

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County SAN JUAN

Initial  Annual  Special  Date of Test 9/15/61

Company Astec Oil & Gas Co Lease Hanka Well No. 15-D

Unit A Sec. 6 Twp. 27N Rge. 9W Purchaser Southern Union Gas

Casing 4.5 Wt. 11.6 I.D. 4.990 Set at 6755 Perf. 6546 To 6688

Tubing 2.75 Wt. 4.7 I.D. 1.995 Set at 6517 Perf. OPENED To         

Gas Pay: From 6546 To 6688 L 6517 xG .700(E) GL 4562 Bar. Press.         

Producing Thru: Casing  Tubing  Type Well SINGLE GAS  
Single-Bradenhead-G. G. or G.O.  Dual

Date of Completion: 9/8/61 Packer None Reservoir Temp.         

OBSERVED DATA

Tested Through (Pump) (Choke) (Meter) Type Taps         

No.	Flow Data					Tubing Data		Casing Data		Durat. of Fl. Hr.
	(Packer) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. $\Delta p$	Temp. $^{\circ}F$	Press. psig	Temp. $^{\circ}F$	Press. psig	Temp. $^{\circ}F$	
SI	<u>7 days</u>					<u>1940</u>		<u>1940</u>		
1.						<u>299</u>	<u>80(E)</u>	<u>739</u>	<u>80(E)</u>	<u>3</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp}}$	Pressure psia	Flow Temp. Factor $F_t$	Gravity Factor $F_g$	Compress. Factor $F_{pv}$	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.365</u>		<u>311</u>	<u>.9813</u>	<u>.9258</u>	<u>1.033</u>	<u>36.09</u>
2.							
3.							
4.							
5.							

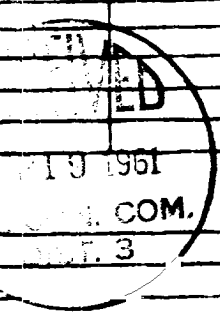
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio          cf/bbl.  
Gravity of Liquid Hydrocarbons          deg.  
 $F_c = \frac{1}{1 - e^{-.0001 \text{ Ratio}}}$

Specific Gravity Separator Gas           
Specific Gravity Flowing Fluid           
 $P_c = \frac{1952}{3.810 \cdot 304}$

No.	$P_w$ $P_t$ (psia)	$F_t^2$	$F_c Q$	$(F_c Q)^2$	$\frac{(F_c Q)^2}{(1 - e^{-.0001 \text{ Ratio}})}$	$P_w^2$	$P_c^2 - P_w^2$	Cal. $P_w$	$\frac{P_w}{P_c}$
1.									
2.									
3.									
4.									
5.									

Absolute Potential: 4070 MCFPD; n .75  
COMPANY Astec Oil & Gas Company  
ADDRESS B.H. Means  
AGENT and TITLE B.H. MEANS, DIST. ENGR.  
WITNESSED           
COMPANY         



REMARKS