BRITISH COLUMBIA ARCHAEOLOGICAL IMPACT ASSESSMENT INTERIM REPORT FORM

1. REPORT TITLE

2021-0151	Archaeological Impact Assessment of the Guerin Creek Transit Exchange

2. MANAGEMENT SUMMARY

2.1	*Protected HCA Sites:*	*None*
2.2	*Brief Overview of Study:*	
	Tk̓emlúps te Secwépemc (TteS) Natural Resource Department conducted an Archaeological Impact Assessment (AIA) of Guerin Creek, on behalf of Thompson Rivers University (Figure 1). Thompson Rivers University (the proponent) plans to develop the location into a larger centralized transit exchange. The assessment was conducted in April of 2022 under the direction of a TteS Field Director adhering to the outlined conditions detailed under Heritage Inspection Permit (HIP) 2021-0151. Three test areas displaying high archaeological potential were subject to subsurface testing. All results were negative, and no artifacts or archaeological features were encountered during the investigation.	
2.3	*Results:*	
	Field work was conducted on April 12-14, 2022 and consisted of surface inspection and subsurface testing. Three areas of archaeological potential were identified and subject to shovel testing. Shovel test area's (STA) 1 and 2 were located on the western side of Guerin Creek on east facing benches, and shovel tests were laid out with 5 m spacing. STA 3 was located on the eastern side of the creek on what looked to be the remnants of a break in slope after heavy disturbance from an access road. A total of 44 shovel tests in the three STAs yielded negative results for archaeological materials. This report is without prejudice to Aboriginal Rights and Title and therefore is not considered consultation or accommodation for the purpose of defining or limiting the Aboriginal Rights and Title of the Tk'emlúps te Secwepemc or any First Nation.	
2.4	*Management Recommendations:*	
	No further work is recommended for the assessed area. Should the boundary of the development change, additional assessment is recommended.	

3. ADMINISTRATIVE INFORMATION

3.1	*Permit Holder:*	Heleana Moore	*3.2*	*Permit Holder Affiliation:*	Tk'emlúps te Secwepemc
3.3	*Proponent Contact:*	Matt Milovick T: (250) 819-6316 E: mmilovick@tru.ca	*3.4*	*Proponent Affiliation:*	Thompson Rivers University, 805 TRU Way, Kamloops, BC V2C 0C8
3.5	*Interim Report Author(s):*	Robyn Oxley, B.A. (TteS NRD)			
3.6	*Interim Report Date & Version:*	January 24, 2023 V1			
3.7	*Notification of Work Date:*	January 19, 2022			

4. PROPOSED DEVELOPMENT

4.1	*Description:*	Urban Transit Development at Guerin Creek.
4.2	*Location:*	Thompson River University, Kamloops, BC
4.3	*NTS Mapsheet*	92I.069

5. FIELD CREW

Table 1. Field Crew

Date (dd/mm/yy)	*Field Director (on site? Y/N)*	*Field Supervisor*	*Other Field Personnel*
12/04/22	Robyn Oxley (Y)	Robyn Oxley	Cade Hawkins-Bara, Alexis Paul, Daren Thomas, Hank Bennett
13/04/22	Robyn Oxley (Y)	Robyn Oxley	Daren Thomas, Lanny Billy, Megan Anderson
14/04/22	Robyn Oxley (Y)	Robyn Oxley	Alexis Paul, Lanny Billy, Megan Anderson

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: No previous archaeological studies have directly overlapped with the location, however nearby studies include BC Hydro SI-KAM-001 WKA Substation Duct Bank Egress DY0959 AIA, conducted by Ursus Heritage Consulting (HIP 2018-0025), and Thompson Rivers University 800 University Drive Archaeological Impact Assessment conducted by Tk'emlúps under HIP 2021-0151 in July 2021.

☒ Review of Provincial Heritage Register

Date Accessed: January 13, 2022

☐ Other

Details:

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

Borden No.	*Distance & Direction from the Proposed Development*	*Site Type*	*Permit No. of Previous Visits*	*Site in Conflict (Y/N)*
EeRc-43	609 m N	Historic Chinese Cemetery	Non-permit	N
EeRc-58	795 m NNE	Subsurface artifacts, worked fauna; ancestral burial	1997-0004	N
EeRc-134	582 m N	Subsurface lithics	2018-0025	N
EeRc-135	652 m NNW	Subsurface lithics	2018-0025	N

6.2. In-field Methodology

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

Date Assessed: April 12-14, 2022
Describe if other: N/A

6.2.1	*Number of Crew Members:*	4-5	*6.2.2*	*Crew Spacing:*	N/A
6.2.3	*Other:*	N/A			

6.3. In-field Observations

Prior to fieldwork, the project area was subject to a desktop-based review. The office review determined that the project location (Figure 1 and 2) displays moderate to high archaeological potential, due to the close proximity of previously recorded archaeological sites (4 sites within 1 km), and a major hydrological feature (Guerin Creek) runs south to north through the center of the project area. Arial photography (City of Kamloops Map Series Through the Years, 1928-2020) shows impacts to the project area with the development of Summit Drive on the eastern side of the project footprint, McGill Road to the south, and University Drive to the west.

Fieldwork commenced on April 12, 2022, with a pedestrian field survey to inspect the surface of the project area and identify areas of archaeological potential. Three STAs were identified; two were placed on level benches on the western side of the creek, and the third on the edge of a heavily-disturbed break in slope. Terrain in the remainder of the project area was heavily disturbed by surrounding infrastructure and / or very steeply sloping down to the creek, thus displaying low archaeological potential.

Disturbances in the project area included the construction of the surrounding roadways, utilities including storm drains that lead down to the creek, a water main at the north end of the area, a large culvert for was constructed on the south side for the creek to pass under McGill, old access roads for construction, and a pedestrian trail runs southwest to northeast through the area. A BC One Call (conducted March 24, 2022) revealed that BC Hydro, Fortis, Telus, TRU, and Zayo Canada have utilities in the area, and ensuing locates were obtained so that the crew could avoid any impacts to highly dangerous lines.

Vegetation consisted of a sparse overstory of mature and juvenile ponderosa pine and a non-native willow tree, the understory included abundant sage brush, crested wheat grass, and rabbit brush.

Tests in STA 1 and 2 were laid out at 5 m or less intervals, using both grid and judgmental placing as per the discretion of the Field Director. Tests in STA 3 were laid out judgementally taking into account imported crush materials, a culvert, and other heavy disturbance. Sediments generally consisted of medium brown silt and sand with little to no inclusions. In STA 1 and 3, fill material and disturbed sediments consisted of silty sands, with inclusions generally varying from 20-50% ranging in size from pebbles to small cobbles.

6.4. Results

Table 3. Assessment Results

Subsurface Testing	Description	Location (UTM)	Dimensions (L x W)	Subsurface tests		
				Total	Pos	Neg
STA 1	STA 1 was an east-southeast facing bench overlooking Guerin creek approximately 35 m down slope. 14 tests were laid along the edge of the bench in two lines of	10 U 686554 5616591 (ST 3)	27 m SW-NE X 5 m SE-NW	14	0	14

	seven tests at 5 m intervals. The test area was truncated to the south, west and northwest by the located storm drain. The majority of tests were heavily disturbed up to 25 to 67 cm DBS, and contained historic debris. Apart from ST 1 and 14 (end due to impassible crush), all tests were excavated to the extent of the shovel. (Photo 1 and 2).					
STA 2	STA 2 was located upslope, 30 m north of STA 1. 24 tests were laid out at 5 m intervals following the edge of the landform on the eastern and southern side, and the cut for an old access road which ran south-southwest to northeast along the back of the test area. All tests were excavated to the extent of shovel. No fill material was noted within the tests, but a lack of any inclusions, and very little stratigraphic changes indicate the landform is unnatural: imported sediments from the local area or previously stripped. (Photo 3 and 4).	10 U 686550 5616657 (ST 14)	21 m E-W X 22 m N-S	24	0	24
STA 3 A and B	STA 3 was selected as the landform looked to possibly be the remnants of a natural west facing break in slope overlooking Guerin Creek approximately 20 m down slope. Tests were placed in two areas (STA 3 A and B) where the level of disturbance and fill material for a backroad was not immediately apparent. Testing determined the location to be entirely disturbed, and no intact	10 U 686605 5616543 (ST 4)	29 m N-S 0-3 m E-W	6	0	6

	sediments were observed. (Photos 5 to 7).					

A total of 44 tests were excavated within the proposed development, of which none were positive for archaeological materials or features (Figures 3-6). In STA 1 and 2, the stratigraphy suggests the benches may not be native to the project area. Sediments may have been imported to these areas to support the surrounding infrastructure. These sediments were observed to be consistent with the local area and if they are not native to the project area, they were likely sourced from a location nearby.

No protected archaeological sites or resources were identified in this study. The remainder of the project area is considered to have low potential for archaeological sites, and therefore no further work is required. The lack of archaeological materials identified during the field assessments is not an indication of the absence of Secwépemc people on the landscape. Although this archaeological investigation did not observed intact sediments in some test locations, displaced local sediments also have the potential to contain archaeological deposits. Therefore, in the event that cultural materials are discovered over the course of the future proposed construction activities, all work should stop in the vicinity of the find and the Archaeology Branch and Tk'emlúps te Secwépemc Natural Resource Department be notified immediately.

7. DISCLOSURE STATEMENT & SIGNATURE

This report has been prepared using Archaeology Branch Interim Permit Reporting Procedures (issued 23 March 2004), as well as the BCAPA Standards of Reporting for Interim Archaeological Impact Assessment Reports.

Archaeological sites (physical evidence of past human activity) on provincial lands in British Columbia are protected and managed by the following provincial legislation:

Heritage Conservation Act (RSBC 1996, c.187): Archaeological sites are protected and managed by this Act, which states that an archaeological site is automatically protected and requires management if it: (1) predates AD 1846, (2) is of indeterminate origin and may predate AD 1846, (3) is rock art or a burial place of archaeological/historic significance, (4) is a heritage ship or aircraft wreck, or (5) has been designated as a Provincial Heritage site.

Protected archaeological sites may not be altered or disturbed in any manner without a permit issued under Sections 12 or 14 of the Heritage Conservation Act. In addition, heritage sites of Aboriginal origin not automatically protected by the HCA may still be an interest which a First Nation wishes to discuss in the engagement process.

Users of this report should be aware that even the most thorough investigation may fail to reveal all archaeological remains, including sites protected by the Heritage Conservation Act, which may exist within a development location. Readers should be aware that: (1) archaeological remains in BC are protected from disturbance, intentional or inadvertent; (2) in the event that archaeological remains are encountered, ground disturbance in the immediate vicinity must be suspended at once; (3) it is the individual's responsibility to inform the Archaeology Branch, as soon as possible, about the

location of the archaeological remains and the nature of the disturbance; and (4) the HCA can impose heavy fines and imprisonment for failing to comply with these regulations.

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8. REFERENCES CITED

City of Kamloops
2022 Kamloops Through the Years 1928-2020 Map Series. *Kamloops.maps.arcgis.com*, kamloops.maps.arcgis.com/apps/MapSeries/index.html?appid=1b003d8208e844188a3939e895b86489.

Tk'emlúps te Secwepemc
AIA of Thompson Rivers University 800 University Drive Proposed Commercial and Residential Development, Kamloops, Permit #2021-0151.

Tk'emlúps te Secwepemc
2021 AIA of Thompson Rivers University McGill Corridor Phase 1 Proposed Residential Development, Kamloops, Permit #2021-0151.

Ursus Heritage
2018 AIA of BC Hydro SI-KAM-001 WKA Substation Duct Bank Egress DY0959, Kamloops, Permit #2018-0025.

9. SHAPE FILES

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

10. APPENDICES]

Required:

☒ General Area Map
☒ Study Area Map
☒ Photo Plate(s)

If Applicable:

☒ Detailed Development Map
☒ Subsurface Test Log

☐ Site Forms, Site Maps and Related Documents
☐ Other Details:

Photo 1: view east towards STA 1 on a bench overlooking Guerin Creek. Pink flagging indicates test locations.

Photo 2: STA 1, Shovel Test 8 stratigraphy.

Photo 3: view east-northeast from University Drive, overlooking STA 2. Summit Drive visible in background. Crew from left to right: Leonard Billy, Alexis Paul, and Megan Anderson.

Photo 4: STA 2, Shovel Test 4 stratigraphy.

Photo 5: view northwest to STA 3 from access road. Tests located along edge of possible remnant bench landform. Crew from left to right: Megan Anderson, and Alexis Paul.

Photo 6: view west across widest area of STA 3 from access road disturbance. Tests indicated by pink flagging.

Photo 7: STA 3, Shovel Test 6 stratigraphy.

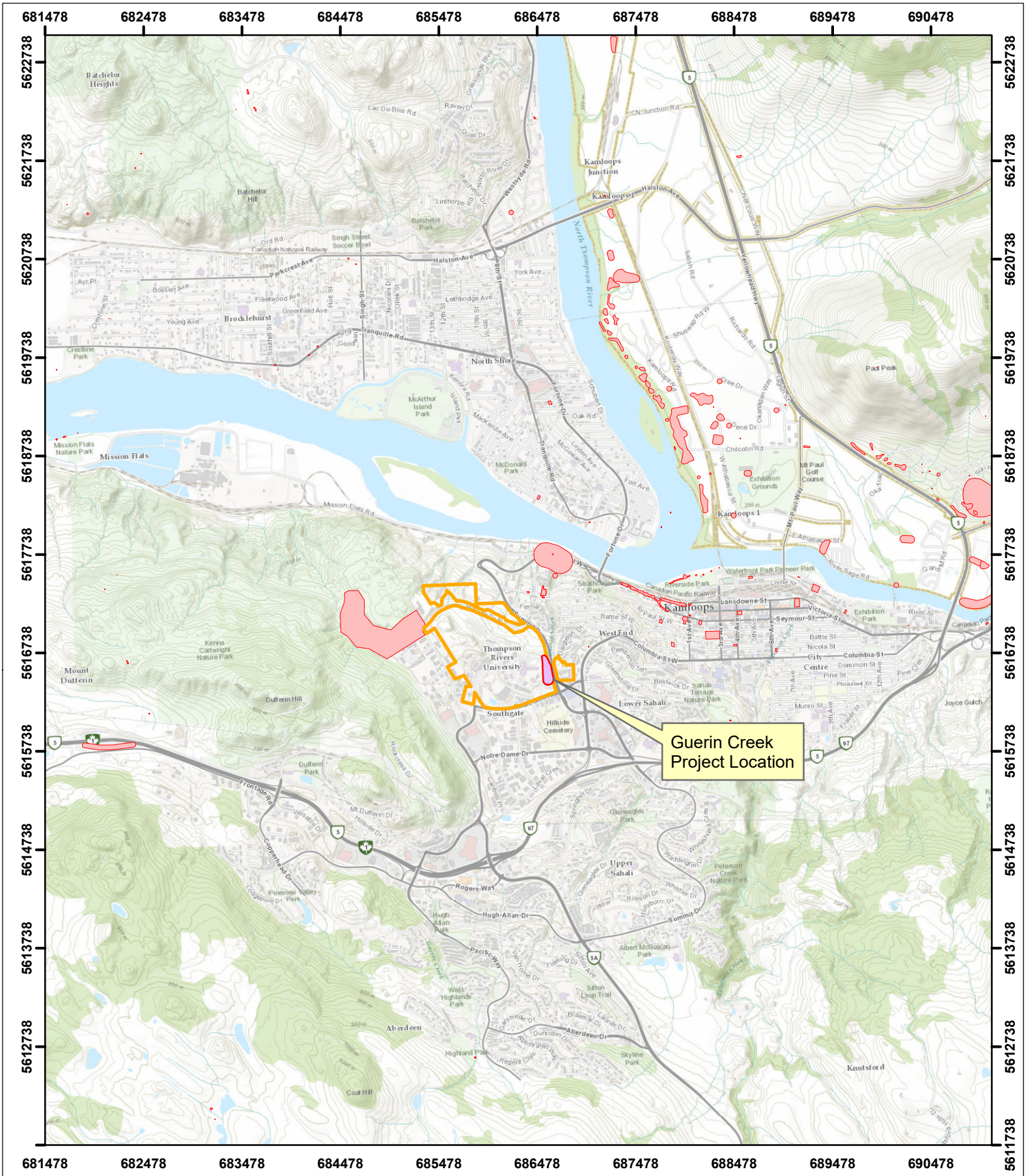

Figure 1. Permit Area Overview Map
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
Mapsheet #: 92I.069
HCA Permit #: 2021-0151

Legend

- Permit Area
- Project Location
- Previously Recorded Archaeological Site Boundary

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, ESRI Basemap
Coordinate System: NAD 83
UTM Zone 10N

0 0.5 1 Kilometers

1:50,000

Date: 2023-01-23

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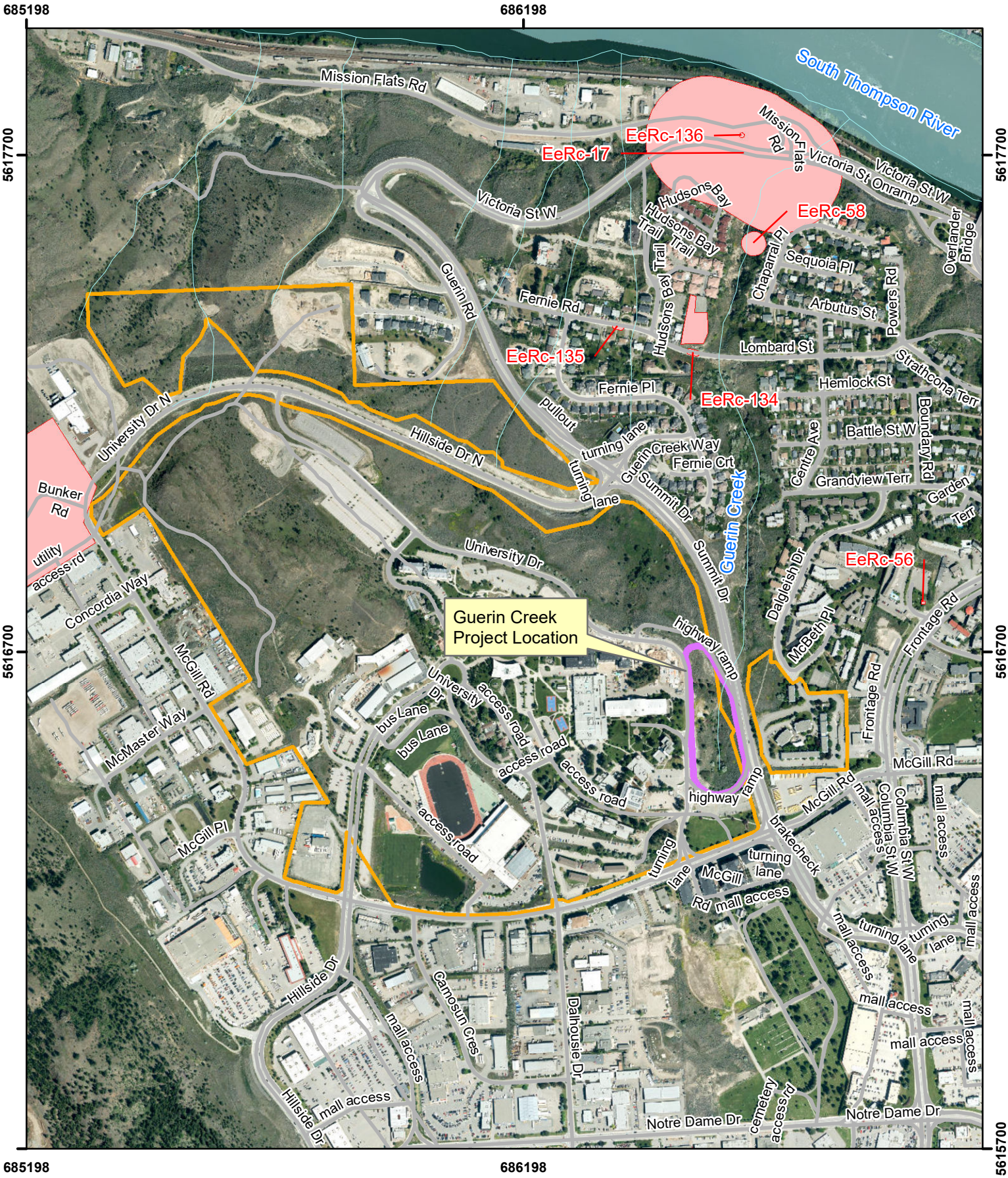

Figure 2. Midrange Location Map
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
NTS Mapsheet #: 92I/09
HCA Permit #: 2021-0151

Legend

- Permit Area
- Project Location
- Previously Recorded Archaeological Site Boundary
- Road
- Stream
- River

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, ESRI Basemap
Coordinate System: NAD 83
UTM Zone 10N

0 125 250 Meters

1:10,000

Date: 2022-07-13

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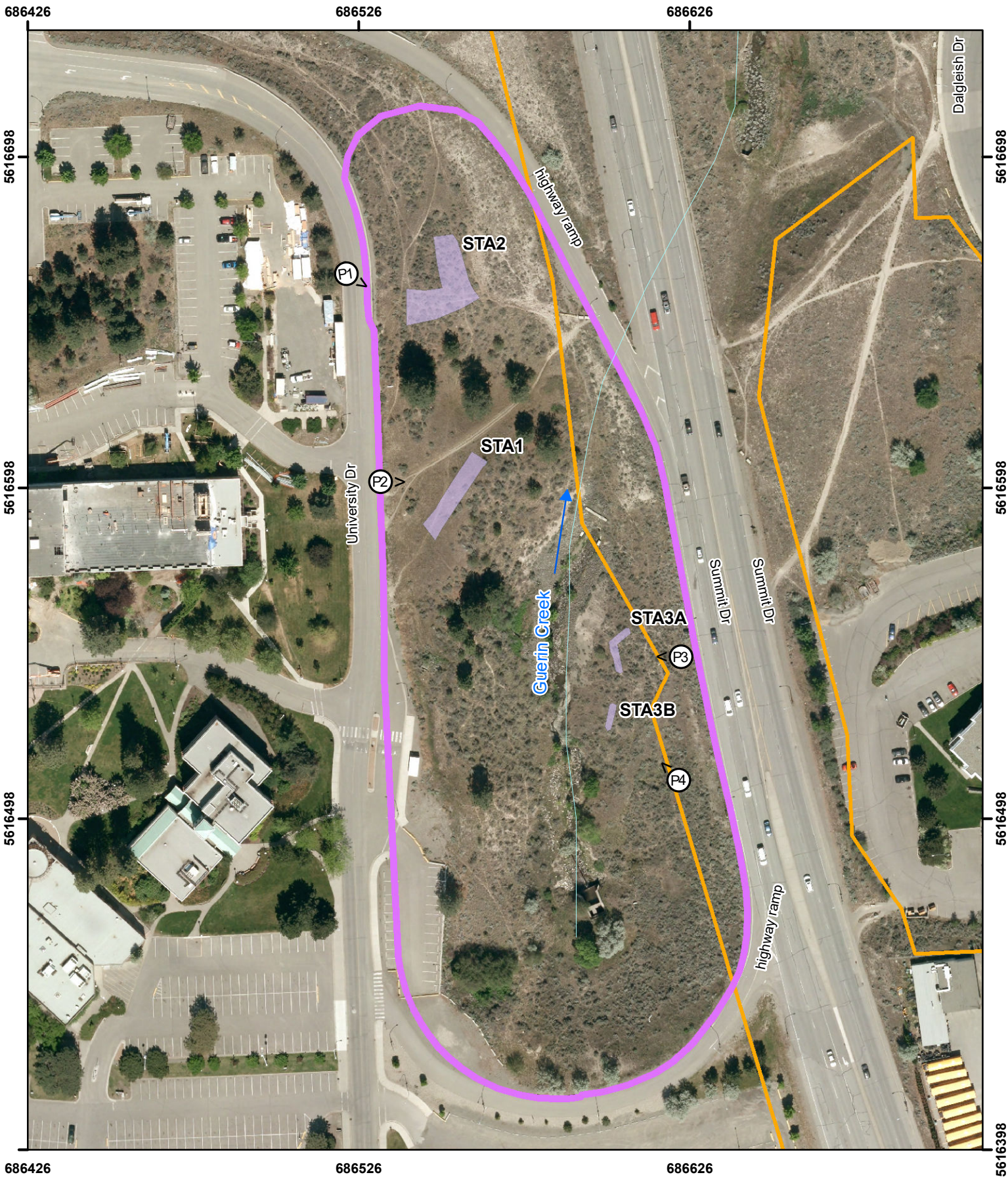

Figure 3. Project Area Overview
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
NTS Mapsheet #: 92I/09
HCA Permit #: 2021-0151

Legend

- Photo Location
- Subsurface Test Area
- Project Location
- Previously Recorded Archaeological Site Boundary
- Road
- Stream

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, City of Kamloops 2012 Orthophoto
Coordinate System: NAD 83
UTM Zone 10N

0 10 20 Meters

1:1,500

Date: 2023-01-23

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Figure 4. Detailed Results Map STA1
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
NTS Mapsheet #: 92I/09
HCA Permit #: 2021-0151

Legend

- Negative Shovel Test
- Subsurface Test Area
- Previously Recorded Archaeological Site Boundary
- Photo Location
- Stream
- Permit Area

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, City of Kamloops 2012 Orthophoto
Coordinate System: NAD 83
UTM Zone 10N

0 5 10 Meters

1:400

Date: 2023-01-20

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Figure 5. Detailed Results Map STA2
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
NTS Mapsheet #: 92I/09
HCA Permit #: 2021-0151

Legend

- Negative Shovel Test
- Subsurface Test Area
- Previously Recorded Archaeological Site Boundary
- Photo Location (P1)

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, City of Kamloops 2012 Ortho Image
Coordinate System: NAD 83
UTM Zone 10N

0 5 10 Meters

1:300

Date: 2023-01-20

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Figure 6. Detailed Results Map STA3A & 3B
Project: Archaeological Impact Assessment
Guerin Creek

Client: Thompson Rivers University
General Location: Kamloops, BC
NTS Mapsheet #: 92I/09
HCA Permit #: 2021-0151

Legend

- Negative Shovel Test
- Subsurface Test Area
- Previously Recorded Archaeological Site Boundary
- Stream
- Photo Location

Data Source: TteS NRD,MFLNRO,GeoBC, TRU
BC Archaeology Branch, City of Kamloops 2012 Ortho Image
Coordinate System: NAD 83
UTM Zone 10N

0 7.5 15 Meters

1:400

Date: 2023-01-23

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Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
1	1	Shovel	DT	Neg.	0.40	Arrow					0 - 40 cm: compacted fill. End due to increased compaction and impassible rocks. Test location confirmed to be heavily disturbed from the installation of nearby storm drainage.
2	1	Shovel	CHB	Neg.	0.90	Arrow					Similar to ST 8.
3	1	Shovel	RO / AP	Neg.	0.90	Arrow					Similar to ST 8.
4	1	Shovel	RO	Neg.	1.05	Arrow					Similar to ST 8.
5	1	Shovel	DT / CB	Neg.	0.85	Arrow					Similar to ST 8.
6	1	Shovel	HB	Neg.	0.80	Arrow					Similar to ST 8.
7	1	Shovel	HB	Neg.	0.80	Arrow					Similar to ST 8.
8	1	Shovel	HB	Neg.	0.90	Arrow					No littermat. 0 - 67 cm: disturbed, light grey brown fine grain sandy silt, moderately compact with 10% pebbles and pea gravels. Contained debris such as garbage, chicken bone, plastics. 67 - 90 cm: medium grey brown fine to medium grain sand, compact, with 20% subangular pebbles. End at very tightly compact cobbles beginning at 85 cm dbs.
9	1	Shovel	RO	Neg.	0.84	Arrow					Similar to ST 8.
10	1	Shovel	DT	Neg.	0.60	Arrow					Similar to ST 13.

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
11	1	Shovel	LB	Neg.	0.80	Arrow					Similar to the first disturbance layer in ST 13. 25 - 80 cm: medium grey brown slightly silty beachy sand, loose compaction, with 5-10% sub round to subangular pebbles .
12	1	Shovel	MA	Neg.	0.60	Arrow					Similar to ST 13.
13	1	Shovel	MA / RO	Neg.	0.61	Arrow					0 - 2 cm: littermat. 2 - 23 cm: light to medium grey brown fine to medium grain sandy silt, moderately compact, with 30% angular and subangular pebbles. Contains garbage and glass. 23 - 50 cm: medium grey brown medium grain sandy silt, moderately compact, with 10% subangular pebbles. 50 - 61 cm: sediment becomes very compact with over 50% subangular pebbles and small cobbles.
14	1	Shovel	DT	Neg.	0.30	Arrow					Adjacent to trail. 0 - 2 cm: littermat. 2 - 30 cm: light grey brown silt and sand; mixed fill material and very rocky: 50% pebbles to boulders, incredibly compacted. End due to rocks and compaction.

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
1	2	Shovel	MA / LB	Neg.	0.97	Arrow					0 - 2cm: littermat. 2 - 97 cm: medium brown medium grain sandy silt, slight compaction, with <5% sub round to subangular pebbles.
2	2	Shovel	MA / LB	Neg.	1.00	Arrow					Similar to ST 1.
3	2	Shovel	RO	Neg.	0.95	Arrow					Similar to ST 1.
4	2	Shovel	RO	Neg.	1.02	Arrow					0 - 1 cm: littermat. 1 - 82 cm: medium brown fine sand and silt, slight to moderate compaction, with 1% sub round to sub angular pebbles. Sediment color transitions to a grey brown after ~30cm. Layer interface at 82cm has flat silt chunks with trace clay. 82 - 102 cm: light grey very fine sand with some silt, compact, with no observed inclusions.
5	2	Shovel	MA	Neg.	1.00	Arrow					Similar to ST 4.
6	2	Shovel	DT	Neg.	0.87	Arrow					Similar to ST 4.

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
7	2	Shovel	DT	Neg.	0.95	Arrow					Location had been previously sloped for an access road. 0-3 cm: litter mat 3-60 cm: medium brown medium to fine sandy silt, slight compaction, with <1% pebbles 60-95 cm: medium grey silt with some fine sand and trace clay, compact, becoming very compact at 83 cm.
8	2	Shovel	MA	Neg.	1.03	Arrow					Similar to ST 1.
9	2	Shovel	LB	Neg.	0.94	Arrow					Similar to ST 4.
10	2	Shovel	DT	Neg.	0.90	Arrow					Similar to ST 4.
11	2	Shovel	RO	Neg.	0.90	Arrow					Similar to ST 1.
12	2	Shovel	DT	Neg.	1.00	Arrow					Similar to ST 4.
13	2	Shovel	MA	Neg.	1.05	Arrow					Similar to ST 4.
14	2	Shovel	LB	Neg.	0.93	Arrow					Similar to ST 4, no littermat.
15	2	Shovel	RO	Neg.	1.02	Arrow					Similar to ST 1.
16	2	Shovel	MA / RO	Neg.	0.95	Arrow					Similar to ST 4.
17	2	Shovel	DT	Neg.	0.90	Arrow					Similar to ST 4.
18	2	Shovel	AP / MA	Neg.	0.96	Arrow					Similar to ST 4.
19	2	Shovel	LB	Neg.	0.92	Arrow					Similar to ST 4.
20	2	Shovel	AP / MA	Neg.	1.00	Arrow					Similar to ST 7, but with a light grey silty fine sand from 0.72 to 0.87 m dbs. End in the fine sand and silt with trace clay.

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
21	2	Shovel	RO	Neg.	0.80	Arrow					0 - 2 cm: littermat 2 - 72 cm: medium brown fine sand and silt, moderate compaction, with <1% pebbles. fades to light brown at 33 cm. 72 - 80 cm: light grey brown silt with trace clay, compact, no inclusions.
22	2	Shovel	RO / MA	Neg.	1.02	Arrow					Similar to ST 21.
23	2	Shovel	AP / MA	Neg.	0.94	Arrow					0 - 3 cm: littermat. 3 - 74 cm: medium grey brown silty coarse sand, loose compaction, with 1% subrounded pebbles. 74 - 94 cm: light brown grey medium to coarse sand with some silt, loose compaction, no observed inclusions.
24	2	Shovel	LB	Neg.	0.97	Arrow					Similar to ST 4, but with a beachy sand from 90-97 cm dbs.
1	3A	Shovel	LB	Neg.	1.00	Arrow					Similar to ST 4.
2	3A	Shovel	LB	Neg.	0.65	Arrow					0 - 2 cm: littermat. 2 - 35 cm: medium brown sandy silt, moderate compaction, with 5% pebbles. 35 - 65 cm: medium grey brown fine sandy silt, tightly compact, with 50% subangular crush and 1% subround cobbles (imported fill). End due to impassible crush.
3	3A	Shovel	AP / MA	Neg.	0.95	Arrow					Similar to ST 4.

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
4	3A	Shovel	RO	Neg.	1.00	Arrow					0 - 4 cm: littermat. 4 - 41 cm: disturbed sediments - medium grey brown sandy silt, slightly compact, with 10-20% crush and pebbles. 41 - 100 cm: medium prown grey silt and fine sand, moderate compaction, with <5% subround to angular pebbles. No indication of intact sediments.
5	3B	Shovel	AP / MA	Neg.	0.83	Arrow					0 - 2 cm: littermat. 2 - 70 cm: medium brown fine to medium grain sandy silt, moderate compaction, <5% pebbles. 70 - 83 cm: crush material, similar to ST 6.
6	3B	Shovel	AP / MA	Neg.	0.35	Arrow					0 - 2 cm: littermat. 2 - 22 cm: medium brown fine sandy silt, moderate compaction, with 5% subround to subangular pebbles. 22 - 35 cm: compacted angular crush and sand (approximately 80% crush). Disturbance likey related to nearby drainage pipe.
						Artifact Totals:	**0**	**0**	**0**	**0**	

Summary Table:

Total Tests:	**44**
Total Positive Tests:	**0**

Appendix A
Test Recording Form

Permit	2021-0151	Project Name:	TRU - Guerin Creek AIA	Loc.	Guerin Creek
Date(s):	April 12 - 14, 2022	Field Supervisor:	Robyn Oxley	GPS:	
Crew:	Robyn Oxley, Daren Thomas, Cade Hawkins-Bara, Alexis Paul, Hank Bennett, Megan Anderson, Leonard Billy				

Test #	STA	Type	Intls	P/N	DBS	GPS	Deb.	Tool	Fanl	Hist	Matrix/ Comments
Min Test Depth (m):		**0.30**									
Max Test Depth (m):		**1.05**									
Average Test Depth:		**0.90**									