

- LEGEND**

 - ☆ 2016 HEIGHT OF LAND SURVEY POINT (D&A, JULY 2016)
 - BARREN-GROUND CARIBOU²**
 - ▲ SIGN
 - ▲ CARIBOU TRAIL
- PROJECT DATA AND INFRASTRUCTURE**

 - ALL WEATHER ROAD
 - PROPOSED HAUL ROAD
 - MEADOWBANK OPERATION AND INFRASTRUCTURE
 - VISIBILITY ANALYSIS AREA
 - AREA VISIBLE FROM ALL WEATHER ROAD
- BASE DATA**

 - 10 m CONTOUR
 - 100 m CONTOUR
 - WATERCOURSE
 - WATERBODY



PROJECT		AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION WHALE TAIL PIT PROJECT			
TITLE		VIEWSHED FROM ALL WEATHER ROAD			
		PROJECT		FILE No.	
		DESIGN	CDM	3 May 2017	SCALE AS SHOWN
		GIS	SB	12 May 2017	REV. 0
		CHECK	JR	14 Jul. 2017	FIGURE 3F
		REVIEW	CDM	14 Jul. 2017	

- REFERENCE**
- HAUL ROAD OBTAINED FROM AGNICO EAGLE MINES LIMITED. 2015-10-14 FROM 6103-117-230-200_R0.dwg
 - 2015/16 BARREN-GROUND CARIBOU OBSERVATIONS FROM THE GROUND RECONNAISSANCE SURVEYS, WATERBIRD NEST SURVEYS, BREEDING BIRD ROAD TRANSECT SURVEYS & HEIGHT-OF-LAND SURVEYS.
 - CONTOUR, WATERCOURSE AND WATERBODY DATA OBTAINED FROM CANVEC © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.
 - INSET MAP DATA OBTAINED FROM ESRI.
- DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

APPENDIX H

Representative Figure from Baseline Characterization Report

Whale Tail Study Area

- Significant Wildlife**
(D&A; NEC, Franke et al, 2015-2017)
- Occupied Raptor Nests**
- Gyr Falcon Nest
 - Rough-legged Hawk Nest
 - Peregrine Falcon Nest
 - Peregrine Falcon & Rough-legged Hawk Nest
 - Gyr Falcon & Rough-legged Hawk Nest
- High Suitability Waterbird Habitat**
- Graminoid or Wet Graminoid Shorelines (Field confirmed 2017)

- Map Base**
- Esker or Esker Access Road
 - Proposed Haul Road (AEM, Nov. 2015)
 - Significant Wildlife Observations Figure Extent
 - Mine Site
 - Road
 - Whale Tail Study Area
 - LSA Boundary
 - RSA Boundary
- Notes:**
1. Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
2. Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

- Significant Wildlife**
(D&A; NEC, Franke et al, 2015-2017)
- Predatory Mammals**
- Arctic Fox Pups
 - Arctic Fox Den
 - Arctic Fox Sign
 - Arctic Fox Observation
 - Arctic Wolf Nursery
 - Arctic Wolf Den
 - Arctic Wolf Sign
 - Arctic Wolf Observation
 - Wolverine Sign
 - Wolverine Observation
 - Barren-ground Grizzly Bear Den
 - Barren-ground Grizzly Bear Sign
 - Barren-ground Grizzly Bear Observation
- Ungulates**
- Barren-ground Caribou Sign
 - Barren-ground Caribou Observation
 - Muskox Sign
 - Muskox Observation
- Raptors**
- Bald Eagle Observation
 - Gyr Falcon Observation
 - Peregrine Falcon Observation
 - Rough-legged Hawk Observation
 - Short-eared Owl Observation

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report

Significant Wildlife Observations



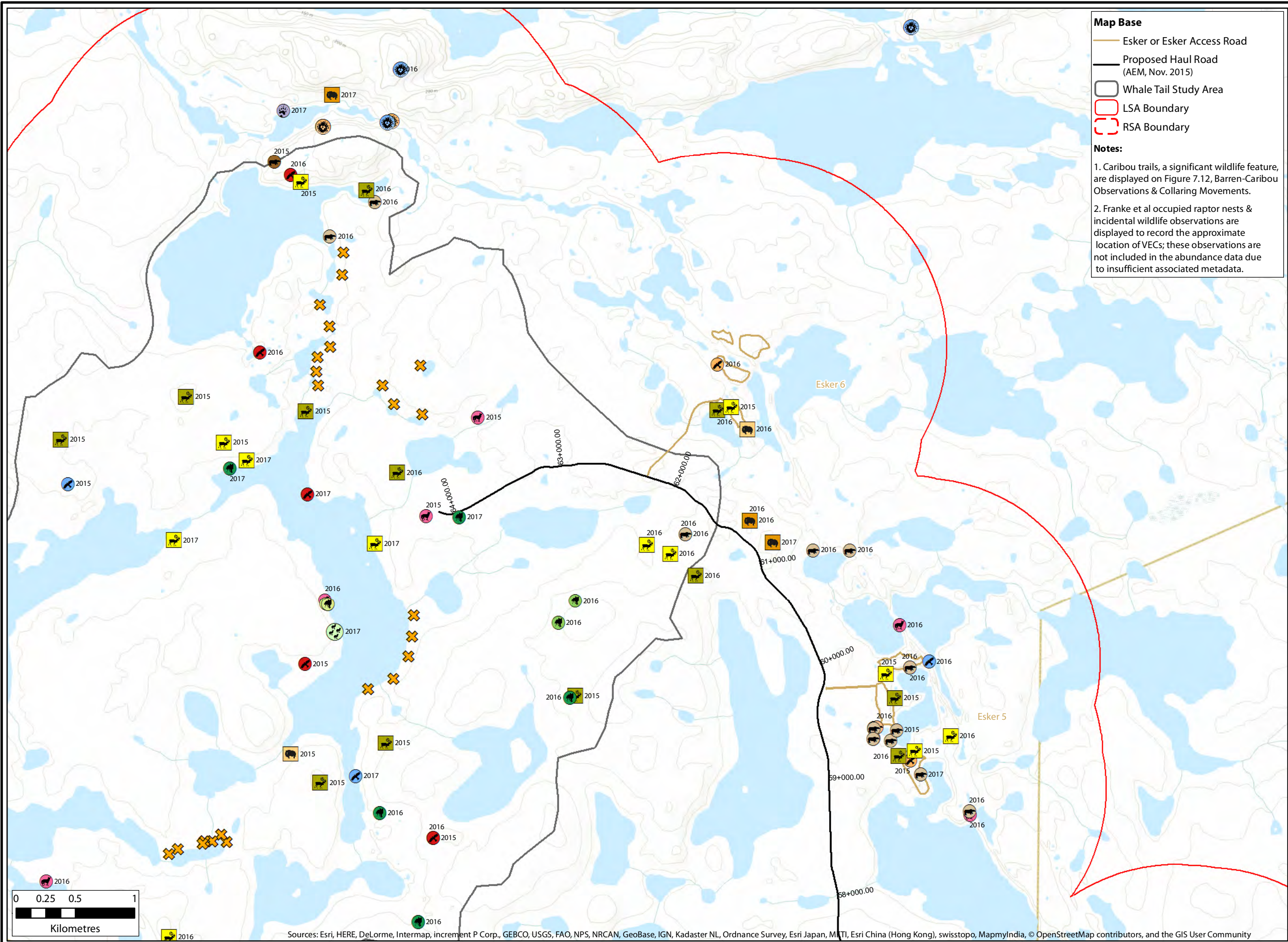
PROJECT: Whale Tail Pit & Haul Road

CLIENT: Agnico Eagle Mines Limited

	DATE: NOVEMBER 21, 2017
	SCALE: 1:220,000
	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:
9 - Key Map

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Significant Wildlife (D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Pups
- Arctic Fox Den
- Arctic Fox Sign
- Arctic Fox Observation
- Arctic Wolf Sign
- Wolverine Sign
- Barren-ground Grizzly Bear Den
- Barren-ground Grizzly Bear Sign
- Barren-ground Grizzly Bear Observation

Ungulates

- Barren-ground Caribou Sign
- Barren-ground Caribou Observation
- Muskox Sign
- Muskox Observation

Raptors

- Bald Eagle Observation
- Peregrine Falcon Observation
- Rough-legged Hawk Observation

Occupied Raptor Nests

- Rough-legged Hawk Nest
- Peregrine Falcon Nest

High Suitability Waterbird Habitat

- Graminoid or Wet Graminoid Shorelines (Field confirmed 2017)

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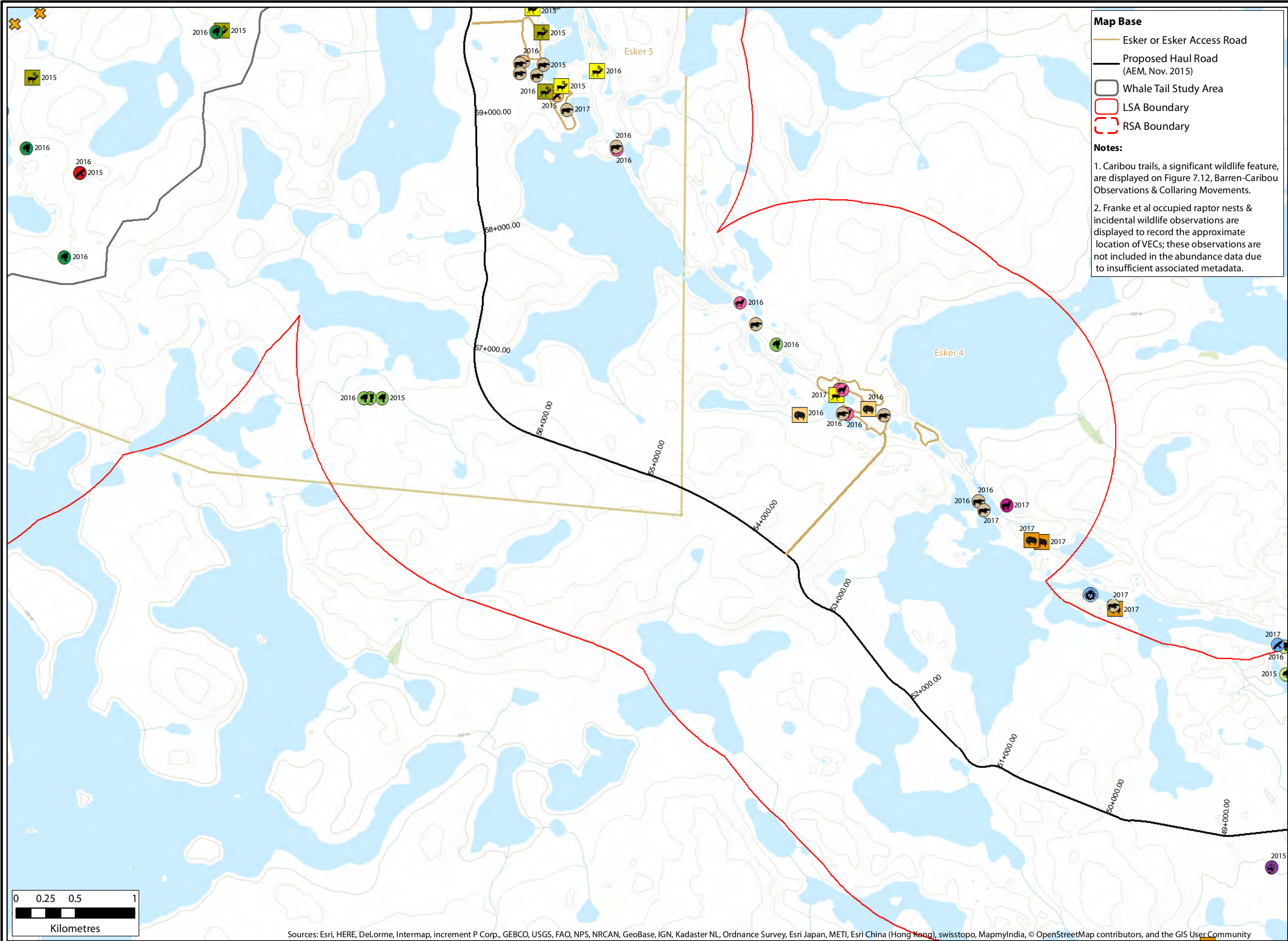
PROJECT: Whale Tail Pit & Haul Road

CLIENT: Agnico Eagle Mines Limited

DATE: NOVEMBER 21, 2017
SCALE: 1:30,000
DRAWN BY: Lindsey Carter
CHECKED BY: Mary Anne Young

Figure: 9 - 1

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Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Den
- Arctic Fox Sign
- Arctic Fox Observation
- Arctic Wolf Sign
- Arctic Wolf Observation
- Wolverine Observation
- Barren-ground Grizzly Bear Den
- Barren-ground Grizzly Bear Sign

Ungulates

- Barren-ground Caribou Sign
- Barren-ground Caribou Observation
- Muskox Sign
- Muskox Observation

Raptors

- Bald Eagle Observation
- Peregrine Falcon Observation
- Rough-legged Hawk Observation

Occupied Raptor Nests

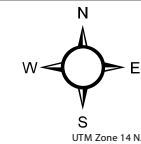
- Peregrine Falcon Nest

High Suitability Waterbird Habitat

- Graminoid or Wet Graminoid Shorelines (Field confirmed 2017)

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report

Significant Wildlife Observations



DATE: NOVEMBER 21, 2017

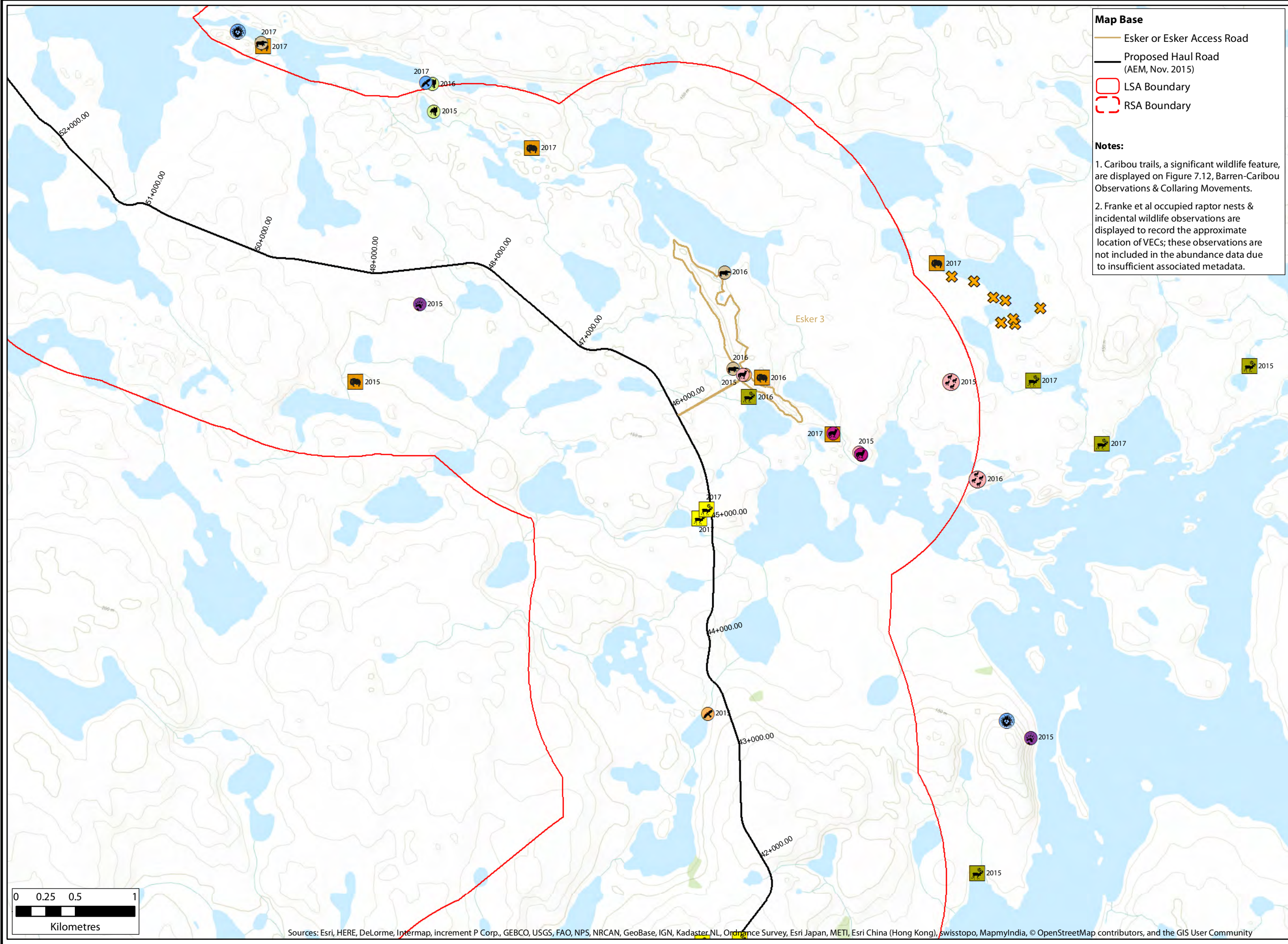
SCALE: 1:30,000

DRAWN BY: Lindsey Carter

CHECKED BY: Mary Anne Young

Figure:
9 - 2

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- LSA Boundary
- RSA Boundary

Notes:

1. Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.

2. Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Significant Wildlife (D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Den
- Arctic Wolf Nursery
- Arctic Wolf Den
- Arctic Wolf Observation
- Wolverine Observation
- Barren-ground Grizzly Bear Sign

Ungulates

- Barren-ground Caribou Sign
- Barren-ground Caribou Observation
- Muskox Observation

Raptors

- Peregrine Falcon Observation
- Rough-legged Hawk Observation

Occupied Raptor Nests

- Peregrine Falcon Nest

High Suitability Waterbird Habitat

- Graminoid or Wet Graminoid Shorelines (Field confirmed 2017)

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PROJECT: Whale Tail Pit & Haul Road

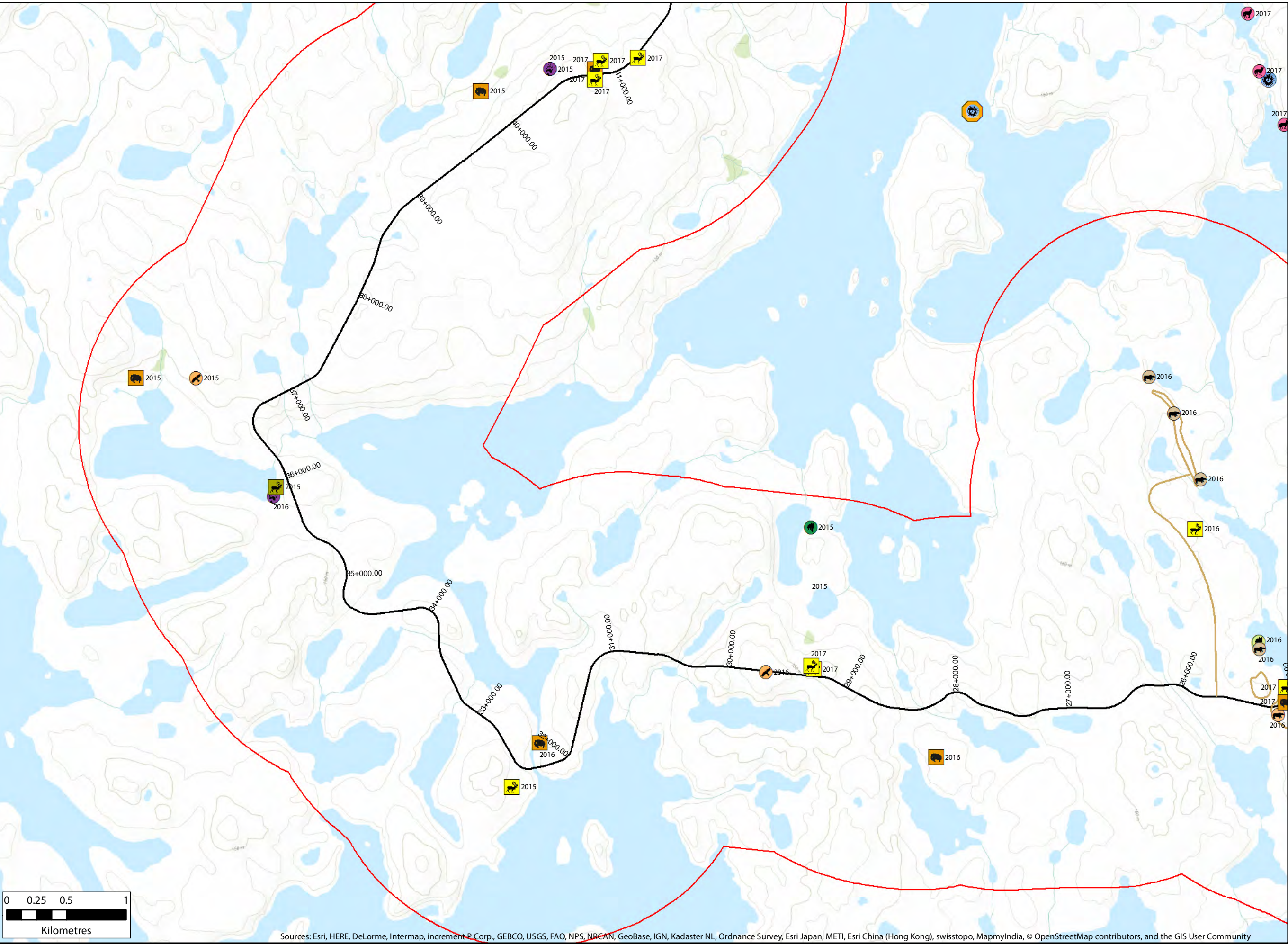
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	DATE: NOVEMBER 21, 2017
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:

9 - 3

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Den
- Arctic Fox Observation
- Arctic Wolf Sign
- Wolverine Observation
- Barren-ground Grizzly Bear Den
- Barren-ground Grizzly Bear Sign

Ungulates

- Barren-ground Caribou Sign
- Barren-ground Caribou Observation
- Muskox Observation

Raptors

- Rough-legged Hawk Observation

Occupied Raptor Nests

- Peregrine Falcon Nest
- Peregrine Falcon & Rough-legged Hawk Nest

Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- LSA Boundary
- RSA Boundary

Notes:

- Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
- Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report

Significant Wildlife Observations



PROJECT: Whale Tail Pit & Haul Road

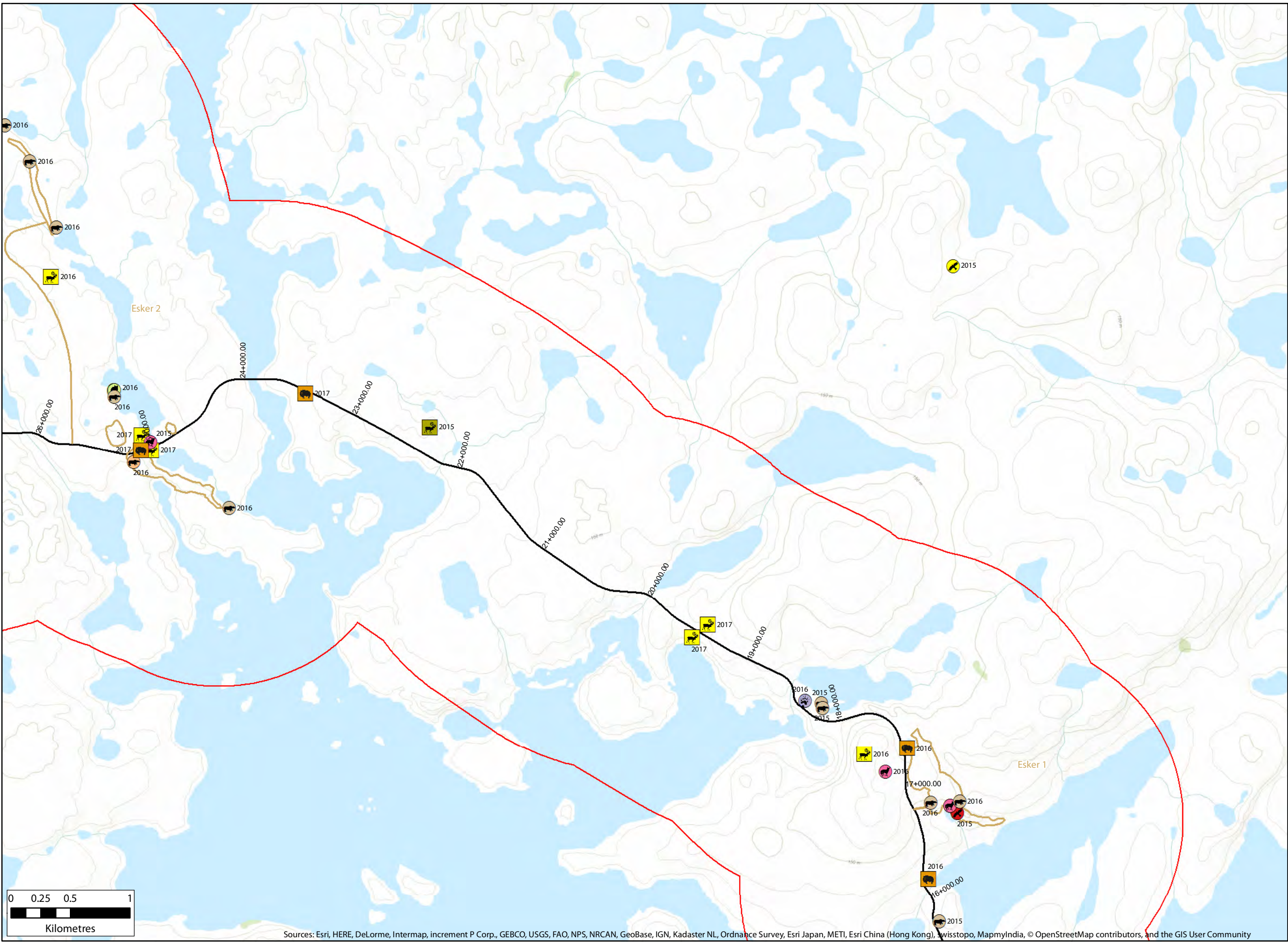
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:

9 - 4

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Den
- Arctic Wolf Sign
- Wolverine Sign
- Barren-ground Grizzly Bear Den
- Barren-ground Grizzly Bear Sign

Ungulates

- Barren-ground Caribou Sign
- Barren-ground Caribou Observation
- Muskox Observation

Raptors

- Bald Eagle Observation
- Gyr Falcon Observation

Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- LSA Boundary
- RSA Boundary

Notes:

- Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
- Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report

Significant Wildlife Observations



PROJECT: Whale Tail Pit & Haul Road

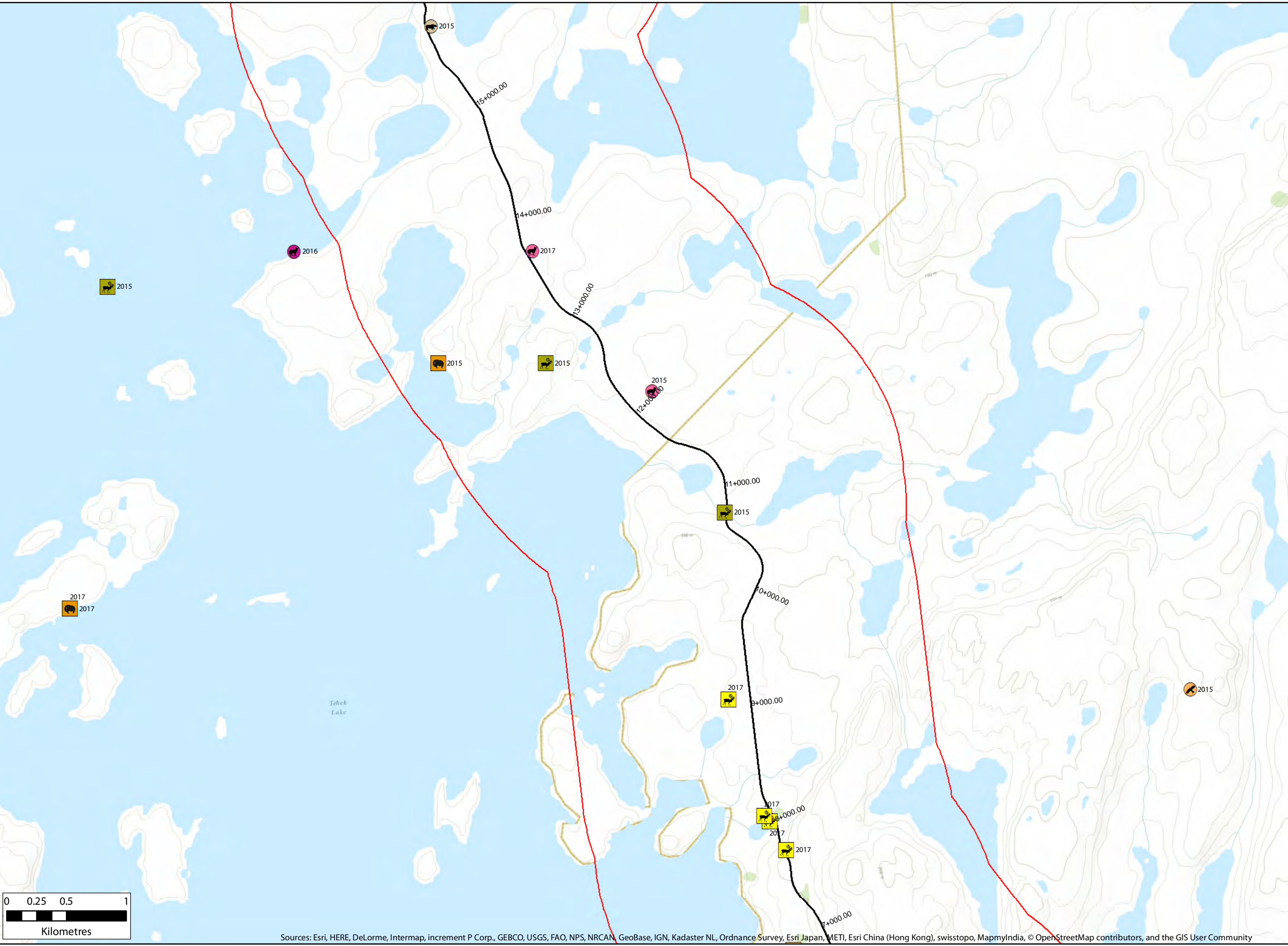
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	DATE: NOVEMBER 21, 2017
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:

9 - 5




The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.







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Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)


Predatory Mammals

-  Arctic Wolf Sign
-  Arctic Wolf Observation
-  Barren-ground Grizzly Bear Sign




Ungulates

-  Barren-ground Caribou Sign
-  Barren-ground Caribou Observation
-  Muskox Sign
-  Muskox Observation

Raptors

-  Rough-legged Hawk Observation

Map Base

-  Proposed Haul Road (AEM, Nov. 2015)
-  LSA Boundary
-  RSA Boundary

Notes:

1. Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
2. Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report

Significant Wildlife Observations



PROJECT: Whale Tail Pit & Haul Road

CLIENT: Agnico Eagle Mines Limited

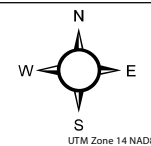
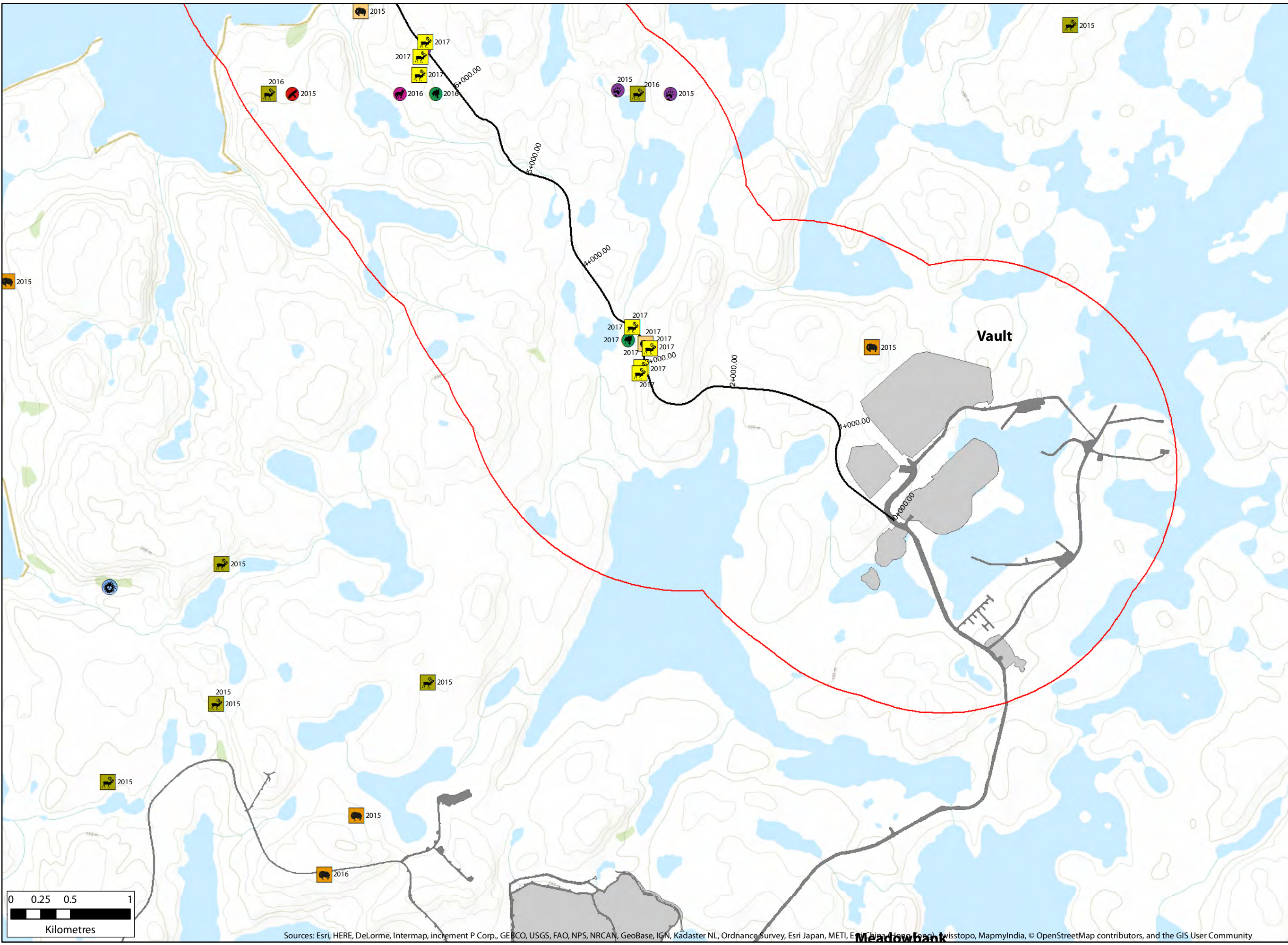
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	SCALE: 1:30,000
	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:




9 - 6

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.







Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

-  Arctic Fox Observation
-  Arctic Wolf Observation
-  Wolverine Observation

Ungulates

-  Barren-ground Caribou Sign
-  Barren-ground Caribou Observation
-  Muskox Sign
-  Muskox Observation






Raptors

-  Bald Eagle Observation

Occupied Raptor Nests

-  Peregrine Falcon Nest

Map Base

-  Proposed Haul Road (AEM, Nov. 2015)
-  Mine Site
-  Road
-  LSA Boundary
-  RSA Boundary

Notes:

- Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
- Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Whale Tail Pit & Whale Tail Haul Road
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Characterization Report

Significant Wildlife Observations



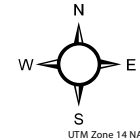
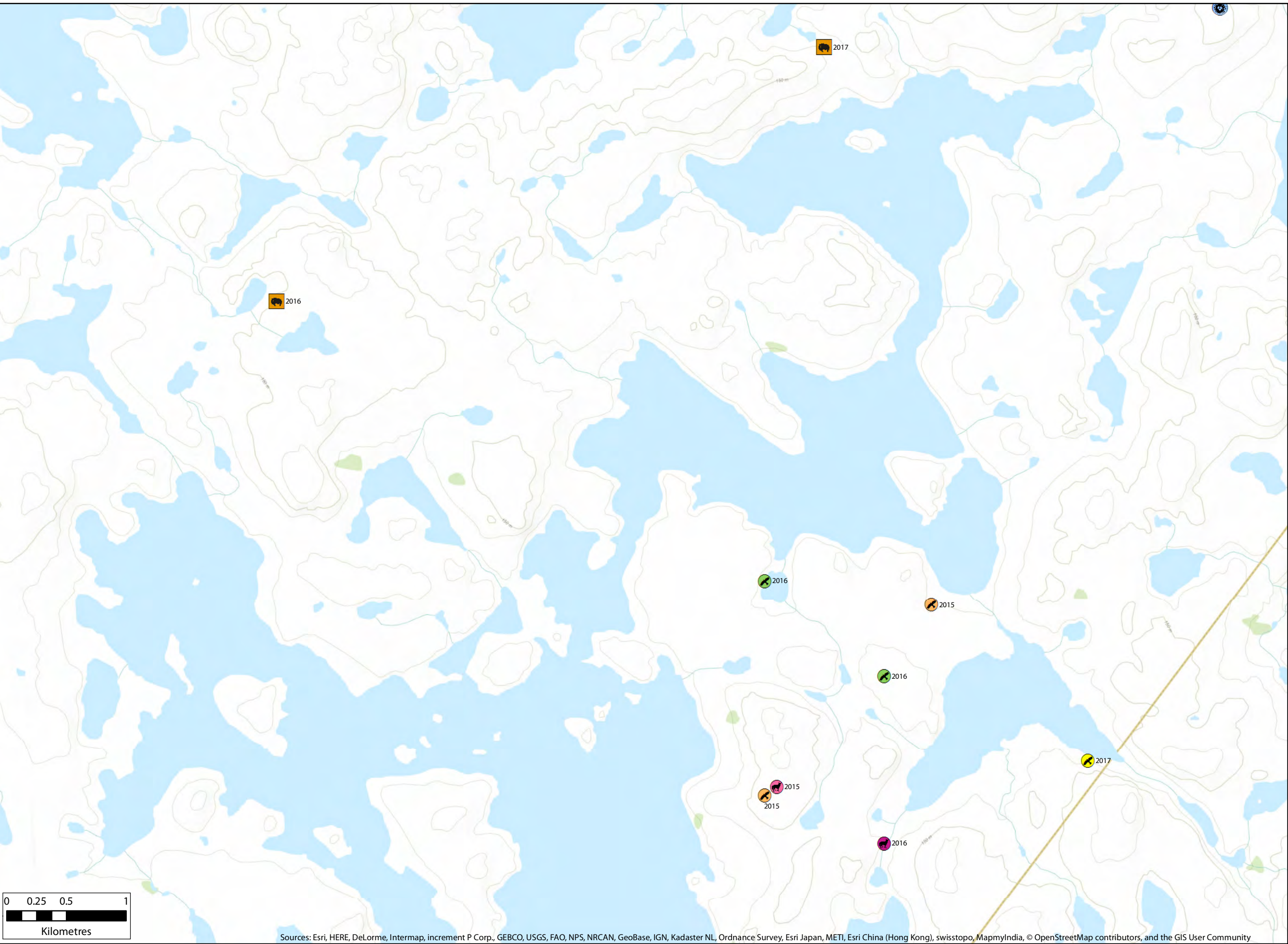
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:
9 - 7



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Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)




Predatory Mammals

-  Arctic Wolf Sign
-  Arctic Wolf Observation


Ungulates

-  Muskox Observation

Raptors

-  Gyr Falcon Observation
-  Rough-legged Hawk Observation
-  Short-eared Owl Observation

Occupied Raptor Nests

-  Peregrine Falcon Nest

Map Base

-  RSA Boundary

Notes:

1. Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.
2. Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

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Significant Wildlife Observations



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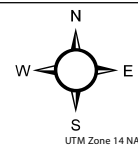
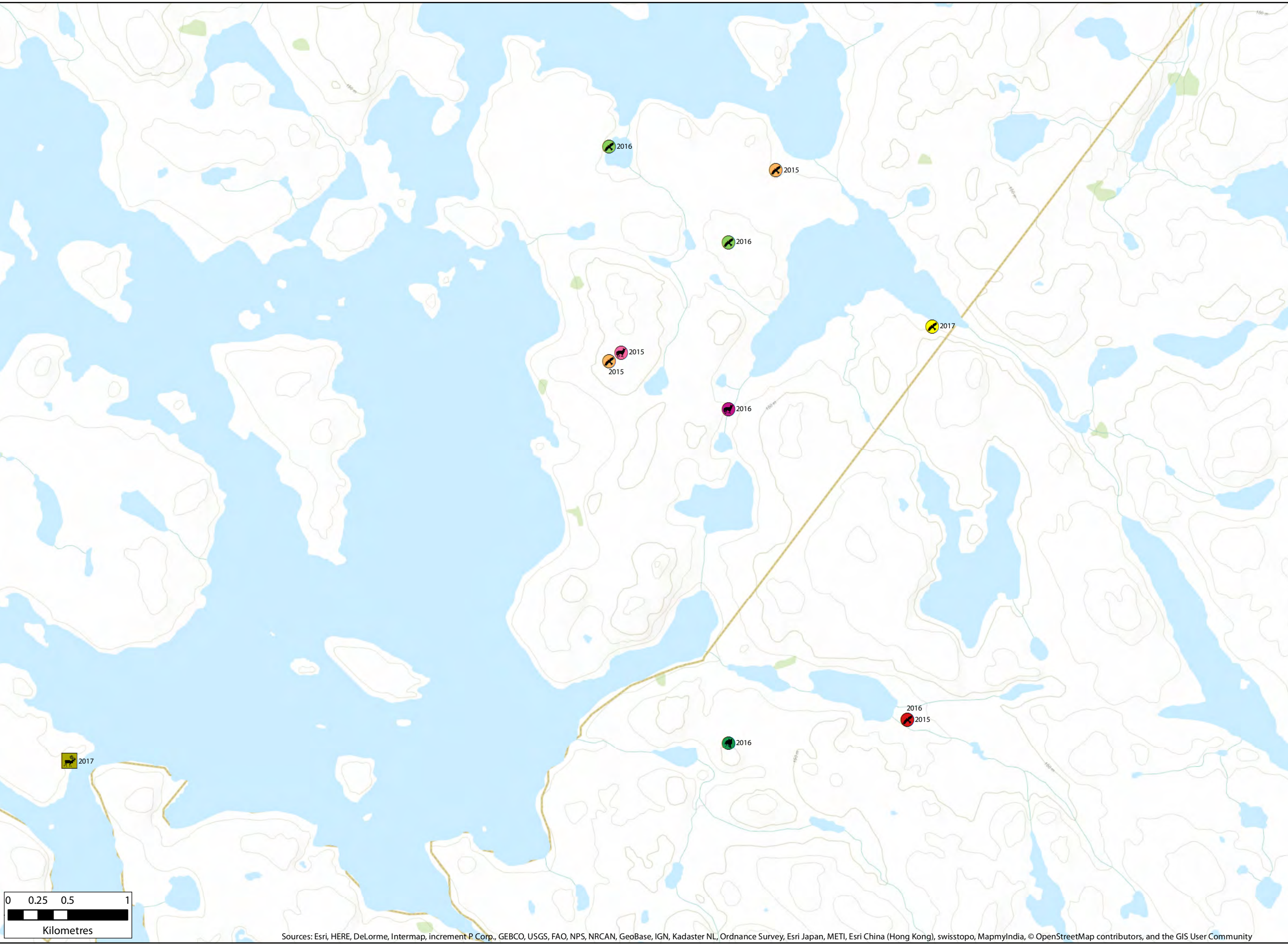
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:

9 - 8

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Significant Wildlife
(D&A; NEC, Franke et al, 2015-2017)

Predatory Mammals

- Arctic Fox Observation
- Arctic Wolf Sign
- Arctic Wolf Observation

Ungulates

- Barren-ground Caribou Observation

Raptors

- Bald Eagle Observation
- Gyr Falcon Observation
- Peregrine Falcon Observation
- Rough-legged Hawk Observation
- Short-eared Owl Observation

Map Base

- RSA Boundary

Notes:

1. Caribou trails, a significant wildlife feature, are displayed on Figure 7.12, Barren-Caribou Observations & Collaring Movements.

2. Franke et al occupied raptor nests & incidental wildlife observations are displayed to record the approximate location of VECs; these observations are not included in the abundance data due to insufficient associated metadata.

Whale Tail Pit & Whale Tail Haul Road
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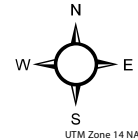
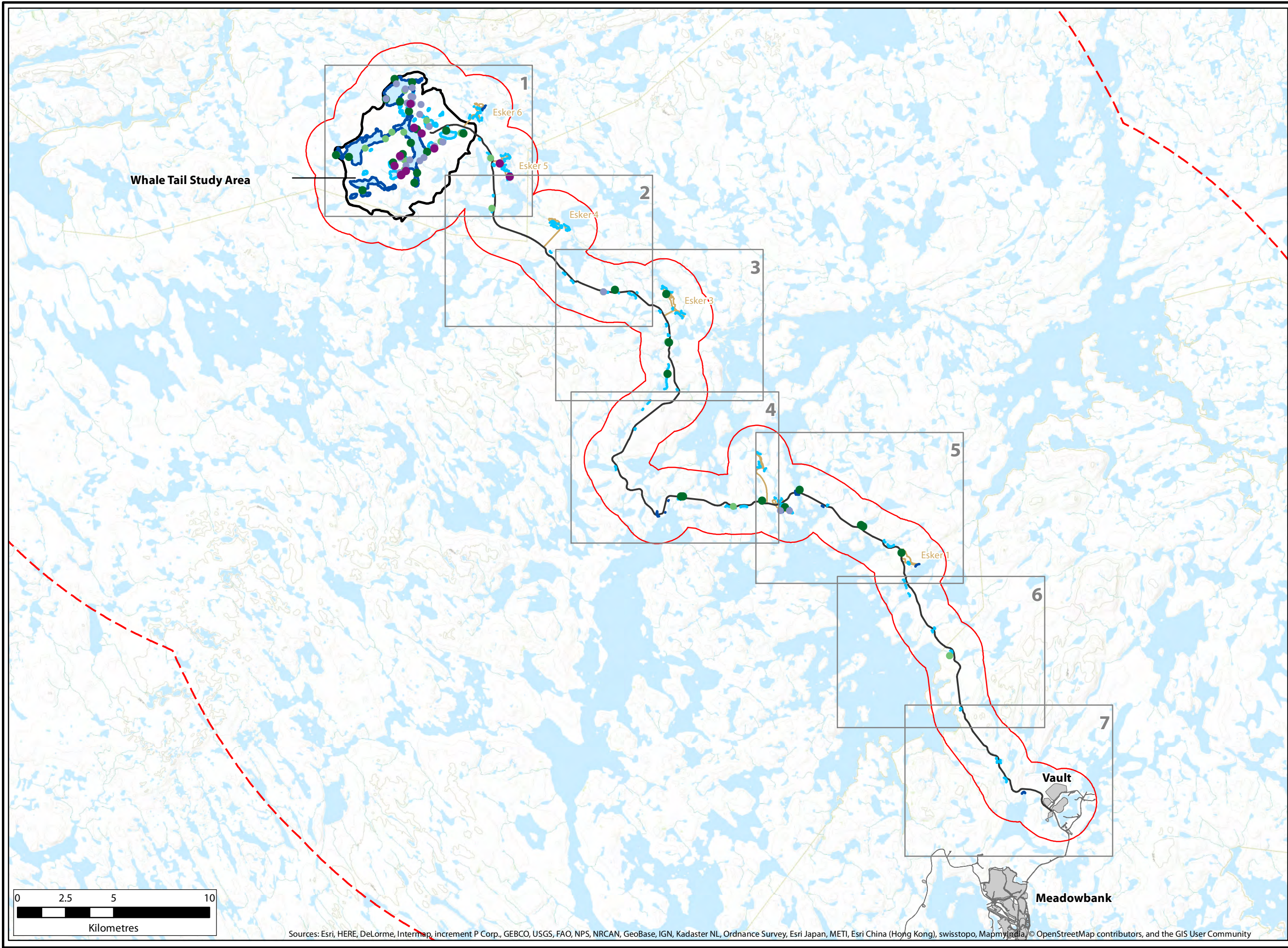
PROJECT: Whale Tail Pit & Haul Road	
CLIENT: Agnico Eagle Mines Limited	
	DATE: NOVEMBER 21, 2017
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	DRAWN BY: Lindsey Carter
	CHECKED BY: Mary Anne Young

Figure:

9 - 9

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.



Legend

Confirmed Breeding¹ (2015-2017)

Waterbirds

- Confirmed Nest
- Additional Confirmed Breeding

Upland Birds

- Confirmed Nest
- Additional Confirmed Breeding

Waterbird Survey Transect
(D&A, 2016)

- Lake
- Pond

Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- 2015 - 2017 Shoreline Surveys Figure Extent
- Mine Site
- Road
- LSA Boundary
- RSA Boundary
- Whale Tail Study Area

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys

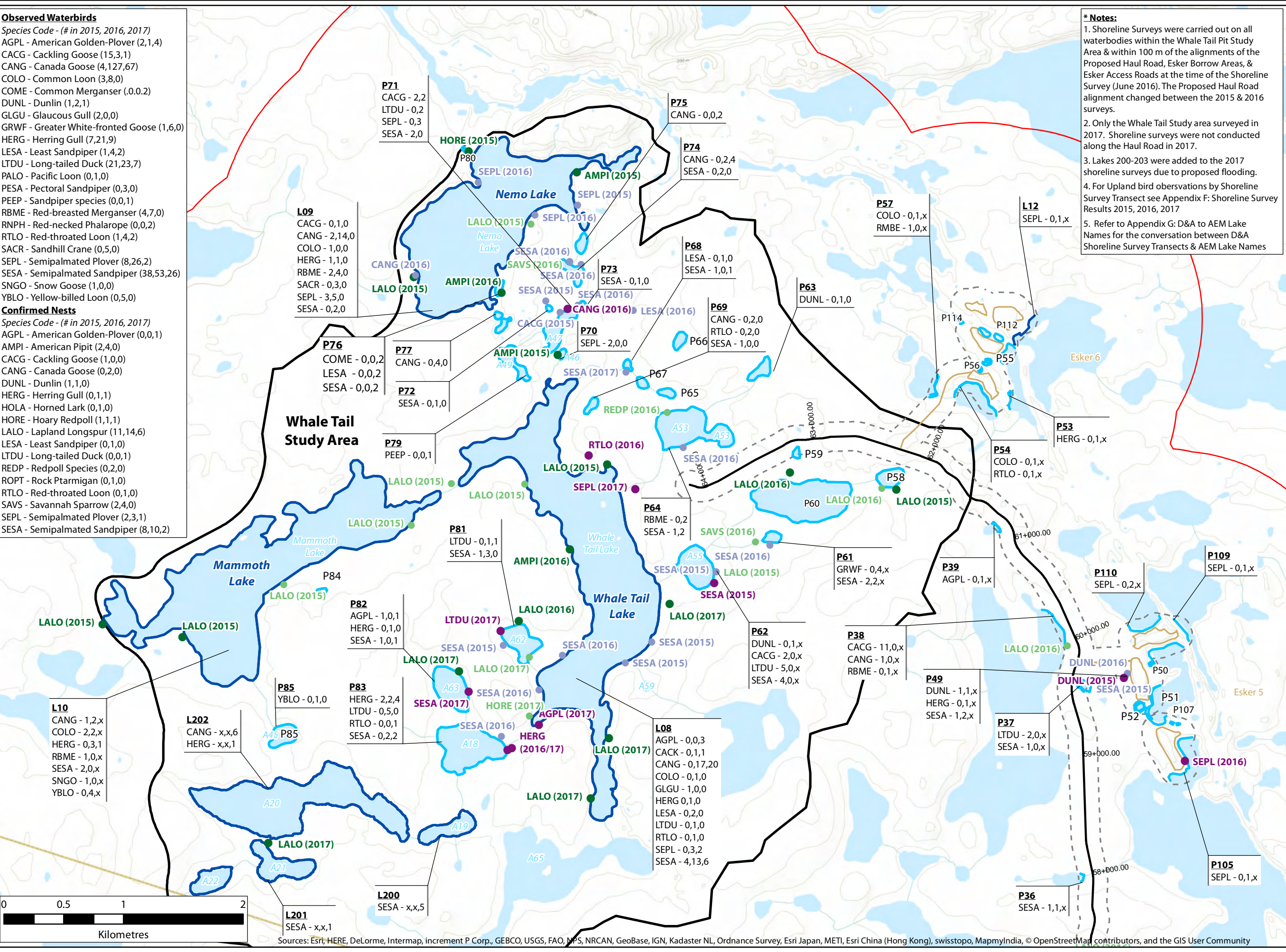
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CLIENT: Agnico Eagle Mines Limited

DATE: NOVEMBER 21, 2017
SCALE: 1:185,000
DRAWN BY: Lindsey Carter
CHECKED BY: Mary Anne Young

Figure:
11 - Key Map
The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.

- Observed Waterbirds**
Species Code - (# in 2015, 2016, 2017)
AGPL - American Golden-Plover (2,1,4)
CACG - Cackling Goose (15,3,1)
CANG - Canada Goose (4,127,67)
COLO - Common Loon (3,8,0)
COME - Common Merganser (0,0,2)
DUNL - Dunlin (1,2,1)
GLGU - Glaucous Gull (2,0,0)
GRWF - Greater White-fronted Goose (1,6,0)
HERG - Herring Gull (7,21,9)
LESA - Least Sandpiper (1,4,2)
LTDU - Long-tailed Duck (21,23,7)
PALO - Pacific Loon (0,1,0)
PESA - Pectoral Sandpiper (0,3,0)
PEEP - Sandpiper species (0,0,1)
RBME - Red-breasted Merganser (4,7,0)
RNPH - Red-necked Phalarope (0,0,2)
RTLO - Red-throated Loon (1,4,2)
SACR - Sandhill Crane (0,5,0)
SEPL - Semipalmated Plover (8,26,2)
SESA - Semipalmated Sandpiper (38,53,26)
SNGO - Snow Goose (1,0,0)
YBLO - Yellow-billed Loon (0,5,0)
- Confirmed Nests**
Species Code - (# in 2015, 2016, 2017)
AGPL - American Golden-Plover (0,0,1)
AMPI - American Pipit (2,4,0)
CACG - Cackling Goose (1,0,0)
CANG - Canada Goose (0,2,0)
DUNL - Dunlin (1,1,0)
HERG - Herring Gull (0,1,1)
HOLA - Horned Lark (0,1,0)
HORE - Hoary Redpoll (1,1,1)
LALO - Lapland Longspur (11,14,6)
LESA - Least Sandpiper (0,1,0)
LTDU - Long-tailed Duck (0,0,1)
REDP - Redpoll Species (0,2,0)
ROPT - Rock Ptarmigan (0,1,0)
RTLO - Red-throated Loon (0,1,0)
SAVS - Savannah Sparrow (2,4,0)
SEPL - Semipalmated Plover (2,3,1)
SESA - Semipalmated Sandpiper (8,10,2)



- * Notes:**
1. Shoreline Surveys were carried out on all waterbodies within the Whale Tail Pit Study Area & within 100 m of the alignments of the Proposed Haul Road, Esker Borrow Areas, & Esker Access Roads at the time of the Shoreline Survey (June 2016). The Proposed Haul Road alignment changed between the 2015 & 2016 surveys.
2. Only the Whale Tail Study area surveyed in 2017. Shoreline surveys were not conducted along the Haul Road in 2017.
3. Lakes 200-203 were added to the 2017 shoreline surveys due to proposed flooding.
4. For Upland bird observations by Shoreline Survey Transect see Appendix F: Shoreline Survey Results 2015, 2016, 2017
5. Refer to Appendix G: D&A to AEM Lake Names for the conversation between D&A Shoreline Survey Transects & AEM Lake Names

- Legend**
- Confirmed Breeding ¹ (2015-2017) Waterbirds**
- Confirmed Nest
 - Additional Confirmed Breeding
- Upland Birds**
- Confirmed Nest
 - Additional Confirmed Breeding
- Waterbird Survey Transect (D&A, 2015 - 2017)**
- Lake
 - Pond
 - Esker or Esker Access Road
 - Proposed Haul Road (AEM, Nov. 2015)
 - Shoreline Survey Area *
 - Whale Tail Study Area
 - LSA Boundary
 - RSA Boundary

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys

DOUGAN & ASSOCIATES
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Nunavut ENVIRONMENTAL CONSULTING LTD

PROJECT: Whale Tail Pit & Haul Road

CLIENT: Agnico Eagle Mines Limited

DATE: NOVEMBER 21, 2017
SCALE: 1:30,000
DRAWN BY: Lindsey Carter
CHECKED BY: Mary Anne Young

Figure:

11 - 1

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.

- Observed Waterbirds**
Species Code - (# in 2015, 2016, 2017)
AGPL - American Golden-Plover (2,1,4)
CACG - Cackling Goose (15,3,1)
CANG - Canada Goose (4,127,67)
COLO - Common Loon (3,8,0)
COME - Common Merganser (0,0,2)
DUNL - Dunlin (1,2,1)
GLGU - Glaucous Gull (2,0,0)
GRWF - Greater White-fronted Goose (1,6,0)
HERG - Herring Gull (7,21,9)
LESA - Least Sandpiper (1,4,2)
LTDU - Long-tailed Duck (21,23,7)
PALO - Pacific Loon (0,1,0)
PESA - Pectoral Sandpiper (0,3,0)
PEEP - Sandpiper species (0,0,1)
RBME - Red-breasted Merganser (4,7,0)
RNPH - Red-necked Phalarope (0,0,2)
RTLO - Red-throated Loon (1,4,2)
SACR - Sandhill Crane (0,5,0)
SEPL - Semipalmated Plover (8,26,2)
SESA - Semipalmated Sandpiper (38,53,26)
SNGO - Snow Goose (1,0,0)
YBLO - Yellow-billed Loon (0,5,0)
- Confirmed Nests**
Species Code - (# in 2015, 2016, 2017)
AGPL - American Golden-Plover (0,0,1)
AMPI - American Pipit (2,4,0)
CACG - Cackling Goose (1,0,0)
CANG - Canada Goose (0,2,0)
DUNL - Dunlin (1,1,0)
HERG - Herring Gull (0,1,1)
HOLA - Horned Lark (0,1,0)
HORE - Hoary Redpoll (1,1,1)
LALO - Lapland Longspur (11,14,6)
LESA - Least Sandpiper (0,1,0)
LTDU - Long-tailed Duck (0,0,1)
REDP - Redpoll Species (0,2,0)
ROPT - Rock Ptarmigan (0,1,0)
RTLO - Red-throated Loon (0,1,0)
SAVS - Savannah Sparrow (2,4,0)
SEPL - Semipalmated Plover (2,3,1)
SESA - Semipalmated Sandpiper (8,10,2)

- * Notes:**
1. Shoreline Surveys were carried out on all waterbodies within the Whale Tail Pit Study Area & within 100 m of the alignments of the Proposed Haul Road, Esker Borrow Areas, & Esker Access Roads at the time of the Shoreline Survey (June 2016). The Proposed Haul Road alignment changed between the 2015 & 2016 surveys.
2. Only the Whale Tail Study area surveyed in 2017. Shoreline surveys were not conducted along the Haul Road in 2017.
3. Lakes 200-203 were added to the 2017 shoreline surveys due to proposed flooding.
4. For Upland bird observations by Shoreline Survey Transect see Appendix F: Shoreline Survey Results 2015, 2016, 2017
5. Refer to Appendix G: D&A to AEM Lake Names for the conversation between D&A Shoreline Survey Transects & AEM Lake Names

- Legend**
Confirmed Breeding ¹ (2015-2017) Waterbirds
Confirmed Nest
Additional Confirmed Breeding
- Upland Birds**
Confirmed Nest
Additional Confirmed Breeding
- Waterbird Survey Transect**
(D&A, 2015 - 2017)
Pond
Esker or Esker Access Road
Proposed Haul Road (AEM, Nov. 2015)
Shoreline Survey Area *
Whale Tail Study Area
LSA Boundary
RSA Boundary

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys



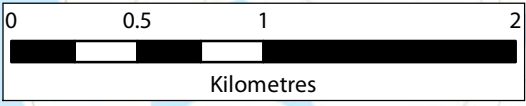
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Figure:
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DUNL - Dunlin (1,2,1)
GLGU - Glaucous Gull (2,0,0)
GRWF - Greater White-fronted Goose (1,6,0)
HERG - Herring Gull (7,21,9)
LESA - Least Sandpiper (1,4,2)
LTDU - Long-tailed Duck (21,23,7)
PALO - Pacific Loon (0,1,0)
PESA - Pectoral Sandpiper (0,3,0)
PEEP - Sandpiper species (0,0,1)
RBME - Red-breasted Merganser (4,7,0)
RNPH - Red-necked Phalarope (0,0,2)
RTLO - Red-throated Loon (1,4,2)
SACR - Sandhill Crane (0,5,0)
SEPL - Semipalmated Plover (8,26,2)
SESA - Semipalmated Sandpiper (38,53,26)
SNGO - Snow Goose (1,0,0)
YBLO - Yellow-billed Loon (0,5,0)
- Confirmed Nests**
Species Code - (# in 2015, 2016, 2017)
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DUNL - Dunlin (1,1,0)
HERG - Herring Gull (0,1,1)
HOLA - Horned Lark (0,1,0)
HORE - Hoary Redpoll (1,1,1)
LALO - Lapland Longspur (11,14,6)
LESA - Least Sandpiper (0,1,0)
LTDU - Long-tailed Duck (0,0,1)
REDP - Redpoll Species (0,2,0)
ROPT - Rock Ptarmigan (0,1,0)
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- Legend**
Confirmed Breeding ¹ (2015-2017) Waterbirds
● Additional Confirmed Breeding
Upland Birds
● Confirmed Nest
● Additional Confirmed Breeding
Waterbird Survey Transect (D&A, 2015 - 2017)
— Pond
Map Base
— Esker or Esker Access Road
— Proposed Haul Road (AEM, Nov. 2015)
--- Shoreline Survey Area *
□ LSA Boundary
□ RSA Boundary

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys



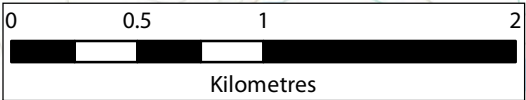
PROJECT: Whale Tail Pit & Haul Road

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Figure:
11 - 3

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SESA - Semipalmated Sandpiper (8,10,2)

P22
CANG - 0,18,x
HERG - 0,3,x
SESA - 0,1,x

P25
LTDU - 2,0,x

P24

P23

P94
HERG - 0,3,x

P93
LTDU - 0,1,x
SACR - 0,2,x
SEPL - 0,1,x

P92
CANG - 0,10,x

ROPT (2016)

LALO (2016)

AMPI (2016)

REDP (2016)

SESA (2015)

P17
LTDU - 1,0,x

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Legend

Confirmed Breeding ¹ (2015-2017)

Upland Birds

- Confirmed Nest
- Additional Confirmed Breeding

Waterbird Survey Transect
(D&A, 2015 - 2017)

- Lake
- Pond

Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- Shoreline Survey Area *
- LSA Boundary
- RSA Boundary

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys



PROJECT: Whale Tail Pit & Haul Road

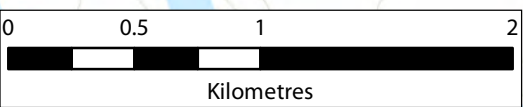
CLIENT: Agnico Eagle Mines Limited

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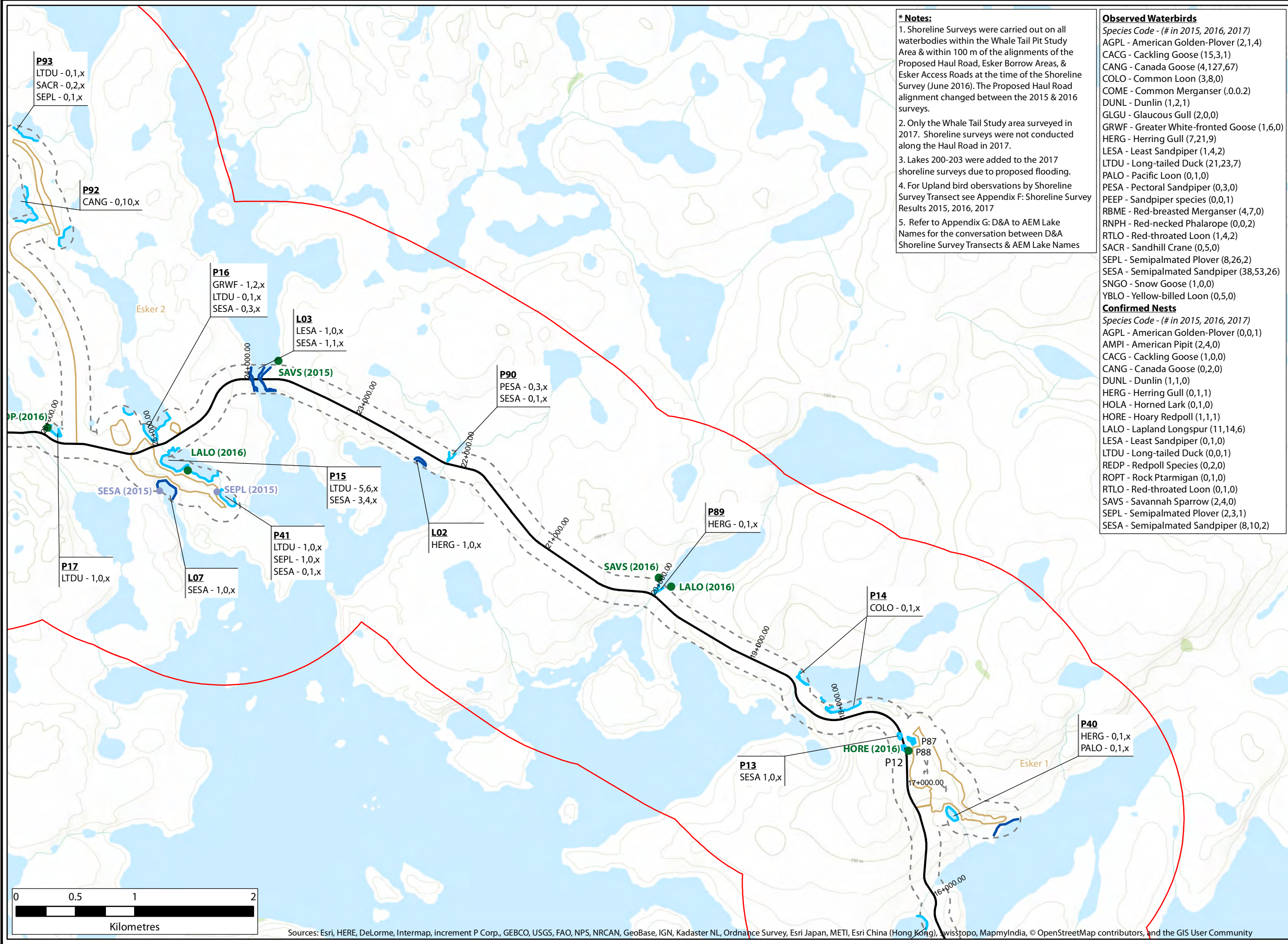
Figure:

11 - 4

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SACR - Sandhill Crane (0,5,0)
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SNGO - Snow Goose (1,0,0)
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Confirmed Nests

Species Code - (# in 2015, 2016, 2017)

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Legend

Confirmed Breeding ¹ (2015-2017) Waterbirds

- Additional Confirmed Breeding
- Confirmed Nest

Upland Birds

- Confirmed Nest

Waterbird Survey Transect
(D&A, 2015 - 2017)

- Lake
- Pond

Map Base

- Esker or Esker Access Road
- Proposed Haul Road (AEM, Nov. 2015)
- Shoreline Survey Area *
- LSA Boundary
- RSA Boundary

Whale Tail Pit & Whale Tail Haul Road
Comprehensive Terrestrial Baseline
Characterization Report
2015-2017 Shoreline Surveys



PROJECT: Whale Tail Pit & Haul Road

CLIENT: Agnico Eagle Mines Limited

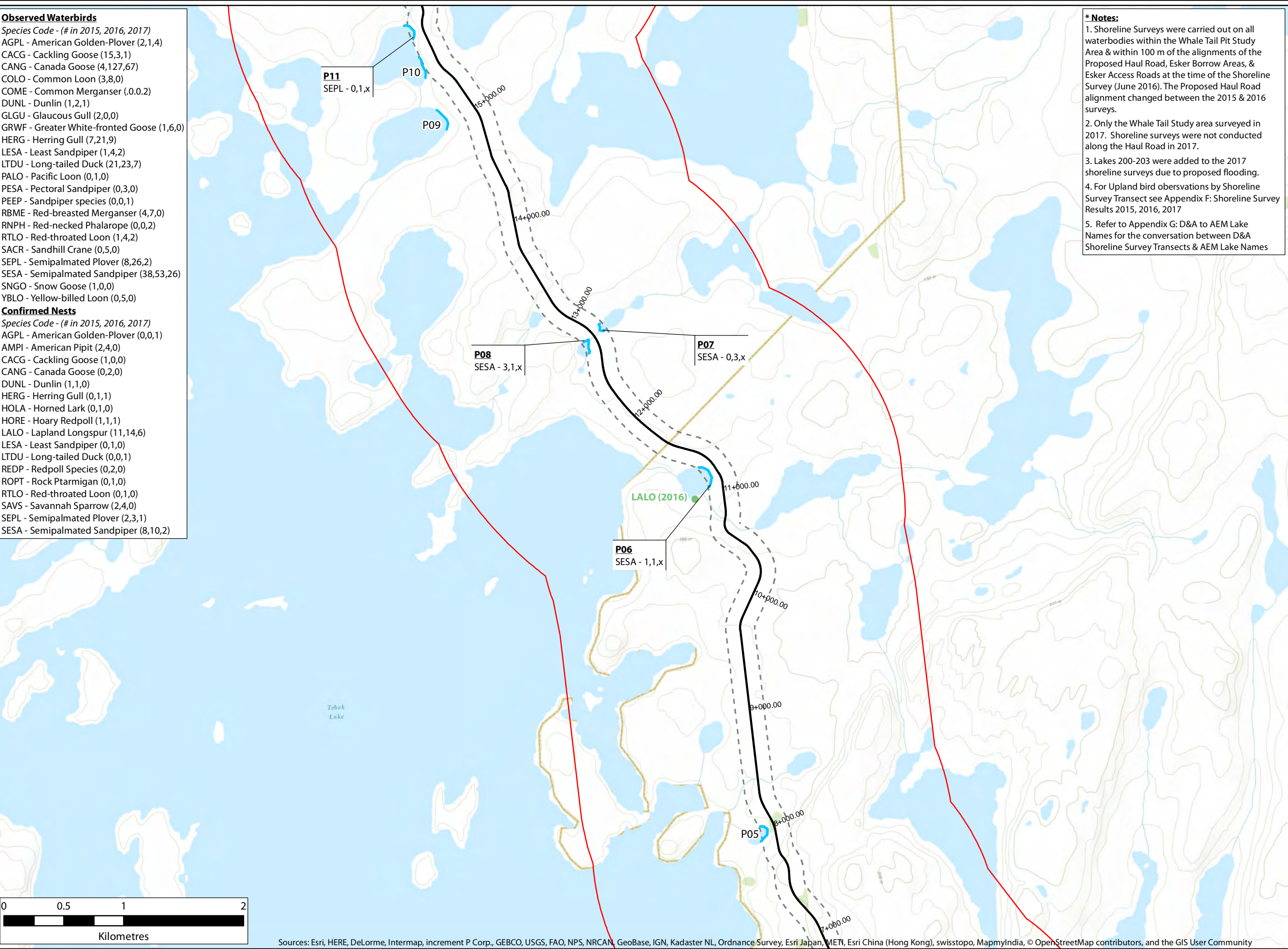
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Figure:

11 - 5

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Legend

Confirmed Breeding ¹ (2015-2017)

Upland Birds

- Additional Confirmed Breeding

Waterbird Survey Transect
(D&A, 2015 - 2017)

- Pond

Map Base

- Proposed Haul Road (AEM, Nov. 2015)
- - - Shoreline Survey Area *
- LSA Boundary
- RSA Boundary

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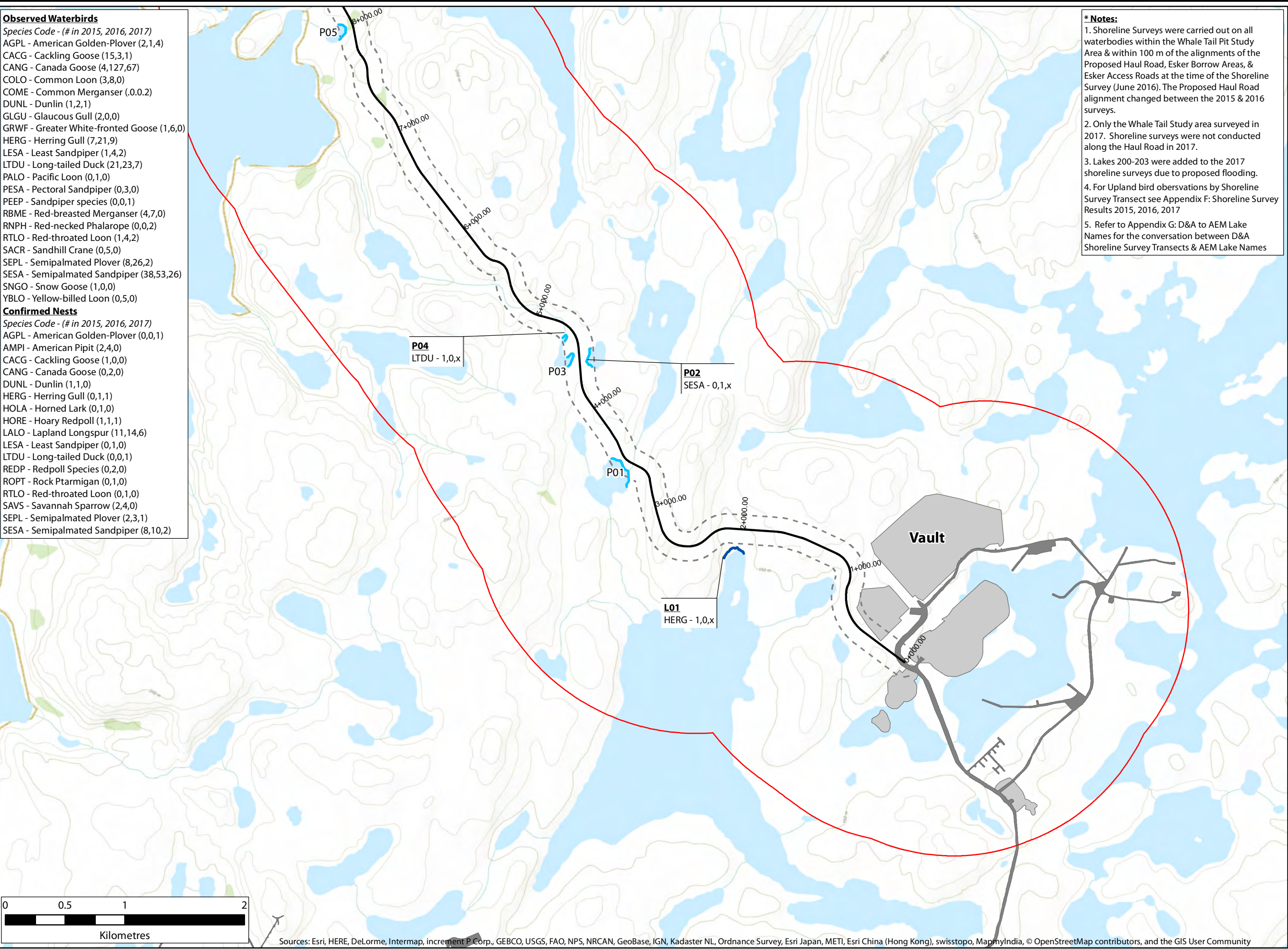
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11 - 6

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- Legend**
Waterbird Survey Transect
(D&A, 2015 - 2017)
- Pond
- Proposed Haul Road
(AEM, Nov. 2015)
- Mine Site
- Road
- Shoreline Survey Area *
- LSA Boundary
- RSA Boundary

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	CHECKED BY: Mary Anne Young

Figure:

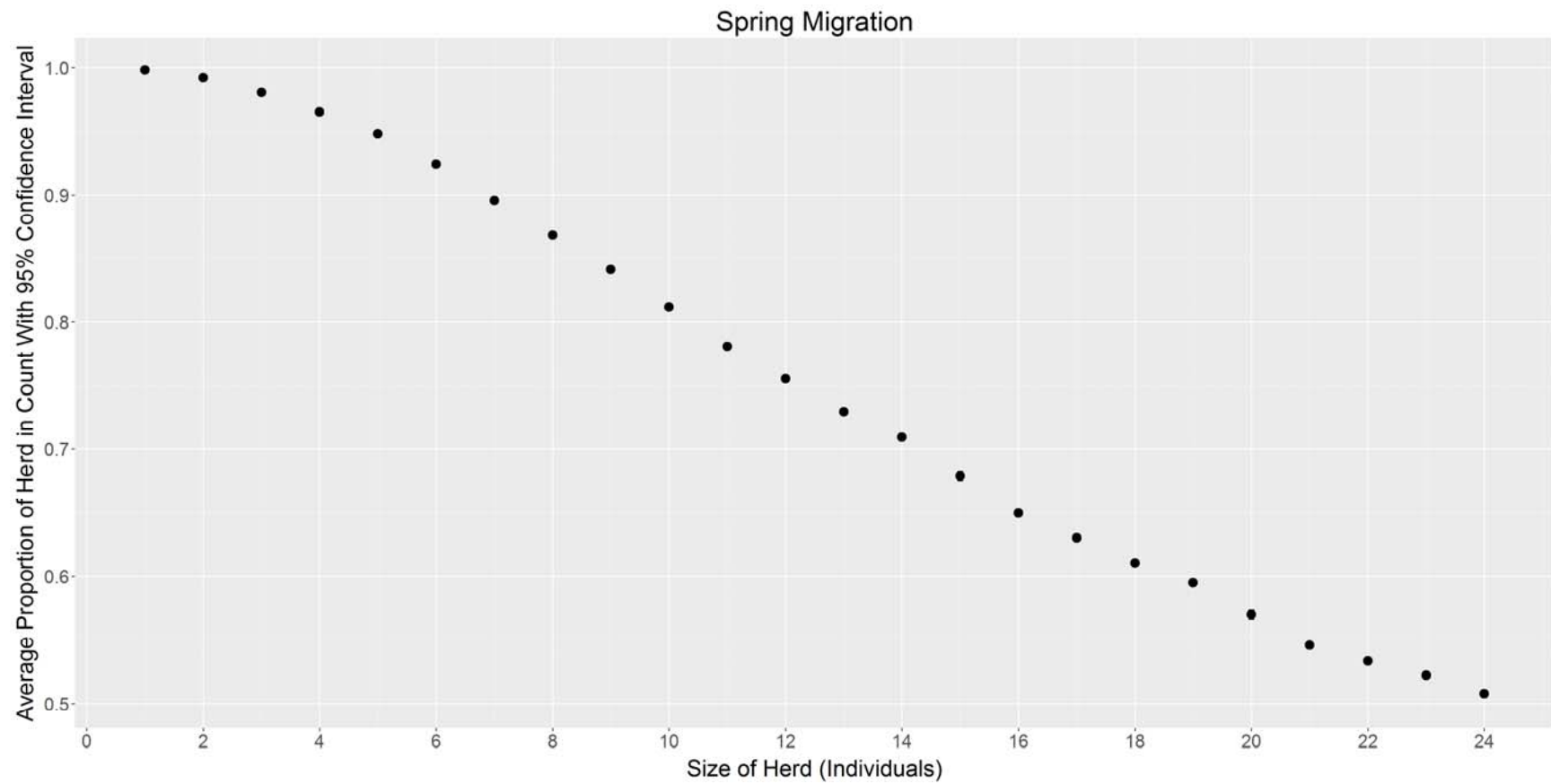
11 - 7

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation.

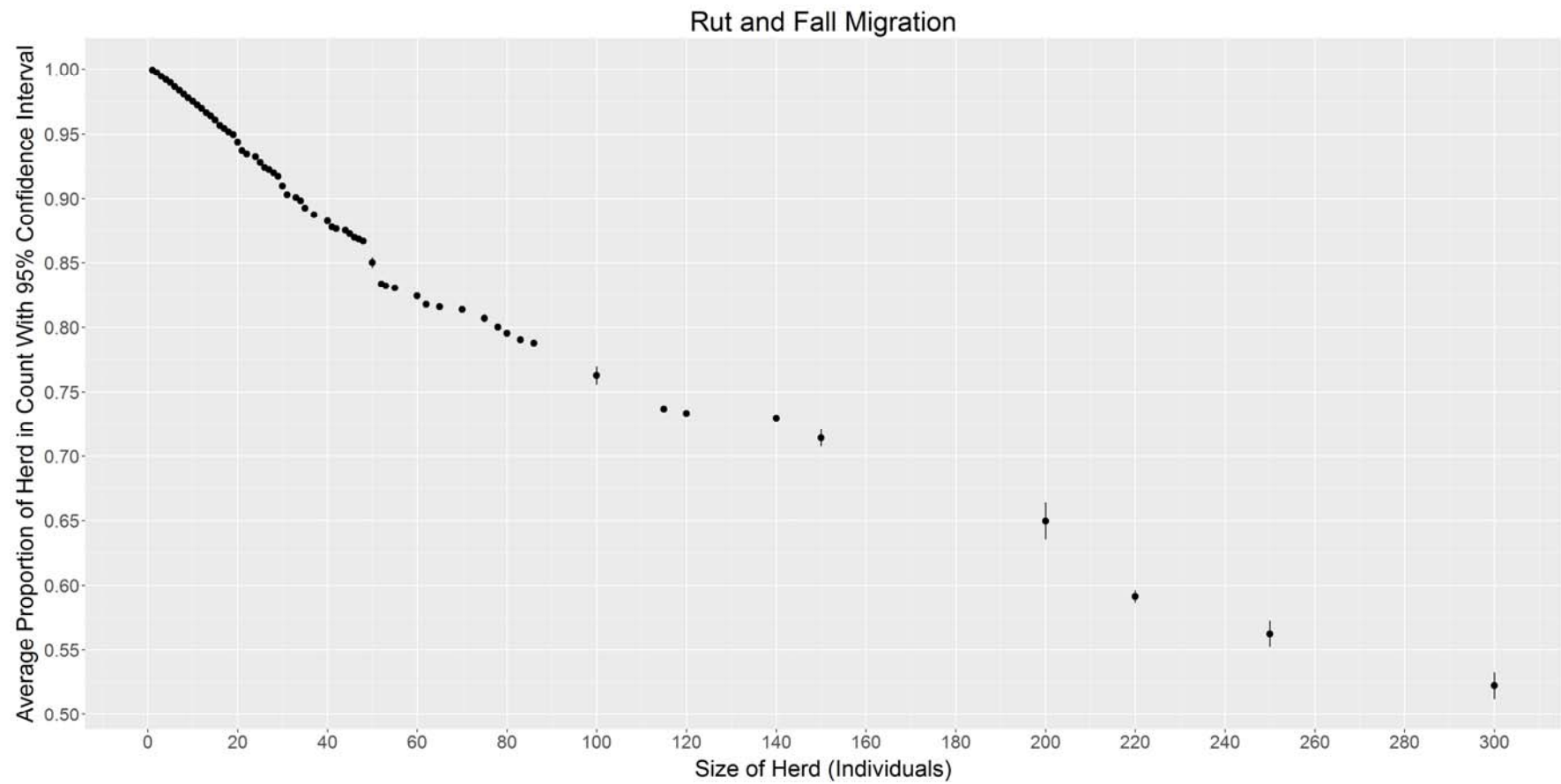
APPENDIX I

Seasonal Group Size Thresholds

a)



b)



c)

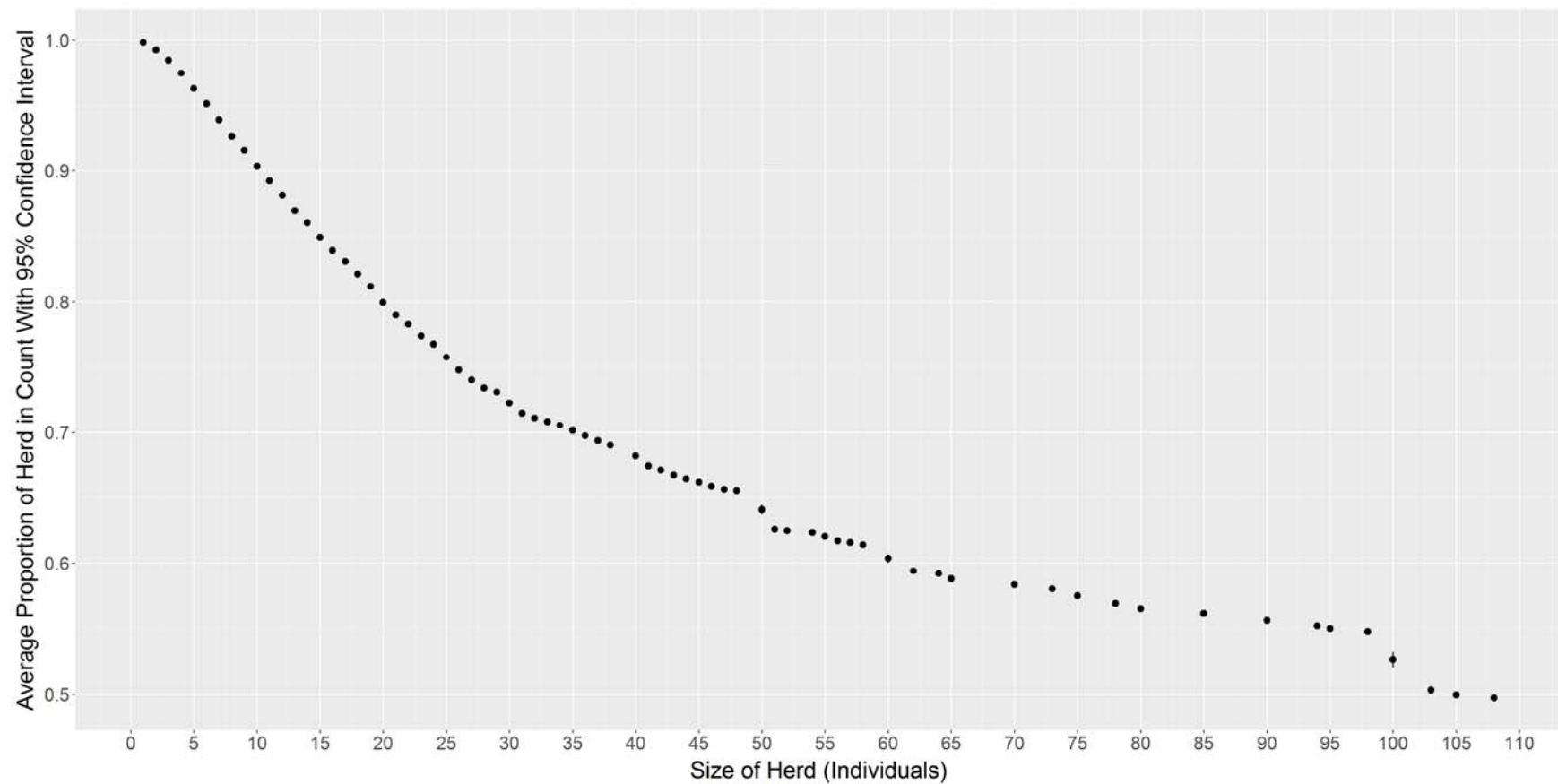


Figure J-1: Proportion of Caribou Observations by Season Presented by Group Size with 95% Confidence Intervals as follows: a) Spring Migration; b) Fall Rut/Fall Migration; and c) Early and Late Winter

APPENDIX J

Predatory Mammal Den Management and Protection Plan

BACKGROUND AND PURPOSE

Predatory mammals represent a valued ecosystem component (VEC), which occur and are known to den in the vicinity of the Meadowbank and Whale Tail Project facilities. Sensory disturbances near to active dens such as blasting, vehicles and, most significantly, ground personnel, may negatively impact denning success by inducing stress responses in the adult mammals, which can result in den abandonment.

This plan is applicable to four species:

- Arctic wolf (*Canis lupus*) natal dens
- Grizzly bear (*Ursus arctos*) natal/overwintering dens
- Arctic fox (*Vulpes lagopus*) natal dens
- Wolverine (*Gulo gulo*) natal dens

The purpose of this plan is to provide a framework for identification, characterization, and monitoring of predatory mammal dens in order to protect any detected dens from disturbance throughout exploration and operation activities in the vicinity of all Meadowbank and Whale Tail Project facilities. The plan will include consultation with the Government of Nunavut (GN) with respect to obligations under the *Wildlife Act*, SNU 2003, c. 26.

MANAGEMENT AND PROTECTION PLAN PROTOCOL

Overview

All observation visits to any active predatory den site must be undertaken with utmost care to avoid disturbing the den. Observations will take place from the greatest possible distance that allows for accurate observation and will employ binoculars and spotting scopes.

Stage 1 – Detection

Detection of predatory mammal dens will be completed using a combination of targeted surveys prior to new construction and ongoing wildlife monitoring during operation.

OPTION A – DURING OPERATION	OPTION B – PRIOR TO CONSTRUCTION
During project facilities operation; Predatory mammal observations, including any indication of denning, will be recorded at any point during operation of project facilities. This detection will be supported by ongoing monitoring activities: road surveys and height-of-land surveys in conjunction with incidental observations by AEM personnel.	Prior to construction of any new project facilities; High-suitability denning habitat (i.e. eskers) within 1 km of the project footprint will be investigated for active predatory mammal dens.

If active predatory mammal dens are detected during Option A or Option B of Stage 1 (listed above) then proceed to Stage 2 of the protocol. If no active dens are detected then continue with Stage 1: Option A is ongoing and Option B is to be utilized as needed.

Stage 2 – Identification and Characterization

If an active predatory mammal den has been detected, Stage 2 of the protocol will be undertaken. In the table below, a list of the identification questions and examples of characterization answers are provided. This process will involve the completion of the following questions as well as dates, timing, identification information about the observer(s), and any additional comments. A blank version of this table, which can be used as a field data collection sheet, is provided at the end of this Appendix.

	Identification Questions to be Answered	Characterization Answer Examples
1	Unique ID?	e.g Wolf Den 01
2	What predatory mammal species is occupying the active den?	e.g. Arctic wolf; Grizzly bear; Arctic fox; Wolverine
3	Coordinates of the active den?	UTM Coordinates of den
4	Site description?	e.g. Arctic fox denning under trailer near Whale Tail helipad e.g. Arctic wolf den located approximately 800 meters from Whale Tail haul road on the south facing side of an ~8m tall esker.
5	Juveniles Observed?	e.g. Yes; 3 fox pups observed in the entering the den. e.g. No; wolf pups have not been observed directly. However, the behaviour of the adult wolves, the repeated observations of wolves at the site, the sandy ridge location of the site and the observations of wolf burrows at the site indicate that an active den with juveniles is highly probable.
6	Disturbance and impact considerations?	e.g. The wolf den occurs within 800 m of the Whale Tail haul road. As such vehicle noise, including helicopters, is frequently present within 1 km of the den site.
7	Adaptive management considerations?	e.g. Ground personnel access will be restricted within 1km of the den and, as much as possible, vehicles will not stop on the roadway at km 35. Helicopter routing will be advised and flybys of the esker at this location will be minimized.
8	Recommended monitoring program?	e.g. Weekly checks by the den monitoring survey team will be undertaken to monitor the progress of den development (i.e. age of pups), investigate for signs of adult stress responses and inform any additional adaptive management requirements. Checks will be undertaken from a height-of-land at (coordinates), approximately 300 m NW of the suspected den location.

Stage 3 – Monitoring

Monitoring visits will be undertaken at the frequency, distance and location recommended by the identification and characterization stage (Stage 2). In addition to the information in the table below, dates, timing, identification information about the observer(s), and any additional comments will be recorded. A blank version of this table is provided at the end of this appendix.

	Monitoring Questions to be Answered	Monitoring Characterization Answer Examples
1	Unique ID?	Wolf Den 01
2	Changes to disturbance and impact considerations?	e.g. frequency of helicopter flybys within 1 km have increased in conjunction with construction activities at the Whale Tail site.
3	Development stage of den?	e.g. Pups are now more active outside of the den.
4	Changes to site location?	e.g. Adult wolves still display territorial behaviours, but the specific den has likely been relocated ~200m to the NE.
5	Recommended changes to monitoring program?	e.g. Weekly monitoring is considered sufficient. e.g. Recommendation to reduce monitoring to bi-weekly visits: wolf den establishment appears stable, so reduction of personnel presence in the area is advisable
6	Recommended adaptive management considerations?	e.g. Continue restricting access to ground personnel within 1 km of the den. e.g. Develop new flight path instructions with helicopter teams. Avoid flybys over the den by at least 1 km.

Monitoring (Stage 3) continues at the rate recommended by Stage 2 assessment and all subsequent monitoring visits. Monitoring of an active den will be discontinued once the pups have left the den, the den has been relocated to a distance greater than 1 km from operating facilities, or the potential impacts to the den are considered negligible.

ADAPTIVE MANAGEMENT

Based on findings from Stage 3 monitoring, new adaptive management solutions may be required to prevent negative impacts to the active predatory mammal den. This may include the restriction of movements or activities by certain vehicles or work teams to minimize disturbances. It may also include alterations to monitoring activities to reduce disturbances or increase the amount of information available to inform management decisions. See Chart 3 in 2016 TEMP for adaptive management timing and work flow.

Data Sheet for Stage 2 – Identification and Characterization**Date:****Observer:**

	Identification Questions to be Answered	Characterization Data
1	Unique ID?	
2	What is the predatory mammal species is occupying the active den?	
3	Coordinates of the active den?	
4	Site description?	
5	Juveniles Observed?	
6	Disturbance and impact considerations?	
7	Adaptive management considerations?	
8	Recommended monitoring program?	

Data Sheet for Stage 3 – Monitoring**Date:****Observer:**

	Monitoring Questions to be Answered	Monitoring Data
1	Unique ID?	
2	Changes to disturbance and impact considerations?	
3	Development stage of den?	
4	Changes to site location?	
5	Recommended changes to monitoring program?	
6	Recommended adaptive management considerations?	

APPENDIX K

Haul Road Design Drawing
