

RECEIVED

Titus Oil & Gas Production, LLC  
Todd 2-24S-31E State 434H - Plan #1-Rev0

JUN 03 2019

DISTRICT II-ARTESIA O.C.D.

Eddy County, NM (NAD83-NME)  
A01 Todd DSU  
Your Ref:

| Measured<br>Depth<br>(ft) | Incl. | Azim.   | Vertical<br>Depth<br>(ft) | Northings<br>(ft) | Eastings<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(-/100ft) |
|---------------------------|-------|---------|---------------------------|-------------------|------------------|-----------------------------|-----------------------------|
| 0                         | 0     | 0       | 0                         | 0                 | 0                | 0                           | 0                           |
| 100                       | 0     | 0       | 100                       | 0                 | 0                | 0                           | 0                           |
| 200                       | 0     | 0       | 200                       | 0                 | 0                | 0                           | 0                           |
| 300                       | 0     | 0       | 300                       | 0                 | 0                | 0                           | 0                           |
| 400                       | 0     | 0       | 400                       | 0                 | 0                | 0                           | 0                           |
| 500                       | 0     | 0       | 500                       | 0                 | 0                | 0                           | 0                           |
| 600                       | 0     | 0       | 600                       | 0                 | 0                | 0                           | 0                           |
| 700                       | 0     | 0       | 700                       | 0                 | 0                | 0                           | 0                           |
| 800                       | 0     | 0       | 800                       | 0                 | 0                | 0                           | 0                           |
| 900                       | 0     | 0       | 900                       | 0                 | 0                | 0                           | 0                           |
| 1000                      | 0     | 0       | 1000                      | 0                 | 0                | 0                           | 0                           |
| 1100                      | 0     | 0       | 1100                      | 0                 | 0                | 0                           | 0                           |
| 1200                      | 0     | 0       | 1200                      | 0                 | 0                | 0                           | 0                           |
| 1300                      | 0     | 0       | 1300                      | 0                 | 0                | 0                           | 0                           |
| 1400                      | 0     | 0       | 1400                      | 0                 | 0                | 0                           | 0                           |
| 1500                      | 0     | 0       | 1500                      | 0                 | 0                | 0                           | 0                           |
| 1600                      | 1.5   | 237.985 | 1599.99                   | -0.69             | -1.11            | -0.62                       | 1.5                         |
| 1631.22                   | 1.968 | 237.985 | 1631.19                   | -1.19             | -1.91            | -1.07                       | 1.5                         |
| 1700                      | 1.968 | 237.985 | 1699.93                   | -2.45             | -3.91            | -2.2                        | 0                           |
| 1800                      | 1.968 | 237.985 | 1799.87                   | -4.27             | -6.83            | -3.83                       | 0                           |
| 1900                      | 1.968 | 237.985 | 1899.82                   | -6.09             | -9.74            | -5.46                       | 0                           |
| 2000                      | 1.968 | 237.985 | 1999.76                   | -7.91             | -12.65           | -7.1                        | 0                           |
| 2100                      | 1.968 | 237.985 | 2099.7                    | -9.73             | -15.56           | -8.73                       | 0                           |
| 2200                      | 1.968 | 237.985 | 2199.64                   | -11.55            | -18.48           | -10.36                      | 0                           |
| 2300                      | 1.968 | 237.985 | 2299.58                   | -13.37            | -21.39           | -12                         | 0                           |
| 2400                      | 1.968 | 237.985 | 2399.52                   | -15.19            | -24.3            | -13.63                      | 0                           |
| 2500                      | 1.968 | 237.985 | 2499.46                   | -17.01            | -27.21           | -15.26                      | 0                           |
| 2600                      | 1.968 | 237.985 | 2599.4                    | -18.83            | -30.12           | -16.9                       | 0                           |
| 2700                      | 1.968 | 237.985 | 2699.34                   | -20.66            | -33.04           | -18.53                      | 0                           |
| 2800                      | 1.968 | 237.985 | 2799.28                   | -22.48            | -35.95           | -20.16                      | 0                           |
| 2900                      | 1.968 | 237.985 | 2899.23                   | -24.3             | -38.86           | -21.8                       | 0                           |
| 3000                      | 1.968 | 237.985 | 2999.17                   | -26.12            | -41.77           | -23.43                      | 0                           |

|      |       |         |         |         |         |        |   |
|------|-------|---------|---------|---------|---------|--------|---|
| 3100 | 1.968 | 237.985 | 3099.11 | -27.94  | -44.68  | -25.06 | 0 |
| 3200 | 1.968 | 237.985 | 3199.05 | -29.76  | -47.6   | -26.7  | 0 |
| 3300 | 1.968 | 237.985 | 3298.99 | -31.58  | -50.51  | -28.33 | 0 |
| 3400 | 1.968 | 237.985 | 3398.93 | -33.4   | -53.42  | -29.96 | 0 |
| 3500 | 1.968 | 237.985 | 3498.87 | -35.22  | -56.33  | -31.6  | 0 |
| 3600 | 1.968 | 237.985 | 3598.81 | -37.04  | -59.25  | -33.23 | 0 |
| 3700 | 1.968 | 237.985 | 3698.75 | -38.86  | -62.16  | -34.86 | 0 |
| 3800 | 1.968 | 237.985 | 3798.69 | -40.68  | -65.07  | -36.5  | 0 |
| 3900 | 1.968 | 237.985 | 3898.64 | -42.51  | -67.98  | -38.13 | 0 |
| 4000 | 1.968 | 237.985 | 3998.58 | -44.33  | -70.89  | -39.76 | 0 |
| 4100 | 1.968 | 237.985 | 4098.52 | -46.15  | -73.81  | -41.4  | 0 |
| 4200 | 1.968 | 237.985 | 4198.46 | -47.97  | -76.72  | -43.03 | 0 |
| 4300 | 1.968 | 237.985 | 4298.4  | -49.79  | -79.63  | -44.67 | 0 |
| 4400 | 1.968 | 237.985 | 4398.34 | -51.61  | -82.54  | -46.3  | 0 |
| 4500 | 1.968 | 237.985 | 4498.28 | -53.43  | -85.46  | -47.93 | 0 |
| 4600 | 1.968 | 237.985 | 4598.22 | -55.25  | -88.37  | -49.57 | 0 |
| 4700 | 1.968 | 237.985 | 4698.16 | -57.07  | -91.28  | -51.2  | 0 |
| 4800 | 1.968 | 237.985 | 4798.1  | -58.89  | -94.19  | -52.83 | 0 |
| 4900 | 1.968 | 237.985 | 4898.05 | -60.71  | -97.1   | -54.47 | 0 |
| 5000 | 1.968 | 237.985 | 4997.99 | -62.53  | -100.02 | -56.1  | 0 |
| 5100 | 1.968 | 237.985 | 5097.93 | -64.36  | -102.93 | -57.73 | 0 |
| 5200 | 1.968 | 237.985 | 5197.87 | -66.18  | -105.84 | -59.37 | 0 |
| 5300 | 1.968 | 237.985 | 5297.81 | -68     | -108.75 | -61    | 0 |
| 5400 | 1.968 | 237.985 | 5397.75 | -69.82  | -111.67 | -62.63 | 0 |
| 5500 | 1.968 | 237.985 | 5497.69 | -71.64  | -114.58 | -64.27 | 0 |
| 5600 | 1.968 | 237.985 | 5597.63 | -73.46  | -117.49 | -65.9  | 0 |
| 5700 | 1.968 | 237.985 | 5697.57 | -75.28  | -120.4  | -67.53 | 0 |
| 5800 | 1.968 | 237.985 | 5797.51 | -77.1   | -123.31 | -69.17 | 0 |
| 5900 | 1.968 | 237.985 | 5897.46 | -78.92  | -126.23 | -70.8  | 0 |
| 6000 | 1.968 | 237.985 | 5997.4  | -80.74  | -129.14 | -72.43 | 0 |
| 6100 | 1.968 | 237.985 | 6097.34 | -82.56  | -132.05 | -74.07 | 0 |
| 6200 | 1.968 | 237.985 | 6197.28 | -84.38  | -134.96 | -75.7  | 0 |
| 6300 | 1.968 | 237.985 | 6297.22 | -86.21  | -137.88 | -77.33 | 0 |
| 6400 | 1.968 | 237.985 | 6397.16 | -88.03  | -140.79 | -78.97 | 0 |
| 6500 | 1.968 | 237.985 | 6497.1  | -89.85  | -143.7  | -80.6  | 0 |
| 6600 | 1.968 | 237.985 | 6597.04 | -91.67  | -146.61 | -82.24 | 0 |
| 6700 | 1.968 | 237.985 | 6696.98 | -93.49  | -149.52 | -83.87 | 0 |
| 6800 | 1.968 | 237.985 | 6796.92 | -95.31  | -152.44 | -85.5  | 0 |
| 6900 | 1.968 | 237.985 | 6896.87 | -97.13  | -155.35 | -87.14 | 0 |
| 7000 | 1.968 | 237.985 | 6996.81 | -98.95  | -158.26 | -88.77 | 0 |
| 7100 | 1.968 | 237.985 | 7096.75 | -100.77 | -161.17 | -90.4  | 0 |
| 7200 | 1.968 | 237.985 | 7196.69 | -102.59 | -164.09 | -92.04 | 0 |
| 7300 | 1.968 | 237.985 | 7296.63 | -104.41 | -167    | -93.67 | 0 |
| 7400 | 1.968 | 237.985 | 7396.57 | -106.23 | -169.91 | -95.3  | 0 |
| 7500 | 1.968 | 237.985 | 7496.51 | -108.05 | -172.82 | -96.94 | 0 |
| 7600 | 1.968 | 237.985 | 7596.45 | -109.88 | -175.73 | -98.57 | 0 |
| 7700 | 1.968 | 237.985 | 7696.39 | -111.7  | -178.65 | -100.2 | 0 |

|          |        |         |          |         |         |         |     |
|----------|--------|---------|----------|---------|---------|---------|-----|
| 7800     | 1.968  | 237.985 | 7796.33  | -113.52 | -181.56 | -101.84 | 0   |
| 7900     | 1.968  | 237.985 | 7896.28  | -115.34 | -184.47 | -103.47 | 0   |
| 8000     | 1.968  | 237.985 | 7996.22  | -117.16 | -187.38 | -105.1  | 0   |
| 8100     | 1.968  | 237.985 | 8096.16  | -118.98 | -190.3  | -106.74 | 0   |
| 8200     | 1.968  | 237.985 | 8196.1   | -120.8  | -193.21 | -108.37 | 0   |
| 8300     | 1.968  | 237.985 | 8296.04  | -122.62 | -196.12 | -110    | 0   |
| 8400     | 1.968  | 237.985 | 8395.98  | -124.44 | -199.03 | -111.64 | 0   |
| 8500     | 1.968  | 237.985 | 8495.92  | -126.26 | -201.94 | -113.27 | 0   |
| 8600     | 1.968  | 237.985 | 8595.86  | -128.08 | -204.86 | -114.9  | 0   |
| 8700     | 1.968  | 237.985 | 8695.8   | -129.9  | -207.77 | -116.54 | 0   |
| 8800     | 1.968  | 237.985 | 8795.74  | -131.73 | -210.68 | -118.17 | 0   |
| 8900     | 1.968  | 237.985 | 8895.69  | -133.55 | -213.59 | -119.8  | 0   |
| 9000     | 1.968  | 237.985 | 8995.63  | -135.37 | -216.51 | -121.44 | 0   |
| 9100     | 1.968  | 237.985 | 9095.57  | -137.19 | -219.42 | -123.07 | 0   |
| 9200     | 1.968  | 237.985 | 9195.51  | -139.01 | -222.33 | -124.71 | 0   |
| 9300     | 1.968  | 237.985 | 9295.45  | -140.83 | -225.24 | -126.34 | 0   |
| 9400     | 1.968  | 237.985 | 9395.39  | -142.65 | -228.15 | -127.97 | 0   |
| 9500     | 1.968  | 237.985 | 9495.33  | -144.47 | -231.07 | -129.61 | 0   |
| 9600     | 1.968  | 237.985 | 9595.27  | -146.29 | -233.98 | -131.24 | 0   |
| 9700     | 1.968  | 237.985 | 9695.21  | -148.11 | -236.89 | -132.87 | 0   |
| 9800     | 1.968  | 237.985 | 9795.15  | -149.93 | -239.8  | -134.51 | 0   |
| 9900     | 1.968  | 237.985 | 9895.1   | -151.75 | -242.72 | -136.14 | 0   |
| 10000    | 1.968  | 237.985 | 9995.04  | -153.58 | -245.63 | -137.77 | 0   |
| 10100    | 1.968  | 237.985 | 10094.98 | -155.4  | -248.54 | -139.41 | 0   |
| 10200    | 1.968  | 237.985 | 10194.92 | -157.22 | -251.45 | -141.04 | 0   |
| 10300    | 1.968  | 237.985 | 10294.86 | -159.04 | -254.36 | -142.67 | 0   |
| 10373.99 | 1.968  | 237.985 | 10368.81 | -160.39 | -256.52 | -143.88 | 0   |
| 10400    | 1.578  | 237.985 | 10394.8  | -160.81 | -257.2  | -144.26 | 1.5 |
| 10505.21 | 0      | 0.005   | 10500    | -161.58 | -258.43 | -144.95 | 1.5 |
| 10600    | 0      | 0       | 10594.79 | -161.58 | -258.43 | -144.95 | 0   |
| 10700    | 0      | 0       | 10694.79 | -161.58 | -258.43 | -144.95 | 0   |
| 10800    | 0      | 0       | 10794.79 | -161.58 | -258.43 | -144.95 | 0   |
| 10900    | 0      | 0       | 10894.79 | -161.58 | -258.43 | -144.95 | 0   |
| 11000    | 0      | 0       | 10994.79 | -161.58 | -258.43 | -144.95 | 0   |
| 11100    | 0      | 0       | 11094.79 | -161.58 | -258.43 | -144.95 | 0   |
| 11200    | 0      | 0       | 11194.79 | -161.58 | -258.43 | -144.95 | 0   |
| 11300    | 0      | 0       | 11294.79 | -161.58 | -258.43 | -144.95 | 0   |
| 11381.71 | 0      | 0.005   | 11376.5  | -161.58 | -258.43 | -144.95 | 0   |
| 11400    | 1.829  | 356.25  | 11394.79 | -161.29 | -258.45 | -144.66 | 10  |
| 11450    | 6.829  | 356.25  | 11444.63 | -157.52 | -258.7  | -140.89 | 10  |
| 11500    | 11.829 | 356.25  | 11493.95 | -149.44 | -259.23 | -132.79 | 10  |
| 11550    | 16.829 | 356.25  | 11542.38 | -137.09 | -260.03 | -120.42 | 10  |
| 11600    | 21.829 | 356.25  | 11589.55 | -120.59 | -261.12 | -103.87 | 10  |
| 11650    | 26.829 | 356.25  | 11635.09 | -100.04 | -262.46 | -83.28  | 10  |
| 11700    | 31.829 | 356.25  | 11678.67 | -75.61  | -264.07 | -58.8   | 10  |
| 11750    | 36.829 | 356.25  | 11719.95 | -47.48  | -265.91 | -30.61  | 10  |
| 11800    | 41.829 | 356.25  | 11758.61 | -15.87  | -267.98 | 1.07    | 10  |

|          |        |         |          |         |         |         |    |
|----------|--------|---------|----------|---------|---------|---------|----|
| 11850    | 46.829 | 356.25  | 11794.37 | 18.99   | -270.26 | 36      | 10 |
| 11900    | 51.829 | 356.25  | 11826.94 | 56.82   | -272.74 | 73.91   | 10 |
| 11950    | 56.829 | 356.25  | 11856.09 | 97.33   | -275.4  | 114.52  | 10 |
| 12000    | 61.829 | 356.25  | 11881.59 | 140.23  | -278.21 | 157.51  | 10 |
| 12050    | 66.829 | 356.25  | 11903.24 | 185.19  | -281.16 | 202.56  | 10 |
| 12100    | 71.829 | 356.25  | 11920.88 | 231.85  | -284.22 | 249.32  | 10 |
| 12150    | 76.829 | 356.25  | 11934.39 | 279.88  | -287.36 | 297.45  | 10 |
| 12200    | 81.829 | 356.25  | 11943.64 | 328.89  | -290.58 | 346.57  | 10 |
| 12250    | 86.829 | 356.25  | 11948.58 | 378.53  | -293.83 | 396.31  | 10 |
| 12283.11 | 90.14  | 356.25  | 11949.46 | 411.55  | -295.99 | 429.4   | 10 |
| 12300    | 90.14  | 356.588 | 11949.41 | 428.41  | -297.05 | 446.29  | 2  |
| 12400    | 90.141 | 358.588 | 11949.17 | 528.31  | -301.26 | 546.27  | 2  |
| 12459.27 | 90.141 | 359.773 | 11949.02 | 587.58  | -302.11 | 605.47  | 2  |
| 12500    | 90.141 | 359.773 | 11948.92 | 628.3   | -302.27 | 646.12  | 0  |
| 12600    | 90.141 | 359.773 | 11948.68 | 728.3   | -302.66 | 745.95  | 0  |
| 12700    | 90.141 | 359.773 | 11948.43 | 828.3   | -303.06 | 845.77  | 0  |
| 12800    | 90.141 | 359.773 | 11948.18 | 928.3   | -303.45 | 945.6   | 0  |
| 12900    | 90.141 | 359.773 | 11947.94 | 1028.3  | -303.85 | 1045.42 | 0  |
| 13000    | 90.141 | 359.773 | 11947.69 | 1128.3  | -304.25 | 1145.25 | 0  |
| 13100    | 90.141 | 359.773 | 11947.44 | 1228.3  | -304.64 | 1245.07 | 0  |
| 13200    | 90.141 | 359.773 | 11947.2  | 1328.3  | -305.04 | 1344.89 | 0  |
| 13300    | 90.141 | 359.773 | 11946.95 | 1428.29 | -305.43 | 1444.72 | 0  |
| 13400    | 90.141 | 359.773 | 11946.7  | 1528.29 | -305.83 | 1544.54 | 0  |
| 13500    | 90.141 | 359.773 | 11946.46 | 1628.29 | -306.22 | 1644.37 | 0  |
| 13600    | 90.141 | 359.773 | 11946.21 | 1728.29 | -306.62 | 1744.19 | 0  |
| 13700    | 90.141 | 359.773 | 11945.96 | 1828.29 | -307.02 | 1844.02 | 0  |
| 13800    | 90.141 | 359.773 | 11945.72 | 1928.29 | -307.41 | 1943.84 | 0  |
| 13900    | 90.141 | 359.773 | 11945.47 | 2028.29 | -307.81 | 2043.67 | 0  |
| 14000    | 90.141 | 359.773 | 11945.23 | 2128.29 | -308.2  | 2143.49 | 0  |
| 14100    | 90.141 | 359.773 | 11944.98 | 2228.29 | -308.6  | 2243.32 | 0  |
| 14200    | 90.141 | 359.773 | 11944.73 | 2328.28 | -308.99 | 2343.14 | 0  |
| 14300    | 90.141 | 359.773 | 11944.49 | 2428.28 | -309.39 | 2442.97 | 0  |
| 14400    | 90.141 | 359.773 | 11944.24 | 2528.28 | -309.79 | 2542.79 | 0  |
| 14500    | 90.141 | 359.773 | 11943.99 | 2628.28 | -310.18 | 2642.62 | 0  |
| 14600    | 90.141 | 359.773 | 11943.75 | 2728.28 | -310.58 | 2742.44 | 0  |
| 14700    | 90.141 | 359.773 | 11943.5  | 2828.28 | -310.97 | 2842.26 | 0  |
| 14800    | 90.141 | 359.773 | 11943.25 | 2928.28 | -311.37 | 2942.09 | 0  |
| 14900    | 90.141 | 359.773 | 11943.01 | 3028.28 | -311.76 | 3041.91 | 0  |
| 15000    | 90.141 | 359.773 | 11942.76 | 3128.28 | -312.16 | 3141.74 | 0  |
| 15100    | 90.141 | 359.773 | 11942.51 | 3228.28 | -312.56 | 3241.56 | 0  |
| 15200    | 90.141 | 359.773 | 11942.27 | 3328.27 | -312.95 | 3341.39 | 0  |
| 15300    | 90.141 | 359.773 | 11942.02 | 3428.27 | -313.35 | 3441.21 | 0  |
| 15400    | 90.141 | 359.773 | 11941.77 | 3528.27 | -313.74 | 3541.04 | 0  |
| 15500    | 90.141 | 359.773 | 11941.53 | 3628.27 | -314.14 | 3640.86 | 0  |
| 15600    | 90.141 | 359.773 | 11941.28 | 3728.27 | -314.53 | 3740.69 | 0  |
| 15700    | 90.141 | 359.773 | 11941.03 | 3828.27 | -314.93 | 3840.51 | 0  |
| 15800    | 90.141 | 359.773 | 11940.79 | 3928.27 | -315.33 | 3940.34 | 0  |

|          |        |         |          |         |         |         |   |
|----------|--------|---------|----------|---------|---------|---------|---|
| 15900    | 90.141 | 359.773 | 11940.54 | 4028.27 | -315.72 | 4040.16 | 0 |
| 16000    | 90.141 | 359.773 | 11940.29 | 4128.27 | -316.12 | 4139.99 | 0 |
| 16100    | 90.141 | 359.773 | 11940.05 | 4228.26 | -316.51 | 4239.81 | 0 |
| 16200    | 90.141 | 359.773 | 11939.8  | 4328.26 | -316.91 | 4339.63 | 0 |
| 16300    | 90.141 | 359.773 | 11939.55 | 4428.26 | -317.3  | 4439.46 | 0 |
| 16400    | 90.141 | 359.773 | 11939.31 | 4528.26 | -317.7  | 4539.28 | 0 |
| 16500    | 90.141 | 359.773 | 11939.06 | 4628.26 | -318.1  | 4639.11 | 0 |
| 16600    | 90.141 | 359.773 | 11938.81 | 4728.26 | -318.49 | 4738.93 | 0 |
| 16700    | 90.141 | 359.773 | 11938.57 | 4828.26 | -318.89 | 4838.76 | 0 |
| 16800    | 90.141 | 359.773 | 11938.32 | 4928.26 | -319.28 | 4938.58 | 0 |
| 16900    | 90.141 | 359.773 | 11938.08 | 5028.26 | -319.68 | 5038.41 | 0 |
| 16930.54 | 90.141 | 359.773 | 11938    | 5058.8  | -319.8  | 5068.9  | 0 |

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.  
Vertical depths are relative to 3508+25. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Slot and calculated along an Azimuth of 356.383- (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.  
Central meridian is -104.333-.  
Grid Convergence at Surface is 0.312-.

Based upon Minimum Curvature type calculations, at a Measured Depth of 16930.54ft.,  
the Bottom Hole Displacement is 5068.90ft., in the Direction of 356.383- (Grid).