

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 14-T21S-R27E

Lone Tree Draw 14-13 State Com 335H

**NM OIL CONSERVATION
ARTESIA DISTRICT**

JAN 16 2019

RECEIVED

Wellbore #1

30.015.45637

Plan: Permit Plan 1

Standard Planning Report - Geographic

13 December, 2018

Planning Report - Geographic

Database: EDM r5000.141_Prod US
 Company: WCDSC Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Site: Sec 14-T21S-R27E
 Well: Lone Tree Draw 14-13 State Com 335H
 Wellbore: Wellbore #1
 Design: Permit Plan 1

Local Co-ordinate Reference: Well Lone Tree Draw 14-13 State Com 335H
 TVD Reference: RKB @ 3285.30ft
 MD Reference: RKB @ 3285.30ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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 14-T21S-R27E		
Site Position:		Northing:	541,119.08 usft
From:	Map	Easting:	591,975.56 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	32.487491
		Longitude:	-104.169104
		Grid Convergence:	0.09 °

Well	Lone Tree Draw 14-13 State Com 335H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.50 ft	Wellhead Elevation:	Ground Level:
			3,260.30 ft
			536,203.20 usft
			592,180.41 usft
			32.473978
			-104.168464

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/13/2018	7.09	60.18	47,870.32645271

Design	Permit Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	84.38

Plan Survey Tool Program	Date 12/13/2018			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,179.78 Permit Plan 1 (Wellbore #1)	MWD+IFR1+MS	
			OWSG MWD + IFR1 + Multi-S	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,773.32	12.17	0.00	3,766.02	102.95	0.00	1.25	1.25	0.00	0.00	
7,214.57	12.17	0.00	7,129.98	828.21	0.00	0.00	0.00	0.00	0.00	
8,025.67	0.00	0.00	7,935.00	914.00	0.00	1.50	-1.50	0.00	180.00	
8,375.71	0.00	0.00	8,285.04	914.00	0.00	0.00	0.00	0.00	0.00	
9,275.71	90.00	89.36	8,858.00	920.41	572.92	10.00	10.00	0.00	89.36	PBHL - Lone Tree Dr
19,179.78	90.00	89.36	8,858.00	1,031.27	10,476.37	0.00	0.00	0.00	0.00	PBHL - Lone Tree Dr

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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	536,203.20	592,180.41	32.473978	-104.168464
100.00	0.00	0.00	100.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
200.00	0.00	0.00	200.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
300.00	0.00	0.00	300.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
400.00	0.00	0.00	400.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
500.00	0.00	0.00	500.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
600.00	0.00	0.00	600.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
700.00	0.00	0.00	700.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
800.00	0.00	0.00	800.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
900.00	0.00	0.00	900.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,000.00	0.00	0.00	1,000.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,100.00	0.00	0.00	1,100.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,200.00	0.00	0.00	1,200.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,300.00	0.00	0.00	1,300.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,400.00	0.00	0.00	1,400.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,500.00	0.00	0.00	1,500.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,600.00	0.00	0.00	1,600.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,700.00	0.00	0.00	1,700.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,800.00	0.00	0.00	1,800.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
1,900.00	0.00	0.00	1,900.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,000.00	0.00	0.00	2,000.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,100.00	0.00	0.00	2,100.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,200.00	0.00	0.00	2,200.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,300.00	0.00	0.00	2,300.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,400.00	0.00	0.00	2,400.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,500.00	0.00	0.00	2,500.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,600.00	0.00	0.00	2,600.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,700.00	0.00	0.00	2,700.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,800.00	0.00	0.00	2,800.00	0.00	0.00	536,203.20	592,180.41	32.473978	-104.168464
2,900.00	1.25	0.00	2,899.99	1.09	0.00	536,204.29	592,180.41	32.473981	-104.168464
3,000.00	2.50	0.00	2,999.94	4.36	0.00	536,207.56	592,180.41	32.473990	-104.168464
3,100.00	3.75	0.00	3,099.79	9.81	0.00	536,213.02	592,180.41	32.474005	-104.168464
3,200.00	5.00	0.00	3,199.49	17.44	0.00	536,220.64	592,180.41	32.474026	-104.168464
3,300.00	6.25	0.00	3,299.01	27.24	0.00	536,230.45	592,180.41	32.474053	-104.168464
3,400.00	7.50	0.00	3,398.29	39.21	0.00	536,242.42	592,180.41	32.474086	-104.168464
3,500.00	8.75	0.00	3,497.28	53.35	0.00	536,256.55	592,180.41	32.474124	-104.168464
3,600.00	10.00	0.00	3,595.94	69.64	0.00	536,272.84	592,180.41	32.474169	-104.168464
3,700.00	11.25	0.00	3,694.23	88.07	0.00	536,291.28	592,180.41	32.474220	-104.168464
3,773.32	12.17	0.00	3,766.02	102.95	0.00	536,306.15	592,180.41	32.474261	-104.168464
3,800.00	12.17	0.00	3,792.10	108.58	0.00	536,311.78	592,180.41	32.474276	-104.168464
3,900.00	12.17	0.00	3,889.86	129.65	0.00	536,332.85	592,180.41	32.474334	-104.168464
4,000.00	12.17	0.00	3,987.61	150.73	0.00	536,353.93	592,180.41	32.474392	-104.168463
4,100.00	12.17	0.00	4,085.36	171.80	0.00	536,375.00	592,180.41	32.474450	-104.168463
4,200.00	12.17	0.00	4,183.12	192.88	0.00	536,396.08	592,180.41	32.474508	-104.168463
4,300.00	12.17	0.00	4,280.87	213.95	0.00	536,417.15	592,180.41	32.474566	-104.168463
4,400.00	12.17	0.00	4,378.63	235.03	0.00	536,438.23	592,180.41	32.474624	-104.168463
4,500.00	12.17	0.00	4,476.38	256.10	0.00	536,459.30	592,180.41	32.474682	-104.168463
4,600.00	12.17	0.00	4,574.13	277.18	0.00	536,480.38	592,180.41	32.474740	-104.168463
4,700.00	12.17	0.00	4,671.89	298.25	0.00	536,501.45	592,180.41	32.474798	-104.168463
4,800.00	12.17	0.00	4,769.64	319.33	0.00	536,522.53	592,180.41	32.474855	-104.168463
4,900.00	12.17	0.00	4,867.40	340.40	0.00	536,543.60	592,180.41	32.474913	-104.168463
5,000.00	12.17	0.00	4,965.15	361.48	0.00	536,564.68	592,180.41	32.474971	-104.168462
5,100.00	12.17	0.00	5,062.90	382.55	0.00	536,585.76	592,180.41	32.475029	-104.168462
5,200.00	12.17	0.00	5,160.66	403.63	0.00	536,606.83	592,180.41	32.475087	-104.168462
5,300.00	12.17	0.00	5,258.41	424.70	0.00	536,627.91	592,180.41	32.475145	-104.168462

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 Site: Sec 14-T21S-R27E
 Well: Lone Tree Draw 14-13 State Com 335H
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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	12.17	0.00	5,356.17	445.78	0.00	536,648.98	592,180.41	32.475203	-104.168462
5,500.00	12.17	0.00	5,453.92	466.86	0.00	536,670.06	592,180.41	32.475261	-104.168462
5,600.00	12.17	0.00	5,551.67	487.93	0.00	536,691.13	592,180.41	32.475319	-104.168462
5,700.00	12.17	0.00	5,649.43	509.01	0.00	536,712.21	592,180.41	32.475377	-104.168462
5,800.00	12.17	0.00	5,747.18	530.08	0.00	536,733.28	592,180.41	32.475435	-104.168462
5,900.00	12.17	0.00	5,844.94	551.16	0.00	536,754.36	592,180.41	32.475493	-104.168461
6,000.00	12.17	0.00	5,942.69	572.23	0.00	536,775.43	592,180.41	32.475551	-104.168461
6,100.00	12.17	0.00	6,040.44	593.31	0.00	536,796.51	592,180.41	32.475609	-104.168461
6,200.00	12.17	0.00	6,138.20	614.38	0.00	536,817.58	592,180.41	32.475667	-104.168461
6,300.00	12.17	0.00	6,235.95	635.46	0.00	536,838.66	592,180.41	32.475724	-104.168461
6,400.00	12.17	0.00	6,333.71	656.53	0.00	536,859.73	592,180.41	32.475782	-104.168461
6,500.00	12.17	0.00	6,431.46	677.61	0.00	536,880.81	592,180.41	32.475840	-104.168461
6,600.00	12.17	0.00	6,529.21	698.68	0.00	536,901.88	592,180.41	32.475898	-104.168461
6,700.00	12.17	0.00	6,626.97	719.76	0.00	536,922.96	592,180.41	32.475956	-104.168461
6,800.00	12.17	0.00	6,724.72	740.83	0.00	536,944.03	592,180.41	32.476014	-104.168461
6,900.00	12.17	0.00	6,822.47	761.91	0.00	536,965.11	592,180.41	32.476072	-104.168460
7,000.00	12.17	0.00	6,920.23	782.98	0.00	536,986.19	592,180.41	32.476130	-104.168460
7,100.00	12.17	0.00	7,017.98	804.06	0.00	537,007.26	592,180.41	32.476188	-104.168460
7,200.00	12.17	0.00	7,115.74	825.14	0.00	537,028.34	592,180.41	32.476246	-104.168460
7,214.57	12.17	0.00	7,129.98	828.21	0.00	537,031.41	592,180.41	32.476254	-104.168460
7,300.00	10.89	0.00	7,213.68	845.28	0.00	537,048.48	592,180.41	32.476301	-104.168460
7,400.00	9.39	0.00	7,312.12	862.87	0.00	537,066.07	592,180.41	32.476350	-104.168460
7,500.00	7.89	0.00	7,410.99	877.89	0.00	537,081.09	592,180.41	32.476391	-104.168460
7,600.00	6.39	0.00	7,510.21	890.31	0.00	537,093.51	592,180.41	32.476425	-104.168460
7,700.00	4.89	0.00	7,609.72	900.12	0.00	537,103.33	592,180.41	32.476452	-104.168460
7,800.00	3.39	0.00	7,709.46	907.34	0.00	537,110.54	592,180.41	32.476472	-104.168460
7,900.00	1.89	0.00	7,809.35	911.93	0.00	537,115.13	592,180.41	32.476484	-104.168460
8,000.00	0.39	0.00	7,909.33	913.91	0.00	537,117.11	592,180.41	32.476490	-104.168460
8,025.67	0.00	0.00	7,935.00	914.00	0.00	537,117.20	592,180.41	32.476490	-104.168460
8,100.00	0.00	0.00	8,009.33	914.00	0.00	537,117.20	592,180.41	32.476490	-104.168460
8,200.00	0.00	0.00	8,109.33	914.00	0.00	537,117.20	592,180.41	32.476490	-104.168460
8,300.00	0.00	0.00	8,209.33	914.00	0.00	537,117.20	592,180.41	32.476490	-104.168460
8,375.71	0.00	0.00	8,285.04	914.00	0.00	537,117.20	592,180.41	32.476490	-104.168460
KOP & FTP @ 8376' MD, 1310' FSL, 195' FWL									
8,400.00	2.43	89.36	8,309.32	914.01	0.51	537,117.21	592,180.93	32.476490	-104.168458
8,500.00	12.43	89.36	8,408.36	914.15	13.43	537,117.35	592,193.84	32.476490	-104.168416
8,600.00	22.43	89.36	8,503.64	914.49	43.34	537,117.69	592,223.75	32.476491	-104.168319
8,700.00	32.43	89.36	8,592.29	915.00	89.34	537,118.20	592,269.75	32.476492	-104.168170
8,800.00	42.43	89.36	8,671.60	915.68	150.04	537,118.88	592,330.45	32.476494	-104.167973
8,900.00	52.43	89.36	8,739.16	916.50	223.58	537,119.70	592,404.00	32.476496	-104.167735
9,000.00	62.43	89.36	8,792.93	917.44	307.74	537,120.65	592,488.16	32.476498	-104.167462
9,100.00	72.43	89.36	8,831.27	918.48	399.96	537,121.68	592,580.37	32.476501	-104.167163
9,200.00	82.43	89.36	8,853.00	919.57	497.43	537,122.77	592,677.85	32.476503	-104.166847
9,275.71	90.00	89.36	8,858.00	920.41	572.92	537,123.61	592,753.34	32.476505	-104.166602
9,300.00	90.00	89.36	8,858.00	920.69	597.21	537,123.89	592,777.62	32.476506	-104.166523
9,400.00	90.00	89.36	8,858.00	921.80	697.20	537,125.00	592,877.61	32.476509	-104.166199
9,500.00	90.00	89.36	8,858.00	922.92	797.19	537,126.12	592,977.61	32.476511	-104.165874
9,600.00	90.00	89.36	8,858.00	924.04	897.19	537,127.24	593,077.60	32.476514	-104.165550
9,700.00	90.00	89.36	8,858.00	925.16	997.18	537,128.36	593,177.59	32.476517	-104.165226
9,800.00	90.00	89.36	8,858.00	926.28	1,097.18	537,129.48	593,277.59	32.476519	-104.164902
9,900.00	90.00	89.36	8,858.00	927.40	1,197.17	537,130.60	593,377.58	32.476522	-104.164577
10,000.00	90.00	89.36	8,858.00	928.52	1,297.16	537,131.72	593,477.57	32.476524	-104.164253
10,100.00	90.00	89.36	8,858.00	929.64	1,397.16	537,132.84	593,577.57	32.476527	-104.163929
10,200.00	90.00	89.36	8,858.00	930.76	1,497.15	537,133.96	593,677.56	32.476530	-104.163605

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 Company: WCDSC Permian NM
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10,300.00	90.00	89.36	8,858.00	931.88	1,597.14	537,135.08	593,777.55	32.476532	-104.163280
10,400.00	90.00	89.36	8,858.00	933.00	1,697.14	537,136.20	593,877.55	32.476535	-104.162956
10,500.00	90.00	89.36	8,858.00	934.12	1,797.13	537,137.32	593,977.54	32.476538	-104.162632
10,600.00	90.00	89.36	8,858.00	935.24	1,897.13	537,138.44	594,077.54	32.476540	-104.162308
10,700.00	90.00	89.36	8,858.00	936.36	1,997.12	537,139.56	594,177.53	32.476543	-104.161983
10,800.00	90.00	89.36	8,858.00	937.48	2,097.11	537,140.68	594,277.52	32.476546	-104.161659
10,900.00	90.00	89.36	8,858.00	938.59	2,197.11	537,141.79	594,377.52	32.476548	-104.161335
11,000.00	90.00	89.36	8,858.00	939.71	2,297.10	537,142.91	594,477.51	32.476551	-104.161010
11,100.00	90.00	89.36	8,858.00	940.83	2,397.09	537,144.03	594,577.50	32.476553	-104.160686
11,200.00	90.00	89.36	8,858.00	941.95	2,497.09	537,145.15	594,677.50	32.476556	-104.160362
11,300.00	90.00	89.36	8,858.00	943.07	2,597.08	537,146.27	594,777.49	32.476559	-104.160038
11,400.00	90.00	89.36	8,858.00	944.19	2,697.08	537,147.39	594,877.48	32.476561	-104.159713
11,500.00	90.00	89.36	8,858.00	945.31	2,797.07	537,148.51	594,977.48	32.476564	-104.159389
11,600.00	90.00	89.36	8,858.00	946.43	2,897.06	537,149.63	595,077.47	32.476567	-104.159065
11,700.00	90.00	89.36	8,858.00	947.55	2,997.06	537,150.75	595,177.46	32.476569	-104.158741
11,800.00	90.00	89.36	8,858.00	948.67	3,097.05	537,151.87	595,277.46	32.476572	-104.158416
11,900.00	90.00	89.36	8,858.00	949.79	3,197.04	537,152.99	595,377.45	32.476574	-104.158092
12,000.00	90.00	89.36	8,858.00	950.91	3,297.04	537,154.11	595,477.44	32.476577	-104.157768
12,100.00	90.00	89.36	8,858.00	952.03	3,397.03	537,155.23	595,577.44	32.476580	-104.157444
12,200.00	90.00	89.36	8,858.00	953.15	3,497.03	537,156.35	595,677.43	32.476582	-104.157119
12,300.00	90.00	89.36	8,858.00	954.26	3,597.02	537,157.46	595,777.43	32.476585	-104.156795
12,400.00	90.00	89.36	8,858.00	955.38	3,697.01	537,158.58	595,877.42	32.476588	-104.156471
12,500.00	90.00	89.36	8,858.00	956.50	3,797.01	537,159.70	595,977.41	32.476590	-104.156147
12,600.00	90.00	89.36	8,858.00	957.62	3,897.00	537,160.82	596,077.41	32.476593	-104.155822
12,700.00	90.00	89.36	8,858.00	958.74	3,996.99	537,161.94	596,177.40	32.476595	-104.155498
12,800.00	90.00	89.36	8,858.00	959.86	4,096.99	537,163.06	596,277.39	32.476598	-104.155174
12,900.00	90.00	89.36	8,858.00	960.98	4,196.98	537,164.18	596,377.39	32.476601	-104.154849
13,000.00	90.00	89.36	8,858.00	962.10	4,296.98	537,165.30	596,477.38	32.476603	-104.154525
13,100.00	90.00	89.36	8,858.00	963.22	4,396.97	537,166.42	596,577.37	32.476606	-104.154201
13,200.00	90.00	89.36	8,858.00	964.34	4,496.96	537,167.54	596,677.37	32.476609	-104.153877
13,300.00	90.00	89.36	8,858.00	965.46	4,596.96	537,168.66	596,777.36	32.476611	-104.153552
13,400.00	90.00	89.36	8,858.00	966.58	4,696.95	537,169.78	596,877.35	32.476614	-104.153228
13,500.00	90.00	89.36	8,858.00	967.70	4,796.94	537,170.90	596,977.35	32.476616	-104.152904
13,600.00	90.00	89.36	8,858.00	968.82	4,896.94	537,172.02	597,077.34	32.476619	-104.152580
13,700.00	90.00	89.36	8,858.00	969.94	4,996.93	537,173.14	597,177.33	32.476622	-104.152255
13,788.00	90.00	89.36	8,858.00	970.92	5,084.93	537,174.12	597,265.33	32.476624	-104.151970
Cross Section @ 13788' MD, 1310' FSL, 0' FWL									
13,800.00	90.00	89.36	8,858.00	971.05	5,096.93	537,174.25	597,277.33	32.476624	-104.151931
13,900.00	90.00	89.36	8,858.00	972.17	5,196.92	537,175.37	597,377.32	32.476627	-104.151607
14,000.00	90.00	89.36	8,858.00	973.29	5,296.91	537,176.49	597,477.32	32.476629	-104.151283
14,100.00	90.00	89.36	8,858.00	974.41	5,396.91	537,177.61	597,577.31	32.476632	-104.150958
14,200.00	90.00	89.36	8,858.00	975.53	5,496.90	537,178.73	597,677.30	32.476635	-104.150634
14,300.00	90.00	89.36	8,858.00	976.65	5,596.89	537,179.85	597,777.30	32.476637	-104.150310
14,400.00	90.00	89.36	8,858.00	977.77	5,696.89	537,180.97	597,877.29	32.476640	-104.149985
14,500.00	90.00	89.36	8,858.00	978.89	5,796.88	537,182.09	597,977.28	32.476642	-104.149661
14,600.00	90.00	89.36	8,858.00	980.01	5,896.88	537,183.21	598,077.28	32.476645	-104.149337
14,700.00	90.00	89.36	8,858.00	981.13	5,996.87	537,184.33	598,177.27	32.476648	-104.149013
14,800.00	90.00	89.36	8,858.00	982.25	6,096.86	537,185.45	598,277.26	32.476650	-104.148688
14,900.00	90.00	89.36	8,858.00	983.37	6,196.86	537,186.57	598,377.26	32.476653	-104.148364
15,000.00	90.00	89.36	8,858.00	984.49	6,296.85	537,187.69	598,477.25	32.476655	-104.148040
15,100.00	90.00	89.36	8,858.00	985.61	6,396.84	537,188.81	598,577.24	32.476658	-104.147716
15,200.00	90.00	89.36	8,858.00	986.73	6,496.84	537,189.93	598,677.24	32.476661	-104.147391
15,300.00	90.00	89.36	8,858.00	987.84	6,596.83	537,191.04	598,777.23	32.476663	-104.147067
15,400.00	90.00	89.36	8,858.00	988.96	6,696.83	537,192.16	598,877.22	32.476666	-104.146743

Planning Report - Geographic

Database: EDM r5000.141_Prod US
 Company: WCDCS Permian NM
 Project: Eddy County (NAD 83 NM Eastern)
 Site: Sec 14-T21S-R27E
 Well: Lone Tree Draw 14-13 State Com 335H
 Wellbore: Wellbore #1
 Design: Permit Plan 1

Local Co-ordinate Reference: Well Lone Tree Draw 14-13 State Com 335H
 TVD Reference: RKB @ 3285.30ft
 MD Reference: RKB @ 3285.30ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,500.00	90.00	89.36	8,858.00	990.08	6,796.82	537,193.28	598,977.22	32.476668	-104.146419
15,600.00	90.00	89.36	8,858.00	991.20	6,896.81	537,194.40	599,077.21	32.476671	-104.146094
15,700.00	90.00	89.36	8,858.00	992.32	6,996.81	537,195.52	599,177.21	32.476674	-104.145770
15,800.00	90.00	89.36	8,858.00	993.44	7,096.80	537,196.64	599,277.20	32.476676	-104.145446
15,900.00	90.00	89.36	8,858.00	994.56	7,196.79	537,197.76	599,377.19	32.476679	-104.145121
16,000.00	90.00	89.36	8,858.00	995.68	7,296.79	537,198.88	599,477.19	32.476681	-104.144797
16,100.00	90.00	89.36	8,858.00	996.80	7,396.78	537,200.00	599,577.18	32.476684	-104.144473
16,200.00	90.00	89.36	8,858.00	997.92	7,496.77	537,201.12	599,677.17	32.476687	-104.144149
16,300.00	90.00	89.36	8,858.00	999.04	7,596.77	537,202.24	599,777.17	32.476689	-104.143824
16,400.00	90.00	89.36	8,858.00	1,000.16	7,696.76	537,203.36	599,877.16	32.476692	-104.143500
16,500.00	90.00	89.36	8,858.00	1,001.28	7,796.76	537,204.48	599,977.15	32.476694	-104.143176
16,600.00	90.00	89.36	8,858.00	1,002.40	7,896.75	537,205.60	600,077.15	32.476697	-104.142852
16,700.00	90.00	89.36	8,858.00	1,003.52	7,996.74	537,206.72	600,177.14	32.476700	-104.142527
16,800.00	90.00	89.36	8,858.00	1,004.63	8,096.74	537,207.83	600,277.13	32.476702	-104.142203
16,900.00	90.00	89.36	8,858.00	1,005.75	8,196.73	537,208.95	600,377.13	32.476705	-104.141879
17,000.00	90.00	89.36	8,858.00	1,006.87	8,296.72	537,210.07	600,477.12	32.476707	-104.141555
17,100.00	90.00	89.36	8,858.00	1,007.99	8,396.72	537,211.19	600,577.11	32.476710	-104.141230
17,200.00	90.00	89.36	8,858.00	1,009.11	8,496.71	537,212.31	600,677.11	32.476712	-104.140906
17,300.00	90.00	89.36	8,858.00	1,010.23	8,596.71	537,213.43	600,777.10	32.476715	-104.140582
17,400.00	90.00	89.36	8,858.00	1,011.35	8,696.70	537,214.55	600,877.10	32.476718	-104.140258
17,500.00	90.00	89.36	8,858.00	1,012.47	8,796.69	537,215.67	600,977.09	32.476720	-104.139933
17,600.00	90.00	89.36	8,858.00	1,013.59	8,896.69	537,216.79	601,077.08	32.476723	-104.139609
17,700.00	90.00	89.36	8,858.00	1,014.71	8,996.68	537,217.91	601,177.08	32.476725	-104.139285
17,800.00	90.00	89.36	8,858.00	1,015.83	9,096.67	537,219.03	601,277.07	32.476728	-104.138960
17,900.00	90.00	89.36	8,858.00	1,016.95	9,196.67	537,220.15	601,377.06	32.476730	-104.138636
18,000.00	90.00	89.36	8,858.00	1,018.07	9,296.66	537,221.27	601,477.06	32.476733	-104.138312
18,100.00	90.00	89.36	8,858.00	1,019.19	9,396.66	537,222.39	601,577.05	32.476736	-104.137988
18,200.00	90.00	89.36	8,858.00	1,020.31	9,496.65	537,223.51	601,677.04	32.476738	-104.137663
18,300.00	90.00	89.36	8,858.00	1,021.42	9,596.64	537,224.62	601,777.04	32.476741	-104.137339
18,400.00	90.00	89.36	8,858.00	1,022.54	9,696.64	537,225.74	601,877.03	32.476743	-104.137015
18,500.00	90.00	89.36	8,858.00	1,023.66	9,796.63	537,226.86	601,977.02	32.476746	-104.136691
18,600.00	90.00	89.36	8,858.00	1,024.78	9,896.62	537,227.98	602,077.02	32.476748	-104.136366
18,700.00	90.00	89.36	8,858.00	1,025.90	9,996.62	537,229.10	602,177.01	32.476751	-104.136042
18,800.00	90.00	89.36	8,858.00	1,027.02	10,096.61	537,230.22	602,277.01	32.476754	-104.135718
18,900.00	90.00	89.36	8,858.00	1,028.14	10,196.61	537,231.34	602,377.00	32.476756	-104.135394
19,000.00	90.00	89.36	8,858.00	1,029.26	10,296.60	537,232.46	602,476.99	32.476759	-104.135069
19,100.00	90.00	89.36	8,858.00	1,030.38	10,396.59	537,233.58	602,576.99	32.476761	-104.134745
LTP @ 19100' MD, 1310' FSL, 100' FEL									
19,179.77	90.00	89.36	8,858.00	1,031.27	10,476.36	537,234.47	602,656.75	32.476763	-104.134486
PBHL; 1310' FSL, 20' FEL									
19,179.78	90.00	89.36	8,858.00	1,031.27	10,476.37	537,234.47	602,656.76	32.476763	-104.134486

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 - Lone Tree Draw	0.00	0.00	0.00	1,031.27	10,476.37	537,234.47	602,656.76	32.476763	-104.134486
- plan misses target center by 8858.00ft at 19179.78ft MD (8858.00 TVD, 1031.27 N, 10476.37 E)									
- Point									

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Lone Tree Draw 14-13 State Com 335H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3285.30ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3285.30ft
Site:	Sec 14-T21S-R27E	North Reference:	Grid
Well:	Lone Tree Draw 14-13 State Com 335H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		
		+N/-S (ft)	+E/-W (ft)	Comment
8,375.71	8,285.04	914.00	0.00	KOP & FTP @ 8376' MD, 1310' FSL, 195' FWL
13,788.00	8,858.00	970.92	5,084.93	Cross Section @ 13788' MD, 1310' FSL, 0' FWL
19,100.00	8,858.00	1,030.38	10,396.59	LTP @ 19100' MD, 1310' FSL, 100' FEL
19,179.77	8,858.00	1,031.27	10,476.36	PBHL; 1310' FSL, 20' FEL

