

45939

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DISTRICT II-ARTESIA O.C.D.

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec. 36-T23S-R31E

Todd 36 State 625H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

22 April, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 625H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3541.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3541.40ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 625H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Eddy County (NAD 83 NM Eastern)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec. 36-T23S-R31E		
Site Position:	Map	Northing:	461,801.03 usft
From:		Easting:	724,712.45 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.268172
		Longitude:	-103.740050
		Grid Convergence:	0.32 °

Well	Todd 36 State 625H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.50 ft	Wellhead Elevation:	Ground Level:
			3,516.40 ft
			456,707.42 usft
			725,224.39 usft
			32.254164
			-103.738485

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	4/18/2019	6.83
			Dip Angle
			(°)
			60.04
			Field Strength
			(nT)
			47,749.07947908

Design	Permit Plan 1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			6.94

Plan Survey Tool Program	Date	4/22/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks
(ft)	(ft)			
1	0.00	16,815.01 Permit Plan 1 (Wellbore #1)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,651.89	4.52	101.40	2,651.42	-3.52	17.46	1.00	1.00	0.00	101.40	
10,626.31	4.52	101.40	10,601.05	-127.65	633.36	0.00	0.00	0.00	0.00	
10,927.57	0.00	0.00	10,902.00	-130.00	645.00	1.50	-1.50	0.00	180.00	
11,277.61	0.00	0.00	11,252.04	-130.00	645.00	0.00	0.00	0.00	0.00	
12,177.61	90.00	359.70	11,825.00	442.95	642.05	10.00	10.00	0.00	359.70	PBHL - Todd 36 State
16,815.01	90.00	359.70	11,825.00	5,080.29	618.14	0.00	0.00	0.00	0.00	PBHL - Todd 36 State

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Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3541.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3541.40ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 625H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
100.00	0.00	0.00	100.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
200.00	0.00	0.00	200.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
300.00	0.00	0.00	300.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
400.00	0.00	0.00	400.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
500.00	0.00	0.00	500.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
600.00	0.00	0.00	600.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
700.00	0.00	0.00	700.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
800.00	0.00	0.00	800.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
900.00	0.00	0.00	900.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	456,707.42	725,224.39	32.254164	-103.738485	
2,300.00	1.00	101.40	2,299.99	-0.17	0.86	456,707.25	725,225.24	32.254163	-103.738482	
2,400.00	2.00	101.40	2,399.96	-0.69	3.42	456,706.73	725,227.81	32.254162	-103.738474	
2,500.00	3.00	101.40	2,499.86	-1.55	7.70	456,705.87	725,232.08	32.254159	-103.738460	
2,600.00	4.00	101.40	2,599.68	-2.76	13.68	456,704.66	725,238.07	32.254156	-103.738441	
2,651.89	4.52	101.40	2,651.42	-3.52	17.46	456,703.90	725,241.85	32.254154	-103.738429	
2,700.00	4.52	101.40	2,699.38	-4.27	21.18	456,703.15	725,245.56	32.254152	-103.738417	
2,800.00	4.52	101.40	2,799.07	-5.82	28.90	456,701.60	725,253.29	32.254147	-103.738392	
2,900.00	4.52	101.40	2,898.76	-7.38	36.62	456,700.04	725,261.01	32.254143	-103.738367	
3,000.00	4.52	101.40	2,998.45	-8.94	44.35	456,698.48	725,268.73	32.254138	-103.738342	
3,100.00	4.52	101.40	3,098.14	-10.49	52.07	456,696.93	725,276.46	32.254134	-103.738317	
3,200.00	4.52	101.40	3,197.83	-12.05	59.79	456,695.37	725,284.18	32.254130	-103.738292	
3,300.00	4.52	101.40	3,297.52	-13.61	67.52	456,693.81	725,291.90	32.254125	-103.738267	
3,400.00	4.52	101.40	3,397.21	-15.16	75.24	456,692.26	725,299.63	32.254121	-103.738242	
3,500.00	4.52	101.40	3,496.90	-16.72	82.96	456,690.70	725,307.35	32.254116	-103.738217	
3,600.00	4.52	101.40	3,596.58	-18.28	90.69	456,689.14	725,315.07	32.254112	-103.738192	
3,700.00	4.52	101.40	3,696.27	-19.83	98.41	456,687.59	725,322.80	32.254108	-103.738167	
3,800.00	4.52	101.40	3,795.96	-21.39	106.13	456,686.03	725,330.52	32.254103	-103.738142	
3,900.00	4.52	101.40	3,895.65	-22.95	113.86	456,684.47	725,338.24	32.254099	-103.738117	
4,000.00	4.52	101.40	3,995.34	-24.50	121.58	456,682.92	725,345.97	32.254094	-103.738092	
4,100.00	4.52	101.40	4,095.03	-26.06	129.30	456,681.36	725,353.69	32.254090	-103.738067	
4,200.00	4.52	101.40	4,194.72	-27.62	137.03	456,679.80	725,361.41	32.254086	-103.738042	
4,300.00	4.52	101.40	4,294.41	-29.17	144.75	456,678.25	725,369.14	32.254081	-103.738017	
4,400.00	4.52	101.40	4,394.10	-30.73	152.47	456,676.69	725,376.86	32.254077	-103.737992	
4,500.00	4.52	101.40	4,493.79	-32.29	160.20	456,675.13	725,384.58	32.254072	-103.737967	
4,600.00	4.52	101.40	4,593.48	-33.84	167.92	456,673.58	725,392.31	32.254068	-103.737943	
4,700.00	4.52	101.40	4,693.17	-35.40	175.64	456,672.02	725,400.03	32.254064	-103.737918	
4,800.00	4.52	101.40	4,792.85	-36.96	183.37	456,670.46	725,407.75	32.254059	-103.737893	
4,900.00	4.52	101.40	4,892.54	-38.51	191.09	456,668.91	725,415.48	32.254055	-103.737868	
5,000.00	4.52	101.40	4,992.23	-40.07	198.81	456,667.35	725,423.20	32.254050	-103.737843	
5,100.00	4.52	101.40	5,091.92	-41.63	206.54	456,665.79	725,430.92	32.254046	-103.737818	
5,200.00	4.52	101.40	5,191.61	-43.18	214.26	456,664.24	725,438.65	32.254042	-103.737793	
5,300.00	4.52	101.40	5,291.30	-44.74	221.99	456,662.68	725,446.37	32.254037	-103.737768	

Planning Report - Geographic

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Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3541.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3541.40ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 625H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	4.52	101.40	5,390.99	-46.30	229.71	456,661.12	725,454.09	32.254033	-103.737743
5,500.00	4.52	101.40	5,490.68	-47.85	237.43	456,659.57	725,461.82	32.254028	-103.737718
5,600.00	4.52	101.40	5,590.37	-49.41	245.16	456,658.01	725,469.54	32.254024	-103.737693
5,700.00	4.52	101.40	5,690.06	-50.97	252.88	456,656.45	725,477.26	32.254020	-103.737668
5,800.00	4.52	101.40	5,789.75	-52.52	260.60	456,654.90	725,484.99	32.254015	-103.737643
5,900.00	4.52	101.40	5,889.43	-54.08	268.33	456,653.34	725,492.71	32.254011	-103.737618
6,000.00	4.52	101.40	5,989.12	-55.64	276.05	456,651.78	725,500.44	32.254007	-103.737593
6,100.00	4.52	101.40	6,088.81	-57.19	283.77	456,650.23	725,508.16	32.254002	-103.737568
6,200.00	4.52	101.40	6,188.50	-58.75	291.50	456,648.67	725,515.88	32.253998	-103.737543
6,300.00	4.52	101.40	6,288.19	-60.31	299.22	456,647.11	725,523.61	32.253993	-103.737518
6,400.00	4.52	101.40	6,387.88	-61.86	306.94	456,645.56	725,531.33	32.253989	-103.737493
6,500.00	4.52	101.40	6,487.57	-63.42	314.67	456,644.00	725,539.05	32.253985	-103.737468
6,600.00	4.52	101.40	6,587.26	-64.98	322.39	456,642.44	725,546.78	32.253980	-103.737443
6,700.00	4.52	101.40	6,686.95	-66.53	330.11	456,640.89	725,554.50	32.253976	-103.737418
6,800.00	4.52	101.40	6,786.64	-68.09	337.84	456,639.33	725,562.22	32.253971	-103.737394
6,900.00	4.52	101.40	6,886.33	-69.65	345.56	456,637.77	725,569.95	32.253967	-103.737369
7,000.00	4.52	101.40	6,986.02	-71.20	353.28	456,636.22	725,577.67	32.253963	-103.737344
7,100.00	4.52	101.40	7,085.70	-72.76	361.01	456,634.66	725,585.39	32.253958	-103.737319
7,200.00	4.52	101.40	7,185.39	-74.32	368.73	456,633.10	725,593.12	32.253954	-103.737294
7,300.00	4.52	101.40	7,285.08	-75.87	376.45	456,631.55	725,600.84	32.253949	-103.737269
7,400.00	4.52	101.40	7,384.77	-77.43	384.18	456,629.99	725,608.56	32.253945	-103.737244
7,500.00	4.52	101.40	7,484.46	-78.99	391.90	456,628.43	725,616.29	32.253941	-103.737219
7,600.00	4.52	101.40	7,584.15	-80.54	399.62	456,626.88	725,624.01	32.253936	-103.737194
7,700.00	4.52	101.40	7,683.84	-82.10	407.35	456,625.32	725,631.73	32.253932	-103.737169
7,800.00	4.52	101.40	7,783.53	-83.66	415.07	456,623.76	725,639.46	32.253927	-103.737144
7,900.00	4.52	101.40	7,883.22	-85.21	422.79	456,622.21	725,647.18	32.253923	-103.737119
8,000.00	4.52	101.40	7,982.91	-86.77	430.52	456,620.65	725,654.90	32.253919	-103.737094
8,100.00	4.52	101.40	8,082.60	-88.33	438.24	456,619.09	725,662.63	32.253914	-103.737069
8,200.00	4.52	101.40	8,182.29	-89.88	445.97	456,617.54	725,670.35	32.253910	-103.737044
8,300.00	4.52	101.40	8,281.97	-91.44	453.69	456,615.98	725,678.07	32.253905	-103.737019
8,400.00	4.52	101.40	8,381.66	-93.00	461.41	456,614.42	725,685.80	32.253901	-103.736994
8,500.00	4.52	101.40	8,481.35	-94.55	469.14	456,612.87	725,693.52	32.253897	-103.736969
8,600.00	4.52	101.40	8,581.04	-96.11	476.86	456,611.31	725,701.24	32.253892	-103.736944
8,700.00	4.52	101.40	8,680.73	-97.67	484.58	456,609.75	725,708.97	32.253888	-103.736919
8,800.00	4.52	101.40	8,780.42	-99.22	492.31	456,608.20	725,716.69	32.253883	-103.736894
8,900.00	4.52	101.40	8,880.11	-100.78	500.03	456,606.64	725,724.41	32.253879	-103.736869
9,000.00	4.52	101.40	8,979.80	-102.34	507.75	456,605.08	725,732.14	32.253875	-103.736844
9,100.00	4.52	101.40	9,079.49	-103.89	515.48	456,603.53	725,739.86	32.253870	-103.736820
9,200.00	4.52	101.40	9,179.18	-105.45	523.20	456,601.97	725,747.58	32.253866	-103.736795
9,300.00	4.52	101.40	9,278.87	-107.01	530.92	456,600.41	725,755.31	32.253861	-103.736770
9,400.00	4.52	101.40	9,378.55	-108.56	538.65	456,598.86	725,763.03	32.253857	-103.736745
9,500.00	4.52	101.40	9,478.24	-110.12	546.37	456,597.30	725,770.76	32.253853	-103.736720
9,600.00	4.52	101.40	9,577.93	-111.68	554.09	456,595.74	725,778.48	32.253848	-103.736695
9,700.00	4.52	101.40	9,677.62	-113.23	561.82	456,594.19	725,786.20	32.253844	-103.736670
9,800.00	4.52	101.40	9,777.31	-114.79	569.54	456,592.63	725,793.93	32.253839	-103.736645
9,900.00	4.52	101.40	9,877.00	-116.35	577.26	456,591.07	725,801.65	32.253835	-103.736620
10,000.00	4.52	101.40	9,976.69	-117.90	584.99	456,589.52	725,809.37	32.253831	-103.736595
10,100.00	4.52	101.40	10,076.38	-119.46	592.71	456,587.96	725,817.10	32.253826	-103.736570
10,200.00	4.52	101.40	10,176.07	-121.02	600.43	456,586.40	725,824.82	32.253822	-103.736545
10,300.00	4.52	101.40	10,275.76	-122.57	608.16	456,584.85	725,832.54	32.253817	-103.736520
10,400.00	4.52	101.40	10,375.45	-124.13	615.88	456,583.29	725,840.27	32.253813	-103.736495
10,500.00	4.52	101.40	10,475.14	-125.69	623.60	456,581.73	725,847.99	32.253809	-103.736470
10,600.00	4.52	101.40	10,574.82	-127.24	631.33	456,580.18	725,855.71	32.253804	-103.736445
10,626.31	4.52	101.40	10,601.05	-127.65	633.36	456,579.77	725,857.75	32.253803	-103.736439
10,700.00	3.41	101.40	10,674.57	-128.66	638.36	456,578.76	725,862.74	32.253800	-103.736423

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 625H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3541.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3541.40ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 625H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,800.00	1.91	101.40	10,774.45	-129.58	642.91	456,577.84	725,867.30	32.253798	-103.736408
10,900.00	0.41	101.40	10,874.43	-129.98	644.90	456,577.44	725,869.29	32.253797	-103.736401
10,927.57	0.00	0.00	10,902.00	-130.00	645.00	456,577.42	725,869.38	32.253796	-103.736401
11,000.00	0.00	0.00	10,974.43	-130.00	645.00	456,577.42	725,869.38	32.253796	-103.736401
11,100.00	0.00	0.00	11,074.43	-130.00	645.00	456,577.42	725,869.38	32.253796	-103.736401
11,200.00	0.00	0.00	11,174.43	-130.00	645.00	456,577.42	725,869.38	32.253796	-103.736401
11,277.61	0.00	0.00	11,252.04	-130.00	645.00	456,577.42	725,869.38	32.253796	-103.736401
KOP @ 11278' MD, 50' FSL, 1130' FWL									
11,300.00	2.24	359.70	11,274.42	-129.56	645.00	456,577.86	725,869.38	32.253798	-103.736401
11,400.00	12.24	359.70	11,373.50	-116.98	644.93	456,590.44	725,869.32	32.253832	-103.736401
11,500.00	22.24	359.70	11,468.89	-87.38	644.78	456,620.04	725,869.17	32.253914	-103.736401
11,518.75	24.11	359.70	11,486.12	-80.00	644.74	456,627.42	725,869.13	32.253934	-103.736401
FTP @ 11519' MD, 100' FSL, 1130' FWL									
11,600.00	32.24	359.70	11,557.69	-41.67	644.54	456,665.75	725,868.93	32.254039	-103.736401
11,700.00	42.24	359.70	11,637.20	18.77	644.23	456,726.19	725,868.62	32.254205	-103.736401
11,800.00	52.24	359.70	11,705.01	92.09	643.86	456,799.51	725,868.24	32.254407	-103.736401
11,900.00	62.24	359.70	11,759.05	176.08	643.42	456,883.50	725,867.81	32.254638	-103.736401
12,000.00	72.24	359.70	11,797.69	268.17	642.95	456,975.59	725,867.33	32.254891	-103.736401
12,100.00	82.24	359.70	11,819.75	365.58	642.45	457,073.00	725,866.83	32.255159	-103.736400
12,177.61	90.00	359.70	11,825.00	442.95	642.05	457,150.37	725,866.43	32.255371	-103.736400
12,200.00	90.00	359.70	11,825.00	465.34	641.93	457,172.76	725,866.32	32.255433	-103.736400
12,300.00	90.00	359.70	11,825.00	565.34	641.42	457,272.76	725,865.80	32.255708	-103.736400
12,400.00	90.00	359.70	11,825.00	665.34	640.90	457,372.76	725,865.29	32.255983	-103.736400
12,500.00	90.00	359.70	11,825.00	765.34	640.38	457,472.75	725,864.77	32.256258	-103.736400
12,600.00	90.00	359.70	11,825.00	865.33	639.87	457,572.75	725,864.25	32.256532	-103.736400
12,700.00	90.00	359.70	11,825.00	965.33	639.35	457,672.75	725,863.74	32.256807	-103.736400
12,800.00	90.00	359.70	11,825.00	1,065.33	638.84	457,772.75	725,863.22	32.257082	-103.736399
12,900.00	90.00	359.70	11,825.00	1,165.33	638.32	457,872.75	725,862.71	32.257357	-103.736399
13,000.00	90.00	359.70	11,825.00	1,265.33	637.81	457,972.75	725,862.19	32.257632	-103.736399
13,100.00	90.00	359.70	11,825.00	1,365.33	637.29	458,072.75	725,861.68	32.257907	-103.736399
13,200.00	90.00	359.70	11,825.00	1,465.33	636.78	458,172.74	725,861.16	32.258182	-103.736399
13,300.00	90.00	359.70	11,825.00	1,565.32	636.26	458,272.74	725,860.65	32.258457	-103.736399
13,400.00	90.00	359.70	11,825.00	1,665.32	635.75	458,372.74	725,860.13	32.258731	-103.736399
13,500.00	90.00	359.70	11,825.00	1,765.32	635.23	458,472.74	725,859.61	32.259006	-103.736399
13,600.00	90.00	359.70	11,825.00	1,865.32	634.71	458,572.74	725,859.10	32.259281	-103.736398
13,700.00	90.00	359.70	11,825.00	1,965.32	634.20	458,672.74	725,858.58	32.259556	-103.736398
13,800.00	90.00	359.70	11,825.00	2,065.32	633.68	458,772.73	725,858.07	32.259831	-103.736398
13,900.00	90.00	359.70	11,825.00	2,165.32	633.17	458,872.73	725,857.55	32.260106	-103.736398
14,000.00	90.00	359.70	11,825.00	2,265.32	632.65	458,972.73	725,857.04	32.260381	-103.736398
14,100.00	90.00	359.70	11,825.00	2,365.31	632.14	459,072.73	725,856.52	32.260656	-103.736398
14,200.00	90.00	359.70	11,825.00	2,465.31	631.62	459,172.73	725,856.01	32.260931	-103.736398
14,300.00	90.00	359.70	11,825.00	2,565.31	631.11	459,272.73	725,855.49	32.261205	-103.736398
14,400.00	90.00	359.70	11,825.00	2,665.31	630.59	459,372.73	725,854.98	32.261480	-103.736397
14,500.00	90.00	359.70	11,825.00	2,765.31	630.07	459,472.72	725,854.46	32.261755	-103.736397
14,600.00	90.00	359.70	11,825.00	2,865.31	629.56	459,572.72	725,853.94	32.262030	-103.736397
14,700.00	90.00	359.70	11,825.00	2,965.31	629.04	459,672.72	725,853.43	32.262305	-103.736397
14,800.00	90.00	359.70	11,825.00	3,065.31	628.53	459,772.72	725,852.91	32.262580	-103.736397
14,900.00	90.00	359.70	11,825.00	3,165.30	628.01	459,872.72	725,852.40	32.262855	-103.736397
15,000.00	90.00	359.70	11,825.00	3,265.30	627.50	459,972.72	725,851.88	32.263130	-103.736397
15,100.00	90.00	359.70	11,825.00	3,365.30	626.98	460,072.71	725,851.37	32.263404	-103.736396
15,200.00	90.00	359.70	11,825.00	3,465.30	626.47	460,172.71	725,850.85	32.263679	-103.736396
15,300.00	90.00	359.70	11,825.00	3,565.30	625.95	460,272.71	725,850.34	32.263954	-103.736396
15,400.00	90.00	359.70	11,825.00	3,665.30	625.44	460,372.71	725,849.82	32.264229	-103.736396
15,500.00	90.00	359.70	11,825.00	3,765.30	624.92	460,472.71	725,849.30	32.264504	-103.736396

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Todd 36 State 625H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3541.40ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3541.40ft
Site:	Sec. 36-T23S-R31E	North Reference:	Grid
Well:	Todd 36 State 625H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,600.00	90.00	359.70	11,825.00	3,865.29	624.40	460,572.71	725,848.79	32.264779	-103.736396
15,700.00	90.00	359.70	11,825.00	3,965.29	623.89	460,672.71	725,848.27	32.265054	-103.736396
15,800.00	90.00	359.70	11,825.00	4,065.29	623.37	460,772.70	725,847.76	32.265329	-103.736396
15,900.00	90.00	359.70	11,825.00	4,165.29	622.86	460,872.70	725,847.24	32.265603	-103.736395
16,000.00	90.00	359.70	11,825.00	4,265.29	622.34	460,972.70	725,846.73	32.265878	-103.736395
16,100.00	90.00	359.70	11,825.00	4,365.29	621.83	461,072.70	725,846.21	32.266153	-103.736395
16,200.00	90.00	359.70	11,825.00	4,465.29	621.31	461,172.70	725,845.70	32.266428	-103.736395
16,300.00	90.00	359.70	11,825.00	4,565.29	620.80	461,272.70	725,845.18	32.266703	-103.736395
16,400.00	90.00	359.70	11,825.00	4,665.28	620.28	461,372.69	725,844.67	32.266978	-103.736395
16,500.00	90.00	359.70	11,825.00	4,765.28	619.77	461,472.69	725,844.15	32.267253	-103.736395
16,600.00	90.00	359.70	11,825.00	4,865.28	619.25	461,572.69	725,843.63	32.267528	-103.736394
16,700.00	90.00	359.70	11,825.00	4,965.28	618.73	461,672.69	725,843.12	32.267802	-103.736394
16,735.01	90.00	359.70	11,825.00	5,000.29	618.55	461,707.70	725,842.94	32.267899	-103.736394
LTP @ 16735' MD, 100' FNL, 1130' FWL									
16,800.00	90.00	359.70	11,825.00	5,065.28	618.22	461,772.69	725,842.60	32.268077	-103.736394
16,815.00	90.00	359.70	11,825.00	5,080.28	618.14	461,787.69	725,842.53	32.268119	-103.736394
PBHL; 20' FNL, 1130' FWL									
16,815.01	90.00	359.70	11,825.00	5,080.29	618.14	461,787.70	725,842.53	32.268119	-103.736394

Design Targets									
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL - Todd 36 State 62	0.00	0.00	0.00	5,080.29	618.14	461,787.70	725,842.53	32.268119	-103.736394
- plan misses target center by 5117.76ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
11,277.61	11,252.04	-130.00	645.00	KOP @ 11278' MD, 50' FSL, 1130' FWL	
11,518.75	11,486.12	-80.00	644.74	FTP @ 11519' MD, 100' FSL, 1130' FWL	
16,735.01	11,825.00	5,000.29	618.55	LTP @ 16735' MD, 100' FNL, 1130' FWL	
16,815.00	11,825.00	5,080.28	618.14	PBHL; 20' FNL, 1130' FWL	

Devon Energy

WELL DETAILS: Todd 36 State 625H

RKB @ 3541.40ft
3516.40
Northing 456707.42 Easting 725224.39 Latitude 32.254164 Longitude -103.738485

SECTION DETAILS Permit Plan-1

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	
2651.89	4.52	101.40	2651.42	-3.52	17.46	1.00	-1.38	
10626.31	4.52	101.40	10601.05	-127.65	633.36	0.00	-50.22	
5 10927.57	0.00	0.00	10902.00	-130.00	645.00	1.50	-51.14	
6 11277.61	0.00	0.00	11252.04	-130.00	645.00	0.00	-51.14	KOP @ 11278' MD, 50' FSL, 1130' FWL
7 12177.61	90.00	359.70	11825.00	442.95	642.05	10.00	517.26	
8 16815.01	90.00	359.70	11825.00	5080.29	618.14	0.00	5117.76	PBHL: 20' FNL, 1130' FWL

