KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

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Type Test	:			(See Instructions on Reverse Side)										
Open Flow				Test Date):		API No. 15							
De	liverat	oilty								15-0	023-21276-0	0-00		
Company Noble Energy Inc				•		Lease Duell	Lease Duell Trusts				Well Number 33-33			
County Location Cheyenne NW-SE-NW-Se				Section . 33		TWP 5S			RNG (E/W) 39W		Acres Attributed			
Field Cherry Creek				Reservoir Niobrara				Gas Gathering Connection Southern Star/Kinder M						
Completion Date 4/19/2011				Plug Back 1506'	k Total De	epth		Packer Set at '						
Casing Size Weight 7", 4 1/2" 17#, 11.6#				Internal D 9 7/8",			Set at 403', 1552'		Perforations 1330'					
				Internal E			Set at		Perforations					
Type Com Single (n (De				Type Flui		tion ,	٦	Pump Unit or Traveling Plun		Plunger? Yes	nger? Yes / No	
Producing		(Anr	nulus / Tubii	ng)			arbon Die	oxide	% Nitrogen		en	Gas Gravity - G _g		
Tubing Vertical D	epth(1)					Pressure Taps			(Mete			r Run) (Prover) Size	
Procesure	ייוש	ID: 1	Shut in 4/2	24	20	, 11 , 9:	:00	AM (PN) Takon		20	at	(AM) (PM)	
	Pressure Buildup: Shut in 4/24 20 Well on Line: Started 6/1 20				11 12:35		_ (AM) (PM	AM) (PM) Taken AM) (PM) Taken						
							OBSER	VED SURFA	CE DATA			Duration of Shut-	912 Hours	
Static / Dynamic Property	Orifice Size (inches)		Circle one: Meter Prover Pressure		Pressure Differential in nches H ₂ 0	Flowing Temperature t	Well Hea Temperatu t	ture (P _w) or (P ₁) or (F		Tubing Welihead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)	
Shut-In			psig (Pm	, "	nches 11 ₂ 0	·		180	psia	psig	psia			
Flow														
				<u> </u>			FLOW S	TREAM ATT	RIBUTES					
Plate Coeffiecient (F _b) (F _p) Mcfd		Circle one: Meter or Prover Pressure psia			Press Extension P _m x h	Gravity Factor F _g		Flowing Temperature Factor F ₁₁	Temperature Fa		viation Metered Flow actor R F _{pv} (Mcfd)		Flowing Fluid Gravity G _m	
·														
(P _c) ² =		_:	(P _w) ²	=	:	(OPEN FLO	OW) (DEL	.IVERABILIT %	Y) CALCUI (P _c - 14.4) -		·;	(P _a) ⁽	² = 0.207 ² =	
$(P_c)^2 - (P_s)^2$ 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:		S	Backpressure Curve Slope = "n" or Assigned Standard Slope		n x 10G		Open Flow Deliverability Equals R x Antilog (Mcfd)	
									· .					
Open Flov	w				//cfd @ 14.6	55 psia		Delivera	ability			//cfd @ 14.65 psi	a	
		igned	d authority,				tates tha			to make th		t and that he ha		
			•					ted this the _			ovember	-/	RECEIVED	
			Witness	(if any)				-	Ch	elf	For Co	Muson Ompany	DEC U 2 201	
			For Corr	mission		•		-		U	Check	ked by		
													KCC WI CH Î	

exempt status	under penalty of perjury under the laws of the state of Kansas that I am authorized to request under Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc
	oregoing pressure information and statements contained on this application form are true and
	best of my knowledge and belief based upon available production summaries and lease records
• •	installation and/or upon type of completion or upon use being made of the gas well herein named. equest a one-year exemption from open flow testing for the
	e grounds that said well:
3	
(CI	neck 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
	gree to supply to the best of my ability any and all supporting documents deemed by Commissions ary to corroborate this claim for exemption from testing.
Date: 11/11/2	2011
	Signatura Chia 4 1/2 / 1000
	Signature: <u>Cheuf Johnson</u>
	Signature: <u>Cheuf Johnson</u> 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 form signed and dated on the front side as though it was a verified report of annual test results.

DEC 02 2011

KCC WICHITA



NATURAL GAS ANALYSIS

PROJECT NO.:

201106109

ANALYSIS NO.:

COMPANY NAME: NOBLE ENERGY

ANALYSIS DATE:

JUNE 26, 2011

ACCOUNT NO.:

YUMA

SAMPLE DATE: TO: JUNE 16, 2011

PRODUCER:

E1502321276

EFFECTIVE DATE:

JULY 1, 2011

LEASE NO.: NAME/DESCRIP.:

DUELL TRUSTS 33-33

1060

FIELD DATA

SAMPLED BY:

J. AMOS

CYLINDER NO.: AMBIENT TEMP.:

SAMPLE PRES.: SAMPLE TEMP.:

87

GRAVITY:

SPOT SAMPLE TYPE:

VAPOR PRES.:

FIELD COMMENTS: NO PROBE

LAB COMMENTS:

3	NORM.	GPM @	GPM @	
COMPONENTS	MOLE%	14.65	14.73	
HELIUM	0.11	-	-	
HYDROGEN	0.01	-	•	
OXYGEN/ARGON	0.04	-	-	
NITROGEN	4.14	-	-	
CO2	0.58	-	-	
METHANE	93.20	•	-	
ETHANE	1.35	0.359		0.361
PROPANE	0.40	0.110		0.110
ISOBUTANE	0.06	0.020		0.020
N-BUTANE	0.07	0.022	•	0.022
ISOPENTANE	0.02	0.007		0.007
N-PENTANE	0.01	0.004		0.004
HEXANES+	0.01	0.004		0.004
TOTAL	100.00	0.526		0.528
BTU @ 60 DEG F		14.65		14.73
NET DRY REAL =		882.9	•	887.7
NET WET REAL =	•	867.5		872.3
GROSS DRY REAL =		980.1		985.5
GROSS WET REAL =		963.0		968.4

RELATIVE DENSITY REAL (AIR=1 @ 14.696 PSIA 60F):

0.5903

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.

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