



KANSAS CORPORATION COMMISSION 1069445
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL **WELL COMPLETION FORM**
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 32334
Name: Chesapeake Operating, Inc.
Address 1: 6100 N WESTERN AVE
Address 2: PO BOX 18496
City: OKLAHOMA CITY State: OK Zip: 73154 + 0496
Contact Person: Aletha Dewbre / David Wiist
Phone: (405) 935-4775
CONTRACTOR: License # 34500
Name: Nomac Drilling, LLC
Wellsite Geologist: Hayet Serradji
Purchaser: One OK

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 CM (Coal Bed Methane)
 Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW

Plug Back: _____ Plug Back Total Depth _____

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

ENHR Permit #: _____

GSW Permit #: _____

<u>08/16/2011</u>	<u>09/16/2011</u>	<u>09/18/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-033-21591-01-00

Spot Description: _____

SW SE SW Sec. 31 Twp. 31 S. R. 17 East West

200 Feet from North / South Line of Section

760 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Comanche

Lease Name: York 31-31-17 Well #: 1H

Field Name: _____

Producing Formation: Mississippi

Elevation: Ground: 2126 Kelly Bushing: 2142

Total Depth: 8919 Plug Back Total Depth: 8792

Amount of Surface Pipe Set and Cemented at: 925 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 300 ppm Fluid volume: 2000 bbls

Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Letter of Confidentiality Received
Date: 12/13/2011

Confidential Release Date: _____

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT I II III Approved by: NAOMI JAMES Date: 12/14/2011

Chesapeake - OK, TX, KS

Comanche County, KS

York 31-31-17

1H

ST1

Design: ST1

Standard Survey Report

21 September, 2011

Crescent Directional Survey Report

Company: Chesapeake - OK, TX, KS	Local Co-ordinate Reference: Well 1H
Project: Comanche County, KS	TVD Reference: RKB2 @ 2144.00ft (Nomac 115)
Site: York 31-31-17	MD Reference: RKB2 @ 2144.00ft (Nomac 115)
Well: 1H	North Reference: Grid
Wellbore: ST1	Survey Calculation Method: Minimum Curvature
Design: ST1	Database: EDM 2003.16 Single User Db

Project: Comanche County, KS
Map System: US State Plane 1927 (Exact solution) System Datum: Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Kansas South 1502

Site: York 31-31-17					
Site Position:	Northing: 230,085.000 ft	Latitude: 37° 17' 48.923 N			
From: Map	Easting: 1,791,652.000 ft	Longitude: 99° 12' 58.451 W			
Position Uncertainty: 0.00 ft	Slot Radius: in	Grid Convergence: -0.44 °			

Well: 1H					
Well Position	+N-S 0.00 ft	Northing: 230,085.000 ft	Latitude: 37° 17' 48.923 N		
	+E-W 0.00 ft	Easting: 1,791,652.000 ft	Longitude: 99° 12' 58.451 W		
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 2,128.00 ft		

Wellbore: ST1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	08/17/11	(°) 5.45	(°) 65.31	(nT) 51,967

Design: ST1					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00			
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	0.44	

Survey Program Date: 09/21/11					
From	To	Survey (Wellbore)	Tool Name	Description	
(ft) 200.00	(ft) 8,963.00	Crescent MWD Surveys (ST1)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.58	144.48	200.00	-0.82	0.59	-0.82	0.29	0.29	0.00
400.00	0.65	155.40	399.99	-2.88	1.65	-2.67	0.07	0.03	5.47
600.00	0.72	159.27	599.97	-4.89	2.57	-4.87	0.04	0.03	1.93
800.00	0.83	174.79	799.95	-7.50	3.14	-7.48	0.12	0.05	7.76
1,000.00	0.33	197.19	999.94	-9.50	3.10	-9.47	0.27	-0.25	11.20
1,200.00	0.53	212.43	1,199.94	-10.83	2.44	-10.81	0.11	0.10	7.62
1,400.00	0.48	228.68	1,399.93	-12.18	1.33	-12.17	0.07	-0.02	7.12
1,600.00	0.46	240.16	1,599.92	-13.16	0.03	-13.16	0.06	-0.01	6.74
1,800.00	0.31	239.72	1,799.92	-13.83	-1.14	-13.84	0.08	-0.07	-0.22
2,000.00	0.62	228.53	1,999.91	-14.85	-2.39	-14.86	0.16	0.15	-6.59
2,200.00	0.20	217.94	2,199.91	-15.87	-3.39	-15.89	0.21	-0.21	-4.29
2,400.00	0.25	211.51	2,399.90	-16.51	-3.83	-16.54	0.03	0.02	-3.21

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well 1H
Project:	Comanche County, KS	TVD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Site:	York 31-31-17	MD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Well:	1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,600.00	0.54	213.45	2,599.90	-17.67	-4.58	-17.71	0.15	0.14	0.97
2,800.00	0.65	229.55	2,799.89	-19.19	-5.98	-19.24	0.10	0.05	8.05
3,000.00	0.39	235.45	2,999.88	-20.32	-7.39	-20.37	0.13	-0.13	2.95
3,200.00	0.20	258.75	3,199.88	-20.77	-8.29	-20.83	0.11	-0.09	11.65
3,400.00	0.61	260.73	3,399.87	-21.01	-9.68	-21.08	0.21	0.20	0.99
3,600.00	0.70	264.03	3,599.86	-21.31	-11.95	-21.40	0.05	0.04	1.65
3,800.00	0.52	258.76	3,799.85	-21.64	-14.05	-21.75	0.10	-0.09	-3.63
4,000.00	0.51	258.83	3,999.84	-22.05	-15.80	-22.18	0.01	0.00	0.03
4,200.00	0.70	273.29	4,199.83	-22.19	-17.88	-22.33	0.13	0.09	8.23
4,320.00	0.61	287.73	4,319.82	-21.95	-19.22	-22.10	0.18	-0.07	12.03
4,385.00	4.90	7.00	4,384.74	-19.09	-19.22	-19.24	7.42	6.60	121.95
4,416.00	5.90	10.30	4,415.60	-16.21	-18.77	-16.35	3.38	3.23	10.65
4,448.00	8.30	4.40	4,447.35	-12.28	-18.30	-12.43	7.83	7.50	-18.44
4,479.00	11.90	1.70	4,477.87	-8.86	-18.03	-7.00	11.71	11.61	-8.71
4,511.00	16.50	2.60	4,508.88	0.98	-17.73	0.85	14.39	14.37	2.81
4,543.00	21.90	2.40	4,539.09	11.49	-17.27	11.36	16.88	16.87	-0.62
4,574.00	27.30	1.40	4,567.27	24.39	-16.85	24.26	17.47	17.42	-3.23
4,606.00	29.60	1.80	4,595.40	39.62	-16.43	39.50	7.21	7.19	1.25
4,638.00	30.50	2.60	4,623.10	55.64	-15.81	55.51	3.08	2.81	2.50
4,669.00	30.70	2.60	4,649.78	71.40	-15.09	71.28	0.65	0.65	0.00
4,701.00	30.80	2.90	4,677.28	87.74	-14.31	87.63	0.57	0.31	0.84
4,732.00	31.00	2.10	4,703.88	103.65	-13.62	103.54	1.47	0.65	-2.58
4,764.00	31.50	2.70	4,731.24	120.23	-12.92	120.13	1.84	1.56	1.87
4,795.00	31.80	2.60	4,757.63	136.48	-12.17	136.38	0.98	0.97	-0.32
4,827.00	32.30	2.90	4,784.75	153.44	-11.35	153.35	1.64	1.58	0.94
4,858.00	32.60	2.80	4,810.91	170.06	-10.53	169.97	0.98	0.97	-0.32
4,890.00	33.80	2.50	4,837.69	187.58	-9.72	187.48	3.78	3.75	-0.94
4,921.00	38.30	1.80	4,862.74	205.79	-9.04	205.71	14.58	14.52	-2.26
4,952.00	43.20	1.90	4,888.22	226.00	-8.38	225.93	15.81	15.81	0.32
4,984.00	46.20	2.90	4,908.97	248.49	-7.44	248.42	9.63	9.37	3.12
5,016.00	47.90	3.30	4,930.77	271.88	-6.17	271.82	5.39	5.31	1.25
5,048.00	49.30	3.20	4,951.93	295.84	-4.81	295.79	4.38	4.37	-0.31
5,079.00	50.60	2.70	4,971.88	319.54	-3.59	319.50	4.37	4.19	-1.61
5,111.00	53.10	2.30	4,991.64	344.68	-2.49	344.65	7.87	7.81	-1.25
5,143.00	55.60	1.90	5,010.29	370.66	-1.54	370.64	7.88	7.81	-1.25
5,175.00	57.80	2.00	5,027.86	397.39	-0.63	397.37	6.88	6.87	0.31
5,206.00	59.00	1.80	5,044.10	423.78	0.24	423.77	3.91	3.87	-0.65
5,238.00	59.90	1.90	5,060.37	451.32	1.13	451.32	2.83	2.81	0.31
5,270.00	61.60	1.30	5,076.00	479.23	1.91	479.23	5.56	5.31	-1.87
5,302.00	63.90	1.10	5,090.65	507.67	2.51	507.67	7.21	7.19	-0.62
5,334.00	67.50	0.90	5,103.82	536.83	3.02	536.83	11.26	11.25	-0.62
5,366.00	70.30	0.30	5,115.34	566.68	3.33	566.68	8.92	8.75	-1.87
5,398.00	72.00	0.40	5,125.68	596.96	3.51	596.97	5.32	5.31	0.31
5,430.00	74.90	359.90	5,134.79	627.63	3.59	627.64	9.19	9.06	-1.56
5,462.00	78.20	358.90	5,142.23	658.74	3.26	658.75	10.75	10.31	-3.12
5,494.00	82.30	357.90	5,147.65	690.28	2.38	690.26	13.18	12.81	-3.12
5,526.00	88.90	357.50	5,150.66	722.09	1.10	722.07	14.43	14.37	-1.25
5,557.00	89.40	357.80	5,151.66	753.04	-0.17	753.02	8.12	8.06	0.97
5,589.00	90.40	358.20	5,151.72	785.02	-1.28	784.99	3.37	3.12	1.25
5,621.00	91.20	358.30	5,151.27	817.00	-2.26	816.96	2.52	2.50	0.31
5,652.00	92.00	358.60	5,150.41	847.98	-3.10	847.93	2.76	2.58	0.97
5,684.00	92.90	358.30	5,149.04	879.94	-3.96	879.88	2.96	2.81	-0.94
5,748.00	92.00	358.90	5,146.30	943.86	-5.53	943.79	1.69	-1.41	0.94
5,780.00	88.70	0.20	5,146.11	975.85	-5.78	975.78	11.08	-10.31	4.06

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well 1H
Project:	Comanche County, KS	TVD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Site:	York 31-31-17	MD Reference:	RKB2 @ 2144.00ft (Nomac 115)
Well:	1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,811.00	85.80	0.50	5,147.59	1,006.81	-5.59	1,006.74	9.40	-9.35	0.97
5,843.00	85.30	0.40	5,150.08	1,038.72	-5.34	1,038.64	1.59	-1.56	-0.31
5,875.00	86.00	0.60	5,152.50	1,070.62	-5.06	1,070.55	2.27	2.19	0.62
5,906.00	86.60	1.20	5,154.51	1,101.55	-4.57	1,101.48	2.73	1.94	1.94
5,938.00	88.00	1.60	5,156.01	1,133.51	-3.79	1,133.44	4.55	4.37	1.25
5,970.00	88.80	1.10	5,156.91	1,165.49	-3.04	1,165.43	2.95	2.50	-1.56
6,002.00	88.80	1.10	5,157.58	1,197.47	-2.42	1,197.42	0.00	0.00	0.00
6,033.00	89.10	1.10	5,158.14	1,228.46	-1.83	1,228.41	0.97	0.97	0.00
6,065.00	90.40	1.10	5,158.28	1,260.45	-1.21	1,260.41	4.06	4.06	0.00
6,096.00	90.20	0.50	5,158.12	1,291.45	-0.78	1,291.41	2.04	-0.65	-1.94
6,128.00	90.50	360.00	5,157.93	1,323.45	-0.64	1,323.41	1.82	0.94	-1.56
6,160.00	90.40	0.10	5,157.67	1,355.45	-0.61	1,355.40	0.44	-0.31	0.31
6,192.00	90.10	0.50	5,157.54	1,387.45	-0.45	1,387.40	1.56	-0.94	1.25
6,223.00	90.30	0.40	5,157.43	1,418.45	-0.20	1,418.40	0.72	0.85	-0.32
6,255.00	91.30	0.60	5,156.98	1,450.44	0.08	1,450.40	3.19	3.12	0.62
6,286.00	90.80	1.30	5,156.41	1,481.43	0.59	1,481.39	2.77	-1.61	2.26
6,318.00	91.30	1.10	5,155.83	1,513.42	1.26	1,513.38	1.68	1.56	-0.62
6,349.00	92.90	2.00	5,154.69	1,544.39	2.10	1,544.36	5.92	5.16	2.90
6,381.00	94.30	2.70	5,152.68	1,576.30	3.41	1,576.27	4.89	4.37	2.19
6,413.00	92.40	2.20	5,150.81	1,608.21	4.77	1,608.20	6.14	-5.94	-1.56
6,444.00	89.80	1.60	5,150.22	1,639.18	5.80	1,639.18	8.61	-8.39	-1.94
6,476.00	89.50	1.50	5,150.41	1,671.17	6.67	1,671.17	0.99	-0.94	-0.31
6,508.00	88.90	1.70	5,150.86	1,703.16	7.56	1,703.16	1.98	-1.87	0.62
6,539.00	91.40	2.20	5,150.78	1,734.14	8.61	1,734.15	8.22	8.06	1.61
6,571.00	91.90	1.80	5,149.86	1,766.10	9.73	1,766.13	2.00	1.56	-1.25
6,603.00	91.20	2.10	5,148.99	1,798.07	10.82	1,798.10	2.38	-2.19	0.94
6,635.00	92.10	1.80	5,148.07	1,830.04	11.91	1,830.08	2.96	2.81	-0.94
6,666.00	93.60	2.10	5,146.53	1,860.98	12.96	1,861.03	4.93	4.84	0.97
6,698.00	93.80	1.90	5,144.46	1,892.90	14.07	1,892.95	0.88	0.62	-0.62
6,761.00	91.00	1.60	5,141.82	1,955.81	16.00	1,955.87	4.47	-4.44	-0.48
6,825.00	90.40	1.20	5,141.04	2,019.78	17.56	2,019.86	1.13	-0.94	-0.62
6,890.00	89.50	0.60	5,141.10	2,084.77	18.58	2,084.85	1.66	-1.38	-0.92
6,953.00	89.80	359.60	5,141.48	2,147.77	18.69	2,147.85	1.66	0.48	-1.59
7,016.00	89.80	359.30	5,141.70	2,210.77	18.09	2,210.84	0.48	0.00	-0.48
7,080.00	90.30	0.30	5,141.65	2,274.77	17.86	2,274.84	1.75	0.78	1.56
7,144.00	91.60	359.70	5,140.59	2,338.76	17.86	2,338.82	2.24	2.03	-0.94
7,206.00	90.90	0.40	5,139.23	2,400.74	17.92	2,400.81	1.60	-1.13	1.13
7,269.00	91.30	359.60	5,138.02	2,463.73	17.92	2,463.79	1.42	0.63	-1.27
7,333.00	90.70	359.90	5,136.91	2,527.72	17.64	2,527.78	1.05	-0.94	0.47
7,396.00	89.80	359.80	5,136.63	2,590.72	17.47	2,590.77	1.44	-1.43	-0.16
7,459.00	91.40	1.00	5,135.97	2,653.71	17.91	2,653.77	3.17	2.54	1.90
7,523.00	89.60	0.60	5,135.41	2,717.70	18.81	2,717.76	2.88	-2.81	-0.62
7,586.00	90.30	0.60	5,135.47	2,780.69	19.47	2,780.76	1.11	1.11	0.00
7,649.00	90.90	359.90	5,134.81	2,843.69	19.74	2,843.75	1.46	0.95	-1.11
7,713.00	90.20	0.50	5,134.20	2,907.68	19.96	2,907.75	1.44	-1.09	0.94
7,776.00	90.20	0.20	5,133.98	2,970.68	20.35	2,970.75	0.48	0.00	-0.48
7,840.00	90.20	0.70	5,133.75	3,034.68	20.85	3,034.75	0.78	0.00	0.78
7,903.00	91.20	1.10	5,132.98	3,097.67	21.84	3,097.74	1.71	1.59	0.63
7,967.00	91.90	0.60	5,131.25	3,161.63	22.79	3,161.72	1.34	1.09	-0.78
8,031.00	90.70	0.50	5,129.80	3,225.61	23.40	3,225.70	1.88	-1.87	-0.16
8,094.00	90.20	1.60	5,129.30	3,288.60	24.56	3,288.69	1.92	-0.79	1.75
8,157.00	89.10	2.60	5,129.69	3,351.58	26.87	3,351.66	2.38	-1.75	1.59
8,220.00	89.50	2.60	5,130.46	3,414.49	29.72	3,414.61	0.63	0.63	0.00
8,284.00	90.20	2.20	5,130.63	3,478.43	32.40	3,478.58	1.26	1.09	-0.62

Crescent Directional Survey Report

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Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,347.00	90.90	2.30	5,130.02	3,541.38	34.88	3,541.54	1.12	1.11	0.16
8,411.00	91.00	2.00	5,128.96	3,605.32	37.28	3,605.50	0.49	0.16	-0.47
8,474.00	90.80	1.80	5,127.97	3,668.28	39.37	3,668.48	0.45	-0.32	-0.32
8,539.00	91.80	1.90	5,126.50	3,733.23	41.47	3,733.44	1.55	1.54	0.15
8,601.00	91.30	1.80	5,124.82	3,795.17	43.47	3,795.40	0.82	-0.81	-0.16
8,665.00	89.60	2.60	5,124.32	3,859.12	45.92	3,859.36	2.94	-2.66	1.25
8,728.00	90.20	2.60	5,124.43	3,922.06	48.78	3,922.32	0.95	0.95	0.00
8,792.00	91.30	1.80	5,123.59	3,986.00	51.24	3,986.28	2.13	1.72	-1.25
8,855.00	92.10	1.80	5,121.72	4,048.94	53.22	4,049.23	1.27	1.27	0.00
8,919.00	94.10	2.80	5,118.26	4,112.79	55.78	4,113.10	3.49	3.12	1.58
Last MWD Survey : 8919' MD									
8,963.00	94.10	2.80	5,115.11	4,156.63	57.92	4,156.95	0.00	0.00	0.00
Projection fm Last MWD Survey : 8963' MD									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL (York 31-31-17 1)	0.00	360.00	5,112.24	4,794.41	36.66	234,879.410	1,791,688.658	37° 18' 34.328 N	99° 12' 58.454 W
- actual wellpath misses target center by 638.14ft at 8963.00ft MD (5115.11 TVD, 4158.83 N, 57.92 E)									
- Point									
Unit Line (York 31-31-17)	0.00	0.00	-2.00	5,101.00	-721.00	235,188.000	1,790,931.000	37° 18' 37.301 N	99° 13' 7.860 W
- actual wellpath misses target center by 5151.70ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			-2.00	5,101.00	-721.00	235,188.00	1,790,931.00		
Point 2			-2.00	5,177.00	1,783.00	235,262.00	1,793,435.00		
Point 3			-2.00	5,264.00	4,820.00	235,349.00	1,796,272.00		
Point 4			-2.00	2,496.00	4,437.00	232,581.00	1,796,089.00		
Point 5			-2.00	-175.00	4,354.00	229,910.00	1,796,008.00		
Point 6			-2.00	-190.00	1,693.00	229,895.00	1,793,345.00		
Point 7			-2.00	-204.00	-762.00	229,881.00	1,790,890.00		
Point 8			-2.00	2,444.00	-741.00	232,529.00	1,790,911.00		

Checked By: _____ Approved By: _____ Date: _____

TOPOGRAPHIC LAND SURVEYORS

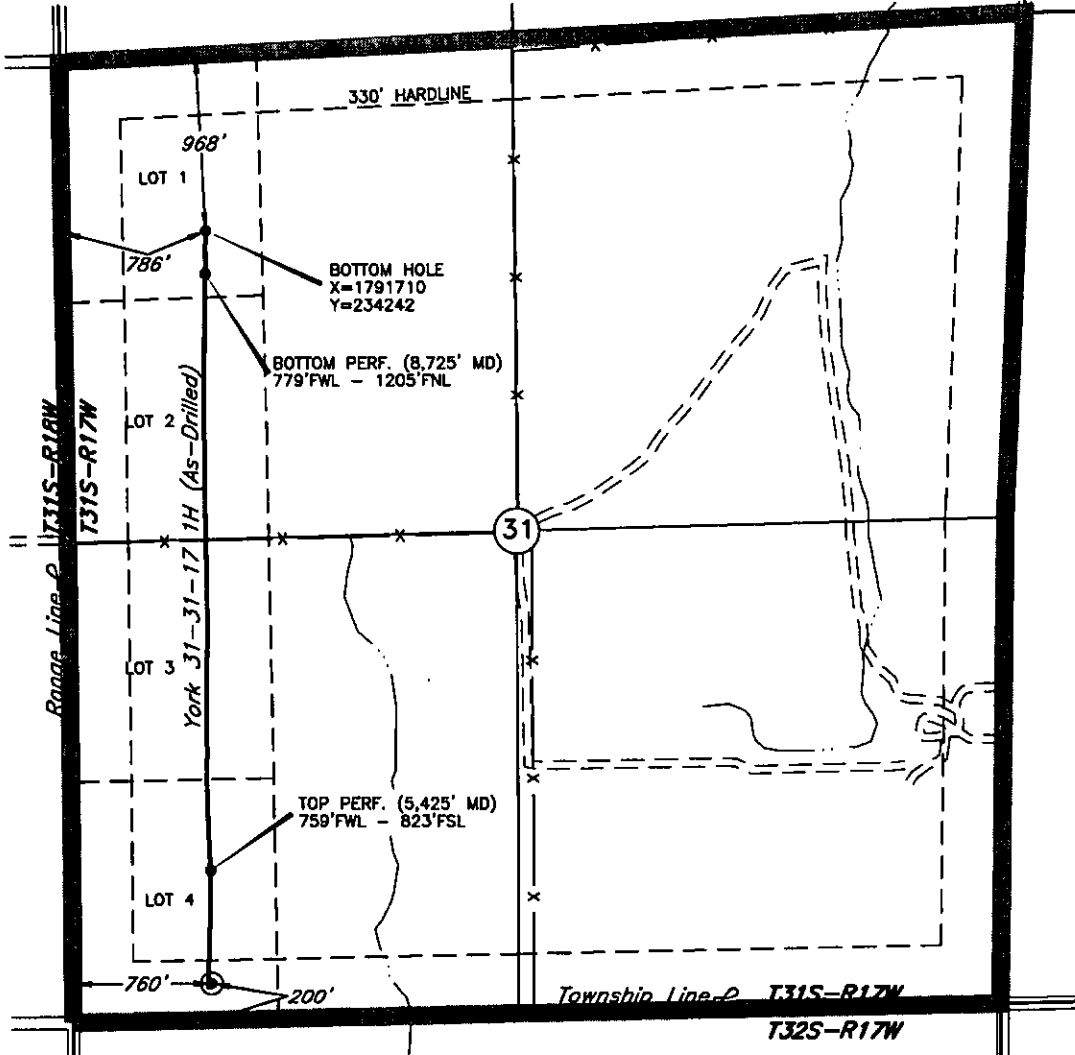
8709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
 Certificate of Authorization No. LS-99, Exp. Dec 31, 2011

COMANCHE

County, Kansas

200'FSL - 760'FWL Section 31 Township 31S Range 17W P.M.

BOTTOM HOLE
 786'FWL-968'FNL
 37.307786801° N
 99.216134577° W
 X=1791710
 Y=234242



This location has been very carefully staked on the ground according to the best official survey records, maps, and photographs available to us, but its accuracy is not guaranteed. Review this plat and notify us immediately of any possible discrepancy.

Operator: CHESAPEAKE OPERATING, INC.
 Lease Name: YORK 31-31-17

Well No.: 1H

ELEVATION:
2128' Gr. at Stake

Topography & Vegetation Loc. fell in level grass pasture

Good Drill Site? Yes Reference Stakes or Alternate Location
 Stakes Set None

Best Accessibility to Location From West off county road

Distance & Direction
 from Hwy Jct or Town From the Jct. of US. Hwy.183 & US. Hwy. 160, North of Coldwater, KS, go 6 miles East on US. Hwy. 160 East, then 1 mile North to the SW Cor. of Sec. 31-T31S-R17W

The following information was gathered using a GPS receiver. Accuracy ±2-3 Meters.

GPS
 DATUM: NAD-27
 LAT: 37°17'46.9"N
 LONG: 99°12'58.4"W
 LAT: 37.296368939
 LONG: 99.216224192
 STATE PLANE
 COORDINATES:
 ZONE: KS SOUTH
 X: 1791652
 Y: 230085

176867 Date of Drawing: Dec. 12, 2011
 Invoice # 169024 Date Staked: Jun. 20, 2011 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY CHESAPEAKE OPERATING