

30 015 37422

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY CORPORATION

SRO STATE UNIT COM #3H

EDDY COUNTY, NEW MEXICO

Rig: PATRIOT #2

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: JOHN OVERTON

MAGID IBRAHIM

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.252.1886 N LON: 104.7.7.0562 W

Reference: NAD27 new mexico east Transverse Mercator

Ref GRID Coord: X: 566523.4000 Y: 381192.1000

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.87° EAST TO GRID

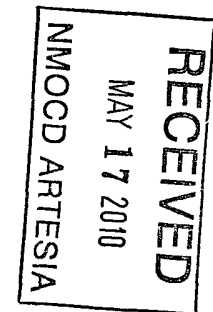
Vertical Section Plane: 269.56

Survey Vert. Reference: 22.00' Kelly Bushing To Ground

Altitude: 3126.00' Ground To MSL

Survey Calculations by RX5 V6.02B using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE SCIENTIFIC DRILLING GYRO SURVEYS.										
100.00	0.88	309.10	100.00	0.00	0.59	0.48 N	0.59 W	0.76@	309.16	0.00
200.00	0.73	313.57	199.99	100.00	1.64	1.41 N	1.65 W	2.17@	310.43	0.16
300.00	0.91	329.90	299.98	100.00	2.49	2.53 N	2.51 W	3.56@	315.25	0.29
400.00	1.27	339.09	399.96	100.00	3.27	4.25 N	3.30 W	5.39@	322.17	0.40
500.00	1.23	342.72	499.94	100.00	3.97	6.31 N	4.02 W	7.48@	327.53	0.09
600.00	1.23	337.08	599.92	100.00	4.69	8.33 N	4.75 W	9.59@	330.28	0.12
700.00	1.09	327.89	699.90	100.00	5.60	10.12 N	5.68 W	11.60@	330.71	0.23
800.00	0.97	328.37	799.88	100.00	6.54	11.65 N	6.63 W	13.40@	330.36	0.12
900.00	0.61	308.04	899.87	100.00	7.39	12.70 N	7.49 W	14.74@	329.46	0.45
1000.00	0.22	270.00	999.87	100.00	8.00	13.02 N	8.10 W	15.34@	328.12	0.46
1100.00	0.44	227.73	1099.87	100.00	8.48	12.77 N	8.58 W	15.38@	326.10	0.31
1200.00	0.46	223.78	1199.86	100.00	9.05	12.22 N	9.14 W	15.26@	323.20	0.04
1300.00	0.88	230.29	1299.86	100.00	9.92	11.44 N	10.01 W	15.20@	318.81	0.43
1400.00	0.83	225.76	1399.84	100.00	11.04	10.44 N	11.12 W	15.25@	313.20	0.08
1500.00	0.49	238.93	1499.84	100.00	11.93	9.72 N	12.00 W	15.44@	308.99	0.37
1600.00	0.52	225.95	1599.83	100.00	12.62	9.18 N	12.70 W	15.67@	305.87	0.12
1700.00	0.44	210.67	1699.83	100.00	13.15	8.53 N	13.22 W	15.73@	302.85	0.15
1800.00	0.57	112.22	1799.83	100.00	12.89	8.02 N	12.95 W	15.23@	301.75	0.77
1900.00	0.96	99.20	1899.82	100.00	11.61	7.69 N	11.67 W	13.97@	303.41	0.42
2000.00	1.22	95.89	1999.80	100.00	9.72	7.45 N	9.78 W	12.29@	307.30	0.27
2100.00	1.55	89.61	2099.77	100.00	7.31	7.35 N	7.37 W	10.41@	314.93	0.36
2200.00	1.76	81.00	2199.73	100.00	4.44	7.60 N	4.50 W	8.83@	329.38	0.32
2300.00	1.62	73.43	2299.69	100.00	1.56	8.24 N	1.63 W	8.40@	348.83	0.26
2400.00	1.42	73.36	2399.65	100.00	-0.98	9.00 N	0.92 E	9.05@	5.80	0.20
2500.00	1.25	66.42	2499.62	100.00	-3.18	9.79 N	3.10 E	10.27@	17.58	0.23
2600.00	1.24	66.12	2599.60	100.00	-5.17	10.67 N	5.09 E	11.82@	25.51	0.01



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2700.00	0.92	59.72	2699.58	100.00	-6.86	11.51 N	6.77 E	13.35@	30.48	0.34
2800.00	0.90	65.58	2799.57	100.00	-8.28	12.24 N	8.18 E	14.72@	33.76	0.09
2900.00	0.67	55.33	2899.56	100.00	-9.48	12.90 N	9.38 E	15.95@	36.02	0.27
3000.00	0.49	59.84	2999.56	100.00	-10.33	13.44 N	10.23 E	16.89@	37.27	0.19
3100.00	0.50	66.73	3099.55	100.00	-11.11	13.83 N	11.00 E	17.67@	38.49	0.06
3200.00	0.45	62.15	3199.55	100.00	-11.86	14.19 N	11.75 E	18.42@	39.63	0.06
3300.00	0.08	46.94	3299.55	100.00	-12.26	14.42 N	12.15 E	18.85@	40.11	0.37
3400.00	0.08	35.00	3399.55	100.00	-12.35	14.52 N	12.24 E	18.99@	40.12	0.02
3500.00	0.11	1.21	3499.55	100.00	-12.39	14.68 N	12.28 E	19.13@	39.92	0.06
3600.00	0.15	13.25	3599.55	100.00	-12.42	14.90 N	12.31 E	19.33@	39.57	0.05
3700.00	0.29	343.55	3699.55	100.00	-12.39	15.27 N	12.27 E	19.59@	38.78	0.18
3800.00	0.28	330.66	3799.54	100.00	-12.20	15.72 N	12.08 E	19.83@	37.53	0.06
3900.00	0.23	340.61	3899.54	100.00	-12.01	16.13 N	11.89 E	20.04@	36.40	0.07
4000.00	0.44	269.80	3999.54	100.00	-11.57	16.32 N	11.44 E	19.93@	35.04	0.42
4100.00	0.34	207.90	4099.54	100.00	-11.04	16.05 N	10.92 E	19.41@	34.22	0.41
4200.00	0.33	202.11	4199.54	100.00	-10.79	15.52 N	10.67 E	18.84@	34.51	0.03
4300.00	0.31	206.76	4299.54	100.00	-10.56	15.01 N	10.44 E	18.29@	34.81	0.03
4400.00	0.35	199.14	4399.54	100.00	-10.33	14.48 N	10.22 E	17.73@	35.20	0.06
4500.00	0.39	214.14	4499.53	100.00	-10.03	13.91 N	9.93 E	17.09@	35.51	0.10
4600.00	0.61	225.37	4599.53	100.00	-9.46	13.26 N	9.36 E	16.23@	35.21	0.24
4700.00	0.81	210.06	4699.52	100.00	-8.72	12.27 N	8.62 E	15.00@	35.10	0.27
4800.00	0.82	190.14	4799.51	100.00	-8.23	10.96 N	8.14 E	13.65@	36.63	0.28
4900.00	0.78	188.00	4899.50	100.00	-8.00	9.58 N	7.92 E	12.43@	39.60	0.05
5000.00	0.88	188.73	4999.49	100.00	-7.77	8.14 N	7.71 E	11.22@	43.44	0.10
5100.00	0.92	178.84	5099.48	100.00	-7.66	6.58 N	7.61 E	10.06@	49.15	0.16
5200.00	0.97	175.23	5199.47	100.00	-7.74	4.94 N	7.70 E	9.15@	57.33	0.08
5300.00	0.92	168.42	5299.45	100.00	-7.96	3.31 N	7.93 E	8.59@	67.37	0.12
5400.00	0.85	170.41	5399.44	100.00	-8.23	1.79 N	8.22 E	8.41@	77.72	0.08
5500.00	0.99	183.87	5499.43	100.00	-8.28	0.20 N	8.28 E	8.28@	88.65	0.26

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5600.00	1.10	188.57	5599.41	100.00	-8.07	1.62 S	8.08 E	8.24@ 101.31	0.14
5700.00	1.15	189.80	5699.39	100.00	-7.74	3.55 S	7.77 E	8.54@ 114.59	0.06
5800.00	1.16	191.94	5799.37	100.00	-7.34	5.53 S	7.38 E	9.23@ 126.84	0.04
5900.00	1.27	192.88	5899.35	100.00	-6.87	7.60 S	6.93 E	10.29@ 137.66	0.11
** TIED INTO SCIENTIFIC DRILLING GYRO SURVEY AT 6000'MD.									
6000.00	1.47	203.50	5999.32	100.00	-6.09	9.86 S	6.17 E	11.63@ 147.96	0.32
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.									
6048.00	1.49	209.35	6047.30	48.00	-5.53	10.97 S	5.62 E	12.32@ 152.88	0.32
6079.00	1.58	216.20	6078.29	31.00	-5.08	11.66 S	5.17 E	12.76@ 156.10	0.66
6111.00	2.11	224.48	6110.28	32.00	-4.40	12.44 S	4.50 E	13.23@ 160.13	1.85
6143.00	4.31	242.20	6142.22	32.00	-2.92	13.42 S	3.02 E	13.76@ 167.32	7.46
6174.00	8.18	258.30	6173.04	31.00	0.28	14.41 S	0.17 W	14.41@ 180.69	13.58
6205.00	12.31	267.39	6203.54	31.00	5.75	15.01 S	5.64 W	16.03@ 200.58	14.27
6236.00	15.92	270.82	6233.60	31.00	13.31	15.10 S	13.19 W	20.05@ 221.14	11.95
6268.00	19.79	270.65	6264.05	32.00	23.11	14.98 S	23.00 W	27.45@ 236.93	12.10
6299.00	23.65	269.88	6292.84	31.00	34.58	14.93 S	34.47 W	37.56@ 246.58	12.48
6331.00	27.17	267.46	6321.75	32.00	48.31	15.27 S	48.19 W	50.55@ 252.42	11.47
6362.00	30.42	266.12	6348.91	31.00	63.22	16.11 S	63.10 W	65.12@ 255.68	10.69
6394.00	33.59	266.34	6376.04	32.00	80.15	17.23 S	80.02 W	81.85@ 257.85	9.91
6425.00	36.84	266.26	6401.36	31.00	97.99	18.38 S	97.85 W	99.57@ 259.36	10.49
6457.00	39.75	265.72	6426.48	32.00	117.78	19.77 S	117.63 W	119.28@ 260.46	9.15
6488.00	42.91	266.33	6449.75	31.00	138.21	21.19 S	138.05 W	139.67@ 261.28	10.28
6519.00	47.04	264.67	6471.68	31.00	160.06	22.92 S	159.89 W	161.52@ 261.84	13.85
6551.00	51.18	268.04	6492.62	32.00	184.20	24.43 S	184.02 W	185.64@ 262.44	15.19
6582.00	57.24	268.40	6510.75	31.00	209.33	25.21 S	209.14 W	210.66@ 263.13	19.57
6613.00	62.52	271.13	6526.30	31.00	236.13	25.30 S	235.95 W	237.30@ 263.88	18.66
6644.00	68.68	272.65	6539.10	31.00	264.33	24.36 S	264.15 W	265.27@ 264.73	20.37
6680.00	76.06	273.09	6549.99	36.00	298.55	22.64 S	298.39 W	299.25@ 265.66	20.53
6711.00	80.90	273.07	6556.18	31.00	328.86	21.01 S	328.71 W	329.38@ 266.34	15.61

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6743.00	81.07	272.88	6561.20	32.00	360.41	19.37 S	360.27 W	360.79@	266.92	0.79
6775.00	80.90	272.50	6566.21	32.00	391.97	17.89 S	391.84 W	392.25@	267.39	1.29
6806.00	81.25	271.39	6571.02	31.00	422.57	16.85 S	422.45 W	422.78@	267.72	3.71
6838.00	83.62	270.89	6575.23	32.00	454.27	16.22 S	454.16 W	454.45@	267.96	7.57
6870.00	84.33	271.04	6578.59	32.00	486.09	15.68 S	485.98 W	486.23@	268.15	2.27
6901.00	87.32	271.02	6580.85	31.00	516.99	15.12 S	516.89 W	517.11@	268.32	9.65
6932.00	90.22	271.04	6581.52	31.00	547.97	14.57 S	547.87 W	548.07@	268.48	9.36
6964.00	90.31	270.69	6581.37	32.00	579.96	14.08 S	579.87 W	580.04@	268.61	1.13
6995.00	90.57	270.80	6581.13	31.00	610.95	13.68 S	610.87 W	611.02@	268.72	0.91
7027.00	91.89	269.87	6580.44	32.00	642.94	13.49 S	642.86 W	643.00@	268.80	5.05
7058.00	92.24	269.95	6579.33	31.00	673.92	13.54 S	673.84 W	673.97@	268.85	1.16
7152.00	90.92	268.92	6576.73	94.00	767.88	14.47 S	767.79 W	767.93@	268.92	1.78
7247.00	90.31	267.75	6575.71	95.00	862.85	17.23 S	862.75 W	862.92@	268.86	1.39
7340.00	91.45	267.74	6574.29	93.00	955.79	20.89 S	955.66 W	955.89@	268.75	1.23
7433.00	92.24	268.06	6571.29	93.00	1048.71	24.29 S	1048.55 W	1048.83@	268.67	0.92
7528.00	93.03	268.45	6566.92	95.00	1143.58	27.18 S	1143.40 W	1143.73@	268.64	0.93
7625.00	91.36	267.96	6563.21	97.00	1240.48	30.22 S	1240.28 W	1240.65@	268.60	1.79
7719.00	91.63	267.59	6560.76	94.00	1334.40	33.87 S	1334.18 W	1334.61@	268.55	0.49
7813.00	90.75	267.28	6558.80	94.00	1428.31	38.08 S	1428.06 W	1428.57@	268.47	0.99
7908.00	89.43	268.20	6558.65	95.00	1523.26	41.82 S	1522.99 W	1523.56@	268.43	1.69
8001.00	90.04	268.74	6559.08	93.00	1616.24	44.30 S	1615.95 W	1616.56@	268.43	0.88
8095.00	90.13	269.91	6558.95	94.00	1710.24	45.41 S	1709.94 W	1710.55@	268.48	1.25
8189.00	89.43	269.07	6559.31	94.00	1804.24	46.25 S	1803.94 W	1804.53@	268.53	1.16
8283.00	89.96	269.84	6559.81	94.00	1898.24	47.14 S	1897.93 W	1898.52@	268.58	0.99
8378.00	91.89	272.55	6558.27	95.00	1993.17	45.16 S	1992.89 W	1993.40@	268.70	3.50
8472.00	89.52	270.91	6557.12	94.00	2087.09	42.33 S	2086.82 W	2087.25@	268.84	3.07
8567.00	90.57	272.07	6557.04	95.00	2182.03	39.86 S	2181.79 W	2182.15@	268.95	1.65
8662.00	90.66	272.42	6556.02	95.00	2276.92	36.13 S	2276.71 W	2277.00@	269.09	0.38
8756.00	90.84	272.21	6554.79	94.00	2370.80	32.34 S	2370.63 W	2370.85@	269.22	0.29

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8851.00	90.40	271.37	6553.76	95.00	2465.73	29.37 S	2465.57 W	2465.75@	269.32	1.00
8945.00	89.69	270.78	6553.69	94.00	2559.69	27.61 S	2559.56 W	2559.70@	269.38	0.98
9039.00	89.69	271.22	6554.20	94.00	2653.66	25.97 S	2653.54 W	2653.67@	269.44	0.47
9133.00	90.75	272.87	6553.84	94.00	2747.57	22.61 S	2747.47 W	2747.57@	269.53	2.09
9228.00	89.52	272.00	6553.61	95.00	2842.44	18.58 S	2842.39 W	2842.45@	269.63	1.59
9322.00	89.96	270.80	6554.04	94.00	2936.39	16.28 S	2936.35 W	2936.40@	269.68	1.36
9416.00	92.33	271.03	6552.16	94.00	3030.34	14.78 S	3030.32 W	3030.35@	269.72	2.53
9511.00	92.24	271.06	6548.37	95.00	3125.23	13.05 S	3125.23 W	3125.25@	269.76	0.10
9605.00	91.28	269.98	6545.49	94.00	3219.17	12.20 S	3219.18 W	3219.20@	269.78	1.54
9700.00	90.04	269.33	6544.39	95.00	3314.17	12.77 S	3314.17 W	3314.19@	269.78	1.47
9794.00	89.60	269.15	6544.69	94.00	3408.16	14.01 S	3408.16 W	3408.18@	269.76	0.51
9890.00	89.87	269.20	6545.13	96.00	3504.16	15.40 S	3504.14 W	3504.18@	269.75	0.29
9985.00	88.81	268.93	6546.23	95.00	3599.15	16.95 S	3599.12 W	3599.16@	269.73	1.15
10079.00	88.46	268.25	6548.47	94.00	3693.11	19.26 S	3693.07 W	3693.12@	269.70	0.81
10173.00	89.43	268.89	6550.20	94.00	3787.08	21.60 S	3787.02 W	3787.08@	269.67	1.24
10268.00	87.41	267.44	6552.82	95.00	3882.00	24.64 S	3881.93 W	3882.01@	269.64	2.62
10362.00	90.13	267.57	6554.83	94.00	3975.91	28.73 S	3975.81 W	3975.91@	269.59	2.90
10458.00	91.45	269.60	6553.51	96.00	4071.88	31.11 S	4071.76 W	4071.88@	269.56	2.52
10552.00	91.45	269.57	6551.13	94.00	4165.85	31.79 S	4165.73 W	4165.85@	269.56	0.03
10646.00	91.45	269.00	6548.75	94.00	4259.82	32.96 S	4259.69 W	4259.82@	269.56	0.61
10740.00	91.01	268.79	6546.73	94.00	4353.79	34.77 S	4353.66 W	4353.79@	269.54	0.52
10835.00	90.13	268.71	6545.79	95.00	4448.78	36.84 S	4448.63 W	4448.78@	269.53	0.93
10929.00	90.31	268.55	6545.43	94.00	4542.77	39.09 S	4542.60 W	4542.77@	269.51	0.26
STRAIGHT LINE PROJECTION TO BIT AT 11018' MD.										
11018.00	90.31	268.55	6544.95	89.00	4631.75	41.34 S	4631.57 W	4631.75@	269.49	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

SURF: 660' FNL, 330' FEL
EDL: 701' FNL, 318' FNL

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

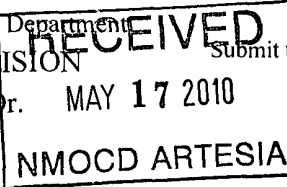
Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies



☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-37422		² Pool Code 30215	³ Pool Name Hay Hollow; Bone Spring
⁴ Property Code 37898	⁵ Property Name SRO State Unit Com		⁶ Well Number 3H
⁷ OGRID No. 14049	⁸ Operator Name Marbob Energy Corporation		⁹ Elevation 3126'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	26S	28E	A	660	North	330	East	Eddy

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	18	26S	28E	D	701	North	318	West	Eddy

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i> Signature: <u>Stormi Davis</u> Date: <u>5/7/10</u> Printed Name: <u>Stormi Davis</u> Production Assistant
	¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i> Date of Survey Signature and Seal of Professional Surveyor REFER TO ORIGINAL PLAT Certificate Number