

**BRITISH COLUMBIA
ARCHAEOLOGICAL IMPACT ASSESSMENT
INTERIM REPORT FORM**



1. REPORT TITLE

2016-0169-003, AIA of BCTS Stuart Nechako block LEO005

2. MANAGEMENT SUMMARY

2.1. Protected HCA Sites
N/A
2.2. Brief Overview of Study
BCTS requested an archaeological assessment within proposed forestry cut block LEO005. Ecofor conducted a detailed pre-field review, followed by an archaeological impact assessment (AIA) survey within the development. The survey focused primarily on areas identified during the pre-field review as having high potential, including the topographic high and ridge adjacent to Stream G in the northwest corner of the block and the area adjacent the confluence of Streams E and F in the southwest corner of the block.
2.3. Results
No areas of archaeological potential were identified and no subsurface testing was conducted. The development has been assessed as having low archaeological potential due to the consistently sloping and poorly drained terrain that is present throughout the block, as well as the absence of terrain features suitable for temporary or permanent settlement.
2.4. Management Recommendations
No further archaeological work is recommended provided block boundaries do not change significantly.

3. ADMINISTRATIVE INFORMATION

3.1. Permit Holder:	Greg Holland	
3.2. Permit Holder Affiliation:	Ecofor Consulting PO Box 1270 Fort St James, BC V0J 1P0	Phone: 250-960-1155 ext. 228 Email: greg@ecofor.ca
3.3. Proponent Contact:	Sheri Baker	
3.4. Proponent Affiliation:	BCTS Stuart-Nechako Business Area 1560 Highway 16 East Vanderhoof, BC V0J 3A0	Phone: 250-567-6363 Email: Sheri.Baker@gov.bc.ca
3.5. Interim Report Author(s):	Chandra Young-Boyle	
3.6. Interim Report Date (dd/mm/yy) & Version:	08/08/17, V1	
3.7. Notification of Work Date:	14/06/17	
3.8. OGC Ref No.:	N/A	

4. PROPOSED DEVELOPMENT

4.1. Description:	Proposed block for timber harvest LEO005 (58.6 ha.) and a proposed access road (730 m).
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	The block and road boundaries were not flagged at the time of assessment; therefore, the 250 m buffer zone was also assessed.
4.2. Location:	<p>Leo Creek Operating Area, Fort St James Natural Resource District</p> <p>LEO005 is located 4.6 km northeast of the confluence of Takla Lake and Middle River, 3.6 km northwest of Elliot Lake, and 10.1 km south of Purvis Lake (Figure 1).</p> <p>To access the block from Fort St James, head northwest on Tachie Road for 40.7 km. Turn right (north-northeast) onto the Leo Creek FSR and follow for 80.2 km. Turn right (northwest) onto the Eye Lake FSR and follow for 3 km, veer left (southwest) and continue for an additional 4.4 km. Veer right (north) onto an unnamed FSR and continue for 5.5 km. Turn left (south) and follow for 600 m, stay left (southeast) and follow until the unnamed FSR ends after approximately 1 km. At this point, the block boundary is 400 m to the south.</p> <p>UTM of block centre: NAD 83, Zone 10, 344842 E, 6106185 N NTS Mapsheet (1:50,000): 93N/03 BCGS Mapsheet (1:20,000): 93N.003</p>

5. FIELD CREW

Table 1. Field Crew

Date (dd/mm/yy)	Field Director (On site? Y/N)	Field Supervisor	Other Field Personnel
16/07/17	Greg Holland (N)	James Mooney	Rhiannon Gammon, Peter John (Tl'azt'en Nation)

6. ARCHAEOLOGICAL METHODS & RESULTS

6.1. Pre-field Methodology

☒	Archaeological potential and sites are indicated on Figures 1 and 3
☒	<p>An AOA and/or archaeological predictive model exists for the study area</p> <p>Details: The Fort St James Forest District Archaeological Predictive Model (Marshall and Bond 2004) indicates the block and block buffer have low potential for subsurface archaeological material.</p>
☐	<p>Previous field studies influenced this assessment</p> <p>Details: N/A</p>
☒	<p>Review of Provincial Heritage Register (RAAD)</p> <p>Date Accessed: 10/07/17</p>
☒	<p>Other</p> <p>Details: Previous field studies have located numerous CMT sites in the area. As a result, the predicted potential for CMT sites within the block is high where pine is present. However, according to VRI data the dominant species are spruce and fir age class 8 (141-250 years old) indicating low potential for the presence of pine predating 1846 throughout the block, with high potential for post-1846 CMTs where pine are present. High predicted potential is identified at the confluence of Streams E and F in the southwestern block as well as a possible topographic high in the northwestern portion of the block overlooking Stream G.</p>

Table 2. Archaeological Sites in the Vicinity of the Study Area

Borden No.	Distance & Direction from Proposed Development	Site Type	Permit No. of Previous Visits	Site in Conflict (Y/N)
GgSi-1	5 km southeast	Trail, CMT, Subsistence feature	2000-120	N
GgSi-2	2.5 km south	CMT	2001-297, 2002-062 Alteration	N
GgSi-3	2.3 km south	CMT	2001-297, 2002-062 Alteration	N
GgSi-4	2.4 km south	CMT	2001-297, 2002-062 Alteration	N
GgSi-5	2.6 km south	CMT	2001-297, 2002-062 Alteration	N
GgSi-6	2.6 km south	CMT	2001-297, 2002-062 Alteration	N
GgSi-7	4.9 km south-southwest	CMT	2007-140	N
GgSi-9	3.3 km southwest	Cache pit, CMT	2011-076	N
GgSi-10	3.3 km southwest	CMT	2011-076	N
GgSi-11	3.6 km south-southwest	CMT, Cache pit, Subsurface lithics	2011-076	N
GgSi-12	3.5 km south	CMT	2016-0124	N
GgSi-13	4.4 km south	CMT	2016-0124	N
GgSi-14	4.7 km south	CMT	2016-0124	N
GgSi-15	4.7 km south	CMT	2016-0124	N
GgSi-16	4.8 km south	CMT	2016-0124	N
GgSi-17	4.8 km south	CMT	2016-0124	N

6.2. In-field Methodology

6.2.1. Subsurface Testing

☐	Subsurface test measurements are a minimum of 35 x 35 cm, excavated by shovel, screened through 6 mm mesh, and backfilled. Date Accessed: N/A
☐	Describe if other: N/A

6.2.2. Pedestrian Survey

Number of Crew Members:	The crew consisted of 3 people.
Crew Spacing:	Crew members were spaced 5-30 m apart depending on visibility, which ranged from 20-50 m throughout the block.
Other:	Crew members conducted transects, which inspected surfaces for sites and areas of potential. The survey followed predicted archaeological potential (see Section 6.1 above), hydrological features, landforms, and mapped block boundaries. Pedestrian transects are shown on Figure 3.

6.3. In-field Observations

6.3.1. Hydrology & Associated Landforms

Streams A-C intersect the northern block buffer and were not encountered during the survey. The terrain in the area is undulating and poorly drained with a predominant southwest aspect slope.

Stream D intersects the northern block buffer. The stream is poorly defined and consists predominantly of a low-lying wet area covered in dense vegetation. The associated terrain is undulating and poorly drained. Stream E is an incised gravel stream bed at the base of a gully, with flowing water at the western end and muddy standing water at the eastern end of the block. The associated terrain slopes steeply down to the west (photo 1). Stream F consists of a narrow, incised stream bed. The associated terrain slopes continuously down to the stream from either side (east and west) (photo 2). Stream G is a well-defined, incised, fast flowing stream approximately 1 m wide, running south, with a cobble and pebble streambed. The stream is at the base of a steep gully about 40-60 m below surrounding terrain; the terrain is undulating with a predominant south aspect slope (photo 3).

6.3.2. Topography

The topography throughout the development is characterized by terrain that is undulating and poorly drained with a predominant southwest aspect slope. Terrain associated with the streams that intersect the block generally slopes steeply down to the streams from either side, and is continuously poorly drained and undulating (photo 4).

6.3.3. Vegetation

According to the Vegetation Resources Inventory (VRI) data, the overstory within the block consists of a mix of spruce and balsam fir with minimal pine, age class 8 (141-200 years old). The observed overstory within the block is consistent with VRI data and consists primarily of spruce and balsam fir. The understory consists predominantly of wet-indicator plants including ferns, grasses, devil's club, mosses, and alder.

6.3.4. In-field Assessed Archaeological Potential

The block, access road, and associated buffer area are assessed as having low archaeological potential due to the consistently sloping and poorly drained terrain that is present throughout the block. No elevated or dry landforms were encountered during the in-field assessment, and no shovel testing was completed. No CMTs were identified during the survey.

6.4. Results

6.4.1. Subsurface Testing

No subsurface testing was completed within the proposed development.

6.4.2. Untested Areas of Potential

No untested areas of potential are present within the proposed development.

6.4.3. Sites Not Protected by the HCA

No traditional use, modern, or post-1846 sites that are not protected by the Heritage Conservation Act were identified.

7. ARCHAEOLOGICAL SITE SUMMARY

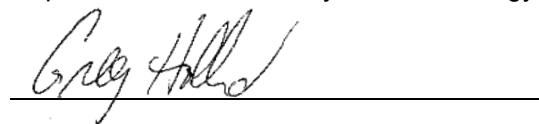
No archaeological sites were identified within the proposed development.

8. DISCLOSURE STATEMENT & SIGNATURE

Although every attempt was made to locate and record all archaeological and cultural heritage features within the specified survey area, the possibility exists that remains may have been missed. If any unidentified archaeological or cultural heritage remains are encountered during development activities, work in the vicinity must stop and the Archaeology Branch, relevant First Nations, and/or the Ministry of Forests, Lands and Natural Resource Operations must be informed. These agencies will then provide direction as to an appropriate course of action to take regarding management of the remains.

It was not the intent of this survey to identify, evaluate, or comment on the presence or absence of aboriginal rights in the survey area. Completion of this survey does not "abrogate or derogate from Aboriginal treaty rights" (Heritage Conservation Act Sec. 8). The survey was conducted without prejudice to First Nations' treaty negotiations, Aboriginal rights, or Aboriginal title.

As permit holder, it is my opinion that the field work and reporting were completed in accordance with the Heritage Inspection Permit issued by the Archaeology Branch.



Greg Holland, Permit Holder

9. REFERENCES CITED

Marshall, Amanda and Tara Bond. 2004. *Fort St. James Forest District Archaeological Predictive Model Revision Project: Final Report*. Ecofor Consulting Ltd., Fort St. James, BC.

10. REPORT DISTRIBUTION

Contact	Affiliation
Joel Kinzie	Archaeology Branch
Shane Perry, Natural Resources	Yekooche First Nation
Bev John, Dwayne Martin	Tl'azt'en Nation
Lisa Krebs, Lands and Resources	Takla Lake First Nation

11. SHAPEFILES

☒ Study area shapefiles have been sent to archsitereform@gov.bc.ca

12. APPENDICES

- ☒ Appendix A – Photos (required)
- ☐ Appendix B – Subsurface Test Log (where applicable)
- ☐ Appendix C – Site Forms and Related Documents (where applicable)
- ☐ Appendix D – Sites Not Protected by the HCA (where applicable)
- ☒ Appendix E – Figures (per Archaeology Branch Mapping and Spatial File Standards released December 31, 2015)
 - ☒ Permit Area Overview Map (required)
 - ☒ Midrange Location Map (required)
 - ☒ Detailed Results Map (required)
 - ☐ Detailed Site Map (where applicable)

APPENDIX A – PHOTOS



Photo 1. Stream E, view southwest.



Photo 2. Stream F, view east.



Photo 3. Stream G, view west.



Photo 4. General terrain, view southeast.

APPENDIX D – SITES NOT PROTECTED BY THE HCA

- ☒ No sites were recorded.
- ☐ Post-1846 / traditional use sites were recorded.
- ☐ Modern sites were recorded.
- ☐ Ecological or biological sites were recorded.

APPENDIX E – FIGURES

The following maps are included in Appendix E:

Figure 1. Permit Area Overview Map

Figure 2. Midrange Location Map

Figure 3. Detailed Results Map

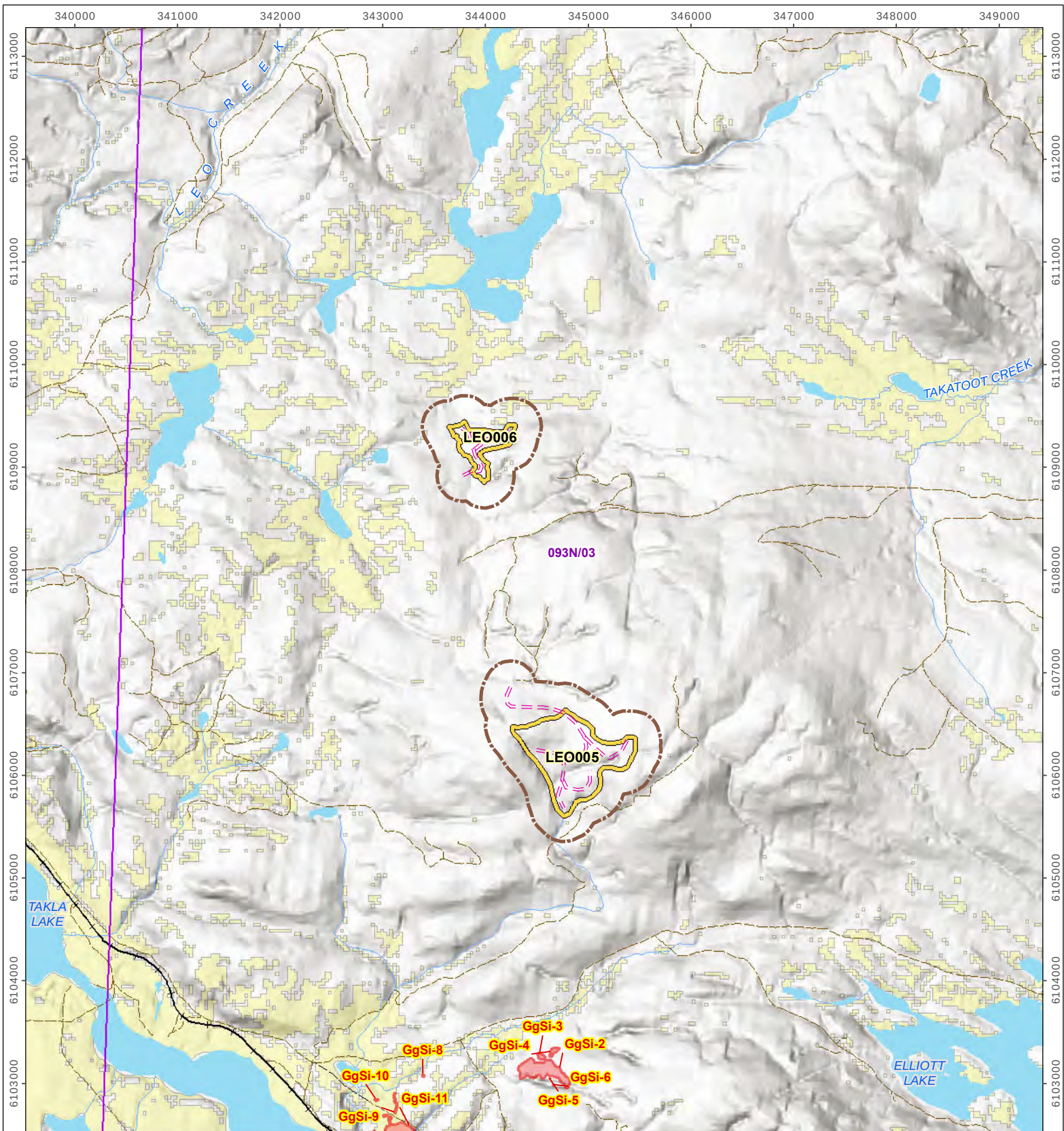
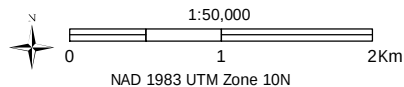


FIGURE 1
PERMIT AREA OVERVIEW
MAP 10



Disclaimer: This product is for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. The base data layers have been obtained from the British Columbia Geographic Warehouse (BCGW), and ArcGIS online. Archaeological Site Boundaries were obtained by the Ministry of Forests, Lands and Natural

- | | |
|------------------------|---|
| Proposed Roads | Archaeological Site |
| Rail Line | NTS 50K Grid |
| Resource Road | Waterbody |
| Road - Other | Stream |
| Proposed Block | Fort St. James Archaeological Potential |
| 250m Assessment Buffer | |

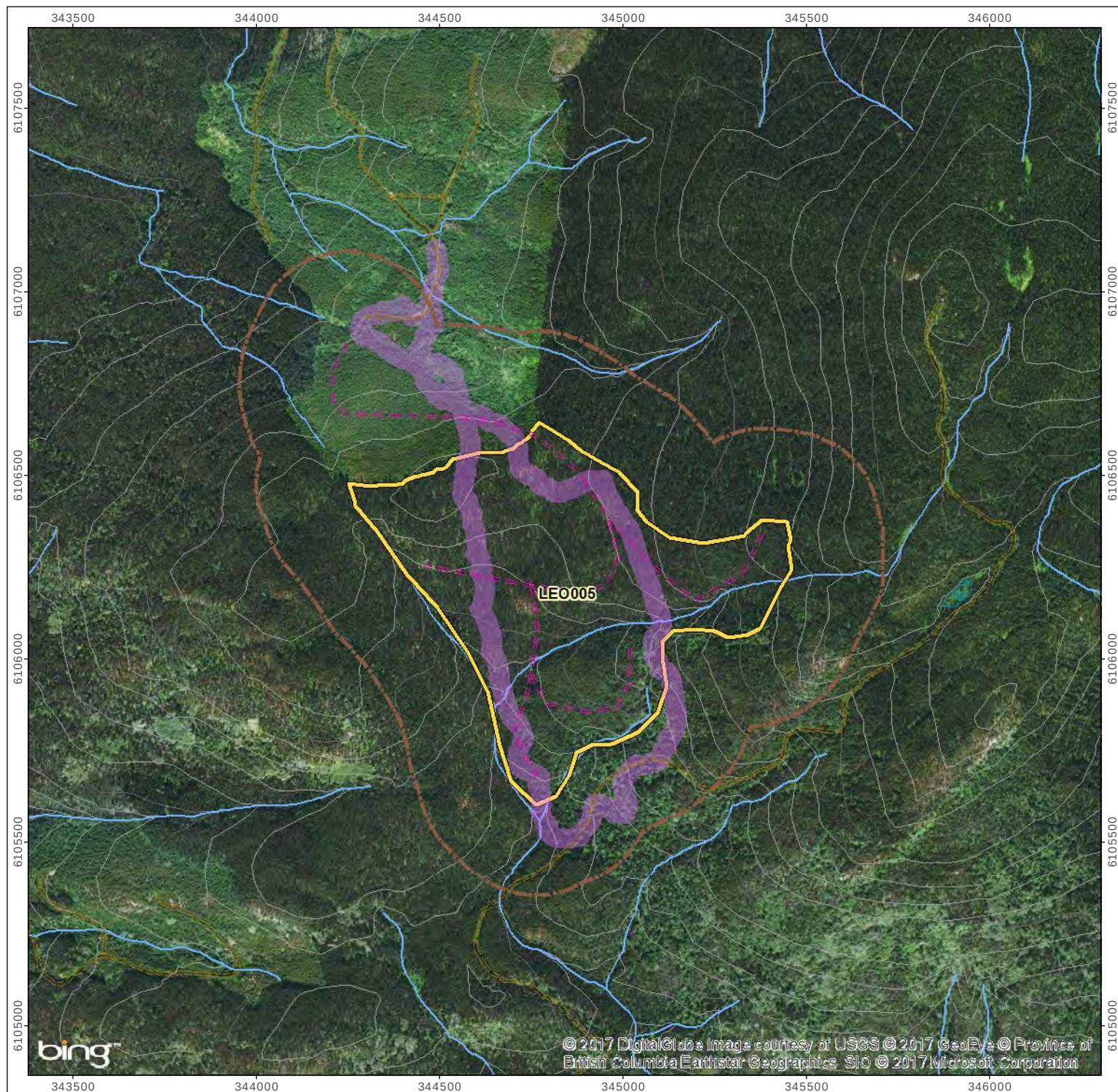
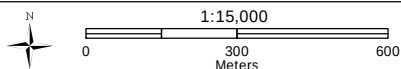


FIGURE 2. MIDRANGE LOCATION MAP
LEO005



NAD 1983 UTM Zone 10N
NTS MAPSHEET: 93N/03
BCGS MAPSHEET: 93N.003

Permit Number: 2017-0169

EPN: 2017-1203-041

Base Features (20k)

- Contour (100m)
- Contour (20m)
- Stream - Definite
- Wetland

Transportation

- Road - Other

Assessment Features

- Proposed Roads
- Proposed Block
- Assessed Area
- Survey Transect Area



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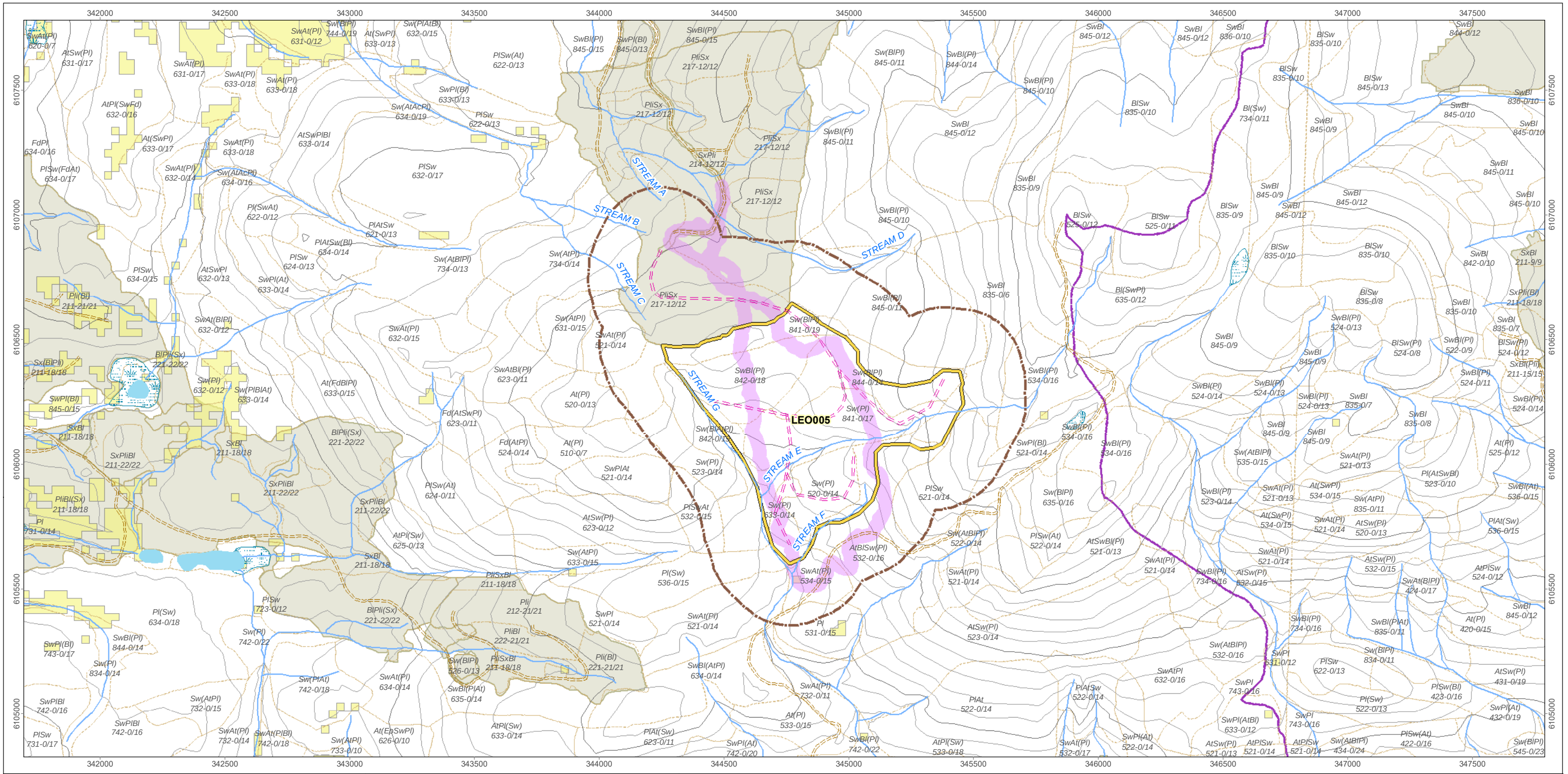
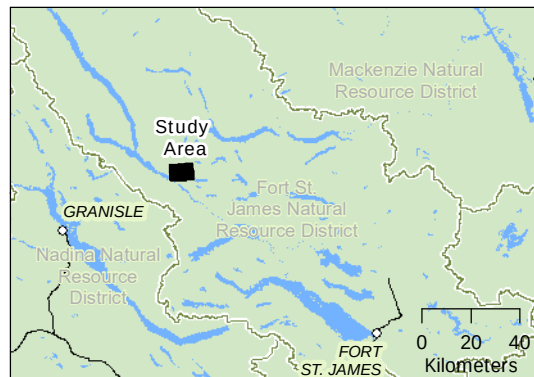


FIGURE 3
ARCHAEOLOGICAL RESULTS MAP
LEO005

N
1:15,000
0 250 500 750m

NAD 1983 UTM Zone 10N
BCGS MAPSHEET: 93N.003
NTS MAPSHEET: 93N/03

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Base Features (20k)

- Contour (100m)
- Contour (20m)
- Stream - Definite
- Waterbody
- Wetland

Land Use

- Forest Cover (VRI)
- Trapline Boundary
- Cutblock

Transportation

- Road - Other

Assessment Features

- Proposed Roads
- Assessed Area
- Proposed Block
- Fort St. James Archaeological Potential
- Survey Transect Area

Block ID:	LEO005
Permit Number:	2017-0169
EPN:	2017-1203-041
Block Area:	58.6 ha
Easting:	344842
Northing:	6106185



Ecofor Consulting Ltd. Date: July-26-17 (JT)