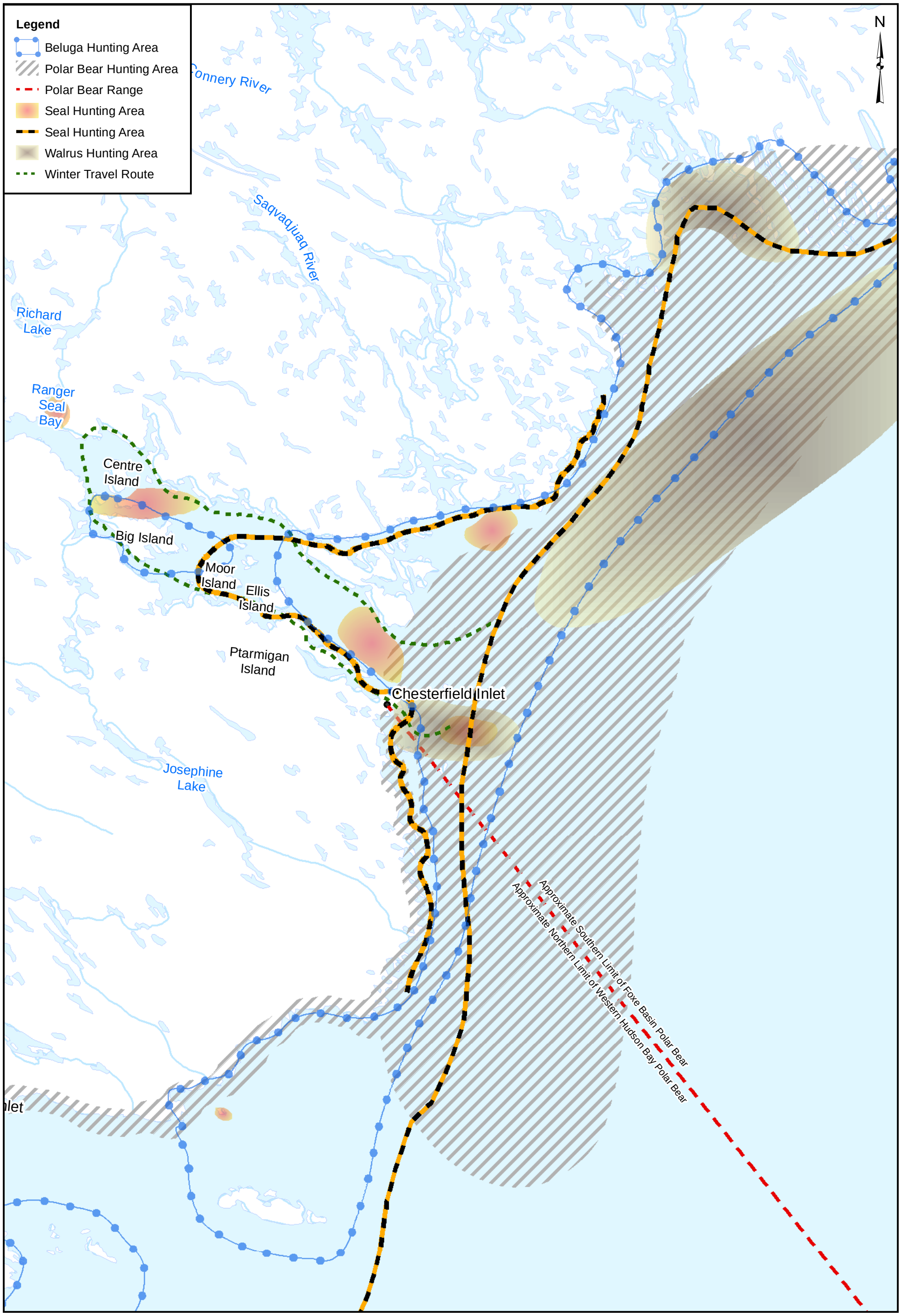

Projection: NAD 1983 UTM Zone 14N
Compiled: TL Drawn: TL
Date: 9/17/2014 Scale: 1:524,583
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 4.3-2
MARINE HUNTING AND HARVESTING

ENVIRONMENTAL IMPACT STATEMENT
VOLUME 3 - PART 2

10 0 10
Kilometers

KIGGAVIK OPERATION

AREVA

File: Q:\SHEQ\GIS\KIGGAVIK\2014\EIS\Volume 3 - Public Engagement and IQ\Volume 3 - Tier 2\IQ - Part 2\Maps\MXD\Figure 4.3-2 Marine hunting and harvesting.mxd

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Elders reported that caribou tend to congregate on both sides of Chesterfield Inlet during July, and during August and September, tens of thousands of caribou have been observed on the north side of the inlet (CI01 2009). Another Elder noted that *in May, caribou on both the north and south sides of the inlet start to move toward their calving grounds* (IQ-CI08 2009). *Although Elders indicated that the Lorillard herd has a calving area between Wager Bay and Chesterfield Inlet, and there are other calving areas near Josephine Lake and Kaminuriak Lake* (Figure 4.3-1), *they added that caribou can calve anywhere* (IQ-CI01 2009; CI03 2009; CI06 2009).

Caribou typically have one calf, but occasionally have two (IQ-CI03 2009). Regarding migration routes, some Elders said that although the Manitoba herd arrives in May and goes south in the fall, there are always caribou around (IQ-CI01 2009). Other Elders also said that caribou can be found anytime of the year, and hunted all over the Chesterfield region (IQ-CI03 2009; CI06 2009; CI07 2009). Another Elder said that the Qaminurjuaq herd migrates north, around Baker Lake, and then to the coast, north of Chesterfield Inlet (IQ-CI03 2009). During the winter, after freeze-up, the herds mix (IQ-CI08) and some of the Elders believe that some of the caribou from the Manitoba herd have crossed Chesterfield Inlet and have become part of the Lorillard herd (IQ-CI03 2009).

The caribou on the north side of Chesterfield Inlet were described as being larger than those on the south side of the inlet because they have less area in which to roam (IQ-CI08 2009). While the Elders described the caribou herds as generally healthy, some observed that they have less fat than they used to (IQ-CI04 2009), some have had white cysts in their meat as a result of eating vegetation with crow droppings on it (IQ-CI08 2009), and some have had pus in their meat (IQ-CI05 2009). In addition to the health problems, Elders have noticed that caribou are no longer bothered by the smell of dogs or humans (IQ-CI06 2009).

Elders said that when the nickel mine was built in Rankin Inlet in the 1950s, the caribou stopped going to Chesterfield Inlet; but in 1970, the herd 'suddenly' reappeared (IQ-CI03). One of the Elders recounted that he moved into Chesterfield in 1949 due to starvation on the land and there were no caribou in Chesterfield at that time (IQ-CI06 2009). Another Elder indicated that the caribou no longer go to Rankin Inlet because there are too many people, adding that there are too many people with snowmobiles on the south side of Chesterfield Inlet and this had made it difficult to determine the natural movement of caribou anymore (IQ-CI04 2009).

4.3.3 Musk Ox

Musk oxen used to be hunted west of Baker Lake, but are now hunted just inland from Chesterfield Inlet; and mostly by sport hunters (IQ-CI01 2009). Within the last four years, musk oxen have moved eastward from Pitz Lake, along the south side of Baker Lake, and are now in the Barbour Bay area of Chesterfield Inlet. Musk oxen do not migrate, and travel slowly, only when the food source in an area is used up (IQ-CI03 2009; CI06 2009). One Elder said that Inuit generally do not harvest musk

ox because the skin is not as good as caribou skin, and the hair is of no use. They also do not eat musk ox (IQ-CI03 2009).

4.3.4 Marine Mammals

Interviewed Elders in 2009 indicated that the shore and offshore areas north of Chesterfield Inlet past Winchester Bay and south of Chesterfield Inlet to Rankin Inlet remain heavily used for hunting (Figure 4.2-3). The coastal and offshore areas adjacent to Chesterfield Inlet and south to Corbett Inlet (just south of Rankin Inlet) were used by residents of Chesterfield Inlet, Rankin Inlet, and Whale Cove. *Residents of Chesterfield Inlet often hunted along the floe edge near Chesterfield Inlet* (IQ-Riewe 1992:173).

The hunters of Chesterfield Inlet typically hunt beluga, several species of seal, walrus, and polar bear. Narwhal are also hunted near Repulse Bay. The HTO interview participants from the 2011 focus group also mentioned that they would like to hunt bowhead in the future. In the summer, hunters typically go offshore by boat to a distance of 12 to 20 miles (19 to 32 km) to hunt marine mammals, often near town and in the Chesterfield Inlet Channel In the winter, hunters will follow the ice floe edge 2 to 4 miles (3 to 6 km) offshore (IQ-CIHT 2011).

During interviews in 2009, Elders indicated that seals were hunted all over. Seal species include ring, jar, ranger, bearded, and harp seal. Ranger seals prefer shallow water around islands and are harvested only for their fur. *Harp seals prefer deeper water and are harder to catch* (IQ-CI04 2009). *Ring seals, also referred to as common seals, are preferred for eating* (IQ-CI01 2009). *Seal pups can be born anywhere, but usually in water with strong currents* (IQ-CI02 2009). *The area all along the coastline east from Christopher Rocks (Island) (Figure 3-1) in Chesterfield Inlet near Baker Lake was described as an important area for seals* (IQ-CI07 2009). *In the past, seals were hunted year-round although the spring was the most common hunting season* (IQ-Riewe 1992:173). At the 2011 community review meeting it was reported that seals travel north or south of Chesterfield Inlet in the summer, and that during this time they are not found near Chesterfield Inlet; the interview participants suspected that this is due to barge travel (IQ-CIHT 2011). *The HTO representatives at the 2011 meeting commented that the number of seals has decreased over the past few years* (IQ-CIHT 2011). It was then reiterated in 2014 that *it's hard to catch seals in the inlet now (not caught in the last 2 years) now that ships going up inlet* (IQ-CI HTO Feb 2014).

Interviewed Elders in 2009 described two herds of beluga whale near Chesterfield Inlet. One comes north from Churchill and arrives at Chesterfield Inlet around August or September. The other herd comes south from Foxe Basin in the early summer (IQ-CI01 2009; CI03 2009). One Elder said the Foxe Basin herd behaves as if something is chasing it, such as killer whales (IQ-CI03 2009). Another Elder believes that beluga whales will go up Chesterfield Inlet if there are killer whales, and that some of the killer whales may follow the beluga whales up the inlet (IQ-CI07 2009). Beluga whales will often move to shallow water to avoid killer whales and if beluga whales are seen in the shallow

waters off the Baker foreland, it means there are killer whales near Chesterfield Inlet (IQ-CI08 2009). The beluga whale herd from Churchill has had its migrations delayed because of Rankin Inlet hunters waiting for them at Marble Island. The herd can get through to Chesterfield Inlet if there is rough weather preventing Rankin Inlet hunters from getting to Marble Island (IQ-CI03 2009; CI04 2009; CI07 2009).

Beluga whales are hunted in Daley Bay in the summer, and off the Baker foreland during August and September (IQ-CI 01 2009; CI02 2009; CI03 2009). Beluga whales calve in an area between Arviat and Churchill (CI02 2009). Beluga whales and walrus were hunted in the summer. In the past, beluga whales were hunted as they migrated along the coast (IQ-Riewe 1992:173).

During interviews, Elders said that beluga whales used to come into the harbour at Chesterfield in August, but come only occasionally now as there is too much noise from boat motors. The amount of barge traffic has increased over the last two years and this has also negatively affected the beluga whale population (CI04 2009; CI08 2009, IQ-CI HTO 2014[38]). In 2014, HTO members said that they were not able to *catch enough beluga for their families in 2013* (IQ-CI HTO 2014). *Seals are also affected by noise from marine transportation and because of the increase of barge traffic in Chesterfield Inlet there are fewer seals in the inlet* (IQ-CI04 2009; CI05 2009, IQ-CI HTO 2014[39]).

Elders said that walrus are found all over after ice break-up, and are hunted at Depot Island (IQ-CI01 2009; CI02 2009). There is an old experimental scallop farm offshore from Chesterfield Inlet, and this attracts walrus. As a result, walrus near Chesterfield Inlet have scallops in their stomachs. By comparison, walrus near Repulse Bay eat oysters, and therefore taste different (IQ-CI01 2009). Walrus is considered a delicacy (IQ-CIHT 2009). Walrus like floating ice and are hunted at the ice flow edge (Figure 4.2-3) (IQ-CI03 2009). About 13 years ago, increased numbers of walrus were reported by Chesterfield residents (IQ-McDonald et. al. 1997:47). During the 2009 series of interviews, Chesterfield Elders said they had not noticed any changes in the walrus population, and that there were still lots of walrus around Chesterfield Inlet, Daly Bay, and Depot Island (IQ-CI01 2009; CI07 2009; CI08 2009). At the 2011 community review meeting, the HTO representatives said that walrus are observed a little to the north of Chesterfield Inlet in the spring and have been hard to see in late summer for years (IQ-CIHT 2011).

[38] IQ-CI HTO 2014: *Ships off shore of Chester: just don't like them sitting there; sometimes 3 ships at a time for days at time. Affects our Beluga hunting. 7 - 31 barge trips still too much even compared to AEM shipping. Going farther to hunt costs more money, gas and effort.*

[39] IQ-CI HTO 2014*: Hard to catch seals in the inlet now (not caught in the last 2 years) now that ships going up inlet used to catch seal pups 2 times per year in inlet; hunted pups in spring. Collecting eggs, you can hear motors.*

Polar bears are found north and south of Chesterfield Inlet. There are two large groups of polar bears; 'Western Hudson Bay' polar bears, and 'Foxe Basin' polar bears. The western Hudson Bay group travels north from Churchill to Chesterfield Inlet, and Foxe Basin polar bears travel south to the inlet (Figure 4.3-2). Polar bears move north from Churchill when the ice forms in November, and move south in the spring, carried by a counter-clockwise current in Hudson Bay (IQ-CI01 2009). Polar bears den in the Wager Bay area, and to a lesser degree, at Cape Silumiut (IQ-CI01 2009; CI03 2009; CI06 2009). They also den on Southampton Island Preferred denning areas are places where there are steep hills and deep snow (IQ-CI01 2009). Polar bears normally have two cubs, and not very often may have three (IQ-CI02 2009).

Many of the Elders believe that there are more polar bears now than there used to be and that they have also become more dangerous (IQ-CI03 2009; CI05 2009; CI06 2009, IQ-CI HTO Feb 2014[40]). Several have been noticed in Chesterfield Inlet each day in the spring (CI04 2009). Some Elders believe that the bears have become more dangerous because the human population (and garbage the bears used to eat) has decreased in Churchill (IQ-CI03 2009). Others believe that biologists tranquilising bears for studies has changed their behaviour and made them more dangerous (IQ-CI03 2009; CI05 2009). Elders suggested that the biologists should count the polar bears in the summer, when they are land-locked and easier to see (IQ-CI01 2009). Polar bear quotas are set for each community, and Chesterfield Inlet has an annual quota of eight to ten or twelve bears. Polar bears can be harvested anytime in northern Québec (IQ-CI01 2009).

4.3.5 Birds and Egg Harvesting

Figure 4.3-1 shows goose and duck hunting locations, and egg harvesting locations identified during interviews in Chesterfield. *'Grain-fed' ducks returning from Manitoba are hunted* (IQ-CI03 2009), as well as ptarmigan in the spring (IQ-CI06 2009). *Goose and duck are hunted along the shore north of Chesterfield Inlet and around many of the islands near the coast of Bernheimer Bay, Daly Bay, and Winchester Inlet Along the coast south of Chesterfield Inlet to Rankin Inlet and in Mistake Bay, geese, ducks, and eggs were harvested in both spring and summer* (IQ-Riewe 1992:173). *During interviews, Elders said that Canada geese and snow geese eggs are laid in the marshy areas along the Josephine River, and eider eggs are laid on the islands in Chesterfield Inlet. Camp Cove Island is an area with lots of eggs* (IQ-CI03 2009; CI05 2009*). Duck eggs and guillemot eggs are collected on Promise Island, and there are lots of eider eggs on Wag Island* (IQ-CI01 2009).

[40] IQ-CI HTO Feb 2014: - *Polar bear observed further inland now than ever seen before. Have seen polar bears swimming off shore. More polar bears than caribou right now.*

4.3.6 Fishing

Figure 4.3-1 shows fishing locations described during Project interviews. In the Chesterfield Inlet region, fishing used to occur in various locations, including Barbour Bay, Steepbank Bay, and Cross Bay – which was also used for hunting and trapping by Baker Lake residents (IQ-Riewe 1992:173; CI07 2009). Both the coastal area and the inland area north of Chesterfield Inlet was an important fishing area for both Baker Lake, and Chesterfield inlet residents. In particular, fishing would occur on the Connery and Lorillard rivers during the spring and fall Arctic char runs, and summer gill netting would occur along the coast (IQ-Riewe 1992:173). During interviews, Elders said that the stone weirs that people used at Barbour Bay, Steepbank Bay and Saqvaquaq Lake are still visible (IQ-CI07 2009). The downstream migrations of Arctic char would occur in May or June (IQ-Riewe 1992:174) and one Elder reported that he would fish for Arctic char in the spring in the lakes around Chesterfield (IQ-CI02 2009).

South of the Chesterfield Inlet region, fishing with nets in the spring and late fall would take place south of MacQuoid Lake and Banks Lake in the Qamanirjuaq Lake area Further south, around Kaminak Lake and the Ferguson Lake chain, fishing was an important source of food for hunters and trappers during the winter, with intense fishing taking place in the early spring and late fall (IQ-Riewe 1992:173).

Interviews with Chesterfield Inlet Elders suggested that fishing continues to occur along Chesterfield Inlet, on the lakes in and around the community, and at family cabins located in the larger area. *While lake trout and Arctic char are found in all lakes in the region, Josephine Lake was specifically mentioned as an important spawning lake for river-run char* (IQ-CI01 2009), *and for harvesting Arctic char, whitefish, and lake trout* (IQ-CI06 2009; CI06 2009). *Fish harvesting techniques include gill netting through ice in winter on the lakes, as well as in open water in the warmer months* (IQ-CI02 2009; CI04 2009; CI06 2009). *'Rodding' (using fishing rods), is also used close to shore* (IQ-CI02 2009). *While people generally have not noticed any change in fish quality, one person has noticed that char flesh has become better (pinker) over the years* (IQ-CI08 2009*), and another has noticed that there is a difference in taste between Chesterfield Inlet char and Repulse Bay char; likely due to different feeding habits* (IQ-CI04 2009). *Arctic char are often sold to the fish processing plant in Rankin Inlet, and hunters said this is one of the few ways to earn an income* (IQ-CIHT 2009).

4.3.7 Ice Formation and Weather

The community review participants at the 2011 meeting and the members of the HTO at the 2014 meeting reported that the ice floe edge reaches a maximum extension of about 5 miles (8 kilometres) from shore during winter, and that this trend has been constant over the years (IQ-CIHT 2011, IQ-CI HTO Feb 2014[41]). According to the 2011 interview participants, freeze-up occurs from mid November to early December, and break-up takes place from June 25 to July 5, approximately. According to the interview participants, the freeze-up and break-up happen at different times each year, there is no real trend. It was noted that it had rained on Christmas Eve last year (2010). After ice break-up people will travel one to three miles along the shoreline and out to the islands in both directions, up the inlet as far as Cross Bay if it is necessary to go that far for caribou (IQ-CIHT 2011).

4.3.8 Plants

Men, women, and children pick berries, and there are many locations close to Chesterfield (IQ-CIYA 2009). Tundra moss can be boiled to make a tea, and other plants were used to make medicinal tea. Driftwood was collected from old ships on Hudson Bay and used to build kayaks (IQ-CIE 2009). People mentioned that certain purple flowers, possibly saxifrage, were edible and that there were white roots that tasted like carrots (IQ-CIYA 2009).

4.3.9 Camps, Trails, Burials, and Cultural Sites

Figure 4.3-1 shows the locations of sites identified during interviews and focus group discussions, including gravesites, camps, cabins, and archaeological sites. Archaeological sites described during Project interviews included stone weirs, stone fox traps, grave sites at old camps, Thule sites, inuksuit, and stone pits for cooking. *Stone circles where people used to dance can also be found* (IQ-CIE 2009). *Several people also mentioned that there are a number of important harbours, such as Robert's Harbour. These places are important because many of the ancestors used those areas and that gives them a meaning beyond simply being good places to hunt* (IQ-CIHT 2009).

Many camps were located along Chesterfield Inlet to the east end of Baker Lake (IQ-Freeman 1976:90). Additionally, there were many camps surrounding Chesterfield Inlet inland and along the coast. Camps along Chesterfield Inlet were used annually, primarily in spring and summer, and were also located along the coast north of Chesterfield Inlet in several small pockets. There were several base camps extending south of Chesterfield Inlet along Barbour Bay and Cross Bay area that were

[41] IQ-CI HTO Feb 2014: *Climate change - ice floe. Agree with floe edge as drawn. Doesn't really change much*.

used during winter hunting and trapping. A commercial fishing camp was at one time located in Winchester Inlet and used to supply the Rankin Inlet cannery (IQ-Riewe 1992:173).

4.3.10 The Project

People in Chesterfield are very concerned about the effects of increased marine traffic on the marine mammals living in Chesterfield Inlet. For example, many of the people believe that increased marine traffic in the inlet resulting from existing projects has already caused many beluga whales and seals to move away, and further increases will make the problem worse (IQ-CI01 2009; CI04 2009; CI05 2009; CI07 2009; CI08 2009; CI09 2009; CIHT 2009; CIHT 2011, IQ-CI HTO Feb 2014[42]). There was particular concern expressed about the impacts of barging on beluga whales, seals and fish at the 2011 community review meeting. The HTO representatives at the 2011 meeting said that they believe project shipping will cause the marine mammals to leave Chesterfield Inlet and therefore the hunters will have to travel farther to reach them; they believe that this is already happening because of existing projects . The interview participants also noted that they would not like the sea ice to be disturbed (IQ-CIHT 2011). Other concerns include the potential for fuel spills, as Chesterfield Inlet has narrow places with large currents (IQ-CIHT 2009). In 2014, the HTO requested a review of the emergency response plan. AREVA committed to communicating the plan once a shipping contractor is selected.

Regarding the potential effects of the Project on caribou, one Elder suggested that if a road is built from Baker Lake to the Kiggavik mine site, it may cause the caribou to stop and go to Chesterfield Inlet (IQ-CI03 2009). However, another Elder pointed out that the caribou using the calving area around Josephine Lake have not been affected by the Shear Minerals camp located there (IQ-CI01 2009).

An interview participant at the 2011 community review meeting reported that they had heard there would be more traffic this summer and that this would frighten mammals because they have sensitive ears. It was stated by the AREVA representative that there will be no AREVA traffic for another several years, and that AREVA will continue to consult with the Chesterfield Inlet HTO (IQ-CIHT 2011).

[42] IQ-CI HTO Feb 2014*: AEM ships anchored outside Chesterfield Inlet for 2-3 weeks; can hear generators running. That must be affecting marine life.*

4.4 Rankin Inlet

Few Inuit lived in the area of the current Rankin Inlet community prior to the nickel mine opening there in the 1950s (IQ-Freeman 1976:102). Since 1956, most of the people's land use has been community-based, often limited to weekend and other short excursions. *After the Rankin North Nickel Mine closed in 1962, some people returned to full time hunting and trapping, even while still living in the community*; *although for most people, traditional hunting activities still consist of weekend hunting trips or family camping holidays* (IQ-Freeman 1976:102). *During Project interviews in Rankin Inlet, hunters described the people as being dependent on caribou, fish, seals, ptarmigan, and beluga for food, and on cloudberries and other plants for teas* (IQ-RIHT 2009). Details from the 2009 interview, focus group discussions and the 2011 community review meetings are available in Attachment D of Appendix 3B IQ Documentation.

4.4.1 Wildlife and Harvesting

In the past, Rankin Inlet and Chesterfield Inlet residents regularly used the area northwest of Rankin Inlet extending to Gibson Lake as a staging area for winter caribou hunting. Trapping and wolf hunting was also conducted in the same area (IQ-Riewe 1992:173). Additionally, the residents of Rankin Inlet have hunted for caribou along the Hudson Bay coast from the Manitoba border to Bernheimer Bay, including Chesterfield Inlet, and as far inland as the Baker Lake area (IQ-Freeman 1976:104). The lands situated west and north of Gibson Lake were irregularly used by residents of Rankin Inlet, Chesterfield Inlet, and Baker Lake for winter caribou hunting and trapping. This area was also an important musk ox hunting area for residents of Baker Lake (IQ-Riewe 1992:173). Areas hunted generally depended on where the caribou moved (IQ-Freeman 1976:104).

Specific caribou hunting locations were not identified during Project interviews, but hunters described variations in the distances that people will travel to hunt caribou. For example, some people have ATVs and will go "as far as five gallons of gas will take them", while others walk and may travel up to 20 miles (32 kilometres) inland (IQ-RIHT 2009). One participant from the 2011 community review meeting said, "There is no limit to where we can go [when hunting caribou]" (IQ-RIJ 2011). Although one limiting factor was mentioned: the amount of gasoline a hunter can carry to fuel their vehicle Another participant noted that caribou are tenacious travellers, because they will keep moving to their destination and even cross water to reach it The participants mentioned that caribou near water are scared more easily. One hunter recalled that when he was young he could "go everywhere", but now there are more limits because the equipment and motorized vehicles currently used for hunting are not as versatile as the dog teams that were used in the past (IQ-RIJ 2011). Figure 4.4-1 shows IQ data for caribou migration routes, calving and hunting, which was collected from interviews in Rankin Inlet and Repulse Bay.

Participants in the young adult focus group said that they generally do not hunt much because they do not have snowmobiles (IQ-RIYA 2009). One young woman said that she goes hunting with her

father and other female participants said that they preferred to go fishing. The HTO participants have noticed changes in caribou health. They have observed boils on the skin, white spots that resemble larvae, and fluid around the joints. Young people typically learn to hunt around 14 years of age, and Elders are involved in teaching them (IQ-RIHT 2009). Elders are concerned that young people are not learning enough survival skills, and are prone to spending too much time on the internet (IQ-RIE 2009).

One participant said that although there were ATV and snow mobile activities, as well as blasting, at the mine in Rankin (closed since 1962) this did not significantly affect the caribou migration, because during mine operations it was still easy to find caribou near town. However, another participant said that he perceives the current mining activities in the area to be causing changes in the caribou. He said that the caribou are not as healthy as they used to be. Furthermore he noted changes in the herds, for example the Bathurst herd is a lot smaller than it used to be, while the herd from northern Quebec is much bigger (IQ-RIJ 2011).