

Because the coring runs were very short most of the gas from the cored intervals was logged after the trips. However only methane and ethane were recorded.

Oil extracted from the core at 1399.1m by Amdel and subsequently analysed was interpreted to be biodegraded and also implied two phases of oil generation and therefore migration. Refer to Appendix 5 for further information.

Over the interval 1440m to 1625m gas levels remained at 2 to 3 units with a highly variable composition, C₁ 59-83%, C₂ 6-11%, C₃ 1-2%, C₄ 4-34%. These figures are somewhat unreliable owing to the variable sensitivity of gas detection and analysis equipment at low levels. The fluorescence shows were poor and generally confined to tight sandstones and siltstones. Fluorescence over the interval 1454m to 1464m exhibited a trace to 50% pinpoint moderately bright yellow white fluorescence with a trace milky cut and trace colourless residue. An SFT sample from 1460m (L) produced a mixture of filtrate and formation water with a very small volume of gas, presumed to have degassed from the water.

From 1625m to 2000m the background gas was generally between 8 and 15 units with a more consistent composition as detailed in the table below:

INTERVAL (M)	PEAK/BACKGROUND (CHROM)	LITHOLOGY/SHOW
1626-1628	28/8 (69/16/9/6)	Coal
1656-1658	25/10 (61/18/9/12)	Coal
1678-1689	29/10 (62/14/10/14)	Coal
1687-1689	30/12 (53/14/11/22)	Coal
1699-1702	60/10 (71/15/7/7)	Coal
1758-1761	40/8 (59/10/8/23)	Coal
1871-1872	28/10 (75/13/8/4)	Coal
1901-1908	156/13 (83/9/5/3)	Coal and Carbonaceous Shale
1927-1928	46/10 (82/9/4/5)	Coal
1958-1961	47/10 (81/11/6/2)	Coal
1978-1980	112/10 (86/11/2/1)	Coal

None of the peaks are associated with sandstones but it is noted that the relative percentage of methane increases with depth.

Trace to poor fluorescence shows were observed associated with thin tight sandstones between 1720m and 1740m but there were no associated gas peaks. The shows were described as trace to 10% patchy moderately bright yellow fluorescence with a milky white crush cut and leaving a trace residue.

From 2000m to TD at 2225m the background gas ranged from 10 to 20 units and averaged 18 units. The composition varied somewhat, but 84/9/4/2 is a representative composition. Several gas peaks were recorded and are summarised below: