

Devon Energy

WELL DETAILS: Bell Lake 19-18 State Corn 30H

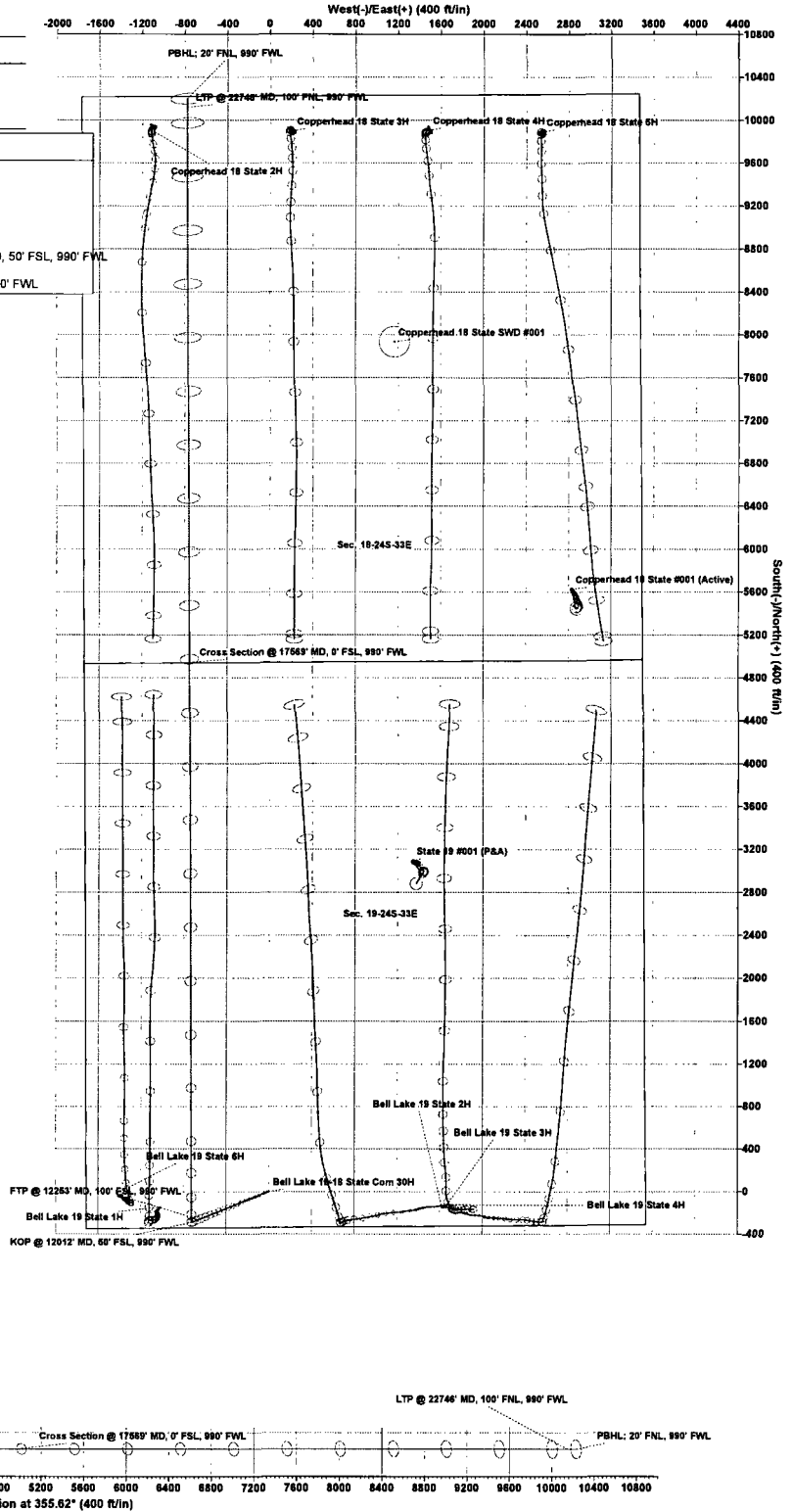
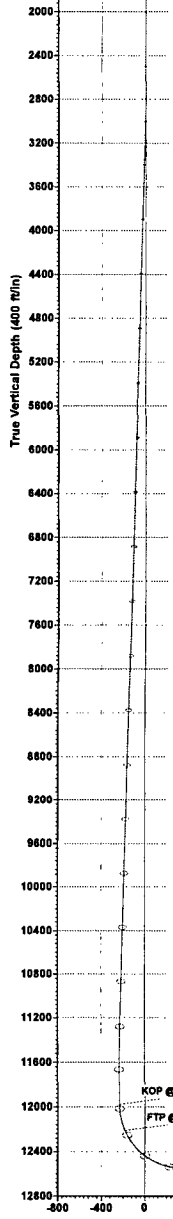
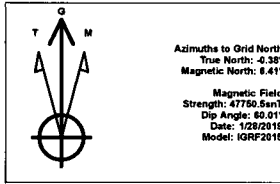
RKB @ 3574.00ft
3549.00

Northing 436089.07 Easting 763756.84 Latitude 32.196842 Longitude -103.614292

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	
	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	
	3116.70	5.17	248.25	3116.00	-8.63	-21.63	1.00	-6.95	
	11317.02	5.17	248.25	11283.00	-282.25	-707.58	0.00	-227.37	
5	11661.49	0.00	0.00	11627.00	-288.00	-722.00	1.50	-232.00	
6	12011.53	0.00	0.00	11977.04	-288.00	-722.00	0.00	-232.00	KOP @ 12012' MD, 50' FSL, 990' FWL
7	12911.53	90.00	359.68	12550.00	284.95	-725.25	10.00	339.52	
8	22826.19	90.00	359.68	12550.00	10199.45	-781.44	0.00	10229.34	PBHL: 20' FNL, 990' FWL

devon



WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 19-T24S-R33E

Bell Lake 19-18 State Com 30H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

29 January, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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 30H		
Well Position	+N/-S	0.00 ft	Northing: 436,089.07 usft
	+E/-W	0.00 ft	Easting: 763,756.84 usft
Position Uncertainty	0.50 ft	Wellhead Elevation:	Ground Level: 3,549.00 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	1/28/2019	6.80
			Dip Angle
			60.01
			Field Strength
			47,750.45451451

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
			355.62

Plan Survey Tool Program	Date	1/29/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks
(ft)	(ft)			
1	0.00	22,826.19 Permit Plan 1 (Wellbore #1)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFD	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	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,116.70	5.17	248.25	3,116.00	-8.63	-21.63	1.00	1.00	0.00	248.25	
11,317.02	5.17	248.25	11,283.00	-282.25	-707.58	0.00	0.00	0.00	0.00	
11,661.49	0.00	0.00	11,627.00	-288.00	-722.00	1.50	-1.50	0.00	180.00	
12,011.53	0.00	0.00	11,977.04	-288.00	-722.00	0.00	0.00	0.00	0.00	
12,911.53	90.00	359.68	12,550.00	284.95	-725.25	10.00	10.00	0.00	359.68 PBHL - Bell Lake 19-1	
22,826.19	90.00	359.68	12,550.00	10,199.45	-781.44	0.00	0.00	0.00	0.00 PBHL - Bell Lake 19-1	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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	436,089.07	763,756.84	32.196842	-103.614292
100.00	0.00	0.00	100.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
200.00	0.00	0.00	200.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
300.00	0.00	0.00	300.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
400.00	0.00	0.00	400.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
500.00	0.00	0.00	500.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
600.00	0.00	0.00	600.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
700.00	0.00	0.00	700.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
800.00	0.00	0.00	800.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
900.00	0.00	0.00	900.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,600.00	0.00	0.00	2,600.00	0.00	0.00	436,089.07	763,756.84	32.196842	-103.614292
2,700.00	1.00	248.25	2,699.99	-0.32	-0.81	436,088.75	763,756.03	32.196841	-103.614295
2,800.00	2.00	248.25	2,799.96	-1.29	-3.24	436,087.78	763,753.60	32.196838	-103.614303
2,900.00	3.00	248.25	2,899.86	-2.91	-7.29	436,086.16	763,749.54	32.196834	-103.614316
3,000.00	4.00	248.25	2,999.68	-5.17	-12.96	436,083.90	763,743.87	32.196828	-103.614334
3,100.00	5.00	248.25	3,099.37	-8.08	-20.25	436,080.99	763,736.59	32.196820	-103.614358
3,116.70	5.17	248.25	3,116.00	-8.63	-21.63	436,080.44	763,735.21	32.196819	-103.614362
3,200.00	5.17	248.25	3,198.96	-11.41	-28.59	436,077.66	763,728.24	32.196811	-103.614385
3,300.00	5.17	248.25	3,298.56	-14.74	-36.96	436,074.33	763,719.88	32.196802	-103.614412
3,400.00	5.17	248.25	3,398.15	-18.08	-45.32	436,070.99	763,711.51	32.196793	-103.614439
3,500.00	5.17	248.25	3,497.74	-21.42	-53.69	436,067.65	763,703.15	32.196784	-103.614466
3,600.00	5.17	248.25	3,597.34	-24.75	-62.05	436,064.32	763,694.78	32.196775	-103.614493
3,700.00	5.17	248.25	3,696.93	-28.09	-70.42	436,060.98	763,686.42	32.196766	-103.614520
3,800.00	5.17	248.25	3,796.52	-31.43	-78.78	436,057.64	763,678.05	32.196757	-103.614547
3,900.00	5.17	248.25	3,896.12	-34.76	-87.15	436,054.31	763,669.69	32.196748	-103.614574
4,000.00	5.17	248.25	3,995.71	-38.10	-95.51	436,050.97	763,661.32	32.196739	-103.614602
4,100.00	5.17	248.25	4,095.30	-41.44	-103.88	436,047.63	763,652.96	32.196730	-103.614629
4,200.00	5.17	248.25	4,194.90	-44.77	-112.24	436,044.30	763,644.59	32.196721	-103.614656
4,300.00	5.17	248.25	4,294.49	-48.11	-120.61	436,040.96	763,636.23	32.196712	-103.614683
4,400.00	5.17	248.25	4,394.09	-51.45	-128.97	436,037.62	763,627.86	32.196703	-103.614710
4,500.00	5.17	248.25	4,493.68	-54.78	-137.34	436,034.29	763,619.50	32.196694	-103.614737
4,600.00	5.17	248.25	4,593.27	-58.12	-145.70	436,030.95	763,611.13	32.196685	-103.614764
4,700.00	5.17	248.25	4,692.87	-61.46	-154.07	436,027.61	763,602.77	32.196676	-103.614791
4,800.00	5.17	248.25	4,792.46	-64.79	-162.43	436,024.28	763,594.40	32.196667	-103.614819
4,900.00	5.17	248.25	4,892.05	-68.13	-170.80	436,020.94	763,586.04	32.196658	-103.614846
5,000.00	5.17	248.25	4,991.65	-71.47	-179.16	436,017.60	763,577.67	32.196649	-103.614873
5,100.00	5.17	248.25	5,091.24	-74.80	-187.53	436,014.27	763,569.31	32.196640	-103.614900
5,200.00	5.17	248.25	5,190.83	-78.14	-195.89	436,010.93	763,560.94	32.196631	-103.614927
5,300.00	5.17	248.25	5,290.43	-81.48	-204.26	436,007.59	763,552.58	32.196622	-103.614954

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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	5.17	248.25	5,390.02	-84.81	-212.62	436,004.26	763,544.21	32.196613	-103.614981
5,500.00	5.17	248.25	5,489.62	-88.15	-220.99	436,000.92	763,535.85	32.196604	-103.615008
5,600.00	5.17	248.25	5,589.21	-91.49	-229.35	435,997.58	763,527.48	32.196595	-103.615035
5,700.00	5.17	248.25	5,688.80	-94.82	-237.72	435,994.25	763,519.12	32.196586	-103.615063
5,800.00	5.17	248.25	5,788.40	-98.16	-246.08	435,990.91	763,510.75	32.196577	-103.615090
5,900.00	5.17	248.25	5,887.99	-101.50	-254.45	435,987.57	763,502.39	32.196568	-103.615117
6,000.00	5.17	248.25	5,987.58	-104.83	-262.81	435,984.24	763,494.02	32.196559	-103.615144
6,100.00	5.17	248.25	6,087.18	-108.17	-271.18	435,980.90	763,485.66	32.196550	-103.615171
6,200.00	5.17	248.25	6,186.77	-111.51	-279.54	435,977.56	763,477.29	32.196541	-103.615198
6,300.00	5.17	248.25	6,286.36	-114.84	-287.91	435,974.23	763,468.93	32.196531	-103.615225
6,400.00	5.17	248.25	6,385.96	-118.18	-296.27	435,970.89	763,460.56	32.196522	-103.615252
6,500.00	5.17	248.25	6,485.55	-121.52	-304.64	435,967.55	763,452.20	32.196513	-103.615279
6,600.00	5.17	248.25	6,585.15	-124.85	-313.00	435,964.22	763,443.83	32.196504	-103.615307
6,700.00	5.17	248.25	6,684.74	-128.19	-321.37	435,960.88	763,435.47	32.196495	-103.615334
6,800.00	5.17	248.25	6,784.33	-131.53	-329.73	435,957.54	763,427.10	32.196486	-103.615361
6,900.00	5.17	248.25	6,883.93	-134.86	-338.10	435,954.21	763,418.74	32.196477	-103.615388
7,000.00	5.17	248.25	6,983.52	-138.20	-346.46	435,950.87	763,410.37	32.196468	-103.615415
7,100.00	5.17	248.25	7,083.11	-141.54	-354.83	435,947.53	763,402.01	32.196459	-103.615442
7,200.00	5.17	248.25	7,182.71	-144.88	-363.19	435,944.19	763,393.64	32.196450	-103.615469
7,300.00	5.17	248.25	7,282.30	-148.21	-371.56	435,940.86	763,385.28	32.196441	-103.615496
7,400.00	5.17	248.25	7,381.89	-151.55	-379.92	435,937.52	763,376.91	32.196432	-103.615523
7,500.00	5.17	248.25	7,481.49	-154.89	-388.29	435,934.18	763,368.55	32.196423	-103.615551
7,600.00	5.17	248.25	7,581.08	-158.22	-396.65	435,930.85	763,360.18	32.196414	-103.615578
7,700.00	5.17	248.25	7,680.68	-161.56	-405.02	435,927.51	763,351.82	32.196405	-103.615605
7,800.00	5.17	248.25	7,780.27	-164.90	-413.38	435,924.17	763,343.45	32.196396	-103.615632
7,900.00	5.17	248.25	7,879.86	-168.23	-421.75	435,920.84	763,335.09	32.196387	-103.615659
8,000.00	5.17	248.25	7,979.46	-171.57	-430.11	435,917.50	763,326.72	32.196378	-103.615686
8,100.00	5.17	248.25	8,079.05	-174.91	-438.48	435,914.16	763,318.36	32.196369	-103.615713
8,200.00	5.17	248.25	8,178.64	-178.24	-446.84	435,910.83	763,309.99	32.196360	-103.615740
8,300.00	5.17	248.25	8,278.24	-181.58	-455.21	435,907.49	763,301.63	32.196351	-103.615767
8,400.00	5.17	248.25	8,377.83	-184.92	-463.57	435,904.15	763,293.26	32.196342	-103.615795
8,500.00	5.17	248.25	8,477.42	-188.25	-471.94	435,900.82	763,284.90	32.196333	-103.615822
8,600.00	5.17	248.25	8,577.02	-191.59	-480.30	435,897.48	763,276.53	32.196324	-103.615849
8,700.00	5.17	248.25	8,676.61	-194.93	-488.67	435,894.14	763,268.17	32.196315	-103.615876
8,800.00	5.17	248.25	8,776.21	-198.26	-497.03	435,890.81	763,259.80	32.196306	-103.615903
8,900.00	5.17	248.25	8,875.80	-201.60	-505.40	435,887.47	763,251.44	32.196297	-103.615930
9,000.00	5.17	248.25	8,975.39	-204.94	-513.76	435,884.13	763,243.07	32.196288	-103.615957
9,100.00	5.17	248.25	9,074.99	-208.27	-522.13	435,880.80	763,234.71	32.196279	-103.615984
9,200.00	5.17	248.25	9,174.58	-211.61	-530.49	435,877.46	763,226.34	32.196270	-103.616011
9,300.00	5.17	248.25	9,274.17	-214.95	-538.86	435,874.12	763,217.98	32.196261	-103.616039
9,400.00	5.17	248.25	9,373.77	-218.28	-547.22	435,870.79	763,209.61	32.196252	-103.616066
9,500.00	5.17	248.25	9,473.36	-221.62	-555.59	435,867.45	763,201.25	32.196243	-103.616093
9,600.00	5.17	248.25	9,572.95	-224.96	-563.95	435,864.11	763,192.88	32.196234	-103.616120
9,700.00	5.17	248.25	9,672.55	-228.29	-572.32	435,860.78	763,184.52	32.196225	-103.616147
9,800.00	5.17	248.25	9,772.14	-231.63	-580.68	435,857.44	763,176.15	32.196216	-103.616174
9,900.00	5.17	248.25	9,871.74	-234.97	-589.05	435,854.10	763,167.79	32.196207	-103.616201
10,000.00	5.17	248.25	9,971.33	-238.30	-597.41	435,850.77	763,159.42	32.196198	-103.616228
10,100.00	5.17	248.25	10,070.92	-241.64	-605.78	435,847.43	763,151.06	32.196189	-103.616255
10,200.00	5.17	248.25	10,170.52	-244.98	-614.14	435,844.09	763,142.69	32.196180	-103.616283
10,300.00	5.17	248.25	10,270.11	-248.31	-622.51	435,840.76	763,134.33	32.196171	-103.616310
10,400.00	5.17	248.25	10,369.70	-251.65	-630.87	435,837.42	763,125.96	32.196162	-103.616337
10,500.00	5.17	248.25	10,469.30	-254.99	-639.24	435,834.08	763,117.60	32.196153	-103.616364
10,600.00	5.17	248.25	10,568.89	-258.32	-647.60	435,830.75	763,109.23	32.196144	-103.616391
10,700.00	5.17	248.25	10,668.48	-261.66	-655.97	435,827.41	763,100.87	32.196135	-103.616418
10,800.00	5.17	248.25	10,768.08	-265.00	-664.33	435,824.07	763,092.50	32.196126	-103.616445

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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
10,900.00	5.17	248.25	10,867.67	-268.33	-672.70	435,820.74	763,084.14	32.196117	-103.616472
11,000.00	5.17	248.25	10,967.27	-271.67	-681.06	435,817.40	763,075.77	32.196108	-103.616499
11,100.00	5.17	248.25	11,066.86	-275.01	-689.43	435,814.06	763,067.41	32.196099	-103.616527
11,200.00	5.17	248.25	11,166.45	-278.34	-697.79	435,810.73	763,059.04	32.196090	-103.616554
11,300.00	5.17	248.25	11,266.05	-281.68	-706.16	435,807.39	763,050.68	32.196081	-103.616581
11,317.02	5.17	248.25	11,283.00	-282.25	-707.58	435,806.82	763,049.26	32.196079	-103.616585
11,400.00	3.92	248.25	11,365.71	-284.69	-713.69	435,804.39	763,043.15	32.196072	-103.616605
11,500.00	2.42	248.25	11,465.56	-286.74	-718.83	435,802.33	763,038.01	32.196067	-103.616622
11,600.00	0.92	248.25	11,565.51	-287.82	-721.54	435,801.25	763,035.30	32.196064	-103.616631
11,661.49	0.00	0.00	11,627.00	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
11,700.00	0.00	0.00	11,665.51	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
11,800.00	0.00	0.00	11,765.51	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
11,900.00	0.00	0.00	11,865.51	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
12,000.00	0.00	0.00	11,965.51	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
12,011.53	0.00	0.00	11,977.04	-288.00	-722.00	435,801.07	763,034.84	32.196064	-103.616632
KOP @ 12012' MD, 50' FSL, 990' FWL									
12,100.00	8.85	359.68	12,065.16	-281.18	-722.04	435,807.89	763,034.80	32.196082	-103.616632
12,200.00	18.85	359.68	12,162.13	-257.28	-722.17	435,831.79	763,034.66	32.196148	-103.616632
12,252.67	24.11	359.68	12,211.12	-238.00	-722.28	435,851.07	763,034.56	32.196201	-103.616632
FTP @ 12253' MD, 100' FSL, 990' FWL									
12,300.00	28.85	359.68	12,253.48	-216.90	-722.40	435,872.17	763,034.44	32.196259	-103.616632
12,400.00	38.85	359.68	12,336.42	-161.28	-722.72	435,927.79	763,034.12	32.196412	-103.616632
12,500.00	48.85	359.68	12,408.45	-92.09	-723.11	435,996.98	763,033.73	32.196602	-103.616632
12,600.00	58.85	359.68	12,467.37	-11.45	-723.57	436,077.62	763,033.27	32.196824	-103.616631
12,700.00	68.85	359.68	12,511.39	78.19	-724.08	436,167.26	763,032.76	32.197070	-103.616631
12,800.00	78.85	359.68	12,539.18	174.12	-724.62	436,263.19	763,032.22	32.197334	-103.616631
12,900.00	88.85	359.68	12,549.88	273.42	-725.18	436,362.49	763,031.66	32.197607	-103.616630
12,911.53	90.00	359.68	12,550.00	284.95	-725.25	436,374.02	763,031.59	32.197638	-103.616630
13,000.00	90.00	359.68	12,550.00	373.42	-725.75	436,462.49	763,031.09	32.197882	-103.616630
13,100.00	90.00	359.68	12,550.00	473.42	-726.32	436,562.48	763,030.52	32.198156	-103.616630
13,200.00	90.00	359.68	12,550.00	573.41	-726.88	436,662.48	763,029.96	32.198431	-103.616629
13,300.00	90.00	359.68	12,550.00	673.41	-727.45	436,762.48	763,029.39	32.198706	-103.616629
13,400.00	90.00	359.68	12,550.00	773.41	-728.02	436,862.48	763,028.82	32.198981	-103.616629
13,500.00	90.00	359.68	12,550.00	873.41	-728.58	436,962.48	763,028.26	32.199256	-103.616628
13,600.00	90.00	359.68	12,550.00	973.41	-729.15	437,062.47	763,027.69	32.199531	-103.616628
13,700.00	90.00	359.68	12,550.00	1,073.41	-729.72	437,162.47	763,027.12	32.199806	-103.616628
13,800.00	90.00	359.68	12,550.00	1,173.40	-730.28	437,262.47	763,026.56	32.200081	-103.616627
13,900.00	90.00	359.68	12,550.00	1,273.40	-730.85	437,362.47	763,025.99	32.200355	-103.616627
14,000.00	90.00	359.68	12,550.00	1,373.40	-731.42	437,462.47	763,025.42	32.200630	-103.616627
14,100.00	90.00	359.68	12,550.00	1,473.40	-731.98	437,562.47	763,024.86	32.200905	-103.616626
14,200.00	90.00	359.68	12,550.00	1,573.40	-732.55	437,662.46	763,024.29	32.201180	-103.616626
14,300.00	90.00	359.68	12,550.00	1,673.40	-733.12	437,762.46	763,023.72	32.201455	-103.616626
14,400.00	90.00	359.68	12,550.00	1,773.39	-733.68	437,862.46	763,023.15	32.201730	-103.616626
14,500.00	90.00	359.68	12,550.00	1,873.39	-734.25	437,962.46	763,022.59	32.202005	-103.616625
14,600.00	90.00	359.68	12,550.00	1,973.39	-734.82	438,062.46	763,022.02	32.202280	-103.616625
14,700.00	90.00	359.68	12,550.00	2,073.39	-735.38	438,162.46	763,021.45	32.202554	-103.616625
14,800.00	90.00	359.68	12,550.00	2,173.39	-735.95	438,262.45	763,020.89	32.202829	-103.616624
14,900.00	90.00	359.68	12,550.00	2,273.39	-736.52	438,362.45	763,020.32	32.203104	-103.616624
15,000.00	90.00	359.68	12,550.00	2,373.38	-737.08	438,462.45	763,019.75	32.203379	-103.616624
15,100.00	90.00	359.68	12,550.00	2,473.38	-737.65	438,562.45	763,019.19	32.203654	-103.616623
15,200.00	90.00	359.68	12,550.00	2,573.38	-738.22	438,662.45	763,018.62	32.203929	-103.616623
15,300.00	90.00	359.68	12,550.00	2,673.38	-738.78	438,762.44	763,018.05	32.204204	-103.616623
15,400.00	90.00	359.68	12,550.00	2,773.38	-739.35	438,862.44	763,017.49	32.204479	-103.616622
15,500.00	90.00	359.68	12,550.00	2,873.38	-739.92	438,962.44	763,016.92	32.204753	-103.616622

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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	359.68	12,550.00	2,973.38	-740.49	439,062.44	763,016.35	32.205028	-103.616622
15,700.00	90.00	359.68	12,550.00	3,073.37	-741.05	439,162.44	763,015.79	32.205303	-103.616621
15,800.00	90.00	359.68	12,550.00	3,173.37	-741.62	439,262.44	763,015.22	32.205578	-103.616621
15,900.00	90.00	359.68	12,550.00	3,273.37	-742.19	439,362.43	763,014.65	32.205853	-103.616621
16,000.00	90.00	359.68	12,550.00	3,373.37	-742.75	439,462.43	763,014.09	32.206128	-103.616620
16,100.00	90.00	359.68	12,550.00	3,473.37	-743.32	439,562.43	763,013.52	32.206403	-103.616620
16,200.00	90.00	359.68	12,550.00	3,573.37	-743.89	439,662.43	763,012.95	32.206678	-103.616620
16,300.00	90.00	359.68	12,550.00	3,673.36	-744.45	439,762.43	763,012.39	32.206953	-103.616619
16,400.00	90.00	359.68	12,550.00	3,773.36	-745.02	439,862.42	763,011.82	32.207227	-103.616619
16,500.00	90.00	359.68	12,550.00	3,873.36	-745.59	439,962.42	763,011.25	32.207502	-103.616619
16,600.00	90.00	359.68	12,550.00	3,973.36	-746.15	440,062.42	763,010.69	32.207777	-103.616618
16,700.00	90.00	359.68	12,550.00	4,073.36	-746.72	440,162.42	763,010.12	32.208052	-103.616618
16,800.00	90.00	359.68	12,550.00	4,173.36	-747.29	440,262.42	763,009.55	32.208327	-103.616618
16,900.00	90.00	359.68	12,550.00	4,273.35	-747.85	440,362.42	763,008.99	32.208602	-103.616617
17,000.00	90.00	359.68	12,550.00	4,373.35	-748.42	440,462.41	763,008.42	32.208877	-103.616617
17,100.00	90.00	359.68	12,550.00	4,473.35	-748.99	440,562.41	763,007.85	32.209152	-103.616617
17,200.00	90.00	359.68	12,550.00	4,573.35	-749.55	440,662.41	763,007.29	32.209426	-103.616616
17,300.00	90.00	359.68	12,550.00	4,673.35	-750.12	440,762.41	763,006.72	32.209701	-103.616616
17,400.00	90.00	359.68	12,550.00	4,773.35	-750.69	440,862.41	763,006.15	32.209976	-103.616616
17,500.00	90.00	359.68	12,550.00	4,873.34	-751.25	440,962.40	763,005.58	32.210251	-103.616616
17,568.66	90.00	359.68	12,550.00	4,942.00	-751.64	441,031.06	763,005.20	32.210440	-103.616615
Cross Section @ 17569' MD, 0' FSL, 990' FWL									
17,600.00	90.00	359.68	12,550.00	4,973.34	-751.82	441,062.40	763,005.02	32.210526	-103.616615
17,700.00	90.00	359.68	12,550.00	5,073.34	-752.39	441,162.40	763,004.45	32.210801	-103.616615
17,800.00	90.00	359.68	12,550.00	5,173.34	-752.95	441,262.40	763,003.88	32.211076	-103.616615
17,900.00	90.00	359.68	12,550.00	5,273.34	-753.52	441,362.40	763,003.32	32.211351	-103.616614
18,000.00	90.00	359.68	12,550.00	5,373.34	-754.09	441,462.40	763,002.75	32.211625	-103.616614
18,100.00	90.00	359.68	12,550.00	5,473.34	-754.65	441,562.39	763,002.18	32.211900	-103.616614
18,200.00	90.00	359.68	12,550.00	5,573.33	-755.22	441,662.39	763,001.62	32.212175	-103.616613
18,300.00	90.00	359.68	12,550.00	5,673.33	-755.79	441,762.39	763,001.05	32.212450	-103.616613
18,400.00	90.00	359.68	12,550.00	5,773.33	-756.35	441,862.39	763,000.48	32.212725	-103.616613
18,500.00	90.00	359.68	12,550.00	5,873.33	-756.92	441,962.39	762,999.92	32.213000	-103.616612
18,600.00	90.00	359.68	12,550.00	5,973.33	-757.49	442,062.38	762,999.35	32.213275	-103.616612
18,700.00	90.00	359.68	12,550.00	6,073.33	-758.06	442,162.38	762,998.78	32.213550	-103.616612
18,800.00	90.00	359.68	12,550.00	6,173.32	-758.62	442,262.38	762,998.22	32.213824	-103.616611
18,900.00	90.00	359.68	12,550.00	6,273.32	-759.19	442,362.38	762,997.65	32.214099	-103.616611
19,000.00	90.00	359.68	12,550.00	6,373.32	-759.76	442,462.38	762,997.08	32.214374	-103.616611
19,100.00	90.00	359.68	12,550.00	6,473.32	-760.32	442,562.38	762,996.52	32.214649	-103.616610
19,200.00	90.00	359.68	12,550.00	6,573.32	-760.89	442,662.37	762,995.95	32.214924	-103.616610
19,300.00	90.00	359.68	12,550.00	6,673.32	-761.46	442,762.37	762,995.38	32.215199	-103.616610
19,400.00	90.00	359.68	12,550.00	6,773.31	-762.02	442,862.37	762,994.82	32.215474	-103.616609
19,500.00	90.00	359.68	12,550.00	6,873.31	-762.59	442,962.37	762,994.25	32.215749	-103.616609
19,600.00	90.00	359.68	12,550.00	6,973.31	-763.16	443,062.37	762,993.68	32.216023	-103.616609
19,700.00	90.00	359.68	12,550.00	7,073.31	-763.72	443,162.36	762,993.12	32.216298	-103.616608
19,800.00	90.00	359.68	12,550.00	7,173.31	-764.29	443,262.36	762,992.55	32.216573	-103.616608
19,900.00	90.00	359.68	12,550.00	7,273.31	-764.86	443,362.36	762,991.98	32.216848	-103.616608
20,000.00	90.00	359.68	12,550.00	7,373.30	-765.42	443,462.36	762,991.42	32.217123	-103.616607
20,100.00	90.00	359.68	12,550.00	7,473.30	-765.99	443,562.36	762,990.85	32.217398	-103.616607
20,200.00	90.00	359.68	12,550.00	7,573.30	-766.56	443,662.36	762,990.28	32.217673	-103.616607
20,300.00	90.00	359.68	12,550.00	7,673.30	-767.12	443,762.35	762,989.71	32.217948	-103.616606
20,400.00	90.00	359.68	12,550.00	7,773.30	-767.69	443,862.35	762,989.15	32.218222	-103.616606
20,500.00	90.00	359.68	12,550.00	7,873.30	-768.26	443,962.35	762,988.58	32.218497	-103.616606
20,600.00	90.00	359.68	12,550.00	7,973.29	-768.82	444,062.35	762,988.01	32.218772	-103.616605
20,700.00	90.00	359.68	12,550.00	8,073.29	-769.39	444,162.35	762,987.45	32.219047	-103.616605

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Bell Lake 19-18 State Com 30H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3574.00ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3574.00ft
Site:	Sec 19-T24S-R33E	North Reference:	Grid
Well:	Bell Lake 19-18 State Com 30H	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
20,800.00	90.00	359.68	12,550.00	8,173.29	-769.96	444,262.35	762,986.88	32.219322	-103.616605
20,900.00	90.00	359.68	12,550.00	8,273.29	-770.52	444,362.34	762,986.31	32.219597	-103.616604
21,000.00	90.00	359.68	12,550.00	8,373.29	-771.09	444,462.34	762,985.75	32.219872	-103.616604
21,100.00	90.00	359.68	12,550.00	8,473.29	-771.66	444,562.34	762,985.18	32.220147	-103.616604
21,200.00	90.00	359.68	12,550.00	8,573.29	-772.22	444,662.34	762,984.61	32.220421	-103.616604
21,300.00	90.00	359.68	12,550.00	8,673.28	-772.79	444,762.34	762,984.05	32.220696	-103.616603
21,400.00	90.00	359.68	12,550.00	8,773.28	-773.36	444,862.33	762,983.48	32.220971	-103.616603
21,500.00	90.00	359.68	12,550.00	8,873.28	-773.93	444,962.33	762,982.91	32.221246	-103.616603
21,600.00	90.00	359.68	12,550.00	8,973.28	-774.49	445,062.33	762,982.35	32.221521	-103.616602
21,700.00	90.00	359.68	12,550.00	9,073.28	-775.06	445,162.33	762,981.78	32.221796	-103.616602
21,800.00	90.00	359.68	12,550.00	9,173.28	-775.63	445,262.33	762,981.21	32.222071	-103.616602
21,900.00	90.00	359.68	12,550.00	9,273.27	-776.19	445,362.33	762,980.65	32.222345	-103.616601
22,000.00	90.00	359.68	12,550.00	9,373.27	-776.76	445,462.32	762,980.08	32.222620	-103.616601
22,100.00	90.00	359.68	12,550.00	9,473.27	-777.33	445,562.32	762,979.51	32.222895	-103.616601
22,200.00	90.00	359.68	12,550.00	9,573.27	-777.89	445,662.32	762,978.95	32.223170	-103.616600
22,300.00	90.00	359.68	12,550.00	9,673.27	-778.46	445,762.32	762,978.38	32.223445	-103.616600
22,400.00	90.00	359.68	12,550.00	9,773.27	-779.03	445,862.32	762,977.81	32.223720	-103.616600
22,500.00	90.00	359.68	12,550.00	9,873.26	-779.59	445,962.31	762,977.25	32.223995	-103.616599
22,600.00	90.00	359.68	12,550.00	9,973.26	-780.16	446,062.31	762,976.68	32.224270	-103.616599
22,700.00	90.00	359.68	12,550.00	10,073.26	-780.73	446,162.31	762,976.11	32.224544	-103.616599
22,746.19	90.00	359.68	12,550.00	10,119.45	-780.99	446,208.50	762,975.85	32.224671	-103.616599
LTP @ 22746' MD, 100' FNL, 990' FWL									
22,800.00	90.00	359.68	12,550.00	10,173.26	-781.29	446,262.31	762,975.55	32.224819	-103.616598
22,826.19	90.00	359.68	12,550.00	10,199.45	-781.44	446,288.50	762,975.40	32.224891	-103.616598
PBHL; 20' FNL, 990' FWL									

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PBHL - Bell Lake 19-18	0.00	0.00	0.00	10,199.45	-781.44	446,288.50	762,975.40	32.224891	-103.616598
- plan misses target center by 10229.34ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
12,011.53	11,977.04	-288.00	-722.00	KOP @ 12012' MD, 50' FSL, 990' FWL
12,252.67	12,211.12	-238.00	-722.28	FTP @ 12253' MD, 100' FSL, 990' FWL
17,568.66	12,550.00	4,942.00	-751.64	Cross Section @ 17569' MD, 0' FSL, 990' FWL
22,746.19	12,550.00	10,119.45	-780.99	LTP @ 22746' MD, 100' FNL, 990' FWL
22,826.19	12,550.00	10,199.45	-781.44	PBHL; 20' FNL, 990' FWL