435000 436000 437000

CP D59
22/07/2013
ACTIVE

**Polygon Name: 2014-GAF-008**

Manson River

-299860000

-299860000

101643

-299830000

-299860000

-299860000

59737

-308870000

1- Code-1 ATTACK

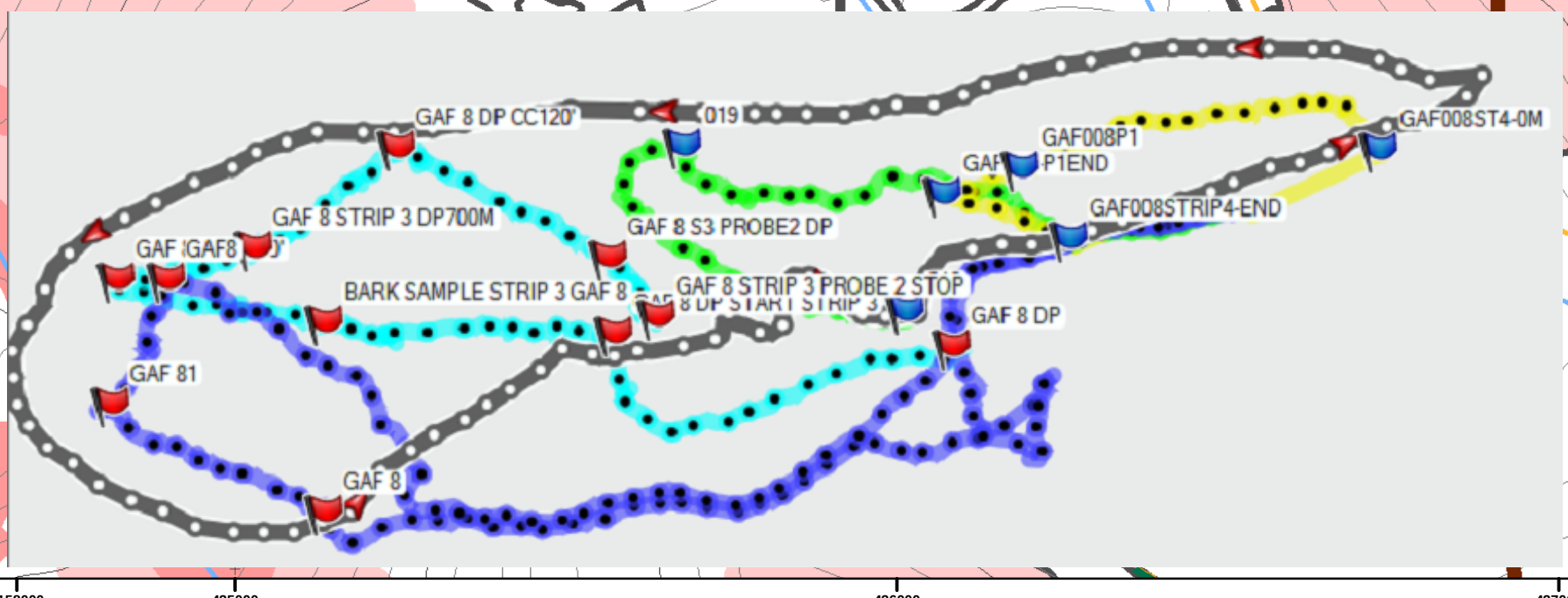
-299830000

122085

-299820000

-299820000

6160000 6159000 6158000




6158000 435000 436000 437000

Ministry of Forests, Lands and Natural Resource Operations

# Spruce Bark Beetle Field Map

**Polygon Name: 2014-GAF-008**

| | |
|---|---|
| Landscape Unit/BMU: | Gaffney |
| Region: | Omineca |
| District: | Mackenzie |
| Mapsheet: | 093N09 |
| Hectares: | 56.37 |
| 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

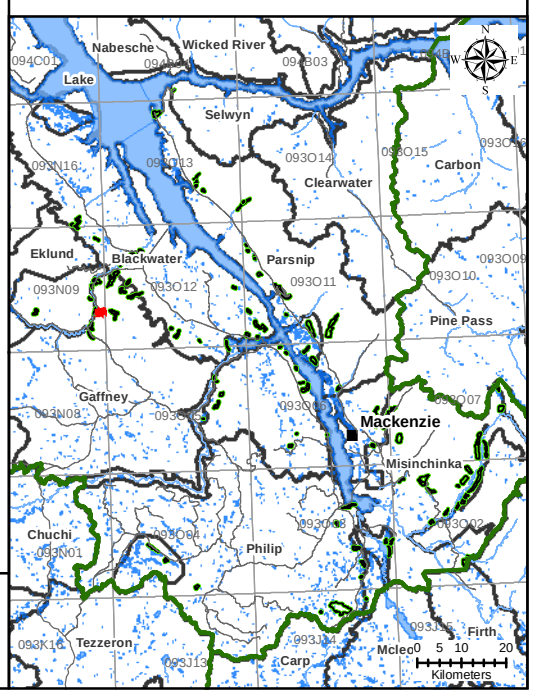
N W E S

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: GAF-008 HECTARES: 56.37

WALKTHROUGH DISTANCE: 3600

ESTIMATED INFFESTED PIXELS FROM WALKTHROUGH (Code 1-4) 1 **2.8%**

**SUMMARY OF CURRENT INFESTATION**

Walkthrough found minimal recent Infestation with lots of older attack. 1 code 1 found on walkthrough, bark sample done, Code 1 with larvae (2 year cycle)

VERY LIGHT SCATTERED ATTACK

**ACCESS**

Access by 4wd to NE corner and than ATV along south oof polygon to access into the west. (Lots of cutting completed to open road)

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

Steeper slopes along northwest portion of Polyggon. Several drainages throughout with moderate slopes with them. Polygon had roughly 60% spruce from walkthrough numbers.

**SIZE, BOUNDARY and PATTERN OF INFESTATION**

Very light scattered attack with 1 code1 found in middle of polygon along slope.

**INCIDENCE AND SEVERITY OF ATTACK**

2 probe lines established, no recent attack found. Very low incidence and severity of attack, one Code 1 found in walkthrough. Lots of old Code 5 attack scattered throughout.

**RISK OF BEETLE SPREAD**

Low as minimal beetle found. Older cutblocks surround polygon and Polygon 2014-GAF-005A located to the West with minimal ttack.

**ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES**

Good access to east half of polygon, old road runs into the West boundary

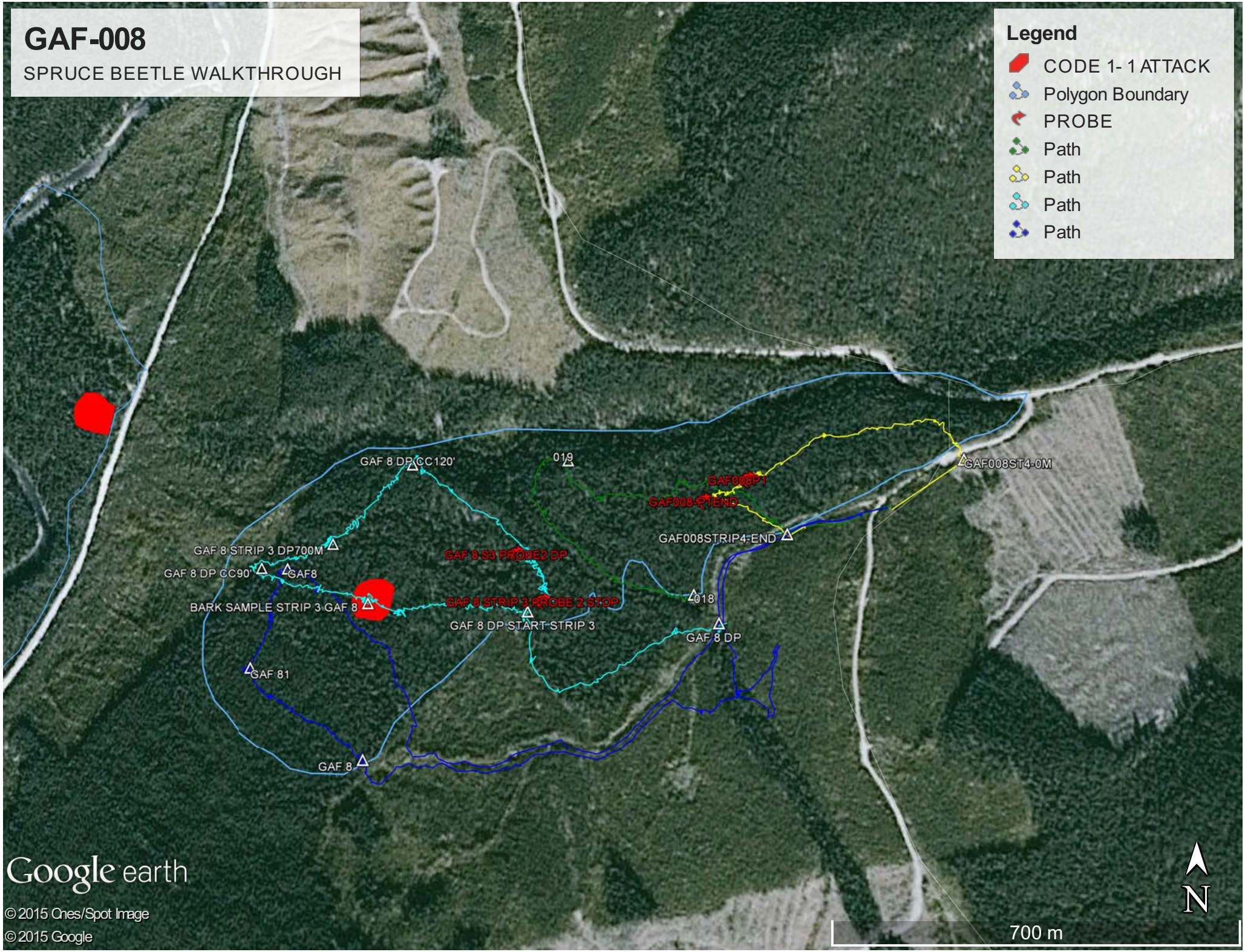
**RECOMMENDATIONS**

**OPTION 1** **MONITOR**

**Minimal scattered attack. Monitor as alongside road with decent access**

**OPTION 2** **LEAVE/ NO ACTION**

**Minimal attack.**


GAF-008
SPRUCE BEETLE WALKTHROUGH
Legend
CODE 1- 1 ATTACK
Polygon Boundary
PROBE
Path
Path
Path
Path
GAF 8 DP CC120'
019
GAF008P1
GAF008 P1END
GAF008ST4-0M
GAF008STRIP4-END
GAF 8 STRIP 3 DP700M
GAF 8 S3 PROBE2 DP
GAF 8 DP CC90'
GAF8
BARK SAMPLE STRIP 3 GAF 8
GAF 8 STRIP 3 PROBE 2 STOP
018
GAF 8 DP START STRIP 3
GAF 8 DP
GAF 81
GAF 8
Google earth
© 2015 Cnes/Spot Image
© 2015 Google
N
700 m

# Summary

| | | | | | | |
|---|---|---|---|---|---|---|
| GAF-008 | | 56.37 | METERS WALKED | 3600 | % TRAVERSED | 6.4% |
| PIXELS COVERED BY WALKTHROUGH | 36 | INFESTED PIXELS | 1 | **ESTIMATED % OF BLOCK INFESTED (From Walk through)** | | **2.8%** |

## 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 | 16.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 |
| 25.1-30.0 | 5.3 | 37.1 | 0.0 | 0.0 | 0.0 | 0.0 | 15.9 | 0.0 | 42.4 |
| 30.1-35.0 | 7.1 | 28.4 | 0.0 | 0.0 | 0.0 | 0.0 | 92.3 | 0.0 | 35.5 |
| 35.1-40.0 | 9.4 | 28.2 | 0.0 | 0.0 | 0.0 | 0.0 | 28.2 | 0.0 | 18.8 |
| 40.1-45.0 | 11.6 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 |
| 45.1-50.0 | 13.8 | 96.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 50.1-55.0 | 16.2 | 64.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.2 |
| 55.1-60.0 | 18.7 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 60.1 + | 25.3 | 25.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| TOTALS | 433.3 | 296.9 | 0.0 | 0 | 0.0 | 0.0 | 136.4 | 0 | 149.3 |

## 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 |
| 0.00 | < 3.9 SEVERE Attack Density | 0.00 | >24.9 EXTREME Mean Larval Density |

## TABLE 2- Spruce Beetle Management Options after Walkthrough

| | | | | | |
|---|---|---|---|---|---|
| % 2015 ATTACK | 0.0% | 0.0 | SANITATION AND SALVAGE HARVEST PRIORITY RATING | | |
| % 2014 ATTACK | 0.0% | ## | LIGHT | 0-599 | LEAVE (Monitor, Trap Trees, Baits, etc) |
| % 2013 ATTACK | 31.5% | ## | MODERATE | 600-999 | PROBE (To Obtain Further Info) |
| % HOST IN STAND | 74.4% | ## | HEAVY | 1000+ | RECOMMEND CRUISING/ LOGGING |
| | | | | | 585.3 |

Probe line shows 74% spruce, however walkthrough numbers show more like 60% spruce

# SUMMARY OF ALL CARDS FS1111

**NUMBER OF CARDS** 2

ACCESS - Access by 4wd to NE corner and than ATV along south oof polygon to access into the west. (Lots of cutting completed to open road)

POLYGON FEATURES - Steeper slopes along northwest portion of Polyggon. Several drainages throughout with moderate slopes with them. Polygon had roughly 60% spruce from walkthrough numbers.

| 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 | PL |
| 17.5-25.0 | 3.3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 25.1-30.0 | 5.3 | 7 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 4 |
| 30.1-35.0 | 7.1 | 4 | 0 | 0 | 0 | 0 | 13 | 0 | 1 | 4 |
| 35.1-40.0 | 9.4 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 |
| 40.1-45.0 | 11.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 45.1-50.0 | 13.8 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50.1-55.0 | 16.2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 55.1-60.0 | 18.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60.1 + | 25.3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | 31 | 0 | 0 | 0 | 0 | 19 | 0 | 8 | 14 |

| BARK SAMPLES 15 cm x 15 cm | NO. ENTRANCE HOLES | NO. PARENT ADULTS | NO. LARVAE | NO. PUPAE ADULTS | NO. CALLOW | FRESH (GREEN) BLOWDOWN Attacked Yr | Yr ____ | Unattacked |
|---|---|---|---|---|---|---|---|---|
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION

Very light scattered attack with 1 code1 found in middle of polygon along slope.

INCIDENCE AND SEVERITY OF THE INFESTATION

2 probe lines established, no recent attack found. Very low incidence and severity of attack, one Code 1 found in walkthrough. Lots of old Code 5 attack scattered throughout.

RISK OF BEETLE SPREAD

Low as minimal beetle found. Older cutblocks surround polygon and Polygon 2014-GAF-005A located to the West with minimal ttack.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Good access to east half of polygon, old road runs into the West boundary

## SPRUCE BEETLE PROBE CARD

| LOCATION | | PAGE | OF |
|---|---|---|---|
| GAF 8 | N55°34.629' W124°01.121' | 1 | 1 |

| BEARING | DISTANCE | STRIP WIDTH |
|---|---|---|
| 150° | 100 m | 10 m |

| 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 | IIII | | | | | | | BII |
| 25.1 - 30.0 | 5.3 | IIIII | | | | | III | | I |
| 30.1 - 35.0 | 7.1 | I | | | | | IIII | | I |
| 35.1 - 40.0 | 9.4 | | | | | | II | | |
| 40.1 - 45.0 | 11.6 | | | | | | | | |
| 45.1 - 50.0 | 13.8 | IIII | | | | | | | |
| 50.1 - 55.0 | 16.2 | III | | | | | | | I |
| 55.1 - 60.0 | 18.7 | | | | | | | | |
| 60.1 + | 25.3 | | | | | | | | |
| TOTALS | | 17 | | | | | 17 | | 5 |

| 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: Don & Dave

DATE: Y 15 M 10 D 16

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

GAF-008 Probe 1

## SPRUCE BEETLE PROBE CARD

| LOCATION | | PAGE | OF |
|---|---|---|---|
| 55°34'42.5" | 124°00'41.8" | 1 | 1 |

| BEARING | DISTANCE | STRIP WIDTH |
|---|---|---|
| 246° | 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 | |
| 17.5 - 25.0 | 3.3 | I | | | | | | | |
| 25.1 - 30.0 | 5.3 | II | | | | | | | IIII |
| 30.1 - 35.0 | 7.1 | III | | | | | | | |
| 35.1 - 40.0 | 9.4 | III | | | | | I | | |
| 40.1 - 45.0 | 11.6 | | | | | | | | |
| 45.1 - 50.0 | 13.8 | III | | | | | | | |
| 50.1 - 55.0 | 16.2 | I | | | | | | | |
| 55.1 - 60.0 | 18.7 | | | | | | | | |
| 60.1 + | 25.3 | I | | | | | | | |
| TOTALS | | 14 | | | | | 1 | | 3 |

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

COMMENTS: no new attack - no beetle found

CREW NAMES: Don & Dave

DATE: Y 15 M 10 D 16

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

BARK SAMPLE

# SPRUCE BEETLE PROBE CARD

| LOCATION | | PAGE | OF |
|---|---|---|---|
| GAF 8 | N 55° 34.572' W 124° 01' 424' | 1 | 1 |
| BEARING | DISTANCE | STRIP WIDTH | |
| 270° | | | |

| 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 | | 1 | | | | | | |
| 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 |
| NORTH | 10 | NONE | 4 | NONE | NONE | | |
| SOUTH | 5 | NONE | 3 | NONE | NONE | | |

COMMENTS THIS TREE HAS BEEN WORKED OVER HEAVILY BY WOODY WOOD. P.

| CREW NAMES | DATE Y | M | D |
|---|---|---|---|
| DON & DAVE | 15 | 10 | 16 |

FS 1111 RRG 2000/01 7530981048 (100/bdl)

TOPOGRAPHY

STRIP No. GAF-008

TIMBER TYPE

small dead Pine

120° * End Probe

(5)

Start * Probe 1

Dead Pine
Few small healthy SX

Dead * Dead
Pine Pine
small healthy SX

Pine * Pine

(5)

* 276°

(5) (5)

(5) (5) (5) (5)

| | | |
|---|---|---|
| 700 | | 90% Pine<br>10% SX |
| 600 | gentle slope<br>SX 40-70 | 60% Pine<br>40% SX |
| 500 | gentle slpe<br>Sx-40-60 | 80% SX<br>20% Balsam |
| 400 | gentle slope<br>some blow-down | 90% Pine<br>10% SX |
| 300 | gentle slop | 90% Pine<br>10% SX |
| 200 | flat terrain<br>mostly pine | 90% Pine<br>10% SX |
| 100 | gentle slope<br>SX-40-70<br>blow-down | 90% SX<br>10% Balsam |

200m S/L 200m 200m S/L 200m

STRIP NO.: 4 DIRECTION: 333°

START STRIP:

JOB NO.: DATE: 15/10/16

CREW: Don & Dave

REMARKS:

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

TOPOGRAPHY

STRIP No. GAF-008

TIMBER TYPE

Smal * dead Pine/few SX

*

| | | |
|---|---|---|
| 1400 | | |
| 1300 | | |
| 1200 | | |
| 1100 | | |
| 1000 | | |
| 900 | | |
| 800 | gentle slope<br>road | 90% Pine<br>10% SX |
| 700 | | |

200m S/L 200m 200m S/L 200m

STRIP NO.: 4 DIRECTION: 120°

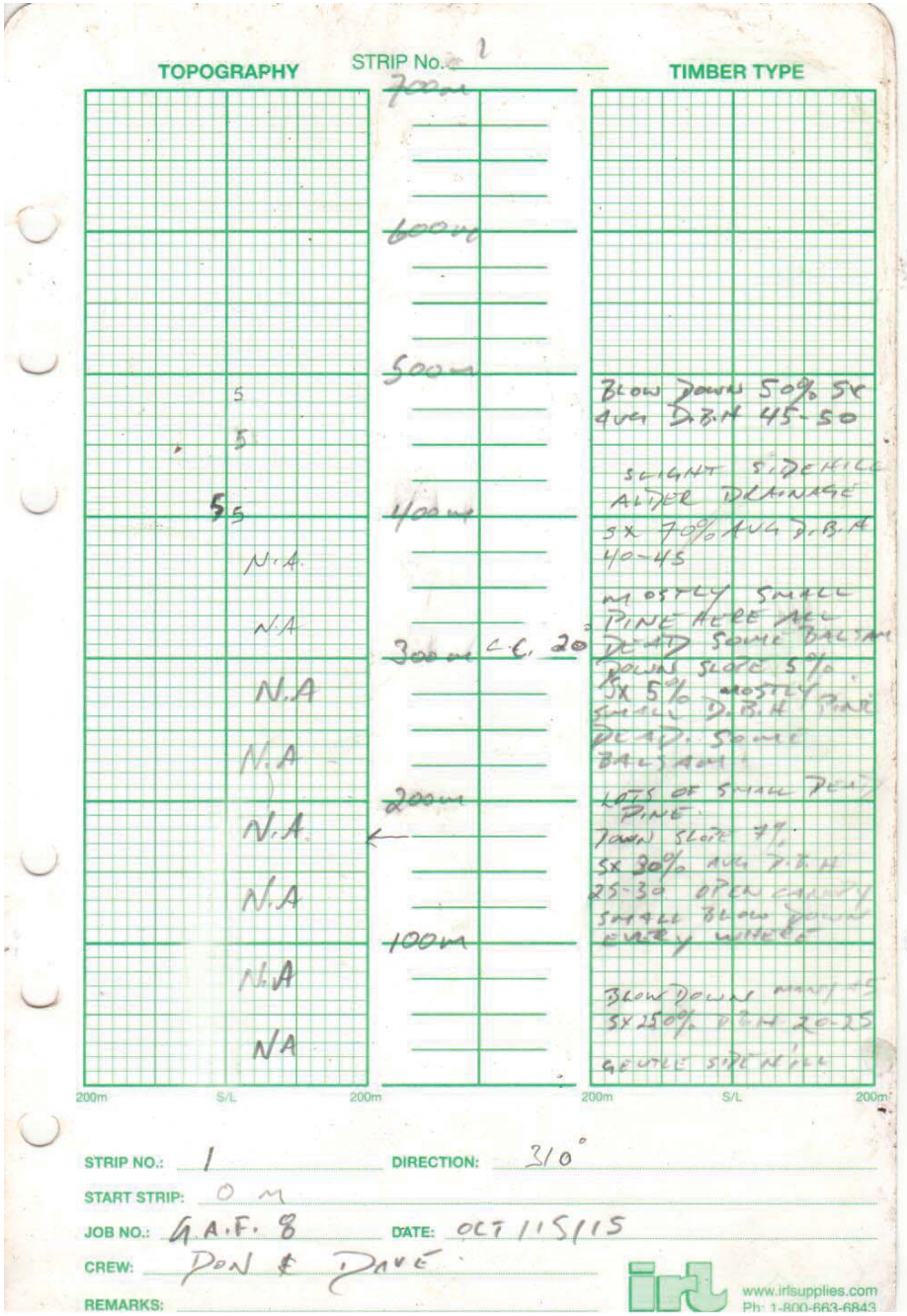
START STRIP:

JOB NO.: DATE: 15/10/16

CREW: Don & Dave

REMARKS:

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




STRIP NO.: 1 DIRECTION: 310°

START STRIP: 0 M

JOB NO.: G.A.F. 8 DATE: OCT 15/15

CREW: DON & DAVE

REMARKS:

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

STRIP NO.: 3 DIRECTION: 270°

START STRIP: 0

JOB NO.: G.A.F. 8 DATE: OCT/15/15

CREW: DON & DAVE

REMARKS: BUY HEATED PENCILS PLEASE

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

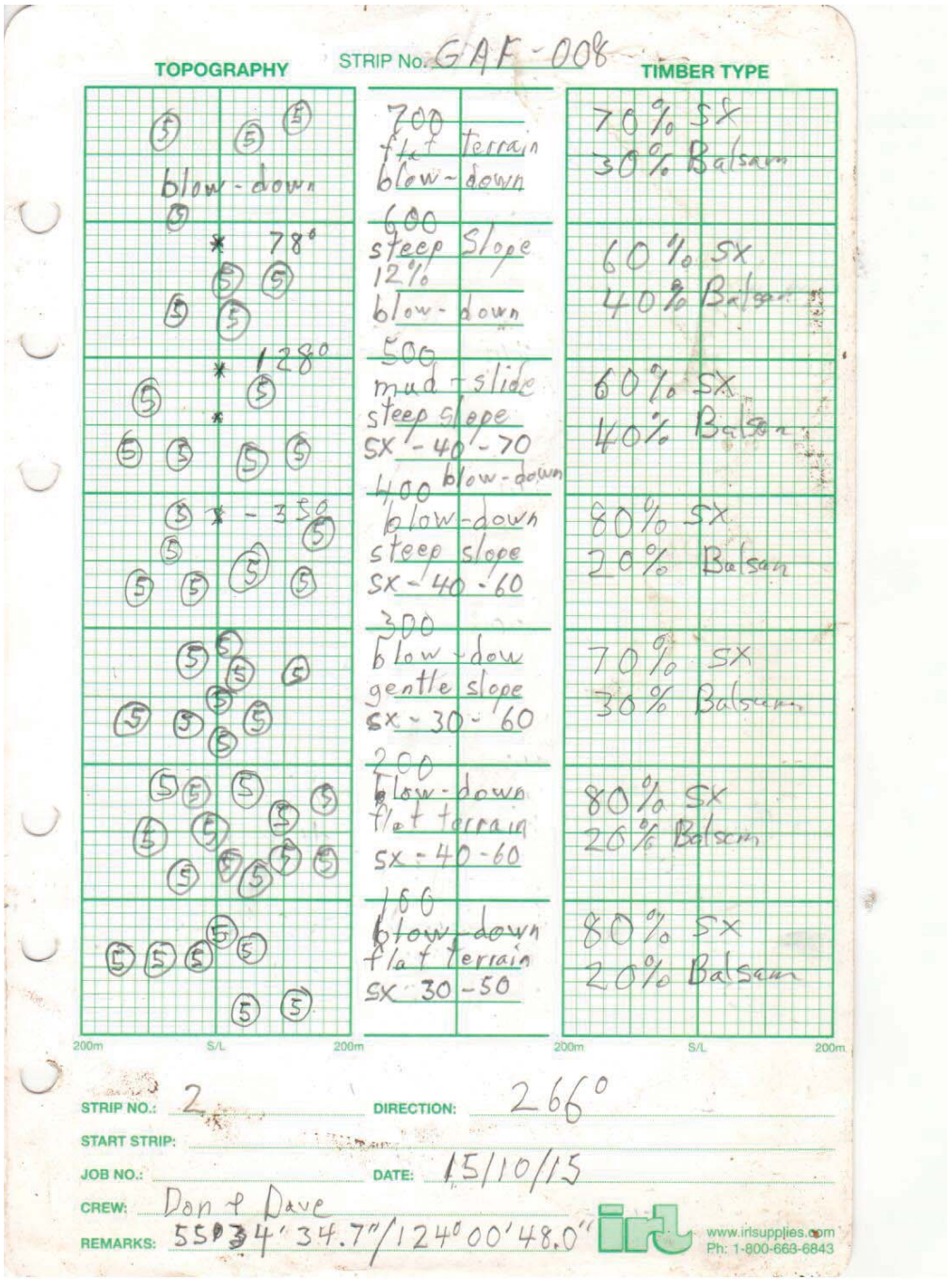
STRIP NO.: 3 DIRECTION: 56°

START STRIP: 900 m

JOB NO.: GAF - 8 DATE: OCT 16/15

CREW: DON & DAVE

REMARKS:




STRIP NO.: 2 DIRECTION: 266°

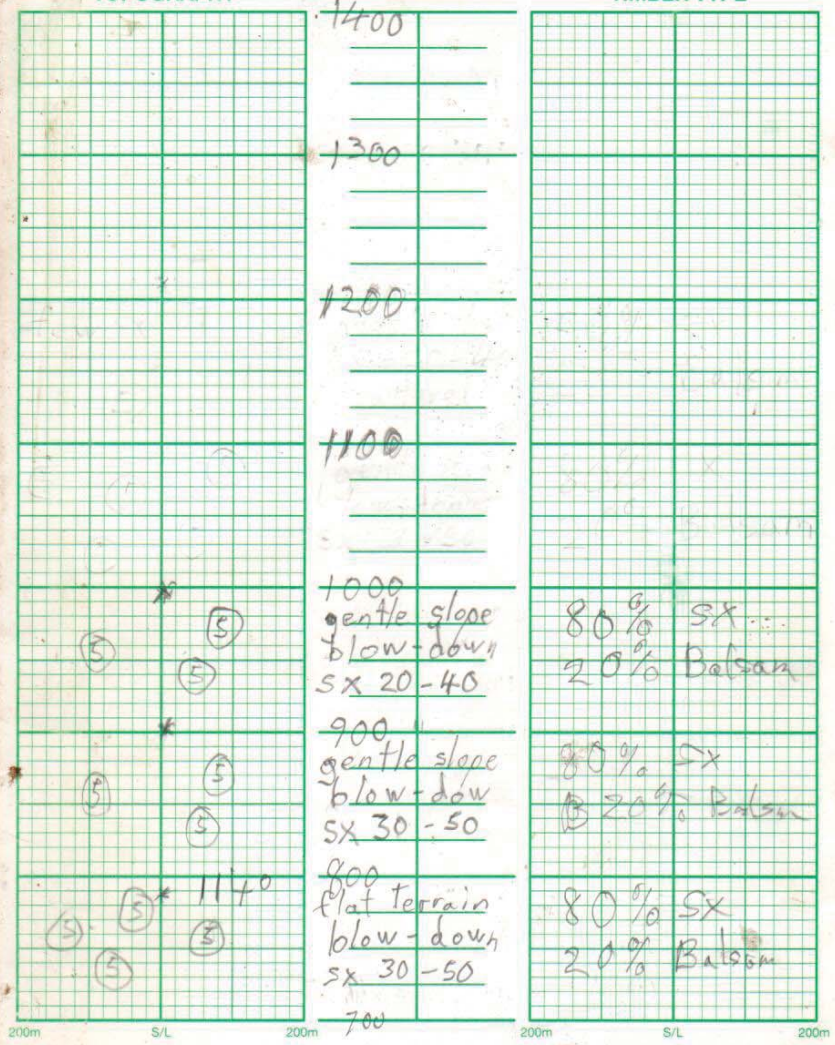
START STRIP:

JOB NO.: DATE: 15/10/15

CREW: Don & Dave

REMARKS: 55°34'34.7"/124°00'48.0"

**TOPOGRAPHY** STRIP No. GAF - 008 **TIMBER TYPE**







STRIP NO.: 2 DIRECTION: 78°

START STRIP:

JOB NO.: DATE: 15/10/13

CREW: Don & Dave

REMARKS:

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