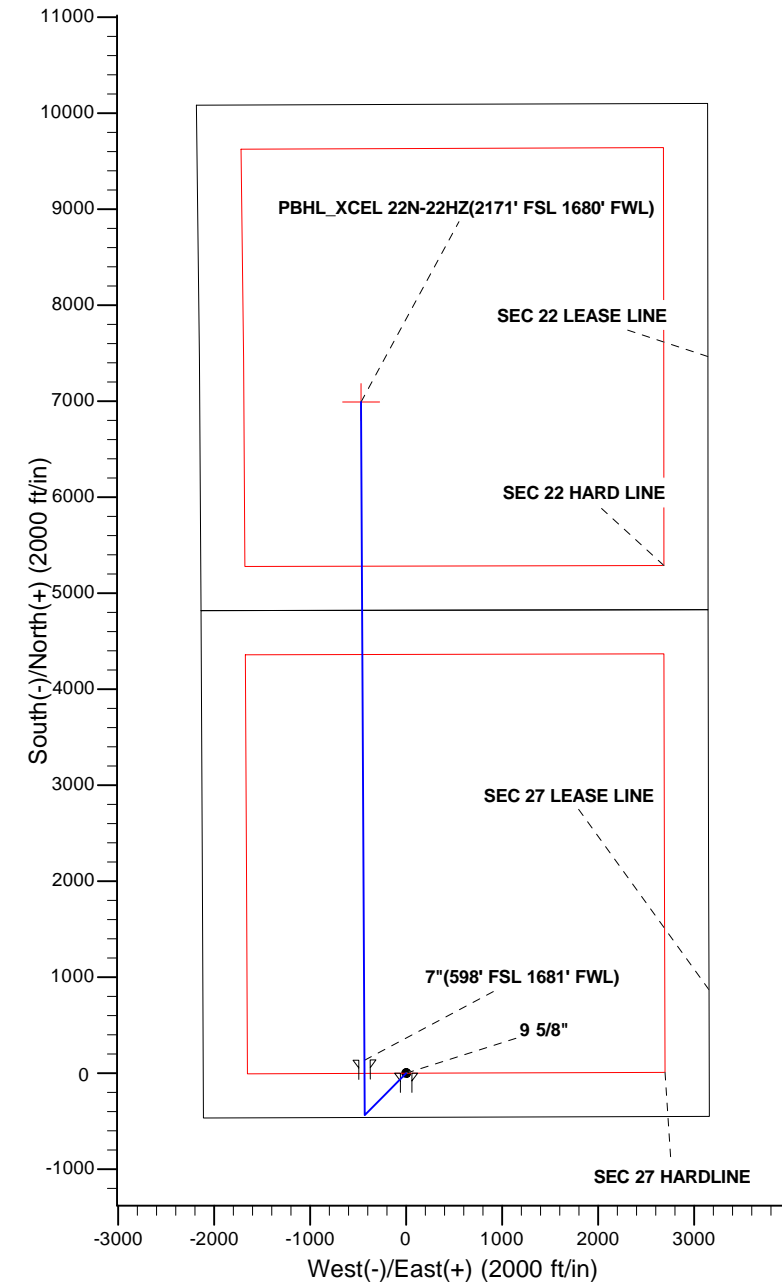
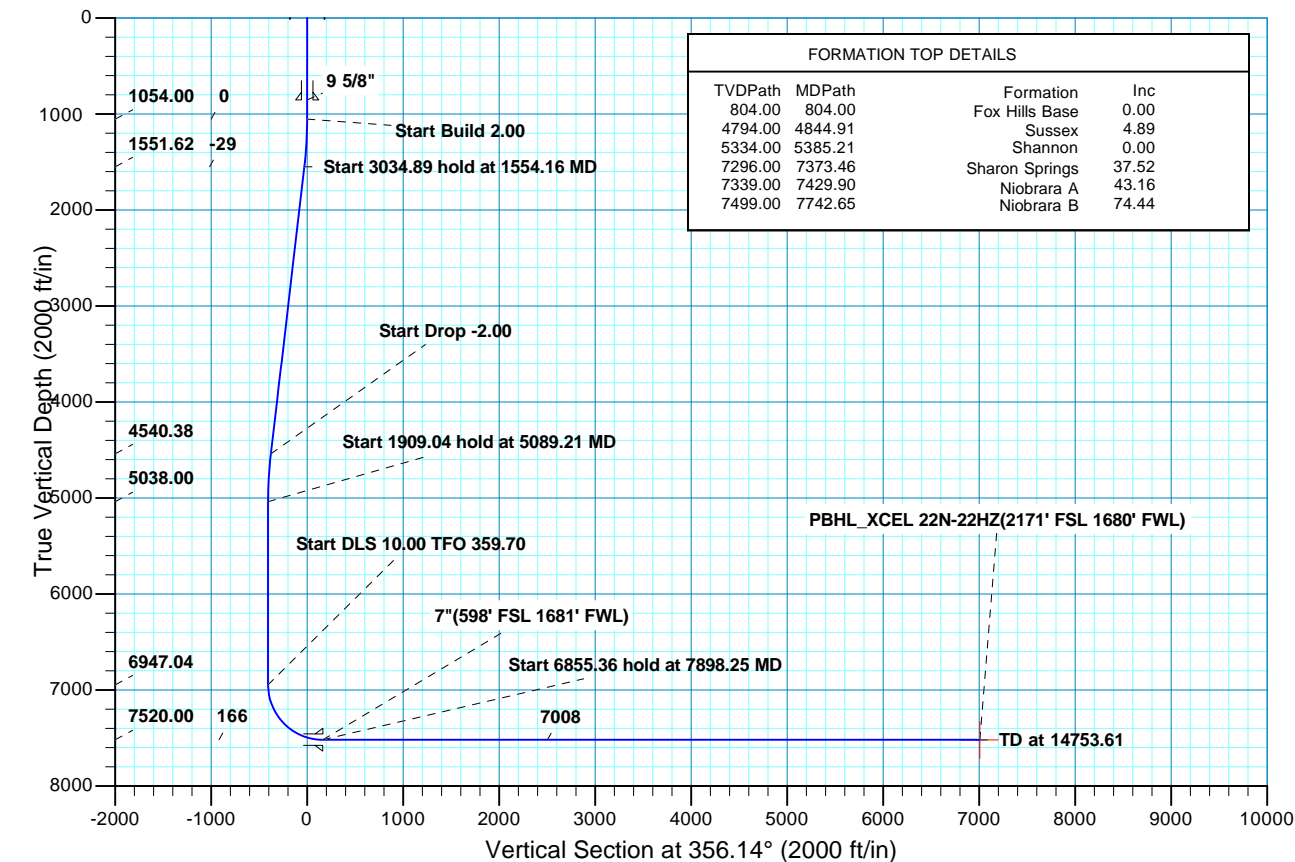


WELL DETAILS: XCEL 22N-22HZ										
GL 5037' & KB 17' @ 5054.00ft (ASSUMED)										
		+N/-S	+E/-W	Northing		Easting		Latitude	Longitude	
		0.00	0.00	1249323.12		3174074.60		40.0161040	-104.8784940	
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1054.00	0.00	0.00	1054.00	0.00	0.00	0.00	0.00	0.00		
1554.16	10.00	224.74	1551.62	-30.93	-30.66	2.00	224.74	-28.80		
4589.05	10.00	224.74	4540.38	-405.36	-401.75	0.00	0.00	-377.42		
5089.21	0.00	0.00	5038.00	-436.29	-432.41	2.00	180.00	-406.22		
6998.25	0.00	0.00	6947.04	-436.29	-432.41	0.00	0.00	-406.22		
7898.25	90.00	359.70	7520.00	136.66	-435.41	10.00	359.70	165.63		
14753.61	90.00	359.70	7520.00	6991.92	-471.26	0.00	0.007007.79		PBHL_XCEL 22N-22HZ(2171' FSL 1680' FWL)	
							CASING DETAILS			
							TVD	MD	Name	Size
							854.00	854.00	9 5/8"	9.625
							7520.00	7898.25	7"	7.000





# Scientific Drilling

## **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**XCEL 11C-22HZ 1N67W27 Pad**

**XCEL 22N-22HZ**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**30 May, 2013**

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	XCEL 11C-22HZ 1N67W27 Pad, SECTION 27 T1N 67W			
<b>Site Position:</b>		<b>Northing:</b>	1,249,323.34 usft	<b>Latitude:</b> 40.0161040
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,174,104.57 usft	<b>Longitude:</b> -104.8783870
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.40 °

<b>Well</b>	XCEL 22N-22HZ, 460' FSL 2115' FWL			
<b>Well Position</b>	<b>+N/-S</b>	-0.01 ft	<b>Northing:</b>	1,249,323.12 usft
	<b>+E/-W</b>	-29.97 ft	<b>Easting:</b>	3,174,074.60 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 5,037.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2012	2013/05/29	8.68	66.63	52,609

<b>Design</b>	PLAN #1 PRELIMINARY			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	356.14

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,054.00	0.00	0.00	1,054.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,554.16	10.00	224.74	1,551.62	-30.93	-30.66	2.00	2.00	0.00	224.74	
4,589.05	10.00	224.74	4,540.38	-405.36	-401.75	0.00	0.00	0.00	0.00	
5,089.21	0.00	0.00	5,038.00	-436.29	-432.41	2.00	-2.00	0.00	180.00	
6,998.25	0.00	0.00	6,947.04	-436.29	-432.41	0.00	0.00	0.00	0.00	
7,898.25	90.00	359.70	7,520.00	136.66	-435.41	10.00	10.00	-0.03	359.70	
14,753.61	90.00	359.70	7,520.00	6,991.92	-471.26	0.00	0.00	0.00	0.00	PBHL_XCEL 22N-22H

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
804.00	0.00	0.00	804.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills Base									
854.00	0.00	0.00	854.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,054.00	0.00	0.00	1,054.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	0.92	224.74	1,100.00	-0.26	-0.26	-0.24	2.00	2.00	0.00
1,200.00	2.92	224.74	1,199.94	-2.64	-2.62	-2.46	2.00	2.00	0.00
1,300.00	4.92	224.74	1,299.70	-7.50	-7.43	-6.98	2.00	2.00	0.00
1,400.00	6.92	224.74	1,399.16	-14.82	-14.69	-13.80	2.00	2.00	0.00
1,500.00	8.92	224.74	1,498.20	-24.61	-24.39	-22.91	2.00	2.00	0.00
1,554.16	10.00	224.74	1,551.62	-30.93	-30.66	-28.80	2.00	2.00	0.00
Start 3034.89 hold at 1554.16 MD									
1,600.00	10.00	224.74	1,596.77	-36.59	-36.26	-34.07	0.00	0.00	0.00
1,700.00	10.00	224.74	1,695.25	-48.92	-48.49	-45.55	0.00	0.00	0.00
1,800.00	10.00	224.74	1,793.73	-61.26	-60.72	-57.04	0.00	0.00	0.00
1,900.00	10.00	224.74	1,892.21	-73.60	-72.95	-68.53	0.00	0.00	0.00
2,000.00	10.00	224.74	1,990.69	-85.94	-85.17	-80.01	0.00	0.00	0.00
2,100.00	10.00	224.74	2,089.17	-98.27	-97.40	-91.50	0.00	0.00	0.00
2,200.00	10.00	224.74	2,187.65	-110.61	-109.63	-102.99	0.00	0.00	0.00
2,300.00	10.00	224.74	2,286.12	-122.95	-121.86	-114.48	0.00	0.00	0.00
2,400.00	10.00	224.74	2,384.60	-135.29	-134.08	-125.96	0.00	0.00	0.00
2,500.00	10.00	224.74	2,483.08	-147.62	-146.31	-137.45	0.00	0.00	0.00
2,600.00	10.00	224.74	2,581.56	-159.96	-158.54	-148.94	0.00	0.00	0.00
2,700.00	10.00	224.74	2,680.04	-172.30	-170.77	-160.43	0.00	0.00	0.00
2,800.00	10.00	224.74	2,778.52	-184.64	-182.99	-171.91	0.00	0.00	0.00
2,900.00	10.00	224.74	2,877.00	-196.97	-195.22	-183.40	0.00	0.00	0.00
3,000.00	10.00	224.74	2,975.48	-209.31	-207.45	-194.89	0.00	0.00	0.00
3,100.00	10.00	224.74	3,073.96	-221.65	-219.68	-206.37	0.00	0.00	0.00
3,200.00	10.00	224.74	3,172.44	-233.99	-231.90	-217.86	0.00	0.00	0.00
3,300.00	10.00	224.74	3,270.92	-246.32	-244.13	-229.35	0.00	0.00	0.00
3,400.00	10.00	224.74	3,369.40	-258.66	-256.36	-240.84	0.00	0.00	0.00
3,500.00	10.00	224.74	3,467.88	-271.00	-268.59	-252.32	0.00	0.00	0.00
3,600.00	10.00	224.74	3,566.36	-283.34	-280.82	-263.81	0.00	0.00	0.00
3,700.00	10.00	224.74	3,664.84	-295.67	-293.04	-275.30	0.00	0.00	0.00
3,800.00	10.00	224.74	3,763.32	-308.01	-305.27	-286.78	0.00	0.00	0.00
3,900.00	10.00	224.74	3,861.80	-320.35	-317.50	-298.27	0.00	0.00	0.00
4,000.00	10.00	224.74	3,960.28	-332.68	-329.73	-309.76	0.00	0.00	0.00
4,100.00	10.00	224.74	4,058.76	-345.02	-341.95	-321.25	0.00	0.00	0.00
4,200.00	10.00	224.74	4,157.24	-357.36	-354.18	-332.73	0.00	0.00	0.00
4,300.00	10.00	224.74	4,255.72	-369.70	-366.41	-344.22	0.00	0.00	0.00
4,400.00	10.00	224.74	4,354.20	-382.03	-378.64	-355.71	0.00	0.00	0.00
4,500.00	10.00	224.74	4,452.68	-394.37	-390.86	-367.19	0.00	0.00	0.00

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,589.05	10.00	224.74	4,540.38	-405.36	-401.75	-377.42	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,600.00	9.78	224.74	4,551.16	-406.69	-403.08	-378.67	2.00	-2.00	0.00
4,700.00	7.78	224.74	4,649.99	-417.54	-413.83	-388.77	2.00	-2.00	0.00
4,800.00	5.78	224.74	4,749.28	-425.93	-422.14	-396.58	2.00	-2.00	0.00
4,844.91	4.89	224.74	4,794.00	-428.90	-425.08	-399.34	2.00	-2.00	0.00
<b>Sussex</b>									
4,900.00	3.78	224.74	4,848.93	-431.85	-428.01	-402.09	2.00	-2.00	0.00
5,000.00	1.78	224.74	4,948.80	-435.30	-431.43	-405.31	2.00	-2.00	0.00
5,089.21	0.00	0.00	5,038.00	-436.29	-432.41	-406.22	2.00	-2.00	0.00
<b>Start 1909.04 hold at 5089.21 MD</b>									
5,100.00	0.00	0.00	5,048.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,200.00	0.00	0.00	5,148.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,300.00	0.00	0.00	5,248.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,385.21	0.00	0.00	5,334.00	-436.29	-432.41	-406.22	0.00	0.00	0.00
<b>Shannon</b>									
5,400.00	0.00	0.00	5,348.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,500.00	0.00	0.00	5,448.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,600.00	0.00	0.00	5,548.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,700.00	0.00	0.00	5,648.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,800.00	0.00	0.00	5,748.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
5,900.00	0.00	0.00	5,848.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,000.00	0.00	0.00	5,948.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,100.00	0.00	0.00	6,048.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,200.00	0.00	0.00	6,148.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,300.00	0.00	0.00	6,248.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,400.00	0.00	0.00	6,348.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,500.00	0.00	0.00	6,448.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,600.00	0.00	0.00	6,548.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,700.00	0.00	0.00	6,648.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,800.00	0.00	0.00	6,748.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,900.00	0.00	0.00	6,848.79	-436.29	-432.41	-406.22	0.00	0.00	0.00
6,998.25	0.00	0.00	6,947.04	-436.29	-432.41	-406.22	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 359.70</b>									
7,000.00	0.17	359.70	6,948.79	-436.29	-432.41	-406.22	10.00	10.00	0.00
7,100.00	10.17	359.70	7,048.26	-427.28	-432.46	-397.23	10.00	10.00	0.00
7,200.00	20.17	359.70	7,144.65	-401.14	-432.59	-371.14	10.00	10.00	0.00
7,300.00	30.17	359.70	7,235.03	-358.65	-432.82	-328.73	10.00	10.00	0.00
7,373.46	37.52	359.70	7,296.00	-317.76	-433.03	-287.93	10.00	10.00	0.00
<b>Sharon Springs</b>									
7,400.00	40.17	359.70	7,316.67	-301.12	-433.12	-271.31	10.00	10.00	0.00
7,429.90	43.16	359.70	7,339.00	-281.24	-433.22	-251.47	10.00	10.00	0.00
<b>Niobrara A</b>									
7,500.00	50.17	359.70	7,387.07	-230.28	-433.49	-200.61	10.00	10.00	0.00
7,600.00	60.17	359.70	7,444.11	-148.30	-433.92	-118.78	10.00	10.00	0.00
7,700.00	70.17	359.70	7,486.04	-57.66	-434.39	-28.31	10.00	10.00	0.00
7,742.65	74.44	359.70	7,499.00	-17.03	-434.60	12.24	10.00	10.00	0.00
<b>Niobrara B</b>									
7,800.00	80.17	359.70	7,511.59	38.89	-434.89	68.05	10.00	10.00	0.00
7,898.25	90.00	359.70	7,520.00	136.66	-435.41	165.63	10.00	10.00	0.00
<b>Start 6855.36 hold at 7898.25 MD - 7"(598' FSL 1681' FWL)</b>									
7,900.00	90.00	359.70	7,520.00	138.41	-435.42	167.38	0.00	0.00	0.00
8,000.00	90.00	359.70	7,520.00	238.41	-435.94	267.18	0.00	0.00	0.00

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,100.00	90.00	359.70	7,520.00	338.41	-436.46	366.99	0.00	0.00	0.00
8,200.00	90.00	359.70	7,520.00	438.41	-436.98	466.80	0.00	0.00	0.00
8,300.00	90.00	359.70	7,520.00	538.40	-437.51	566.61	0.00	0.00	0.00
8,400.00	90.00	359.70	7,520.00	638.40	-438.03	666.41	0.00	0.00	0.00
8,500.00	90.00	359.70	7,520.00	738.40	-438.55	766.22	0.00	0.00	0.00
8,600.00	90.00	359.70	7,520.00	838.40	-439.08	866.03	0.00	0.00	0.00
8,700.00	90.00	359.70	7,520.00	938.40	-439.60	965.84	0.00	0.00	0.00
8,800.00	90.00	359.70	7,520.00	1,038.40	-440.12	1,065.64	0.00	0.00	0.00
8,900.00	90.00	359.70	7,520.00	1,138.40	-440.64	1,165.45	0.00	0.00	0.00
9,000.00	90.00	359.70	7,520.00	1,238.39	-441.17	1,265.26	0.00	0.00	0.00
9,100.00	90.00	359.70	7,520.00	1,338.39	-441.69	1,365.07	0.00	0.00	0.00
9,200.00	90.00	359.70	7,520.00	1,438.39	-442.21	1,464.87	0.00	0.00	0.00
9,300.00	90.00	359.70	7,520.00	1,538.39	-442.74	1,564.68	0.00	0.00	0.00
9,400.00	90.00	359.70	7,520.00	1,638.39	-443.26	1,664.49	0.00	0.00	0.00
9,500.00	90.00	359.70	7,520.00	1,738.39	-443.78	1,764.30	0.00	0.00	0.00
9,600.00	90.00	359.70	7,520.00	1,838.39	-444.31	1,864.10	0.00	0.00	0.00
9,700.00	90.00	359.70	7,520.00	1,938.39	-444.83	1,963.91	0.00	0.00	0.00
9,800.00	90.00	359.70	7,520.00	2,038.38	-445.35	2,063.72	0.00	0.00	0.00
9,900.00	90.00	359.70	7,520.00	2,138.38	-445.87	2,163.53	0.00	0.00	0.00
10,000.00	90.00	359.70	7,520.00	2,238.38	-446.40	2,263.33	0.00	0.00	0.00
10,100.00	90.00	359.70	7,520.00	2,338.38	-446.92	2,363.14	0.00	0.00	0.00
10,200.00	90.00	359.70	7,520.00	2,438.38	-447.44	2,462.95	0.00	0.00	0.00
10,300.00	90.00	359.70	7,520.00	2,538.38	-447.97	2,562.76	0.00	0.00	0.00
10,400.00	90.00	359.70	7,520.00	2,638.38	-448.49	2,662.56	0.00	0.00	0.00
10,500.00	90.00	359.70	7,520.00	2,738.37	-449.01	2,762.37	0.00	0.00	0.00
10,600.00	90.00	359.70	7,520.00	2,838.37	-449.53	2,862.18	0.00	0.00	0.00
10,700.00	90.00	359.70	7,520.00	2,938.37	-450.06	2,961.99	0.00	0.00	0.00
10,800.00	90.00	359.70	7,520.00	3,038.37	-450.58	3,061.79	0.00	0.00	0.00
10,900.00	90.00	359.70	7,520.00	3,138.37	-451.10	3,161.60	0.00	0.00	0.00
11,000.00	90.00	359.70	7,520.00	3,238.37	-451.63	3,261.41	0.00	0.00	0.00
11,100.00	90.00	359.70	7,520.00	3,338.37	-452.15	3,361.21	0.00	0.00	0.00
11,200.00	90.00	359.70	7,520.00	3,438.36	-452.67	3,461.02	0.00	0.00	0.00
11,300.00	90.00	359.70	7,520.00	3,538.36	-453.20	3,560.83	0.00	0.00	0.00
11,400.00	90.00	359.70	7,520.00	3,638.36	-453.72	3,660.64	0.00	0.00	0.00
11,500.00	90.00	359.70	7,520.00	3,738.36	-454.24	3,760.44	0.00	0.00	0.00
11,600.00	90.00	359.70	7,520.00	3,838.36	-454.76	3,860.25	0.00	0.00	0.00
11,700.00	90.00	359.70	7,520.00	3,938.36	-455.29	3,960.06	0.00	0.00	0.00
11,800.00	90.00	359.70	7,520.00	4,038.36	-455.81	4,059.87	0.00	0.00	0.00
11,900.00	90.00	359.70	7,520.00	4,138.36	-456.33	4,159.67	0.00	0.00	0.00
12,000.00	90.00	359.70	7,520.00	4,238.35	-456.86	4,259.48	0.00	0.00	0.00
12,100.00	90.00	359.70	7,520.00	4,338.35	-457.38	4,359.29	0.00	0.00	0.00
12,200.00	90.00	359.70	7,520.00	4,438.35	-457.90	4,459.10	0.00	0.00	0.00
12,300.00	90.00	359.70	7,520.00	4,538.35	-458.42	4,558.90	0.00	0.00	0.00
12,400.00	90.00	359.70	7,520.00	4,638.35	-458.95	4,658.71	0.00	0.00	0.00
12,500.00	90.00	359.70	7,520.00	4,738.35	-459.47	4,758.52	0.00	0.00	0.00
12,600.00	90.00	359.70	7,520.00	4,838.35	-459.99	4,858.33	0.00	0.00	0.00
12,700.00	90.00	359.70	7,520.00	4,938.34	-460.52	4,958.13	0.00	0.00	0.00
12,800.00	90.00	359.70	7,520.00	5,038.34	-461.04	5,057.94	0.00	0.00	0.00
12,900.00	90.00	359.70	7,520.00	5,138.34	-461.56	5,157.75	0.00	0.00	0.00
13,000.00	90.00	359.70	7,520.00	5,238.34	-462.09	5,257.56	0.00	0.00	0.00
13,100.00	90.00	359.70	7,520.00	5,338.34	-462.61	5,357.36	0.00	0.00	0.00
13,200.00	90.00	359.70	7,520.00	5,438.34	-463.13	5,457.17	0.00	0.00	0.00
13,300.00	90.00	359.70	7,520.00	5,538.34	-463.65	5,556.98	0.00	0.00	0.00
13,400.00	90.00	359.70	7,520.00	5,638.33	-464.18	5,656.79	0.00	0.00	0.00

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,500.00	90.00	359.70	7,520.00	5,738.33	-464.70	5,756.59	0.00	0.00	0.00
13,600.00	90.00	359.70	7,520.00	5,838.33	-465.22	5,856.40	0.00	0.00	0.00
13,700.00	90.00	359.70	7,520.00	5,938.33	-465.75	5,956.21	0.00	0.00	0.00
13,800.00	90.00	359.70	7,520.00	6,038.33	-466.27	6,056.02	0.00	0.00	0.00
13,900.00	90.00	359.70	7,520.00	6,138.33	-466.79	6,155.82	0.00	0.00	0.00
14,000.00	90.00	359.70	7,520.00	6,238.33	-467.31	6,255.63	0.00	0.00	0.00
14,100.00	90.00	359.70	7,520.00	6,338.33	-467.84	6,355.44	0.00	0.00	0.00
14,200.00	90.00	359.70	7,520.00	6,438.32	-468.36	6,455.25	0.00	0.00	0.00
14,300.00	90.00	359.70	7,520.00	6,538.32	-468.88	6,555.05	0.00	0.00	0.00
14,400.00	90.00	359.70	7,520.00	6,638.32	-469.41	6,654.86	0.00	0.00	0.00
14,500.00	90.00	359.70	7,520.00	6,738.32	-469.93	6,754.67	0.00	0.00	0.00
14,600.00	90.00	359.70	7,520.00	6,838.32	-470.45	6,854.48	0.00	0.00	0.00
14,700.00	90.00	359.70	7,520.00	6,938.32	-470.98	6,954.28	0.00	0.00	0.00
14,753.61	90.00	359.70	7,520.00	6,991.92	-471.26	7,007.79	0.00	0.00	0.00
TD at 14753.61 - PBHL_XCEL 22N-22HZ(2171' FSL 1680' FWL)									

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_XCEL 22N-22HZ	0.00	0.00	7,520.00	6,991.92	-471.26	1,256,311.55	3,173,554.35	40.0352980	-104.8801770
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
854.00	854.00	9 5/8"	9.625	12.250	
7,898.25	7,520.00	7"(598' FSL 1681' FWL)	7.000	7.500	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
804.00	804.00	Fox Hills Base				
4,844.91	4,794.00	Sussex				
5,385.21	5,334.00	Shannon				
7,373.46	7,296.00	Sharon Springs				
7,429.90	7,339.00	Niobrara A				
7,742.65	7,499.00	Niobrara B				

<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well XCEL 22N-22HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5037' & KB 17' @ 5054.00ft (ASSUMED)
<b>Site:</b>	XCEL 11C-22HZ 1N67W27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	XCEL 22N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,054.00	1,054.00	0.00	0.00	Start Build 2.00
1,554.16	1,551.62	-30.93	-30.66	Start 3034.89 hold at 1554.16 MD
4,589.05	4,540.38	-405.36	-401.75	Start Drop -2.00
5,089.21	5,038.00	-436.29	-432.41	Start 1909.04 hold at 5089.21 MD
6,998.25	6,947.04	-436.29	-432.41	Start DLS 10.00 TFO 359.70
7,898.25	7,520.00	136.66	-435.41	Start 6855.36 hold at 7898.25 MD
14,753.61	7,520.00	6,991.92	-471.26	TD at 14753.61