

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

SIP Test

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:
10-17-14

API No. 15
15-175-20471 -00 -00

Company A.E.S. INC.		Lease HIRN RANCH		Well Number 2	
County SEWARD	Location SW SE SW	Section 16	TWP 33S	RNG (E/W) 32W	Acres Attributed 640
Field ARKALON		Reservoir MORROW		Gas Gathering Connection ONEOK	
Completion Date 7-11-80		Plug Back Total Depth 6300		Packer Set at NONE	
Casing Size 4.5	Weight 10.5	Internal Diameter 4.090	Set at 6343	Perforations 5636	To 5714
Tubing Size 2.375	Weight 4.7	Internal Diameter 1.995	Set at 5621	Perforations	To
Type Completion (Describe) SINGLE GAS		Type Fluid Production NONE		Pump Unit or Traveling Plunger? Yes / No NO	
Producing Thru (Annulus / Tubing) TUBING		% Carbon Dioxide		% Nitrogen Gas Gravity - G _g .700	
Vertical Depth(H) 5675		Pressure Taps FLANGE		(Meter Run) (Prover) Size 3.068"	
Pressure Buildup: Shut in 10-16-14 20 at 0900 (AM) (PM)		Taken 10-17-14 20 at 0900 (AM) (PM)			
Well on Line: Started 20 at (AM) (PM)		Taken 20 at (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-In 72.0 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _o)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _o)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						184.7	1991	184.1	198.5	24.0	
Flow											

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _o) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	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 _o

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = _____ : (P_w)² = _____ : P_g = _____ % (P_o - 14.4) + 14.4 = _____ : (P_o)² = 0.207
(P_d)² = _____

(P _o) ² - (P _w) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _o ² - P _w ² 2. P _c ² - P _d ² divided by: P _o ² - P _w ²	LOG of formula 1, or 2, and divide by: $\frac{P_o^2 - P_w^2}{P_o^2 - P_w^2}$	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 17 day of OCTOBER, 20 14.

Copy to KCC Wichita
 Witness (if any) Dodge City
per kenny Sullivan
 For Commission

Precision Wireline + Testing
 Received
 For Company
Mark Blood
 Checked by

OCT 29 2014

CONSERVATION DIVISION
WICHITA, KS

SP

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 A.E.S. 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 HIRN RANCH #2 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: 10-24-14

Signature: Shawn Boyd
Title: Office Asst.

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

OCT 29 2014

CONSERVATION DIVISION
WICHITA, KS