

3 - OCC
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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Lumont Formation Penrose Queen County Lea
Initial _____ Annual _____ Special X Date of Test 3-25/3-29-63
Company Tidewater Oil Company Lease Marshall Queen Well No. 1
Unit G Sec. 13 Twp. 21 Rge. 36 Purchaser El Paso Nat. Gas Co.
Casing 5-1/2 Wt. 17 I.D. _____ Set at 3691 Perf. _____ To _____
Tubing 2 Wt. 4.7 I.D. _____ Set at 3521 Perf. _____ To _____
Gas Pay: From 3568 To 3644 L 3521 xG .689 -GL 2426 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well _____
Date of Completion: Nov. 9, 1962 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) _____ Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4"	1.000	136	1.00	69	516	Bad Valve	72
2.	4"	1.000	233	7.84	70	513		24
3.	4"	1.000	228	23.04	68	458		24
4.	4"	1.000	223	34.81	70	382		24
5.						313		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.135	12.22		.9915	.9332	1.013	70.40
2.	6.135	44.11		.9963	.9332	1.024	256.1
3.	6.135	74.54		.9924	.9332	1.024	433.7
4.	6.135	90.58		.9903	.9332	1.023	524.9
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) 0.154
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 529.2 P_c 280.0

No.	P _w P _t (psia)	P _c ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	336.2	276.9		Negligible		276.9	3.1		994/3
2.	471.2	223.0	2.545	6.477	.9974	223.0	57.0	473.2	562.3
3.	395.2	156.2	4.309	18.57	2.860	159.1	120.9	399.9	735.8
4.	328.2	107.7	5.215	27.20	4.189	111.9	188.1	329.5	602.7
5.									

Absolute Potential: 750 MCFPD; n .677

COMPANY Tidewater Oil Company
ADDRESS Box 547, Hobbs, New Mexico
AGENT and TITLE C. L. Wade, Area Supt. C. L. Wade
WITNESSED R. A. Mikel
COMPANY El Paso Nat. Gas Co.

REMARKS

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

TIDEWATER OIL CO.
MARSHALL ROSEN #1
6-15-21-36
LEA COUNTY, N.M.

$Q_2 = 200, \log 2.301030$
 $Q_1 = 42, \log 1.623249$
slope $n = .677781$

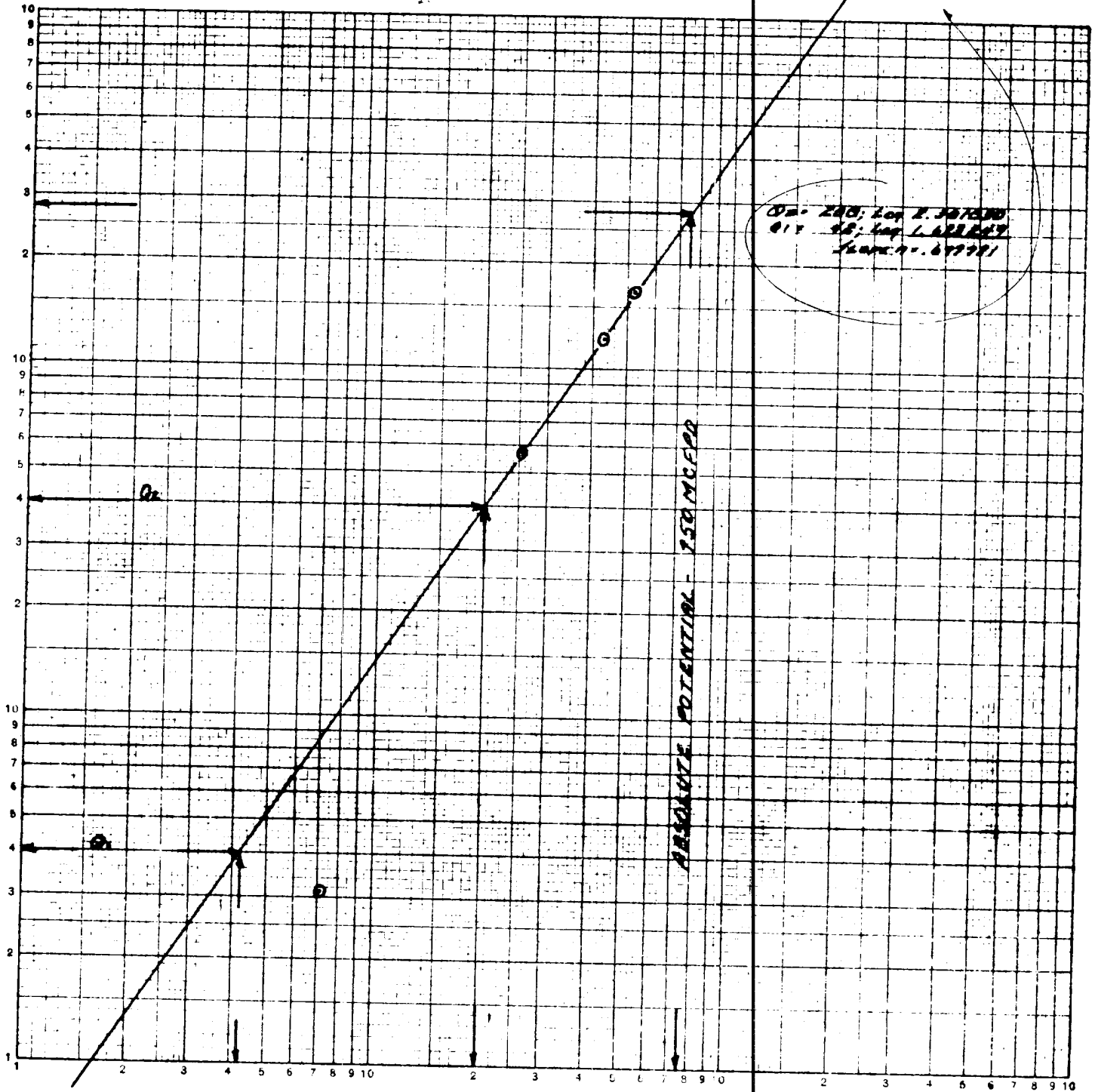
$Q_2 = 240; \log 2.380211$
 $Q_1 = 48; \log 1.681213$
slope $n = .677781$

$R^2 R^2 (\text{thousands})$

K&E LOGARITHMIC 359-120
KEUPFER & LEISER CO. MADE IN U.S.A.
3 X 3 CYCLES

ABSOLUTE POTENTIAL - 250 MC.FPD

Q-MC.FPD



3 - OCC
1 - File

(Form C-168)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in TRIPLICATE to the District Office, Oil Conservation Commission, before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate Nature of Notice by Checking Below

NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO TEMPORARILY ABANDON WELL		NOTICE OF INTENTION TO DRILL DEEPER	
NOTICE OF INTENTION TO PLUG WELL		NOTICE OF INTENTION TO PLUG BACK	X	NOTICE OF INTENTION TO SET LINER	
NOTICE OF INTENTION TO SQUEEZE		NOTICE OF INTENTION TO ACIDIZE		NOTICE OF INTENTION TO SHOOT (Nitro)	
NOTICE OF INTENTION TO GUN PERFORATE		NOTICE OF INTENTION (OTHER)		NOTICE OF INTENTION (OTHER)	

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Hobbs, New Mexico
(Place)

November 5, 1962
(Date)

Gentlemen:

Following is a Notice of Intention to do certain work as described below at the.....

Tidewater Oil Company R. M. Marshall Well No. 1 in G
(Company or Operator) (Lease) (Unit)
SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Sec. 13, T. 21, R. 36, NMPM, Benrose Skelly Pool
(40-acre Subdivision)
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK
(FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS)

We propose to pull tubing, set bridge at approximately 3660'
in 5-1/2" casing. Run log & perforate Humont gas pay
3560-3630 (estimated) and sandfrac.

Approved....., 19.....
Except as follows:

Approved
OIL CONSERVATION COMMISSION

By.....

Title.....

Tidewater Oil Company

Original Signed By

By..... C. L. WADE

Position..... Area Supt.

Send Communications regarding well to:

Name..... C. L. Wade

Address..... Box 547, Hobbs, N. Mex.