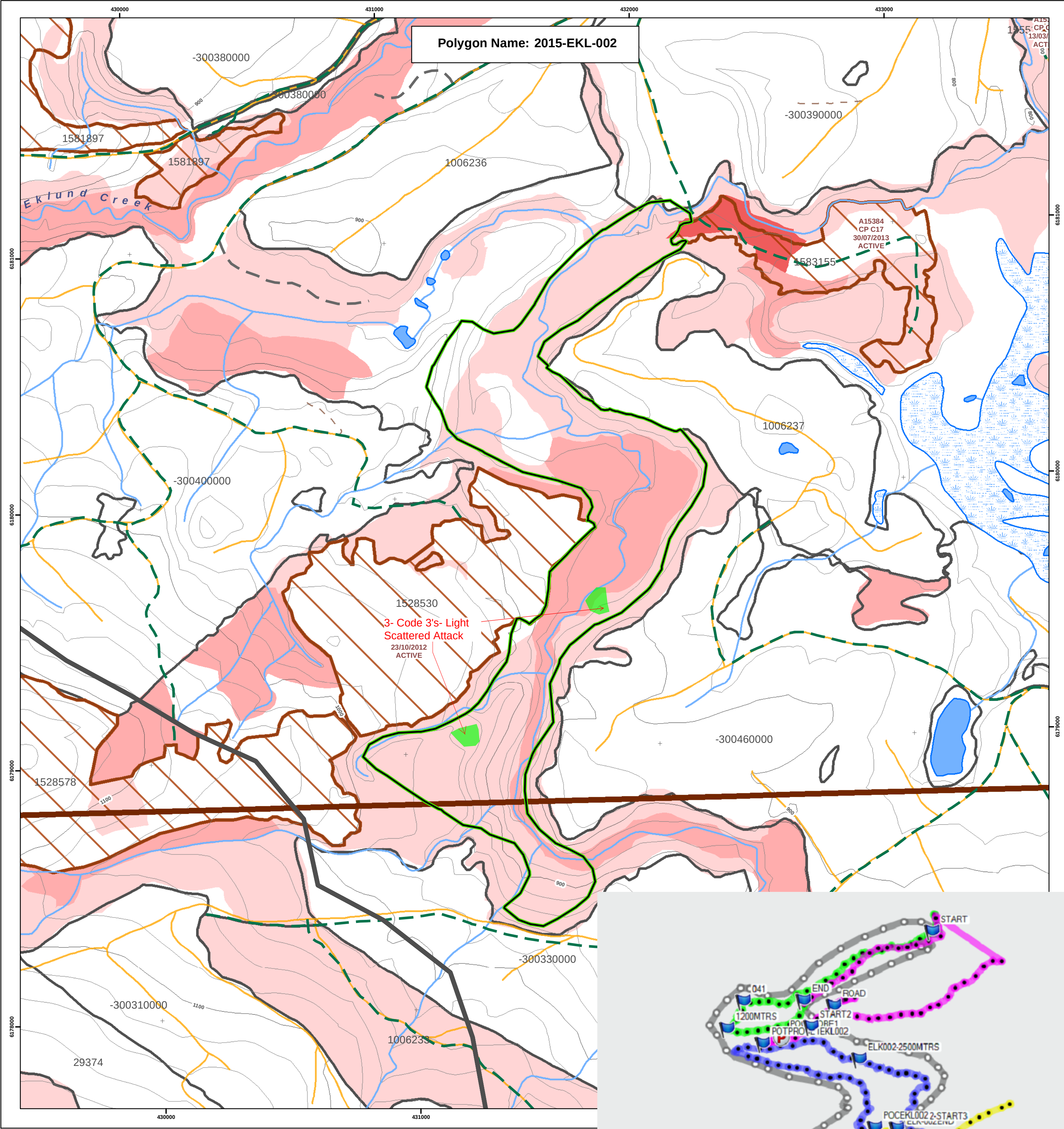
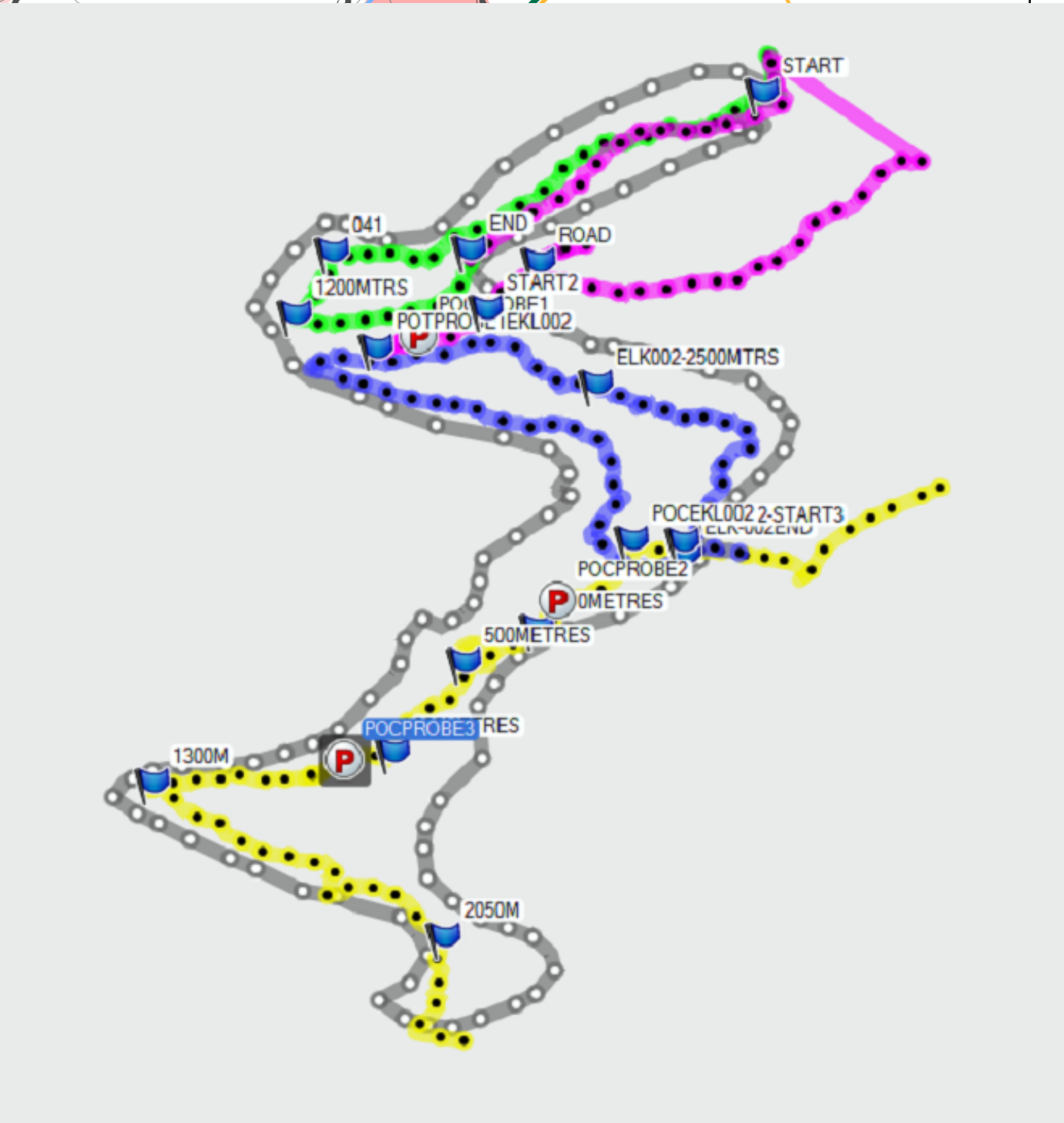




Ministry of Forests, Lands and Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2015-EKL-002

Landscape Unit/BMU: Eklund

Region: Omineca

District: Mackenzie

Mapsheet: 093N09

Hectares: 112.82

Scale: 1:10,000

When plotted on ANSIC

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 03/06/2015

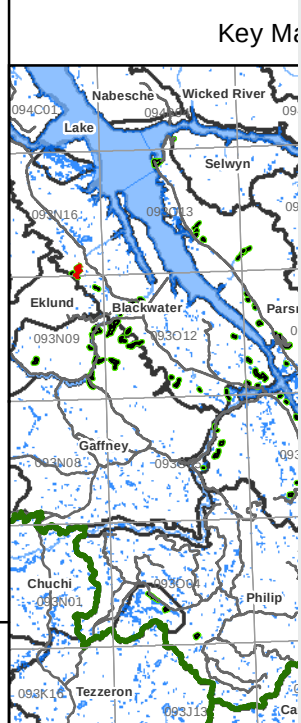
Drawn By: msnively

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
- Lakes and Rivers
- Wetlands
- Streams

Disclaimer

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



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**SPRUCE BARK BEETLE REPORT
FH16DMK010**

POLYGON: EKL-002

HECTARES: 112.82

WALKTHROUGH DISTANCE: 6100

ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)

2 3.3%

SUMMARY OF CURRENT INFESTATION

Walkthrough shows minimal infestation with less than 5% infested Pixels. (3-Code 3 trees) One of the trees attacked in 2014 and 2015. There are some operability issues with drainage and slope running entire length of Polygon.

LIGHT SCATTERED ATTACK**ACCESS**

Access from North first day ATV close to Polygon. Used oldm grown in roads to the East of Polygon, required lots of bucking and cleanup to ATV into Polygon.

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

Minimal slopes in the North of Polygon, Drainage runs through entire polygon with steeper section. South of Polygon Very steep with slopes 40-60% (150m elev Gain) Polygon mainly Spruce Balsam, with Spruce roughly 70%

SIZE, BOUNDARY and PATTERN OF INFESTATION

Very light scattered attack with some Code 3's and 1 code 1 found with 1 year attack. (Hit 2014 and 2015)

INCIDENCE AND SEVERITY OF ATTACK

3 probe lines established, mod attack density on infested trees, but very minimal and patchy attack. (Found only 3 attacked trees) Sanitation rating low.

RISK OF BEETLE SPREAD

Polygon has main draw and may continue to spread within Polygon.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Polygon has large draw running through entire length. Steeper slopes dominate this area as well as steep slope in the north off of cutblock.

RECOMMENDATIONS**OPTION 1****MONITOR**

Minimal scattered attack will need to monitor as susceptibility moderate due to 70% spruce and large Diameter trees along drainage.

OPTION 2**TRAP TREES/ MONITOR**

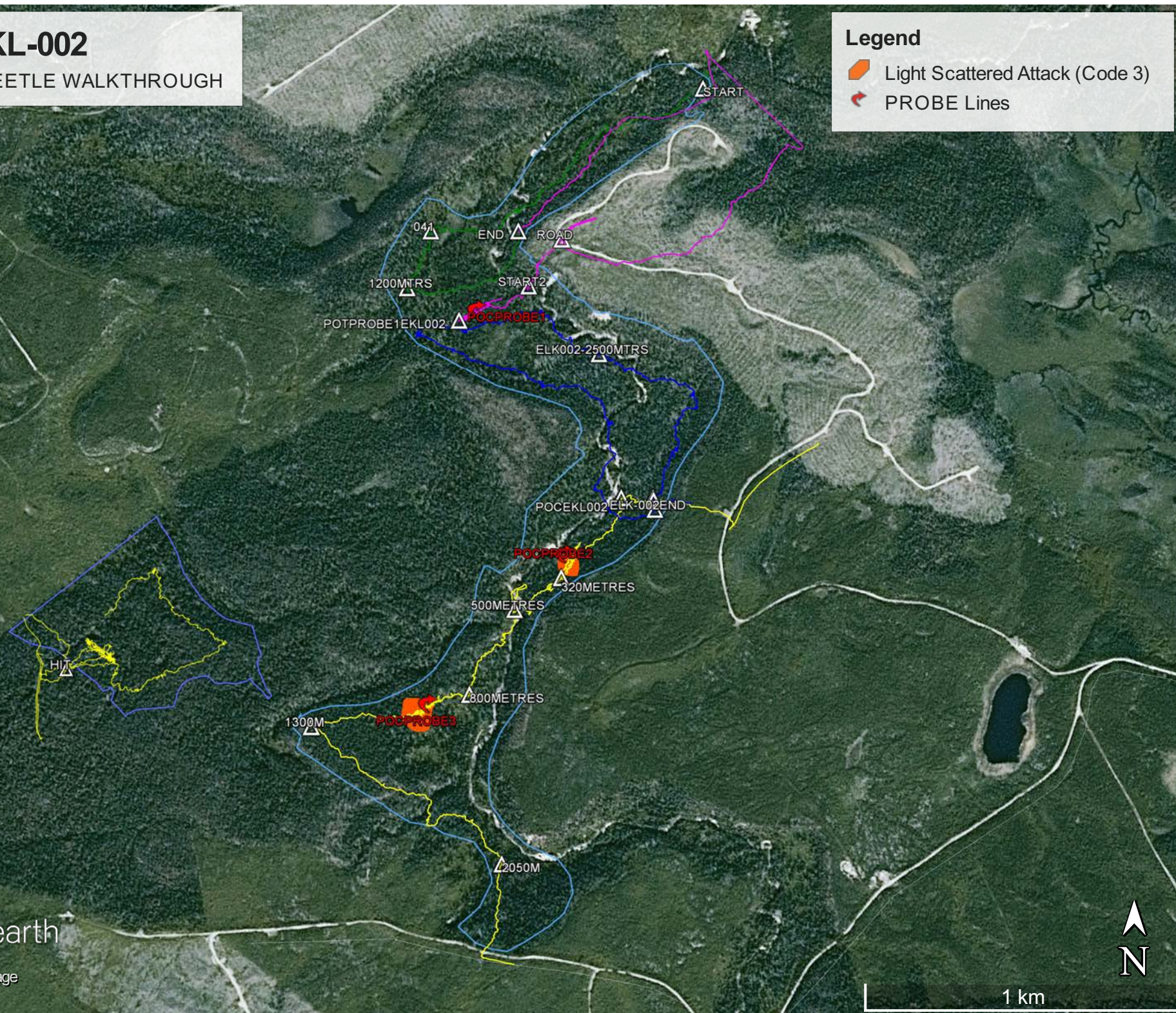
May schedule option for Trap Trees, however operability in south of Polygon is difficult with steep gully where attack is showing. (Could also perhaps due a Walkthrough/ Fall and Burn Treatment)

2014-EKL-002

SPRUCE BEETLE WALKTHROUGH

Legend

-  Light Scattered Attack (Code 3)
-  PROBE Lines



Google earth

© 2015 Qnes/Spot Image

© 2015 Google

SPRUCE BEETLE PROBE CARD

LOCATION 0921475
6130348 PAGE 1 OF 1

BEARING 248° 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	●●●●●●●●							Bg
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		34							11

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

COMMENTS

CREW NAMES Brandon Sparks DATE 15 10 12

FS 1111A RPG 00/02 7530881048 (100/bdl)



BRITISH COLUMBIA



BEETLE PROBE CARD

LOCATION EKL-002
100 0931744-6179560 ELEVATION 100m LATITUDE 11° PAGE 1 OF 1

BEARING 208° STRIP LINE NO Probe 2 STRIP WIDTH 10m DISTANCE 100m 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	N/A							Bg	P1
17.5 - 25.0	3.3	●●							N/A	N/A
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		17							11	1

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN	
						Attacked	Unattacked
North	5	1	1	0	8		
South	3	0	0	0	12		

COMMENTS 0 Sample tree

CREW NAMES Aaron Colebank DATE 2015 10 12

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



BRITISH
COLUMBIA



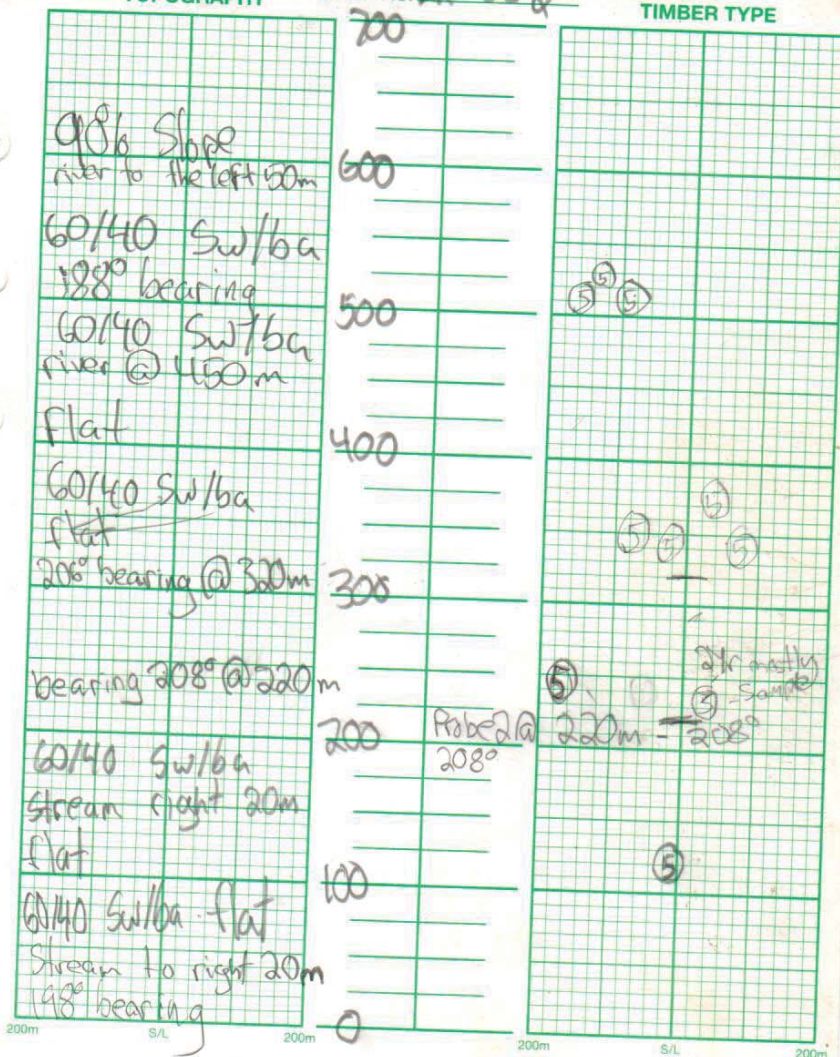
BEETLE PROBE CARD

LOCATION EKL-002 10 u - 043 B05-6179098		ELEVATION		LATITUDE		PAGE OF					
BEARING 236°	STRIP LINE NO Probe 3	STRIP WIDTH 10 m	DISTANCE 100 m	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									Ba	Pl
17.5 - 25.0	3.3									N/A	N/A
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				
COMMENTS Unable to retrieve bark sample											
CREW NAMES Aaron Colebank						DATE Y M D 2015/10/12					

TOPOGRAPHY

STRIP No. EKL-002

TIMBER TYPE



STRIP NO.:

EKL-002

DIRECTION:

198°

START STRIP:

10 U. 0431899

6179723

JOB NO.:

EKL-002

DATE:

Oct 12th, 2015

CREW:

Aaron

Colebank

REMARKS:

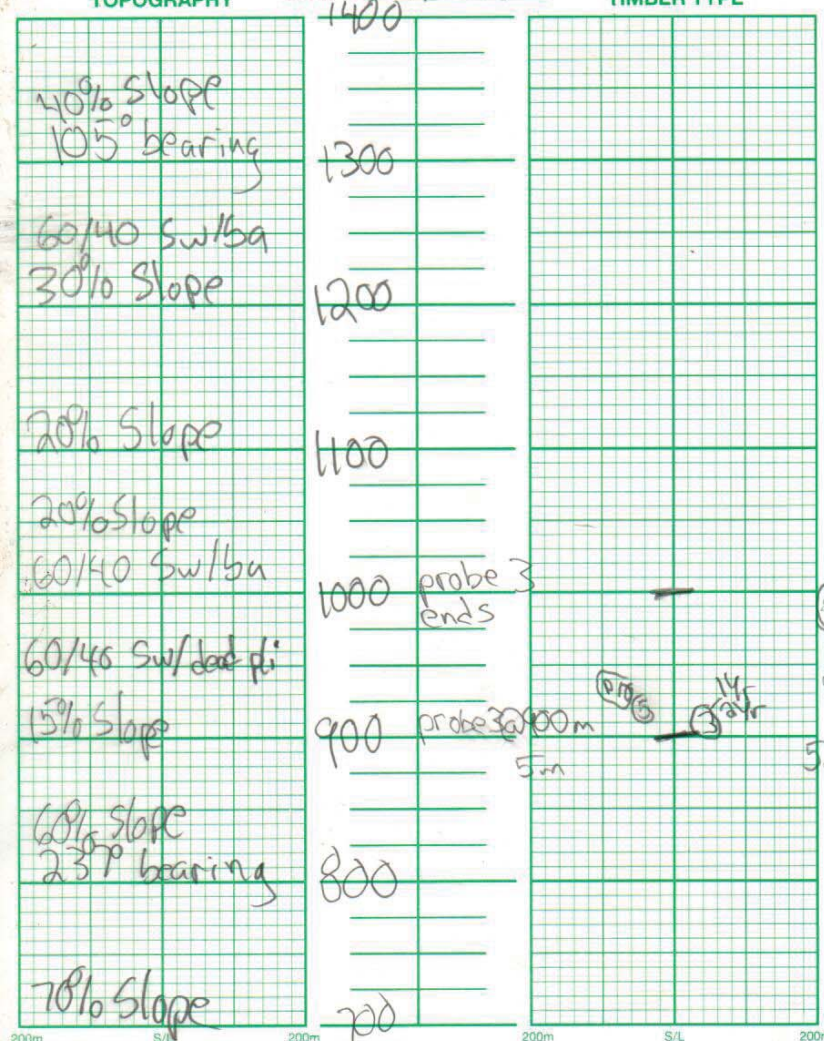
Sire

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TOPOGRAPHY

STRIP No. EKL-002

TIMBER TYPE



STRIP NO.:

DIRECTION:

START STRIP:

JOB NO.:

DATE:

CREW:

REMARKS:

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TOPOGRAPHY

STRIP No.

EKL-002

TIMBER TYPE

162 bearing @ 2050m	2100		
	2000		
	1900		
90% Slope/cliffs			
10% bearing	1800		
60/40 Sw/ba			
60% Slope	1700		
40% Slope	1600		
60/40 Sw/ba			
10% Slope	1500		
60/40 Sw/ba			
10% Slope	1400		

STRIP NO.: _____ DIRECTION: _____

START STRIP: _____

JOB NO.: _____ DATE: _____

CREW: _____

REMARKS: _____



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TOPOGRAPHY

STRIP No. _____

TIMBER TYPE

done @ 2400m	2400		
60/40 Sw/ba			
80% Slope	2300		
70% Slope	2200		
60% Slope			
60/40 Sw/ba	2100		

STRIP NO.: _____ DIRECTION: _____

START STRIP: _____

JOB NO.: _____ DATE: _____

CREW: _____

REMARKS: _____



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COMPASS AND TRAVERSE

TOPOGRAPHY		TIMBER TYPE
river	700	
20% spruce	600	50
flat		
20% spruce	500	
20% 40	400	5
30% spruce flat Small Rock deciduous	300	
deciduous flat	200	
20% 30% spruce	100	
30% spruce flat	0	

200 m S/L 200 m

C.P. No.	BLOCK	0432185, 6181038
DIRECTION	START OF STRIP	0-700
JOB NO.	DATE	October 11/2015
CREW	Brandon Sparks, Aaron Colebank	
REMARKS		

FS 375 HVA 92/01



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COMPASS AND TRAVERSE

TOPOGRAPHY		TIMBER TYPE
20% spruce flat Swamp	1400	55
50%	1300	
50% spruce flat		
80%	1200	
70% spruce 25% slope	1100	55
90% spruce 20% slope	1000	55
20%		5
20% slope		5
flat	900	
20% spruce flat		
90%	800	
20% spruce flat		
20% spruce flat		
20% spruce flat		

200 m S/L 200 m

C.P. No.	BLOCK	0432185, 6181038
DIRECTION	START OF STRIP	0-700
JOB NO.	DATE	Oct 11/2015
CREW	Brandon Sparks, Aaron Colebank	
REMARKS		

FS 375 HVA 92/01

Ministry of
Forests[illegible]

C.P. No.	BLOCK FK1 007	
DIRECTION 360°		START OF STRIP
JOB NO.		DATE Oct 11, 12/2015
CREW Brandon Sparks, Aaron Golebank		
REMARKS		

FS 375 HVA 92/01

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TOPOGRAPHY		TIMBER TYPE	
67% Spruce 41%	2200		
3000	2100		
Spruce 10%	2000		(P)
S/L 60/90	1900		(S)
flat	1800		
flat 200			
Pot probe 2			probe
80% Spruce Wet flat	1700		(S)
Pot probe 1			(S)
60% Spruce	1600		(S)
swampy flat river			probe
S/L 218°	1500		

C.P. No.	BLOCK	START OF STRIP
DIRECTION	FK1002	1600
JOB NO.	249° 20' 3000	DATE
CREW	Brandon Sparks	OCT 12/2015
REMARKS		

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COMPASS AND TRAVERSE

TOPOGRAPHY		TIMBER TYPE
262° 12% spruce flat	8000	(S)
295°	2900	(S)
285°	2800	
flat 70% spruce	2700	
252° 20% spruce flat	2600	(S)
314° flat	2500	(S)
140° flat	2400	(S)
40% spruce highly nutrient rich	2300	

C.P. No.	BLOCK	START OF STRIP
DIRECTION 314°, 252°, 295°, 262°		DATE Oct 13/2015
JOB NO.		
CREW Brandon Spawter Aaron Colebank		
REMARKS		



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Forests



COMPASS AND TRAVERSE

TOPOGRAPHY		TIMBER TYPE
flat 70% spruce	3700	(S)
flat 80% spruce	3600	(S)
104°	3500	(S)
flat 70% spruce	3400	(S)
flat 70% spruce	3300	(S)
flat 10% spruce	3200	(S)
114° flat 90% spruce	3100	(S)
70% spruce flat	3000	(S)

C.P. No.	BLOCK Ek1,002	START OF STRIP
DIRECTION 104°, 114°, 194°		DATE Oct 13/2015
JOB NO.		
CREW		
REMARKS		

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Forests

TOPOGRAPHY

200 m

S/L

200 m

1500

1400

1300

1200

1100

900

3900

3800

3700

TIMBER TYPE

200 m

S/L

200 m

Flat 20% slope

Flat 10% slope

C.P. No.	BLOCK	
DIRECTION		START OF STRIP
JOB NO.		DATE Oct 13/2015
CREW	Brandon Sparks, Aaron Colebant	
REMARKS		