

| | | |
|--|---|------------------------------------|
| Submit To Appropriate District Office Two Copies 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 and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 | Form C-105 July 17, 2008 |
|--|---|------------------------------------|

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

| | |
|---|--|
| 4. Reason for filing: <input checked="" type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC) | 5. Lease Name or Unit Agreement Name Craig State Com 6. Well Number: 1H |
|---|--|

7. Type of Completion:
 NEW WELL WORKOVER DEEPENING PLUGBACK DIFFERENT RESERVOIR OTHER

| | |
|---|--|
| 8. Name of Operator COG Operating LLC 10. Address of Operator 2208 W. Main Street Artesia, NM 88210 | 9. OGRID 229137 11. Pool name or Wildcat Wildcat; Bone Spring |
|---|--|

| 12. Location | Unit Ltr | Section | Township | Range | Lot | Feet from the | N/S Line | Feet from the | E/W Line | County |
|-----------------|----------|---------|----------|-------|-----|---------------|----------|---------------|----------|--------|
| Surface: | M | 36 | 25S | 26E | M | 380 | South | 330 | West | Eddy |
| BH: | P | 36 | 25S | 26E | P | 414 | South | 394 | East | Eddy |

| | | | | |
|--|--|---|--|---|
| 13. Date Spudded 1/26/10 | 14. Date T.D. Reached 2/18/10 | 15. Date Rig Released 2/19/10 | 16. Date Completed (Ready to Produce) 10/7/10 | 17. Elevations (DF and RKB, RT, GR, etc.) 3345' GR |
| 18. Total Measured Depth of Well 10396' | 19. Plug Back Measured Depth 10346' | 20. Was Directional Survey Made? Yes | | 21. Type Electric and Other Logs Run DLL, DSN |

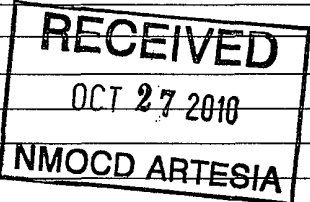
22. Producing Interval(s), of this completion - Top, Bottom, Name
 6310-10325' Bone Spring

23. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|----------------|-----------|-----------|------------------|---------------|
| 13 3/8" | 48# | 363' | 17 1/2" | 400 sx | 0 |
| 9 5/8" | 36# | 1898' | 12 1/4" | 750 sx | 0 |
| 5 1/2" | 17# | 10396' | 7 7/8" | 1375 sx | 0 |

| 24. LINER RECORD | | | | | 25. TUBING RECORD | | |
|------------------|-----|--------|-----------|--------|-------------------|-----------|------------|
| SIZE | TOP | BOTTOM | SACKS CMT | SCREEN | SIZE | DEPTH SET | PACKER SET |
| | | | | | 2 7/8" | 5499' | 5499' |

| | |
|--|--|
| 26. Perforation record (interval, size, and number) See Attached | 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED |
| | |
| | See Attached |
| | |
| | |



28. PRODUCTION

| | | | | | | | |
|-----------------------------------|------------------------|---|------------------------|-----------------|--|--------------------------------------|-----------------|
| Date First Production 10/12/10 | | Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) Flowing | | | Well Status (<i>Prod. or Shut-in</i>) Producing | | |
| Date of Test 10/15/10 | Hours Tested 24 | Choke Size | Prod'n For Test Period | Oil - Bbl 68 | Gas - MCF 0 | Water - Bbl. 1636 | Gas - Oil Ratio |
| Flow Tubing Press. 3200# | Casing Pressure 10# | Calculated 24-Hour Rate | Oil - Bbl. | Gas - MCF | Water - Bbl. | Oil Gravity - API - (<i>Corr.</i>) | |

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

30. Test Witnessed By
Adam Olguin

31. List Attachments
Logs, Deviation Report, Directional Surveys

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.

33. If an on-site burial was used at the well, report the exact location of the on-site burial:
 Latitude _____ Longitude _____ NAD 1927 1983

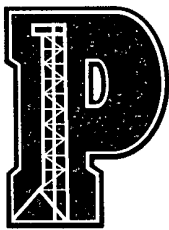
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature: *Stormi Davis* Printed Name: Stormi Davis Title: Regulatory Analyst Date: 10/22/10

E-mail Address: sdavis@conchoresources.com

Form C-105
 Craig State Com #1H
 30-015-37466
 Eddy County, NM

| 26. Perforation record (interval, size, and number) | 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. | |
|---|---|--|
| | DEPTH INTERVAL | AMOUNT AND KIND MATERIAL USED |
| 9893', 10059', 10191', 10325' (32) | 9893-10325' | Ac dz w/2880 gal 15% NEFE; Frac w/331083# sand & 330558 gal fluid |
| 9450', 9550', 9650', 9750' (32) | 9450-9750' | Ac dz w/3015 gal 15% NEFE; Frac w/336079# sand & 349796 gal fluid |
| 9010', 9100', 9210', 9310' (32) | 9010-9310' | Ac dz w/3001 gal 15% NEFE; Frac w/328314# sand & 339672 gal fluid |
| 8470', 8570', 8670', 8770', 8870' (35) | 8470-8870' | Ac dz w/3002 gal 15% NEFE; Frac w/402481# sand & 409414 gal fluid |
| 7930', 8030', 8130', 8230', 8330' (35) | 7930-8330' | Ac dz w/2995 gal 7 1/2% NEFE; Frac w/399851# sand & 416275 gal fluid |
| 7390', 7490', 7590', 7690', 7790' (35) | 7390-7790' | Ac dz w/2611 gal 7 1/2% NEFE; Frac w/404851# sand & 415346 gal fluid |
| 6850', 6950', 7050', 7150', 7250' (35) | 6850-7250' | Ac dz w/2994 gal 7 1/2% NEFE; Frac w/390013# sand & 430326 gal fluid |
| 6310', 6410', 6510', 6610', 6710' (35) | 6310-6710' | Ac dz w/5201 gal 7 1/2% NEFE; Frac w/448813# sand & 455647 gal fluid |



PATRIOT DRILLING, LLC

OPERATOR: Marbob Energy Corp.
WELL/LEASE: Craig State Com # 1 H
COUNTY: Eddy Co. New Mexico
Sec. 36, T25S, R26E

**STATE OF NEW MEXICO
DEVIATION REPORT**

| <u>Depth</u> | <u>Deviation</u> | <u>Depth</u> | <u>Deviation</u> |
|--------------|------------------|--------------|------------------|
| 113 | 3/4 | 1,610 | 2 |
| 322 | 1 1/4 | 1,934 | 2 1/2 |
| 528 | 2 | 2,093 | 1 1/2 |
| 650 | 1 3/4 | 2,570 | 1/2 |
| 770 | 2 | 3,047 | 1/4 |
| 887 | 2 | 3,527 | 1/4 |
| 977 | 2 1/2 | 4,000 | 3/4 |
| 1,041 | 2 3/4 | 4,478 | 3/4 |
| 1,165 | 2 3/4 | 4,922 | 1 |
| 1,229 | 3 1/2 | 5,398 | 1 3/4 |
| 1,295 | 2 1/2 | 5,716 | 2 1/4 |
| 1,356 | 1 3/4 | 5,876 | 2 1/2 |
| 1,419 | 1 3/4 | 5,974 | 3 1/2 |
| 1,546 | 2 1/4 | 6,006 | 3 3/4 |
| 1,483 | 1 3/4 | | |

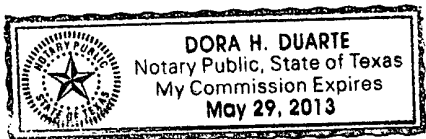
Patriot Drilling, LLC

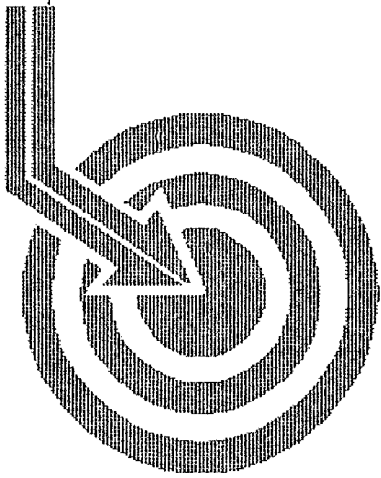
M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 3rd day of May, 2010 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 5/29/2013

Dora H. Duarte
Notary Public for Midland Co., Texas





Scientific Drilling

MARBOB ENERGY

Field: WC Bonespring
Site: Eddy County, NM
Well: Craig State Com #1H
Wellpath: VH - Job #32K0210087
Survey: 02/08/10

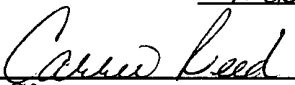
MAR 15 2010

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

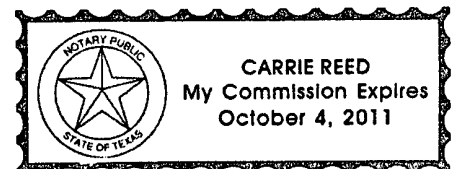


Company Representative

Notorized this date 11th of March, 2010.



Notary Signature
Couty of Midland
State of Texas





Scientific Drilling International, Inc.

Survey Report

| | | | |
|---------------------------------------|-----------------------------------|--|-------------------|
| Company: MARBOB ENERGY | Date: 2/15/2010 | Time: 09:56:01 | Page: 1 |
| Field: WC Bonespring | Co-ordinate(NE) Reference: | Site: Eddy County, NM, Grid North | |
| Site: Eddy County, NM | Vertical (TVD) Reference: | SITE 0.0 | |
| Well: Craig State Com #1H | Section (VS) Reference: | Well (0.00N,0.00E,89.92Azi) | |
| Wellpath: VH - Job #32K0210087 | Survey Calculation Method: | Minimum Curvature | Db: Sybase |

| | | |
|--|--------------------|---------------------------------|
| Survey: 02/08/10 KSRG 0'-8000' | Start Date: | 2/8/2010 |
| Company: Scientific Drilling Internatio | Engineer: | Madrid/Williams/Renteria |
| Tool: Keeper, Keeper Gyro | 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 |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 0.0 | 0.00 | 359.96 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.00 |
| 100.0 | 0.50 | 226.12 | 100.0 | -0.3 | -0.3 | -0.3 | 0.50 | 0.4 | 226.12 |
| 200.0 | 0.89 | 238.55 | 200.0 | -1.3 | -1.0 | -1.3 | 0.42 | 1.6 | 231.97 |
| 300.0 | 1.12 | 240.94 | 300.0 | -2.8 | -1.9 | -2.8 | 0.23 | 3.4 | 236.06 |
| 400.0 | 1.75 | 242.92 | 399.9 | -5.0 | -3.1 | -5.0 | 0.63 | 5.9 | 238.65 |
| 500.0 | 1.93 | 243.53 | 499.9 | -7.9 | -4.5 | -7.9 | 0.18 | 9.1 | 240.27 |
| 600.0 | 1.76 | 237.74 | 599.8 | -10.7 | -6.1 | -10.7 | 0.25 | 12.3 | 240.40 |
| 700.0 | 1.90 | 238.28 | 699.8 | -13.4 | -7.8 | -13.4 | 0.14 | 15.5 | 239.91 |
| 800.0 | 1.87 | 248.16 | 799.7 | -16.3 | -9.2 | -16.3 | 0.33 | 18.8 | 240.48 |
| 900.0 | 2.11 | 260.27 | 899.7 | -19.7 | -10.2 | -19.7 | 0.48 | 22.1 | 242.66 |
| 1000.0 | 2.62 | 266.71 | 999.6 | -23.8 | -10.6 | -23.8 | 0.57 | 26.0 | 245.94 |
| 1100.0 | 2.57 | 263.05 | 1099.5 | -28.3 | -11.0 | -28.3 | 0.17 | 30.3 | 248.72 |
| 1200.0 | 2.80 | 254.96 | 1199.4 | -32.9 | -11.9 | -32.8 | 0.44 | 34.9 | 250.06 |
| 1300.0 | 2.29 | 240.26 | 1299.3 | -37.0 | -13.5 | -36.9 | 0.82 | 39.3 | 249.87 |
| 1400.0 | 1.51 | 209.08 | 1399.2 | -39.3 | -15.7 | -39.3 | 1.27 | 42.3 | 248.25 |
| 1500.0 | 1.66 | 185.06 | 1499.2 | -40.1 | -18.3 | -40.1 | 0.68 | 44.1 | 245.49 |
| 1600.0 | 2.03 | 150.55 | 1599.1 | -39.4 | -21.3 | -39.3 | 1.15 | 44.7 | 241.61 |
| 1700.0 | 3.28 | 118.61 | 1699.0 | -36.0 | -24.2 | -36.0 | 1.89 | 43.3 | 236.09 |
| 1800.0 | 3.15 | 110.73 | 1798.9 | -30.9 | -26.5 | -30.9 | 0.46 | 40.7 | 229.34 |
| 1900.0 | 2.41 | 111.87 | 1898.8 | -26.4 | -28.3 | -26.4 | 0.74 | 38.7 | 222.99 |
| 2000.0 | 1.80 | 116.41 | 1998.7 | -23.0 | -29.8 | -23.0 | 0.63 | 37.6 | 217.70 |
| 2100.0 | 1.40 | 111.19 | 2098.7 | -20.5 | -30.9 | -20.5 | 0.43 | 37.0 | 213.50 |
| 2200.0 | 1.01 | 102.52 | 2198.6 | -18.5 | -31.5 | -18.5 | 0.43 | 36.5 | 210.34 |
| 2300.0 | 0.78 | 114.17 | 2298.6 | -17.0 | -32.0 | -17.0 | 0.29 | 36.2 | 207.94 |
| 2400.0 | 0.74 | 119.32 | 2398.6 | -15.8 | -32.6 | -15.8 | 0.08 | 36.2 | 205.85 |
| 2500.0 | 0.38 | 121.00 | 2498.6 | -15.0 | -33.1 | -14.9 | 0.36 | 36.3 | 204.31 |
| 2600.0 | 0.43 | 127.11 | 2598.6 | -14.4 | -33.5 | -14.4 | 0.07 | 36.4 | 203.21 |
| 2700.0 | 0.40 | 137.24 | 2698.6 | -13.9 | -34.0 | -13.8 | 0.08 | 36.7 | 202.14 |
| 2800.0 | 0.38 | 145.79 | 2798.6 | -13.4 | -34.5 | -13.4 | 0.06 | 37.0 | 201.23 |
| 2900.0 | 0.43 | 141.55 | 2898.6 | -13.0 | -35.1 | -13.0 | 0.06 | 37.4 | 200.31 |
| 3000.0 | 0.45 | 137.45 | 2998.6 | -12.5 | -35.6 | -12.5 | 0.04 | 37.8 | 199.30 |
| 3100.0 | 0.38 | 148.05 | 3098.6 | -12.1 | -36.2 | -12.0 | 0.10 | 38.2 | 198.39 |
| 3200.0 | 0.25 | 142.75 | 3198.6 | -11.8 | -36.7 | -11.7 | 0.13 | 38.5 | 197.74 |
| 3300.0 | 0.43 | 156.78 | 3298.6 | -11.5 | -37.2 | -11.4 | 0.20 | 38.9 | 197.11 |
| 3400.0 | 0.45 | 157.23 | 3398.6 | -11.2 | -37.9 | -11.1 | 0.02 | 39.5 | 196.40 |
| 3500.0 | 0.37 | 171.12 | 3498.6 | -11.0 | -38.6 | -10.9 | 0.13 | 40.1 | 195.84 |
| 3600.0 | 0.42 | 184.00 | 3598.6 | -11.0 | -39.3 | -10.9 | 0.10 | 40.7 | 195.55 |
| 3700.0 | 0.44 | 204.33 | 3698.6 | -11.2 | -40.0 | -11.1 | 0.15 | 41.5 | 195.53 |
| 3800.0 | 0.54 | 213.50 | 3798.6 | -11.6 | -40.7 | -11.5 | 0.13 | 42.3 | 195.80 |
| 3900.0 | 0.49 | 218.23 | 3898.6 | -12.1 | -41.4 | -12.0 | 0.07 | 43.2 | 196.21 |
| 4000.0 | 0.58 | 216.73 | 3998.6 | -12.7 | -42.2 | -12.6 | 0.09 | 44.0 | 196.65 |
| 4100.0 | 0.59 | 215.62 | 4098.6 | -13.3 | -43.0 | -13.2 | 0.02 | 45.0 | 197.09 |
| 4200.0 | 0.64 | 202.40 | 4198.6 | -13.8 | -43.9 | -13.7 | 0.15 | 46.0 | 197.35 |
| 4300.0 | 0.63 | 203.80 | 4298.5 | -14.2 | -45.0 | -14.2 | 0.02 | 47.1 | 197.49 |
| 4400.0 | 0.62 | 214.11 | 4398.5 | -14.8 | -45.9 | -14.7 | 0.11 | 48.2 | 197.74 |
| 4500.0 | 0.77 | 241.75 | 4498.5 | -15.7 | -46.7 | -15.6 | 0.36 | 49.2 | 198.47 |
| 4600.0 | 0.73 | 232.90 | 4598.5 | -16.8 | -47.4 | -16.7 | 0.12 | 50.2 | 199.40 |
| 4700.0 | 0.87 | 217.11 | 4698.5 | -17.7 | -48.4 | -17.7 | 0.26 | 51.5 | 200.05 |
| 4800.0 | 1.07 | 213.17 | 4798.5 | -18.7 | -49.8 | -18.6 | 0.21 | 53.1 | 200.52 |



Scientific Drilling International, Inc.

Survey Report

| | | | |
|---------------------------------------|-----------------------------------|--|-------------------|
| Company: MARBOB ENERGY | Date: 2/15/2010 | Time: 09:56:01 | Page: 2 |
| Field: WC Bonespring | Co-ordinate(NE) Reference: | Site: Eddy County, NM, Grid North | |
| Site: Eddy County, NM | Vertical (TVD) Reference: | SITE 0.0 | |
| Well: Craig State Com #1H | Section (VS) Reference: | Well (0.00N,0.00E,89.92Azi) | |
| Wellpath: VH - Job #32K0210087 | 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 |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 4900.0 | 1.09 | 207.78 | 4898.5 | -19.6 | -51.4 | -19.6 | 0.10 | 55.0 | 200.86 |
| 5000.0 | 1.56 | 209.65 | 4998.5 | -20.8 | -53.4 | -20.7 | 0.47 | 57.3 | 201.18 |
| 5100.0 | 1.59 | 210.52 | 5098.4 | -22.1 | -55.8 | -22.1 | 0.04 | 60.0 | 201.59 |
| 5200.0 | 1.74 | 210.50 | 5198.4 | -23.6 | -58.3 | -23.5 | 0.15 | 62.9 | 202.00 |
| 5300.0 | 1.92 | 212.47 | 5298.3 | -25.3 | -61.0 | -25.2 | 0.19 | 66.0 | 202.46 |
| 5400.0 | 1.86 | 214.16 | 5398.3 | -27.1 | -63.8 | -27.0 | 0.08 | 69.3 | 202.97 |
| 5500.0 | 2.22 | 223.09 | 5498.2 | -29.4 | -66.5 | -29.3 | 0.48 | 72.7 | 203.74 |
| 5600.0 | 2.16 | 221.99 | 5598.1 | -31.9 | -69.3 | -31.8 | 0.07 | 76.3 | 204.67 |
| 5700.0 | 2.00 | 223.89 | 5698.1 | -34.4 | -72.0 | -34.3 | 0.17 | 79.8 | 205.48 |
| 5800.0 | 2.18 | 243.96 | 5798.0 | -37.3 | -74.1 | -37.2 | 0.75 | 82.9 | 206.68 |
| 5900.0 | 2.85 | 239.43 | 5897.9 | -41.2 | -76.2 | -41.1 | 0.70 | 86.6 | 208.34 |
| 6000.0 | 3.31 | 231.88 | 5997.8 | -45.6 | -79.2 | -45.5 | 0.61 | 91.4 | 209.86 |
| 6100.0 | 2.90 | 235.38 | 6097.6 | -50.0 | -82.5 | -49.8 | 0.45 | 96.4 | 211.16 |
| 6200.0 | 2.39 | 253.07 | 6197.5 | -54.0 | -84.5 | -53.9 | 0.96 | 100.2 | 212.54 |
| 6300.0 | 2.25 | 273.58 | 6297.4 | -58.0 | -85.0 | -57.9 | 0.84 | 102.8 | 214.26 |
| 6400.0 | 2.29 | 274.54 | 6397.4 | -61.9 | -84.7 | -61.8 | 0.06 | 104.9 | 216.13 |
| 6500.0 | 2.10 | 274.47 | 6497.3 | -65.8 | -84.4 | -65.6 | 0.19 | 106.9 | 217.88 |
| 6600.0 | 1.60 | 284.22 | 6597.2 | -68.9 | -83.9 | -68.8 | 0.59 | 108.5 | 219.36 |
| 6700.0 | 1.85 | 285.35 | 6697.2 | -71.9 | -83.1 | -71.7 | 0.25 | 109.8 | 220.79 |
| 6800.0 | 1.36 | 289.29 | 6797.1 | -74.5 | -82.3 | -74.4 | 0.50 | 111.0 | 222.11 |
| 6900.0 | 0.92 | 285.55 | 6897.1 | -76.4 | -81.7 | -76.3 | 0.45 | 111.8 | 223.04 |
| 7000.0 | 1.11 | 259.62 | 6997.1 | -78.1 | -81.7 | -78.0 | 0.49 | 113.0 | 223.69 |
| 7100.0 | 1.37 | 249.83 | 7097.1 | -80.2 | -82.3 | -80.1 | 0.33 | 114.8 | 224.24 |
| 7200.0 | 0.85 | 289.10 | 7197.1 | -82.0 | -82.4 | -81.9 | 0.89 | 116.2 | 224.82 |
| 7300.0 | 1.72 | 290.32 | 7297.0 | -84.2 | -81.7 | -84.0 | 0.87 | 117.2 | 225.82 |
| 7400.0 | 1.52 | 286.81 | 7397.0 | -86.8 | -80.8 | -86.7 | 0.22 | 118.5 | 227.04 |
| 7500.0 | 0.24 | 250.87 | 7497.0 | -88.3 | -80.5 | -88.2 | 1.33 | 119.4 | 227.63 |
| 7600.0 | 0.51 | 140.14 | 7597.0 | -88.2 | -80.9 | -88.1 | 0.64 | 119.6 | 227.45 |
| 7700.0 | 0.75 | 90.15 | 7697.0 | -87.3 | -81.2 | -87.2 | 0.58 | 119.1 | 227.03 |
| 7800.0 | 0.25 | 122.49 | 7797.0 | -86.4 | -81.3 | -86.3 | 0.56 | 118.6 | 226.71 |
| 7900.0 | 0.35 | 159.84 | 7897.0 | -86.1 | -81.7 | -86.0 | 0.21 | 118.7 | 226.47 |
| 8000.0 | 0.96 | 218.92 | 7997.0 | -86.6 | -82.7 | -86.5 | 0.84 | 119.6 | 226.28 |



An Operating Unit of Smith International, Inc.

DIRECTIONAL SURVEY REPORT

MARBOB ENERGY CORPORATION
CRAIG STATE COM #1H (PILOT HOLE)
EDDY COUNTY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

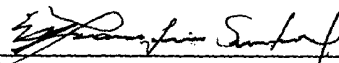
Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) MATT SHIPP
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01/31/10 TO 02/01/10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

MARBOB ENERGY CORPORATION
CRAIG STATE COM #1H PILOT HOLE
EDDY COUNTY, NM
RIG: PATRIOT 6
9. SURVEY CERTIFIED FROM: 1165 TO 1847 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 17.77 FEET ON A BEARING OF 178.33 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 1898 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 01/31/2010
Date Completed: 02/01/2010

MARBOB ENERGY
CRAIG STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT #6
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: M. SHIPP

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.4.47.7449 N LON: 104.15.13.0175 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 524690.5000 Y: 392811.4000
North Aligned To: GRID NORTH
Total Magnetic Correction: 8.00° EAST TO GRID
Vertical Section Plane: 0.00
Survey Vert. Reference: 16.50' Kelly Bushing To Ground
Altitude: 3345.00' Ground To MSL

| | | |
|-----------------------|----------------|-------------|
| Measured Depth | 1898.00 | (feet) |
| Inclination | 2.90 | (deg) |
| Azimuth | 111.03 | (deg) |
| True Vertical Depth | 1897.21 | (feet) |
| Vertical Section | -17.76 | (feet) |
| Survey X cord | 524947.05 | (feet) |
| Survey Y cord | 388374.45 | (feet) |
| Survey Lat | 32.06773117 N | (deg) |
| Survey Lon | 104.25279837 W | (deg) |
| Rectangular Corr. N/S | 17.76 S | (feet) |
| Rectangular Corr. E/W | 0.52 E | (feet) |
| Closure Distance | 17.77 | (feet) |
| Direction of Closure | 178.33 | (deg) |
| Dogleg Severity | 0.00 | (deg/100ft) |

PathFinder Energy Services, Inc. Survey Report

MARBOB ENERGY
 CRAIG STATE COM #1H
 EDDY COUNTY, NEW MEXICO
 Rig: PATRIOT #6
 PathFinder Office Supervisor: FRANCISCO SINISTERRA
 PathFinder Field Engineers: M. SHIPP

Survey Horiz. Reference: WELLHEAD
 Ref Coordinates: LAT:32.4477449 N LON:104.15.13.0175 W
 GRID Reference: NAD27 new mexico east Transverse Mercator
 Ref GRID Coord: X: 524690.5000 Y: 392811.4000
 North Aligned To: GRID NORTH
 Total Magnetic Correction: 8.00° EAST TO GRID
 Vertical Section Plane: 0.00
 Survey Vert. Reference: 16.50' Kelly Bushing To Ground
 Altitude: 3345.00' 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) | Rectangular Offsets (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---------------------|------------|------------------|----------|--------------------|-----------------------|--------------------------|--------------------------------|-----------------------------|----------------|
| 1051.00 | 0.00 | 0.00 | 1051.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00@ 0.00 | 0.00 |
| 1165.00 | 2.64 | 259.56 | 1164.96 | 114.00 | -0.48 | 0.48 S | 2.58 W | 2.63@ 259.56 | 2.32 |
| 1229.00 | 3.34 | 255.91 | 1228.87 | 64.00 | -1.20 | 1.20 S | 5.84 W | 5.96@ 258.42 | 1.13 |
| 1292.00 | 2.55 | 249.88 | 1291.79 | 63.00 | -2.13 | 2.13 S | 8.94 W | 9.19@ 256.62 | 1.34 |
| 1356.00 | 1.76 | 233.50 | 1355.74 | 64.00 | -3.20 | 3.20 S | 11.06 W | 11.52@ 253.87 | 1.55 |
| 1419.00 | 1.76 | 205.62 | 1418.71 | 63.00 | -4.65 | 4.65 S | 12.26 W | 13.11@ 249.24 | 1.35 |
| 1483.00 | 1.58 | 190.63 | 1482.69 | 64.00 | -6.40 | 6.40 S | 12.85 W | 14.35@ 243.51 | 0.74 |
| 1546.00 | 2.11 | 179.94 | 1545.66 | 63.00 | -8.41 | 8.41 S | 13.01 W | 15.49@ 237.10 | 1.00 |
| 1610.00 | 2.02 | 153.40 | 1609.62 | 64.00 | -10.60 | 10.60 S | 12.50 W | 16.39@ 229.70 | 1.49 |
| 1673.00 | 2.81 | 129.43 | 1672.56 | 63.00 | -12.58 | 12.58 S | 10.81 W | 16.58@ 220.68 | 2.01 |
| 1737.00 | 3.61 | 117.63 | 1736.46 | 64.00 | -14.51 | 14.51 S | 7.81 W | 16.48@ 208.31 | 1.62 |
| 1801.00 | 3.34 | 107.74 | 1800.34 | 64.00 | -16.01 | 16.01 S | 4.25 W | 16.56@ 194.87 | 1.03 |
| 1847.00 | 2.90 | 111.03 | 1846.27 | 46.00 | -16.83 | 16.83 S | 1.89 W | 16.94@ 186.40 | 1.03 |
| 1898.00 | 2.90 | 111.03 | 1897.21 | 51.00 | -17.76 | 17.76 S | 0.52 E | 17.77@ 178.33 | 0.00 |

ASSUME STRAIGHT HOLE @ 1051' MD
 THE FOLLOWING ARE PATHFINDER MWD SURVEYS

STRAIGHT-LINE PROJECTION TO BIT @ 1898' MD.

PATHFINDER

ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

| | | | |
|---------------------------|----------------------|------------|-----|
| CLIENT: | MARBOB ENERGY | | |
| LEASE / WELL No.: | CRAIG STATE COM | #1H | |
| WELL LOCATION: | WILDCAT; BONE SPRING | | |
| COUNTY / STATE / COUNTRY: | EDDY | NEW MEXICO | USA |
| RIG: | PATRIOT #6 | | |
| API WELL No: | 30-015-37466 | | |
| JOB No: | 101009771-WT-WT | | |
| P.O. / AFE No. | | | |
| DIRECTIONAL COMPANY: | PES | | |

WELL SITE INFORMATION

| | | | |
|----------------------------------|---|----------------------------------|-----------------------|
| TOTAL MAGNETIC CORRECTION (TMC): | | | |
| <i>On Wall Plat:</i> | 8 | <i>LWD Calculated:</i> | 8.04392 |
| | | <i>Agreed Upon:</i> | 8 |
| X = | 52946.526600 | Feet | Y = 388392.211900 |
| | | | Feet |
| SITE LATITUDE: | 32.067780N | SITE LONGITUDE: | 104.252800W |
| GRID SYSTEM: | TRUE <input type="checkbox"/> UTM <input checked="" type="checkbox"/> | LAMBERT <input type="checkbox"/> | ZONE: NEW MEXICO EAST |
| PROPOSED DRIFT DIRECTION: | 0 | | |
| KELLY BUSHING ELEVATION: | 3361.5 | | |
| ALTITUDE: | 3345 | Feet | WATER DEPTH: |
| | | | Feet |

TIE-IN SURVEY

| | | | |
|------------------------------------|------------------------------|--|---|
| MEASURED DEPTH: | 0 1051 | | |
| DRIFT ANGLE: | 0 | | |
| DRIFT DIRECTION: | 0 | | |
| TRUE VERTICAL DEPTH: | 0 1051 | | |
| VERTICAL SECTION: | 0 | | |
| RECTANGULAR COORDINATE (N / S): | 0 | | |
| RECTANGULAR COORDINATE (E / W): | 0 | | |
| CLOSURE DISTANCE / DIRECTION: | 0 | 0 | |
| SURVEY CALCULATION METHOD: | AA <input type="checkbox"/> | MC <input checked="" type="checkbox"/> | RC <input type="checkbox"/> BT <input type="checkbox"/> |
| SOURCE OF TIE-IN DATA (COMPANY): | N/A ASSUMED | | |
| COPY OF TIE-IN SURVEY REPORT | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> NO |

WELL PLAN

| | | | |
|----------------|------|--------------|------|
| KICKOFF DEPTH: | 1100 | TOTAL DEPTH: | 1900 |
| KICKOFF ANGLE: | 2.64 | MAX ANGLE: | 0 |

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE: 11/31/10

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MARBOB ENERGY
CRAIG STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT 6

Fri Feb 05 15:33:50 2010

Coordinates

Latitude: 32.079929 N (32 deg. 4 min. 47.7449 sec.)
Longitude: 104.253616 W (-104 deg. 15 min. 13.0175 sec.)
Elevation: 3361.50 feet.
Calculation Date: Feb/05/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9637 degrees
Total Magnetic Field: 0.48587 gauss
Magnetic Declination: 8.047643 degrees
Horizontal Intensity: 0.243200 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.047643 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 524690.5000 feet
Y: 392811.4000 feet
True to Grid: (convergence) -0.042338 degrees
Magnetic to Grid: 8.005305 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.005305 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MARBOB ENERGY
CRAIG STATE COM # 1H
WILDCAT; BONE SPRING

Sat Feb 06 17:11:29 2010

Coordinates

Latitude: 32.079929 N (32 deg. 4 min. 47.7449 sec.)
Longitude: 104.253616 W (-104 deg. 15 min. 13.0175 sec.)
Elevation: 3361.50 feet.
Calculation Date: Dec/31/2009

Magnetic Calculations

Model: IGRF2005
Dip Angle: 59.9848 degrees
Total Magnetic Field: 0.48629 gauss
Magnetic Declination: 8.045345 degrees
Horizontal Intensity: 0.243255 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.045345 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 524690.5000 feet
Y: 392811.4000 feet
True to Grid: (convergence) -0.042338 degrees
Magnetic to Grid: 8.003007 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.003007 Degs.



An Operating Unit of Smith International, Inc.

DIRECTIONAL SURVEY REPORT

MARBOB ENERGY CORPORATION
CRAIG STATE COM #1H (HORIZONTAL)
EDDY COUNTY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

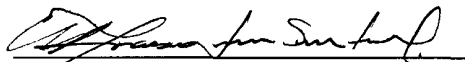
Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) MATT SHIPP
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 02/11/10 TO 02/17/10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

MARBOB ENERGY CORPORATION
CRAIG STATE COM #1H HORIZONTAL
EDDY COUNTY, NM
RIG: PATRIOT 6
9. SURVEY CERTIFIED FROM: 5548 TO 10319 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4556.07 FEET ON A BEARING OF 89.57 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 10396 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 02/11/2010
Date Completed: 02/17/2010

MARBOB ENERGY
CRAIG STATE COM # 1H - LATERAL
EDDY COUNTY, NM
Rig:PATRIOT #6
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:N. TVRDY
W. GRAHAM

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.4.47.7449 N LON:104.15.13.0175 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 524690.5000 Y: 392811.4000
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.00° EAST TO GRID
Vertical Section Plane: 89.92
Survey Vert. Reference: 16.50' Kelly Bushing To Ground
Altitude:3345.00' Ground To MSL

| | | |
|-----------------------|----------------|-------------|
| Measured Depth | 10396.00 | (feet) |
| Inclination | 86.17 | (deg) |
| Azimuth | 94.60 | (deg) |
| True Vertical Depth | 6166.11 | (feet) |
| Vertical Section | 4555.98 | (feet) |
| Survey X cord | 529246.44 | (feet) |
| Survey Y cord | 392845.43 | (feet) |
| Survey Lat | 32.08001258 N | (deg) |
| Survey Lon | 104.23890629 W | (deg) |
| Rectangular Corr. N/S | 34.03 N | (feet) |
| Rectangular Corr. E/W | 4555.94 E | (feet) |
| Closure Distance | 4556.07 | (feet) |
| Direction of Closure | 89.57 | (deg) |
| Dogleg Severity | 0.00 | (deg/100ft) |

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY
 CRAIG STATE COM # 1H - LATERAL
 EDDY COUNTY, NM
 Rig: PATRIOT #6

PathFinder Office Supervisor: FRANCISCO SINISTERRA
 PathFinder Field Engineers: N. TVRDY
 W. GRAHAM

Survey Horiz. Reference: WELLHEAD
 Ref Coordinates: LAT: 32.4477449 N LON: 104.15130175 W
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 Total Magnetic Correction: 8.00° EAST TO GRID
 Vertical Section Plane: 89.92
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 Altitude: 3345.00' 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) | Rectangular Offsets (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---|------------|------------------|----------|--------------------|-----------------------|--------------------------|--------------------------------|-----------------------------|----------------|
| TIE IN TO SCIENTIFIC DRILLING GYRO SURVEY @ 5500' MD. | | | | | | | | | |
| 5500.00 | 2.22 | 223.09 | 5498.21 | 0.00 | -29.32 | 66.48 S | 29.23 W | 72.62@ 203.73 | 0.00 |
| 5548.00 | 5.45 | 87.98 | 5546.15 | 48.00 | -27.68 | 67.08 S | 27.58 W | 72.53@ 202.35 | 14.99 |
| 5574.00 | 13.45 | 83.03 | 5571.77 | 26.00 | -23.44 | 66.67 S | 23.34 W | 70.64@ 199.30 | 30.90 |
| 5606.00 | 16.97 | 82.12 | 5602.65 | 32.00 | -15.11 | 65.58 S | 15.02 W | 67.27@ 192.90 | 11.02 |
| 5637.00 | 20.75 | 79.78 | 5631.98 | 31.00 | -5.22 | 63.98 S | 5.13 W | 64.19@ 184.58 | 12.43 |
| 5668.00 | 23.65 | 77.71 | 5660.68 | 31.00 | 6.27 | 61.68 S | 6.35 E | 62.01@ 174.12 | 9.69 |
| 5699.00 | 27.96 | 76.47 | 5688.58 | 31.00 | 19.42 | 58.66 S | 19.50 E | 61.81@ 161.61 | 14.01 |
| 5730.00 | 32.62 | 76.42 | 5715.34 | 31.00 | 34.62 | 54.99 S | 34.69 E | 65.02@ 147.75 | 15.03 |
| 5761.00 | 35.35 | 75.64 | 5741.04 | 31.00 | 51.44 | 50.81 S | 51.51 E | 72.35@ 134.61 | 8.92 |
| 5792.00 | 37.46 | 75.34 | 5765.99 | 31.00 | 69.25 | 46.20 S | 69.32 E | 83.30@ 123.68 | 6.83 |
| 5823.00 | 39.83 | 75.05 | 5790.20 | 31.00 | 87.97 | 41.25 S | 88.03 E | 97.22@ 115.11 | 7.67 |
| 5854.00 | 41.94 | 75.10 | 5813.64 | 31.00 | 107.59 | 36.02 S | 107.64 E | 113.51@ 108.50 | 6.81 |
| 5885.00 | 43.97 | 75.05 | 5836.32 | 31.00 | 128.01 | 30.58 S | 128.05 E | 131.65@ 103.43 | 6.55 |
| 5916.00 | 46.17 | 75.46 | 5858.22 | 31.00 | 149.24 | 25.00 S | 149.27 E | 151.35@ 99.51 | 7.16 |
| 5947.00 | 49.95 | 76.23 | 5878.93 | 31.00 | 171.60 | 19.36 S | 171.63 E | 172.72@ 96.44 | 12.33 |
| 5978.00 | 53.90 | 76.44 | 5898.05 | 31.00 | 195.32 | 13.60 S | 195.34 E | 195.81@ 93.98 | 12.75 |
| 6010.00 | 57.42 | 76.72 | 5916.09 | 32.00 | 221.02 | 7.47 S | 221.03 E | 221.16@ 91.94 | 11.02 |
| 6042.00 | 59.71 | 76.81 | 5932.78 | 32.00 | 247.61 | 1.22 S | 247.61 E | 247.61@ 90.28 | 7.16 |
| 6074.00 | 60.94 | 76.99 | 5948.62 | 32.00 | 274.70 | 5.08 N | 274.69 E | 274.74@ 88.94 | 3.88 |
| 6105.00 | 61.82 | 76.55 | 5963.47 | 31.00 | 301.19 | 11.31 N | 301.18 E | 301.39@ 87.85 | 3.10 |
| 6137.00 | 64.19 | 76.28 | 5978.00 | 32.00 | 328.92 | 18.01 N | 328.89 E | 329.38@ 86.87 | 7.44 |
| 6169.00 | 67.80 | 76.18 | 5991.01 | 32.00 | 357.31 | 24.96 N | 357.28 E | 358.15@ 86.00 | 11.29 |
| 6201.00 | 71.05 | 76.14 | 6002.26 | 32.00 | 386.41 | 32.13 N | 386.36 E | 387.70@ 85.25 | 10.16 |
| 6232.00 | 72.63 | 76.21 | 6011.92 | 31.00 | 415.02 | 39.17 N | 414.97 E | 416.81@ 84.61 | 5.10 |

THE FOLLOWING ARE PATHFINDER MWD SURVEYS.

PathFinder Energy Services, Inc. Survey Report

MARBOB ENERGY
CRAIG STATE COM # 1H - LATERAL
EDDY COUNTY, NM
RIG: PATRIOT #6

| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) | DLS (dg/100ft) |
|---------------------|------------|------------------|----------|--------------------|-----------------------|--------------------------------|-----------------------|----------------|
| 6264.00 | 73.95 | 76.21 | 6021.12 | 32.00 | 444.79 | 46.47 N 444.73 E | 447.15@ 84.03 | 4.12 |
| 6296.00 | 77.38 | 76.33 | 6029.04 | 32.00 | 474.92 | 53.83 N 474.84 E | 477.88@ 83.53 | 10.72 |
| 6328.00 | 80.99 | 76.75 | 6035.05 | 32.00 | 505.49 | 61.14 N 505.41 E | 509.09@ 83.10 | 11.35 |
| 6360.00 | 84.42 | 76.86 | 6039.11 | 32.00 | 536.40 | 68.39 N 536.30 E | 540.65@ 82.73 | 10.72 |
| 6391.00 | 86.61 | 76.64 | 6041.53 | 31.00 | 566.49 | 75.47 N 566.39 E | 571.39@ 82.41 | 7.10 |
| 6423.00 | 88.55 | 76.47 | 6042.88 | 32.00 | 597.59 | 82.90 N 597.48 E | 603.20@ 82.10 | 6.09 |
| 6455.00 | 91.71 | 78.21 | 6042.81 | 32.00 | 628.82 | 89.92 N 628.70 E | 635.09@ 81.86 | 11.27 |
| 6487.00 | 91.98 | 77.77 | 6041.78 | 32.00 | 660.11 | 96.57 N 659.98 E | 667.01@ 81.68 | 1.61 |
| 6518.00 | 91.45 | 79.32 | 6040.85 | 31.00 | 690.49 | 102.73 N 690.35 E | 697.95@ 81.54 | 5.28 |
| 6550.00 | 90.22 | 80.73 | 6040.39 | 32.00 | 722.01 | 108.27 N 721.86 E | 729.93@ 81.47 | 5.85 |
| 6582.00 | 90.22 | 80.15 | 6040.26 | 32.00 | 753.57 | 113.58 N 753.41 E | 761.93@ 81.43 | 1.81 |
| 6647.00 | 89.87 | 83.81 | 6040.21 | 65.00 | 817.94 | 122.65 N 817.77 E | 826.91@ 81.47 | 5.66 |
| 6742.00 | 88.29 | 84.95 | 6041.74 | 95.00 | 912.48 | 131.95 N 912.29 E | 921.79@ 81.77 | 2.05 |
| 6806.00 | 87.58 | 85.04 | 6044.04 | 64.00 | 976.20 | 137.53 N 976.01 E | 985.65@ 81.98 | 1.12 |
| 6870.00 | 87.23 | 84.61 | 6046.94 | 64.00 | 1039.88 | 143.30 N 1039.68 E | 1049.51@ 82.15 | 0.87 |
| 6902.00 | 87.76 | 84.53 | 6048.34 | 32.00 | 1071.71 | 146.32 N 1071.51 E | 1081.45@ 82.22 | 1.67 |
| 6965.00 | 89.08 | 85.93 | 6050.08 | 63.00 | 1134.47 | 151.56 N 1134.26 E | 1144.34@ 82.39 | 3.05 |
| 7029.00 | 89.25 | 86.09 | 6051.01 | 64.00 | 1198.32 | 156.01 N 1198.10 E | 1208.22@ 82.58 | 0.36 |
| 7092.00 | 89.52 | 86.28 | 6051.69 | 63.00 | 1261.18 | 160.20 N 1260.96 E | 1271.09@ 82.76 | 0.52 |
| 7156.00 | 89.34 | 85.99 | 6052.32 | 64.00 | 1325.04 | 164.52 N 1324.81 E | 1334.98@ 82.92 | 0.53 |
| 7220.00 | 89.52 | 86.12 | 6052.96 | 64.00 | 1388.89 | 168.92 N 1388.65 E | 1398.89@ 83.06 | 0.35 |
| 7283.00 | 89.08 | 85.79 | 6053.73 | 63.00 | 1451.73 | 173.36 N 1451.49 E | 1461.81@ 83.19 | 0.87 |
| 7379.00 | 89.34 | 86.86 | 6055.05 | 96.00 | 1547.53 | 179.52 N 1547.28 E | 1557.66@ 83.38 | 1.15 |
| 7505.00 | 88.37 | 89.05 | 6057.57 | 126.00 | 1673.42 | 184.01 N 1673.17 E | 1683.26@ 83.72 | 1.90 |
| 7632.00 | 88.81 | 89.07 | 6060.70 | 127.00 | 1800.37 | 186.09 N 1800.11 E | 1809.71@ 84.10 | 0.35 |
| 7760.00 | 88.99 | 89.05 | 6063.15 | 128.00 | 1928.33 | 188.19 N 1928.07 E | 1937.24@ 84.43 | 0.14 |
| 7887.00 | 89.60 | 89.11 | 6064.72 | 127.00 | 2055.31 | 190.23 N 2055.05 E | 2063.83@ 84.71 | 0.48 |
| 7982.00 | 88.37 | 91.39 | 6066.40 | 95.00 | 2150.28 | 189.82 N 2150.02 E | 2158.38@ 84.95 | 2.73 |

PathFinder Energy Services, Inc. Survey Report

MARBOB ENERGY
CRAIG STATE COM # 1H - LATERAL
EDDY COUNTY, NM
RIG:PATRIOT #6

| Measured Depth (ft) | Incl (deg) | Drift Dir. (deg) | TVD (ft) | Course Length (ft) | Vertical Section (ft) | Rectangular Offsets (ft) | TOTAL Rectangular Offsets (ft) | Closure Dist Dir (ft) (deg) | DLS (dg/100ft) |
|---------------------|------------|------------------|----------|--------------------|-----------------------|--------------------------|--------------------------------|-----------------------------|----------------|
| 8046.00 | 88.11 | 91.07 | 6068.36 | 64.00 | 2214.24 | 188.45 N | 2213.98 E | 2221.98@ 85.13 | 0.64 |
| 8109.00 | 88.20 | 91.66 | 6070.39 | 63.00 | 2277.18 | 186.95 N | 2276.93 E | 2284.59@ 85.31 | 0.95 |
| 8205.00 | 88.81 | 91.88 | 6072.90 | 96.00 | 2373.10 | 183.98 N | 2372.85 E | 2379.97@ 85.57 | 0.68 |
| 8332.00 | 89.52 | 92.39 | 6074.75 | 127.00 | 2499.99 | 179.25 N | 2499.74 E | 2506.16@ 85.90 | 0.69 |
| 8458.00 | 89.34 | 93.07 | 6076.00 | 126.00 | 2625.83 | 173.25 N | 2625.59 E | 2631.30@ 86.22 | 0.56 |
| 8585.00 | 87.67 | 93.00 | 6079.31 | 127.00 | 2752.60 | 166.53 N | 2752.37 E | 2757.40@ 86.54 | 1.32 |
| 8712.00 | 88.81 | 93.23 | 6083.22 | 127.00 | 2879.34 | 159.63 N | 2879.12 E | 2883.54@ 86.83 | 0.92 |
| 8839.00 | 88.81 | 93.22 | 6085.85 | 127.00 | 3006.10 | 152.49 N | 3005.89 E | 3009.76@ 87.10 | 0.01 |
| 8965.00 | 88.55 | 93.96 | 6088.76 | 126.00 | 3131.81 | 144.60 N | 3131.61 E | 3134.95@ 87.36 | 0.62 |
| 9060.00 | 88.37 | 94.36 | 6091.31 | 95.00 | 3226.51 | 137.71 N | 3226.32 E | 3229.26@ 87.56 | 0.46 |
| 9156.00 | 88.55 | 95.01 | 6093.89 | 96.00 | 3322.15 | 129.87 N | 3321.97 E | 3324.51@ 87.76 | 0.70 |
| 9282.00 | 87.58 | 95.51 | 6098.14 | 126.00 | 3447.53 | 118.33 N | 3447.36 E | 3449.39@ 88.03 | 0.87 |
| 9346.00 | 87.85 | 95.60 | 6100.69 | 64.00 | 3511.17 | 112.14 N | 3511.01 E | 3512.80@ 88.17 | 0.45 |
| 9473.00 | 87.41 | 93.03 | 6105.95 | 127.00 | 3637.67 | 102.59 N | 3637.53 E | 3638.98@ 88.38 | 2.05 |
| 9505.00 | 86.61 | 93.22 | 6107.62 | 32.00 | 3669.58 | 100.85 N | 3669.44 E | 3670.83@ 88.43 | 2.57 |
| 9632.00 | 86.17 | 93.52 | 6115.61 | 127.00 | 3796.10 | 93.40 N | 3795.97 E | 3797.12@ 88.59 | 0.42 |
| 9759.00 | 84.94 | 93.98 | 6125.46 | 127.00 | 3922.43 | 85.12 N | 3922.31 E | 3923.24@ 88.76 | 1.03 |
| 9854.00 | 86.26 | 94.39 | 6132.74 | 95.00 | 4016.89 | 78.21 N | 4016.78 E | 4017.54@ 88.88 | 1.45 |
| 9949.00 | 86.61 | 94.41 | 6138.65 | 95.00 | 4111.41 | 70.93 N | 4111.32 E | 4111.93@ 89.01 | 0.37 |
| 10076.00 | 86.44 | 94.81 | 6146.35 | 127.00 | 4237.75 | 60.74 N | 4237.67 E | 4238.11@ 89.18 | 0.34 |
| 10203.00 | 86.79 | 95.01 | 6153.85 | 127.00 | 4364.05 | 49.89 N | 4363.98 E | 4364.27@ 89.34 | 0.32 |
| 10319.00 | 86.17 | 94.60 | 6160.97 | 116.00 | 4479.41 | 40.19 N | 4479.36 E | 4479.54@ 89.49 | 0.64 |
| 10396.00 | 86.17 | 94.60 | 6166.11 | 77.00 | 4555.98 | 34.03 N | 4555.94 E | 4556.07@ 89.57 | 0.00 |

STRAIGHT LINE PROJECTION TO BIT @ 10396' MD.



TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

| | | | |
|---------------------------|---------------------|----|-----|
| CLIENT: | MARBOB ENERGY CORP. | | |
| LEASE / WELL No.: | CRAIG STATE COM #1H | | |
| WELL LOCATION: | EDDY COUNTY | | |
| COUNTY / STATE / COUNTRY: | EDDY COUNTY | NM | USA |
| RIG: | PATRIOT #6 | | |
| API WELL No: | 30-015-37466 | | |
| JOB No: | 101009771-WT-WT | | |
| P.O. / AFE No. | | | |
| DIRECTIONAL COMPANY: | PES | | |

WELL SITE INFORMATION

| | | | |
|----------------------------------|---|----------------------------------|-----------------------|
| TOTAL MAGNETIC CORRECTION (TMC): | | | |
| <i>On Wall Plat:</i> | 8 | <i>LWD Calculated:</i> | 8.04392 |
| | | <i>Agreed Upon:</i> | 8 |
| X = | 52946.526600 | Feet | Y = |
| | | | 388392.211900 |
| | | | Feet |
| SITE LATITUDE: | 32.067780N | SITE LONGITUDE: | 104.252800W |
| GRID SYSTEM: | TRUE <input type="checkbox"/> UTM <input checked="" type="checkbox"/> | LAMBERT <input type="checkbox"/> | ZONE: NEW MEXICO EAST |
| PROPOSED DRIFT DIRECTION: | 0 | | |
| KELLY BUSHING ELEVATION: | 16.5 | | |
| ALTITUDE: | 3345 | Feet | WATER DEPTH: |
| | | | Feet |

TIE-IN SURVEY

| | | | |
|------------------------------------|---|--|---|
| MEASURED DEPTH: | 5500 | | |
| DRIFT ANGLE: | 2.22 | | |
| DRIFT DIRECTION: | 223.09 | | |
| TRUE VERTICAL DEPTH: | 5498.21 | | |
| VERTICAL SECTION: | -29.33 | | |
| RECTANGULAR COORDINATE (N / S) : | -66.48 | | |
| RECTANGULAR COORDINATE (E / W) : | -29.23 | | |
| CLOSURE DISTANCE / DIRECTION: | 72.62 | 203.74 | |
| SURVEY CALCULATION METHOD: | AA <input type="checkbox"/> | MC <input checked="" type="checkbox"/> | RC <input type="checkbox"/> BT <input type="checkbox"/> |
| SOURCE OF TIE-IN DATA (COMPANY): | SCIENTIFIC DRILLING | | |
| COPY OF TIE-IN SURVEY REPORT | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> NO |

WELL PLAN

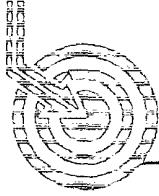
| | | | |
|----------------|------|--------------|-------|
| KICKOFF DEPTH: | 5520 | TOTAL DEPTH: | 10378 |
| KICKOFF ANGLE: | 2.22 | MAX ANGLE: | 90 |

PES Engineers: _____

**Signature of both field engineers required if applicable

Directional Driller: _____

DATE: _____



Scientific Drilling

Hzspt dpqjd!Tvsf z!Sf qpsu

gs

NBSCPC

| | |
|--------------------|---|
| X f rtMpdbypo | FEEZ!DPVOUZ-!OFX !NFY.JP |
| X f rtObn f | DSBJH!TUBUF!DPN!\$2I |
| Sjh!Obn f | QBUS.PU!\$7 |
| Tvsf z!Ebf | 300121 |
| Mbywef | 43/19!ef h |
| Opsu !Sf g sf odf | Hje!Opsu |
| Hje!Dpsf dypo | .1/15!ef h |
| Ef qu !Sf g sf odf | SLC |
| Dbrdvrbypo!Nf u pe | Njojn vn !Dvsxbwrf |
| Tf dypo!)WT*!Sf g | 1/11O!)gf-!1/11F!)gf-!9: /: 3B{jn !)ef h* |
| Ef gojywf !Tvsf z | GOBMPVUSVO!TVSWFZ |
| Pqf sbps | B/NBESJE |

Dpn n f out



Scientific Drilling

Tvswf z!Sf qpsu

| X f mtObn f ; | | DSB.HITUBUF!DPNI\$2I | | | | | | | | |
|---------------|-------|----------------------|-----------|---------|----------|---------|------------|---------------------|-----------------|--|
| Tvswf z; | | GDBMPVUSVO!TVSWFZ | | | | | | | | |
| Tvswf z!Ebf ; | | 3008121 | | | | | | | | |
| NE | Jbd | B{jn | UME | WT | Opsu joh | Fbt yoh | EMT | Drpt vsf !Ejt ubodf | Drpt vsf !Bohrf | |
| gu | ef h | ef h | gu | gu | gu | gu | ef h0211gu | gu | ef h | |
| 1/11 | 1/11 | 1/11 | 1/11 | 1/11 | 1/11 | 1/11 | .jwbrije | 1/11 | 1/11 | |
| 211/11 | 1/61 | 337/23 | 211/11 | .1/42 | .1/41 | .1/42 | 1/61 | 1/54 | 337/23 | |
| 311/11 | 1/9: | 349/66 | 2: : /: | .2/3: | .2/12 | .2/3: | 1/53 | 2/74 | 343/11 | |
| 411/11 | 2/23 | 351/: 5 | 3: : /: | .3/92 | .2/9: | .3/91 | 1/34 | 4/49 | 347/19 | |
| 511/11 | 2/86 | 353/: 3 | 4: : /: | .6/13 | .4/16 | .6/12 | 1/74 | 6/98 | 349/77 | |
| 611/11 | 2/: 4 | 354/64 | 5: : /9: | .8/99 | .5/61 | .8/99 | 1/29 | : /18 | 351/39 | |
| 711/11 | 2/87 | 348/85 | 6: : /95 | .21/79 | .7/17 | .21/79 | 1/36 | 23/39 | 351/52 | |
| 811/11 | 2/: 1 | 349/39 | 7: : /8: | .24/4: | .8/86 | .24/49 | 1/25 | 26/58 | 34: /: 2 | |
| 911/11 | 2/98 | 359/27 | 8: : /85 | .27/43 | .:/34 | .27/42 | 1/44 | 29/85 | 351/59 | |
| : 11/11 | 3/22 | 371/38 | 9: : /79 | .2: /75 | .21/26 | .2: /74 | 1/59 | 33/21 | 353/77 | |
| 2111/11 | 3/73 | 377/82 | : : /6: | .34/84 | .21/6: | .34/83 | 1/69 | 36/: 9 | 356/: 5 | |
| 2211/11 | 3/68 | 374/16 | 21: : /5: | .39/35 | .21/: : | .39/33 | 1/28 | 41/3: | 359/83 | |
| 2311/11 | 3/91 | 365/: 7 | 22: : /49 | .43/93 | .22/: 1 | .43/91 | 1/55 | 45/: 1 | 361/18 | |
| 2411/11 | 3/3: | 351/37 | 23: : /39 | .47/: 3 | .24/63 | .47/: 1 | 1/93 | 4: /41 | 35: /98 | |
| 2511/11 | 2/62 | 31: /19 | 24: : /34 | .4: /41 | .26/78 | .4: /39 | 2/38 | 53/3: | 359/36 | |
| 2611/11 | 2/77 | 296/17 | 25: : /2: | .51/18 | .29/38 | .51/16 | 1/79 | 55/13 | 356/59 | |
| 2711/11 | 3/14 | 261/66 | 26: : /25 | .4: /44 | .32/36 | .4: /42 | 2/26 | 55/79 | 352/71 | |
| 2811/11 | 4/39 | 229/72 | 27: : /15 | .46/: 7 | .35/27 | .46/: 4 | 2/9: | 54/3: | 347/19 | |
| 2911/11 | 4/26 | 221/84 | 28: 9/99 | .41/99 | .37/61 | .41/96 | 1/57 | 51/78 | 33: /44 | |
| 2: 11/11 | 3/52 | 222/98 | 29: 9/87 | .37/48 | .39/37 | .37/44 | 1/86 | 49/73 | 333/: 8 | |
| 3111/11 | 2/91 | 227/52 | 2: : 9/81 | .34/12 | .3: /85 | .33/: 8 | 1/74 | 48/69 | 328/7: | |
| 3211/11 | 2/51 | 222/2: | 31: 9/77 | .31/58 | .41/99 | .31/54 | 1/53 | 48/13 | 324/5: | |
| 3311/11 | 2/12 | 213/63 | 32: 9/74 | .29/58 | .42/62 | .29/54 | 1/54 | 47/61 | 321/43 | |
| 3411/11 | 1/89 | 225/28 | 33: 9/73 | .27/: : | .42/: 9 | .27/: 5 | 1/3: | 47/2: | 318/: 2 | |
| 3511/11 | 1/85 | 22: /43 | 34: 9/72 | .26/91 | .43/69 | .26/87 | 1/19 | 47/2: | 316/92 | |
| 3611/11 | 1/49 | 232/11 | 35: 9/72 | .25/: 7 | .44/17 | .25/: 2 | 1/47 | 47/38 | 315/38 | |
| 3711/11 | 1/54 | 238/22 | 36: 9/72 | .25/48 | .44/57 | .25/43 | 1/18 | 47/51 | 314/28 | |
| 3811/11 | 1/51 | 248/35 | 37: 9/71 | .24/95 | .44/: 5 | .24/8: | 1/19 | 47/75 | 313/22 | |
| 3911/11 | 1/49 | 256/8: | 38: 9/71 | .24/52 | .45/59 | .24/48 | 1/17 | 47/: 9 | 312/2: | |
| 3: 11/11 | 1/54 | 252/66 | 39: 9/71 | .23/: : | .46/16 | .23/: 6 | 1/16 | 48/47 | 311/38 | |
| 4111/11 | 1/56 | 248/56 | 3: : 9/71 | .23/61 | .46/73 | .23/56 | 1/15 | 48/85 | 2: : /37 | |
| 4211/11 | 1/49 | 259/16 | 41: 9/6: | .23/17 | .47/2: | .23/12 | 1/21 | 49/24 | 2: 9/47 | |
| 4311/11 | 1/36 | 253/86 | 42: 9/6: | .22/86 | .47/76 | .22/81 | 1/24 | 49/58 | 2: 8/82 | |
| 4411/11 | 1/54 | 267/89 | 43: 9/6: | .22/58 | .48/28 | .22/53 | 1/2: | 49/99 | 2: 8/19 | |
| 4511/11 | 1/56 | 268/34 | 44: 9/6: | .22/29 | .48/98 | .22/23 | 1/13 | 4: /58 | 2: 7/48 | |
| 4611/11 | 1/48 | 282/23 | 45: 9/69 | .21/: 9 | .49/66 | .21/: 3 | 1/24 | 51/18 | 2: 6/93 | |
| 4711/11 | 1/53 | 295/11 | 46: 9/69 | .21/: 6 | .4: /34 | .21/: 1 | 1/21 | 51/83 | 2: 6/63 | |
| 4811/11 | 1/55 | 315/44 | 47: 9/69 | .22/25 | .4: /: 5 | .22/19 | 1/26 | 52/56 | 2: 6/61 | |
| 4911/11 | 1/65 | 324/61 | 48: 9/69 | .22/66 | .51/79 | .22/61 | 1/24 | 53/39 | 2: 6/89 | |



| X frntObn f; | | DSBJHITUBUF!DPN!\$2! | | | | | | | | |
|--------------|-------|----------------------|-----------|----------|----------|---------|-----------|--------------------|-----------------|--|
| Tvswf z; | | GDBMPVUSVOITVSWFZ | | | | | | | | |
| Tvswf z!Ebf; | | 3000121 | | | | | | | | |
| NE | Jbd | B{jn | UME | WT | Opsu joh | Fbt joh | EMT | Drpt vsf !Ejt wbof | Drpt vsf !Bohrf | |
| gu | efh | efh | gu | gu | gu | gu | efh0211gu | gu | efh | |
| 4: 11/11 | 1/5: | 329/34 | 49: 9/68 | .23/19 | .52/52 | .23/13 | 1/18 | 54/23 | 2: 7/2: | |
| 5111/11 | 1/69 | 327/84 | 4: : 9/68 | .23/75 | .53/26 | .23/69 | 1/1: | 54/: 9 | 2: 7/73 | |
| 5211/11 | 1/6: | 326/73 | 51: 9/67 | .24/36 | .53/: 8 | .24/2: | 1/13 | 55/: 6 | 2: 8/17 | |
| 5311/11 | 1/75 | 313/51 | 52: 9/67 | .24/87 | .54/: 2 | .24/81 | 1/26 | 56/: : | 2: 8/44 | |
| 5411/11 | 1/74 | 314/91 | 53: 9/66 | .25/2: | .55/: 3 | .25/24 | 1/13 | 58/1: | 2: 8/57 | |
| 5511/11 | 1/73 | 325/22 | 54: 9/65 | .25/83 | .56/97 | .25/76 | 1/22 | 59/26 | 2: 8/83 | |
| 5611/11 | 1/88 | 352/86 | 55: 9/65 | .26/72 | .57/74 | .26/66 | 1/47 | 5: /26 | 2: 9/55 | |
| 5711/11 | 1/84 | 343/: 1 | 56: 9/64 | .27/83 | .58/44 | .27/76 | 1/23 | 61/29 | 2: : /49 | |
| 5811/11 | 1/98 | 328/22 | 57: 9/63 | .28/7: | .59/43 | .28/73 | 1/37 | 62/55 | 311/15 | |
| 5911/11 | 2/18 | 324/28 | 58: 9/61 | .29/77 | .5: /82 | .29/6: | 1/32 | 64/19 | 311/62 | |
| 5: 11/11 | 2/1: | 318/89 | 59: 9/5: | .2: /72 | .62/44 | .2: /65 | 1/21 | 65/: 4 | 311/95 | |
| 6111/11 | 2/67 | 31: /76 | 5: : 9/57 | .31/84 | .64/46 | .31/77 | 1/59 | 68/32 | 312/28 | |
| 6211/11 | 2/6: | 321/63 | 61: 9/53 | .33/23 | .66/85 | .33/15 | 1/15 | 6: /: 4 | 312/68 | |
| 6311/11 | 2/85 | 321/61 | 62: 9/49 | .34/71 | .69/35 | .34/63 | 1/26 | 73/92 | 312/: : | |
| 6411/11 | 2/: 3 | 323/58 | 63: 9/44 | .36/38 | .71/: 8 | .36/2: | 1/2: | 76/: 8 | 313/56 | |
| 6511/11 | 2/97 | 325/27 | 64: 9/38 | .38/1: | .74/83 | .38/11 | 1/19 | 7: /31 | 313/: 7 | |
| 6611/11 | 3/33 | 334/1: | 65: 9/32 | .3: /44 | .77/59 | .3: /34 | 1/59 | 83/73 | 314/85 | |
| 6711/11 | 3/27 | 332/: : | 66: 9/25 | .42/: 2 | .7: /41 | .42/93 | 1/19 | 87/36 | 315/77 | |
| 6811/11 | 3/11 | 334/9: | 67: 9/18 | .45/4: | .82/: 6 | .45/3: | 1/28 | 8: /82 | 316/59 | |
| 6911/11 | 3/29 | 354/: 7 | 68: 9/12 | .48/42 | .85/16 | .48/32 | 1/86 | 93/98 | 317/79 | |
| 6: 11/11 | 3/96 | 34: /54 | 69: 8/: 2 | .52/27 | .87/26 | .52/17 | 1/81 | 97/62 | 319/44 | |
| 7111/11 | 4/42 | 342/99 | 6: : 8/88 | .56/69 | .8: /2: | .56/58 | 1/72 | : 2/43 | 31: /97 | |
| 7211/11 | 3/: 1 | 346/49 | 71: 8/73 | .5: /: 5 | .93/52 | .5: /93 | 1/56 | : 7/41 | 322/26 | |
| 7311/11 | 3/4: | 364/18 | 72: 8/62 | .65/13 | .95/57 | .64/: 1 | 1/: 7 | 211/2: | 323/65 | |
| 7411/11 | 3/36 | 384/69 | 73: 8/54 | .68/: 8 | .95/: 5 | .68/96 | 1/95 | 213/88 | 325/37 | |
| 7511/11 | 3/3: | 385/65 | 74: 8/46 | .72/: 3 | .95/77 | .72/92 | 1/16 | 215/93 | 327/24 | |
| 7611/11 | 3/21 | 385/58 | 75: 8/39 | .76/86 | .95/47 | .76/74 | 1/2: | 217/99 | 328/99 | |
| 7711/11 | 2/71 | 395/33 | 76: 8/34 | .79/: 4 | .94/98 | .79/92 | 1/6: | 219/5: | 32: /48 | |
| 7811/11 | 2/96 | 396/46 | 77: 8/29 | .82/95 | .94/21 | .82/84 | 1/36 | 21: /88 | 331/91 | |
| 7911/11 | 2/47 | 39: /3: | 78: 8/25 | .85/63 | .93/39 | .85/51 | 1/62 | 221/: 4 | 333/23 | |
| 7: 11/11 | 1/: 3 | 396/66 | 79: 8/23 | .87/52 | .92/79 | .87/41 | 1/55 | 222/88 | 334/16 | |
| 8111/11 | 2/22 | 36: /73 | 7: : 8/22 | .89/25 | .92/74 | .89/13 | 1/5: | 223/: 3 | 334/81 | |
| 8211/11 | 2/48 | 35: /94 | 81: 8/19 | .91/32 | .93/33 | .91/1: | 1/45 | 225/89 | 335/36 | |
| 8311/11 | 1/96 | 39: /21 | 82: 8/18 | .93/14 | .93/4: | .92/: 3 | 1/9: | 227/29 | 335/94 | |
| 8411/11 | 2/83 | 3: /143 | 83: 8/15 | .95/25 | .92/74 | .95/13 | 1/98 | 228/26 | 336/94 | |
| 8511/11 | 2/63 | 397/92 | 84: 8/11 | .97/92 | .91/83 | .97/81 | 1/34 | 229/57 | 338/15 | |
| 8611/11 | 1/35 | 361/98 | 85: 7/: : | .99/39 | .91/52 | .99/28 | 2/44 | 22: /44 | 338/74 | |
| 8711/11 | 1/62 | 251/25 | 86: 7/: : | .99/2: | .91/93 | .99/19 | 1/75 | 22: /65 | 338/57 | |



X f mtObn f ; DSB.HITUBUF!DPN!\$2!
 Tvswf z; GDBMPVUSVOITVSWFZ
 Tvswf z!Ebf ; 3008121

| NE g | Jbd efh | B{jn efh | UWE g | WT g | Opsi joh g | Fbt uoh g | EMT efh011g | Drpt vsf !Ejt ubodf g | Drpt vsf !Bohrf efh |
|----------|------------|-------------|------------|---------|---------------|--------------|----------------|--------------------------|------------------------|
| 8811/11 | 1/86 | : 1/26 | 87: 7/: 9 | .98/36 | .92/27 | .98/25 | 1/68 | 22: /19 | 338/14 |
| 8911/11 | 1/36 | 233/5: | 88: 7/: 9 | .97/52 | .92/39 | .97/41 | 1/66 | 229/66 | 337/82 |
| 8: 11/11 | 1/46 | 26: /95 | 89: 7/: 9 | .97/23 | .92/7: | .97/12 | 1/33 | 229/73 | 337/58 |
| 9111/11 | 1/: 7 | 329/: 3 | 8: : 7/: 8 | .97/65 | .93/74 | .97/54 | 1/95 | 22: /68 | 337/3: |

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MARBOB ENERGY
CRAIG STATE COM #1H
EDDY COUNTY, NEW MEXICO
Rig:PATRIOT 6

Fri Feb 05 15:33:50 2010

Coordinates

Latitude: 32.079929 N (32 deg. 4 min. 47.7449 sec.)
Longitude: 104.253616 W (-104 deg. 15 min. 13.0175 sec.)
Elevation: 3361.50 feet.
Calculation Date: Feb/05/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 59.9637 degrees
Total Magnetic Field: 0.48587 gauss
Magnetic Declination: 8.047643 degrees
Horizontal Intensity: 0.243200 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.047643 Degr

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 524690.5000 feet
Y: 392811.4000 feet
True to Grid: (convergence) -0.042338 degrees
Magnetic to Grid: 8.005305 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.005305 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MARBOB ENERGY
CRAIG STATE COM # 1H
WILDCAT; BONE SPRING

Sat Feb 06 17:11:29 2010

Coordinates

Latitude: 32.079929 N (32 deg. 4 min. 47.7449 sec.)
Longitude: 104.253616 W (-104 deg. 15 min. 13.0175 sec.)
Elevation: 3361.50 feet.
Calculation Date: Dec/31/2009

Magnetic Calculations

Model: IGRF2005
Dip Angle: 59.9848 degrees
Total Magnetic Field: 0.48629 gauss
Magnetic Declination: 8.045345 degrees
Horizontal Intensity: 0.243255 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.045345 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 524690.5000 feet
Y: 392811.4000 feet
True to Grid: (convergence) -0.042338 degrees
Magnetic to Grid: 8.003007 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.003007 Degs.