

STATIC GRADIENT

WELL: LO6-27D

FORMATION: BASAL SALINA

INTERVAL: < 10880' - 10830' >

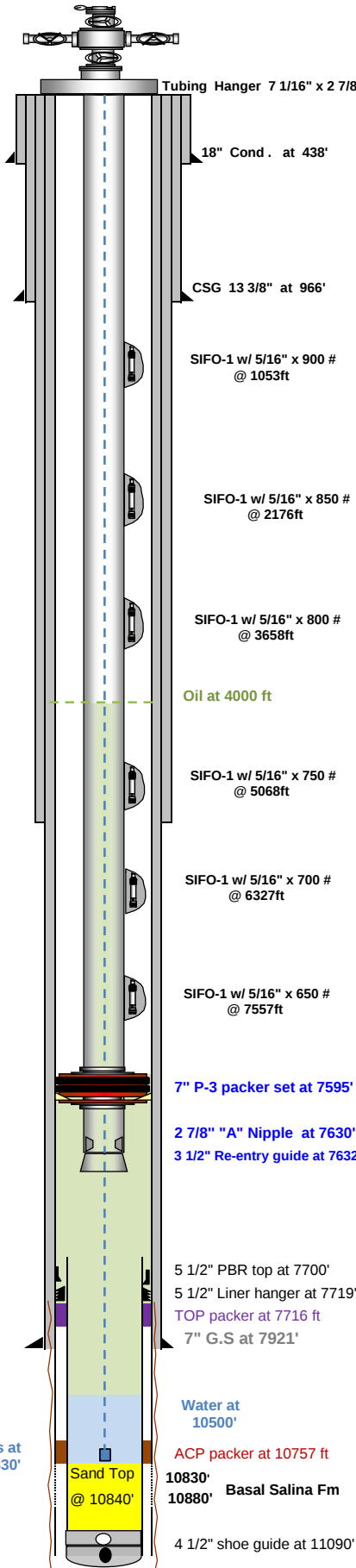
SAVIA PERÚ S.A.

MARCH 28-29th, 2013

INKAWELLDATA

WELL TESTING

STATIC GRADIENT

DATE	MARCH 28-29th, 2013	DEPTH MEMORY	10830ft MD
LOCATION	LOBITOS OFFSHORE	TUBING	2 7/8"
WELL	LO6-27D	FORMATION	BASAL SALINA
		INTERVAL	< 10880' - 10830' >
SCHEME		SERVICE PERFORMED	
 Tubing Hanger 7 1/16" x 2 7/8" 18" Cond . at 438' CSG 13 3/8" at 966' SIFO-1 w/ 5/16" x 900 # @ 1053ft SIFO-1 w/ 5/16" x 850 # @ 2176ft SIFO-1 w/ 5/16" x 800 # @ 3658ft Oil at 4000 ft SIFO-1 w/ 5/16" x 750 # @ 5068ft SIFO-1 w/ 5/16" x 700 # @ 6327ft SIFO-1 w/ 5/16" x 650 # @ 7557ft 7" P-3 packer set at 7595' 2 7/8" "A" Nipple at 7630' 3 1/2" Re-entry guide at 7632' 5 1/2" PBR top at 7700' 5 1/2" Liner hanger at 7719' TOP packer at 7716 ft 7" G.S at 7921' Water at 10500' ACP packer at 10757 ft 10830' Sand Top @ 10840' 10880' Basal Salina Fm 4 1/2" shoe guide at 11090' MG's at 10830' TD = 11084'		Well Information PROD. DATA: 35 BOPD x 2 BWPD GL 60' x 50 45" x THP: 30/200 # PKR: 7595' INSTALL. TYPE: CONVENTIONAL GAS LIFT March 27th, 2013 20:00 On location. 22:00 Safety meeting 22:15 RU Slickline Equipment 23:30 Test Lubricator with 500#, Ok. March 28th, 2013 01:00 Calibrate well, (Run 2 5/16" Cup up to 7630ft) 02:00 Recovery Standing valve 2 7/8" # 1131 @ 7630ft 02:41 Activate Memory Gauge s/n: 2760 02:43 Activate Memory Gauge s/n: 4114 02:50 RIH Memory Gauges 03:00 Hung Up Memory Gauges @ 10830', Take flowing gas lift gradient for 3 hrs. 06:00 Cut Gas Lift Injection, Log flowing pressure for 2 hours. 08:00 Close production valves, Take static gradient for 20 hours. March 29th, 2013 04:00 POOH Memory Gauges with steps 2 min.each one: from 10830' to 10800' each 30' from 10800' to 10500' each 100' from 10500' to 0' each 500' 06:00 Memory Gauges on surface 06:10 Desactivate Memory Gauges 06:30 Downloading information memory gauges, 07:30 Install a new standing valve 2 7/8" # 134 @ 7630'. 08:30 Install stvalve test, Ok. 09:00 Normalizate well on production. 09:30 R/D Slickline equipment	
		IKW OILFIELD ENGINEER: ENRIQUE CORDOVA IKW FIELD OPERATORS: ROBERTO TALLEDO; CARLOS ACEDO; DARWIN CORONADO	

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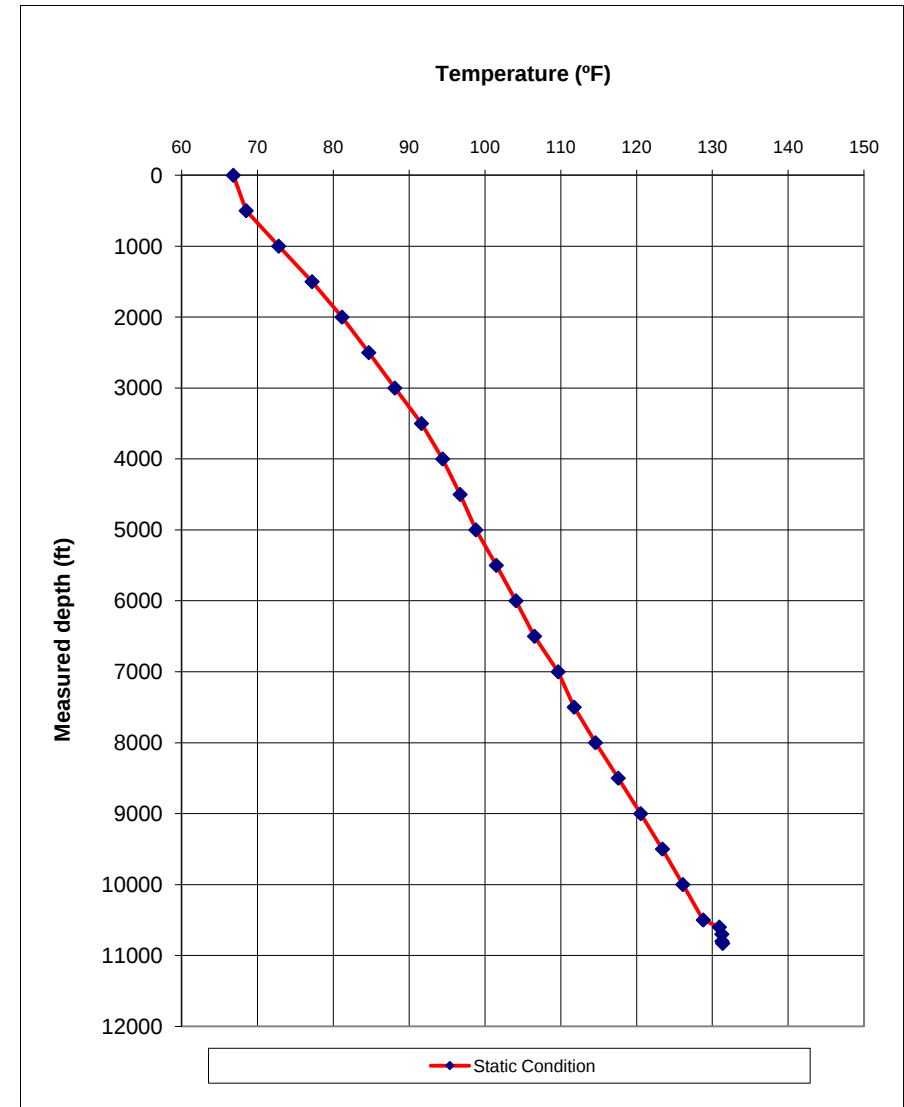
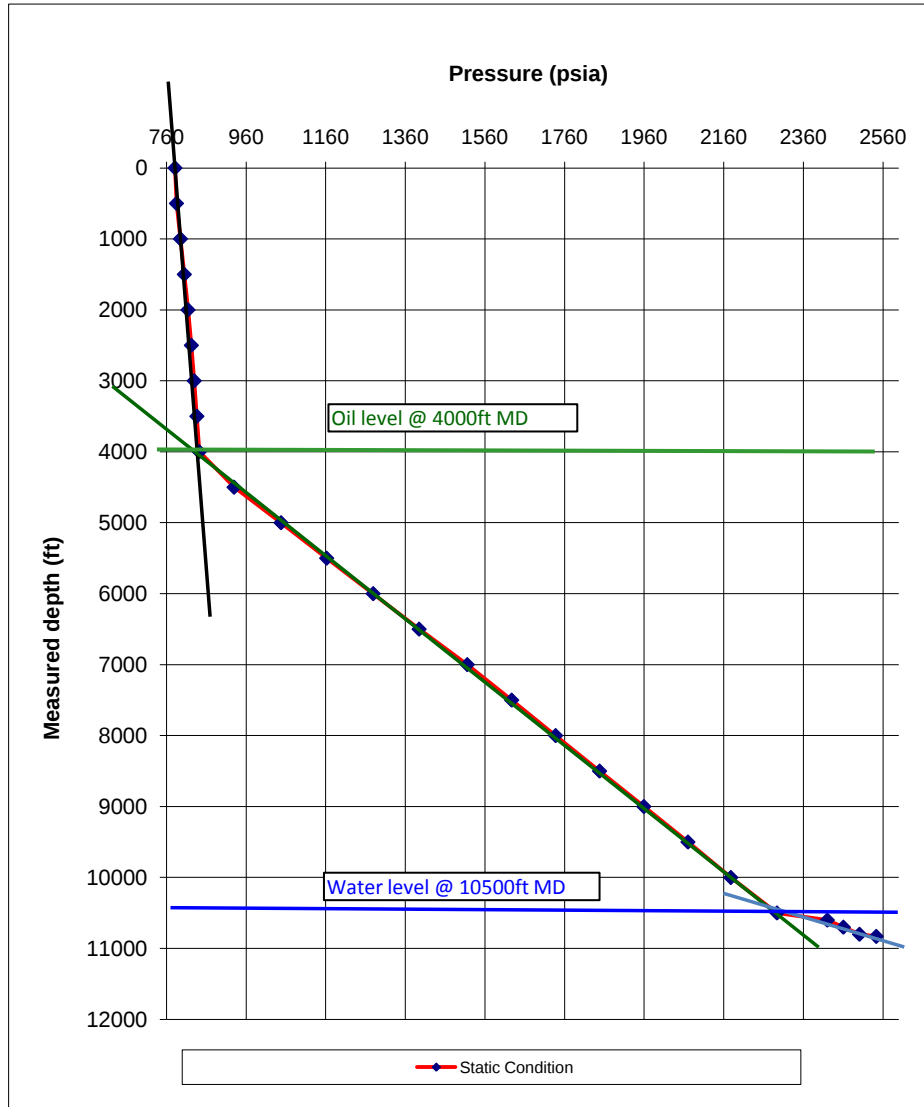
A.- GRADIENT AT STATIC CONDITION

MD (ft)	TVD (ft)	Pressure	Pressure Gradient	Temperature
(ft)	(ft)	(psia)	(psi/ft)	(°F)
0	0	781.54		66.82
500	500.00	785.24	0.0074	68.52
1000	997.00	795.24	0.0201	72.81
1500	1473.00	804.98	0.0205	77.21
2000	1902.00	814.25	0.0216	81.16
2500	2271.00	822.64	0.0227	84.68
3000	2613.00	829.84	0.0211	88.12
3500	2954.00	836.53	0.0196	91.63
4000	3292.00	842.58	0.0179	94.43
4500	3635.00	929.91	0.2546	96.73
5000	3972.00	1047.91	0.3501	98.81
5500	4317.00	1162.51	0.3322	101.50
6000	4640.00	1279.41	0.3619	104.10
6500	5021.00	1394.75	0.3027	106.54
7000	5356.00	1515.74	0.3612	109.66
7500	5690.00	1627.24	0.3338	111.77
8000	6026.00	1737.64	0.3286	114.58
8500	6370.00	1848.01	0.3208	117.58
9000	6717.00	1959.26	0.3206	120.54
9500	7056.00	2070.02	0.3267	123.41
10000	7422.00	2177.71	0.2942	126.10
10500	7818.00	2293.71	0.2929	128.79
10600	7904.00	2420.16	0.4612	130.91
10700	7991.00	2460.43	0.4629	131.24
10800	8078.00	2500.95	0.4657	131.25
10830	8104.00	2543.02	0.4658	131.35

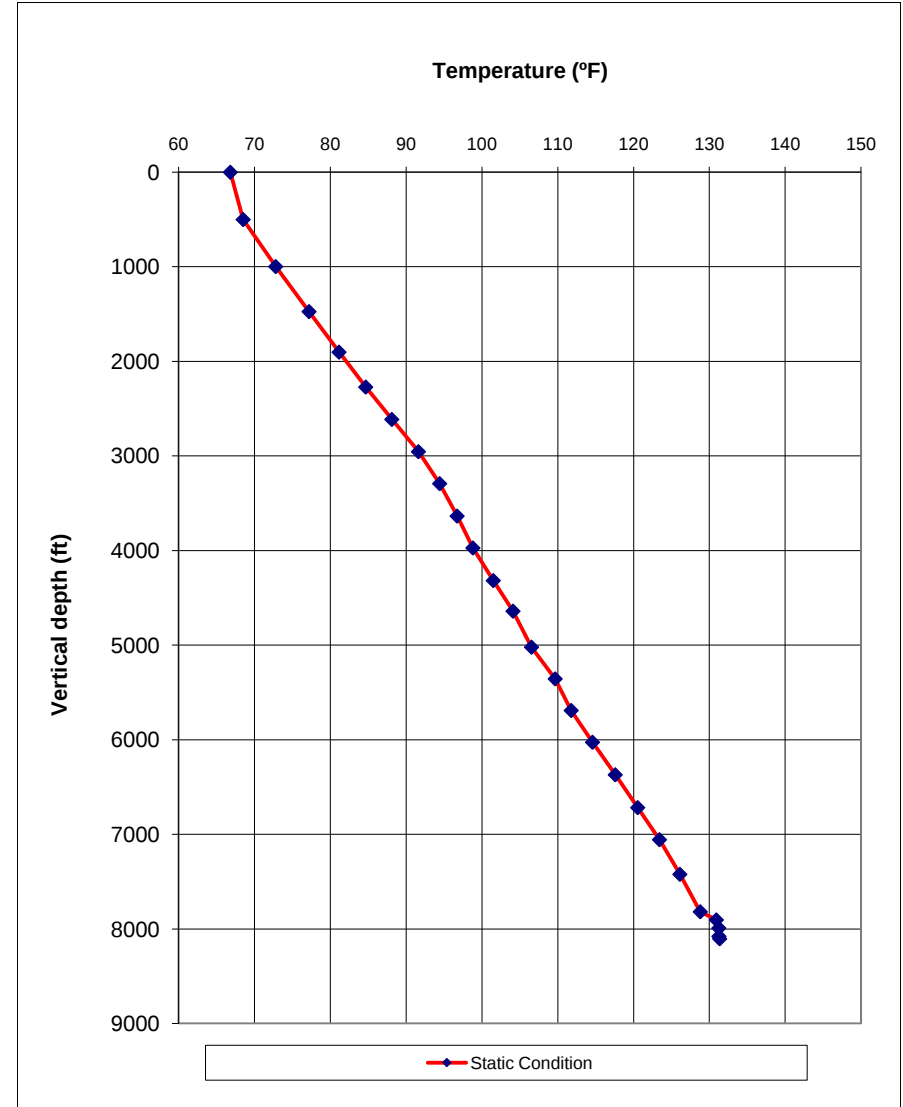
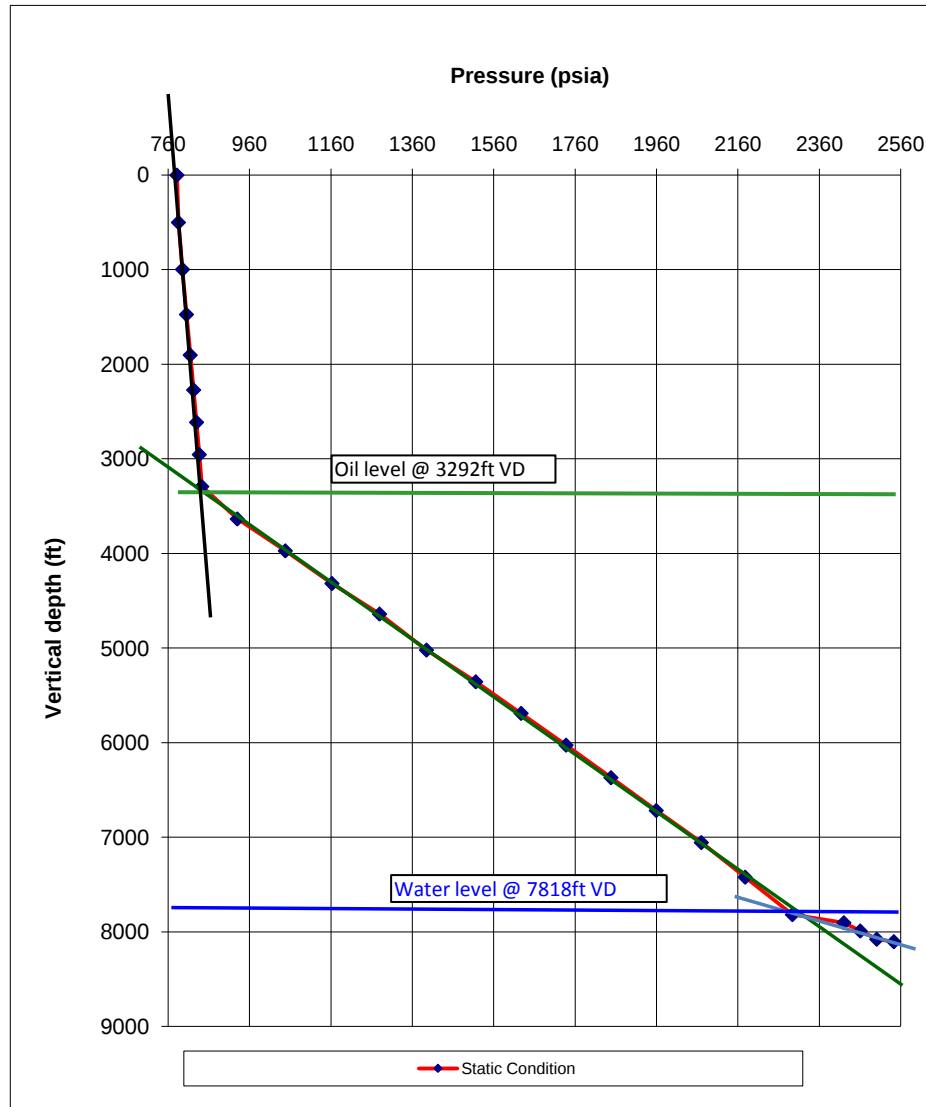
B.- FLUID LEVEL AND GRADIENTS AT STATIC CONDITION

Fluid	MD	TVD	Pressure Gradient
Type	(ft)	(ft)	(psi/ft)
Gas	0	0	0.0185
Oil	4000	3292	0.3260
Water	10500	7818	0.6143
Gauges	10830	8104	0.3138

STATIC GRADIENT, WELL: LO6-27D



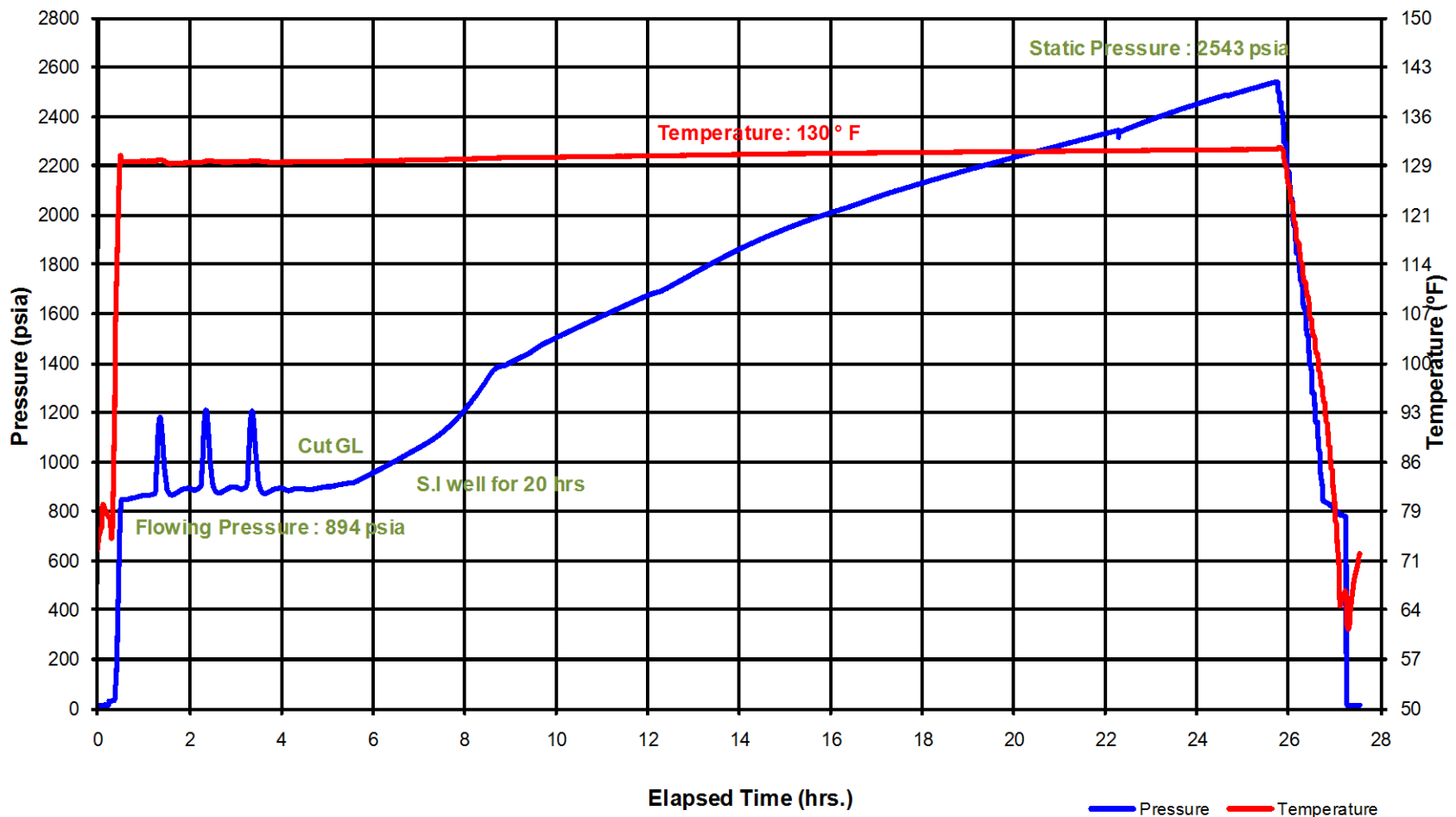
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<u>SUMMARY OF RESULTS</u>			
TEST DATE:	MARCH 28-29th, 2013		
DEPTH MEMORY:	10830 8104	ft MD ft VD	
FORMATION AND INTERVAL:	BASAL SALINA < 10880' - 10830' >		
FLOWING PRESSURE @ 10830ft	Máy Mín	894 867	psia psia
TEMPERATURE @ 10830ft		129	°F
ΔP(Last hour)		52	psia
PRESSURE AT 10830ft (T si. = 20 Hr)		2543	psia
TEMPERATURE AT 10830ft		131	°F
STATIC GRADIENT AT 10830'		0.3138	psi/ft
OIL GRADIENT OIL LEVEL		0.3260 4000 3292	psi/ft ft MD ft VD
WATER GRADIENT WATER LEVEL		0.6143 10500 7818	psi/ft ft MD ft VD

Data Chart: BHP Pozo LO6-27D
Date: March 28 - 29, 2013. MG depth = 10830'



Pressure Record LO6-26D Build Up 20 hrs Basal Salina Fm < 10880' - 10830' >

Date	Time	Pressure (Psig)		Comments
dd/mm/yy	(hr)	THP	CHP	
28/03/2013	03:00	30/200	480/550	Flowing Condition
	06:00	30	480	Cut GL
	08:00	30	480	Static Condition
	09:00	90	480	
	10:00	150	480	
	11:00	210	480	
	12:00	270	480	
	13:00	330	480	
	14:00	390	480	
	15:00	460	480	
	16:00	480	480	
	17:00	500	480	
	18:00	520	480	
	19:00	540	480	
	20:00	560	480	
	21:00	580	480	
	22:00	600	480	
	23:00	620	480	
	00:00	640	480	
29/03/2013	01:00	660	480	
	02:00	680	480	
	03:00	700	480	
	04:00	740	480	