KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

| Deliverability | Type Test | i: | | | | | 6 | See Instru | ctions on Re | verse Side | :) | | | | |
|--|---|---------------|-----------------------------|-----------------------------------|---|-----------------------|---|---|-------------------------|--|----------------|--------------|------------------------------|---|---|
| Company Inc. County County County Cherry County Cherry Ch | | | | | | | Test Date |) : | | | AP | No. 15 | | | |
| Nobic Energy Inc | De | liverab | ilty | | | | | , | | | 15- | 023-21066-0 | 00-00 | | |
| Field Producing True (Prover) State (Pressure Taps (Meter Flum) (Prover) Size (Meter Flum) (Prover) Si | | | | | | | | | | | | 42-13 | | | |
| Field Producing True (Prover) State (Pressure Taps (Meter Flum) (Prover) Size (Meter Flum) (Prover) Si | | | | | | | | | | | G (E/W) W | | Acres Attributed RECEIVEI | | |
| Casing Size Worker Title | | | | | | | | | | - | ection | ion DEC UE a | | | |
| 7, 4-1/2" 17#, 9.5# 9-7/8", 6-1/4" 147, 1435 1214' 1254' Type Could remain Disserter 2-3/8" 4.7# 1.995 Type Fluid Production Single (gas) Saltwater Producting Thru (Annulus / Tubing) Vertical Depth(H) Pressure Buildup: Starred 3/16 20 12 at 11:00 (Meter Run) (Prover) Size **OBSERVED SURFACE DATA** **OBSERVED SURFACE DATA** **Depression of Shut-in 24 Hours Depth(H) **Starred Proper Pressure Pagis (Phone Pagis (Phone Pagis Pressure Pagis (Phone Pagis Pressure Pagis (Phone Pressure Pagis (Phone Pagis Pressure Pagis (Phone Pagis Pressure Pagis Pressure Pagis (Phone Pagis Pressure Pagis Pressure Pagis (Phone Pagis | • | | | | • | | | | Packer Set at | | | KCC MIOU | | | |
| Tubing (gas) Pressure Buildup: Shut in 8/15 20 12 at 11:00 | | | | | | | | | | | | | | | |
| Type Chulder Production Traveling Plunger? Yes / No Saltwater Yes Saltwater Yes Saltwater Yes (Meler Run) (Prover) Size Producing Tru (Annulus / Tubing) % Carbon Dioxide %, Nitrogen Gas Gravity · G, as Grav | Tubing Size Weight | | | | | Internal C | | Set a | Set at | | | | | | |
| Producing Thru (Annulus / Tubing) Werlical Depth(H) Pressure Taps (Meter Run) (Prover) Size (AM) (PM) (AM) (PM) (Am) (PM) Taken | Type Completion (Describe) | | | | Type Flui | Type Fluid Production | | | | | | | | | |
| Pressure Buildup: Shut in 8/15 20 12 at 11:00 400 (PM) Taken 20 at (AM) (PM) | | | | | | | | | | | | | | | |
| Pressure Buildup: Shut in 8/15 20 12 at 11:00 | | \ 4l- / l | 15 | | | | | | | | | | /h.d | | 10: |
| Willess (if any) Wall on Line: Started 8/16 20 12 at 11:10 OBSERVED SURFACE DATA OBSERVED SURFACE DATA OBSERVED SURFACE DATA OUTstice of Shut-in 24 Hours Casing Tubing Size Property (inches) Prossure paging (inches) Prover Pressure paging paging paging (inches) Prover Pressure paging paging paging paging (inches) Prover Pressure paging p | vertical L | epin(H | 1) | | | | | Pre | ssure laps | | | | (Meter | Hun) (F | rover) Size |
| State / Orffice Dynamic Size Property (Inches) Pressure Popelty (Inches) Possing (Pm) Dynamic Pressure Popelty (Inches) Pressure Pressure Popelty (Inches) Pressure Pressur | Pressure | Buildu | | 5กนเ เก | | | | | _ (PM) | Taken | | 20 | at | | (AM) (PM) |
| State / Dynamic Size Dynamic Si | Well on L | ine: | : | Started 8/1 | 6 | 20 | 12 at 1 | 1:10 | _ (AM) (PM) | Taken | | 20 | at | | (AM) (PM) |
| Static Orifice Orifice Proper Pressure Property Orifice Property Property Orifice Property Orifice Orifi | | | | | | | | OBSERV | ED SURFAC | E DATA | | | Duration of Shut- | -in_24 | Hours |
| Property (Inches) Prover Pressure Inches H ₂ 0 t 1 Press | I | | | Meter Differen Prover Pressure in | | ential . | | | Wellhead | Wellhead Pressure (P _w) or (P ₁) or (P _c) | | ead Pressure | Duration | | |
| FLOW STREAM ATTRIBUTES Plate Coefficient (F _p) (F _p) Prove Pressure Pusture | • | l | | | | | , | | (P _w) or (F | | | | (riours) | | (Barrels) |
| FLOW STREAM ATTRIBUTES Plate Coefficient (F _p) (F _p) Press Extension Factor Factor Factor F _{px} (McId) Posial Coefficient (F _p) (F _p) Prover Pressure P _{psia} (OPEN FLOW) (DELIVERABILITY) CALCULATIONS (P _p) ² = . | Shut-In | | | | | | | | 78 | | | | | | |
| Plate Coefficient (P _p)(F _p) (P _p) (P _p)(F _p)(| Flow | | | | | | | | | | | | | | |
| Coefficient (F _p)(F _p) Mcfd Prover Pressure psia Place psia Plac | | | | ······ | -1' " ' | | E | FLOW ST | REAM ATTR | IBUTES | | | | | , , , , , , , , , , , , , , , , , , , |
| (P _c) ² = : (P _w) ² = : P _d = % (P _c · 14.4) + 14.4 = : (P _d) ² = (P _c) ² - (P _d) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - P _d (Normula tor 2: 1. P _c ² | Coeffiec (F _b) (F | ient ,) | Meter or Prover Pressure | | Extens | ion | Fact | tor | Temperature Factor | | ictor | R | (Cubic Fe | (Cubic Feet/ | |
| (P _c) ² = : (P _w) ² = : P _d = % (P _c · 14.4) + 14.4 = : (P _d) ² = (P _c) ² - (P _d) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - (P _w) ² (P _c) ² - P _d (Normula tor 2: 1. P _c ² | | | | | | | | | | | | | | | |
| Choose formula 1 or 2: 1. P _c ² - P _u or (P _c) ² - (P _d) ² 2. P _c ² - P _u divided by: P _c | (P)2 = | | | (P \² : | = | | • | | | • | | | | | |
| 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 30 day of November 20 12. Witness (if any) For Company | (P _c) ² - (P _a) ² or | | | | Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² | | LOG of formula 1. or 2. and divide | | Backpre Slo | Backpressure Curve Slope = "n" or Assigned | | LOG | | Open Flow Deliverability Equals R x Antilog | |
| 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 30 day of November , 20 12 . Witness (if any) | | - | | | divided by: P | ²- P _w ² | by: | | Stand | lard Slope | | L J | | | (Mcta) |
| 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 30 day of November , 20 12 . Witness (if any) | | | | | | | | | | | | | | <u> </u> | |
| he facts stated therein, and that said report is true and correct. Executed this the 30 day of November , 20 12 . Witness (if any) For Company | Open Flow Mcfd @ 14.65 psia | | | | | | | | Deliverat | Deliverability Mcfd @ 14.65 psia | | | | | |
| Witness (if any) For Company | The | undersi | igned | authority, c | on behalf o | f the | Company, s | states that | he is duly a | | | • | ort and that he ha | as knov | vledge of |
| | he facts s | tated ti | herei | n, and that s | aid report i | s true | and correc | t. Execute | of this the 3 | 0 | day of _ | lovember | | | 20 12 . |
| | | | | Witness | (if any) | | | | - | | | For C | Company | | |
| For Commission Checked by | | . | | For Come | mission | | <u> </u> | | - | | | Chec | cked by | | |

| | e under penalty of perjury under the laws of the state of Kansas that I am authorized to request us under Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc |
|---|--|
| and that the correct to the of equipmen | foregoing pressure information and statements contained on this application form are true and e best of my knowledge and belief based upon available production summaries and lease records t installation and/or upon type of completion or upon use being made of the gas well herein named. request a one-year exemption from open flow testing for the Zimbelman 42-13 the grounds that said well: |
| l further | 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 agree to supply to the best of my ability any and all supporting documents deemed by Commission essary to corroborate this claim for exemption from testing. |
| Date: _11/30 | Signature: Title: Regulatory Analyst |

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.