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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

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JAN 19 2005

Form C-122
Revised October, 1999

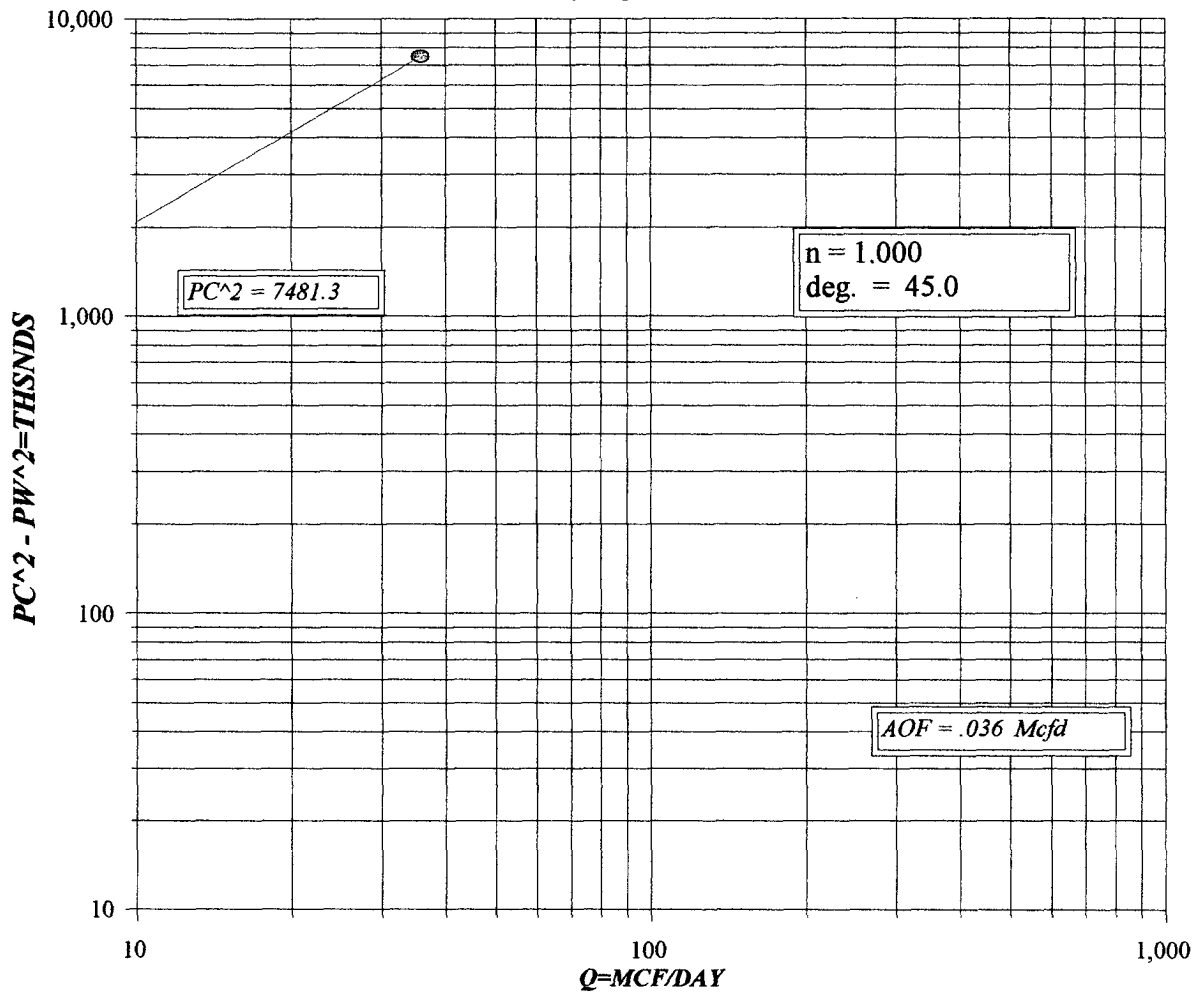
ODD-ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

30-015-24810

Operator CHI ENERGY					Lease or Unit Name OTIS "33"				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12/21/2004		Well No. 2		
Completion Date		Total Depth		Plug Back TD		Elevation		Unit Ltr - Sec - TWP - Rge	
Csg. Size	Wt.	d	Set At	Perforations: From: 9008 To: 9997			County EDDY		
Tbg. Size	Wt.	d	Set At	Perforations: From: To:			Pool		
2 7/8		6.5		2.441		8899			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE					Packer Set At 8899		Formation		
Producing Thru TUBING		Reservoir Temp. 163		Mean Annual Temp. 60		Baro. Press.-P _a 13.2		Connection SALES	
L	H	Gg	%CO ₂	%N ₂	%H ₂ S	Prover	Meter Run	Taps	
8899	8899	0.709	1.166	0.793	N/A	N/A	4.026	FLG	
FLOW DATA					TUBING DATA			CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.	Press p.s.i.g.	Temp.
SI						2722		PKR	
1	4.026 X .750		55	2.1	31	56		"	
2									
3									
4									
5									
RATE OF FLOW CALCULATIONS									
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}		Rate of Flow Q. Mcfd
1									36
2									
3	TOTAL		FLOW	METER					
4									
5									
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio 2.77 Mcf bbl.				
1					A.P. I. Gravity of Liquid Hydrocarbons 53.2 @60 Deg.				
2	TOTAL	FLOW	METER		Specific Gravity Separator Gas 0.709 XXXXXXXX				
3					Specific Gravity Flowing Fluid XXXXXX GMIX =1.559				
4					Critical Pressure 673 P.S.I.A. N/A P.S.I.A.				
5					Critical Temperature 387 R. N/A R				
P _c 2735.2 P _{c2} 7481.3									
No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²	(1) P _c ² = 1.001 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ 1.001				
1		69.3	4.8	7476.5					
2									
3									
4									
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ 0.036				
Absolute Open Flow 36 Mcfd @ 15.025					Angle of Slope (°): 45		Slope, n: 1.000		
Remarks: * WELL MADE 13 BBLs OF 53.2 API GRAVITY CONDENSATE DURING TEST.									
Approved By Division:			Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM		

CHI ENERGY
OTIS "33" #2



COMPANY : CHI		LEASE : OTIS 33		WELL NO. : 2		Pc = 2735.2		Pc2 = 7481.3	
UNIT :		SECTION :		TOWNSHIP :					
L : 8899		H : 8899		L/H : 1		G/GMIX : 0.709		P12 = 4.8	
%CO2 : 1.166		%N2 : 0.793		H2S :		DATE : 12/21/04		Pw = 69.3	
d : 2.441		Fr : 0.010763		GH : 6309.4		RANGE :		#DIV/0!	
								#DIV/0!	
								#DIV/0!	
VOL 1 : 36		PSIA 1 : 69.2		RESV.TEMP 163.0		Pc2-Pw2= 7476.5		Pw2 = 4.8	
VOL 2 :		PSIA 2 :				#DIV/0!		#DIV/0!	
VOL 3 :		PSIA 3 :		SHUT-IN PRI = 2735.2		#DIV/0!		#DIV/0!	
VOL 4 :		PSIA 4 :				#DIV/0!		#DIV/0!	
		PCR : 673						n = 1.000	
		TCR : 387							
						Pc2/(Pc2-Pw2) =		1.001	
LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST		2ND		1ST		2ND	
1	QM	0.036	0.036	0.000	0.000	0.000	0.000	0.000	0.000
2	TW	534	534	534	534	534	534	534	534
3	Ts	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
4	T	578.5	578.5	578.5	578.5	578.5	578.5	578.5	578.5
	PR (est)	0.10		0.00		0.00		0.00	
5	Z(est)	0.965	0.964	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	TZ	558.5	557.8	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	GH/TZ	11.298	11.312	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	eS	1.528	1.528	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	I-e-S	0.345	0.346	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10	Pt	69.2	69.2	0.0	0.0	0.0	0.0	0.0	0.0
11	P12/1000	4.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	6.011	6.003	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14	FcQm	0.22	0.22	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	L/H(FcQm)	0.0	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	Fw	0.016172	0.016147	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
17	Pw2	4.8	4.8	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18	Ps2	7.3	7.3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19	Ps	85.7	85.7	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20	P	77.4	77.4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	Pr	0.12	0.12	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Tr	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
23	Z	0.964	0.964	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								FORM C122-D	



Laboratory Services, Inc.

2609 West Marland
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION Otis 33 #2
COMPANY: Chi Energy
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED 12/21/04
ANALYSIS DATE: 12/21/04
PRESSURE - PSIG 53
SAMPLE TEMP. °F 35
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: B. Pena
ANALYSIS BY: Vicki McDaniel

REMARKS: Sample Taken @ the meter run.

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.793	
Carbon Dioxide (CO2)	1.166	
Methane (C1)	81.149	
Ethane (C2)	10.021	2.674
Propane (C3)	3.747	1.030
I-Butane (IC4)	0.615	0.201
N-Butane (NC4)	1.093	0.344
I-Pentane (IC5)	0.325	0.119
N-Pentane (NC5)	0.313	0.113
Hexane Plus (C6+)	<u>0.778</u>	<u>0.338</u>
	100.000	4.819

BTU/CU.FT. - DRY 1209
AT 14.650 DRY 1206
AT 14.650 WET 1185
AT 14.73 DRY 1212
AT 14.73 WET 1191

MOLECULAR WT. 20.5899

SPECIFIC GRAVITY -
CALCULATED 0.709
MEASURED

**Laboratory Services, Inc.**

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SULFUR IN CRUDE OIL

Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

Dec 21, 2004

	Total Sulfur	API Gravity @ 60° F	Specific Gravity @ 60° F
Chi Energy Otis 33 #1	0.0463 wt. %	53.2	0.7661

Thank You,
Vickie Biggs
S



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Hobbs, New Mexico 88240
Telephone: (505) 397-3713

ASTM DISTILLATION

Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

Sample Date: Dec. 21, 2004
Sampled By: Ben Pena

Chi Energy
Otis 33 #2

Percent Distilled

Temperature

IBP	110
5	150
10	178
20	216
30	246
40	278
50	332
60	390
70	472
80	560
90	630
EP	630

% Recovered = 90.0
% Residue = 4.0
% Loss = 6.0

API Gravity @ 60° F = 53.2

Vicki McDaniel