NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 6-20-79	
Company: NATOMAS NORTH AMERICA, INC.		Connection: TO AIR		
Pool:		Formation: ATOKA		Unit:
Completion Date: 6-11-79	Total Depth: 13,100'	Plug Back TD: 13,100'	Elevation: 3393.6 GL	Farm or Lease Name: STATE ~~COM.~~ 23 Com
Csg. Size: 5" / Wt.: 15# / d: 4.408 / Set At: 7 5/8" 11,630 13,100		Perforations: From 12,903 To 12,921		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 11,630		Perforations: From OPEN To END		Unit: — Sec.: 23 - Twp.: 23S - Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 11,630		County: LEA
Producing Thru: TBG	Reservoir Temp. °F: 196 @ 12,182	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
* 12,182	12,182	.623	.1266	.917			4	F/G

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					4997				72 HRS
1.	4 x 1.750	600	5.3	81°	4230	80°			1 HR
?	4 x 1.750	600	9.9	78°	3937	80°			1 HR
3.	4 x 1.750	600	16.0	70°	3680	80°			1 HR
4.	4 x 1.750	600	22.0	62°	3282	80°			1 HR
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	14.93	57.01	613.2	.9804	1.267	1.051	1111
2	14.93	77.91	613.2	.9831	1.267	1.052	1524
3	14.93	99.05	613.2	.9905	1.267	1.055	1958
4	14.93	116.15	613.2	.9981	1.267	1.058	2320
5							

NO.	P_t	Temp. °R	T_r	Z
1.	.91	541	1.48	.905
2.	.91	538	1.47	.903
3.	.91	530	1.45	.898
4.	.91	522	1.43	.893
5.				

Gas Liquid Hydrocarbon Ratio 48.007 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56 @ 60 Deg.
Specific Gravity Separator Gas .623 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX G MIX .684
Critical Pressure 671 P.S.I.A. 669 P.S.I.A.
Critical Temperature 365 R 385 R

P_c 5010.2 P_c^2 25,102.1

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		4254.1	18097.4	7004.7
2		3960.9	15688.7	9413.4
3		3703.9	13718.9	11383.2
4		3306.4	10932.8	14169.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.772$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.772$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4.110$

Absolute Open Flow 4.110 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.00

Remarks: * EQUIVALENT LENGTH, WELL MADE 6 BBLS OF CONDENSATE

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Orig. Signed by Jerry Sexton Dist. I, Supv.	W.S.	R.R.	J.W.W.