

**Reservoir Development**

Drilling &amp; Measurements (Anadrill)

4301 SW 44th St

Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

Fax: (405) 682-3937

February 13, 2014

Cimarex

600 N MARIENFELD STREET SUITE 600

MIDLAND, TX 79701

HOBBSOCD

APR 16 2015

RECEIVED

Re:

B-23-T23S-R32 E 330 FNL 2055 FEL  
N 31.29658 W 103.64353CLIENT: Cimarex  
WELL: Diamondtail 23 Federal 5H  
FIELD: Diamondtail; Bone Spring  
RIG: Scandril Eagle  
COUNTY: Lea  
API NO: 30-025-40771  
JOB NO: 14MLD0052

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation.

Other information required by your office is as follows.

| <u>Name &amp; Title of<br/>Surveyor</u>                                                                        | <u>Drainhole Number</u>                | <u>Surveyed Depths</u>       | <u>Dates Performed</u>                  | <u>Type of Survey</u> |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|-----------------------------------------|-----------------------|
| Attiya Darensburg<br>MWD<br> | Diamondtail 23 Fed 5H<br>Original Hole | 9077.00 Ft to<br>13900.00 Ft | February 4, 2014 to<br>February 9, 2014 | SlimPulse             |

If any other information is required, please contact the undersigned at the above letterhead and phone number.

Sincerely,

Jasem Alharer  
Field Service Manager

APR 21 2015

am

# Schlumberger

## Reservoir Development

Drilling & Measurements (Anadrill)

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Oklahoma City, Oklahoma 73119 USA

Phone: (405) 682-2284

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Well Reference:

B-23-T23S-R32 E 330 FNL 2055 FEL

N 31.29658 W 103.64353

HOBBS OCD

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I, Attiya Darensburg certify that; I am employed by Drilling & Measurements (formerly Anadrill), a division of Schlumberger Technology Corporation; that I did on the day(s) of February 04, 2014 through February 09, 2014, conduct or supervise the taking of the SlimPulse surveys from a depth of 9077.00 feet to a depth of 13900.00 feet referenced to driller' depth that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Cimarex or the Diamondtail 23 Federal 5H Well (Original Hole) API No. 30-025-40771 and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By

Attiya Darensburg

MWD

Subscribed and Sworn to before me this 17th day of February (month) 2014 (yr)

My Commission expires:

September 5, 2016

Michelle Ellwood  
Notary Public

Midland, Texas  
(County State)



(signature)

Am

## SCHLUMBERGER

## Survey Report

26-Feb-2014

Client.....: Cimarex Energy Co.  
 Field.....: Diamondtail; Bone Spring

Well.....: Diamondtail 23 Federal 5H  
 API number.....: 30-025-40771  
 Engineer.....: Attiya Darensburg

Spud date.....: 24-Jan-14  
 Last survey date.....: 10-Feb-14  
 Total accepted surveys...: 71  
 MD of first survey.....: 9077.00 ft  
 MD of last survey.....: 13900.00 ft

County.....: Lea  
 State.....: New Mexico  
 Rig.....: Scandriill Eagle

Latitude.....: 32° 17' 47.673" N  
 Longitude.....: 103° 38' 36.688" W

## ----- Survey calculation methods-----

Method for positions...: Minimum curvature  
 Method for DLS.....: Lubinski

## ----- Depth reference -----

Permanent datum.....: MSL  
 Depth reference.....: Driller's Depth  
 GL above permanent.....: 3724.00  
 KB above permanent.....: 3749.00  
 DF above permanent.....: 3749.00

## ----- Vertical section origin-----

Latitude (+N/-).....: 0.00 ft  
 Departure (+E/-).....: 0.00 ft

## ----- Grid Coordinates -----

NAD27 Texas State Plane, Central Zone, US Feet  
 X.....: 754481.1 ft  
 Y.....: 472312.40 ft

Azimuth from Vsect Origin to target: 179.90 degrees

## -----MWD Survey Reference Criteria-----

-----Run1----- Calculation Date: 2-Feb-2014  
 Location G.....: 998.83322 mgn Tolerance G...: 2.50 mgn  
 Location B.....: 48367.88 nT Tolerance B...: 300.00 nT  
 Magnetic Dip: 60.16256 degrees Tolerance Dip: 0.45 degrees

-----Run2----- Calculation Date: 6-Feb-2014  
 Location G.....: 998.83322 mgn Tolerance G...: 2.50 mgn  
 Location B.....: 48366.6 nT Tolerance B...: 300.00 nT  
 Magnetic Dip: 60.16223 degrees Tolerance Dip: 0.45 degrees

BGGM Model: 2013

## -----Run1-----

Magnetic dec (+E/-).....: 7.41178 degrees  
 Grid Conv (+E/-).....: 0.36857 degrees  
 Total Azim Corr (+E/-).....: 7.04321 degrees

## -----Run2-----

Magnetic dec (+E/-).....: 7.41056 degrees  
 Grid Conv (+E/-).....: 0.36858 degrees  
 Total Azim Corr (+E/-).....: 7.04198 degrees

## -----Survey Correction Index Description-----

0 = Uncorrected 1 = Sag Corrected  
 2 = DMAG Corrected 3 = Sag + DMAG Corrected

| ===== Survey List ===== |            |               |               |                |             |               |              |              |                 |                 |                    |          |            |
|-------------------------|------------|---------------|---------------|----------------|-------------|---------------|--------------|--------------|-----------------|-----------------|--------------------|----------|------------|
| Seq                     | MD<br>(ft) | Incl<br>(deg) | Azim<br>(deg) | Course<br>(ft) | TVD<br>(ft) | V Sec<br>(ft) | N/-S<br>(ft) | E/-W<br>(ft) | Closure<br>(ft) | at Azi<br>(deg) | DLS<br>(deg/100ft) | Tool     | Correction |
| 1                       | 0.00       | 0.00          | 0.00          | -999.25        | 0.00        | 0.00          | 0.00         | 0.00         | 0               | 90.00           | 0.00               | TIP      | 0          |
| 2                       | 122.00     | 0.70          | 90.86         | 122.00         | 122.00      | 0.01          | -0.01        | 0.75         | 0.74525         | 90.86           | 0.57               | GyroTool | 0          |
| 3                       | 205.00     | 0.40          | 0.60          | 83.00          | 204.99      | -0.27         | 0.27         | 1.26         | 1.28406         | 77.82           | 0.97               | GyroTool | 0          |
| 4                       | 297.00     | 0.48          | 27.27         | 92.00          | 296.99      | -0.93         | 0.93         | 1.44         | 1.71257         | 56.93           | 0.24               | GyroTool | 0          |
| 5                       | 419.00     | 0.48          | 333.79        | 122.00         | 418.99      | -1.84         | 1.85         | 1.44         | 2.34441         | 38.01           | 0.35               | GyroTool | 0          |
| 6                       | 539.00     | 0.40          | 329.09        | 120.00         | 538.98      | -2.66         | 2.66         | 1.01         | 2.84179         | 20.74           | 0.07               | GyroTool | 0          |
| 7                       | 661.00     | 0.31          | 329.09        | 122.00         | 660.98      | -3.31         | 3.31         | 0.62         | 3.36345         | 10.59           | 0.07               | GyroTool | 0          |
| 8                       | 784.00     | 0.31          | 303.03        | 123.00         | 783.98      | -3.77         | 3.77         | 0.17         | 3.77679         | 2.55            | 0.11               | GyroTool | 0          |
| 9                       | 875.00     | 0.31          | 342.67        | 91.00          | 874.98      | -4.14         | 4.14         | -0.11        | 4.14373         | 358.46          | 0.23               | GyroTool | 0          |
| 10                      | 1034.00    | 0.09          | 165.48        | 159.00         | 1033.98     | -4.43         | 4.43         | -0.21        | 4.43685         | 357.31          | 0.25               | GyroTool | 0          |

|    |         |      |        |        |         |        |         |        |           |        |      |           |   |
|----|---------|------|--------|--------|---------|--------|---------|--------|-----------|--------|------|-----------|---|
| 11 | 1130.00 | 0.22 | 192.77 | 96.00  | 1129.98 | -4.18  | 4.18    | -0.23  | 4.18555   | 356.85 | 0.15 | GyroTool  | 0 |
| 12 | 1191.00 | 0.00 | 26.40  | 61.00  | 1190.98 | -4.07  | 4.07    | -0.26  | 4.07306   | 356.40 | 0.36 | GyroTool  | 0 |
| 13 | 1263.00 | 0.22 | 26.40  | 72.00  | 1262.98 | -4.19  | 4.19    | -0.19  | 4.19333   | 357.34 | 0.31 | GyroTool  | 0 |
| 14 | 1511.00 | 0.40 | 159.07 | 248.00 | 1510.98 | -3.81  | 3.81    | 0.33   | 3.82068   | 4.90   | 0.23 | GyroTool  | 0 |
| 15 | 1606.00 | 0.31 | 163.90 | 95.00  | 1605.97 | -3.25  | 3.25    | 0.52   | 3.29079   | 9.02   | 0.10 | GyroTool  | 0 |
| 16 | 1702.00 | 0.31 | 162.58 | 96.00  | 1701.97 | -2.75  | 2.75    | 0.67   | 2.83214   | 13.60  | 0.01 | GyroTool  | 0 |
| 17 | 1798.00 | 0.31 | 139.29 | 96.00  | 1797.97 | -2.31  | 2.31    | 0.91   | 2.4821    | 21.58  | 0.13 | GyroTool  | 0 |
| 18 | 1893.00 | 0.40 | 154.36 | 95.00  | 1892.97 | -1.81  | 1.81    | 1.22   | 2.18864   | 34.01  | 0.14 | GyroTool  | 0 |
| 19 | 1989.00 | 0.31 | 154.36 | 96.00  | 1988.97 | -1.28  | 1.28    | 1.48   | 1.95658   | 49.21  | 0.09 | GyroTool  | 0 |
| 20 | 2084.00 | 0.40 | 156.30 | 95.00  | 2083.97 | -0.74  | 0.74    | 1.73   | 1.87898   | 66.71  | 0.10 | GyroTool  | 0 |
| 21 | 2179.00 | 0.40 | 170.27 | 95.00  | 2178.96 | -0.11  | 0.11    | 1.92   | 1.91856   | 86.64  | 0.10 | GyroTool  | 0 |
| 22 | 2275.00 | 0.40 | 195.50 | 96.00  | 2274.96 | 0.54   | -0.54   | 1.88   | 1.95853   | 106.03 | 0.18 | GyroTool  | 0 |
| 23 | 2370.00 | 0.40 | 190.97 | 95.00  | 2369.96 | 1.19   | -1.19   | 1.73   | 2.09802   | 124.42 | 0.03 | GyroTool  | 0 |
| 24 | 2464.00 | 0.31 | 190.97 | 94.00  | 2463.96 | 1.76   | -1.76   | 1.62   | 2.3903    | 137.34 | 0.10 | GyroTool  | 0 |
| 25 | 2654.00 | 0.22 | 249.07 | 190.00 | 2653.96 | 2.39   | -2.39   | 1.18   | 2.6684    | 153.72 | 0.14 | GyroTool  | 0 |
| 26 | 2750.00 | 0.22 | 224.98 | 96.00  | 2749.95 | 2.59   | -2.59   | 0.88   | 2.734     | 161.25 | 0.10 | GyroTool  | 0 |
| 27 | 2845.00 | 0.09 | 272.89 | 95.00  | 2844.95 | 2.72   | -2.71   | 0.68   | 2.79692   | 166.03 | 0.18 | GyroTool  | 0 |
| 28 | 2940.00 | 0.22 | 297.80 | 95.00  | 2939.95 | 2.63   | -2.63   | 0.44   | 2.66186   | 170.49 | 0.15 | GyroTool  | 0 |
| 29 | 3036.00 | 0.31 | 259.17 | 96.00  | 3035.95 | 2.59   | -2.59   | 0.02   | 2.58825   | 179.53 | 0.20 | GyroTool  | 0 |
| 30 | 3131.00 | 0.22 | 282.07 | 95.00  | 3130.95 | 2.60   | -2.60   | -0.41  | 2.63035   | 188.95 | 0.14 | GyroTool  | 0 |
| 31 | 3227.00 | 0.31 | 266.47 | 96.00  | 3226.95 | 2.57   | -2.58   | -0.85  | 2.712     | 198.24 | 0.12 | GyroTool  | 0 |
| 32 | 3322.00 | 0.40 | 257.90 | 95.00  | 3321.95 | 2.66   | -2.66   | -1.43  | 3.02075   | 208.24 | 0.11 | GyroTool  | 0 |
| 33 | 3418.00 | 0.79 | 261.50 | 96.00  | 3417.94 | 2.83   | -2.83   | -2.41  | 3.7176    | 220.45 | 0.41 | GyroTool  | 0 |
| 34 | 3513.00 | 1.10 | 254.38 | 95.00  | 3512.93 | 3.16   | -3.17   | -3.94  | 5.05603   | 231.15 | 0.35 | GyroTool  | 0 |
| 35 | 3609.00 | 1.10 | 254.60 | 96.00  | 3608.91 | 3.65   | -3.66   | -5.71  | 6.78757   | 237.33 | 0.00 | GyroTool  | 0 |
| 36 | 3704.00 | 1.01 | 252.98 | 95.00  | 3703.90 | 4.14   | -4.15   | -7.39  | 8.4791    | 240.68 | 0.10 | GyroTool  | 0 |
| 37 | 3799.00 | 1.10 | 255.88 | 95.00  | 3798.88 | 4.60   | -4.62   | -9.08  | 10.18572  | 243.03 | 0.11 | GyroTool  | 0 |
| 38 | 3894.00 | 1.19 | 256.89 | 95.00  | 3893.86 | 5.05   | -5.07   | -10.92 | 12.04054  | 245.12 | 0.10 | GyroTool  | 0 |
| 39 | 3990.00 | 1.10 | 254.78 | 96.00  | 3989.84 | 5.51   | -5.53   | -12.78 | 13.92947  | 246.59 | 0.10 | GyroTool  | 0 |
| 40 | 4085.00 | 0.88 | 250.08 | 95.00  | 4084.83 | 6.00   | -6.02   | -14.35 | 15.5612   | 247.24 | 0.25 | GyroTool  | 0 |
| 41 | 4181.00 | 0.79 | 218.70 | 96.00  | 4180.82 | 6.76   | -6.79   | -15.46 | 16.88122  | 246.29 | 0.48 | GyroTool  | 0 |
| 42 | 4277.00 | 0.88 | 218.70 | 96.00  | 4276.81 | 7.85   | -7.88   | -16.33 | 18.13276  | 244.24 | 0.09 | GyroTool  | 0 |
| 43 | 4372.00 | 1.01 | 192.07 | 95.00  | 4371.80 | 9.24   | -9.27   | -16.96 | 19.32918  | 241.35 | 0.48 | GyroTool  | 0 |
| 44 | 4467.00 | 1.10 | 169.67 | 95.00  | 4466.78 | 10.96  | -10.98  | -16.97 | 20.21787  | 237.09 | 0.44 | GyroTool  | 0 |
| 45 | 4563.00 | 1.32 | 163.07 | 96.00  | 4562.76 | 12.92  | -12.95  | -16.49 | 20.96364  | 231.85 | 0.27 | GyroTool  | 0 |
| 46 | 4659.00 | 1.71 | 163.07 | 96.00  | 4658.73 | 15.35  | -15.38  | -15.75 | 22.00977  | 225.68 | 0.41 | GyroTool  | 0 |
| 47 | 4754.00 | 1.89 | 153.38 | 95.00  | 4753.68 | 18.13  | -18.16  | -14.68 | 23.35044  | 218.96 | 0.32 | GyroTool  | 0 |
| 48 | 4850.00 | 2.02 | 154.80 | 96.00  | 4849.62 | 21.10  | -21.13  | -13.30 | 24.96612  | 212.19 | 0.14 | GyroTool  | 0 |
| 49 | 5049.00 | 2.11 | 153.79 | 199.00 | 5048.49 | 27.57  | -27.59  | -10.19 | 29.40956  | 200.27 | 0.05 | GyroTool  | 0 |
| 50 | 5144.00 | 1.58 | 151.77 | 95.00  | 5143.44 | 30.30  | -30.31  | -8.80  | 31.5618   | 196.19 | 0.56 | GyroTool  | 0 |
| 51 | 5240.00 | 1.71 | 160.87 | 96.00  | 5239.40 | 32.82  | -32.83  | -7.70  | 33.72154  | 193.20 | 0.30 | GyroTool  | 0 |
| 52 | 5335.00 | 1.80 | 158.58 | 95.00  | 5334.36 | 35.55  | -35.56  | -6.69  | 36.1826   | 190.66 | 0.12 | GyroTool  | 0 |
| 53 | 5431.00 | 1.71 | 156.87 | 96.00  | 5430.31 | 38.27  | -38.28  | -5.58  | 38.68346  | 188.29 | 0.11 | GyroTool  | 0 |
| 54 | 5526.00 | 1.58 | 156.39 | 95.00  | 5525.28 | 40.77  | -40.78  | -4.50  | 41.02982  | 186.30 | 0.14 | GyroTool  | 0 |
| 55 | 5622.00 | 1.58 | 152.39 | 96.00  | 5621.24 | 43.16  | -43.17  | -3.36  | 43.2981   | 184.45 | 0.11 | GyroTool  | 0 |
| 56 | 5717.00 | 1.58 | 150.98 | 95.00  | 5716.20 | 45.47  | -45.47  | -2.11  | 45.52278  | 182.66 | 0.04 | GyroTool  | 0 |
| 57 | 5812.00 | 1.49 | 152.87 | 95.00  | 5811.17 | 47.72  | -47.72  | -0.91  | 47.72696  | 181.10 | 0.11 | GyroTool  | 0 |
| 58 | 5912.00 | 1.49 | 153.40 | 100.00 | 5911.14 | 50.04  | -50.04  | 0.26   | 50.03846  | 179.70 | 0.01 | GyroTool  | 0 |
| 59 | 6003.00 | 1.49 | 152.30 | 91.00  | 6002.10 | 52.15  | -52.14  | 1.34   | 52.1604   | 178.53 | 0.03 | GyroTool  | 0 |
| 60 | 6099.00 | 1.32 | 149.88 | 96.00  | 6098.08 | 54.21  | -54.20  | 2.47   | 54.26118  | 177.39 | 0.19 | GyroTool  | 0 |
| 61 | 6194.00 | 1.58 | 149.97 | 95.00  | 6193.04 | 56.29  | -56.29  | 3.68   | 56.40522  | 176.26 | 0.27 | GyroTool  | 0 |
| 62 | 6290.00 | 1.58 | 149.57 | 96.00  | 6289.01 | 58.58  | -58.57  | 5.01   | 58.78615  | 175.11 | 0.01 | GyroTool  | 0 |
| 63 | 6385.00 | 1.58 | 150.28 | 95.00  | 6383.97 | 60.85  | -60.84  | 6.32   | 61.16669  | 174.06 | 0.02 | GyroTool  | 0 |
| 64 | 6480.00 | 1.49 | 151.99 | 95.00  | 6478.94 | 63.08  | -63.07  | 7.55   | 63.51748  | 173.17 | 0.11 | GyroTool  | 0 |
| 65 | 6576.00 | 1.58 | 156.30 | 96.00  | 6574.90 | 65.40  | -65.38  | 8.67   | 65.95312  | 172.44 | 0.15 | GyroTool  | 0 |
| 66 | 6672.00 | 1.49 | 157.09 | 96.00  | 6670.87 | 67.76  | -67.74  | 9.69   | 68.43155  | 171.86 | 0.10 | GyroTool  | 0 |
| 67 | 6767.00 | 1.58 | 158.58 | 95.00  | 6765.84 | 70.12  | -70.10  | 10.65  | 70.90322  | 171.36 | 0.10 | GyroTool  | 0 |
| 68 | 6863.00 | 1.80 | 160.30 | 96.00  | 6861.79 | 72.77  | -72.75  | 11.64  | 73.67592  | 170.91 | 0.24 | GyroTool  | 0 |
| 69 | 6958.00 | 1.89 | 162.10 | 95.00  | 6956.74 | 75.67  | -75.65  | 12.63  | 76.69226  | 170.52 | 0.11 | GyroTool  | 0 |
| 70 | 7054.00 | 2.11 | 163.68 | 96.00  | 7052.69 | 78.87  | -78.85  | 13.61  | 80.01416  | 170.21 | 0.24 | GyroTool  | 0 |
| 71 | 7149.00 | 1.14 | 168.47 | 95.00  | 7147.65 | 81.48  | -81.45  | 14.29  | 82.69666  | 170.05 | 1.03 | GyroTool  | 0 |
| 72 | 7245.00 | 1.32 | 164.87 | 96.00  | 7243.63 | 83.38  | -83.35  | 14.74  | 84.64414  | 169.97 | 0.09 | GyroTool  | 0 |
| 73 | 7340.00 | 1.32 | 168.08 | 95.00  | 7338.60 | 85.40  | -85.37  | 15.22  | 86.72043  | 169.89 | 0.16 | GyroTool  | 0 |
| 74 | 7436.00 | 1.19 | 174.40 | 96.00  | 7434.58 | 87.47  | -87.45  | 15.55  | 88.81941  | 169.92 | 0.20 | GyroTool  | 0 |
| 75 | 7531.00 | 1.19 | 177.30 | 95.00  | 7529.56 | 89.44  | -89.41  | 15.69  | 90.78139  | 170.05 | 0.06 | GyroTool  | 0 |
| 76 | 7627.00 | 1.19 | 180.78 | 96.00  | 7625.54 | 91.43  | -91.41  | 15.73  | 92.75022  | 170.24 | 0.08 | GyroTool  | 0 |
| 77 | 7722.00 | 1.32 | 184.77 | 95.00  | 7720.52 | 93.51  | -93.48  | 15.62  | 94.78036  | 170.51 | 0.16 | GyroTool  | 0 |
| 78 | 7817.00 | 0.79 | 209.78 | 95.00  | 7815.50 | 95.17  | -95.14  | 15.20  | 96.35038  | 170.92 | 0.73 | GyroTool  | 0 |
| 79 | 7913.00 | 0.70 | 220.28 | 96.00  | 7911.49 | 96.19  | -96.16  | 14.50  | 97.25146  | 171.43 | 0.17 | GyroTool  | 0 |
| 80 | 8008.00 | 0.79 | 219.27 | 95.00  | 8006.48 | 97.14  | -97.11  | 13.71  | 98.0772   | 171.97 | 0.10 | GyroTool  | 0 |
| 81 | 8104.00 | 0.70 | 227.49 | 96.00  | 8102.48 | 98.04  | -98.02  | 12.86  | 98.86269  | 172.53 | 0.15 | GyroTool  | 0 |
| 82 | 8199.00 | 0.79 | 230.57 | 95.00  | 8197.47 | 98.85  | -98.83  | 11.92  | 99.54784  | 173.12 | 0.10 | GyroTool  | 0 |
| 83 | 8294.00 | 0.79 | 226.87 | 95.00  | 8292.46 | 99.71  | -99.70  | 10.94  | 100.29331 | 173.74 | 0.05 | GyroTool  | 0 |
| 84 | 8389.00 | 0.70 | 222.48 | 95.00  | 8387.45 | 100.59 | -100.57 | 10.07  | 101.0735  | 174.28 | 0.11 | GyroTool  | 0 |
| 85 | 8484.00 | 1.01 | 221.69 | 95.00  | 8482.44 | 101.64 | -101.62 | 9.12   | 102.03237 | 174.87 | 0.33 | GyroTool  | 0 |
| 86 | 8579.00 | 1.10 | 226.96 | 95.00  | 8577.42 | 102.88 | -102.87 | 7.90   | 103.17421 | 175.61 | 0.14 | GyroTool  | 0 |
| 87 | 8673.00 | 1.10 | 229.99 | 94.00  | 8671.41 | 104.08 | -104.07 | 6.55   | 104.27317 | 176.40 | 0.06 | GyroTool  | 0 |
| 88 | 8767.00 | 1.32 | 213.58 | 94.00  | 8765.39 | 105.44 | -105.43 | 5.11   | 105.55561 | 177.23 | 0.27 | GyroTool  | 0 |
| 89 | 8956.00 | 1.41 | 217.47 | 189.00 | 8954.33 | 108.86 | -108.85 | 2.19   | 108.87657 | 178.85 | 0.09 | GyroTool  | 0 |
| 90 | 9052.00 | 1.01 | 250.87 | 96.00  | 9050.31 | 110.07 | -110.07 | 0.68   | 110.07127 | 179.65 | 0.83 | GyroTool  | 0 |
| 91 | 9077.00 | 1.18 | 250.02 | 25.00  | 9075.31 | 110.23 | -110.23 | 0.22   | 110.22983 | 179.88 | 0.70 | SlimPulse | 0 |
| 92 | 9171.00 | 1.14 | 254.58 | 94.00  | 9169.29 | 110.81 | -110.81 | -1.59  | 110.82179 | 180.82 | 0.11 | SlimPulse | 0 |
| 93 | 9203.00 | 1.13 | 260.80 | 32.00  | 9201.28 | 110.94 | -110.95 | -2.21  | 110.9675  | 181.14 | 0.39 | SlimPulse | 0 |

|     |          |       |        |       |         |         |          |        |            |        |       |             |   |
|-----|----------|-------|--------|-------|---------|---------|----------|--------|------------|--------|-------|-------------|---|
| 94  | 9235.00  | 2.69  | 187.29 | 32.00 | 9233.27 | 111.74  | -111.74  | -2.62  | 111.77021  | 181.34 | 8.13  | SlimPulse   | 0 |
| 95  | 9266.00  | 6.99  | 173.39 | 31.00 | 9264.15 | 114.33  | -114.34  | -2.49  | 114.363    | 181.25 | 14.30 | SlimPulse   | 0 |
| 96  | 9298.00  | 12.69 | 172.01 | 32.00 | 9295.67 | 119.75  | -119.76  | -1.78  | 119.77016  | 180.85 | 17.83 | SlimPulse   | 0 |
| 97  | 9329.00  | 17.03 | 169.33 | 31.00 | 9325.62 | 127.59  | -127.59  | -0.46  | 127.59498  | 180.21 | 14.16 | SlimPulse   | 0 |
| 98  | 9361.00  | 19.51 | 168.60 | 32.00 | 9356.01 | 137.44  | -137.44  | 1.46   | 137.44493  | 179.39 | 7.77  | SlimPulse   | 0 |
| 99  | 9393.00  | 21.89 | 171.66 | 32.00 | 9385.94 | 148.58  | -148.58  | 3.38   | 148.61597  | 178.70 | 8.17  | SlimPulse   | 0 |
| 100 | 9424.00  | 24.72 | 178.28 | 31.00 | 9414.41 | 160.79  | -160.78  | 4.41   | 160.83978  | 178.43 | 12.44 | SlimPulse   | 0 |
| 101 | 9456.00  | 28.61 | 184.17 | 32.00 | 9443.01 | 175.12  | -175.12  | 4.06   | 175.1635   | 178.67 | 14.66 | SlimPulse   | 0 |
| 102 | 9487.00  | 33.44 | 185.08 | 31.00 | 9469.57 | 191.04  | -191.04  | 2.76   | 191.05571  | 179.17 | 15.67 | SlimPulse   | 0 |
| 103 | 9519.00  | 37.92 | 182.81 | 32.00 | 9495.56 | 209.65  | -209.65  | 1.50   | 209.65565  | 179.59 | 14.59 | SlimPulse   | 0 |
| 104 | 9551.00  | 42.01 | 182.51 | 32.00 | 9520.08 | 230.18  | -230.18  | 0.55   | 230.17827  | 179.86 | 12.78 | SlimPulse   | 0 |
| 105 | 9582.00  | 45.83 | 181.79 | 31.00 | 9542.40 | 251.66  | -251.66  | -0.25  | 251.6614   | 180.06 | 12.44 | SlimPulse   | 0 |
| 106 | 9614.00  | 49.00 | 180.26 | 32.00 | 9564.05 | 275.21  | -275.22  | -0.67  | 275.21592  | 180.14 | 10.53 | SlimPulse   | 0 |
| 107 | 9645.00  | 51.82 | 179.57 | 31.00 | 9583.81 | 299.10  | -299.10  | -0.63  | 299.1029   | 180.12 | 9.24  | SlimPulse   | 0 |
| 108 | 9677.00  | 56.20 | 178.92 | 32.00 | 9602.61 | 324.98  | -324.99  | -0.28  | 324.98514  | 180.05 | 13.79 | SlimPulse   | 0 |
| 109 | 9708.00  | 60.77 | 178.14 | 31.00 | 9618.81 | 351.40  | -351.40  | 0.40   | 351.39732  | 179.94 | 14.91 | SlimPulse   | 0 |
| 110 | 9740.00  | 63.73 | 178.26 | 32.00 | 9633.70 | 379.70  | -379.70  | 1.29   | 379.7019   | 179.81 | 9.23  | SlimPulse   | 0 |
| 111 | 9772.00  | 66.40 | 178.11 | 32.00 | 9647.20 | 408.70  | -408.70  | 2.21   | 408.70467  | 179.69 | 8.35  | SlimPulse   | 0 |
| 112 | 9803.00  | 69.19 | 177.54 | 31.00 | 9658.91 | 437.38  | -437.38  | 3.30   | 437.38761  | 179.57 | 9.17  | SlimPulse   | 0 |
| 113 | 9835.00  | 72.32 | 179.07 | 32.00 | 9669.46 | 467.58  | -467.57  | 4.19   | 467.58747  | 179.49 | 10.77 | SlimPulse   | 0 |
| 114 | 9866.00  | 74.75 | 180.41 | 31.00 | 9678.25 | 497.30  | -497.29  | 4.32   | 497.31311  | 179.50 | 8.88  | SlimPulse   | 0 |
| 115 | 9898.00  | 78.09 | 181.02 | 32.00 | 9685.76 | 528.40  | -528.39  | 3.93   | 528.4074   | 179.57 | 10.59 | SlimPulse   | 0 |
| 116 | 9930.00  | 82.69 | 181.72 | 32.00 | 9691.10 | 559.93  | -559.93  | 3.18   | 559.93487  | 179.68 | 14.54 | SlimPulse   | 0 |
| 117 | 9961.00  | 86.84 | 181.53 | 31.00 | 9693.93 | 590.78  | -590.78  | 2.30   | 590.78175  | 179.78 | 13.39 | SlimPulse   | 0 |
| 118 | 9993.00  | 89.17 | 181.27 | 32.00 | 9695.04 | 622.75  | -622.75  | 1.52   | 622.74794  | 179.86 | 7.35  | SlimPulse   | 0 |
| 119 | 10024.00 | 90.17 | 181.27 | 31.00 | 9695.22 | 653.74  | -653.74  | 0.83   | 653.73813  | 179.93 | 3.22  | SlimPulse   | 0 |
| 120 | 10054.00 | 90.79 | 180.71 | 30.00 | 9694.97 | 683.73  | -683.73  | 0.31   | 683.73188  | 179.97 | 2.76  | SlimPulse   | 0 |
| 121 | 10149.00 | 90.28 | 181.72 | 95.00 | 9694.08 | 778.70  | -778.70  | -1.70  | 778.70667  | 180.13 | 1.19  | SlimPulse   | 0 |
| 122 | 10244.00 | 89.93 | 181.96 | 95.00 | 9693.91 | 873.65  | -873.66  | -4.75  | 873.66848  | 180.31 | 0.44  | SlimPulse   | 0 |
| 123 | 10339.00 | 89.42 | 181.88 | 95.00 | 9694.45 | 968.59  | -968.60  | -7.93  | 968.6328   | 180.47 | 0.55  | SlimPulse   | 0 |
| 124 | 10433.00 | 89.59 | 180.67 | 94.00 | 9695.27 | 1062.55 | -1062.57 | -10.03 | 1062.61892 | 180.54 | 1.30  | SlimPulse   | 0 |
| 125 | 10528.00 | 89.55 | 179.27 | 95.00 | 9695.98 | 1157.55 | -1157.57 | -9.99  | 1157.60962 | 180.49 | 1.47  | SlimPulse   | 0 |
| 126 | 10622.00 | 89.55 | 180.14 | 94.00 | 9696.72 | 1251.54 | -1251.56 | -9.51  | 1251.59768 | 180.44 | 0.92  | SlimPulse   | 0 |
| 127 | 10717.00 | 90.34 | 181.82 | 95.00 | 9696.80 | 1346.52 | -1346.54 | -11.14 | 1346.58945 | 180.47 | 1.96  | SlimPulse   | 0 |
| 128 | 10812.00 | 90.34 | 183.15 | 95.00 | 9696.23 | 1441.42 | -1441.45 | -15.26 | 1441.53098 | 180.61 | 1.39  | SlimPulse   | 0 |
| 129 | 10906.00 | 89.14 | 183.18 | 94.00 | 9696.66 | 1535.27 | -1535.30 | -20.44 | 1535.44041 | 180.76 | 1.28  | SlimPulse   | 0 |
| 130 | 11001.00 | 89.31 | 182.35 | 95.00 | 9697.94 | 1630.14 | -1630.18 | -25.02 | 1630.37634 | 180.88 | 0.90  | SlimPulse   | 0 |
| 131 | 11096.00 | 89.14 | 181.69 | 95.00 | 9699.22 | 1725.07 | -1725.12 | -28.37 | 1725.34941 | 180.94 | 0.71  | SlimPulse   | 0 |
| 132 | 11190.00 | 90.14 | 181.19 | 94.00 | 9699.81 | 1819.03 | -1819.08 | -30.73 | 1819.34268 | 180.97 | 1.19  | SlimPulse   | 0 |
| 133 | 11285.00 | 89.86 | 179.80 | 95.00 | 9699.81 | 1914.02 | -1914.08 | -31.56 | 1914.33719 | 180.94 | 1.49  | SlimPulse   | 0 |
| 134 | 11380.00 | 89.35 | 179.16 | 95.00 | 9700.47 | 2009.02 | -2009.07 | -30.69 | 2009.30448 | 180.88 | 0.87  | SlimPulse   | 0 |
| 135 | 11473.00 | 90.79 | 178.07 | 93.00 | 9700.36 | 2101.99 | -2102.04 | -28.44 | 2102.23142 | 180.78 | 1.94  | SlimPulse   | 0 |
| 136 | 11568.00 | 90.03 | 176.89 | 95.00 | 9699.67 | 2196.90 | -2196.94 | -24.27 | 2197.07626 | 180.63 | 1.48  | SlimPulse   | 0 |
| 137 | 11663.00 | 89.69 | 175.76 | 95.00 | 9699.90 | 2291.71 | -2291.74 | -18.18 | 2291.81705 | 180.45 | 1.23  | SlimPulse   | 0 |
| 138 | 11758.00 | 90.28 | 174.72 | 95.00 | 9699.93 | 2386.40 | -2386.42 | -10.30 | 2386.43807 | 180.25 | 1.26  | SlimPulse   | 0 |
| 139 | 11852.00 | 89.97 | 173.18 | 94.00 | 9699.73 | 2479.88 | -2479.89 | -0.39  | 2479.88895 | 180.01 | 1.67  | SlimPulse   | 0 |
| 140 | 11947.00 | 89.97 | 173.03 | 95.00 | 9699.79 | 2574.22 | -2574.20 | 11.02  | 2574.22515 | 179.75 | 0.16  | SlimPulse   | 0 |
| 141 | 12041.00 | 89.35 | 173.27 | 94.00 | 9700.35 | 2667.56 | -2667.53 | 22.23  | 2667.62111 | 179.52 | 0.71  | SlimPulse   | 0 |
| 142 | 12136.00 | 89.83 | 173.91 | 95.00 | 9701.04 | 2761.98 | -2761.93 | 32.83  | 2762.12689 | 179.32 | 0.84  | SlimPulse   | 0 |
| 143 | 12231.00 | 89.90 | 174.11 | 95.00 | 9701.26 | 2856.48 | -2856.41 | 42.75  | 2856.73248 | 179.14 | 0.22  | SlimPulse   | 0 |
| 144 | 12326.00 | 90.00 | 173.65 | 95.00 | 9701.35 | 2950.96 | -2950.87 | 52.88  | 2951.34407 | 178.97 | 0.50  | SlimPulse   | 0 |
| 145 | 12421.00 | 89.93 | 173.27 | 95.00 | 9701.41 | 3045.36 | -3045.25 | 63.70  | 3045.91785 | 178.80 | 0.40  | SlimPulse   | 0 |
| 146 | 12515.00 | 89.28 | 174.27 | 94.00 | 9702.06 | 3138.81 | -3138.69 | 73.90  | 3139.56243 | 178.65 | 1.27  | SlimPulse   | 0 |
| 147 | 12610.00 | 89.59 | 176.57 | 95.00 | 9703.00 | 3233.51 | -3233.38 | 81.49  | 3234.40473 | 178.56 | 2.45  | SlimPulse   | 0 |
| 148 | 12705.00 | 90.10 | 179.26 | 95.00 | 9703.25 | 3328.44 | -3328.31 | 84.94  | 3329.38959 | 178.54 | 2.88  | SlimPulse   | 0 |
| 149 | 12800.00 | 90.00 | 182.14 | 95.00 | 9703.17 | 3423.43 | -3423.29 | 83.78  | 3424.31383 | 178.60 | 3.04  | SlimPulse   | 0 |
| 150 | 12894.00 | 90.21 | 181.91 | 94.00 | 9703.00 | 3517.36 | -3517.23 | 80.46  | 3518.14992 | 178.69 | 0.33  | SlimPulse   | 0 |
| 151 | 12989.00 | 90.03 | 182.25 | 95.00 | 9702.80 | 3612.29 | -3612.17 | 77.02  | 3612.98779 | 178.78 | 0.40  | SlimPulse   | 0 |
| 152 | 13084.00 | 89.90 | 182.06 | 95.00 | 9702.86 | 3707.22 | -3707.10 | 73.44  | 3707.82701 | 178.87 | 0.24  | SlimPulse   | 0 |
| 153 | 13178.00 | 90.03 | 181.65 | 94.00 | 9702.91 | 3801.16 | -3801.05 | 70.40  | 3801.70164 | 178.94 | 0.46  | SlimPulse   | 0 |
| 154 | 13273.00 | 90.14 | 182.32 | 95.00 | 9702.77 | 3896.10 | -3895.99 | 67.11  | 3896.57005 | 179.01 | 0.71  | SlimPulse   | 0 |
| 155 | 13368.00 | 89.83 | 182.69 | 95.00 | 9702.80 | 3991.00 | -3990.90 | 62.96  | 3991.39778 | 179.10 | 0.51  | SlimPulse   | 0 |
| 156 | 13462.00 | 90.55 | 183.47 | 94.00 | 9702.49 | 4084.86 | -4084.76 | 57.91  | 4085.17402 | 179.19 | 1.13  | SlimPulse   | 0 |
| 157 | 13557.00 | 89.97 | 184.80 | 95.00 | 9702.06 | 4179.59 | -4179.51 | 51.05  | 4179.82431 | 179.30 | 1.53  | SlimPulse   | 0 |
| 158 | 13651.00 | 90.28 | 185.70 | 94.00 | 9701.86 | 4273.18 | -4273.12 | 42.45  | 4273.32753 | 179.43 | 1.01  | SlimPulse   | 0 |
| 159 | 13746.00 | 90.31 | 185.15 | 95.00 | 9701.38 | 4367.74 | -4367.69 | 33.47  | 4367.81833 | 179.56 | 0.58  | SlimPulse   | 0 |
| 160 | 13840.00 | 90.76 | 185.44 | 94.00 | 9700.50 | 4461.32 | -4461.28 | 24.80  | 4461.35387 | 179.68 | 0.57  | SlimPulse   | 0 |
| 161 | 13900.00 | 89.90 | 185.95 | 60.00 | 9700.16 | 4521.01 | -4520.99 | 18.85  | 4521.0265  | 179.76 | 1.66  | SlimPulse   | 0 |
| 162 | 13970.00 | 89.90 | 185.95 | 70.00 | 9700.29 | 4590.62 | -4590.61 | 11.59  | 4590.62477 | 179.86 | 0.00  | Proj to bit | 7 |