

EPA DIVISION

Smoke Complaint
Information Summary

Port Huon, 19th April 2012



Tasmania
Explore the possibilities

This summary by the EPA Division is an initial compilation of information relating to a smoke complaint on the 19th April in the Port Huon area of Tasmania.

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This summary has been prepared by the EPA Division Air Section to provide preliminary information relating to a smoke event reported to the EPA. The summary is a collection of information gathered from the EPA BLANKET air monitoring network and available satellite data.

This report has been completed as an initial first step in collecting information relevant to the event and has incorporated a limited number of sources to enable a timely response. It is possible that a more detailed analysis may show the data are incomplete.

It is important to note that, in general, it is not the purpose of this initial summary to identify the source of smoke from which a complaint has arisen, or to determine if an air quality standard has been exceeded. In many cases a full technical analysis must be performed to ascribe smoke to a specific source and to determine if an air quality standard is likely to have been exceeded. The level of detail required for a full technical analysis is beyond the scope of this summary.

Officers of the EPA will review all the available data relating to this complaint and determine whether a more detailed analysis is appropriate. In the event that a further report is compiled it will be available from the EPA Division Website at <http://epa.tas.gov.au/epa/blanket-reports>, and the complainants will be notified.

1. Complaints Summary

Table 1: Particulars of smoke event

Complaint No.	Date	Time	Location	Description
1	19 th April 2012	0945hrs	Port Huon	Excessive smoke around the Port Huon area
2	19 th April 2012	0945hrs	Port Huon	Large amount of smoke in the Huon Valley area. The air is full of smoke and very smelly.
3	20 th April 2012	1105hrs	Port Huon	Air is full of smoke again.

2. Satellite Imagery:

Generally overcast conditions on the 19th April 2012 limit the utility of satellite images from the MODIS Terra and Aqua satellites in the Port Huon Region. Consequently no satellite images have been included in this report.

3. Air Quality Data:

Air quality data is collected by the EPA Division from the BLANKET network of air monitoring stations. Details of the data collected at the Geeveston BLANKET Station during the period of the 19th and 20th April 2012 are shown in Figure 1.

Data from the Geeveston BLANKET stations have been analysed in this report as it is the closest to the reported location of this smoke event. Figure 1 indicates that PM_{2.5} (the red plotted data) was elevated at the Geeveston BLANKET Station from the evening of the 19th April until midday of the 20th April 2012. The PM_{2.5} concentrations peaked at approximately 90 µg m⁻³ on the evening of the 19th April 2012.

The daily average PM_{2.5} was 22 µg m⁻³ on the 19th April 2012 and 16 µg m⁻³ on the 20th April 2012. These concentrations were below the PM_{2.5} reporting standard of 25 µg m⁻³.

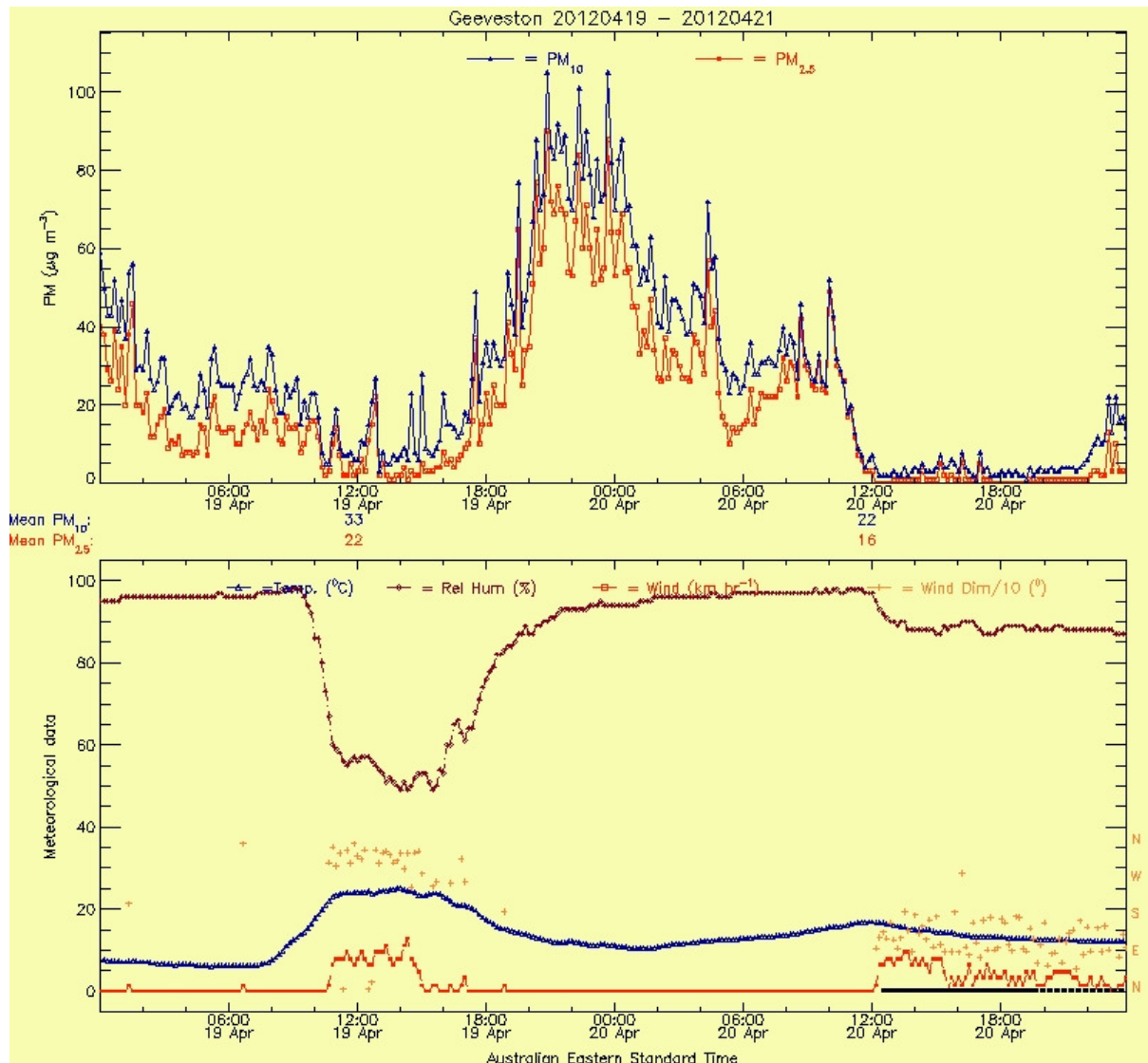


Figure 1 - A plot of smoke concentrations detected by the BLANKET Air Monitoring Station at Geeveston, on the 19th and 20th April 2012.

The top panel of the plot in Figure 1 shows the air quality data. The PM₁₀ and PM_{2.5} concentrations are given in micrograms per cubic metre (in short form this is written as $\mu\text{g}/\text{m}^3$, or $\mu\text{g m}^{-3}$ in scientific notation).

PM_{2.5} is a better indicator of smoke than is PM₁₀. PM_{2.5} is shown as the red square symbols in the air quality plots. PM_{2.5} values below $5 \mu\text{g m}^{-3}$ signify very clear air.

The lower panel of the plots show the meteorological data. The meteorological data plot shows the external (air) temperature, relative humidity, wind speed and wind direction. Wind speed is given in kilometres per hour (km/hr , or km hr^{-1} in scientific notation). Wind direction is given in degrees. Zero degrees is a north wind, 90 degrees is an east wind, 180 degrees is a south wind, and 270 degrees is a west wind. Wind direction is divided by 10 before being plotted, so a wind direction of 18 units on the plot means 180 degrees, or a wind from the south.

Please Note: The BLANKET data are indicative data, not reference data.

Details of the data collected at several BLANKET Stations located in the Huon Valley during the period of the 19th and 20th are shown in Figure 2.

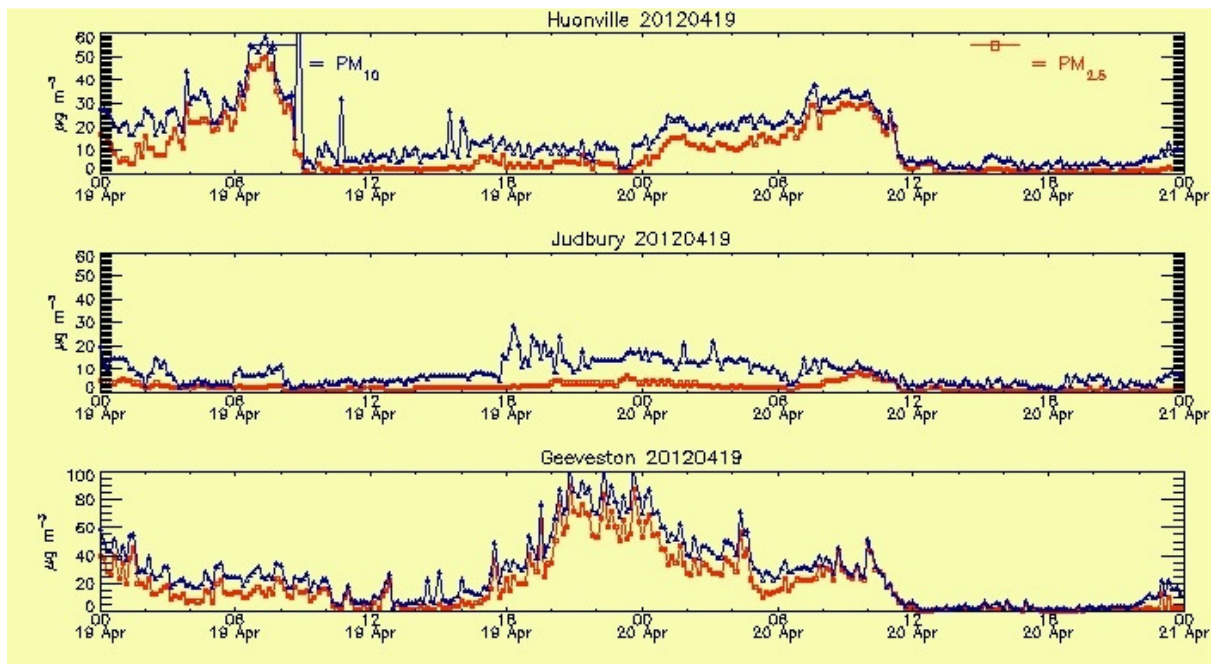


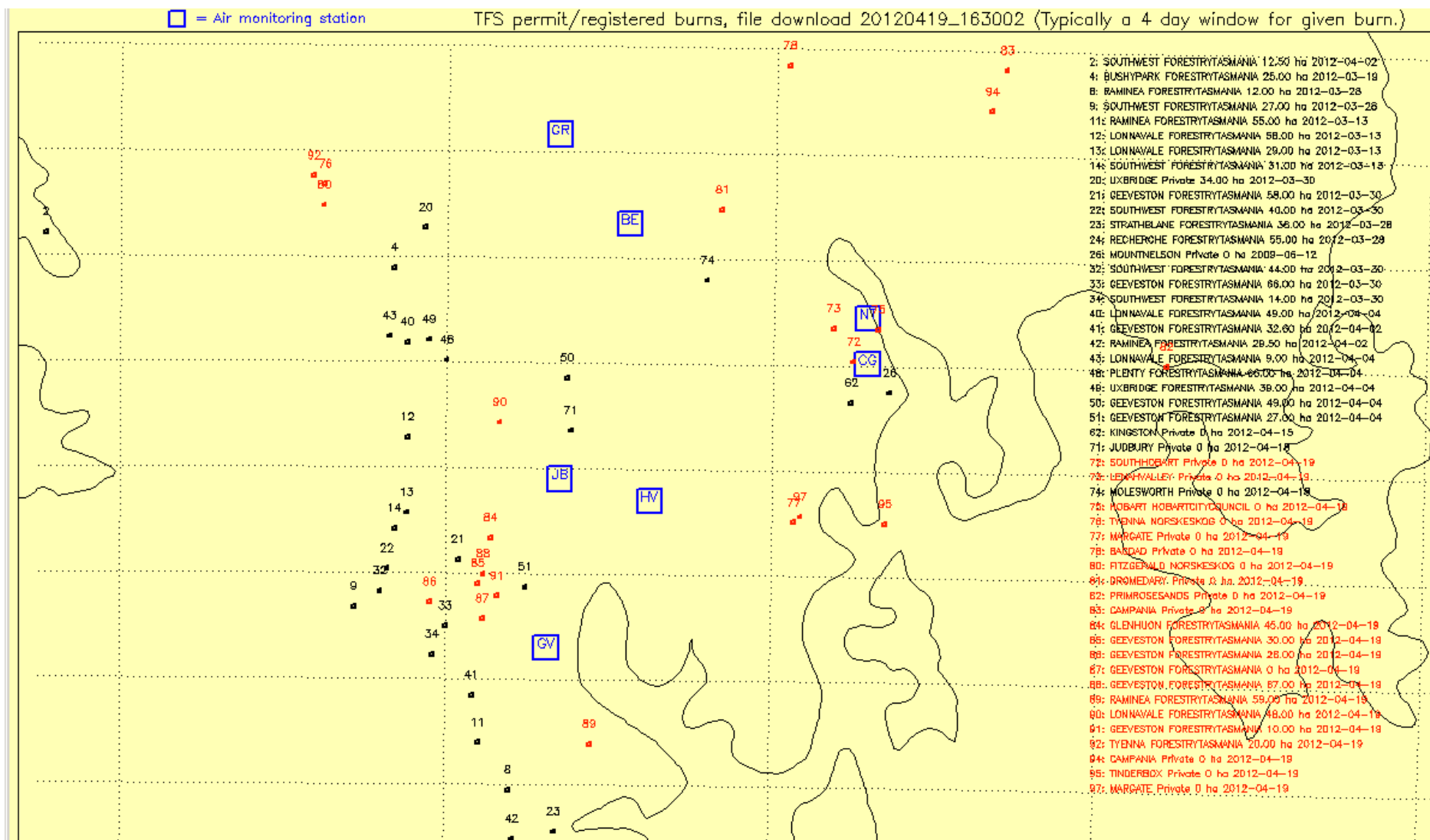
Figure 2 - A plot of smoke concentrations detected by the BLANKET air monitoring network at stations located in the Huon Valley on the 19th and 20th April 2012.

Data from the Huonville station indicates that $\text{PM}_{2.5}$ was elevated on the morning of the 19th and again of the 20th April. $\text{PM}_{2.5}$ was consistently low at the Judbury BLANKET station during this period.

4. Tasmania Fire Service Registration/Permit Burns Huon Valley Tasmania.

Figure 3 indicates the fires registered by the Tasmania Fire Service (TFS) in the Huon Valley region of Tasmania on the 19th April 2012. A large number of fire permits were registered in the Geeveston Region.

Please note that the registration of burns does not indicate that the fires were ignited.



5. Comments

It is likely that smoke from one or more of the planned burns undertaken in the Geeveston area contributed to the concentration of smoke that gave rise to the complaint indicated in this report. However, due to the large number of registered fires it is not possible to identify which fires may have contributed to the smoke reported at Port Huon.

A more detailed analysis of this event may be undertaken in the future.

6. Further Information

For further Information please contact the following:

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