Form G-2
(Rev. 7/03)

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test: *(See Instructions on Reverse Side)*

[X] Open Flow
[ ] Deliverabilty

Test Date: July, 2004 API No. 15 023-20549-00-00

Company Noble Energy, Inc Lease Zweygardt 13-32 Well Number

County Cheyenne Location NWSW Section 32 TWP 3S RNG (E/W) 41W Acres Attributed 40

Field Cherry Creek Reservoir Niobrara Gas Gathering Connection Bitter Creek

Completion Date 6/3/04 Plug Back Total Depth 1596 Packer Set at N/A

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Casing Size 4.5 Weight 10.5 Internal Diameter Set at Perforations 1450 To 1456

Tubing Size N/A Weight Internal Diameter Set at Perforations To

Type Completion (Describe) Gas Type Fluid Production Gas Pump Unit or Traveling Plunger? Yes (No)

Producing Thru (Annulus / Tubing) Casing % Carbon Dioxide 0 % Nitrogen 4.6 Gas Gravity - G_g 0.60

Vertical Depth(H) Pressure Taps (Meter Run) (Prover) Size 2" meter

Pressure Buildup: Shut in 6/3 20 04 at 7 (AM) (PM) Taken 6/7 20 04 at 7 (AM) (PM)

Well on Line: Started ____ 20 ____ at ____ (AM) (PM) Taken ____ 20 ____ at ____ (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 96 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter / Prover Pressure psig (Pm)	Pressure Differential in Inches H_2O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Casing Wellhead Pressure psia	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	Tubing Wellhead Pressure psia	Duration (Hours)	Liquid Produced (Barrels)
Shut-In							275				
Flow	0.50	147	9.6	68	68				147	744	0

FLOW STREAM ATTRIBUTES

Plate Coeffiecient (F_b) (F_p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m x h}$	Gravity Factor F_g	Flowing Temperature Factor F_{tt}	Deviation Factor F_{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G_m

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$ = ____ : $(P_w)^2$ = ____ : P_d = ____ % $(P_c - 14.4) + 14.4$ = ____ : $(P_a)^2$ = 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: $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" -or- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
					0.80		
		SEE	ATTACHED	SHEET	FOR JULY,	2004	

Open Flow 81 Mcfd @ 14.65 psia Deliverability 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 13 day of August, 20 04.

Scott Stevens Scott Stevens

Witness (if any) For Company

For Commission Checked by

Form G-2
(Rev. 7/03)

I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy, Inc and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

I hereby request a one-year exemption from open flow testing for the Boeygardt 13-32 gas well on the grounds that said well:

(Check 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

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 8/13/04

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Signature: Scott G. Stimatz

Title: ENGINEER

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

ZWEYGARDT 13-32

JULY 2004

Date	Time	Total Flow	Units	Flow Time	Units	Flow Rate	Units	DP Avg	Units	SP Avg	Units	PT Avg	Units	Sequence
04/07/01	07:00:02	63,810.40	SCF	24:00:00	hrs	63,810.40	SCFD	9.94	InH2O	148.05	psi	66.23	DegF	26
04/07/02	07:00:02	64,097.10	SCF	24:00:00	hrs	64,097.10	SCFD	9.90	InH2O	148.15	psi	59.94	DegF	27
04/07/03	07:00:02	62,124.50	SCF	24:00:00	hrs	62,124.50	SCFD	9.42	InH2O	148.79	psi	68.67	DegF	28
04/07/04	07:00:01	61,245.90	SCF	24:00:00	hrs	61,245.90	SCFD	9.19	InH2O	149.04	psi	71.45	DegF	29
04/07/05	07:00:01	61,895.90	SCF	24:00:00	hrs	61,895.90	SCFD	9.35	InH2O	148.52	psi	67.59	DegF	30
04/07/06	07:00:02	62,108.10	SCF	24:00:00	hrs	62,108.10	SCFD	9.41	InH2O	148.30	psi	66.99	DegF	31
04/07/07	07:00:01	61,907.50	SCF	23:59:59	hrs	61,908.20	SCFD	9.39	InH2O	148.36	psi	69.07	DegF	32
04/07/08	07:00:02	59,826.00	SCF	24:00:01	hrs	59,825.30	SCFD	8.86	InH2O	149.34	psi	77.58	DegF	33
04/07/09	07:00:02	59,835.40	SCF	23:59:59	hrs	59,836.10	SCFD	8.87	InH2O	148.85	psi	76.88	DegF	34
04/07/10	07:00:01	61,093.60	SCF	24:00:00	hrs	61,093.60	SCFD	9.32	InH2O	147.71	psi	76.56	DegF	35
04/07/11	07:00:02	62,221.10	SCF	24:00:01	hrs	62,220.40	SCFD	9.68	InH2O	147.01	psi	75.06	DegF	36
04/07/12	07:00:02	62,421.50	SCF	23:59:59	hrs	62,422.30	SCFD	9.75	InH2O	147.13	psi	75.84	DegF	37
04/07/13	07:00:01	60,971.00	SCF	24:00:00	hrs	60,971.00	SCFD	9.36	InH2O	147.63	psi	80.74	DegF	38
04/07/14	07:00:01	59,909.10	SCF	24:00:00	hrs	59,909.10	SCFD	9.03	InH2O	147.91	psi	81.60	DegF	39
04/07/15	07:00:02	61,880.20	SCF	24:00:01	hrs	61,879.50	SCFD	9.62	InH2O	147.05	psi	77.70	DegF	40
04/07/16	07:00:01	61,074.60	SCF	23:59:59	hrs	61,075.40	SCFD	9.26	InH2O	147.97	psi	74.84	DegF	41
04/07/17	07:00:01	61,814.60	SCF	24:00:00	hrs	61,814.60	SCFD	9.36	InH2O	148.13	psi	68.06	DegF	42
04/07/18	07:00:01	60,633.40	SCF	24:00:00	hrs	60,633.40	SCFD	9.08	InH2O	148.38	psi	73.22	DegF	43
04/07/19	07:00:02	60,225.70	SCF	24:00:01	hrs	60,225.00	SCFD	9.01	InH2O	148.29	psi	76.38	DegF	44
04/07/20	07:00:02	59,668.40	SCF	24:00:00	hrs	59,668.40	SCFD	8.89	InH2O	148.46	psi	79.50	DegF	45
04/07/21	07:00:02	58,257.00	SCF	24:00:00	hrs	58,257.00	SCFD	8.48	InH2O	149.17	psi	82.18	DegF	46
04/07/22	07:00:02	59,137.80	SCF	23:59:59	hrs	59,138.50	SCFD	8.67	InH2O	148.82	psi	76.92	DegF	47
04/07/23	07:00:02	63,359.10	SCF	24:00:01	hrs	63,358.30	SCFD	9.94	InH2O	146.38	psi	67.94	DegF	48
04/07/24	07:00:02	65,380.10	SCF	24:00:00	hrs	65,380.10	SCFD	10.37	InH2O	145.77	psi	55.72	DegF	49
04/07/25	07:00:02	65,302.20	SCF	24:00:00	hrs	65,302.20	SCFD	10.34	InH2O	145.78	psi	55.68	DegF	50
04/07/26	07:00:02	64,869.40	SCF	24:00:00	hrs	64,869.40	SCFD	10.31	InH2O	145.64	psi	60.37	DegF	51
04/07/27	07:00:01	64,432.00	SCF	23:59:59	hrs	64,432.70	SCFD	10.32	InH2O	145.35	psi	66.53	DegF	52
04/07/28	07:00:02	64,169.60	SCF	24:00:00	hrs	64,169.60	SCFD	10.35	InH2O	145.05	psi	71.12	DegF	53
04/07/29	07:00:01	64,921.30	SCF	24:00:00	hrs	64,921.30	SCFD	10.52	InH2O	144.72	psi	66.68	DegF	54
04/07/30	07:00:02	62,297.80	SCF	24:00:01	hrs	62,297.10	SCFD	9.57	InH2O	147.16	psi	68.67	DegF	55
04/07/31	07:00:02	59,756.10	SCF	23:59:57	hrs	59,758.20	SCFD	8.77	InH2O	148.68	psi	71.68	DegF	56
Flow Grand Total:		**1,920.65**	**MCF**											

AVG 62 MCFPD

P_C (6/9/04) = 262 psig
= 275 psia

P_W = 147 psia

$Q = C(P_C^2 - P_w^2)^n$

$62 = C(275^2 - 147^2)^{0.80}$

$AOF = 0.0101(275^2 - 147^2)^{0.80}$

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WICHITA, KS

ZWEYGARDT 13-32

JUNE 2004

Date	Time	Total Flow	Units	Flow Time	Units	Flow Rate	Units	DP Avg	Units	SP Avg	Units	PT Avg	Units	Sequence
04/06/07	16:05:27	0.00	SCF	00:00:00	hrs	0.00	SCFD	0.00	InH2O	12.57	psi	146.27	DegF	1
04/06/07	16:05:43	0.00	SCF	00:00:00	hrs	0.00	SCFD	0.00	InH2O	12.58	psi	102.46	DegF	2
04/06/08	07:00:01	0.00	SCF	00:00:00	hrs	0.00	SCFD	0.00	InH2O	0.08	psi	85.83	DegF	3
04/06/09	07:00:01	0.00	SCF	00:00:00	hrs	0.00	SCFD	0.00	InH2O	0.20	psi	79.27	DegF	4
04/06/10	07:00:02	0.00	SCF	00:00:00	hrs	0.00	SCFD	0.00	InH2O	0.22	psi	69.91	DegF	5
04/06/11	07:00:02	35,820.90	SCF	14:10:20	hrs	60,661.10	SCFD	9.24	InH2O	144.27	psi	65.52	DegF	6
04/06/12	07:00:02	56,730.80	SCF	24:00:03	hrs	56,728.80	SCFD	8.01	InH2O	146.17	psi	70.71	DegF	7
04/06/13	07:00:02	55,922.40	SCF	23:59:59	hrs	55,923.10	SCFD	7.80	InH2O	146.46	psi	72.19	DegF	8
04/06/14	07:00:02	55,237.00	SCF	24:00:01	hrs	55,236.30	SCFD	7.64	InH2O	146.72	psi	75.51	DegF	9
04/06/15	07:00:02	54,830.70	SCF	24:00:00	hrs	54,830.70	SCFD	7.46	InH2O	147.41	psi	73.04	DegF	10
04/06/16	07:00:02	56,281.80	SCF	24:00:00	hrs	56,281.80	SCFD	7.96	InH2O	145.16	psi	71.66	DegF	11
04/06/17	07:00:02	60,261.80	SCF	23:59:59	hrs	60,262.50	SCFD	9.04	InH2O	142.49	psi	58.10	DegF	12
04/06/18	07:00:01	61,032.10	SCF	24:00:00	hrs	61,032.10	SCFD	9.28	InH2O	141.79	psi	56.22	DegF	13
04/06/19	07:00:01	60,707.50	SCF	24:00:00	hrs	60,707.50	SCFD	8.94	InH2O	143.32	psi	48.10	DegF	14
04/06/20	07:00:02	59,040.40	SCF	23:59:58	hrs	59,041.80	SCFD	8.52	InH2O	143.86	psi	53.69	DegF	15
04/06/21	07:00:02	56,848.40	SCF	24:00:03	hrs	56,846.40	SCFD	7.99	InH2O	145.00	psi	63.07	DegF	16
04/06/22	07:00:01	57,448.10	SCF	23:59:59	hrs	57,448.80	SCFD	8.03	InH2O	144.80	psi	54.34	DegF	17
04/06/23	07:00:02	57,095.40	SCF	24:00:01	hrs	57,094.70	SCFD	8.14	InH2O	144.30	psi	65.99	DegF	18
04/06/24	07:00:02	56,322.70	SCF	24:00:00	hrs	56,322.70	SCFD	8.01	InH2O	144.50	psi	72.27	DegF	19
04/06/25	07:00:02	57,343.30	SCF	23:59:57	hrs	57,345.30	SCFD	8.21	InH2O	143.99	psi	64.61	DegF	20
04/06/26	07:00:02	57,247.00	SCF	24:00:03	hrs	57,245.00	SCFD	8.17	InH2O	144.53	psi	65.70	DegF	21
04/06/27	07:00:02	56,916.60	SCF	23:59:58	hrs	56,917.90	SCFD	8.03	InH2O	145.01	psi	64.41	DegF	22
04/06/28	07:00:02	57,109.70	SCF	24:00:02	hrs	57,108.40	SCFD	8.00	InH2O	145.20	psi	60.02	DegF	23
04/06/29	07:00:02	56,433.50	SCF	23:59:57	hrs	56,435.50	SCFD	7.95	InH2O	144.89	psi	67.72	DegF	24
04/06/30	07:00:02	63,999.10	SCF	24:00:03	hrs	63,996.90	SCFD	10.13	InH2O	147.27	psi	70.56	DegF	25
Flow Grand Total:		**1,132.63**	**MCF**											

NOBLE ENERGY, INC.
ENEYGARDT 13-32 TEST 6/3/04
"n" = 0.80 "θ" = 51.3°

$(P_c^2 - P_w^2)/1000$

9
8
7
6
5
4
3
2
1

1 2 3 4 5 6 7 8 9 10 2 4 5 6 7 8 9 100 2 3 4 5

13-32

MULTIPOINT BACK PRESSURE TEST

Test Type ;	INITIAL	State:	Kansas	Test Date:	06/03/04
Company ;	Noble Energy Inc.	Lease ;	Zweygart	Well No. ;	13 32
County ;	Cheyenne	Location ;	NWSW/4,SEC.32-T3S-R41W	Acres ;	
Field;	Cherry Creek	Reservior ;	Niobrara	Pipeline Conn.	None
Completion Date ;		PBTD ;	1596	Packer Set ;	
Casing Size ; 4 1/2"	Wt. ; 10.5#	Set @ ;	1638	Perfs. ;	N/A
Tubing Size ; None	Wt. ;	Set @ ;		Perfs ;	N/A
Type of Completion ;	Single Gas	Type Fluid Prod ; None			
Producing Thru ; Casing		Reservoir Temp. F ; --		Bar. Press. ;	13 PSI
Gas Gravity ; .6 (est)		% CO2 ; -- % N2 ; --		Liquid API Grav	N/A
Vertical Depth ;	1488	Type Meter Conn. ; None		Prover Size ;	2"

Remarks: Used 2" critical flow provar & dead weight tester.

OBSERVED DATA — Shut-in Hrs.:

Rate No.	Orifice Size in.	Prover Press. psig	Flowing Temp. deg. F	Casing Wellhead Pressure psig	psia	Duration hrs.	Liquid Prod. bbls.
Shut-in	blank	247	--	247	260	0	0
1	3/16	239	70	239	252	1	0
2	17/64	230	70	230	243	1	0
3	11/32	217	70	217	230	1	0
4	3/8	206	70	206	219	1	0
5	11/32	100	70	100	113	24	0

RATE OF FLOW CALCULATIONS

Rate No.	Coeffi-cient mcfd	Prover Press. psia	Gravity Factor Fg	Temp. Factor Ft	Deviation Factor Fpv	Rate of Flow Q mcfd
1	0.6237	252	1.291	0.9905	1.0179	205
2	1.2640	243	1.291	0.9905	1.0172	400
3	2.0350	230	1.291	0.9905	1.0163	608
4	2.4380	219	1.291	0.9905	1.0155	694
5	2.0350	113	1.291	0.9905	1.0079	296

PRESSURE CALCULATIONS

Rate No.	Pc psia	Pw psia	Pc^2 /1000	Pw^2 /1000	Pc^2-Pw^2 /1000	Q mcfd	Shut-in %
1	260	252	67.6	63.5	4.1	205	96.76
2	260	243	67.6	59.0	8.6	400	93.12
3	260	230	67.6	52.9	14.7	608	87.85
4	260	219	67.6	48.0	19.6	694	83.40
5	260	113	67.6	12.8	54.8	296	40.49

INDICATED WELLHEAD OPEN FLOW = 349.82 Mcfd "n" = 0.80

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 9th day of June, 20 04

Wayne Mahon For Excell Drilling Co.

Signed: Wayne Mahon Title: Field Technician

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David Ledet
08/12/2004 04:05 PM

To: Scott Steinke/Production/Houston_Onshore/Samedan@Samedan
cc:
Subject: one-pt test for KS wells

Scott,

Here is the pressure info on the 4 KS wells in question:

Zweygardt 13-33 SIFBU on 6-2-04 SICP on 6-9-04 at 242 psi Turned on to sales 6-10-04 ,-
.500 orfice plate -

Production for 6-11-04 = 52 mcf
" 6-12-04 = 52 mcf
" 6-13-04 = 39 mcf

Zweygardt 22-5 SIFBU on 6-3-04 SICP on 6-7-04 at 272 psi Turned on to sales 6-7-04 -
.500 orfice plate

Production for 6-8-04 = 29 mcf
" 6-9-04 = 57 mcf
" 6-10-04 = 57 mcf
" 6-11-04 = 57 mcf

Zweygardt 31-5 SIFBU on 6-1-04 SICP on 6-7-04 at 265 psi Turned on to sales 6-7-04 -
.500 orfice plate

Production for 6-8-04 = 31 mcf
" 6-9-04 = 31 mcf
" 6-10-04 = 55 mcf
" 6-11-04 = 46 mcf

Zweygardt 13-32 SIFBU on 6-4-04 SICP on 6-9-04 at 262 psi Turned on to sales on 6-9-04 -
.500 orfice plate

Production for 6-10-04 = 35 mcf
" 6-11-04 = 54 mcf
" 6-12-04 = 54 mcf
" 6-13-04 = 54 mcf

If you need anything else, please call

David