

# SNAPPER-6

Location: Offshore Gippsland Basin  
 Latitude: 38 13 55.9 S  
 Longitude: 148 00 41.9 E

Total Depth Drilled (KB) = 3021 m; Depth Logged (KB) = 3012.5 m  
 KB Elevation = 21 m amsl  
 Seismic line reference: G72A-462, G77A-3050, G77A-3076

Completed January 21st, 1986 by ESSO AUSTRALIA  
 Status = Plugged and Abandoned  
 Lithostratigraphy from Well Completion Report  
 Lithological interpretation by Jim Driscoll (2001)  
 Palynology by M.K. MacPhail (1986)  
 Produced by the Basin Studies Group 05-Jul-2001



## Lithological legend

- |                             |                                 |                               |
|-----------------------------|---------------------------------|-------------------------------|
| <b>Carbonate Lithotypes</b> | <b>Siliciclastic Lithotypes</b> | <b>Others</b>                 |
| Limestone                   | Conglomerate                    | Extrusive rocks               |
| Limestone, sandy            | Sandstone, pebbly               | Mafic sills                   |
| Limestone, dolomitic        | Sandstone                       | Plutonic rocks                |
| Dolomite                    | Sandstone, calcareous           | Metamorphic rocks             |
| Dolomite, calcareous        | Sandstone, argillaceous         |                               |
| Mari                        | Sandstone, glauconitic          |                               |
|                             | "Greensand"                     |                               |
|                             |                                 | l'bedded sandstone & mudstone |
|                             |                                 | Siltstone                     |
|                             |                                 | Mudstone (shale)              |
|                             |                                 | Mudstone, calcareous          |
|                             |                                 | Claystone                     |
|                             |                                 | Coal                          |

N.B. Not all lithological patterns in the legend have been used in this wellsheet.

## Palynological scheme legend

- SPORE-POLLEN:**
- T. ba = T. baileyi
  - N. as = N. asperus
  - M. di = M. diversus
  - L. ba = L. baileyi
  - F. lo = F. longus
  - T. li = T. lilliei
  - N. se = N. senecius
  - P. ma = P. mawsonii
  - N. un = N. uniformis (A. di = A. distocarinatus)
  - P. pa = P. pannosus
  - C. pa = C. paradoxus
  - C. st = C. striatus
  - C. hu = C. hughesii
  - P. no = P. notensis
  - F. wo = F. worthaggenensis
  - C. au = C. australiensis
  - R. wa = R. watheroensis
- DINOFLAGELLATES:**
- C. in = C. incompositum
  - D. hy = D. heterophycta
  - A. ho = A. homomorphum
  - E. cr = E. crassitabulata
  - T. ev = T. evittii
  - M. dr = M. druggii
  - I. ko = I. korojense
  - X. au = X. australis
  - N. ac = N. aceres
  - I. ro = I. rotundatum
  - I. cr = I. cretaceum
  - O. po = O. porifera
  - C. st = C. striatococcus
  - P. in = P. infusoides
- N.B. Not all palynological zones in the legend have been used in this wellsheet.

## Hydrocarbon shows/tests legend

- Gas show (weak)
  - Gas show (strong)
  - Gas zone
  - Oil show (weak)
  - Oil show (strong)
  - Oil zone
  - Oil/gas show (weak)
  - Oil/gas show (strong)
  - Oil fluorescence
  - CO<sub>2</sub> zone
  - RFT test
- N.B. Not all hydrocarbon symbols in the legend have been used in this wellsheet.

## Accessory minerals legend

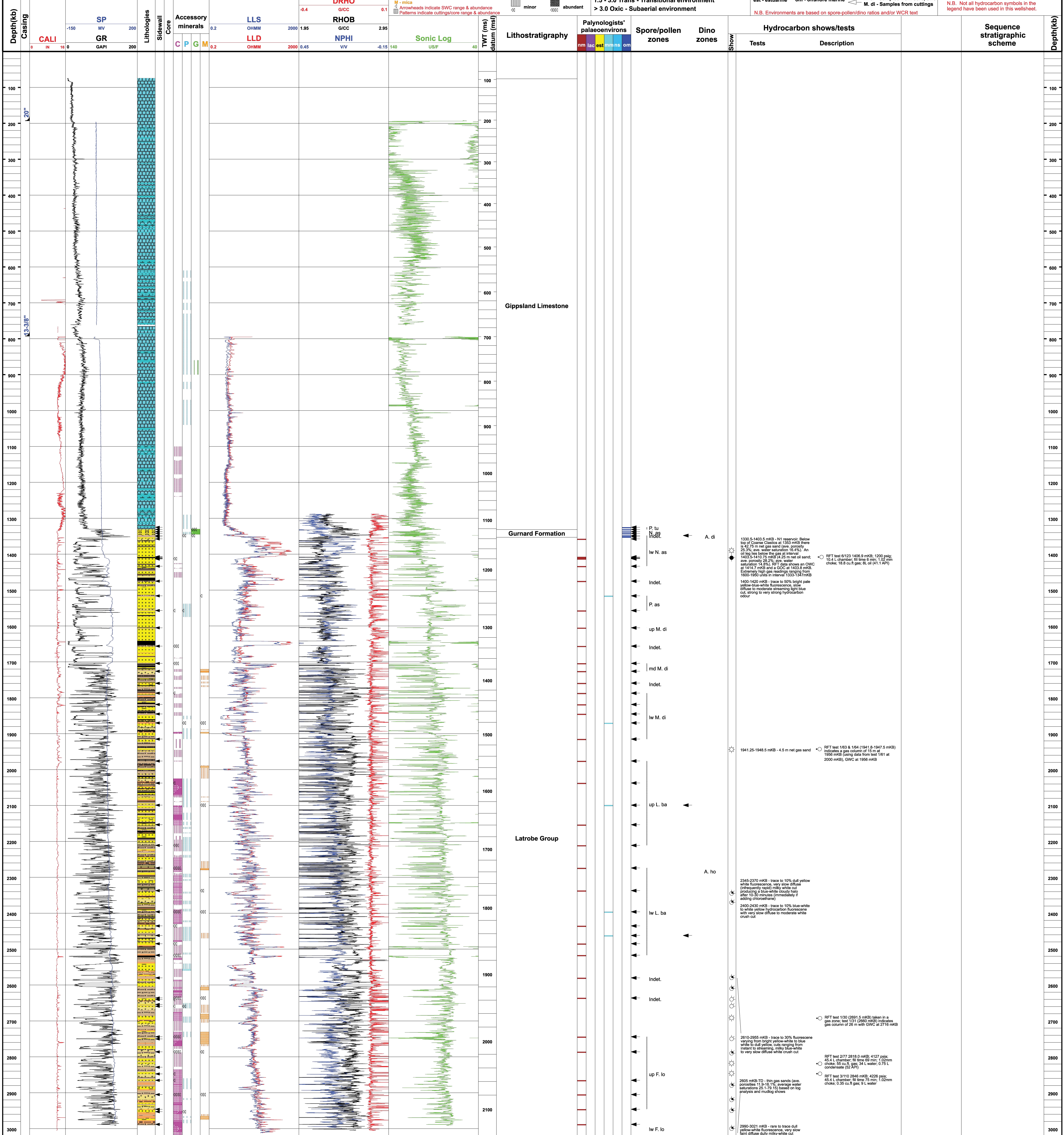
- C - carbonaceous debris
  - P - pyrite
  - G - glauconite
  - M - mica
- Arrowsheads indicate SWC range & abundance  
 Patterns indicate cuttings/core range & abundance

## Pristane/Phytane Legend

- < 1.5 Anoxic - Subaqueous (lacustrine or marine)
- 1.5 - 3.0 Trans - Transitional environment
- > 3.0 Oxid - Subaerial environment

## Palynologists' environments legend

- nm - non marine
  - lac - lacustrine
  - est - estuarine
  - mm - marginal marine
  - ns - nearshore marine
  - om - offshore marine
- M. di - Samples from core, swc  
 M. di - Samples from cuttings
- N.B. Environments are based on spore-pollen/dino ratios and/or WCR text



1330.5-1403.5 mKB - N1 reservoir. Below top of Coarse Classics at 1353 mKB there is a 2.5 m net gas sand (ave. porosity 25.2%, ave. water saturation 10.1%). An oil log test below the 0.25 interval (1403.5-1410.5 mKB) in 100 ml oil sand, ave. porosity 28.2%, ave. water saturation 14.5%. RFT data shows a GWC at 1414.7 mKB and a GOC at 1403.8 mKB. Extremely high gas readings ranging from 1600-1950 units in interval 1333-1347 mKB.

1400-1420 mKB - trace to 50% bright pale yellow-white fluorescence, slow diffuse to moderate streaming light blue cut, strong to very strong hydrocarbon odour.

1941.25-1948.5 mKB - 4.5 m net gas sand

RFT test 6/123 1406.9 mKB, 1200 mkg; 10.4 L chamber, fill time 9 min, 1.02 mm choke, 10.8 cu ft gas, 8L oil (41.1 API)

RFT test 1/83 & 1/64 (1941.25-1947.5 mKB) indicates a gas column of 15 m at 1950 mKB (using data from test 1/61 at 2000 mKB), GWC at 1956 mKB

2345-2370 mKB - trace to 10% dull yellow white fluorescence, very slow diffuse (infrequently rapid) milky white cut producing a low white cloudy hang after 10-30 minutes (immediately if adding chloroform)

2400-2430 mKB - trace to 10% blue-white to white yellow hydrocarbon fluorescence with very slow diffuse to moderate white crush cut

2610-2655 mKB - trace to 30% fluorescence ranging from bright yellow-white to blue white to dull milky, cuts ranging from milky to white, milky blue-white to very slow diffuse white crush cut

RFT test 2/77 2818.0 mKB, 4127 mkg; 45.4 L chamber, fill time 69 min, 1.02mm choke, 25 cu ft gas, 34 L water, 0.75 L condensate (52 API)

RFT test 3/110 2846 mKB, 4226 mkg; 45.4 L chamber, fill time 75 min, 1.02mm choke, 0.25 cu ft gas, 4 L water

2805 mKB-TD - thin gas sands (ave. porosity 11.9, 16.1%, average water saturations 25.1-79.1%) based on log analysis and mudlog shows

2990-3021 mKB - rare to trace dull white fluorescence, very slow faint diffuse dull milky-white cut