KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test	i:			(See Instruc	tions on Reve	erse Side))					
	en Flow liverabil			Test Date	3 :				No. 15 023-20992-00	D-00			
Company Noble Energy Inc				Lease Douthit						12-16	Well Number 12-16		
County Location Cheyenne S2-SW-SW-NW			Section 16		TWP 4S		RNG (E/W) 41W		Acres Attributed				
Field Cherry Creek				Reservoir Niobrara				Gas Gathering Connection Southern Star/Kinder Morgan					
Completion Date 8/29/2011				Plug Back Total Depth 1467'			Packer Set at						
Casing Size Weight 7", 4 1/2" 17#, 11				Internal Diameter 9 7/8", 6 1/4"			Set at 110', 1510'		rations 7'	то 1257'			
Tubing Size Weight			Internal I	Diameter	Set at		Perforations		То				
Type Completion (Describe) Single (gas)				Type Fluid Production Saltwater				Pump Unit or Traveling Plunger? Yes / No yes					
Producing Thru (Annulus / Tubing) Annulus				% Carbon Dioxide				% Nitrogen Gas			Gravity - G _g		
Vertical D					Pres	sure Taps	•			(Meter	Run) (P	rover) Size	
Proceuro	Buildus	: Shut in <u>9/2</u>	2 20	11 ., 9	:40	€ (DM) :	Takan				•	/A.LA.\ /D.LA.\	
Pressure Buildup: Shut in 9/2 Well on Line: Started 9/2			22 20	44 44 -			PM) Taken20						
					OBSERVE	D SURFACE	DATA		[Duration of Shut	-in_48	1 Hours	
Static / Oynamic Property	Orific Size (inche	Meter Prover Press	ure in	Flowing Well Head Temperature		(P _w) or (P _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)				d Produced Barrels)	
Shut-In		para (com	mends m ₂ e		<u> </u>	169	psia	psig	psia				
Flow													
			,	· · · · · · · · · · · · · · · · · · ·	FLOW STR	REAM ATTRIE	BUTES						
Plate Coefficcient (F _b) (F _p) Mcfd		Circle one: Meter or Prover Pressure psia	Press Extension	Gravity Factor F _e		Temperature Fa		viation Metered Flow actor R F _{pv} (Mcfd)		GOR (Cubic Feet/ Barrel)		Flowing Fluid Gravity G _m	
			<u> </u>		İ								
P _c) ² =		: (P _w) ² =		OPEN FL P _a =	- 1	ERABILITY) % (P_	CALCUL - 14.4) +		:	-) ² = 0.2) ² =	07	
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 \cdot (P_d)^2$		(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _c ² divided by: P _c ² - P _a ²	LOG of formula 1, or 2, and divide by:	P _c ² . P _* ²	Backpressure Curve Slope = "n"			.og []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)		
<u> </u>	_												
Open Flow Mcfd @ 14.65			5 psia		Deliverabili	Deliverability		N.	lcfd @ 14 65 ne	fd @ 14.65 psia			
The L	ındersig		on behalf of the (Company, s		e is duly aut	norized t	o make th	e above report	and that he ha	as know	ledge of 20 11 .	
		Witness	(if any)					<u>ery</u>	For Co	MDBINY		<u>UCIVE</u>	
		For Corns	mission						Check	ed by	_UE(13_20	

exempt status und and that the foreg correct to the best of equipment insta	er penalty of perjury under the laws of the state of Kansas that I am authorized to request er Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Incoming pressure information and statements contained on this application form are true and of my knowledge and belief based upon available production summaries and lease records lation and/or upon type of completion or upon use being made of the gas well herein named.
	bunds that said well:
-	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 to supply to the best of my ability any and all supporting documents deemed by Commission to corroborate this claim for exemption from testing.
	Signature: Ley Johnson Title: Regulatory Analyst II

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 signed and dated on the front side as though it was a verified report of annual test results.

DEC 13 2011



NATURAL GAS ANALYSIS

PROJECT NO.:

201111029

ANALYSIS NO.:

01

COMPANY NAME: NOBLE ENERGY

ANALYSIS DATE:

NOVEMBER 7, 2011

ACCOUNT NO.:

YUMA

SAMPLE DATE:

OCTOBER 24, 2011

PRODUCER:

TO:

EFFECTIVE DATE: DECEMBER 1, 2011

LEASE NO.:

E1502320992

NAME/DESCRIP.: **DOUTHIT 12-16**

LAB COMMENTS: MOISTURE OBSERVED

VAPOR PRES.:

0.99801

FIELD DATA

SAMPLED BY: SAMPLE PRES.: M. MCCALL

CYLINDER NO. : AMBIENT TEMP. : 176

SAMPLE TEMP.:

GRAVITY:

SAMPLE TYPE:

FIELD COMMENTS:

COMPRESSIBILITY FACTOR:

NORM. GPM@ GPM@ 14.73 **COMPONENTS** MOLE% 14.65 HELIUM 0.10 **HYDROGEN** 0.16 OXYGEN/ARGON 0.05 **NITROGEN** 4.98 CO₂ 2.51 **METHANE** 90.51 **ETHANE** 0.325 1.22 0.326 **PROPANE** 0.093 0.094 0.34 **ISOBUTANE** 0.05 0.016 0.016 **N-BUTANE** 0.05 0.016 0.016 **ISOPENTANE** 0.02 0.007 0.007 **N-PENTANE** 0.01 0.004 0.004 **HEXANES+** 0.00 0.000 0.000 TOTAL 100.00 0.461 0.463 BTU @ 60 DEG F 14.65 14.73 NET DRY REAL = 854.0 858.7 NET WET REAL = 839.1 843.8 GROSS DRY REAL = 948.2 953.4 GROSS WET REAL = 931.6 936.8 RELATIVE DENSITY REAL (AIR=1 @ 14.696 PSIA 60F): 0.6101

NOTE: REFERENCE GPA 2261(ASTM D1945), 2145, & 2172 CURRENT PUBLICATIONS

THIS DATA HAS BEEN ACQUIRED THROUGH APPLICATION OF CURRENT STATE-OF-THE-ART ANALYTICAL TECHNIQUES. THE USE OF THIS INFORMATION IS THE RESPONSIBLITY OF THE USER. EMPACT ANALYTICAL SYSTEMS, ASSUMES NO RESPONSIBLITY FOR ACCURACY OF THE REPORTED INFORMATION NOR ANY CONSEQUENCES OF IT'S APPLICATION.

> EMPACT Analytical Systems, Inc. 365 S. Main St. Brighton, CO 80601 303-637-0150

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KCC WICHITA