



W929

WESTGATE - 1

W.C.R.

BEACH PETROLEUM N.L.

(Incorporated in South Australia)

WCR

Westgate-1A

(W929)

PETROLEUM DIVISION

03 FEB 1987

FILE NO.

BEACH PETROLEUM N.L.

NO.

DATE

WESTGATE NO. 1A

OTWAY BASIN

PEP 108 - OTWAY BASIN

PLETION REPORT

WELL COMPLETION REPORT

BY:

B.L. RAYNEE.
OCTOBER, 1986.

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Maturation and Source Rock Analysis

WESTGATE-1A

K.K. No.	Depth (m)	\bar{R}_{Vmax}	Range	N	Description Including Exinite Fluorescence
Pember Mudstone Member 835m					
x4845	881.5 SWC 30	0.35	0.26-0.43	26	Rare cutinite, yellow orange, rare sporinite, yellow, rare liptodetrinite, yellow to orange. (Sandy claystone. Dom common, V>I>E. Vitrinite common, inertinite sparse, exinite rare. Pyrite abundant.)
Pebble Point Formation 896m					
Paaratte Formation 962m					
Nufflawarre Greensand Member 1441m					
Belfast Mudstone 1695m					
Flaxmans Formation 1743m					
x4846	1744 SWC 24 \bar{R}_I	- 70.90	- -	- ?1	- No fluorescing exinite. (Iron oxides>>sandstone. Origin of iron oxides uncertain, many of the fragments have an oolite structure and could be oxidized oolites or an artefact. ?Dom rare, ?I only. Exinite and vitrinite absent.)
x4847	1759 SWC 18 \bar{R}_I	- 71.48	- -	- ?1	- No fluorescing exinite. (Iron oxides>>sandstone. Origin of iron oxides uncertain, many of the fragments have an oolite structure and could be oxidized oolites or an artefact. ?Dom rare, ?I only. Exinite and vitrinite absent.)
Waare Formation 1809m					
x4848	1832.5 SWC 8	0.53	0.42-0.69	31	Sparse sporinite, yellow to yellow orange, rare liptodetrinite, bright yellow to yellow orange, rare cutinite, yellow to orange, rare resinite, greenish yellow to yellow, rare phytoplankton, green. (Siltstone>>sandy coal. Shaly coal sparse, V>I>E. Duroclarite. Dom common to abundant, I>V>E. Inertinite and vitrinite common, exinite sparse. Pyrite sparse.)
x4849	1851.5 SWC 5 \bar{R}_I	70.54 1.43	0.50-0.61 1.06-1.98	?3 10	Sparse liptodetrinite, yellow to orange, rare sporinite, yellow to orange, rare ?phytoplankton, bright yellow. (Siltstone>>sandstone. Dom common, I>E>V. Inertinite common, exinite sparse, ?vitrinite rare. ?vitrinite population small and poorly defined. Pyrite common.)
Eumeralla Formation 1852m					
x4850	1867 SWC 3 \bar{R}_I	0.65 1.21	0.57-0.71 0.96-1.84	5 7	Rare cutinite, dull orange, rare liptodetrinite, yellow, rare sporinite, yellow, rare suberinite, brown. (Sandstone>carbonate>claystone. Dom sparse, I>V>or=E. Inertinite sparse, vitrinite and exinite rare. Green fluorescing ?oil droplets rare. Patchy moderate mineral matter fluorescence sparse. Inorganic mud additive sparse. Pyrite rare.)
x4851	1894 SWC 2 \bar{R}_I	- 1.32	- 1.06-1.56	- 6	- Rare sporinite, yellow, rare liptodetrinite, yellow to orange. (Claystone. Dom rare, I>E. Inertinite and exinite rare, vitrinite absent. Pyrite sparse.)

VITRINITE REFLECTANCE WORKSHEET

W NAME: *Mudakane/A* S. LE NO. *X4845* DEPTH: *881.5m* TYPE: *SWC 30*
 FGV = First Generation Vitrinite I = Inertinite *Pembar Mudakane*

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type			
.10				.46				.82				1.18				1.54				1.90		
.11				.47				.83				1.19				1.55				1.91		
.12				.48				.84				1.20				1.56				1.92		
.13				.49				.85				1.21				1.57				1.93		
.14				.50				.86				1.22				1.58				1.94		
.15				.51				.87				1.23				1.59				1.95		
.16				.52				.88				1.24				1.60				1.96		
.17				.53				.89				1.25				1.61				1.97		
.18				.54				.90				1.26				1.62				1.98		
.19				.55				.91				1.27				1.63				1.99		
.20				.56				.92				1.28				1.64				2.00		
.21				.57				.93				1.29				1.65						
.22				.58				.94				1.30				1.66						
.23				.59				.95				1.31				1.67						
.24				.60				.96				1.32				1.68						
.25				.61				.97				1.33				1.69						
.26	1			.62				.98				1.34				1.70						
.27	1			.63				.99				1.35				1.71						
.28	1			.64				1.00				1.36				1.72						
.29				.65				1.01				1.37				1.73						
.30	2			.66				1.02				1.38				1.74						
.31	1			.67				1.03				1.39				1.75						
.32	1			.68				1.04				1.40				1.76						
.33	2			.69				1.05				1.41				1.77						
.34	2			.70				1.05				1.42				1.78						
.35	2			.71				1.07				1.43				1.79						
.36	3			.72				1.08				1.44				1.80						
.37	3			.73				1.09				1.45				1.81						
.38				.74				1.10				1.46				1.82						
.39	3			.75				1.11				1.47				1.83						
.40				.76				1.12				1.48				1.84						
.41	2			.77				1.13				1.49				1.85						
.42	1			.78				1.14				1.50				1.86						
.43	1			.79				1.15				1.51				1.87						
.44				.80				1.16				1.52				1.88						
.45				.81				1.17				1.53				1.89						
																Organic matter Comp. (%)						
																ExInite	AlInite					
																	20.1	0				
																VitrInite	InertInite					
																0.8	0.2					

VITRINITE REFLECTANCE WORKSHEET

WE NAME: Westgate 1A
 SAMPLE NO.: Y 4847
 FGV = First Generation Vitrinite I = Inertinite

DEPTH: 1759m
 TYPE: 3WC18
Flaxmans Fm.

Ro %	No. Read	Pop Rnge	Pop Type	Ro %	No. Read	Pop Rnge	Pop Type	Ro %	No. Read	Pop Rnge	Pop Type	Ro %	No. Read	Pop Rnge	Pop Type	Ro %	No. Read	Pop Rnge	Pop Type
.10				.46				1.18				1.54				1.90			
.11				.47				1.19				1.55				1.91			
.12				.48				1.20				1.56				1.92			
.13				.49				1.21				1.57				1.93			
.14				.50				1.22				1.58				1.94			
.15				.51				1.23				1.59				1.95			
.16				.52				1.24				1.60				1.96			
.17				.53				1.25				1.61				1.97			
.18				.54				1.26				1.62				1.98			
.19				.55				1.27				1.63				1.99			
.20				.56				1.28				1.64				2.00			
.21				.57				1.29				1.65							
.22				.58				1.30				1.66							
.23				.59				1.31				1.67							
.24				.60				1.32				1.68							
.25				.61				1.33				1.69							
.26				.62				1.34				1.70							
.27				.63				1.35				1.71							
.28				.64				1.36				1.72							
.29				.65				1.37				1.73							
.30				.66				1.38				1.74							
.31				.67				1.39				1.75							
.32				.68				1.40				1.76							
.33				.69				1.41				1.77							
.34				.70				1.42				1.78							
.35				.71				1.43				1.79							
.36				.72				1.44				1.80							
.37				.73				1.45				1.81							
.38				.74				1.46				1.82							
.39				.75				1.47				1.83							
.40				.76				1.48				1.84							
.41				.77				1.49				1.85							
.42				.78				1.50				1.86							
.43				.79				1.51				1.87							
.44				.80				1.52				1.88							
.45				.81				1.53				1.89							
																Organic matter Comp. (%)			
																ExInIte	AlIgitite		
																○	○		
																VitrInIte	InertInIte		
																○	○	? < 0.1	

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: Westgate 1A
 SAMPLE NO: X4846
 DEPTH: 1744 m
 TYPE: SUWC 24
 Flaxmans Fm.

FGV = First Generation Vitrinite - I = Inertinite

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type
.10				.46				.82				1.18				1.54			
.11				.47				.83				1.19				1.55			
.12				.48				.84				1.20				1.56			
.13				.49				.85				1.21				1.57			
.14				.50				.86				1.22				1.58			
.15				.51				.87				1.23				1.59			
.16				.52				.88				1.24				1.60			
.17				.53				.89				1.25				1.61			
.18				.54				.90				1.26				1.62			
.19				.55				.91				1.27				1.63			
.20				.56				.92				1.28				1.64			
.21				.57				.93				1.29				1.65			
.22				.58				.94				1.30				1.66			
.23				.59				.95				1.31				1.67			
.24				.60				.96				1.32				1.68			
.25				.61				.97				1.33				1.69			
.26				.62				.98				1.34				1.70			
.27				.63				.99				1.35				1.71			
.28				.64				1.00				1.36				1.72			
.29				.65				1.01				1.37				1.73			
.30				.66				1.02				1.38				1.74			
.31				.67				1.03				1.39				1.75			
.32				.68				1.04				1.40				1.76			
.33				.69				1.05				1.41				1.77			
.34				.70				1.06				1.42				1.78			
.35				.71				1.07				1.43				1.79			
.36				.72				1.08				1.44				1.80			
.37				.73				1.09				1.45				1.81			
.38				.74				1.10				1.46				1.82			
.39				.75				1.11				1.47				1.83			
.40				.76				1.12				1.48				1.84			
.41				.77				1.13				1.49				1.85			
.42				.78				1.14				1.50				1.86			
.43				.79				1.15				1.51				1.87			
.44				.80				1.16				1.52				1.88			
.45				.81				1.17				1.53				1.89			
																Organic matter Comp. (%)			
																Exinite	Alignite		
																Vitrinite	Inertinite		

VITRINITE REFLECTANCE WORKSHEET

NAME: WESTGATE-1A
 SAMPLE NO.: X4848
 DEPTH: 1832 m
 TYPE: SWCS

FGV = First Generation Vitrinite I = Inertinite

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Organic matter Comp. (%)
.10				.46				.82				1.18				1.54				1.90				
.11				.47	4			.83				1.19				1.55				1.91				
.12				.48	4			.84				1.20				1.56				1.92				
.13				.49	2			.85				1.21				1.57				1.93				
.14				.50	2			.86				1.22				1.58				1.94				
.15				.51	1			.87				1.23				1.59				1.95				
.16				.52	2			.88				1.24				1.60				1.96				
.17				.53				.89				1.25				1.61				1.97				
.18				.54				.90				1.26				1.62				1.98				
.19				.55	2			.91				1.27				1.63				1.99				
.20				.56				.92				1.28				1.64				2.00				
.21				.57				.93				1.29				1.65								
.22				.58				.94				1.30				1.66								
.23				.59	1			.95				1.31				1.67								
.24				.60	1			.96				1.32				1.68								
.25				.61	1			.97				1.33				1.69								
.26				.62				.98				1.34				1.70								
.27				.63	2			.99				1.35				1.71								
.28				.64	1			1.00				1.36				1.72								
.29				.65				1.01				1.37				1.73								
.30				.66				1.02				1.38				1.74								
.31				.67	1			1.03				1.39				1.75								
.32				.68	1			1.04				1.40				1.76								
.33				.69	1			1.05				1.41				1.77								
.34				.70				1.06				1.42				1.78								
.35				.71				1.07				1.43				1.79								
.36				.72				1.08				1.44				1.80								
.37				.73				1.09				1.45				1.81								
.38				.74				1.10				1.46				1.82								
.39				.75				1.11				1.47				1.83								
.40				.76				1.12				1.48				1.84								
.41				.77				1.13				1.49				1.85								
.42	2			.78				1.14				1.50				1.86								
.43	1			.79				1.15				1.51				1.87								
.44	1			.80				1.16				1.52				1.88								
.45	1			.81				1.17				1.53				1.89								
																							Organic matter Comp. (%)	
																							ExInIte	0.4
																							AlGIte	—
																							VitrInIte	1.0
																							InertInIte	2.0

VITRINITE REFLECTANCE WORKSHEET

NAME: Westgate 1A

SAMPLE NO: X 4849

DEPTH: 1.65, 5m

TYPE: SWCS

Wave F.m.

FGV = First Generation Vitrinite I = Inertinite

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type
.10				.46				.82				1.18				1.54			
.11				.47				.83				1.19				1.55			
.12				.48				.84				1.20				1.56			
.13				.49				.85				1.21				1.57			
.14				.50				.86				1.22				1.58			
.15				.51				.87				1.23				1.59			
.16				.52				.88				1.24				1.60			
.17				.53				.89				1.25				1.61			I
.18				.54				.90				1.26				1.62			
.19				.55				.91				1.27				1.63			I
.20				.56				.92				1.28				1.64			
.21				.57				.93				1.29				1.65			
.22				.58				.94				1.30				1.66			
.23				.59				.95				1.31				1.67			
.24				.60				.96				1.32				1.68			
.25				.61				.97				1.33				1.69			
.26				.62				.98				1.34				1.70			I
.27				.63				.99				1.35				1.71			
.28				.64				1.00				1.36				1.72			
.29				.65				1.01				1.37				1.73			
.30				.66				1.02				1.38				1.74			
.31				.67				1.03				1.39				1.75			
.32				.68				1.04				1.40				1.76			
.33				.69				1.05				1.41				1.77			
.34				.70				1.06				1.42				1.78			
.35				.71				1.07				1.43				1.79			
.36				.72				1.08				1.44				1.80			
.37				.73				1.09				1.45				1.81			
.38				.74				1.10				1.46				1.82			
.39				.75				1.11				1.47				1.83			
.40				.76				1.12				1.48				1.84			
.41				.77				1.13				1.49				1.85			
.42				.78				1.14				1.50				1.86			
.43				.79				1.15				1.51				1.87			
.44				.80				1.16				1.52				1.88			
.45				.81				1.17				1.53				1.89			

Organic matter Comp. (%)
 Exinite 0.3
 Vitrinite 1.0
 Inertinite 1.0

VITRINITE REFLECTANCE WORKSHEET

1 NAME..... Westgate - 1A
 FGV = First Generation Vitrinite - I = Inertinite

SAMPLE NO..... X 4850

DEPTH..... 186 m

TYPE..... SWC 3

Eumeralla Fm.

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Organic matter Comp. (%)
.10				.46				1.18				1.54				
.11				.47				1.19				1.55				
.12				.48				1.20				1.56				
.13				.49				1.21			I	1.57				
.14				.50				1.22				1.58				
.15				.51				1.23				1.59				
.16				.52				1.24				1.60				
.17				.53				1.25				1.61				
.18				.54				1.26				1.62				
.19				.55				1.27			I	1.63				
.20				.56				1.28				1.64				
.21				.57				1.29				1.65				
.22				.58				1.30				1.66				
.23				.59				1.31				1.67				
.24				.60				1.32				1.68				
.25				.61				1.33				1.69				
.26				.62				1.34				1.70				
.27				.63				1.35				1.71				
.28				.64				1.36				1.72				
.29				.65				1.37				1.73				
.30				.66				1.38				1.74				
.31				.67				1.39				1.75				
.32				.68				1.40				1.76				
.33				.69				1.41				1.77				
.34				.70				1.42				1.78				
.35				.71				1.43				1.79				
.36				.72				1.44				1.80				
.37				.73				1.45				1.81				
.38				.74				1.46				1.82				
.39				.75				1.47				1.83				
.40				.76				1.48				1.84				
.41				.77				1.49				1.85				
.42				.78				1.50				1.86				
.43				.79				1.51				1.87				
.44				.80				1.52				1.88				
.45				.81				1.53				1.89				
																Exinite
																20%
																Inertinite
																0.2

VITRINITE REFLECTANCE WORKSHEET

L NAME: Westgate 1A
 SAMPLE NO: X4851
 DEPTH: 16/4 m
 TYPE: SWC 2
 FGV = First Generation Vitrinite I = Inertinite
 Emeraldella Fm.

Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Ro %	No. Read	Pop Range	Pop Type	Organic matter Comp. (%)
.10				.46				1.18	1			1.54				1.90								
.11				.47				1.19				1.55				1.91								
.12				.48				1.20	1			1.56			I	1.92								
.13				.49				1.21				1.57				1.93								
.14				.50				1.22				1.58				1.94								
.15				.51				1.23				1.59				1.95								
.16				.52				1.24				1.60				1.96								
.17				.53				1.25				1.61				1.97								
.18				.54				1.26				1.62				.98								
.19				.55				1.27				1.63				1.99								
.20				.56				1.28				1.64				2.00								
.21				.57				1.29				1.65												
.22				.58				1.30				1.66												
.23				.59				1.31				1.67												
.24				.60				1.32				1.68												
.25				.61				1.33				1.69												
.26				.62				1.34				1.70												
.27				.63				1.35				1.71												
.28				.64				1.36				1.72												
.29				.65				1.37				1.73												
.30				.66				1.38				1.74												
.31				.67				1.39				1.75												
.32				.68				1.40				1.76												
.33				.69				1.41				1.77												
.34				.70				1.42				1.78												
.35				.71				1.43				1.79												
.36				.72				1.44				1.80												
.37				.73				1.45				1.81												
.38				.74				1.46				1.82												
.39				.75				1.47				1.83												
.40				.76				1.48				1.84												
.41				.77				1.49				1.85												
.42				.78				1.50				1.86												
.43				.79				1.51				1.87												
.44				.80				1.52				1.88												
.45				.81				1.53				1.89												
																								Organic matter Comp. (%)
																								Exinite
																								Alignite
																								0
																								Vitrinite
																								Inertinite
																								0
																								2011

WESTGATE 1A

KK No.	Depth (m)	TOC
x4845	881.5	2.35
x4848	1832.5	3.20
x4849	1851.5	1.30
x4850	1867	0.27
x4851	1894	0.29