

STATIC AND FLOWING GRADIENT TEST

COMPANY: PETRO-TECH PERUANA S.A.
WELL: LO6-7
FIELD: LOBITOS OFFSHORE
DATE: NOVEMBER 21th, 2003

GEOSCIENCES
Central File

April 22
DATE

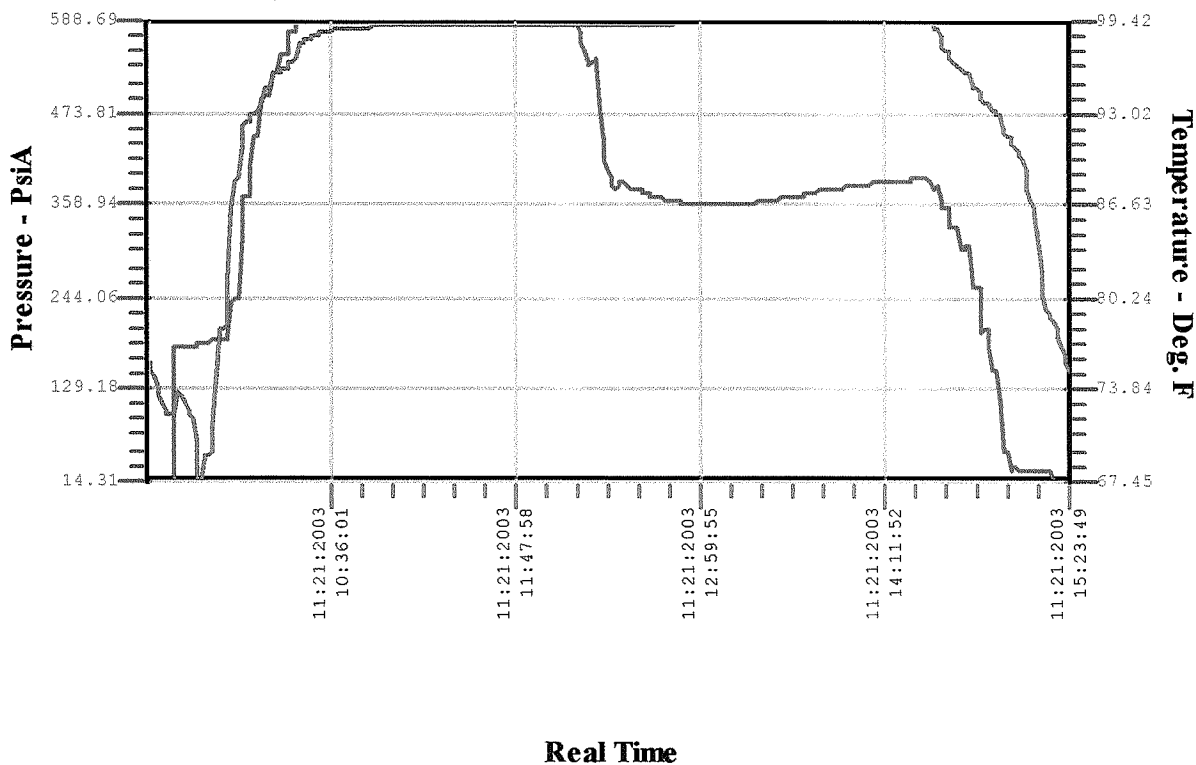
2004

Well Test Data

Test name: FGL06-7

Company: FLOWPETROL S.A.
Client: PETRO-TECH PERUANA S.A.
Gauge number: 91176
Well name: LO6-7
Well number: 7
Test number: 0055
Field name: LOBITOS OFFSHORE
County: TALARA
State: PIURA
Date of test: NOVEMBER 21TH, 2003
Type of test: STATIC & FLOWING GRADIENT
Well status: PRODUCER
BHP on bottom: 588.69 PSIA
BHP off bottom: 392.47 PSIA
Bottom gauge number: 91176
Starting tubing pressure: 175 PSIG
Starting casing pressure: 480 PSIG
Ending tubing pressure: 0 PSIG
Ending casing pressure: 20 PSIG
Depth of tool: 5350'
Surface elevation: -
Tool zero point: -
Tubing size: 2 3/8"
Bottom hole temperature: 99.26 DEG F
:
:
Test operator: Eng. Marcial Cáceres
Comments:
:
:

Temperature / Pressure Data



CENTRAL FILE
Geosciences

FLOWPETROL S.A.

STATIC & FLOWING GRADIENT TEST

Field : Lobitos Offshore
Well : LO6-7

Sand(s) : Rio Bravo
Interval(s) : (5686' - 4172')

At Static Condition
Press. Tubing= 175 psig
Press. Ann.= 480 psig

At Flowing Condition
Press. Tubing= 0 psig
Press. Ann.= 20 psig

Well Status : Producer
Installation : BLT
Production (BOPD) : 15 (October,2003)
Cumul. (STB) : 274298 (October, 2003)

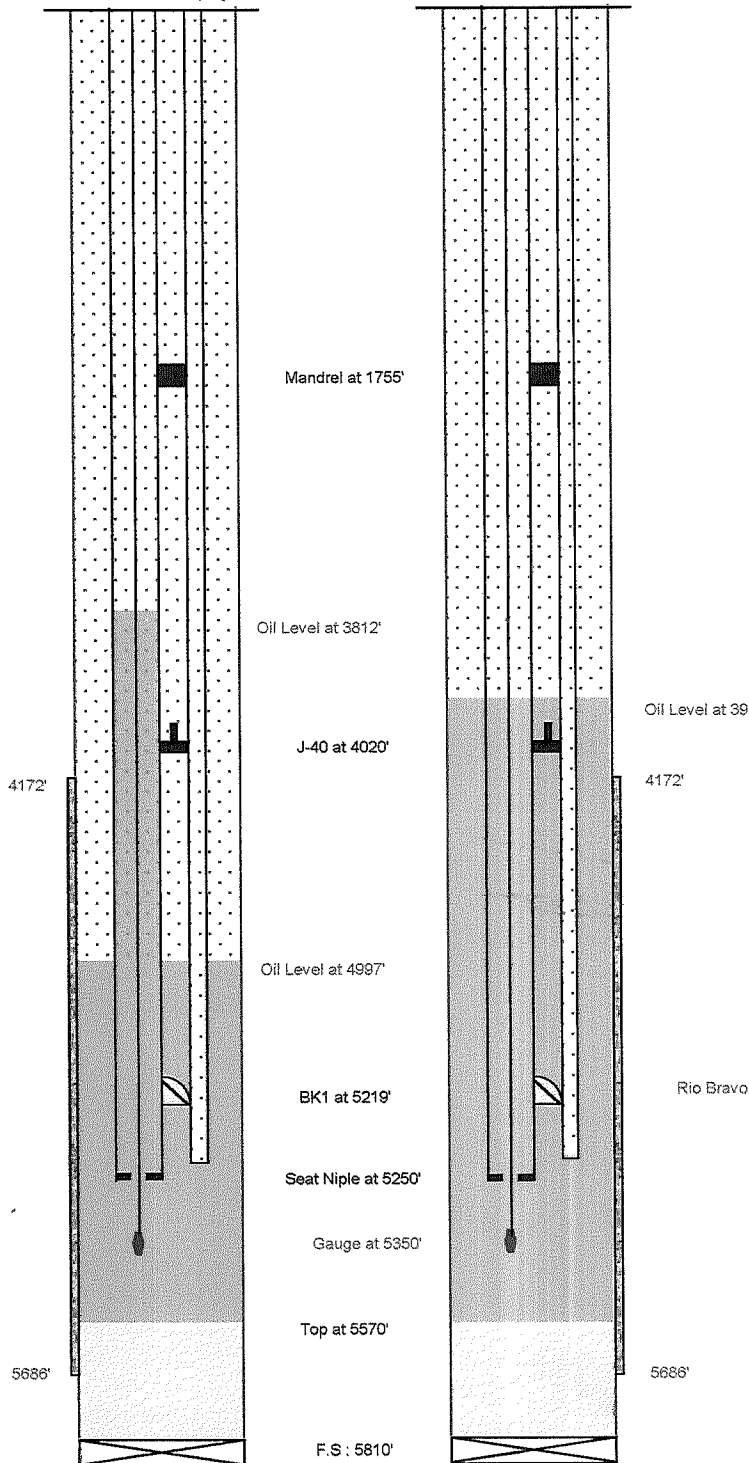
FIELD REPORT :

October 18th, 2003

08:00 Rig up.
15:53 Retrieved Standing Valve at 5250'
Detected top at 5570'
16:10 Shut in well x 03 days

November 21th, 2003

08:00 Rig up
09:24 Activate Memory Gauges FPT
09:39 RIH Gauges with steps as follows:
0' - 1500' -3000' - 4000' - 4500' -4800' -5000'
5100' - 5200' - 5300' - 5350'.
10:23 Gauges at 5350' x 02 hrs.
P(Tubing) = 175 psig
P(Annulus) = 480 psig
12:08 Bleed off well for tubing and annulus.
14:29 POOH Gauges with steps as follows:
5350' - 5300' - 5200' - 5100' - 5000' - 5000'
4800' - 4600' - 4400' - 4000' - 3000' - 1500'
0'
P(tubing) = 0 psig
P(annulus) = 20 psig
15:15 Gauges in Lubricator
15:23 Desactivate.
16:30 Standing Valve was installed at 5250'
17:00 Rig Down.



Oil Level

3812' MD (3020' VD)

0.3584 psi/ft

4920' MD (3808' VD) = 479 psi

5350' MD (4114' VD) = 589 psi

FG = $\frac{479 \text{ psi}}{3808' \text{ VD}} = 0.126 \text{ psi/ft}$

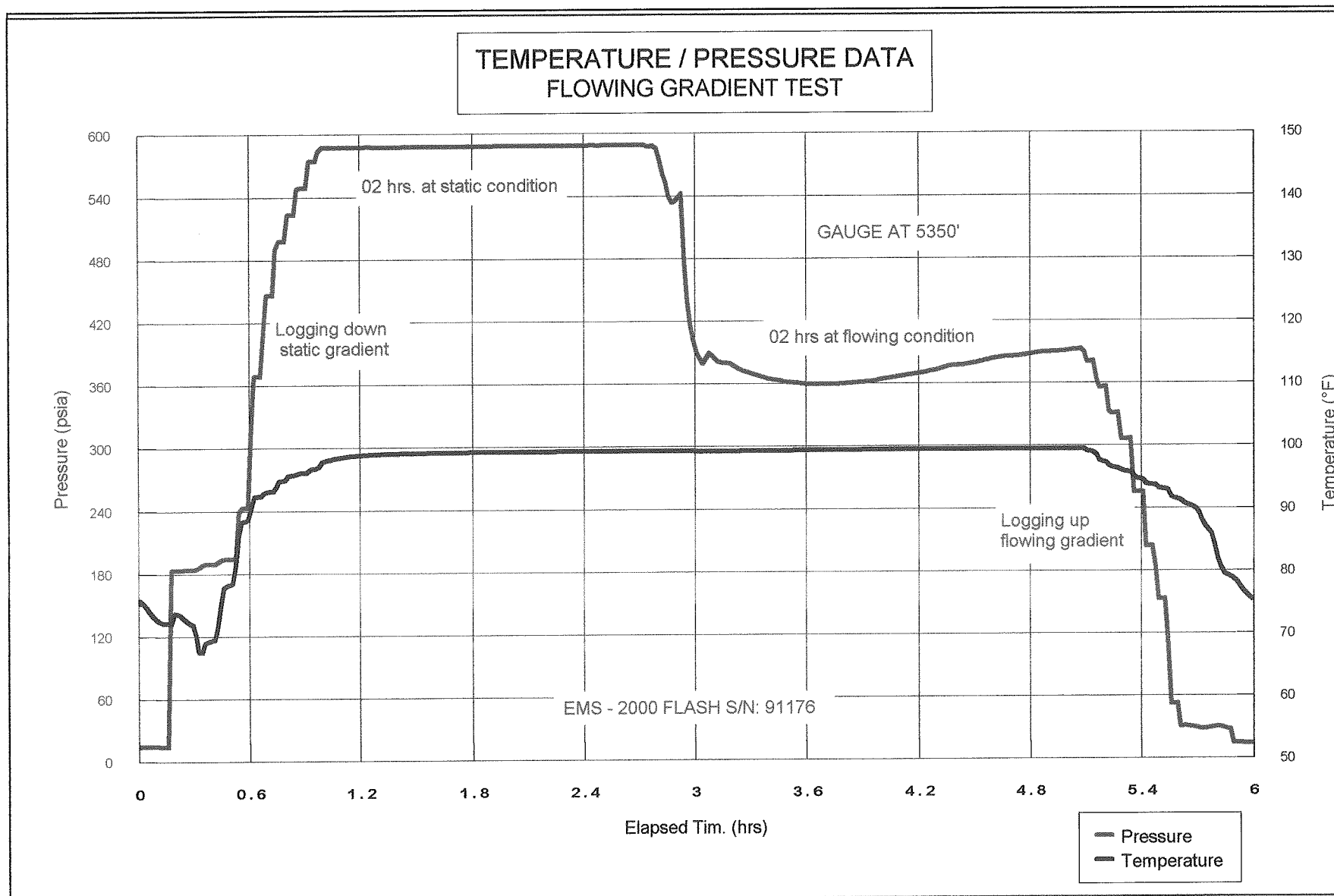
Field Operator : Ramro Ramirez

Field Supervisor : Marcial Caceres

Summary of Results Well: LO6-7

Date of Test	November 21th, 2003	
Formation	Rio Bravo	(5686' - 4172')
Depth of gauges	5,350	M.D. ft
	4,115	V.D. ft
<u>02 hrs. at Static Condition</u>		
Well Head Pressure (Tubing)	175.00	psig (Manometer)
Well Head Pressure (Annulus)	480.00	psig (Manometer)
Static Pressure at 5350' MD	588.69	psia (Memory)
Static Temperature at 5350' MD	99.26	°F
Gradient at 5350' MD	0.1431	psi/ft
Oil level	3812	ft. MD
	3020	ft. VD
Oil Gradient	0.3584	psi/ft

<u>02 Hrs. at Flowing Condition</u>		
Well Head Pressure (Tubing)	0.00	psig (Manometer)
Well Head Pressure (Annulus)	20.00	psig (Manometer)
Flowing Pressure at 5350' MD	392.47	psia (Memory)
Flowing Temperature at 5350' MD	99.41	°F
Gradient at 5350' MD	0.0954	psi/ft
Oil level	3914	ft. MD
	3090	ft. VD
Oil Gradient	0.3525	psi/ft



Fluid Level at Static Condition (while RIH gauges)

Measured depth (ft)	Vertical depth (ft)	Pressure (psia)	Gradient (psi/ft)
0	0.00	183.26	
1500	1409.36	189.27	0.0043
3000	2462.99	193.96	0.0045
4000	3149.83	242.86	0.0712
4500	3500.61	368.45	0.3580
4800	3715.17	446.00	0.3614
5000	3859.66	497.44	0.3560
5100	3932.46	523.04	0.3516
5200	4005.26	548.66	0.3519
5300	4078.00	574.38	0.3536
5350	4114.67	588.69	0.3903

Levels & Gradients

	Static levels		
	Measured (ft)	Vertical (ft)	Gradient (psi/ft)
Gas =	0	0	0.0043
Oil =	3812	3020	0.3584
Gauges =	5350	4115	0.1431

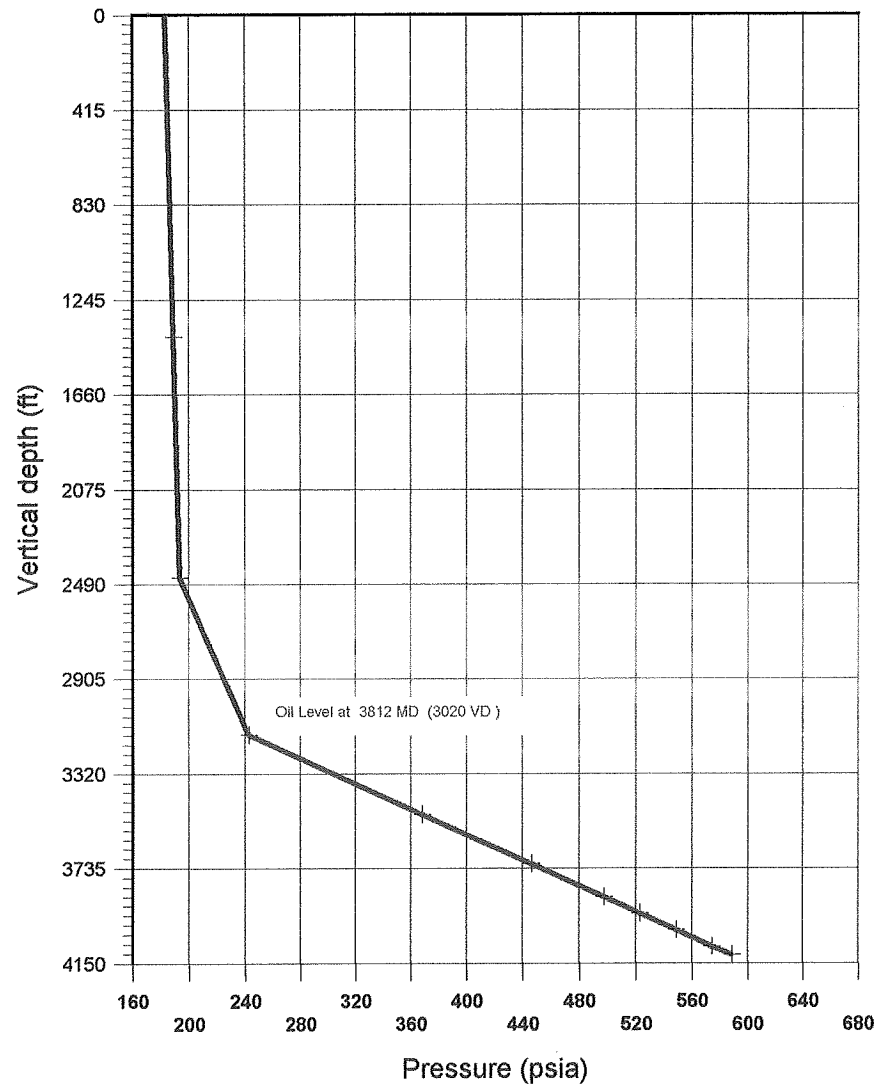
Fluid Level at Flowing Condition (while POOH gauges)

Measured depth (ft)	Vertical depth (ft)	Pressure (psia)	Gradient (psi/ft)
0	0.00	28.14	
1500	1409.36	29.04	0.0006
3000	2462.99	30.69	0.0016
4000	3149.83	52.41	0.0316
4400	3429.76	152.71	0.3583
4600	3571.48	203.70	0.3598
4800	3715.17	255.20	0.3584
5000	3859.66	306.54	0.3553
5100	3932.46	330.99	0.3358
5200	4005.26	355.84	0.3413
5300	4078.00	380.30	0.3363
5350	4114.67	392.47	0.3319

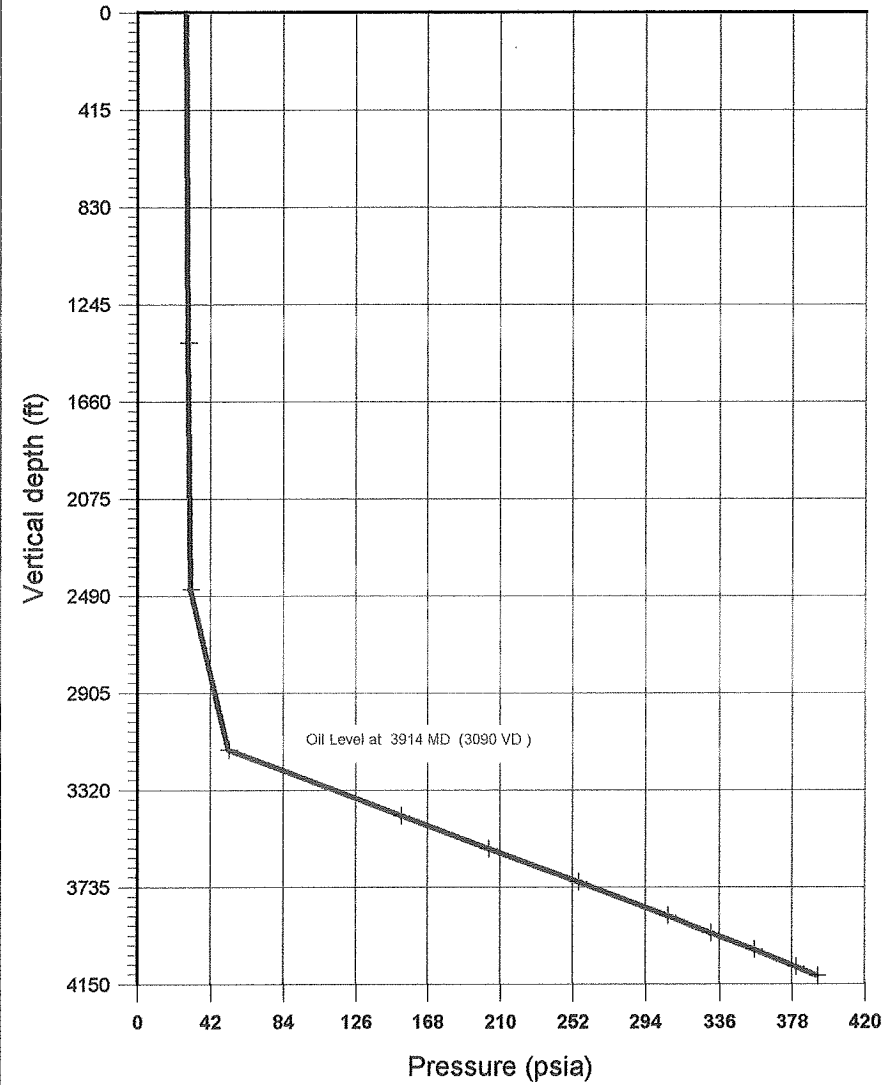
Levels & Gradients

	Flowing levels		
	Measured (ft)	Vertical (ft)	Gradient (psi/ft)
Gas =	0	0	0.0010
Oil =	3914	3090	0.3525
Gauges =	5350	4115	0.0954

Fluid Level at Static Condition (while RIH gauges)



Fluid Level at Flowing Condition (while POOH gauges)



Well LO6-7: Development Test

Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)	Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)
Activate Gauge s/n: 91176					11/21/2003	10:13:49	0.82917	523.04	95.65
11/21/2003	09:24:04	0.00000	15.01	75.44	11/21/2003	10:14:49	0.84583	523.06	95.68
11/21/2003	09:24:05	0.00028	14.94	75.45	11/21/2003	10:15:49	0.86250	547.71	95.86
11/21/2003	09:24:06	0.00056	15.05	75.46	Step at 5200'				
11/21/2003	09:24:07	0.00083	15.06	75.46	11/21/2003	10:16:49	0.87917	548.60	96.04
11/21/2003	09:24:08	0.00111	15.17	75.45	11/21/2003	10:17:49	0.89583	548.66	96.05
11/21/2003	09:24:09	0.00139	15.12	75.44	11/21/2003	10:18:49	0.91250	548.68	96.05
11/21/2003	09:24:10	0.00167	15.05	75.43	Step at 5300'				
11/21/2003	09:24:11	0.00194	15.16	75.43	11/21/2003	10:19:49	0.92917	574.33	96.49
11/21/2003	09:24:12	0.00222	15.04	75.41	11/21/2003	10:20:49	0.94583	574.41	96.65
11/21/2003	09:24:13	0.00250	15.00	75.41	11/21/2003	10:21:49	0.96250	574.38	96.71
11/21/2003	09:24:14	0.00278	15.12	75.39	11/21/2003	10:22:49	0.97917	584.00	96.91
11/21/2003	09:24:15	0.00306	15.12	75.38	Gauges at 5350' x 02 hrs.				
11/21/2003	09:24:16	0.00333	15.01	75.37	11/21/2003	10:23:49	0.99583	587.28	97.73
11/21/2003	09:24:17	0.00361	14.92	75.36	11/21/2003	10:24:49	1.01250	587.25	97.89
11/21/2003	09:24:18	0.00389	14.94	75.34	11/21/2003	10:25:49	1.02917	587.27	98.02
11/21/2003	09:24:19	0.00417	15.06	75.34	11/21/2003	10:26:49	1.04583	587.31	98.14
11/21/2003	09:24:20	0.00444	15.14	75.35	11/21/2003	10:27:49	1.06250	587.28	98.24
11/21/2003	09:24:21	0.00472	15.06	75.33	11/21/2003	10:28:49	1.07917	587.31	98.34
11/21/2003	09:24:22	0.00500	15.05	75.33	11/21/2003	10:29:49	1.09583	587.31	98.42
11/21/2003	09:24:23	0.00528	15.09	75.31	11/21/2003	10:30:49	1.11250	587.34	98.50
11/21/2003	09:24:24	0.00556	15.09	75.30	11/21/2003	10:31:49	1.12917	587.40	98.56
11/21/2003	09:24:25	0.00583	15.15	75.27	11/21/2003	10:32:49	1.14583	587.36	98.62
11/21/2003	09:24:26	0.00611	14.94	75.65	11/21/2003	10:33:49	1.16250	587.44	98.67
11/21/2003	09:24:27	0.00639	14.62	75.75	11/21/2003	10:34:49	1.17917	587.41	98.71
11/21/2003	09:24:28	0.00667	14.36	75.65	11/21/2003	10:35:49	1.19583	587.43	98.75
11/21/2003	09:24:29	0.00694	14.41	75.66	11/21/2003	10:36:49	1.21250	587.44	98.78
11/21/2003	09:24:30	0.00722	14.53	75.61	11/21/2003	10:37:49	1.22917	587.50	98.81
11/21/2003	09:24:31	0.00750	14.45	75.67	11/21/2003	10:38:49	1.24583	587.49	98.84
11/21/2003	09:24:32	0.00778	14.51	75.68	11/21/2003	10:39:49	1.26250	587.50	98.86
11/21/2003	09:24:33	0.00806	14.40	75.66	11/21/2003	10:40:49	1.27917	587.17	98.88
11/21/2003	09:24:34	0.00833	14.61	75.68	11/21/2003	10:41:49	1.29583	587.23	98.90
11/21/2003	09:24:35	0.00861	14.44	75.66	11/21/2003	10:42:49	1.31250	587.29	98.92
11/21/2003	09:24:36	0.00889	14.51	75.65	11/21/2003	10:43:49	1.32917	587.35	98.94
11/21/2003	09:24:37	0.00917	14.46	75.64	11/21/2003	10:44:49	1.34583	587.33	98.95
11/21/2003	09:24:38	0.00944	14.57	75.63	11/21/2003	10:45:49	1.36250	587.42	98.97
11/21/2003	09:24:39	0.01020	14.53	75.71	11/21/2003	10:46:49	1.37917	587.39	98.98
11/21/2003	09:25:49	0.02917	14.64	75.26	11/21/2003	10:47:49	1.39583	587.38	98.99
11/21/2003	09:26:49	0.04583	14.58	74.74	11/21/2003	10:48:49	1.41250	587.43	99.00
11/21/2003	09:27:49	0.06250	14.57	73.99	11/21/2003	10:49:49	1.42917	587.49	99.01
11/21/2003	09:28:49	0.07917	14.50	73.35	11/21/2003	10:50:49	1.44583	587.47	99.02
11/21/2003	09:29:49	0.09583	14.46	72.84	11/21/2003	10:51:49	1.46250	587.51	99.03
11/21/2003	09:30:49	0.11250	14.42	72.42	11/21/2003	10:52:49	1.47917	587.51	99.04
11/21/2003	09:31:49	0.12917	14.37	72.16	11/21/2003	10:53:49	1.49583	587.48	99.05
11/21/2003	09:32:49	0.14583	14.34	72.12	11/21/2003	10:54:49	1.51250	587.51	99.06
11/21/2003	09:33:49	0.16250	14.35	72.09	11/21/2003	10:55:49	1.52917	587.56	99.07
Presurized Lubricator					11/21/2003	10:56:49	1.54583	587.54	99.07
11/21/2003	09:34:49	0.17917	183.09	72.12	11/21/2003	10:57:49	1.56250	587.57	99.08
11/21/2003	09:35:49	0.19583	183.28	73.68	11/21/2003	10:58:49	1.57917	587.60	99.09
11/21/2003	09:36:49	0.21250	183.26	73.53	11/21/2003	10:59:49	1.59583	587.58	99.09
11/21/2003	09:37:49	0.22917	183.22	73.37	11/21/2003	11:00:49	1.61250	587.62	99.10
RIH Gauges					11/21/2003	11:01:49	1.62917	587.62	99.10
11/21/2003	09:38:49	0.24583	183.46	72.90	11/21/2003	11:02:49	1.64583	587.68	99.11
11/21/2003	09:39:49	0.26250	183.56	72.38	11/21/2003	11:03:49	1.66250	587.68	99.12
11/21/2003	09:40:49	0.27917	183.58	72.10	11/21/2003	11:04:49	1.67917	587.68	99.12
11/21/2003	09:41:49	0.29583	183.60	71.82	11/21/2003	11:05:49	1.69583	587.73	99.13
11/21/2003	09:42:49	0.31250	184.37	70.25	11/21/2003	11:06:49	1.71250	587.70	99.13
11/21/2003	09:43:49	0.32917	186.21	67.50	11/21/2003	11:07:49	1.72917	587.72	99.13
11/21/2003	09:44:49	0.34583	188.49	67.45	11/21/2003	11:08:49	1.74583	587.74	99.14
Step at 1500'					11/21/2003	11:09:49	1.76250	587.78	99.14
11/21/2003	09:45:49	0.36250	189.31	68.91	11/21/2003	11:10:49	1.77917	587.82	99.15
11/21/2003	09:46:49	0.37917	189.27	69.15	11/21/2003	11:11:49	1.79583	587.82	99.15
11/21/2003	09:47:49	0.39583	189.27	69.30	11/21/2003	11:12:49	1.81250	587.85	99.16
11/21/2003	09:48:49	0.41250	189.46	69.47	11/21/2003	11:13:49	1.82917	587.85	99.16
11/21/2003	09:49:49	0.42917	190.91	71.27	11/21/2003	11:14:49	1.84583	587.88	99.16
11/21/2003	09:50:49	0.44583	192.77	74.43	11/21/2003	11:15:49	1.86250	587.90	99.17
11/21/2003	09:51:49	0.46250	193.96	77.75	11/21/2003	11:16:49	1.87917	587.95	99.17
Step at 3000'					11/21/2003	11:17:49	1.89583	587.92	99.17
11/21/2003	09:52:49	0.47917	193.96	78.05	11/21/2003	11:18:49	1.91250	587.97	99.18
11/21/2003	09:53:49	0.49583	193.96	78.19	11/21/2003	11:19:49	1.92917	588.00	99.18
11/21/2003	09:54:49	0.51250	194.09	78.43	11/21/2003	11:20:49	1.94583	588.01	99.18
11/21/2003	09:55:49	0.52917	195.68	81.55	11/21/2003	11:21:49	1.96250	588.02	99.19
11/21/2003	09:56:49	0.54583	238.74	86.44	11/21/2003	11:22:49	1.97917	588.01	99.19
Step at 4000'					11/21/2003	11:23:49	1.99583	588.03	99.19
11/21/2003	09:57:49	0.56250	242.80	88.19	11/21/2003	11:24:49	2.01250	588.05	99.19
11/21/2003	09:58:49	0.57917	242.86	88.35	11/21/2003	11:25:49	2.02917	588.03	99.20
11/21/2003	09:59:49	0.59583	242.87	88.57	11/21/2003	11:26:49	2.04583	588.04	99.20
11/21/2003	10:00:49	0.61250	319.98	90.52	11/21/2003	11:27:49	2.06250	588.07	99.20
Step at 4500'					11/21/2003	11:28:49	2.07917	588.09	99.20
11/21/2003	10:01:49	0.62917	368.56	92.23	11/21/2003	11:29:49	2.09583	588.09	99.21
11/21/2003	10:02:49	0.64583	368.35	92.28	11/21/2003	11:30:49	2.11250	588.11	99.21
11/21/2003	10:03:49	0.66250	368.38	92.30	11/21/2003	11:31:49	2.12917	588.13	99.21
11/21/2003	10:04:49	0.67917	404.79	92.79	11/21/2003	11:32:49	2.14583	588.14	99.21
Step at 4800'					11/21/2003	11:33:49	2.16250	588.16	99.22
11/21/2003	10:05:49	0.69583	446.04	93.01	11/21/2003	11:34:49	2.17917	588.17	99.22
11/21/2003	10:06:49	0.71250	445.95	93.05	11/21/2003	11:35:49	2.19583	588.21	99.22
11/21/2003	10:07:49	0.72917	446.00	93.07	11/21/2003	11:36:49	2.21250	588.19	99.22
11/21/2003	10:08:49	0.74583	490.37	93.73	11/21/2003	11:37:49	2.22917	588.25	99.22
Step at 5000'					11/21/2003	11:38:49	2.24583	588.26	99.23
11/21/2003	10:09:49	0.76250	497.37	94.72	11/21/2003	11:39:49	2.26250	588.26	99.23
11/21/2003	10:10:49	0.77917	497.44	94.80	11/21/2003	11:40:49	2.27917	588.29	99.23
11/21/2003	10:11:49	0.79583	497.44	94.85	11/21/2003	11:41:49	2.29583	588.30	99.23
Step at 5100'					11/21/2003	11:42:49	2.31250	588.30	99.23
11/21/2003	10:12:49	0.81250	523.01	95.53	11/21/2003	11:43:49	2.32917	588.30	99.23

Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)
11/21/2003	11:44:49	2.34583	588.33	99.23
11/21/2003	11:45:49	2.36250	588.35	99.23
11/21/2003	11:46:49	2.37917	588.39	99.24
11/21/2003	11:47:49	2.39583	588.35	99.24
11/21/2003	11:48:49	2.41250	588.39	99.24
11/21/2003	11:49:49	2.42917	588.40	99.24
11/21/2003	11:50:49	2.44583	588.43	99.24
11/21/2003	11:51:49	2.46250	588.45	99.24
11/21/2003	11:52:49	2.47917	588.39	99.24
11/21/2003	11:53:49	2.49583	588.50	99.25
11/21/2003	11:54:49	2.51250	588.49	99.25
11/21/2003	11:55:49	2.52917	588.52	99.25
11/21/2003	11:56:49	2.54583	588.55	99.25
11/21/2003	11:57:49	2.56250	588.51	99.25
11/21/2003	11:58:49	2.57917	588.51	99.25
11/21/2003	11:59:49	2.59583	588.59	99.25
11/21/2003	12:00:49	2.61250	588.54	99.25
11/21/2003	12:01:49	2.62917	588.57	99.26
11/21/2003	12:02:49	2.64583	588.59	99.26
11/21/2003	12:03:49	2.66250	588.62	99.26
11/21/2003	12:04:49	2.67917	588.66	99.26
11/21/2003	12:05:49	2.69583	588.69	99.26
11/21/2003	12:06:49	2.71250	588.65	99.26
11/21/2003	12:07:49	2.72917	588.68	99.26
Bleed off well x 02 hrs. at separator				
11/21/2003	12:08:49	2.74583	587.20	99.26
11/21/2003	12:09:49	2.76250	587.74	99.26
11/21/2003	12:10:49	2.77917	587.87	99.27
11/21/2003	12:11:49	2.79583	584.93	99.27
11/21/2003	12:12:49	2.81250	575.29	99.27
11/21/2003	12:13:49	2.82917	560.89	99.27
11/21/2003	12:14:49	2.84583	553.40	99.27
11/21/2003	12:15:49	2.86250	539.66	99.27
11/21/2003	12:16:49	2.87917	533.33	99.26
11/21/2003	12:17:49	2.89583	535.22	99.26
11/21/2003	12:18:49	2.91250	538.47	99.26
11/21/2003	12:19:49	2.92917	542.24	99.26
11/21/2003	12:20:49	2.94583	476.29	99.26
11/21/2003	12:21:49	2.96250	458.99	99.25
11/21/2003	12:22:49	2.97917	416.59	99.24
11/21/2003	12:23:49	2.99583	400.88	99.23
11/21/2003	12:24:49	3.01250	390.86	99.21
11/21/2003	12:25:49	3.02917	384.01	99.20
11/21/2003	12:26:49	3.04583	378.99	99.20
11/21/2003	12:27:49	3.06250	384.69	99.19
11/21/2003	12:28:49	3.07917	389.55	99.19
11/21/2003	12:29:49	3.09583	387.28	99.19
11/21/2003	12:30:49	3.11250	383.89	99.19
11/21/2003	12:31:49	3.12917	381.07	99.20
11/21/2003	12:32:49	3.14583	379.93	99.20
11/21/2003	12:33:49	3.16250	379.72	99.20
11/21/2003	12:34:49	3.17917	379.58	99.21
11/21/2003	12:35:49	3.19583	379.07	99.21
11/21/2003	12:36:49	3.21250	377.39	99.22
11/21/2003	12:37:49	3.22917	375.37	99.22
11/21/2003	12:38:49	3.24583	373.41	99.23
11/21/2003	12:39:49	3.26250	372.07	99.23
11/21/2003	12:40:49	3.27917	371.21	99.24
11/21/2003	12:41:49	3.29583	370.33	99.24
11/21/2003	12:42:49	3.31250	369.56	99.24
11/21/2003	12:43:49	3.32917	368.49	99.25
11/21/2003	12:44:49	3.34583	367.54	99.25
11/21/2003	12:45:49	3.36250	366.60	99.26
11/21/2003	12:46:49	3.37917	365.94	99.27
11/21/2003	12:47:49	3.39583	364.92	99.27
11/21/2003	12:48:49	3.41250	364.11	99.28
11/21/2003	12:49:49	3.42917	363.46	99.28
11/21/2003	12:50:49	3.44583	363.19	99.29
11/21/2003	12:51:49	3.46250	362.72	99.29
11/21/2003	12:52:49	3.47917	362.16	99.30
11/21/2003	12:53:49	3.49583	361.73	99.30
11/21/2003	12:54:49	3.51250	361.30	99.30
11/21/2003	12:55:49	3.52917	360.94	99.31
11/21/2003	12:56:49	3.54583	360.70	99.31
11/21/2003	12:57:49	3.56250	360.47	99.32
11/21/2003	12:58:49	3.57917	359.89	99.33
11/21/2003	12:59:49	3.59583	359.64	99.33
11/21/2003	13:00:49	3.61250	359.39	99.34
11/21/2003	13:01:49	3.62917	359.28	99.34
11/21/2003	13:02:49	3.64583	359.13	99.35
11/21/2003	13:03:49	3.66250	359.21	99.35
11/21/2003	13:04:49	3.67917	359.27	99.36
11/21/2003	13:05:49	3.69583	359.41	99.36
11/21/2003	13:06:49	3.71250	359.28	99.36
11/21/2003	13:07:49	3.72917	359.38	99.37
11/21/2003	13:08:49	3.74583	359.26	99.37
11/21/2003	13:09:49	3.76250	359.32	99.37
11/21/2003	13:10:49	3.77917	359.47	99.38
11/21/2003	13:11:49	3.79583	359.66	99.37
11/21/2003	13:12:49	3.81250	359.95	99.38
11/21/2003	13:13:49	3.82917	360.26	99.38
11/21/2003	13:14:49	3.84583	360.47	99.38
11/21/2003	13:15:49	3.86250	360.75	99.38
11/21/2003	13:16:49	3.87917	360.96	99.38
11/21/2003	13:17:49	3.89583	361.17	99.39
11/21/2003	13:18:49	3.91250	361.43	99.39

Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)
11/21/2003	13:19:49	3.92917	361.63	99.39
11/21/2003	13:20:49	3.94583	362.07	99.39
11/21/2003	13:21:49	3.96250	362.44	99.39
11/21/2003	13:22:49	3.97917	363.01	99.39
11/21/2003	13:23:49	3.99583	363.65	99.39
11/21/2003	13:24:49	4.01250	364.21	99.40
11/21/2003	13:25:49	4.02917	364.64	99.40
11/21/2003	13:26:49	4.04583	365.22	99.40
11/21/2003	13:27:49	4.06250	365.66	99.40
11/21/2003	13:28:49	4.07917	366.11	99.40
11/21/2003	13:29:49	4.09583	366.51	99.40
11/21/2003	13:30:49	4.11250	367.02	99.40
11/21/2003	13:31:49	4.12917	367.40	99.40
11/21/2003	13:32:49	4.14583	367.94	99.40
11/21/2003	13:33:49	4.16250	368.47	99.41
11/21/2003	13:34:49	4.17917	369.12	99.41
11/21/2003	13:35:49	4.19583	369.56	99.41
11/21/2003	13:36:49	4.21250	370.09	99.41
11/21/2003	13:37:49	4.22917	370.57	99.41
11/21/2003	13:38:49	4.24583	371.02	99.41
11/21/2003	13:39:49	4.26250	371.54	99.41
11/21/2003	13:40:49	4.27917	372.11	99.41
11/21/2003	13:41:49	4.29583	372.84	99.41
11/21/2003	13:42:49	4.31250	373.59	99.41
11/21/2003	13:43:49	4.32917	374.60	99.41
11/21/2003	13:44:49	4.34583	375.55	99.41
11/21/2003	13:45:49	4.36250	376.35	99.41
11/21/2003	13:46:49	4.37917	376.75	99.41
11/21/2003	13:47:49	4.39583	377.08	99.41
11/21/2003	13:48:49	4.41250	377.21	99.41
11/21/2003	13:49:49	4.42917	377.46	99.41
11/21/2003	13:50:49	4.44583	377.72	99.41
11/21/2003	13:51:49	4.46250	378.12	99.41
11/21/2003	13:52:49	4.47917	378.57	99.41
11/21/2003	13:53:49	4.49583	379.17	99.41
11/21/2003	13:54:49	4.51250	379.69	99.41
11/21/2003	13:55:49	4.52917	380.47	99.42
11/21/2003	13:56:49	4.54583	381.26	99.42
11/21/2003	13:57:49	4.56250	381.93	99.42
11/21/2003	13:58:49	4.57917	382.57	99.41
11/21/2003	13:59:49	4.59583	383.38	99.41
11/21/2003	14:00:49	4.61250	384.00	99.41
11/21/2003	14:01:49	4.62917	384.46	99.41
11/21/2003	14:02:49	4.64583	384.82	99.41
11/21/2003	14:03:49	4.66250	385.07	99.41
11/21/2003	14:04:49	4.67917	385.28	99.41
11/21/2003	14:05:49	4.69583	385.37	99.41
11/21/2003	14:06:49	4.71250	385.60	99.41
11/21/2003	14:07:49	4.72917	385.86	99.41
11/21/2003	14:08:49	4.74583	386.08	99.41
11/21/2003	14:09:49	4.76250	386.49	99.41
11/21/2003	14:10:49	4.77917	386.98	99.41
11/21/2003	14:11:49	4.79583	387.50	99.41
11/21/2003	14:12:49	4.81250	388.05	99.41
11/21/2003	14:13:49	4.82917	388.52	99.41
11/21/2003	14:14:49	4.84583	388.98	99.41
11/21/2003	14:15:49	4.86250	389.19	99.41
11/21/2003	14:16:49	4.87917	389.47	99.41
11/21/2003	14:17:49	4.89583	389.57	99.42
11/21/2003	14:18:49	4.91250	389.70	99.42
11/21/2003	14:19:49	4.92917	389.83	99.42
11/21/2003	14:20:49	4.94583	389.97	99.42
11/21/2003	14:21:49	4.96250	390.12	99.41
11/21/2003	14:22:49	4.97917	390.46	99.41
11/21/2003	14:23:49	4.99583	390.89	99.41
11/21/2003	14:24:49	5.01250	391.28	99.41
11/21/2003	14:25:49	5.02917	391.57	99.41
11/21/2003	14:26:49	5.04583	391.85	99.41
11/21/2003	14:27:49	5.06250	392.24	99.41
11/21/2003	14:28:49	5.07917	392.47	99.41
POOH Gauges				
11/21/2003	14:29:49	5.09583	389.59	99.41
Step at 5300'				
11/21/2003	14:30:49	5.11250	380.30	99.14
11/21/2003	14:31:49	5.12917	380.63	99.02
11/21/2003	14:32:49	5.14583	380.94	98.91
11/21/2003	14:33:49	5.16250	363.61	98.47
Step at 5200'				
11/21/2003	14:34:49	5.17917	355.53	97.63
11/21/2003	14:35:49	5.19583	355.84	97.42
11/21/2003	14:36:49	5.21250	356.21	97.26
11/21/2003	14:37:49	5.22917	332.60	96.80
Step at 5100'				
11/21/2003	14:38:49	5.24583	330.65	96.44
11/21/2003	14:39:49	5.26250	330.99	96.37
11/21/2003	14:40:49	5.27917	331.19	96.31
11/21/2003	14:41:49	5.29583	305.69	96.03
Step at 5000'				
11/21/2003	14:42:49	5.31250	305.98	95.85
11/21/2003	14:43:49	5.32917	306.35	95.79
11/21/2003	14:44:49	5.34583	306.54	95.71
Step at 4800'				
11/21/2003	14:45:49	5.36250	255.14	95.10
11/21/2003	14:46:49	5.37917	255.20	94.73
11/21/2003	14:47:49	5.39583	255.42	94.61
11/21/2003	14:48:49	5.41250	255.09	94.50

Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)	Date	Time	Elapsed Time (hrs)	Pressure (psia)	Temperature (°F)
Step at 4600'									
11/21/2003	14:49:49	5.42917	203.28	93.83					
11/21/2003	14:50:49	5.44583	203.70	93.72					
11/21/2003	14:51:49	5.46250	203.84	93.67					
11/21/2003	14:52:49	5.47917	182.71	93.58					
Step at 4400'									
11/21/2003	14:53:49	5.49583	152.53	93.16					
11/21/2003	14:54:49	5.51250	152.71	93.09					
11/21/2003	14:55:49	5.52917	152.97	93.03					
11/21/2003	14:56:49	5.54583	115.11	92.86					
Step at 4000'									
11/21/2003	14:57:49	5.56250	52.09	91.79					
11/21/2003	14:58:49	5.57917	52.41	91.50					
11/21/2003	14:59:49	5.59583	52.74	91.39					
11/21/2003	15:00:49	5.61250	30.34	91.24					
Step at 3000'									
11/21/2003	15:01:49	5.62917	30.85	90.86					
11/21/2003	15:02:49	5.64583	30.69	90.54					
11/21/2003	15:03:49	5.66250	30.56	90.33					
11/21/2003	15:04:49	5.67917	30.01	90.10					
11/21/2003	15:05:49	5.69583	29.29	89.82					
11/21/2003	15:06:49	5.71250	28.57	89.03					
Step at 1500'									
11/21/2003	15:07:49	5.72917	27.94	87.84					
11/21/2003	15:08:49	5.74583	28.03	87.04					
11/21/2003	15:09:49	5.76250	29.04	86.43					
11/21/2003	15:10:49	5.77917	29.68	85.80					
11/21/2003	15:11:49	5.79583	30.03	83.96					
11/21/2003	15:12:49	5.81250	30.20	81.93					
11/21/2003	15:13:49	5.82917	29.96	80.36					
Step at 0'									
11/21/2003	15:14:49	5.84583	29.21	79.51					
11/21/2003	15:15:49	5.86250	28.14	79.21					
11/21/2003	15:16:49	5.87917	27.65	78.98					
Despressurized									
11/21/2003	15:17:49	5.89583	14.45	78.71					
11/21/2003	15:18:49	5.91250	14.51	78.18					
11/21/2003	15:19:49	5.92917	14.44	77.53					
11/21/2003	15:20:49	5.94583	14.43	76.77					
11/21/2003	15:21:49	5.96250	14.37	76.29					
11/21/2003	15:22:49	5.97917	14.37	75.83					
Deactivate									
11/21/2003	15:23:49	5.99583	14.31	75.36					

ANEXO 3

WELL TESTING PROCEDURE

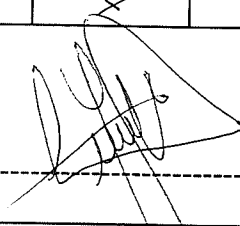
Well	LOG-7
Type	BLT
Shut in time before test	

Area	LOZOS OFFSHORE
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Stages job	Flowing gradient		Static gradient		Build Up	
	Yes	No	Yes	No	Yes	No
Cut paraffin				X		
Fish standing valve			X			
Sand top			X			
Logging down flowing gradient				X		
Logging up flowing gradient			X			
Recording bottom hole pressure flowing by 2 hrs			X			
Recording Build Up pressure by hrs				X		
Recording bottom hole pressure static by 2 hrs.			X			
Logging down static gradient				X		
Logging up static gradient				X		
Take measure well head pressure (tubing/annulus)			X			
Reset standing valve			X			

Project to be charged :

Gauge depth @ 5350' feet.
Sampling rate.....(Minimum 4 point/minute)
Step reading time.....(Minimum 4 minute/step)


 Operation Engineer