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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
3040 South Pueblo
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PHILLIPS PETROLEUM				Lease or Unit Name UNCAS 31 ST.			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-18-01		Well No. 1	
Completion Date		Total Depth 13575		Perforations 13240		Elevation 31 17 34	
Casing Size 7"	WT 26.4	Set At 13575	Perforations From 13156 To 13164		Gravel LEA		
Tub. Size 2 7/8	WT 6.5	Set At 13160	Perforations From 13100 To 13100		Pool MORROW		
Type Well-Single-Threshold (G.G. to G.G.) Multiple SINGLE				Proven Set At 13100		Formation MORROW	
Producing Thick 786		Recovery Temp. °F 205 @ 13100		Mean Annual Temp. °F 60		Flow Rate (G.P.D.) 132	
L 13100	H 13160	GR 663	MG 467	MG 791	MG 132	MG 4.026	MG FLG

FLOW DATA				PRESSURE DATA				CASING DATA				Duration of Flow
No.	Flow Rate (G.P.D.)	Pressure (PSIG)	Depth (ft)	No.	Pressure (PSIG)	Depth (ft)	No.	Pressure (PSIG)	Depth (ft)			
31												
1	4 X 3,000	527	1.69	78	4435				48 HRS			
2	4 X 3,000	545	5.29	70	4095				11			
3	4 X 3,000	545	9.00	70	3680				11			
4	4 X 3,000	564	11.56	65	3327				11			
5												

RATE OF FLOW CALCULATIONS

No.	Coefficient (24 Hours)	$\sqrt{h/L}$	Pressure (PSIG)	Flow Temp (°F)	Gravity Factor	Super Compress Factor	Rate of Flow (Q) Mcfd
1	51.64	20.21	540.2	98.31	1.228	1.054	1985
2	51.64	54.34	558.2	99.05	1.228	1.057	3608
3	51.64	70.88	558.2	99.05	1.228	1.057	4706
4	51.64	81.68	572.2	99.52	1.228	1.067	5500
5							

No.	P _r	Temp. °R	T _r	Z	Gas Constant (Hydrocarbon Ratio)	Rate of Flow (Q) Mcfd
1	.80	538	1.42	.900	12.4	53.0 @ 60°
2	.83	530	1.40	.895	53.0 @ 60°	
3	.83	530	1.40	.895	463	XXXXXX
4	.86	525	1.38	.878	XXXXX	6 MIX = .893
5						

No.	P _r	P ₁	P ₂	P ₃	(1) $P^2 = 2.746$	(2) $\left[\frac{P^2}{P_1^2 - P_2^2} \right] = 1.939$
1		4457.6	19878.0	2221.9		
2		4139.7	17137.2	4954.7		
3		3748.1	14048.2	8043.7		
4		3417.0	11475.6	10416.8		
5						

Absolute Open Flow: **9.124** MGD @ 13100' Angle of Slope: **56.75** Slope: **.6555**

Remarks: **WELL PRODUCED 53.0 BBLs OF 53.0 API CONDENSATE**

Approved By Division: **METERING & TESTING** Checked By: **BN**

COMPANY : PHILLIPS PETROLEUM LEASE JNCAS 31 ST. WELL NO. : 1
 UNIT : SECTION : 31 TOWNSHIP : 17
 Z : 13100 H : 13100 U/A : 1 G/GMTX : 0.893
 PCO2 : 0.467 SN2 : 0.791 H2S : DATE : 4 18 01
 d : 2.443 Fr : 0.010763 GM : 11698.3 RANGE : 34

Pc = 4700.2 - Pc2 = 22091.9 *

Pt2 = ***** Pw = 4457.7 *
 ***** 4140.2 *
 ***** 3749.1 *
 ***** 3478.4 *

VOL 1 : 1985 PSIA 1 : 4448.2
 VOL 2 : 3608 PSIA 2 : 4108.2
 VOL 3 : 4706 PSIA 3 : 3693.2
 VOL 4 : 5500 PSIA 4 : 3340.2

RESV. TEMP 205.0

SHUT-IN PR 4700.2

PCR : 662

TCR : 454

Pc2-Pw2 = 2220.6 Pw2 = 19871.3 *
 4950.3 17141.5 *
 8036.3 14055.6 *
 10416.5 11685.8 *

n = 0.656 ✓

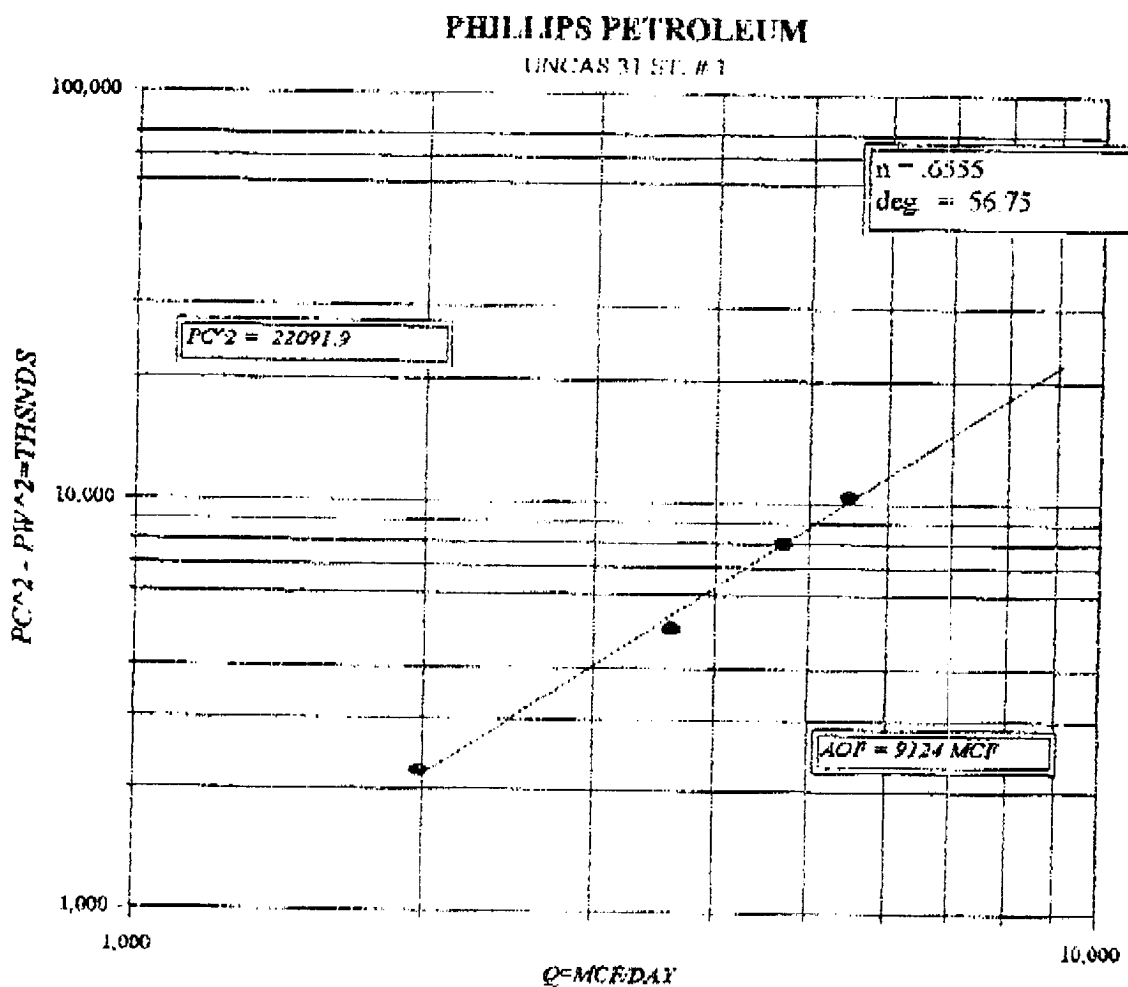
Pc2/(Pc2-Pw2) = 9.949 *
 4.463 *
 2.246 ✓ *
 2.123 *

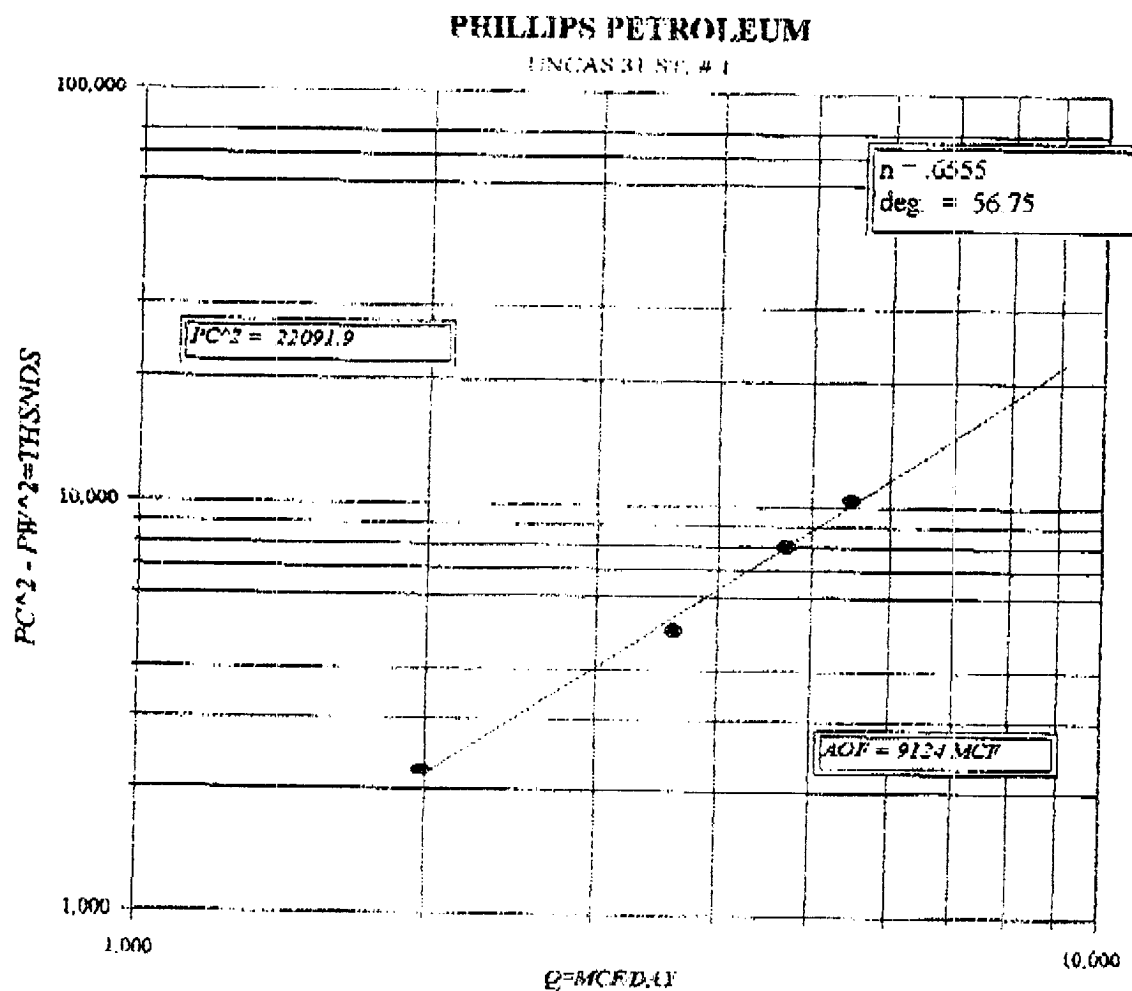
[Pc2/Pc2-Pw2]n = 4.509 *
 2.666 *
 1.939 ✓ *
 1.639 *

AOP = Q 8.950 *
 9.618 *
 9.124 ✓ *
 9.015 *

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	1.985	1.985	3.608	3.608	4.706	4.706	5.500	5.500
2	PM	534	534	534	534	534	534	534	534
3	PS	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
4	T	599.5	599.5	599.5	599.5	599.5	599.5	599.5	599.5
	PR (est)	6.72		6.21		5.56		5.06	
5	Z (est)	0.848	0.997	0.807	0.954	0.758	0.900	0.719	0.854
6	TZ	508.3	597.9	483.7	572.0	458.5	539.6	430.9	512.1
7	GR/TZ	23.013	19.564	24.166	20.452	25.740	21.672	27.147	22.843
8	eS	2.370	2.083	2.477	2.153	2.625	2.254	2.768	2.355
9	1-e-S	0.578	0.520	0.596	0.536	0.619	0.556	0.639	0.575
10	Pt	4448.2	4448.2	4108.2	4108.2	3693.2	3693.2	3340.2	3340.2
11	Pt2 /1000	19786.5	19786.5	16877.3	16877.3	13639.7	13639.7	11256.9	11256.9
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Pc-PrTZ	5.471	6.436	5.206	6.156	4.897	5.810	4.638	5.512
14	PcQm	10.86	12.75	18.78	22.21	23.02	27.34	25.51	30.32
15	L/R(PcQm)	118.0	153.2	352.8	493.4	529.9	747.5	650.7	919.1
16	Pw	68.18835	84.84015	210.3620	264.2394	328.0746	415.8700	415.6133	528.83674
17	Pw2	19854.7	19871.3	17987.7	17141.5	13967.8	14055.6	12572.5	11685.8
18	Pg2	47059.4	41385.5	42322.6	36909.2	36672.0	31681.6	32029.4	27521.6
19	Ps	6860.0	6433.7	5505.6	6075.3	6055.7	5628.6	5659.4	5246.1
20	P	5654.1	5440.7	5306.9	5091.7	4874.5	4660.9	4499.8	4293.2
21	Pr	8.54	8.22	8.02	7.69	7.36	7.04	6.80	6.49
22	Tr	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
23	Z	0.997	0.971	0.954	0.927	0.900	0.874	0.854	0.829

FORM C122-0





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

NO. OF BBLs PRODUCED = 53.0

API GRAVITY @ 60 DEG. = 53.0

SPECIFIC GRAVITY OF GAS = 0.8630

XX
TOTAL GAS PRODUCED = 658

G.O.R. = 12.421

G.MIX = 0.893

METERING AND TESTING: DATA SHEET

Company Name: PHILLIPS Petroleum
 Well No. 42045.3137
 Test Date: 4-18-01
 Formation: Morisco
 County: LA
 State: LA
 Test Type: Point test

Meter Run Size:
 Orifice Meter Range:
 Tbg. Size:
 Csg. Size:
 Perfs:
 Packer Depth:
 TD / Pktd:

4.026"
 100x1500
 2.75"
 2" 26"
 13156 13164
 13100
 13525 13240

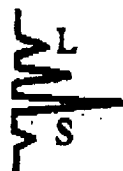
Phone NO. (505) 397-1631 3983
 Fax No. (505) 397-0990 3749

4452
 4218

Running Totals:
 Oil:
 Water:

Date	Time	Choke	Tbg PX	Csg PX	Temp	Oil Meter	Total Oil	BBL Oil Per Hr	Water Meter	BBL H2O Per Hr	Total Water	Diff Press	Static Press	Gas Rate	Comments
4/18/01	9:30	9/64	4687		64	Started	Test		Starting	Pressure	6.72				3000 Pkts
	9:15	9/64	4425		64							1.3	6.0	2014	458.2189 COEF
	9:30	9/64	4396		68							1.3	6.0	2014	
	9:45	9/64	4930		70							1.3	6.0	2014	
	10:00	9/64	4935		78							1.3	6.0	2014	10 OIL
	10:15	13/64	3955		70							2.3	6.1	3622	
	10:30	13/64	3952		71							2.3	6.1	3622	
	10:45	13/64	3980		69							2.3	6.1	3622	
	11:00	13/64	4095		70							2.3	6.1	3622	9 OIL
	11:15	14/64	3580		69							3.1	6.1	4882	
	11:30	16/64	3627		70							2.9	6.1	4567	
	11:45	16/64	3649		70							2.9	6.1	4567	
	12:00	16/64	3680		70							3.0	6.1	4725	19 OIL
	12:15	19/64	3212		68							4.0	6.1	6300	
	12:30	19/64	3260		65							3.8	6.2	6083	
	12:45	19/64	3312		65							3.6	6.2	5263	
	1:00	19/64	3327		65							3.4	6.2	5443	19 OIL
															oil gravity

53882 OIL

**Laboratory Services, Inc.**

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Phillips Petroleum Company
Attention: Mr. Don Thorp
HC 60 Box 66
Lovington, New Mexico 88260

SAMPLE:
IDENTIFICATION: Uncas #1
COMPANY: Phillips Petroleum Company
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 4/18/01 9:15AM
ANALYSIS DATE: 4/18/01
PRESSURE - PSIA 450
SAMPLE TEMP. °F
ATMOS. TEMP. °F 52

GAS (XX) LIQUID ()
SAMPLED BY: Rolland Perry
ANALYSIS BY: Rolland Perry

REMARKS: H2S = 0 PPM

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)	0.000	
Nitrogen (N2)	0.791	
Carbon Dioxide (CO2)	0.467	
Methane (C1)	85.882	
Ethane (C2)	7.614	2.031
Propane (C3)	3.426	0.942
I-Butane (IC4)	0.461	0.150
N-Butane (NC4)	0.722	0.227
I-Pentane (IC5)	0.151	0.055
N-Pentane (NC5)	0.190	0.047
Hexane Plus (C6+)	0.356	0.155
	100.000	3.607
BTU/CU.FT. - DRY	1155	
AT 14.650 DRY	1152	
AT 14.650 WET	1131	
AT 14.73 DRY	1158	
AT 14.73 WET	1138	
SPECIFIC GRAVITY -		
CALCULATED	0.663	
MEASURED		

MOLECULAR WT. 19.2225

TOTAL P.08