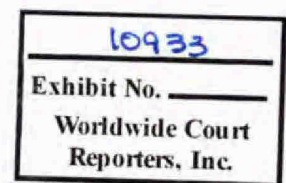


From: Merrill, Robert C
Sent: Sun Jul 25 21:47:50 2010
To: Levitan, Michael M.
Subject: PIE_DPDerivatives_25July.xls
Importance: Normal
Attachments: PIE_DPDerivatives_25July.xls

Please be sure to use the Physical Data in the enclosed spreadsheet.
IT IS NOT THE SAME AS BEFORE!!!
<<...>>



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BP-HZN-2179MDL04850770
BPD344-051202

TREX 010933.0001

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BP-HZN-2179MDL04850771

BPD344-051203

TREX 010933.0002

PIE Volumetric Calculations and Analysis

Case 1:

Static Input Data:

Bo	2.310 rb/stb	
Oil Viscosity	0.210 cP	
Fluid Compressibility	14 μ sips	
Water Compressibility	3 μ sips	
Rock Compressibility	6 μ sips	
Total	23 μ sips	
Net Thickness	93 ft	Includes M56D, M56E, M56F (v2)
Porosity	21.6%	NetH weighted Average
Water Saturation	12.2%	NetHxPorosity Average
Initial Pressure	11,856 psia	M56E Sand
Initial Pressure (WHP)	8,562	(corrected using 3294 psia)

Model

	Linear (homogeneous)	
+X	1,750	3,500
-X	1,750	
+Y	11,500	23,000
-Y	11,500	

Pore Volume	1.617E+09 ft ³
H/C Pore Volume	253 mmb
Original Oil In Place	109 mmstb



Average Fluid Properties

Average GOR (Single-Stage Flash, scf/stb)	2,938
Average API (Single-Stage Flash, scf/stb)	34.9
Formation Volume Factor (single-stage flash, @P _{sat} and T _{res} , rb/stb)	2.558
Formation Volume Factor (single-stage flash, @P _{res} and T _{res} , rb/stb)	2.310
Reservoir Temperature (F)	243
Initial Reservoir Pressure (psia)	11,856
Bubble Point at Reservoir Temperature (psia)	6,430
Average Oil Density at Reservoir Conditions (g/cc)	0.589
Average Oil Viscosity at Reservoir Conditions (cp)	0.21
Average Oil Compressibility at Reservoir Conditions (1/psi)	13.96