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)

7290901

Pool Basin Formation Dakota County San Juan

Purchasing Pipeline El Paso Natural Gas Date Test Filed

Operator El Paso Natural Gas Co. Lease Mudge Well No. 19

Unit A Sec. 17 Twp. 31 Rge. 11 Pay Zone: From 7044 To 7184

Casing: OD 5-1/2 WT. 17.00&20.00 Set At 7653 Tubing: OD 2-3/8 WT. 4.70 T. Perf. 7118

Produced Through: Casing ^ Tubing X Gas Gravity: Measured .672 Estimated

Date of Flow Test: From 6/6/61 To 6/14/61 * Date S.I.P. Measured 9/22/60

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.	= 497	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	= 497	psia	(h)
P_t = (h) + (f)	= 497	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1945	psig + 12 = 1957	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1935	psig + 12 = 1947	psia	(k)
P_c = (j) or (k) whichever well flowed through	= 1947	psia	(l)
Flowing Temp. (Meter Run) °F + 460	=	°Abs	(m)
P_d = ½ P_c = ½ (l)	= 974	psia	(n)

FLOW RATE CALCULATION

Q = 470 (integrated) $\times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \quad \right)^* =$ 470 MCF/da

DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{2142133}{2138059} \right]^n \frac{.8033}{.8488} =$ 399 MCF/da.

SUMMARY

P_c = 1947 psia

Q = 470 Mcf/day

P_w = 503 psia

P_d = 974 psia

D = 399 Mcf/day

Company El Paso Natural Gas Co.

By Original signed by

Title H. L. Kendrick

Witnessed by

Company

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$\frac{(FcQ)^2 \quad (1-e^{-s})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
4783	.294	19.528	5.741	247009	252750	503

D at 500 = 468

RECEIVED

JUL 11 1961

OIL CON.

Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Santa Fe

SERIAL NUMBER

LEASE OR PERMIT TO PROSPECT SF - 078096

RECEIVED
OCT 10 1960
OIL CON. COM.
DIST. 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Delhi-Taylor Oil Corporation Address Drawer 1198, Farmington, N. M.

Lessor or Tract Delhi-Madge Field Undes. Dakota State New Mexico

Well No. 4 Sec. 17 T. 31N R. 11W Meridian NMPM County San Juan

Location 990 ft. {N/S} of N Line and 1090 ft. {E/W} of E Line of Sec. 17 Elevation 6033
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed J. E. Howell

Date October 6, 1960 Title District Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling 8/7/60, 19.... Finished drilling 8/24/60, 19....

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 7044' to 7294' G No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

IMPORTANT WATER SANDS

No. 1, from ..... to ..... No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
10-3/4	32.75	8RT	[illegible]	210'	[illegible]	[illegible]			[illegible]
7-5/8	24	8RT	[illegible]	2696'	[illegible]	[illegible]			Intermediate
5-1/2	17	8RT	[illegible]	7653'	[illegible]	[illegible]			Production
5-1/2	20	8RT	"	1010					"
2-3/8	4.70	8RT	"	7153					Tubing

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4	210	200	Halliburton		
7-5/8	2696	200	"		
5-1/2	7653	150	"		
2-3/8	7148	——	"		

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
Frac		36,000 gals water, 18,000# sand				
		40,200 gals water, 30,000# sand				
		70,800 gals water, 62,000# sand				
		39,500 gals water, 30,000# sand				

TOOLS USED

Rotary tools were used from 0 w/mud feet to 2710 feet, and from 2710 w/gas feet to 7663 feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

....., 19.... Put to producing ....., 19....

The production for the first 24 hours was ..... barrels of fluid of which .....% was oil; .....% emulsion; .....% water; and .....% sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

C. C. Smith, Driller B. C. Harbor, Driller

L. Waymire, Driller F. Mathews, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2633	2633	Sand & shale (coal)
2633	2692	59	Pictured Cliffs ss
2692	4096	1404	Lewis shale
4096	4224	128	Mesaverde Transition zone (silty-sd)
4224	4373	149	Cliffhouse ss
4373	4869	496	Menefee sh & coal
4869	5002	133	Point Lookout ss
5002	6265	1263	Mancos shale
6265	6587	322	Gallup ss & sh
6587	6936	349	Lower Mancos shale
6936	6987	51	Greenhorn silty-lm.
6987	7043	56	Graneros shale
7043	7121	78	Graneros ss
7121	7339	218	Dakota ss & sh
7339	7663	324	Morrison sh & ss

[OVER]

FORMATION RECORD—Continued

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY