

# **PALYNOLOGICAL REPORT ON**

**SIMPSON-1,**

**PEDIRKA BASIN**

FOR: Central Petroleum Ltd

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JANUARY, 2008

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## RESULTS

Palynological analysis was undertaken on five cuttings samples from Simpson-1.

Standard preparation techniques were used to recover palynomorphs including HF maceration, ZnBr<sub>2</sub> heavy liquid separation, 10 micron filtration and oxidation with Schulz Solution where there was sufficient organic matter. A kerogen slide and oxidised/filtered palynological slides were prepared where possible.

The palynological slide was examined and counted using semi-quantitative methods in which only a representative number of specimens of common species is counted. The kerogen slides were scanned for the presence of rare species. The zonations follow those of Helby et al., (1987) and Backhouse (1991).

### Palynological Subdivision

<u>DEPTH</u> (m)	<u>PALYNOLOGY</u> <u>ZONE</u>	<u>AGE</u>	<u>REMARKS</u>
1765-1770	<i>E. ludbrookiae</i>	Late Albian	Diverse, well preserved assemblages with absence of older and younger species. Very rare occurrences of Permian species regarded as re-cycled.
1770-1775	<i>E. ludbrookiae</i>	Late Albian	
1775-1780	<i>E. ludbrookiae</i>	Late Albian	
1780-1785	<i>E. ludbrookiae</i>	Late Albian	
1869	<i>P. pseudorticulata</i> (Stage 3a)	Early Permian	Poorly preserved assemblage with minor caving. Relatively common <i>Plicatipollenites</i> spp. and <i>Potoneisporites</i> with <i>S. cancellatus</i> and <i>P. pseudoreticulata</i> .

### Environment Subdivision

<u>DEPTH</u> (m)	<u>ENVIRONMENT</u> <u>OF</u> <u>DEPOSITION</u>	<u>REMARKS</u>
1765-1770	Marine	Abundant and diverse dinoflagellates and acritarchs.
1770-1775	Marine	
1775-1780	Marine	
1780-1785	Marine	
1869	Non-marine	No acritarchs observed (UV not utilised), but probably lacustrine based on the nature of the kerogen.

## REFERENCES

- Backhouse, J. 1991, Permian Palynostratigraphy of the Collie Basin, Western Australia, Rev. Palaeobot., Palynol., 67:237-314/
- Helby, R, Morgan, R & Partridge, A.D., 1987, A palynological zonation of the Australian Mesozoic. Mem. 4. Assoc. Austral. Paleont. Pp 1-94.