

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

SF
File
122 file
Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10/7/77		RECEIVED	
Company Northern Natural Gas Company				Connection None					
Pool Undesignated				Formation Morrow				Unit O.C.C.	
Completion Date 10-7-77		Total Depth 9850'		Plug Back To 9780'		Elevation 3325' GL		Form ARTESIAN OFFICE Moutray Com	
Csg. Size 5-1/2	Wt. 17	d 4.892	Set At 9850	Perforations: From 9498 To 9601		Well No. 1			
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 9436'	Perforations: Open Ended		Unit J		Sec. 6	Twp. 20s
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9436'		County Eddy			
Producing Thru Tubing		Reservoir Temp. °F -		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 9550	H -	Gg 0.6135	% CO ₂ 1.650	% H ₂ 0.690	% H ₂ S 0.000	Prover X	Meter Run		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2'		0.500	28.3		57	36	90	2794	90	3.0 hrs
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Factor, F _{spv}	Rate of Flow Q, Mscf/d
1.	4.279	-	41.5	1.003	1.276	-	227.27
2.							
3.							
4.							
5.							

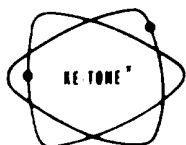
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Met/bbl.
1.	0.06	517	1.45	-	A.P.I. Gravity of Liquid Hydrocarbons	-	Dep.
2.					Specific Gravity Separator Gas	0.6135	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X	
4.					Critical Pressure	678	P.S.I.A.
5.					Critical Temperature	356	R

NO.	P _r	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1.		254.2	64.6	12983.4	1.005	1.005
2.						
3.						
4.						
5.						

Absolute Open Flow		228	Mcft/d 15.025	Angle of Slope °	45°	Slope, n	1.000
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Remarks: Due to low Volume only one Rate was taken.

Approved By Commission:	Conducted By: Jarrel Services, Inc	Calculated By: Joe A. Coleman	Checked By: Joe A. Coleman
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UNION CHEMICAL CORPORATION

OF NEW MEXICO

P. O. BOX 1499

PHONE (505) 393-7751

HOBBS, NEW MEXICO 88240

No. 6674

Run No.

Date of Run 10-12-77

Date Secured

CERTIFICATE OF ANALYSIS

A Sample of Northern Natural Gas Moutray Com #1
Secured from Jarrell Services
At P. O. Box 1654 Secured by _____
Hobbs, New Mexico 88240 Time _____ Date _____
Sampling conditions Press _____
Temp. _____

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
Carbon Dioxide	1.650		
Air			
Nitrogen	.690		
Oxygen			
Hydrogen sulfide			
Hydrogen			
Methane	93.400		
Ethane	2.533		.676
Propane	.691		.190
Butanes			
Iso Butane	.175		.057
N Butane	.163		.051
Pentanes			
Iso Pentane	.091		.033
N Pentane	.054		.020
Hexanes	.114		.047
Heptanes	Plus .439		.187
TOTAL	100.000		1.261

Calc. Sp. Gr. — 0.6135
Calc. A.P.I. —
Calc. Vapor Press — PSIA
Sp. Gr. —
Mol. Wt. — 17.80

LIQUID CONTENT GAL. MCF

Propane Calc. G.P.M. .190
Butanes Calc. G.P.M. .108
Pentanes Plus. G.P.M. .287
Ethane Calc. G.P.M. .676
RVP Gasoline G.P.M.
B.T.U./Cu. Ft. @ 14.696 P.S.I.A.
Dry Basis 1050
Wet Basis 1032
Sulfur Analysis by Titration
Gr. 100 Cu. Ft.
Hydrogen Sulfide
Mercaptans
Sulfides
Residual Sulfur
Total Sulfur

Run by Debbie Moutray Checked by _____ Approved by Debbie Moutray

Additional Data and Remarks

1012dh

The Jarrel Company

POST OFFICE BOX 1684 PHONES 505 393-3813 393-5344
HOBBS NEW MEXICO 86240

Well Testing Division

Instrument Service

BOTTOM HOLE PRESSURE RECORD

OPERATOR Northern Natural Gas Company
FIELD Undesignated FORMATION Morrow
LEASE Moutray Com WELL 1
COUNTY Eddy STATE New Mexico
DATE October 7, 1977 TIME 6:00 PM
Status Flowing Test depth 9400'
Time S. I. - Last test date -
Tub. Pres. 36 BHP last test -
Cas. Pres. - BHP change -
Elev. 3325 GL +13 Fluid top Flowing
Datum (-6370) ** Water top -
Temp. @ - Run by JSI #18
Cal. No. A36826N Chart No. 2

Depth	Pressure	Gradient
0	36	-
2000	57	.011
4000	107	.015
6000	158	.016
8000	211	.017
9000	229	.018
9400	238	.018
9550 (-6370)	241 * **	.019
Flowing 0.0 265, 1.0 217, 2.0 203, 3.0 241		
* EXTRAPOLATED PRESSURE		
** MIDPOINT OF CASING PERFORATIONS		

Pressure

