Form G-2
(Rev. 7/03)

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:
☐ Open Flow
☐ Deliverabilty

(See Instructions on Reverse Side)

Test Date:

API No. 15
15-181-20388-00-00

Company	Lease	Well Number
Noble Energy Inc	P Helman	23-24

County	Location	Section	TWP	RNG (E/W)	Acres Attributed
Sherman	SW-SW-NE-SW	24	6S	40W	

Field	Reservoir	Gas Gathering Connection
Goodland	Niobrara	Kinder Morgan

Completion Date	Plug Back Total Depth	Packer Set at
1/1/2006	1481'	

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
7", 4-1/2"	17#, 10.5#	9-7/8", 6-1/4"	401', 1523'	1342'	1362'

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To
2-3/8"	4.7#	1.995	1396'		

Type Completion (Describe)	Type Fluid Production	Pump Unit or Traveling Plunger? Yes / No
Single (gas)	Saltwater	

Producing Thru (Annulus / Tubing)	% Carbon Dioxide	% Nitrogen	Gas Gravity - G_g
Tubing			

Vertical Depth(H)	Pressure Taps	(Meter Run) (Prover) Size

Pressure Buildup: Shut in 10/29 20 13 at 10:00 (AM) (PM) Taken _____ 20 ___ at _____ (AM) (PM)

Well on Line: Started 10/30 20 13 at 10:00 (AM) (PM) Taken _____ 20 ___ at _____ (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H_2O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Casing psia	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Tubing psia	Duration (Hours)	Liquid Produced (Barrels)
Shut-In						77					
Flow											

FLOW STREAM ATTRIBUTES

Plate Coeffiecient (F_b) (F_p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m x h}$	Gravity Factor F_g	Flowing Temperature Factor F_{tt}	Deviation Factor F_{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G_m

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$ = _____ : $(P_w)^2$ = _____ : P_d = _____ % $(P_c - 14.4) + 14.4$ = _____ : $(P_a)^2$ = 0.207 $(P_d)^2$ = _____

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	Choose formula 1 or 2: 1. $P_c^2 - P_a^2$ 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" -------- or -------- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow 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 26 day of December , 20 13 .

Witness (if any)

For Company

For Commission

Checked by

KCC WICHITA

DEC 3 1 2013

RECEIVED

Form G-2
(Rev. 7/03)

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 Noble Energy 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 Helman 23-24 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: 12/26/13

Signature: Cheryl Johnson

Title: Completions Supervisor

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.