

WELL: LO6-2

BUILD UP PRESSURE TEST

AND STATIC GRADIENT

(Date: May 9-14, 1995)

History

On May/22/85, LO6-2 Well was completed in the interval 5180'-3959' of R.Bravo Fm. which shows a regular initial production. The cumulative oil production up to April /95 was 79 MBIs. Now, it is a gas lift well producing 26 bopd.

This survey was recommended to evaluate the actual reservoir pressure.

Results

Formation	Perforated Interval (MD)	M.P.P.		Pressure (Psi/ft)		Form. Gradient (Psi/ft)	Fluids Level (VD)	Fluids Gradient (Psi/ft)
		MD	VD	Static	P*			
R.Bravo	5180'-3959'	4570'	4432'	513	817	0.116	Gas at Surf. Oil at 3720'	0.005 0.349

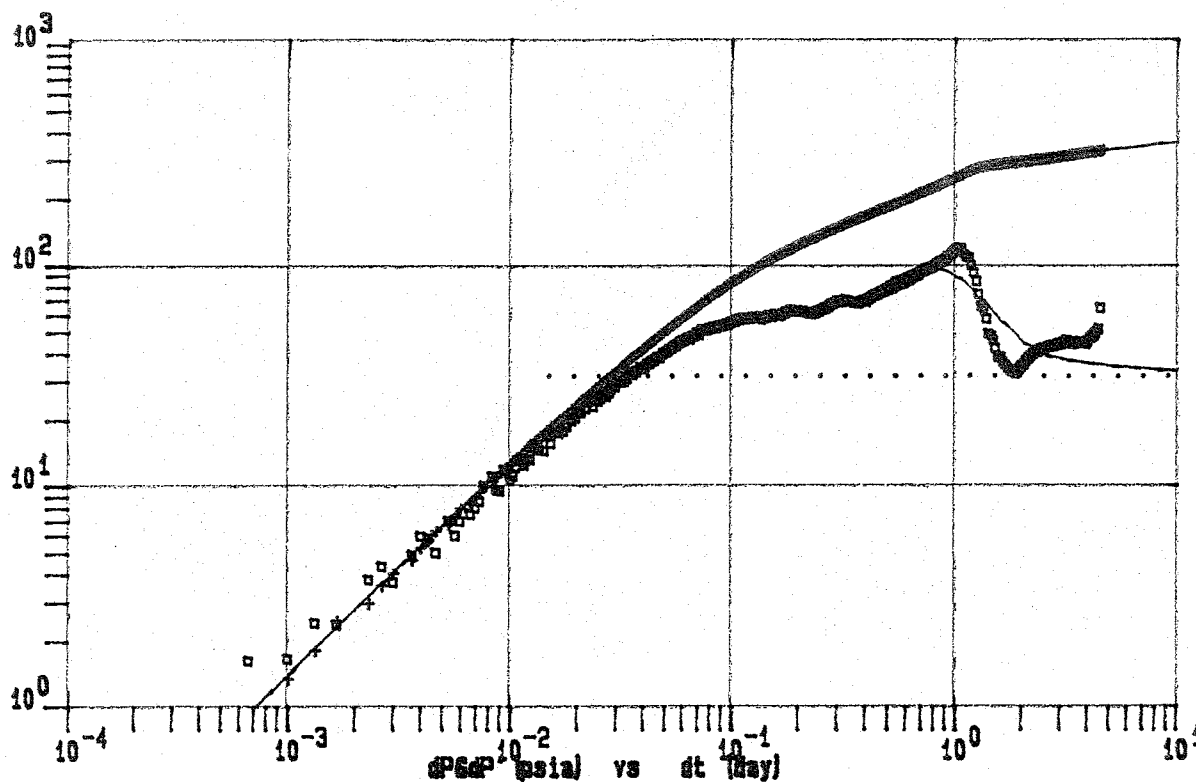
	<u>Match</u>	<u>Horner</u>
Permeability (K), md.	0.0423	0.0421
Skin Factor (S)	0.587	0.379

The pressure at bomb depth (5100' MD - 4954' VD) was 725 psig. The well was shut-in during 112 hours to build up pressure. The log-log plot of pressure changes and derivative versus dt. is shown in Attachment-1, where a period of stabilization is noticed between 62.4 and 98.4 hours. Then, almost at the end of the build up test, the presence of boundary effect is indicated.

The interpretation using the Changing Wellbore Storage Model adjusted better in this case, as it is shown in Attachments-1 & 2 with solid lines. The values of permeability and Skin are in agreement with those found from Horner analysis, see Attachment-3. The R.Bravo Fm. shows no damage and it has very low permeability.

VPG

PetroTech	Log-Log	L06-2	
Company	PETRO-TECH	Test	PBU
Field	LOBITOS	Date	MAY/9-14/95
Well	L06-2	Gauge	



Flow Period # 2
Rate 0 STB/day
Rate Change 23 STB/day
P @ dt=0 293.86 psia
Pi 823.68 psia
Smoothering 0.1

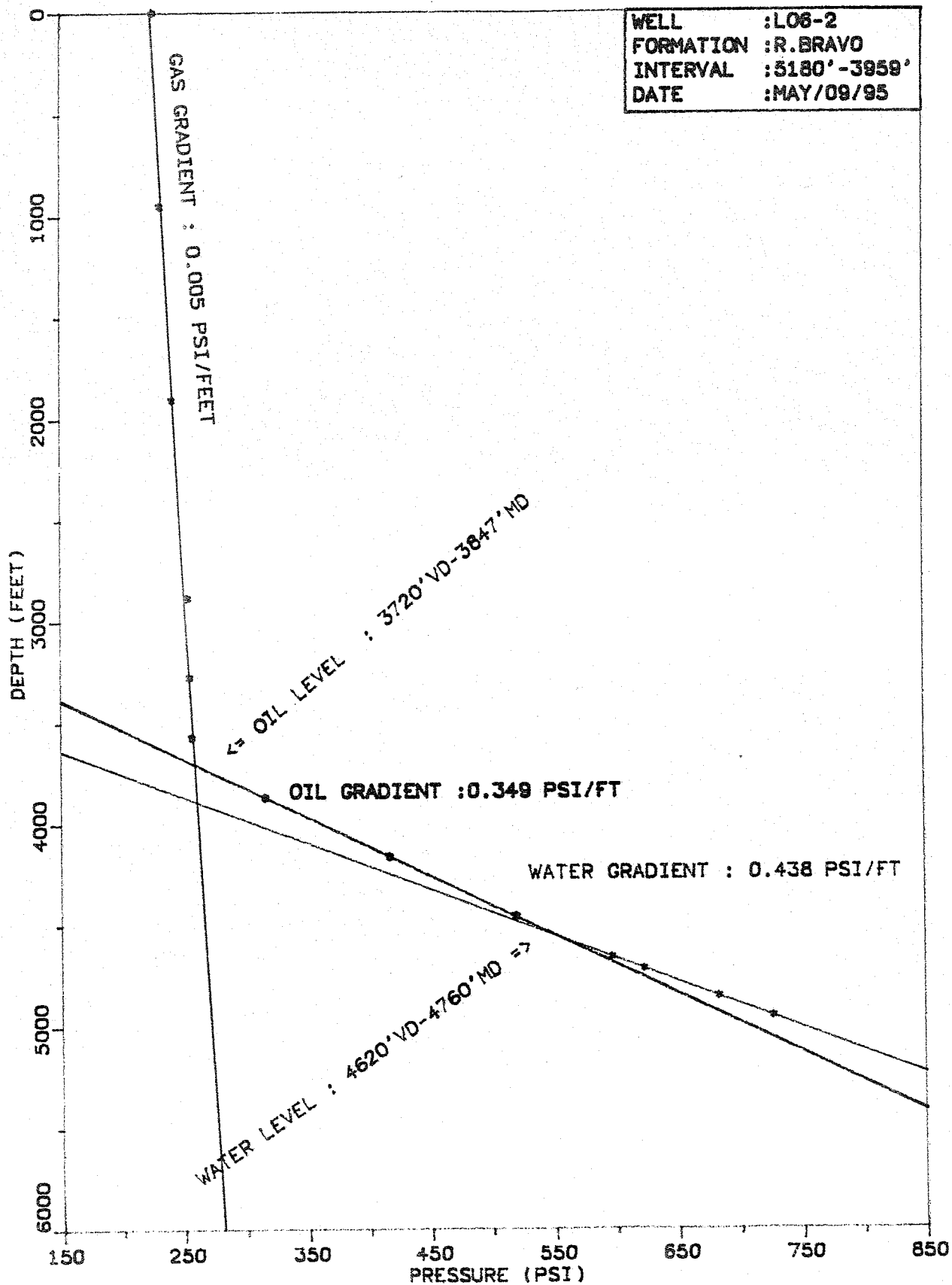
Time match 33.671 (day)-1
Pressure Match 0.016258 (psia)-1

RESERVOIR Homogeneous
WELL Changing storage
BOUNDARY Infinite

Storage C 0.0012545 STB/psi
CD 41.957
C factor 1.3909
Alpha 911.2
Skin factor 0.58784

kh 8.7703 md.ft
K 0.042369 md
Mobility k/mu 0.028822
Investig. R 50.863 ft

STATIC GRADIENT SURVEY L06-2



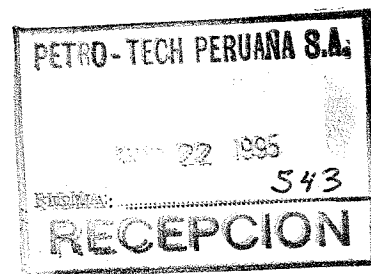
HCH ✓
VP —
R. Comandante
Reporte
18/5/95

PRUEBA DE RESTAURACION DE PRESION Y GRADIENTE ESTATICA

PETRO-TECH PERUANA S.A.
LOBITOS MAR LO6-2
TALARA - PERU
120 HRS. BUILD UP

DEL 9 AL 14 DE MAYO DE 1995

REPORTE PREPARADO
POR
EDDY CORDERO
MIGUEL BRAVO DE RUEDA



INFORMACION GENERAL

POZO : L06-2	AREA : LOBITOS MAR
PRUEBA : REGISTRO DE RESTAURACION DE PRESION (BUILD UP) x 120 Hrs.	
FORMACION : RIO BRAVO	INTERVALO PRODUCTOR : 3959' - 5180' P.M.

POZO L06-2

INSTALACION DE SUBSUELO
(BLT)
TUBING 2 3/8"
CASING 5 1/2"

FECHA	DATOS DEL POZO
09/05/95	Número Oficial del Pozo : Z-2A-19-401-D-L03 Instalación Actual : Gas Lift - BLT Estado del Pozo : Productor. Pruebas de Producción : 23 BOPD - MAR. 95 Producción Acumulada : 78,497 Bls. (Mar.95). Standing Valve @ 4,730 P.M. Tope de Arena @ 5,133 W.L.M.
HORA 11:30:00 13:00:00	
DESARROLLO DE LA PRUEBA	
14:00:00 14:11:47 14:20:00	Chequeó baterías del Memory Gauges. Prueba satisfactoria. Se conectó baterías. Presurizó Lubricador.
14:20:30 14:31:55 16:03:07	Se procedió a bajar Memory Gauge a 4,860' W.L.M. En el fondo. Se tomó 3 ciclos de inyección de gas (40' x 3'). Inicio del Registro Build Up. Presión Inicial de Cabeza : 100 psi.
10/05/95 12:00:00	--- Presión de Cabeza : 150 psi.
14/05/95 08:06:50	Termino del Registro Build Up. Inició Bajada @ 5100' WLM para toma de Gadietes.
08:14:47	Gradiente Estática de 5100' W.L.M. a superficie .
09:22:00 10:09:50	Se desfoga lubricador. Se desconecta baterías M.G.
10:30:00	Se instaló Standing Valve.
OBSERVACIONES : El Standing Valve se encontró a la profundidad de 4709' WLM. La tarjeta indica una profundidad de 4730 PM. Los datos utilizados corresponden a la bomba de Tope, serial 20611. En la prueba de Gradiente Estática se determinó la presencia de gas, crudo y agua : GRADIENTE DEL GAS : 0.007 PSI/FT @ SUPERFICIE. GRADIENTE DEL CRUDO : 0.346 PSI/FT @ 3573 PV (3695' WLM). GRADIENTE DEL AGUA : 0.440 PSI/FT @ 4572 PV (4712' WLM).	

COMENTARIOS

En el pozo LO6-2 del área Lobitos Mar, que tiene como arena productiva a la formación Rio Bravo con una producción promedio de 23 BOPD ,fue programado para una prueba Build Up por un periodo de 120 horas.

De la data obtenida se puede observar que la presión fluyente fue de 267 psi, y la presión estática final de 622 psi, habiendo un incremento de presión de 355 psi, esto indica que la formación tiene un regular aporte de fluido, también podemos notar que la temperatura promedio a la profundidad de 4860' es de 105°F.

En el gráfico cartesiano de Presión vs. Tiempo, se puede observar que existe un rapido incremento de presión en las primeras 24 horas, alcanzando en este tiempo una presión aproximada de 568 psi, luego se aprecia que la presión seguira un comportamiento lineal , la presión final alcanzada fue de 622 psia.

En el gráfico de Log-Log de Presión vs Tiempo se puede apreciar que los valores iniciales de presión, tienen una desviación de la linea de almacenamiento de pendiente unitaria, este ploteo se asemeja al ploteo de redistribución de fases, mediante el cual el gas entra en solución en el petróleo.

Del gráfico Semi-Log de Horner se puede notar los efectos de almacenamiento y la existencia de un skin negativo, que se comprueba observando la diferencia de presión entre la P1hr y la presión fluyente.

Para trazar una línea recta en el análisis de Horner, hemos escogido la data comprendida entre las ultimas 6 horas, y obtuvimos una pendiente, $M=-91.115$ psi/ciclo y una presión extrapolada de 881psia.

Tambien se computaron del análisis convencional de Horner los valores de permeabilidad y factor skin así como el radio de investigación, estos valores se muestran en la hoja de resultados para el Analisis Semi-Log de Horner.

Con respecto a la prueba de Gradiente Estática, podemos observar del gráfico respectivo la presencia de gas, aceite y agua.

El nivel de aceite se encontro a la profundidad de 3573 PV (3695'WLM) con una gradiente promedio de 0.346 psi/ft y el nivel de agua se encontró a 4572 PV (4712'WLM) siendo la gradiente promedio del agua de 0.440 psi/ft y la gradiente promedio del gas es de 0.007 psi/ ft.

LWA**S P C**

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

05/09/1995

Perforations: 3959' - 5180'

Gauge Depth 4860.0 feet

[INPUT PARAMETERS]
(Build-Up Analysis)

Well Type - OIL			
Reservoir Pressure	psia	P	622
Reservoir Temperature	Deg F	T	105
Final Shut-in Pressure	psia	Psi	622
Final Flowing Pressure	psia	Pwf	267
Oil Flow Rate	STB/D	Qo	23.0000
Sand Thickness	feet	hnet	110
Perforated Thickness	feet	hperf	110
Wellbore Radius	feet	rw	0.3200
Formation Porosity	%	POR	10
Extrapolated Pressure	psia	P*	881
Extrapolated Press @ 1hr	psia	P1hr	433
Semi-Log Slope	psi/cycle	M	-91.115
Shut-in Time	hrs	tsi	112.00

Uo (cp) 2.0000E+00

Bo (RB/STB) 1.1000E+00

Co (1/psi) 4.0000E-06

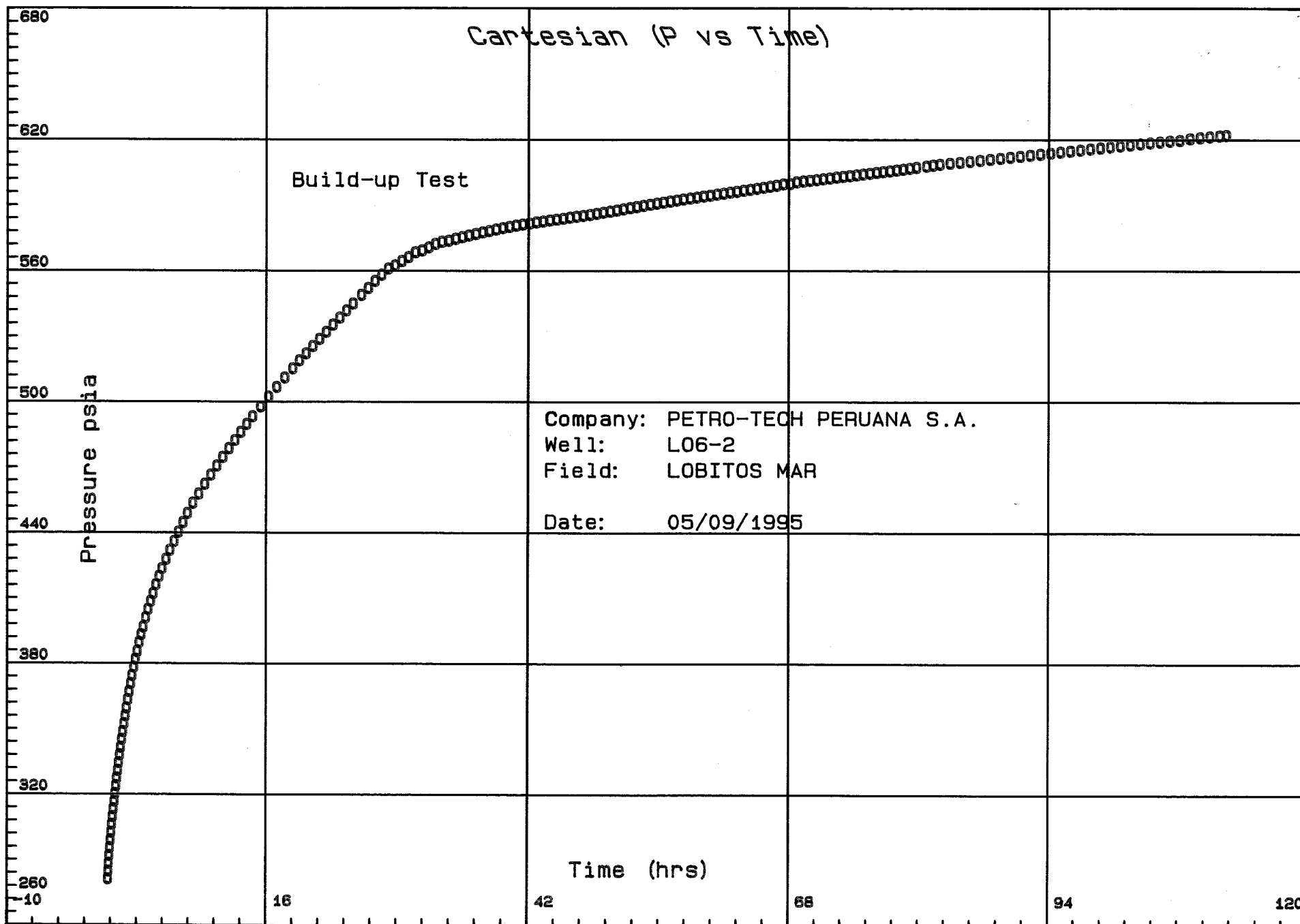
Ct (1/psi) 8.0000E-06

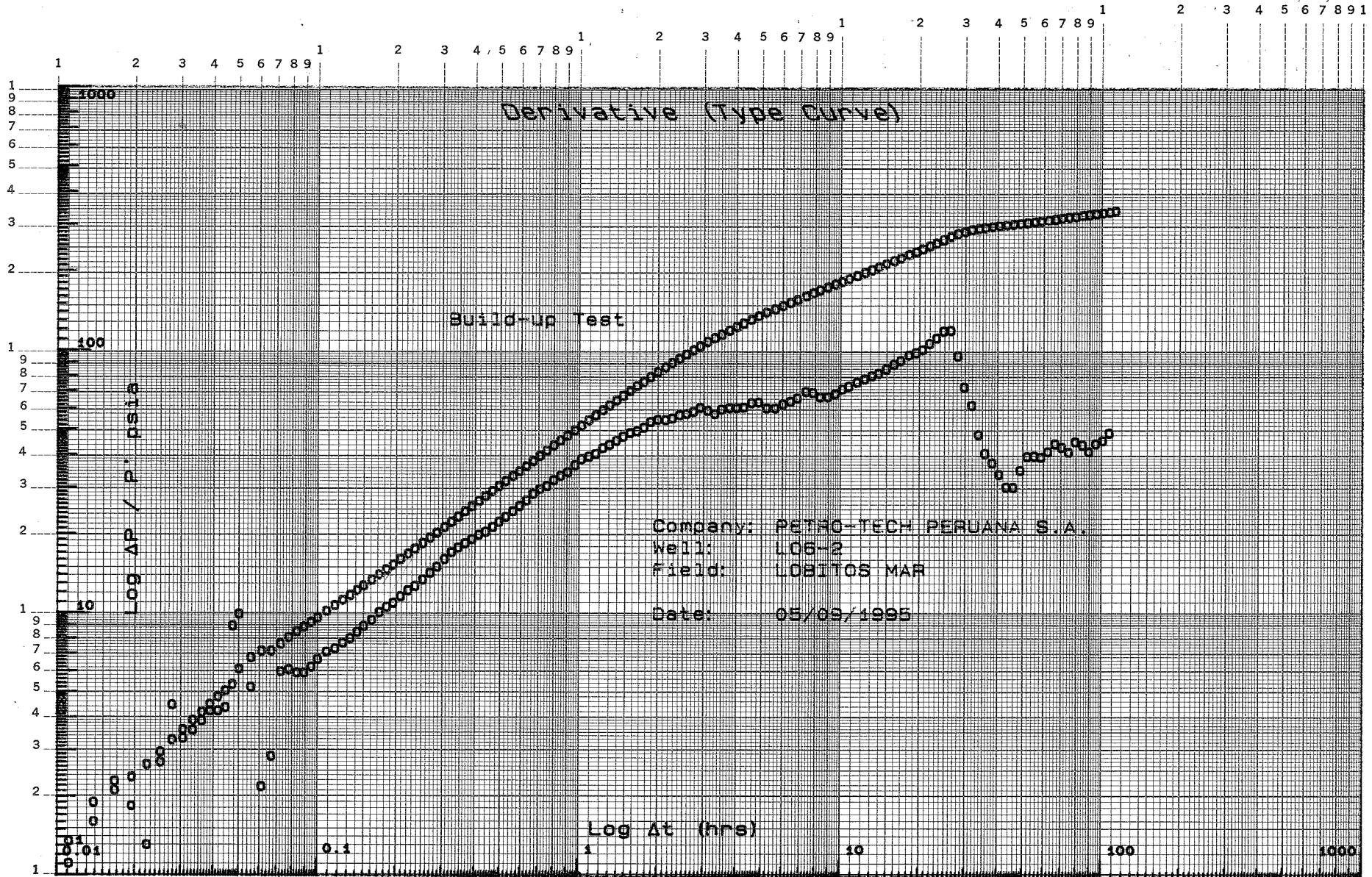
[CALCULATED RESULTS]

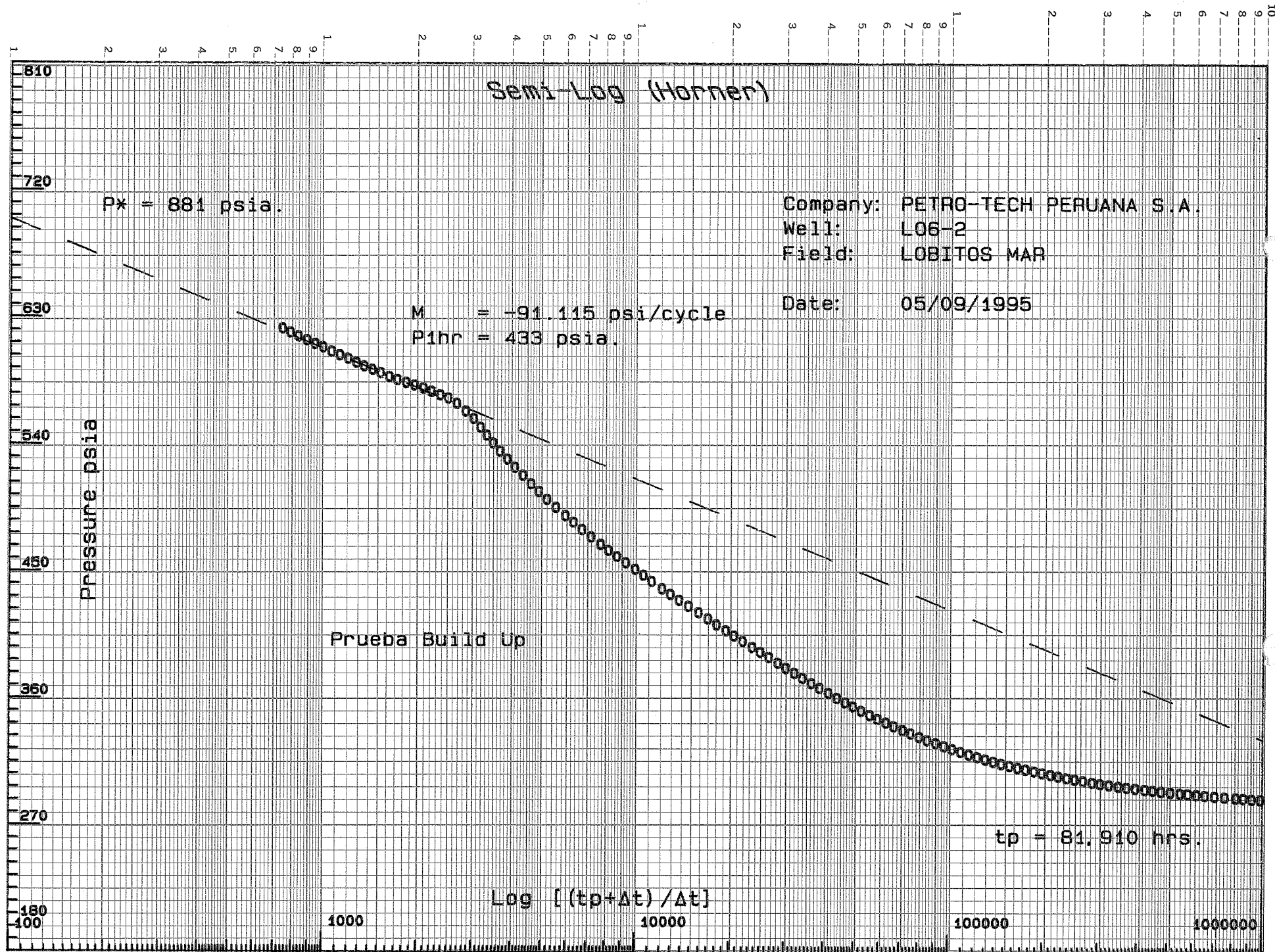
(Semi-Log) Analysis		Pressure Method	
Transmissibility	md-ft/cp	kh/u	45.149
Flow Capacity	md-ft	kh	90.299
Permeability	md	k	0.821
Skin Damage	total	S	-1.89
Pressure Drop due to Skin	psia	dP	+0.00
Flow Efficiency	%	FE	+100.00
Drainage Radius	feet	rd	220

[L.W.A. & S.P.C.]

Handwritten:
 $P = 1350$
 $S = 2.2$
 $K = 0.01$







Company : PETRO-TECH PERUANA S.A.
 Well : LO6-2
 Field : LOBITOS MAR
 Engineer : Miguel Bravo de Rueda
 Gauge Type : Starburst Ultra II
 Serial No. : 20611
 Gauge Range : 0 - 3014 psia
 Gauge Depth : 5100 ft. (WLM)
 Perfs. : 3959' - 5180'

Country : PERU
 State : TALARA
 Date : 14/05/1995
 Well API : 35
 Well Type : Oil
 Test Type : Static Gradient
 Well Status : Producer

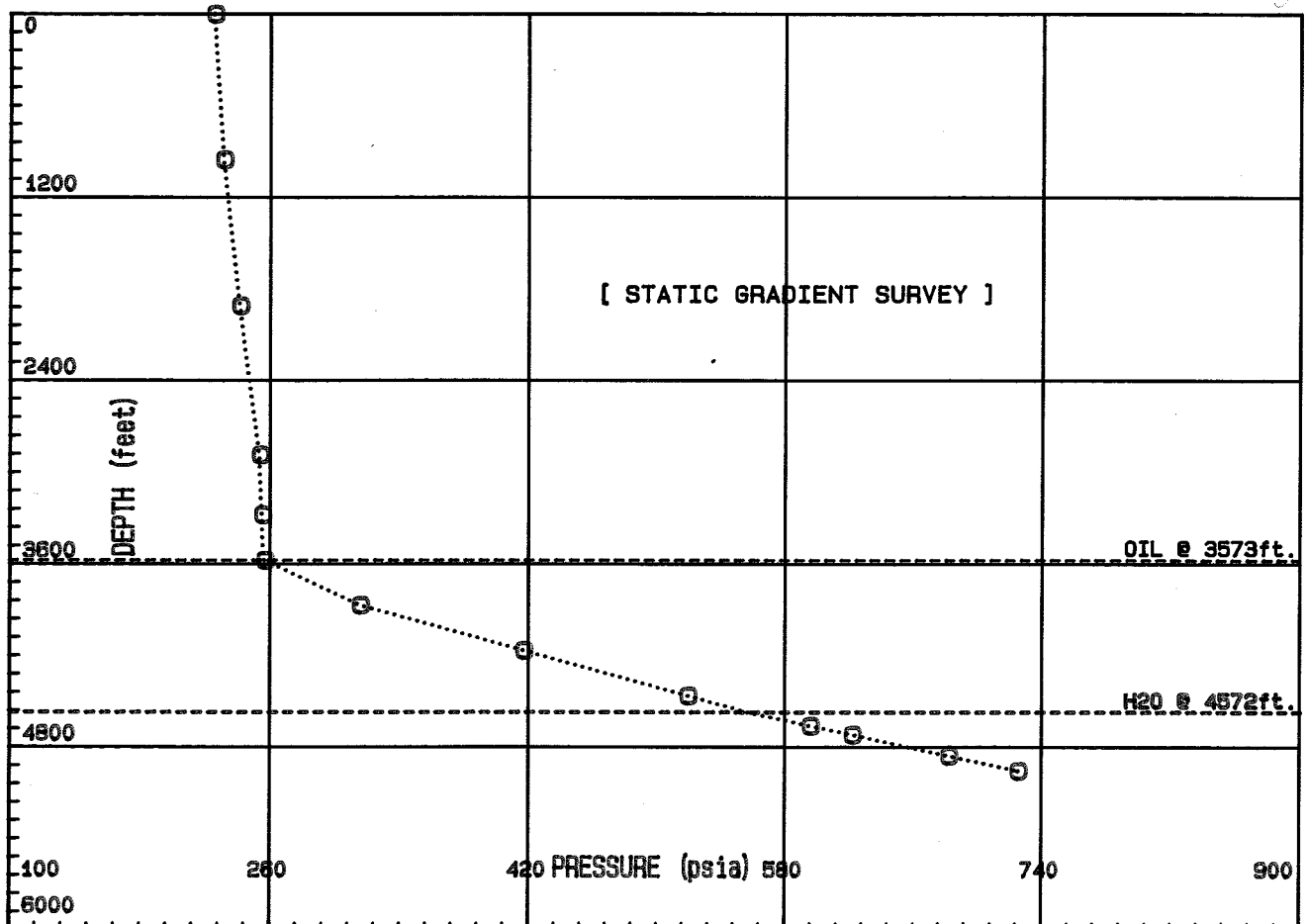
Shut-in Time : 112 hrs.

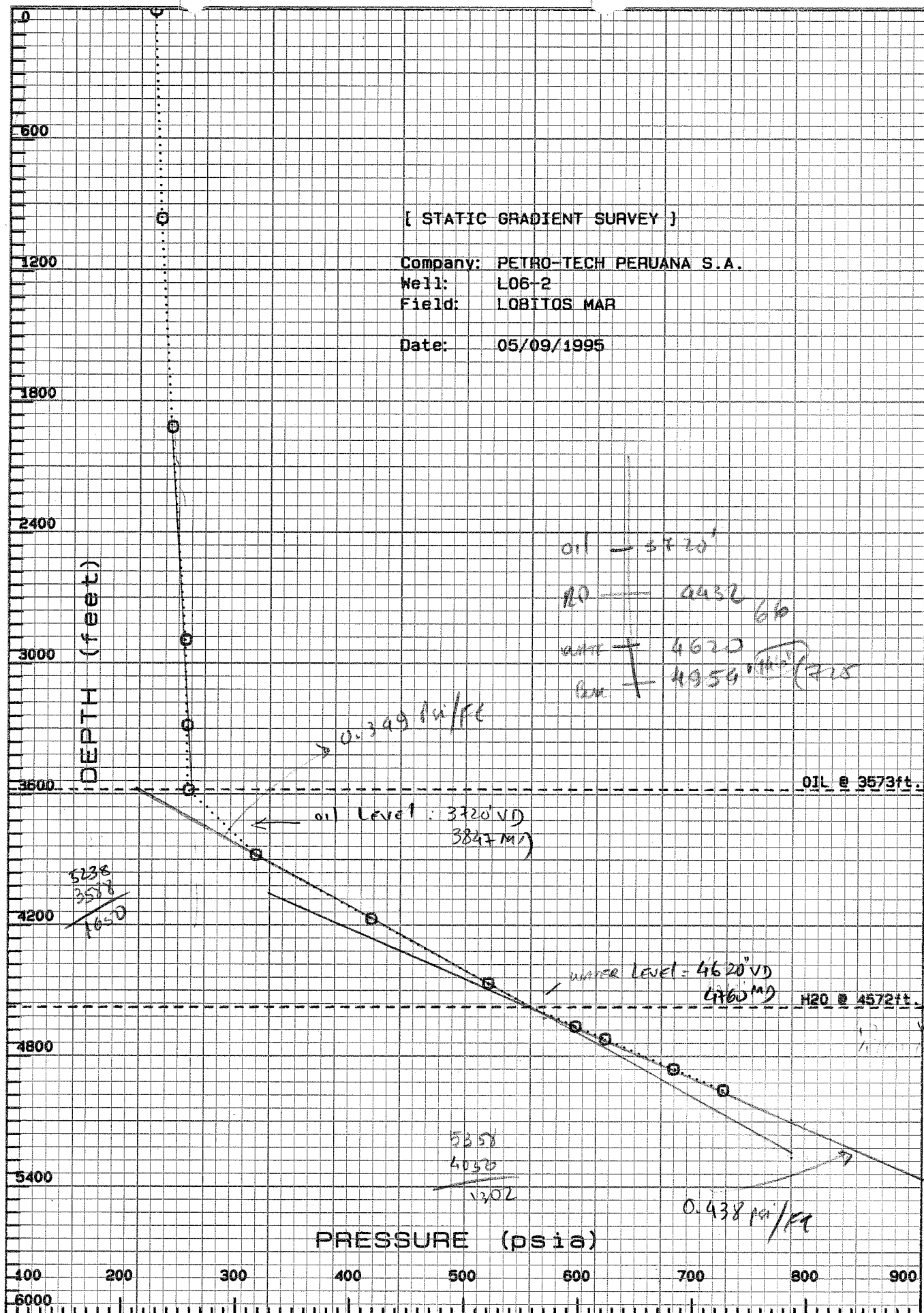
Oil Level : 3573 PV
 Water Level : 4572 PV

Shut - in BHP 622.11 @ 4860 WLM
 Flowing BHP 266.60 @ 4860 WLM

Shut-in BHT 105.08 @ 4860 WLM
 Flowing BHT 104.86 @ 4860 WLM

[GRADIENT DATA]				
#	MD	TVD	PRESSURE	PSI/ft
1	0	0	225.00	
2	1000	954	231.00	0.006
3	2000	1909	241.00	0.010
4	3000	2886	253.50	0.013
5	3400	3278	255.00	0.004
6	3700	3575	256.50	0.005
7	4000	3871	315.50	0.199
8	4300	4166	416.80	0.343
9	4600	4462	519.20	0.346
10	4800	4659	595.70	0.388
11	4860	4718	621.76	0.442
12	5000	4856	681.90	0.436
13	5100	4954	725.30	0.443





Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Tuesday: May. 9, 1995]

Page 1

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
Reg. Electronicos Starburst Ultra II.					
Tope: Inst#20611, Fondo: Inst#20600.					
Conecto Baterias: 14:11:47					
1	0	14:11:47	0.0000	16.75	68.82
2	0	14:14:47	0.0500	17.06	68.75
3	0	14:17:47	0.1000	14.50	68.78
Presurizo Lubricador.					
4	0	14:20:47	0.1500	56.18	69.00
5	0	14:23:47	0.2000	57.40	68.42
6	0	14:26:47	0.2500	58.87	68.42
7	0	14:29:47	0.3000	58.29	71.59
Registadores en el fondo @ 4860' WLM.					
8	0	14:32:47	0.3500	313.43	79.76
9	0	14:35:47	0.4000	316.13	87.97
Primera Inyeccion de Gas.					
10	0	14:38:47	0.4500	329.91	93.46
11	0	14:41:47	0.5000	378.53	97.16
12	0	14:44:47	0.5500	367.88	99.55
13	0	14:47:47	0.6000	342.27	100.99
14	0	14:50:47	0.6500	320.14	102.35
15	0	14:53:47	0.7000	296.11	103.04
16	0	14:56:47	0.7500	274.85	103.55
17	0	14:59:47	0.8000	256.63	104.14
18	0	15: 2:47	0.8500	242.40	104.36
19	0	15: 5:47	0.9000	232.89	104.53
20	0	15: 8:47	0.9500	226.53	104.73
21	0	15:11:47	1.0000	222.06	104.79
Segunda Inyeccion de Gas.					
22	0	15:14:47	1.0500	265.99	104.81
23	0	15:17:47	1.1000	296.65	104.82
24	0	15:20:47	1.1500	274.43	104.82
25	0	15:23:47	1.2000	254.19	104.84
26	0	15:26:47	1.2500	239.65	104.86
27	0	15:29:47	1.3000	229.19	104.64
28	0	15:32:47	1.3500	221.35	104.72
29	0	15:35:47	1.4000	215.90	104.78
30	0	15:38:47	1.4500	212.58	104.81
31	0	15:41:47	1.5000	210.38	104.82
32	0	15:44:47	1.5500	208.71	104.83
33	0	15:47:47	1.6000	208.74	104.84
Tercera Inyeccion de Gas.					
34	0	15:50:47	1.6500	213.10	104.84
35	0	15:53:47	1.7000	243.22	104.85
36	0	15:56:47	1.7500	293.35	104.85
37	0	15:59:47	1.8000	278.33	104.85
38	0	16: 2:47	1.8500	267.88	104.86
Pozo Cerrado - Inicio del Build Up.					
39	0	16: 5:47	1.9000	266.60	104.86
40	0	16: 8:47	1.9500	273.53	104.87
41	0	16:11:47	2.0000	280.41	104.88

SE DESFUNDADO
CORRECCION ENTE

LWA

SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Tuesday: May. 9, 1995]

Page 2

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
54	0	16:13:57	2.0361	284.71	104.92
67	0	16:16: 7	2.0722	288.29	104.92
79	0	16:18: 7	2.1056	290.74	104.92
92	0	16:20:17	2.1417	293.02	104.92
105	0	16:22:27	2.1778	295.16	104.92
136	0	16:27:37	2.2639	299.92	104.94
167	0	16:32:47	2.3500	304.47	104.94
198	0	16:37:57	2.4361	308.72	104.95
229	0	16:43: 7	2.5222	312.66	104.95
259	0	16:48: 7	2.6056	316.32	104.95
290	0	16:53:17	2.6917	320.01	104.95
351	0	17: 3:27	2.8611	326.93	104.95
411	0	17:13:27	3.0278	333.30	104.96
472	0	17:23:37	3.1972	339.41	104.96
532	0	17:33:37	3.3639	345.14	104.97
592	0	17:43:37	3.5306	350.57	105.00
713	0	18: 3:47	3.8667	360.56	105.00
786	0	18:24:17	4.2083	369.74	105.01
894	0	19:24:47	5.2167	391.70	105.01
954	0	20:24:47	6.2167	408.03	105.01
1006	0	21:26:47	7.2500	421.78	105.02
1026	0	22:26:47	8.2500	432.49	105.01
1046	0	23:26:47	9.2500	442.31	105.01
[Wednesday: May. 10, 1995]					
1064	1	0:29:47	10.3000	451.72	105.01
1074	1	1:29:47	11.3000	459.30	105.01
1084	1	2:29:47	12.3000	466.49	105.01
1094	1	3:29:47	13.3000	473.36	105.01
1104	1	4:29:47	14.3000	479.89	105.02
1114	1	5:29:47	15.3000	486.13	105.02
1125	1	6:35:47	16.4000	492.68	105.02
1135	1	7:35:47	17.4000	498.41	105.02
1145	1	8:35:47	18.4000	504.03	105.02
1155	1	9:35:47	19.4000	509.80	105.02
1164	1	10:41:47	20.5000	515.30	105.02
1170	1	11:41:47	21.5000	520.55	105.02
1176	1	12:41:47	22.5000	525.54	105.03
1182	1	13:41:47	23.5000	530.48	105.03
1188	1	14:41:47	24.5000	535.39	105.03
1194	1	15:41:47	25.5000	540.24	105.03
1200	1	16:41:47	26.5000	545.04	105.04
1206	1	17:41:47	27.5000	549.78	105.04
1212	1	18:41:47	28.5000	554.71	105.04
1218	1	19:41:47	29.5000	558.83	105.04
1224	1	20:41:47	30.5000	562.45	105.04
1230	1	21:41:47	31.5000	564.95	105.04
1236	1	22:41:47	32.5000	568.07	105.04
1242	1	23:41:47	33.5000	569.67	105.04
[Thursday: May. 11, 1995]					
1248	2	0:41:47	34.5000	571.50	105.04

[L.W.A. & S.P.C.]

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Thursday: May. 11, 1995]

Page 3

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1254	2	1:41:47	35.5000	573.02	105.04
1260	2	2:41:47	36.5000	574.38	105.04
1266	2	3:41:47	37.5000	575.54	105.04
1272	2	4:41:47	38.5000	576.66	105.04
1278	2	5:41:47	39.5000	577.70	105.04
1284	2	6:41:47	40.5000	578.69	105.04
1290	2	7:41:47	41.5000	579.62	105.04
1296	2	8:41:47	42.5000	580.51	105.04
1302	2	9:41:47	43.5000	581.32	105.04
1308	2	10:41:47	44.5000	582.05	105.04
1314	2	11:41:47	45.5000	582.72	105.05
1320	2	12:41:47	46.5000	583.39	105.05
1326	2	13:41:47	47.5000	584.02	105.05
1332	2	14:41:47	48.5000	584.67	105.05
1338	2	15:41:47	49.5000	585.32	105.05
1344	2	16:41:47	50.5000	586.03	105.05
1350	2	17:41:47	51.5000	586.78	105.05
1356	2	18:41:47	52.5000	587.57	105.05
1362	2	19:41:47	53.5000	588.35	105.05
1368	2	20:41:47	54.5000	589.14	105.05
1374	2	21:41:47	55.5000	589.91	105.06
1380	2	22:41:47	56.5000	590.67	105.06
1386	2	23:41:47	57.5000	591.40	105.06
[Friday: May. 12, 1995]					
1392	3	0:41:47	58.5000	592.10	105.06
1398	3	1:41:47	59.5000	592.78	105.06
1404	3	2:41:47	60.5000	593.45	105.06
1410	3	3:41:47	61.5000	594.12	105.06
1416	3	4:41:47	62.5000	594.79	105.06
1422	3	5:41:47	63.5000	595.46	105.06
1428	3	6:41:47	64.5000	596.12	105.06
1434	3	7:41:47	65.5000	596.77	105.06
1440	3	8:41:47	66.5000	597.43	105.06
1446	3	9:41:47	67.5000	598.12	105.06
1452	3	10:41:47	68.5000	598.84	105.06
1458	3	11:41:47	69.5000	599.70	105.06
1463	3	12:51:47	70.6667	600.50	105.06
1466	3	13:51:47	71.6667	601.01	105.06
1469	3	14:51:47	72.6667	601.54	105.06
1472	3	15:51:47	73.6667	602.07	105.06
1475	3	16:51:47	74.6667	602.67	105.06
1478	3	17:51:47	75.6667	603.23	105.07
1481	3	18:51:47	76.6667	603.77	105.07
1484	3	19:51:47	77.6667	604.33	105.07
1487	3	20:51:47	78.6667	604.89	105.07
1490	3	21:51:47	79.6667	605.44	105.07
1493	3	22:51:47	80.6667	606.01	105.07
1496	3	23:51:47	81.6667	606.60	105.07
[Saturday: May. 13, 1995]					
1499	4	0:51:47	82.6667	607.21	105.07

LWA

SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Saturday: May. 13, 1995]

Page 4

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1502	4	1:51:47	83.6667	607.83	105.07
1505	4	2:51:47	84.6667	608.48	105.07
1508	4	4:11:47	86.0000	609.14	105.07
1510	4	5:11:47	87.0000	609.59	105.07
1512	4	6:11:47	88.0000	610.06	105.07
1514	4	7:11:47	89.0000	610.52	105.07
1516	4	8:11:47	90.0000	610.99	105.07
1518	4	9:11:47	91.0000	611.45	105.07
1520	4	10:11:47	92.0000	611.91	105.07
1522	4	11:11:47	93.0000	612.39	105.07
1524	4	12:11:47	94.0000	612.86	105.07
1526	4	13:11:47	95.0000	613.33	105.08
1528	4	14:11:47	96.0000	613.81	105.08
1530	4	15:11:47	97.0000	614.27	105.08
1532	4	16:11:47	98.0000	614.75	105.08
1534	4	17:11:47	99.0000	615.23	105.08
1536	4	18:11:47	100.0000	615.71	105.08
1538	4	19:11:47	101.0000	616.17	105.08
1540	4	20:11:47	102.0000	616.65	105.08
1542	4	21:11:47	103.0000	617.10	105.08
1544	4	22:11:47	104.0000	617.56	105.08
1546	4	23:11:47	105.0000	618.04	105.08
[Sunday: May. 14, 1995]					
1548	5	0:11:47	106.0000	618.51	105.08
1550	5	1:11:47	107.0000	618.94	105.08
1552	5	2:11:47	108.0000	619.34	105.08
1554	5	3:11:47	109.0000	619.69	105.08
1556	5	4:11:47	110.0000	620.48	105.08
1558	5	5:11:47	111.0000	620.95	105.08
1560	5	6:11:47	112.0000	621.36	105.08
1620	5	7:11:47	113.0000	621.76	105.08
Final del Build Up.					
1675	5	8: 6:47	113.9167	622.11	105.23
1677	5	8: 8:47	113.9500	622.14	105.06
1678	5	8: 9:47	113.9667	622.14	105.05
1680	5	8:11:47	114.0000	622.15	105.10
1681	5	8:12:47	114.0167	622.15	105.07
Bajando Registradores @ 5100' WLM.					
1682	5	8:13:47	114.0333	692.87	105.08
Parada @ 5100' WLM.					
1683	5	8:14:47	114.0500	725.17	105.37
1684	5	8:15:47	114.0667	725.39	105.66
1686	5	8:17:47	114.1000	725.55	105.70
1687	5	8:18:47	114.1167	725.56	106.01
1689	5	8:20:47	114.1500	715.41	106.42
Parada @ 5000' WLM.					
1690	5	8:21:47	114.1667	681.90	106.48
1692	5	8:23:47	114.2000	681.76	106.43
1693	5	8:24:47	114.2167	681.67	106.41
Parada @ 4800' WLM.					
1695	5	8:26:47	114.2500	595.82	106.06

114
1.9
112.1

M2 Hm

LWA

SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Sunday: May. 14, 1995]

Page 5

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1696	5	8:27:47	114.2667	595.61	105.74
1698	5	8:29:47	114.3000	595.45	105.56
		Parada @ 4600' WLM.			
1699	5	8:30:47	114.3167	519.69	105.22
1701	5	8:32:47	114.3500	518.73	104.19
1702	5	8:33:47	114.3667	518.83	103.40
		Parada @ 4300' WLM.			
1704	5	8:35:47	114.4000	417.22	102.81
1705	5	8:36:47	114.4167	416.80	102.48
1707	5	8:38:47	114.4500	417.13	101.21
1708	5	8:39:47	114.4667	400.98	100.94
		Parada @ 4000' WLM.			
1709	5	8:40:47	114.4833	314.93	100.76
1710	5	8:41:47	114.5000	315.46	100.44
1711	5	8:42:47	114.5167	315.68	99.97
1713	5	8:44:47	114.5500	315.96	99.75
1714	5	8:45:47	114.5667	256.80	99.40
		Parada @ 3700' WLM.			
1715	5	8:46:47	114.5833	256.56	99.07
1716	5	8:47:47	114.6000	256.49	98.74
1717	5	8:48:47	114.6167	256.51	98.41
1719	5	8:50:47	114.6500	255.44	97.69
		Parada @ 3400' WLM.			
1720	5	8:51:47	114.6667	255.02	97.56
1722	5	8:53:47	114.7000	254.86	97.10
1723	5	8:54:47	114.7167	254.87	96.87
		Parada @ 3000' WLM.			
1725	5	8:56:47	114.7500	253.84	95.96
1726	5	8:57:47	114.7667	253.51	95.66
1728	5	8:59:47	114.8000	253.42	94.77
1729	5	9: 0:47	114.8167	252.18	94.49
1731	5	9: 2:47	114.8500	245.29	92.73
		Parada @ 2000' WLM.			
1732	5	9: 3:47	114.8667	242.20	91.55
1734	5	9: 5:47	114.9000	241.44	89.69
1735	5	9: 6:47	114.9167	240.57	88.60
1737	5	9: 8:47	114.9500	233.36	86.23
		Parada @ 1000' WLM.			
1738	5	9: 9:47	114.9667	231.50	84.77
1740	5	9:11:47	115.0000	230.90	81.90
1741	5	9:12:47	115.0167	229.94	80.84
		Parada @ 0' WLM.			
1743	5	9:14:47	115.0500	224.74	78.05
1744	5	9:15:47	115.0667	225.01	76.51
1746	5	9:17:47	115.1000	227.19	74.31
1747	5	9:18:47	115.1167	227.97	73.56
1749	5	9:20:47	115.1500	229.42	72.34
1750	5	9:21:47	115.1667	222.01	71.89
		Desfogo Lubricador.			
1751	5	9:22:47	115.1833	14.50	71.60
1752	5	9:23:47	115.2000	14.50	71.01

LWA**SPC**

Company: PETRO-TECH PERUANA S.A.

Well: LO6-2

Field: LOBITOS MAR

[Sunday: May. 14, 1995]

Page 6

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1753	5	9:24:47	115.2167	14.50	70.72
1755	5	9:26:47	115.2500	14.50	70.10
1756	5	9:27:47	115.2667	14.50	69.67
1758	5	9:29:47	115.3000	14.50	69.30
1759	5	9:30:47	115.3167	14.50	69.26
1761	5	9:32:47	115.3500	14.50	69.23
1762	5	9:33:47	115.3667	14.50	69.23
1764	5	9:35:47	115.4000	14.50	69.50
1765	5	9:36:47	115.4167	14.50	69.44
1767	5	9:38:47	115.4500	14.50	69.33
1768	5	9:39:47	115.4667	14.50	69.30
1770	5	9:41:47	115.5000	14.50	69.29
1771	5	9:42:47	115.5167	14.50	69.29
1773	5	9:44:47	115.5500	14.50	69.29
1774	5	9:45:47	115.5667	14.50	69.29
1776	5	9:47:47	115.6000	14.50	69.30
1777	5	9:48:47	115.6167	14.50	69.29
1779	5	9:50:47	115.6500	14.50	69.28
1780	5	9:51:47	115.6667	14.50	69.27
1782	5	9:53:47	115.7000	14.50	69.27
1783	5	9:54:47	115.7167	14.50	69.27
1785	5	9:56:47	115.7500	14.50	69.27
1786	5	9:57:47	115.7667	14.50	69.26
1788	5	9:59:47	115.8000	14.50	69.26
1789	5	10: 0:47	115.8167	14.50	69.26
1791	5	10: 2:47	115.8500	14.50	69.25
1792	5	10: 3:47	115.8667	14.50	69.26
1794	5	10: 5:47	115.9000	14.50	69.25
1795	5	10: 6:47	115.9167	14.50	69.24
1797	5	10: 8:47	115.9500	14.50	69.22
Desconecto Baterias.					
1798	5	10: 9:47	115.9667	14.50	69.22

[L.W.A. & S.P.C.]