

OIL CONSERVATION DIVISION

P.O. BOX 2085

SARASOTA, NEW MEXICO 87501

DEC 8 1981

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GASO. C. D.
ARTESIA, OFFICE

OPERATOR	
LAND OFFICE	
TRANSPORTER	
OPERATION	
PRODUCTION OFFICE	
Operator	

Yates Petroleum Corporation ✓

Address

207 South 4th St., Artesia, NM 88210

Reason(s) for filing (Check proper box)

New Well	☒	Change in Transporter of:	
Recompletion	☐	Oil	☐
Change in Ownership	☐	Casinghead Gas	☐
		Dry Gas	☐
		Condensate	☐

Other (Please explain)

If change of ownership give name
and address of previous owner

1. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	For Lease, Including Formation	Kind of Lease	Fee			
Gardill RZ	1	Reco Slope Abo	State, Federal or Fee	Fee			
Location							
Unit Letter	D	660 Feet From The	North Line and	660 Feet From The West			
Line of Section	8	Township	6S	Range	26E	NMPM	Chaves

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒	Address (Give address to which approved copy of this form is to be sent)					
Navajo Crude Oil Purchasing Co.	Box 159, Artesia, NM 88210					
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒	Address (Give address to which approved copy of this form is to be sent)					
Transwestern Pipeline Co.	Box 2521, Houston, TX 77001					
If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Range	Is gas actually connected?	When
	D	8	6S	26E	Yes	Approx 5-6 wks 2-74-82

If this production is commingled with that from any other lease or pool, give commingling order number:

COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Dis.
		X	X					
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
10-27-81	12-4-81	4400'	4398'					
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
3706.6' GR	Abo	3754'	4030'					
Perforations			Depth Casing Shoe					
3754-4040'			4400'					

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
24"	10"	40'	3 yds Ready Mix
14-3/4"	10-3/4"	928'	700
7-7/8"	4-1/2"	4400'	550
	2-3/8"	4030'	

TEST DATA AND REQUEST FOR ALLOWABLE
OIL WELL(Test must be after recovery of total volume of load oil and must be equal to or exceed
able for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
202	1-1/2 hrs	-	-
Testing Method (pitot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size
Back Pressure	210	-	3/4"

CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation
Division have been complied with and that the information given
above is true and complete to the best of my knowledge and belief.

(Signature)

Engineering Secretary

(Title)

12-7-81

(Date)

OIL CONSERVATION DIVISION

APPROVED **MAR 4 1982**
BY *W.A. Gussert*
TITLE **SUPERVISOR, DISTRICT II**

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deep
well, this form must be accompanied by a tabulation of the gas
tests taken on the well in accordance with RULE 111.All sections of this form must be filled out completely for all
wells on new and recompleted wells.Fill out only Sections I, II, III, and VI for changes of
well name or number, or transporter, or other such change of data.Separate Forms C-104 must be filed for each pool in and
completed wells.

RECEIVED

MAR - 3 1982

NEW MEXICO OIL CONSERVATION DIVISION

P. O. DRAWER "DD"

ARTESIA, NEW MEXICO 88210

O.C.D.
ARTESIA OFFICE

NOTICE OF GAS CONNECTION

DATE March 1, 1982

This is to notify the Oil Conservation Division that connection for the
purchase of gas from the Yates Petroleum Corp. ✓
Operator

Caudill "RZ"

Lease

Well #1 - Unit Letter "D"

Well Unit

8-6S-26E, Chaves County

S.T.R.

Pecos Slope
Used
~~Wildcat~~ (Abo)

Pool

Transwestern

Name of purchaser

was made on February 24, 1982

Transwestern Pipeline Company
Company

H. N. Aicklen

H. N. Aicklen

Representative

Supervisor Gas Purchase Contract Administration
Title

cc: Operator
Oil Conservation Division - Santa Fe

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

Form C-122
Revised 9-1-65

RECEIVED

C/SF
2-122

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-14-82		APR 26 1982	
Company Yates Petroleum Corporation /				Connection Transwestern Pipeline Co.			
Pool Pecos Slope Abo				Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 12-4-81		Total Length 4400'		Plug Back To 4398'		Elevation 3706.6' GL	
Csg. Size 4-1/2"		Wt. 9.5#		Set At 4408'		Perforations: From 3754 To 4040	
Tq. Size 2-3/8"		Wt. 4.7#		Set At 4030'		Perforations: From To	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single				Packer Set At none		Well No. 1	
Producing Thru tubing		Reservoir Temp. °F 106° @ 3898		Mean Annual Temp. °F 62°		Baro. Press. - P _a 13.2	
L 4030		H 4030		G _g .706		% CO ₂ 7.65	
				% N ₂ 6.37		% H ₂ S 0	
				Prover -		Meter Run 2"	
						Flanged	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line 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
51							988				days
1.	2.067 x 1.250			370	8.1	72	912	61			24 hrs
2.	2.067 x 1.250			370	17.9	71	856	61			24 hrs
3.	2.067 x 1.250			350	37.9	72	798	61			24 hrs
4.	2.067 x 1.250			340	70.0	72	710	61			24 hrs
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w F_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcf/d
1	8.120	55.8	383.2	.9887	1.190	1.032	550
2	8.120	82.9	383.2	.9896	1.190	1.032	818
3	8.120	117.3	363.2	.9887	1.190	1.030	1154
4	8.120	157.2	353.2	.9887	1.190	1.029	1546
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons _____ Dry _____ Deg.	Specific Gravity Separator Gas _____ .706 _____	Specific Gravity Flowing Fluid _____ X X X X X	Critical Pressure _____ 690 _____ P.S.I.A.	Critical Temperature _____ 362 _____ R
1	.56	532	1.47	.939						
2	.56	531	1.47	.939						
3	.53	532	1.47	.942						
4	.51	532	1.47	.944						
5.										

NO.	P _t ²	P _w ²	P _w ²	P _t ² - P _w ²
1	856.0		860.5	141.9
2	755.5		765.6	236.8
3	658.0		678.2	324.2
4	523.0		559.7	442.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.2643$

AOFP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.445$ mcf/d

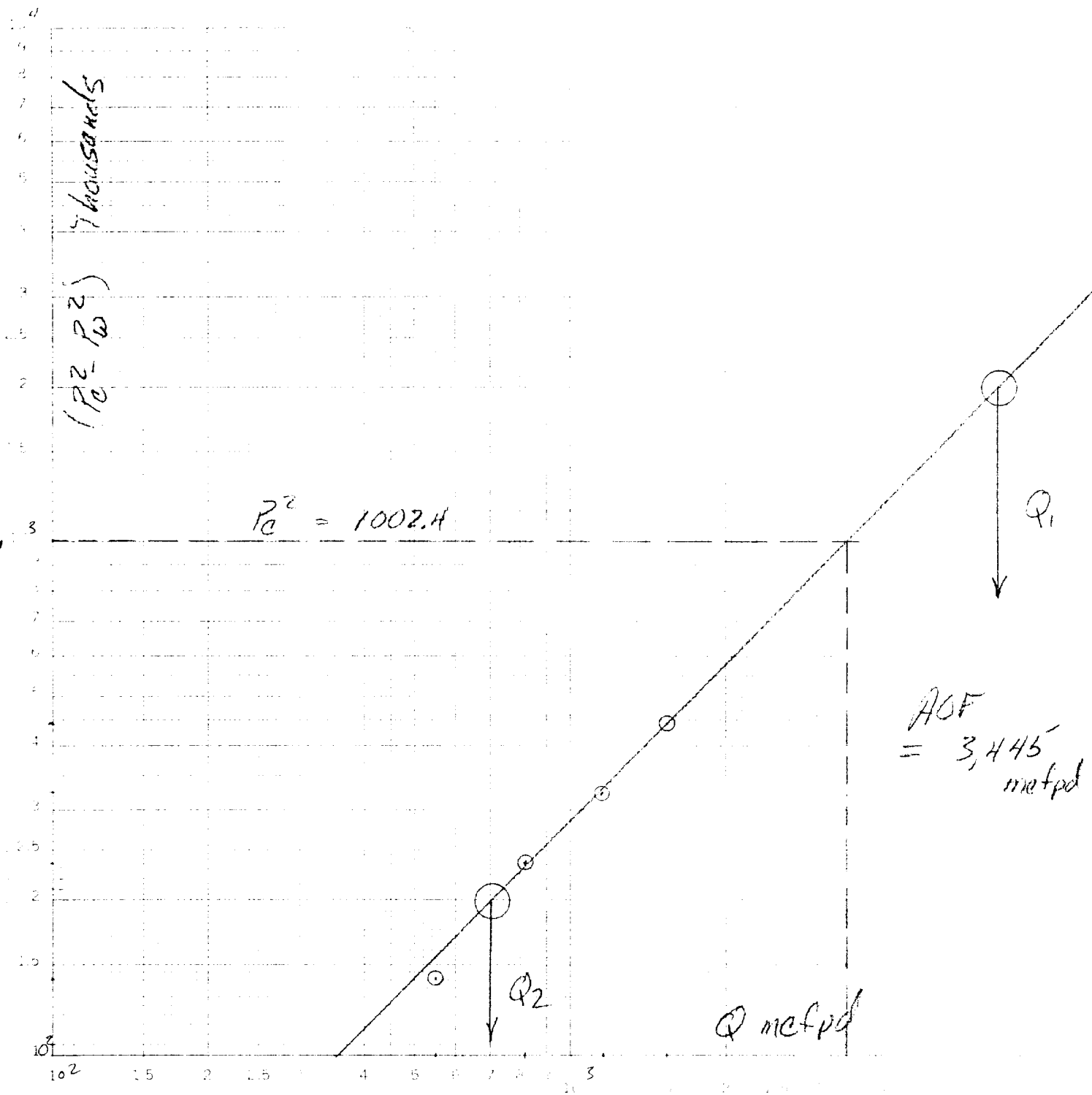
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.2283$

Absolute Open Flow _____ 3,445 _____ Mcf @ 15.025	Angle of Slope _____	Slope, n _____ .980
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Remarks: _____

Approved By Commission: _____	Conducted By: David Weaver	Calculated By: Al Springer	Checked By: _____
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1915
 Court 11 RE #1
 D) 2008-65-255
 Chaves NM



AOF
 = 3,445
 mcfpd

$$(P_c^2 - P_w^2)_1 = 2,000$$

$$(P_c^2 - P_w^2)_2 = 200$$

$$Q_1 = 6,710$$

$$Q_2 = 702$$

$$\log Q_1 = 3.82672$$

$$\log Q_2 = 2.8463$$

$$n = .98039 = .980$$

COMPANY Yates 1st, 2nd, 3rd LEASE 2011 WELL NO. #1 DATE 7/2/2012

LOCATION: Unit 2 Section 8 Township 6 S Range 26 E

11030	H 4130	LA 1.000	G 706	% CO ₂ 1.20	% N ₂ 2.71	% H ₂ S 6
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d 1.996 F₁ 01823 GH 2545
P_{CT} 640 T_{CT} 302
TABLE IX A
TABLE IX B

LINE	15^+ m/c	20^+ m/c	25^+ m/c	30^+ m/c	35^+ m/c
1 Q_m	550	812	1151	1546	1941
2 T_m (W.H. 3B)	551	813	1152	1547	1942
3 T_s (B.H. 3B)	166	236	366	566	891
4 $T = (2W_m^2 + 1/s)$	550	812	1151	1546	1941
5 Z (Eau)	866	1293	1979	2966	4591
6 T_c	490.69	494.48	499.14	504.22	509.30
7 $Q_H \cdot T_c$	6.046	5.996	5.955	5.914	5.873
8 e^s (Table XIV)	1.201	1.252	1.303	1.354	1.405
9 $1 - e^s$ (Table XIV)	1.203	1.201	1.202	1.200	1.199
10 P_t	925.2	969.2	1013.2	1057.2	1101.2
11 $P_t^2/100$	856.0	938.5	1026.5	1114.5	1202.5
12 P_t (Table XV)	1.422	1.483	1.544	1.605	1.666
13 $P_c = F_t T_c$	8.583	8.650	8.709	8.768	8.826
14 $F_c Q_m$	4.919	7.045	10.050	13.055	16.060
15 $L/H (F_c Q_m)^2$	22.441	50.062	101.009	151.056	201.103
16 $F_w = L/H (F_c Q_m)^2 (1 - e^s)$	41.371	10.042	20.202	30.302	40.402
17 $P_w^2 = P_t^2 + F_w$	860.5	765.6	670.7	575.8	480.9
18 $P_s^2 = e^s P_w^2$	1049.1	959.5	869.9	779.3	689.7
19 P_s	1038.8	979.0	920.6	861.2	801.8
20 $P = (P_t + P_s)/2$	982.0	924.1	866.0	807.2	749.5
21 $P_t = (P/P_c)$	1.42	1.24	1.26	1.13	1.05
22 $T_c = (T/T_c)$	1.50	1.50	1.50	1.50	1.50
23 Z (Table XI)	1.266	1.893	2.519	3.146	3.773