KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

| Type Test: | : | | | | | (| See Ins | tructi | ons on Re | verse Side | 9) | | | | E | |
|---|----------|-------------|---|-------------------------------------|---|--|-------------------------------|-----------------------|--|------------------------------------|------------------------------|--|--------------------|--------------------------------------|------------------|----|
| Ope | | | | Test Date: | | | | | | API No. 15 313 - 0000 15-023-21 | | | Sy | _ | | |
| Company | | | | | | ······································ | | | Lease | | 15- | 023-21262 | | Well Nu | mher / | /~ |
| Noble Er | | Inc. | | · ~ | | | | | R Zwey | gardt | | | 44-32 | 11011111 | INDEI 7 | _ |
| County Location Cheyenne NE-NW-SE-SE | | | | Section 32 | | | TWP 5.S | | RNG (E/W) 39.W | | , | Acres Attributed | | | | |
| Field | | | | Reservoi | | | 2,0 | Gas Gathering Conne | | | ction | | | VE | | |
| Cherry Creek Completion Date | | | Niobrara Plug Bac | | Dontk | Southern Star/Kinds Packer Set at | | | er Morgan | DEC 05 | | | | | | |
| 11/7/200 | | • | | | | 1512 | K IOIAI I | Depti | 1 | | Packer | Set at | | حرمرة | | 4 |
| Casing Size 7", 4+1/2" | | | Weigl 17#, | Internal Diameter 9+7/8", 6+1/4" | | | Set at 270, 1544 | | Perforations 1342 | | то 1382 | RECEI DEC 0 5 KCC WIC | | H | | |
| Tubing Size | | | Weight | | | Internal Diameter | | | Set at | | Perforations | | То | | | |
| +3/8" | | /D - | 4.7# | | | 1.995 | d Daniel | | | | D 11 | - 11 - 1 - T. 11 - 11 - 11 - 11 - 11 - 1 | . Di O V | · | * | |
| Type Completion (Describe) Single (gas) | | | | | Type Fluid Production Saltwater | | | | Pump Unit or Traveling Plunger? Yes yes | | | | | | | |
| Producing Thru (Annulus / Tubing) | | | | % C | % Carbon Dioxide | | | | % Nitrog | jen | Gas Gravity - G _g | | | | | |
| ubing /ertical D | enth(H) | ١ | | | | | | Prace | ure Taps | | | | (Mater F | Qual (Di | rover) Size | |
| ertical D | сраци | , | | | | | | 1033 | ите тарз | | | | (IMOTO) I | 1011) (1 | .over) 5/2e | |
| ressure | Buildup |): { | Shut in 9/2 | 24 | 2 | 12 at 8 | :30 | | (PM) | Taken | | 20 | at | | AM) (PM) | |
| Vell on Li | | | Started 9/2 | | 20 | | | | \simeq | | | | at | | | |
| | | | | | | | | | | | | | | | , 41, (1 (4), | |
| | | | | | | | OBSE | RVE | SURFAC | E DATA | | | Duration of Shut- | _{in} 24 | Hours | |
| Static / Orific | | Meter | | İ | Pressure Differential | Flowing | Well Head Temperature t | | Casing Wellhead Pressure | | | Tubing ead Pressure | Duration | Liquid | d Produced | |
| roperty | (inches) | | Prover Pressure psig (Pm) | | in Inches H ₂ 0 | Temperature t | | | (P _w) or (F | | | r (P ₁) or (P _c) | (Hours) | (6 | Barrels) | |
| Shut-In | | | F9 (· ···) | | | | | | psig 92 | psia | psig | psia | | <u> </u> | | |
| Flow | | | | 7 | | | | | | | | | | | | |
| | | | | L | | | FLOW | STRI | EAM ATTR | IBUTES | | | | <u>. I </u> | | |
| Plate | | | Circle one: | | Press | Grav | vitv | | Flowing | De | viation | Metered Flov | v GOR | - | Flowing | |
| Coefficeient (F _h) (F _n) | | Pro | Meter or Prover Pressure | | Extension | Factor | | Temperature Factor | | F. | actor | R | (Cubic Fe | | Fluid Gravity | |
| Mcfd | | | psia | | √ P _m xh | F _g | | F _{f1} | | | F _p , | (Mcfd) | Barrel) | | G _m | |
| | | | | | | | | | | | | | | | | |
| | | | | | | (OPEN FL | OW) (DI | ELIVE | ERABILITY |) CALCUI | LATIONS | | (P) | ² = 0.2 | 07 | |
| c)2 = | | <u>:</u> | (P _w) ² = | = | ; | P _d = | | % | <u>(</u> | c - 14.4) - | + 14.4 = | ······································ | (P _a) | | | |
| (P _c)²- (F | 2_)2 | (P | (c) ² - (P _w) ² | | ose formula 1 or 2: 1. $P_c^2 - P_g^2$ | LOG of | | | | ssure Curv | 1 | [7] | | | en Flow | |
| or (P _a) ² - (P _d) ² | | | | | 2. P _c ² -P _d ² | formula 1. or 2. | | or | | - or | n x LOG | | Antilog | Deliverability Equals R x Antilog | | |
| · c/ · | d' | | | divid | ed by: $P_c^2 - P_w^2$ | by: | P _c ²- P | <u>"</u> | | lard Slope | | L _ | | , | (Mcfd) | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | : | | | | | |
| pen Flo | w | | | | Mcfd @ 14. | 65 psia | | | Deliverat | oility | • | | Mcfd @ 14.65 psi | a | | |
| The | undersid | anec | l authority o | on be | ehalf of the | Company | states th | nat he | e is dulv a | uthorized | to make t | he above reno | ort and that he ha | ıs know | ledge of | |
| | | _ | - | | report is true | | | | • | | | lovember | 110110 | | 20 12 | |
| . 14013 S | www III | | n, and that S | aiu l | oport is trut | , and conti | LAGU | aica | uie | | Jay VI | | | ı ' | | |
| | | | Witness | (il an | <u></u> | | | | - | | | Earl | Company | | | |
| | | | ************ | (11 all) | ,, | | | | | | | Fore | Joinpany | | | |
| | | | For Com | missio | on | | | | - | | | Che | cked 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 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 R. Zweygardt 44-32 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. |
| 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.