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

Type Test: (See Instructions on Reverse Side)												
Open Flow Deliverability				Test Date	Test Date: API No. 15 15-023-212				No. 15 023-21275-0	00-00		
Company Noble Energy Inc					Lease Rogers					Well Number 32-32B		
County Location Cheyenne N2-NW-SW-NE				Section 32				RNG (E/W) 39W			Acres Attributed	
Field Prairie Start					Reservoir Niobrara				hering Conne Morgan	ection		
Completion Date 6/1/2011			Plug Bac 1494'	Plug Back Total Depth 1494'			Packer S	Set at				
Casing Size 7", 4-1/2"			Weight 17#, 1		Internal Diameter 9-7/8", 6-1/4"			Set at 388',1537'		rations 6'	To 1374'	
Tubing Size Weight				Internal Diameter Set at			Perforations		То	То		
Type Completion (Describe) Single (gas)					Type Fluid Production Saltwater			Pump Unit or Traveling Plung		Plunger? Yes	/ No	
Producing	g Thru	(Anı	nulus / Tubing	)	% Carbon Dioxìde			% Nitrogen		Gas Gra	Gas Gravity - G <sub>q</sub>	
Annulus  Vertical Depth(H) Pressure Taps (Meter Run) (Prover) Size									lun) (Prover) Size			
		<u>-</u>	6/6		11 1	1.00						
Pressure	Buildu		Snut in		0 11 at 1		$\stackrel{\smile}{=}$				at	
Well on L	.ine:		Started 6/13	2	0 <u>11</u> at <u>1</u>	0.00	(PM)	Taken		20	at	(AM) (PM)
						OBSERVE	D SURFACE	DATA			Duration of Shut-i	n 169 Hours
Static / Dynamic Property	ynamic Size		Circle one: Meter Prover Pressur psig (Pm)	Pressure Differential in Inches H <sub>2</sub> 0	t temperature lemperatu		Wellhead Pressure $(P_w) \text{ or } (P_t) \text{ or } (P_c)$		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> ) psig gsia		Duration (Hours)	Liquid Produced (Barrels)
Shut-In			, ,	1			201	hziff	psig	pşia		
Flow												
						FLOW STR	REAM ATTRI	BUTES				
Plate Coeffiecient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd		Pro	Circle one: Meter or ver Pressure psia	Press Extension P <sub>m</sub> x h	Gravity Factor F <sub>g</sub>		emperature Fac		iation Metered Flow ctor R F <sub>p</sub> (Mcfd)		GOR (Cubic Fee Barrel)	Flowing Fluid Gravity G <sub>m</sub>
					(OPEN EL	OW) (DELIV	/ERABILITY)	CALCUL	ATIONS			
(P <sub>c</sub> ) <sup>2</sup> =		_:	(P <sub>w</sub> ) <sup>2</sup> =_	:	P <sub>d</sub> =	, -	·	c - 14.4) +		:	(P <sub>a</sub> )² (P <sub>d</sub> )²	= 0.207 =
(P <sub>c</sub> ) <sup>2</sup> - (I or (P <sub>c</sub> ) <sup>2</sup> - (I	•	(F	P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	hoose formula 1 or 2 1. $P_c^2 - P_s^2$ 2. $P_c^2 - P_d^2$ wided by: $P_c^2 - P_s^2$	LOG of formula 1, or 2, and divide	P <sub>c</sub> <sup>2</sup> - P <sub>*</sub> <sup>2</sup>	Slop Ass	ssure Curve be = "n" or signed ard Slope	l n x	LOG [	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
								·				
Open Flow Mcfd @ 14.65 psia						Deliverab	ility			Mcfd @ 14.65 psia	<u> </u>	
		•	•	behalf of the	• • •			,		ovember	rt and that he has	s knowledge of, 20 <u>11</u>
			Witness (if	any)				Ch	ry	Fort	company E	ECEIVED
			For Commit	ssion			_		<u> </u>	Chec	ked by	EC 1 3 2011

	er penalty of perjury under the laws of the state of Kansas that I am authorized to request
and that the forego	er Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc  oing 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 llation and/or upon type of completion or upon use being made of the gas well herein named.
I hereby reque	st a one-year exemption from open flow testing for the Rogers 32-32B cunds that said well:
(Check	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
_	to supply to the best of my ability any and all supporting documents deemed by Commission to corroborate this claim for exemption from testing.
Date: 11/28/2011	
	Signature: Chery Down 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.:

201109152

ANALYSIS NO.:

COMPANY NAME: NOBLE ENERGY

ANALYSIS DATE: SAMPLE DATE:

**OCTOBER 3, 2011 SEPTEMBER 20, 2011** 

ACCOUNT NO.:

YUMA

TO:

PRODUCER: LEASE NO.:

E1502321275

EFFECTIVE DATE: NOVEMBER 1, 2011

NAME/DESCRIP.:

ROGERS 32-32B

\*\*\*FIELD DATA\*\*\*

**JOSHUA WALTERS** 

CYLINDER NO.:

1029

SAMPLED BY: SAMPLE PRES.: SAMPLE TEMP.:

72

AMBIENT TEMP. :

SAMPLE TYPE: **SPOT**  **GRAVITY: VAPOR PRES.:** 

FIELD COMMENTS: NO PROBE

LAB COMMENTS:

	NORM.	GPM @	GPM @	
COMPONENTS	MOLE%_	14.65	14.73	
HELIUM	0.12	-	•	
HYDROGEN	0.00	•	-	
OXYGEN/ARGON	0.05	-	-	
NITROGEN	5.07	-	-	
CO2	0.54	-	•	
METHANE	92.23	•	•	
ETHANE	1.39	0.370		0.372
PROPANE	0.41	0.112		0.113
ISOBUTANE	0.07	0.023		0.023
N-BUTANE	0.07	0.022		0.022
ISOPENTANE	0.02	0.007		0.007
N-PENTANE	0.01	0.004		0.004
HEXANES+	0.02	0.009		0.009
TOTAL	100.00	0.547	<u>-</u>	0.550
BTU @ 60 DEG F		14.65		14.73
NET DRY REAL =		875.7		880.5
NET WET REAL =		860.4		865.2
GROSS DRY REAL =		972.1		977.4
GROSS WET REAL =		955.1		960.4
RELATIVE DENSITY REAL	(AIR=1 @ 14.696 PSIA 60F):	0.5945		
COMPRESSIBILITY FACTO	OR:	0.99803		

## 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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