

SOMERVILLE PLANTATION FIRE 1ST MARCH 1967.

Table of Contents

1. Summary
2. Diary of Events
3. Suppression Mopping up and Patrol
4. Area Burnt
5. Fuel Type
6. Weather Conditions
7. Fire Behaviour
8. Observations
9. Recommendations
10. Appendices
  - (a) Plan of Fires Position
  - (b) Cost

A D D E N D U M.

The following officers attended this fire at Somerville on the 31-~~1~~-68.

Mr. van Noort.  
Mr. Lejeune.  
Mr. Kesners.  
Mr. Bukelis.

With the exception of Mr. Bukelis, the above officers did not witness the ~~complete~~ application of "Phoscheck" and although this test cannot be regarded as conclusive, the general impressions gained was that "Phoscheck" was an effective checking agent, all were impressed with the result. Only a coating of the preparation, to the surface fuel was required to achieve this result, hereas saturation of the whole fuel profile would have been required by the use of water.

All Officers agreed that "Phoscheck" could be a worthwhile fire retardant for plantation fires.

Adverse comments recorded were, firstly, that the red colouring additive in the mixture was rather inconspicuous when applied to the red coloured needles on the surface of the fuel bed.

Secondly, that in the mopping up operation care had to be exercised in extinguishing treated incompletely burnt fuel, as this tendered to smoulder.

The disadvantages are not regarded as serious drawbacks once they are recognised and allowed for.

*A. J. Ashcroft*  
A. ASHCROFT.  
S.F.C.F.

2

DIARY OF EVENTS:

HOURS.

0457 Fire reported by phone to O.I.C. Somerville.

0503 S.F.C.F. Ashcroft alerted.

0505 A.F. Watson notified and asked to contact Melville Fire Brigade.

0510 D.F.O. Quain notified - standing by for reports.

0515 Somerville gang arrived at fire.

0525 Red Action called.

0525 Mundaring (Inspector Hewett) notified.

0530 S.F.C.F. Ashcroft and Melville Brigade arrived.

0550 O/Seer Feast and one man arrived ex Collier.

0600 F/G Walton arrived ex Gnangara.

0630 O/S Lindley, gang, light duty and Wanneroo Heavy duty arrived.

0635 D.F.O. Quain, P. Staley, Gnangara gang, Light Duty and Heavy Duty arrived.

0640 Inspector Hewett, A.D.F.O. Underwood, F/R Ashcroft and one man arrived.

0640 A/F O'Grady and one man in Light Duty.

0645 Control Point manned by Hewett.  
Pony Radios put into service.

0647 O/S Saunders and six men ex Carinyah arrived.

0648 Melville Fire Brigade left.

0650 Mundaring Gang, Light Duty and Heavy Duty arrived.  
Running fire stopped - mop up commences.  
Red Action called off.

0713 Mechanic (G.Gallager) in 4 x 4 Willys.

0728 Somerville gang sent home for breakfast.

0735 Ferguson Tractor (E. Moulds) arrived ex Collier.

0740 A/F Wells arrived.

0745 Ferguson Tractor (C. Postans) ex Gnangara.  
At 0810 hours the Collier O/Seer left the fire to return to Como and gangs were gradually withdrawn until by Midday only the local Somerville personnel were left at the fire assisted by a heavy duty from Mundaring Weir.

Manpower (at Peak) 11 Officers. 34 men.

REPORT ON SOMERVILLE FIRE - COMPT 29

Wednesday March 1st, 1967.

SUMMARY:

A fire was reported to F/R Bukelis at Somerville Headquarters by a settler, Mr. Bowman of Coolbellup, at 0457 hours on 1st March 1967. After rousing the settlement personnel, Mr. Bukelis climbed the fire tower to assess the location and size of the fire and notified S.F.C.F. Ashcroft at approximately 0503 hours. D.F.O. Quain was advised and stood by at Wanneroo until the Red Action was called at 0525 hours.

When the first gang arrived at the fire it was approximately 2.5 acres and it was burning strongly with a moderate ENE breeze.

Compartment 29 was planted in 1937 with Pinus Pinaster (South African Strain) which is mapped as Site Quality 3, and has been thinned to approximately 350 trees per acre. Current thinning operations were proceeding on the eve of the fire.

Debris inside the Southern boundary of the compartment, had been lightly control burned in Winter 1965 but there was an accumulation of tops along the outer edge of the compartment.

The running fire was stopped and the Red Action called off at 0650 hours, at which time the area burnt was 3.0 acres. Possible causes are discussed in the report which follows.

WEATHER CONDITIONS CONTD:

The Fire Danger rating for 0500 is 1.5 (green) and gusts of 24 knots raise this rating to 3.48 (brown) so the burning conditions were fairly severe even for a Jarrah forest.

FIRE BEHAVIOUR:

(a) GENERAL:

The headfire had run into the breaks by the time the first personnel arrived and so no comments can be made in regard to the intensity or rate of spread of the head fire. All available fuel on the ground was consumed and dry needle fuel in the crowns also burnt. In the previously unburnt section of the fire the flank fire was from 4 - 5 feet high while in the previously burnt section the flank was only 1½ - 2 feet in height.

(b) SPOTTING:

This was generally only about two chains in front of the head fire and the area it spotted into in Comp. 28 had been burnt during last winter and so the spots developed slowly.

OBSERVATIONS:

Because the fire was in recent thinnings an immediate inspection of all vehicles and equipment at work in the thinnings was carried out as soon as the running fire was stopped and while mopping up was proceeding. This inspection showed that a jib belonging to the contractor had a hole in the exhaust pipe in the vicinity of the front spring.

The fire started in Comp. 29 which is a good distance from a trafficable track among heavy thinning slash. The fire was only 2½ acres in size at 0515 hours and it was still dark when the first gangs arrived at this time.

It appears doubtful if the fire was lit by a person stumbling around in heavy slash away from a road.

The cause of the fire cannot be positively ascertained but it is considered more likely that the jib had ignited the duff along the extraction tracks during the day of the 28th February. This went unnoticed by the bush crew and it spread very slowly in the duff until early in the morning of the 1st March when it ignited the fuel off the track and the fire developed.

The Red Action section of the fire again worked well although it was slower to get underway because people had to be aroused and took some time to get organised.

The pony radios were used extensively at the fire and proved to be excellent for communication between the control centre and different sections of the fire.

The lower fire intensity in the recently control burnt areas was again evident and it was fortunate that the fire spotted into an area that had been control burnt last year. This reduced the number of fires starting from spots and also reduced the development of the resulting spot fires.

The early arrival of the Melville Fire Brigade was a welcome addition to the manpower at the fire in the early stages.

4

SUPPRESSION AND MOPPING UP:

The fire had moved in a general Westerly direction by the time suppression commenced, and was close to existing firebreaks on its Southern and Western flanks. For this reason, an attack was made on the Northern flank, after suppression of hopovers in Compt 28, which was extending steadily. The existence of extraction tracks at approximately 1 chain intervals enabled the use of Heavy Duty Units directly on the fire face, and mopping up teams using rakes followed up the dousing with water.

Spotting occurred up to two chains ahead of the fire and several men were deployed to contain these.

The running fire was stopped and a complete raked perimeter existed when mopping up commenced at 0650. Mopping up was done with pumpers and hand tools continuing into mid-morning with a 2 gangs and 3 pumpers. The forecast weather for the day gave a fire hazard of Severe to Dangerous and so a completely cold mop up was carried out.

The mopping up and patrol of the area continued until 2200 hours that day with an early morning patrol at 5 a.m. the following day.

The area was then patrolled intermittently for a further two days.

AREA BURNT:

The area burnt in compartment 29 was 3 acres in a strip approximately 10 chains long by 3 chains wide. The trees at 30 years of age, Site Quality 2 are estimated to have a volume of 90 loads, and the severe scorch seems likely to kill practically all trees within the fire perimeter. This timber can be salvaged almost immediately.

FUEL TYPE:

The area burnt had only recently been thinned and was covered with green thinning tops. The southern edge of the fire only had been burnt and the remainder carried a heavy continuous layer of needles and twigs at least six inches deep.

The fuel quantity was very high and would have been in the 15 - 20 tons per acre range; some of which would have been green.

WEATHER CONDITIONS:

The evening of February 28th was warm and dry having been preceded by several days of Severe or Dangerous fire hazards. The cause or time of lighting is not known, but the weather reading suggests that the fire had not been burning all night.

Perth Met Bureau observations have been obtained for the morning of 1st March 1967 as follows:

<u>TIME</u>	<u>DRY BULB</u>	<u>REL. HUM.</u>	<u>WIND DIRECTION</u>	<u>STRENGTH</u>
0400	77.8	39%	East	10 knots
0500	76.7	41%	East	13
0600	75.0	44%	East	11
0700	75.1	45%	East	10

\*Note: at 0445 hours there were several gusts of 24 knots.

RECOMMENDATIONS:

- (1) Obtain additional manpower for Metropolitan Fire Suppression if possible.
- (2) Extend the control burning under the pines in Somerville to include all thinning slash areas.

S.J. QUAIN.

A.J. ASHCROFT.

