

**KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

JAN 23 2014

Type Test:

(See Instructions on Reverse Side)

KCC DODGE CITY

- Open Flow
- Deliverability

Test Date:
01/14 to 01/15/14

API No. 15
145-21,685-00-00

| | | | | | |
|---|----------------------|---|------------------------|---|------------------|
| Company Bear Petroleum, LLC | | | Lease Tombaugh Unit | | Well Number 1 |
| County Pawnee | Location SESESESW | Section 26 | TWP 20S | RNG (E/W) 20W | Acres Attributed |
| Field Miss | | Reservoir Miss | | Gas Gathering Connection BearPetroleum/Pawnee | |
| Completion Date 12/11/12 | | Plug Back Total Depth | | Packer Set at none | |
| Casing Size 4.5 | Weight | Internal Diameter | Set at 4256 | Perforations 4246 | To 4250 |
| Tubing Size 2.375 | Weight | Internal Diameter | Set at 4248 | Perforations | To |
| Type Completion (Describe) single | | Type Fluid Production SW | | Pump Unit or Traveling Plunger? Yes / No Yes - pump unit | |
| Producing Thru (Annulus / Tubing) annulus | | % Carbon Dioxide .262 | | % Nitrogen 50.212 | |
| Vertical Depth(H) | | Pressure Taps flange | | Gas Gravity - G _g .812 | |
| Pressure Buildup: Shut in 1/10 20 14 at 10:30 am (AM) (PM) Taken 1/13 20 14 at 10:30 am (AM) (PM) | | Well on Line: Started 1/14 20 14 at 10:15 am (AM) (PM) Taken 1/15 20 14 at 12:15 pm (AM) (PM) | | | |

OBSERVED SURFACE DATA

Duration of Shut-in 72 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 ₁) or (P _c) | | Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c) | | Duration (Hours) | Liquid Produced (Barrels) |
|---------------------------|-----------------------|--|--|-----------------------|-------------------------|--|-------|--|------|------------------|---------------------------|
| | | | | | | psig | psia | psig | psia | | |
| Shut-In | | | | | | 150.7 | 165.1 | | | 72 | |
| Flow | .500 | 34 | 13 | 50 | | 41.5 | 55.9 | | | 26 | |

FLOW STREAM ATTRIBUTES

| Plate Coefficient (F _s) (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 _t | Deviation Factor F _{pv} | Metered Flow R (Mcf/d) | GOR (Cubic Feet/ Barrel) | Flowing Fluid Gravity G _m |
|--|--|---------------------------------------|-------------------------------|---|----------------------------------|------------------------|--------------------------|--------------------------------------|
| 1.219 | 48.4 | 25.08 | 1.110 | 1.010 | ----- | 34 | | .812 |

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 27.258 : (P_w)² = 3.124 : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_g)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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$ | Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope | n x LOG [] | Antilog | Open Flow Deliverability Equals R x Antilog (Mcf/d) |
|--|---|---|--|---|-------------|---------|---|
| 27.051 | 24.134 | 1.121 | .0496 | .850 | .0421 | 1.10 | 37 |
| | | | | assigned | | | |

Open Flow 37 Mcfd @ 14.65 psia X .50 = Deliverability 18.5 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 16th day of January, 20 14.

Witness (if any)
No witness
For Commission

[Signature]
For Company
KCC WICHITA
JAN 27 2014
Checked by

MEASUREMENT SOLUTIONS INC.

6705 East 81st Street Suite 155 Tulsa, OK 74133
Telephone 918-493-2700 Fax 918-493-2704

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7/3/2013

GAS ANALYSIS REPORT

| | | | |
|-----------------------|----------------|-----------------------------|------------|
| METER NUMBER : | BEAR | SAMPLE TYPE : | SPOT |
| METER NAME : | TOM BAUGH UNIT | SAMPLE DATE : | 06/26/2013 |
| METER ID : | SPECIAL ENERGY | SAMPLE PRES / TEMP : | 133 / 87 |
| PRODUCER : | | SAMPLED BY : | GLM |
| COMPANY : | SPECIAL ENERGY | EFFECTIVE DATE : | 06/01/2013 |

| <u>COMPONENT</u> | <u>PERCENT</u> | <u>BTU VALUES @ 14.65</u> | | <u>BTU VALUES @ 14.73</u> | | |
|------------------|----------------|---------------------------|---------------------------|---------------------------|---------------------------|--------|
| Helium | He | 2.7738 | REAL DRY 562.62 | REAL DRY | 565.69 | |
| Oxygen | O2 | 0.2058 | REAL WET 552.77 | REAL WET | 555.79 | |
| Hydrogen Sulfide | H2S | 0.0000 | | | | |
| Carbon Dioxide | CO2 | 0.2620 | | | | |
| Nitrogen | N2 | 50.0065 | | | | |
| Methane | C1 | 40.1800 | <u>GPM VALUES @ 14.65</u> | | <u>GPM VALUES @ 14.73</u> | |
| Ethane | C2 | 3.3791 | C2 | 0.8983 | C2 | 0.9032 |
| Propane | C3 | 1.7435 | C3 | 0.4774 | C3 | 0.4801 |
| I-Butane | iC4 | 0.3306 | iC4 | 0.1075 | iC4 | 0.1081 |
| N-Butane | nC4 | 0.5488 | nC4 | 0.1721 | nC4 | 0.1730 |
| I-Pentane | iC5 | 0.1363 | iC5 | 0.0496 | iC5 | 0.0499 |
| N-Pentane | nC5 | 0.1874 | nC5 | 0.0675 | nC5 | 0.0679 |
| Hexane Plus | C6+ | 0.2462 | C6+ | 0.1068 | C6+ | 0.1074 |
| TOTALS | 100.0000 | | 1.8792 | | 1.8896 | |

SPECIFIC GRAVITY

REAL DRY 0.8125
REAL WET 0.8093

COMPRESSIBILITY FACTOR

Z FACTOR DRY 0.9988
Z FACTOR WET 0.9988

GALLONS PER THOUSAND

GPM TOTALS @ 14.65
C2 + GPM 1.8792
C3 + PGM 0.9809
C4 + GPM 0.5035
C5 + GPM 0.2239

GPM TOTALS @ 14.73
C2 + GPM 1.8896
C3 + PGM 0.9864
C4 + GPM 0.5063
C5 + GPM 0.2252

COMMENTS :

KCC WICHITA

JAN 27 2014

RECEIVED