

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

FORM G-2  
(Rev.8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 2-18-00 API No.

Company Western Operating		Lease Siverson			Well Number 1-23	
County Greeley	Location 490' FNL 540' F	Section 23-20S-42W	TWP	RNG(E/W)	Acres Attributed 320	
Field No Man's	Reservoir Morrow V-7		Gas Gathering Connection KN			
Completion Date 7-7-98	Plug Back Total Depth		Packer Set at			
Casing Size 4.500	Weight 11.600	Internal Diameter 4.000	Set at 5297	Perforations 5124	To 5134	
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 5135	Perforations 5124	To 5134	
Type Completion (Describe) Single	Type Fluid Production Dry Gas		Pump Unit or Traveling Plunger?			
Producing Thru (Annulus/Tubing) tubing	% Carbon Dioxide .514		% Nitrogen 45.373		Gas Gravity- Gg .844	
Vertical Depth (H) 5124	Pressure Taps Flange		Meter Run Size 4"			
Pressure Buildup: Shut in	2-15-00 @ 3:00pm		TAKEN	2-18-00 @ 3:45pm		
Well on Line: Started	2-18-00 @ 3:45pm		TAKEN	2-19-00 @ 3:00pm		

**OBSERVED SURFACE DATA**

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H <sub>2</sub> O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Tubing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						415	429	270	284	72.8	
Flow	2.625	90.5	25.60	77		403	417	177	191	23.3	

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>b</sub> ) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcf/d	GOR	G <sub>m</sub>
37.600	104.9	51.82	1.0885	.9840	1.0068	2101		.844

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

(P<sub>c</sub>)<sup>2</sup> = 184.4      (P<sub>w</sub>)<sup>2</sup> = 174.2      21.1      %      (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = 8.19

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	LOG	Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
184.18	10.16	18.125	1.2583	.712	.8959	7.868
176.20	10.16	17.339	1.2390	.712	.8822	7.624

OPEN FLOW 16533 Mcfd @ 14.65 psia      DELIVERABILITY 16020 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 herein and that said report is true and correct. Executed this the \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_

Witness (if any)

For Commission

*Lina Simpson*  
For Company

Checked by

# Trilobite Testing L.L.C.

Bottom hole pressure build-up test / Multi-point back pressure test

Company Western Operating Date 2-15-00

Address \_\_\_\_\_

Well Name & No. Suerson 1 X

Legal Description Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ Co. Greeley State. KS

Field/pool \_\_\_\_\_ Elev. \_\_\_\_\_ Recorder # 2341

Tubing 2 7/8 in. @ 5134.75 ft

Test type 72 hr Pressure Build Up Test Interval 5125 Status \_\_\_\_\_

Date & Time Started 2-15-00 1435 Date & Time Ended 2-19-00 1500

- Duration: 1 min Sample Rate: 2 sec.
- Duration: 4 hr Sample Rate: 15 sec
- Duration: 20 hr Sample Rate: 30 sec.
- Duration: 134 hr Sample Rate: 5 min
- Duration: \_\_\_\_\_ Sample Rate: \_\_\_\_\_
- Duration: \_\_\_\_\_ Sample Rate: \_\_\_\_\_
- Duration: \_\_\_\_\_ Sample Rate: \_\_\_\_\_

*2 trips  
 3 Sample collection @ 250.00  
 1 pt @ 190.00*

	BHP	750.00
Res 2 1/2	mileage	115.60
2 1/8	mileage	115.60
2 1/4	mileage	85.00
	1 pt	190.00

Mileage 68 one way *136 x 2*





**TRILOBITE  
TESTING L.L.C.**

24 Hour # 800-728-5369  
Hays, FAX # 785-625-5820

Hays, KS 67601  
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Pratt, KS 67124  
Ph: (316) 672-6679  
Gary Pevoteaux  
Darren Amerine

2-15-00

1430

Syerson IX

Digital Temp 79°  
 Diff. 26.635  
 Idle 14.8 V  
 15.3 B  
 Flow Y 2104  
 Line 86.04  
 Flow PV 63905.82



# TRILOBITE TESTING L.L.C.

*Remark = Larry's  
handlings & date*

*to the right of page*  
24 Hour # 800-728-5369  
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Scott Bugbee

Pratt, KS 67124  
Ph: (316) 672-6679  
Gary Pevoteaux  
Darren Amerine

2-18-00

Selling Gas @ 1545

Csg Press 415      85% = 352

2-19-00

Opened to 3/4" Choke      400\* Csg      403\*

260\* Tub      177\*

Real

2-19 15:00

Diff. 28.86

25.65

Line 81.83

90.49

Temp 61.75

77.49

Flow Y Date .0089

1506.182

Accum Vol. 30265.47

32294.31

Flow PV 63905.82

63905.82

*110 miles away  
from Hugoton*

220  
H