



CONFIDENTIAL

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form Must Be Typed
Form must be Signed
All blanks must be Filled

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
Phone: (405) 935-4775
CONTRACTOR: License # 34500
Name: Nomac Drilling, LLC
Wellsite Geologist: Hayet Serradji
Purchaser: _____

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>9/25/2011</u>	<u>11/2/2011</u>	<u>11/5/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-033-21592-01-00

Spot Description: _____

SW SE SW SW Sec. 32 Twp. 34 S. R. 16 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: Trophy Farms 32-34-16 Well #: 1H

Field Name: _____

Producing Formation: Mississippi Lime

Elevation: Ground: 1801 Kelly Bushing: 1817

Total Depth: 9791 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 840 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: 900 ppm Fluid volume: 2300 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: 01/20/2012
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: NAOMI JAMES Date: 01/25/2012

Chesapeake - OK, TX, KS

Comanche County, KS

Trophy Farms 32-34-16

#1H

ST1

Design: ST1

Standard Survey Report

09 November, 2011

Crescent Directional Survey Report

Company: Chesapeake - OK, TX, KS	Local Co-ordinate Reference: Well #1H
Project: Comanche County, KS	TVD Reference: RKB @ 1823.00ft (Nomac 115)
Site: Trophy Farms 32-34-16	MD Reference: RKB @ 1823.00ft (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 Trophy Farms 32-34-16		
Site Position:	Northing: 134,621.000 ft	Latitude: 37° 2' 5.629 N
From: Map	Easting: 1,828,518.000 ft	Longitude: 99° 5' 14.788 W
Position Uncertainty: 0.00 ft	Slot Radius: in	Grid Convergence: -0.36 °

Well #1H			
Well Position +N-S	0.00 ft	Northing: 134,621.000 ft	Latitude: 37° 2' 5.629 N
+E-W	0.00 ft	Easting: 1,828,518.000 ft	Longitude: 99° 5' 14.788 W
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 1,807.00 ft

Wellbore ST1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/21/11	5.36	65.10	51,823

Design ST1				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 4,566.00		
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.00	0.00	0.00	359.80

Survey Program		Date 11/02/11		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
200.00	4,566.00	VES Gyro Surveys (PH)	Good_gyro	Good Gyro
4,605.00	9,792.00	Crescent MWD Surveys (ST1)	Good_mag	Good Magnetic

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	0.30	42.78	200.00	0.38	0.36	0.38	0.15	0.15	0.00
400.00	0.29	89.97	400.00	0.77	1.22	0.76	0.12	0.00	23.59
600.00	0.20	102.54	599.99	0.69	2.06	0.69	0.05	-0.04	6.28
800.00	0.16	125.49	799.99	0.46	2.63	0.45	0.04	-0.02	11.47
1,000.00	0.20	150.24	999.99	-0.01	3.03	-0.02	0.04	0.02	12.37
1,200.00	0.27	181.96	1,199.99	-0.78	3.19	-0.79	0.07	0.03	15.86
1,400.00	0.80	134.01	1,399.98	-2.22	4.18	-2.24	0.33	0.26	-23.97
1,600.00	0.66	115.66	1,599.97	-3.69	6.22	-3.72	0.14	-0.07	-9.17
1,800.00	0.39	99.72	1,799.96	-4.31	7.93	-4.34	0.15	-0.13	-7.97
2,000.00	0.58	126.49	1,999.95	-5.02	9.41	-5.06	0.15	0.09	13.38
2,200.00	0.16	163.97	2,199.95	-5.89	10.31	-5.93	0.23	-0.21	18.74

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well #1H
Project:	Comanche County, KS	TVD Reference:	RKB @ 1823.00ft (Nomac 115)
Site:	Trophy Farms 32-34-16	MD Reference:	RKB @ 1823.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Survey										
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)	
2,400.00	0.48	181.68	2,399.94	-7.00	10.36	-7.04	0.17	0.16	8.85	
2,600.00	0.49	164.73	2,599.94	-8.66	10.56	-8.70	0.07	0.00	-8.47	
2,800.00	0.71	150.61	2,799.93	-10.57	11.39	-10.61	0.13	0.11	-7.06	
3,000.00	0.84	135.46	2,999.91	-12.69	13.03	-12.74	0.12	0.06	-7.57	
3,200.00	0.41	126.17	3,199.89	-14.16	14.63	-14.21	0.22	-0.21	-4.64	
3,400.00	0.54	99.18	3,399.89	-14.73	16.14	-14.79	0.13	0.06	-13.49	
3,600.00	1.10	72.34	3,599.87	-14.30	18.90	-14.37	0.33	0.28	-13.42	
3,800.00	0.66	82.29	3,799.84	-13.56	21.87	-13.64	0.23	-0.22	4.97	
4,000.00	0.61	90.23	3,999.83	-13.41	24.08	-13.50	0.05	-0.02	3.97	
4,200.00	0.80	122.78	4,199.82	-14.17	26.32	-14.26	0.22	0.09	16.27	
4,400.00	0.54	153.24	4,399.80	-15.77	27.92	-15.87	0.22	-0.13	15.23	
4,566.00	0.74	123.66	4,565.79	-17.06	29.16	-17.17	0.23	0.12	-17.82	
4,605.00	5.20	359.60	4,604.74	-15.44	29.36	-15.54	14.49	11.43	-318.11	
4,637.00	7.60	356.00	4,636.54	-11.87	29.20	-11.98	7.60	7.50	-11.25	
4,669.00	10.60	354.70	4,668.14	-6.83	28.78	-6.93	9.40	9.37	-4.06	
4,701.00	13.20	353.70	4,699.44	-0.27	28.11	-0.37	8.15	8.12	-3.12	
4,733.00	17.00	356.30	4,730.33	8.03	27.41	7.94	12.06	11.87	8.12	
4,764.00	19.60	358.90	4,759.76	17.76	27.02	17.66	8.79	8.39	8.39	
4,796.00	22.10	0.10	4,789.67	29.14	26.92	29.05	7.93	7.81	3.75	
4,827.00	24.60	359.80	4,818.13	41.43	26.91	41.34	8.07	8.06	-0.97	
4,859.00	27.40	359.70	4,846.88	55.46	26.85	55.36	8.75	8.75	-0.31	
4,890.00	28.50	359.80	4,874.27	69.99	26.79	69.89	3.55	3.55	0.32	
4,923.00	28.80	0.40	4,903.23	85.81	26.81	85.71	1.26	0.91	1.82	
4,955.00	29.10	359.60	4,931.23	101.30	26.81	101.20	1.53	0.94	-2.50	
4,986.00	29.10	359.30	4,958.32	116.37	26.67	116.28	0.47	0.00	-0.97	
5,018.00	29.20	358.50	4,986.26	131.96	26.37	131.86	1.26	0.31	-2.50	
5,049.00	29.50	358.30	5,013.28	147.14	25.94	147.05	1.02	0.97	-0.65	
5,081.00	29.70	358.20	5,041.11	162.94	25.46	162.85	0.64	0.62	-0.31	
5,113.00	29.70	358.00	5,068.90	178.79	24.94	178.70	0.31	0.00	-0.62	
5,145.00	30.10	357.60	5,096.65	194.73	24.32	194.64	1.40	1.25	-1.25	
5,177.00	30.30	357.50	5,124.30	210.81	23.64	210.73	0.64	0.62	-0.31	
5,208.00	30.90	357.40	5,150.98	226.58	22.93	226.49	1.94	1.94	-0.32	
5,240.00	31.70	357.60	5,178.33	243.18	22.21	243.11	2.52	2.50	0.62	
5,272.00	34.60	357.90	5,205.12	260.67	21.52	260.59	9.08	9.06	0.94	
5,303.00	38.60	358.50	5,230.00	279.14	20.95	279.06	12.95	12.90	1.94	
5,335.00	42.20	359.70	5,254.36	299.87	20.63	299.80	11.51	11.25	3.75	
5,367.00	45.10	1.10	5,277.52	321.96	20.79	321.88	9.55	9.06	4.37	
5,399.00	48.70	1.90	5,299.38	345.31	21.41	345.23	11.40	11.25	2.50	
5,430.00	53.10	2.50	5,318.92	369.34	22.33	369.26	14.27	14.19	1.94	
5,462.00	56.60	2.80	5,337.34	395.47	23.55	395.39	10.96	10.94	0.94	
5,494.00	61.30	2.10	5,353.84	422.86	24.71	422.77	14.81	14.69	-2.19	
5,526.00	65.90	1.90	5,368.07	451.49	25.71	451.40	14.39	14.37	-0.62	
5,558.00	69.30	1.20	5,380.26	481.06	26.51	480.97	10.82	10.62	-2.19	
5,589.00	72.40	0.90	5,390.43	510.34	27.05	510.24	10.04	10.00	-0.97	
5,621.00	75.40	1.80	5,399.30	541.07	27.77	540.97	9.76	9.37	2.81	
5,652.00	77.80	1.80	5,406.49	571.21	28.72	571.11	7.74	7.74	0.00	
5,684.00	80.00	2.30	5,412.65	602.59	29.84	602.48	7.04	6.87	1.56	
5,716.00	83.10	2.40	5,417.35	634.21	31.14	634.10	9.69	9.69	0.31	
5,779.00	87.10	1.70	5,422.73	696.93	33.38	696.81	6.44	6.35	-1.11	
5,811.00	89.10	2.40	5,423.79	728.89	34.53	728.76	6.62	6.25	2.19	
5,843.00	90.70	2.80	5,423.85	760.86	35.98	760.72	5.15	5.00	1.25	
5,875.00	91.80	2.40	5,423.15	792.81	37.43	792.68	3.66	3.44	-1.25	
5,907.00	94.30	2.50	5,421.45	824.74	38.80	824.60	7.82	7.81	0.31	
5,938.00	94.80	4.00	5,418.99	855.59	40.55	855.44	5.09	1.61	4.84	

Crescent Directional Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Well #1H
Project:	Comanche County, KS	TVD Reference:	RKB @ 1823.00ft (Nomac 115)
Site:	Trophy Farms 32-34-16	MD Reference:	RKB @ 1823.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	EDM 2003.16 Single User Db

Survey										
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)	
5,970.00	94.40	2.50	5,416.42	887.43	42.36	887.28	4.84	-1.25	-4.69	
6,001.00	94.50	2.50	5,414.01	918.31	43.71	918.15	0.32	0.32	0.00	
6,032.00	94.30	1.80	5,411.64	949.20	44.86	949.03	2.34	-0.65	-2.26	
6,064.00	94.50	359.60	5,409.18	981.10	45.25	980.93	6.88	0.62	-6.87	
6,096.00	94.50	358.70	5,406.67	1,013.00	44.78	1,012.83	2.80	0.00	-2.81	
6,127.00	94.70	358.20	5,404.18	1,043.88	43.95	1,043.72	1.73	0.65	-1.61	
6,159.00	94.60	358.20	5,401.59	1,075.76	42.94	1,075.61	0.31	-0.31	0.00	
6,190.00	94.70	358.70	5,399.08	1,106.65	42.11	1,106.50	1.64	0.32	1.61	
6,222.00	93.50	357.50	5,396.79	1,138.55	41.05	1,138.40	5.30	-3.75	-3.75	
6,254.00	93.30	357.70	5,394.89	1,170.47	39.71	1,170.32	0.88	-0.62	0.62	
6,286.00	92.30	356.70	5,393.33	1,202.39	38.15	1,202.25	4.42	-3.12	-3.12	
6,317.00	92.50	356.80	5,392.03	1,233.31	36.39	1,233.18	0.72	0.65	0.32	
6,349.00	90.50	357.60	5,391.19	1,265.26	34.83	1,265.13	6.73	-6.25	2.50	
6,381.00	90.40	356.90	5,390.94	1,297.22	33.30	1,297.10	2.21	-0.31	-2.19	
6,412.00	90.50	357.10	5,390.70	1,328.18	31.67	1,328.06	0.72	0.32	0.65	
6,444.00	90.70	356.00	5,390.36	1,360.12	29.75	1,360.01	3.49	0.62	-3.44	
6,476.00	90.70	357.10	5,389.97	1,392.06	27.82	1,391.95	3.44	0.00	3.44	
6,507.00	89.90	357.50	5,389.81	1,423.02	26.36	1,422.92	2.89	-2.58	1.29	
6,539.00	89.50	358.00	5,389.98	1,455.00	25.11	1,454.90	2.00	-1.25	1.56	
6,571.00	89.50	358.60	5,390.26	1,486.98	24.16	1,486.89	1.87	0.00	1.87	
6,603.00	89.80	358.80	5,390.45	1,518.97	23.43	1,518.88	1.13	0.94	0.62	
6,634.00	90.90	359.90	5,390.26	1,549.97	23.08	1,549.88	5.02	3.55	3.55	
6,666.00	91.30	359.90	5,389.65	1,581.96	23.02	1,581.87	1.25	1.25	0.00	
6,697.00	91.70	0.30	5,388.84	1,612.95	23.08	1,612.86	1.82	1.29	1.29	
6,728.00	92.10	359.20	5,387.81	1,643.93	22.94	1,643.84	3.77	1.29	-3.55	
6,758.00	92.00	359.10	5,386.73	1,673.91	22.50	1,673.82	0.47	-0.33	-0.33	
6,789.00	92.60	358.40	5,385.49	1,704.88	21.82	1,704.79	2.97	1.94	-2.26	
6,821.00	91.60	357.80	5,384.32	1,736.84	20.76	1,736.76	3.64	-3.12	-1.87	
6,852.00	89.80	357.90	5,383.94	1,767.81	19.60	1,767.73	5.82	-5.81	0.32	
6,882.00	89.70	356.50	5,384.07	1,797.78	18.13	1,797.70	4.68	-0.33	-4.67	
6,913.00	90.20	356.70	5,384.10	1,828.72	16.30	1,828.65	1.74	1.61	0.65	
6,944.00	90.70	357.00	5,383.85	1,859.67	14.59	1,859.61	1.88	1.61	0.97	
6,974.00	90.50	358.40	5,383.54	1,889.65	13.39	1,889.59	4.71	-0.67	4.67	
7,005.00	90.90	358.90	5,383.16	1,920.64	12.66	1,920.58	2.07	1.29	1.61	
7,036.00	91.60	359.70	5,382.48	1,951.63	12.28	1,951.57	3.43	2.26	2.58	
7,066.00	92.10	0.90	5,381.52	1,981.61	12.44	1,981.55	4.33	1.67	4.00	
7,097.00	92.50	0.00	5,380.27	2,012.58	12.68	2,012.53	3.17	1.29	-2.90	
7,128.00	93.00	0.10	5,378.78	2,043.55	12.71	2,043.49	1.64	1.61	0.32	
7,158.00	92.30	359.30	5,377.40	2,073.52	12.55	2,073.46	3.54	-2.33	-2.67	
7,189.00	92.70	359.80	5,376.05	2,104.48	12.31	2,104.43	2.06	1.29	1.61	
7,219.00	91.60	359.00	5,374.92	2,134.46	11.99	2,134.41	4.53	-3.67	-2.67	
7,250.00	89.50	358.50	5,374.62	2,165.45	11.32	2,165.40	6.96	-6.77	-1.61	
7,281.00	89.00	358.90	5,375.03	2,196.44	10.61	2,196.39	2.07	-1.61	1.29	
7,311.00	89.40	359.20	5,375.45	2,226.43	10.12	2,226.38	1.67	1.33	1.00	
7,342.00	89.80	359.60	5,375.66	2,257.43	9.79	2,257.38	1.82	1.29	1.29	
7,373.00	90.50	0.80	5,375.58	2,288.43	9.90	2,288.38	4.48	2.26	3.87	
7,403.00	90.90	1.40	5,375.22	2,318.42	10.47	2,318.37	2.40	1.33	2.00	
7,434.00	91.20	1.30	5,374.65	2,349.41	11.21	2,349.35	1.02	0.97	-0.32	
7,464.00	91.80	0.60	5,373.86	2,379.39	11.70	2,379.34	3.07	2.00	-2.33	
7,494.00	92.10	1.00	5,372.84	2,409.37	12.12	2,409.31	1.67	1.00	1.33	
7,525.00	92.20	0.80	5,371.68	2,440.35	12.61	2,440.29	0.72	0.32	-0.65	
7,556.00	92.40	0.60	5,370.43	2,471.32	12.99	2,471.26	0.91	0.65	-0.65	
7,586.00	92.50	0.50	5,369.15	2,501.29	13.27	2,501.23	0.47	0.33	-0.33	
7,617.00	92.70	0.20	5,367.75	2,532.26	13.46	2,532.20	1.16	0.65	-0.97	

Crescent Directional Survey Report

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Site: Trophy Farms 32-34-16	MD Reference:	RKB @ 1823.00ft (Nomac 115)
Well: #1H	North Reference:	Grd
Wellbore: ST1	Survey Calculation Method:	Minimum Curvature
Design: ST1	Database:	EDM 2003.16 Single User Db

Survey										
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)	
7,649.00	90.60	0.80	5,366.82	2,564.24	13.74	2,564.18	6.82	-6.56	1.87	
7,680.00	90.50	0.80	5,366.53	2,595.24	14.17	2,595.17	0.32	-0.32	0.00	
7,712.00	90.80	0.60	5,366.16	2,627.23	14.57	2,627.17	1.13	0.94	-0.62	
7,744.00	90.50	0.40	5,365.80	2,659.23	14.85	2,659.16	1.13	-0.94	-0.62	
7,775.00	90.90	0.50	5,365.42	2,690.23	15.09	2,690.16	1.33	1.29	0.32	
7,807.00	90.90	0.30	5,364.92	2,722.22	15.31	2,722.15	0.62	0.00	-0.62	
7,839.00	90.70	0.30	5,364.47	2,754.22	15.48	2,754.15	0.62	-0.62	0.00	
7,870.00	91.10	0.70	5,363.99	2,785.21	15.75	2,785.14	1.82	1.29	1.29	
7,902.00	91.20	0.80	5,363.34	2,817.20	16.17	2,817.13	0.44	0.31	0.31	
7,933.00	92.00	0.70	5,362.48	2,848.19	16.57	2,848.11	2.60	2.58	-0.32	
7,997.00	91.60	359.90	5,360.47	2,912.15	16.91	2,912.08	1.40	-0.62	-1.25	
8,060.00	92.40	359.60	5,358.27	2,975.12	16.63	2,975.04	1.36	1.27	-0.48	
8,124.00	89.90	358.90	5,356.98	3,039.09	15.80	3,039.02	4.06	-3.91	-1.09	
8,187.00	90.60	358.90	5,356.71	3,102.08	14.59	3,102.01	1.11	1.11	0.00	
8,251.00	90.80	359.30	5,355.93	3,166.07	13.58	3,166.00	0.70	0.31	0.62	
8,314.00	90.80	359.60	5,355.05	3,229.06	12.98	3,228.99	0.48	0.00	0.48	
8,378.00	91.10	359.60	5,353.99	3,293.05	12.53	3,292.98	0.47	0.47	0.00	
8,442.00	91.60	359.60	5,352.48	3,357.03	12.08	3,356.96	0.78	0.78	0.00	
8,505.00	91.30	359.20	5,350.89	3,420.00	11.42	3,419.94	0.79	-0.48	-0.63	
8,568.00	90.40	359.10	5,349.95	3,482.99	10.49	3,482.93	1.44	-1.43	-0.16	
8,632.00	91.30	359.20	5,349.00	3,546.97	9.54	3,546.92	1.41	1.41	0.16	
8,695.00	90.20	357.60	5,348.18	3,609.94	7.78	3,609.89	3.08	-1.75	-2.54	
8,758.00	90.40	356.60	5,347.85	3,672.86	4.59	3,672.82	1.62	0.32	-1.59	
8,821.00	91.20	356.40	5,346.97	3,735.73	0.75	3,735.71	1.31	1.27	-0.32	
8,884.00	90.00	356.00	5,346.31	3,798.59	-3.43	3,798.58	2.01	-1.90	-0.63	
8,948.00	89.50	356.00	5,346.59	3,862.43	-7.89	3,862.44	0.78	-0.78	0.00	
9,011.00	90.00	357.10	5,346.86	3,925.32	-11.68	3,925.34	1.92	0.79	1.75	
9,075.00	90.90	357.30	5,346.36	3,989.24	-14.81	3,989.27	1.44	1.41	0.31	
9,137.00	91.30	357.00	5,345.17	4,051.15	-17.89	4,051.19	0.81	0.65	-0.48	
9,200.00	90.30	358.10	5,344.29	4,114.09	-20.58	4,114.13	2.36	-1.59	1.75	
9,264.00	91.10	357.50	5,343.51	4,178.03	-23.04	4,178.09	1.56	1.25	-0.94	
9,326.00	91.70	357.60	5,341.99	4,239.96	-25.69	4,240.02	0.98	0.97	0.16	
9,390.00	90.90	358.10	5,340.54	4,303.89	-28.09	4,303.97	1.47	-1.25	0.78	
9,453.00	89.80	358.20	5,340.16	4,366.86	-30.12	4,366.94	1.75	-1.75	0.16	
9,516.00	87.90	359.00	5,341.42	4,429.83	-31.66	4,429.91	3.27	-3.02	1.27	
9,579.00	87.60	0.20	5,343.89	4,492.77	-32.10	4,492.86	1.96	-0.48	1.90	
9,643.00	87.70	359.90	5,346.52	4,556.72	-32.05	4,556.80	0.49	0.16	-0.47	
9,706.00	88.50	0.00	5,348.61	4,619.68	-32.10	4,619.77	1.28	1.27	0.16	
9,740.00	88.90	0.10	5,349.38	4,653.68	-32.07	4,653.76	1.21	1.18	0.29	
Last MWD Survey : 9740' MD : 88.9° Inc. : 0.1° Azm.										
9,792.00	88.90	0.10	5,350.38	4,705.67	-31.98	4,705.75	0.00	0.00	0.00	
Projection To TD: 9792' MD/5350' TVD										

Crescent Directional Survey Report

Company: Chesapeake - OK, TX, KS	Local Co-ordinate Reference: Well #1H
Project: Comanche County, KS	TVD Reference: RKB @ 1823.00ft (Nomac 115)
Site: Trophy Farms 32-34-16	MD Reference: RKB @ 1823.00ft (Nomac 115)
Well: #1H	North Reference: Grid
Wellbore: ST1	Survey Calculation Method: Minimum Curvature
Design: ST1	Database: EDM 2003.16 Single User Db

Targets									
Target Name	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
PBHL(Trophy Farms 32- - actual wellpath misses target center by 16.57ft at 9792.00ft MD (5350.38 TVD, 4705.67 N, -31.98 E) - Point	0.00	360.00	5,343.30	4,706.00	-17.00	139,327.000	1,828,501.000	37° 2' 52.156 N	99° 5' 15.363 W
Unit Line(Trophy Farms - actual wellpath misses target center by 5140.22ft at 8.38ft MD (8.38 TVD, 0.00 N, 0.00 E) - Polygon	0.00	0.00	0.00	5,081.00	-778.00	139,702.000	1,827,740.000	37° 2' 55.816 N	99° 5' 24.778 W
Point 1			0.00	5,081.00	-778.00	139,702.00	1,827,740.00		
Point 2			0.00	5,098.00	1,858.00	139,719.00	1,830,376.00		
Point 3			0.00	5,114.00	4,493.00	139,735.00	1,833,011.00		
Point 4			0.00	2,460.00	4,500.00	137,081.00	1,833,018.00		
Point 5			0.00	-194.00	4,507.00	134,427.00	1,833,025.00		
Point 6			0.00	-197.00	1,874.00	134,424.00	1,830,392.00		
Point 7			0.00	-201.00	-759.00	134,420.00	1,827,759.00		
Point 8			0.00	2,440.00	-769.00	137,061.00	1,827,749.00		
380' Hardline (Trophy Fe - actual wellpath misses target center by 4764.56ft at 7.65ft MD (7.65 TVD, 0.00 N, 0.00 E) - Polygon	0.00	360.00	0.00	4,701.01	-775.55	139,322.008	1,827,742.451	37° 2' 52.059 N	99° 5' 24.719 W
Point 1			0.00	4,701.01	-775.55	139,322.01	1,827,742.45		
Point 2			0.00	4,718.01	1,860.45	139,339.01	1,830,378.45		
Point 3			0.00	4,734.01	4,495.31	139,355.01	1,833,013.31		

Checked By: _____ Approved By: _____ Date: _____