

CORE ANALYSES REPORT



19th September 1986

Pancontinental Petroleum Ltd.,
50 Margaret St.
SYDNEY, 2000

ATTENTION: JOHN GORTER

RE: CONVENTIONAL CORE ANALYSIS - MOUNT WINTER #2A

Gentlemen,

A total of seven samples, sealed in seal-peel, were received in our Brisbane Laboratory. Due to the nature of this core, it was decided that Full Diameter analysis be performed.

The following report details that analysis and includes tabulated data; porosity vs permeability plot and A.P.I. Gravity determination.

The data contained in this report has been derived by the following methods.

1. Helium Injuection Porosity - measured by a Helium Porosimeter to determine the Grain Volume and consequently, Pore Volume. This porosity determination is based on the Boyles Law Equation of Gas Expansion and uses helium because of it's minute molecular structure and inert properties.
2. Permeability - Measured by "Fluid Transmissibility" Darcys Equation for COMPRESSABLE FLUIDS (Gas) assuming lamina flow is the theory on which the permeameter is based and air being the gas used.
3. Natural Density - Derived by measurements utilizing a Boyles Law displacement pump to determine bulk volume, and an analytical balance to determine the wet weight.
4. Fluid Saturations - an automatic thermostatically controlled high temperature retort was utilized for the volumetric determinations of connate water and residual oil saturations.
5. A.P.I. Gravity - Composite sample from a particular reservoir is collected from the retort during fluid saturation determinations. Specific Gravity is measured by the Pycnometer method and converted mathematically to degrees A.P.I. to comply with industry standards.

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Samples were selected prejudiciously based on the best oil stains and/or the best visible porosity. The samples were cut with air, cleaned with Toluene in soxhlet extractors and then dried in a controlled humidity environment at temperatures not exceeding 105 degrees C. prior to analysis.

Should you have any questions about this data, please do not hesitate to contact us. We have enjoyed being involved in the project and look forward to working with Pancontinental Petroleum Ltd. again in the near future.

END OF REPORT.

CORE ANALYSIS FINAL DATA REPORT

COMPANY: PANCONTINENTAL PETROLEUM LTD. COUNTRY: AUSTRALIA DATE: 19th September 1986
 WELL: MT. WINTER 2A# STATE: NORTHERN TERRITORY FILE No. CA2-55
 FIELD: WILDCAT CORE INTERVAL

Sample No.	Depth	POROSITY % He Inj	DENSITY		PERM (md) to air		Summation of Fluids & Residual Saturations			REMARKS
			Nat.	Grain	KH	KV	∅ %	Oil	Water	
1	175.93 - 176.10	5.2	2.46	-	0.96	-	-	0.0	18.8	
2	178.36 - 178.47	9.1	2.47	-	3.8	-	-	0.0	57.1	
3	179.96 - 180.20	3.7	2.53	-	0.03	-	-	0.0	51.4	
4	187.10 - 187.48	10.7	2.68	-	0.09	-	-	0.0	40.2	
5	210.20 - 210.46	5.8	2.74	-	0.02	-	-	1.7	46.6	
6	220.13 - 220.47	7.2	2.61	-	0.18	-	-	25.0	43.1	API Gravity 27.8
7	256.73 - 256.89	7.6	2.49	-	0.64	-	-	1.3	46.1	

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CORE SERVICES OF AUSTRALIA

POROSITY v PERMEABILITY



COMPANY PANCONTINENTAL PETROLEUM COUNTRY AUSTRALIA DATE 19th Sept. 1986
WELL MT. WINTER #2A STATE NORTHERN TERRITORY SCALE _____
FIELD WILDCAT LOCATION _____ FILE No. CA2-55

