

GRADIENTE ESTATICA & FLUYENTE

**PETRO-TECH PERUANA S.A.
LOBITOS MAR LO16-22
TALARA - PERU**

DEL 27 AL 28 DE AGOSTO DE 1996

**REPORTE PREPARADO
POR
EDDY CORDERO MANRIQUE**

POZO : Z-2A-21-790-D-LO16 (LO16-22)	AREA : LOBITOS MAR
PRUEBA : REGISTRO DE GRADIENTE ESTATICA	
FORMACION : BASAL SALINA	INTERVALO PRODUCTOR : 7544' - 7316'

LO16-22

INSTALACION DE SUBSUELO

(CONVENCIONAL)

FECHA	DATOS DEL POZO															
27/08/96	Instalación Actual : Gas Lift - Convencional. Estado del Pozo: Productor. Producción: 44 BOPD (JULIO 96). Acumulado: 687,988 BLS (JULIO 96). Niple de asiento c/SV @ 7013'. Tope de arena @ 7600'.															
DESARROLLO DE LA PRUEBA																
11:00:00 11:10:25 11:15:00	Chequeó baterías del Memory Gauges. Prueba Satisfactoria. Se conectó baterías. Presurizó Lubricador.															
11:16:45 11:36:50 11:45:00 14:12:30	Se inició bajada de registradores. Registradores @ 7080' (10' encima del standing valve). Se tomó 4 ciclos de inyección (40' x 3') Se cerró el pozo por 24 horas. Presión inicial en cabeza --- 100 psi.															
28/08/96 14:28:11 14:38:00	Final de la prueba. Inició subida a superficie realizando paradas. Se presentaron problemas en la unidad para subir los registradores. Se decidió volver a bajar los registradores a 7080'.															
15:00:00 23:08:00	Registradores @ 7080'. Registrando presión estática. Se arregló problemas mecánicos de la unidad. Se suben registradores realizando paradas a las profundidades siguientes: <table style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;">7000</td> <td style="padding: 2px 10px;">5500</td> <td style="padding: 2px 10px;">3000</td> </tr> <tr> <td style="padding: 2px 10px;">6900</td> <td style="padding: 2px 10px;">5000</td> <td style="padding: 2px 10px;">2000</td> </tr> <tr> <td style="padding: 2px 10px;">6700</td> <td style="padding: 2px 10px;">4500</td> <td style="padding: 2px 10px;">1000</td> </tr> <tr> <td style="padding: 2px 10px;">6400</td> <td style="padding: 2px 10px;">4000</td> <td style="padding: 2px 10px;">0</td> </tr> <tr> <td style="padding: 2px 10px;">6000</td> <td style="padding: 2px 10px;">3500</td> <td></td> </tr> </table>	7000	5500	3000	6900	5000	2000	6700	4500	1000	6400	4000	0	6000	3500	
7000	5500	3000														
6900	5000	2000														
6700	4500	1000														
6400	4000	0														
6000	3500															
00:00:00 00:20:00 00:40:00	Presión en cabeza --- 210 psi. Desfogó lubricador. Desconectó baterías. Pozo queda en producción.															

OBSERVACIONES :

El standing valve se determinó a la profundidad de 7090' WLM. La tarjeta indica una profundidad de 7013', habiendo una diferencia de 77'.

En la pruebas de gradiente estática se determinó gas y crudo según el esquema (ver comentarios).

Presión Fluyente @ 7080': 243 psia.
 Presión Estática @ 7080': 401.16 psia.

COMENTARIOS

En el pozo LO16-22, del área Lobitos Mar que tiene como arena productiva a la formación Basal Salina, se realizó una gradiente estática por 24 horas según el programa propuesto por ingeniería. Cabe señalar que los registradores se bajaron hasta la profundidad de 7080' (10' encima del standing valve) debido a que no se pudo pescar el standing valve debido a un posible colapso en el tubing @ 5767'.

A la profundidad de 7080' se tomaron cuatro ciclos de inyección de 40' x 3'. Luego se procedió a cerrar el pozo obteniéndose a dicha profundidad una presión fluyente de 243 psia y al cabo de 24 horas de cierre se tuvo una presión estática de 384 psia.

Luego se procedió a realizar la gradiente estática realizando paradas, presentándose fallas mecánicas en la unidad de wireline que imposibilitó subir los registradores a superficie, decidiéndose volver a bajar los registradores @ 7080'. Es importante mencionar que el pozo se encontró cerrado en todo momento.

Una vez solucionado el impase (al cabo de aproximadamente 8 horas) se subieron los registradores realizando paradas, obteniéndose de la prueba estática crudo a la profundidad de 6625 PM (6238 PV) con una gradiente promedio de 0.349 psi/ft y gas con 0.006 psi/ft de gradiente.

Es importante señalar que los registradores permanecieron @ 7080' durante 33 horas, obteniéndose una presión estática de 401.16 psia y una gradiente estática de 0.06 psi/ft a dicha profundidad.

2213 686624
53,112 hrs $\bar{p} = 310$
744 hrs

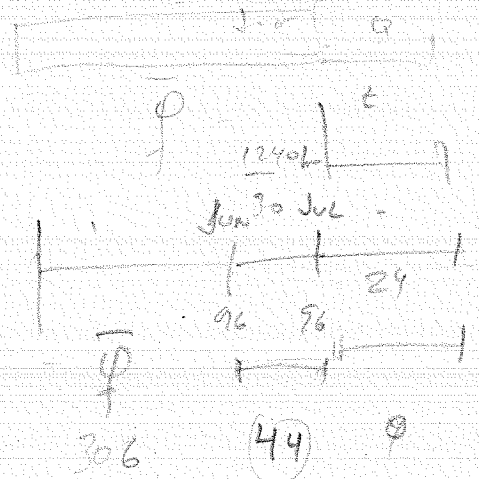
ACUM @ Jul/96 = 687,988 bbl

Días por = 2244 días. = 53,856 hrs

$\bar{p} = 307$ BOPD

24.24 hrs $\bar{p} = 0$

LAB
BATO
VNC



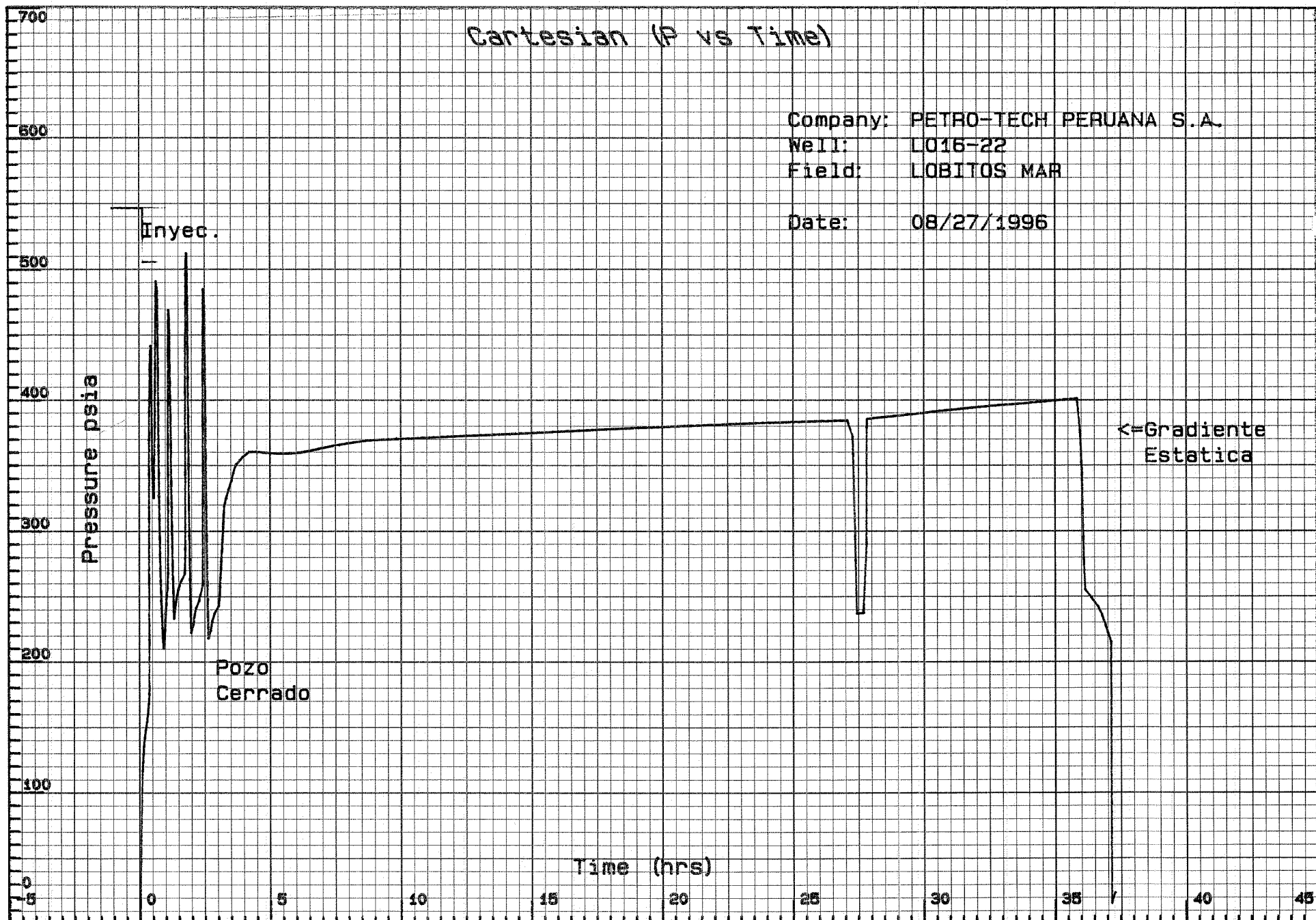
Cartesian (P vs Time)

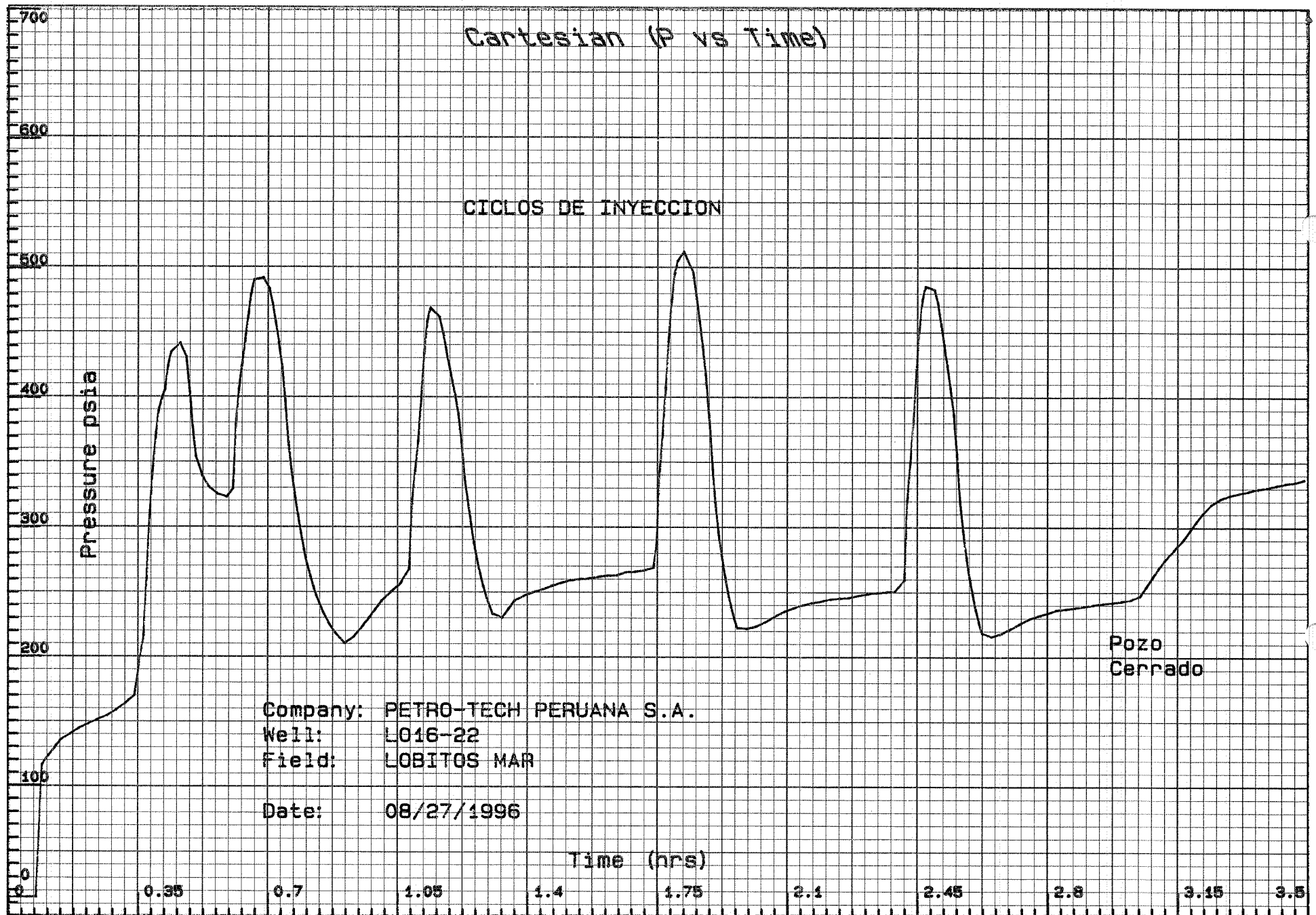
Company: PETRO-TECH PERUANA S.A.

Well: L016-22

Field: LOBITOS MAR

Date: 08/27/1996





SPC

Company: PETRO-TECH PERUANA S.A.
Well: LO16-22
Field: LOBITOS MAR

County: Peru
State: Talara

Engineer: Julian Duenas G.
Gauge Type: Electronic Gauge
Serial No.: 20611
Gauge Range: 0-3014
Gauge Depth: 7080 ft

Date: 08/28/1996

Well Type: Oil
Test Type: Static Gradient
Well Status: Producer

[GRADIENT DATA]

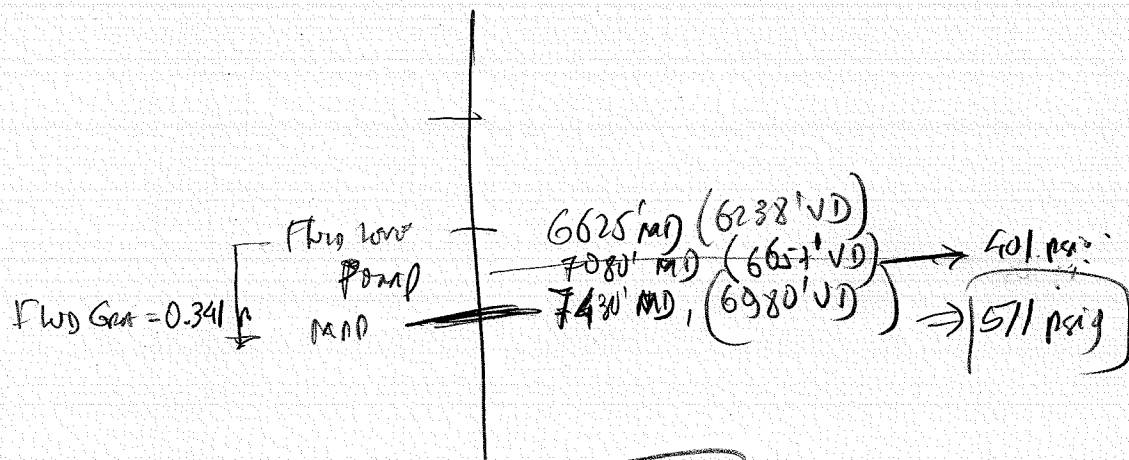
#	MD	TVD	PRESSURE	PSI/ft
1	0	0	222.70	
2	1000	1000	227.68	0.005
3	2000	1952	233.37	0.006
4	3000	2876	239.93	0.007
5	3500	3336	241.61	0.004
6	4000	3798	243.83	0.005
7	4500	4261	245.27	0.003
8	5000	4732	246.50	0.003
9	5500	5200	249.35	0.006
10	6000	5663	252.00	0.006
11	6400	6031	254.10	0.006
12	6700	6307	279.33	0.091
13	6900	6491	343.64	0.350
14	7000	6583	375.72	0.349
15	7080	6657	401.16	0.344

7430

6080

130 166
350 323

Upp. BS. Online

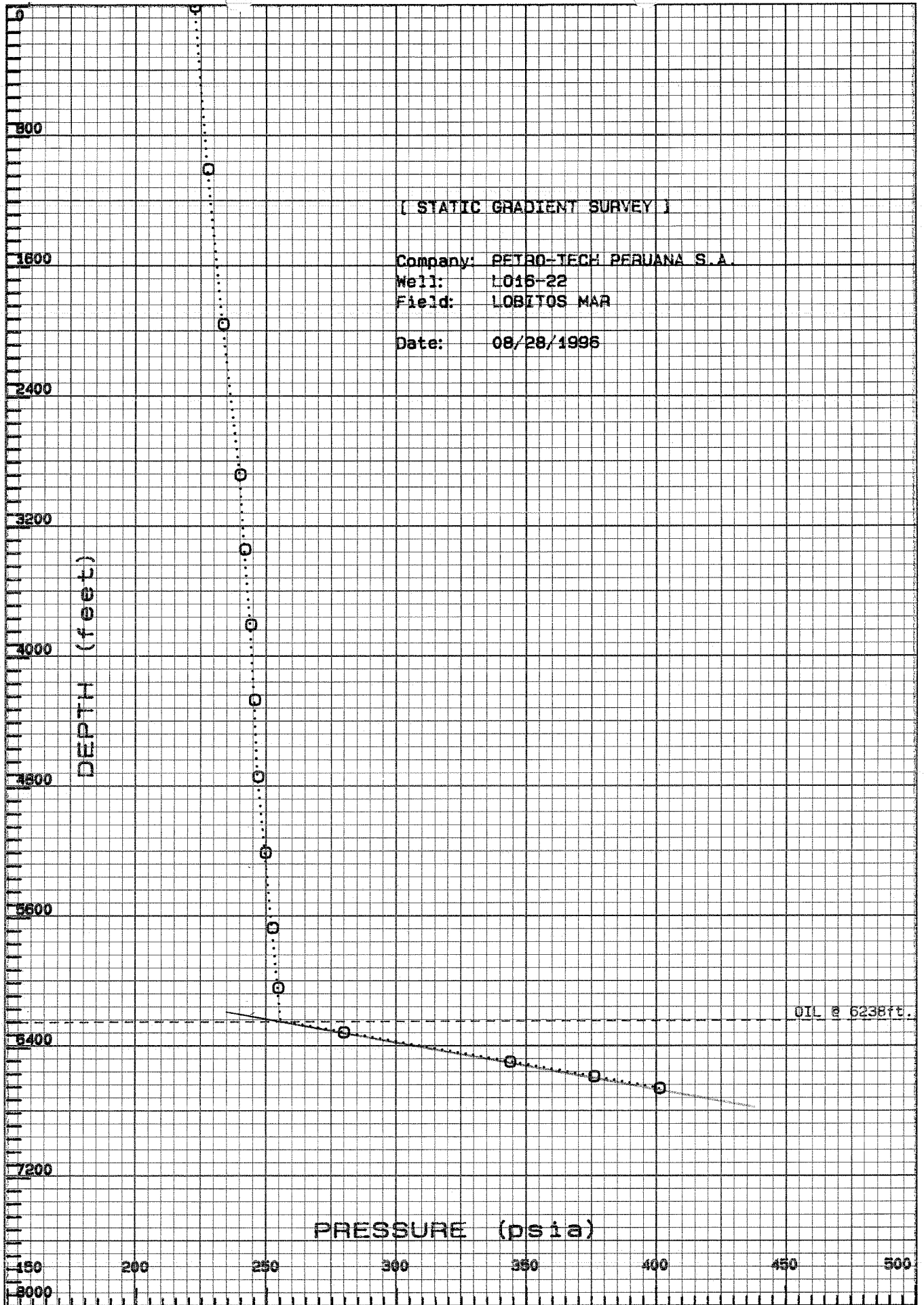


$$\text{FOR. GRAD} = \frac{511}{6980} = 0.0732$$

1 hr pressure = 1066 psi

46 0780

KE 10 X 10 TO THE INCH, 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

[Tuesday: Aug. 27, 1996]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
Reg.Electronicos Starburst Ultra II.					
Tope:Inst# 20602, Fondo:Inst# 20611.					
Conecto Baterias: 11:10:25					
1	0	11:10:25	0.0000	14.50	69.74
3	0	11:11:25	0.0167	14.50	69.39
5	0	11:12:25	0.0333	14.50	69.17
7	0	11:13:25	0.0500	14.50	68.75
9	0	11:14:25	0.0667	14.50	68.43
11	0	11:15:25	0.0833	14.50	68.18
Presurizo Lubricador.					
12	0	11:15:55	0.0917	116.27	68.03
Bajando registradores.					
14	0	11:16:55	0.1083	122.98	67.78
17	0	11:18:25	0.1333	132.78	67.05
19	0	11:19:25	0.1500	135.73	67.15
21	0	11:20:25	0.1667	139.52	67.84
23	0	11:21:25	0.1833	142.65	68.44
25	0	11:22:25	0.2000	145.58	69.34
27	0	11:23:25	0.2167	147.67	70.57
29	0	11:24:25	0.2333	149.78	71.66
31	0	11:25:25	0.2500	151.60	73.11
33	0	11:26:25	0.2667	154.02	74.51
35	0	11:27:25	0.2833	157.09	76.47
37	0	11:28:25	0.3000	160.01	78.27
39	0	11:29:25	0.3167	163.71	80.53
41	0	11:30:25	0.3333	167.64	82.71
43	0	11:31:25	0.3500	172.49	84.90
45	0	11:32:25	0.3667	216.37	87.37
47	0	11:33:25	0.3833	309.17	89.96
49	0	11:34:25	0.4000	369.87	92.58
51	0	11:35:25	0.4167	399.38	95.58
53	0	11:36:25	0.4333	424.08	97.80
Registradores en el fondo @ 7080'.					
54	0	11:36:55	0.4417	435.17	98.95
57	0	11:38:25	0.4667	442.02	102.52
59	0	11:39:25	0.4833	431.01	104.74
61	0	11:40:25	0.5000	377.48	106.49
63	0	11:41:25	0.5167	347.62	107.95
65	0	11:42:25	0.5333	335.33	109.42
67	0	11:43:25	0.5500	328.78	110.50
69	0	11:44:25	0.5667	325.38	111.71
71	0	11:45:25	0.5833	323.46	112.43
73	0	11:46:25	0.6000	322.57	113.27
Primera Inyeccion de gas.					
74	0	11:46:55	0.6083	330.12	113.65
77	0	11:48:25	0.6333	424.63	114.61
79	0	11:49:25	0.6500	462.13	115.28
81	0	11:50:25	0.6667	491.23	115.56
83	0	11:51:25	0.6833	495.65	116.20
85	0	11:52:25	0.7000	490.68	116.56

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Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
87	0	11:53:25	0.7167	472.45	116.85
89	0	11:54:25	0.7333	442.49	116.72
91	0	11:55:25	0.7500	397.82	116.95
93	0	11:56:25	0.7667	344.44	117.42
95	0	11:57:25	0.7833	309.54	117.72
97	0	11:58:25	0.8000	282.66	117.79
99	0	11:59:25	0.8167	262.23	117.54
101	0	12: 0:25	0.8333	246.72	117.62
103	0	12: 1:25	0.8500	234.81	117.74
105	0	12: 2:25	0.8667	225.35	117.86
107	0	12: 3:25	0.8833	218.31	117.95
109	0	12: 4:25	0.9000	212.60	118.04
111	0	12: 5:25	0.9167	207.66	117.82
113	0	12: 6:25	0.9333	215.22	117.95
115	0	12: 7:25	0.9500	221.03	118.37
117	0	12: 8:25	0.9667	226.92	118.49
119	0	12: 9:25	0.9833	233.42	118.62
121	0	12:10:25	1.0000	239.68	118.75
123	0	12:11:25	1.0167	245.27	118.90
125	0	12:12:25	1.0333	250.00	119.06
127	0	12:13:25	1.0500	254.06	119.21
Segunda inyeccion de gas.					
129	0	12:14:25	1.0667	258.79	119.34
131	0	12:15:25	1.0833	267.78	119.47
133	0	12:16:25	1.1000	343.18	119.60
135	0	12:17:25	1.1167	399.04	119.74
137	0	12:18:25	1.1333	458.85	119.87
139	0	12:19:25	1.1500	472.09	119.97
141	0	12:20:25	1.1667	462.19	120.07
143	0	12:21:25	1.1833	438.07	120.13
145	0	12:22:25	1.2000	413.57	120.47
147	0	12:23:25	1.2167	387.41	120.53
149	0	12:24:25	1.2333	337.93	120.55
151	0	12:25:25	1.2500	303.87	120.55
153	0	12:26:25	1.2667	274.76	120.52
155	0	12:27:25	1.2833	254.21	120.18
157	0	12:28:25	1.3000	239.07	120.17
159	0	12:29:25	1.3167	227.43	120.13
161	0	12:30:25	1.3333	229.76	119.75
163	0	12:31:25	1.3500	236.26	119.67
165	0	12:32:25	1.3667	243.20	119.73
167	0	12:33:25	1.3833	246.70	119.98
169	0	12:34:25	1.4000	247.95	119.98
171	0	12:35:25	1.4167	249.66	119.97
173	0	12:36:25	1.4333	251.08	119.97
175	0	12:37:25	1.4500	253.62	120.00
177	0	12:38:25	1.4667	254.65	120.04
179	0	12:39:25	1.4833	255.93	120.05
181	0	12:40:25	1.5000	256.97	120.06
183	0	12:41:25	1.5167	258.96	120.08

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Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
185	0	12:42:25	1.5333	259.02	120.09
187	0	12:43:25	1.5500	259.52	120.11
189	0	12:44:25	1.5667	260.42	120.12
191	0	12:45:25	1.5833	261.23	120.13
193	0	12:46:25	1.6000	261.98	120.14
195	0	12:47:25	1.6167	262.67	120.15
197	0	12:48:25	1.6333	263.40	120.16
199	0	12:49:25	1.6500	263.90	120.17
201	0	12:50:25	1.6667	265.21	120.18
203	0	12:51:25	1.6833	265.14	120.20
205	0	12:52:25	1.7000	266.01	120.21
207	0	12:53:25	1.7167	266.73	120.23
209	0	12:54:25	1.7333	268.59	120.25
211	0	12:55:25	1.7500	286.47	120.28
Tercera inyeccion de gas.					
213	0	12:56:25	1.7667	370.64	120.30
215	0	12:57:25	1.7833	443.00	120.33
217	0	12:58:25	1.8000	495.56	120.34
219	0	12:59:25	1.8167	510.63	120.37
221	0	13: 0:25	1.8333	513.20	120.40
223	0	13: 1:25	1.8500	496.28	120.41
225	0	13: 2:25	1.8667	460.15	120.40
227	0	13: 3:25	1.8833	417.55	120.38
229	0	13: 4:25	1.9000	350.64	120.36
231	0	13: 5:25	1.9167	296.43	120.59
233	0	13: 6:25	1.9333	263.13	120.58
235	0	13: 7:25	1.9500	238.89	120.26
237	0	13: 8:25	1.9667	221.97	120.24
239	0	13: 9:25	1.9833	220.60	120.23
241	0	13:10:25	2.0000	221.65	120.21
243	0	13:11:25	2.0167	223.03	119.87
245	0	13:12:25	2.0333	225.69	120.15
247	0	13:13:25	2.0500	228.34	120.12
249	0	13:14:25	2.0667	230.57	120.11
251	0	13:15:25	2.0833	233.20	120.11
253	0	13:16:25	2.1000	235.31	120.10
255	0	13:17:25	2.1167	237.07	120.10
257	0	13:18:25	2.1333	239.20	120.11
259	0	13:19:25	2.1500	240.67	120.11
261	0	13:20:25	2.1667	241.24	120.11
263	0	13:21:25	2.1833	242.28	120.12
265	0	13:22:25	2.2000	243.21	120.12
267	0	13:23:25	2.2167	244.11	120.13
269	0	13:24:25	2.2333	244.41	120.13
271	0	13:25:25	2.2500	245.21	120.14
273	0	13:26:25	2.2667	245.37	120.14
275	0	13:27:25	2.2833	247.03	120.15
277	0	13:28:25	2.3000	247.29	120.15
279	0	13:29:25	2.3167	248.24	120.16
281	0	13:30:25	2.3333	248.71	120.16

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Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
283	0	13:31:25	2.3500	249.45	120.18
285	0	13:32:25	2.3667	249.64	120.19
287	0	13:33:25	2.3833	250.18	120.21
289	0	13:34:25	2.4000	251.12	120.23
Cuarta inyeccion de gas.					
290	0	13:34:55	2.4083	251.31	120.23
293	0	13:36:25	2.4333	348.40	120.26
295	0	13:37:25	2.4500	416.91	120.28
297	0	13:38:25	2.4667	474.91	120.29
299	0	13:39:25	2.4833	488.19	120.31
301	0	13:40:25	2.5000	482.89	120.33
303	0	13:41:25	2.5167	456.43	120.33
305	0	13:42:25	2.5333	423.99	120.32
307	0	13:43:25	2.5500	386.47	120.30
309	0	13:44:25	2.5667	319.77	120.29
311	0	13:45:25	2.5833	276.98	120.53
313	0	13:46:25	2.6000	247.75	120.26
315	0	13:47:25	2.6167	226.00	120.23
317	0	13:48:25	2.6333	213.93	120.22
319	0	13:49:25	2.6500	214.88	120.21
321	0	13:50:25	2.6667	216.62	120.20
323	0	13:51:25	2.6833	218.58	120.19
325	0	13:52:25	2.7000	220.76	120.16
327	0	13:53:25	2.7167	223.82	120.15
329	0	13:54:25	2.7333	225.96	120.15
331	0	13:55:25	2.7500	228.56	120.14
333	0	13:56:25	2.7667	230.62	120.14
335	0	13:57:25	2.7833	232.50	120.14
337	0	13:58:25	2.8000	233.04	120.14
339	0	13:59:25	2.8167	235.16	120.14
341	0	14: 0:25	2.8333	235.78	120.14
343	0	14: 1:25	2.8500	236.31	120.14
345	0	14: 2:25	2.8667	237.70	120.14
347	0	14: 3:25	2.8833	238.23	120.15
349	0	14: 4:25	2.9000	238.37	120.15
351	0	14: 5:25	2.9167	239.08	120.15
353	0	14: 6:25	2.9333	239.73	120.15
355	0	14: 7:25	2.9500	240.45	120.16
357	0	14: 8:25	2.9667	241.01	120.16
359	0	14: 9:25	2.9833	241.72	120.16
361	0	14:10:25	3.0000	242.15	120.17
363	0	14:11:25	3.0167	242.89	120.17
364	0	14:11:55	3.0250	243.26	120.17
365	0	14:12:25	3.0333	243.48	120.18
Pozo cerrado.					
Registrando presion estatica x 24 horas.					
366	0	14:12:55	3.0417	244.12	120.18
367	0	14:13:25	3.0500	246.22	120.19
368	0	14:13:55	3.0583	249.81	120.19
369	0	14:14:25	3.0667	253.21	120.19

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Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
370	0	14:14:55	3.0750	256.81	120.20
371	0	14:15:25	3.0833	260.39	120.20
372	0	14:15:55	3.0917	264.23	120.21
373	0	14:16:25	3.1000	267.67	120.21
374	0	14:16:55	3.1083	270.70	120.22
375	0	14:17:25	3.1167	273.93	120.22
376	0	14:17:55	3.1250	276.78	120.23
377	0	14:18:25	3.1333	279.44	120.23
378	0	14:18:55	3.1417	281.88	120.23
379	0	14:19:25	3.1500	284.45	120.23
380	0	14:19:55	3.1583	286.55	120.23
381	0	14:20:25	3.1667	289.62	120.24
382	0	14:20:55	3.1750	293.02	120.24
383	0	14:21:25	3.1833	296.19	120.25
384	0	14:21:55	3.1917	299.48	120.25
385	0	14:22:25	3.2000	302.91	120.25
386	0	14:22:55	3.2083	306.02	120.25
387	0	14:23:25	3.2167	309.09	120.26
388	0	14:23:55	3.2250	312.32	120.26
389	0	14:24:25	3.2333	314.85	120.26
390	0	14:24:55	3.2417	316.79	120.26
391	0	14:25:25	3.2500	318.85	120.26
392	0	14:25:55	3.2583	320.25	120.26
393	0	14:26:25	3.2667	321.22	120.26
394	0	14:26:55	3.2750	322.02	120.26
395	0	14:27:25	3.2833	323.06	120.26
396	0	14:27:55	3.2917	323.67	120.26
397	0	14:28:25	3.3000	324.25	120.26
398	0	14:28:55	3.3083	324.74	120.26
399	0	14:29:25	3.3167	325.45	120.26
400	0	14:29:55	3.3250	325.97	120.25
404	0	14:31:55	3.3583	328.20	120.25
408	0	14:33:55	3.3917	329.76	120.24
412	0	14:35:55	3.4250	331.81	120.24
416	0	14:37:55	3.4583	333.28	120.24
420	0	14:39:55	3.4917	335.56	120.23
424	0	14:41:55	3.5250	338.67	120.23
428	0	14:43:55	3.5583	341.16	120.23
432	0	14:45:55	3.5917	344.14	120.23
436	0	14:47:55	3.6250	346.75	120.23
440	0	14:49:55	3.6583	348.80	120.23
444	0	14:51:55	3.6917	350.18	120.23
448	0	14:53:55	3.7250	350.53	120.23
452	0	14:55:55	3.7583	351.53	120.23
456	0	14:57:55	3.7917	352.37	120.23
460	0	14:59:55	3.8250	353.19	120.24
464	0	15: 1:55	3.8583	354.05	120.24
468	0	15: 3:55	3.8917	354.86	120.24
472	0	15: 5:55	3.9250	355.75	120.24
476	0	15: 7:55	3.9583	356.42	120.24

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Company: PETRO-TECH PERUANA S.A.

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Field: LOBITOS MAR

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
480	0	15: 9:55	3.9917	357.11	120.24
484	0	15:16:25	4.1000	359.03	120.23
488	0	15:24:25	4.2333	360.53	120.23
492	0	15:32:25	4.3667	360.73	120.23
496	0	15:40:25	4.5000	360.09	120.22
500	0	15:48:25	4.6333	360.00	120.21
504	0	15:56:25	4.7667	359.75	120.21
508	0	16: 4:25	4.9000	359.47	120.21
512	0	16:12:25	5.0333	359.30	120.21
516	0	16:20:25	5.1667	359.16	120.21
520	0	16:28:25	5.3000	358.56	120.21
524	0	16:36:25	5.4333	359.05	120.21
528	0	16:44:25	5.5667	359.08	120.22
532	0	16:52:25	5.7000	359.17	120.22
536	0	17: 0:25	5.8333	359.27	120.23
540	0	17: 8:25	5.9667	359.47	120.25
544	0	17:16:25	6.1000	359.78	120.27
548	0	17:24:25	6.2333	359.61	120.30
552	0	17:32:25	6.3667	360.58	120.33
556	0	17:40:25	6.5000	361.07	120.36
560	0	17:48:25	6.6333	361.66	120.38
564	0	17:56:25	6.7667	362.26	120.41
568	0	18: 4:25	6.9000	362.82	120.43
572	0	18:12:25	7.0333	363.38	120.46
576	0	18:20:25	7.1667	363.93	120.49
580	0	18:28:25	7.3000	364.46	120.51
584	0	18:36:25	7.4333	364.98	120.53
588	0	18:44:25	7.5667	365.48	120.55
592	0	18:52:25	7.7000	365.97	120.57
596	0	19: 0:25	7.8333	366.45	120.59
600	0	19: 8:25	7.9667	366.89	120.60
604	0	19:16:25	8.1000	367.34	120.61
608	0	19:24:25	8.2333	367.77	120.62
612	0	19:32:25	8.3667	368.19	120.63
616	0	19:40:25	8.5000	368.56	120.64
620	0	19:48:25	8.6333	368.89	120.64
624	0	19:56:25	8.7667	369.17	120.64
628	0	20: 4:25	8.9000	369.39	120.65
632	0	20:12:25	9.0333	369.56	120.65
636	0	20:20:25	9.1667	369.70	120.65
640	0	20:28:25	9.3000	369.80	120.65
644	0	20:36:25	9.4333	369.91	120.66
648	0	20:44:25	9.5667	370.03	120.66
652	0	20:52:25	9.7000	370.14	120.67
656	0	21: 0:25	9.8333	370.27	120.68
660	0	21: 8:25	9.9667	370.42	120.70
664	0	21:19:25	10.1500	370.56	120.71
668	0	21:31:25	10.3500	370.72	120.72
672	0	21:43:25	10.5500	370.89	120.74
676	0	21:55:25	10.7500	371.06	120.75

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Company: PETRO-TECH PERUANA S.A.

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
680	0	22: 7:25	10.9500	371.23	120.76
684	0	22:19:25	11.1500	371.42	120.75
688	0	22:31:25	11.3500	371.59	120.73
692	0	22:43:25	11.5500	371.77	120.69
696	0	22:55:25	11.7500	371.95	120.65
700	0	23: 7:25	11.9500	372.14	120.60
704	0	23:19:25	12.1500	372.31	120.57
708	0	23:31:25	12.3500	372.49	120.53
712	0	23:43:25	12.5500	372.67	120.49
716	0	23:55:25	12.7500	372.84	120.46
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720	1	0: 7:25	12.9500	373.02	120.44
724	1	0:19:25	13.1500	373.19	120.42
728	1	0:31:25	13.3500	373.37	120.41
732	1	0:43:25	13.5500	373.54	120.40
736	1	0:55:25	13.7500	373.71	120.39
740	1	1: 7:25	13.9500	373.89	120.38
744	1	1:19:25	14.1500	374.07	120.38
748	1	1:31:25	14.3500	374.24	120.38
752	1	1:43:25	14.5500	374.40	120.38
756	1	1:55:25	14.7500	374.57	120.38
760	1	2: 7:25	14.9500	374.73	120.38
764	1	2:19:25	15.1500	374.90	120.38
768	1	2:31:25	15.3500	375.09	120.37
772	1	2:43:25	15.5500	375.29	120.37
776	1	2:55:25	15.7500	375.47	120.37
780	1	3: 7:25	15.9500	375.66	120.37
784	1	3:19:25	16.1500	375.86	120.37
788	1	3:31:25	16.3500	376.04	120.37
792	1	3:43:25	16.5500	376.23	120.37
796	1	3:55:25	16.7500	376.41	120.37
800	1	4: 7:25	16.9500	376.60	120.37
804	1	4:19:25	17.1500	376.80	120.36
808	1	4:31:25	17.3500	376.99	120.35
812	1	4:43:25	17.5500	377.19	120.35
816	1	4:55:25	17.7500	377.37	120.34
820	1	5: 7:25	17.9500	377.57	120.34
824	1	5:19:25	18.1500	377.76	120.34
828	1	5:31:25	18.3500	377.94	120.33
832	1	5:43:25	18.5500	378.11	120.33
836	1	5:55:25	18.7500	378.27	120.33
840	1	6: 7:25	18.9500	378.45	120.33
844	1	6:19:25	19.1500	378.60	120.33
848	1	6:31:25	19.3500	378.76	120.33
852	1	6:43:25	19.5500	378.90	120.32
856	1	6:55:25	19.7500	379.03	120.32
860	1	7: 7:25	19.9500	379.15	120.32
864	1	7:13:25	20.0500	379.24	120.32
868	1	7:17:25	20.1167	379.33	120.31
872	1	7:21:25	20.1833	379.41	120.31

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
873	1	7:22:25	20.2000	379.43	120.31
877	1	7:26:25	20.2667	379.51	120.31
881	1	7:30:25	20.3333	379.57	120.31
885	1	7:34:25	20.4000	379.64	120.31
889	1	7:38:25	20.4667	379.71	120.31
893	1	7:42:25	20.5333	379.76	120.31
897	1	7:46:25	20.6000	379.81	120.31
901	1	7:50:25	20.6667	379.86	120.31
905	1	7:54:25	20.7333	379.92	120.31
909	1	7:58:25	20.8000	379.97	120.31
913	1	8: 2:25	20.8667	380.02	120.31
917	1	8: 6:25	20.9333	380.08	120.31
921	1	8:10:25	21.0000	380.13	120.31
925	1	8:14:25	21.0667	380.18	120.31
929	1	8:18:25	21.1333	380.23	120.31
933	1	8:22:25	21.2000	380.29	120.31
937	1	8:26:25	21.2667	380.34	120.31
941	1	8:30:25	21.3333	380.39	120.31
945	1	8:34:25	21.4000	380.45	120.31
949	1	8:38:25	21.4667	380.50	120.31
953	1	8:42:25	21.5333	380.55	120.31
957	1	8:46:25	21.6000	380.61	120.31
961	1	8:50:25	21.6667	380.66	120.31
965	1	8:54:25	21.7333	380.71	120.31
969	1	8:58:25	21.8000	380.76	120.31
973	1	9: 2:25	21.8667	380.82	120.31
977	1	9: 6:25	21.9333	380.87	120.30
981	1	9:10:25	22.0000	380.92	120.30
985	1	9:14:25	22.0667	380.98	120.30
989	1	9:18:25	22.1333	381.03	120.29
993	1	9:22:25	22.2000	381.08	120.29
997	1	9:26:25	22.2667	381.12	120.29
1001	1	9:30:25	22.3333	381.18	120.29
1005	1	9:34:25	22.4000	381.23	120.29
1009	1	9:38:25	22.4667	381.27	120.29
1013	1	9:42:25	22.5333	381.32	120.29
1017	1	9:46:25	22.6000	381.38	120.29
1021	1	9:50:25	22.6667	381.43	120.29
1025	1	9:54:25	22.7333	381.48	120.29
1029	1	9:58:25	22.8000	381.53	120.29
1033	1	10: 2:25	22.8667	381.57	120.29
1037	1	10: 6:25	22.9333	381.63	120.29
1041	1	10:10:25	23.0000	381.67	120.29
1045	1	10:14:25	23.0667	381.72	120.29
1049	1	10:18:25	23.1333	381.76	120.29
1053	1	10:22:25	23.2000	381.81	120.29
1057	1	10:26:25	23.2667	381.87	120.29
1061	1	10:30:25	23.3333	381.92	120.29
1065	1	10:34:25	23.4000	381.97	120.28
1069	1	10:38:25	23.4667	382.01	120.28

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Well: L016-22

Field: LOBITOS MAR

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1073	1	10:42:25	23.5333	382.05	120.28
1077	1	10:46:25	23.6000	382.10	120.28
1081	1	10:50:25	23.6667	382.14	120.28
1085	1	10:54:25	23.7333	382.20	120.28
1089	1	10:58:25	23.8000	382.25	120.28
1093	1	11: 2:25	23.8667	382.30	120.28
1097	1	11: 6:25	23.9333	382.36	120.28
1101	1	11:10:25	24.0000	382.40	120.28
1105	1	11:14:25	24.0667	382.44	120.28
1109	1	11:18:25	24.1333	382.48	120.28
1113	1	11:22:25	24.2000	382.52	120.27
1117	1	11:26:25	24.2667	382.56	120.27
1121	1	11:30:25	24.3333	382.60	120.27
1125	1	11:34:25	24.4000	382.64	120.27
1129	1	11:38:25	24.4667	382.68	120.27
1133	1	11:42:25	24.5333	382.72	120.27
1137	1	11:46:25	24.6000	382.75	120.27
1141	1	11:50:25	24.6667	382.79	120.27
1145	1	11:54:25	24.7333	382.83	120.27
1149	1	11:58:25	24.8000	382.89	120.27
1153	1	12: 2:25	24.8667	382.93	120.28
1157	1	12: 6:25	24.9333	382.97	120.28
1161	1	12:10:25	25.0000	383.01	120.28
1165	1	12:14:25	25.0667	383.03	120.28
1169	1	12:18:25	25.1333	383.07	120.28
1173	1	12:22:25	25.2000	383.11	120.28
1177	1	12:26:25	25.2667	383.15	120.27
1181	1	12:30:25	25.3333	383.19	120.27
1185	1	12:34:25	25.4000	383.22	120.27
1189	1	12:38:25	25.4667	383.26	120.26
1193	1	12:42:25	25.5333	383.30	120.26
1197	1	12:46:25	25.6000	383.35	120.26
1201	1	12:50:25	25.6667	383.39	120.26
1205	1	12:54:25	25.7333	383.43	120.26
1209	1	12:58:25	25.8000	383.47	120.26
1213	1	13: 2:25	25.8667	383.50	120.27
1217	1	13: 6:25	25.9333	383.54	120.27
1221	1	13:10:25	26.0000	383.56	120.27
1225	1	13:14:25	26.0667	383.60	120.27
1229	1	13:18:25	26.1333	383.64	120.27
1233	1	13:22:25	26.2000	383.67	120.27
1237	1	13:26:25	26.2667	383.71	120.27
1241	1	13:30:25	26.3333	383.73	120.27
1245	1	13:34:25	26.4000	383.77	120.27
1249	1	13:38:25	26.4667	383.80	120.27
1253	1	13:42:25	26.5333	383.83	120.27
1257	1	13:46:25	26.6000	383.87	120.27
1261	1	13:50:25	26.6667	383.91	120.27
1265	1	13:54:25	26.7333	383.95	120.27
1269	1	13:58:25	26.8000	383.99	120.27

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1273	1	14: 2:25	26.8667	384.03	120.27
1277	1	14: 6:25	26.9333	384.05	120.27
1281	1	14:10:25	27.0000	384.08	120.26
1285	1	14:14:25	27.0667	384.11	120.24
1289	1	14:18:25	27.1333	384.15	120.23
1290	1	14:19:25	27.1500	384.21	120.21
1291	1	14:20:25	27.1667	384.10	120.17
1292	1	14:21:25	27.1833	384.15	120.13
1293	1	14:22:25	27.2000	384.23	120.07
1294	1	14:23:25	27.2167	384.23	120.01
1295	1	14:24:25	27.2333	384.21	120.28
1296	1	14:25:25	27.2500	384.21	120.27
1297	1	14:26:25	27.2667	384.14	120.27
1298	1	14:27:25	27.2833	384.33	120.28
Subiendo registradores.					
1299	1	14:28:25	27.3000	371.57	120.21
Parada @ 7000'.					
1300	1	14:29:25	27.3167	358.63	120.18
1301	1	14:30:25	27.3333	358.55	120.07
1302	1	14:31:25	27.3500	358.50	119.74
1303	1	14:32:25	27.3667	356.46	119.41
1304	1	14:33:25	27.3833	295.97	119.33
Parada @ 6750'.					
1305	1	14:34:25	27.4000	277.78	118.87
1306	1	14:35:25	27.4167	277.86	118.75
1307	1	14:36:25	27.4333	277.84	118.63
Parada @ 6500'.					
1308	1	14:37:25	27.4500	236.28	118.50
1309	1	14:38:25	27.4667	236.04	118.37
1310	1	14:39:25	27.4833	236.11	117.85
1311	1	14:40:25	27.5000	236.21	117.74
1312	1	14:41:25	27.5167	236.26	117.56
1313	1	14:42:25	27.5333	236.26	117.29
1314	1	14:43:25	27.5500	236.30	117.15
1315	1	14:44:25	27.5667	236.36	117.06
1316	1	14:45:25	27.5833	236.28	116.97
1317	1	14:46:25	27.6000	236.39	116.94
1318	1	14:47:25	27.6167	236.45	117.18
1319	1	14:48:25	27.6333	236.46	117.10
1320	1	14:49:25	27.6500	236.48	117.01
1321	1	14:50:25	27.6667	236.56	116.96
1322	1	14:51:25	27.6833	236.67	116.65
1323	1	14:52:25	27.7000	236.72	116.61
1324	1	14:53:25	27.7167	236.72	116.55
1325	1	14:54:25	27.7333	236.80	116.53
1326	1	14:55:25	27.7500	236.85	116.50
1327	1	14:56:25	27.7667	236.86	116.46
1328	1	14:57:25	27.7833	236.94	116.44
1329	1	14:58:25	27.8000	236.95	116.47
Se presentaron problemas en la unidad.					
Se bajo nuevamente @ 7080'.					
1330	1	14:59:25	27.8167	289.09	116.43

$14 \geq 0.62 \text{ m/s}$
 $t = 24.24 \text{ hrs.}$
 1.01 m/s

$t_{\text{pmo}} = 2271 \text{ days}$
 $(54,504 \text{ hrs})$
 $Q = 44 \text{ bopd}$

$\Phi = 9.64$
 $H = 71$
 $Sw = 39.96$

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Company: PETRO-TECH PERUANA S.A.

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1331	1	15: 0:25	27.8333	378.70	116.47
Registradores @ 7080'.					
Registrando presion estatica.					
1332	1	15: 1:25	27.8500	385.30	116.65
1333	1	15: 2:25	27.8667	385.45	116.94
1334	1	15: 3:25	27.8833	385.59	117.15
1335	1	15: 4:25	27.9000	385.78	117.65
1339	1	15: 8:25	27.9667	385.82	118.09
1343	1	15:12:25	28.0333	385.52	119.08
1347	1	15:16:25	28.1000	385.97	119.10
1351	1	15:20:25	28.1667	386.06	119.42
1355	1	15:24:25	28.2333	386.17	119.64
1359	1	15:28:25	28.3000	386.31	119.75
1363	1	15:32:25	28.3667	386.44	119.88
1367	1	15:36:25	28.4333	386.58	119.98
1371	1	15:40:25	28.5000	386.70	120.05
1375	1	15:44:25	28.5667	386.84	120.12
1379	1	15:48:25	28.6333	386.98	120.17
1383	1	15:52:25	28.7000	387.12	120.23
1387	1	15:56:25	28.7667	387.24	120.26
1391	1	16: 0:25	28.8333	387.39	120.30
1395	1	16: 4:25	28.9000	387.53	120.34
1399	1	16: 8:25	28.9667	387.67	120.37
1403	1	16:12:25	29.0333	387.81	120.39
1407	1	16:16:25	29.1000	387.94	120.41
1411	1	16:20:25	29.1667	388.09	120.41
1415	1	16:24:25	29.2333	388.22	120.42
1419	1	16:28:25	29.3000	388.36	120.43
1423	1	16:32:25	29.3667	388.51	120.43
1427	1	16:36:25	29.4333	388.67	120.44
1431	1	16:40:25	29.5000	388.81	120.44
1435	1	16:44:25	29.5667	388.97	120.45
1439	1	16:48:25	29.6333	389.13	120.46
1443	1	16:52:25	29.7000	389.28	120.47
1447	1	16:56:25	29.7667	389.44	120.49
1451	1	17: 0:25	29.8333	389.60	120.50
1455	1	17: 4:25	29.9000	389.76	120.51
1459	1	17: 8:25	29.9667	389.91	120.53
1463	1	17:12:25	30.0333	390.07	120.54
1467	1	17:16:25	30.1000	390.23	120.55
1471	1	17:20:25	30.1667	390.37	120.56
1475	1	17:24:25	30.2333	390.53	120.57
1479	1	17:28:25	30.3000	390.68	120.58
1483	1	17:32:25	30.3667	390.83	120.59
1487	1	17:36:25	30.4333	390.98	120.59
1491	1	17:40:25	30.5000	391.12	120.59
1495	1	17:44:25	30.5667	391.27	120.59
1499	1	17:48:25	30.6333	391.41	120.60
1503	1	17:52:25	30.7000	391.56	120.60
1507	1	17:56:25	30.7667	391.71	120.60

SPC

Company: PETRO-TECH PERUANA S.A.

Well: L016-22

Field: LOBITOS MAR

[Wednesday: Aug. 28, 1996]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1511	1	18: 0:25	30.8333	391.84	120.61
1515	1	18: 4:25	30.9000	391.98	120.61
1519	1	18: 8:25	30.9667	392.11	120.62
1523	1	18:12:25	31.0333	392.26	120.62
1527	1	18:16:25	31.1000	392.39	120.62
1531	1	18:20:25	31.1667	392.52	120.63
1535	1	18:24:25	31.2333	392.66	120.63
1539	1	18:28:25	31.3000	392.79	120.63
1543	1	18:32:25	31.3667	392.91	120.63
1547	1	18:36:25	31.4333	393.04	120.63
1551	1	18:40:25	31.5000	393.17	120.62
1555	1	18:44:25	31.5667	393.31	120.62
1559	1	18:48:25	31.6333	393.45	120.62
1563	1	18:52:25	31.7000	393.58	120.61
1567	1	18:56:25	31.7667	393.72	120.61
1571	1	19: 0:25	31.8333	393.85	120.60
1575	1	19: 4:25	31.9000	393.98	120.60
1579	1	19: 8:25	31.9667	394.12	120.59
1583	1	19:12:25	32.0333	394.25	120.59
1587	1	19:16:25	32.1000	394.37	120.59
1591	1	19:20:25	32.1667	394.50	120.58
1595	1	19:24:25	32.2333	394.62	120.57
1599	1	19:28:25	32.3000	394.75	120.57
1603	1	19:32:25	32.3667	394.87	120.57
1607	1	19:36:25	32.4333	394.99	120.56
1611	1	19:40:25	32.5000	395.13	120.56
1615	1	19:44:25	32.5667	395.26	120.56
1619	1	19:48:25	32.6333	395.38	120.56
1623	1	19:52:25	32.7000	395.51	120.56
1627	1	19:56:25	32.7667	395.63	120.56
1631	1	20: 0:25	32.8333	395.76	120.56
1635	1	20: 4:25	32.9000	395.88	120.56
1639	1	20: 8:25	32.9667	396.00	120.56
1643	1	20:12:25	33.0333	396.11	120.56
1647	1	20:16:25	33.1000	396.21	120.56
1651	1	20:20:25	33.1667	396.31	120.56
1655	1	20:24:25	33.2333	396.40	120.56
1659	1	20:28:25	33.3000	396.49	120.56
1663	1	20:32:25	33.3667	396.60	120.55
1667	1	20:36:25	33.4333	396.70	120.55
1671	1	20:40:25	33.5000	396.80	120.54
1675	1	20:44:25	33.5667	396.92	120.54
1679	1	20:48:25	33.6333	397.02	120.53
1683	1	20:52:25	33.7000	397.14	120.53
1687	1	20:56:25	33.7667	397.26	120.52
1691	1	21: 0:25	33.8333	397.38	120.51
1695	1	21: 4:25	33.9000	397.50	120.51
1699	1	21: 8:25	33.9667	397.62	120.50
1703	1	21:12:25	34.0333	397.75	120.50
1707	1	21:16:25	34.1000	397.89	120.49

S P C

Company: PETRO-TECH PERUANA S.A.

Well: L016-22

Field: LOBITOS MAR

[Wednesday: Aug. 28, 1996]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1711	1	21:20:25	34.1667	398.01	120.48
1715	1	21:24:25	34.2333	398.14	120.47
1719	1	21:28:25	34.3000	398.26	120.46
1723	1	21:32:25	34.3667	398.38	120.46
1727	1	21:36:25	34.4333	398.52	120.45
1731	1	21:40:25	34.5000	398.64	120.44
1735	1	21:44:25	34.5667	398.77	120.43
1739	1	21:48:25	34.6333	398.89	120.42
1743	1	21:52:25	34.7000	399.01	120.42
1747	1	21:56:25	34.7667	399.14	120.41
1751	1	22: 0:25	34.8333	399.26	120.41
1755	1	22: 4:25	34.9000	399.38	120.41
1759	1	22: 8:25	34.9667	399.50	120.41
1763	1	22:12:25	35.0333	399.62	120.41
1767	1	22:16:25	35.1000	399.74	120.41
1771	1	22:20:25	35.1667	399.86	120.41
1775	1	22:24:25	35.2333	399.98	120.41
1779	1	22:28:25	35.3000	400.10	120.41
1783	1	22:32:25	35.3667	400.20	120.41
1787	1	22:36:25	35.4333	400.31	120.41
1791	1	22:40:25	35.5000	400.43	120.41
1795	1	22:44:25	35.5667	400.53	120.41
1799	1	22:48:25	35.6333	400.64	120.40
1803	1	22:52:25	35.7000	400.76	120.37
1807	1	22:56:25	35.7667	400.87	120.36
1810	1	22:59:25	35.8167	400.94	120.34
1811	1	23: 0:25	35.8333	401.01	120.32
1812	1	23: 1:25	35.8500	401.04	120.28
1813	1	23: 2:25	35.8667	401.08	120.23
1814	1	23: 3:25	35.8833	401.16	120.18
1815	1	23: 4:25	35.9000	401.16	120.11
1816	1	23: 5:25	35.9167	401.17	120.39
1817	1	23: 6:25	35.9333	401.09	120.38
1818	1	23: 7:25	35.9500	401.16	120.39
1819	1	23: 8:25	35.9667	401.16	120.39
Subiendo registradores. Parada @ 7000'.					
1820	1	23: 9:25	35.9833	375.91	120.41
1821	1	23:10:25	36.0000	375.72	120.23
1822	1	23:11:25	36.0167	375.67	120.16
1823	1	23:12:25	36.0333	352.47	119.97
Parada @ 6900'.					
1824	1	23:13:25	36.0500	343.59	119.52
1825	1	23:14:25	36.0667	343.64	119.07
1826	1	23:15:25	36.0833	343.68	118.92
1827	1	23:16:25	36.1000	295.72	118.77
Parada @ 6700'.					
1828	1	23:17:25	36.1167	279.36	118.60
1829	1	23:18:25	36.1333	279.33	118.40
1830	1	23:19:25	36.1500	279.31	118.19

SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

[Wednesday: Aug. 28, 1996]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1831	1	23:20:25	36.1667	254.69	117.95
1832	1	23:21:25	36.1833	253.93	117.70
		Parada @ 6400'			
1833	1	23:22:25	36.2000	254.01	117.75
1834	1	23:23:25	36.2167	254.08	117.51
1835	1	23:24:25	36.2333	254.11	117.23
1836	1	23:25:25	36.2500	253.19	117.08
1837	1	23:26:25	36.2667	252.13	116.95
		Parada @ 6000'			
1838	1	23:27:25	36.2833	252.01	116.64
1839	1	23:28:25	36.3000	251.96	116.33
1840	1	23:29:25	36.3167	252.02	115.80
1841	1	23:30:25	36.3333	250.96	115.42
		Parada @ 5500'			
1842	1	23:31:25	36.3500	249.50	115.20
1843	1	23:32:25	36.3667	249.52	114.55
1844	1	23:33:25	36.3833	249.09	114.19
1845	1	23:34:25	36.4000	249.26	113.55
1846	1	23:35:25	36.4167	248.27	113.11
		Parada @ 5000'			
1847	1	23:36:25	36.4333	246.25	112.79
1848	1	23:37:25	36.4500	246.37	112.11
1849	1	23:38:25	36.4667	246.91	111.62
1850	1	23:39:25	36.4833	246.49	110.87
1851	1	23:40:25	36.5000	245.30	110.47
		Parada @ 4500'			
1852	1	23:41:25	36.5167	244.41	109.72
1853	1	23:42:25	36.5333	244.65	109.20
1854	1	23:43:25	36.5500	245.27	108.42
1855	1	23:44:25	36.5667	245.33	108.01
1856	1	23:45:25	36.5833	243.90	107.27
		Parada @ 4000'			
1857	1	23:46:25	36.6000	243.48	106.61
1858	1	23:47:25	36.6167	243.50	105.62
1859	1	23:48:25	36.6333	243.83	104.85
1860	1	23:49:25	36.6500	242.48	104.37
		Parada @ 3500'			
1861	1	23:50:25	36.6667	241.31	103.35
1862	1	23:51:25	36.6833	241.22	102.43
1863	1	23:52:25	36.7000	241.61	101.55
1864	1	23:53:25	36.7167	240.34	100.79
		Parada @ 3000'			
1865	1	23:54:25	36.7333	239.43	99.97
1866	1	23:55:25	36.7500	239.93	99.07
1867	1	23:56:25	36.7667	240.13	98.33
1868	1	23:57:25	36.7833	240.39	97.55
1869	1	23:58:25	36.8000	238.67	96.93
1870	1	23:59:25	36.8167	234.87	95.91
		Parada @ 2000'			
[Thursday: Aug. 29, 1996]					
1871	2	0: 0:25	36.8333	232.74	94.74

S P C

Company: PETRO-TECH PERUANA S.A.

Well: LO16-22

Field: LOBITOS MAR

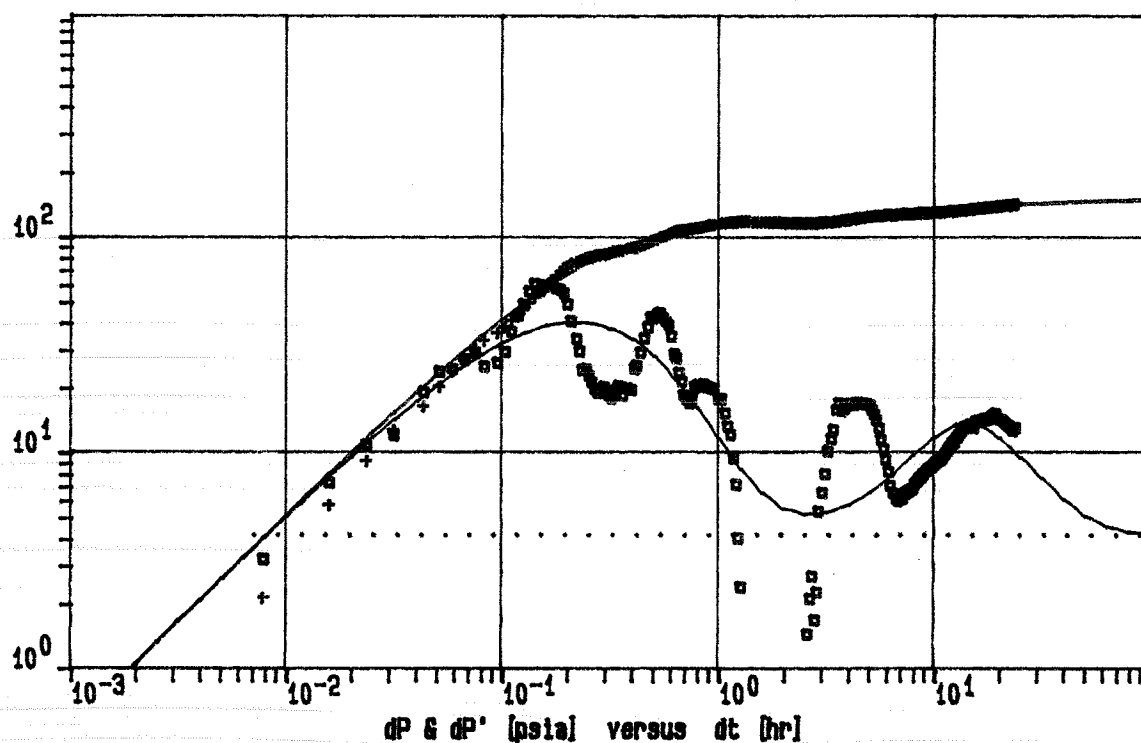
[Thursday: Aug. 29, 1996]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)	BHT (Deg.F)
1872	2	0: 1:25	36.8500	233.67	93.40
1873	2	0: 2:25	36.8667	233.93	92.35
1874	2	0: 3:25	36.8833	234.17	91.14
1875	2	0: 4:25	36.9000	234.05	90.34
1876	2	0: 5:25	36.9167	231.32	89.57
Parada @ 1000'.					
1877	2	0: 6:25	36.9333	227.92	88.07
1878	2	0: 7:25	36.9500	226.77	86.99
1879	2	0: 8:25	36.9667	227.68	85.46
1880	2	0: 9:25	36.9833	228.00	84.38
1881	2	0:10:25	37.0000	226.38	83.66
1882	2	0:11:25	37.0167	222.81	82.60
1883	2	0:12:25	37.0333	221.65	81.16
Parada @ 0'.					
1884	2	0:13:25	37.0500	221.48	79.45
1885	2	0:14:25	37.0667	222.70	78.15
1886	2	0:15:25	37.0833	223.47	76.97
1887	2	0:16:25	37.1000	222.74	75.89
1888	2	0:17:25	37.1167	219.49	74.80
1889	2	0:18:25	37.1333	216.84	73.78
1890	2	0:19:25	37.1500	214.80	72.98
Desfogo lubricador.					
1891	2	0:20:25	37.1667	15.11	71.95
1892	2	0:21:25	37.1833	15.78	71.35
1893	2	0:22:25	37.2000	16.42	70.61
1894	2	0:23:25	37.2167	16.85	69.98
1895	2	0:24:25	37.2333	17.31	69.23
1896	2	0:25:25	37.2500	18.71	68.54
1897	2	0:26:25	37.2667	19.16	68.25
1898	2	0:27:25	37.2833	23.09	67.83
1899	2	0:28:25	37.3000	23.35	67.36
1900	2	0:29:25	37.3167	19.98	66.86
1901	2	0:30:25	37.3333	19.92	66.77
1902	2	0:31:25	37.3500	20.00	66.56
1903	2	0:32:25	37.3667	20.18	66.18
1904	2	0:33:25	37.3833	20.26	66.00
1905	2	0:34:25	37.4000	20.30	65.88
1906	2	0:35:25	37.4167	20.43	65.67
1907	2	0:36:25	37.4333	20.44	65.54
1908	2	0:37:25	37.4500	20.49	65.38
1909	2	0:38:25	37.4667	20.58	65.21
1910	2	0:39:25	37.4833	20.67	64.98

[Louisiana Well Analysis LTD. & S.P.C.]

Log-Log			L016-22	
Company	PETRO-TECH	Test	PBU	
Field	LOBITOS	Date	08/28/96	
Well	L016-22	Gauge	MMEMORY	

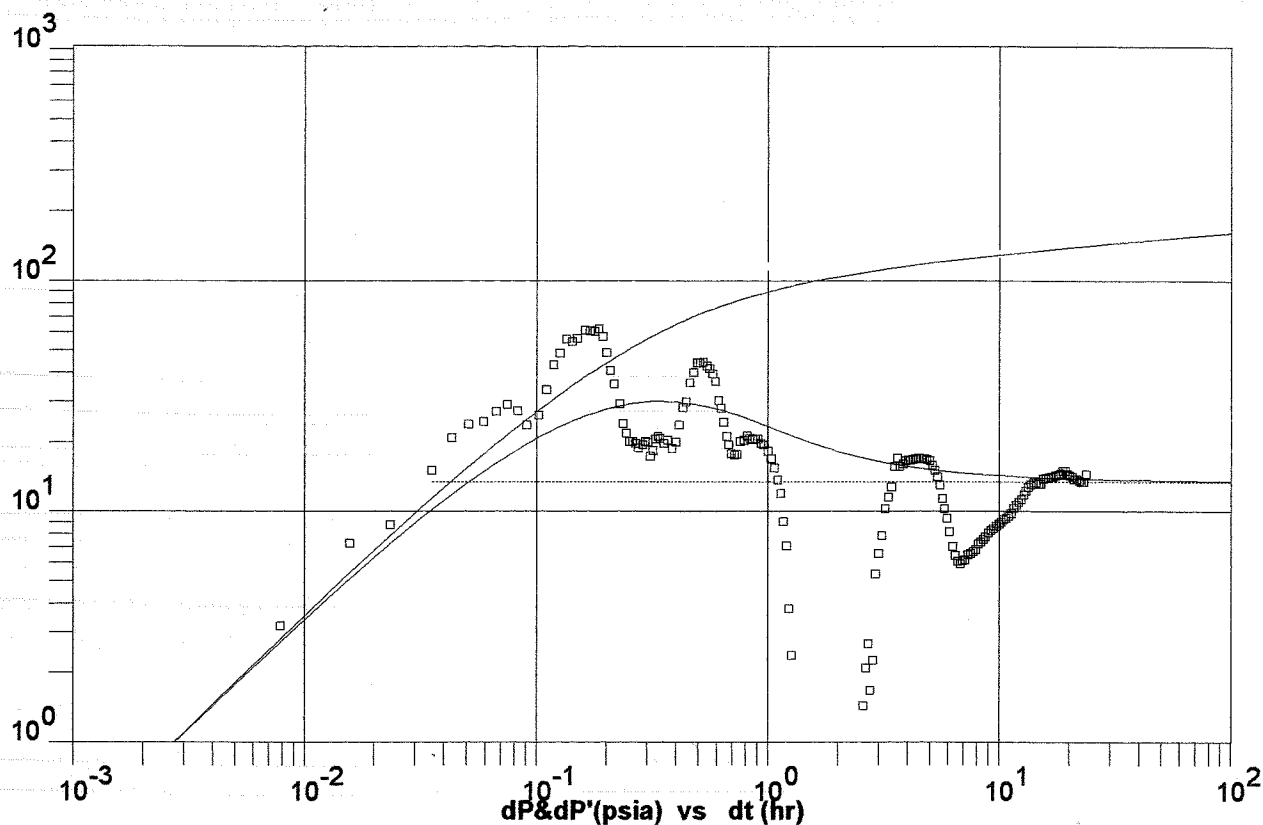


Flow Period # 2
Rate 0 STB/day
Rate Change 44 STB/day
P at dt=0 244.12 psia
Smoothing 0.1
P_i 417.374 psia

Time Match 70.8 (hr)⁻¹
Pressure Match 0.12 (psia)⁻¹

RESERVOIR Homogeneous
BOUNDARY Infinite
WELL Storage & Skin
Storage C 0.00408 STB/psi
C₁/C_f 1.09808
Alpha 714000
Skin factor 10
kh 832 md.ft
k 11.7 md
Mobility k/mu 13.8
Investig. R 429 ft

PetroTech	Log-Log	LO16-22
Company	PETRO-TECH S.A.	Test
Field	LOBITOS	Date
Well	LO16-22	Gauge



Flow Period #	2	Time match	14.116 (hr)-1
Rate	0 STB/day	Pressure Match	0.037703 (psia)-1
Rate Change	307 STB/day	RESERVOIR	Homogeneous
P @ dt=0	244.12 psia	WELL	Changing storage
Pi	486.48 psia	BOUNDARY	Infinite
Smoothing	0.1	Storage C	0.040972 STB/psi
		CD	616.33
		C factor	1
		Alpha	12.167
		Skin factor	-1.2493
		kh	2.7352E5 md.ft
		K	2735.2 md
		Mobility k/mu	19.606
		Investig. R	289.58 ft

Test was failed u