COPESERPET S.A.

LO16 - 13 Lobitos offshore

Record flowing Pressure ,Build Up x 8 hrs and Static Gradient

Customer: Petro Tech Peruana S.A.

Date: August the 13th to 14th ,1996

CPSP-112-96

Talara, August the 14th , 1996.

Mr.
PETRO-TECH PERUANA S.A.
Negritos.-

ATT.: ENGº RIGOBERTO FRANCIA
Assistant Manager Production

Dear Sr.

Attached you will find the report , analysis and results of the RECORD FLOWING GRADIENT & PRESSURE , BUILD UP X 8HRS. AND STATIC GRADIENT carried out in the well LO16 - 13 (Mogollon & Basal Salina Sands), Lobitos offshore.

Data used for this analysis and the results were obtenied using our **Memory Gauge model EMS-700 EE PROM n/s 87166 with** range 350 ° F and 5,000 psi., which is available for you in order to supply a good service.

If you had any question about this please, do not hesitate to phone me to our office.

Thanks for you kind attention,

Sincerely,

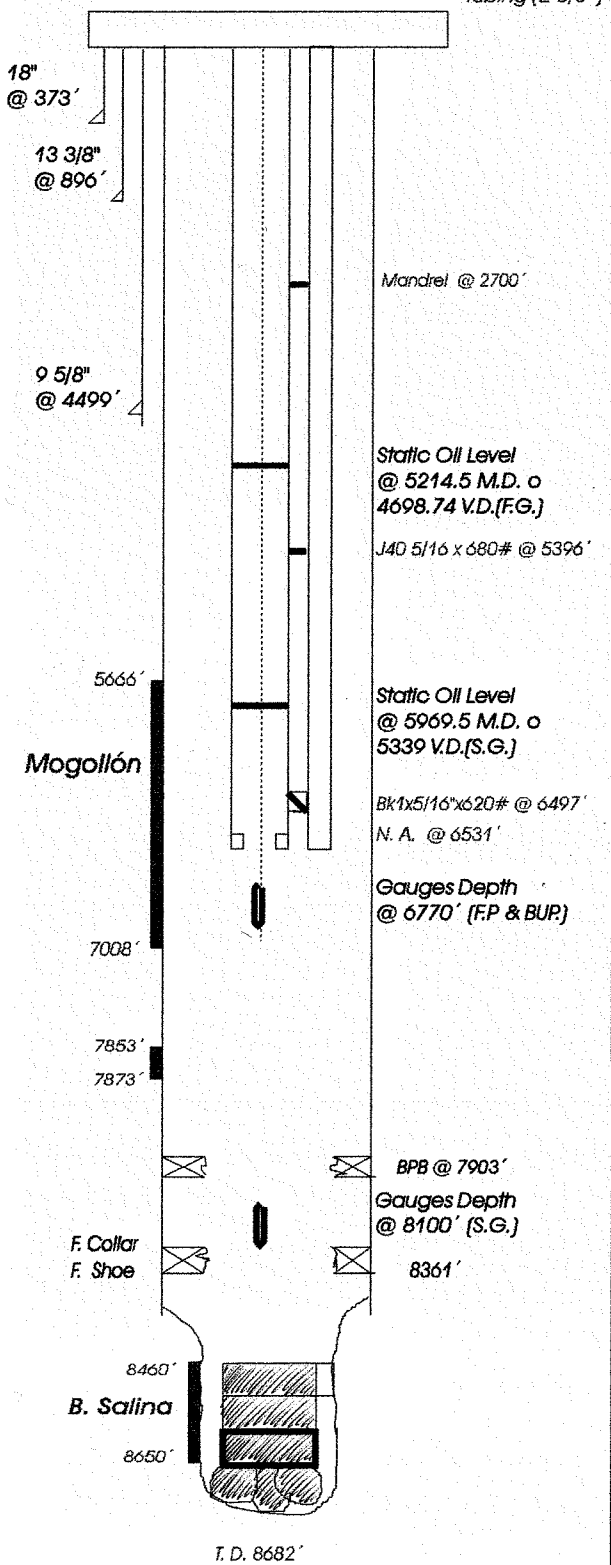
Engº. Jorge Luis Bardales Cruz
COPESERPET S.A. TALARA

w.c.: Engº Ricardo Corman
Engº Alberto Agurto
File.

JBC/lqr.

COPESERPET S.A.

Well: LO16 - 13	Field : Lobitos offshore
Test: Flowing Pressure, Build Up x 8 hrs. and Static Gradient.	
Fm. : Mogollón :Basal Salina	Perf. Interv.: 5666´-7008´:7853´-7873´ : 8460´-8650´



Date	Well conditions
08/13th/´96	Actual Instalation: Gas Lift BLT, f Well status : Production Prod. last test : 102 BOPD (July ´96) Cicle of inyection : 17´x 3´20". Producing days cumulative :2057 days(july´96.) Oil Produced Cumulative:502739 BSM (july´96) Static Tbg Press : 285 psia Static Forros Press:380 psia
Hora	Control BOP: yes Calibrator : .....
10:45	STD. Valve : @ 6518 M.D. Retrieve: yes
11:30	Sand Top : 8100 M.D.

	Operative Procedure
Hora	Carried Out by Cia. Copeserpet 08/13th/´96
12:10	Memory Gauge n/s 87166 prog. BUP x 24 hrs.
	Amerada Gauge 2,025 psi n/s D850594 x 12 hrs.
12:40	Active and Conect the Gauges.
	run in hole @ 6770´ taking Flowing Gradient
	According chart N 1and Graphic N°1.
18:30	At the bottom, we record flowing pressure and 12 cycles of inyection G/L 17´x 3´20".
	show Chart N° 2 & Graphic N° 2,.
18:45	Shut in the well x 08 hours
Date	RIH gauges @ 8100´then record static Pressure..
08/14th/´96	take Static Gradient.
Time	Memory Gauge n/s 87166 prog. BUP x 12 hrs.
02:05	Amerada Gauge 2,025 psi n/s D850594 x 3 hrs.
	Gauges Depth: 8,100 M.D. o 7,061 V.D.
04:30	Gauges in Surface & Installe S. Valve.
05:00	Open the well to production .

Coments:
Data used for this analysis and the results were obtenied using our Memory Gauges EMS-700 EEPROM.

Results:
Flowing Pressure @ 6770´: 504 psia.
Avg. Flowing Gradient : 0.076 psi/feet.
Flow Gas Gradient : 0.002 psi/feet.
Flow Oil Gradient : 0.292 psi/feet.
Flow Oil Level : 5214.5 M.D. o 4698.74 V.D.
Surface Static Pressure: 285 psia.
Surface Static Temperature: 66.62 °F
Bottom Static Pressure : 1003.42 psia.
Bottom static Temperature: 124.84 °F.
Gas Gradient : 0.004 psi/feet.
Oil Gradient : 0.405 psi/feet.
Oil Level : 5969.5 M.D. o 5339 V.D.
Min. Formation Gradient: 0.142 psi/feet.

Operador: Adán Quiroga	Supervisor : Ing. Jorge Luis Bardales Cruz.

RESULTS OF THE REGISTER FLOWING PRESSURE & GRADIENT, BUILD UP X 8 HRS & STATIC GRADIENT WELL LO16 -13

Date of the test	:	August the 13th to 14th ,1996
Formation	:	Mogollón & Basal Salina
Perforated Interval	:	5666'-7008':7853'-7873':8460'-8650'
Sand Top	:	8,100'
Heigth (h)	:	939 M.D. o 830 V.D.
Rate average (qo)	:	102 BOPD (july '96)
Cycle of inyection G/L	:	17'x 3'20"
Production time (Tp)	:	49,368 hours.
Oil Produced Cumulative	:	502,739 Bbls.
Depth of the Gauges	:	6,770 M.D. (6,017.90 V.D.)
Surface Tubing Flowing Pressure	:	48.22 psia.
Flowing Pressure average (Pwf.)	:	504 psia.
Average Flowing Gradient	:	0.076 psi/feet.
Flow Gas Gradient	:	0.002 psi/feet.
Flow Oil Gradient	:	0.292 psi/feet.
Flow Oil Level	:	5214.5 M.D. o 4698.74 V.D.
Surface Static Pressure	:	285 psia
Bottom hole Static Pressure	:	1003.42 psia
Surface Static Temperature	:	66.62 °F
Bottom hole Static Temperature	:	124.84 °F
Min. Formation Gradient	:	0.142 psi/feet.
Static Gas Gradient	:	0.004 psi/feet.
Static Oil Gradient	:	0.405 psi/feet.
Oil Level	:	5969.5 M.D. o 5339 V.D.

From August 13th to 14th ,1996, With the purpose of determining the current pressure of this block, like their permeability and other physical characteristics, we take flowing test x 6 hrs. and the build up test x 8hrs., register pressure and flow in surface.

After run in to hole the Gauges at 6,770' we take flowing Gradient Graphic N°1 ., We registered flowing pressure at that depth . The flowing pressure was 504 psia, we noted this behavior for 4 hours.The well status is producing with G/L BLT . During the flow test, the well did not produce with forros opened then after 1.5 hrs. shut in forros and then well produced 7.7 Bbls. In others to minimized the jumping effects because of the level of the depletation and the kind of instalation BLT. As you see in the Chart N° 2 & Graphic N° 2.

After the last cycle of production , we shut in the well for 08 hours to register Build Up at 6,770' . The well head pressure WHP increased to 20 to 90 # in 1.5 hours, then increased slowly from 105 to 285 psi in 6 hours.

The behavior of the bottom hole pressure BHP registered in 08 hours is showed in Graphic N° 3 ,4 & 5. As you see, We minimized the jumping effects because of the wellbore storage and the type of installation, we noticed that first the BHP increased rapidly then go down slowly meanwhile WHP behavior increased from 90# to 285 # in 8 hours. We plot horner curve to get the max. block pressure and there is no skin.

The results of the Static Pressure & Temperature Gradient was plotted in Graphic N° 6 at the end of the test respectively. When the test finished, pull out of the well Memory Gauge and Amerada Gauge, we found Oil in the oiltramp of the Memory.

The performance of the test was good without any leaks and both Gauges registered the test appropriately .

OPERATIVE PROCEDURE TO REGISTER FLOWING ,GRADIENT & BUILD UP PRESSURE & STATIC GRADIENT WELL LO16 - 13

DATE	TIME	ACTIVITY
08/13th/'96	10:00	Conect record surface pressure.
	10:45	Nipple up lubricator and test. and Recover Standing valve.
	11:30	Check Sand Top @ 8,100 M.D.
	12:40	Conect Battery to Memory Gauge EMS-700 n/s 87166 and active Amerada Gauge range 2025 psi with 48 hours.
	12:50	Set the gauges inside the lubricator and test again .
	12:55	Run in to the hole with Memory Gauge & Amerada Gauge Taking flowing gradient since 6,770' .
	14:25	Record flowing pressure & production for 1.5 hours , the well produced 0 Bbls.
	16:00	Shut in Lateral 5 1/2"
	16:05	Continue Record flowing pressure & production for 1.5 hours , the well produced 7.7 Bbls.
	18:30	Shut in the well, to begin the Build up x 08 hours.
	19:00	Survey BUP pressure,WHP = 30 psia. & CSGP= 380 psia
	20:00	Survey BUP pressure,WHP=105 psia & CSGP = 380 psia
	21:00	Survey BUP pressure,WHP =135psia.& CSGP = 380 psia
	22:00	Survey BUP pressure,WHP= 150 psia.& CSGP= 380 psia
	23:00	Survey BUP pressure,WHP = 190 psia.& CSGP = 380 psia
08/14th/96	00:00	Survey BUP pressure,WHP = 210 psia. & CSG = 380 psia
	01:00	Survey BUP pressure,WHP = 230 psia. & CSGP=380 psia
	02:00	Survey BUP pressure,WHP = 285 psia. & CSGP=380 psia
	02:05	Run in hole the Gauges @ 8100'.
	02:30	Pulling out the hole the Gauges, take Static Gradient.
	04:20	finished the survey, Gauges in surface. Pwh = 285 psia.
	05:00	Open the well to production.

Chart No. 1

FLOWING GRADIENT TO WELL LO16 - 13

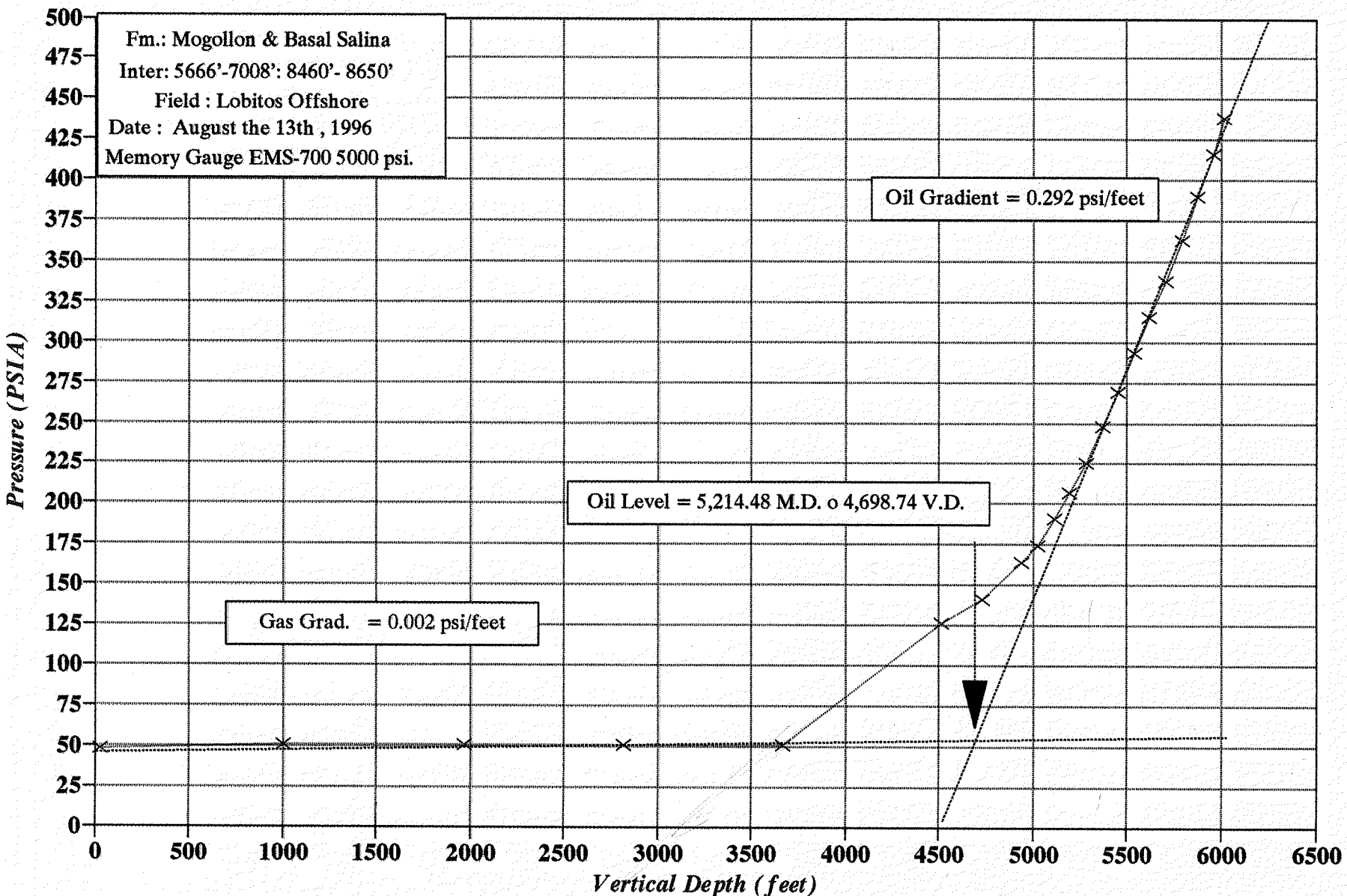
Date of test : ***August the 13th ,1996***
Instalation : ***5,666' - 7,008' (Mogollón)***
8,460' - 8,650' (Basal Salina)
Perforated Intervale : ***6,770 M.D. o 6,017.90 V.D.***
Depth of the Gauge : ***EMS - 700 : 5000 psi.***

Measure Depth (feet)	*Vertical Depth (feet)*	*Temperature (°F.)*	*Pressure (PSIG.)*	*Pressure Gradient (PSIG./feet)*	*Temperature Gradient (°F/100 feet)*
30	30.00	65.69	48.22	-	-
1000	1000.00	67.50	50.48	0.002	0.187
2000	1968.32	73.62	50.92	0.000	0.632
3000	2820.78	84.72	50.58	-0.000	1.302
4000	3668.80	88.86	50.57	-0.000	0.487
5000	4516.85	96.30	125.84	0.089	0.878
5250	4728.86	100.96	140.45	0.069	2.200
5500	4940.87	102.95	163.90	0.111	0.937
5600	5025.68	104.86	173.97	0.119	2.246
5700	5110.48	106.12	190.99	0.201	1.486
5800	5195.29	106.71	206.71	0.185	0.706
5900	5280.09	107.55	225.15	0.217	0.987
6000	5364.90	108.61	247.50	0.263	1.244
6100	5449.70	109.19	269.45	0.259	0.684
6200	5534.50	110.11	293.32	0.282	1.087
6300	5619.31	110.75	315.41	0.260	0.755
6400	5704.11	111.55	337.78	0.264	0.951
6500	5788.92	112.33	363.03	0.298	0.916
6600	5873.72	114.10	389.55	0.313	2.083
6700	5958.52	115.27	416.25	0.315	1.384
6770	6017.89	116.25	437.93	0.365	1.651

Gas Gradient = 0.002 psi/feet.
Oil Gradient = 0.292 psi/feet.

Oil level = 5,214.48 M.D. ó 4,698.74 V.D.

Flowing Gradient
Well LO16 - 13 Lobitos offshore



Graphic No. 1

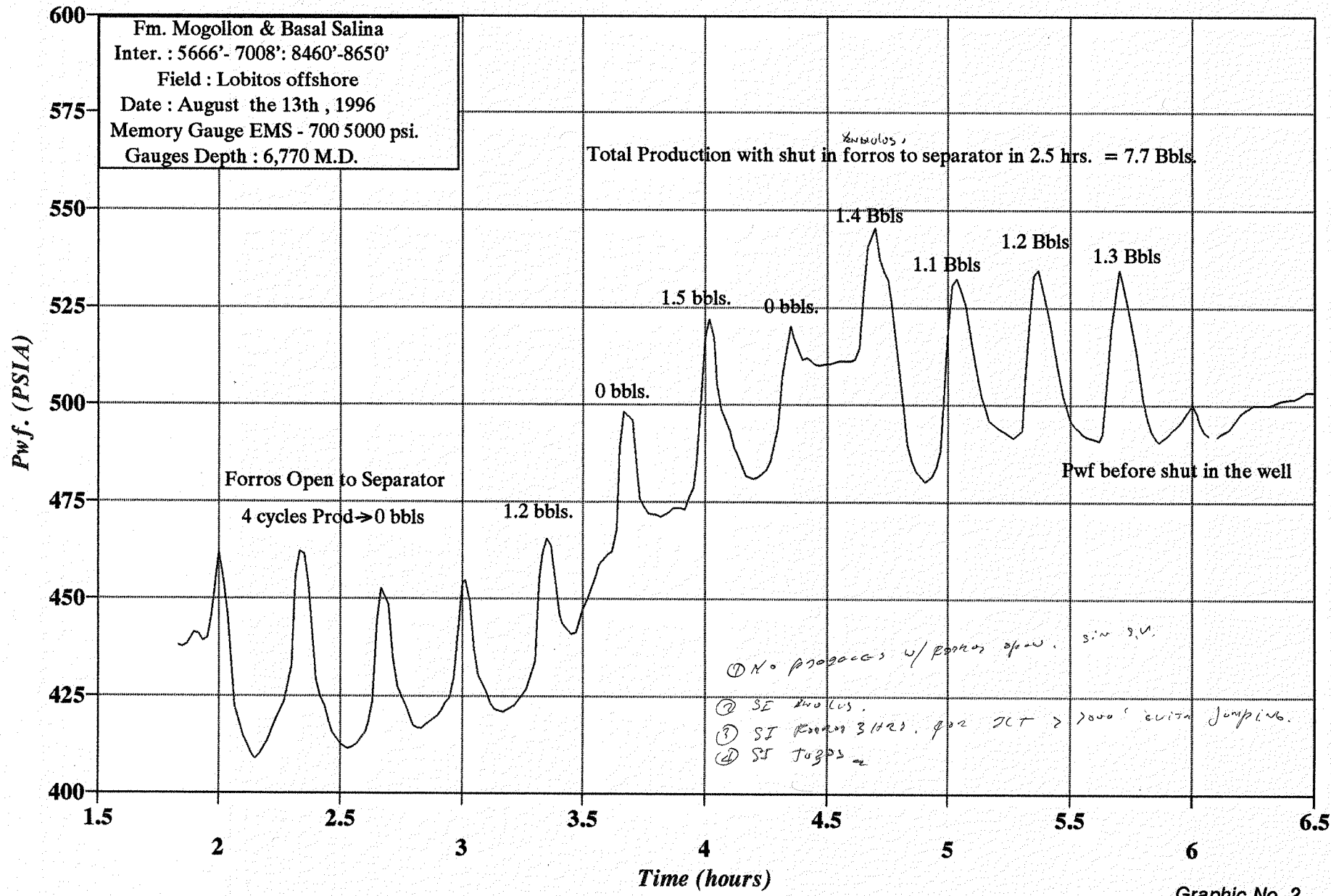
Chart No. 2

FLOWING PRESSURE TO WELL LO16 - 13

Date of test :	***August the 13th ,1996***
Instalation :	***5,666' - 7,008' (Mogollón)***
	8,460' - 8,650' (Basal Salina)
Perforated Intervale :	***6,770 M.D. o 6,017.90 V.D.***
Depth of the Gauge :	***EMS - 700 : 5000 psi.***

Date	*Time hh:mm:ss*	*dT test (hours)*	*dT test (min.)*	*Temperature (°F)*	*Pwf (psia)*
08/13/96	14:32:10	1.83	110.00	116.29	438.13
08/13/96	14:33:10	1.85	111.00	116.33	437.55
08/13/96	14:36:10	1.90	114.00	116.40	441.19
08/13/96	14:39:10	1.95	117.00	116.41	439.77
08/13/96	14:42:10	2.00	120.00	116.41	461.76
08/13/96	14:48:10	2.10	126.00	116.46	414.56
08/13/96	14:51:10	2.15	129.00	116.55	408.93
08/13/96	14:54:10	2.20	132.00	116.60	413.83
08/13/96	14:57:10	2.25	135.00	116.61	421.01
08/13/96	15:00:10	2.30	138.00	116.59	432.74
08/13/96	15:06:10	2.40	144.00	116.51	428.91
08/13/96	15:12:10	2.50	150.00	116.64	412.45
08/13/96	15:18:10	2.60	156.00	116.63	415.59
08/13/96	15:24:10	2.70	162.00	116.55	448.51
08/13/96	15:30:10	2.80	168.00	116.61	417.37
08/13/96	15:36:10	2.90	174.00	116.63	420.00
08/13/96	15:42:10	3.00	180.00	116.57	454.03
08/13/96	15:48:10	3.10	186.00	116.55	426.35
08/13/96	15:54:10	3.20	192.00	116.62	421.69
08/13/96	16:00:10	3.30	198.00	116.57	433.72
08/13/96	16:06:10	3.40	204.00	116.45	445.75
08/13/96	16:12:10	3.50	210.00	116.49	447.26
08/13/96	16:18:10	3.60	216.00	116.40	461.66
08/13/96	16:24:10	3.70	222.00	116.27	496.02
08/13/96	16:30:10	3.80	228.00	116.22	471.48
08/13/96	16:36:10	3.90	234.00	116.20	473.43
08/13/96	16:42:10	4.00	240.00	116.18	517.08
08/13/96	16:48:10	4.10	246.00	116.14	493.13
08/13/96	16:54:10	4.20	252.00	116.17	481.00
08/13/96	17:00:10	4.30	258.00	116.21	493.84
08/13/96	17:06:10	4.40	264.00	116.26	511.66
08/13/96	17:12:10	4.50	270.00	116.28	510.37
08/13/96	17:18:10	4.60	276.00	116.30	511.20
08/13/96	17:24:10	4.70	282.00	116.35	545.70
08/13/96	17:30:10	4.80	288.00	116.28	506.41
08/13/96	17:36:10	4.90	294.00	116.20	480.37
08/13/96	17:42:10	5.00	300.00	116.33	518.90
08/13/96	17:48:10	5.10	306.00	116.43	514.48
08/13/96	17:54:10	5.20	312.00	116.46	493.97
08/13/96	18:00:10	5.30	318.00	116.48	493.29
08/13/96	18:06:10	5.40	324.00	116.43	527.10
08/13/96	18:12:10	5.50	330.00	116.46	495.89
08/13/96	18:18:10	5.60	336.00	116.51	491.11
08/13/96	18:24:10	5.70	342.00	116.47	534.59
08/13/96	18:30:10	5.80	348.00	116.44	501.05
08/13/96	18:36:10	5.90	354.00	116.52	492.31
08/13/96	18:42:10	6.00	360.00	116.52	499.91
08/13/96	18:46:10	6.07	364.00	116.56	491.98

Flowing Pressure cycle 17'x3'20"
Well LO16 - 13 Lobitos Offshore



Graphic No. 2

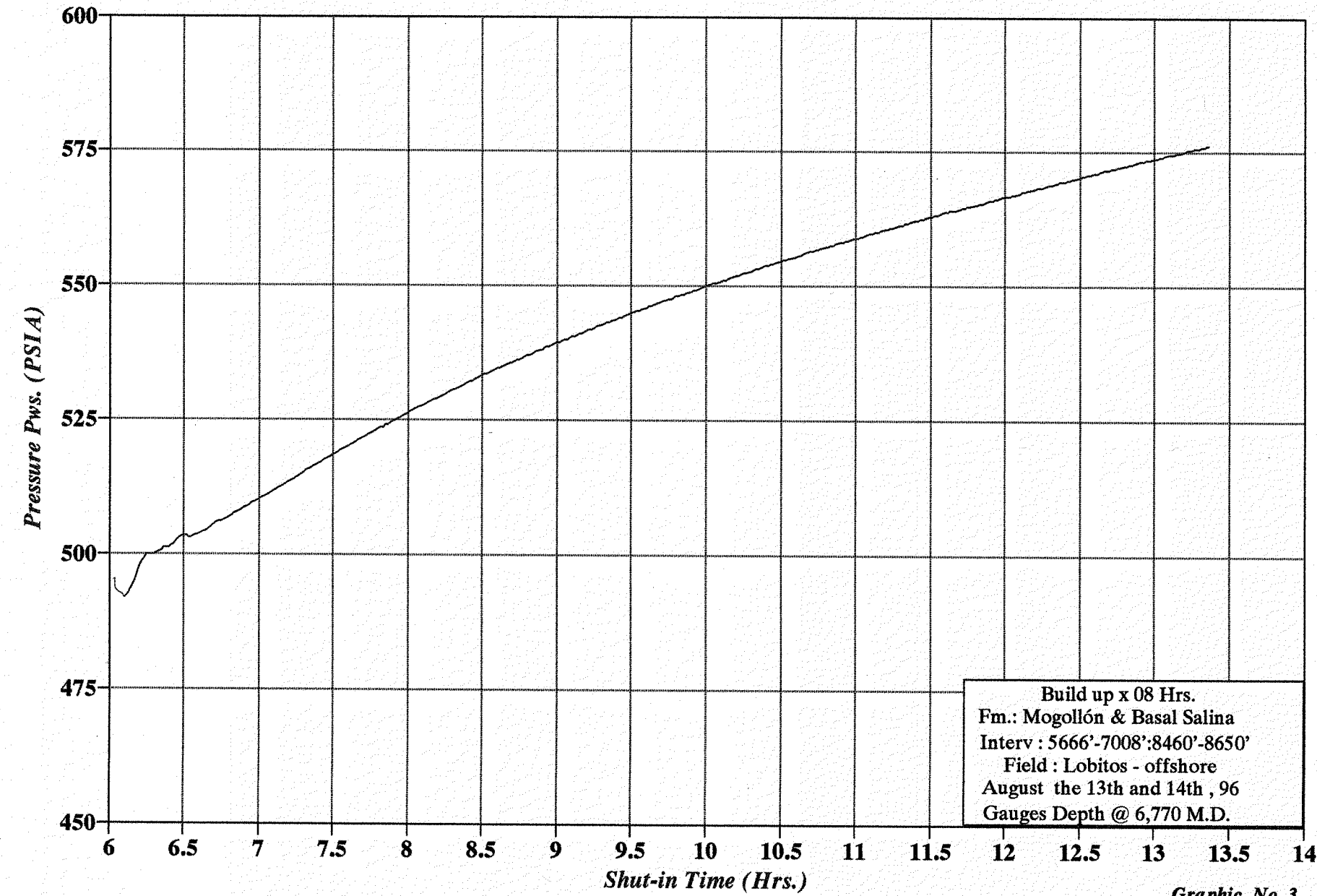
Chart No. 3

WELL LO16 - 13
BUILD UP TEST DATA

Date	*Time hh:mm:ss*	*dT test (hours)*	*dT shut-in (hours)*	*Time Horner (hours)*	*Pws (psia)*	*Pws-Pwf (psia)*
08/13/96	18:48:10	6.10	0.0000	-	491.96	0.00
08/13/96	18:49:10	6.12	0.0167	2961488.7	492.41	0.45
08/13/96	18:50:10	6.13	0.0333	1481189.1	492.93	0.97
08/13/96	19:00:10	6.30	0.2000	246841.0	500.00	8.04
08/13/96	19:06:10	6.40	0.3000	164561.0	501.40	9.44
08/13/96	19:10:10	6.47	0.3667	134639.8	503.19	11.23
08/13/96	19:15:10	6.55	0.4500	109707.7	503.27	11.31
08/13/96	19:20:10	6.63	0.5333	92566.6	504.35	12.39
08/13/96	19:25:10	6.72	0.6167	80056.8	505.79	13.83
08/13/96	19:30:10	6.80	0.7000	70526.7	506.93	14.97
08/13/96	19:34:10	6.87	0.7667	64393.8	507.96	16.00
08/13/96	19:40:10	6.97	0.8667	56963.9	509.55	17.59
08/13/96	19:45:10	7.05	0.9500	51967.3	510.95	18.99
08/13/96	19:50:10	7.13	1.0333	47776.6	512.35	20.39
08/13/96	19:55:10	7.22	1.1167	44211.0	513.75	21.79
08/13/96	20:00:10	7.30	1.2000	41141.0	515.20	23.24
08/13/96	20:04:10	7.37	1.2667	38975.6	516.29	24.33
08/13/96	20:10:10	7.47	1.3667	36123.8	517.95	25.99
08/13/96	20:15:10	7.55	1.4500	34047.9	519.29	27.33
08/13/96	20:20:10	7.63	1.5333	32197.6	520.61	28.65
08/13/96	20:25:10	7.72	1.6167	30537.8	521.94	29.98
08/13/96	20:30:10	7.80	1.7000	29041.0	523.26	31.30
08/13/96	20:36:10	7.90	1.8000	27427.7	524.79	32.83
08/13/96	20:40:10	7.97	1.8667	26448.1	525.83	33.87
08/13/96	20:45:10	8.05	1.9500	25317.9	527.03	35.07
08/13/96	20:50:10	8.13	2.0333	24280.4	528.19	36.23
08/13/96	20:55:10	8.22	2.1167	23324.4	529.40	37.44
08/13/96	21:00:10	8.30	2.2000	22441.0	530.55	38.59
08/13/96	21:04:10	8.37	2.2667	21781.0	531.48	39.52
08/13/96	21:10:10	8.47	2.3667	20860.7	532.85	40.89
08/13/96	21:15:10	8.55	2.4500	20151.2	533.90	41.94
08/13/96	21:20:10	8.63	2.5333	19488.4	534.95	42.99
08/13/96	21:25:10	8.72	2.6167	18867.7	535.99	44.03
08/13/96	21:30:10	8.80	2.7000	18285.4	537.00	45.04
08/13/96	21:36:10	8.90	2.8000	17632.4	538.24	46.28
08/13/96	21:40:10	8.97	2.8667	17222.4	539.02	47.06
08/13/96	21:45:10	9.05	2.9500	16735.9	539.99	48.03
08/13/96	21:50:10	9.13	3.0333	16276.2	540.96	49.00
08/13/96	21:55:10	9.22	3.1167	15841.0	541.84	49.88
08/13/96	22:00:10	9.30	3.2000	15428.5	542.79	50.83
08/13/96	22:06:10	9.40	3.3000	14961.0	543.90	51.94
08/13/96	22:10:10	9.47	3.3667	14664.7	544.60	52.64
08/13/96	22:15:10	9.55	3.4500	14310.6	545.48	53.52
08/13/96	22:20:10	9.63	3.5333	13973.1	546.37	54.41
08/13/96	22:25:10	9.72	3.6167	13651.1	547.22	55.26
08/13/96	22:30:10	9.80	3.7000	13343.7	548.04	56.08
08/13/96	22:36:10	9.90	3.8000	12992.6	549.06	57.10
08/13/96	22:40:10	9.97	3.8667	12768.6	549.69	57.73
08/13/96	22:45:10	10.05	3.9500	12499.2	550.51	58.55
08/13/96	22:50:10	10.13	4.0333	12241.0	551.25	59.29
08/13/96	22:55:10	10.22	4.1167	11993.2	552.05	60.09
08/13/96	23:00:10	10.30	4.2000	11755.3	552.86	60.90
08/13/96	23:06:10	10.40	4.3000	11481.9	553.75	61.79
08/13/96	23:10:10	10.47	4.3667	11306.6	554.33	62.37
08/13/96	23:15:10	10.55	4.4500	11094.9	555.08	63.12
08/13/96	23:20:10	10.63	4.5333	10891.0	555.79	63.83

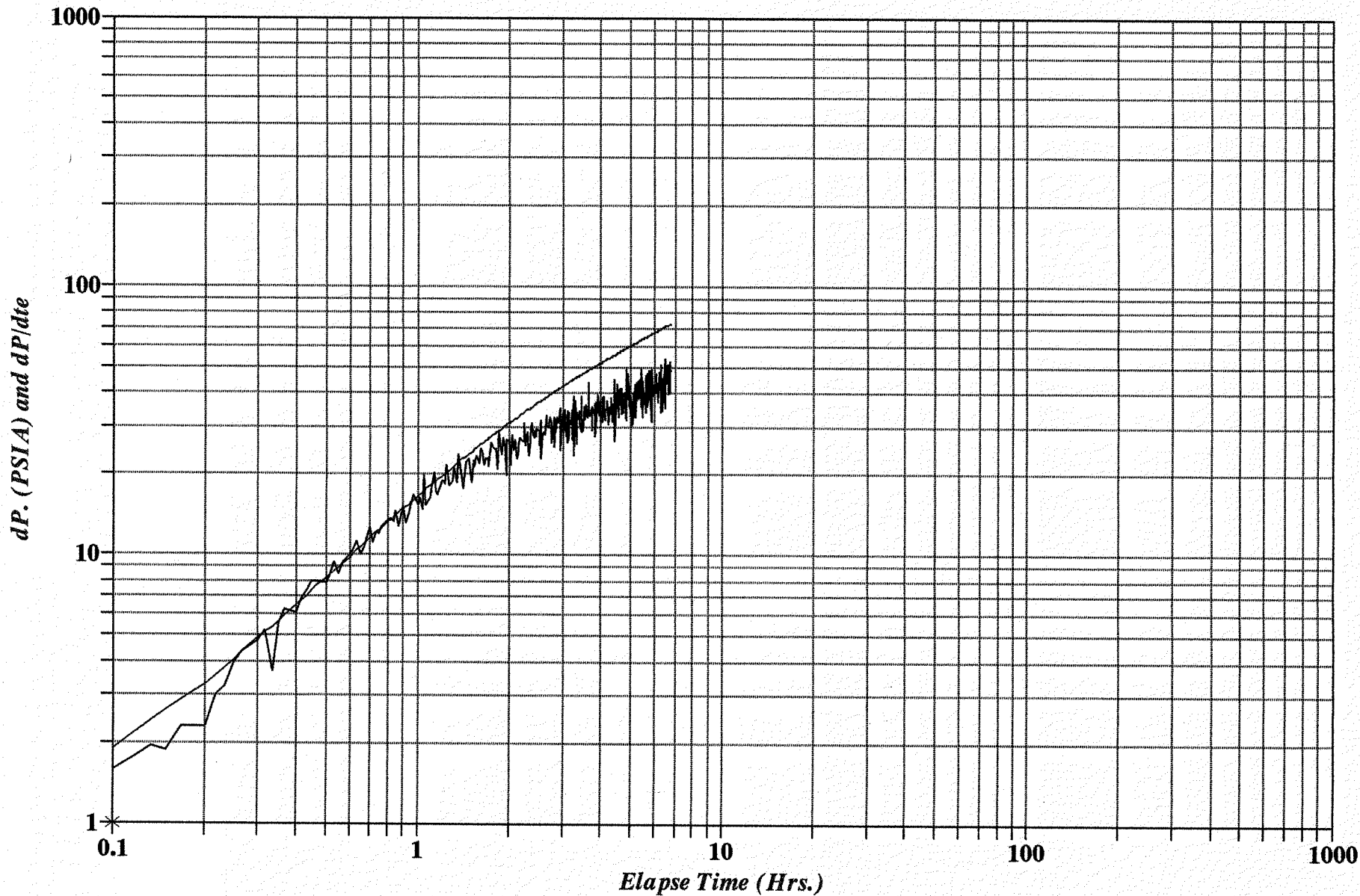
Date	*Time hh:mm:ss*	*dT test (hours)*	*dT shut-in (hours)*	*Time Horner (hours)*	*Pws (psia)*	*Pws-Pwf (psia)*
08/13/96	23:25:10	10.72	4.6167	10694.4	556.51	64.55
08/13/96	23:30:10	10.80	4.7000	10504.8	557.23	65.27
08/13/96	23:36:10	10.90	4.8000	10286.0	558.02	66.06
08/13/96	23:40:10	10.97	4.8667	10145.1	558.57	66.61
08/13/96	23:45:10	11.05	4.9500	9974.3	559.23	67.27
08/13/96	23:50:10	11.13	5.0333	9809.2	559.93	67.97
08/13/96	23:55:10	11.22	5.1167	9649.5	560.66	68.70
08/14/96	00:00:10	11.30	5.2000	9494.8	561.33	69.37
08/14/96	00:06:10	11.40	5.3000	9315.7	562.10	70.14
08/14/96	00:10:10	11.47	5.3667	9200.0	562.64	70.68
08/14/96	00:15:10	11.55	5.4500	9059.3	563.32	71.36
08/14/96	00:20:10	11.63	5.5333	8922.9	563.92	71.96
08/14/96	00:25:10	11.72	5.6167	8790.5	564.48	72.52
08/14/96	00:30:10	11.80	5.7000	8662.1	565.08	73.12
08/14/96	00:36:10	11.90	5.8000	8512.7	565.85	73.89
08/14/96	00:40:10	11.97	5.8667	8416.0	566.38	74.42
08/14/96	00:45:10	12.05	5.9500	8298.1	567.02	75.06
08/14/96	00:50:10	12.13	6.0333	8183.5	567.64	75.68
08/14/96	00:55:10	12.22	6.1167	8072.1	568.23	76.27
08/14/96	01:00:10	12.30	6.2000	7963.6	568.81	76.85
08/14/96	01:06:10	12.40	6.3000	7837.2	569.56	77.60
08/14/96	01:10:10	12.47	6.3667	7755.1	570.04	78.08
08/14/96	01:15:10	12.55	6.4500	7655.0	570.65	78.69
08/14/96	01:20:10	12.63	6.5333	7557.3	571.23	79.27
08/14/96	01:25:10	12.72	6.6167	7462.2	571.81	79.85
08/14/96	01:30:10	12.80	6.7000	7369.4	572.40	80.44
08/14/96	01:36:10	12.90	6.8000	7261.0	573.14	81.18
08/14/96	01:40:10	12.97	6.8667	7190.5	573.54	81.58
08/14/96	01:45:10	13.05	6.9500	7104.3	574.08	82.12
08/14/96	01:50:10	13.13	7.0333	7020.2	574.64	82.68
08/14/96	01:55:10	13.22	7.1167	6938.0	575.23	83.27
08/14/96	02:00:10	13.30	7.2000	6857.7	575.75	83.79
08/14/96	02:04:10	13.37	7.2667	6794.8	576.23	84.27

Build Up Curve (Pws vs. Tc.)
Well LO16 - 13 Lobitos Offshore



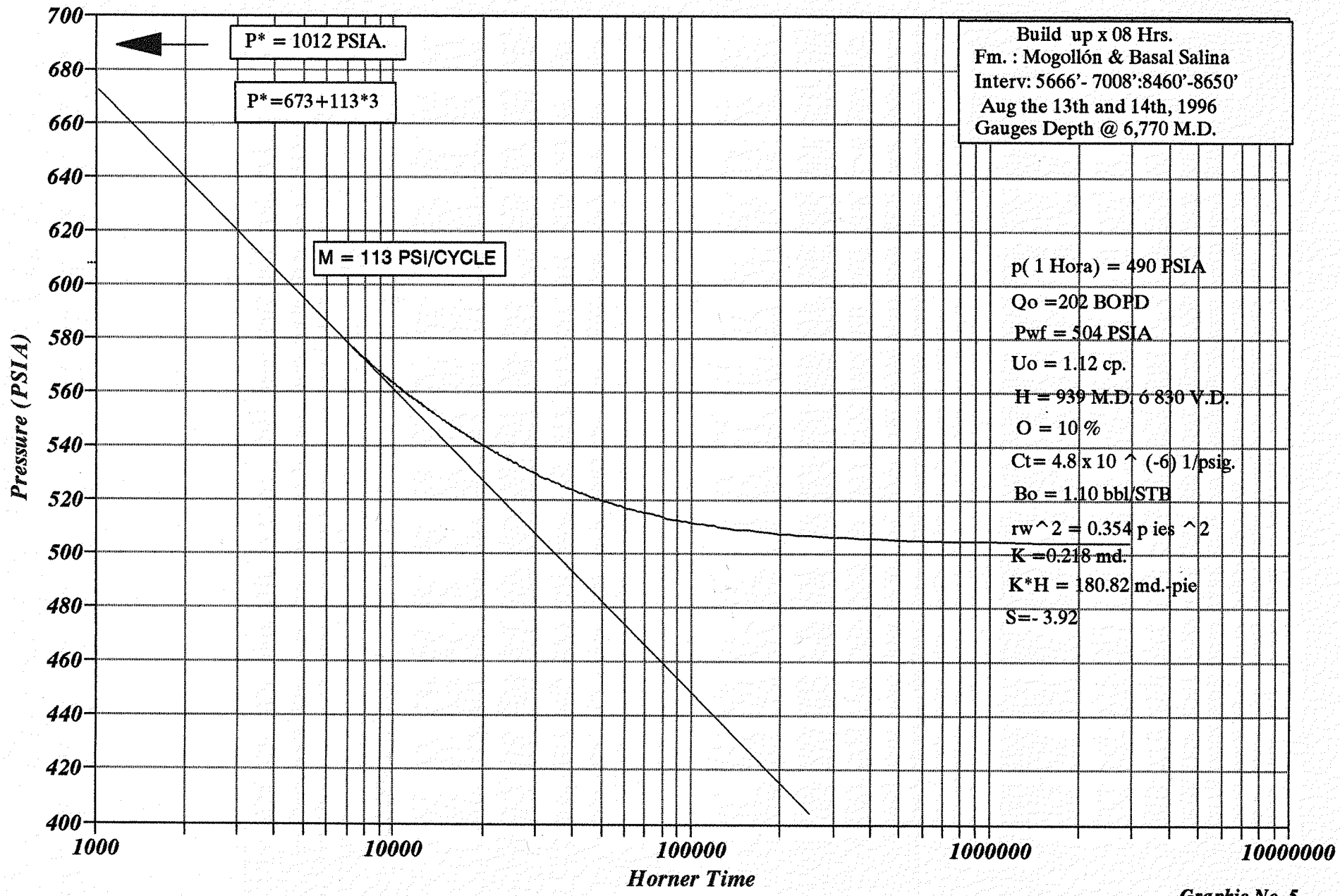
Graphic No. 3

Diagnostic Curves
(dP & dP / dTe vs. dTc) Well LO16-13



Graphic No. 4

Build Up Test Well LO16 - 13
Horner Curve



Graphic No. 5

Chart No. 4

STATIC GRADIENT TO WELL LO16 - 13

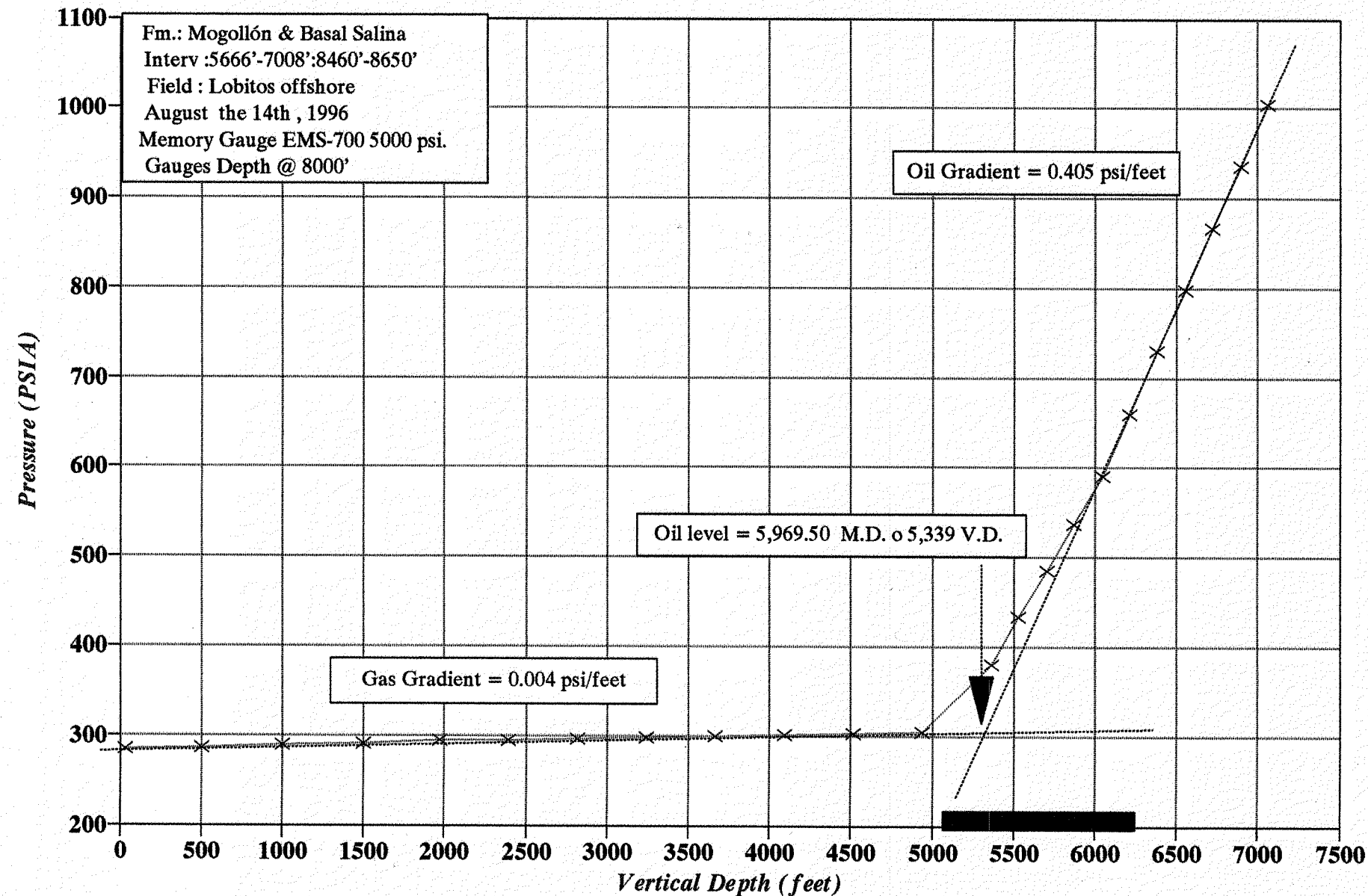
Date of test :	***August the 14th ,1996***
Instalation :	***5,666' - 7,008' (Mogollón)***
	8,460' - 8,650' (Basal Salina)
Perforated Intervale :	***8,000 M.D. o 7,061 V.D.***
Depth of the Gauge :	***EMS - 700 : 5000 psi.***

Measure Depth (feet)	*Vertical Depth (feet)*	*Temperature (°F.)*	*Pressure (PSIG.)*	*Pressure Gradient (PSIG./feet)*	*Temperature Gradient (°F/100 feet)*
8000	7060.99	124.84	1003.42	0.398	0.319
7800	6891.38	124.30	936.00	0.407	0.787
7600	6721.77	122.96	867.00	0.406	0.759
7400	6552.16	121.67	798.07	0.408	0.966
7200	6382.55	120.04	728.86	0.409	0.843
7000	6212.94	118.61	659.42	0.401	0.949
6800	6043.33	117.00	591.44	0.317	0.803
6600	5873.72	115.63	537.74	0.309	1.096
6400	5704.11	113.77	485.31	0.310	0.936
6200	5534.50	112.19	432.70	0.308	0.867
6000	5364.90	110.72	380.49	0.181	0.618
5500	4940.87	108.09	303.87	0.003	0.439
5000	4516.85	106.23	302.51	0.003	0.972
4500	4092.82	102.11	301.33	0.003	0.706
4000	3668.80	99.12	299.89	0.003	0.720
3500	3244.78	96.07	298.57	0.004	0.593
3000	2820.75	93.55	296.94	0.004	1.077
2500	2396.73	88.98	295.14	0.003	1.031
2000	1968.32	84.57	293.70	0.004	0.839
1500	1497.30	80.62	291.80	0.006	0.711
1000	1000.00	77.08	289.06	0.004	0.926
500	500.00	72.45	286.88	0.004	1.241
30	30.00	66.62	285.00	-	-

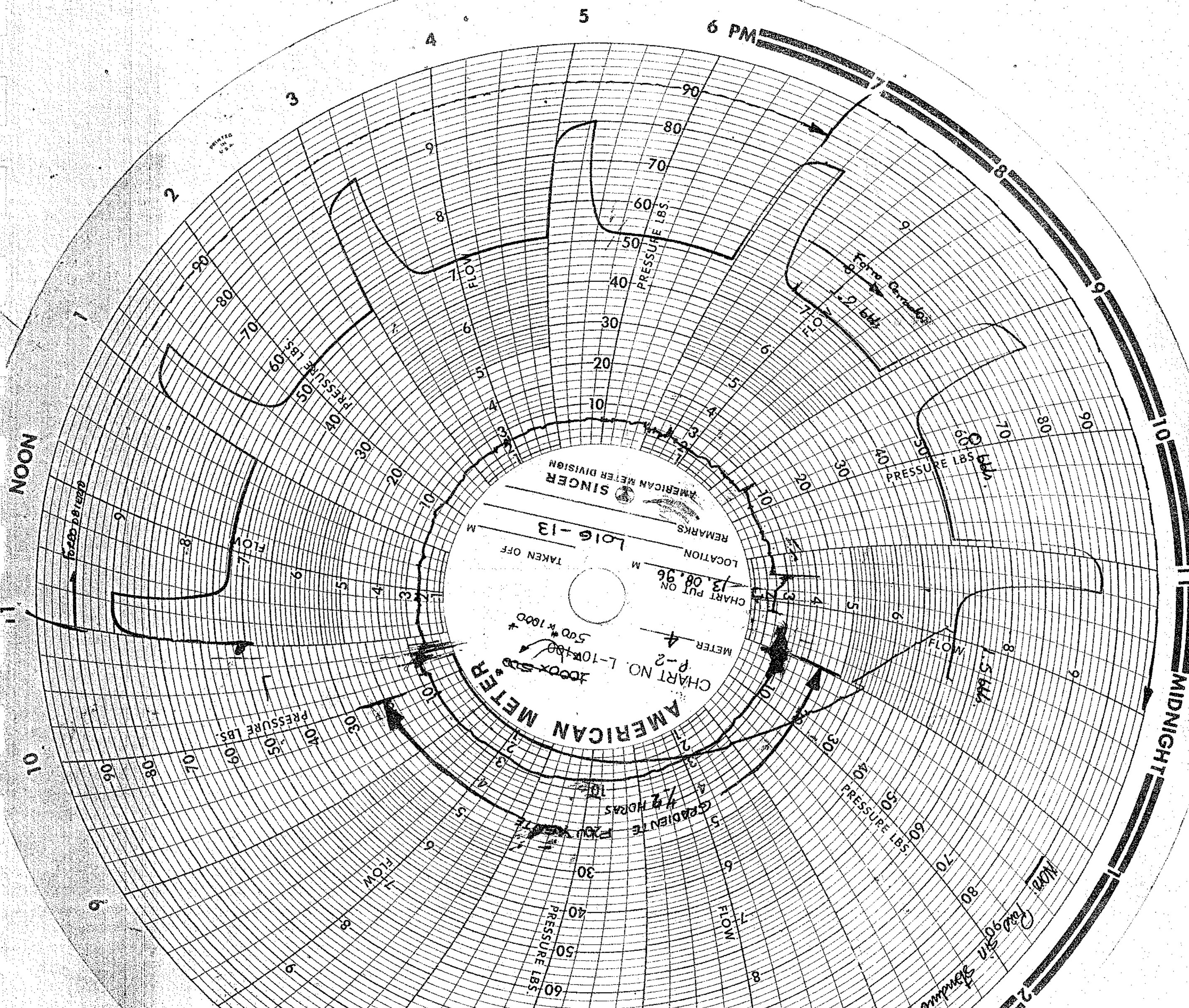
Gas Gradient = 0.004 psi/feet.
Oil Gradient = 0.405 psi/feet.

Oil level = 5,969.50 M.D. ó 5,339 V.D.

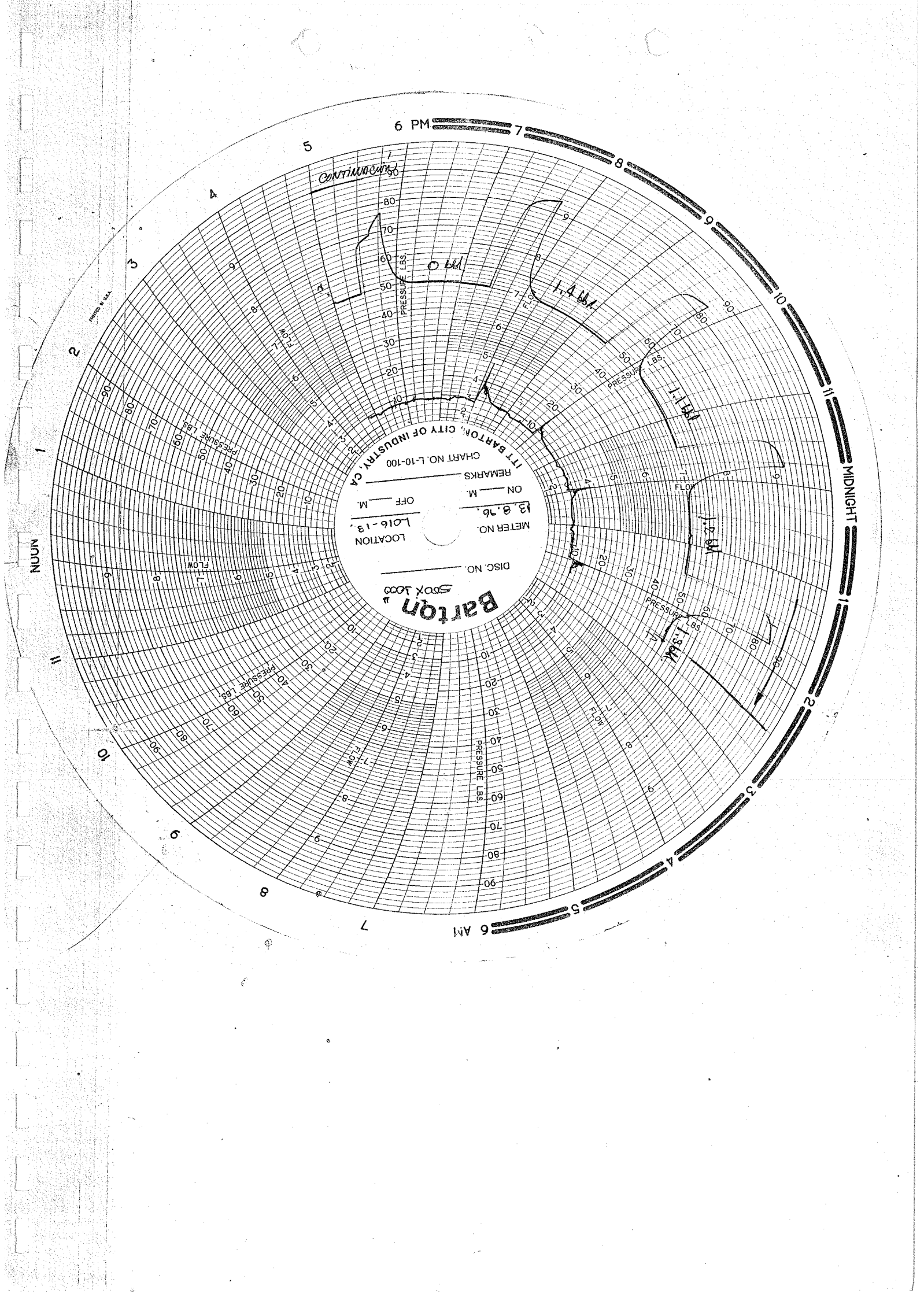
Static Gradient
Well LO16 - 13 Lobitos Offshore

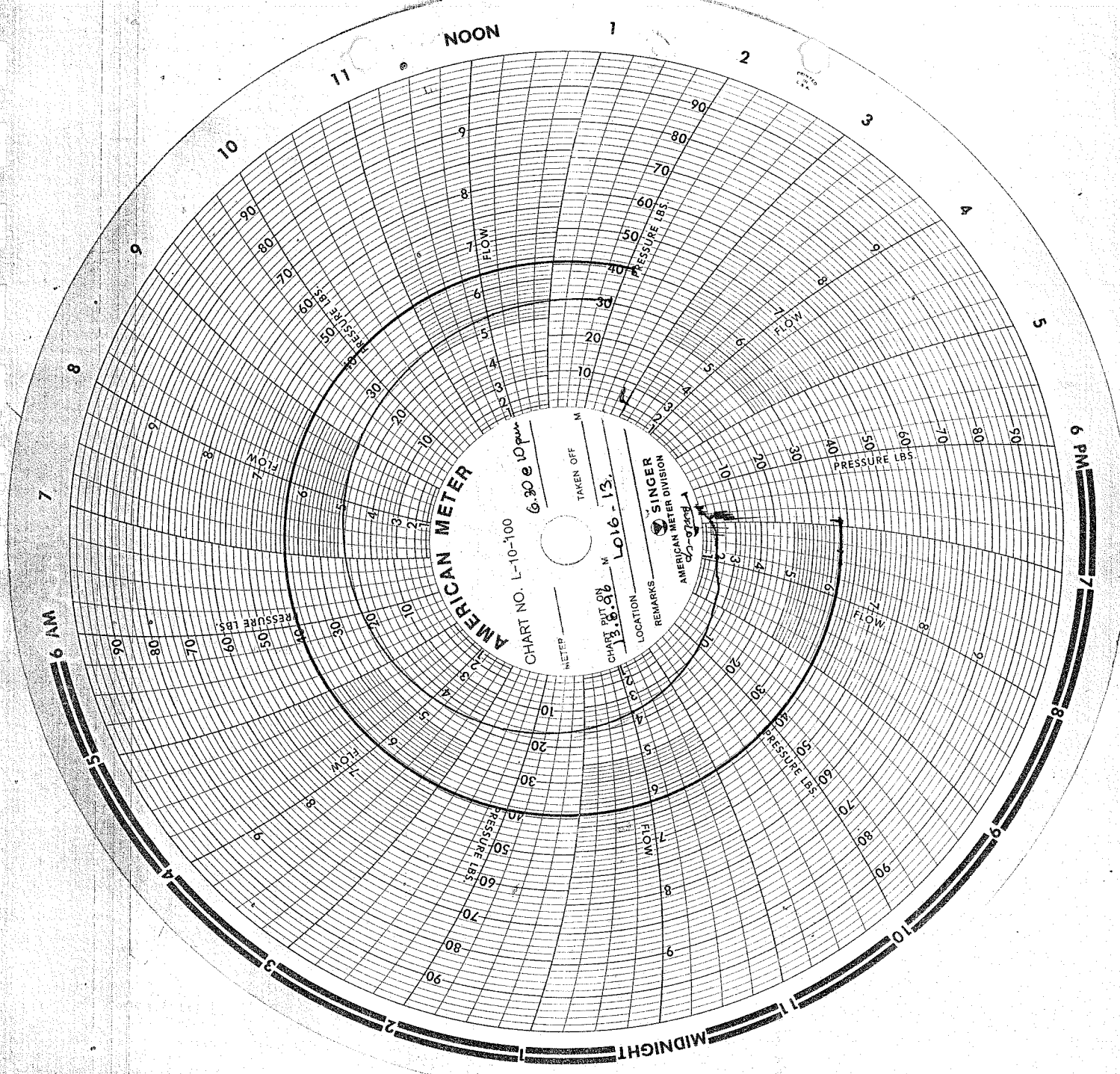


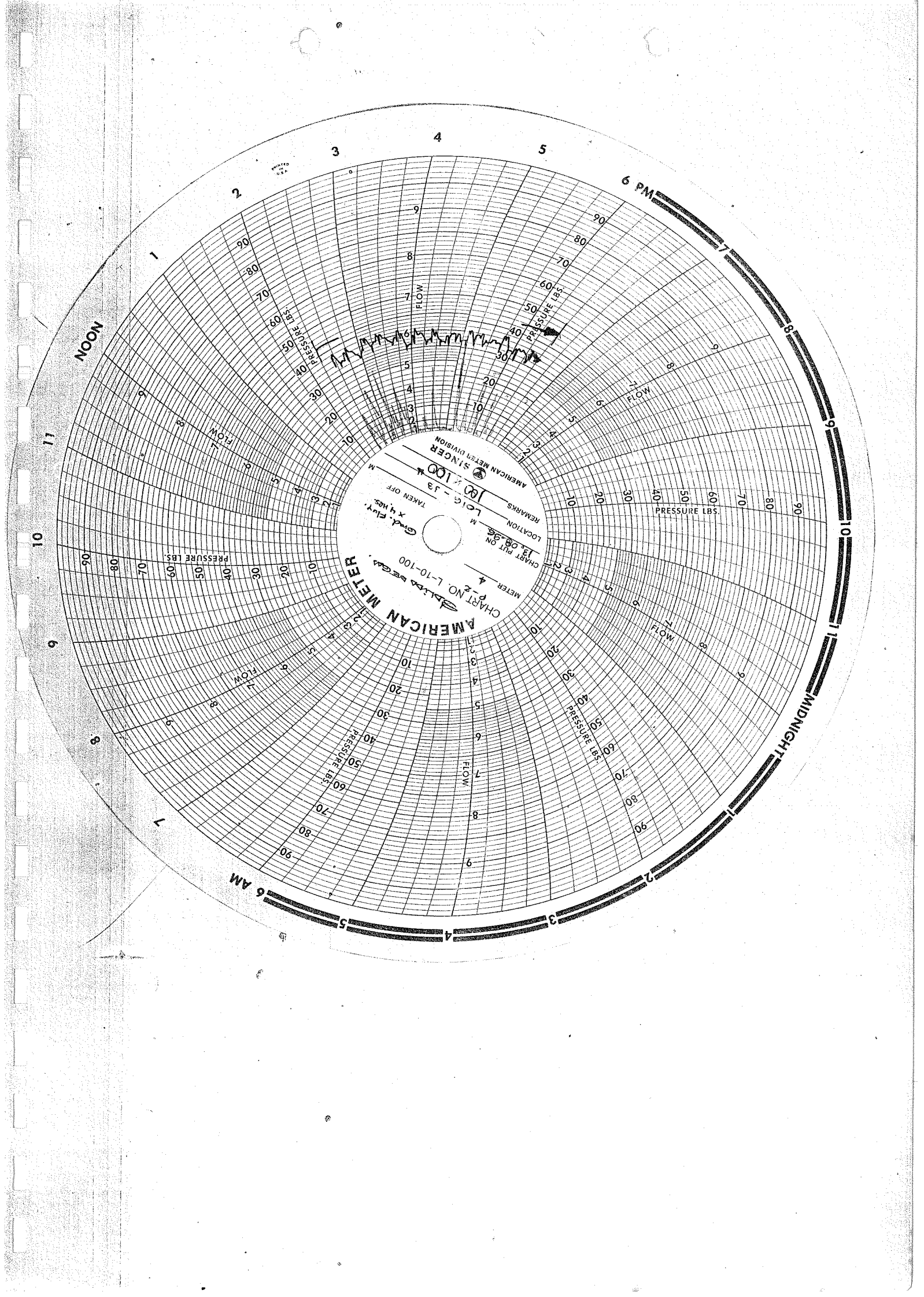
Graphic No. 6



AMERICAN METER
CHART NO. L-10
SINGER
AMERICAN METER DIVISION
REMARKS
LOCATION
CHART PUT ON
TAKEN OFF
METER
L016-13
13.08.96
6 PM
MIDNIGHT
6 AM
NOON
PRESSURE LBS.
FLOW


6 PM
MIDNIGHT
6 AM
NOON
Continuation
0 bbl
1.4 bbl
1.1 bbl
1.2 bbl
1.3 bbl
PRESSURE LBS.
FLOW
Barton
Box 1000
DISC. NO.
METER NO. 13.8.76
LOCATION L016-13
ON M.
OFF M.
REMARKS
CHART NO. L-10-100
ITT BARTON, CITY OF INDUSTRY, CA


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
FLOW
PRESSURE LBS.
AMERICAN METER
CHART NO. L-10-100
6:30 a 10 pm
TAKEN OFF
METER
CHART PUT ON
13.6.96
LOCATION
REMARKS
SINGER
AMERICAN METER DIVISION


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
AMERICAN METER
CHART NO. L-10-100
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
Gas. flwg. x hrs.
SINCER
AMERICAN METER DIVISION
PRESSURE LBS.
FLOW