

APPENDIX G

Magellan Petroleum Australia Ltd

Report File:

PV10_DST.PAN

Palm Valley 10 - DST #1

Analysis Date:

2/24/95

Buildup Analysis Report

Analyst name	Wm. R. Arnold
Company	Magellan Petroleum Australia Ltd
Well	Palm Valley 10
Field	Palm Valley
Date	2 January, 1995
Rig Name/Number	Mereenie (OD&E)
Test	DST #1
Depth Reference - MSL	
Gauge Type	Panex
Gauge Number	1273A
Gauge Depth - Measured	1862.95 m MD
Gauge Depth - Vertical	1833.2 m TVD
Producing Formation Top	1829.9 m TVD
Producing Formation Bottom	1847.1 m TVD
Perforated interval Top	
Perforated interval Bottom	

Remarks:

DST #1 Build Up Analysis

Test flowed gas at rate too small to measure. Significant wellbore storage resulted.

Extrapolated pressure = 14227 kPa (atm).

Buildup Analysis Report

Reservoir Description

Fluid type : Gas

Well orientation : Vertical

Number of wells : 1

Number of layers : 1

Layer Parameters Data

	Layer 1
Formation thickness	2.7433 m
Average formation porosity	0.0457
Water saturation	0.4518
Gas saturation	0.5482
Formation compressibility	9.4026e-7 kPa-1
Total system compressibility	2.6766e-5 kPa-1
Layer pressure	14223.9998 kPa
Temperature	63.00 deg C

Well Parameters Data

	Well 1
Well radius	0.0794 m
Distance from observation to active well	0.00 m
Wellbore storage coefficient	1.9374e-7 m3/kPa
Well offset - x direction	0.00 m
Well offset - y direction	0.00 m

Fluid Parameters Data

	Layer 1
Gas gravity	0.6269 sp grav
Water-Gas ratio	0.00 m3/m3
Water salinity	0.00 ppm
Check Pressure	1.4224e4 kPa
Check Temperature	65.00 deg C
Gas density	106.992 kg/m3
Initial gas viscosity	0.0160164 cp
Gas formation volume factor	7.2035e-3 m3/m3 (st)
Water density	982.92498 kg/m3
Water viscosity	0.41291 cp
Water formation volume factor	1.01637 m3/m3
Initial Z-factor	0.85956
Initial Gas compressibility	7.2982e-5 kPa-1
Water compressibility	4.3348e-7 kPa-1

Buildup Analysis Report

Layer 1 Correlations

Ug Correlation : Carr et al

Layer Boundaries Data

Layer 1 Boundary Type : Infinitely acting

	Layer 1
L1	0.00 m
L2	0.00 m
L3	0.00 m
L4	0.00 m
Drainage area	0.00 ha
Dietz shape factor	0.00

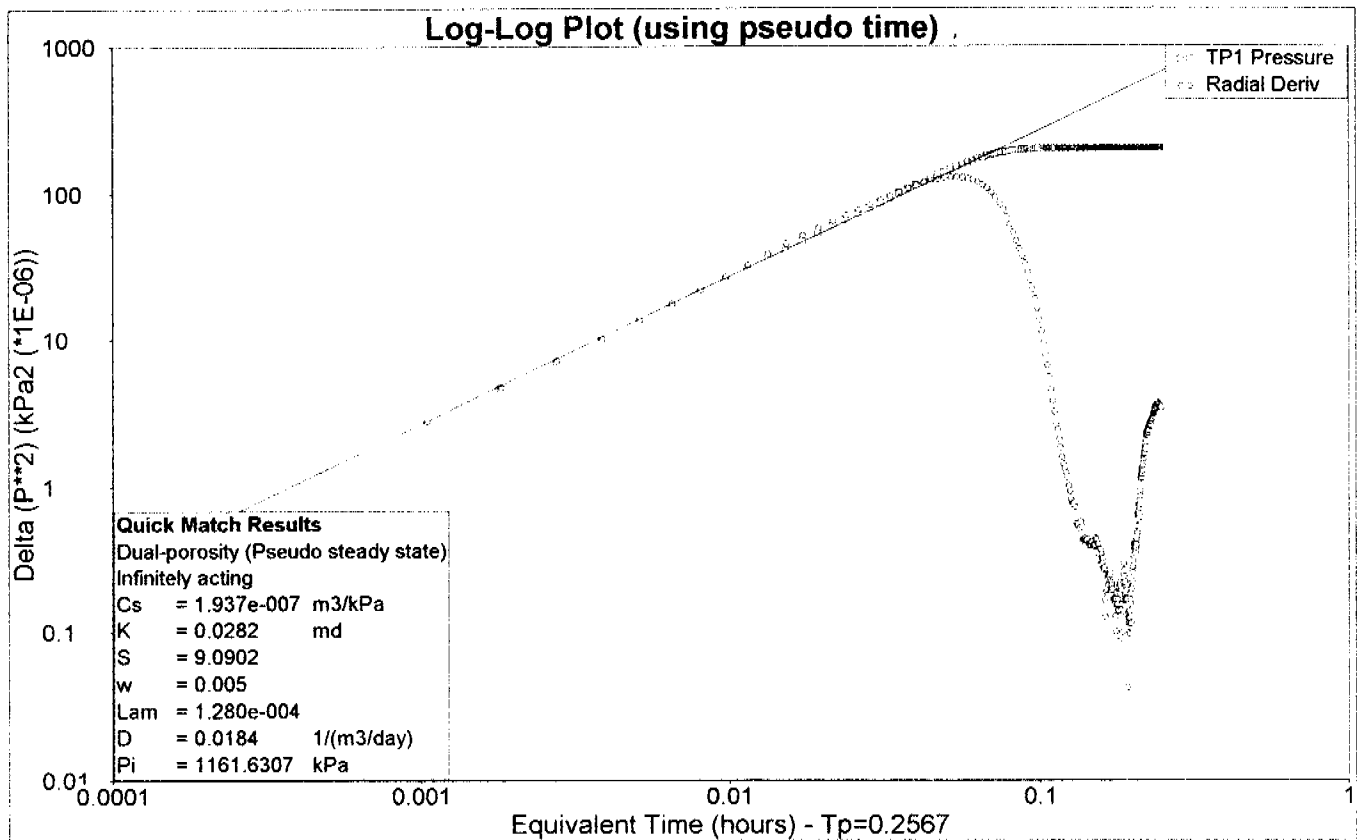
Layer 1 Model Data

Layer 1 Model Type : Dual-porosity (Pseudo steady state)

	Layer 1
Permeability	0.0282 md
Skin factor	9.0902
Storativity ratio	5.0000e-3
Interporosity flow coefficient	1.2803e-4
Rate dependent skin coefficient (D)	0.0184 1/(m3/day)

Rate Change Data

Time	Pressure	Rate
	kPa	Sm3/day
3.829586	2806.20	0.00
4.08631	138.01	100.00
10.08286	2063.4098	0.00

**Log-Log Plot Model Results**

Dual-porosity (Pseudo steady state)

Infinitely acting

	Value
Wellbore storage coefficient	3.3321e-7 m3/kPa
Dimensionless wellbore storage	0.92
Apparent wellbore volume	4.5656e-3 m3

Log-Log Plot Line Details

Line type : Wellbore storage

Slope : 1

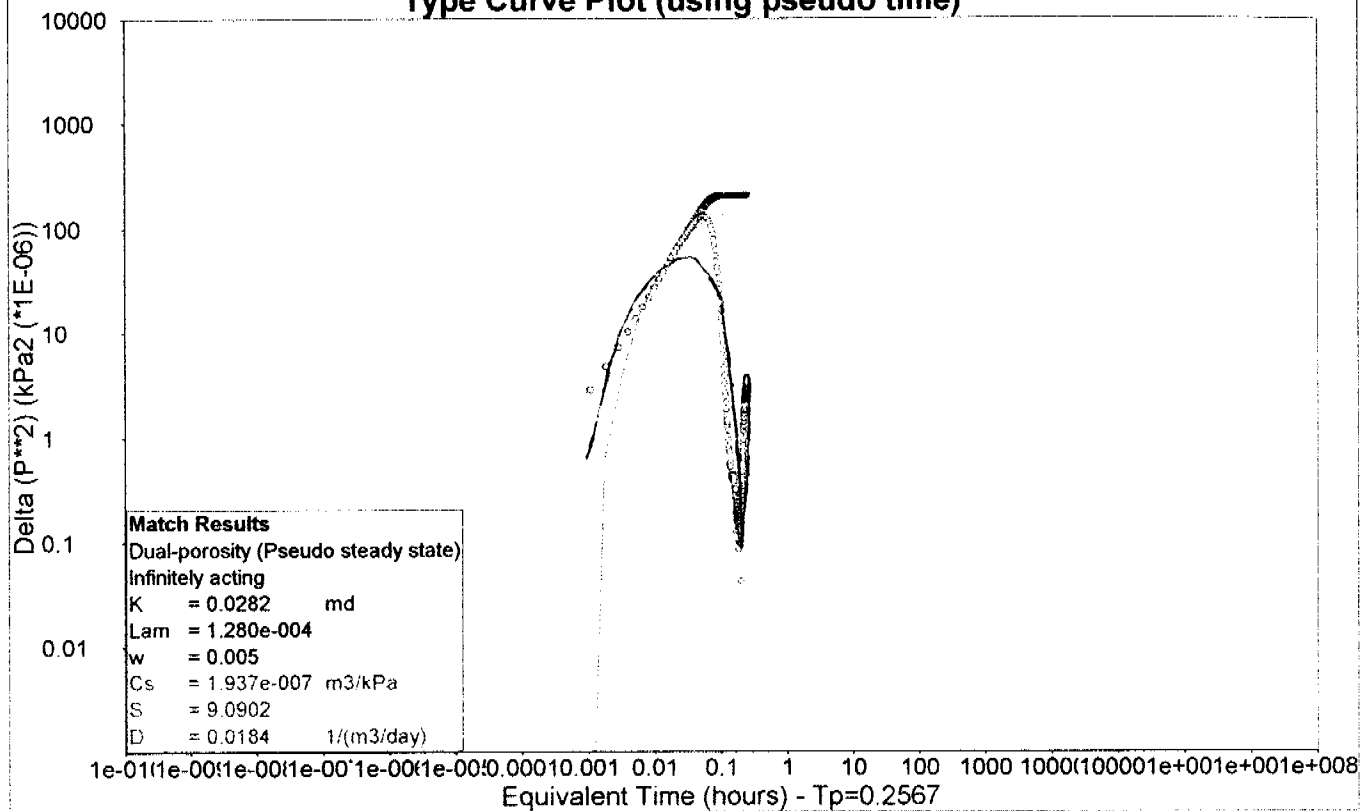
Intercept : 3.43346

Coefficient of Determination : Not Used

Number of Intersections = 0

Buildup Analysis Report

Type Curve Plot (using pseudo time)



Type Curve Plot Model Results

Dual-porosity (Pseudo steady state)

Infinitely acting

	Value
Permeability	0.0282 md
Interporosity flow coefficient	1.2803e-4
Storativity ratio	5.0000e-3

Type Curve Details

Match point - X
Match point - Y
Curve Number
Curve Value
Axis Type :