

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



1. REPORT TITLE

2020-0176-012, AIA of BCTS SNBA block RAI49531

2. MANAGEMENT SUMMARY

2.1. Protected HCA Sites
N/A
2.2. Brief Overview of Study
British Columbia Timber Sales — Stuart-Nechako Business Area requested an archaeological assessment within proposed forestry cut block RAI49531. 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, namely the areas adjacent to Wetland A and several unnamed streams.
2.3. Results
The development has been assessed as having low archaeological potential due to continuously sloping, featureless, and poorly drained terrain that lacks defined landform features. No subsurface testing was conducted. Three (3) modern blazed trees were recorded during the assessment.
2.4. Management Recommendations
The modern blazed trees are not protected by the Heritage Conservation Act. 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 1315 Noranda E Road Prince George, BC V2K 5R6	Phone: 250-960-1155 ext. 237 Email: greg@ecofor.ca
3.3. Proponent Contact:	David Zurevinski	
3.4. Proponent Affiliation:	BCTS Stuart Nechako Business Area 1560 Highway 16 East Vanderhoof, BC V0J 3A0	Phone: 250-567-6331 Email: david.zurevinski@gov.bc.ca
3.5. Interim Report Author(s):	Becky Dreyer	
3.6. Interim Report Date (dd/mm/yy) & Version:	01/02/21, V1	
3.7. Notification of Work Date:	15/05/20	
3.8. OGC Ref No.:	N/A	

4. PROPOSED DEVELOPMENT

4.1. Description:	Propose block for timber harvest, RAI49531 (68.3 ha) with a 250 m assessment buffer. The block boundaries were flagged at the time of assessment; therefore, the 250 m buffer zone was not assessed.
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4.2. Location:	<p>Rainbow Operating Area, Stuart Nechako Natural Resource District</p> <p>A point near the centre of RAI49531 is located 12.8 km northeast of Nendatoo Lake, 14.6 km east of Kalder Lake, and 17.5 km northwest of Salmon Lake (see Figure 1).</p> <p>To access the block from the intersection of Tachie Road and Germansen Landing Road north of Fort St. James, travel north on Germansen Landing Road for 58.2 km then turn right (northwest) onto the Community Connector FSR. Continue for 3.6 km then turn right onto the Rainbow FSR. Follow the road for 11.2 km, at which point the road intersects with the block.</p> <p>UTM coordinates of block centre: NAD 83, Zone 10, 434968 E, 6094730 N NTS Mapsheet (1:50,000): 93K/16 BCGS Mapsheet (1:20,000): 93K.100</p>
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5. FIELD CREW

Table 1. Field Crew

<i>Date (dd/mm/yy)</i>	<i>Field Director (On site? Y/N)</i>	<i>Field Supervisor</i>	<i>Other Field Personnel</i>
23/09/20	Johnny Huynh (N)	Zebedee Kawei	Gwen Topacio
29/09/20	Johnny Huynh (N)	Brianne Harris	David Quewezance (Nak'azdli Whut'en)

6. ARCHAEOLOGICAL METHODS & RESULTS

6.1. Pre-field Methodology

☒	<i>Archaeological potential and sites are indicated on Figures 1 and 3</i>
☒	<p><i>An AOA and/or archaeological predictive model exists for the study area</i> <i>Details:</i> The Fort St. James Forest District Archaeological Predictive Model (Marshall and Bond 2004) indicates no areas of high archaeological potential within the block boundaries. Small areas of high potential are indicated in the northern buffer area associated with Stream A and Wetland A.</p>
☐	<p><i>Previous field studies influenced this assessment</i> <i>Details:</i> N/A</p>
☒	<p><i>Review of Provincial Heritage Register (RAAD)</i> <i>Date Accessed:</i> 09/06/20</p>
☒	<p><i>Review of Vegetation Resources Inventory (VRI) Data</i> <i>Details:</i> VRI data indicate a tree cover consisting of age classes 5-8 (81-250 years old) Engelmann spruce and subalpine fir.</p>
☒	<p><i>Pre-field Potential Assessment</i> <i>Details:</i> Topographical analysis through Terrain Resources Information Management (TRIM) contour data and satellite imagery suggests that the block is largely located on continuously sloping terrain. High potential is predicted along the northeastern block boundary and within areas adjacent to the unnamed streams that run through across the block, where TRIM contours suggest the presence of breaks-in-slope overlooking the features. Low potential is predicted elsewhere in the block based on the sloping terrain and an absence of significant hydrological features.</p> <p>Potential for pre-1846 culturally modified trees (CMTs) is predicted to be low throughout the entire block as VRI data indicate an absence of pine trees.</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)
None within 5 km.				

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:	Crews consisted of two members.
Crew Spacing and Visibility:	Crew members were spaced 5-20 m apart depending on visibility which ranged from 10-30 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, arbitrary compass bearings, and flagged block boundaries. Pedestrian transects are shown on Figures 2 and 3.

6.2.3. Site Recording

☐	CMTs were flagged and recorded. Describe: N/A
☐	Trail(s) recorded. Describe: N/A
☒	Other. Describe: Modern blazed trees were recorded in field with handheld GPS, in notes, and photographed but were not flagged (see Appendix C).

6.3. In-field Observations

6.3.1. Hydrology & Associated Landforms

Stream B is located at the bottom of a steep east-southeast aspect slope. The surrounding terrain within the block boundaries is continuously moderately sloping with a north-northeast aspect. Further north, the stream becomes less defined and more level and low-lying with the surrounding terrain.

Stream C is a low wet area with pooled water within a northeast aspect draw in the southern portion of the block. The surrounding terrain on either side is high with steep east and west aspect slopes leading into the stream. Terrain to the east has a gentle to moderate northwest aspect continuous slope (Photo 1).

Stream F is indiscernible from the surrounding terrain. The associated terrain is gently to moderately rolling with an overall slope to the north and low-lying and poorly drained sections throughout.

Stream G consists of pooled water within a small sloping gully with a northeast aspect. The surrounding terrain is poorly drained with a continuous moderate slope leading to the northeast (Photo 2).

Stream H is a small stream within a north aspect draw. The surrounding terrain slopes continuously towards the north with a gentle to moderate grade.

Streams A, D, E, I, J and Wetlands A and B are located outside of block boundaries and therefore were not observed. Terrain closest to Wetland A along the northeastern block boundaries has a continuous moderate to steep north aspect slope.

6.3.2. Topography

The terrain throughout the southern portions of the block is gently to moderately sloping with an overall north-northeast aspect (Photo 3). No defined breaks or level sections are present and the slope is continuous. In the eastern section of the block, the terrain is continuously sloping to the north-northeast with a moderate to steep grade. Throughout the eastern portions of the block there are also multiple low-lying and wet areas and small unmapped flowing streams within draws that lead to the overall north. In the northern and western sections of the block, the terrain is rolling and moderately to steeply sloping towards the north with no observed breaks.

6.3.3. Vegetation

In field observations of the overstory are consistent with the VRI data. The understory includes fireweed, heartleaf arnica, bunchberry, five leaved bramble, willow, huckleberry, club moss, gooseberry, horsetail, and wild rose.

6.3.4. In-field Assessed Archaeological Potential

The block in its entirety has been assessed as having low archaeological potential with no subsurface testing conducted due to continuously sloping, featureless, and poorly drained terrain. In contrast to the pre-field review, the areas adjacent to Wetland A and the several unnamed streams associated with the block were assessed to have low potential. The review predicted high potential in these areas based on the TRIM suggested presence of breaks-in-slope, whereas crew members instead observed continuously sloping terrain.

The remainder of the block was predicted to have low potential based on sloping terrain and an absence of significant hydrological features. The in-field assessment for these areas was consistent with the review predictions, with the addition of poor soil drainage noted as a factor affecting potential. Portions of the block not visually inspected during the survey include the southwestern extents, eastern extent, and portions of the interior. These areas were assessed to have low potential based on the pre-field review and survey observations of adjacent areas.

No CMTs were encountered during the assessment; therefore, the potential for pre-1846 CMTs was assessed to be low.

6.4. Results

6.4.1. Subsurface Testing

No subsurface testing was conducted.

6.4.2. Untested Areas of Potential

No untested areas of potential are present.

6.4.3. Sites Not Protected by the HCA

All traditional use, post-1846, and modern sites that are not protected by the Heritage Conservation Act are described in Appendix C.

7. ARCHAEOLOGICAL SITE SUMMARY

No archaeological sites were identified during the assessment.

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 materials may have been missed. If any unidentified archaeological or cultural heritage materials 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 materials.

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
Damian Hind	Archaeology Branch
David Zurevinski	BCTS SNBA
Kelley Williams	Binche Whut'en
Bernice Lilly, Lyle Mortenson	Halfway River First Nation
Debra Pinkston, Stephanie Rocheleau, Cody Ross, Nathan Prince, Eran Spence, LRO Reception	McLeod Lake Indian Band
Robin Young, Clara Jack	Nak'azdli Whut'en

11. SHAPEFILES

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

12. APPENDICES

- ☒ Appendix A – Photos (required)
- ☐ Appendix B – Subsurface Test Log (where applicable)
- ☒ Appendix C – Sites Not Protected by the HCA (where applicable)
- ☒ Appendix D – Figures (per Archaeology Branch Mapping and Spatial File Standards released November 1, 2017)
 - ☒ General Location Map (required)
 - ☒ Midrange Location Map (required)
 - ☒ Detailed Results Map (required)

☐ Detailed Site Map (where applicable)

APPENDIX A – PHOTOS



Photo 1. Terrain associated with Stream C, view northwest.



Photo 2. Stream G and associated terrain, view north.



Photo 3. Typical terrain in the southern block, view northwest.



Photo 4. Modern blazed tree, view north.

APPENDIX C – SITES NOT PROTECTED BY THE HCA

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

Three (3) modern blazed trees were recorded in the northeastern block near UTM Zone 10, 435489 E, 6094901 N (see Figures 2 and 3). The blazes were assessed to have modern origins based on an absence of healing lobes (Photo 4).

- ☐ Ecological or biological sites were recorded.

APPENDIX D – FIGURES

The following maps are included in Appendix D:

Figure 1. General Location Map

Figure 2. Midrange Location Map

Figure 3. Detailed Results Map

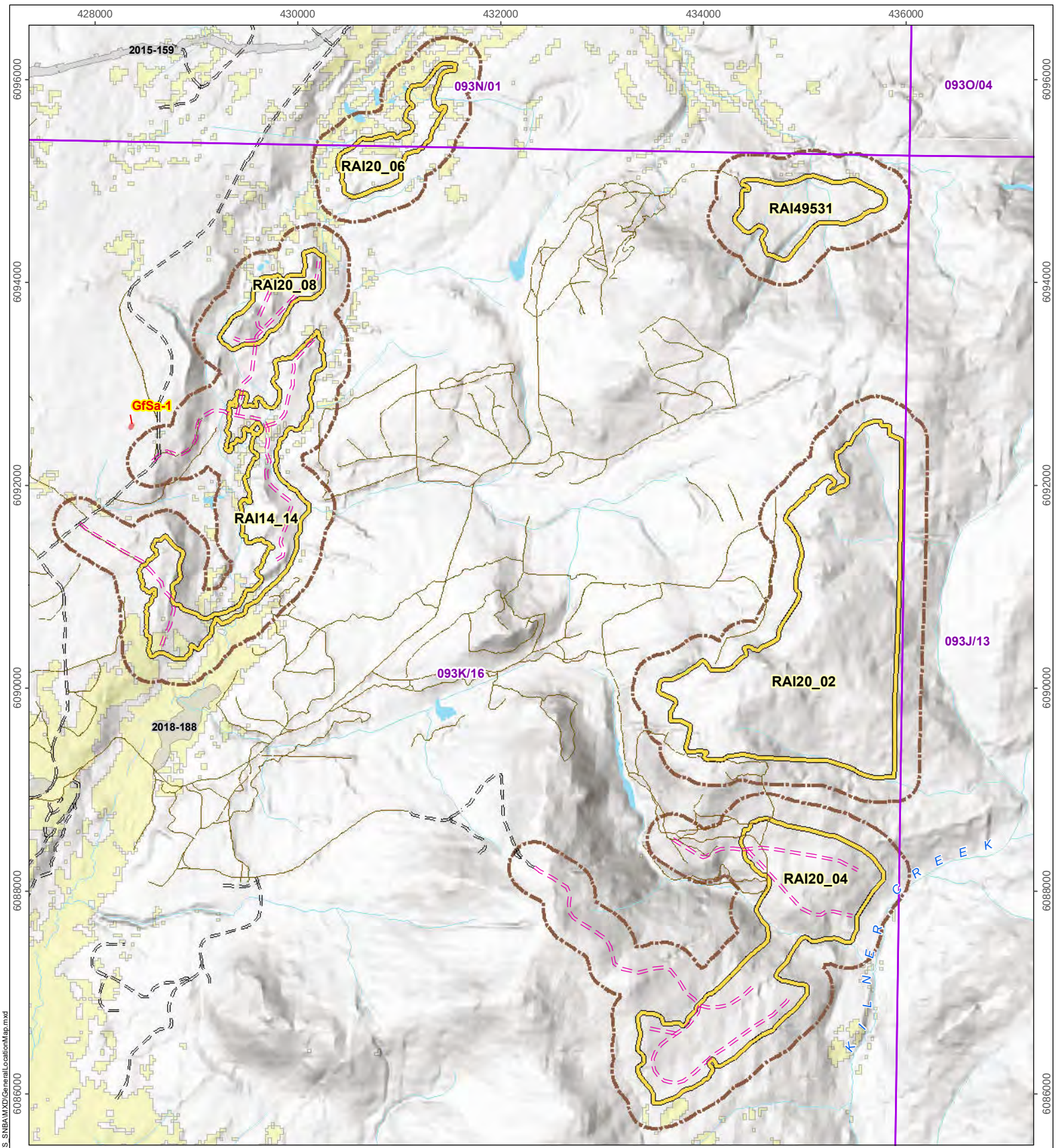
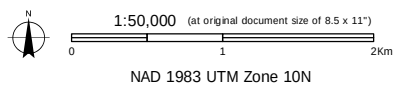


FIGURE 1
GENERAL LOCATION MAP



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). Archaeological Site Boundaries were obtained by the Ministry of Forests, Lands and Natural Resources Operations Archaeology Branch's RAAD Sites. Service Layer Credits: Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GS1 and the GIS User Community

- | | |
|-----------------|---|
| Proposed Road | Assessment Buffer (250m) |
| Road - Resource | Previously Assessed Block |
| Road - Other | High Archaeological Potential (FTSJ) |
| Stream | Previously Recorded Archaeological Site |
| Waterbody | NTS 50K GRID |
| Proposed Block | |

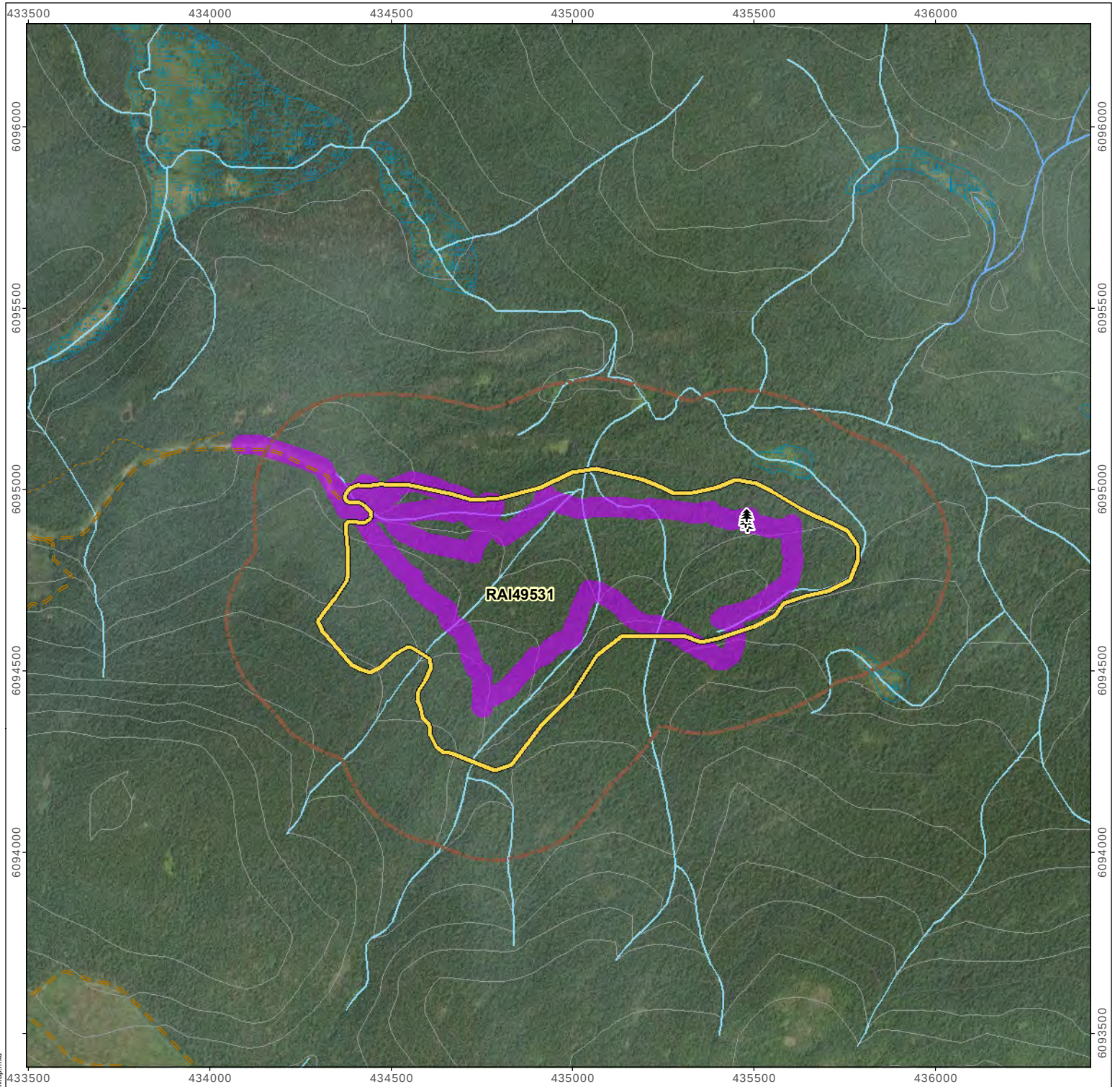


FIGURE 2. MIDRANGE LOCATION MAP
RAI49531



1:15,000 (at original document size of 8.5 x 11")
0 300 600
Meters

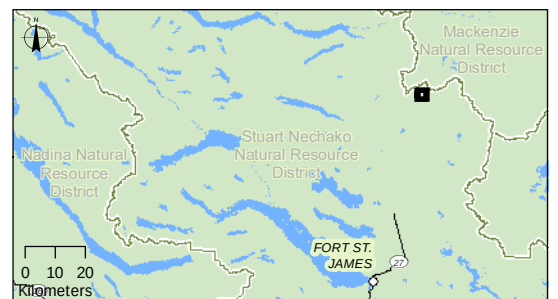
NAD 1983 UTM Zone 10N
NTS MAPSHEET: 93K/16
BCGS MAPSHEET: 93K.100

Permit Number: 2020-0176

EPN: 2020-1203-018

- Contour (100m)
- Contour (20m)
- Stream - Definite
- Wetland
- Modern Blaze
- Road - Other
- Trail
- Assessment Buffer (250m)
- Proposed Block
- Survey Transect Area

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). Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



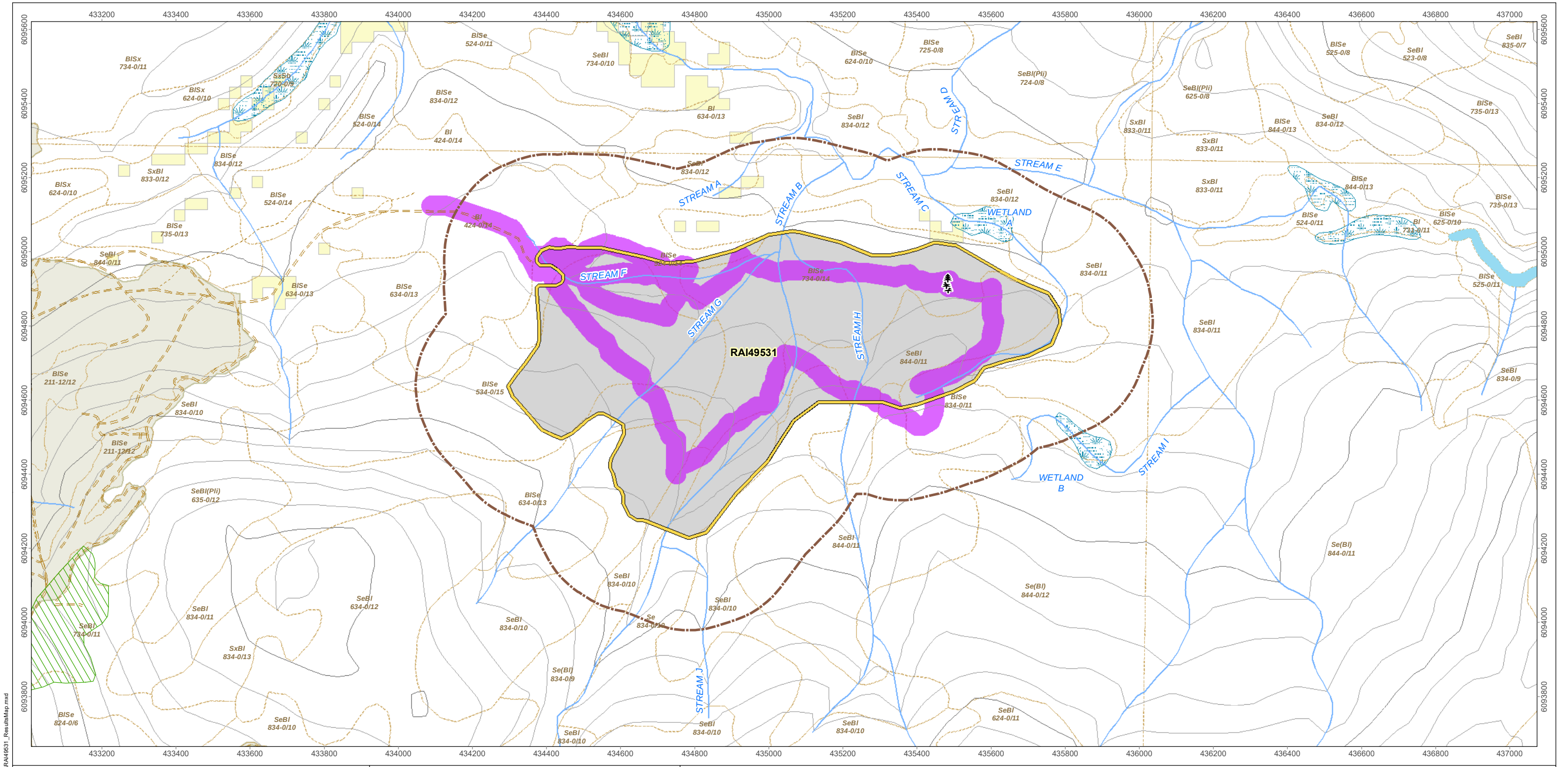
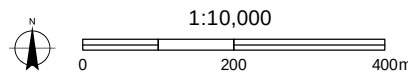
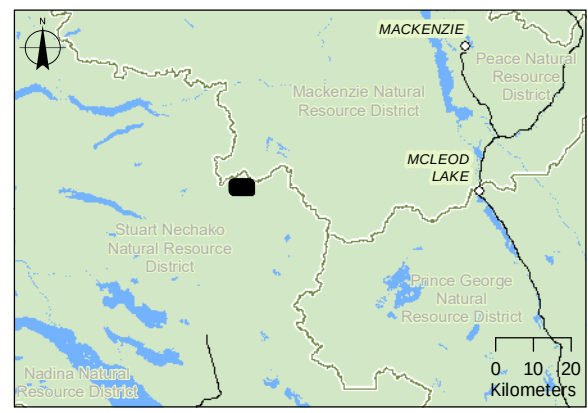


FIGURE 3
ARCHAEOLOGICAL RESULTS MAP
RAI49531



- | | | |
|---------------------|----------------|--|
| — Contour (100m) | — Modern Blaze | — Assessment Buffer (250m) |
| — Contour (20m) | — Road - Other | — Proposed Block |
| — Stream - Definite | — Trail | — Survey Transect Area |
| — Wetland | | — Wildlife Tree Patch (WTP) |
| — Waterbody | | — Forest Cover (VRI) |
| | | — High Archaeological Potential (FTSJ) |
| | | — Cutblock |
| | | — Assessed Area |

Block ID: RAI49531
Permit Number: 2020-0176
EPN: 2020-1203-018
Easting: 434968
Northing: 6094730
Area (Ha): 68.3
Culture Area: Interior Plateau

