

**STATE OF KANSAS - CORPORATION COMMISSION**  
**ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2  
8-7-58 3-2059

15-005-20064-0950

TYPE TEST:  Deliverability  Open Flow TEST DATE: 12/30/88

COMPANY: Theodore I. Leben & Associates LEASE: Sheeley WELL NO.: 1

COUNTY: Atchison LOCATION: N/2 NE/4 SECTION: 2 TWP: 7S RNO: 18E ACRES:

FIELD: Wildcat RESERVOIR: U. McLouth PIPELINE CONNECTION: Atchison Pipeline Co.

COMPLETION DATE: 10/11/88 PLUG BACK TOTAL DEPTH: 1807' PACKER SET AT: None

CASING SIZE: 4.5 WT.: 10.5 lb. I.D.: SET AT: 1810' PERF.: 1696' TO: 1704'

TUBING SIZE: 2.375 WT.: 4.7 lb. I.D.: SET AT: 1762' PERF.: 1715' TO: 1716'

TYPE COMPLETION (Describe): Single TYPE FLUID PRODUCTION: Gas

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 97°F BAR. PRESS - P<sub>a</sub>: 14.4 Psia

GAS GRAVITY - G<sub>g</sub>: 0.577 % CARBON DIOXIDE: 0.81 % NITROGEN: 3.41 API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: Flange (METER RUN)(PROVER) SIZE: 2.067"

SHUT-IN PRESSURE: SHUT IN 12/24 1988 AT 9:00 (AM)(PM) TAKEN 12/30 1988 AT 9 (AM)(PM)  
 FLOW TEST: STARTED 12/30 1988 AT 9:00 (AM)(PM) TAKEN 12/31 1988 AT 9 (AM)(PM)

**OBSERVED DATA**

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h <sub>w</sub> )(h <sub>d</sub> )	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia	psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia		
SHUT-IN						574	588.4	566	580.4	144	
FLOW	1.00	246	30"	75°		483	497.4	452	466.4	24	None

**RATE OF FLOW CALCULATIONS**

COEFFICIENT (P <sub>p</sub> )(P <sub>d</sub> ) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P <sub>m</sub> h <sub>w</sub>	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP. FACTOR F <sub>L</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd	GOR
3.611	260	88.3176	1.3165	0.9859	0.9998	414	

STATE CORPORATION COMMISSION  
 RECEIVED  
 MAR 17 1989  
 CONSERVATION DIVISION  
 Wichita, Kansas

**(OPEN FLOW) (DELIVERABILITY) CALCULATIONS**

(P<sub>c</sub>)<sup>2</sup> = 346 214, (P<sub>w</sub>)<sup>2</sup> = 247.406; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ (P<sub>d</sub>)<sup>2</sup> = 0.207 (P<sub>d</sub>)<sup>2</sup> = 0.207

(P <sub>d</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
346.007	98.808	3.502	0.544	0.937	0.510	3.236	1340

OPEN FLOW 1340 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 16 day of March, 1989.

*[Signature]*  
 For Company  
 For Theodore I. Leben & Associates

Witness (if any)  
 For Commission

Checked by