

**SENECA ENTERPRISES LTD.**

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**SPRUCE BARK BEETLE REPORT
FH17DPG218**POLYGON: **2016-GER-029**

HECTARES:

216WALKTHROUGH DISTANCE: **23400**ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)**3 1.3%****SUMMARY OF CURRENT INFESTATION**

Walkthrough found 3 recent attacked trees amongst older scattered Code 5 attacked trees. This area has lots of dead pine throughout. Access is difficult with steep slopes to get up into the area. Light sanitation rating and attack densities from probe lines.

VERY LIGHT SCATTERED ATTACK.

ACCESS

From truck, walk 670m at 18 degrees to EASTERN part of polygon

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

Large Polygon with extremely Steep Slopes in the south 35-65%/ Extreme blowdown within site with lots of dead pine throughout. Large Sx DBH in SW. Many Rolling hills throughout polygon. Difficult access for any machine in south. North part of polygon has slopes 0-5%

SIZE, BOUNDARY and PATTERN OF INFESTATION

Walkthrough 216 Hectares found very light scattered attack with only 3 infested pixels represented by three Code 1 Single Attacked trees. There were scattered Code 5 attacked trees as well (9) but light as well. There was heavy snow and heavy blowdown at time of survey, much of the polygon had areas of heavy dead pine.

INCIDENCE AND SEVERITY OF ATTACK

Light attack, low sanitation rating and this is taken from where the attack occurred. Low attack and larval densities as well.

RISK OF BEETLE SPREAD

Polygon has light scattered attack, will eventually spread but not a high priority at this time. In the southwest, larger DBH Spruce which is conducive for heavier beetle attacks.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Difficult access with difficult slopes to get on top of bench. Lots of rolling hills, slopes 35-65%/

RECOMMENDATIONS**OPTION 1****NO ACTION**

Very light isolated attack.

OPTION 2**MONITOR**

With the small amount of beetle found, it appears to be in the first of a 2 year cycle.

2016-GER-029

216.0 Hectares

Legend

-  Code 1-4 Attacked Trees
-  Crew Tracks
-  Code 5-6 Attacked Trees
-  GER029 Polygon- 216 Hectares

Google earth

© 2016 Qnes/Spot Image

© 2016 Google

N

1 km



Attack = C1 = 3

C5 = 9

MANY DEAD PLI.

ACCESS - From truck walk 670m @ 18°

Features - VERY STEEP IN SOUTH - 35-65%

- EXTREME BLOW-DOWN IN SITE
- LARGE SX SOUTH WEST
- MANY ROLLING HILLS IN POLYGON.
- DIFFICULT ACCESS FOR MACHINE IN SOUTH
- NORTH 0-5% SLOPE



PARK SAMPLE

SPRUCE BEETLE
PROBE CARD

LOCATION GER029		CI-JK*		PAGE OF					
BEARING 95°		DISTANCE 100m		STRIP WIDTH					
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								
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		
10	2		3						
5	1		2						
COMMENTS - Represents other CI found during survey									
CREW NAMES JAMES KELLY						DATE Y M D 16 12 17			

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

SPRUCE BEETLE
PROBE CARD

LOCATION GER029		PROBE 1		PAGE OF					
BEARING 305°		DISTANCE 100		STRIP WIDTH					
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	
5 - 25.0	3.3	2							B1
1 - 30.0	5.3	2							B1
1 - 35.0	7.1	2							B1
1 - 40.0	9.4	2							B1
1 - 45.0	11.6								
1 - 50.0	13.8								
5 - 55.0	16.2								
5 - 60.0	18.7								
5 - 65.0	21.3								
5 - 70.0	23.8								
5 - 75.0	26.3								
TOTALS		25					3		24
SAMPLES 15 x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN			
						Attacked	Unattacked		
AGENTS - NO LIVE ATTACK									
NAMES JAMES KELLY						DATE Y M D 16 12 17			

RPG 2000/01 7530881048 (100/bdl)



BRITISH
COLUMBIA



SPRUCE BEETLE
PROBE CARD

LOCATION GER 029		PROBE 2		PAGE OF					
BEARING		DISTANCE 100		STRIP WIDTH					
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								BL
25.1 - 30.0	5.3	2							BL
30.1 - 35.0	7.1	1							BL
35.1 - 40.0	9.4	2							BL
40.1 - 45.0	11.6	1							BL
45.1 - 50.0	13.8	0							
50.1 - 55.0	16.2								
55.1 - 60.0	18.7								
60.1 +	25.3								
TOTALS		18	1	1	1	1	1	1	28
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN			
						Attacked	Unattacked		
COMMENTS - 40 ATTACK -									
CREW NAMES JAMES KELLY						DATE Y M D 16 12 17			

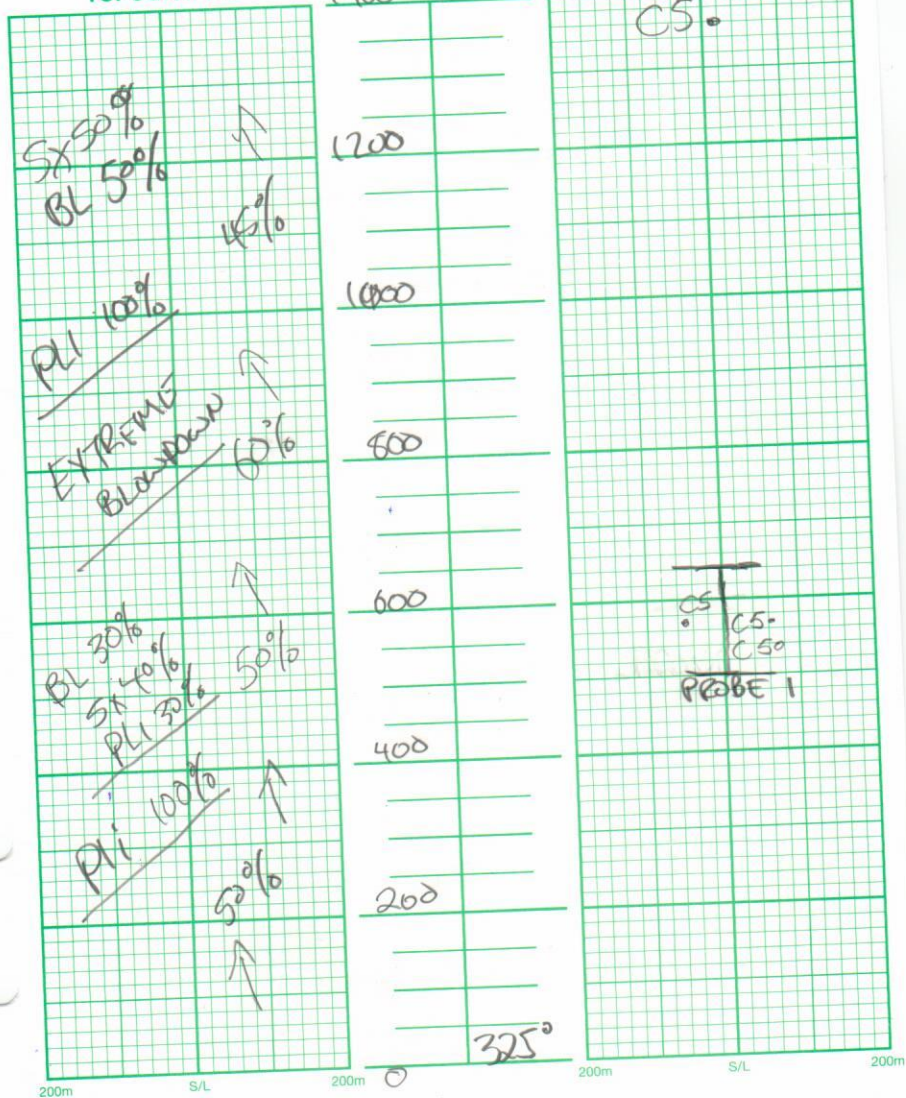
TOPOGRAPHY

STRIP No.

GERO29

DEC 17

TIMBER TYPE



STRIP NO.:

DIRECTION:

START STRIP:

DATE:

DEC 17 / 2016

JOB NO.:

CREW:

JK

REMARKS:



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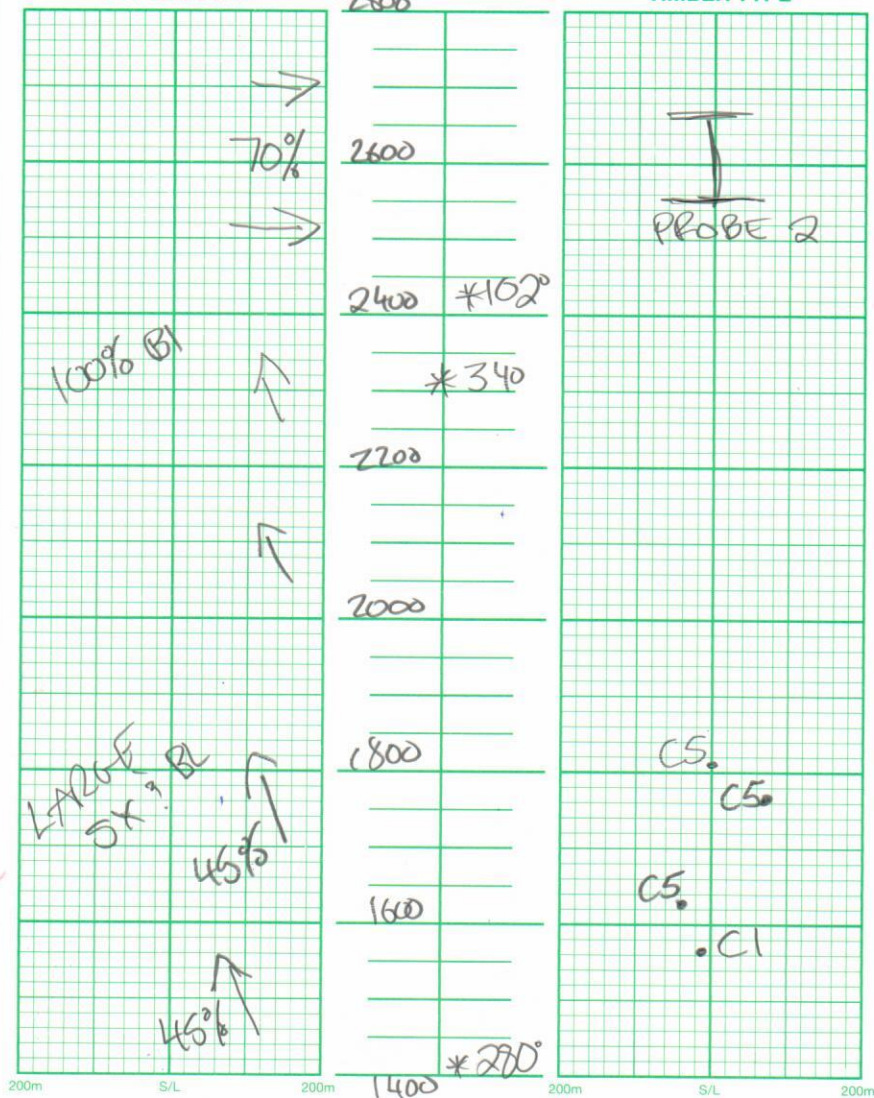
TOPOGRAPHY

STRIP No.

GER 029

2800

TIMBER TYPE



STRIP NO.: _____ DIRECTION: _____

START STRIP: _____

JOB NO.: _____ DATE: DEC 17

CREW: JK

REMARKS: _____

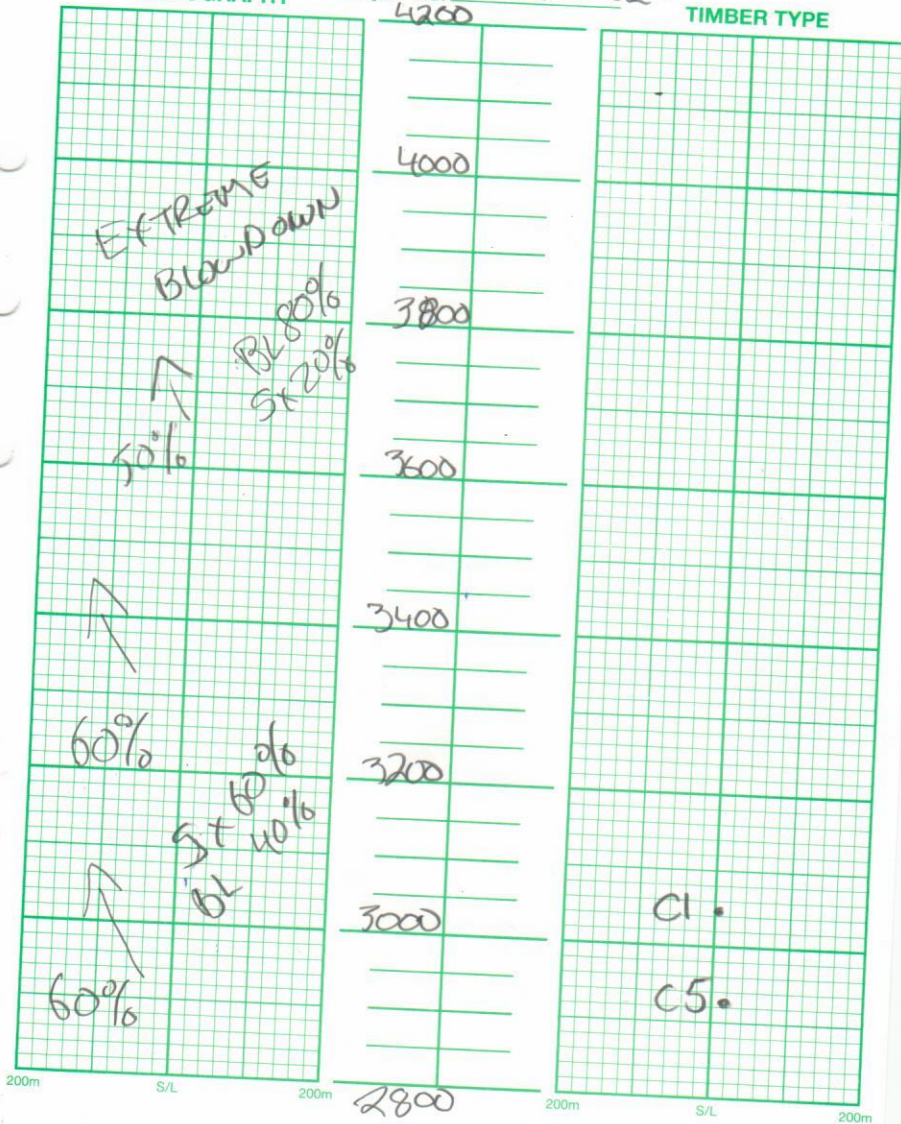

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TOPOGRAPHY

STRIP No.

GER 029

TIMBER TYPE



STRIP NO.: _____ DIRECTION: _____
 START STRIP: _____
 JOB NO.: _____ DATE: DEC 17
 CREW: JK
 REMARKS: _____



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ERP

30%

45%

[illegible][illegible]

200m

S/L

200m

4200

200m

S/L

200m

STRIP NO.:

DIRECTION:

START STRIP:

DATE:

JOB NO.:

CREW:

REMARKS:



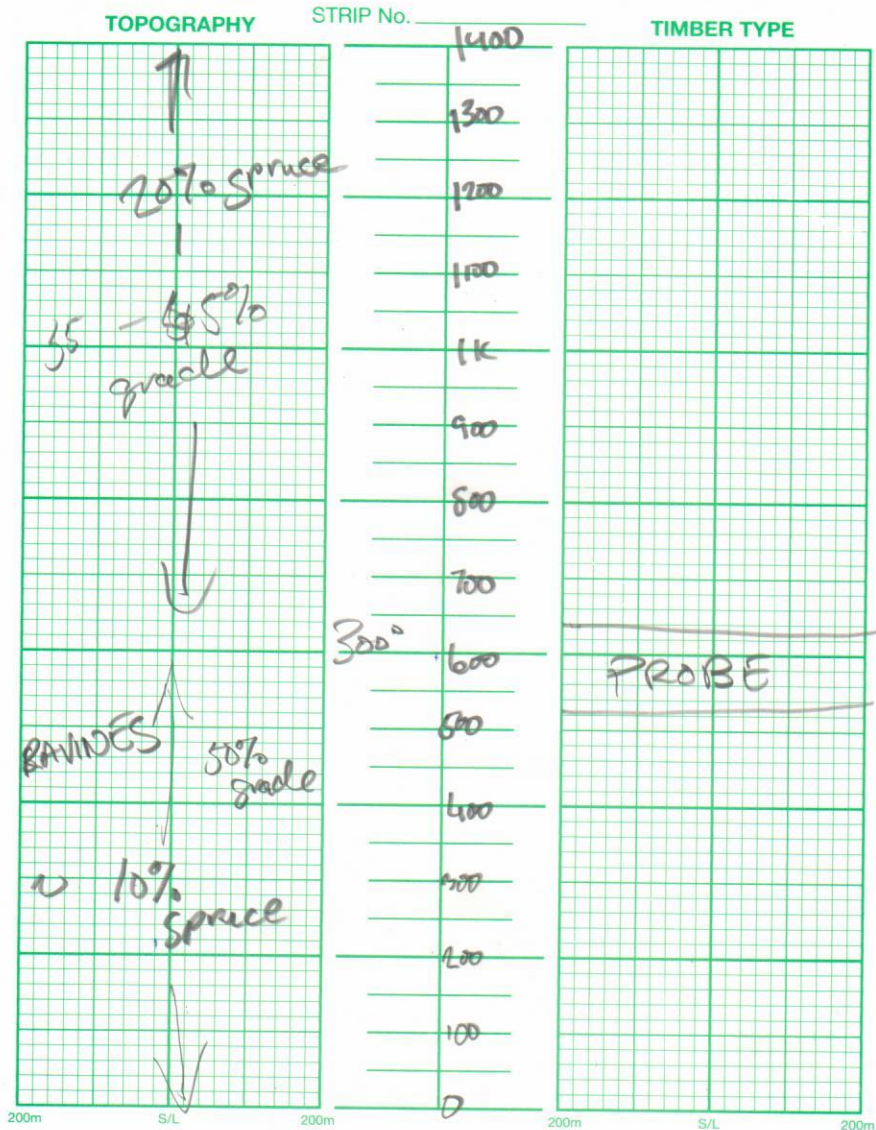
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**SPRUCE BEETLE
PROBE CARD**

LOCATION 0392649		6172361		PAGE 1 OF 2					
BEARING NE		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								
45.1 - 50.0	13.8								
50.1 - 55.0	16.2								
55.1 - 60.0	18.7								
60.1 +	25.3								
TOTALS		5	1						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	3	2	0						
S	2	0	1						
COMMENTS Bark sample 30% SP - 70% Balsam 50% grade									
CREW NAMES Darryl Dabee						DATE 16/12/17			


**SPRUCE BEETLE
PROBE CARD**

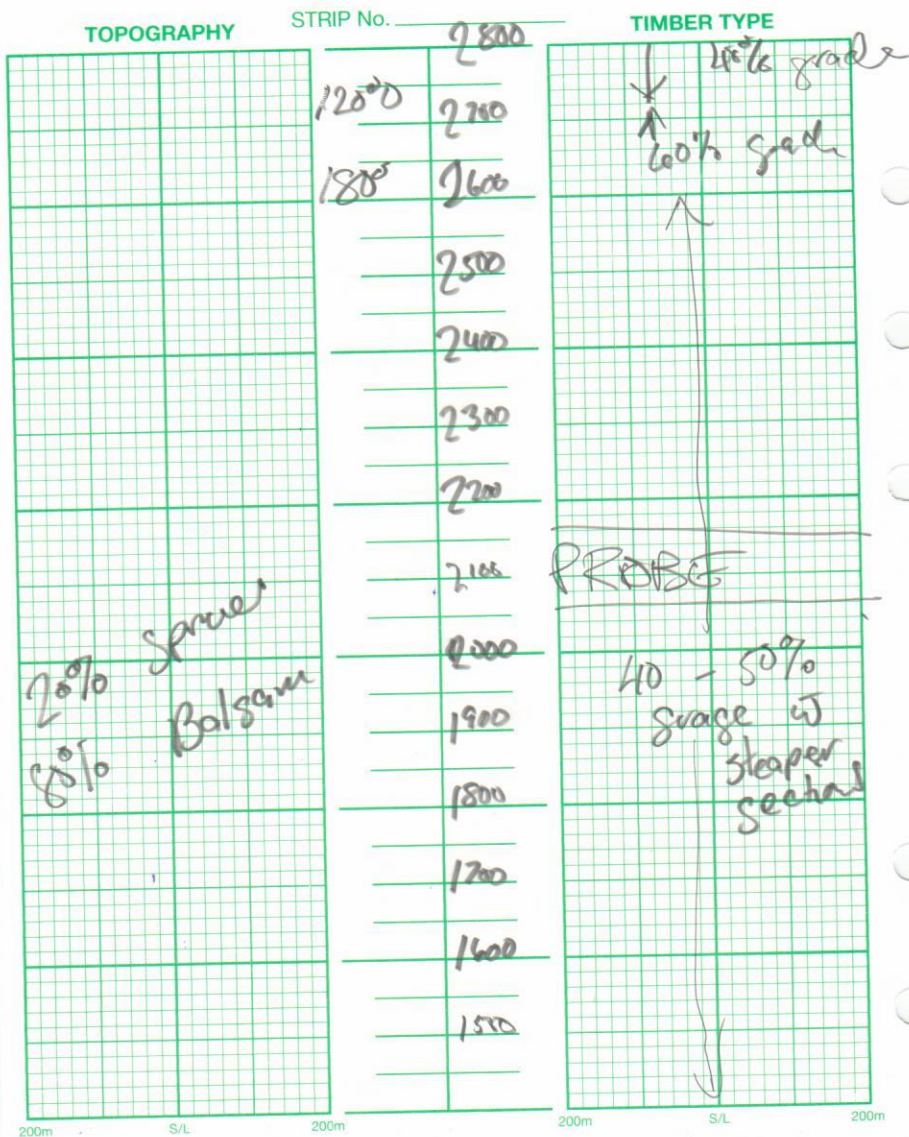
LOCATION 0392085		6173000		PAGE 2 OF 2						
BEARING 300°		DISTANCE 100m		STRIP WIDTH 10m						
DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			1	2	3	4	5	6		
17.5 - 25.0	3.3									
25.1 - 30.0	5.3									
30.1 - 35.0	7.1									
35.1 - 40.0	9.4									
40.1 - 45.0	11.6									
45.1 - 50.0	13.8									
50.1 - 55.0	16.2									
55.1 - 60.0	18.7									
60.1 +	25.3									
TOTALS		31							12	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
10	4	3	1							
5	5	2	1							
COMMENTS @ Bark sample 60% grade spruce pipe runs through										
CREW NAMES Darryl D						DATE Y M D 16 12 17				



STRIP NO.: 1 DIRECTION: _____
 START STRIP: 0m
 JOB NO.: GR-029 DATE: Dec. 17, 2016
 CREW: DD
 REMARKS: _____



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STRIP NO.: _____ DIRECTION: 345°

START STRIP: 1400 m

JOB NO.: _____ DATE: _____

CREW: _____

REMARKS: _____

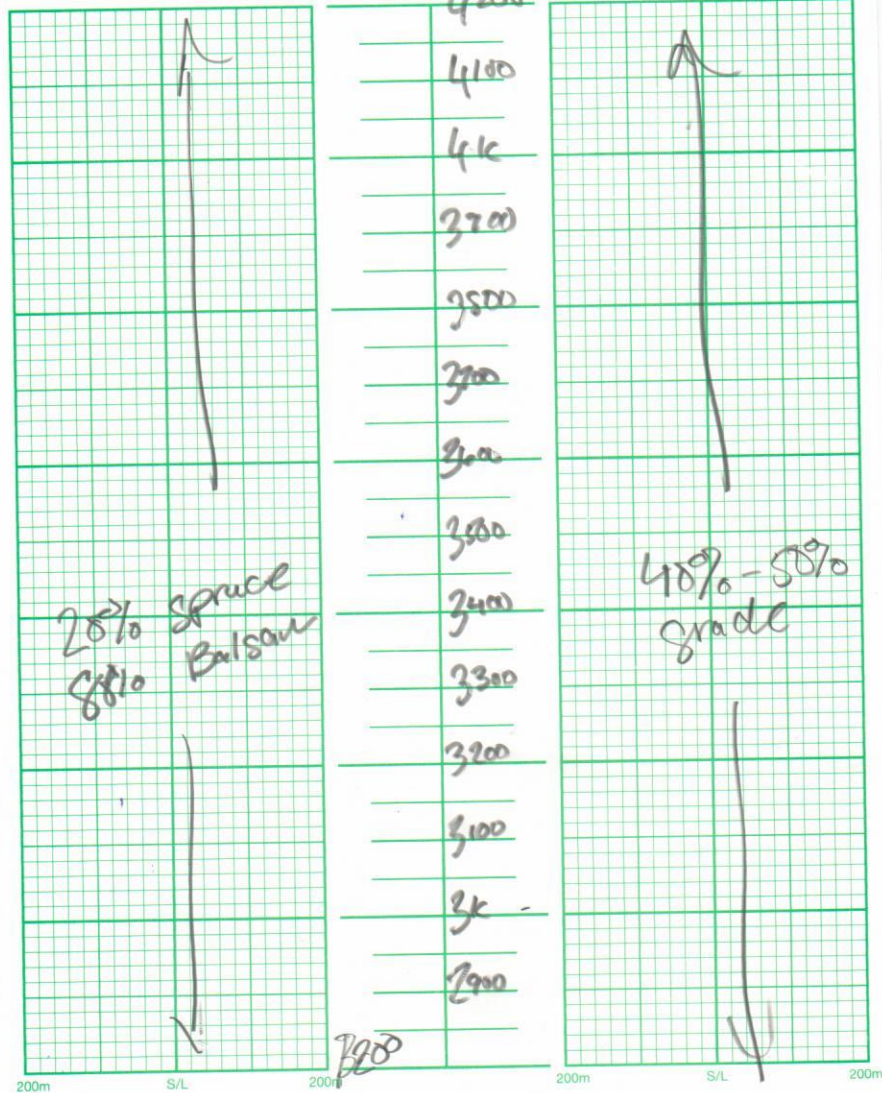


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TOPOGRAPHY

STRIP No. 4200

TIMBER TYPE



STRIP NO.:

DIRECTION: 120°START STRIP: 2800m

JOB NO.:

DATE:

CREW:

REMARKS:

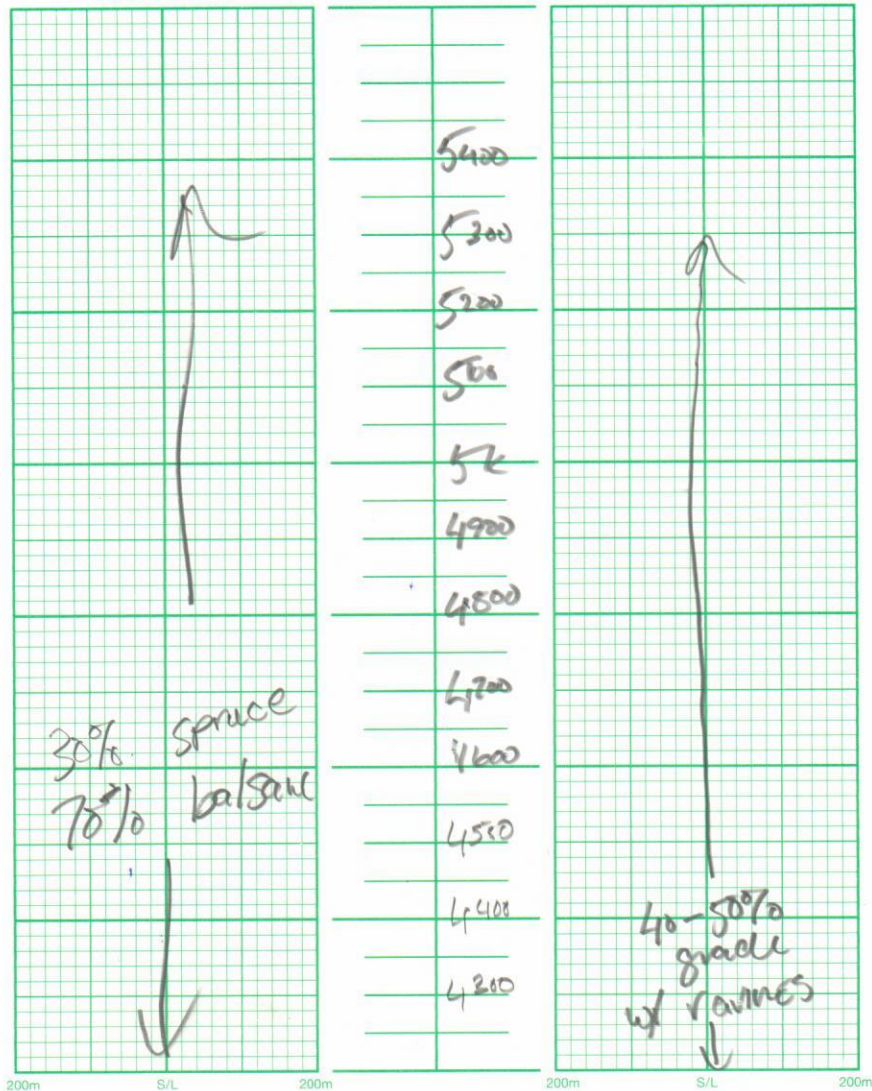


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TOPOGRAPHY

STRIP No. _____

TIMBER TYPE



STRIP NO.:

DIRECTION:

120°

START STRIP:

4100m

JOB NO.:

DATE:

DEC 17/16

CREW:

REMARKS:

TERRIBLE TERRAM



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very steep
heavy Blowdown

90° bearing
140° bearing

35-45cm
80Sx/10P11/10B1

Rolling hills

270° bearing

90P11/10Sx
25-30cm

Rolling hills
10° bearing

Germangen Poly POC 10U0392845
6171651

Aaron Colebank, Dec 17th, 2016

End

4750

4500

overlap

4000

180° bearing

80/PI/205x

PI/D

3500

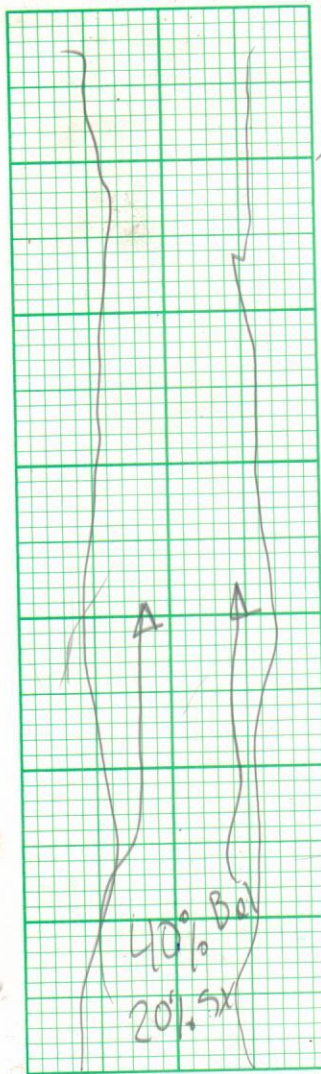
3250

Aaron Colebank Dec 17th

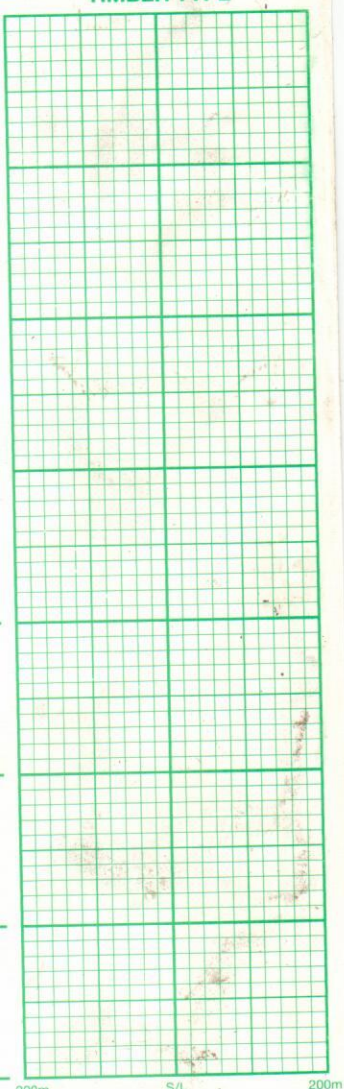
TOPOGRAPHY

STRIP No. 1

TIMBER TYPE



700	
600	60
500	
400	
300	
200	340
100	380
0	550



STRIP NO.: 1 DIRECTION: 55°, 38°, 340°
 START STRIP: 0-100
 JOB NO.: GEM-029 DATE: Dec 17, 19
 CREW: Pat Boirier
 REMARKS:



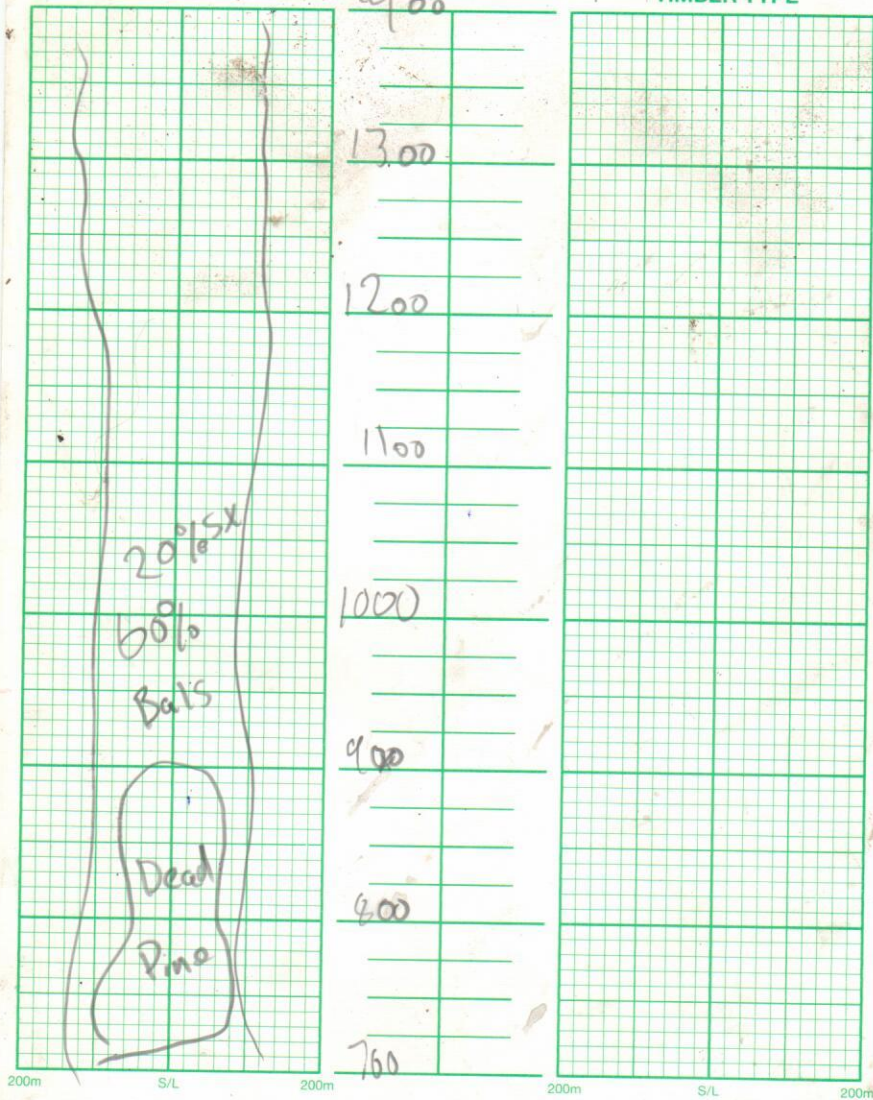
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TOPOGRAPHY

STRIP No.

100-1402

TIMBER TYPE



STRIP NO.:

2

DIRECTION:

3, 4/50

START STRIP:

700

JOB NO.:

GEM-029

DATE:

Dec 17, 16

CREW:

Pat Poirier

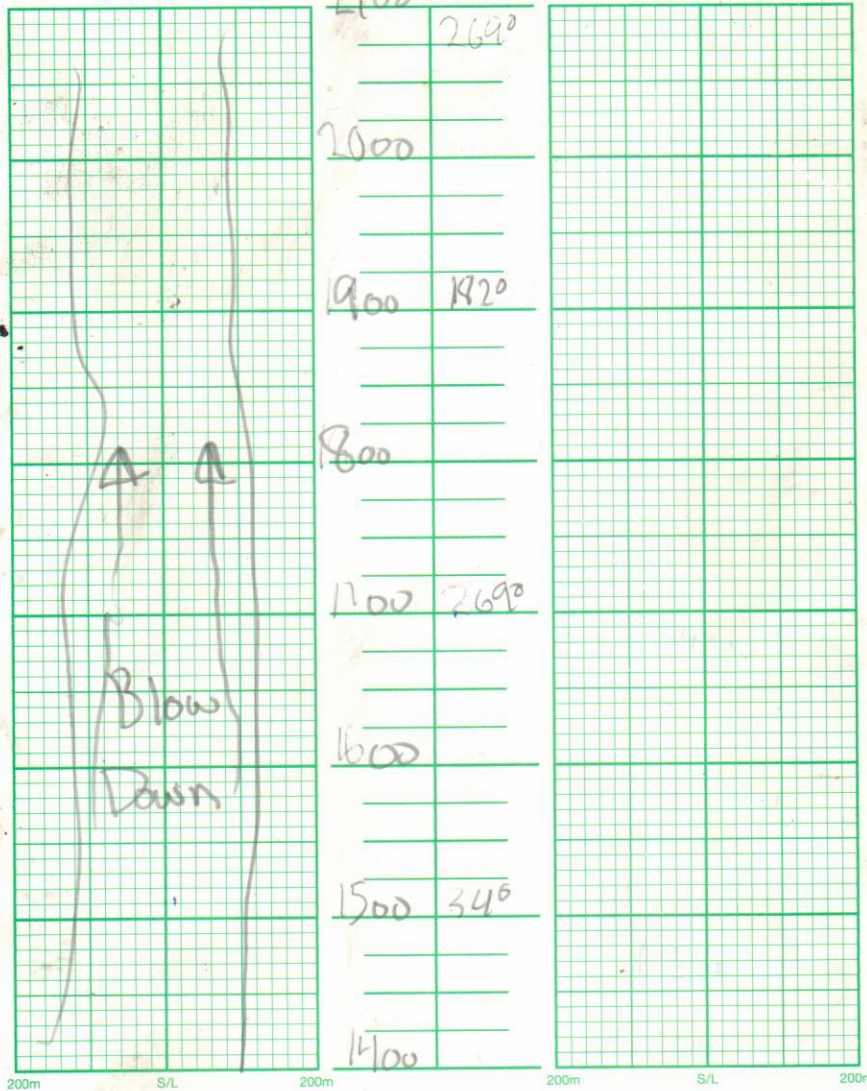
REMARKS:

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TOPOGRAPHY

STRIP No. 1400-2100

TIMBER TYPE



STRIP NO.:

3

DIRECTION:

346°, 269°, 182°

START STRIP:

1400

JOB NO.:

GEM-029

DATE:

Dec 17, 16

CREW:

Pat Poirier

REMARKS:

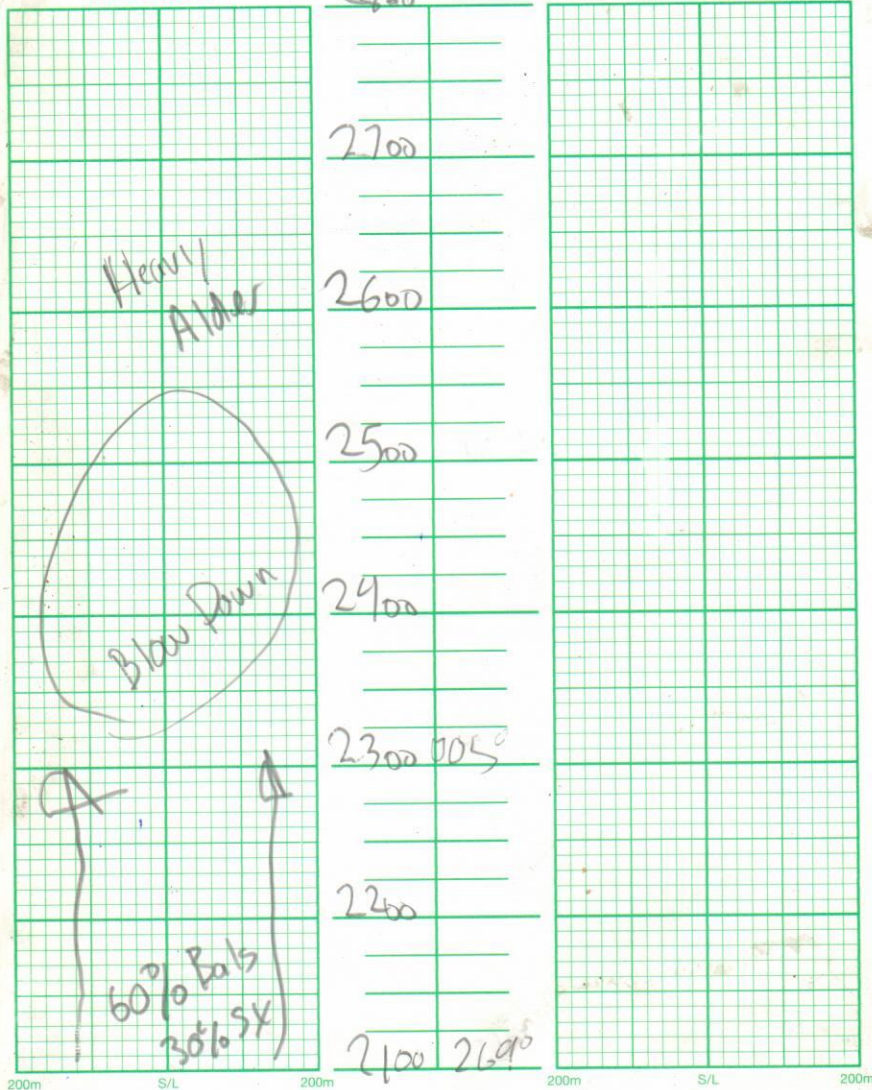


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Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. 2100-2800

TIMBER TYPE



STRIP NO.: 41 DIRECTION: 2690, 005
 START STRIP: 2100
 JOB NO.: GEN-029 DATE: Dec 17, 16
 CREW: Pat Poinier
 REMARKS: _____

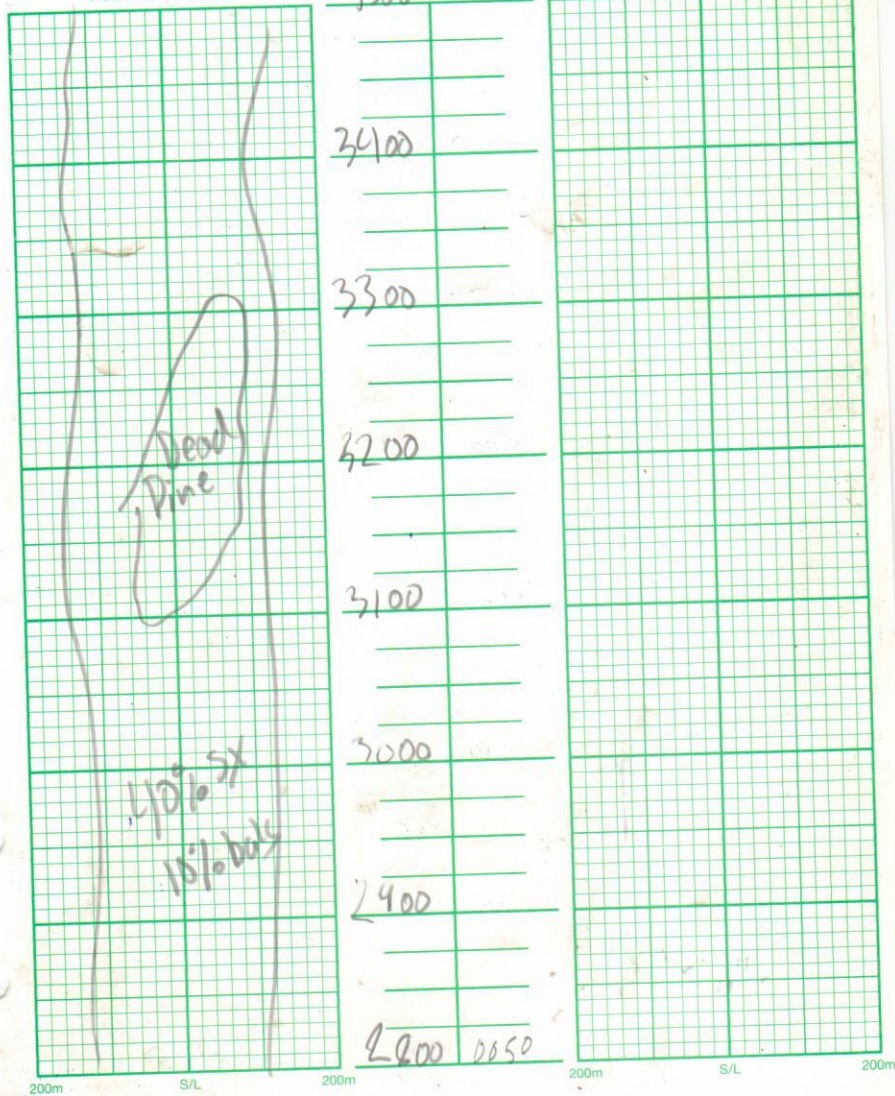


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TOPOGRAPHY

STRIP NO. 2800-3500

TIMBER TYPE



STRIP NO.: 5 DIRECTION: 005°
 START STRIP: 2800
 JOB NO.: GEM-029 DATE: Dec 17, 16
 CREW: Pat Poirier
 REMARKS:

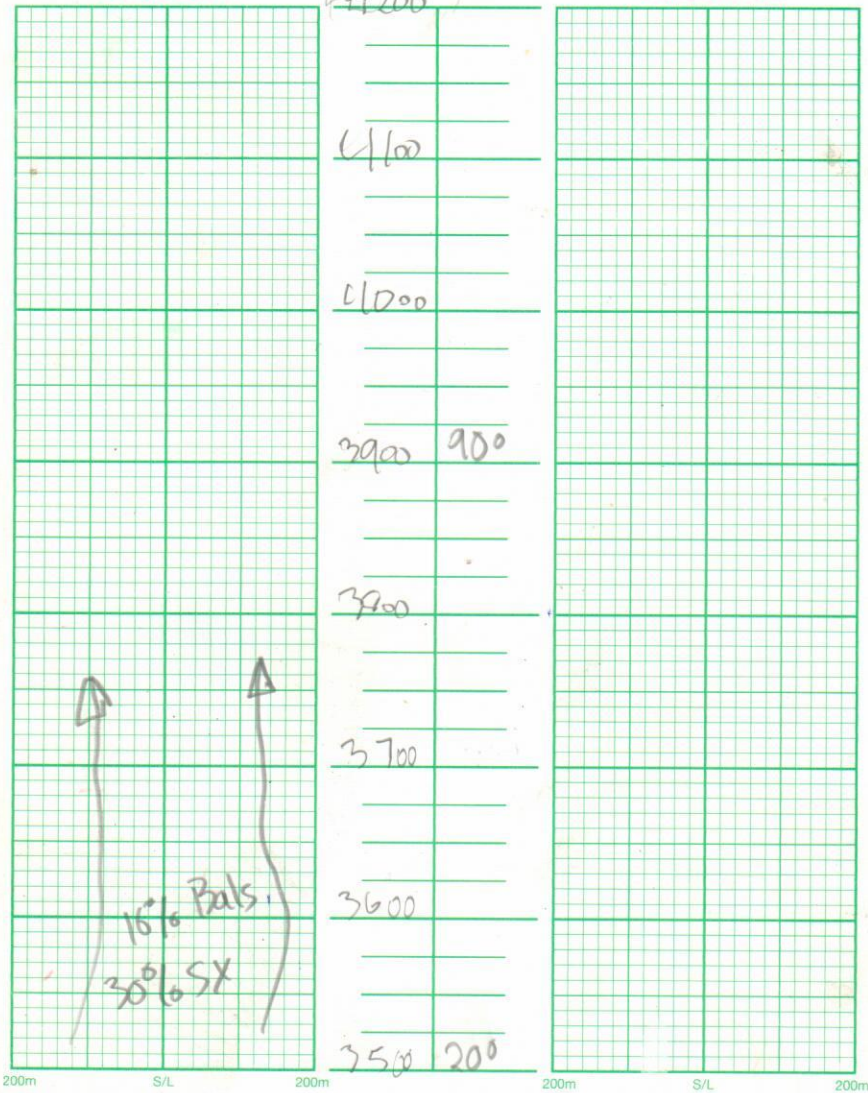


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TOPOGRAPHY

STRIP No. 3500-4200

TIMBER TYPE



STRIP NO.:

6

DIRECTION:

20°

START STRIP:

3500

JOB NO.:

GEM-029

DATE:

Dec 17, 16

CREW:

Pat Prairie

REMARKS:

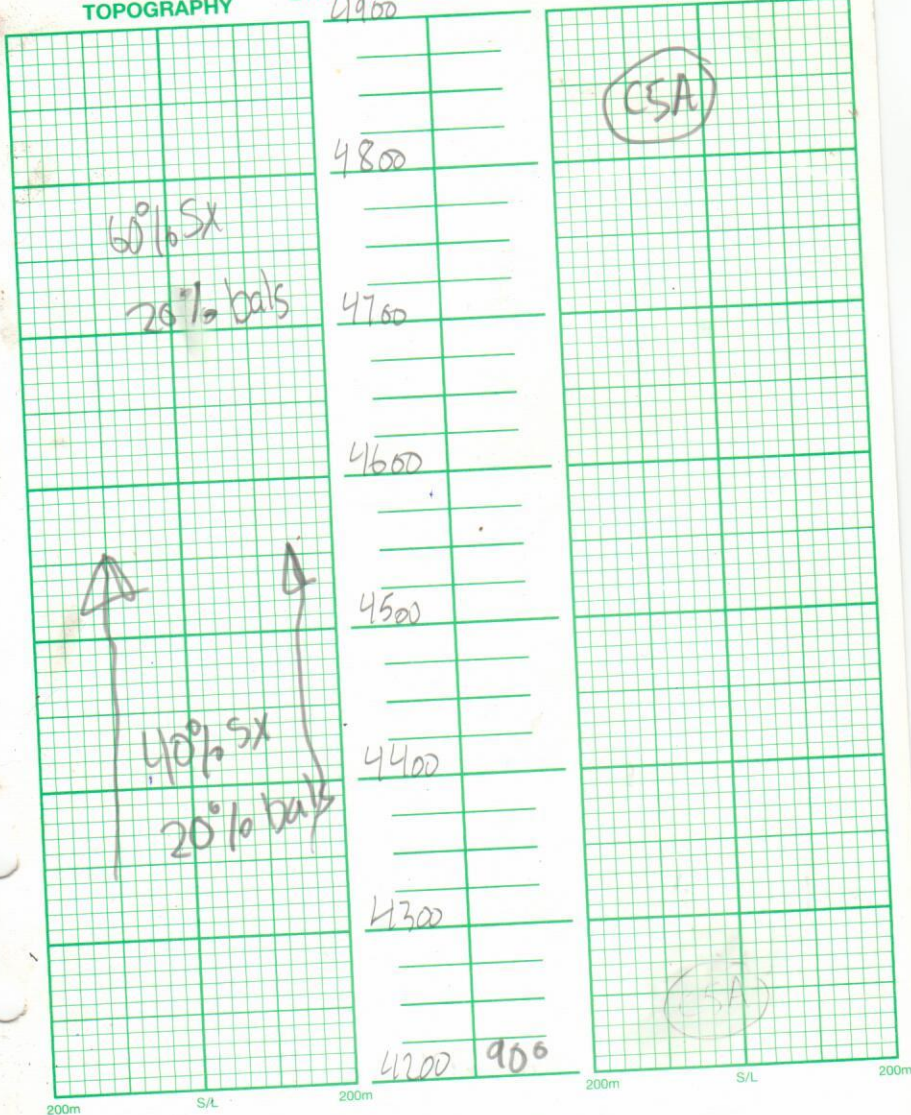


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TOPOGRAPHY

STRIP No. 4100

TIMBER TYPE



STRIP NO.: 7 DIRECTION: 90°
 START STRIP: 4200
 JOB NO.: GEM-029 DATE: Dec 17, 16
 CREW: Pat Poirier
 REMARKS: _____



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TOPOGRAPHY

STRIP No. 4900-5700

TIMBER TYPE

TOPOGRAPHY	STRIP No.	TIMBER TYPE
	5700	
	5600	
	5500	
	5300	
Dead Pine	5200	
30% SX	5100	172°
20% Bats		
	5000	
Flat		
	4900	90°

STRIP NO.:

6

DIRECTION:

90°, 172°

START STRIP:

4900

JOB NO.:

GEM, 029

DATE:

Dec 17, 16

CREW:

Pat Poirier

REMARKS:

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TIMBER TYPE

200г

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