

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev.8/98)

TYPE TEST:

- ☒ Open Flow
☒ Deliverability

TEST DATE: 8-24-1999

API No. 185-23084

Company Castelli Exploration		Lease Seibert (miss)		Well Number 2-31	
County Stafford	Location S/2 SW SW	Section 31	TWP 24s	RNG (E/W) 15	Acres Attributed 80
Field Farmington	Reservoir Mississippian	Gas Gathering Connection Lumen			
Completion Date 9-16-98	Plug Back Total Depth 4230	Packer Set at 4129			
Casing Size 5.500	Weight 14.000	Internal Diameter 5.012	Set at 4288	Perforations 4178	To 4218
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 4129	Perforations	To
Type Completion (Describe) Perf-acid-frac	Type Fluid Production	Pump Unit or Traveling Plunger? no			
Producing Thru (Annulus/Tubing) tubing	% Carbon Dioxide .122	% Nitrogen 3.217	Gas Gravity- Gg .618		
Vertical Depth (H) 4198	Pressure Taps flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	8-20-1999@ 9 am	TAKEN	8-23-1999@ 8:15am		
Well on Line: Started	8-23-1999@ 8:15am	TAKEN	8-24-1999@ 9:15am		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P _w) (P _t) (P _c)		Tubing WellHead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in								455	469	71.0	
Flow	.500	62.0	26.00	60				349	363	25.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _D) 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 _m
1.220	76.4	44.57	1.2721	1.0000	1.0061	69		.618

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 220.3

(P_w)² = 132.2

13.2

%

(P_c - 14.4) + 14.4 =

(P_a)² = 0.207

(P_d)² 3.84

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ 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
220.13	88.17	2.497	.3974	.619	.2460	1.762	122
216.49	88.17	2.456	.3901	.619	.2415	1.744	121

OPEN FLOW 122 Mcfd @ 14.65 psia DELIVERABILITY 121 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 Company

For Commission

Checked by

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

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(Rev.8/98)

TYPE TEST:

- ☒ Open Flow
☒ Deliverability

TEST DATE: 8-24-1999

API No. 185-23084

Company Castelli Exploration		Lease Seibert(Lansing)		Well Number 2-31	
County Stafford	Location S/2 SW SW	Section 31	TWP 24s	RNG(E/W) 15w	Acres Attributed 160
Field Farmington	Reservoir Lansing	Gas Gathering Connection Lumon			
Completion Date 9-16-98	Plug Back Total Depth 4192	Packer Set at 4129			
Casing Size 5.500	Weight 14.000	Internal Diameter 5.012	Set at 4288	Perforations 3919	To 3924
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 4129	Perforations 3919	To 3924
Type Completion (Describe) perf & acid	Type Fluid Production	Pump Unit or Traveling Plunger? no			
Producing Thru(Annulus/Tubing) Annulus	% Carbon Dioxide .049	% Nitrogen 4.875	Gas Gravity- Gg .631		
Vertical Depth (H) 3922	Pressure Taps flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	8-20-1999@ 9:00am	TAKEN	8-23-1999@ 8:15am		
Well on Line: Started	8-23-1999@ 8:15am	TAKEN	8-24-1999@ 9:15am		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P _w) (P _t) (P _c)		Tubing WellHead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						534	548			71.0	
Flow	1.000	62.0	13.00	60		440	454			25.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) 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 _m
5.070	76.4	31.52	1.2589	1.0000	1.0062	202		.631

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P _c) ² = 301.0		(P _w) ² = 206.5		11.3	%	(P _c - 14.4) + 14.4 =		(P _a) ² = 0.207
								(P _d) ² 3.84
(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d	
300.75	94.46	3.184	.5030	1.050	.5281	3.374	682	
297.12	94.46	3.145	.4977	1.050	.5226	3.331	674	

OPEN FLOW 682 Mcfd @ 14.65 psia DELIVERABILITY 674 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 Company

For Commission

Checked by