

PETRO - TECH
PERUANA S.A.



Well File

GEOSCIENCES
Central File
July 17, 2001
DATE

TO: P. Alarcon
FROM: V. Peralta *V. Peralta*
SUBJECT: PBU - WELL LO6-23
DATE: July 13, 2001

GEOSC - 206 - 01

A build up of 12 hours plus a flowing and static gradient were recorded in order to know the current conditions of Upper Basal Salina reservoir in well of the reference. A summary of results is as follows:

Date	July- 05-2001
Perforated intervals (ft, MD)	8042'-7904'
Formation opened	Upper Basal Salina
Bomb depth, ft, MD, (VD)	7973', (7396')
MPP, ft, MD (VD)	7973', (7396')
Bottom Hole Flowing Pressure, psig	872
Well Head, Pressure (Psig)	60
Pressure at Bomb depth, psig	1301
Pressure at MPP, psig	1301
Fluid Level, ft, MD, (VD)	5829'MD, 5487'VD
Avg. Fluid gradient, psi/ft	NR
Extrapolated Pressure (P), psig	+1698
Formation Gradient, psi/ft	0.223
Average oil permeability, md	0.65
Skin Factor	-2.26
Oil Productivity Index, Bbls/psi	0.044

Comments:

- Matching Log-Log plot indicates a pressure behavior typical of an homogeneous reservoir.
- Due to short shut in time, the proximity of a fault effect or other limits are not observed.
- Extrapolated pressure is 1698 psig. This result is considered as an approximation to the reservoir pressure. If it is compare to the initial pressure of 3976 psig, a substantial depletion is observed after producing 6083 bls. of fluid (2709 bls oil and 3374 bls of water).
- For the more optimistic case, the OOIP is estimated to be between 50 - 70 MSTB.
- The water production could be explained due to relative high water saturation in almost all the section.

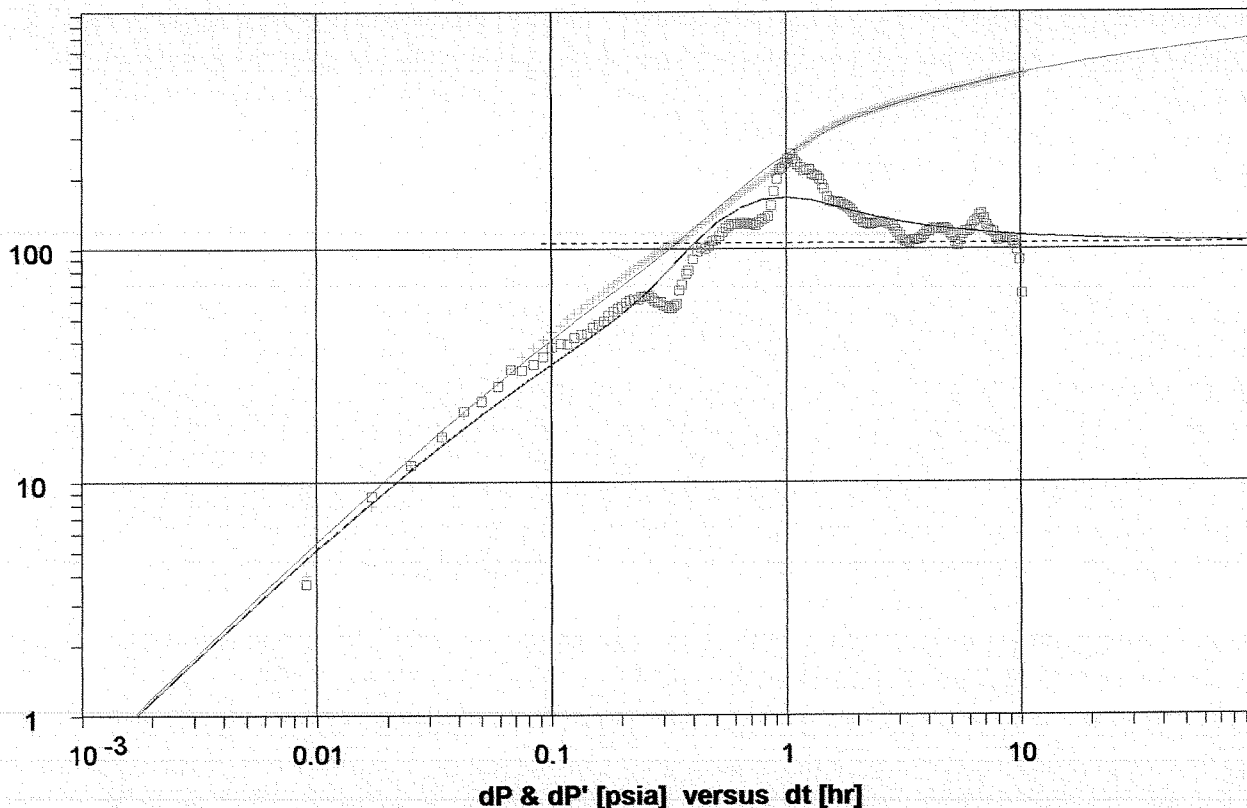
For future pressure tests, it is recommended to repeat this build up considering a minimum 72 hours of shut in time, with the purpose to know the reservoir limits and verify the reservoir conditions.

cc: J.Meyers
O.Nieto
R.Corman
File



Company PETRO-TECH
Field LOBITOS
Well LO6-23
Test SHORT-PBU

LO6-23 : Log-Log



Flow Period # 2
Rate 0 STB/day
Rate Change 36 STB/day
P at dt=0 747.98 psia
Smoothing 0.1
Pi 1698.34 psia

Time Match 5.53 (hr)-1
Pressure Match 0.00479 (psia)-1

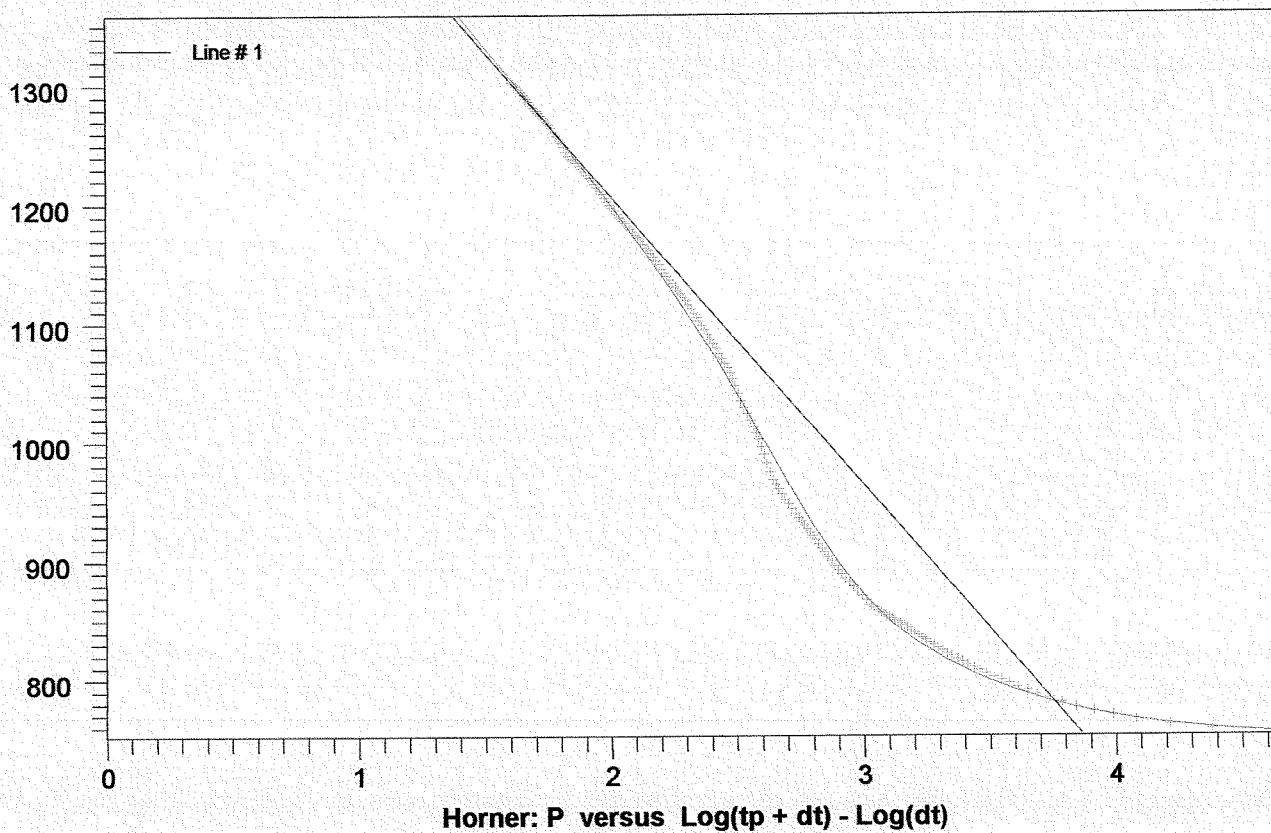
RESERVOIR Homogeneous
BOUNDARY Infinite
WELL Storage & Skin
Storage C 0.00176 STB/psi
Ci/Cf 1.682
Alpha 476
Skin factor -2.26
Delta P Skin -470.666 psia

kh 26.7 md.ft
k 0.65 md
Mobility k/mu 0.8
Investig. R 61.1 ft
Tested Volume 8571.72 Barrels



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LO6-23 : Flexible



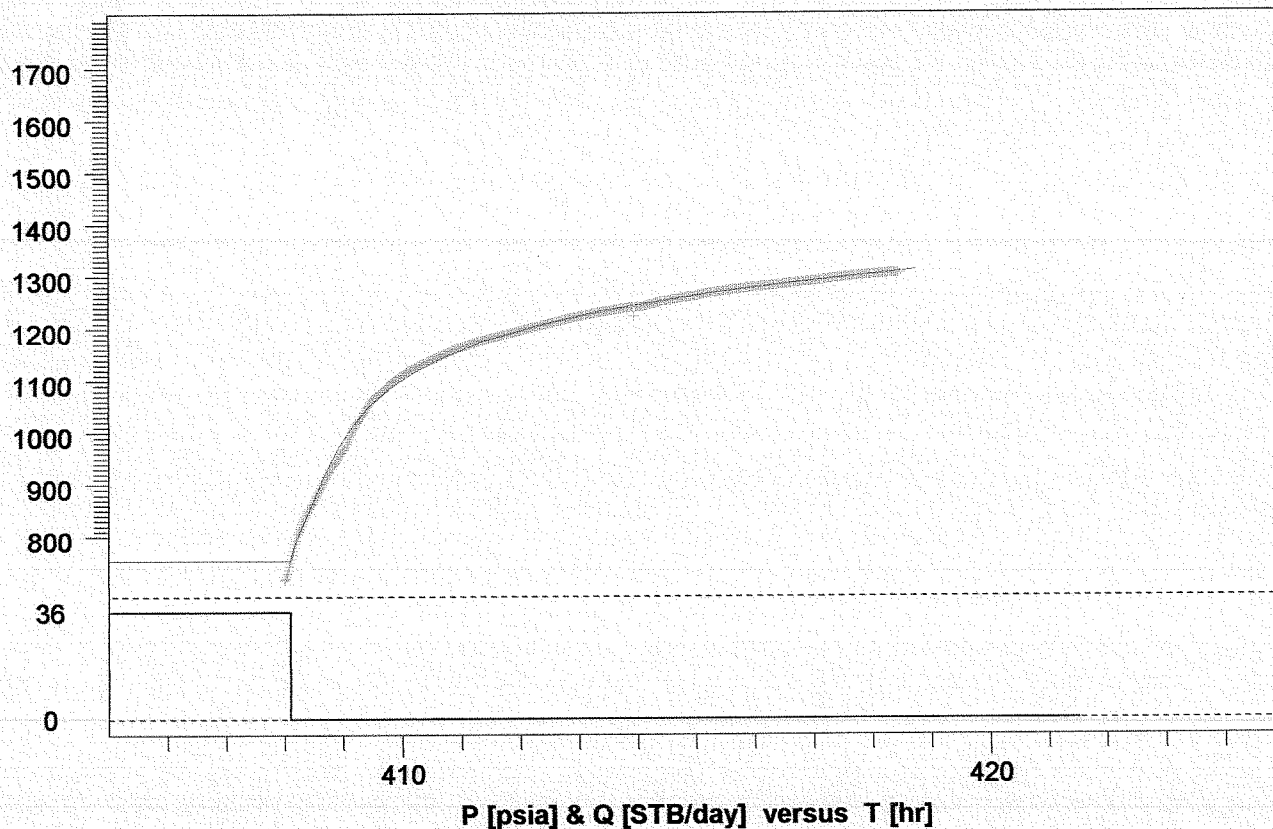
Flow Period # 2
Rate 0 STB/day
Rate Change 36 STB/day
P at $dt=0$ 747.98 psia
Pi 1698.34 psia

Flexible line # 1
P vs $\text{Log}(dt)$, BU
Slope -243.063
Intercept 1691.21
kh 26.3 md.ft
k 0.64 md
Skin factor -2.34



Company PETRO-TECH
Field LOBITOS
Well LO6-23
Test SHORT-PBU

LO6-23 : Simulation



Flow Period # 2
Rate 0 STB/day
Rate Change 36 STB/day
P at dt=0 747.98 psia
Pi 1698.34 psia

Time Match 5.53 (hr)⁻¹
Pressure Match 0.00479 (psia)⁻¹

RESERVOIR Homogeneous
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