

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:
10-31-14

API No. 15
15-095-20592 - 0000

Company MURFIN DRILLING COMPANY		Lease GRABER		Well Number 1x	
County KINGMAN	Location NENE	Section 9	TWP 29S	RNG (E/W) 6W	Acres Attributed
Field KLAVER		Reservoir MISSISSIPPI	Gas Gathering Connection WEST WICHITA GAS GATHERING LLC		
Completion Date 6-21-77		Plug Back Total Depth 4081	Packer Set at NONE		
Casing Size 5.5	Weight 14.0	Internal Diameter 5.012	Set at 4081	Perforations 4081	To 4090
Tubing Size 2.875	Weight 6.5	Internal Diameter 2.441	Set at 4050	Perforations	To
Type Completion (Describe) SINGLE GAS		Type Fluid Production OIL & WATER	Pump Unit or Traveling Plunger? Yes / No YES-PUMP		
Producing Thru (Annulus / Tubing) ANNULUS		% Carbon Dioxide 0.140	% Nitrogen 6.934	Gas Gravity - G _g .7165	
Vertical Depth(H) 4086		Pressure Taps FLANGE		(Meter Run) (Prover) Size 2.067"	
Pressure Buildup: Shut in		10-27-14	20	at	1000 (AM) (PM)
Well on Line: Started		10-30-14	20	at	1000 (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 72.0 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (P _m)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						222.6	237.0			72.0	
Flow	.500	40.4	2.5	70	75	82.5	96.9			24.0	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _s) (F _r) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _s
1.2191	54.80	11.70	1.1814	0.9905	1.0052	16.8	NONE	0.7165

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 56.2 : (P_w)² = 9.4 : P_d = 40.9 % (P_c - 14.4) + 14.4 = 237.0 : (P_s)² = 0.207
(P_g)² =

(P _c) ² - (P _w) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _w ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: P _c ² - P _w ²	Backpressure Curve Slope = "n" Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
55.96	46.78	1.196	0.0778	0.850	0.0662	1.1646	19.55

Open Flow 20 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 31 day of OCTOBER, 20 14

Witness (if any)

For Commission

Received
KANSAS CORPORATION COMMISSION

NOV 17 2014

CONSERVATION DIVISION
WICHITA, KS

Precision Wireline & Testing
For Company
Markus Brand
Checked by

I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Murkin Drilling Co, Inc and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

I hereby request a one-year exemption from open flow testing for the Graber 1 gas well on the grounds that said well:

(Check one)

- is a coalbed methane producer
- is cycled on plunger lift due to water
- is a source of natural gas for injection into an oil reservoir undergoing ER
- is on vacuum at the present time; KCC approval Docket No. _____
- is not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 11-17-14

Signature: Thomas C. Mullan

Title: Production Engineer

Instructions: If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption IS denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.

Received
KANSAS CORPORATION COMMISSION

NOV 17 2014

CONSERVATION DIVISION
WICHITA, KS