

BRITISH COLUMBIA ARCHAEOLOGICAL IMPACT ASSESSMENT INTERIM REPORT FORM



1. REPORT TITLE

2019-0140-13159	Archaeological Impact Assessment of Proposed Stuart-Nechako British Columbia Timber Sales Cutblock SAL083.
-----------------	--

2. MANAGEMENT SUMMARY

2.1	Protected HCA Sites:	GfRw-10 (GfRw-13159-t1); GfRw-11 (GfRw-13159-t2)
2.2	Brief Overview of Study:	ARCHER CRM Partnership (ARCHER) conducted an archaeological impact assessment (AIA) on the subject project at the request of David Zurevinski of Stuart-Nechako British Columbia Timber Sales (BCTS). An in-office review of the project prior to field assessment identified areas of archaeological potential within the study area.
2.3	Results:	<p>A total of 381 shovel tests were completed at 14 test locations in Block SAL083. Four tests from two of the assessed locations, TL6 and TLM1, proved positive for archaeological remains, resulting in the identification of newly recorded sites (GfRw-10 and GfRw-11). The sites consist of lithic debitage and an expedient stone tool. GfRw-10 is within present block boundaries, while GfRw-11 is immediately outside the block boundary.</p> <p>No CMTs or additional areas of archaeological potential were noted during the current assessment of SAL083.</p>
2.4	Management Recommendations:	<p>The present AIA of the proposed Stuart-Nechako BCTS Cutblock SAL083 resulted in the identification of archaeological sites GfRw-10 and GfRw-11 inside, or immediately adjacent to, proposed project boundaries.</p> <p>Site-specific recommendations are provided below, followed by general recommendations related to further development of the project area.</p> <p>GfRw-10 recommendations are presented in order of preference:</p> <ol style="list-style-type: none"> Avoidance through project redesign. GfRw-10 is located within the proposed study area boundaries as assessed and will be impacted by harvest activities. Avoidance can be achieved by excluding the entire site from the study area and leaving a minimum 30 m buffer in which no harvesting activities will occur around the boundary of the site area. Avoidance through modified operations. If harvest is to proceed up to the flagged site boundary of GfRw-10, trees within the flagged boundary of the site <u>must</u> be "stubbed." Stubbing will prevent blowdown and subsequent soil and/or feature disturbance. All potential blowdown trees within the site boundaries <u>must</u> be stubbed to no less than 1 m to prevent wind fall and to remain as a site indicator for future development activities (disking, planting, etc...). During stubbing no trees can be felled, yarded, or skidded within the site boundaries. The harvested trees must be lifted outside of the site area (cherry picked). This harvesting activity should be monitored by an approved individual who is fully aware of harvesting procedures in regard to protected archaeological sites. Re-planting within the site area would require further assessment prior to site preparation.

	<p>3. If avoidance of the site area is not a feasible management strategy the proponent must obtain a Section 12(4) Site Alteration Permit (SAP) if timber harvest activities will need to cross the site area.</p> <p>GfRw-11 recommendations are presented in order of preference:</p> <p>1. Avoidance through project redesign. GfRw-11 is located immediately outside the proposed study area boundaries as assessed and may be directly or indirectly impacted by harvest activities. Avoidance can be achieved by excluding the entire site from the study area and leaving a minimum 30 m buffer in which no harvesting activities will occur around the boundary of the site area.</p> <p>2. Avoidance through modified operations. If harvest is to proceed up to the flagged site boundary of GfRw-11, trees within the flagged boundary of the site <u>must</u> be “stubbed.” Stubbing will prevent blowdown and subsequent soil and/or feature disturbance. All potential blowdown trees within the site boundaries <u>must</u> be stubbed to no less than 1 m to prevent wind fall and to remain as a site indicator for future development activities (disking, planting, etc...). During stubbing no trees can be felled, yarded, or skidded within the site boundaries. The harvested trees must be lifted outside of the site area (cherry picked). This harvesting activity should be monitored by an approved individual who is fully aware of harvesting procedures in regard to protected archaeological sites. Re-planting within the site area would require further assessment prior to site preparation.</p> <p>3. If avoidance of the site area is not a feasible management strategy the proponent must obtain a Section 12(4) Site Alteration Permit (SAP) if timber harvest activities will need to cross the site area.</p> <p>With respect to the remainder of the assessed project area, our visual and subsurface testing program did not result in the identification of additional archaeological or other cultural heritage remains. Based on the results of the present AIA archaeological remains are not anticipated in the remaining portions of the study area. As such, there are no further archaeological concerns for the proposed project footprint as illustrated in the attached Figure 1.</p>
--	---

3. ADMINISTRATIVE INFORMATION

3.1	<i>Permit Holder:</i>	Frank Craig F.Craig@archercrm.ca	3.2	<i>Permit Holder Affiliation:</i>	ARCHER CRM Partnership T: 250-567-9496
3.3	<i>Proponent Contact:</i>	David Zurevinski David.Zurevinski@gov.bc.ca	3.4	<i>Proponent Affiliation:</i>	BCTS Stuart Nechako T: 250-567-6331
3.5	<i>Interim Report Author(s):</i>	Marina Russell; Nicole Jackman			
3.6	<i>Interim Report Date & Version:</i>	January 29, 2020, V1			
3.7	<i>Notification of Work Date:</i>	July 19, 2019: <ul style="list-style-type: none"> • McLeod Lake Indian Band • Nak'azdli Whut'en 			
3.8	<i>OGC Ref No.:</i>	N/A			

4. PROPOSED DEVELOPMENT

4.1	<i>Description:</i>	Stuart-Nechako British Columbia Timber Sales Cutblock SAL083 <ul style="list-style-type: none"> • Logging block for timber harvest • 503.1 ha
4.2	<i>Location:</i>	The block is located east of the Salmon river and southeast of Salmon Lake at NAD 83 UTM Zone 10 UTM Coordinates (approximate center) E: 450778 N: 6080294.

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>
09/10/19	Marina Russell (Y)	N/A	Gregory Ketlo, David Quewezance (Nak'azdli)
10/10/19	Marina Russell (Y)	Gene Kristiansen	David Quewezance (Nak'azdli), Gregory Ketlo Stuart Nash (Nak'azdli)
16/10/19	Marina Russell (Y)	N/A	Stuart Nash (Nak'azdli), Carling Reid
16/10/19	Laura Enns (Y)	Gene Kristiansen	Aaron Rogers, David Quewezance (Nak'azdli), Gregory Ketlo
17/10/19	Marina Russell (Y)	N/A	Stuart Nash (Nak'azdli), Carling Reid
17/10/19	Laura Enns (Y)	N/A	Aaron Rogers, Daryl Sam (Nak'azdli)
18/10/19	Marina Russell (Y)	N/A	Gregory Ketlo, Stuart Nash (Nak'azdli)
18/10/19	Laura Enns (Y)	N/A	Gene Kristiansen, Carling Reid, Aaron Rogers

6. ARCHAEOLOGICAL METHODS & RESULTS

6.1. Pre-field Methodology

- ☒ Archaeological potential and sites are indicated on the Study Area Map
- ☐ An AOA and /or archaeological predictive model exists for the study area
Details:
- ☐ Previous field studies influenced this assessment
Details:
- ☒ Review of Provincial Heritage Register
Date Accessed: July 22, 2019; January 16, 2020
- ☒ Other

Details: Details: Prior to fieldwork, the study area was subject to an in-office map review, this included identifying areas of archaeological potential and determining the potential presence of protected Culturally Modified Trees (CMTs). Information used during the review included Remote Access to Archaeological Data (RAAD), orthographic photos, and records of previous archaeological assessments. Identified areas of potential which could be impacted by development activities were subject to field assessment by crew members on the ground. The terms and conditions guiding the overview and identification of archaeological potential are defined in the corresponding permit.

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

<i>Borden No.</i>	<i>Distance & Direction from the Proposed Development</i>	<i>Site Type</i>	<i>Permit No. of Previous Visits</i>	<i>Site in Conflict (Y/N)</i>
GfRw-10	Within project boundaries	Precontact – cultural material – subsurface – lithic	2019-140	Y
GfRw-11	Within project boundaries	Precontact – cultural material – subsurface – lithic	2019-140	Y
GfRw-9	1.2 km at 67 degrees	Precontact – cultural material – subsurface – lithic	2019-140	N
GfRw-7	1.6 km at 102 degrees	Precontact – cultural material – subsurface – lithic	2011-076	N
GfRw-1	2.8 km at 192 degrees	Precontact – Transportation Corridor – Trail Traditional Use – Culturally Modified Tree – Bark stripped – Cambium Stripped – Other – lodgepole pine	2006-125, 2007-140	N
GeRw-5	3 km at 144 degrees	Precontact – cultural material – subsurface – lithic	2019-140	N
GeRw-7	3.7 km at 197 degrees	Precontact – Subsistence Feature – Cultural Depression – Cache Pit	2019-140	N
GeRw-1	3.9 km at 178 degrees	Precontact – Subsistence Feature – Cultural Depression – Cache Pit	2007-140	N
GfRx-9	4.2 km at 241 degrees	Precontact – Subsistence Feature – Cultural Depression – Cache Pit	2014-081	N

6.2. In-field Methodology

☒ Subsurface test measurements are a minimum of 35 x 35 cm

Date Accessed: October 9, 10, 16, 17 and 18, 2019

Where available, natural and anthropogenic soil exposures (eroded banks, tree throws, etc.) in the project footprint were visually examined for cultural remains. Shovel testing was conducted in assessed areas of high potential. The depths of the tests varied from 25 to 40 cm, at which point glacial fluvial sediments or clay were encountered and the test was discontinued. All sediments from the evaluations were screened through ¼" mesh.

CMTs in or adjacent to the subject project were sought given the presence of mature forest cover.

6.2.1	Number of Crew Members:	2-4	6.2.2	Crew Spacing:	10-25
6.2.3	Other:	Transects were spaced according to archaeological potential, forest density and ground surface visibility.			

6.3. In-field Observations

The study area is situated across generally featureless terrain with gentle slopes towards hydrology features throughout the block. Terraces and knolls were observed along hydrology within the northern portion of the study area. The block was not flagged at the time of survey.

Forest cover consists primarily of lodgepole pine, spruce, subalpine fir and some aspen. The understory includes bunchberry, blueberry, huckleberry, soapberry, moss, grasses, spirea, club moss, prince's-pine, crowberry, bog birch, alder, willow, Labrador tea, lichen and ground cedar.

A network of modern chainsaw cut walking/portage trails (not wide enough for machinery to navigate) were observed west of the lake in the northern section of the study area. Additionally, two canoes were also noted adjacent to the same lake. No CMTs or blazes were observed in association with any of the trails.

6.4. Results

A total of 381 shovel tests were completed at 14 test locations along the western, central and northern boundaries of the block SAL083. A total of four shovel tests from assessed locations TL6 and TLM1 proved positive for archaeological material, resulting in the identification of two newly recorded sites (Figure 1).

The remaining shovel tests at all locations were negative (Table 3). No CMTs were identified.

Refer to 7. *Archaeological Site Summary* below for detailed site descriptions.

Table 3. Assessment Results

Subsurface Test Area	Description*	Stratigraphy	Dimensions (L x W)	Subsurface Tests		
				Total	Positive	Negative
TL1	Judgemental tests were placed on a small terrace which is adjacent to a large wetland complex, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-5 cm littermat & organic; 5-20 cm red sandy gravel; 20-30 cm grey sandy gravel.	10 m x 10 m	10	0	10
TL2	Judgemental tests were placed on a small point terrace which overlooks a lake, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-5 cm littermat & organic; 5-9 cm grey sandy soil; 9-18 cm reddish brown silty sand with 10% pebbles; 18-27 cm grey clayey sand with 20% pebbles.	6 m x 4 m	10	0	10

TL3	Systematic testing was conducted along a long terrace adjacent to a lake. The terrace varied in with and testing was widened in accordance with the width. All tests were negative.	Soil stratigraphy is uniform throughout as follows: 0-4 cm littermat & organics; 4-23 cm reddish brown silty sand; 23-31 cm grey clayey sand, 20% pebbles throughout.	140 m x 3-15 m	79	0	79
TL4	Tests were placed judgementally along a beach of a lake, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-6 cm littermat & organic; 6-15 cm sandy silt; 15-30 cm clay with gravels.	10 m x 8 m	10	0	10
TL5	Systematic testing was conducted along a terrace which overlooks a wetland complex with negative results.	Soil stratigraphy is uniform throughout as follows: 0-6 cm littermat & organics; 6-22 cm orange brown silty sand; 22-31 cm grey coarse sand. 25% gravels, pebbles & cobbles throughout.	27 m x 4 m	20	0	20
TL6 (GfRw-10)	Tests were placed systematically across a 5 m high terrace overlooking a wetland complex. Testing resulted in the identification of the site GfRw-10.	Soil stratigraphy is uniform throughout as follows: 0-5 cm littermat & organics; 5-9 cm grey brown clayey sand; 9-19 cm red brown silty sand; 19-28 cm grey silty coarse sand. 15% pebbles throughout.	70 m x 20 m	50	1	49
TL7	Judgemental tests were placed on a low point terrace overlooking a large wetland and stream complex, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-5 cm littermat & organics; 5-17 cm medium brown clayey sand; 17-32 cm grey brown silty coarse sand with 15% pebbles & cobbles.	10 m x 10 m	12	0	12
TLM1 (GfRw-11)	Systematic testing was conducted along a terrace immediately	Soil stratigraphy is uniform throughout as follows: 0-2 cm littermat &	50 m x 20 m	67	3	64

	adjacent to a lake near the confluence of the lake with a stream and wetland complex. Testing resulted in the identification of GfRw-11.	organics; 2-3 cm grey silt; 3-7 cm red brown silt; 7-15 cm light orange brown sandy silt; 15-26 cm light brown sandy clay; 26-32 cm light grey brown sandy silt. 15% gravels throughout.				
TLM2	Tests were placed in a systematic pattern across a knoll which overlooks a large stream and wetland complex, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-7 cm littermat & organic; 7-9 cm black burnt organics; 9-11 cm grey silty clay; 11-25 cm yellow brown wet clay; 25-33 cm light yellow brown clay with 5% gravels.	12 m x 8 m	17	0	17
TLM3	Systematic testing took place along a terrace adjacent to a wetland, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-2 cm littermat & organics; 2-3 cm grey silt; 3-17 cm orange brown clayey silt with 10% gravels; 17-25 cm light brown silty clay with 15% packed gravels.	18 m x 3 m	14	0	14
TLM4	Tests were placed systematically along a terrace which overlooks a large wetland and stream complex, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-4 cm littermat & organics; 4-6 cm black burnt organics; 6-8 cm grey silt; 8-15 cm orange brown clayey silt; 15-23 cm light yellow brown clayey silt; 23-26 cm light brown silty clay with 5% gravels.	44 m x 4 m	26	0	26
TLL1	Tests were placed systematically along a small terrace overlooking a	Soil stratigraphy is uniform throughout as follows: 0-8 cm littermat & organics; 8-20 cm orange brown silty	6 m x 5 m	10	0	10

	stream, with negative results.	sand; 20-31 cm yellow brown silty sand; 31-37 cm grey silty sand.				
TLL2	Judgemental tests were placed across a point landform which overlooks a stream, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-4 cm littermat & organics; 4-8 cm white fine sand; 8-21 cm orange brown clayey sand; 21-27 cm tan clayey sand. 10% pebbles & cobbles throughout.	20 m x 12 m	34	0	34
TLL3	Tests were placed systematically along a terrace located at the confluence of a small stream and lake, with negative results.	Soil stratigraphy is uniform throughout as follows: 0-5 cm littermat & organics; 5-23 cm light brown loamy clay; 23-30 cm light grey compact clay. 10% pebbles throughout.	30 m x 4 m	22	0	22

7. ARCHAEOLOGICAL SITE SUMMARY

7.A	Borden No.	GfRw-10	7.A1	New/Revisited:	New Dimensions: 10 m N-S x 10 m E-W
7.A2	Site Type:	Precontact – cultural material – subsurface – lithic			
7.A3	Impact Assessment:	<p>The site is situated on a 5 m high wide north-facing terrace overlooking a stream & wetland complex to the north (Figure 3). A total of 50 shovel tests were completed at the tested location, one of which proved positive for archaeological materials, and six of which are inside the flagged site boundary. An obsidian utilized core and three basalt flakes were recovered @ 5-15 cm dbs.</p> <p><i>ST1 Stratigraphy</i> 0-5 cm dbs loose black organics and charcoal; 5-9 cm grey/brown loose clay with sand 15% pebbles [cultural]; 9-19 cm red/brown loose silty sand 15% pebbles[cultural]; 19-28 cm grey loose silty coarse sand 15% pebbles.</p> <p>The site is in good condition with the only observable impacts being archaeological testing. Moderate deadfall is present within the site boundary; however, the trees have snapped and have not caused any ground disturbance.</p> <p>A 5 m buffer around the positive was flagged with yellow and black “ARCHER NO WORK ZONE” flagging. GfRw-10 is currently located within the proposed block boundary of the cutblock SAL083. The block boundary was not flagged at the time of site identification. The client intends to include the site area from the block.</p>			

7.A4	Management Recommendations:	Avoidance through project redesign; avoidance through modified operations; mitigation through further work.
7.A5	Significance Evaluation:	<p>Scientific Significance: Low - The scientific significance of the site is low as it consists of a single positive shovel test with no diagnostic artifacts identified.</p> <p>Ethnic Significance: High - The relevant First Nations rate all archaeological sites in their traditional territories as high.</p> <p>Public Significance: Low - Site location is difficult to access and would hold little interest for the general public.</p>

7.B	Borden No.	GfRw-11	7.A1	New/Revisited:	New Overall Dimensions: 28 m N-S x 20 m E-W Polygon 1: 20 m NW-SE; 10 m NE-SW Polygon 2: 10 m N-S; 10 m E-W
7.B2	Site Type:	Precontact – cultural material – subsurface – lithic			
7.B3	Impact Assessment:	<p>The site is situated on a 2 m high, southeast-facing knoll overlooking an unnamed lake at the confluence of the lake and stream complex (Figure 5). A total of 67 shovel tests were completed at the tested location, three of which proved positive for archaeological materials, and 19 of which are inside the flagged site boundary. Four flakes were collected from three positive shovel tests at GfRw-11. A basalt thinning flake was recovered in ST1 @ 1-10 cm dbs; a secondary flake and core rejuvenation flake both siltstone were recovered in ST2 @ 1-10 cm dbs; and a siltstone flake fragment recovered in ST3 @ 1-10 cm dbs.</p> <p>ST1 Stratigraphy 0-3 cm dbs loose littermat; 3-11 cm grey loose sandy silt and cobbles [cultural]; 11-16 cm orange/brown medium silty sand, gravel and cobbles; 16-21 cm light brown medium sandy silt and pea gravel; 21-27 cm light grey/brown firm silt.</p> <p>ST2 Stratigraphy 0-3 cm dbs loose black organics; 3-6 cm grey sandy silt [cultural]; 6-14 cm orange/brown sandy silt; 14-23 cm light grey/brown firm silt.</p> <p>A 5 m buffer around the positive was flagged with yellow and black “ARCHER NO WORK ZONE” flagging. GfRw-11 is currently located immediately adjacent to the proposed block boundary of the cutblock SAL083. The block boundary was not flagged at the time of site identification. The client intends to include the site area from the block.</p> <p>The site is in good condition with the only observable impacts being archaeological testing. Relatively heavy (20%) deadfall is present within the site boundary; however, the trees have snapped and have not caused any ground disturbance. The heavy deadfall did impede access to the ground surface when conducting shovel testing.</p> <p>A game trail runs along the edge of the terrace as shown on Figure 5 with a 2-4 cm incised trail bed. The trail crosses the site boundary. There was evidence of a recent cook fire along the trail indicating it was likely also used by recreational hunters. use, if present. Two of the flakes collected have also been burnt as indicated in the appended artifact table.</p>			
7.B4	Management Recommendations:	Avoidance through project redesign; avoidance through modified operations; mitigation through further work.			

7.B5	Significance Evaluation:	<p>Scientific Significance: Low - The scientific significance of the site is low as the site consists of a small lithic scatter with no diagnostic materials or artifacts identified.</p> <p>Ethnic Significance: High - The relevant First Nations rate all archaeological sites in their traditional territories as high.</p> <p>Public Significance: Low - Site location is difficult to access and would hold little interest for the general public.</p>
------	---------------------------------	--

8. DISCLOSURE STATEMENT & SIGNATURE

Project footprint boundaries illustrated on the attached map(s) indicate those areas subject to the archaeological assessment described in this report, unless otherwise noted. If future or final construction and development plans differ from those presented here, the results of this assessment may not be applicable in part or in whole.

To address the prospect of unanticipated archaeological remains being discovered, it is recommended that the proponent inform its employees and contractors of this possibility. If archaeological materials or other heritage remains are uncovered during construction, work in the area of the find must immediately cease and the Archaeology Branch and/or ARCHER informed. It is recommended that the proponent also promptly inform the relevant First Nations concerning any unanticipated archaeological findings.

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

It is my opinion that the reported fieldwork and this corresponding report were completed in agreement with the requirements of the relevant Heritage Inspection Permit issued by the Archaeology Branch. I concur that the above information is true given available information.

Sincerely,

ORIGINAL DOCUMENT SIGNED

Marina Russell, B.Sc.
 Field Director, on behalf of,

Frank Craig, B.A., RPCA
 Permit holder

9. REFERENCES CITED

Subject Report Citation:

ARCHER CRM Partnership

2019 *Archaeological Impact Assessment of Proposed British Columbia Timber Sales Cutblock SAL083.*
HCA Permit 2019-0140. ARCHER CRM Partnership file 13159, Submitted to BCTS Stuart Nechako.
Copies on file at the Archaeology Branch, Victoria, BC.

10. REPORT DISTRIBUTION

Contact	Affiliation
David Zurevinski 250-567-6331 David.Zurevinski@gov.bc.ca	British Columbia Timber Sales Stuart Nechako 1560 BC-16, Vanderhoof, BC, V0J 3A1
Damian Hind 250-953-3334 Damian.Hind@gov.bc.ca	Archaeology Branch 1250 Quadra St, Victoria, BC V8W 2K7

11. SHAPE FILES

☒ Study area shape files have been sent to archsitereform@gov.bc.ca Study area shapefiles will be submitted on the anniversary date of the Permit.

12. APPENDICES

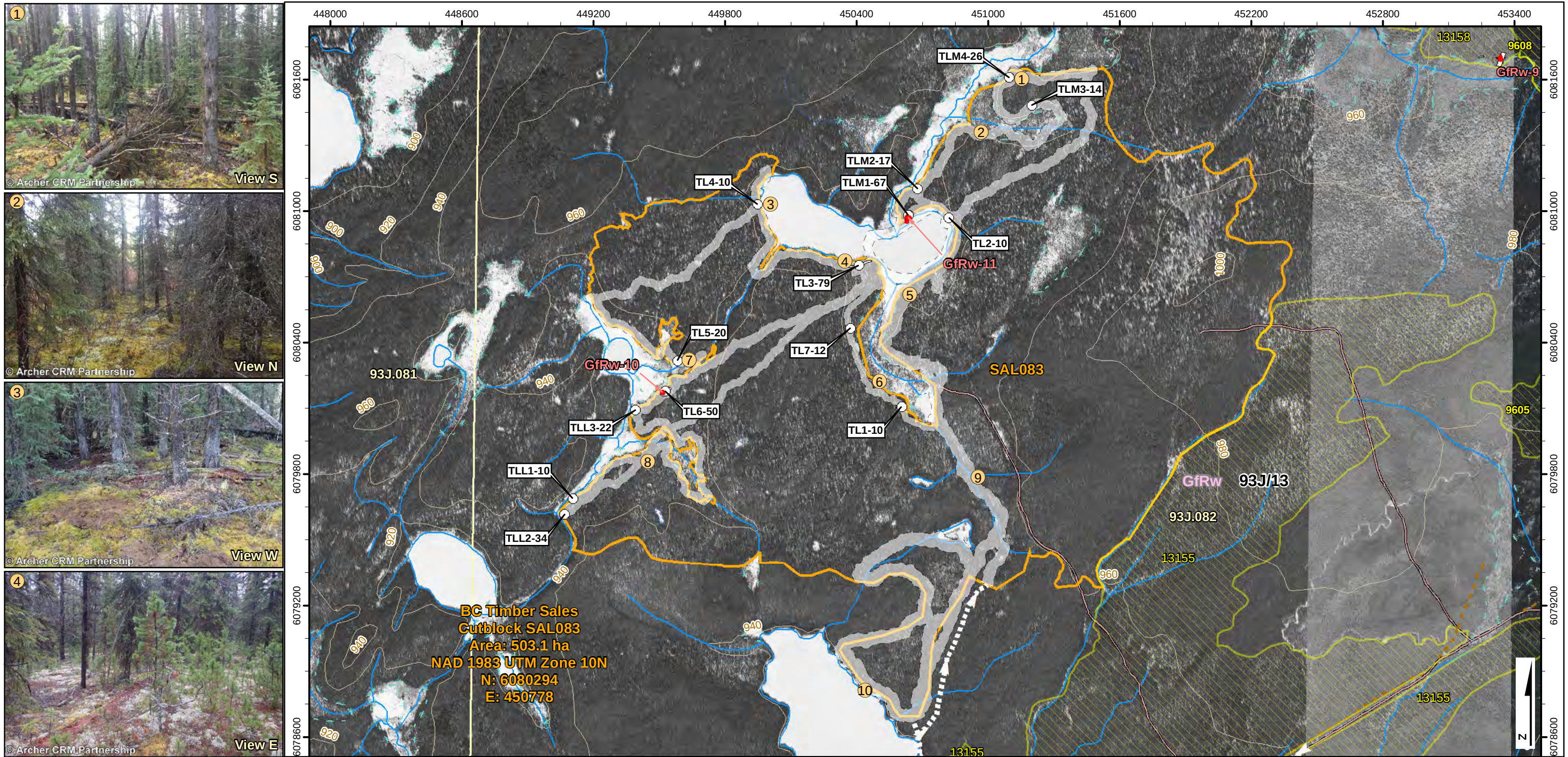
Required:

- ☒ General Area Map (Figure 1)
- ☒ Study Area Map (Figure 1)
- ☒ Photo Plate(s) (Figures 1, 2, 4 and 6)

If Applicable:

- ☒ Detailed Development Map (Figure 1)
- ☐ Subsurface Test Log
- ☒ Site Forms, Site Maps and Related Documents (Figure(s) 3-6, also see Appendix A)
- ☐ Other Details:

13. APPENDIX A Site forms and related documents

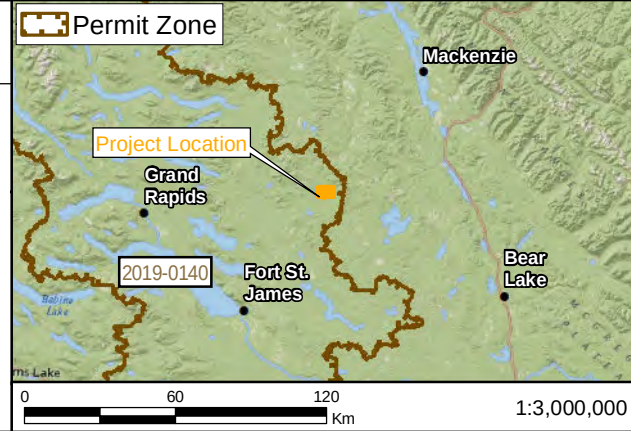
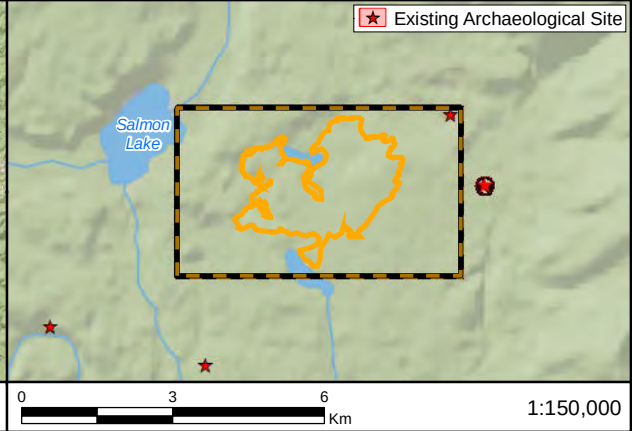


ARCHER
www.ArcherCRM.ca

Archaeological Impact Assessment

**BC Timber Sales
Cutblock SAL083
Detailed Results Map**

Figure: 1



- Existing Archaeological Site (location verified)
- Subsurface Testing
- Archer Access
- Archer Survey Area
- Archer Previous Project
- Study Area
- Gravel Road
- Rec Trail
- Water Body
- Intermittant Water Body
- Wetland
- Contour 20 m
- Photo Location
- BCGS Mapsheet
- Borden Grid (archaeology)
- NTS Mapsheet

Archer Project:	13159		
Proponent:	BC Timber Sales		
HCA Permit:	2019-0140 (Sec. 14)		
OGC AMS AA#:	N/A		
Surveyor's File:	N/A		
This drawing has been prepared for the use of ARCHER CRM Partnership's client and may not be used, reproduced or relied upon by third parties, except as agreed by ARCHER and its client, as required by law or for use by governmental reviewing agencies. ARCHER accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without ARCHER's express written consent.			
0 175 350 700  Meters 1:17,500			
Version	Detail	Reviewed by:	Date
0	Original		28-Jan-2020



View W



View S



View W



View SW



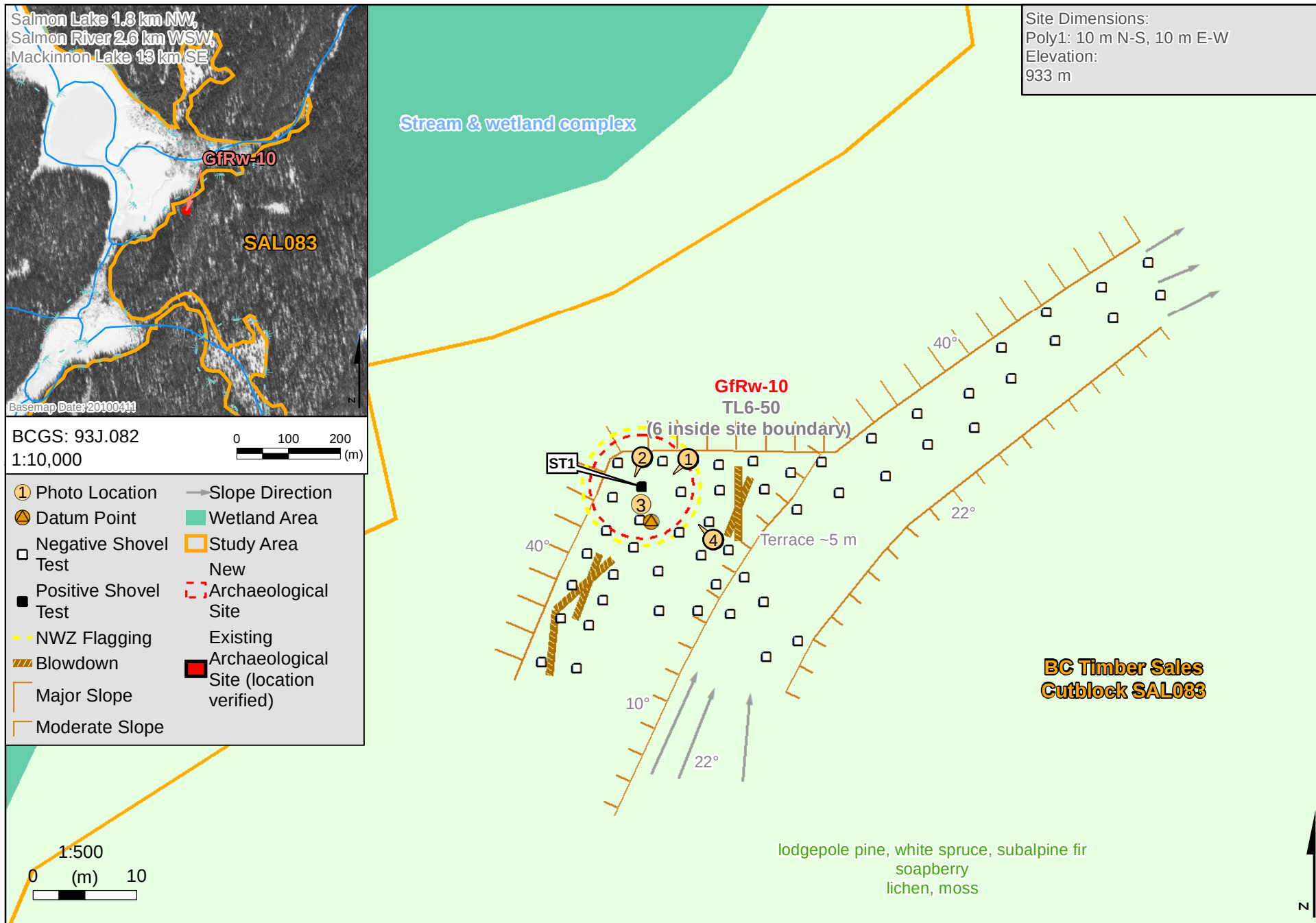
View N



View NW

See Figure 1 for photo locations.

 13159	Figure: 2	Photo Plate: BC Timber Sales - Cutblock SAL083	HCA Permit 2019-0140	Date 2019-10-21	13
--	---------------------	--	--------------------------------	---------------------------	----



ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point NAD 1983 UTM Zone 10N	14
	3	GfRw-13159-t1/GfRw-10	2019-0140	13159	17/10/2019	E: 449515, N: 6080169	



① View of site along break



② View of site towards ST1



③ Stratigraphy of ST1



④ View of site towards point



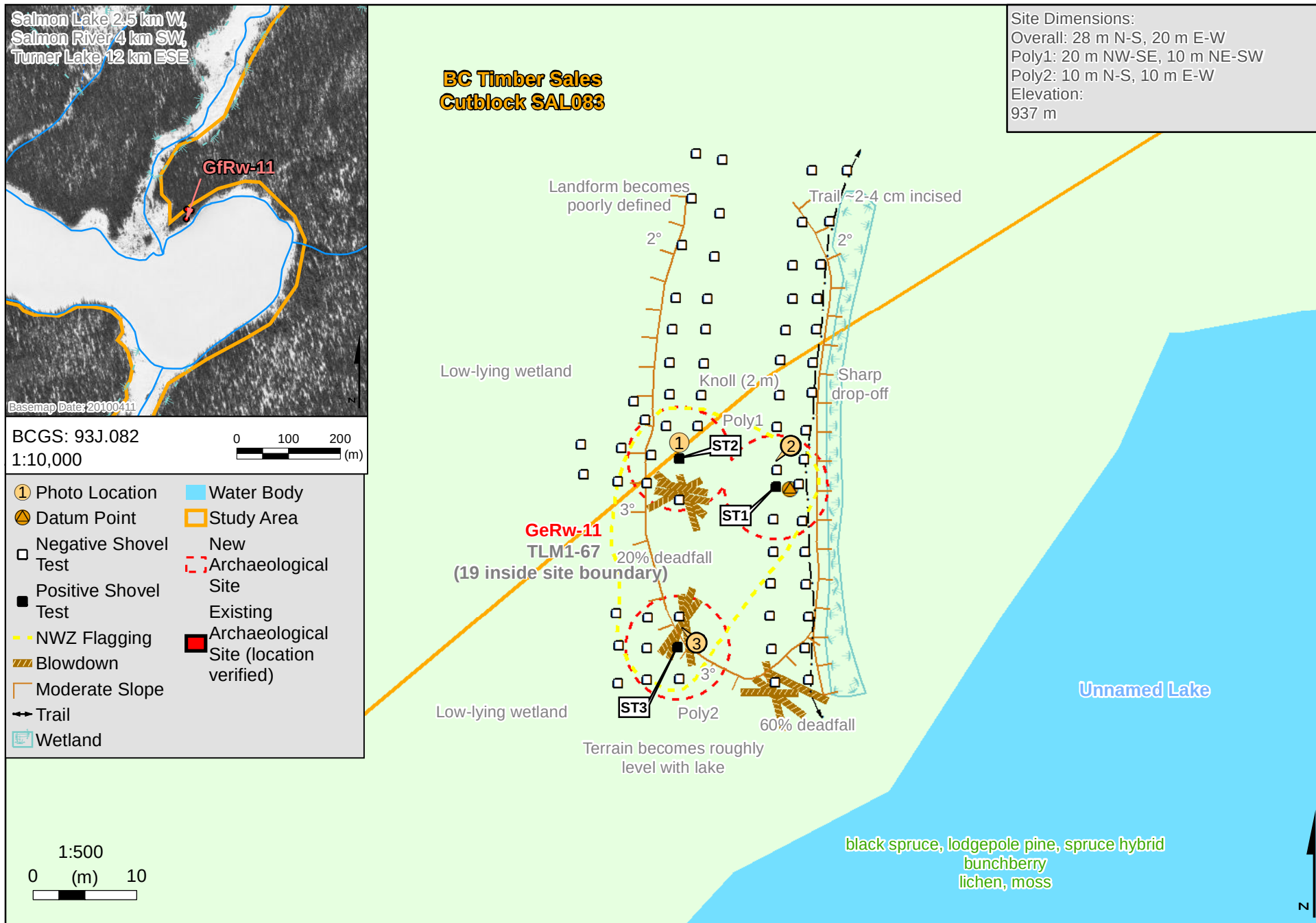
⑤ Artifact - Obsidian bifacial core, utilized



⑥ Artifact - Basalt debitage flake, tertiary

See detailed sitemap for photo locations.

ARCHER	Figure #: 4	Archaeological Site GfRw-13159-t1/GfRw-10 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 17/10/2019	15
---------------	-----------------------	--	-----------------------------------	--	-----------



ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point NAD 1983 UTM Zone 10N	16
	5	GfRw-13159-t2/GfRw-11	2019-0140	13159	18/10/2019	E: 450638, N: 6080970	



© Archer CRM Partnership

① ST2 stratigraphy profile



© Archer CRM Partnership

② From landform edge north of site, view to site with site flagging



© Archer CRM Partnership

③ View from ST3 toward ST2



© Archer CRM Partnership

④ Artifact - Burnt siltstone flake, secondary



© Archer CRM Partnership

⑤ Artifact - Siltstone flake, fragment



© Archer CRM Partnership

⑥ Artifact - Basalt flake, thinning

See detailed sitemap for photo locations.

	Figure #: 6	Archaeological Site GfRw-13159-t2/GfRw-11 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 18/10/2019	17
--	-----------------------	--	-----------------------------------	--	----

Provincial Catalogue #	Catalogue	Artifact Category	ArtifactType	Lengthmm	Widthmm	Thicknessmm	Weightg	Color	Material	Location	Opacity	Pattern	#	DBScm	Count	Comments
Prov#0001	7774	Bifacial Tools	Core, Utilized	28.00	18.00	10.00	3.80	Black	Obsidian	Test Pit	Vitreous	Solid	1	5-15	1	Silver Cortex
Prov#0002	7775	Debitage	Flake, Tertiary	0.00	0.00	0.00	1.30	Grey	Basalt	Test Pit	Opaque	Solid	1	5-15	3	

Provincial Catalogue #	Catalogue	Artifact Category	ArtifactType	Weight g	Color	Material	Opacity	Pattern	Location	#	DBS cm	Count	Comments
Prov#0001	7776	Debitage	Flake, Thinning	0.05	Grey	Basalt	Opaque	Solid	Test Pit	1	3 to 11	1	
Prov#0004	7779	Debitage	Flake, Fragment	0.20	Grey	Siltstone	Opaque	Patinated	Test Pit	3	1-10	1	Burnt
Prov#0003	7778	Debitage	Flake, Secondary	2.30	Grey	Siltstone	Opaque	Patinated	Test Pit	2	3 to 6	1	Burnt Ventral Surface
Prov#0002	7777	Debitage	Core, Rejuvenation	1.50	Light Grey	Siltstone	Opaque	Solid	Test Pit	2	3 to 6	1	



British Columbia Site Inventory Form

Borden Number: GfRw-10

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GfRw-13159-t1		Enns, Laura	17/Oct/2019

Map Reference:

GIS Populated					Historic Source				
Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone	Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
54 51'58"	-123 47'12"	449514	6080172	10			449515	6080169	10

Map Sheet

Number	Spatial Accuracy
--------	------------------

93J/13 GPS

93J.082 GPS

Accuracy Remarks

2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, size/shape match site form dimensions.

Site Location:

Description	Site Access
2019-140: The site is located ~1.8 km SE of Salmon Lake, ~2.6 km ENE of the Salmon River, and ~13 km NW of Mackinnon Lake.	2019-140: Access is via helicopter ~60.7 km northeast from Fort St. James airport.

Street Address:

Street Number	Street Name	City	Postal Code
---------------	-------------	------	-------------

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
10 N-S	10 E-W		2019-140: Site dimensions based on observed location of single positive subsurface test and a 5 m buffer. A 5 m buffer around the positive test was flagged with yellow and black "ARCHER NO WORK ZONE" flagging.

British Columbia Site Inventory Form

Borden Number: GfRw-10

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
933-933	-19-4016	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
GIS Drainage	SALMON RIVER	
GIS EcoRegion	Fraser Basin	
Minor Drainage		2019-140: Stream & wetland complex ~ 20 m to the north.
Micro Topography		2019-140: Site is located on a 5 m high north-facing terrace.
GIS VegetationZone	SBSmk1	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Cutblock SAL083.
GIS RegionalDistrict		Fraser-Fort George	
GIS LandDistricts		Cariboo District	
GIS Municipalities		Fraser-Fort George, Subd. A	

Site Typology:

Class	Type	Sub Type	Descriptor
PRECONTACT	Cultural Material	Subsurface	Lithics

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
Feature Remarks										

Cultural Material :

Type	Status	Repository	Date
Artifact	Collected	Exploration Place	17/Oct/2019

Details

2019-140: An obsidian utilized core and three basalt flakes were recovered & catalogued in two lots, see attached artifact table.

British Columbia Site Inventory Form

Borden Number: GfRw-10

Stratigraphy:

<i>Minimum</i>	<i>Maximum</i>	<i>General Stratigraphy Remarks</i>
0.05	0.15	2019-140: Stratigraphy uniform throughout. 0-5 cm dbb loose black organics and charcoal; 5-9 cm grey/brown loose clay with sand 15% pebbles; 9-19 cm red/brown loose silty sand 15% pebbles; 19-28 cm grey loose silty coarse sand 15% pebbles.

British Columbia Site Inventory Form

Borden Number: GfRw-10

Site Condition:

Condition					Disturbance History		
<i>Assessed By</i>	<i>Assessment Date</i>	<i>Pemit Number</i>	<i>Issuing Agency</i>	<i>Recommendation</i>	<i>History</i>	<i>Factor</i>	<i>Remarks</i>
Enns, Laura	17/Oct/2019	2019 140	Arch	2019-140: Avoidance or further assessment recommended.	Future	Logging	2019-140: Site identified within a proposed cutblock. If avoidance is practiced, no impacts are expected.
					Present	Arch Investigation	2019-140: A total of 6 subsurface tests were placed inside the site area to an average depth of 28 cm dbs. An additional 44 tests were placed along the associated landform while determining site extent.
					Past	Other	2019-140: The site is in good condition. Moderate deadfall is present within the site boundary; however, the trees have snapped and have not caused any ground disturbance.

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
2019-140			

Remarks:

<i>Date</i>	<i>Remarks</i>
27/Jan/2020	2019-140: Lithic site GfRw-11 also identified during the current assessment and lies ~1350 m to NE.

British Columbia Site Inventory Form

Borden Number: **GfRw-10**

Attached Documents:

<i>Type</i>	<i>Description</i>	<i>Filename</i>
Document, Combined	2019-140 Site map, Photo plate, Artifact table	GfRw-10 2019-140 Site map, Photo plate, Artifact table.pdf



British Columbia Site Inventory Form

Borden Number: GfRw-11

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GfRw-13159-t2		Russell, Marina	18/Oct/2019

Map Reference:

GIS Populated

Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
54 52'24"	-123 46'10"	450632	6080966	10

Historic Source

Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
		450638	6080970	10

Map Sheet

Number	Spatial Accuracy
--------	------------------

93J/13 GPS

93J.082 GPS

Accuracy Remarks

2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, size/shape match site form dimensions.

Site Location:

Description

2019-140: The site is located ~2.5 km E of Salmon Lake, ~4 km NE of the Salmon River, and ~12 km WNW of Turner Lake.

Site Access

2019-140: Access is via helicopter ~62 km northeast from Fort St. James airport.

Street Address:

Street Number	Street Name	City	Postal Code
---------------	-------------	------	-------------

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
28 N-S	20 E-W		2019-140: Site dimensions based on observed location of three positive subsurface tests and a 5 m buffer, as such the site consists of 2 polygons (1 @ 10 x 10 m around one positive test and 1 @ 20 x 10 m around 2 positive tests). A 5 m buffer around the positive tests was flagged with yellow and black "ARCHER NO WORK ZONE" flagging.

British Columbia Site Inventory Form

Borden Number: GfRw-11

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
937-937	-19-4016	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
GIS VegetationZone	SBSmk1	
GIS Drainage	SALMON RIVER	
Minor Drainage		2019-140: Site overlooks unnamed lake at the confluence of the lake and stream/wetland complex.
Micro Topography		2019-140: Site is situated on a 2 m high, southeast-facing knoll.
GIS EcoRegion	Fraser Basin	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
GIS LandDistricts		Cariboo District	
GIS Municipalities		Fraser-Fort George, Subd. A	
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Cutblock SAL083.
GIS RegionalDistrict		Fraser-Fort George	

Site Typology:

Class	Type	Sub Type	Descriptor
PRECONTACT	Cultural Material	Subsurface	Lithics

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
Feature Remarks										

Cultural Material :

Type	Status	Repository	Date
Artifact	Collected	Exploration Place	18/Oct/2019

Details

2019-140: Four (n=4) flakes (basalt & siltstone) were collected from three positive shovel tests, artifact table attached.

British Columbia Site Inventory Form

Borden Number: GfRw-11

Stratigraphy:

<i>Minimum</i>	<i>Maximum</i>	<i>General Stratigraphy Remarks</i>
0.01	0.11	2019-140: Stratigraphy relatively uniform throughout. ST1: 0-3 cm dbb loose littermat; 3-11 cm grey loose sandy silt and cobbles; 11-16 cm orange/brown medium silty sand, gravel and cobbles; 16-21 cm light brown medium sandy silt and pea gravel; 21-27 cm light grey/brown firm silt. ST2: 0-3 cm dbb loose black organics; 3-6 cm grey sandy silt; 6-14 cm orange/brown sandy silt; 14-23 cm light grey/brown firm silt.

British Columbia Site Inventory Form

Borden Number: GfRw-11

Site Condition:

<i>Condition</i>					<i>Disturbance History</i>		
<i>Assessed By</i>	<i>Assessment Date</i>	<i>Pemit Number</i>	<i>Issuing Agency</i>	<i>Recommendation</i>	<i>History</i>	<i>Factor</i>	<i>Remarks</i>
Russell, Marina	18/Oct/2019	2019 140	Arch	2019-140: Avoidance or further assessment.	Future	Logging	2019-140: Site identified within a proposed cutblock. If avoidance is practiced, no impacts are expected.
					Present	Arch Investigation	2019-140: A total of 19 subsurface tests were placed inside the site area to an average depth 27 cm dbs. An additional 48 tests were placed along the associated landform while determining site extent.
					Past	Other	2019-140: A game trail runs along the edge of the terrace as shown on detailed site map with a 2-4 cm incised trail bed. The trail crosses the site boundary. There was evidence of a recent cook fire along the trail indicating it was likely also used by recreational hunters.
					Present	Other	2019-140: The site is in good condition. Relatively heavy deadfall is present within the site boundary; however, the trees have snapped and have not caused any ground disturbance.

British Columbia Site Inventory Form

Borden Number: GfRw-11

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
---------------------	--------------------	-----------------------	-----------------

2019-140			
----------	--	--	--

Remarks:

<i>Date</i>	<i>Remarks</i>
-------------	----------------

27/Jan/2020	2019-140: Lithic site GfRw-10 also identified during the current assessment and lies ~1350 m to SW.
-------------	---

Attached Documents:

<i>Type</i>	<i>Description</i>	<i>Filename</i>
Document, Combined	2019-140 Site map, Photo plate, Artifact table	GfRw-11 2019-140 Site map, Photo plate, Artifact table.pdf
