# DEPARTMENT OF SUPPLY AND SHIPPING. BUREAU OF MINERAL RESOURCES GEOLOGY AND GEOPHYSICS.

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PRELIMINARY REPORT ON SAMPLES FROM NO. 1.BORE,

ALLOTMENT 57. PARISH OF PUEBLA, VICTORIA,

(GEELONG FLOW OIL CO).

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Commonwealth Palaeontologist.

## PRELIMINARY REPORT ON SAMPLES FROM No. 1 BORE,

#### ALLOTMENT 57. PARISH OF PUEBLA. VICTORIA.

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This account of the micropalaeontological examination of samples received from this bore to date is presented as a preliminary report. The samples examined were taken from the surface down to the depth of 1,130 feet. The bore is being drilled by percussion methods and consequently there is some admixture of fossil species. However, towards the lower part of the bore, these adventitious species disappear and the species recorded are characteristic of the beds in which they are found.

The approximate limits of the various stratigraphic horizons recognised in the samples are as follows:-

Pleistocene to Recent - Surface down to 70 feet.

Middle Miocene - 70 feet down to 1,130 feet.

Balcombian stage - 70 feet down to 230 feet.

Janjukian stage - 230 feet down to 770 feet.

Anglesean stage - 770 feet down to 1,130 feet.

### Pleistocene to Recent.

Seventy feet of reddish to ochreous, unfossiliferous sandstones of Pleistocene to Recent age overlie the marine Tertiaries.

#### Middle Miocene.

#### 1. Balcombian stage.

The yellowish limestone at 70-80 feet most probably represents the top of the Balcombian stage. From 80 feet down to 230 feet the rocks range from cream coloured limestones to grey marks containing numerous foraminifera. These beds apparently represent the lower portion of the Balcombian stage, typical zonal species being present. Operculina victoriensis is common at 210-220 feet and is present in most of the samples down to 230 feet in association with Cibicides victoriensis and Crespinella umbonifera.

#### 2. Janjukian Stage.

The bore passes into Janjukian stage at approximately 230-240 feet when zonal foraminifers such as <u>Massilina torquayensis</u> are met with in grey marls. These grey marls persist down to 460 feet where the lithology changes to sandy marls containing <u>Turritella aldingae</u>. Typical foraminifers of the upper part of the Janjukian, <u>Clayulinoides szaboi var. victoriensis</u>, <u>Liebusella antipodum</u>, <u>Sigmoilina victoriensis</u> are fairly common.

At 600 feet pyrites is prevalent in the samples and the marks change from grey to greenish-grey in colour. Fragments of small mollusca such as <u>Turritella aldingae</u>, and <u>Murex polyphyllus</u> occurs occasionally. Glauconite grains are common at 640-670 feet.

The foraminiferal assemblage of the lower Bird Rock horizon occur from 700 feet down to 770 feet, zonal species such as Massilina torquayensis, Victoriella plecte, Cyclammina incisa, and Sherbornina atkinsoni being recorded.

#### 3. Anglesean Stage.

At approximately 700 feet the bore passes into the

Anglesean stage where it is represented by a coarse sandstone consisting of rounded to angular quartz grains. At 780 feet it passes into dark grey carbonaceous sandstone composed of fine angular quartz grains, and containing Ammodiscus sp. At 890 feet the lithology is a dark grey to brown, fine grained ligneous sandstone which is typical of the type Anglesean material, and which persists down to the last sample at 1,130 feet. Small foraminifers are present, their test being replaced with pyrites. Large tests of Cyclammina occur from 1,000 feet down to 1,050 feet and the genus is present down to 1,120-1,130 feet, where it is common. A small fish tooth was found at 1,110-1,120 feet.

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