

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

JAN 23 2014

KCC DODGE CITY

Type Test:

- Open Flow
- Deliverability

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

API No. 16
 145-21,685-00-00

Company Bear Petroleum, LLC		Lease Tombaugh Unit		Well Number 1	
County Pawnee	Location SESESESW	Section 28	TWP 20S	RNG (E/W) 20W	Acres Attributed
Field		Reservoir Miss	Gas Gathering Connection Bear Petroleum/Pawnee - NNG / BP Canada Energy Mktg		
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	Gas Gravity - G _g .812	
Vertical Depth(M)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
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

Statio / Dynamic Property	Orifice Size (Inches)	Click one: Meter or Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _c) or (P ₁) or (P ₂)		Tubing Wellhead Pressure (P _t) or (P ₁) or (P ₂)		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 _d) (F _p) Moid	Circle one: Meter or Prover Pressure psia	Press Exlanation $\sqrt{P_m \times h}$	Gravily Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{gT}	Metered Flow R (Moid)	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

$(P_1)^2 = 27.258$; $(P_2)^2 = 3.124$; $P_2 =$ _____ % $(P_c - 14.4) + 14.4 =$ _____ ; $(P_1)^2 = 0.207$; $(P_2)^2 =$ _____

$(P_1)^2 - (P_2)^2$ or $(P_1)^2 \cdot (P_2)^2$	$(P_1)^2 \cdot (P_2)^2$	Check Article 1 or 2: 1. $P_1^2 \cdot P_2^2$ 2. $P_1^2 \cdot P_2^2$ divided by: $P_1^2 - P_2^2$	LOG of formula 1, or 2, and divide by: $P_1^2 \cdot P_2^2$	Backpressure Curve Slope = "n" Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Moid)
27.051	24.134	1.121	.0496	.850	.0421	1.10	37
				assigned			

Open Flow **37** Moid @ 14.65 psia X .50 = Deliverability **18.5** Moid @ 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 witnesses
 For Commission

[Signature]
 For Company
BEAR PETROLEUM, LLC
 Checked by