Initial Deliverability Test

NEW MEXICO OIL CONSERVATION COMMISSION

GAS WELL TEST DATA SHEET

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE
EXCEPT BARKER DOME STORAGE)

Pool [redacted] Formation [redacted]

Purchasing Pipeline [redacted] Date [redacted]

Operator [redacted] Lease [redacted] Well No. [redacted]

Unit [redacted] Sec. [redacted] Twp. [redacted] Rge. [redacted] Pay Zone: From [redacted] To [redacted]

Casing: OD [redacted] WT. [redacted] Set At [redacted] Tubing: OD [redacted] WT. [redacted] T. Perf. [redacted]

Produced Through: Casing [redacted] Tubing [redacted] Gas Gravity: Measured [redacted] Estimated [redacted]

Date of Flow Test: From [redacted] To [redacted] Date S.I.P. Measured [redacted]

Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____	psig + 12 = _____	psia	(a)
Flowing tubing pressure (Dwt) _____	psig + 12 = _____	psia	(b)
Flowing meter pressure (Dwt) _____	psig + 12 = _____	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:			
Normal chart reading _____	psig + 12 = _____	psia	(d)
Square root chart reading (_____)^2 x spring constant _____	= _____	psia	(d)
Meter error (c) - (d) or (d) - (c) ±	= _____	psi	(e)
Friction loss, Flowing column to meter:			
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	= _____	psi	(f)
Seven day average static meter pressure (from meter chart):			
Normal chart average reading _____	psig + 12 = _____	psia	(g)
Square root chart average reading (_____)^2 x sp. const. [redacted]	= [redacted]	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	= _____	psia	(h)
P_t = (h) + (f)	= [redacted]	psia	(i)
Wellhead casing shut-in pressure (Dwt) [redacted]	psig + 12 = [redacted]	psia	(j)
Wellhead tubing shut-in pressure (Dwt) [redacted]	psig + 12 = [redacted]	psia	(k)
P_c = (j) or (k) whichever well flowed through	= [redacted]	psia	(l)
Flowing Temp. (Meter Run) _____ °F + 460	= [redacted]	°Abs	(m)
P_d = ½ P_c = ½ (l)	= [redacted]	psia	(n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{[\text{redacted}]} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = ___ = ___ \right)^{*} = ___ \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \, [\text{redacted}] \left[\frac{P_c^2 - P_d^2 = [\text{redacted}]}{P_c^2 - P_w^2 = [\text{redacted}]} \right]^{n} [\text{redacted}] = [\text{redacted}] \text{ MCF/da.}$$

SUMMARY

P_c = [redacted]	psia	Company [redacted]	
Q = [redacted]	Mcf/day	By [redacted]	
P_w = [redacted]	psia	Title [redacted]	
P_d = [redacted]	psia	Witnessed by _____	
D = [redacted]	Mcf/day	Company _____	

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-S})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

RECEIVED
JAN 18 1957
OIL CON. COM.
DIST. 3

OK

Feet to Horizontal Distance

Form C-122-A
Revised April 20, 1955

Initial Deliverability Test

NEW MEXICO OIL CONSERVATION COMMISSION

GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool: BLANCO MESA VERDE Formation: MESA VERDE County: SAN JUAN

Purchasing Pipeline: PACIFIC NORTHWEST PIPELINE CORPORATION Date Test Filed: JAN 17 1957

Operator: Pacific Northwest Pipeline Lease: San Juan Unit 32-7 Well No.: 9-22

Unit: G Sec.: 22 Twp.: 32 Rge.: 7 Pay Zone: From: 5550 To: 5975

Casing: OD 5 1/2 WT. 15.5 Set At 5814 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 5798

Produced Through: Casing ___ Tubing X Gas Gravity: Measured ___ Estimated .650

Date of Flow Test: From 12-9-56 To 12-17-56 Date S.I.P. Measured 8-17-55

Meter Run Size ___ Orifice Size ___ Type Chart ___ Type Taps ___

OBSERVED DATA

Flowing casing pressure (Dwt)	psig + 12 =		psia	(a)
Flowing tubing pressure (Dwt)	psig + 12 =		psia	(b)
Flowing meter pressure (Dwt)	psig + 12 =		psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:				
Normal chart reading	psig + 12 =		psia	(d)
Square root chart reading (___)^2 x spring constant	=		psia	(d)
Meter error (c) - (d) or (d) - (c) ±	=		psi	(e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=		psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	psig + 12 =		psia	(g)
Square root chart average reading (___)^2 x sp. const. 797	=	809	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=		psia	(h)
P_t = (h) + (f)	=	809	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1218	psig + 12 =	1230	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1218	psig + 12 =	1230	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1230	psia	(l)
Flowing Temp. (Meter Run) 49 °F + 460	=	509	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	615	psia	(n)

FLOW RATE CALCULATION

$$Q = 929 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = ___ = ___ \right)^{*} = ___ \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\ 929 \left[\frac{P_c^2 - P_d^2 = 1134675}{P_c^2 - P_w^2 = 840811} \right]^n \frac{(1.3506)^{.75}}{1.2528} = 1164 \text{ MCF/da.}$$

SUMMARY

P_c =	1230	psia
Q =	929	Mcf/day
P_w =	820	psia
P_d =	615	psia
D =	1164	Mcf/day

Company: Pacific Northwest Pipeline Corp.
By: Donald E. Adams
Title: Well Test Engineer
Witnessed by ___
Company ___

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-S})}{R^2}$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
3769	.240	76283	18,308	654481	672789	820

3-NMOCD-Aztec
1-L.G. Trudy
2-Wayne Smith(Phillips)
1-File

RECEIVED
JAN 18 1957
OIL CON. COM.
DIST. 3

OK