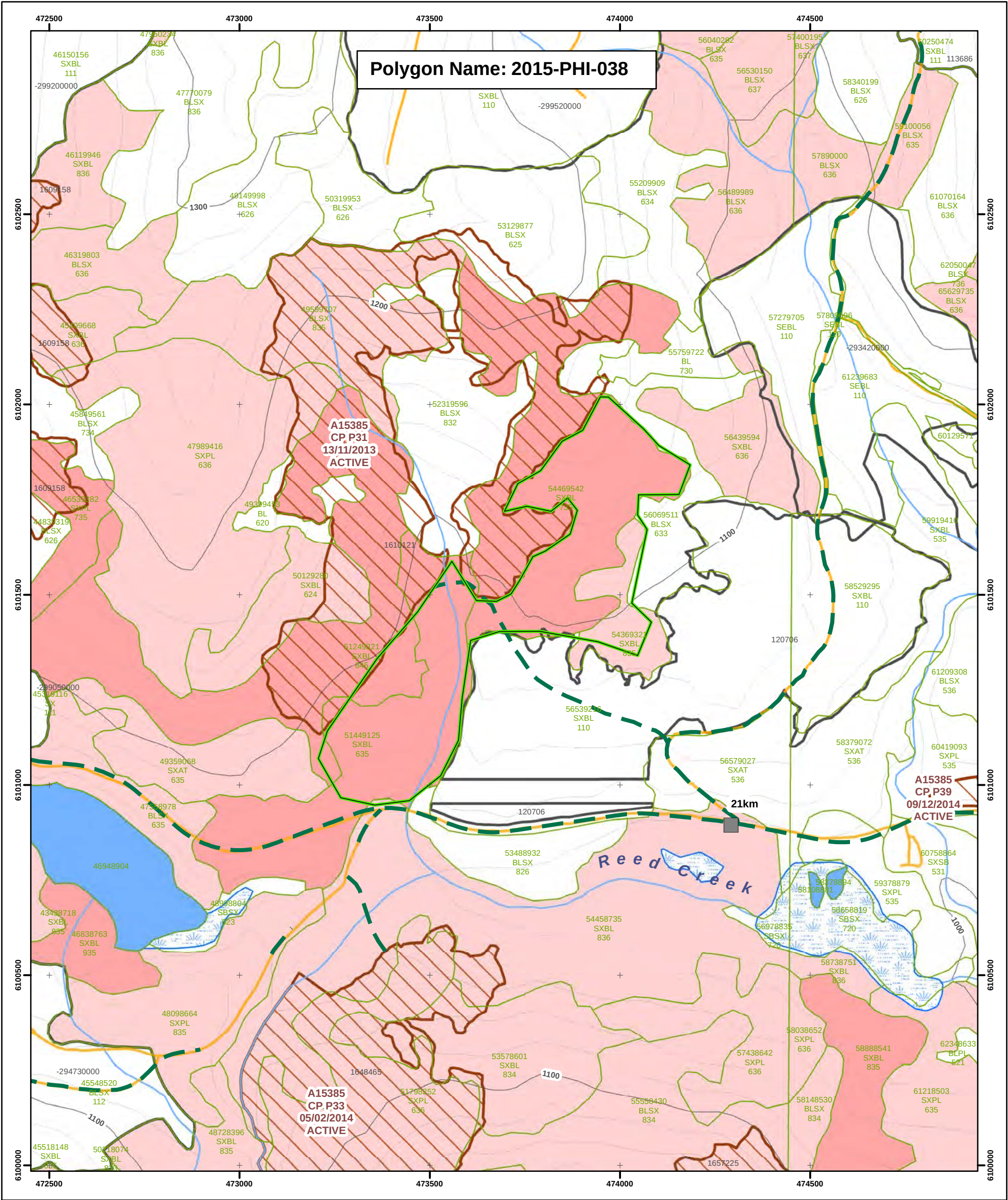




Spruce Bark Beetle Field Map

Polygon Name: 2015-PHI-038

Landscape Unit/BMU: Philip

Region: Omineca

District: Mackenzie

Mapsheet: 093O03

Hectares: 33.03

Scale: 1:10,000

When plotted on 11x17

Coordinate System: NAD 1983 UTM Zone 10N

Datum: North American 1983

Date Drawn: 03/12/2015

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
- VRI Polygon
- Beetle Management Unit
- Natural Resource District
- Road Permit Active
- Road Permit Pending
- Km Markers

Map Features

- Communities
- First Nations Reserves
- 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

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
FH16DMK016,017**

POLYGON: 2015-PHI-038

HECTARES:

33.03

WALKTHROUGH DISTANCE:

3300

ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)

6 18.2%

SUMMARY OF CURRENT INFESTATION

Walkthrough shows >20% infested pixels and with high sanitation rating and will need to be actioned. There are three pockets of attack with all found trees on a 2 year life cycle and can potentially wait on this one. Polygon flat and has good access.

MODERATE to HEAVY CONCENTRATED ATTACK

ACCESS

Access is along the conector and road side.

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

0-15% slope, spruce 70% Balsam 30%. Polygon boundaries a cutblock to the east.

SIZE, BOUNDARY and PATTERN OF INFESTATION

Three areas of conentrated attack where numerous Code 1's (2 year cycle) were found within 6 pixels. Scattered Code 5's outside of the attack centers.

INCIDENCE AND SEVERITY OF ATTACK

One probe line and 2 bark samples show a low larvae density and moderate attack density.. Probe line representative of attack where 5 code 1's attacked, and a couple of older attack (High Attack densities, heavy sanitation rating)

RISK OF BEETLE SPREAD

Polygon has pockets of moderate to heavy attack and can continue to spread within polygon. Cutblock boundary and east of polygon.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Good access, minimal slopes. Seast of polygon 2015-PHI-023

RECOMMENDATIONS**OPTION 1****PROBE.HARVEST (2017 flight)**

Probe or Cruise to identify areas requiring harvesting to determine severity and better define area of attack. There are three spearate areas of attack with all found on the first year of a two year life cycle. There are scattered code 5 attacked trees as well.

OPTION 2**TRAP TREES/ MONITOR**

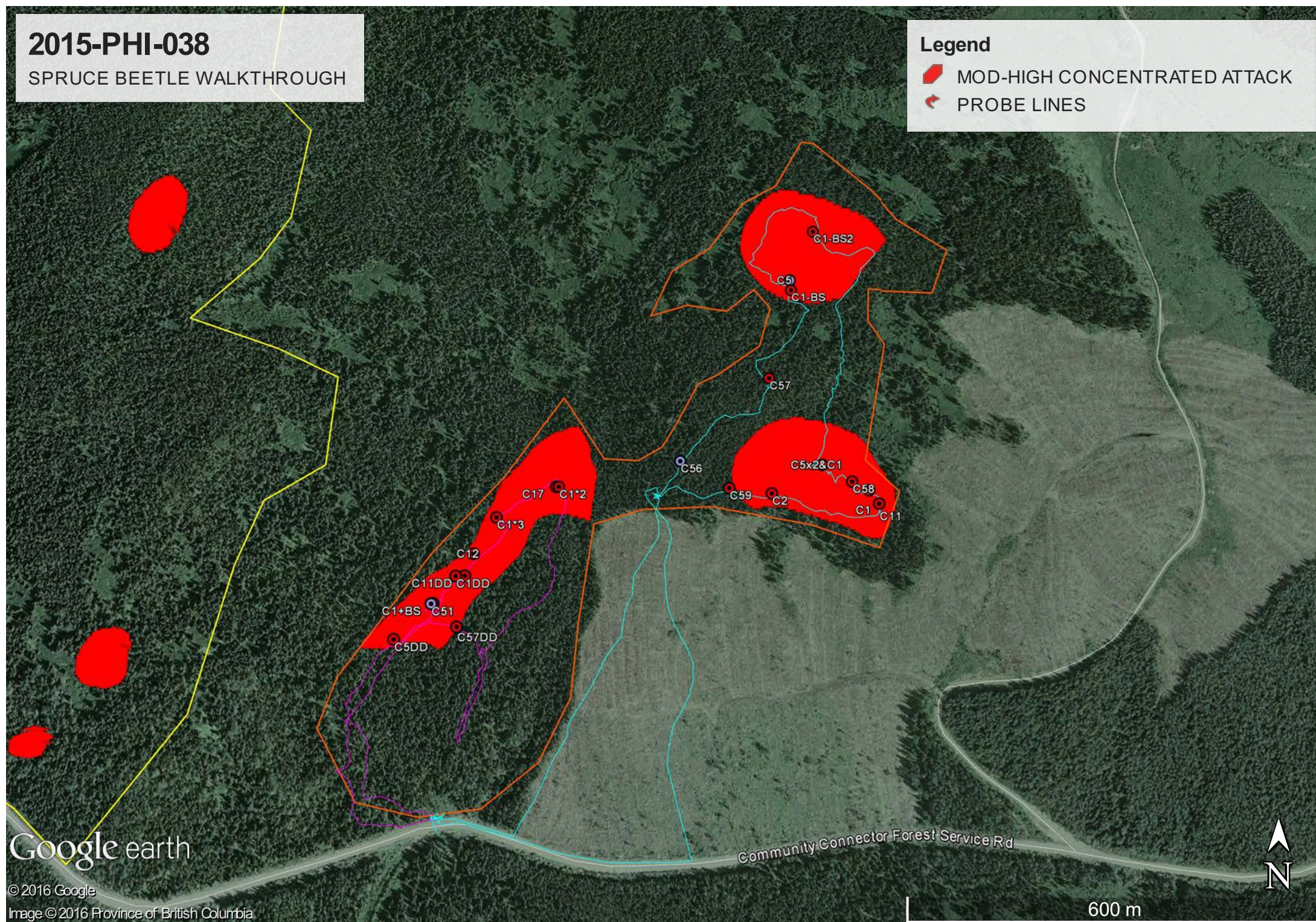
Schedule Cruising and lay trap tree trails down to capture 2017 flight

2015-PHI-038

SPRUCE BEETLE WALKTHROUGH

Legend

- MOD-HIGH CONCENTRATED ATTACK
- PROBE LINES



Google earth

© 2016 Google
Image © 2016 Province of British Columbia

Community Connector Forest Service Rd

600 m

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	0	0.0	0.0	0.0	0.0	0.0	0.0	0
25.1-30.0	5.3	10.6	0.0	0.0	0.0	0.0	0.0	0.0	21.2
30.1-35.0	7.1	56.8	0.0	0.0	0.0	0.0	0.0	0.0	35.5
35.1-40.0	9.4	75.2	28.2	0.0	0.0	0.0	9.4	0.0	9.4
40.1-45.0	11.6	58	11.6	0.0	0.0	0.0	11.6	0.0	0
45.1-50.0	13.8	13.8	13.8	0.0	0.0	0.0	0.0	0.0	0
50.1-55.0	16.2	0	0.0	0.0	0.0	0.0	0.0	0.0	0
55.1-60.0	18.7	0	0.0	0.0	0.0	0.0	0.0	0.0	0
60.1 +	25.3	0	0.0	0.0	0.0	0.0	0.0	0.0	0
TOTALS	289.0	214.4	53.6	0	0.0	0.0	21.0	0	66.1

TABLE 4- Spruce Beetle Attack Density and Larval Density Rating

MEAN NO. OF ENTRANCE HOLES PER 225 cm2 PHLOEM SAMPLE	< 1 LOW Attack Density	MEAN NO. OF LIVING LARVAE PER 225 cm2 PHLOEM SAMPLE	< 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
2.83	< 3.9 SEVERE Attack Density	1.33	>24.9 EXTREME Mean Larval Density

[illegible]

% 2015 ATTACK	18.5%	##	SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2014 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	1657.3
% 2013 ATTACK	7.3%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	81.4%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

FROM 1 PROBE LINE AND TWO BARK SAMPLES

SUMMARY OF ALL CARDS FS1111	NUMBER OF CARDS	3
--------------------------------	--------------------	---

ACCESS -	Access is along the conector and road side.
----------	---

POLYGON FEATURES -	0-15% slope, spruce 70% Balsam 30%. Polygon boundaries a cutblock to the east.
--------------------	--

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	0	0	0	0	0	0	0	0	0
25.1-30.0	5.3	2	0	0	0	0	0	0	4	0
30.1-35.0	7.1	8	0	0	0	0	0	0	5	0
35.1-40.0	9.4	8	3	0	0	0	1	0	1	0
40.1-45.0	11.6	5	1	0	0	0	1	0	0	0
45.1-50.0	13.8	1	1	0	0	0	0	0	0	0
50.1-55.0	16.2	0	0	0	0	0	0	0	0	0
55.1-60.0	18.7	0	0	0	0	0	0	0	0	0
60.1 +	25.3	0	0	0	0	0	0	0	0	0
TOTALS		24	5	0	0	0	2	0	10	0

BARK SAMPLES 15 cm x 15 cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE ADULTS	NO. CLOWN	FRESH (GREEN) BLOWDOWN		
						Attacked		Unattacked
						Yr	Yr	
6	17	0	8	0	0	0	0	

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION
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Good access, minimal slopes. Seast of polygon 2015-PHI-023

SPRUCE BEETLE PROBE CARD

LOCATION 0473364 6101255		PAGE 1 OF 1							
BEARING 40°	DISTANCE 100m	STRIP WIDTH 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	
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	□	BS						
45.1 - 50.0	13.8								
50.1 - 55.0	16.2								
55.1 - 60.0	18.7								
60.1 +	25.3								
TOTALS		255				2		10	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN			
						Attacked	Unattacked		
N	4	0	4	0	0	0	0		
S	2	0	1	0	0	0	0		
COMMENTS FEW REALLY OLD ATTACK ONE PITCH OUT									
CREW NAMES JAMES / DARRYL						DATE Y M D 16 02 25			

FS 1111 RPG 2000/01 7530881048 (100/bdl)



BRITISH COLUMBIA



BEETLE PROBE CARD

BS2

LOCATION 0473460 PH1038 6101849		ELEVATION 1177	LATITUDE	PAGE 1 OF 1						
BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	BEETLE SPECIES ☐ 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									
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	①								
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			
N	3	1	1	1	1					
S	3	1	1	1	1					
COMMENTS ① BS - located in stand B1 70%, Sx 30% Avg DBH - 25-35										
CREW NAMES James Kelly						DATE Y M D 16 02 25				

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



BRITISH
COLUMBIA



BEETLE PROBE CARD

BS.1

LOCATION		0473921		ELEVATION	LATITUDE		PAGE	OF		
PHI 038		6181747		1170						
BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	BEETLE SPECIES						
/	/	/	/	☒ 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									
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			1							
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
N	3	/	1	/	/					
S	2	/	1	/	/					
COMMENTS										
(1) = BS - surrounded by open stand BI - 60% ? SK - 40% AUG DBH 30-40										
CREW NAMES						DATE				
James Kelly						Y M D 16 02 25				

TOPOGRAPHY	STRIP No.	TIMBER TYPE
	700	
	600	C5+B
S4 B6	500	C5
	400	
S7 B3	300	5-10% ↑
S8 B2 C1+B3	200	C1 P. C1 w ps C5 C5
	100	
S7 B3	0	

200m S/L 200m

STRIP NO.: 1 DIRECTION: 003°, 40°, 202°

START STRIP: 0

JOB NO.: PHI-038 DATE: FEB 25, 2016

CREW: JAMES, DARRYL

REMARKS: LOTS OF BETTER

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TOPOGRAPHY	STRIP No.	TIMBER TYPE
	1400	
S7 B3	1300	
	1200	
S4 B6	1100	C5
S5 B5	1000	5% - 10% ↓
	900	
S8 B2	800	
	700	

200m S/L 200m

STRIP NO.: 1 DIRECTION: 003°, 40°, 202°

START STRIP: 0

JOB NO.: PHI-038 DATE: FEB 25, 2016

CREW: DARRYL, JAMES

REMARKS:

 www.inisupplies.com
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STRIP NO.: 2 DIRECTION: 40°, 10°, 300°, 20°
START STRIP: 0m
JOB NO.: PH1-038 DATE: FEB 25TH / 2016
CREW: Sauer / Darryl
REMARKS: 1 C-1 Found

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Ph: 1-800-663-6843

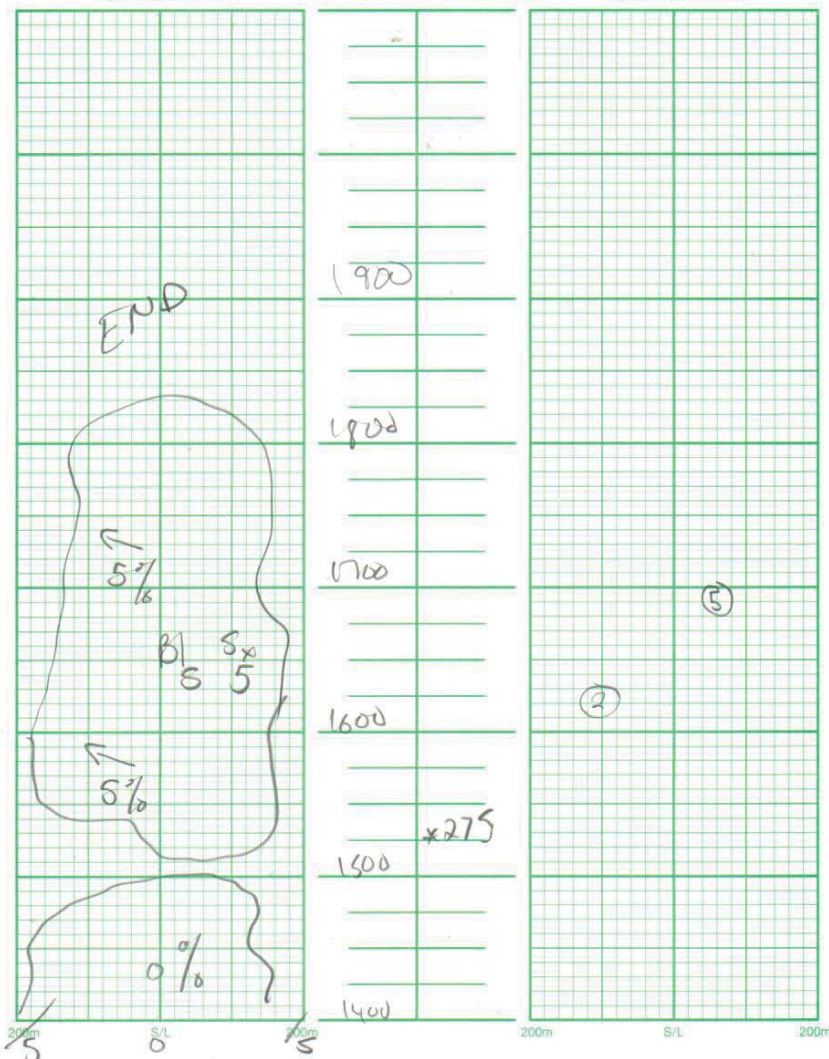
STRIP NO.: 2 DIRECTION: 20°, 115°, 145°, 118°
START STRIP:
JOB NO.: PH1-038 DATE: FEB 25 / 2016
CREW: James / Cheryl
REMARKS: 4 C1's Found

TOPOGRAPHY

STRIP No.

2

TIMBER TYPE



STRIP NO.:

1400

DIRECTION:

205°, 275°

START STRIP:

2

JOB NO.:

PHI-038

DATE:

FEB 25

CREW:

James / Darrin

REMARKS:



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