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appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Burlington Resources Oil and Gas Company					Lease or Unit Name El Paso 23 Federal				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-7-98		Well No. 2		
Completion Date 3-3-98		Total Depth 13415' MD, 12,150'		Plug Back TD TVD Same as TD		Elevation 3101' GR		Unq. Lat. - Sec. - TWP - Rge. B 23, 26S, 30E	
Csg. Size 4 1/2" liner	W.L. 15.1	d 3.826	Set At 11620 to 13415	Perforations: From: 11,966 To: 13407		County Eddy			
Tbg. Size 3-1/2"	W.L. 12.95	d 11,603'	Set At 11,603'	Perforations: From: To:		Pool Ross Draw Wolfcamp Gas			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 11,590'		Formation Wolfcamp		
Producing Thru Tbg		Reservoir Temp. °F 182°		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		Connection Sales	
L 11585	II 11585	Gg .650	% CO ₂ .02	% N ₂ .705	% H ₂ S 0	Prover 0	Meter Run 4.026	Taps F/G	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI						4830		1900	
1.	4.026 X 2.000		525	7"	66°	4300	67°	2000	60 min
2.	4.026 X 2.000		525	17"	70°	4130	67°	2100	60 min
3.	4.026 X 2.000		540	36"	70°	3520	67°	2100	60 min
4.	4.026 X 2.000		540	48"	74°	3140	67°	2000	60 min
5.									

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\frac{h_w P_m}{P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	19.81	61.4	538.2	.9943	1.240	1.052	1577
2.	19.81	95.6	538.2	.9905	1.240	1.051	2447
3.	19.81	141.1	553.2	.9905	1.240	1.051	3608
4.	19.81	162.9	553.2	.9868	1.240	1.051	4150
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcft/bbl.
1.	.78	526	1.41	.903	9.263	
2.	.78	530	1.42	.905		
3.	.78	530	1.42	.905		
4.	.78	534	1.43	.906		
5.						

NO.	P _i	P _w	P _w ²	P _e ² - P _w ²
1.		4317.2	18638.3	4318.3
2.		4152.9	17246.7	6209.8
3.		3555.1	12638.6	10818.0
4.		3183.0	10131.3	13325.3
5.				

1) $\frac{P_e^2}{P_e^2 - P_w^2} = 1.76$ 2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 1.67$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 6962.0$

Absolute Open Flow **6962.0** Mcfd @ 15.025 Angle of Slope θ **47.58** Slope, n **915**

Remarks: ***Well made 53 SBLS of 55.2 API Gravity Condensate & 300 BW**

Reviewed By Division

Conducted By:

Calculated By:

Checked By:

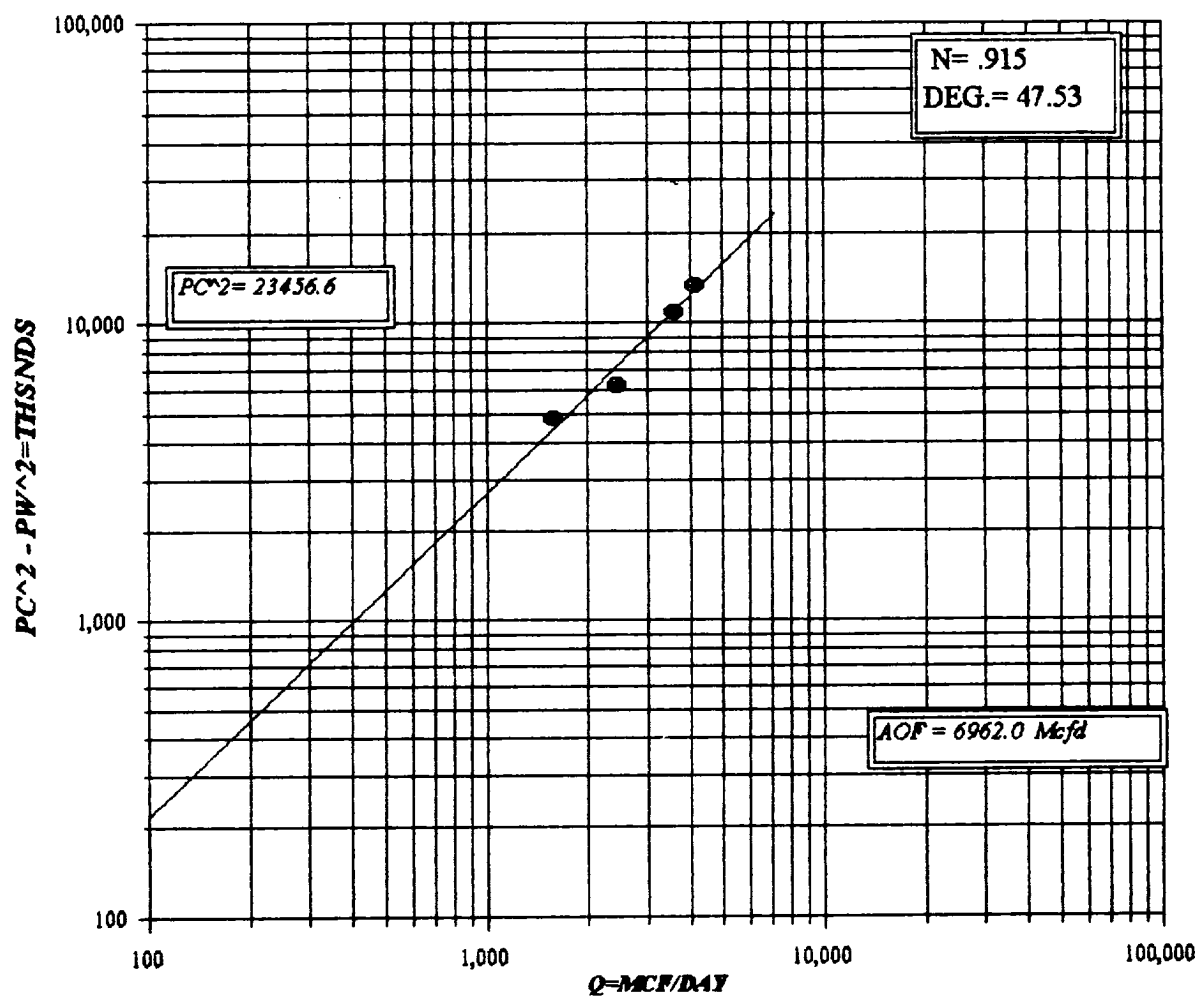
Pro Well Testing

M. R.

B. M.

BURLINGTON RESOURCES OIL & GAS

ELPASO "23" FED #2



COMPANY : BURLINGTON RES. LEASE : EL PASO 23 FED WELL NO. : 2 Pc = 4843.2 Pc2 = 23456.0
 UNIT : SECTION TOWNSHIP :
 L : 11585 H : 11585 L/H : 1 3/8 MIX : 0.650 Pt2 = 9942.7 Pw = 4317.2
 XCD2 : 0.02 AN2 : 0.795 H2S : DATE : 4/17/98 4152.9
 J : 2.441 Fr : 0.010763 SH : 7530.2 RANGE : 3555.1
 9942.7 3163.0

VOL 1 : 1577 PSIA 1 : 4313.2 RESV.TEMP 189.8 Pc2-Pw2= 4818.3 Pw2 = 18638.3
 VOL 2 : 2447 PSIA 2 : 4143.2 6209.8 17246.7
 VOL 3 : 3608 PSIA 3 : 3533.2 SHUT-IN PR= 4843.2 12638.6
 VOL 4 : 4150 PSIA 4 : 3153.2 10131.3
 PCR : 663 n = 0.915
 TCR : 470

LINE	RATE 1	RATE 2	RATE 3	RATE 4	
	1ST	2ND	1ST	2ND	1ST
1	QM	1.577	1.577	2.447	2.447
2	TW	534	534	534	534
3	Ts	649.9	649.9	649.9	649.9
4	T	591.9	591.9	591.9	591.9
5	PR (est)	6.51	6.25	5.33	4.76
6	Z(est)	0.823	0.920	0.801	0.897
7	TZ	487.3	544.4	474.0	530.8
8	GH/TZ	15.453	13.831	15.886	14.185
9	eS	1.785	1.680	1.814	1.702
10	l-e-S	0.440	0.405	0.449	0.413
11	Pt	4313.2	4313.2	4143.2	4143.2
12	Pt2 /1000	18603.7	18603.7	17166.1	17166.1
13	Fr	0.010763	0.010763	0.010763	0.010763
14	Fc=FrTZ	5.245	5.860	5.102	5.714
15	FcQm	8.27	9.24	12.48	13.98
16	L/H(FcQm)	68.4	85.4	155.9	195.5
17	Fw	30.08802	34.55874	69.95571	80.63941
18	Pw2	18633.8	18638.3	17236.1	17246.7
19	Ps2	33263.9	31308.4	31272.2	29358.4
20	Ps	5767.5	5595.4	5592.2	5418.3
21	P	5040.3	4954.3	4867.7	4780.8
22	Pr	7.60	7.47	7.34	7.21
23	Tr	1.26	1.26	1.26	1.26
24	Z	0.920	0.908	0.897	0.885

Pc2/(Pc2-Pw2) = 4.868
 3.777
 2.168
 1.760
 [Pc2/Pc2-Pw2]n = 4.255
 3.374
 2.030
 1.678
 AOF= Q 6.711
 8.256
 7.325
 6.962
 FORM C122-D

NEW MEXICO G.O.R./G. MIX

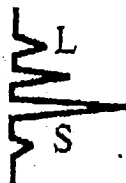
NO. OF BBL'S PRODUCED = 53.0
API GRAVITY @ 60 DEG. = 55.2

SPECIFIC GRAVITY OF GAS = 0.6500

XX
TOTAL GAS PRODUCED = 491

G.O.R. = 9.263

G.MIX = 0.948

**Laboratory Services, Inc.**

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

ANN. Doug Seams

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

SAMPLE
IDENTIFICATION: El Paso 23 Fed. #2
COMPANY: Burlington
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 3/16/98 7:00 AM
ANALYSIS DATE: 3/16/98
PRESSURE - PSIG 700
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Lane Thorp
ANALYSIS BY: Vickie Walker

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.705	
Carbon Dioxide (CO2)	0.020	
Methane (C1)	91.115	
Ethane (C2)	3.594	0.959
Propane (C3)	1.107	0.304
I-Butane (IC4)	0.484	0.158
N-Butane (NC4)	0.980	0.308
I-Pentane (IC5)	0.487	0.178
N-Pentane (NC5)	0.537	0.194
Hexane Plus (C6+)	0.971	0.398
	100.000	2.499

BTU/CU.FT. - DRY 1147
AT 14.650 DRY 1143
AT 14.650 WET 1123
AT 14.73 DRY 1149
AT 14.73 WET 1129

MOLECULAR WT. 18.8165

SPECIFIC GRAVITY -
CALCULATED 0.650
MEASURED