

TITUS

OIL GAS LLC

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DISTRICT II-ARTESIA O.C.D.

Titus Oil & Gas Production, LLC

Eddy County, NM (NAD83-NME)

A01 Todd DSU

Todd 2-24S-31E State 203H

203H

Plan #1-Rev0

Anticollision Report

31 May, 2019

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference	Plan #1-Rev0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum separation factor of 12.00	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 5/31/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,246.27	Plan #1-Rev0 (203H)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
A01 Todd DSU						
Todd 2-24S-31E State 202H - 202H - Plan #1-Rev0	1,500.00	1,500.00	60.20	53.74	9.316	CC, ES
Todd 2-24S-31E State 202H - 202H - Plan #1-Rev0	15,246.27	15,221.13	1,537.15	1,347.10	8.088	SF
Todd 2-24S-31E State 207H - 207H - Plan #1-Rev0	2,102.51	2,102.48	44.71	35.73	4.976	CC
Todd 2-24S-31E State 207H - 207H - Plan #1-Rev0	2,300.00	2,299.86	45.20	35.30	4.564	ES
Todd 2-24S-31E State 207H - 207H - Plan #1-Rev0	15,244.39	15,512.18	359.20	222.70	2.631	SF
Todd 2-24S-31E State 304H - 304H - Plan #1-Rev0	1,500.00	1,500.00	30.10	23.64	4.658	CC, ES, SF
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,500.85	1,501.85	54.53	48.06	8.431	CC
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,600.00	1,601.21	54.75	47.87	7.962	ES
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,890.25	1,891.43	59.28	51.25	7.387	SF
Todd 2-24S-31E State 434H - 434H - Plan #1-Rev0	1,500.00	1,500.98	75.32	68.86	11.652	CC, ES
Todd 2-24S-31E State 434H - 434H - Plan #1-Rev0	1,600.00	1,599.00	77.44	70.57	11.274	SF

Offset Design		A01 Todd DSU - Todd 2-24S-31E State 202H - 202H - Plan #1-Rev0										Offset Site Error:		0.00 usft
Survey Program:		O-MWD										Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.48	-0.50	-60.20	60.20	55.09	5.11	11.773	9.316 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.48	-0.50	-60.20	60.20	54.64	5.56	10.822		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.48	-0.50	-60.20	60.20	54.19	6.01	10.013		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.48	-0.50	-60.20	60.20	53.74	6.46	9.316		
1,600.00	1,599.99	1,598.44	1,598.43	3.44	3.43	164.46	-0.85	-61.42	62.71	55.83	6.87	9.126		
1,700.00	1,699.91	1,696.51	1,696.43	3.63	3.63	164.45	-1.88	-65.06	70.21	62.96	7.25	9.684		
1,800.00	1,799.69	1,793.86	1,793.57	3.84	3.82	164.44	-3.58	-71.07	82.67	75.04	7.63	10.832		
13,500.00	10,173.00	13,476.74	10,140.41	65.40	65.36	-88.79	3,266.69	-812.85	1,538.92	1,409.91	129.01	11.929		
13,600.00	10,172.34	13,576.74	10,139.53	67.10	67.06	-88.78	3,366.68	-813.25	1,538.82	1,406.38	132.44	11.619		
13,700.00	10,171.68	13,676.74	10,138.66	68.80	68.76	-88.77	3,466.68	-813.66	1,538.72	1,402.83	135.89	11.324		
13,800.00	10,171.02	13,776.74	10,137.79	70.51	70.47	-88.76	3,566.67	-814.06	1,538.62	1,399.28	139.34	11.042		
13,900.00	10,170.35	13,876.74	10,136.91	72.22	72.18	-88.75	3,666.67	-814.47	1,538.52	1,395.71	142.80	10.774		
14,000.00	10,169.69	13,976.74	10,136.04	73.94	73.90	-88.75	3,766.66	-814.87	1,538.41	1,392.14	146.28	10.517		
14,100.00	10,169.03	14,076.74	10,135.17	75.67	75.63	-88.74	3,866.66	-815.28	1,538.31	1,388.55	149.76	10.272		
14,200.00	10,168.37	14,176.74	10,134.30	77.40	77.36	-88.73	3,966.65	-815.68	1,538.21	1,384.96	153.25	10.037		
14,300.00	10,167.70	14,276.74	10,133.42	79.13	79.09	-88.72	4,066.65	-816.08	1,538.11	1,381.36	156.75	9.813		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 202H - 202H - Plan #1-Rev0												Offset Well Error:	0.00 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,400.00	10,167.04	14,376.74	10,132.55	80.87	80.83	-88.72	4,166.64	-816.49	1,538.01	1,377.75	160.25	9.597	
14,500.00	10,166.38	14,476.74	10,131.68	82.61	82.57	-88.71	4,266.64	-816.89	1,537.91	1,374.14	163.77	9.391	
14,600.00	10,165.72	14,576.74	10,130.80	84.36	84.32	-88.70	4,366.63	-817.30	1,537.80	1,370.52	167.28	9.193	
14,700.00	10,165.06	14,676.74	10,129.93	86.11	86.07	-88.69	4,466.63	-817.70	1,537.70	1,366.89	170.81	9.003	
14,800.00	10,164.39	14,776.74	10,129.06	87.86	87.82	-88.68	4,566.62	-818.10	1,537.60	1,363.26	174.34	8.820	
14,900.00	10,163.73	14,876.74	10,128.19	89.61	89.58	-88.68	4,666.62	-818.51	1,537.50	1,359.63	177.87	8.644	
15,000.00	10,163.07	14,976.73	10,127.31	91.37	91.33	-88.67	4,766.61	-818.91	1,537.40	1,355.99	181.41	8.475	
15,100.00	10,162.41	15,076.73	10,126.44	93.13	93.10	-88.66	4,866.61	-819.32	1,537.30	1,352.34	184.96	8.312	
15,200.00	10,161.75	15,176.73	10,125.57	94.90	94.86	-88.65	4,966.60	-819.72	1,537.20	1,348.69	188.51	8.155	
15,246.01	10,161.44	15,221.13	10,125.18	95.71	95.66	-88.65	5,011.00	-819.90	1,537.15	1,347.11	190.04	8.088	
15,246.27	10,161.44	15,221.13	10,125.18	95.72	95.66	-88.65	5,011.00	-819.90	1,537.15	1,347.10	190.05	8.088 SF	

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Well Error:	0.00 usft	Output errors are at	2.00 sigma
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Offset Design													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	-179.87	-45.30	-0.10	45.30	41.08	4.22	10.743		
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.33	-179.87	-45.30	-0.10	45.30	40.63	4.67	9.708		
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	-179.87	-45.30	-0.10	45.30	40.18	5.12	8.855		
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.78	-179.87	-45.30	-0.10	45.30	39.73	5.57	8.140		
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	-179.87	-45.30	-0.10	45.30	39.29	6.01	7.532		
1,416.33	1,416.33	1,417.33	1,417.33	3.04	3.05	-179.87	-45.30	-0.10	45.30	39.21	6.09	7.441		
1,500.00	1,500.00	1,501.00	1,501.00	3.23	3.23	-179.87	-45.30	-0.10	45.30	38.84	6.46	7.008		
1,600.00	1,599.99	1,600.66	1,600.65	3.44	3.44	75.05	-45.68	1.17	45.34	38.46	6.88	6.593		
1,700.00	1,699.91	1,700.32	1,700.23	3.63	3.63	75.06	-46.80	4.93	45.45	38.18	7.26	6.256		
1,800.00	1,799.69	1,800.11	1,799.82	3.84	3.83	75.34	-48.62	11.01	45.57	37.90	7.67	5.944		
1,890.25	1,889.58	1,890.34	1,889.84	4.03	4.02	77.79	-50.39	16.95	45.27	37.23	8.05	5.627		
1,900.00	1,899.27	1,900.09	1,899.55	4.05	4.04	78.20	-50.58	17.59	45.22	37.14	8.09	5.592		
2,000.00	1,998.75	2,000.03	1,999.26	4.27	4.25	82.43	-52.54	24.17	44.84	36.32	8.52	5.261		
2,100.00	2,098.23	2,099.97	2,098.97	4.50	4.47	86.72	-54.50	30.75	44.71	35.74	8.97	4.982		
2,102.51	2,100.73	2,102.48	2,101.47	4.51	4.48	86.83	-54.55	30.91	44.71	35.73	8.99	4.976 CC		
2,200.00	2,197.71	2,199.92	2,198.68	4.74	4.69	91.00	-56.47	37.32	44.83	35.40	9.43	4.752		
2,300.00	2,297.18	2,299.86	2,298.39	4.98	4.92	95.24	-58.43	43.90	45.20	35.30	9.90	4.564 ES		
2,400.00	2,396.66	2,399.80	2,398.09	5.23	5.15	99.39	-60.39	50.48	45.81	35.43	10.38	4.415		
2,500.00	2,496.14	2,499.75	2,497.80	5.49	5.38	103.41	-62.35	57.05	46.65	35.80	10.85	4.299		
2,600.00	2,595.62	2,599.69	2,597.51	5.74	5.61	107.26	-64.32	63.63	47.72	36.39	11.33	4.213		
2,700.00	2,695.10	2,699.64	2,697.22	6.00	5.85	110.94	-66.28	70.21	48.99	37.19	11.80	4.151		
2,800.00	2,794.58	2,799.58	2,796.92	6.26	6.08	114.41	-68.24	76.78	50.45	38.18	12.28	4.110		
2,900.00	2,894.06	2,899.52	2,896.63	6.53	6.32	117.68	-70.20	83.36	52.09	39.34	12.75	4.086		
3,000.00	2,993.53	2,999.47	2,996.34	6.80	6.56	120.74	-72.17	89.94	53.89	40.67	13.22	4.077		
3,100.00	3,093.01	3,099.41	3,096.05	7.07	6.80	123.59	-74.13	96.51	55.83	42.15	13.68	4.080		
3,200.00	3,192.49	3,199.35	3,195.76	7.34	7.05	126.25	-76.09	103.09	57.90	43.75	14.15	4.093		
3,300.00	3,291.97	3,299.30	3,295.46	7.61	7.29	128.72	-78.05	109.67	60.08	45.47	14.61	4.113		
3,400.00	3,391.45	3,399.24	3,395.17	7.88	7.53	131.01	-80.02	116.24	62.37	47.30	15.07	4.140		
3,500.00	3,490.93	3,499.19	3,494.88	8.16	7.78	133.14	-81.98	122.82	64.75	49.23	15.52	4.171		
3,600.00	3,590.41	3,599.13	3,594.59	8.44	8.03	135.11	-83.94	129.40	67.21	51.23	15.98	4.206		
3,700.00	3,689.88	3,699.07	3,694.30	8.71	8.27	136.94	-85.90	135.97	69.75	53.32	16.43	4.244		
3,800.00	3,789.36	3,799.02	3,794.00	8.99	8.52	138.64	-87.87	142.55	72.36	55.47	16.89	4.284		
3,900.00	3,888.84	3,898.96	3,893.71	9.27	8.77	140.23	-89.83	149.13	75.02	57.68	17.34	4.326		
4,000.00	3,988.32	3,998.91	3,993.42	9.55	9.02	141.70	-91.79	155.70	77.74	59.94	17.80	4.368		
4,100.00	4,087.80	4,098.85	4,093.13	9.83	9.26	143.07	-93.75	162.28	80.50	62.25	18.25	4.411		
4,200.00	4,187.28	4,198.79	4,192.84	10.11	9.51	144.35	-95.71	168.86	83.31	64.61	18.70	4.455		
4,300.00	4,286.76	4,298.74	4,292.54	10.39	9.76	145.55	-97.68	175.44	86.15	67.00	19.15	4.498		
4,400.00	4,386.23	4,398.68	4,392.25	10.68	10.01	146.67	-99.64	182.01	89.04	69.43	19.61	4.541		
4,500.00	4,485.71	4,498.62	4,491.96	10.96	10.26	147.72	-101.60	188.59	91.95	71.89	20.06	4.584		
4,600.00	4,585.19	4,598.57	4,591.67	11.24	10.51	148.70	-103.56	195.17	94.89	74.38	20.51	4.626		
4,700.00	4,684.67	4,698.51	4,691.37	11.53	10.77	149.63	-105.53	201.74	97.86	76.89	20.97	4.667		
4,800.00	4,784.15	4,798.46	4,791.08	11.81	11.02	150.50	-107.49	208.32	100.85	79.43	21.42	4.708		
4,900.00	4,883.63	4,898.40	4,890.79	12.09	11.27	151.32	-109.45	214.90	103.87	81.99	21.88	4.748		
5,000.00	4,983.11	4,998.34	4,990.50	12.38	11.52	152.09	-111.41	221.47	106.90	84.57	22.33	4.787		
5,100.00	5,082.58	5,098.29	5,090.21	12.66	11.77	152.82	-113.38	228.05	109.96	87.17	22.78	4.826		
5,200.00	5,182.06	5,198.23	5,189.91	12.95	12.03	153.51	-115.34	234.63	113.03	89.79	23.24	4.864		
5,300.00	5,281.54	5,298.18	5,289.62	13.24	12.28	154.17	-117.30	241.20	116.11	92.42	23.69	4.900		
5,400.00	5,381.02	5,398.12	5,389.33	13.52	12.53	154.79	-119.26	247.78	119.21	95.06	24.15	4.936		
5,500.00	5,480.50	5,498.06	5,489.04	13.81	12.78	155.38	-121.23	254.36	122.32	97.72	24.61	4.971		
5,600.00	5,579.98	5,598.01	5,588.75	14.09	13.04	155.93	-123.19	260.93	125.45	100.39	25.06	5.006		
5,700.00	5,679.46	5,697.95	5,688.45	14.38	13.29	156.47	-125.15	267.51	128.59	103.07	25.52	5.039		
5,800.00	5,778.93	5,797.89	5,788.16	14.67	13.54	156.97	-127.11	274.09	131.73	105.76	25.98	5.071		

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Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,900.00	5,878.41	5,897.84	5,887.87	14.95	13.80	157.46	-129.08	280.66	134.89	108.46	26.43	5.103		
6,000.00	5,977.89	5,997.78	5,987.58	15.24	14.05	157.92	-131.04	287.24	138.06	111.17	26.89	5.134		
6,100.00	6,077.37	6,097.73	6,087.29	15.53	14.30	158.36	-133.00	293.82	141.23	113.88	27.35	5.164		
6,200.00	6,176.85	6,197.67	6,186.99	15.82	14.56	158.78	-134.96	300.39	144.42	116.61	27.81	5.194		
6,300.00	6,276.33	6,297.61	6,286.70	16.10	14.81	159.18	-136.93	306.97	147.61	119.34	28.26	5.222		
6,400.00	6,375.80	6,397.56	6,386.41	16.39	15.07	159.57	-138.89	313.55	150.80	122.08	28.72	5.250		
6,500.00	6,475.28	6,497.50	6,486.12	16.68	15.32	159.94	-140.85	320.12	154.01	124.83	29.18	5.278		
6,600.00	6,574.76	6,597.45	6,585.82	16.97	15.57	160.29	-142.81	326.70	157.22	127.58	29.64	5.304		
6,700.00	6,674.24	6,697.39	6,685.53	17.26	15.83	160.63	-144.77	333.28	160.43	130.33	30.10	5.330		
6,800.00	6,773.72	6,797.33	6,785.24	17.55	16.08	160.96	-146.74	339.85	163.65	133.10	30.56	5.356		
6,900.00	6,873.20	6,897.28	6,884.95	17.83	16.34	161.28	-148.70	346.43	166.88	135.86	31.02	5.380		
7,000.00	6,972.68	6,997.22	6,984.66	18.12	16.59	161.58	-150.66	353.01	170.11	138.63	31.48	5.404		
7,100.00	7,072.15	7,097.16	7,084.36	18.41	16.85	161.87	-152.62	359.58	173.35	141.41	31.94	5.428		
7,200.00	7,171.63	7,197.11	7,184.07	18.70	17.10	162.15	-154.59	366.16	176.59	144.19	32.40	5.451		
7,300.00	7,271.11	7,297.05	7,283.78	18.99	17.36	162.42	-156.55	372.74	179.83	146.97	32.86	5.473		
7,400.00	7,370.59	7,397.00	7,383.49	19.28	17.61	162.68	-158.51	379.31	183.08	149.76	33.32	5.495		
7,500.00	7,470.07	7,496.94	7,483.20	19.57	17.87	162.93	-160.47	385.89	186.33	152.55	33.78	5.516		
7,600.00	7,569.55	7,596.88	7,582.90	19.86	18.12	163.18	-162.44	392.47	189.59	155.35	34.24	5.537		
7,700.00	7,669.03	7,696.83	7,682.61	20.15	18.38	163.41	-164.40	399.04	192.84	158.14	34.70	5.557		
7,800.00	7,768.50	7,796.77	7,782.32	20.43	18.63	163.64	-166.36	405.62	196.11	160.94	35.16	5.577		
7,900.00	7,867.98	7,896.71	7,882.03	20.72	18.89	163.86	-168.32	412.20	199.37	163.75	35.62	5.597		
8,000.00	7,967.46	7,996.66	7,981.74	21.01	19.14	164.07	-170.29	418.77	202.64	166.55	36.08	5.616		
8,100.00	8,066.94	8,096.60	8,081.44	21.30	19.40	164.28	-172.25	425.35	205.91	169.36	36.55	5.634		
8,200.00	8,166.42	8,196.55	8,181.15	21.59	19.65	164.48	-174.21	431.93	209.18	172.17	37.01	5.652		
8,300.00	8,265.90	8,296.49	8,280.86	21.88	19.91	164.67	-176.17	438.50	212.45	174.99	37.47	5.670		
8,400.00	8,365.38	8,396.43	8,380.57	22.17	20.17	164.86	-178.14	445.08	215.73	177.80	37.93	5.687		
8,500.00	8,464.85	8,496.38	8,480.27	22.46	20.42	165.04	-180.10	451.66	219.01	180.62	38.39	5.704		
8,600.00	8,564.33	8,596.32	8,579.98	22.75	20.68	165.22	-182.06	458.23	222.29	183.44	38.86	5.721		
8,700.00	8,663.81	8,696.27	8,679.69	23.04	20.93	165.39	-184.02	464.81	225.58	186.26	39.32	5.737		
8,800.00	8,763.29	8,796.21	8,779.40	23.33	21.19	165.55	-185.99	471.39	228.86	189.08	39.78	5.753		
8,900.00	8,862.77	8,896.15	8,879.11	23.62	21.44	165.72	-187.95	477.96	232.15	191.91	40.24	5.769		
9,000.00	8,962.25	8,996.10	8,978.81	23.91	21.70	165.87	-189.91	484.54	235.44	194.73	40.71	5.784		
9,048.43	9,010.42	9,044.50	9,027.10	24.05	21.82	165.95	-190.86	487.73	237.03	196.10	40.93	5.791		
9,100.00	9,061.76	9,096.05	9,078.53	24.18	21.96	166.01	-191.87	491.12	238.39	197.24	41.16	5.793		
9,200.00	9,161.47	9,196.05	9,178.29	24.39	22.21	166.01	-193.84	497.70	239.11	197.53	41.57	5.752		
9,300.00	9,261.35	9,296.02	9,278.03	24.57	22.47	165.85	-195.80	504.28	237.28	195.29	41.99	5.651		
9,400.00	9,361.32	9,395.92	9,377.69	24.73	22.72	165.51	-197.76	510.85	232.92	190.50	42.41	5.492		
9,438.68	9,400.00	9,434.52	9,416.21	24.80	22.82	-89.60	-198.52	513.39	230.56	187.97	42.58	5.414		
9,500.00	9,461.32	9,493.56	9,475.12	24.90	22.96	-89.87	-199.63	517.10	226.70	183.86	42.84	5.291		
9,600.00	9,561.32	9,588.13	9,569.58	25.06	23.14	-90.20	-200.88	521.32	222.24	179.03	43.21	5.143		
9,700.00	9,661.32	9,682.86	9,664.28	25.23	23.30	-90.35	-201.47	523.29	220.16	176.62	43.55	5.056		
9,754.04	9,715.36	9,734.94	9,716.36	25.33	23.39	-90.36	-201.52	523.45	219.99	176.26	43.73	5.030		
9,775.00	9,736.31	9,755.88	9,737.31	25.36	23.43	-90.19	-201.52	523.45	220.00	176.18	43.82	5.020		
9,800.00	9,761.24	9,780.82	9,762.24	25.40	23.47	-90.64	-201.52	523.45	220.01	176.07	43.94	5.007		
9,825.00	9,786.05	9,805.63	9,787.05	25.43	23.52	-91.43	-201.52	523.45	220.06	175.99	44.08	4.993		
9,850.00	9,810.67	9,830.25	9,811.67	25.47	23.56	-92.52	-201.52	523.45	220.22	175.98	44.23	4.979		
9,875.00	9,835.03	9,854.60	9,836.03	25.50	23.61	-93.91	-201.52	523.45	220.54	176.13	44.41	4.966		
9,900.00	9,859.05	9,878.63	9,860.05	25.52	23.65	-95.55	-201.52	523.45	221.13	176.53	44.61	4.958		
9,925.00	9,882.69	9,902.26	9,883.69	25.55	23.69	-97.41	-201.52	523.45	222.11	177.28	44.83	4.955		
9,950.00	9,905.86	9,925.44	9,906.86	25.57	23.74	-99.45	-201.52	523.45	223.59	178.52	45.07	4.961		
9,975.00	9,928.51	9,948.09	9,929.51	25.59	23.78	-101.61	-201.52	523.45	225.72	180.38	45.34	4.979		
10,000.00	9,950.58	9,970.16	9,951.58	25.61	23.82	-103.83	-201.52	523.45	228.63	183.01	45.62	5.011		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 207H - 207H - Plan #1-Rev0												Offset Well Error:	0.00 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,025.00	9,972.00	9,991.58	9,973.00	25.62	23.86	-106.06	-201.52	523.45	232.47	186.54	45.92	5.062	
10,050.00	9,992.72	10,012.30	9,993.72	25.63	23.90	-108.25	-201.52	523.45	237.35	191.12	46.24	5.133	
10,075.00	10,012.68	10,035.75	10,017.17	25.64	23.94	-110.77	-201.25	523.45	243.31	196.74	46.57	5.225	
10,100.00	10,031.83	10,061.95	10,043.32	25.65	23.98	-113.48	-199.66	523.44	250.03	203.16	46.88	5.334	
10,125.00	10,050.11	10,089.34	10,070.51	25.66	24.03	-116.12	-196.46	523.42	257.40	210.29	47.11	5.463	
10,150.00	10,067.47	10,118.06	10,098.79	25.66	24.07	-118.69	-191.43	523.40	265.32	218.05	47.27	5.613	
10,175.00	10,083.86	10,148.28	10,128.16	25.67	24.11	-121.20	-184.32	523.36	273.68	226.37	47.31	5.784	
10,200.00	10,099.25	10,180.20	10,158.62	25.67	24.15	-123.63	-174.81	523.31	282.38	235.14	47.23	5.978	
10,225.00	10,113.58	10,214.03	10,190.14	25.68	24.19	-125.99	-162.53	523.25	291.28	244.27	47.01	6.196	
10,250.00	10,126.82	10,250.00	10,222.60	25.68	24.23	-128.27	-147.07	523.17	300.28	253.64	46.64	6.439	
10,275.00	10,138.93	10,288.34	10,255.82	25.69	24.26	-130.46	-127.94	523.07	309.21	263.12	46.09	6.709	
10,300.00	10,149.89	10,329.31	10,289.50	25.70	24.30	-132.56	-104.63	522.96	317.94	272.57	45.37	7.007	
10,325.00	10,159.65	10,373.14	10,323.17	25.72	24.33	-134.53	-76.60	522.81	326.31	281.82	44.49	7.334	
10,350.00	10,168.19	10,420.02	10,356.18	25.73	24.35	-136.36	-43.34	522.64	334.13	290.66	43.47	7.686	
10,375.00	10,175.49	10,470.06	10,387.63	25.75	24.38	-138.01	-4.45	522.44	341.24	298.88	42.36	8.056	
10,400.00	10,181.53	10,523.24	10,416.40	25.78	24.42	-139.44	40.24	522.22	347.44	306.19	41.25	8.423	
10,425.00	10,186.30	10,579.38	10,441.19	25.81	24.47	-140.62	90.58	521.96	352.56	312.30	40.26	8.758	
10,450.00	10,189.77	10,638.08	10,460.59	25.85	24.55	-141.52	145.93	521.68	356.42	316.89	39.53	9.016	
10,475.00	10,191.94	10,698.69	10,473.36	25.90	24.67	-142.09	205.15	521.37	358.89	319.66	39.22	9.150	
10,500.00	10,192.81	10,760.41	10,478.54	25.95	24.87	-142.31	266.60	521.06	359.87	320.42	39.44	9.124	
10,505.60	10,192.82	10,774.29	10,478.61	25.96	24.92	-142.32	280.49	520.99	359.88	320.31	39.57	9.096	
10,507.21	10,192.81	10,768.26	10,478.54	25.97	24.90	-142.30	274.46	521.02	359.85	320.35	39.50	9.110	
10,600.00	10,192.20	10,867.91	10,477.98	26.26	25.37	-142.31	374.10	520.51	359.86	319.54	40.32	8.925	
10,700.00	10,191.54	10,967.91	10,477.30	26.73	26.00	-142.31	474.10	520.00	359.85	318.59	41.26	8.722	
10,800.00	10,190.88	11,067.91	10,476.62	27.35	26.75	-142.31	574.10	519.49	359.83	317.51	42.32	8.502	
10,900.00	10,190.21	11,167.91	10,475.94	28.09	27.61	-142.31	674.09	518.98	359.82	316.31	43.51	8.270	
11,000.00	10,189.55	11,267.91	10,475.26	28.95	28.56	-142.31	774.09	518.47	359.80	315.00	44.81	8.030	
11,100.00	10,188.89	11,367.91	10,474.58	29.91	29.59	-142.31	874.09	517.96	359.79	313.58	46.21	7.787	
11,200.00	10,188.23	11,467.91	10,473.90	30.95	30.70	-142.30	974.08	517.45	359.78	312.08	47.70	7.543	
11,300.00	10,187.57	11,567.91	10,473.22	32.07	31.88	-142.30	1,074.08	516.94	359.76	310.49	49.27	7.302	
11,400.00	10,186.90	11,667.91	10,472.54	33.25	33.11	-142.30	1,174.08	516.43	359.75	308.82	50.92	7.064	
11,500.00	10,186.24	11,767.91	10,471.86	34.49	34.40	-142.30	1,274.07	515.92	359.73	307.09	52.64	6.833	
11,600.00	10,185.58	11,867.91	10,471.18	35.79	35.74	-142.30	1,374.07	515.41	359.72	305.29	54.43	6.609	
11,700.00	10,184.92	11,967.91	10,470.50	37.12	37.11	-142.29	1,474.06	514.90	359.70	303.44	56.27	6.393	
11,800.00	10,184.26	12,067.91	10,469.82	38.50	38.52	-142.29	1,574.06	514.38	359.69	301.53	58.16	6.184	
11,900.00	10,183.59	12,167.91	10,469.14	39.92	39.97	-142.29	1,674.06	513.87	359.68	299.58	60.10	5.985	
12,000.00	10,182.93	12,267.91	10,468.46	41.36	41.45	-142.29	1,774.05	513.36	359.66	297.58	62.08	5.794	
12,100.00	10,182.27	12,367.91	10,467.78	42.84	42.95	-142.29	1,874.05	512.85	359.65	295.55	64.10	5.611	
12,200.00	10,181.61	12,467.91	10,467.10	44.34	44.48	-142.29	1,974.05	512.34	359.63	293.48	66.15	5.436	
12,300.00	10,180.95	12,567.91	10,466.42	45.87	46.03	-142.28	2,074.04	511.83	359.62	291.38	68.24	5.270	
12,400.00	10,180.28	12,667.91	10,465.74	47.42	47.60	-142.28	2,174.04	511.32	359.61	289.25	70.35	5.112	
12,500.00	10,179.62	12,767.91	10,465.06	48.98	49.19	-142.28	2,274.04	510.81	359.59	287.10	72.49	4.960	
12,600.00	10,178.96	12,867.91	10,464.38	50.57	50.79	-142.28	2,374.03	510.30	359.58	284.92	74.66	4.816	
12,700.00	10,178.30	12,967.91	10,463.70	52.17	52.41	-142.28	2,474.03	509.79	359.56	282.72	76.84	4.679	
12,800.00	10,177.64	13,067.91	10,463.02	53.78	54.04	-142.27	2,574.03	509.28	359.55	280.50	79.05	4.548	
12,900.00	10,176.97	13,167.91	10,462.33	55.41	55.68	-142.27	2,674.02	508.77	359.53	278.26	81.28	4.424	
13,000.00	10,176.31	13,267.91	10,461.65	57.05	57.34	-142.27	2,774.02	508.26	359.52	276.00	83.52	4.305	
13,100.00	10,175.65	13,367.91	10,460.97	58.70	59.01	-142.27	2,874.01	507.75	359.51	273.73	85.78	4.191	
13,200.00	10,174.99	13,467.91	10,460.29	60.36	60.68	-142.27	2,974.01	507.24	359.49	271.44	88.05	4.083	
13,300.00	10,174.33	13,567.91	10,459.61	62.03	62.36	-142.27	3,074.01	506.73	359.48	269.14	90.34	3.979	
13,400.00	10,173.66	13,667.91	10,458.93	63.71	64.06	-142.26	3,174.00	506.22	359.46	266.83	92.64	3.880	
13,500.00	10,173.00	13,767.91	10,458.25	65.40	65.75	-142.26	3,274.00	505.71	359.45	264.50	94.95	3.786	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 0-MWD													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Distance				Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)		
13,600.00	10,172.34	13,867.91	10,457.57	67.10	67.46	-142.26	3,374.00	505.19	359.43	262.16	97.27	3.695			
13,700.00	10,171.68	13,967.91	10,456.89	68.80	69.17	-142.26	3,473.99	504.68	359.42	259.82	99.60	3.609			
13,800.00	10,171.02	14,067.91	10,456.21	70.51	70.89	-142.26	3,573.99	504.17	359.41	257.46	101.94	3.526			
13,900.00	10,170.35	14,167.91	10,455.53	72.22	72.61	-142.26	3,673.99	503.66	359.39	255.10	104.29	3.446			
14,000.00	10,169.69	14,267.91	10,454.85	73.94	74.34	-142.25	3,773.98	503.15	359.38	252.73	106.65	3.370			
14,100.00	10,169.03	14,367.91	10,454.17	75.67	76.08	-142.25	3,873.98	502.64	359.36	250.35	109.02	3.296			
14,200.00	10,168.37	14,467.91	10,453.49	77.40	77.81	-142.25	3,973.97	502.13	359.35	247.96	111.39	3.226			
14,300.00	10,167.70	14,567.91	10,452.81	79.13	79.56	-142.25	4,073.97	501.62	359.34	245.56	113.77	3.158			
14,400.00	10,167.04	14,667.91	10,452.13	80.87	81.30	-142.25	4,173.97	501.11	359.32	243.16	116.16	3.093			
14,500.00	10,166.38	14,767.91	10,451.45	82.61	83.05	-142.24	4,273.96	500.60	359.31	240.76	118.55	3.031			
14,600.00	10,165.72	14,867.91	10,450.77	84.36	84.80	-142.24	4,373.96	500.09	359.29	238.35	120.95	2.971			
14,700.00	10,165.06	14,967.91	10,450.09	86.11	86.56	-142.24	4,473.96	499.58	359.28	235.93	123.35	2.913			
14,800.00	10,164.39	15,067.91	10,449.41	87.86	88.32	-142.24	4,573.95	499.07	359.26	233.51	125.76	2.857			
14,900.00	10,163.73	15,167.91	10,448.73	89.61	90.08	-142.24	4,673.95	498.56	359.25	231.08	128.17	2.803			
15,000.00	10,163.07	15,267.91	10,448.05	91.37	91.84	-142.24	4,773.95	498.05	359.24	228.65	130.59	2.751			
15,100.00	10,162.41	15,367.91	10,447.37	93.13	93.61	-142.23	4,873.94	497.54	359.22	226.21	133.01	2.701			
15,200.00	10,161.75	15,467.91	10,446.69	94.90	95.38	-142.23	4,973.94	497.03	359.21	223.77	135.44	2.652			
15,244.39	10,161.45	15,512.18	10,446.39	95.68	96.16	-142.23	5,018.20	496.80	359.20	222.70	136.51	2.631 SF			
15,246.27	10,161.44	15,512.18	10,446.39	95.72	96.16	-142.23	5,018.20	496.80	359.21	222.77	136.44	2.633			

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 304H - 304H - Plan #1-Rev0													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
700.00	700.00	700.00	700.00	1.43	1.43	-90.38	-0.20	-30.10	30.10	27.23	2.87	10.504		
800.00	800.00	800.00	800.00	1.66	1.66	-90.38	-0.20	-30.10	30.10	26.79	3.32	9.079		
900.00	900.00	900.00	900.00	1.88	1.88	-90.38	-0.20	-30.10	30.10	26.34	3.76	7.995		
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-90.38	-0.20	-30.10	30.10	25.89	4.21	7.142		
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-90.38	-0.20	-30.10	30.10	25.44	4.66	6.454		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.38	-0.20	-30.10	30.10	24.99	5.11	5.887		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.38	-0.20	-30.10	30.10	24.54	5.56	5.411		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.38	-0.20	-30.10	30.10	24.09	6.01	5.006		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.38	-0.20	-30.10	30.10	23.64	6.46	4.658 CC, ES, SF		
1,600.00	1,599.99	1,599.26	1,599.25	3.44	3.43	164.05	-0.83	-31.22	32.50	25.63	6.87	4.731		
1,700.00	1,699.91	1,698.35	1,698.26	3.63	3.62	162.94	-2.70	-34.55	39.66	32.41	7.25	5.474		
1,800.00	1,799.69	1,797.80	1,797.61	3.84	3.81	162.63	-4.98	-38.61	50.06	42.42	7.63	6.558		
1,890.25	1,889.58	1,887.31	1,887.02	4.03	3.99	163.05	-7.03	-42.26	61.58	53.59	7.99	7.707		
1,900.00	1,899.27	1,896.96	1,896.66	4.05	4.01	163.12	-7.25	-42.65	62.93	54.90	8.03	7.837		
2,000.00	1,998.75	1,995.99	1,995.58	4.27	4.21	163.71	-9.52	-46.70	76.82	68.39	8.43	9.114		
2,100.00	2,098.23	2,095.02	2,094.50	4.50	4.42	164.12	-11.80	-50.74	90.71	81.88	8.83	10.268		
2,200.00	2,197.71	2,194.05	2,193.42	4.74	4.62	164.42	-14.07	-54.78	104.61	95.37	9.25	11.315		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:
A01 Todd DSU - Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0													0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.33	-146.37	-45.40	-30.20	54.53	49.86	4.67	11.686	
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	-146.37	-45.40	-30.20	54.53	49.41	5.12	10.659	
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.78	-146.37	-45.40	-30.20	54.53	48.96	5.57	9.798	
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	-146.37	-45.40	-30.20	54.53	48.51	6.01	9.066	
1,500.00	1,500.00	1,501.00	1,501.00	3.23	3.23	-146.37	-45.40	-30.20	54.53	48.06	6.46	8.435	
1,500.85	1,500.85	1,501.85	1,501.85	3.23	3.23	108.57	-45.40	-30.20	54.53	48.06	6.47	8.431 CC	
1,600.00	1,599.99	1,601.21	1,601.20	3.44	3.44	108.48	-45.97	-28.99	54.75	47.87	6.88	7.962 ES	
1,700.00	1,699.91	1,701.33	1,701.24	3.63	3.63	108.50	-47.56	-25.61	55.45	48.19	7.26	7.639	
1,800.00	1,799.69	1,801.29	1,801.12	3.84	3.82	110.56	-49.35	-21.83	56.96	49.31	7.66	7.441	
1,890.25	1,889.58	1,891.43	1,891.18	4.03	4.00	114.32	-50.95	-18.43	59.28	51.25	8.02	7.387 SF	
1,900.00	1,899.27	1,901.16	1,900.90	4.05	4.02	114.82	-51.12	-18.06	59.59	51.53	8.06	7.389	
2,000.00	1,998.75	2,000.97	2,000.63	4.27	4.23	119.57	-52.90	-14.29	63.04	54.56	8.48	7.431	
2,100.00	2,098.23	2,100.78	2,100.35	4.50	4.43	123.80	-54.68	-10.52	66.88	57.98	8.91	7.507	
2,200.00	2,197.71	2,200.59	2,200.07	4.74	4.64	127.56	-56.46	-6.75	71.05	61.71	9.34	7.607	
2,300.00	2,297.18	2,300.40	2,299.80	4.98	4.85	130.89	-58.23	-2.98	75.49	65.71	9.77	7.723	
2,400.00	2,396.66	2,400.21	2,399.52	5.23	5.07	133.84	-60.01	0.79	80.15	69.94	10.21	7.850	
2,500.00	2,496.14	2,500.03	2,499.25	5.49	5.28	136.46	-61.79	4.56	85.00	74.35	10.65	7.982	
2,600.00	2,595.62	2,599.84	2,598.97	5.74	5.50	138.79	-63.57	8.33	90.01	78.92	11.09	8.116	
2,700.00	2,695.10	2,699.65	2,698.69	6.00	5.72	140.88	-65.34	12.10	95.15	83.62	11.53	8.251	
2,800.00	2,794.58	2,799.46	2,798.42	6.26	5.94	142.75	-67.12	15.86	100.41	88.43	11.98	8.384	
2,900.00	2,894.06	2,899.27	2,898.14	6.53	6.17	144.43	-68.90	19.63	105.76	93.34	12.42	8.515	
3,000.00	2,993.53	2,999.08	2,997.87	6.80	6.39	145.95	-70.68	23.40	111.19	98.33	12.87	8.643	
3,100.00	3,093.01	3,098.89	3,097.59	7.07	6.61	147.33	-72.45	27.17	116.70	103.38	13.31	8.766	
3,200.00	3,192.49	3,198.70	3,197.31	7.34	6.84	148.58	-74.23	30.94	122.26	108.50	13.76	8.886	
3,300.00	3,291.97	3,298.51	3,297.04	7.61	7.06	149.72	-76.01	34.71	127.88	113.67	14.21	9.001	
3,400.00	3,391.45	3,398.32	3,396.76	7.88	7.29	150.77	-77.79	38.48	133.55	118.89	14.66	9.111	
3,500.00	3,490.93	3,498.13	3,496.48	8.16	7.52	151.73	-79.56	42.25	139.25	124.15	15.11	9.218	
3,600.00	3,590.41	3,597.95	3,596.21	8.44	7.75	152.62	-81.34	46.02	145.00	129.44	15.56	9.320	
3,700.00	3,689.88	3,697.76	3,695.93	8.71	7.97	153.43	-83.12	49.79	150.77	134.76	16.01	9.418	
3,800.00	3,789.36	3,797.57	3,795.66	8.99	8.20	154.19	-84.90	53.56	156.57	140.11	16.46	9.512	
3,900.00	3,888.84	3,897.38	3,895.38	9.27	8.43	154.89	-86.67	57.33	162.40	145.49	16.91	9.602	
4,000.00	3,988.32	3,997.19	3,995.10	9.55	8.66	155.55	-88.45	61.10	168.25	150.88	17.37	9.688	
4,100.00	4,087.80	4,097.00	4,094.83	9.83	8.89	156.16	-90.23	64.87	174.12	156.30	17.82	9.771	
4,200.00	4,187.28	4,196.81	4,194.55	10.11	9.12	156.73	-92.01	68.64	180.01	161.74	18.27	9.850	
4,300.00	4,286.76	4,296.62	4,294.28	10.39	9.35	157.26	-93.78	72.41	185.92	167.19	18.73	9.927	
4,400.00	4,386.23	4,396.43	4,394.00	10.68	9.59	157.76	-95.56	76.18	191.84	172.65	19.18	10.000	
4,500.00	4,485.71	4,496.24	4,493.72	10.96	9.82	158.23	-97.34	79.95	197.77	178.13	19.64	10.070	
4,600.00	4,585.19	4,596.05	4,593.45	11.24	10.05	158.68	-99.11	83.72	203.72	183.62	20.10	10.138	
4,700.00	4,684.67	4,695.87	4,693.17	11.53	10.28	159.09	-100.89	87.49	209.68	189.13	20.55	10.202	
4,800.00	4,784.15	4,795.68	4,792.90	11.81	10.51	159.49	-102.67	91.26	215.65	194.64	21.01	10.265	
4,900.00	4,883.63	4,895.49	4,892.62	12.09	10.75	159.86	-104.45	95.03	221.63	200.16	21.47	10.325	
5,000.00	4,983.11	4,995.30	4,992.34	12.38	10.98	160.22	-106.22	98.80	227.61	205.69	21.92	10.383	
5,100.00	5,082.58	5,095.11	5,092.07	12.66	11.21	160.55	-108.00	102.56	233.61	211.23	22.38	10.438	
5,200.00	5,182.06	5,194.92	5,191.79	12.95	11.45	160.87	-109.78	106.33	239.61	216.78	22.84	10.492	
5,300.00	5,281.54	5,294.73	5,291.51	13.24	11.68	161.18	-111.56	110.10	245.62	222.33	23.30	10.544	
5,400.00	5,381.02	5,394.54	5,391.24	13.52	11.91	161.47	-113.33	113.87	251.64	227.89	23.75	10.594	
5,500.00	5,480.50	5,494.35	5,490.96	13.81	12.15	161.74	-115.11	117.64	257.66	233.45	24.21	10.642	
5,600.00	5,579.98	5,594.16	5,590.69	14.09	12.38	162.01	-116.89	121.41	263.69	239.02	24.67	10.688	
5,700.00	5,679.46	5,693.98	5,690.41	14.38	12.61	162.26	-118.67	125.18	269.73	244.60	25.13	10.733	
5,800.00	5,778.93	5,793.79	5,790.13	14.67	12.85	162.50	-120.44	128.95	275.77	250.18	25.59	10.777	
5,900.00	5,878.41	5,893.60	5,889.86	14.95	13.08	162.73	-122.22	132.72	281.81	255.76	26.05	10.818	
6,000.00	5,977.89	5,993.41	5,989.58	15.24	13.32	162.95	-124.00	136.49	287.86	261.35	26.51	10.859	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0												Offset Well Error:	0.00 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,100.00	6,077.37	6,093.22	6,089.31	15.53	13.55	163.16	-125.78	140.26	293.91	266.94	26.97	10.898	
6,200.00	6,176.85	6,193.03	6,189.03	15.82	13.78	163.36	-127.55	144.03	299.97	272.54	27.43	10.936	
6,300.00	6,276.33	6,292.84	6,288.75	16.10	14.02	163.56	-129.33	147.80	306.03	278.14	27.89	10.973	
6,400.00	6,375.80	6,392.65	6,388.48	16.39	14.25	163.74	-131.11	151.57	312.09	283.74	28.35	11.009	
6,500.00	6,475.28	6,492.46	6,488.20	16.68	14.49	163.92	-132.89	155.34	318.16	289.35	28.81	11.044	
6,600.00	6,574.76	6,592.27	6,587.93	16.97	14.72	164.10	-134.66	159.11	324.23	294.96	29.27	11.077	
6,700.00	6,674.24	6,692.08	6,687.65	17.26	14.96	164.26	-136.44	162.88	330.30	300.57	29.73	11.110	
6,800.00	6,773.72	6,791.90	6,787.37	17.55	15.19	164.42	-138.22	166.65	336.37	306.18	30.19	11.141	
6,900.00	6,873.20	6,891.71	6,887.10	17.83	15.43	164.58	-140.00	170.42	342.45	311.80	30.65	11.172	
7,000.00	6,972.68	6,991.52	6,986.82	18.12	15.66	164.73	-141.77	174.19	348.53	317.42	31.11	11.202	
7,100.00	7,072.15	7,091.33	7,086.54	18.41	15.90	164.87	-143.55	177.96	354.61	323.04	31.58	11.231	
7,200.00	7,171.63	7,191.14	7,186.27	18.70	16.13	165.01	-145.33	181.73	360.70	328.66	32.04	11.259	
7,300.00	7,271.11	7,290.95	7,285.99	18.99	16.37	165.15	-147.11	185.50	366.78	334.28	32.50	11.286	
7,400.00	7,370.59	7,390.76	7,385.72	19.28	16.60	165.28	-148.88	189.27	372.87	339.91	32.96	11.313	
7,500.00	7,470.07	7,490.57	7,485.44	19.57	16.84	165.41	-150.66	193.03	378.96	345.54	33.42	11.339	
7,600.00	7,569.55	7,590.38	7,585.16	19.86	17.08	165.53	-152.44	196.80	385.05	351.17	33.88	11.364	
7,700.00	7,669.03	7,690.19	7,684.89	20.15	17.31	165.65	-154.22	200.57	391.15	356.80	34.35	11.389	
7,800.00	7,768.50	7,790.00	7,784.61	20.43	17.55	165.76	-155.99	204.34	397.24	362.43	34.81	11.413	
7,900.00	7,867.98	7,889.82	7,884.34	20.72	17.78	165.87	-157.77	208.11	403.34	368.07	35.27	11.436	
8,000.00	7,967.46	7,989.63	7,984.06	21.01	18.02	165.98	-159.55	211.88	409.44	373.71	35.73	11.459	
8,100.00	8,066.94	8,089.44	8,083.78	21.30	18.25	166.09	-161.33	215.65	415.54	379.34	36.19	11.481	
8,200.00	8,166.42	8,189.25	8,183.51	21.59	18.49	166.19	-163.10	219.42	421.64	384.98	36.66	11.503	
8,300.00	8,265.90	8,289.06	8,283.23	21.88	18.73	166.29	-164.88	223.19	427.74	390.62	37.12	11.524	
8,400.00	8,365.38	8,388.87	8,382.96	22.17	18.96	166.38	-166.66	226.96	433.84	396.26	37.58	11.544	
8,500.00	8,464.85	8,488.68	8,482.68	22.46	19.20	166.48	-168.44	230.73	439.95	401.90	38.04	11.564	
8,600.00	8,564.33	8,588.49	8,582.40	22.75	19.43	166.57	-170.21	234.50	446.05	407.55	38.51	11.584	
8,700.00	8,663.81	8,688.30	8,682.13	23.04	19.67	166.66	-171.99	238.27	452.16	413.19	38.97	11.603	
8,800.00	8,763.29	8,788.11	8,781.85	23.33	19.90	166.74	-173.77	242.04	458.27	418.84	39.43	11.622	
8,900.00	8,862.77	8,887.93	8,881.57	23.62	20.14	166.83	-175.55	245.81	464.38	424.48	39.89	11.640	
9,000.00	8,962.25	8,987.74	8,981.30	23.91	20.38	166.91	-177.32	249.58	470.49	430.13	40.36	11.658	
9,048.43	9,010.42	9,036.08	9,029.60	24.05	20.49	166.95	-178.18	251.40	473.45	432.87	40.58	11.667	
9,100.00	9,061.76	9,087.57	9,081.04	24.18	20.61	166.99	-179.10	253.35	476.26	435.45	40.81	11.671	
9,200.00	9,161.47	9,187.50	9,180.89	24.39	20.85	167.01	-180.88	257.12	479.78	438.57	41.22	11.640	
9,300.00	9,261.35	9,287.49	9,280.79	24.57	21.09	166.95	-182.66	260.90	480.76	439.13	41.63	11.549	
9,400.00	9,361.32	9,387.47	9,380.69	24.73	21.32	166.81	-184.44	264.68	479.18	437.15	42.04	11.399	
9,438.68	9,400.00	9,426.13	9,419.31	24.80	21.41	-88.20	-185.13	266.14	477.89	435.69	42.20	11.325	
9,500.00	9,461.32	9,487.39	9,480.52	24.90	21.56	-88.32	-186.22	268.45	475.54	433.08	42.46	11.200	
9,600.00	9,561.32	9,587.30	9,580.34	25.06	21.80	-88.53	-188.00	272.22	471.72	428.83	42.89	10.999	
9,700.00	9,661.32	9,687.22	9,680.17	25.23	22.03	-88.73	-189.78	276.00	467.90	424.58	43.32	10.802	
9,754.04	9,715.36	9,741.21	9,734.12	25.33	22.16	-88.85	-190.74	278.04	465.84	422.29	43.55	10.697	
9,775.00	9,736.31	9,762.14	9,755.02	25.36	22.21	-88.75	-191.11	278.83	465.03	421.39	43.64	10.656	
9,800.00	9,761.24	9,787.02	9,779.88	25.40	22.27	-89.14	-191.56	279.77	464.04	420.29	43.75	10.606	
9,825.00	9,786.05	9,811.75	9,804.60	25.43	22.33	-89.68	-192.00	280.70	463.05	419.19	43.87	10.555	
9,850.00	9,810.67	9,836.27	9,829.09	25.47	22.38	-90.38	-192.43	281.63	462.10	418.11	43.99	10.504	
9,875.00	9,835.03	9,860.50	9,853.30	25.50	22.44	-91.22	-192.87	282.54	461.21	417.10	44.12	10.454	
9,900.00	9,859.05	9,884.38	9,877.16	25.52	22.50	-92.18	-193.29	283.44	460.46	416.21	44.25	10.407	
9,925.00	9,882.69	9,907.85	9,900.61	25.55	22.55	-93.25	-193.71	284.33	459.89	415.51	44.38	10.362	
9,950.00	9,905.86	9,930.84	9,923.58	25.57	22.61	-94.41	-194.12	285.20	459.58	415.06	44.52	10.323	
9,960.86	9,915.77	9,940.66	9,933.39	25.58	22.63	-94.94	-194.29	285.57	459.55	414.96	44.58	10.308	
9,975.00	9,928.51	9,953.28	9,946.00	25.59	22.66	-95.64	-194.52	286.04	459.61	414.94	44.66	10.290	
10,000.00	9,950.58	9,975.12	9,967.82	25.61	22.71	-96.91	-194.91	286.87	460.06	415.25	44.81	10.266	
10,025.00	9,972.00	9,996.29	9,988.97	25.62	22.76	-98.20	-195.28	287.67	461.01	416.05	44.96	10.253	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0												Offset Well Error:	0.00 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,050.00	9,992.72	10,016.74	10,009.40	25.63	22.81	-99.47	-195.65	288.44	462.57	417.45	45.12	10.252	
10,075.00	10,012.68	10,036.41	10,029.06	25.64	22.86	-100.70	-196.00	289.18	464.82	419.54	45.28	10.266	
10,100.00	10,031.83	10,055.25	10,047.88	25.65	22.90	-101.86	-196.33	289.90	467.83	422.40	45.44	10.296	
10,125.00	10,050.11	10,073.20	10,065.82	25.66	22.95	-102.92	-196.65	290.57	471.70	426.10	45.60	10.345	
10,150.00	10,067.47	10,090.22	10,082.83	25.66	22.99	-103.86	-196.96	291.22	476.49	430.74	45.76	10.413	
10,175.00	10,083.86	10,106.26	10,098.85	25.67	23.02	-104.65	-197.24	291.82	482.27	436.36	45.91	10.504	
10,200.00	10,099.25	10,121.28	10,113.86	25.67	23.06	-105.27	-197.51	292.39	489.08	443.01	46.07	10.616	
10,225.00	10,113.58	10,135.23	10,127.79	25.68	23.09	-105.69	-197.76	292.92	496.96	450.74	46.22	10.753	
10,250.00	10,126.82	10,148.08	10,140.63	25.68	23.12	-105.89	-197.99	293.40	505.92	459.56	46.36	10.914	
10,275.00	10,138.93	10,159.79	10,152.33	25.69	23.15	-105.86	-198.20	293.84	515.97	469.48	46.49	11.099	
10,300.00	10,149.89	10,170.33	10,162.86	25.70	23.18	-105.56	-198.38	294.24	527.10	480.49	46.61	11.309	
10,325.00	10,159.65	10,179.67	10,172.19	25.72	23.20	-104.99	-198.55	294.59	539.28	492.56	46.72	11.543	
10,350.00	10,168.19	10,187.78	10,180.30	25.73	23.22	-104.11	-198.69	294.90	552.46	505.65	46.82	11.800	

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

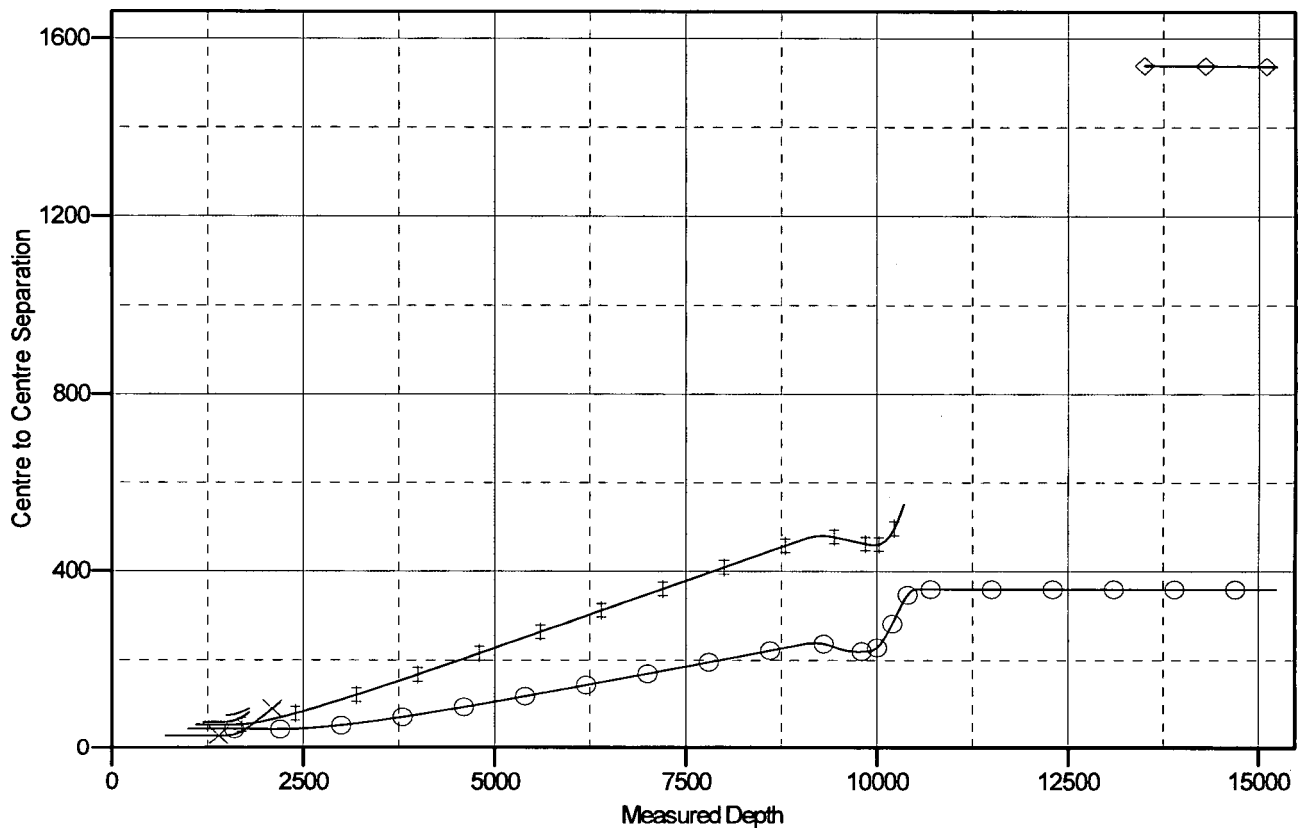
Offset Design												Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 434H - 434H - Plan #1-Rev0												Offset Well Error:	0.00 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,500.00	1,500.00	1,500.98	1,500.98	3.23	3.23	-127.07	-45.40	-60.10	75.32	68.86	6.46	11.652	CC, ES
1,600.00	1,599.99	1,599.00	1,598.99	3.44	3.43	128.68	-46.08	-61.19	77.44	70.57	6.87	11.274	SF
1,700.00	1,699.91	1,698.12	1,698.05	3.63	3.62	130.87	-47.81	-63.96	83.24	76.00	7.24	11.490	
1,800.00	1,799.69	1,797.69	1,797.56	3.84	3.81	133.97	-49.63	-66.86	91.09	83.46	7.63	11.934	

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3507+25 @ 3532.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.33333334

Coordinates are relative to: Todd 2-24S-31E State 203H - Slot 203H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.31°

Ladder Plot



LEGEND

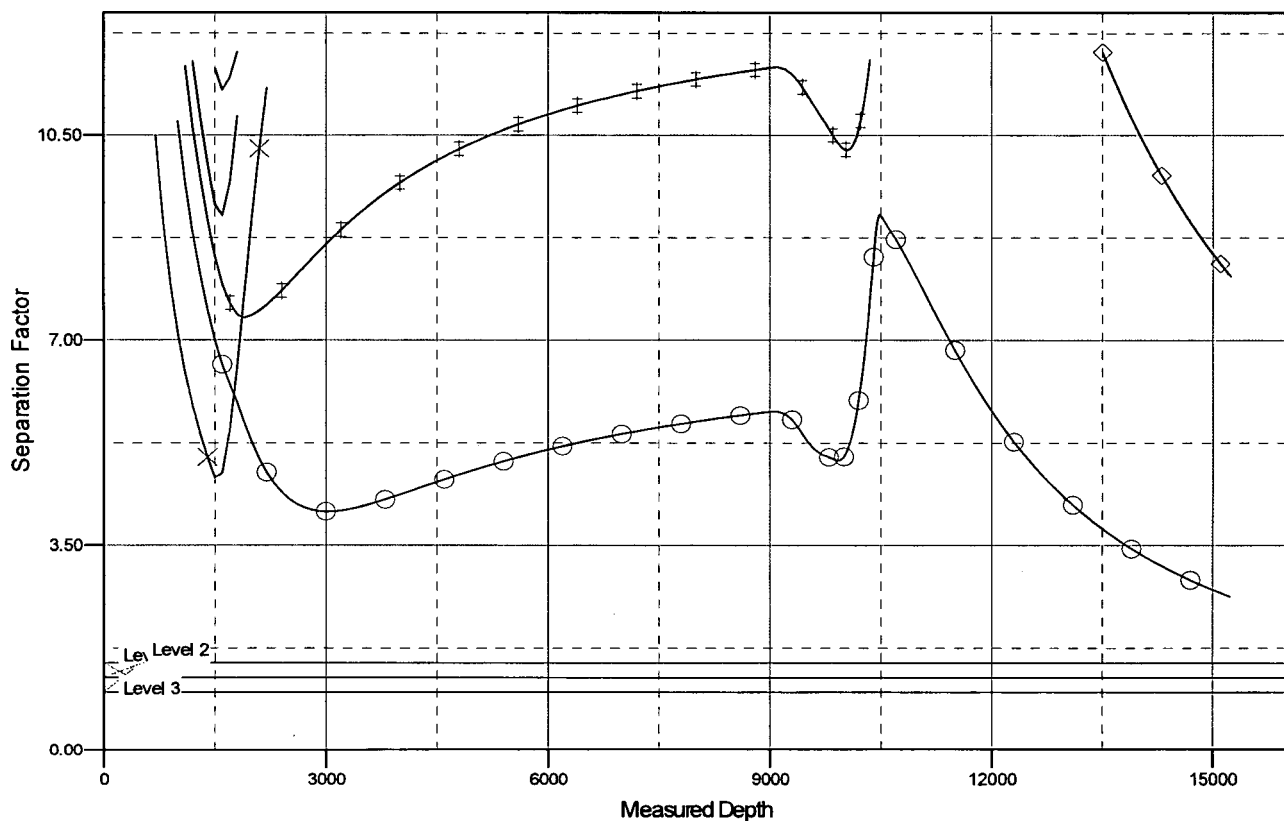
Todd 2-24S-31E State 207H, 207 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 434H, 434 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 202H, 202 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 405H, 405 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 304H, 304 H.P. & n#1-Rev0V0

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 203H - Slot 203H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 203H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	203H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3507+25 @ 3532.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.33333334

Coordinates are relative to: Todd 2-24S-31E State 203H - Slot 203H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.31°

Separation Factor Plot



LEGEND

Todd 2-24S-31E State 207H, 207 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 202H, 202 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 204H, 204 H.P. & n#1-Rev0V0

Todd 2-24S-31E State 434H, 434 H.P. & n#1-Rev0V0
 Todd 2-24S-31E State 406H, 406 H.P. & n#1-Rev0V0

JUN 03 2019

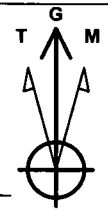
TITUS OIL & GAS LLC

Titus Oil & Gas Production, LLC
Project: Eddy County, NM (NAD83-NME)
Site: A01 Todd DSU
Well: Todd 2-24S-31E State 203H
Wellbore: 203H
Plan: Plan #1-Rev0

DISTRICT OF ARIZONA

WELL DETAILS: Todd 2-24S-31E State 203H

Northing	Easting	Latitude	Longitude	Slot
451484.80	722154.10	32.23985425	-103.74850836	203H



Azimuths to Grid North
True North: -0.31°
Magnetic North: 6.51°

Magnetic Field
Strength: 47727.9snT
Dip Angle: 60.02°
Date: 5/30/2019
Model: IGRF2015

PROJECT DETAILS: Eddy County, NM (NAD83-NME)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid
Grid Convergence: 0.31° West
KB Elevation: 3507+25 @ 3532.00usft
Elevation: 3507.00

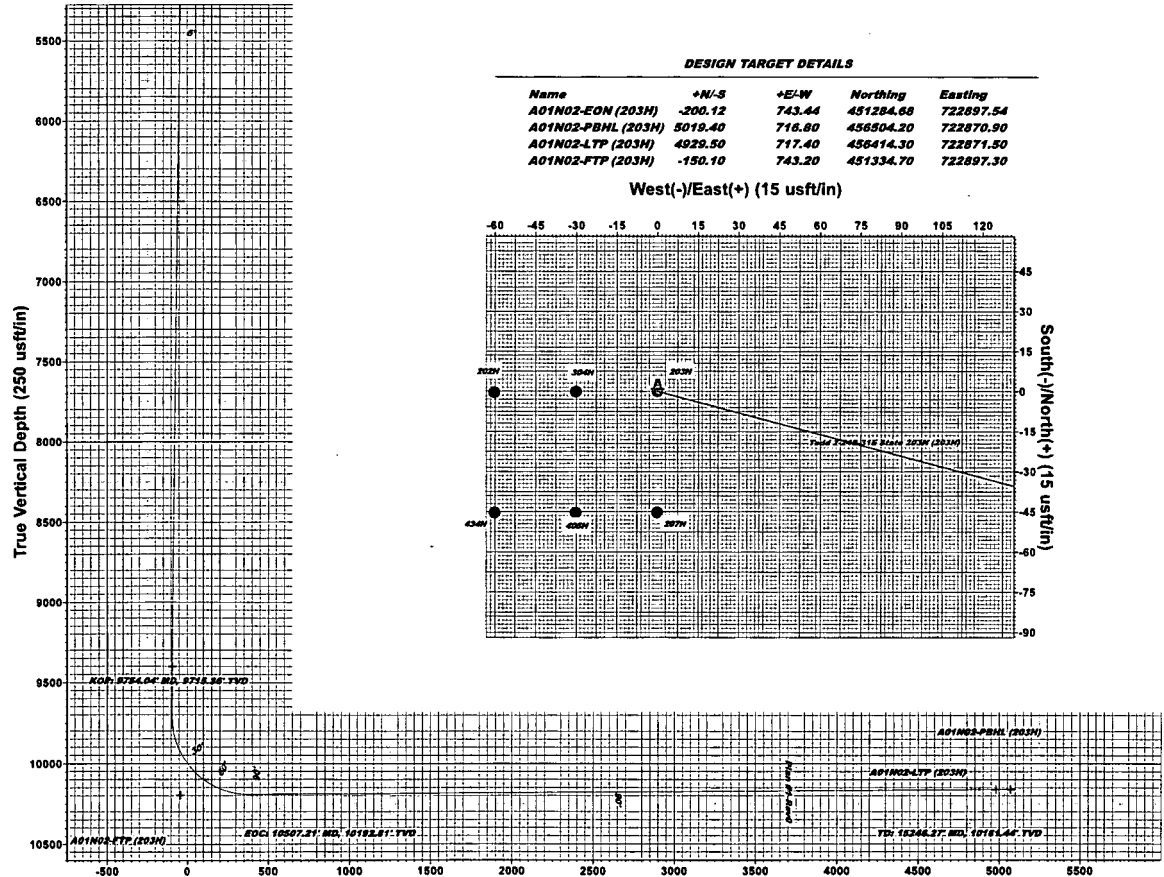
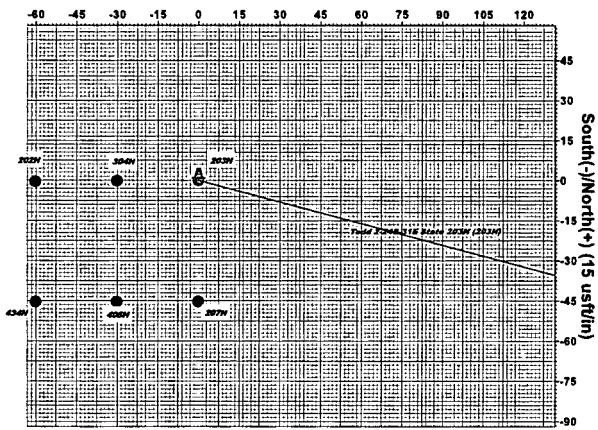
Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
3	1890.25	5.85	105.07	1889.58	-5.18	19.23	1.50	105.07	-2.41
4	9048.43	5.85	105.07	9010.42	-194.94	724.21	0.00	0.00	-90.60
5	9438.68	0.00	0.00	9400.00	-200.12	743.44	1.50	180.00	-93.01
6	9754.04	0.00	0.00	9715.36	-200.12	743.44	0.00	0.00	-93.01
7	10507.21	90.38	359.71	10192.81	280.50	740.99	12.00	359.71	382.44
8	15246.27	90.38	359.71	10161.44	5019.40	716.80	0.00	0.00	5070.32

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting
A01N02-EON (203H)	-200.12	743.44	451284.68	722897.54
A01N02-PBHL (203H)	5019.40	716.80	456504.20	722870.90
A01N02-LTP (203H)	4929.50	717.40	456414.30	722871.50
A01N02-FTP (203H)	-150.10	743.20	451334.70	722897.30

West(-)/East(+) (15 usft/in)



West(-)/East(+) (250 usft/in)

