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

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

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☒ AMENDED REPORT

"As-Drilled"

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                                         |  |                                                   |  |                                                       |                                 |
|-----------------------------------------|--|---------------------------------------------------|--|-------------------------------------------------------|---------------------------------|
| <sup>1</sup> API Number<br>30-015-44878 |  | <sup>2</sup> Pool Code<br>98220                   |  | <sup>3</sup> Pool Name<br>PURPLE SAGE; WOLFCAMP (GAS) |                                 |
| <sup>4</sup> Property Code<br>321188    |  | <sup>5</sup> Property Name<br>CB SO 15 22 004     |  |                                                       | <sup>6</sup> Well Number<br>3H  |
| <sup>7</sup> OGRID No.<br>4323          |  | <sup>8</sup> Operator Name<br>CHEVRON U.S.A. INC. |  |                                                       | <sup>9</sup> Elevation<br>3007' |

<sup>10</sup> Surface Location

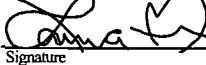
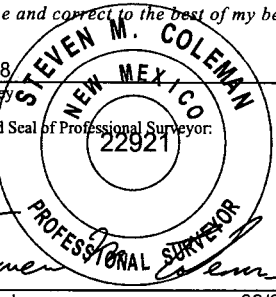
| UL or lot no. | Section | Township | Range             | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------------------|---------|---------------|------------------|---------------|----------------|--------|
| D             | 15      | 23 SOUTH | 28 EAST, N.M.P.M. |         | 335'          | NORTH            | 829'          | WEST           | EDDY   |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range             | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------------------|---------|---------------|------------------|---------------|----------------|--------|
| N             | 22      | 23 SOUTH | 28 EAST, N.M.P.M. |         | 167'          | SOUTH            | 2196'         | WEST           | EDDY   |

|                                      |                               |                                  |                         |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>640 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p><sup>16</sup></p><p>CB SO 15 22 004 NO.3H WELL</p><p>X= 578,037<br/>Y= 477,175<br/>LAT. 32.311618 N<br/>LONG. 104.080739 W<br/>X= 619,219<br/>Y= 477,235<br/>LAT. 32.311739 N<br/>LONG. 104.081236 W<br/>ELEVATION +3007' NAVD 88</p></div> <div><p>FINAL TOP TAKE POINT</p><p>X= 579,441<br/>Y= 477,105<br/>LAT. 32.311417 N<br/>LONG. 104.076195 W<br/>X= 620,623<br/>Y= 477,165<br/>LAT. 32.311538 N<br/>LONG. 104.076692 W</p></div> <div><p>CORNER COORDINATES<br/>TABLE (NAD 27)</p><p>A - Y=477496.90, X=577205.98<br/>B - Y=477585.85, X=582543.98<br/>C - Y=472181.86, X=577232.84<br/>D - Y=472266.72, X=582546.90<br/>E - Y=466858.95, X=577288.92<br/>F - Y=467012.61, X=582560.30</p></div> <div><p>FINAL BOTTOM TAKE POINT</p><p>X= 579,492<br/>Y= 467,251<br/>LAT. 32.284327 N<br/>LONG. 104.076108 W<br/>X= 620,674<br/>Y= 467,310<br/>LAT. 32.284448 N<br/>LONG. 104.076504 W</p></div> <div><p>ACTUAL BOTTOM<br/>HOLE LOCATION</p><p>X= 579,482<br/>Y= 467,090<br/>LAT. 32.283885 N<br/>LONG. 104.076139 W<br/>X= 620,665<br/>Y= 467,149<br/>LAT. 32.284006 N<br/>LONG. 104.076635 W</p></div> | <div><p>Final Top Take Point<br/>@ 9,858' MD<br/>428.62' FNL,<br/>2,233.00' FWL</p><p>Sec. 15</p><p>Sec. 22</p><p>Final Bottom<br/>Take Point<br/>@ 19,736' MD<br/>327.51' FSL,<br/>2,206.72' FWL</p></div> | <div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p><p> 4/16/2019<br/>Signature Date</p><p>Laura Becerra<br/>Printed Name</p><p>LBecerra@chevron.com<br/>E-mail Address</p></div> <div><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p><p>03/21/2018<br/>Date of Survey</p><p><br/>Signature and Seal of Professional Surveyor</p><p></p><p>Certificate Number 03/08/2019</p></div> |
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RUP102519

## Chevron CB SO 15 22 004 No. 3H MWD 0' to 19897' Survey Geodetic Report



(Def Survey)

Report Date: December 13, 2018 - 08:37 AM  
 Client: Chevron  
 Field: NM Eddy County (NAD 27)  
 Structure / Slot: Chevron CB SO 15 22 004 No. 3H / New Slot  
 Well: CB SO 15 22 004 3H  
 Borehole: CB SO 15 22 004 3H  
 UWI / API#: Unknown / Unknown  
 Survey Name: Chevron CB SO 15 22 004 No. 3H MWD 0' to 19897'  
 Survey Date: November 26, 2018  
 Tort / AHD / DDI / ERD Ratio: 324.969' / 11790.454 ft / 6.901' / 1.232  
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet  
 Location Lat / Long: N 32° 18' 41.82349", W 104° 4' 50.66081"  
 Location Grid N/E Y/X: N 477175.000 RUS, E 578037.000 RUS  
 CRS Grid Convergence Angle: 0.1350°  
 Grid Scale Factor: 0.99991607  
 Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski  
 Vertical Section Azimuth: 179.550° (Grid North)  
 Vertical Section Origin: 0.000 ft, 0.000 ft  
 TVD Reference Datum: RKB=28ft  
 TVD Reference Elevation: 3035.000 ft above MSL  
 Seabed / Ground Elevation: 3007.000 ft above MSL  
 Magnetic Declination: 7.196°  
 Total Gravity Field Strength: 998.4784mgn (9.80665 Based)  
 Gravity Model: GARM  
 Total Magnetic Field Strength: 47957.924 nT  
 Magnetic Dip Angle: 60.071°  
 Declination Date: November 26, 2018  
 Magnetic Declination Model: HDGM 2018  
 North Reference: Grid North  
 Grid Convergence Used: 0.1350°  
 Total Corr Mag North-Grid North: 7.0614°  
 Local Coord Referenced To: Well Head

**NM OIL CONSERVATION**  
**ARTESIA DISTRICT**  
**OCT 04 2019**  
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| 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>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|-------------------|--------------------|-------------------|-------------------------|--------------------------|
| Surface                | 0.00       | 0.00        | 77.14            | 0.00        | 0.00         | 0.00       | 0.00       | N/A               | 477175.00          | 578037.00         | N 32 18 41.82           | W 104 4 50.66            |
| Adjusted KB            | 28.00      | 0.00        | 0.00             | 28.00       | 0.00         | 0.00       | 0.00       | 0.00              | 477175.00          | 578037.00         | N 32 18 41.82           | W 104 4 50.66            |
| First 3rd Party Survey | 235.00     | 0.90        | 44.47            | 234.99      | -1.15        | 1.16       | 1.14       | 0.43              | 477176.16          | 578038.14         | N 32 18 41.83           | W 104 4 50.65            |
|                        | 322.00     | 0.80        | 51.59            | 321.98      | -2.01        | 2.03       | 2.09       | 0.17              | 477177.02          | 578039.09         | N 32 18 41.84           | W 104 4 50.64            |
|                        | 412.00     | 2.60        | 106.40           | 411.94      | -1.80        | 1.84       | 4.54       | 2.49              | 477176.84          | 578041.54         | N 32 18 41.84           | W 104 4 50.61            |
|                        | 484.00     | 2.30        | 92.37            | 483.88      | -1.26        | 1.32       | 7.55       | 0.93              | 477176.32          | 578044.55         | N 32 18 41.84           | W 104 4 50.57            |
| Last 3rd Party Survey  | 580.00     | 1.44        | 134.37           | 579.83      | -0.31        | 0.40       | 10.34      | 1.63              | 477175.39          | 578047.34         | N 32 18 41.83           | W 104 4 50.54            |
|                        | 673.00     | 2.15        | 108.02           | 672.78      | 1.06         | -0.96      | 12.84      | 1.15              | 477174.04          | 578049.83         | N 32 18 41.81           | W 104 4 50.51            |
| First SLB MWD Survey   | 765.00     | 4.39        | 85.03            | 764.63      | 1.33         | -1.19      | 17.99      | 2.77              | 477173.81          | 578054.98         | N 32 18 41.81           | W 104 4 50.45            |
|                        | 859.00     | 6.82        | 76.89            | 858.18      | -0.18        | 0.39       | 27.01      | 2.71              | 477175.39          | 578064.00         | N 32 18 41.83           | W 104 4 50.35            |
|                        | 951.00     | 8.66        | 76.87            | 949.34      | -2.89        | 3.20       | 39.07      | 2.00              | 477178.20          | 578076.07         | N 32 18 41.85           | W 104 4 50.21            |
|                        | 1046.00    | 10.14       | 78.28            | 1043.06     | -6.10        | 6.52       | 54.23      | 1.58              | 477181.52          | 578091.22         | N 32 18 41.89           | W 104 4 50.03            |
|                        | 1142.00    | 10.25       | 78.84            | 1137.54     | -9.34        | 9.89       | 70.88      | 0.15              | 477184.89          | 578107.88         | N 32 18 41.92           | W 104 4 49.83            |
|                        | 1238.00    | 9.87        | 80.19            | 1232.07     | -12.26       | 12.95      | 87.37      | 0.47              | 477187.95          | 578124.36         | N 32 18 41.95           | W 104 4 49.64            |
|                        | 1333.00    | 9.96        | 80.95            | 1325.65     | -14.81       | 15.63      | 103.51     | 0.17              | 477190.63          | 578140.50         | N 32 18 41.98           | W 104 4 49.45            |
|                        | 1429.00    | 12.16       | 81.06            | 1419.86     | -17.55       | 18.51      | 121.69     | 2.29              | 477193.50          | 578158.68         | N 32 18 42.00           | W 104 4 49.24            |
|                        | 1525.00    | 13.48       | 77.12            | 1513.46     | -21.45       | 22.57      | 142.59     | 1.65              | 477197.57          | 578179.58         | N 32 18 42.04           | W 104 4 49.00            |
|                        | 1619.00    | 14.65       | 74.64            | 1604.65     | -26.87       | 28.16      | 164.74     | 1.40              | 477203.16          | 578201.72         | N 32 18 42.10           | W 104 4 48.74            |
|                        | 1715.00    | 15.68       | 76.96            | 1697.30     | -32.82       | 34.30      | 189.08     | 1.25              | 477209.30          | 578226.06         | N 32 18 42.16           | W 104 4 48.46            |
|                        | 1810.00    | 17.96       | 79.82            | 1788.23     | -38.09       | 39.79      | 216.01     | 2.55              | 477214.79          | 578252.99         | N 32 18 42.21           | W 104 4 48.14            |
|                        | 1906.00    | 18.42       | 81.80            | 1879.44     | -42.64       | 44.57      | 245.59     | 0.80              | 477219.57          | 578282.57         | N 32 18 42.26           | W 104 4 47.80            |
|                        | 2001.00    | 17.69       | 82.78            | 1969.76     | -46.37       | 48.52      | 274.76     | 0.83              | 477223.52          | 578311.74         | N 32 18 42.30           | W 104 4 47.46            |
|                        | 2097.00    | 17.60       | 81.23            | 2061.24     | -50.19       | 52.57      | 303.58     | 0.50              | 477227.57          | 578340.55         | N 32 18 42.34           | W 104 4 47.12            |
|                        | 2193.00    | 17.68       | 76.73            | 2152.73     | -55.52       | 58.13      | 332.11     | 1.42              | 477233.13          | 578369.08         | N 32 18 42.39           | W 104 4 46.79            |
|                        | 2288.00    | 17.53       | 76.17            | 2243.28     | -62.03       | 64.86      | 360.04     | 0.24              | 477239.86          | 578397.01         | N 32 18 42.46           | W 104 4 46.46            |
|                        | 2384.00    | 17.21       | 75.32            | 2334.91     | -68.87       | 71.92      | 387.82     | 0.43              | 477246.91          | 578424.79         | N 32 18 42.53           | W 104 4 46.14            |
|                        | 2479.00    | 16.39       | 73.72            | 2425.85     | -75.98       | 79.24      | 414.28     | 0.99              | 477254.23          | 578451.25         | N 32 18 42.60           | W 104 4 45.83            |
|                        | 2575.00    | 15.38       | 73.91            | 2518.18     | -83.11       | 86.56      | 439.52     | 1.05              | 477261.55          | 578476.48         | N 32 18 42.67           | W 104 4 45.54            |
|                        | 2676.00    | 17.27       | 78.15            | 2701.48     | -95.54       | 99.40      | 491.61     | 1.17              | 477274.40          | 578528.56         | N 32 18 42.80           | W 104 4 44.93            |
|                        | 2861.00    | 17.84       | 78.72            | 2792.06     | -101.06      | 105.15     | 519.68     | 0.63              | 477280.14          | 578556.63         | N 32 18 42.85           | W 104 4 44.60            |
|                        | 2957.00    | 17.68       | 78.97            | 2883.48     | -106.50      | 110.81     | 548.41     | 0.18              | 477285.80          | 578585.36         | N 32 18 42.91           | W 104 4 44.27            |
|                        | 3052.00    | 17.21       | 78.37            | 2974.11     | -111.88      | 116.41     | 576.33     | 0.53              | 477291.40          | 578613.28         | N 32 18 42.96           | W 104 4 43.94            |
|                        | 3148.00    | 17.00       | 78.72            | 3065.87     | -117.27      | 122.01     | 604.01     | 0.24              | 477297.00          | 578640.96         | N 32 18 43.02           | W 104 4 43.62            |
|                        | 3244.00    | 16.78       | 78.48            | 3157.72     | -122.56      | 127.53     | 631.35     | 0.24              | 477302.52          | 578668.29         | N 32 18 43.07           | W 104 4 43.30            |
|                        | 3339.00    | 16.66       | 78.53            | 3248.71     | -127.80      | 132.97     | 658.13     | 0.13              | 477307.96          | 578695.07         | N 32 18 43.12           | W 104 4 42.99            |
|                        | 3530.00    | 15.19       | 77.92            | 3432.37     | -138.08      | 143.65     | 709.43     | 0.77              | 477318.64          | 578746.37         | N 32 18 43.23           | W 104 4 42.39            |
|                        | 3626.00    | 15.92       | 78.14            | 3524.86     | -143.22      | 148.99     | 734.62     | 0.76              | 477323.98          | 578771.56         | N 32 18 43.28           | W 104 4 42.10            |
|                        | 3721.00    | 17.15       | 78.11            | 3615.93     | -148.57      | 154.56     | 761.08     | 1.29              | 477329.54          | 578798.01         | N 32 18 43.34           | W 104 4 41.79            |
|                        | 3817.00    | 17.63       | 78.37            | 3707.54     | -154.20      | 160.40     | 789.17     | 0.51              | 477335.39          | 578826.10         | N 32 18 43.39           | W 104 4 41.46            |
|                        | 3912.00    | 17.31       | 77.97            | 3798.16     | -159.83      | 166.25     | 817.08     | 0.36              | 477341.23          | 578854.01         | N 32 18 43.45           | W 104 4 41.14            |
|                        | 4008.00    | 17.15       | 77.33            | 3889.85     | -165.69      | 172.33     | 844.86     | 0.26              | 477347.32          | 578881.79         | N 32 18 43.51           | W 104 4 40.81            |
|                        | 4103.00    | 17.83       | 74.13            | 3980.46     | -172.52      | 179.38     | 872.51     | 1.24              | 477354.36          | 578909.44         | N 32 18 43.58           | W 104 4 40.49            |
|                        | 4294.00    | 17.03       | 72.54            | 4162.69     | -188.48      | 195.77     | 927.32     | 0.49              | 477370.75          | 578964.24         | N 32 18 43.74           | W 104 4 39.85            |
|                        | 4390.00    | 16.63       | 73.16            | 4254.57     | -196.47      | 203.97     | 953.88     | 0.46              | 477378.95          | 578990.80         | N 32 18 43.82           | W 104 4 39.54            |
|                        | 4485.00    | 16.59       | 73.12            | 4345.61     | -204.14      | 211.84     | 979.87     | 0.04              | 477386.82          | 579016.79         | N 32 18 43.90           | W 104 4 39.24            |
|                        | 4581.00    | 16.36       | 73.45            | 4437.67     | -211.77      | 219.67     | 1005.95    | 0.26              | 477394.65          | 579042.86         | N 32 18 43.97           | W 104 4 38.93            |
|                        | 4676.00    | 16.05       | 72.94            | 4528.89     | -219.23      | 227.34     | 1031.33    | 0.36              | 477402.32          | 579068.24         | N 32 18 44.05           | W 104 4 38.64            |
|                        | 4772.00    | 16.16       | 73.09            | 4621.13     | -226.81      | 235.12     | 1056.79    | 0.12              | 477410.10          | 579093.70         | N 32 18 44.13           | W 104 4 38.34            |
|                        | 4868.00    | 16.07       | 73.67            | 4713.36     | -234.23      | 242.74     | 1082.33    | 0.19              | 477417.72          | 579119.23         | N 32 18 44.20           | W 104 4 38.04            |
|                        | 4963.00    | 15.11       | 73.96            | 4804.86     | -241.16      | 249.86     | 1106.85    | 1.01              | 477424.83          | 579143.75         | N 32 18 44.27           | W 104 4 37.76            |
|                        | 5058.00    | 14.36       | 74.58            | 4896.73     | -247.53      | 256.41     | 1130.10    | 0.81              | 477431.39          | 579167.00         | N 32 18 44.33           | W 104 4 37.49            |
|                        | 5154.00    | 13.48       | 74.85            | 4989.91     | -253.44      | 262.50     | 1152.38    | 0.92              | 477437.48          | 579189.28         | N 32 18 44.39           | W 104 4 37.23            |
|                        | 5250.00    | 12.70       | 75.09            | 5083.42     | -258.92      | 268.14     | 1173.38    | 0.81              | 477443.12          | 579210.28         | N 32 18 44.45           | W 104 4 36.98            |
|                        | 5345.00    | 12.36       | 75.55            | 5176.16     | -263.98      | 273.36     | 1193.31    | 0.37              | 477448.34          | 579230.21         | N 32 18 44.50           | W 104 4 36.75            |
|                        | 5441.00    | 11.92       | 75.60            | 5270.01     | -268.86      | 278.39     | 1212.87    | 0.46              | 477453.37          | 579249.76         | N 32 18 44.55           | W 104 4 36.52            |
|                        | 5536.00    | 11.38       | 76.17            | 5363.05     | -273.39      | 283.07     | 1231.47    | 0.58              | 477458.05          | 579268.36         | N 32 18 44.60           | W 104 4 36.30            |
|                        | 5632.00    | 10.38       | 78.70            | 5457.33     | -277.21      | 287.03     | 1249.15    | 1.15              | 477462.01          | 579286.04         | N 32 18 44.63           | W 104 4 36.10            |
|                        | 5727.00    | 9.93        | 82.64            | 5550.84     | -279.81      | 289.76     | 1265.66    | 0.87              | 477464.73          | 579302.56         | N 32 18 44.66           | W 104 4 35.91            |
|                        | 5823.00    | 8.24        | 82.80            | 5645.63     | -281.61      | 291.68     | 1280.70    | 1.76              | 477466.66          | 579317.59         | N 32 18 44.68           | W 104 4 35.73            |
|                        | 5918.00    | 6.43        | 84.38            | 5739.85     | -282.89      | 293.06     | 1292.75    | 1.92              | 477468.03          | 579329.64         | N 32 18 44.69           | W 104 4 35.59            |
|                        | 6014.00    | 5.01        | 86.54            | 5835.37     | -283.60      | 293.83     | 1302.28    | 1.50              | 477468.81          | 579339.17         | N 32 18 44.70           | W 104 4 35.48            |
|                        | 6109.00    | 3.54        | 83.74            | 5930.10     | -284.11      | 294.40     | 1309.34    | 1.56              | 477469.38          | 579346.23         | N 32 18 44.71           | W 104 4 35.40            |
|                        | 6205.00    | 2.30        | 72.30            | 6025.98     | -284.98      | 295.31     | 1314.12    | 1.42              | 477470.29          | 579351.01         | N 32 18 44.71           | W 104 4 35.34            |
|                        | 6301.00    | 0.87        | 75.61            | 6121.94     | -285.73      | 296.08     | 1316.66    | 1.49              | 477471.05          | 579353.55         | N 32 18 44.72           | W 104 4 35.31            |
|                        | 6396.00    | 0.28        | 139.40           | 6216.93     | -285.73      | 296.08     | 1317.51    | 0.83              | 477471.06          | 579354.40         | N 32 18 44.72           | W 104 4 35.30            |
|                        | 6492.00    | 0.29        | 143.99           | 6312.93     | -285.35      | 295.71     | 1317.81    | 0.03              | 477470.68          | 579354.69         | N 32 18 44.72           | W 104 4 35.30            |
|                        | 6587.00    | 0.40        | 138.82           | 6407.93     | -284.90      | 295.26     | 1318.17    | 0.12              | 477470.24          | 579355.05         | N 32 18 44.71           | W 104 4 35.29            |
|                        | 6682.00    | 0.30        | 201.21           | 6502.93     | -284.42      | 294.78     | 1318.29    | 0.39              | 477469.76          | 579355.18         | N 32 18 44.71           | W 104 4 35.29            |
|                        | 6778.00    | 0.57        | 215.37           | 6598.92     | -283.80      | 294.16     | 1317.93    | 0.30              | 477469.13          | 579354.81         | N 32 18 44.70           | W 104 4 35.30            |
|                        | 6873.00    | 0.82        | 218.58           | 6693.92     | -282.89      | 293.24     | 1317.23    | 0.27              | 477468.22          | 579354.12         | N 32 18 44.69           | W 104 4 35.30            |
|                        | 6969.00    | 0.45        | 197.29           | 6789.91     | -282.00      | 292.35     | 1316.69    | 0.45              | 477467.32          | 579353.58         | N 32 18 44.69           | W 104 4 35.31            |
|                        | 7064.00    | 0.18        | 92.42            | 6884.91     | -281.63      | 291.98     | 1316.73    | 0.55              | 477466.96          | 579353.61         | N 32 18 44.68           | W 104 4 35.31            |

| 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 ° ' ") |
|------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
|                  | 7160.00    | 0.17        | 105.59           | 6980.91     | -281.59      | 291.94     | 1317.02    | 0.04             | 477466.91          | 579353.90         | N 32 18 44.68 W 104     | 4 35.31                  |
|                  | 7256.00    | 0.34        | 102.12           | 7076.91     | -281.46      | 291.84     | 1317.43    | 0.18             | 477466.82          | 579354.32         | N 32 18 44.68 W 104     | 4 35.30                  |
|                  | 7351.00    | 0.53        | 134.26           | 7171.91     | -281.11      | 291.47     | 1318.02    | 0.32             | 477466.45          | 579354.91         | N 32 18 44.68 W 104     | 4 35.30                  |
|                  | 7447.00    | 0.38        | 129.85           | 7267.90     | -280.60      | 290.96     | 1318.58    | 0.16             | 477465.94          | 579355.47         | N 32 18 44.67 W 104     | 4 35.29                  |
|                  | 7542.00    | 0.43        | 121.10           | 7362.90     | -280.21      | 290.57     | 1319.13    | 0.08             | 477465.55          | 579356.02         | N 32 18 44.67 W 104     | 4 35.28                  |
|                  | 7638.00    | 0.32        | 154.66           | 7458.90     | -279.77      | 290.15     | 1319.55    | 0.25             | 477465.12          | 579356.44         | N 32 18 44.66 W 104     | 4 35.28                  |
|                  | 7734.00    | 0.55        | 188.91           | 7554.90     | -279.08      | 289.45     | 1319.60    | 0.35             | 477464.42          | 579356.48         | N 32 18 44.66 W 104     | 4 35.28                  |
|                  | 7829.00    | 0.80        | 193.61           | 7649.89     | -277.98      | 288.35     | 1319.37    | 0.27             | 477463.33          | 579356.26         | N 32 18 44.65 W 104     | 4 35.28                  |
|                  | 7925.00    | 1.15        | 194.01           | 7745.88     | -276.40      | 286.77     | 1318.98    | 0.36             | 477461.74          | 579355.87         | N 32 18 44.63 W 104     | 4 35.28                  |
|                  | 8021.00    | 1.35        | 191.50           | 7841.85     | -274.36      | 284.73     | 1318.52    | 0.22             | 477459.70          | 579355.41         | N 32 18 44.61 W 104     | 4 35.29                  |
|                  | 8116.00    | 1.54        | 184.23           | 7936.82     | -271.99      | 282.36     | 1318.20    | 0.28             | 477457.33          | 579355.09         | N 32 18 44.59 W 104     | 4 35.29                  |
|                  | 8212.00    | 1.58        | 178.26           | 8032.79     | -269.38      | 279.75     | 1318.15    | 0.17             | 477454.72          | 579355.04         | N 32 18 44.56 W 104     | 4 35.29                  |
|                  | 8307.00    | 1.51        | 184.40           | 8127.75     | -266.83      | 277.19     | 1318.09    | 0.19             | 477452.17          | 579354.98         | N 32 18 44.54 W 104     | 4 35.30                  |
|                  | 8403.00    | 1.43        | 170.20           | 8223.72     | -264.39      | 274.75     | 1318.20    | 0.39             | 477449.72          | 579355.09         | N 32 18 44.51 W 104     | 4 35.29                  |
|                  | 8498.00    | 1.39        | 174.72           | 8318.69     | -262.07      | 272.43     | 1318.51    | 0.12             | 477447.41          | 579355.39         | N 32 18 44.49 W 104     | 4 35.29                  |
|                  | 8594.00    | 1.51        | 179.47           | 8414.66     | -259.64      | 270.01     | 1318.63    | 0.18             | 477444.98          | 579355.51         | N 32 18 44.46 W 104     | 4 35.29                  |
|                  | 8724.00    | 2.12        | 198.29           | 8544.60     | -255.65      | 266.01     | 1317.89    | 0.65             | 477440.99          | 579354.77         | N 32 18 44.42 W 104     | 4 35.30                  |
|                  | 8820.00    | 1.43        | 8.55             | 8640.58     | -255.15      | 265.51     | 1317.51    | 3.69             | 477440.49          | 579354.40         | N 32 18 44.42 W 104     | 4 35.30                  |
|                  | 8916.00    | 0.76        | 335.93           | 8736.56     | -256.92      | 267.28     | 1317.43    | 0.93             | 477442.25          | 579354.31         | N 32 18 44.44 W 104     | 4 35.30                  |
|                  | 9011.00    | 0.62        | 351.12           | 8831.56     | -258.01      | 268.36     | 1317.09    | 0.24             | 477443.34          | 579353.98         | N 32 18 44.45 W 104     | 4 35.31                  |
|                  | 9138.00    | 0.38        | 10.21            | 8958.55     | -259.10      | 269.45     | 1317.06    | 0.23             | 477444.43          | 579353.95         | N 32 18 44.46 W 104     | 4 35.31                  |
|                  | 9202.00    | 2.27        | 142.54           | 9022.54     | -258.30      | 268.66     | 1317.87    | 3.97             | 477443.63          | 579354.75         | N 32 18 44.45 W 104     | 4 35.30                  |
|                  | 9298.00    | 14.37       | 151.24           | 9117.35     | -246.25      | 256.66     | 1324.78    | 12.64            | 477431.64          | 579361.67         | N 32 18 44.33 W 104     | 4 35.22                  |
|                  | 9393.00    | 19.34       | 147.99           | 9208.24     | -222.45      | 232.97     | 1338.80    | 5.32             | 477407.95          | 579375.69         | N 32 18 44.10 W 104     | 4 35.06                  |
|                  | 9489.00    | 31.05       | 143.36           | 9294.97     | -188.80      | 199.50     | 1362.09    | 12.36            | 477374.49          | 579398.97         | N 32 18 43.77 W 104     | 4 34.78                  |
|                  | 9521.00    | 34.77       | 147.66           | 9321.83     | -174.39      | 185.17     | 1371.90    | 13.72            | 477360.15          | 579408.78         | N 32 18 43.62 W 104     | 4 34.67                  |
|                  | 9584.00    | 41.24       | 156.95           | 9371.49     | -139.90      | 150.82     | 1389.67    | 13.68            | 477325.80          | 579426.55         | N 32 18 43.28 W 104     | 4 34.46                  |
|                  | 9631.00    | 46.22       | 165.32           | 9405.47     | -109.10      | 120.10     | 1400.05    | 16.23            | 477295.09          | 579436.93         | N 32 18 42.98 W 104     | 4 34.34                  |
|                  | 9679.00    | 49.86       | 173.34           | 9437.58     | -74.02       | 85.07      | 1406.58    | 14.55            | 477260.07          | 579443.46         | N 32 18 42.63 W 104     | 4 34.27                  |
| Heel HL Crossing | 9749.00    | 57.98       | 180.35           | 9478.81     | -17.61       | 28.68      | 1409.51    | 14.14            | 477203.68          | 579446.39         | N 32 18 42.07 W 104     | 4 34.24                  |
|                  | 9775.00    | 61.09       | 182.63           | 9491.99     | 4.78         | 6.28       | 1408.92    | 14.14            | 477181.28          | 579445.80         | N 32 18 41.85 W 104     | 4 34.24                  |
|                  | 9822.00    | 67.48       | 183.08           | 9512.37     | 47.03        | -35.99     | 1406.80    | 13.62            | 477139.02          | 579443.68         | N 32 18 41.43 W 104     | 4 34.27                  |
|                  | 9871.00    | 73.23       | 186.59           | 9528.84     | 92.96        | -81.94     | 1402.89    | 13.53            | 477093.07          | 579439.77         | N 32 18 40.98 W 104     | 4 34.32                  |
|                  | 9966.00    | 84.56       | 187.07           | 9547.11     | 185.27       | -174.35    | 1391.82    | 11.94            | 477000.67          | 579428.70         | N 32 18 40.07 W 104     | 4 34.45                  |
|                  | 10062.00   | 87.28       | 184.09           | 9553.94     | 280.48       | -269.63    | 1382.51    | 4.20             | 476905.39          | 579419.39         | N 32 18 39.12 W 104     | 4 34.56                  |
|                  | 10157.00   | 88.90       | 181.13           | 9557.11     | 375.28       | -364.47    | 1378.19    | 3.55             | 476810.57          | 579415.07         | N 32 18 38.18 W 104     | 4 34.61                  |
|                  | 10348.00   | 87.84       | 179.49           | 9562.54     | 566.18       | -555.38    | 1377.16    | 1.02             | 476619.67          | 579414.04         | N 32 18 36.30 W 104     | 4 34.63                  |
|                  | 10444.00   | 90.58       | 181.19           | 9563.86     | 662.14       | -651.35    | 1376.59    | 3.36             | 476523.70          | 579413.47         | N 32 18 35.35 W 104     | 4 34.64                  |
|                  | 10635.00   | 90.48       | 180.94           | 9562.10     | 853.07       | -842.31    | 1373.04    | 0.14             | 476332.76          | 579409.92         | N 32 18 33.46 W 104     | 4 34.69                  |
|                  | 10731.00   | 90.48       | 181.98           | 9561.29     | 949.01       | -938.28    | 1370.59    | 1.08             | 476236.80          | 579407.47         | N 32 18 32.51 W 104     | 4 34.72                  |
|                  | 10826.00   | 89.76       | 181.96           | 9561.09     | 1043.93      | -1033.22   | 1367.32    | 0.76             | 476141.87          | 579404.21         | N 32 18 31.57 W 104     | 4 34.76                  |
|                  | 10922.00   | 88.69       | 181.97           | 9562.39     | 1139.83      | -1129.15   | 1364.03    | 1.11             | 476045.94          | 579400.92         | N 32 18 30.62 W 104     | 4 34.80                  |
|                  | 11000.00   | 88.83       | 181.41           | 9564.08     | 1217.76      | -1207.10   | 1361.73    | 0.74             | 475968.00          | 579398.62         | N 32 18 29.85 W 104     | 4 34.83                  |
|                  | 11126.00   | 90.69       | 177.78           | 9564.61     | 1343.73      | -1333.07   | 1362.62    | 3.24             | 475842.05          | 579389.51         | N 32 18 28.60 W 104     | 4 34.82                  |
|                  | 11221.00   | 90.52       | 173.68           | 9563.61     | 1438.49      | -1427.78   | 1369.69    | 4.32             | 475747.34          | 579406.58         | N 32 18 27.66 W 104     | 4 34.74                  |
|                  | 11317.00   | 90.38       | 171.61           | 9562.85     | 1533.79      | -1522.98   | 1381.98    | 2.16             | 475652.15          | 579418.86         | N 32 18 26.72 W 104     | 4 34.60                  |
|                  | 11412.00   | 90.14       | 171.65           | 9562.42     | 1627.88      | -1616.97   | 1395.81    | 0.26             | 475558.17          | 579432.69         | N 32 18 25.79 W 104     | 4 34.44                  |
|                  | 11508.00   | 90.34       | 171.56           | 9562.02     | 1722.96      | -1711.94   | 1409.83    | 0.23             | 475463.21          | 579446.71         | N 32 18 24.85 W 104     | 4 34.28                  |
|                  | 11603.00   | 90.48       | 171.04           | 9561.34     | 1816.97      | -1805.84   | 1424.20    | 0.57             | 475369.31          | 579461.07         | N 32 18 23.92 W 104     | 4 34.12                  |
|                  | 11699.00   | 90.24       | 172.42           | 9560.73     | 1912.08      | -1900.84   | 1438.00    | 1.46             | 475274.32          | 579474.88         | N 32 18 22.98 W 104     | 4 33.96                  |
|                  | 11795.00   | 90.21       | 172.45           | 9560.36     | 2007.34      | -1996.00   | 1450.64    | 0.04             | 475179.17          | 579487.52         | N 32 18 22.04 W 104     | 4 33.81                  |
|                  | 11890.00   | 90.00       | 176.17           | 9560.18     | 2101.92      | -2080.52   | 1460.06    | 3.92             | 475084.66          | 579496.93         | N 32 18 21.10 W 104     | 4 33.71                  |
|                  | 11986.00   | 89.97       | 181.11           | 9560.21     | 2197.88      | -2186.46   | 1462.34    | 5.15             | 474988.73          | 579499.21         | N 32 18 20.15 W 104     | 4 33.68                  |
|                  | 12081.00   | 90.41       | 185.09           | 9559.89     | 2292.68      | -2281.30   | 1457.20    | 4.21             | 474893.89          | 579494.08         | N 32 18 19.22 W 104     | 4 33.75                  |
|                  | 12177.00   | 90.24       | 186.28           | 9559.35     | 2388.13      | -2376.83   | 1447.69    | 1.25             | 474798.38          | 579484.57         | N 32 18 18.27 W 104     | 4 33.86                  |
|                  | 12272.00   | 90.41       | 186.61           | 9558.81     | 2482.44      | -2471.23   | 1437.03    | 0.39             | 474703.99          | 579473.91         | N 32 18 17.34 W 104     | 4 33.99                  |
|                  | 12368.00   | 90.34       | 186.39           | 9558.18     | 2577.73      | -2566.61   | 1426.16    | 0.24             | 474608.61          | 579463.04         | N 32 18 16.39 W 104     | 4 34.12                  |
|                  | 12464.00   | 90.17       | 186.31           | 9557.75     | 2673.05      | -2662.02   | 1415.54    | 0.20             | 474513.21          | 579452.42         | N 32 18 15.45 W 104     | 4 34.24                  |
|                  | 12559.00   | 90.41       | 184.65           | 9557.27     | 2767.54      | -2756.58   | 1406.47    | 1.77             | 474418.66          | 579443.35         | N 32 18 14.51 W 104     | 4 34.35                  |
|                  | 12655.00   | 89.79       | 184.85           | 9557.11     | 2863.14      | -2852.25   | 1398.52    | 0.88             | 474323.00          | 579435.40         | N 32 18 13.57 W 104     | 4 34.45                  |
|                  | 12751.00   | 89.48       | 183.93           | 9557.72     | 2958.80      | -2947.96   | 1391.17    | 1.01             | 474227.29          | 579428.05         | N 32 18 12.62 W 104     | 4 34.53                  |
|                  | 12846.00   | 88.59       | 183.04           | 9559.32     | 3053.56      | -3042.77   | 1385.40    | 1.32             | 474132.49          | 579422.28         | N 32 18 11.68 W 104     | 4 34.60                  |
|                  | 12941.00   | 90.76       | 183.35           | 9559.86     | 3148.36      | -3137.62   | 1380.11    | 2.31             | 474037.65          | 579416.99         | N 32 18 10.74 W 104     | 4 34.67                  |
|                  | 13037.00   | 89.48       | 181.74           | 9559.66     | 3244.22      | -3233.52   | 1375.84    | 2.14             | 473941.76          | 579412.73         | N 32 18 9.79 W 104      | 4 34.72                  |
|                  | 13228.00   | 91.03       | 177.09           | 9558.81     | 3435.16      | -3424.45   | 1377.79    | 2.57             | 473750.85          | 579414.67         | N 32 18 7.91 W 104      | 4 34.70                  |
|                  | 13324.00   | 89.11       | 178.80           | 9558.69     | 3531.12      | -3520.38   | 1381.23    | 2.66             | 473654.93          | 579418.12         | N 32 18 6.96 W 104      | 4 34.67                  |
|                  | 13419.00   | 89.52       | 179.05           | 9559.82     | 3626.10      | -3615.35   | 1383.02    | 0.51             | 473559.96          | 579419.90         | N 32 18 6.02 W 104      | 4 34.65                  |
|                  | 13515.00   | 89.97       | 178.46           | 9560.25     | 3722.09      | -3711.33   | 1385.10    | 0.77             | 473463.99          | 579421.98         | N 32 18 5.07 W 104      | 4 34.63                  |
|                  | 13611.00   | 89.76       | 181.09           | 9560.48     | 3818.08      | -3807.32   | 1385.48    | 2.75             | 473368.01          | 579422.36         | N 32 18 4.12 W 104      | 4 34.62                  |
|                  | 13706.00   | 89.76       | 179.95           | 9560.87     | 3913.07      | -3902.31   | 1384.62    | 1.20             | 473273.02          | 579421.50         | N 32 18 3.18 W 104      | 4 34.64                  |
|                  | 13802.00   | 89.45       | 177.92           | 9561.54     | 4009.05      | -3998.29   | 1386.40    | 0.44             | 473177.05          | 579423.28         | N 32 18 2.23 W 104      | 4 34.62                  |
|                  | 13893.00   | 90.14       | 178.41           | 9562.22     | 4200.00      | -4189.19   | 1392.52    | 2.14             | 472990.19          | 579430.37         | N 32 17 59.39 W 104     | 4 34.54                  |
|                  | 14089.00   | 90.03       | 180.43           | 9562.08     | 4295.99      | -4285.18   | 1393.49    | 2.11             | 472890.19          | 579425.65         | N 32 17 57.49 W 104     | 4 34.60                  |
|                  | 14281.00   | 90.86       | 182.39           | 9560.59     | 4487.87      | -4477.10   | 1388.77    | 1.11             | 472698.28          | 579421.06         | N 32 17 56.55 W 104     | 4 34.66                  |
|                  | 14376.00   | 90.21       | 183.15           | 9559.70     | 4582.72      | -4571.99   | 1384.17    | 1.05             | 472603.41          | 579416.07         | N 32 17 55.60 W 104     | 4 34.72                  |
|                  | 14472.00   | 89.97       | 182.80           | 9559.55     | 4678.55      | -4667.86   | 1379.19    | 0.44             | 472507.54          | 579412.73         | N 32 17 54.66 W 104     | 4 34.78                  |
|                  | 14567.00   | 90.65       | 182.74</         |             |              |            |            |                  |                    |                   |                         |                          |

| 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 ° ' ") |
|---------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
|                     | 16889.00   | 90.07       | 179.78           | 9562.71     | 7102.42      | -7091.36   | 1436.91    | 2.86             | 470084.25          | 579473.78         | N 32 17 31.62           | W 104 4 34.12            |
|                     | 16959.00   | 91.65       | 180.65           | 9561.81     | 7162.41      | -7151.35   | 1436.68    | 3.01             | 470024.27          | 579473.56         | N 32 17 31.02           | W 104 4 34.12            |
|                     | 17055.00   | 91.31       | 180.41           | 9559.33     | 7258.36      | -7247.31   | 1435.79    | 0.43             | 469928.31          | 579472.67         | N 32 17 30.08           | W 104 4 34.13            |
|                     | 17151.00   | 90.28       | 181.01           | 9558.00     | 7354.33      | -7343.29   | 1434.60    | 1.24             | 469832.34          | 579471.48         | N 32 17 29.13           | W 104 4 34.15            |
|                     | 17246.00   | 90.62       | 181.01           | 9557.25     | 7449.30      | -7438.27   | 1432.93    | 0.36             | 469737.37          | 579469.81         | N 32 17 28.19           | W 104 4 34.17            |
|                     | 17342.00   | 90.93       | 179.59           | 9555.95     | 7545.28      | -7534.26   | 1432.43    | 1.51             | 469641.39          | 579469.30         | N 32 17 27.24           | W 104 4 34.18            |
|                     | 17437.00   | 90.69       | 179.20           | 9554.61     | 7640.27      | -7629.25   | 1433.43    | 0.48             | 469546.41          | 579470.31         | N 32 17 26.30           | W 104 4 34.17            |
|                     | 17533.00   | 90.72       | 178.01           | 9553.43     | 7736.25      | -7725.21   | 1435.77    | 1.24             | 469450.46          | 579472.64         | N 32 17 25.35           | W 104 4 34.15            |
|                     | 17573.00   | 89.69       | 177.44           | 9553.29     | 7776.22      | -7765.18   | 1437.35    | 2.94             | 469410.49          | 579474.23         | N 32 17 24.95           | W 104 4 34.13            |
|                     | 17629.00   | 90.17       | 176.62           | 9553.35     | 7832.17      | -7821.10   | 1440.26    | 1.70             | 469354.57          | 579477.13         | N 32 17 24.40           | W 104 4 34.10            |
|                     | 17819.00   | 89.41       | 175.44           | 9554.05     | 8021.81      | -8010.64   | 1453.41    | 0.74             | 469165.05          | 579490.28         | N 32 17 22.52           | W 104 4 33.95            |
|                     | 17914.00   | 89.59       | 174.83           | 9554.88     | 8116.52      | -8105.29   | 1461.47    | 0.67             | 469070.41          | 579498.34         | N 32 17 21.58           | W 104 4 33.86            |
|                     | 18010.00   | 90.03       | 174.87           | 9555.20     | 8212.20      | -8200.90   | 1470.08    | 0.46             | 468974.80          | 579506.96         | N 32 17 20.64           | W 104 4 33.76            |
|                     | 18104.00   | 88.18       | 176.46           | 9556.67     | 8305.96      | -8294.62   | 1477.19    | 2.59             | 468881.10          | 579514.06         | N 32 17 19.71           | W 104 4 33.68            |
|                     | 18200.00   | 86.97       | 179.17           | 9560.73     | 8401.82      | -8390.45   | 1480.84    | 3.09             | 468785.27          | 579517.72         | N 32 17 18.76           | W 104 4 33.64            |
|                     | 18296.00   | 86.69       | 182.90           | 9566.04     | 8497.62      | -8486.27   | 1479.11    | 3.89             | 468689.46          | 579515.99         | N 32 17 17.81           | W 104 4 33.66            |
|                     | 18391.00   | 89.07       | 185.21           | 9569.55     | 8592.25      | -8580.95   | 1472.40    | 3.49             | 468594.78          | 579509.27         | N 32 17 16.88           | W 104 4 33.74            |
|                     | 18447.00   | 92.10       | 186.78           | 9568.98     | 8647.89      | -8636.64   | 1466.55    | 6.09             | 468539.11          | 579503.43         | N 32 17 16.33           | W 104 4 33.81            |
|                     | 18487.00   | 93.17       | 186.28           | 9567.14     | 8687.55      | -8676.33   | 1462.01    | 2.95             | 468499.41          | 579498.88         | N 32 17 15.93           | W 104 4 33.87            |
|                     | 18582.00   | 93.41       | 183.70           | 9561.69     | 8781.96      | -8770.81   | 1453.76    | 2.72             | 468404.94          | 579490.63         | N 32 17 15.00           | W 104 4 33.97            |
|                     | 18678.00   | 90.79       | 180.87           | 9558.17     | 8877.77      | -8866.65   | 1449.84    | 4.02             | 468309.11          | 579486.81         | N 32 17 14.05           | W 104 4 34.01            |
|                     | 18773.00   | 90.21       | 179.03           | 9557.34     | 8972.75      | -8961.64   | 1450.02    | 2.03             | 468214.13          | 579486.90         | N 32 17 13.11           | W 104 4 34.02            |
|                     | 18869.00   | 89.45       | 178.31           | 9557.63     | 9068.74      | -9057.62   | 1452.25    | 1.09             | 468118.16          | 579489.12         | N 32 17 12.16           | W 104 4 33.99            |
|                     | 18964.00   | 89.69       | 178.10           | 9558.34     | 9163.71      | -9152.57   | 1455.22    | 0.34             | 468023.22          | 579492.10         | N 32 17 11.22           | W 104 4 33.96            |
|                     | 19060.00   | 89.66       | 178.46           | 9558.89     | 9259.69      | -9248.52   | 1458.11    | 0.38             | 467927.27          | 579494.98         | N 32 17 10.27           | W 104 4 33.93            |
|                     | 19155.00   | 89.90       | 179.91           | 9559.25     | 9354.68      | -9343.51   | 1459.46    | 1.55             | 467832.30          | 579496.33         | N 32 17 9.33            | W 104 4 33.92            |
|                     | 19251.00   | 90.72       | 181.57           | 9558.73     | 9450.66      | -9439.49   | 1458.22    | 1.93             | 467736.32          | 579495.09         | N 32 17 8.38            | W 104 4 33.93            |
|                     | 19347.00   | 90.34       | 180.79           | 9557.84     | 9546.61      | -9535.47   | 1456.24    | 0.90             | 467640.35          | 579493.11         | N 32 17 7.43            | W 104 4 33.96            |
|                     | 19442.00   | 90.14       | 179.15           | 9557.44     | 9641.61      | -9630.46   | 1456.29    | 1.74             | 467545.36          | 579493.16         | N 32 17 6.49            | W 104 4 33.96            |
|                     | 19538.00   | 89.31       | 179.28           | 9557.91     | 9737.60      | -9726.45   | 1457.60    | 0.88             | 467449.38          | 579494.48         | N 32 17 5.54            | W 104 4 33.95            |
|                     | 19633.00   | 90.38       | 180.81           | 9558.16     | 9832.59      | -9821.45   | 1457.53    | 1.97             | 467354.39          | 579494.40         | N 32 17 4.60            | W 104 4 33.95            |
| Toe HL Crossing     | 19734.00   | 90.15       | 182.43           | 9557.70     | 9933.52      | -9922.40   | 1454.67    | 1.62             | 467253.45          | 579491.55         | N 32 17 3.60            | W 104 4 33.99            |
|                     | 19737.00   | 90.14       | 182.48           | 9557.69     | 9936.52      | -9925.40   | 1454.54    | 1.62             | 467250.45          | 579491.42         | N 32 17 3.57            | W 104 4 33.99            |
|                     | 19824.00   | 90.34       | 183.58           | 9557.33     | 10023.36     | -10012.28  | 1449.95    | 1.29             | 467163.58          | 579486.82         | N 32 17 2.71            | W 104 4 34.05            |
| Last SLB MWD Survey | 19854.00   | 90.62       | 183.59           | 9557.07     | 10053.28     | -10042.22  | 1448.07    | 0.93             | 467133.65          | 579484.95         | N 32 17 2.42            | W 104 4 34.07            |
| Projection to Bit   | 19897.00   | 90.62       | 183.59           | 9556.61     | 10096.17     | -10085.13  | 1445.38    | 0.00             | 467090.74          | 579482.25         | N 32 17 1.99            | W 104 4 34.10            |

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 \*\*\* 3-D 97.071% Confidence 3.0000 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           | 28.000        | 1/98.425         | 30.000            | 30.000                  | A001Ma_MWD-Depth Only | CB SO 15 22 004 3H / Chevron CB<br>SO 15 22 004 No. 3H MWD 0' to |
|             | 1    | 28.000          | 28.000        | Act Stns         | 30.000            | 30.000                  | A001Ma_MWD-Depth Only | CB SO 15 22 004 3H / Chevron CB<br>SO 15 22 004 No. 3H MWD 0' to |
|             | 1    | 28.000          | 484.000       | Act Stns         | 30.000            | 30.000                  | A001Ma_MWD            | CB SO 15 22 004 3H / Chevron CB<br>SO 15 22 004 No. 3H MWD 0' to |
|             | 1    | 484.000         | 19897.000     | Act Stns         | 30.000            | 30.000                  | B001Ma_MWD+HDGM       | CB SO 15 22 004 3H / Chevron CB<br>SO 15 22 004 No. 3H MWD 0' to |

...CB SO 15 22 004 3H/CB SO 15 22 004 3H/Chevron CB SO 15 22 004 No. 3H MWD 0' to 19897'