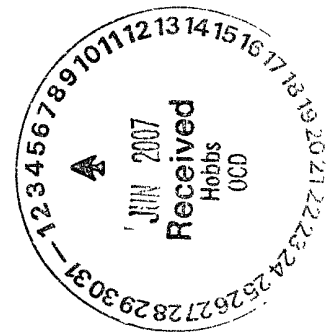


# Scientific Drilling

SUR: P-10-13s-32e, 990/S & 990/E  
BHL: P-10-13s-32e, 975/S & 1323/e  
API # 30-025-38522

## MACK ENERGY

Field: Baum  
Site: Lea County, NM  
Well: White Fang State Com #1  
Wellpath: VH - Job #32K0307188  
Survey: 03/05/07

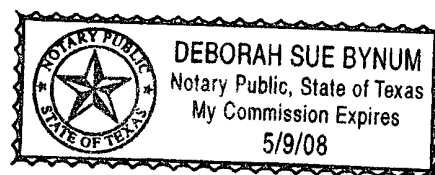


This survey is correct to the best of my knowledge  
and is supported by actual field data.

.....*Chubarton*..... Company Representative

Notorized this date 4<sup>th</sup> of April, 2007.

*Deborah Sue Bynum*  
Notary Signature  
County of Midland  
State of Texas





# Scientific Drilling International Survey Report

|                               |                            |                                 |            |
|-------------------------------|----------------------------|---------------------------------|------------|
| Company: MACK ENERGY          | Date: 04/04/2007           | Time: 08:50:34                  | Page: 1    |
| Field: Baum                   | Co-ordinate(NE) Reference: | Site: Lea County, NM Grid North |            |
| Site: Lea County, NM          | Vertical (TVD) Reference:  | SITE: 0.0                       |            |
| Well: White Fang State Com #1 | Section (VS) Reference:    | Well (0.00N,0.00E;267.64Azi)    |            |
| Wellpath: VH Job #32K0307188  | Survey Calculation Method: | Minimum Curvature               | Db: Sybase |

|                                         |                          |
|-----------------------------------------|--------------------------|
| Survey: 03/05/07                        | Start Date: 03/05/2007   |
| Company: Scientific Drilling Internatio | Engineer: Gonzales/Rando |
| Tool: Keeper, Keeper Gyro               | Tied-to: From Surface    |

## Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClSD<br>ft | ClSA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 0.00     | 0.00        | 0.00        | 0.00      | 0.00     | 0.00      | 0.00      | 0.00             | 0.00       | 0.00        |
| 100.00   | 0.32        | 64.43       | 100.00    | -0.26    | 0.12      | 0.25      | 0.32             | 0.28       | 64.43       |
| 200.00   | 0.45        | 50.92       | 200.00    | -0.83    | 0.49      | 0.81      | 0.16             | 0.94       | 58.86       |
| 300.00   | 0.50        | 67.89       | 299.99    | -1.55    | 0.90      | 1.52      | 0.15             | 1.76       | 59.32       |
| 400.00   | 0.39        | 53.92       | 399.99    | -2.25    | 1.27      | 2.20      | 0.15             | 2.54       | 60.07       |
| 500.00   | 0.15        | 106.19      | 499.99    | -2.65    | 1.43      | 2.60      | 0.32             | 2.96       | 61.19       |
| 600.00   | 0.12        | 257.42      | 599.99    | -2.68    | 1.37      | 2.62      | 0.26             | 2.96       | 62.41       |
| 700.00   | 0.14        | 265.39      | 699.99    | -2.45    | 1.34      | 2.40      | 0.03             | 2.74       | 60.85       |
| 800.00   | 0.09        | 222.06      | 799.99    | -2.27    | 1.27      | 2.22      | 0.10             | 2.56       | 60.28       |
| 900.00   | 0.24        | 272.18      | 899.99    | -2.01    | 1.22      | 1.96      | 0.19             | 2.31       | 58.14       |
| 1000.00  | 0.21        | 254.75      | 999.99    | -1.62    | 1.18      | 1.57      | 0.07             | 1.97       | 53.20       |
| 1100.00  | 0.49        | 300.95      | 1099.99   | -1.09    | 1.35      | 1.03      | 0.38             | 1.70       | 37.38       |
| 1200.00  | 0.71        | 299.41      | 1199.98   | -0.20    | 1.87      | 0.12      | 0.22             | 1.88       | 3.81        |
| 1300.00  | 0.81        | 295.71      | 1299.97   | 0.95     | 2.49      | -1.05     | 0.11             | 2.70       | 337.06      |
| 1400.00  | 0.92        | 293.14      | 1399.96   | 2.30     | 3.11      | -2.43     | 0.12             | 3.94       | 322.01      |
| 1500.00  | 1.24        | 304.09      | 1499.94   | 3.89     | 4.03      | -4.06     | 0.38             | 5.72       | 314.77      |
| 1600.00  | 1.19        | 308.98      | 1599.92   | 5.54     | 5.29      | -5.76     | 0.12             | 7.82       | 312.54      |
| 1700.00  | 0.89        | 306.69      | 1699.90   | 6.92     | 6.41      | -7.19     | 0.30             | 9.63       | 311.68      |
| 1800.00  | 0.74        | 303.74      | 1799.89   | 8.05     | 7.23      | -8.35     | 0.16             | 11.05      | 310.87      |
| 1900.00  | 0.64        | 309.49      | 1899.89   | 8.99     | 7.94      | -9.32     | 0.12             | 12.25      | 310.43      |
| 2000.00  | 0.36        | 295.46      | 1999.88   | 9.68     | 8.43      | -10.04    | 0.30             | 13.11      | 310.04      |
| 2100.00  | 0.33        | 281.68      | 2099.88   | 10.24    | 8.63      | -10.60    | 0.09             | 13.67      | 309.13      |
| 2200.00  | 0.37        | 284.56      | 2199.88   | 10.83    | 8.77      | -11.20    | 0.04             | 14.22      | 308.06      |
| 2300.00  | 0.37        | 277.98      | 2299.88   | 11.45    | 8.89      | -11.83    | 0.04             | 14.80      | 306.93      |
| 2400.00  | 0.31        | 275.42      | 2399.87   | 12.04    | 8.96      | -12.42    | 0.06             | 15.31      | 305.82      |
| 2500.00  | 0.29        | 286.59      | 2499.87   | 12.55    | 9.06      | -12.93    | 0.06             | 15.79      | 305.02      |
| 2600.00  | 0.20        | 273.57      | 2599.87   | 12.96    | 9.14      | -13.35    | 0.11             | 16.18      | 304.41      |
| 2700.00  | 0.07        | 309.57      | 2699.87   | 13.18    | 9.19      | -13.57    | 0.15             | 16.39      | 304.12      |
| 2800.00  | 0.08        | 326.63      | 2799.87   | 13.26    | 9.29      | -13.65    | 0.02             | 16.51      | 304.23      |
| 2900.00  | 0.33        | 325.49      | 2899.87   | 13.45    | 9.59      | -13.86    | 0.25             | 16.85      | 304.68      |
| 3000.00  | 0.29        | 303.69      | 2999.87   | 13.81    | 9.96      | -14.23    | 0.12             | 17.37      | 305.00      |
| 3100.00  | 0.32        | 321.11      | 3099.87   | 14.18    | 10.32     | -14.61    | 0.10             | 17.89      | 305.23      |
| 3200.00  | 0.42        | 314.89      | 3199.87   | 14.59    | 10.80     | -15.05    | 0.11             | 18.52      | 305.66      |
| 3300.00  | 0.47        | 327.81      | 3299.86   | 15.05    | 11.40     | -15.53    | 0.11             | 19.27      | 306.29      |
| 3400.00  | 0.38        | 326.90      | 3399.86   | 15.42    | 12.03     | -15.93    | 0.09             | 19.96      | 307.06      |
| 3500.00  | 0.42        | 312.44      | 3499.86   | 15.85    | 12.55     | -16.38    | 0.11             | 20.64      | 307.47      |
| 3600.00  | 0.46        | 304.40      | 3599.86   | 16.43    | 13.03     | -16.98    | 0.07             | 21.40      | 307.49      |
| 3700.00  | 0.46        | 296.32      | 3699.85   | 17.10    | 13.43     | -17.67    | 0.06             | 22.20      | 307.24      |
| 3800.00  | 0.49        | 273.12      | 3799.85   | 17.88    | 13.63     | -18.46    | 0.19             | 22.95      | 306.45      |
| 3900.00  | 0.43        | 264.71      | 3899.85   | 18.68    | 13.62     | -19.26    | 0.09             | 23.59      | 305.27      |
| 4000.00  | 0.48        | 267.47      | 3999.84   | 19.48    | 13.57     | -20.05    | 0.05             | 24.21      | 304.09      |
| 4100.00  | 0.32        | 271.53      | 4099.84   | 20.17    | 13.56     | -20.75    | 0.16             | 24.79      | 303.16      |
| 4200.00  | 0.36        | 285.80      | 4199.84   | 20.75    | 13.65     | -21.33    | 0.09             | 25.32      | 302.62      |
| 4300.00  | 0.29        | 276.41      | 4299.84   | 21.30    | 13.76     | -21.88    | 0.09             | 25.85      | 302.17      |
| 4400.00  | 0.30        | 284.77      | 4399.84   | 21.80    | 13.86     | -22.39    | 0.04             | 26.33      | 301.76      |
| 4500.00  | 0.42        | 288.06      | 4499.83   | 22.39    | 14.04     | -22.99    | 0.12             | 26.94      | 301.41      |
| 4600.00  | 0.33        | 272.88      | 4599.83   | 23.02    | 14.17     | -23.63    | 0.13             | 27.55      | 300.95      |
| 4700.00  | 0.25        | 271.07      | 4699.83   | 23.53    | 14.19     | -24.13    | 0.08             | 27.99      | 300.45      |
| 4800.00  | 0.29        | 270.96      | 4799.83   | 24.00    | 14.19     | -24.60    | 0.04             | 28.40      | 299.98      |



# Scientific Drilling International Survey Report

|                                |                            |                                  |            |
|--------------------------------|----------------------------|----------------------------------|------------|
| Company: MACK ENERGY           | Date: 04/04/2007           | Time: 08:50:34                   | Page: 2    |
| Field: Baum                    | Co-ordinate(NE) Reference: | Site: Lea County, NM, Grid North |            |
| Site: Lea County, NM           | Vertical (TVD) Reference:  | SITE: 0.0                        |            |
| Well: White Fang, State Com #1 | Section (VS) Reference:    | Well (0.00N, 0.00E, 267.64Azi)   |            |
| Wellpath: VH - Job #32K0307188 | Survey Calculation Method: | Minimum Curvature                | Db: Sybase |

## Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClSD<br>ft | ClSA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 4900.00  | 0.23        | 255.35      | 4899.83   | 24.45    | 14.15     | -25.05    | 0.09             | 28.77      | 299.46      |
| 5000.00  | 0.28        | 275.41      | 4999.83   | 24.89    | 14.12     | -25.49    | 0.10             | 29.14      | 298.99      |
| 5100.00  | 0.28        | 246.52      | 5099.83   | 25.36    | 14.05     | -25.96    | 0.14             | 29.51      | 298.42      |
| 5200.00  | 0.41        | 249.69      | 5199.82   | 25.92    | 13.82     | -26.52    | 0.13             | 29.90      | 297.54      |
| 5300.00  | 0.61        | 248.41      | 5299.82   | 26.77    | 13.50     | -27.35    | 0.20             | 30.50      | 296.28      |
| 5400.00  | 0.87        | 242.70      | 5399.81   | 27.96    | 12.96     | -28.52    | 0.27             | 31.32      | 294.44      |
| 5500.00  | 1.07        | 257.84      | 5499.80   | 29.57    | 12.42     | -30.10    | 0.32             | 32.56      | 292.41      |
| 5600.00  | 1.13        | 260.72      | 5599.78   | 31.46    | 12.06     | -31.99    | 0.08             | 34.19      | 290.66      |
| 5700.00  | 1.15        | 263.64      | 5699.76   | 33.44    | 11.79     | -33.96    | 0.06             | 35.95      | 289.15      |
| 5800.00  | 1.13        | 270.87      | 5799.74   | 35.43    | 11.69     | -35.94    | 0.15             | 37.80      | 288.02      |
| 5900.00  | 1.18        | 268.39      | 5899.72   | 37.44    | 11.68     | -37.96    | 0.07             | 39.71      | 287.10      |
| 6000.00  | 1.12        | 273.48      | 5999.70   | 39.45    | 11.71     | -39.96    | 0.12             | 41.64      | 286.33      |
| 6100.00  | 1.24        | 280.41      | 6099.68   | 41.47    | 11.96     | -42.00    | 0.19             | 43.67      | 285.90      |
| 6200.00  | 1.14        | 271.21      | 6199.66   | 43.52    | 12.18     | -44.06    | 0.22             | 45.71      | 285.45      |
| 6300.00  | 1.11        | 276.28      | 6299.64   | 45.47    | 12.31     | -46.02    | 0.10             | 47.64      | 284.97      |
| 6400.00  | 1.23        | 275.59      | 6399.62   | 47.49    | 12.52     | -48.05    | 0.12             | 49.65      | 284.60      |
| 6500.00  | 1.17        | 271.99      | 6499.59   | 49.57    | 12.66     | -50.14    | 0.10             | 51.71      | 284.17      |
| 6600.00  | 1.14        | 272.88      | 6599.57   | 51.58    | 12.74     | -52.15    | 0.03             | 53.69      | 283.73      |
| 6700.00  | 1.15        | 275.67      | 6699.55   | 53.57    | 12.89     | -54.14    | 0.06             | 55.66      | 283.39      |
| 6800.00  | 1.22        | 278.98      | 6799.53   | 55.60    | 13.16     | -56.19    | 0.10             | 57.71      | 283.18      |
| 6900.00  | 1.24        | 277.56      | 6899.51   | 57.71    | 13.47     | -58.32    | 0.04             | 59.85      | 283.00      |
| 7000.00  | 1.18        | 280.13      | 6999.49   | 59.78    | 13.79     | -60.40    | 0.08             | 61.96      | 282.86      |
| 7100.00  | 1.04        | 280.03      | 7099.47   | 61.68    | 14.13     | -62.31    | 0.14             | 63.89      | 282.78      |
| 7200.00  | 1.14        | 283.45      | 7199.45   | 63.52    | 14.52     | -64.17    | 0.12             | 65.79      | 282.75      |
| 7300.00  | 1.14        | 283.05      | 7299.43   | 65.44    | 14.98     | -66.11    | 0.01             | 67.78      | 282.76      |
| 7400.00  | 0.81        | 285.35      | 7399.42   | 67.07    | 15.39     | -67.76    | 0.33             | 69.48      | 282.79      |
| 7500.00  | 0.70        | 294.59      | 7499.41   | 68.29    | 15.83     | -69.00    | 0.16             | 70.79      | 282.92      |
| 7600.00  | 0.73        | 300.05      | 7599.40   | 69.37    | 16.40     | -70.10    | 0.07             | 72.00      | 283.17      |
| 7700.00  | 0.72        | 300.68      | 7699.39   | 70.43    | 17.04     | -71.20    | 0.01             | 73.21      | 283.46      |
| 7800.00  | 0.74        | 308.51      | 7799.38   | 71.45    | 17.76     | -72.24    | 0.10             | 74.39      | 283.81      |
| 7900.00  | 0.72        | 306.59      | 7899.38   | 72.43    | 18.54     | -73.25    | 0.03             | 75.56      | 284.20      |
| 8000.00  | 0.71        | 304.59      | 7999.37   | 73.41    | 19.27     | -74.27    | 0.03             | 76.72      | 284.54      |
| 8100.00  | 0.75        | 306.92      | 8099.36   | 74.41    | 20.01     | -75.30    | 0.05             | 77.91      | 284.88      |
| 8200.00  | 0.71        | 302.31      | 8199.35   | 75.43    | 20.74     | -76.35    | 0.07             | 79.11      | 285.20      |
| 8300.00  | 0.72        | 299.26      | 8299.34   | 76.47    | 21.37     | -77.42    | 0.04             | 80.31      | 285.43      |
| 8400.00  | 0.74        | 296.07      | 8399.34   | 77.57    | 21.96     | -78.55    | 0.05             | 81.56      | 285.62      |
| 8500.00  | 0.73        | 294.50      | 8499.33   | 78.71    | 22.51     | -79.71    | 0.02             | 82.82      | 285.77      |
| 8600.00  | 0.73        | 291.18      | 8599.32   | 79.86    | 23.01     | -80.88    | 0.04             | 84.09      | 285.88      |
| 8700.00  | 0.68        | 292.22      | 8699.31   | 80.99    | 23.46     | -82.02    | 0.05             | 85.31      | 285.96      |
| 8800.00  | 0.67        | 287.58      | 8799.30   | 82.08    | 23.86     | -83.13    | 0.06             | 86.49      | 286.02      |
| 8900.00  | 0.65        | 275.46      | 8899.30   | 83.19    | 24.09     | -84.25    | 0.14             | 87.63      | 285.96      |
| 9000.00  | 0.59        | 269.77      | 8999.29   | 84.26    | 24.15     | -85.33    | 0.09             | 88.68      | 285.80      |
| 9100.00  | 0.60        | 274.09      | 9099.29   | 85.30    | 24.18     | -86.37    | 0.05             | 89.69      | 285.64      |
| 9200.00  | 0.67        | 267.67      | 9199.28   | 86.40    | 24.19     | -87.47    | 0.10             | 90.76      | 285.46      |
| 9300.00  | 0.69        | 274.63      | 9299.27   | 87.59    | 24.22     | -88.66    | 0.08             | 91.91      | 285.28      |
| 9400.00  | 0.72        | 269.03      | 9399.27   | 88.81    | 24.26     | -89.89    | 0.08             | 93.10      | 285.10      |
| 9500.00  | 0.83        | 268.47      | 9499.26   | 90.16    | 24.23     | -91.24    | 0.11             | 94.40      | 284.87      |
| 9600.00  | 0.89        | 266.23      | 9599.25   | 91.66    | 24.16     | -92.74    | 0.07             | 95.83      | 284.60      |
| 9700.00  | 1.27        | 257.03      | 9699.23   | 93.53    | 23.86     | -94.59    | 0.42             | 97.55      | 284.15      |
| 9800.00  | 1.92        | 253.91      | 9799.19   | 96.25    | 23.14     | -97.28    | 0.66             | 100.00     | 283.38      |
| 9900.00  | 2.31        | 252.77      | 9899.12   | 99.82    | 22.08     | -100.82   | 0.39             | 103.21     | 282.35      |
| 10000.00 | 2.88        | 254.54      | 9999.02   | 104.22   | 20.82     | -105.16   | 0.58             | 107.20     | 281.20      |

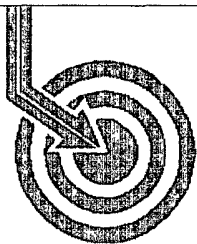


# Scientific Drilling International Survey Report

|                                       |                                   |                                        |                   |
|---------------------------------------|-----------------------------------|----------------------------------------|-------------------|
| <b>Company:</b> MACK ENERGY           | <b>Date:</b> 04/04/2007           | <b>Time:</b> 08:50:34                  | <b>Page:</b> 3    |
| <b>Field:</b> Baum                    | <b>Co-ordinate(NE) Reference:</b> | <b>Site:</b> Lea County, NM Grid North |                   |
| <b>Site:</b> Lea County, NM           | <b>Vertical (TVD) Reference:</b>  | <b>SITE</b> 0.0                        |                   |
| <b>Well:</b> White Fang State Com #1  | <b>Section (VS) Reference:</b>    | <b>Well</b> (0.00N,0.00E,267.64Azi)    |                   |
| <b>Wellpath:</b> VH - Job #32K0307188 | <b>Survey Calculation Method:</b> | <b>Minimum Curvature</b>               | <b>Db:</b> Sybase |

## Survey

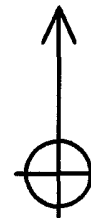
| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | VS<br>ft | N/S<br>ft | E/W<br>ft | DLS<br>deg/100ft | ClsD<br>ft | ClsA<br>deg |
|----------|-------------|-------------|-----------|----------|-----------|-----------|------------------|------------|-------------|
| 10100.00 | 3.46        | 252.99      | 10098.86  | 109.58   | 19.26     | -110.47   | 0.59             | 112.14     | 279.89      |
| 10200.00 | 3.68        | 249.67      | 10198.67  | 115.56   | 17.27     | -116.36   | 0.30             | 117.64     | 278.44      |
| 10300.00 | 3.86        | 248.38      | 10298.45  | 121.79   | 14.91     | -122.50   | 0.20             | 123.41     | 276.94      |
| 10400.00 | 4.45        | 249.60      | 10398.19  | 128.65   | 12.32     | -129.27   | 0.60             | 129.85     | 275.44      |
|          |             |             |           |          |           |           |                  |            |             |
| 10500.00 | 5.17        | 251.17      | 10497.84  | 136.66   | 9.51      | -137.17   | 0.73             | 137.50     | 273.97      |
| 10600.00 | 5.82        | 253.32      | 10597.38  | 145.89   | 6.60      | -146.29   | 0.68             | 146.44     | 272.58      |
| 10700.00 | 6.14        | 254.16      | 10696.83  | 156.01   | 3.69      | -156.29   | 0.33             | 156.34     | 271.35      |
| 10800.00 | 6.50        | 255.35      | 10796.23  | 166.74   | 0.80      | -166.91   | 0.38             | 166.92     | 270.27      |
| 10900.00 | 6.91        | 256.01      | 10895.54  | 178.16   | -2.09     | -178.23   | 0.42             | 178.24     | 269.33      |
|          |             |             |           |          |           |           |                  |            |             |
| 11000.00 | 6.58        | 257.15      | 10994.85  | 189.69   | -4.82     | -189.65   | 0.36             | 189.71     | 268.54      |
| 11100.00 | 6.27        | 261.27      | 11094.22  | 200.75   | -6.92     | -200.63   | 0.56             | 200.75     | 268.02      |
| 11200.00 | 6.10        | 262.49      | 11193.64  | 211.47   | -8.45     | -211.30   | 0.21             | 211.47     | 267.71      |
| 11300.00 | 5.96        | 266.40      | 11293.09  | 221.95   | -9.47     | -221.75   | 0.43             | 221.95     | 267.56      |
| 11400.00 | 7.86        | 266.85      | 11392.36  | 233.98   | -10.17    | -233.76   | 1.90             | 233.98     | 267.51      |
|          |             |             |           |          |           |           |                  |            |             |
| 11500.00 | 10.96       | 269.93      | 11491.00  | 250.32   | -10.55    | -250.09   | 3.14             | 250.32     | 267.58      |
| 11600.00 | 10.65       | 267.13      | 11589.23  | 269.06   | -11.03    | -268.83   | 0.61             | 269.06     | 267.65      |
| 11618.00 | 10.47       | 266.40      | 11606.92  | 272.35   | -11.21    | -272.12   | 1.25             | 272.35     | 267.64      |



Scientific  
Drilling

Field: Baum  
Site: Lea County, NM  
Well: White Fang State Com #1  
Wellpath: VH - Job #32K0307188  
Survey: 03/05/07

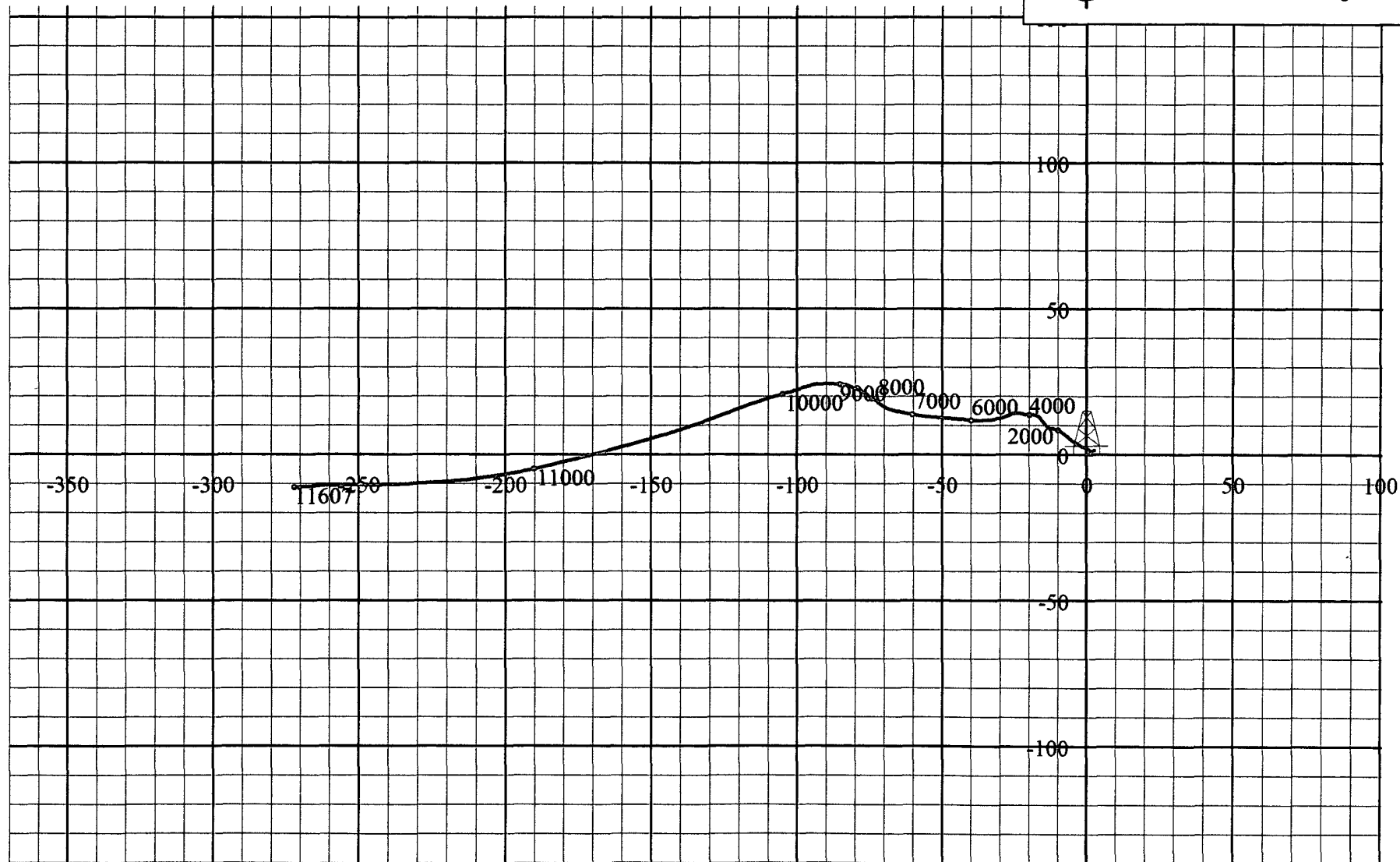
G/T/M



Azimuths to Grid North  
True North: 0.00°  
Magnetic North: 0.00°

Magnetic Field  
Strength: 0nT  
Dip Angle: 0.00°  
Date: 04/04/2007  
Model: igrf2000

South(-)/North(+) [50ft/in]



West(-)/East(+) [50ft/in]