

Schlumberger Drilling and Measurements  
Drilling Group  
Geo Market Area: South West Texas Basin  
7220 W I-H 20  
Midland, Texas 79706  
Phone : (432) 742-5400 (Main)  
Fax : (432) 742-5606 (Shared)

**Schlumberger**

30-015-44475

Well Reference:  
8, 24S, 31E, Eddy NM  
N 32.22578 W -103.80107

I, Cen Chen certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of December 09, 2017 through December 30, 2017, conduct or supervise the taking of the TelePacer surveys from a depth of 782.00 feet to a depth of 20370.00 feet referenced to driller's 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 OXY USA Incorporated for the Sunrise MDP1 8-5 Federal COM 4H Well (Original Hole) API No. 30-015-44475 in New Mexico; 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  
Cen Chen  
FE

Subscribed and Sworn to before me this 16<sup>th</sup> day of January (month) 2018 (yr)

My Commission expires:

12-20-2020

J. Allemand

Notary Public

Adams County Colorado  
(County State)

JENNIFER ALLEMAND  
Notary Public  
(signature) State of Colorado  
Notary ID # 20164047962  
My Commission Expires 12-20-2020

Schlumberger Drilling and Measurements  
Drilling Group  
Geo Market Area: South West Texas Basin  
7220 W I-H 20  
Midland, Texas 79706  
Phone : (432) 742-5400 (Main)  
Fax : (432) 742-5606 (Shared)

---

**Schlumberger**

January 11, 2018

OXY USA Incorporated

Re:

8, 24S, 31E, Eddy NM  
N 32.22578 W -103.80107

CLIENT: OXY USA Incorporated  
WELL: Sunrise MDPI 8-5 Federal COM 4H  
FIELD: Cotton Draw Bone Spring

RIG: H&P 657  
COUNTY: Eddy  
API NO: 30-015-44475  
JOB NO: 17MLD3222

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).  
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> |
|-----------------------------------------|-----------------------------------------------------|-----------------------------|------------------------------------------|-----------------------|
| Cen Chen<br>FE                          | Sunrise MDPI 8-5<br>Federal COM 4H<br>Original Hole | 782.00 Ft to<br>20370.00 Ft | December 9, 2017 to<br>December 30, 2017 | TelePacer             |

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

Cody Nelms  
Field Service Manager

---

**Corehole:**

**Well:**

**Field:**

**Structure:**

### Original Borehole

**Oxy Sunrise MDP1 8-5 Federal Com 4H**

**NM Eddy County (NAD 83)**

**Oxy Sunrise MDP1 8-5 Federal Com 4H**

Gravity &amp; Magnetic Parameters

|         |           |      |             |             |                            |
|---------|-----------|------|-------------|-------------|----------------------------|
| Model:  | HDDM 2017 | Dip: | 58.984°     | Date:       | 18-Dec-2017                |
| MagDec: | 6.936°    | F5:  | 48064.381nT | Gravity F5: | 998.423mgn (9.80665 Based) |

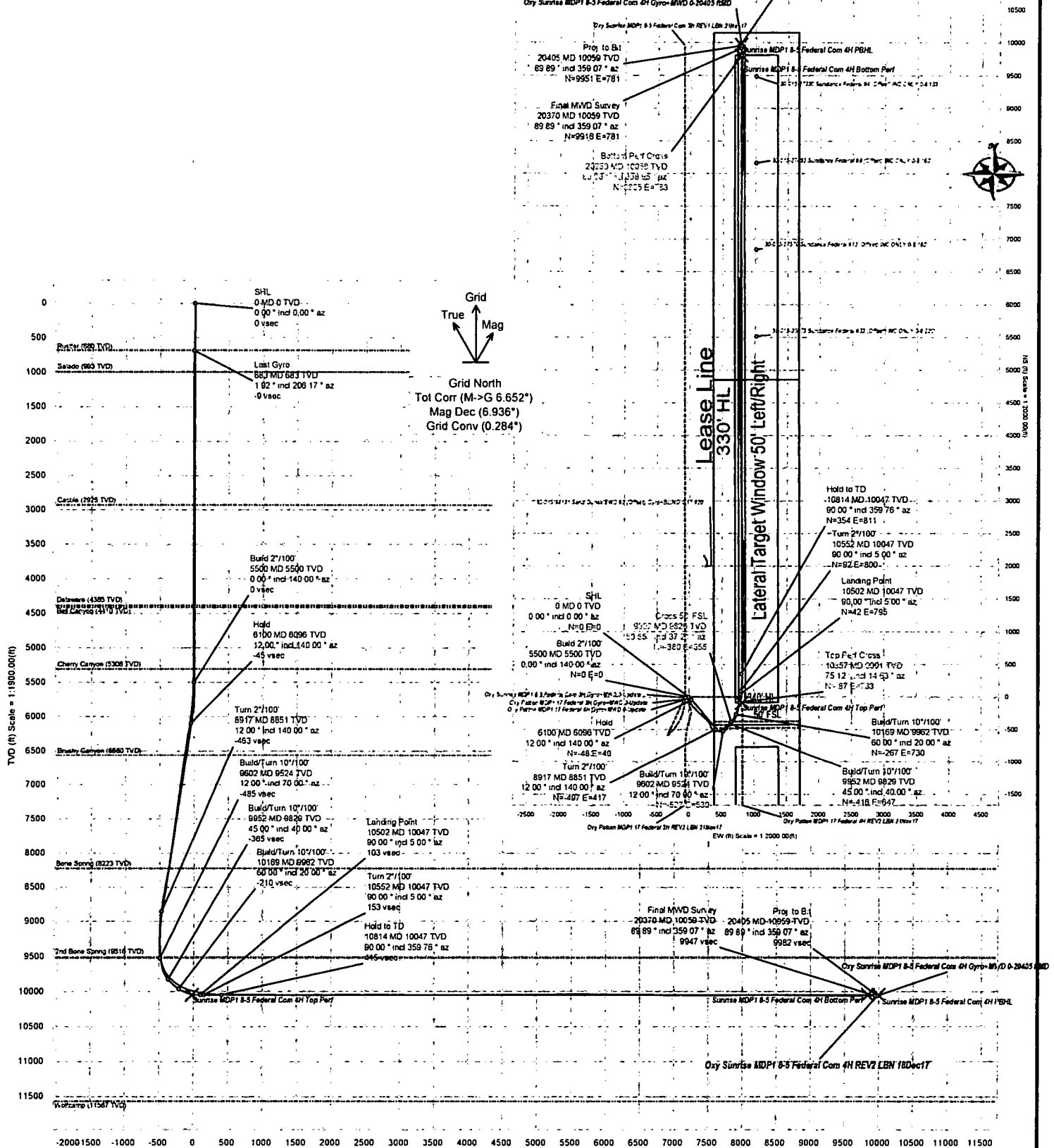
Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet

|      |               |           |               |             |          |
|------|---------------|-----------|---------------|-------------|----------|
| Lat: | N 32 13 32.81 | Northing: | 448280.45ftUS | Grid Conv.  | 0.2938°  |
| Lon: | W 103 48 3.87 | Easting:  | 705926.76ftUS | Scale Fact: | 0.999940 |

Miscellaneous  
 Slot: 8-6 Federal Com TVD Ref. RKB=26 5'(3567 3ft above MSL)  
 Plan: 8-6 Federal Com 4H REV2 LBN 18Dec17

Slot: 8-5 Federal Com TVD Ref. RKB=26 5'(3647 3ft above MSL)  
Plan: 4H Sunrise MDP1 8-5 Federal Com 4H REV2 LBN 18Dec17

Oxy Sunrise MDP1 8-3 Federal Com 41 Gyro-MWD 0-20405 RMD



Vertical Section (ft) Azim = 4 42° Scale = 1:1900 00(ft) Origin = 0N/-S, 0E/-W

...Original Borehole\Oxy Sunrise MDP1 8-5 Federal Com 4H Gyro+MWD 0-20405 ft.MI

| Comments | MD<br>(ft) | Incl<br>(°) | Azim Grid<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(ft/100ft) | Northing<br>(ft) | Easting<br>(ft) | Latitude<br>(N/S ° ' '') | Longitude<br>(E/W ° ' '') |
|----------|------------|-------------|------------------|-------------|--------------|------------|------------|-------------------|------------------|-----------------|--------------------------|---------------------------|
|          | 8268.00    | 11.87       | 147.87           | 8216.69     | -366.39      | -391.71    | 307.03     | 1.31              | 445889.26        | 706233.77       | N 32 13 28.92            | W 103 48 0.32             |
|          | 8457.00    | 11.21       | 158.22           | 8401.88     | -398.50      | -424.74    | 324.19     | 1.15              | 445855.74        | 706250.93       | N 32 13 28.59            | W 103 48 0.12             |
|          | 8551.00    | 11.62       | 161.66           | 8494.03     | -415.42      | -442.21    | 330.56     | 0.85              | 445838.27        | 706257.30       | N 32 13 28.42            | W 103 48 0.05             |
|          | 8645.00    | 11.74       | 164.31           | 8586.08     | -433.13      | -460.40    | 336.12     | 0.58              | 445820.08        | 706262.86       | N 32 13 28.24            | W 103 47 59.98            |
|          | 8740.00    | 10.42       | 157.12           | 8679.31     | -449.84      | -477.62    | 342.08     | 2.01              | 445802.86        | 706268.82       | N 32 13 28.07            | W 103 47 59.91            |
|          | 8834.00    | 9.36        | 148.11           | 8771.92     | -463.56      | -491.95    | 349.42     | 1.99              | 445788.53        | 706276.16       | N 32 13 27.93            | W 103 47 59.83            |
|          | 8929.00    | 8.60        | 139.53           | 8865.76     | -474.82      | -505.91    | 358.11     | 1.62              | 445776.57        | 706284.85       | N 32 13 27.71            | W 103 47 59.73            |
|          | 9023.00    | 7.75        | 129.45           | 8958.81     | -483.44      | -513.29    | 367.57     | 1.77              | 445767.20        | 706294.31       | N 32 13 27.81            | W 103 47 59.62            |
|          | 9118.00    | 7.43        | 115.20           | 9052.98     | -489.29      | -519.97    | 378.08     | 2.00              | 445760.51        | 706304.81       | N 32 13 27.65            | W 103 47 59.50            |
|          | 9212.00    | 6.47        | 104.81           | 9146.30     | -492.40      | -523.91    | 388.70     | 1.68              | 445756.57        | 706315.43       | N 32 13 27.61            | W 103 47 59.37            |
|          | 9306.00    | 7.40        | 101.59           | 9239.61     | -494.11      | -526.48    | 399.75     | 1.07              | 445754.00        | 706326.48       | N 32 13 27.58            | W 103 47 59.25            |
|          | 9401.00    | 8.27        | 97.70            | 9333.72     | -495.27      | -528.63    | 412.51     | 1.07              | 445751.85        | 706339.24       | N 32 13 27.56            | W 103 47 59.10            |
|          | 9474.00    | 7.43        | 86.34            | 9406.04     | -494.91      | -529.03    | 422.42     | 2.41              | 445751.45        | 706349.16       | N 32 13 27.55            | W 103 47 58.98            |
|          | 9568.00    | 18.41       | 72.68            | 9497.54     | -488.53      | -524.21    | 442.73     | 12.04             | 445756.27        | 706369.46       | N 32 13 27.60            | W 103 47 58.75            |
|          | 9663.00    | 32.35       | 66.26            | 9583.17     | -470.89      | -509.43    | 480.51     | 14.94             | 445771.05        | 706407.24       | N 32 13 27.75            | W 103 47 58.30            |
|          | 9757.00    | 35.22       | 62.54            | 9661.30     | -444.70      | -486.80    | 527.59     | 3.76              | 445793.68        | 706454.32       | N 32 13 27.97            | W 103 47 57.76            |
|          | 9852.00    | 46.45       | 53.32            | 9733.13     | -407.45      | -453.47    | 579.73     | 13.39             | 445827.01        | 706505.45       | N 32 13 28.29            | W 103 47 57.15            |
|          | 9946.00    | 49.59       | 43.59            | 9796.08     | -357.23      | -407.13    | 631.80     | 8.38              | 445873.35        | 706558.52       | N 32 13 28.75            | W 103 47 56.54            |
|          | 10041.00   | 51.95       | 30.84            | 9856.31     | -295.47      | -348.59    | 675.92     | 10.84             | 445931.88        | 706602.64       | N 32 13 29.33            | W 103 47 56.02            |
|          | 10135.00   | 60.20       | 24.70            | 9908.76     | -223.84      | -279.53    | 711.91     | 10.22             | 446000.94        | 706638.63       | N 32 13 30.01            | W 103 47 55.60            |
|          | 10230.00   | 67.27       | 21.77            | 9950.78     | -143.24      | -201.28    | 745.43     | 7.94              | 446079.18        | 706672.15       | N 32 13 30.78            | W 103 47 55.20            |
|          | 10324.00   | 73.86       | 16.95            | 9982.05     | -57.66       | -117.70    | 774.72     | 8.51              | 446162.75        | 706701.43       | N 32 13 31.61            | W 103 47 54.86            |
|          | 10418.00   | 77.52       | 10.42            | 10005.31    | 32.18        | -29.27     | 796.21     | 7.77              | 446251.19        | 706722.92       | N 32 13 32.48            | W 103 47 54.60            |
|          | 10513.00   | 77.80       | 6.04             | 10025.82    | 124.75       | 62.56      | 809.49     | 4.51              | 446343.01        | 706736.20       | N 32 13 33.39            | W 103 47 54.44            |
|          | 10608.00   | 87.59       | 3.02             | 10037.69    | 218.85       | 156.37     | 816.89     | 10.78             | 446436.81        | 706743.60       | N 32 13 34.32            | W 103 47 54.35            |
|          | 10650.00   | 88.49       | 2.61             | 10039.12    | 260.81       | 198.30     | 818.96     | 2.35              | 446478.73        | 706745.67       | N 32 13 34.73            | W 103 47 54.32            |
|          | 10775.00   | 89.38       | 2.07             | 10041.44    | 385.71       | 323.17     | 824.06     | 0.83              | 446603.60        | 706750.77       | N 32 13 35.97            | W 103 47 54.26            |
|          | 10870.00   | 89.33       | 359.84           | 10042.51    | 480.52       | 418.14     | 825.64     | 2.35              | 446698.57        | 706752.35       | N 32 13 36.91            | W 103 47 54.23            |
|          | 10964.00   | 89.38       | 0.17             | 10043.57    | 574.24       | 512.14     | 825.65     | 0.36              | 446792.55        | 706752.36       | N 32 13 37.84            | W 103 47 54.23            |
|          | 11058.00   | 89.38       | 0.55             | 10044.59    | 668.00       | 606.13     | 826.24     | 0.40              | 446886.54        | 706752.95       | N 32 13 38.77            | W 103 47 54.22            |
|          | 11152.00   | 90.39       | 0.47             | 10044.78    | 761.78       | 700.12     | 827.08     | 1.08              | 446980.53        | 706753.79       | N 32 13 39.70            | W 103 47 54.20            |
|          | 11247.00   | 89.27       | 359.38           | 10045.06    | 856.48       | 795.12     | 826.95     | 1.65              | 447075.52        | 706753.66       | N 32 13 40.64            | W 103 47 54.20            |
|          | 11341.00   | 89.27       | 359.49           | 10046.26    | 950.12       | 889.11     | 826.03     | 0.12              | 447169.50        | 706752.73       | N 32 13 41.57            | W 103 47 54.20            |
|          | 11436.00   | 89.33       | 0.10             | 10047.42    | 1044.80      | 984.10     | 825.69     | 0.65              | 447264.49        | 706752.39       | N 32 13 42.51            | W 103 47 54.20            |
|          | 11530.00   | 89.27       | 359.51           | 10048.57    | 1138.49      | 1078.09    | 825.37     | 0.63              | 447358.48        | 706752.08       | N 32 13 43.44            | W 103 47 54.20            |
|          | 11624.00   | 89.33       | 359.13           | 10049.72    | 1232.11      | 1172.08    | 824.25     | 0.41              | 447452.46        | 706750.96       | N 32 13 44.37            | W 103 47 54.21            |
|          | 11719.00   | 89.16       | 359.97           | 10050.97    | 1326.76      | 1267.07    | 823.50     | 0.90              | 447547.44        | 706750.21       | N 32 13 45.31            | W 103 47 54.21            |
|          | 11813.00   | 90.39       | 359.89           | 10051.34    | 1420.47      | 1361.06    | 823.39     | 1.31              | 447641.43        | 706750.10       | N 32 13 46.24            | W 103 47 54.21            |
|          | 11908.00   | 89.72       | 358.56           | 10051.25    | 1515.07      | 1456.05    | 822.10     | 1.57              | 447736.41        | 706748.81       | N 32 13 47.18            | W 103 47 54.21            |
|          | 12002.00   | 89.44       | 0.10             | 10051.93    | 1608.70      | 1550.04    | 821.01     | 1.67              | 447830.39        | 706747.71       | N 32 13 48.11            | W 103 47 54.22            |
|          | 12097.00   | 90.28       | 1.94             | 10052.17    | 1703.52      | 1645.02    | 822.70     | 2.13              | 447925.37        | 706749.41       | N 32 13 49.05            | W 103 47 54.20            |
|          | 12285.00   | 90.45       | 0.11             | 10050.97    | 1891.18      | 1832.98    | 826.06     | 0.98              | 448113.31        | 706752.77       | N 32 13 50.91            | W 103 47 54.15            |
|          | 12380.00   | 90.62       | 0.02             | 10050.08    | 1985.90      | 1927.97    | 826.17     | 0.20              | 448208.30        | 706752.88       | N 32 13 51.85            | W 103 47 54.14            |
|          | 12474.00   | 92.53       | 0.41             | 10047.50    | 2079.61      | 2021.93    | 826.52     | 2.07              | 448302.26        | 706753.23       | N 32 13 52.78            | W 103 47 54.13            |
|          | 12569.00   | 89.94       | 358.49           | 10045.45    | 2174.22      | 2116.89    | 825.61     | 3.39              | 448397.21        | 706752.32       | N 32 13 53.72            | W 103 47 54.14            |
|          | 12663.00   | 89.83       | 357.76           | 10045.64    | 2267.65      | 2210.84    | 822.53     | 0.79              | 448491.16        | 706749.24       | N 32 13 54.65            | W 103 47 54.17            |
|          | 12757.00   | 89.83       | 358.18           | 10045.92    | 2361.06      | 2304.78    | 819.20     | 0.45              | 448585.09        | 706745.91       | N 32 13 55.58            | W 103 47 54.20            |
|          | 12945.00   | 89.72       | 357.75           | 10046.66    | 2547.86      | 2492.66    | 812.53     | 0.24              | 448772.96        | 706739.24       | N 32 13 57.44            | W 103 47 54.27            |
|          | 13039.00   | 90.00       | 358.77           | 10046.89    | 2641.32      | 2586.62    | 809.67     | 1.13              | 448866.91        | 706736.38       | N 32 13 58.37            | W 103 47 54.29            |
|          | 13134.00   | 89.94       | 358.30           | 10046.94    | 2735.82      | 2681.59    | 807.24     | 0.50              | 448961.87        | 706733.95       | N 32 13 59.30            | W 103 47 54.32            |
|          | 13228.00   | 89.05       | 357.22           | 10047.76    | 2829.18      | 2775.51    | 803.57     | 1.49              | 449055.79        | 706730.28       | N 32 14 0.23             | W 103 47 54.35            |
|          | 13323.00   | 90.11       | 358.70           | 10048.46    | 2923.57      | 2870.44    | 800.19     | 1.92              | 449150.71        | 706726.90       | N 32 14 1.17             | W 103 47 54.39            |
|          | 13417.00   | 90.06       | 358.39           | 10048.32    | 3017.07      | 2964.41    | 797.80     | 0.33              | 449244.68        | 706724.51       | N 32 14 2.10             | W 103 47 54.41            |
|          | 13512.00   | 89.94       | 359.08           | 10048.32    | 3111.61      | 3059.39    | 795.70     | 0.74              | 449339.65        | 706722.41       | N 32 14 3.04             | W 103 47 54.43            |
|          | 13606.00   | 89.78       | 358.34           | 10048.55    | 3205.14      | 3153.36    | 793.59     | 0.81              | 449433.62        | 706720.30       | N 32 14 3.97             | W 103 47 54.45            |
|          | 13700.00   | 89.72       | 358.08           | 10048.96    | 3298.59      | 3247.32    | 790.65     | 0.28              | 449527.57        | 706717.36       | N 32 14 4.90             | W 103 47 54.48            |
|          | 13795.00   | 90.11       | 358.70           | 10049.10    | 3393.06      | 3342.28    | 787.98     | 0.77              | 449622.52        | 706714.69       | N 32 14 5.84             | W 103 47 54.50            |
|          | 13889.00   | 89.94       | 359.02           | 10049.06    | 3486.62      | 3436.26    | 786.11     | 0.39              | 449716.50        | 706712.82       | N 32 14 6.77             | W 103 47 54.52            |
|          | 13984.00   | 89.83       | 359.25           | 10049.25    | 3581.21      | 3531.25    | 784.68     | 0.27              | 449811.48        | 706711.39       | N 32 14 7.71             | W 103 47 54.53            |
|          | 14172.00   | 90.06       | 358.95           | 10049.43    | 3678.40      | 3719.22    | 781.73     | 0.20              | 449999.44        | 706708.44       | N 32 14 9.57             | W 103 47 54.55            |
|          | 14361.00   | 90.00       | 359.79           | 10049.83    | 3766.67      | 3908.21    | 779.65     | 0.45              | 450188.42        | 706706.36       | N 32 14 11.44            | W 103 47 54.57            |
|          | 14550.00   | 90.28       | 359.25           | 10048.87    | 4144.98      | 4097.20    | 778.06     | 0.32              | 450377.40        | 706704.78       | N 32 14 13.31            | W 103 47 54.57            |
|          | 14644.00   | 90.17       | 358.53           | 10048.50    | 4238.54      | 4191.18    | 776.24     | 0.77              | 450471.37        | 706702.96       | N 32 14 14.24            | W 103 47 54.59            |
|          | 14739.00   | 91.46       | 358.57           | 10047.15    | 4333.03      | 4286.14    | 773.84     | 1.36              | 450566.33        | 706700.55       | N 32 14 15.18            | W 103 47 54.61            |
|          | 14833.00   | 90.17       | 358.41           | 10045.81    | 4426.51      | 4380.10    | 771.36     | 1.38              | 450660.28        | 706698.07       | N 32 14 16.11            | W 103 47 54.64            |
|          | 14928.00   | 89.83       | 358.74           | 10045.81    | 4521.02      | 4475.07    | 769.00     | 0.50              | 450755.24        | 706695.71       | N 32 14 17.05            | W 103 47 54.66            |
|          | 15117.00   | 90.00       | 0.70             | 10046.09    | 4709.38      | 4664.06    | 768.08     | 1.04              | 450944.22        | 706694.79       | N 32 14 18.92            | W 103 47 54.66            |
|          | 15305.00   | 90.17       | 0.22             | 10045.82    | 4896.93      | 4852.05    | 768.59     | 0.27              | 451132.20        | 706696.30       | N 32 14 20.78            | W 103 47 54.63            |
|          | 15400.00   | 89.50       | 0.22             | 10046.09    | 4991.67      | 4947.05    | 768.95     | 0.71              | 451227.19        | 706696.66       | N 32 14 21.72            | W 103 47 54.62            |
|          | 15589.00   | 92.69       | 0.70             | 10042.48    | 5180.16      | 5135.98    | 771.47     | 1.71              | 451416.11        | 706698.18       | N 32 14 23.59            | W 103 47 54.59            |
|          | 15683.00   | 91.12       | 358.62           | 10039.35    | 5273.77      | 5229.82    | 770.91     | 2.77              | 451510.05        | 706697.62       | N 32 14 24.52            | W 103 47 54.59            |
|          | 15778.00   | 90.50       | 358.35           | 10038.01    | 5368.26      | 5324.88    | 768.40     | 0.71              | 451605.00        | 706695.11       | N 32 14 25.46            | W 103 47 54.62            |
|          | 15872.00   | 90.22       | 359.55           | 10037.42    | 5461.82      | 5418.86    | 766.68     | 1.31              | 451698.97        | 706693.39       | N 32 14 26.39            | W 103 47 54.63            |
|          | 15967.00   | 90.34       | 359.18           | 10036.95    | 5556.45      | 5513.85    | 765.62     | 0.41              | 451793.96        | 706692.33       | N 32 14 27.33            | W 103 47 54.64            |
|          | 16061.00   | 89.21       | 358.11           | 10037.32    | 5649.97      | 5607.82    | 763.40     | 1.66              | 451887.92        | 706690.11       | N 32 14 28.26            | W 103 47 54.66            |
|          | 16155.00   | 89.61       | 359.38           | 10038.29    | 5743.51      | 5701.79    | 76         |                   |                  |                 |                          |                           |

| Comments | MD<br>(ft) | Incl<br>(°) | Azim Grid<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>("/100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|----------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
|----------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

| Description | Part | MD From<br>(ft) | MD To<br>(ft) | EOU Freq<br>(ft) | Hole Size<br>(in) | Casing Diameter<br>(in) | Survey Tool Type         | Borehole / Survey                                                                  |
|-------------|------|-----------------|---------------|------------------|-------------------|-------------------------|--------------------------|------------------------------------------------------------------------------------|
|             | 1    | 0.000           | 26.500        | 1/98.425         | 30.000            | 30.000                  | NAL_NSG+MSHOT-Depth Only | Original Borehole / Oxy Sunrise<br>MDP1 8-5 Federal Com 4H<br>Gyro+MWD 0-20405 RMD |
|             | 1    | 26.500          | 26.500        | Act Stns         | 30.000            | 30.000                  | NAL_NSG+MSHOT-Depth Only | Original Borehole / Oxy Sunrise<br>MDP1 8-5 Federal Com 4H<br>Gyro+MWD 0-20405 RMD |
|             | 1    | 26.500          | 683.390       | Act Stns         | 30.000            | 30.000                  | NAL_NSG+MSHOT            | Original Borehole / Oxy Sunrise<br>MDP1 8-5 Federal Com 4H                         |
|             | 1    | 683.390         | 20405.000     | Act Stns         | 30.000            | 30.000                  | NAL_MWD_PLUS_0.5_DEG     | Original Borehole / Oxy Sunrise<br>MDP1 8-5 Federal Com 4H                         |