462000 463000

6141000 6140000 6139000

Polygon Name: 2014-BLA-002

AREAS
MODERATE
CONCENTRATED
ATTACK

29633 29464 29465 29466 29479 45338

-318050000

900 1000 1100 1200 1300

BLA-002 PROBE1 P
START
POTBLA002SPARK
POTBLA002SPARK1
POCPROBE2BLA002 P
POTPROBE2BLA002
079 080 081 082 083 084

Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-002

Landscape Unit/BMU:	Blackwater
Region:	Omineca
District:	Mackenzie
Mapsheet:	093O05
Hectares:	52.29
Scale:	1:10,000
When plotted on 11x17	
Coordinate System:	PCS Albers
Datum:	North American 1983
Date Drawn:	03/06/2015
Drawn By:	msnively

Map Features

- Susceptible Spruce Bark Beetle Polygon

2013 SB Hazard Rating (20% increments)

Hazard Classes

- Low/Med (21-40)
- Med (41-60)
- High (61-80)
- Very High (81-100)
- Cutting Permit
- RESULTS Opening
- Landscape Unit
- Road Permit Active
- Road Permit Pending
- Km_Marker_Points
- Communities
- First Nations Reserves
- Mackenzie District
- OGMA Legal Current
- Ungulate Winter Range
- Wildlife Habitat Area

Protected Lands Designation

- Ecological Reserve
- Protected Area
- Provincial Park
- Contour - Index
- Contour - Intermediate
- Streams
- Lakes and Rivers
- Wetlands

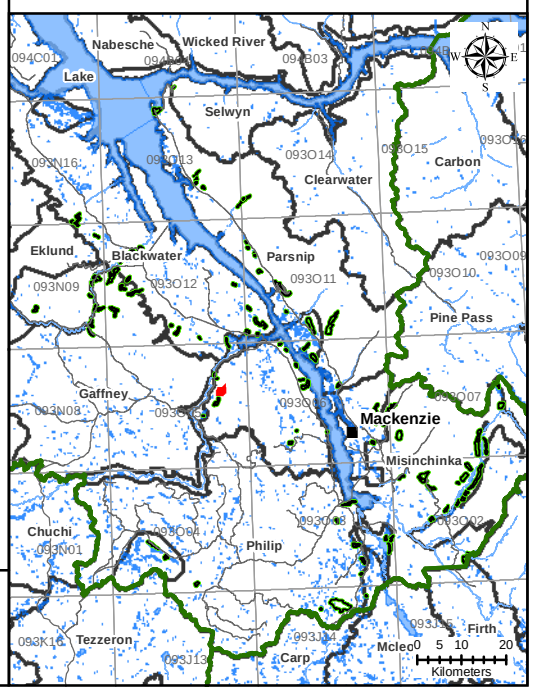
N W E S

0 0.1 0.2 0.4 Kilometers

Disclaimer

The accuracy and completeness of the information on this map is not guaranteed.

Key Map



SENECA ENTERPRISES LTD.
PO BOX 1902, PRINCE GEORGE, BC, V2L 5E3
Phone: (250) 561-0890, Fax: (250) 564-3275

SPRUCE BARK BEETLE REPORT
FH16DMK010

POLYGON: **2014-BLA-002** HECTARES: 52.29

WALKTHROUGH DISTANCE: 2900

ESTIMATED INFFESTED PIXELS FROM WALKTHROUGH (Code 1-4) 5 **17.2%**

SUMMARY OF CURRENT INFESTATION

Walkthrough estimate shows roughly 20% of polygon with infested pixels with recent attack. (Code 1's mainly) There is a lot of older attack scattered throughout rest of polygon. Areas if attack are mainly localized to 2 areas around the creek draws. Probe lines established in these two areas and have a high Sanitation and Salvage rating/

MODERATE CONCENTRATED ATTACK IN TWO AREAS.

ACCESS

Access from the west of Polygon and needed to cut trail to get ATV relatively close on old cutblock road.

POLYGON FEATURES (Topography, Terrain, Timber Types, Age)

Minimal slopes throughout, some small draws. Boundary on three sides are older cutblocks. Stand is a Balsam Spruce mix, roughly 50/50

SIZE, BOUNDARY and PATTERN OF INFESTATION

Attack is fairly concentrated around creek in the north and creek draw in the South west areas. Lots of old attack found scatterd through rest of polygon. Attack centers around larger Spruce in area.

INCIDENCE AND SEVERITY OF ATTACK

Moderate attack density in 2 areas around creek draws. Sanitation and salvage rating is high as probe lines established in these areas/

RISK OF BEETLE SPREAD

Spread could occur through polygon but is surrounded on most sides by older cutblocks. Lots of older attack and areas with immature spruce.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access surrounded by older cutblocks with over grown roads.

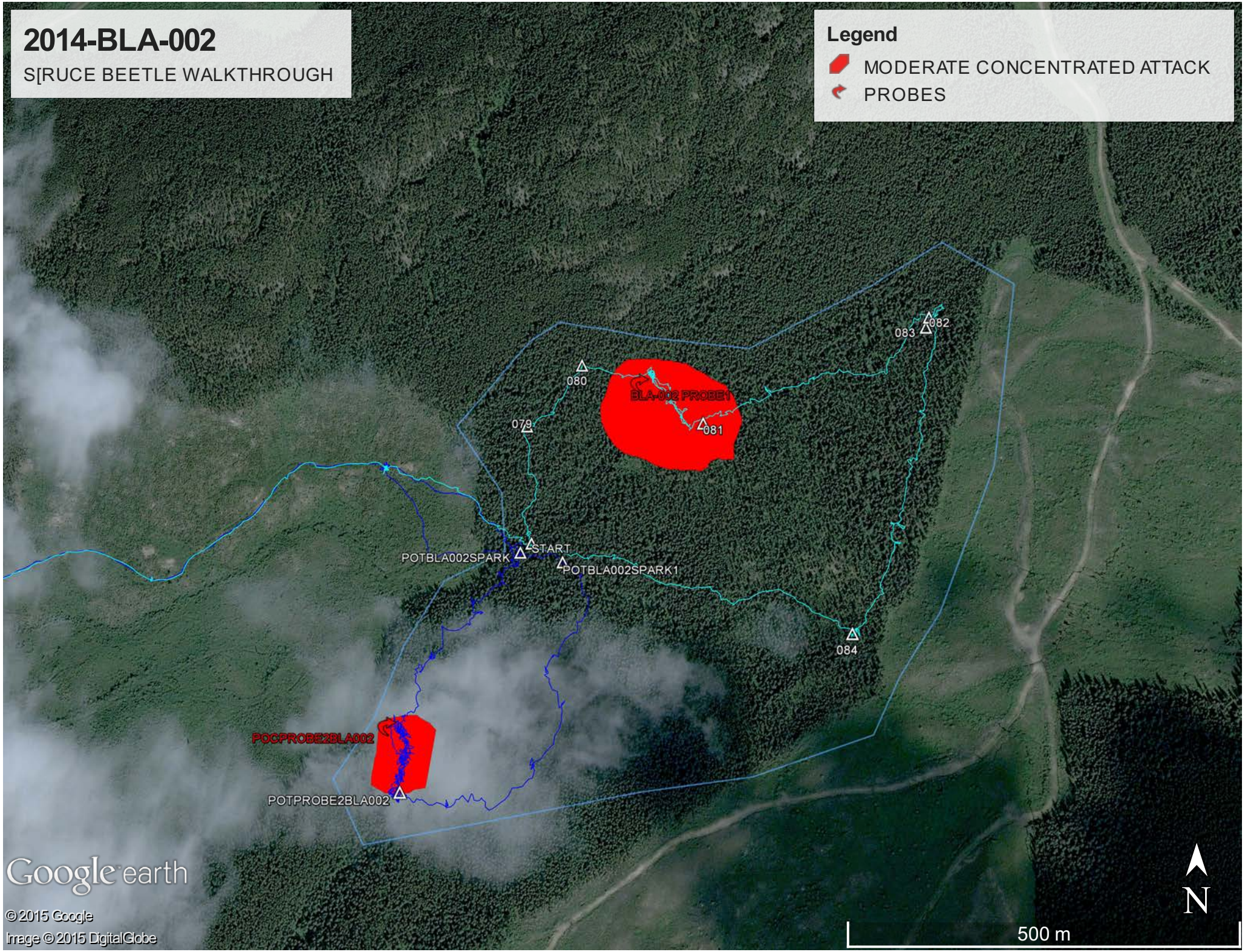
RECOMMENDATIONS

OPTION 1 **PROBE/ BAIT**

Sanitation and Salvage Rating is high from 2 probe lines in 2 areas and roughly 20% of polygon has recent attack. May want to schedule Probe around areas of high attack and set Bait trees to hold infestation.

OPTION 2 **TRAP TREES/ MONITOR**

Schedule Cruising and lay trap tree trails to hold infestation while awaiting harvest plans.


2014-BLA-002
S[RUCE BEETLE WALKTHROUGH
Legend
MODERATE CONCENTRATED ATTACK
PROBES
080
082
083
079
081
BLA-002 PROBE1
START
POTBLA002SPARK
POTBLA002SPARK1
084
POCPROBE2BLA002
POTPROBE2BLA002
Google earth
© 2015 Google
Image © 2015 DigitalGlobe
N
500 m

Summary

2014-BLA-002	HEC	52.29	METERS WALKED	2900	% TRAVERSED	5.5%
PIXELS COVERED BY WALKTHROUGH	29	INFESTED PIXELS	5	**ESTIMATED % OF BLOCK INFESTED (From Walk through)**		**17.2%**

TABLE 5- Spruce Beetle Infestation Summary Sheet

OF NOTE- Results taken from a 100m Probe Line established at 1 per 50 hectares to represent

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES
			2015		2014		2013		
			1	2	3	4	5	6	
17.5-25.0	3.3	9.9	0.0	0.0	0.0	0.0	0.0	0.0	49.5
25.1-30.0	5.3	0	0.0	0.0	0.0	0.0	0.0	0.0	47.7
30.1-35.0	7.1	21.3	0.0	0.0	0.0	0.0	0.0	0.0	35.5
35.1-40.0	9.4	28.2	18.8	0.0	0.0	0.0	18.8	0.0	84.6
40.1-45.0	11.6	23.2	34.8	0.0	0.0	0.0	11.6	0.0	104.4
45.1-50.0	13.8	0	27.6	0.0	27.6	0.0	0.0	0.0	27.6
50.1-55.0	16.2	16.2	64.8	8.1	0.0	8.1	0.0	0.0	0
55.1-60.0	18.7	0	0.0	0.0	37.4	0.0	0.0	0.0	18.7
60.1 +	25.3	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0
TOTALS	381.7	124.1	146.0	8.1	65.0	8.1	30.4	0	368

TABLE 4- Spruce Beetle Attack Density and Larval Density Rating

MEAN NO. OF ENTRANCE HOLES PER 225 cm2 PHLOEM SAMPLE		MEAN NO. OF LIVING LARVAE PER 225 cm2 PHLOEM SAMPLE	
	< 1 LOW Attack Density		< 4.9 LOW Mean Larval Density
	1.0- 1.9 MOD Attack Density		5.0 - 14.9 MOD Mean Larval Density
	2.0 - 3.9 HIGH Attack Density		15-24.9 HIGH Mean Larval Density
2.00	< 3.9 SEVERE Attack Density	**5.75**	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough

% 2015 ATTACK	40.4%	##	SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2014 ATTACK	19.2%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	2806.9
% 2013 ATTACK	8.0%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	50.9%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

Probe lines taken in 2 areas with heavier attack.

SUMMARY OF ALL CARDS FS1111

NUMBER OF CARDS 2

ACCESS - Access from the west of Polygon and needed to cut trail to get ATV relatively close on old cutblock road.

POLYGON FEATURES - Minimal slopes throughout, some small draws. Boundary on three sides are older cutblocks. Stand is a Balsam Spruce mix, roughly 50/50

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			2015		2014		2013			
			1	2	3	4	5	6	BL	AT
17.5-25.0	3.3	3	0	0	0	0	0	0	15	0
25.1-30.0	5.3	0	0	0	0	0	0	0	9	0
30.1-35.0	7.1	3	0	0	0	0	0	0	5	0
35.1-40.0	9.4	3	2	0	0	0	2	0	9	0
40.1-45.0	11.6	2	3	0	0	0	1	0	9	0
45.1-50.0	13.8	0	2	0	2	0	0	0	2	0
50.1-55.0	16.2	1	4	1	0	1	0	0	0	0
55.1-60.0	18.7	0	0	0	2	0	0	0	1	0
60.1 +	25.3	1	0	0	0	0	0	0	0	0
TOTALS		13	11	1	4	1	3	0	50	0

BARK SAMPLES 15 cm x 15 cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE ADULTS	NO. CALLOW	FRESH (GREEN) BLOWDOWN Attacked Y r	Y r ____	Unattacked
4	8	0	23	1	3	0	0	0

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION

Attack is fairly concentrated around creek in the north and creek draw in the South west areas. Lots of old attack found scatterd through rest of polygon. Attack centers around larger Spruce in area.

INCIDENCE AND SEVERITY OF THE INFESTATION

Moderate attack density in 2 areas around creek draws. Sanitation and salvage rating is high as probe lines established in these areas/

RISK OF BEETLE SPREAD

Spread could occur through polygon but is surrounded on most sides by older cutblocks. Lots of older attack and areas with immature spruce.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access surrounded by older cutblocks with over grown roads.

BRITISH COLUMBIA — BEETLE PROBE CARD

LOCATION	ELEVATION	LATITUDE	PAGE	OF
0462333 6140137	1053		1	1

BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	BEETLE SPECIES
146°	1	10m	100m	[X] SB [ ] MPB [ ] DFB

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			1	2	3	4	5	6	MAIN	OTHER
12.5 - 17.4	2.0								BL	
17.5 - 25.0	3.3									
25.1 - 30.0	5.3									
30.1 - 35.0	7.1									
35.1 - 40.0	9.4									
40.1 - 45.0	11.6									
45.1 - 50.0	13.8									
50.1 - 55.0	16.2									
55.1 - 60.0	18.7									
60.1 -	25.3									
TOTALS										

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN	
						Attacked	Unattacked
1a	4	\	9	1	\		
1b	3	\	7	\	\		

COMMENTS

A few code 1's farther than 5m. on Left side

CREW NAMES	DATE Y	M	D
Dailen. V	2018	10	28

FS 1111A RPG 00/02 7530881049 (100/bdl)

Probe

SPRUCE BEETLE PROBE CARD

LOCATION			PAGE
0461950 6139621			of
BEARING	**DISTANCE**		**STRIP WIDTH**
158°	100m		10m

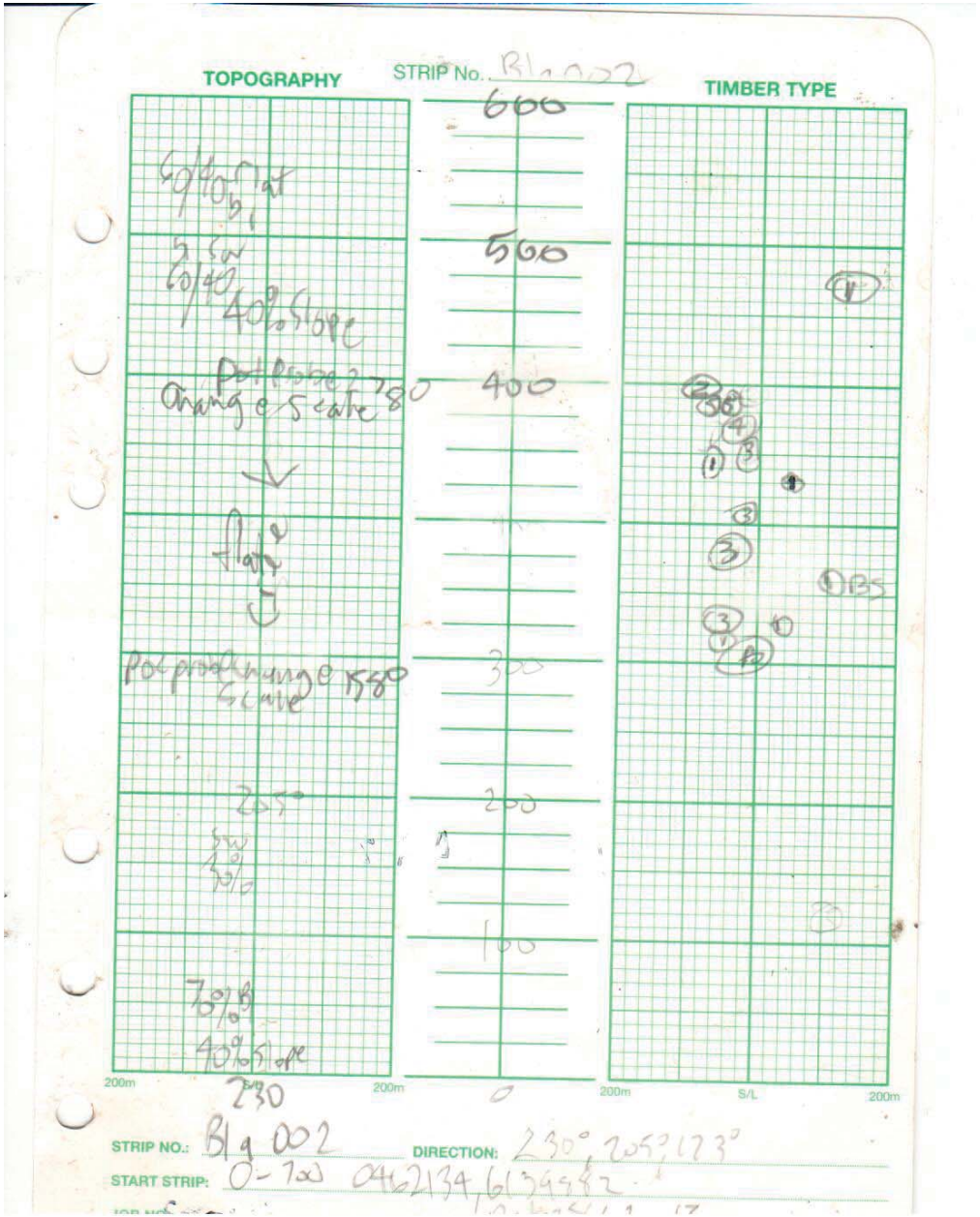
DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES
			1	2	3	4	5	6	Bl
17.5 - 25.0	3.3								
25.1 - 30.0	5.3								
30.1 - 35.0	7.1								
35.1 - 40.0	9.4								
40.1 - 45.0	11.6								
45.1 - 50.0	13.8								
50.1 - 55.0	16.2								
55 - 60.0	18.7								
60.1 +	25.3								
TOTALS		12	5	1	4	1	2		

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN		
						Attacked		Unattacked
N								
S								

COMMENTS

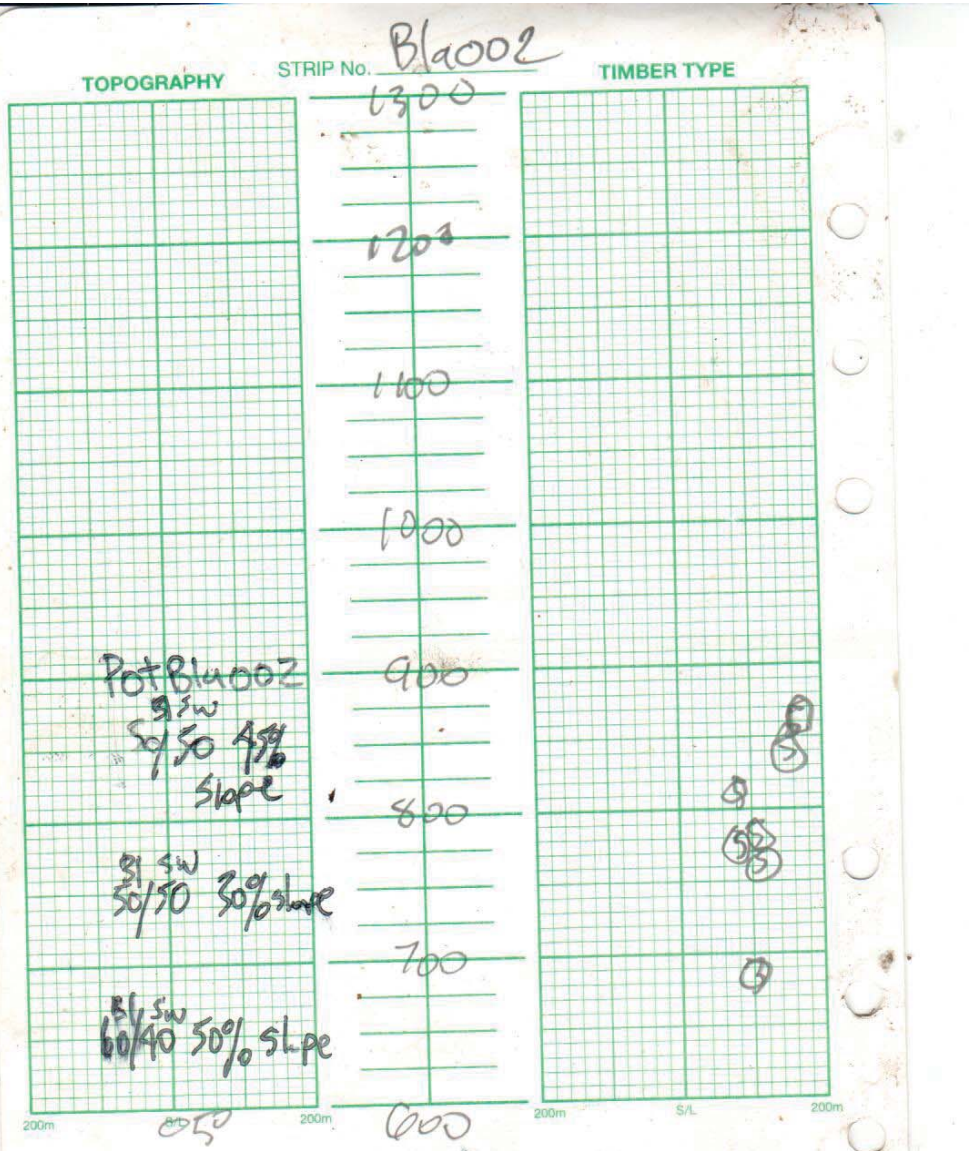
CREW NAMES Brandon Sowles

DATE Y 15 M 10 D 29



STRIP NO.: Bl a 002 DIRECTION: 230°, 205°, 173°

START STRIP: 0-700 0462134, 6139482



STRIP NO.: DIRECTION: 50

START STRIP: 600-900

JOB NO.: DATE: Oct 28/2015

CREW: Brandon Sparks

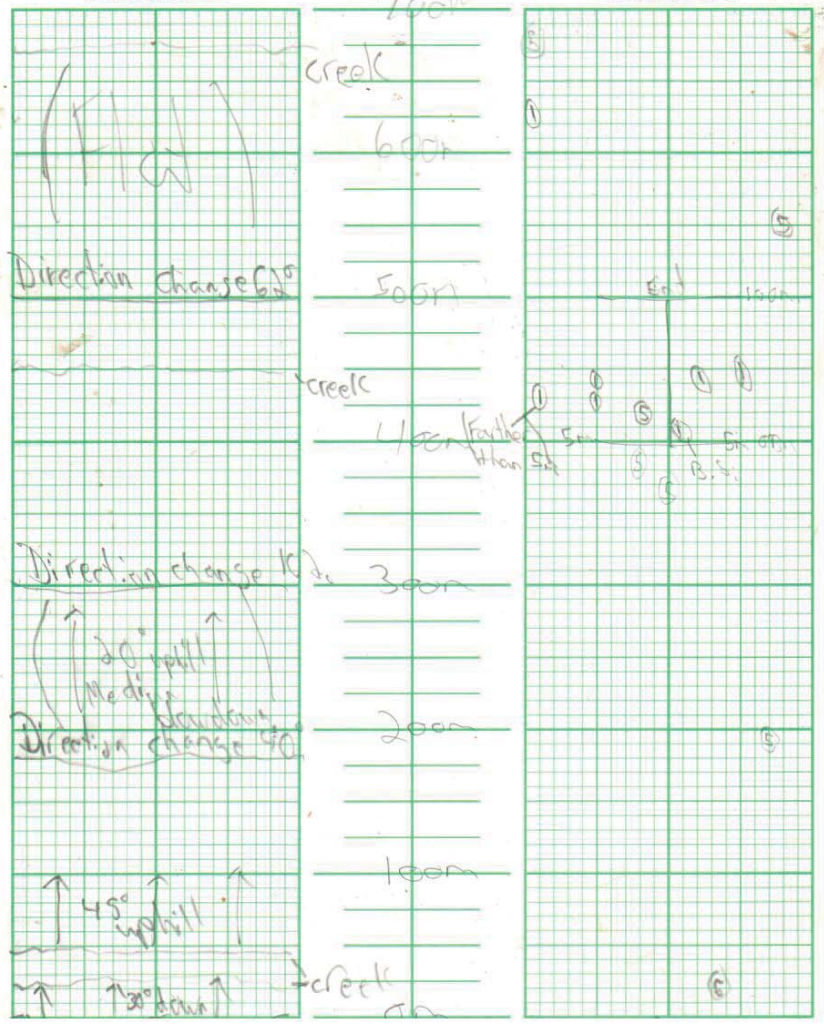
REMARKS:

www.irisupplies.com
Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. BLA-002

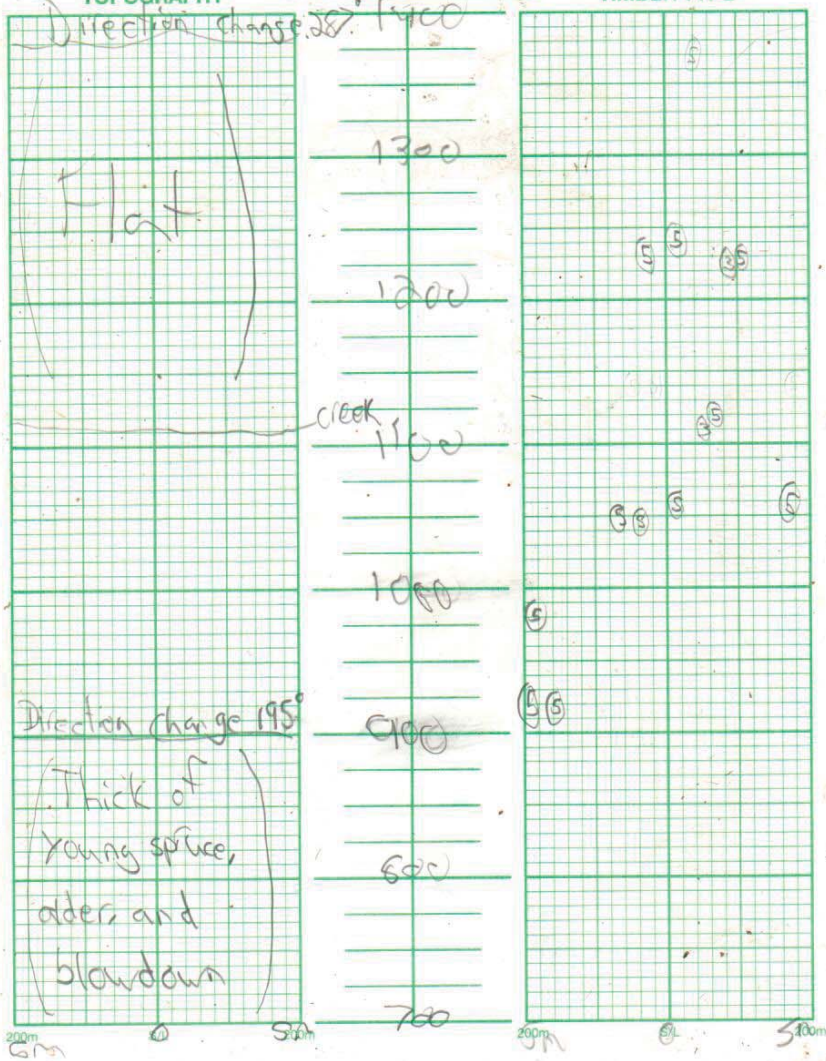
TIMBER TYPE



TOPOGRAPHY

STRIP No. BLA-002

TIMBER TYPE



STRIP NO.: BLA-002 DIRECTION: 195°

START STRIP: 700m - 1400m

JOB NO.: Seneca walkthrough DATE: Oct. 28/15

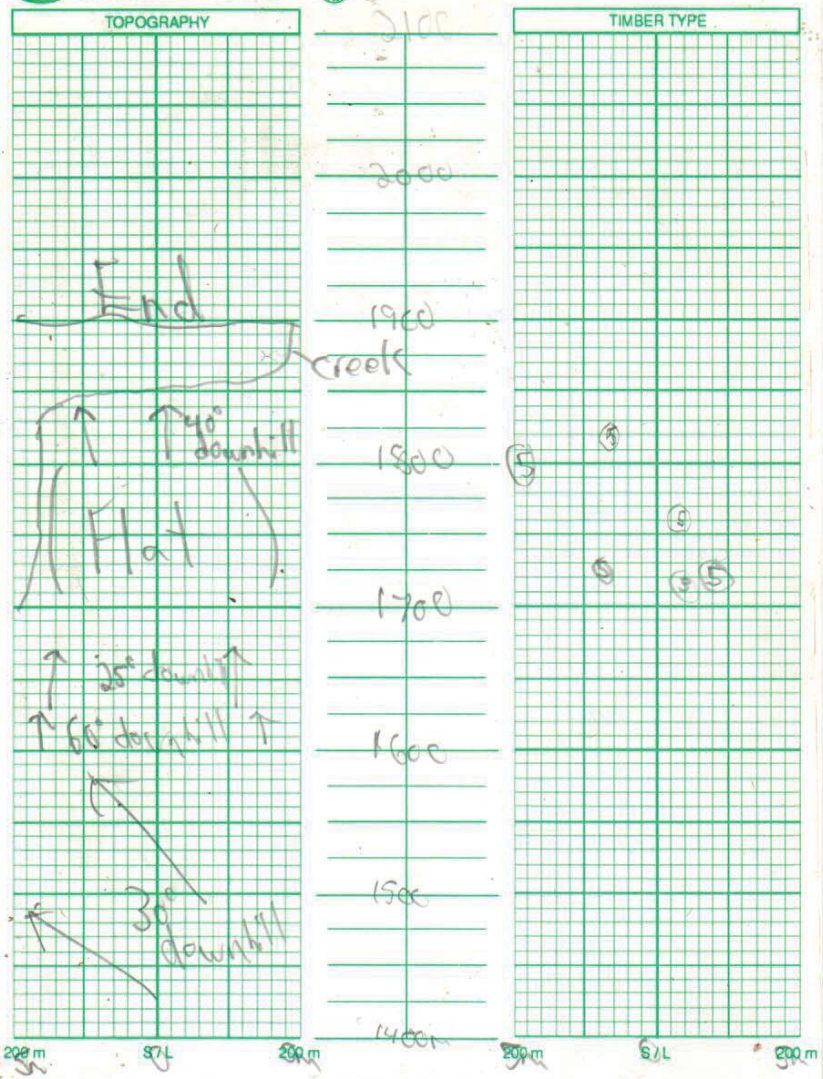
CREW: Daken. V

REMARKS:

www.irlsupplies.com
Ph: 1-800-663-6843

Province of British Columbia — Ministry of Forests

COMPASS AND TRAVERSE



C.P. No.	BLOCK RLA-001	
DIRECTION 287°		START OF STRIP 1400m - 1900m
JOB NO. Seneca walkthrough		DATE Oct. 28/15
CREW Darlene V		
REMARKS		

FS 375 HVA 92/01