Backhouse Biostrat Pty Ltd

Report BB491

GSWA Harvey 3 and 3A Palynology Report

by

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Summary of results from Harvey- 3 and 3A

Depth (m)	Sample type	Palynological Spore-pollen Zone	Age
		Harvey 3	
604.60	Core	Barren	Indeterminate
665.75	Core	Barren	Indeterminate
		Harvey 3A	
765.9	Core	Barren	Indeterminate
888.4	Core	Barren	Indeterminate
932.75	Core	Barren	Indeterminate
968.90	Core	Barren	Indeterminate
1186.45	Core	Barren	Indeterminate
1229.4	Core	Barren	Indeterminate
1252.40	Core	Barren	Indeterminate
1281.85	Core	Barren	Indeterminate
1316.15	Core	Barren	Indeterminate
1385.80	Core	Barren	Indeterminate
1410.65	Core	Barren	Indeterminate
1424.60	Core	Barren	Indeterminate

INTRODUCTION

Samples. **Two samples were processed from Harvey 3 and 12 from Harvey 3A. They are considered together in this report.**

Location. **Easting 387392.24, Northing 6343895.95**

PALYNOSTRATIGRAPHY

Harvey 3

Barren interval: 604.6 m to 665.75 m

Both samples were barren of in-situ palynomorphs. Two or three *Dictyophyllidites* and bisaccate pollen in the higher sample are considered to be contamination in the laboratory. The 665.75 m sample contained some inertinite and other organic material.

Harvey 3A

Barren interval: 765.9 m to 1424.6 m
Only 2 samples yielded enough organic residue for more than one small coverslip. All 12 samples were largely barren of in-situ palynomorphs, but a small amount of probable contamination was noted in a few samples. Extremely rare bisaccate pollen that could be *Falcisporites australis* were noted at 765.9 m, 968.9 m, 1252.4 m and 1385.8 m, but these occurrences may also be random contamination.

The organic content of the samples, if any was recovered, consists of angular to rounded inertinite and sometimes some brown fibrous fragments. Similar fibrous fragments have been noted elsewhere in Triassic material and it is probable that at least some samples are Triassic in age, but this cannot be established categorically.

Because of the unexpected results (all samples barren), two samples were re-processed at a different laboratory. This re-processing of samples from 888.4 m and 1385.8 m yielded similar results to the first processing and no palynomorphs were found.

CONCLUSIONS

In conclusion, no palynological zone or age can be attributed to any sample from this well. The reason for the lack of palyniferous organic material in these samples is probably connected with the depositional environment, or post-depositional oxidation. The lithology of all samples seems to be not completely unfavourable for palynology, though most samples are a little gritty. All samples are grey coloured and claystone-shale lithology with some silt and sand component.