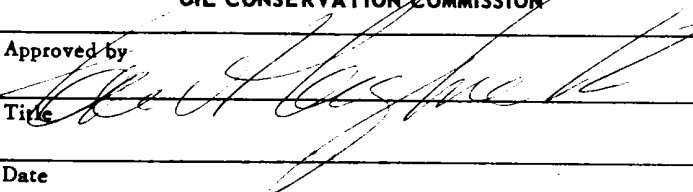


## MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company <b>Jal Oil Company, Inc.</b>				Address <b>Drawer Z, Jal, New Mexico</b>			
Lease <b>Harner</b>		Well No. <b>#2</b>	Unit Letter <b>J</b>	Section <b>20</b>	Township <b>25S</b>	Range <b>37E</b>	
Date Work Performed <b>May 29, 1959</b>		Lanlgie-Mattix			County <b>Lea</b>		
THIS IS A REPORT OF: (Check appropriate block)							
<input type="checkbox"/> Beginning Drilling Operations		<input checked="" type="checkbox"/> Casing Test and Cement Job		<input type="checkbox"/> Other (Explain):			
<input type="checkbox"/> Plugging		<input type="checkbox"/> Remedial Work		<b>Perforation</b>			
Detailed account of work done, nature and quantity of materials used, and results obtained.							
<p><b>6-29-59</b> Drilled 8 3/4" hole to 3444 ft. - T.D. Ran 3434' - 103 joints and landing joint of 7" 23# N-80 casing set @ 3444 ft. Cemented with 300 sax - 2 stage - 200 sax @ shoe and 100 sax @ D.V. Tool set @ 1150 ft. Plugged down, W. O. C. 48 hours - pressured up @ 1000#, wait 30 minutes, no drop in pressure. Drill D. V. Tool.</p> <p><b>6-1-59</b> Logg well.</p> <p><b>6-4-59</b> Perforated casing from 3170' to 3180' - 3260' to 3274' - total perforation - 24 feet. 4 shot per foot.</p> <p>Sand-frac - using 21,000 gals frac oil, 49,000# sand and 78 rubber covered nylon balls.</p> <p>Recovering load oil</p>							
Witnessed by		Position		Company			
FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY							
ORIGINAL WELL DATA							
D F Elev.		T D		PBTD		Producing Interval	
						Completion Date	
Tubing Diameter		Tubing Depth		Oil String Diameter		Oil String Depth	
Perforated Interval(s)							
Open Hole Interval				Producing Formation(s)			
RESULTS OF WORKOVER							
Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD	
Before Workover							
After Workover							
OIL CONSERVATION COMMISSION				I hereby certify that the information given above is true and complete to the best of my knowledge.			
Approved by 				Name <b>J. E. Ewing</b>			
Title <b>Production Superintendent</b>				Position			
Date				Company <b>Jal Oil Co., Inc., Drawer Z, Jal</b>			

CORRECTED COPY

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates County Lea  
Initial X Annual      Special X Date of Test 11-9-59  
Company Jal Oil Company, Inc. Lease Harner Well No. 2  
Unit J Sec. 20 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.  
Casing 7 Wt. 23.0 I.D.      Set at 3444 Perf. 2670 To 3170  
Tubing 2 1/2 Wt. 6.5 I.D.      Set at 3300 Perf. 3298 To       
Gas Pay: From 2670 To 3274 L 2670 xG .684 -GL 1826 Bar.Press. 13.2  
Producing Thru: Casing X Tubing      Type Well single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 10-21-59 Packer none Reservoir Temp.     

## OBSERVED DATA

Tested Through (Prover) (Orifice) (Jensen)Type Taps     

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Jensen) Size	(Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								382		72
1.	2	.1875	364		75			364		3
2.	2	.218	356		68			356		3
3.	2	.3125	319		64			319		3
4.	2	.500	202		64			202		3
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	.7851		377.2	.9859	.9366	1.038	284
2.	1.0834		369.2	.9924	.9366	1.040	387
3.	2.1577		332.2	.9962	.9366	1.036	693
4.	5.5233		215.2	.9962	.9366	1.023	1,134
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio dry cf/bbl.  
Gravity of Liquid Hydrocarbons      deg.  
F<sub>c</sub> .865 (1-e<sup>-s</sup>) .118

Specific Gravity Separator Gas .684  
Specific Gravity Flowing Fluid       
P<sub>c</sub> 395.2 P<sub>c</sub> 156.2

No.	P <sub>w</sub> psia	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.	377.2	142.3	.25	.06	.007	142.3	13.9	377.2	.98
2.	369.2	136.2	.33	.11	.013	136.3	19.9	369.2	.93
3.	332.2	110.4	.60	.36	.042	110.4	45.8	332.2	.84
4.	215.2	46.3	.98	.96	.113	46.3	109.9	215.3	.54
5.									

Absolute Potential: 1,750 MCFPD; n .756COMPANY Jal Oil Company, Inc.ADDRESS Drawer 2, Jal, New MexicoAGENT and TITLE Production SuperintendentWITNESSED L.D. SouthernCOMPANY El Paso Natural Gas Co.

REMARKS

5/16/59 to 11/21/59  
Packer back thru well to 14.00

L. D. Southern

## 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.

$F_{pv}$  = Supercompressability 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  $P_t$ .

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