

RECEIVED

Titus Oil & Gas Production, LLC
Todd 2-24S-31E State 405H - 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)	Eastings (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	115.245	1599.99	-0.56	1.18	-0.49	1.5
1659.54	2.393	115.245	1659.49	-1.42	3.01	-1.24	1.5
1700	2.393	115.245	1699.92	-2.14	4.54	-1.86	0
1800	2.393	115.245	1799.83	-3.92	8.32	-3.41	0
1900	2.393	115.245	1899.74	-5.7	12.09	-4.96	0
2000	2.393	115.245	1999.66	-7.48	15.87	-6.51	0
2100	2.393	115.245	2099.57	-9.26	19.65	-8.06	0
2200	2.393	115.245	2199.48	-11.05	23.42	-9.61	0
2300	2.393	115.245	2299.4	-12.83	27.2	-11.16	0
2400	2.393	115.245	2399.31	-14.61	30.98	-12.71	0
2500	2.393	115.245	2499.22	-16.39	34.75	-14.25	0
2600	2.393	115.245	2599.13	-18.17	38.53	-15.8	0
2700	2.393	115.245	2699.05	-19.95	42.31	-17.35	0
2800	2.393	115.245	2798.96	-21.73	46.09	-18.9	0
2900	2.393	115.245	2898.87	-23.51	49.86	-20.45	0
3000	2.393	115.245	2998.78	-25.29	53.64	-22	0

3100	2.393	115.245	3098.7	-27.07	57.42	-23.55	0
3200	2.393	115.245	3198.61	-28.85	61.19	-25.1	0
3300	2.393	115.245	3298.52	-30.63	64.97	-26.65	0
3400	2.393	115.245	3398.44	-32.42	68.75	-28.19	0
3500	2.393	115.245	3498.35	-34.2	72.52	-29.74	0
3600	2.393	115.245	3598.26	-35.98	76.3	-31.29	0
3700	2.393	115.245	3698.17	-37.76	80.08	-32.84	0
3800	2.393	115.245	3798.09	-39.54	83.85	-34.39	0
3900	2.393	115.245	3898	-41.32	87.63	-35.94	0
4000	2.393	115.245	3997.91	-43.1	91.41	-37.49	0
4100	2.393	115.245	4097.83	-44.88	95.18	-39.04	0
4200	2.393	115.245	4197.74	-46.66	98.96	-40.59	0
4300	2.393	115.245	4297.65	-48.44	102.74	-42.14	0
4400	2.393	115.245	4397.56	-50.22	106.51	-43.68	0
4500	2.393	115.245	4497.48	-52	110.29	-45.23	0
4600	2.393	115.245	4597.39	-53.79	114.07	-46.78	0
4700	2.393	115.245	4697.3	-55.57	117.84	-48.33	0
4800	2.393	115.245	4797.21	-57.35	121.62	-49.88	0
4900	2.393	115.245	4897.13	-59.13	125.4	-51.43	0
5000	2.393	115.245	4997.04	-60.91	129.17	-52.98	0
5100	2.393	115.245	5096.95	-62.69	132.95	-54.53	0
5200	2.393	115.245	5196.87	-64.47	136.73	-56.08	0
5300	2.393	115.245	5296.78	-66.25	140.5	-57.62	0
5400	2.393	115.245	5396.69	-68.03	144.28	-59.17	0
5500	2.393	115.245	5496.6	-69.81	148.06	-60.72	0
5600	2.393	115.245	5596.52	-71.59	151.83	-62.27	0
5700	2.393	115.245	5696.43	-73.37	155.61	-63.82	0
5800	2.393	115.245	5796.34	-75.16	159.39	-65.37	0
5900	2.393	115.245	5896.26	-76.94	163.16	-66.92	0
6000	2.393	115.245	5996.17	-78.72	166.94	-68.47	0
6100	2.393	115.245	6096.08	-80.5	170.72	-70.02	0
6200	2.393	115.245	6195.99	-82.28	174.49	-71.57	0
6300	2.393	115.245	6295.91	-84.06	178.27	-73.11	0
6400	2.393	115.245	6395.82	-85.84	182.05	-74.66	0
6500	2.393	115.245	6495.73	-87.62	185.82	-76.21	0
6600	2.393	115.245	6595.64	-89.4	189.6	-77.76	0
6700	2.393	115.245	6695.56	-91.18	193.38	-79.31	0
6800	2.393	115.245	6795.47	-92.96	197.15	-80.86	0
6900	2.393	115.245	6895.38	-94.74	200.93	-82.41	0
7000	2.393	115.245	6995.3	-96.52	204.71	-83.96	0
7100	2.393	115.245	7095.21	-98.31	208.48	-85.51	0
7200	2.393	115.245	7195.12	-100.09	212.26	-87.05	0
7300	2.393	115.245	7295.03	-101.87	216.04	-88.6	0
7400	2.393	115.245	7394.95	-103.65	219.81	-90.15	0
7500	2.393	115.245	7494.86	-105.43	223.59	-91.7	0
7600	2.393	115.245	7594.77	-107.21	227.37	-93.25	0
7700	2.393	115.245	7694.69	-108.99	231.14	-94.8	0

7800	2.393	115.245	7794.6	-110.77	234.92	-96.35	0
7900	2.393	115.245	7894.51	-112.55	238.7	-97.9	0
8000	2.393	115.245	7994.42	-114.33	242.47	-99.45	0
8100	2.393	115.245	8094.34	-116.11	246.25	-100.99	0
8200	2.393	115.245	8194.25	-117.89	250.03	-102.54	0
8300	2.393	115.245	8294.16	-119.68	253.8	-104.09	0
8400	2.393	115.245	8394.08	-121.46	257.58	-105.64	0
8500	2.393	115.245	8493.99	-123.24	261.36	-107.19	0
8600	2.393	115.245	8593.9	-125.02	265.13	-108.74	0
8700	2.393	115.245	8693.81	-126.8	268.91	-110.29	0
8800	2.393	115.245	8793.73	-128.58	272.69	-111.84	0
8900	2.393	115.245	8893.64	-130.36	276.47	-113.39	0
9000	2.393	115.245	8993.55	-132.14	280.24	-114.94	0
9100	2.393	115.245	9093.46	-133.92	284.02	-116.48	0
9200	2.393	115.245	9193.38	-135.7	287.8	-118.03	0
9300	2.393	115.245	9293.29	-137.48	291.57	-119.58	0
9400	2.393	115.245	9393.2	-139.26	295.35	-121.13	0
9500	2.393	115.245	9493.12	-141.05	299.13	-122.68	0
9600	2.393	115.245	9593.03	-142.83	302.9	-124.23	0
9700	2.393	115.245	9692.94	-144.61	306.68	-125.78	0
9800	2.393	115.245	9792.85	-146.39	310.46	-127.33	0
9900	2.393	115.245	9892.77	-148.17	314.23	-128.88	0
10000	2.393	115.245	9992.68	-149.95	318.01	-130.42	0
10100	2.393	115.245	10092.59	-151.73	321.79	-131.97	0
10200	2.393	115.245	10192.51	-153.51	325.56	-133.52	0
10300	2.393	115.245	10292.42	-155.29	329.34	-135.07	0
10348.13	2.393	115.245	10340.51	-156.15	331.16	-135.82	0
10400	1.615	115.245	10392.34	-156.92	332.8	-136.49	1.5
10507.67	0	0.005	10500	-157.57	334.17	-137.05	1.5
10600	0	0	10592.33	-157.57	334.17	-137.05	0
10700	0	0	10692.33	-157.57	334.17	-137.05	0
10800	0	0	10792.33	-157.57	334.17	-137.05	0
10900	0	0	10892.33	-157.57	334.17	-137.05	0
11000	0	0	10992.33	-157.57	334.17	-137.05	0
11100	0	0	11092.33	-157.57	334.17	-137.05	0
11200	0	0	11192.33	-157.57	334.17	-137.05	0
11210.78	0	0.005	11203.11	-157.57	334.17	-137.05	0
11250	3.922	359.702	11242.3	-156.23	334.16	-135.71	10
11300	8.922	359.702	11291.97	-150.64	334.13	-130.14	10
11350	13.922	359.702	11340.96	-140.74	334.08	-120.26	10
11400	18.922	359.702	11388.91	-126.61	334.01	-106.16	10
11450	23.922	359.702	11435.44	-108.35	333.91	-87.94	10
11500	28.922	359.702	11480.2	-86.11	333.8	-65.75	10
11550	33.922	359.702	11522.86	-60.05	333.66	-39.75	10
11600	38.922	359.702	11563.08	-30.38	333.51	-10.13	10
11650	43.922	359.702	11600.56	2.69	333.34	22.87	10
11700	48.922	359.702	11635.01	38.9	333.15	59	10

11750	53.922	359.702	11666.18	77.98	332.94	97.99	10
11800	58.922	359.702	11693.83	119.62	332.73	139.54	10
11850	63.922	359.702	11717.74	163.51	332.5	183.34	10
11900	68.922	359.702	11737.73	209.32	332.26	229.05	10
11950	73.922	359.702	11753.66	256.7	332.01	276.33	10
12000	78.922	359.702	11765.39	305.29	331.76	324.81	10
12050	83.922	359.702	11772.85	354.71	331.5	374.13	10
12100	88.922	359.702	11775.97	404.6	331.24	423.91	10
12112.38	90.16	359.702	11776.07	416.98	331.18	436.26	10
12200	90.16	359.702	11775.82	504.6	330.72	523.69	0
12300	90.16	359.702	11775.54	604.6	330.2	623.48	0
12400	90.16	359.702	11775.26	704.59	329.68	723.26	0
12500	90.16	359.702	11774.98	804.59	329.16	823.04	0
12600	90.16	359.702	11774.7	904.59	328.64	922.83	0
12700	90.16	359.702	11774.43	1004.59	328.12	1022.61	0
12800	90.16	359.702	11774.15	1104.59	327.6	1122.39	0
12900	90.16	359.702	11773.87	1204.59	327.08	1222.18	0
13000	90.16	359.702	11773.59	1304.58	326.56	1321.96	0
13100	90.16	359.702	11773.31	1404.58	326.04	1421.74	0
13200	90.16	359.702	11773.03	1504.58	325.52	1521.53	0
13300	90.16	359.702	11772.75	1604.58	325	1621.31	0
13400	90.16	359.702	11772.47	1704.58	324.48	1721.09	0
13500	90.16	359.702	11772.19	1804.58	323.96	1820.88	0
13600	90.16	359.702	11771.91	1904.57	323.44	1920.66	0
13700	90.16	359.702	11771.63	2004.57	322.92	2020.44	0
13800	90.16	359.702	11771.36	2104.57	322.4	2120.23	0
13900	90.16	359.702	11771.08	2204.57	321.88	2220.01	0
14000	90.16	359.702	11770.8	2304.57	321.35	2319.79	0
14100	90.16	359.702	11770.52	2404.57	320.83	2419.58	0
14200	90.16	359.702	11770.24	2504.56	320.31	2519.36	0
14300	90.16	359.702	11769.96	2604.56	319.79	2619.14	0
14400	90.16	359.702	11769.68	2704.56	319.27	2718.93	0
14500	90.16	359.702	11769.4	2804.56	318.75	2818.71	0
14600	90.16	359.702	11769.12	2904.56	318.23	2918.49	0
14700	90.16	359.702	11768.84	3004.55	317.71	3018.28	0
14800	90.16	359.702	11768.56	3104.55	317.19	3118.06	0
14900	90.16	359.702	11768.29	3204.55	316.67	3217.84	0
15000	90.16	359.702	11768.01	3304.55	316.15	3317.63	0
15100	90.16	359.702	11767.73	3404.55	315.63	3417.41	0
15200	90.16	359.702	11767.45	3504.55	315.11	3517.19	0
15300	90.16	359.702	11767.17	3604.54	314.59	3616.98	0
15400	90.16	359.702	11766.89	3704.54	314.07	3716.76	0
15500	90.16	359.702	11766.61	3804.54	313.55	3816.54	0
15600	90.16	359.702	11766.33	3904.54	313.03	3916.33	0
15700	90.16	359.702	11766.05	4004.54	312.51	4016.11	0
15800	90.16	359.702	11765.77	4104.54	311.99	4115.89	0
15900	90.16	359.702	11765.49	4204.53	311.47	4215.68	0

16000	90.16	359.702	11765.22	4304.53	310.94	4315.46	0
16100	90.16	359.702	11764.94	4404.53	310.42	4415.24	0
16200	90.16	359.702	11764.66	4504.53	309.9	4515.03	0
16300	90.16	359.702	11764.38	4604.53	309.38	4614.81	0
16400	90.16	359.702	11764.1	4704.52	308.86	4714.59	0
16500	90.16	359.702	11763.82	4804.52	308.34	4814.38	0
16600	90.16	359.702	11763.54	4904.52	307.82	4914.16	0
16700	90.16	359.702	11763.26	5004.52	307.3	5013.94	0
16757.88	90.16	359.702	11763.1	5062.4	307	5071.7	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 3.470- (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 16757.88ft.,
the Bottom Hole Displacement is 5071.70ft., in the Direction of 3.470- (Grid).