

WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 19-T24S-R33E

Bell Lake 19-18 State Com 10H

Wellbore #1

Plan: Permit Plan 1

HOBBS OCD
DEC 18 2018
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Standard Planning Report - Geographic

12 December, 2018

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 10H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3564.90ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3564.90ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Lea County (NAD83 New Mexico East)		
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 19-T24S-R33E				
Site Position:		Northing:	435,739.64 usft	Latitude:	32.195913
From:	Map	Easting:	762,046.84 usft	Longitude:	-103.619827
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	Bell Lake 19-18 State Com 10H					
Well Position	+N/-S	0.00 ft	Northing:	436,249.50 usft	Latitude:	32.197239
	+E/-W	0.00 ft	Easting:	766,139.93 usft	Longitude:	-103.606585
Position Uncertainty		0.50 ft	Wellhead Elevation:		Ground Level:	3,539.90 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	12/10/2018	(°)	(°)	(nT)
			6.81	60.01	47,765.35385429

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	353.69	

Plan Survey Tool Program	Date	12/12/2018			
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(ft)	(ft)				
1	0.00	19,598.79 Permit Plan 1 (Wellbore #1)	MWD+IFR1+MS		
			OWSG MWD + IFR1 + Multi-S		

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	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,986.39	12.86	254.82	3,975.61	-37.64	-138.79	1.00	1.00	0.00	254.82	
7,731.37	12.86	254.82	7,626.60	-255.90	-943.48	0.00	0.00	0.00	0.00	
8,588.96	0.00	0.00	8,477.00	-281.00	-1,036.00	1.50	-1.50	0.00	180.00	
8,939.00	0.00	0.00	8,827.04	-281.00	-1,036.00	0.00	0.00	0.00	0.00	
9,839.00	90.00	359.58	9,400.00	291.94	-1,040.20	10.00	10.00	0.00	359.58 PBHL - Bell Lake 19-1	
19,598.79	90.00	359.58	9,400.00	10,051.47	-1,111.83	0.00	0.00	0.00	0.00 PBHL - Bell Lake 19-1	

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Well:	Bell Lake 19-18 State Com 10H	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	436,249.50	766,139.93	32.197239	-103.606585
100.00	0.00	0.00	100.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
200.00	0.00	0.00	200.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
300.00	0.00	0.00	300.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
400.00	0.00	0.00	400.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
500.00	0.00	0.00	500.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
600.00	0.00	0.00	600.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
700.00	0.00	0.00	700.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
800.00	0.00	0.00	800.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
900.00	0.00	0.00	900.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,600.00	0.00	0.00	2,600.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,700.00	0.00	0.00	2,700.00	0.00	0.00	436,249.50	766,139.93	32.197239	-103.606585
2,800.00	1.00	254.82	2,799.99	-0.23	-0.84	436,249.27	766,139.08	32.197238	-103.606588
2,900.00	2.00	254.82	2,899.96	-0.91	-3.37	436,248.59	766,136.56	32.197236	-103.606596
3,000.00	3.00	254.82	2,999.86	-2.06	-7.58	436,247.44	766,132.35	32.197233	-103.606609
3,100.00	4.00	254.82	3,099.68	-3.65	-13.47	436,245.85	766,126.46	32.197229	-103.606629
3,200.00	5.00	254.82	3,199.37	-5.71	-21.04	436,243.79	766,118.88	32.197224	-103.606653
3,300.00	6.00	254.82	3,298.90	-8.22	-30.29	436,241.28	766,109.63	32.197217	-103.606683
3,400.00	7.00	254.82	3,398.26	-11.18	-41.22	436,238.32	766,098.71	32.197209	-103.606718
3,500.00	8.00	254.82	3,497.40	-14.60	-53.82	436,234.90	766,086.11	32.197200	-103.606759
3,600.00	9.00	254.82	3,596.30	-18.47	-68.08	436,231.03	766,071.85	32.197189	-103.606805
3,700.00	10.00	254.82	3,694.93	-22.79	-84.01	436,226.71	766,055.92	32.197178	-103.606857
3,800.00	11.00	254.82	3,793.26	-27.56	-101.60	436,221.94	766,038.33	32.197165	-103.606914
3,900.00	12.00	254.82	3,891.25	-32.78	-120.84	436,216.72	766,019.09	32.197151	-103.606976
3,986.39	12.86	254.82	3,975.61	-37.64	-138.79	436,211.86	766,001.14	32.197138	-103.607034
4,000.00	12.86	254.82	3,988.88	-38.44	-141.71	436,211.06	765,998.22	32.197136	-103.607044
4,100.00	12.86	254.82	4,086.37	-44.27	-163.20	436,205.23	765,976.73	32.197120	-103.607113
4,200.00	12.86	254.82	4,183.86	-50.09	-184.69	436,199.41	765,955.24	32.197105	-103.607183
4,300.00	12.86	254.82	4,281.35	-55.92	-206.17	436,193.58	765,933.75	32.197089	-103.607253
4,400.00	12.86	254.82	4,378.84	-61.75	-227.66	436,187.75	765,912.27	32.197073	-103.607322
4,500.00	12.86	254.82	4,476.33	-67.58	-249.15	436,181.92	765,890.78	32.197058	-103.607392
4,600.00	12.86	254.82	4,573.82	-73.41	-270.63	436,176.09	765,869.29	32.197042	-103.607461
4,700.00	12.86	254.82	4,671.31	-79.23	-292.12	436,170.27	765,847.81	32.197026	-103.607531
4,800.00	12.86	254.82	4,768.80	-85.06	-313.61	436,164.44	765,826.32	32.197011	-103.607601
4,900.00	12.86	254.82	4,866.29	-90.89	-335.10	436,158.61	765,804.83	32.196995	-103.607670
5,000.00	12.86	254.82	4,963.78	-96.72	-356.58	436,152.78	765,783.34	32.196980	-103.607740
5,100.00	12.86	254.82	5,061.27	-102.55	-378.07	436,146.95	765,761.86	32.196964	-103.607809
5,200.00	12.86	254.82	5,158.76	-108.37	-399.56	436,141.13	765,740.37	32.196948	-103.607879
5,300.00	12.86	254.82	5,256.25	-114.20	-421.04	436,135.30	765,718.88	32.196933	-103.607949

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Well:	Bell Lake 19-18 State Com 10H	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	12.86	254.82	5,353.74	-120.03	-442.53	436,129.47	765,697.40	32.196917	-103.608018
5,500.00	12.86	254.82	5,451.23	-125.86	-464.02	436,123.64	765,675.91	32.196901	-103.608088
5,600.00	12.86	254.82	5,548.72	-131.69	-485.51	436,117.81	765,654.42	32.196886	-103.608157
5,700.00	12.86	254.82	5,646.21	-137.51	-506.99	436,111.99	765,632.93	32.196870	-103.608227
5,800.00	12.86	254.82	5,743.70	-143.34	-528.48	436,106.16	765,611.45	32.196855	-103.608296
5,900.00	12.86	254.82	5,841.19	-149.17	-549.97	436,100.33	765,589.96	32.196839	-103.608366
6,000.00	12.86	254.82	5,938.68	-155.00	-571.45	436,094.50	765,568.47	32.196823	-103.608436
6,100.00	12.86	254.82	6,036.17	-160.83	-592.94	436,088.67	765,546.99	32.196808	-103.608505
6,200.00	12.86	254.82	6,133.66	-166.65	-614.43	436,082.85	765,525.50	32.196792	-103.608575
6,300.00	12.86	254.82	6,231.15	-172.48	-635.92	436,077.02	765,504.01	32.196777	-103.608644
6,400.00	12.86	254.82	6,328.64	-178.31	-657.40	436,071.19	765,482.53	32.196761	-103.608714
6,500.00	12.86	254.82	6,426.13	-184.14	-678.89	436,065.36	765,461.04	32.196745	-103.608784
6,600.00	12.86	254.82	6,523.62	-189.97	-700.38	436,059.53	765,439.55	32.196730	-103.608853
6,700.00	12.86	254.82	6,621.11	-195.80	-721.86	436,053.70	765,418.06	32.196714	-103.608923
6,800.00	12.86	254.82	6,718.60	-201.62	-743.35	436,047.88	765,396.58	32.196698	-103.608992
6,900.00	12.86	254.82	6,816.09	-207.45	-764.84	436,042.05	765,375.09	32.196683	-103.609062
7,000.00	12.86	254.82	6,913.58	-213.28	-786.33	436,036.22	765,353.60	32.196667	-103.609131
7,100.00	12.86	254.82	7,011.07	-219.11	-807.81	436,030.39	765,332.12	32.196652	-103.609201
7,200.00	12.86	254.82	7,108.56	-224.94	-829.30	436,024.56	765,310.63	32.196636	-103.609271
7,300.00	12.86	254.82	7,206.05	-230.76	-850.79	436,018.74	765,289.14	32.196620	-103.609340
7,400.00	12.86	254.82	7,303.55	-236.59	-872.27	436,012.91	765,267.65	32.196605	-103.609410
7,500.00	12.86	254.82	7,401.04	-242.42	-893.76	436,007.08	765,246.17	32.196589	-103.609479
7,600.00	12.86	254.82	7,498.53	-248.25	-915.25	436,001.25	765,224.68	32.196573	-103.609549
7,700.00	12.86	254.82	7,596.02	-254.08	-936.74	435,995.42	765,203.19	32.196558	-103.609619
7,731.37	12.86	254.82	7,626.60	-255.90	-943.48	435,993.60	765,196.45	32.196553	-103.609640
7,800.00	11.83	254.82	7,693.64	-259.75	-957.64	435,989.75	765,182.29	32.196543	-103.609686
7,900.00	10.33	254.82	7,791.77	-264.78	-976.20	435,984.72	765,163.73	32.196529	-103.609746
8,000.00	8.83	254.82	7,890.37	-269.14	-992.26	435,980.36	765,147.66	32.196517	-103.609798
8,100.00	7.33	254.82	7,989.38	-272.82	-1,005.84	435,976.68	765,134.09	32.196508	-103.609842
8,200.00	5.83	254.82	8,088.71	-275.82	-1,016.90	435,973.68	765,123.03	32.196500	-103.609878
8,300.00	4.33	254.82	8,188.32	-278.14	-1,025.46	435,971.36	765,114.47	32.196493	-103.609906
8,400.00	2.83	254.82	8,288.12	-279.78	-1,031.49	435,969.72	765,108.44	32.196489	-103.609925
8,500.00	1.33	254.82	8,388.05	-280.73	-1,035.00	435,968.77	765,104.93	32.196486	-103.609937
8,588.96	0.00	0.00	8,477.00	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
8,600.00	0.00	0.00	8,488.04	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
8,700.00	0.00	0.00	8,588.04	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
8,800.00	0.00	0.00	8,688.04	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
8,900.00	0.00	0.00	8,788.04	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
8,939.00	0.00	0.00	8,827.04	-281.00	-1,036.00	435,968.50	765,103.93	32.196486	-103.609940
KOP & FTP @ 8939' MD, 0' FSL, 2188' FEL									
9,000.00	6.10	359.58	8,887.93	-277.76	-1,036.02	435,971.74	765,103.91	32.196495	-103.609940
9,100.00	16.10	359.58	8,985.93	-258.53	-1,036.16	435,990.97	765,103.76	32.196547	-103.609940
9,200.00	26.10	359.58	9,079.11	-222.58	-1,036.43	436,026.93	765,103.50	32.196646	-103.609940
9,300.00	36.10	359.58	9,164.63	-170.99	-1,036.81	436,078.51	765,103.12	32.196788	-103.609940
9,400.00	46.10	359.58	9,239.89	-105.34	-1,037.29	436,144.16	765,102.64	32.196969	-103.609940
9,500.00	56.10	359.58	9,302.60	-27.61	-1,037.86	436,221.89	765,102.07	32.197182	-103.609941
9,600.00	66.10	359.58	9,350.87	59.82	-1,038.50	436,309.32	765,101.43	32.197422	-103.609941
9,700.00	76.10	359.58	9,383.22	154.31	-1,039.19	436,403.81	765,100.73	32.197682	-103.609941
9,800.00	86.10	359.58	9,398.67	252.97	-1,039.92	436,502.47	765,100.01	32.197953	-103.609941
9,839.00	90.00	359.58	9,400.00	291.94	-1,040.20	436,541.44	765,099.72	32.198061	-103.609941
9,900.00	90.00	359.58	9,400.00	352.94	-1,040.65	436,602.44	765,099.28	32.198228	-103.609941
10,000.00	90.00	359.58	9,400.00	452.94	-1,041.39	436,702.44	765,098.54	32.198503	-103.609941
10,100.00	90.00	359.58	9,400.00	552.94	-1,042.12	436,802.43	765,097.81	32.198778	-103.609942
10,200.00	90.00	359.58	9,400.00	652.93	-1,042.85	436,902.43	765,097.07	32.199053	-103.609942

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Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 10H	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
10,300.00	90.00	359.58	9,400.00	752.93	-1,043.59	437,002.43	765,096.34	32.199328	-103.609942
10,400.00	90.00	359.58	9,400.00	852.93	-1,044.32	437,102.43	765,095.61	32.199603	-103.609942
10,500.00	90.00	359.58	9,400.00	952.93	-1,045.06	437,202.42	765,094.87	32.199877	-103.609942
10,600.00	90.00	359.58	9,400.00	1,052.92	-1,045.79	437,302.42	765,094.14	32.200152	-103.609943
10,700.00	90.00	359.58	9,400.00	1,152.92	-1,046.52	437,402.42	765,093.41	32.200427	-103.609943
10,800.00	90.00	359.58	9,400.00	1,252.92	-1,047.26	437,502.41	765,092.67	32.200702	-103.609943
10,900.00	90.00	359.58	9,400.00	1,352.91	-1,047.99	437,602.41	765,091.94	32.200977	-103.609943
11,000.00	90.00	359.58	9,400.00	1,452.91	-1,048.73	437,702.41	765,091.20	32.201252	-103.609943
11,100.00	90.00	359.58	9,400.00	1,552.91	-1,049.46	437,802.41	765,090.47	32.201527	-103.609944
11,200.00	90.00	359.58	9,400.00	1,652.91	-1,050.19	437,902.40	765,089.74	32.201802	-103.609944
11,300.00	90.00	359.58	9,400.00	1,752.90	-1,050.93	438,002.40	765,089.00	32.202076	-103.609944
11,400.00	90.00	359.58	9,400.00	1,852.90	-1,051.66	438,102.40	765,088.27	32.202351	-103.609944
11,500.00	90.00	359.58	9,400.00	1,952.90	-1,052.40	438,202.39	765,087.53	32.202626	-103.609944
11,600.00	90.00	359.58	9,400.00	2,052.90	-1,053.13	438,302.39	765,086.80	32.202901	-103.609945
11,700.00	90.00	359.58	9,400.00	2,152.89	-1,053.86	438,402.39	765,086.07	32.203176	-103.609945
11,800.00	90.00	359.58	9,400.00	2,252.89	-1,054.60	438,502.39	765,085.33	32.203451	-103.609945
11,900.00	90.00	359.58	9,400.00	2,352.89	-1,055.33	438,602.38	765,084.60	32.203726	-103.609945
12,000.00	90.00	359.58	9,400.00	2,452.88	-1,056.06	438,702.38	765,083.86	32.204001	-103.609945
12,100.00	90.00	359.58	9,400.00	2,552.88	-1,056.80	438,802.38	765,083.13	32.204275	-103.609946
12,200.00	90.00	359.58	9,400.00	2,652.88	-1,057.53	438,902.37	765,082.40	32.204550	-103.609946
12,300.00	90.00	359.58	9,400.00	2,752.88	-1,058.27	439,002.37	765,081.66	32.204825	-103.609946
12,400.00	90.00	359.58	9,400.00	2,852.87	-1,059.00	439,102.37	765,080.93	32.205100	-103.609946
12,500.00	90.00	359.58	9,400.00	2,952.87	-1,059.73	439,202.37	765,080.20	32.205375	-103.609946
12,600.00	90.00	359.58	9,400.00	3,052.87	-1,060.47	439,302.36	765,079.46	32.205650	-103.609947
12,700.00	90.00	359.58	9,400.00	3,152.87	-1,061.20	439,402.36	765,078.73	32.205925	-103.609947
12,800.00	90.00	359.58	9,400.00	3,252.86	-1,061.94	439,502.36	765,077.99	32.206200	-103.609947
12,900.00	90.00	359.58	9,400.00	3,352.86	-1,062.67	439,602.35	765,077.26	32.206474	-103.609947
13,000.00	90.00	359.58	9,400.00	3,452.86	-1,063.40	439,702.35	765,076.53	32.206749	-103.609947
13,100.00	90.00	359.58	9,400.00	3,552.86	-1,064.14	439,802.35	765,075.79	32.207024	-103.609948
13,200.00	90.00	359.58	9,400.00	3,652.85	-1,064.87	439,902.35	765,075.06	32.207299	-103.609948
13,300.00	90.00	359.58	9,400.00	3,752.85	-1,065.61	440,002.34	765,074.32	32.207574	-103.609948
13,400.00	90.00	359.58	9,400.00	3,852.85	-1,066.34	440,102.34	765,073.59	32.207849	-103.609948
13,500.00	90.00	359.58	9,400.00	3,952.84	-1,067.07	440,202.34	765,072.86	32.208124	-103.609948
13,600.00	90.00	359.58	9,400.00	4,052.84	-1,067.81	440,302.33	765,072.12	32.208399	-103.609949
13,700.00	90.00	359.58	9,400.00	4,152.84	-1,068.54	440,402.33	765,071.39	32.208673	-103.609949
13,800.00	90.00	359.58	9,400.00	4,252.84	-1,069.27	440,502.33	765,070.65	32.208948	-103.609949
13,900.00	90.00	359.58	9,400.00	4,352.83	-1,070.01	440,602.32	765,069.92	32.209223	-103.609949
14,000.00	90.00	359.58	9,400.00	4,452.83	-1,070.74	440,702.32	765,069.19	32.209498	-103.609949
14,100.00	90.00	359.58	9,400.00	4,552.83	-1,071.48	440,802.32	765,068.45	32.209773	-103.609950
14,200.00	90.00	359.58	9,400.00	4,652.83	-1,072.21	440,902.32	765,067.72	32.210048	-103.609950
14,300.00	90.00	359.58	9,400.00	4,752.82	-1,072.94	441,002.31	765,066.98	32.210323	-103.609950
14,346.00	90.00	359.58	9,400.00	4,798.82	-1,073.28	441,048.31	765,066.65	32.210449	-103.609950
Cross Section @ 14346' MD, 0' FSL, 2188' FEL									
14,400.00	90.00	359.58	9,400.00	4,852.82	-1,073.68	441,102.31	765,066.25	32.210598	-103.609950
14,500.00	90.00	359.58	9,400.00	4,952.82	-1,074.41	441,202.31	765,065.52	32.210872	-103.609950
14,600.00	90.00	359.58	9,400.00	5,052.82	-1,075.15	441,302.30	765,064.78	32.211147	-103.609951
14,700.00	90.00	359.58	9,400.00	5,152.81	-1,075.88	441,402.30	765,064.05	32.211422	-103.609951
14,800.00	90.00	359.58	9,400.00	5,252.81	-1,076.61	441,502.30	765,063.32	32.211697	-103.609951
14,900.00	90.00	359.58	9,400.00	5,352.81	-1,077.35	441,602.30	765,062.58	32.211972	-103.609951
15,000.00	90.00	359.58	9,400.00	5,452.80	-1,078.08	441,702.29	765,061.85	32.212247	-103.609951
15,100.00	90.00	359.58	9,400.00	5,552.80	-1,078.82	441,802.29	765,061.11	32.212522	-103.609952
15,200.00	90.00	359.58	9,400.00	5,652.80	-1,079.55	441,902.29	765,060.38	32.212797	-103.609952
15,300.00	90.00	359.58	9,400.00	5,752.80	-1,080.28	442,002.28	765,059.65	32.213071	-103.609952
15,400.00	90.00	359.58	9,400.00	5,852.79	-1,081.02	442,102.28	765,058.91	32.213346	-103.609952

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 10H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3564.90ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3564.90ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 10H	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
15,500.00	90.00	359.58	9,400.00	5,952.79	-1,081.75	442,202.28	765,058.18	32.213621	-103.609952
15,600.00	90.00	359.58	9,400.00	6,052.79	-1,082.49	442,302.28	765,057.44	32.213896	-103.609953
15,700.00	90.00	359.58	9,400.00	6,152.79	-1,083.22	442,402.27	765,056.71	32.214171	-103.609953
15,800.00	90.00	359.58	9,400.00	6,252.78	-1,083.95	442,502.27	765,055.98	32.214446	-103.609953
15,900.00	90.00	359.58	9,400.00	6,352.78	-1,084.69	442,602.27	765,055.24	32.214721	-103.609953
16,000.00	90.00	359.58	9,400.00	6,452.78	-1,085.42	442,702.26	765,054.51	32.214996	-103.609953
16,100.00	90.00	359.58	9,400.00	6,552.77	-1,086.15	442,802.26	765,053.77	32.215270	-103.609954
16,200.00	90.00	359.58	9,400.00	6,652.77	-1,086.89	442,902.26	765,053.04	32.215545	-103.609954
16,300.00	90.00	359.58	9,400.00	6,752.77	-1,087.62	443,002.26	765,052.31	32.215820	-103.609954
16,400.00	90.00	359.58	9,400.00	6,852.77	-1,088.36	443,102.25	765,051.57	32.216095	-103.609954
16,500.00	90.00	359.58	9,400.00	6,952.76	-1,089.09	443,202.25	765,050.84	32.216370	-103.609954
16,600.00	90.00	359.58	9,400.00	7,052.76	-1,089.82	443,302.25	765,050.11	32.216645	-103.609954
16,700.00	90.00	359.58	9,400.00	7,152.76	-1,090.56	443,402.24	765,049.37	32.216920	-103.609955
16,800.00	90.00	359.58	9,400.00	7,252.76	-1,091.29	443,502.24	765,048.64	32.217195	-103.609955
16,900.00	90.00	359.58	9,400.00	7,352.75	-1,092.03	443,602.24	765,047.90	32.217469	-103.609955
17,000.00	90.00	359.58	9,400.00	7,452.75	-1,092.76	443,702.24	765,047.17	32.217744	-103.609955
17,100.00	90.00	359.58	9,400.00	7,552.75	-1,093.49	443,802.23	765,046.44	32.218019	-103.609955
17,200.00	90.00	359.58	9,400.00	7,652.75	-1,094.23	443,902.23	765,045.70	32.218294	-103.609956
17,300.00	90.00	359.58	9,400.00	7,752.74	-1,094.96	444,002.23	765,044.97	32.218569	-103.609956
17,400.00	90.00	359.58	9,400.00	7,852.74	-1,095.70	444,102.22	765,044.23	32.218844	-103.609956
17,500.00	90.00	359.58	9,400.00	7,952.74	-1,096.43	444,202.22	765,043.50	32.219119	-103.609956
17,600.00	90.00	359.58	9,400.00	8,052.73	-1,097.16	444,302.22	765,042.77	32.219394	-103.609956
17,700.00	90.00	359.58	9,400.00	8,152.73	-1,097.90	444,402.22	765,042.03	32.219668	-103.609957
17,800.00	90.00	359.58	9,400.00	8,252.73	-1,098.63	444,502.21	765,041.30	32.219943	-103.609957
17,900.00	90.00	359.58	9,400.00	8,352.73	-1,099.36	444,602.21	765,040.56	32.220218	-103.609957
18,000.00	90.00	359.58	9,400.00	8,452.72	-1,100.10	444,702.21	765,039.83	32.220493	-103.609957
18,100.00	90.00	359.58	9,400.00	8,552.72	-1,100.83	444,802.20	765,039.10	32.220768	-103.609957
18,200.00	90.00	359.58	9,400.00	8,652.72	-1,101.57	444,902.20	765,038.36	32.221043	-103.609958
18,300.00	90.00	359.58	9,400.00	8,752.72	-1,102.30	445,002.20	765,037.63	32.221318	-103.609958
18,400.00	90.00	359.58	9,400.00	8,852.71	-1,103.03	445,102.19	765,036.90	32.221593	-103.609958
18,500.00	90.00	359.58	9,400.00	8,952.71	-1,103.77	445,202.19	765,036.16	32.221867	-103.609958
18,600.00	90.00	359.58	9,400.00	9,052.71	-1,104.50	445,302.19	765,035.43	32.222142	-103.609958
18,700.00	90.00	359.58	9,400.00	9,152.70	-1,105.24	445,402.19	765,034.69	32.222417	-103.609959
18,800.00	90.00	359.58	9,400.00	9,252.70	-1,105.97	445,502.18	765,033.96	32.222692	-103.609959
18,900.00	90.00	359.58	9,400.00	9,352.70	-1,106.70	445,602.18	765,033.23	32.222967	-103.609959
19,000.00	90.00	359.58	9,400.00	9,452.70	-1,107.44	445,702.18	765,032.49	32.223242	-103.609959
19,100.00	90.00	359.58	9,400.00	9,552.69	-1,108.17	445,802.17	765,031.76	32.223517	-103.609959
19,200.00	90.00	359.58	9,400.00	9,652.69	-1,108.91	445,902.17	765,031.02	32.223792	-103.609960
19,300.00	90.00	359.58	9,400.00	9,752.69	-1,109.64	446,002.17	765,030.29	32.224066	-103.609960
19,400.00	90.00	359.58	9,400.00	9,852.69	-1,110.37	446,102.17	765,029.56	32.224341	-103.609960
19,500.00	90.00	359.58	9,400.00	9,952.68	-1,111.11	446,202.16	765,028.82	32.224616	-103.609960
19,518.78	90.00	359.58	9,400.00	9,971.46	-1,111.25	446,220.94	765,028.68	32.224668	-103.609960
LTP @ 19519' MD, 100' FNL, 2188' FEL									
19,598.78	90.00	359.58	9,400.00	10,051.46	-1,111.83	446,300.94	765,028.10	32.224888	-103.609960
PBHL; 20' FNL, 2188' FEL									
19,598.79	90.00	359.58	9,400.00	10,051.47	-1,111.83	446,300.95	765,028.10	32.224888	-103.609960

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 10H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3564.90ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3564.90ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL - Bell Lake 19-18 :	0.00	0.00	0.00	10,051.47	-1,111.83	446,300.95	765,028.10	32.224888	-103.609960
- plan misses target center by 9400.00ft at 19598.79ft MD (9400.00 TVD, 10051.47 N, -1111.83 E)									
- Point									

Plan Annotations

Measured	Vertical	Local Coordinates		Comment
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	
8,939.00	8,827.04	-281.00	-1,036.00	KOP & FTP @ 8939' MD, 0' FSL, 2188' FEL
14,346.00	9,400.00	4,798.82	-1,073.28	Cross Section @ 14346' MD, 0' FSL, 2188' FEL
19,518.78	9,400.00	9,971.46	-1,111.25	LTP @ 19519' MD, 100' FNL, 2188' FEL
19,598.78	9,400.00	10,051.46	-1,111.83	PBHL; 20' FNL, 2188' FEL