

RECEIVED

Titus Oil & Gas Production, LLC
Todd 2-24S-31E State 304H - Plan #1-Rev0

JUN 03 2019

DISTRICT II-ARTESIA O.C.D.

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

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Easting (ft)	Vertical Section (ft)	Dogleg Rate (-/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	240.673	1599.99	-0.64	-1.14	-0.56	1.5
1678.93	2.684	240.673	1678.86	-2.05	-3.65	-1.79	1.5
1700	2.684	240.673	1699.91	-2.54	-4.51	-2.22	0
1800	2.684	240.673	1799.8	-4.83	-8.6	-4.22	0
1900	2.684	240.673	1899.69	-7.12	-12.68	-6.22	0
2000	2.684	240.673	1999.58	-9.42	-16.76	-8.23	0
2100	2.684	240.673	2099.47	-11.71	-20.84	-10.23	0
2200	2.684	240.673	2199.36	-14	-24.93	-12.23	0
2300	2.684	240.673	2299.25	-16.3	-29.01	-14.24	0
2400	2.684	240.673	2399.14	-18.59	-33.09	-16.24	0
2500	2.684	240.673	2499.03	-20.88	-37.17	-18.25	0
2600	2.684	240.673	2598.92	-23.18	-41.26	-20.25	0
2700	2.684	240.673	2698.81	-25.47	-45.34	-22.25	0
2800	2.684	240.673	2798.7	-27.76	-49.42	-24.26	0
2900	2.684	240.673	2898.6	-30.06	-53.5	-26.26	0
3000	2.684	240.673	2998.49	-32.35	-57.59	-28.27	0

3100	2.684	240.673	3098.38	-34.65	-61.67	-30.27	0
3200	2.684	240.673	3198.27	-36.94	-65.75	-32.27	0
3300	2.684	240.673	3298.16	-39.23	-69.83	-34.28	0
3400	2.684	240.673	3398.05	-41.53	-73.92	-36.28	0
3500	2.684	240.673	3497.94	-43.82	-78	-38.29	0
3600	2.684	240.673	3597.83	-46.11	-82.08	-40.29	0
3700	2.684	240.673	3697.72	-48.41	-86.16	-42.29	0
3800	2.684	240.673	3797.61	-50.7	-90.25	-44.3	0
3900	2.684	240.673	3897.5	-52.99	-94.33	-46.3	0
4000	2.684	240.673	3997.39	-55.29	-98.41	-48.3	0
4100	2.684	240.673	4097.28	-57.58	-102.49	-50.31	0
4200	2.684	240.673	4197.17	-59.87	-106.58	-52.31	0
4300	2.684	240.673	4297.06	-62.17	-110.66	-54.32	0
4400	2.684	240.673	4396.95	-64.46	-114.74	-56.32	0
4500	2.684	240.673	4496.84	-66.76	-118.82	-58.32	0
4600	2.684	240.673	4596.73	-69.05	-122.91	-60.33	0
4700	2.684	240.673	4696.62	-71.34	-126.99	-62.33	0
4800	2.684	240.673	4796.51	-73.64	-131.07	-64.34	0
4900	2.684	240.673	4896.4	-75.93	-135.15	-66.34	0
5000	2.684	240.673	4996.29	-78.22	-139.24	-68.34	0
5100	2.684	240.673	5096.18	-80.52	-143.32	-70.35	0
5200	2.684	240.673	5196.07	-82.81	-147.4	-72.35	0
5300	2.684	240.673	5295.96	-85.1	-151.48	-74.36	0
5400	2.684	240.673	5395.85	-87.4	-155.57	-76.36	0
5500	2.684	240.673	5495.74	-89.69	-159.65	-78.36	0
5600	2.684	240.673	5595.63	-91.98	-163.73	-80.37	0
5700	2.684	240.673	5695.52	-94.28	-167.81	-82.37	0
5800	2.684	240.673	5795.41	-96.57	-171.9	-84.37	0
5900	2.684	240.673	5895.3	-98.87	-175.98	-86.38	0
6000	2.684	240.673	5995.19	-101.16	-180.06	-88.38	0
6100	2.684	240.673	6095.08	-103.45	-184.14	-90.39	0
6200	2.684	240.673	6194.98	-105.75	-188.23	-92.39	0
6300	2.684	240.673	6294.87	-108.04	-192.31	-94.39	0
6400	2.684	240.673	6394.76	-110.33	-196.39	-96.4	0
6500	2.684	240.673	6494.65	-112.63	-200.47	-98.4	0
6600	2.684	240.673	6594.54	-114.92	-204.56	-100.41	0
6700	2.684	240.673	6694.43	-117.21	-208.64	-102.41	0
6800	2.684	240.673	6794.32	-119.51	-212.72	-104.41	0
6900	2.684	240.673	6894.21	-121.8	-216.8	-106.42	0
7000	2.684	240.673	6994.1	-124.09	-220.89	-108.42	0
7100	2.684	240.673	7093.99	-126.39	-224.97	-110.43	0
7200	2.684	240.673	7193.88	-128.68	-229.05	-112.43	0
7300	2.684	240.673	7293.77	-130.97	-233.13	-114.43	0
7400	2.684	240.673	7393.66	-133.27	-237.22	-116.44	0
7500	2.684	240.673	7493.55	-135.56	-241.3	-118.44	0
7600	2.684	240.673	7593.44	-137.86	-245.38	-120.44	0
7700	2.684	240.673	7693.33	-140.15	-249.46	-122.45	0

7800	2.684	240.673	7793.22	-142.44	-253.55	-124.45	0
7900	2.684	240.673	7893.11	-144.74	-257.63	-126.46	0
8000	2.684	240.673	7993	-147.03	-261.71	-128.46	0
8100	2.684	240.673	8092.89	-149.32	-265.79	-130.46	0
8200	2.684	240.673	8192.78	-151.62	-269.88	-132.47	0
8300	2.684	240.673	8292.67	-153.91	-273.96	-134.47	0
8400	2.684	240.673	8392.56	-156.2	-278.04	-136.48	0
8500	2.684	240.673	8492.45	-158.5	-282.12	-138.48	0
8600	2.684	240.673	8592.34	-160.79	-286.21	-140.48	0
8700	2.684	240.673	8692.23	-163.08	-290.29	-142.49	0
8800	2.684	240.673	8792.12	-165.38	-294.37	-144.49	0
8900	2.684	240.673	8892.01	-167.67	-298.45	-146.49	0
9000	2.684	240.673	8991.9	-169.97	-302.54	-148.5	0
9100	2.684	240.673	9091.79	-172.26	-306.62	-150.5	0
9200	2.684	240.673	9191.68	-174.55	-310.7	-152.51	0
9300	2.684	240.673	9291.57	-176.85	-314.78	-154.51	0
9400	2.684	240.673	9391.46	-179.14	-318.87	-156.51	0
9500	2.684	240.673	9491.36	-181.43	-322.95	-158.52	0
9600	2.684	240.673	9591.25	-183.73	-327.03	-160.52	0
9700	2.684	240.673	9691.14	-186.02	-331.11	-162.53	0
9800	2.684	240.673	9791.03	-188.31	-335.2	-164.53	0
9900	2.684	240.673	9890.92	-190.61	-339.28	-166.53	0
10000	2.684	240.673	9990.81	-192.9	-343.36	-168.54	0
10100	2.684	240.673	10090.7	-195.19	-347.44	-170.54	0
10200	2.684	240.673	10190.59	-197.49	-351.53	-172.55	0
10300	2.684	240.673	10290.48	-199.78	-355.61	-174.55	0
10400	2.684	240.673	10390.37	-202.08	-359.69	-176.55	0
10500	2.684	240.673	10490.26	-204.37	-363.77	-178.56	0
10530.91	2.684	240.673	10521.14	-205.08	-365.04	-179.18	0
10600	1.648	240.673	10590.17	-206.36	-367.31	-180.29	1.5
10709.84	0	0.005	10700	-207.13	-368.69	-180.97	1.5
10800	0	0	10790.16	-207.13	-368.69	-180.97	0
10900	0	0	10890.16	-207.13	-368.69	-180.97	0
11000	0	0	10990.16	-207.13	-368.69	-180.97	0
11070.84	0	0.005	11061	-207.13	-368.69	-180.97	0
11100	2.916	3.2	11090.15	-206.39	-368.65	-180.23	10
11150	7.916	3.2	11139.91	-201.68	-368.39	-175.55	10
11200	12.916	3.2	11189.07	-192.66	-367.88	-166.59	10
11250	17.916	3.2	11237.25	-179.39	-367.14	-153.41	10
11300	22.916	3.2	11284.1	-161.98	-366.17	-136.11	10
11350	27.916	3.2	11329.24	-140.56	-364.97	-114.82	10
11400	32.916	3.2	11372.35	-115.3	-363.56	-89.72	10
11450	37.916	3.2	11413.08	-86.38	-361.94	-60.98	10
11500	42.916	3.2	11451.14	-54.02	-360.13	-28.83	10
11550	47.916	3.2	11486.23	-18.48	-358.14	6.49	10
11600	52.916	3.2	11518.08	19.99	-355.99	44.71	10
11650	57.916	3.2	11546.45	61.07	-353.7	85.54	10

11700	62.916	3.2	11571.13	104.47	-351.27	128.67	10
11750	67.916	3.2	11591.92	149.86	-348.73	173.76	10
11800	72.916	3.2	11608.68	196.88	-346.1	220.48	10
11850	77.916	3.2	11621.26	245.17	-343.4	268.48	10
11900	82.916	3.2	11629.58	294.38	-340.65	317.38	10
11950	87.916	3.2	11633.58	344.13	-337.87	366.81	10
11973.34	90.25	3.2	11633.95	367.43	-336.57	389.96	10
12000	90.25	2.667	11633.84	394.05	-335.2	416.43	2
12100	90.251	0.667	11633.4	494.01	-332.29	515.93	2
12144.66	90.251	359.774	11633.2	538.66	-332.12	560.47	2
12200	90.251	359.774	11632.96	594	-332.34	615.69	0
12300	90.251	359.774	11632.52	694	-332.74	715.48	0
12400	90.251	359.774	11632.08	794	-333.13	815.26	0
12500	90.251	359.774	11631.64	894	-333.53	915.04	0
12600	90.251	359.774	11631.2	994	-333.92	1014.83	0
12700	90.251	359.774	11630.76	1093.99	-334.32	1114.61	0
12800	90.251	359.774	11630.33	1193.99	-334.71	1214.39	0
12900	90.251	359.774	11629.89	1293.99	-335.11	1314.17	0
13000	90.251	359.774	11629.45	1393.99	-335.5	1413.96	0
13100	90.251	359.774	11629.01	1493.99	-335.9	1513.74	0
13200	90.251	359.774	11628.57	1593.99	-336.29	1613.52	0
13300	90.251	359.774	11628.13	1693.98	-336.69	1713.31	0
13400	90.251	359.774	11627.69	1793.98	-337.08	1813.09	0
13500	90.251	359.774	11627.25	1893.98	-337.48	1912.87	0
13600	90.251	359.774	11626.81	1993.98	-337.87	2012.66	0
13700	90.251	359.774	11626.38	2093.98	-338.27	2112.44	0
13800	90.251	359.774	11625.94	2193.98	-338.66	2212.22	0
13900	90.251	359.774	11625.5	2293.97	-339.06	2312.01	0
14000	90.251	359.774	11625.06	2393.97	-339.45	2411.79	0
14100	90.251	359.774	11624.62	2493.97	-339.85	2511.57	0
14200	90.251	359.774	11624.18	2593.97	-340.24	2611.36	0
14300	90.251	359.774	11623.74	2693.97	-340.64	2711.14	0
14400	90.251	359.774	11623.3	2793.97	-341.03	2810.92	0
14500	90.251	359.774	11622.86	2893.96	-341.43	2910.71	0
14600	90.251	359.774	11622.43	2993.96	-341.82	3010.49	0
14700	90.251	359.774	11621.99	3093.96	-342.22	3110.27	0
14800	90.251	359.774	11621.55	3193.96	-342.61	3210.06	0
14900	90.251	359.774	11621.11	3293.96	-343.01	3309.84	0
15000	90.251	359.774	11620.67	3393.95	-343.4	3409.62	0
15100	90.251	359.774	11620.23	3493.95	-343.8	3509.41	0
15200	90.251	359.774	11619.79	3593.95	-344.19	3609.19	0
15300	90.251	359.774	11619.35	3693.95	-344.59	3708.97	0
15400	90.251	359.774	11618.91	3793.95	-344.98	3808.76	0
15500	90.251	359.774	11618.47	3893.95	-345.38	3908.54	0
15600	90.251	359.774	11618.04	3993.94	-345.77	4008.32	0
15700	90.251	359.774	11617.6	4093.94	-346.17	4108.11	0
15800	90.251	359.774	11617.16	4193.94	-346.56	4207.89	0

15900	90.251	359.774	11616.72	4293.94	-346.96	4307.67	0
16000	90.251	359.774	11616.28	4393.94	-347.35	4407.46	0
16100	90.251	359.774	11615.84	4493.94	-347.75	4507.24	0
16200	90.251	359.774	11615.4	4593.93	-348.14	4607.02	0
16300	90.251	359.774	11614.96	4693.93	-348.54	4706.81	0
16400	90.251	359.774	11614.52	4793.93	-348.93	4806.59	0
16500	90.251	359.774	11614.09	4893.93	-349.33	4906.37	0
16600	90.251	359.774	11613.65	4993.93	-349.72	5006.16	0
16619.67	90.251	359.774	11613.56	5013.6	-349.8	5025.79	0
16620.31	90.251	359.774	11613.56	5014.24	-349.8	5026.43	0

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to 3507+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 356.009- (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 16620.31ft.,
the Bottom Hole Displacement is 5026.43ft., in the Direction of 356.009- (Grid).