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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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JUN 27 2005

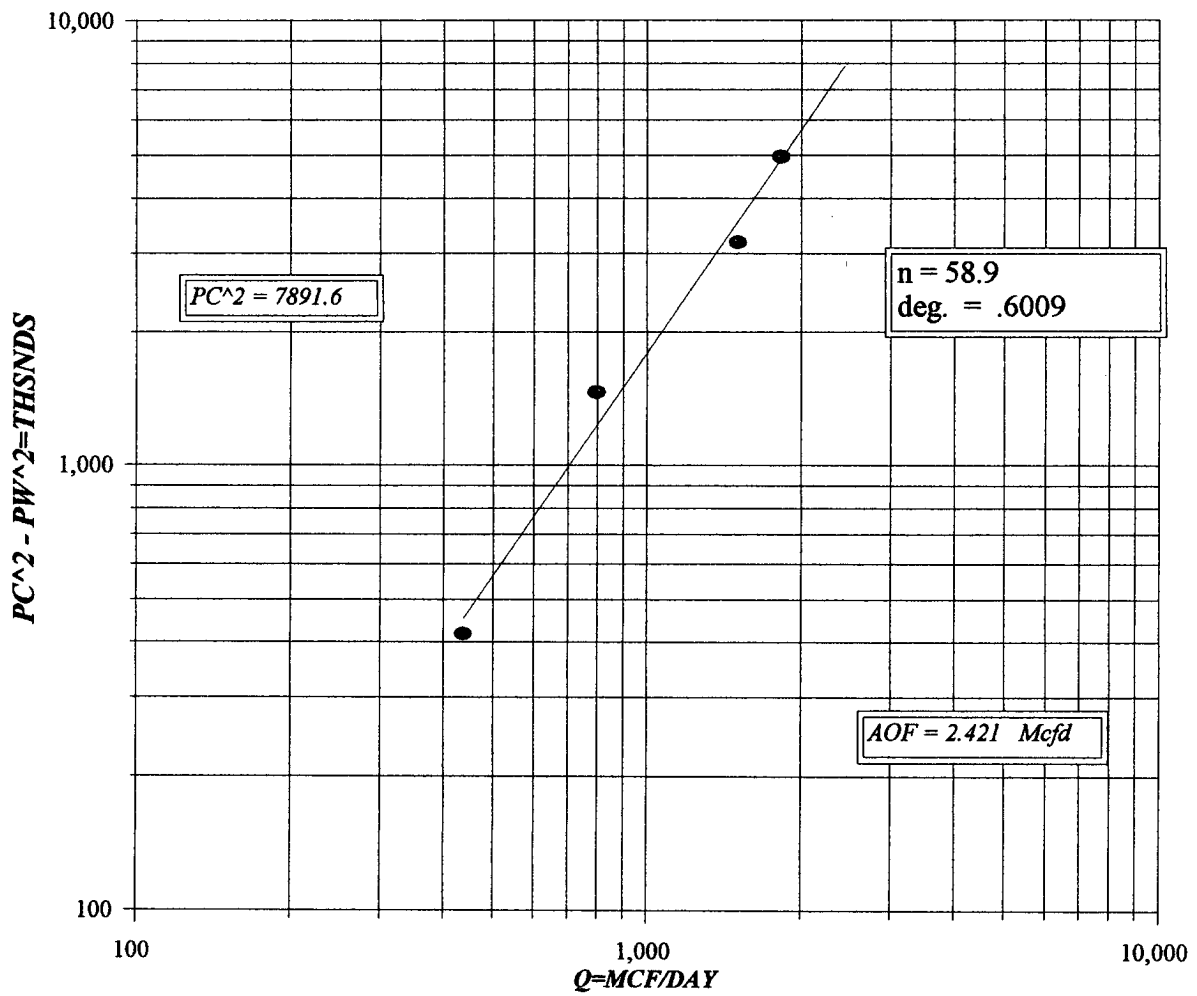
OCU-ARTEJO

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MURCHISON					Lease or Unit Name HAINS						
Type Test ☒ Initial ☐ Annual ☐ Special							Test Date 5/25/2005		Well No. 1		
Completion Date		Total Depth 9100			Plug Back TD 9060		Elevation 3302 GL		Unit Ltr - Sec - TWP - Rge 19 17S 27E		
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 9100		Perforations: From: 8802 To: 8853				County EDDY		
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 8723		Perforations: From: To:				Pool		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE					Packer Set At 8723				Formation		
Producing Thru TUBING		Reservoir Temp. 161.6		Mean Annual Temp. 60		Baro. Press.-P _a 13.2		Connection SALES			
L 8762	H 8762	Gg 0.626	%CO ₂ 0.43	%N ₂ 0.461	%H ₂ S 0	Prover N/A	Meter Run 2.067	Taps FLG			
FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow	
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						2796					
1	2.067 X 1.250		328	4.3	98	2720				1 HR	
2	2.067 X 1.250		386	15.5	121	2519				1HR	
3	2.067 X 1.250		339	57.8	68	2144				1HR	
4	2.067 X 1.250		346	80.2	52	1673				1HR	
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	9.64								438		
2									798		
3	TOTAL		FLOW	METER					1,509		
4									1,832		
5											
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio			N/A Mcf bbl.			
1					A.P. I. Gravity of Liquid Hydrocarbons			N/A Deg.			
2					Specific Gravity Separator Gas			0.626 XXXXXXXX			
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid			XXXXXX			
4					Critical Pressure			674	P.S.I.A.	N/A P.S.I.A.	
5					Critical Temperature			361	R.	N/A R	
P _c		2809.2		P _{c2}	7891.6						
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.591}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.322}{\quad}$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2.421}{\quad}$						
1		2734.1	7475.4	416.2							
2		2535.5	6428.5	1463.1							
3		2170.7	4711.9	3179.7							
4		1711.8	2930.2	4961.4							
5											
Absolute Open Flow					2.421	Mcf @ 15.025	Angle of Slope (°):		58.9	Slope, n:	0.6009
Remarks: * NO LIQUID MADE DURING TEST.											
Approved By Division:			Conducted By: PRO WELL TESTING			Calculated By: MERV BUECKER			Checked By: MB		

MURCHISON
HAINS #1



COMPANY : MURCHISON

LEASE : HAINS

WELL NO. : 1

Pc = 2809.2 Pc2 = 7891.6

UNIT :

SECTION : 19

TOWNSHIP : 17S

P12 = 7470.4 Pw = 2734.1

L : 8762

H : 8762

L/H :

1 G/GMIX : 0.626

6412.0 2535.5

%CO2 : .430

%N2 : .461

H2S :

DATE : 5/25/05

4653.5 2170.7

d : 1.995

Fr : 0.018231

GH :

5485.0

RANGE : 27E

2843.3 1711.8

VOL 1 : 438

PSIA 1 : 2733.2

RESV.TEMP 161.6

Pc2-Pw2= 416.2 Pw2 = 7475.4

VOL 2 : 798

PSIA 2 : 2532.2

1463.1 6428.5

VOL 3 : 1509

PSIA 3 : 2157.2

SHUT-IN PRI = 2809.2

3179.7 4711.9

VOL 4 : 1832

PSIA 4 : 1686.2

4961.4 2930.2

PCR : 674

n = 0.601

TCR : 361

Pc2/(Pc2-Pw2) = 18.961

LINE

RATE 1

RATE 2

RATE 3

RATE 4

5.394

1ST

2ND

1ST

2ND

2.482

LINE	RATE 1	RATE 2	RATE 3	RATE 4	
	1ST	2ND	1ST	2ND	1ST
1 QM	0.438	0.438	0.798	0.798	1.509
2 TW	534	534	534	534	534
3 Ts	621.6	621.6	621.6	621.6	621.6
4 T	577.8	577.8	577.8	577.8	577.8
PR (est)	4.06	3.76	3.20	2.50	
5 Z(est)	0.807	0.818	0.804	0.810	0.805
6 TZ	466.5	472.5	464.5	468.1	464.9
7 GH/TZ	11.759	11.610	11.807	11.717	11.798
8 eS	1.554	1.546	1.557	1.552	1.556
9 I-e-S	0.357	0.353	0.358	0.356	0.358
10 Pt	2733.2	2733.2	2532.2	2532.2	2157.2
11 P12 /1000	7470.4	7470.4	6412.0	6412.0	4653.5
12 Fr	0.018231	0.018231	0.018231	0.018231	0.018231
13 Fc=FrTZ	8.504	8.613	8.469	8.535	8.476
14 FcQm	3.72	3.77	6.76	6.81	12.79
15 LH(FcQm)%	13.9	14.2	45.7	46.4	163.6
16 Fw	4.947167	5.023811	16.34055	16.49254	58.48538
17 Pw2	7475.3	7475.4	6428.4	6428.5	4712.0
18 Ps2	11618.1	11553.4	10009.1	9975.5	7334.1
19 Ps	3408.5	3399.0	3163.7	3158.4	2708.2
20 P	3070.9	3066.1	2848.0	2845.3	2432.7
21 Pr	4.56	4.55	4.23	4.22	3.61
22 Tr	1.60	1.60	1.60	1.60	1.60
23 Z	0.818	0.817	0.810	0.810	0.803

[Pc2/Pc2-Pw2]n = 5.860

2.753

1.727

1.322

AOF= Q 2.567

2.197

2.608

2.421

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: Haims #1
COMPANY: Murchison
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 5/25/05
ANALYSIS DATE: 5/26/05
PRESSURE - PSIA 335
SAMPLE TEMP. °F 62
ATMOS. TEMP. °F 95

GAS (XX) LIQUID ()
SAMPLED BY: Glen
ANALYSIS BY: Vicki McDaniel

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.461	
Carbon Dioxide (CO2)	0.430	
Methane (C1)	90.715	
Ethane (C2)	5.389	1.438
Propane (C3)	1.725	0.474
I-Butane (IC4)	0.249	0.081
N-Butane (NC4)	0.408	0.128
I-Pentane (IC5)	0.144	0.053
N-Pentane (NC5)	0.107	0.039
Hexane Plus (C6+)	<u>0.372</u>	<u>0.161</u>
	100.000	2.374

BTU/CU.FT. - DRY 1104
AT 14.650 DRY 1101
AT 14.650 WET 1082
AT 14.73 DRY 1107
AT 14.73 WET 1088

MOLECULAR WT. 18.1573

SPECIFIC GRAVITY -
CALCULATED 0.626
MEASURED