

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form 3160-4
(April 2004)
Month - Year
MAR - 5 2007
OCD-ARTESIA, NM

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other		5. Lease Serial No. NMINM23002	
1b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr., Other _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Marbob Energy Corporation		7. Unit or CA Agreement Name and No.	
3. Address PO Box 227 Artesia, NM 88211-0227		8. Lease Name and Well No. Malibu Federal #1	
3a. Phone No. (include area code) 505-748-3303		9. AFI Well No. 30-015-34784	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 330 FSL 660 FEL, Unit P At top prod. interval reported below At total depth 2286 FSL 572 FEL, Unit I		10. Field and Pool, or Exploratory Lusk; Bone Spring	
14. Date Spudded 12/09/2006		15. Date T.D. Reached 01/15/2007	
16. Date Completed 02/15/2007 ☐ D & A ☒ Ready to Prod.		17. Elevations (DF, RKB, RT, GL)* 3600' GL	
18. Total Depth: MD 10875' TVD 9157'		19. Plug Back T.D.: MD 10827' TVD 9160'	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) DLL, Cnsg	
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
17 1/2"	13 3/8"	54#	0	913'		775 sx		0	None
12 1/4"	9 5/8"	36 & 40#	0	4493'		1550 sx		0	None
7 7/8"	5 1/2"	17#	0	10873'		225 sx		8634'	None

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 7/8"	8725'								

25. Producing Intervals					26. Perforation Record				
Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status			
A) Bone Spring	9311'	10800'	9311' - 10800'		28	Open			
B)									
C)									
D)									

27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval	Amount and Type of Material								
9311' - 10800'	Acidz w/ 1500 gal NE Fe 15% HCl. Frac w/ 525,400# sand & 299,092 gal fluid								

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
02/16/2007	02/19/2007	24	→	55	0	286			Pumping
Choke Size	Tbg. Press. Flwg. SI	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
MAR 2 2007
WESLEY W. INGRAM
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.)

Sold

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
				Rustler Yates Queen Delaware Bone Spring Wolfcamp	746' 2590' 3645' 5198' 6887' 10357'

32. Additional remarks (include plugging procedure):

33. Indicate which items 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:

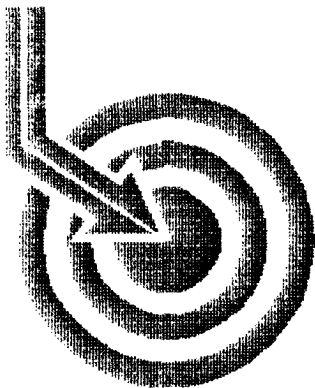
34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) **Diana J. Briggs**Title **Production Analyst**

Signature

Date **02/26/2007**

Title 18 U.S.C. Section 1001 and Title 48 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.



Scientific Drilling

MARBOB ENERGY

Field: Lusk Bonesprings
Site: Eddy County, NM
Well: Malibu Federal #1
Wellpath: VH - Job #32K0107017
Survey: 01/06/07

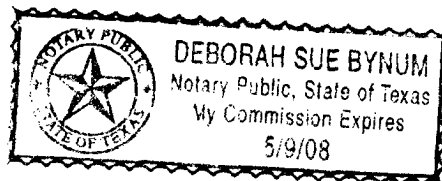
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*R. Lusk*.....Company Representative

Notorized this date 30th of January, 2007.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: MARBOB ENERGY
Field: Lusk Bonesprings
Site: Eddy County, NM
Well: Malibu Federal #1
Wellpath: VH - Job #32K0107017

Date: 01/29/2007 Time: 21:00:39 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,359.58Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 01/06/07
KSRG 0'-8620'

Start Date: 01/06/2007

Company: Scientific Drilling International
Tool: Keeper;Keeper Gyro

Engineer: Gonzales w/GeoGyro
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.11	25.26	100.00	0.09	0.09	0.04	0.11	0.10	25.26
200.00	0.21	30.98	200.00	0.33	0.33	0.18	0.10	0.37	28.05
300.00	0.10	8.02	300.00	0.57	0.57	0.28	0.12	0.64	26.21
400.00	0.11	14.71	400.00	0.75	0.75	0.32	0.02	0.82	22.96
500.00	0.09	1.52	500.00	0.92	0.92	0.35	0.03	0.99	20.50
600.00	0.08	337.70	600.00	1.07	1.07	0.32	0.04	1.12	16.75
700.00	0.15	310.98	700.00	1.22	1.22	0.20	0.09	1.23	9.14
800.00	0.07	323.56	800.00	1.35	1.35	0.06	0.08	1.35	2.58
900.00	0.19	44.36	900.00	1.52	1.52	0.14	0.19	1.53	5.28
1000.00	0.28	58.10	1000.00	1.77	1.77	0.46	0.11	1.83	14.70
1100.00	0.17	43.07	1100.00	2.00	2.01	0.77	0.12	2.15	21.06
1200.00	0.36	40.89	1200.00	2.34	2.35	1.08	0.19	2.59	24.66
1300.00	0.51	46.65	1299.99	2.88	2.90	1.61	0.16	3.31	29.06
1400.00	0.65	55.81	1399.99	3.50	3.52	2.40	0.17	4.26	34.31
1500.00	0.50	47.16	1499.98	4.11	4.13	3.19	0.17	5.22	37.66
1600.00	0.87	51.35	1599.97	4.88	4.91	4.10	0.37	6.40	39.91
1700.00	0.80	41.87	1699.96	5.86	5.90	5.16	0.15	7.84	41.19
1800.00	1.43	42.59	1799.94	7.29	7.34	6.47	0.63	9.79	41.42
1900.00	1.68	42.04	1899.91	9.28	9.35	8.30	0.25	12.50	41.61
2000.00	1.65	37.46	1999.87	11.50	11.58	10.16	0.14	15.40	41.26
2100.00	1.68	43.56	2099.82	13.69	13.78	12.04	0.18	18.30	41.15
2200.00	1.66	39.99	2199.78	15.85	15.95	13.98	0.11	21.21	41.23
2300.00	1.58	41.70	2299.74	17.98	18.09	15.83	0.09	24.04	41.19
2400.00	1.63	41.03	2399.70	20.07	20.20	17.68	0.05	26.84	41.20
2500.00	1.03	36.72	2499.67	21.85	21.99	19.15	0.61	29.16	41.06
2600.00	0.60	36.31	2599.66	22.98	23.13	20.00	0.43	30.58	40.85
2700.00	0.30	25.18	2699.66	23.64	23.79	20.42	0.31	31.35	40.64
2800.00	0.37	45.06	2799.66	24.10	24.25	20.76	0.13	31.93	40.56
2900.00	0.39	37.09	2899.66	24.60	24.75	21.20	0.06	32.59	40.57
3000.00	0.50	35.50	2999.65	25.22	25.38	21.65	0.11	33.36	40.47
3100.00	0.63	9.16	3099.65	26.12	26.28	21.99	0.29	34.27	39.93
3200.00	0.99	31.01	3199.64	27.40	27.56	22.53	0.47	35.60	39.26
3300.00	0.73	15.89	3299.63	28.74	28.92	23.15	0.34	37.04	38.68
3400.00	0.77	7.01	3399.62	30.02	30.19	23.40	0.12	38.20	37.78
3500.00	0.76	8.13	3499.61	31.34	31.52	23.58	0.02	39.36	36.80
3600.00	0.73	10.15	3599.60	32.63	32.80	23.79	0.04	40.52	35.95
3700.00	0.69	14.58	3699.59	33.83	34.01	24.05	0.07	41.66	35.26
3800.00	0.71	5.73	3799.59	35.03	35.21	24.26	0.11	42.76	34.57
3900.00	0.78	359.88	3899.58	36.33	36.51	24.32	0.10	43.87	33.67
4000.00	0.90	1.24	3999.57	37.79	37.97	24.34	0.12	45.10	32.66
4100.00	1.14	2.12	4099.55	39.57	39.75	24.39	0.24	46.64	31.53
4200.00	1.34	5.42	4199.53	41.73	41.91	24.54	0.21	48.57	30.35
4300.00	1.01	21.16	4299.51	43.71	43.90	24.97	0.46	50.50	29.63
4400.00	0.71	33.10	4399.50	45.05	45.24	25.62	0.35	51.99	29.53
4500.00	0.63	39.09	4499.49	45.99	46.18	26.31	0.11	53.15	29.67
4600.00	0.54	40.20	4599.48	46.77	46.97	26.96	0.09	54.16	29.86
4700.00	0.70	50.70	4699.48	47.51	47.72	27.74	0.20	55.19	30.17
4800.00	0.85	67.79	4799.47	48.17	48.38	28.90	0.27	56.36	30.85



Scientific Drilling International Survey Report

Company: MARBOB ENERGY
Field: Lusk Bonesprings
Site: Eddy County, NM
Well: Malibu Federal #1
Wellpath: VH - Job #32K0107017

Date: 01/29/2007 Time: 21:00:39 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,359.58Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

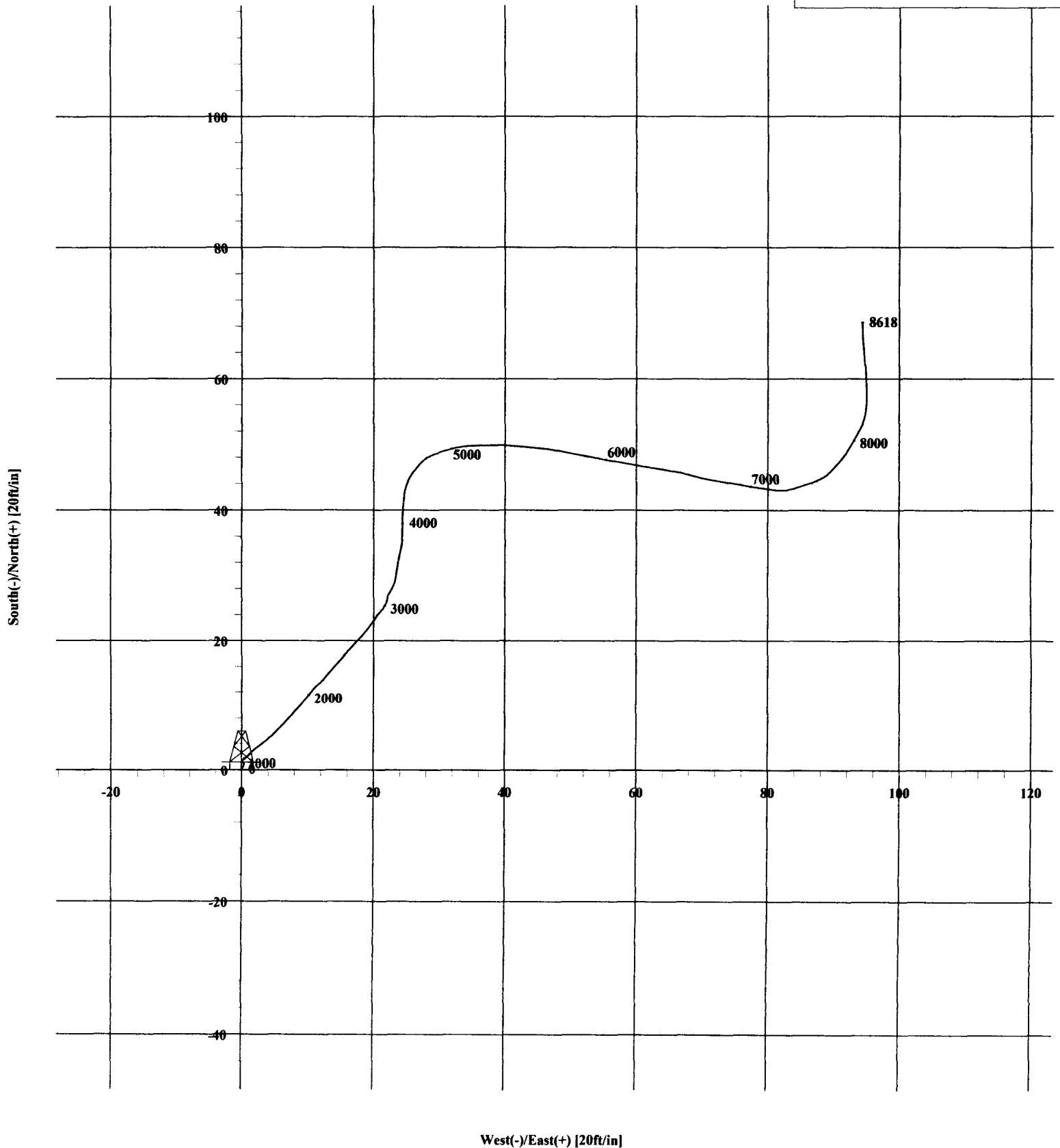
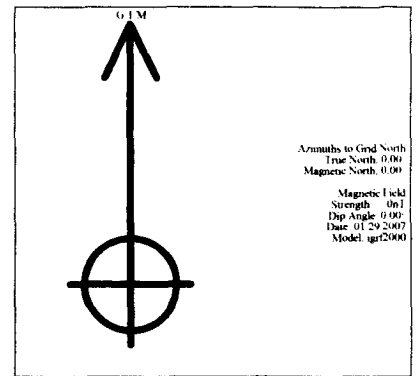
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.83	74.01	4899.46	48.64	48.86	30.28	0.09	57.49	31.79
5000.00	0.95	73.81	4999.45	49.06	49.30	31.77	0.12	58.65	32.80
5100.00	0.98	81.84	5099.43	49.40	49.65	33.41	0.14	59.85	33.94
5200.00	1.20	88.17	5199.41	49.54	49.80	35.31	0.25	61.05	35.33
5300.00	1.40	87.56	5299.39	49.61	49.89	37.57	0.20	62.46	36.99
5400.00	1.47	93.94	5399.36	49.56	49.85	40.08	0.17	63.96	38.80
5500.00	1.54	95.14	5499.32	49.33	49.64	42.69	0.08	65.48	40.70
5600.00	1.50	94.84	5599.29	49.08	49.41	45.34	0.04	67.06	42.54
5700.00	1.42	101.28	5699.26	48.71	49.06	47.85	0.18	68.53	44.29
5800.00	1.41	100.62	5799.22	48.22	48.59	50.28	0.02	69.92	45.98
5900.00	1.49	100.48	5899.19	47.74	48.13	52.77	0.08	71.42	47.63
6000.00	1.50	101.10	5999.16	47.23	47.64	55.33	0.02	73.01	49.27
6100.00	1.55	99.38	6099.12	46.74	47.17	57.95	0.07	74.72	50.86
6200.00	1.55	99.83	6199.09	46.27	46.72	60.62	0.01	76.53	52.38
6300.00	1.49	98.22	6299.05	45.83	46.30	63.23	0.07	78.37	53.79
6400.00	1.36	100.79	6399.02	45.41	45.89	65.69	0.14	80.13	55.06
6500.00	1.21	103.79	6499.00	44.92	45.42	67.88	0.16	81.67	56.21
6600.00	1.18	103.54	6598.97	44.41	44.92	69.90	0.03	83.10	57.27
6700.00	1.07	99.07	6698.95	44.01	44.54	71.83	0.14	84.51	58.20
6800.00	1.16	99.72	6798.94	43.68	44.22	73.75	0.09	85.99	59.05
6900.00	1.03	100.99	6898.92	43.32	43.88	75.63	0.13	87.43	59.88
7000.00	1.00	98.17	6998.90	43.01	43.58	77.37	0.06	88.80	60.61
7100.00	0.96	97.36	7098.89	42.77	43.35	79.07	0.04	90.17	61.27
7200.00	1.10	97.47	7198.87	42.52	43.12	80.85	0.14	91.63	61.93
7300.00	1.05	84.12	7298.85	42.48	43.09	82.71	0.25	93.26	62.49
7400.00	1.13	71.29	7398.84	42.87	43.50	84.56	0.26	95.09	62.78
7500.00	1.05	71.36	7498.82	43.47	44.10	86.36	0.08	96.97	62.95
7600.00	1.06	64.29	7598.80	44.15	44.80	88.06	0.13	98.80	63.04
7700.00	1.16	42.43	7698.78	45.29	45.95	89.58	0.43	100.68	62.85
7800.00	1.12	41.63	7798.76	46.76	47.43	90.91	0.04	102.54	62.45
7900.00	1.01	31.43	7898.75	48.23	48.91	92.02	0.22	104.21	62.01
8000.00	1.29	30.98	7998.72	49.94	50.62	93.06	0.28	105.94	61.45
8100.00	1.44	26.51	8098.70	52.02	52.71	94.20	0.18	107.95	60.77
8200.00	1.60	6.03	8198.66	54.53	55.23	94.91	0.56	109.81	59.80
8300.00	1.76	358.36	8298.62	57.45	58.15	95.01	0.28	111.39	58.53
8400.00	1.80	355.93	8398.57	60.55	61.25	94.85	0.09	112.91	57.15
8500.00	1.88	354.09	8498.52	63.76	64.45	94.57	0.10	114.45	55.73
8600.00	2.06	359.43	8598.46	67.19	67.88	94.39	0.26	116.26	54.28
8620.00	2.18	359.27	8618.45	67.93	68.62	94.38	0.60	116.69	53.98



Scientific
Drilling

Field: Lusk Bonesprings
Site: Eddy County, NM
Well: Malibu Federal #1
Wellpath: VH - Job #32K0107017
Survey: 01/06/07



Survey Report

Vertical Section Plane: 359.58°	Total Correction: 7.97° East to Grid
Calculation Method: Minimum Curvature	Survey Reference: Wellhead
North Aligned to: Grid North	Well: Malibu_Fed#1
RKB = 15.5' KELLY BUSHING TO GROUND LEVEL	FIELD: LUSK BONE SPRING

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	Rect Co-ord North (ft)	Rect Co-ord East (ft)	Closure Distance (ft)	Closure Direction (deg)	Dog-leg Severity (dg/hft)
TIE IN SURVEY PROVIDED BY SCIENTIFIC DRILLING										
8620.00	2.18	359.27	8618.44		67.93	68.62 N	94.38 E	116.69	53.98	
THE FOLLOWING ARE PATHFINDER MWD SURVEYS										
8681.00	2.20	357.07	8679.40	61.00	70.26	70.95 N	94.31 E	118.01	53.04	0.14
8712.00	2.46	354.35	8710.37	31.00	71.51	72.20 N	94.21 E	118.70	52.53	0.92
8744.00	3.78	356.28	8742.32	32.00	73.25	73.94 N	94.07 E	119.65	51.83	4.13
8776.00	7.12	4.45	8774.17	32.00	76.28	76.97 N	94.16 E	121.62	50.73	10.69
8807.00	11.61	5.77	8804.75	31.00	81.30	82.00 N	94.62 E	125.21	49.09	14.48
8839.00	15.92	1.73	8835.83	32.00	88.89	89.59 N	95.08 E	130.64	46.70	13.79
8871.00	19.96	357.07	8866.27	32.00	98.73	99.43 N	94.93 E	137.47	43.67	13.40
8902.00	23.48	355.58	8895.06	31.00	110.18	110.88 N	94.19 E	145.48	40.35	11.49
8934.00	26.56	355.67	8924.06	32.00	123.68	124.37 N	93.15 E	155.39	36.83	9.62
8966.00	30.25	356.63	8952.20	32.00	138.87	139.55 N	92.14 E	167.23	33.43	11.63
8998.00	34.12	357.95	8979.28	32.00	155.90	156.57 N	91.34 E	181.27	30.26	12.29
9029.00	37.72	358.57	9004.38	31.00	174.08	174.75 N	90.79 E	196.93	27.46	11.69
9061.00	41.24	358.48	9029.07	32.00	194.42	195.09 N	90.27 E	214.96	24.83	10.99
9093.00	45.02	358.39	9052.42	32.00	216.29	216.95 N	89.67 E	234.75	22.46	11.82
9125.00	48.63	358.74	9074.31	32.00	239.62	240.28 N	89.09 E	256.26	20.34	11.30
9157.00	51.70	359.09	9094.81	32.00	264.19	264.84 N	88.63 E	279.28	18.50	9.65
9188.00	54.69	359.18	9113.38	31.00	289.01	289.66 N	88.25 E	302.81	16.94	9.65
9220.00	59.36	359.45	9130.79	32.00	315.84	316.50 N	87.93 E	328.48	15.53	14.58
9252.00	64.10	359.53	9145.94	32.00	344.02	344.67 N	87.68 E	355.65	14.27	14.84
9284.00	67.62	359.97	9159.02	32.00	373.21	373.87 N	87.56 E	383.98	13.18	11.06
9316.00	70.08	0.59	9170.57	32.00	403.06	403.71 N	87.70 E	413.13	12.26	7.90
9347.00	73.34	1.20	9180.30	31.00	432.48	433.13 N	88.16 E	442.02	11.51	10.66
9379.00	75.62	1.47	9188.86	32.00	463.29	463.96 N	88.88 E	472.39	10.85	7.19
9411.00	77.91	1.55	9196.18	32.00	494.42	495.09 N	89.70 E	503.16	10.27	7.15
9443.00	80.72	1.55	9202.12	32.00	525.85	526.53 N	90.56 E	534.26	9.76	8.79
9474.00	82.66	1.55	9206.60	31.00	556.50	557.19 N	91.39 E	564.63	9.31	6.24
9506.00	84.15	1.03	9210.27	32.00	588.28	588.97 N	92.10 E	596.12	8.89	4.95
9538.00	85.47	0.32	9213.16	32.00	620.14	620.83 N	92.48 E	627.68	8.47	4.67
9570.00	88.99	0.24	9214.71	32.00	652.09	652.79 N	92.64 E	659.33	8.08	11.00
9601.00	90.48	0.15	9214.85	31.00	683.09	683.79 N	92.74 E	690.05	7.72	4.83
9633.00	90.48	0.24	9214.58	32.00	715.09	715.79 N	92.85 E	721.78	7.39	0.27
9665.00	90.31	0.15	9214.36	32.00	747.08	747.79 N	92.95 E	753.54	7.09	0.61
9697.00	89.96	0.41	9214.29	32.00	779.08	779.78 N	93.11 E	785.32	6.81	1.37
9728.00	89.78	0.32	9214.36	31.00	810.08	810.78 N	93.31 E	816.14	6.56	0.63
9761.00	90.13	0.50	9214.38	33.00	843.08	843.78 N	93.55 E	848.95	6.33	1.19
9793.00	90.66	0.24	9214.16	32.00	875.07	875.78 N	93.75 E	880.79	6.11	1.84
9825.00	90.40	359.97	9213.87	32.00	907.07	907.78 N	93.81 E	912.61	5.90	1.17
9856.00	91.36	359.80	9213.39	31.00	938.06	938.78 N	93.75 E	943.45	5.70	3.17
9888.00	91.28	359.62	9212.66	32.00	970.06	970.77 N	93.58 E	975.27	5.51	0.61
9920.00	92.42	359.80	9211.63	32.00	1002.04	1002.75 N	93.42 E	1007.09	5.32	3.61
9952.00	92.24	359.62	9210.32	32.00	1034.01	1034.72 N	93.26 E	1038.92	5.15	0.78
9984.00	92.33	359.53	9209.05	32.00	1065.99	1066.70 N	93.02 E	1070.75	4.98	0.39
10015.00	93.39	0.41	9207.50	31.00	1096.95	1097.66 N	93.01 E	1101.59	4.84	4.43
10047.00	93.56	359.97	9205.56	32.00	1128.89	1129.60 N	93.11 E	1133.43	4.71	1.48
10079.00	93.56	0.32	9203.58	32.00	1160.82	1161.54 N	93.19 E	1165.27	4.59	1.10
10111.00	93.47	0.15	9201.61	32.00	1192.76	1193.48 N	93.33 E	1197.12	4.47	0.61
10143.00	93.47	359.97	9199.67	32.00	1224.70	1225.42 N	93.36 E	1228.97	4.36	0.55
10174.00	93.56	359.88	9197.77	31.00	1255.64	1256.36 N	93.32 E	1259.82	4.25	0.40
10206.00	93.47	0.15	9195.81	32.00	1287.58	1288.30 N	93.33 E	1291.67	4.14	0.87

Survey Report

Vertical Section Plane: 359.58°	Total Correction: 7.97° East to Grid
Calculation Method: Minimum Curvature	Survey Reference: Wellhead
North Aligned to: Grid North	Well: Malibu_Fed#1
RKB = 15.5' KELLY BUSHING TO GROUND LEVEL	FIELD: LUSK BONE SPRING

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	Rect Co-ord North (ft)	Rect Co-ord East (ft)	Closure Distance (ft)	Closure Direction (deg)	Dog-leg Severity (dg/hft)
10238.00	93.21	359.62	9193.94	32.00	1319.52	1320.24 N	93.27 E	1323.53	4.04	1.84
10270.00	92.95	359.71	9192.23	32.00	1351.48	1352.20 N	93.08 E	1355.40	3.94	0.87
10301.00	92.77	359.53	9190.68	31.00	1382.44	1383.16 N	92.87 E	1386.27	3.84	0.80
10333.00	92.59	359.97	9189.18	32.00	1414.40	1415.12 N	92.73 E	1418.16	3.75	1.48
10365.00	92.59	0.24	9187.74	32.00	1446.37	1447.09 N	92.79 E	1450.06	3.67	0.82
10397.00	92.59	0.15	9186.29	32.00	1478.34	1479.06 N	92.90 E	1481.97	3.59	0.27
10429.00	92.59	0.24	9184.84	32.00	1510.30	1511.02 N	93.01 E	1513.88	3.52	0.27
10460.00	92.59	0.15	9183.44	31.00	1541.27	1541.99 N	93.11 E	1544.80	3.46	0.28
10492.00	92.51	359.80	9182.01	32.00	1573.24	1573.96 N	93.09 E	1576.71	3.38	1.13
10524.00	92.86	359.80	9180.51	32.00	1605.20	1605.92 N	92.98 E	1608.61	3.31	1.10
10556.00	93.47	359.97	9178.75	32.00	1637.15	1637.88 N	92.92 E	1640.51	3.25	2.00
10587.00	94.26	359.80	9176.66	31.00	1668.08	1668.80 N	92.85 E	1671.39	3.18	2.61
10619.00	94.53	359.71	9174.20	32.00	1699.98	1700.71 N	92.72 E	1703.23	3.12	0.87
10651.00	94.44	359.27	9171.70	32.00	1731.89	1732.61 N	92.43 E	1735.07	3.05	1.40
10683.00	94.53	359.18	9169.20	32.00	1763.79	1764.51 N	92.00 E	1766.91	2.98	0.39
10714.00	94.26	358.74	9166.82	31.00	1794.69	1795.41 N	91.44 E	1797.74	2.92	1.65
10746.00	93.56	358.65	9164.64	32.00	1826.62	1827.33 N	90.71 E	1829.58	2.84	2.21
10778.00	93.21	358.65	9162.75	32.00	1858.56	1859.27 N	89.96 E	1861.44	2.77	1.10
10810.00	93.47	358.92	9160.88	32.00	1890.50	1891.20 N	89.29 E	1893.31	2.70	1.16
10830.00	93.65	358.92	9159.64	20.00	1910.46	1911.16 N	88.91 E	1913.23	2.66	0.88
STRAIGHT LINE PROJECTION TO BIT										
10875.00	93.65	358.92	9156.78	45.00	1955.36	1956.06 N	88.06 E	1958.04	2.58	0.01