

CONFIDENTIAL

Form 3160-4
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-AR, LLSIA

CONFIDENTIAL

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other

b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. ☐ Other RE-ENTRY

2. Name of Operator **CHESAPEAKE OPERATING, INC.** ATTN: **LINDA GOOD**

3. Address **P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496**

3a. Phone No. (include area code) **405-767-4274**

4. Location of Well (Report location clearly and in accordance with Federal requirements) * **DEC 2006 RECEIVED OCD - ARTESIA**

At surface **2328 FSL 1644 FWL, NESW**

At top prod. interval reported below **2010 FSL & 3057 FWL, NWSE**

At total depth **2010 FSL & 3057 FWL, NWSE**

14. Date Spudded **08/02/2006** 15. Date T.D. Reached **09/28/2006** 16. Date Completed **11/5/06** ☐ D & A ☒ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)* **3675 GR / 3694 DF / 3695 KB**

5. Lease Serial No. **NMMN-105548**

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No. **GARDNER 34 FEDERAL 1**

9. AFI Well No. **30-015-21656**

10. Field and Pool, or Exploratory **Und Horseshoe Bend; Mor (Gas)**

11. Sec., T., R., M., on Block and Survey or Area **34-23S-25E**

12. County or Parish **EDDY** 13. State **NM**

18. Total Depth: MD **11,700'** TVD **11,513'** 19. Plug Back T.D.: MD **11,629'** TVD **11,434'** 20. Depth Bridge Plug Set: MD **11,500'** TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each) **DLL/MGRD/SONIC**

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20	16	65#	0	290		175		Original Csg	
12 1/4	9 5/8	36#	0	2300		1200		Original Csg	
8 7/8	7	26#	0	9475		1250 Class H		8700 CBL	
6 1/4	4 1/2	13.5	0	11,700		250 Super H		Surface	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8	11038'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)			11554' - 11598'		74	CIBP @ 11500'
B) lwr Morrow	11414'	11421'	11414' - 11421'		29	Open
C) Morrow B	11148'	11167'	11148' - 11167'		4 SPF	Open
D) Morrow A	11081'	11084'	11081' - 11084'		90	Open

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
11554' - 11598'	Acid w/1500 gal 7 1/2% NeFe + 100 BS, flush w/46 bbl 7% KCL
11414' - 11421'	Spot 200 gal 7 1/5% NeFe, acid w/1000 gal + ball sealers, frac w/10,000 gal (CONT'D ON PG 2 ITEM #32)
11081' - 11167'	Spot 200 gal 7 1/2% NeFe w/methanol @ 11,167', PU, ND BOP, rev acid w/7 bbl KCL, acid w/additional 1300 gal 7 1/2% NeFe + 130 BS - Frac w/13,000 gal 40# 71Q binary fluid, 26,150 gal (CONT'D ON PG 2 ITEM #32)

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/09/2006	11/21/2006	24	→	0	576	19			Flowing
Choke Size 18/64	Tbg. Press. Flwg. SI 300	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	Producing

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

*(See instructions and spaces for additional data on page 2)

ACCEPTED FOR RECORD

DEC 5 2006

FREDERICK WRIGHT
PETROLEUM ENGINEER

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
	0	2467	Dolomite, Limestone and minor shale	Cherry Canyon	2467
	2467	5103	Sand some shale	Bone Springs	5103
	5103	8441	Limestone with some Sand and shale	Wolfcamp	8441
	8441	9474	Limestone, Shale and minor sand	Cisco Canyon	9474
	9474	10,025	Lime and dark shale interbedded	Strawn	10,025
	10,025	10,495	Limestone with some shale	Atoka	10,495
	10,495	10,809	Limestone with some shale	Morrow	10,819
	10,809	11,097	Limestone, shale and minor sand	Middle Morrow	11,097
	11,097	11,387	Sand, shale and siltstone	Lower Morrow	11,387
	11,387	11,524	Sand, shale and siltstone	Barnett	11,524
	11,524	TD	Siltstone and Shale		

32. Additional remarks (include plugging procedure):

11414' - 11421 (cont'd): 40# Binary pad, 20,500 gal sd Laden w/28,972# Ultraprop 18/40 sd, flush w/7073 gal 50# Binary.
11081' - 11167' (cont'd): containing 40,000# Ultraprop 18/40 sd, flush w/6863 gal 40# 66Q binary fluid.

BLM NATIONWIDE BOND #NM2634

33. Indicate which itmes have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) LINDA GOODTitle PERMITTING AGENT

Signature

Linda Good

Date

11/29/2006

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Company Name: Chesapeake Operating
 Location: (NM27E) Eddy County
 Well name: Gardner 34 Fed #1
 Rig Name:
 Report Date: Wednesday, August 09, 2006
 State/Province : New Mexico
 Job Number: Gardner 34 Fed #1

Critical Points for Gardner 34 Fed #1- Plan 07-24-06

MD Ft	INC Deg	Azm Deg	TVD Ft	NS Ft	EW Ft	VS Ft	DLS	Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00		SHL
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	KOP - Build @ 2300MD, 1.00°/ 100 Ft
3899.96	16.00	102.82	3879.25	-49.25	216.41	221.94	1.00	Begin Hold @ 16.00°, 102.82° Azm
7531.32	16.00	102.82	7369.94	-271.37	1192.37	1222.86	0.00	Begin Drop @ -0.84°/ 100 Ft
9436.04	0.00	0.00	9250.00	-330.00	1450.00	1487.08	0.84	Begin Hold @ 0.00°, 0.00° Azm
11986.04	0.00	0.00	11800.00	-330.00	1450.00	1487.08	0.00	PBHL @ 11800 Ft TVD

MAGNETICS

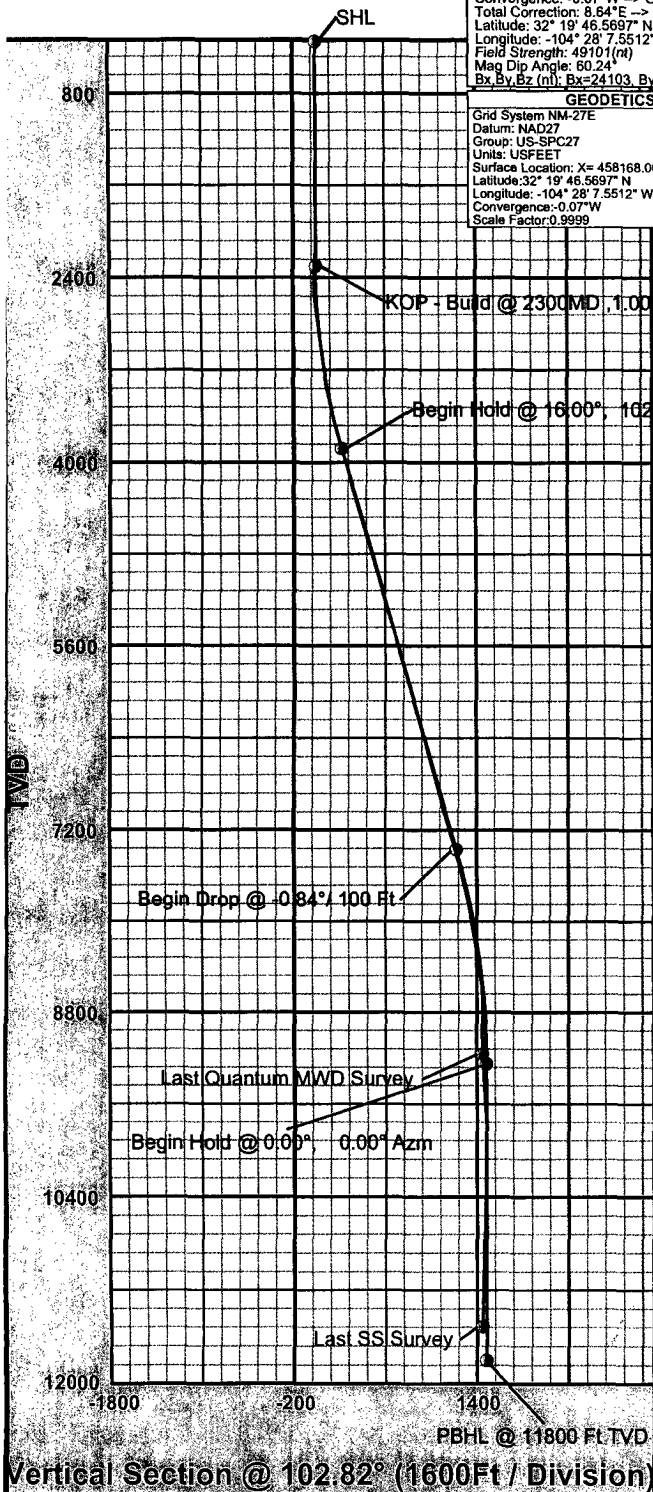
Decl. Date: Wednesday, August 09, 2006
 Declination: 8.56°E → TN = MN + 8.56 : Magnetic to True
 Convergence: -0.07°W → GN = TN + -0.07 : True to Grid
 Total Correction: 8.64°E → GN = MN + 8.64 : Magnetic to Grid
 Latitude: 32° 19' 46.5697" N
 Longitude: -104° 28' 7.5512" W
 Field Strength: 49101(nT)
 Mag Dip Angle: 60.24°
 Bx,By,Bz (nT): Bx=24103, By=3630, Bz=42623

GEODETICS

Grid System NM-27E
 Datum: NAD27
 Group: US-SPC27
 Units: USFEET
 Surface Location: X= 458168.00, Y=483652.00
 Latitude: 32° 19' 46.5697" N
 Longitude: -104° 28' 7.5512" W
 Convergence: -0.07°W
 Scale Factor: 0.9999



True North



SURFACE LOCATION

Datum Reference: , RKB:'

Y=483652.00'

X=458168.00'

PBHL @ 11800' TVD

1487.08' @ 102.82°

S:330.00' E:1450.00'

Y=483320.17'

X=459617.58'

TGT Gardner Fed # 1 - Target @ 9250.00' TVD

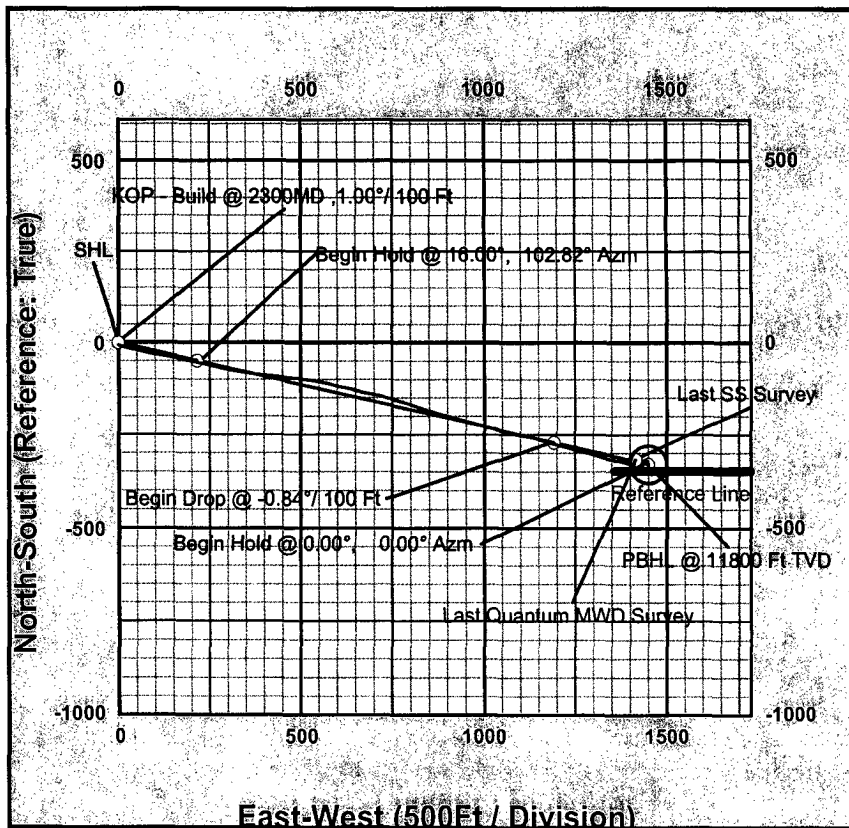
1487.08' @ 102.82°

S:330.00' E:1450.00'

Y=483320.17'

X=459617.58'

Distance to Proposal -> 1.9 Ft



Job Number: Gardner 34 Fed #1
 Company: Chesapeake Operating
 Lease/Well: Gardner 34 Fed #1
 Location: (NM27E) Eddy County
 Rig Name:
 RKB: 0.00 Ft
 Vertical Datum:

State/Country:
 Declination:
 Grid:
 Project name: Eddy County
 Date/Time: 25-Sep-06 / 11:29
 Well Name: GARDNER 34 FED 1 - Survey
 North Reference: True North
 Convergence: -0.0724°

WinSURV3D SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 102.82°
Vertical Section Referenced to Wellhead
Local Coordinates Referenced to Wellhead

Direction referenced to True North

Measured Depth Ft	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	LOCALS		Vertical Section Ft	Dogleg Severity Deg/100
				N-S Ft	E-W Ft		
2200.00	0.50	273.78	2199.91	-2.89	-13.81	-12.82	0.00
2311.00	0.40	271.80	2310.91	-2.85	-14.68	-13.68	0.09
2402.00	0.40	309.30	2401.90	-2.63	-15.24	-14.28	0.28
2465.00	0.40	300.10	2464.90	-2.39	-15.60	-14.69	0.10
2496.00	0.30	307.30	2495.90	-2.28	-15.76	-14.86	0.35
2528.00	1.20	111.30	2527.90	-2.35	-15.52	-14.61	4.66
2559.00	4.90	107.50	2558.85	-2.87	-13.95	-12.97	11.95
2591.00	6.90	107.70	2590.68	-3.86	-10.82	-9.69	6.25
2622.00	6.90	106.90	2621.46	-4.97	-7.26	-5.98	0.31
2653.00	7.00	106.50	2652.23	-6.05	-3.67	-2.23	0.36
2716.00	6.90	107.80	2714.76	-8.30	3.62	5.37	0.30
2747.00	7.00	108.70	2745.54	-9.47	7.18	9.10	0.48
2810.00	7.30	105.70	2808.05	-11.79	14.67	16.92	0.76
2904.00	7.40	103.70	2901.28	-14.84	26.30	28.93	0.29
2998.00	7.20	103.40	2994.51	-17.63	37.91	40.88	0.22
3029.00	6.90	102.60	3025.28	-18.49	41.62	44.68	1.02
3123.00	7.60	102.20	3118.53	-21.04	53.20	56.54	0.75
3218.00	8.60	105.10	3212.58	-24.21	66.20	69.92	1.14
3312.00	9.80	104.10	3305.37	-27.99	80.75	84.95	1.29
3406.00	11.10	100.10	3397.81	-31.53	97.41	101.98	1.58
3500.00	12.50	99.00	3489.82	-34.71	116.37	121.17	1.51
3594.00	13.30	99.30	3581.45	-38.05	137.09	142.11	0.85
3688.00	14.30	101.90	3672.73	-42.19	159.12	164.51	1.25
3782.00	15.70	102.20	3763.53	-47.27	182.91	188.84	1.49
3876.00	16.20	101.80	3853.91	-52.64	208.18	214.67	0.54
3970.00	16.60	101.50	3944.08	-58.00	234.17	241.20	0.43
4064.00	16.30	103.20	4034.24	-63.69	260.17	267.82	0.60
4158.00	16.90	103.90	4124.32	-69.98	286.28	294.67	0.67
4251.00	17.30	100.30	4213.21	-75.70	313.01	322.00	1.22
4346.00	16.10	99.00	4304.20	-80.29	339.91	349.26	1.32
4440.00	16.00	98.00	4394.54	-84.13	365.62	375.17	0.31

Measured Depth Ft	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	LOCALS		Vertical Section Ft	Dogleg Severity Deg/100
				N-S Ft	E-W Ft		
4534.00	16.40	96.30	4484.80	-87.39	391.64	401.26	0.66
4628.00	16.90	96.70	4574.86	-90.44	418.40	428.03	0.55
4722.00	15.90	94.80	4665.04	-93.11	444.80	454.37	1.21
4784.00	15.60	94.50	4724.71	-94.48	461.57	471.03	0.50
4847.00	15.60	96.50	4785.39	-96.10	478.43	487.83	0.85
4909.00	15.60	96.70	4845.11	-98.02	495.00	504.40	0.09
4972.00	16.00	98.40	4905.73	-100.27	512.00	521.48	0.97
5034.00	16.80	98.20	4965.20	-102.80	529.32	538.93	1.29
5097.00	16.80	99.40	5025.51	-105.58	547.31	557.10	0.55
5159.00	15.50	102.80	5085.07	-108.88	564.23	574.33	2.59
5222.00	14.90	105.90	5145.86	-112.97	580.23	590.83	1.60
5285.00	15.00	104.60	5206.73	-117.24	595.91	607.07	0.56
5348.00	15.40	100.80	5267.53	-120.86	612.02	623.58	1.70
5411.00	15.10	100.40	5328.31	-123.91	628.31	640.14	0.50
5473.00	15.50	105.90	5388.12	-127.64	644.22	656.48	2.43
5536.00	14.80	107.30	5448.93	-132.34	660.00	672.91	1.25
5567.00	14.50	105.30	5478.92	-134.54	667.52	680.73	1.90
5598.00	14.60	103.10	5508.93	-136.45	675.07	688.52	1.81
5629.00	14.50	100.00	5538.93	-138.01	682.70	696.30	2.53
5661.00	14.70	98.90	5569.90	-139.33	690.65	704.35	1.07
5692.00	14.70	100.50	5599.88	-140.66	698.41	712.21	1.31
5723.00	14.70	102.20	5629.87	-142.21	706.12	720.07	1.39
5754.00	15.10	104.80	5659.83	-144.07	713.87	728.04	2.51
5786.00	15.60	105.20	5690.69	-146.26	722.05	736.50	1.60
5817.00	15.80	105.30	5720.53	-148.47	730.14	744.88	0.65
5848.00	15.90	104.30	5750.35	-150.63	738.33	753.35	0.94
5880.00	16.10	103.50	5781.11	-152.75	746.89	762.16	0.93
5911.00	16.10	104.10	5810.90	-154.80	755.24	770.76	0.54
5943.00	16.50	105.80	5841.61	-157.12	763.91	779.73	1.95
5974.00	16.40	106.40	5871.34	-159.55	772.35	788.50	0.64
6005.00	16.50	106.70	5901.07	-162.05	780.76	797.26	0.42
6036.00	16.00	107.80	5930.83	-164.62	789.05	805.91	1.89
6068.00	15.80	108.50	5961.61	-167.36	797.38	814.63	0.87
6099.00	15.80	109.90	5991.44	-170.13	805.35	823.02	1.23
6130.00	16.10	110.90	6021.24	-173.10	813.33	831.47	1.31
6162.00	16.20	110.30	6051.98	-176.23	821.66	840.29	0.61
6193.00	16.30	108.70	6081.74	-179.13	829.84	848.90	1.48
6225.00	16.30	107.60	6112.46	-181.92	838.37	857.84	0.96
6257.00	16.20	107.30	6143.18	-184.61	846.92	866.77	0.41
6288.00	16.40	107.20	6172.93	-187.19	855.23	875.44	0.65
6320.00	16.50	107.00	6203.62	-189.85	863.89	884.48	0.36
6350.00	16.40	106.60	6232.39	-192.31	872.02	892.95	0.50
6381.00	16.20	106.10	6262.15	-194.76	880.37	901.64	0.79
6412.00	16.40	106.40	6291.90	-197.19	888.72	910.32	0.70
6444.00	16.40	106.60	6322.60	-199.76	897.38	919.34	0.18
6475.00	16.60	106.20	6352.32	-202.25	905.83	928.13	0.74
6515.00	16.80	105.70	6390.64	-205.40	916.88	939.60	0.62
6548.00	16.20	104.00	6422.28	-207.81	925.94	948.97	2.33
6579.00	14.50	103.70	6452.17	-209.77	933.91	957.17	5.49
6611.00	13.30	104.40	6483.23	-211.64	941.36	964.86	3.79
6642.00	13.30	106.30	6513.40	-213.53	948.24	971.98	1.41
6673.00	14.10	108.00	6543.52	-215.69	955.25	979.30	2.89
6705.00	14.50	107.30	6574.53	-218.09	962.79	987.18	1.36
6736.00	14.90	104.10	6604.51	-220.21	970.36	995.03	2.92

Measured Depth Ft	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	LOCALS		Vertical Section Ft	Dogleg Severity Deg/100
				N-S Ft	E-W Ft		
6764.00	15.30	102.90	6631.55	-221.92	977.45	1002.32	1.81
6799.00	15.90	102.80	6665.26	-224.01	986.63	1011.74	1.72
6830.00	15.60	104.70	6695.09	-226.01	994.80	1020.15	1.92
6862.00	15.60	105.20	6725.92	-228.23	1003.11	1028.75	0.42
6893.00	15.60	106.10	6755.77	-230.48	1011.14	1037.07	0.78
6924.00	15.00	106.20	6785.67	-232.75	1019.00	1045.24	1.94
6956.00	14.50	104.80	6816.62	-234.93	1026.85	1053.38	1.92
6987.00	14.90	103.20	6846.61	-236.83	1034.48	1061.24	1.84
7018.00	15.80	101.80	6876.50	-238.61	1042.49	1069.45	3.14
7050.00	16.00	102.50	6907.27	-240.45	1051.06	1078.21	0.87
7081.00	15.60	103.60	6937.10	-242.36	1059.28	1086.65	1.61
7112.00	15.30	104.50	6966.98	-244.36	1067.30	1094.91	1.24
7144.00	15.30	105.20	6997.85	-246.52	1075.46	1103.35	0.58
7175.00	15.50	105.40	7027.74	-248.70	1083.40	1111.57	0.67
7206.00	15.90	102.80	7057.58	-250.74	1091.53	1119.96	2.61
7237.00	16.00	99.80	7087.39	-252.41	1099.88	1128.47	2.68
7269.00	16.40	98.50	7118.12	-253.82	1108.70	1137.38	1.69
7300.00	16.60	98.50	7147.84	-255.12	1117.40	1146.16	0.65
7332.00	16.10	100.10	7178.55	-256.58	1126.29	1155.15	2.10
7363.00	15.60	102.60	7208.37	-258.24	1134.59	1163.61	2.73
7394.00	15.70	105.80	7238.22	-260.29	1142.70	1171.97	2.80
7426.00	16.30	107.80	7268.98	-262.84	1151.14	1180.77	2.55
7457.00	16.40	109.10	7298.73	-265.61	1159.42	1189.45	1.22
7489.00	16.10	108.80	7329.45	-268.51	1167.89	1198.35	0.97
7520.00	15.80	107.30	7359.25	-271.15	1175.98	1206.84	1.64
7551.00	15.80	105.00	7389.08	-273.50	1184.09	1215.26	2.02
7583.00	15.80	105.00	7419.87	-275.76	1192.51	1223.97	0.00
7614.00	15.80	104.40	7449.70	-277.90	1200.67	1232.40	0.53
7646.00	14.90	103.80	7480.56	-279.96	1208.89	1240.87	2.86
7677.00	13.80	103.70	7510.59	-281.79	1216.35	1248.55	3.55
7708.00	13.60	105.00	7540.71	-283.61	1223.46	1255.89	1.18
7739.00	13.70	105.80	7570.84	-285.55	1230.51	1263.20	0.69
7771.00	13.70	106.50	7601.93	-287.66	1237.79	1270.77	0.52
7802.00	13.70	107.10	7632.04	-289.78	1244.82	1278.09	0.46
7833.00	13.30	107.60	7662.19	-291.94	1251.73	1285.31	1.34
7865.00	13.30	103.70	7693.33	-293.92	1258.81	1292.65	2.80
7896.00	13.50	100.80	7723.49	-295.45	1265.83	1299.84	2.26
7927.00	13.30	100.10	7753.64	-296.75	1272.90	1307.01	0.83
7959.00	12.00	102.60	7784.86	-298.12	1279.77	1314.02	4.41
7990.00	10.80	107.10	7815.25	-299.68	1285.69	1320.14	4.82
8021.00	10.60	108.10	7845.71	-301.42	1291.18	1325.87	0.88
8053.00	10.80	108.10	7877.16	-303.26	1296.82	1331.79	0.62
8084.00	10.90	106.30	7907.60	-304.99	1302.40	1337.61	1.14
8116.00	11.00	107.30	7939.02	-306.75	1308.22	1343.67	0.67
8147.00	10.90	106.70	7969.46	-308.47	1313.85	1349.54	0.49
8179.00	10.80	105.40	8000.88	-310.13	1319.64	1355.56	0.83
8210.00	10.60	105.60	8031.35	-311.67	1325.18	1361.30	0.66
8242.00	10.60	106.00	8062.80	-313.27	1330.85	1367.18	0.23
8273.00	10.30	104.10	8093.29	-314.74	1336.28	1372.80	1.47
8305.00	9.90	103.50	8124.79	-316.07	1341.72	1378.41	1.29
8336.00	9.50	104.40	8155.35	-317.33	1346.79	1383.63	1.38
8367.00	9.20	103.80	8185.93	-318.56	1351.68	1388.67	1.02
8399.00	9.20	100.70	8217.52	-319.65	1356.68	1393.78	1.55
8431.00	9.30	97.30	8249.11	-320.45	1361.75	1398.91	1.74

Measured Depth Ft	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	LOCALS		Vertical Section Ft	Dogleg Severity Deg/100
				N-S Ft	E-W Ft		
8462.00	9.30	95.10	8279.70	-320.99	1366.73	1403.89	1.15
8493.00	8.90	97.40	8310.31	-321.52	1371.61	1408.76	1.74
8525.00	8.40	102.60	8341.95	-322.35	1376.34	1413.56	2.90
8556.00	8.20	108.30	8372.62	-323.54	1380.65	1418.02	2.73
8588.00	8.10	109.50	8404.30	-325.01	1384.94	1422.54	0.62
8619.00	7.80	109.00	8435.00	-326.42	1388.99	1426.80	0.99
8651.00	7.40	107.70	8466.72	-327.76	1393.01	1431.01	1.36
8682.00	6.90	104.50	8497.48	-328.83	1396.71	1434.86	2.06
8714.00	5.90	105.90	8529.28	-329.76	1400.15	1438.42	3.16
8745.00	5.00	112.60	8560.14	-330.72	1402.93	1441.34	3.55
8777.00	4.80	111.60	8592.02	-331.74	1405.47	1444.04	0.68
8808.00	2.90	105.90	8622.95	-332.44	1407.43	1446.11	6.24
8840.00	2.00	111.10	8654.92	-332.86	1408.73	1447.47	2.89
8872.00	1.10	85.90	8686.91	-333.04	1409.55	1448.31	3.46
8904.00	1.10	50.10	8718.90	-332.82	1410.10	1448.79	2.11
8936.00	1.00	24.70	8750.90	-332.37	1410.45	1449.04	1.47
8966.00	1.50	0.00	8780.89	-331.74	1410.56	1449.00	2.41
8998.00	1.50	357.00	8812.88	-330.90	1410.54	1448.80	0.25
9030.00	2.20	357.20	8844.86	-329.87	1410.48	1448.52	2.19
9062.00	2.20	4.90	8876.84	-328.64	1410.51	1448.27	0.92
9093.00	2.50	7.00	8907.81	-327.38	1410.64	1448.12	1.01
9125.00	2.50	12.70	8939.78	-326.01	1410.88	1448.04	0.78
9157.00	2.30	18.30	8971.76	-324.72	1411.23	1448.10	0.96
9221.00	2.50	24.30	9035.70	-322.22	1412.21	1448.51	0.50
9253.00	2.40	25.80	9067.67	-320.99	1412.79	1448.79	0.37
9285.00	2.70	20.00	9099.64	-319.67	1413.34	1449.04	1.24
9316.00	2.70	20.20	9130.60	-318.30	1413.84	1449.22	0.03
Last Quantum MWD Survey							
9348.00	2.40	36.20	9162.57	-317.05	1414.50	1449.59	2.40
9369.00	2.40	52.30	9183.55	-316.43	1415.10	1450.04	3.20
9380.00	2.80	67.20	9194.54	-316.19	1415.53	1450.41	7.11
9404.00	3.70	98.30	9218.51	-316.07	1416.84	1451.65	8.11
9478.00	3.80	111.10	9292.35	-317.30	1421.49	1456.46	1.14
9510.00	3.10	108.60	9324.29	-317.96	1423.30	1458.37	2.24
9547.00	2.50	107.90	9361.25	-318.52	1425.02	1460.17	1.62
9574.00	2.60	109.50	9388.22	-318.91	1426.15	1461.37	0.45
9606.00	3.10	98.70	9420.18	-319.28	1427.69	1462.95	2.29
9637.00	3.50	90.00	9451.13	-319.41	1429.47	1464.71	2.06
9669.00	3.80	89.10	9483.06	-319.39	1431.51	1466.69	0.95
9701.00	3.70	89.20	9515.00	-319.36	1433.60	1468.72	0.31
9732.00	3.30	90.20	9545.94	-319.35	1435.49	1470.57	1.31
9764.00	3.10	91.20	9577.89	-319.37	1437.28	1472.31	0.65
9796.00	3.10	93.20	9609.84	-319.44	1439.01	1474.01	0.34
9828.00	3.00	97.60	9641.80	-319.60	1440.70	1475.70	0.80
9859.00	2.60	100.20	9672.76	-319.83	1442.20	1477.21	1.35
9891.00	2.20	106.00	9704.73	-320.13	1443.50	1478.55	1.46
9924.00	2.00	110.70	9737.71	-320.50	1444.65	1479.75	0.80
9956.00	1.80	112.30	9769.69	-320.89	1445.64	1480.80	0.65
9987.00	1.40	110.20	9800.68	-321.21	1446.44	1481.66	1.30
10019.00	1.20	107.20	9832.67	-321.44	1447.13	1482.38	0.66
10050.00	0.80	101.50	9863.67	-321.58	1447.65	1482.92	1.33
10082.00	0.20	45.60	9895.66	-321.59	1447.91	1483.17	2.21
10114.00	0.20	101.40	9927.66	-321.56	1448.00	1483.26	0.58

Measured Depth Ft	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	LOCALS		Vertical Section Ft	Dogleg Severity Deg/100
				N-S Ft	E-W Ft		
10177.00	0.30	262.60	9990.66	-321.60	1447.95	1483.21	0.78
10209.00	0.30	246.70	10022.66	-321.65	1447.79	1483.07	0.26
10304.00	1.00	242.60	10117.66	-322.13	1446.82	1482.23	0.74
10368.00	1.10	244.40	10181.65	-322.65	1445.77	1481.33	0.16
10432.00	1.10	253.30	10245.63	-323.09	1444.63	1480.31	0.27
10526.00	1.40	256.50	10339.61	-323.62	1442.65	1478.50	0.33
10653.00	1.80	260.30	10466.56	-324.32	1439.18	1475.26	0.33
10765.00	1.70	265.50	10578.51	-324.74	1435.79	1472.05	0.17
10956.00	1.40	265.50	10769.44	-325.15	1430.64	1467.12	0.16
11337.00	1.70	300.20	11150.31	-322.67	1421.11	1457.28	0.25

Last SS Survey

11700.00	1.25	299.50	11513.19	-318.01	1413.01	1448.35	0.12
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**Railroad Commission Of Texas
Oil And Gas Division**

Form W-12

INCLINATION REPORT (One Copy Must Be Filed With Each Completion Report)		6. RRC District
1. FIELD NAME (as per RRC Records or Wildcat)		7. RRC Lease Number (Oil Completions Only)
2. LEASE NAME Gardener #34 - Federal 1		8. Well Number
3. OPERATOR Chesapeake Operating Inc.		9. RRC Identification Number (Gas Completions Only)
4. ADDRESS PO Box 1050, Midland, OK 79702-8050		10. County Eddy
5. LOCATION (Section, Block, and Survey)		

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	13. Angle of Inclination (Degrees)	14. Displacement per 100 feet (Sine of Angle x 100)	15. Course Displacement (Feet)	Accumulative Displacement (Feet)
Redrill begin @ 2351			-	-	-
2,998	2,998	7.20	12.53	375.75	375.75
3,782	784	15.70	27.06	212.15	587.90
4,722	940	15.90	27.40	257.52	845.42
5,692	970	14.70	25.38	246.15	1,091.57
6,673	981	14.10	24.36	238.99	1,330.55
7,618	945	15.80	27.23	257.30	1,587.86
8,588	970	8.10	14.09	136.67	1,724.53
9,510	922	3.10	5.41	49.86	1,774.39
9,796	286	3.10	5.41	15.47	1,789.86
10,432	636	1.10	1.92	12.21	1,802.07
10,956	524	1.40	2.44	12.80	1,814.87
					1,814.87
					1,814.87

17. Is any information shown on the reverse side of this form? ☐ Yes ☒ No
18. Accumulative total displacement of well bore at total depth of 10,956 feet = 1,814.87 feet
- *19. Inclination measurements were made in ☐ Tubing ☐ Casing ☐ Open Hole ☒ Drill Pipe
20. Distance from surface location of well to the nearest lease line..... Feet
21. Minimum distance to lease line as prescribed by field rules..... Feet
22. Was the subject well at any time intentionally deviated from vertical in any matter whatsoever?
(if the answer to the above question is "yes" attach written explanation of the circumstances.)

Inclination Data Certification I declare under penalties prescribed in Sec. 91.143, Texas National Resource Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks(*) by the item numbers on this form.	Inclination Data Certification I declare under penalties prescribed in Sec. 91.143, Texas National Resource Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks(*) by the item numbers on this form.
 11/27/06	
Signature of Authorized Representative _____ Trent B. Latshaw, President Name of Person and Title _____ Latshaw Drilling Company, LLC Name of Company _____ Telephone: 918-355-4380	Signature of Authorized Representative _____ Name of Person and Title _____ Operator _____ Telephone: _____

Railroad Commission Use Only:

Approved By: _____ Title: _____ Date: _____

**Designates items certified by the company that conducted the inclination surveys.*

REC'D NOV 28 2006