



PETROLEUM DIVISION

16 MAR 1993

APPENDIX-8

NALANGIL-1

VITRINITE REFLECTANCE

W103S

NALANGIL NO. 1

A1/1

K.K. No.	Depth (m)	R _{max} V	Range	N	Description Including Liptinite (Exinite) Fluorescence
NEWER VOLCANICS SURF. WANGERRIP GROUP 21.0M					
v3676	107.5 SWC 23	0.19	-	1	Sparse phytoplankton, yellow. (Sandstone>>claystone. Dom common, L>I. Liptinite sparse, inertinite rare, vitrinite absent. Iron oxide and pyrite abundant.)
v3675	202.0 SWC 21	0.26	0.21-0.38	21	Sparse phytoplankton, green to orange. (Sandstone>>claystone. Dom abundant, V>L>I. Vitrinite common, liptinite and inertinite sparse. Mineral fluorescence sparse, green to yellow. Iron oxide and pyrite abundant.)
v3674	236.0 SWC 20	-	-	-	No fluorescent liptinite. (Sandstone. Dom absent. All three maceral groups absent. Major bitumen dull orange to brown coating sand grains. Most of the bitumen is non-fluorescing. Iron oxides and pyrite sparse. Sample very difficult to mount and polish. Sand grains took a polish but the bitumen appears to have flowed and picked-out during polishing.)
v3673	261.0 SWC 10	0.34	0.27-0.42	3	Rare phytoplankton and liptodetrinite, yellow to orange. (Siltstone. Dom common, I>V=L. Inertinite common, vitrinite and liptinite rare. Rare bitumen and oil drops, green. Rare mineral fluorescence, yellow to orange. Iron oxides and pyrite sparse.)
EUMERALLA FORMATION 290.0m					
v3672	311.5 SWC 3	0.42	0.28-0.54	12	Sparse phytoplankton, yellow, rare liptodetrinite, yellow. (Sandstone>claystone. Dom common, I>L>V. All three maceral groups sparse. Rare oil drops. Iron oxides common. Pyrite sparse.)
v3671	345.0 SWC 1	0.37	0.29-0.49	25	Sparse phytoplankton, green to orange. (Sandstone>claystone. Dom abundant, I>V>L. Inertinite abundant, vitrinite common, liptinite sparse. Rare oil drops. Iron oxides common. Pyrite sparse.)

TOTAL DEPTH 363m

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: *Nolan 87-1* SAMPLE NO.: *V 3676* DEPTH: *107.5 m* TYPE: *FWC*

FGV = First Generation Vitrinite 1 = 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	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				2.01											
.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

0.5%

Vitrinite Inertinite

0.1%

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: *Nalangi-1* SAMPLE NO.: *V. 2675* DEPTH: *202.2 m* TYPE: *ANC*

FGV = First Generation Vitrinite 1 = Inertinite

Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Organic Matter Comp. (%)	Vitrinite	Inertinite
.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				2.01						
.22	3			.58				.94				1.30				1.66										
.23	4			.59				.95				1.31				1.67										
.24	3			.60				.96				1.32				1.68										
.25	3			.61				.97				1.33				1.69										
.26	/			.62				.98				1.34				1.70										
.27	4			.63				.99				1.35				1.71										
.28				.64				1.00				1.36				1.72										
.29				.65				1.01				1.37				1.73										
.30			PN	.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				.75				1.09				1.45				1.81										
.38	1		↖	.74				1.10				1.46				1.82								0.4%		
.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										

Sire Kor nts l rd

VITRINITE REFLECTANCE WORKSHEET

WELL NAME..... *Nalangi-1*

SAMPLE NO..... *V3674*

DEPTH..... *236.0 m*

TYPE..... *SWC 20*

FGV = First Generation Vitrinite 1 = 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. (%)	
																								Exinite	Alginite
.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									

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: *Nalangi No. 1* SAMPLE NO: *V 3673* DEPTH: *261.0m* TYPE: *Swc. No. 10*

FGV = First Generation Vitrinite I = Inertinite

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	Ro %	No. Read	Pop Rnge	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				2.01			
.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. (%)												Vitrinite		Inertinite					
				Exinite												20.1		-					
				FGV												20.1		0.0					

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: *Nalangi-1*

SAMPLE NO: *V. 3672*

DEPTH: *311.5m*

TYPE: *S&C*

FGV = First Generation Vitrinite 1 = Inertinite

Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Ro %	No. Read	Pop Rng	Pop Type	Organic matter Comp. (%)	Vitrinite	Inertinite
.10				.46	2			.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	1	FGV		.85				1.21				1.57				1.93										
.14				.50	1			.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				2.01										
.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	1			.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	1			.69				1.05				1.41				1.77														
.34				.70				1.06				1.42				1.78														
.35	1			.71				1.07				1.43				1.79														
.36	1			.72				1.08				1.44				1.80														
.37				.73				1.09				1.45				1.81														
.38	1			.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	2			.81				1.17				1.53				1.89														

Organic matter Comp. (%)
Exinite Alignite

0.3%
-

Vitrinite Inertinite

6.2% 0.5%

air Ko ant Ltd

VITRINITE REFLECTANCE WORKSHEET

WELL NAME: *Alm 91-1*

SAMPLE NO.: *V.3671*

DEPTH: *345.0 m*

TYPE: *A/C*

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				.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				2.01				
.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

0.2% -

Vitrinite Inertinite

1% 3%