

# THE CHATHAM LIGNITE FIRE

## SICK ON SULPHUR

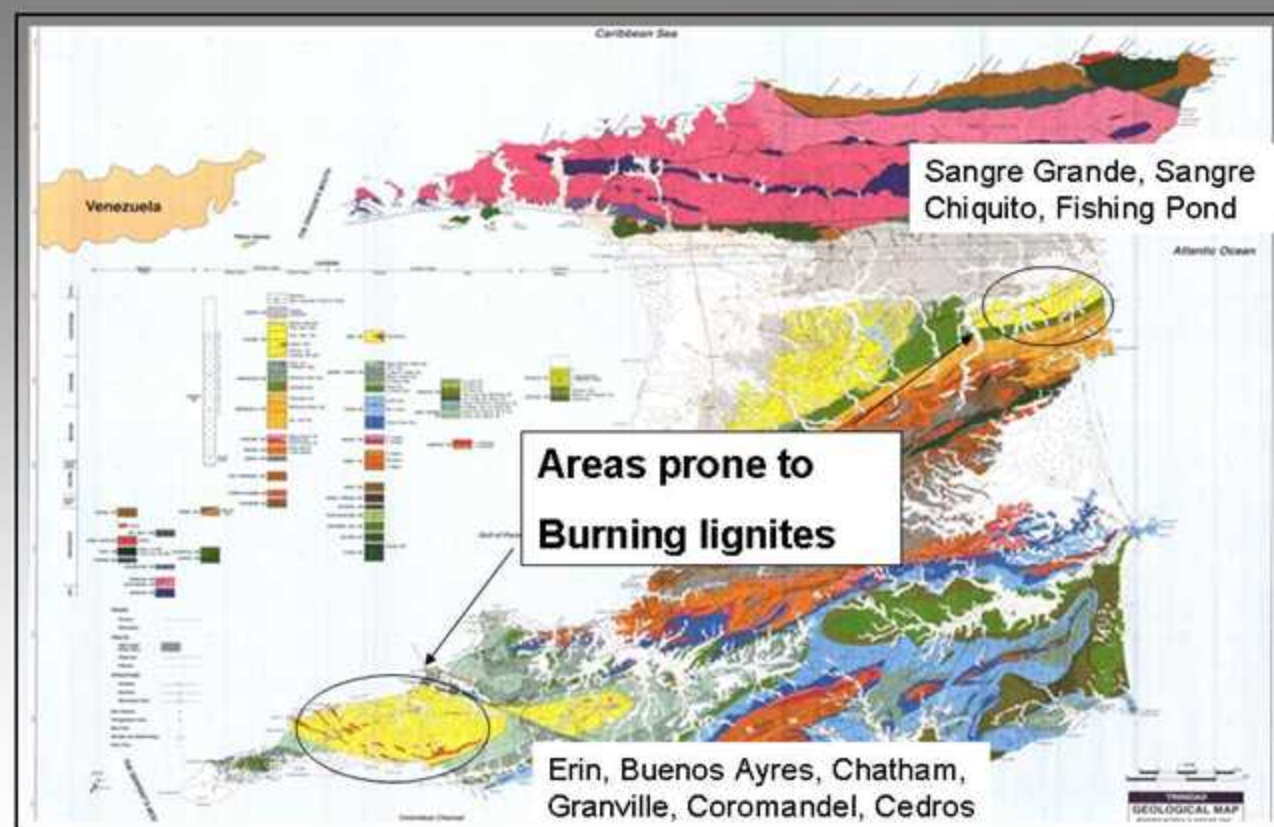
Fumes cause rashes, nausea among Point Fortin residents

Formation to excavation of porcellanite deposits

Hasley Vincent  
July 2004

Express headline, November 1<sup>st</sup> 2003

### Where?



### “Sick on Sulphur” Burning lignite bed at Chatham

Burning area (July 2003)



Lignite Bed dimensions

- Minimum bed length: 170ft
- Thickness : 7 ½ feet
- Dip : 3° due east



The lignite bed, rich in carbonaceous wood fragments, is the major source of fuel for the fires

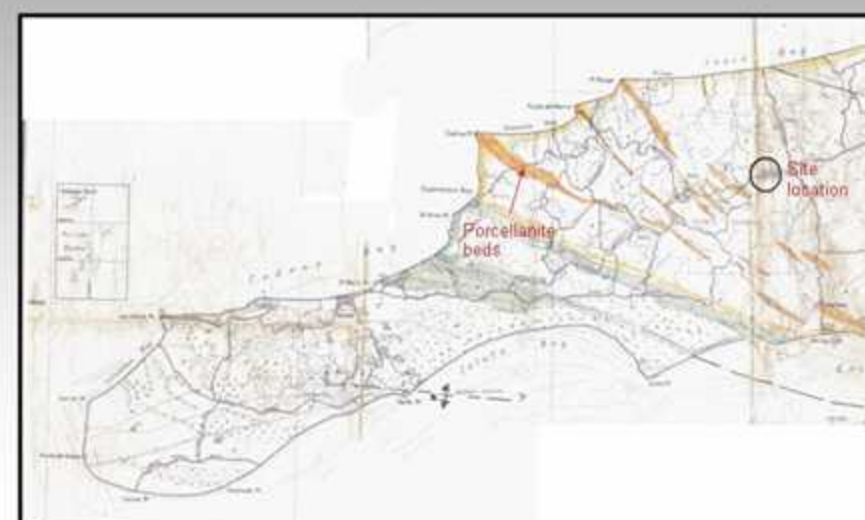


### Duration of lignite fires

- Chatham ‘fire’ lasted for 6 months
- ‘Fire’ duration of 7 years have been reported from residents of Coromandel Village and Ciagual, Fishing pond
- One example of 22 years reported in the Powder River Basin, Wyoming.
- **Lignite beds burn for prolonged periods!**

### “Sick on Sulphur” Burning lignite bed at Chatham

- June 2003 – Report made to Environment Management Authority (EMA) of continuous rising smoke, with “smelly odour.”



### “Sick on Sulphur” Burning lignite bed at Chatham



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### “Sick on Sulphur” Burning lignite bed at Chatham

- Unacceptable levels of sulphur dioxide present
- Health authorities mobilized
- NEMA consulted on possible evacuation
- Fire services consulted to extinguish burn
- GSTT also consulted for technical advice
- Ministry of Works mobilized to assist in extinguishing efforts.

### Lignite combustion

1. Ignition by bushfires, lightning and man-made fires
2. Spontaneous combustion of coal caused by the heating effects of oxidation in low rank coals (lignite).



This reaction is exothermic, and the released heat can result in the spontaneous combustion of lignite beds (dependent on specific conditions).

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### Extinguishing the burn

