



Project: US Rockies Wattenberg Planning  
 Site: Land 18-32HZ Pad 2N-66W-32  
 Well: Land Fed 29C-29HZ  
 Wellbore: OH  
 Design: OH



#### WELL DETAILS: Land Fed 29C-29HZ

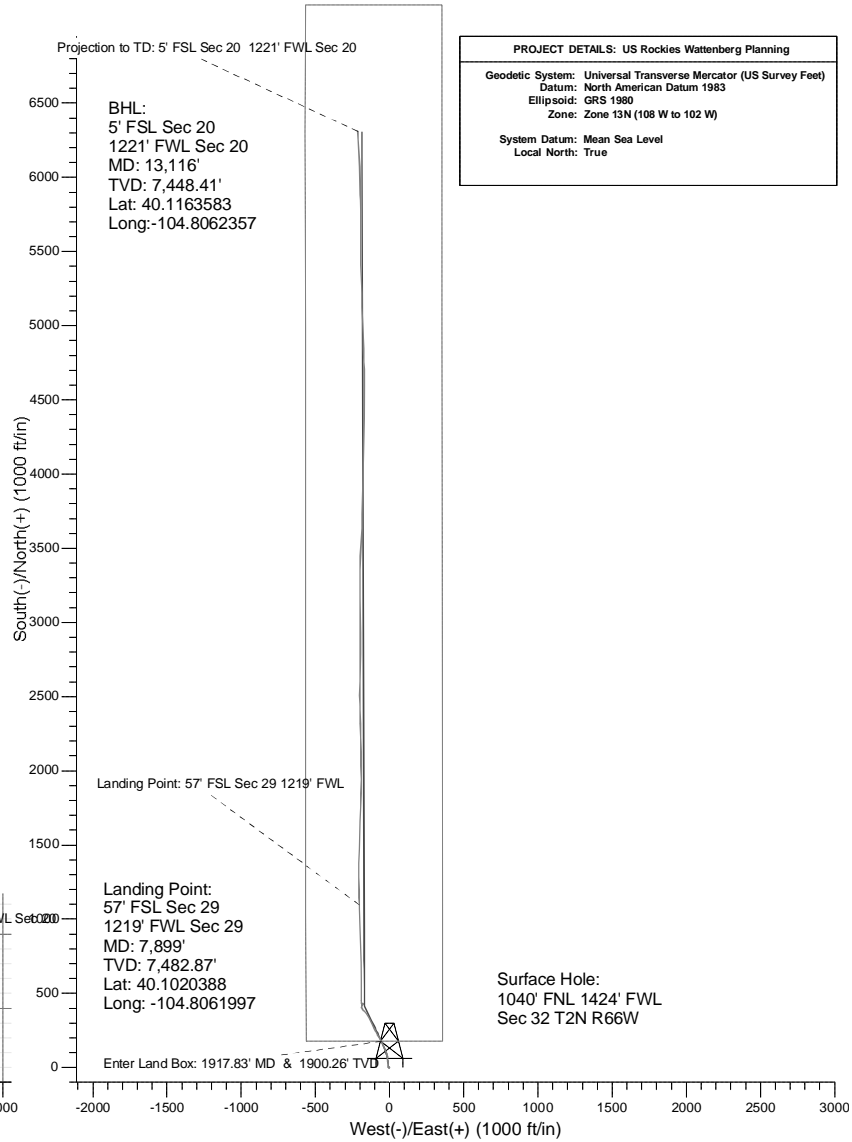
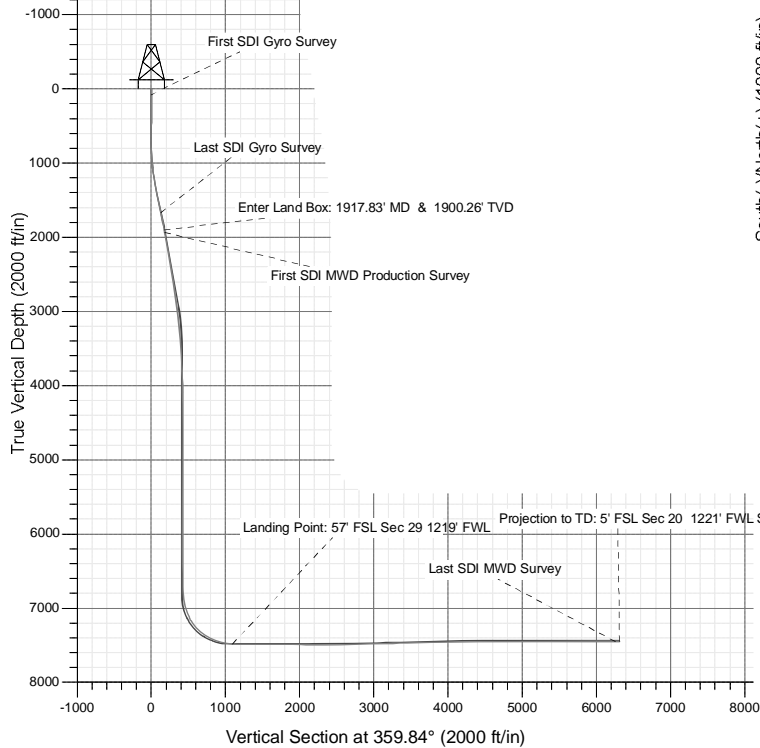
GL 4899' & KB 20' @ 4919.00ft (Precision 461) 4899.00  
 Northing Easting Latitude Longitude  
 14562852.64 1694817.06 40.0990260 -104.8054670

Design: OH (Land Fed 29C-29HZ/OH)

Created By: Seth Burstad Date: 6-27-2016

#### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Annotation
77.50	77.50	0.47	70.76	0.10	0.30	First SDI Gyro Survey
1665.27	1677.50	13.42	337.70	130.86	-35.25	Last SDI Gyro Survey
1900.26	1917.83	10.74	336.06	177.13	-54.92	Enter Land Box: 1917.83' MD & 1900.26' TVD
1937.79	1956.00	10.31	335.72	183.49	-57.77	First SDI MWD Production Survey
7482.87	7899.00	86.87	0.05	1097.10	-204.90	Landing Point: 57' FSL Sec 29 1219' FWL
7448.85	13059.00	90.44	356.49	6254.63	-211.42	Last SDI MWD Survey
7448.41	13116.00	90.44	356.49	6311.52	-214.91	Projection to TD: 5' FSL Sec 20 1221' FWL Sec 20



#### PROJECT DETAILS: US Rockies Wattenberg Planning

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Zone 13N (108 W to 102 W)  
 System Datum: Mean Sea Level  
 Local North: True



# **US ROCKIES REGION PLANNING**

**US Rockies Wattenberg Planning**

**Land 18-32HZ Pad 2N-66W-32**

**Land Fed 29C-29HZ**

**OH**

**Design: OH**

## **Standard Survey Report**

**27 June, 2016**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Land Fed 29C-29HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Site:</b>	Land 18-32HZ Pad 2N-66W-32	<b>MD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Well:</b>	Land Fed 29C-29HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales Office

<b>Project</b>	US Rockies Wattenberg Planning		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

<b>Site</b>	Land 18-32HZ Pad 2N-66W-32, Site Center: Land Fed 30C-29HZ		
<b>Site Position:</b>		<b>Northing:</b>	14,562,853.50 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,694,712.19 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in
		<b>Latitude:</b>	40.0990290
		<b>Longitude:</b>	-104.8058420
		<b>Grid Convergence:</b>	0.13 °

<b>Well</b>	Land Fed 29C-29HZ, 1040' FNL 1424' FWL Sec 32 T2N R66W		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Latitude:</b> 40.0990260
	<b>+E/-W</b>	0.00 ft	<b>Longitude:</b> -104.8054670
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft
		<b>Ground Level:</b>	4,899.00 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>
	User Defined	5/19/2016	8.33	66.69	52,565

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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		359.84

<b>Survey Program</b>	<b>Date</b>	6/27/2016			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
77.50	1,677.50	Survey #2 - Surface (Gyro) (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
1,956.00	13,116.00	Survey #3 - Production (OH)	APC_ISCWSA REV 2 MWD+ Fixed:v2:crustal field declination		

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
77.50	0.47	70.76	77.50	0.10	0.30	0.10	0.61	0.61	0.00	
<b>First SDI Gyro Survey</b>										
171.50	0.23	90.35	171.50	0.23	0.85	0.23	0.28	-0.26	20.84	
265.50	0.24	292.09	265.50	0.30	0.86	0.30	0.49	0.01	-168.36	
359.50	0.63	260.72	359.49	0.29	0.17	0.29	0.47	0.41	-33.37	
453.50	0.67	264.37	453.49	0.16	-0.89	0.16	0.06	0.04	3.88	
547.50	0.68	256.36	547.48	-0.03	-1.98	-0.02	0.10	0.01	-8.52	
641.50	0.98	256.22	641.47	-0.35	-3.30	-0.34	0.32	0.32	-0.15	
735.50	1.17	281.22	735.46	-0.36	-5.02	-0.34	0.53	0.20	26.60	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Land Fed 29C-29HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Site:</b>	Land 18-32HZ Pad 2N-66W-32	<b>MD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Well:</b>	Land Fed 29C-29HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
829.50	2.00	329.62	829.42	1.25	-6.80	1.26	1.60	0.88	51.49
923.50	3.82	352.10	923.30	5.76	-8.06	5.79	2.25	1.94	23.91
1,017.50	6.22	354.25	1,016.93	13.93	-9.00	13.96	2.56	2.55	2.29
1,111.50	8.12	356.25	1,110.19	25.62	-9.94	25.65	2.04	2.02	2.13
1,205.50	8.54	353.97	1,203.20	39.19	-11.11	39.22	0.57	0.45	-2.43
1,298.50	9.87	351.79	1,295.00	53.95	-12.97	53.98	1.48	1.43	-2.34
1,392.50	11.09	351.68	1,387.43	70.87	-15.43	70.91	1.30	1.30	-0.12
1,488.50	12.60	343.46	1,481.39	90.04	-19.75	90.10	2.35	1.57	-8.56
1,583.50	13.73	337.97	1,573.90	110.43	-26.93	110.50	1.77	1.19	-5.78
1,677.50	13.42	337.70	1,665.27	130.86	-35.25	130.96	0.34	-0.33	-0.29
Last SDI Gyro Survey									
1,917.83	10.74	336.06	1,900.26	177.13	-54.92	177.28	1.13	-1.12	-0.68
Enter Land Box: 1917.83' MD & 1900.26' TVD									
1,956.00	10.31	335.72	1,937.79	183.49	-57.77	183.65	1.13	-1.11	-0.89
First SDI MWD Production Survey									
2,050.00	11.46	325.66	2,030.11	198.87	-66.49	199.06	2.36	1.22	-10.70
2,144.00	11.44	328.92	2,122.24	214.57	-76.57	214.78	0.69	-0.02	3.47
2,240.00	11.91	333.37	2,216.25	231.58	-85.93	231.82	1.06	0.49	4.64
2,335.00	10.41	331.45	2,309.45	247.88	-94.43	248.14	1.63	-1.58	-2.02
2,430.00	10.68	336.63	2,402.85	263.50	-102.02	263.78	1.04	0.28	5.45
2,525.00	11.03	334.22	2,496.15	279.76	-109.46	280.07	0.60	0.37	-2.54
2,620.00	10.71	331.25	2,589.45	295.69	-117.66	296.01	0.68	-0.34	-3.13
2,714.00	8.34	331.61	2,682.14	309.34	-125.11	309.69	2.52	-2.52	0.38
2,809.00	8.62	334.80	2,776.11	321.85	-131.41	322.21	0.58	0.29	3.36
2,903.00	9.03	336.93	2,868.99	335.01	-137.30	335.39	0.56	0.44	2.27
2,997.00	9.75	324.33	2,961.74	348.26	-144.84	348.66	2.31	0.77	-13.40
3,091.00	9.38	320.89	3,054.44	360.67	-154.31	361.10	0.72	-0.39	-3.66
3,186.00	8.02	318.47	3,148.34	371.64	-163.59	372.10	1.48	-1.43	-2.55
3,281.00	6.53	315.87	3,242.57	380.48	-171.74	380.96	1.61	-1.57	-2.74
3,376.00	5.38	316.05	3,337.06	387.56	-178.60	388.06	1.21	-1.21	0.19
3,470.00	5.18	333.27	3,430.67	394.53	-183.56	395.04	1.69	-0.21	18.32
3,565.00	4.31	329.92	3,525.34	401.45	-187.28	401.97	0.96	-0.92	-3.53
3,657.00	3.96	2.78	3,617.11	407.61	-188.86	408.14	2.57	-0.38	35.72
3,752.00	2.95	20.55	3,711.94	413.18	-187.84	413.70	1.54	-1.06	18.71
3,846.00	2.25	22.89	3,805.85	417.14	-186.28	417.66	0.75	-0.74	2.49
3,941.00	1.44	13.69	3,900.80	420.02	-185.27	420.54	0.91	-0.85	-9.68
4,035.00	0.92	14.79	3,994.78	421.90	-184.80	422.41	0.55	-0.55	1.17
4,130.00	0.77	28.82	4,089.77	423.19	-184.29	423.71	0.27	-0.16	14.77
4,223.00	1.31	35.47	4,182.75	424.61	-183.38	425.12	0.59	0.58	7.15
4,319.00	1.52	31.74	4,278.72	426.58	-182.07	427.09	0.24	0.22	-3.89
4,414.00	0.44	47.31	4,373.70	427.90	-181.14	428.41	1.16	-1.14	16.39
4,507.00	0.67	72.62	4,466.70	428.31	-180.36	428.81	0.36	0.25	27.22
4,602.00	0.72	65.41	4,561.69	428.72	-179.28	429.22	0.11	0.05	-7.59
4,697.00	0.43	46.74	4,656.69	429.21	-178.48	429.71	0.36	-0.31	-19.65

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<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,791.00	0.62	39.58	4,750.68	429.85	-177.90	430.34	0.21	0.20	-7.62
4,886.00	0.30	50.28	4,845.68	430.40	-177.38	430.90	0.35	-0.34	11.26
4,979.00	0.41	321.57	4,938.68	430.82	-177.40	431.31	0.54	0.12	-95.39
5,072.00	0.77	275.39	5,031.68	431.14	-178.23	431.63	0.61	0.39	-49.66
5,167.00	1.43	271.40	5,126.66	431.23	-180.05	431.73	0.70	0.69	-4.20
5,261.00	1.46	221.01	5,220.63	430.35	-182.01	430.86	1.31	0.03	-53.61
5,355.00	1.22	208.63	5,314.61	428.57	-183.27	429.08	0.40	-0.26	-13.17
5,449.00	1.43	230.12	5,408.58	426.94	-184.65	427.45	0.57	0.22	22.86
5,542.00	0.81	186.54	5,501.56	425.54	-185.62	426.06	1.09	-0.67	-46.86
5,637.00	1.56	125.56	5,596.55	424.12	-184.64	424.64	1.44	0.79	-64.19
5,732.00	0.91	133.07	5,691.52	422.86	-183.04	423.37	0.70	-0.68	7.91
5,828.00	0.39	127.80	5,787.52	422.14	-182.23	422.64	0.54	-0.54	-5.49
5,921.00	0.17	334.79	5,880.52	422.07	-182.03	422.57	0.59	-0.24	-164.53
6,016.00	0.36	282.85	5,975.52	422.26	-182.39	422.77	0.30	0.20	-54.67
6,111.00	0.36	241.78	6,070.51	422.19	-182.94	422.69	0.27	0.00	-43.23
6,205.00	0.37	332.00	6,164.51	422.31	-183.34	422.82	0.55	0.01	95.98
6,298.00	0.55	328.15	6,257.51	422.96	-183.72	423.47	0.20	0.19	-4.14
6,391.00	0.88	340.18	6,350.50	424.01	-184.20	424.52	0.39	0.35	12.94
6,484.00	0.86	323.41	6,443.49	425.24	-184.85	425.76	0.27	-0.02	-18.03
6,578.00	1.15	333.44	6,537.48	426.65	-185.70	427.17	0.36	0.31	10.67
6,671.00	0.82	329.08	6,630.46	428.06	-186.46	428.58	0.36	-0.35	-4.69
6,765.00	0.88	326.83	6,724.45	429.24	-187.20	429.76	0.07	0.06	-2.39
6,859.00	3.03	348.18	6,818.39	432.27	-188.10	432.80	2.38	2.29	22.71
6,952.00	10.06	352.76	6,910.73	442.75	-189.63	443.28	7.57	7.56	4.92
7,046.00	16.64	355.94	7,002.14	464.34	-191.62	464.88	7.04	7.00	3.38
7,140.00	22.97	3.55	7,090.55	496.11	-191.44	496.65	7.26	6.73	8.10
7,235.00	30.16	359.86	7,175.47	538.54	-190.35	539.07	7.76	7.57	-3.88
7,331.00	40.29	358.35	7,253.79	593.83	-191.30	594.36	10.59	10.55	-1.57
7,425.00	50.80	359.39	7,319.53	660.82	-192.57	661.35	11.21	11.18	1.11
7,520.00	58.57	359.37	7,374.41	738.27	-193.41	738.81	8.18	8.18	-0.02
7,615.00	66.12	358.14	7,418.47	822.33	-195.26	822.88	8.03	7.95	-1.29
7,710.00	73.30	357.44	7,451.39	911.31	-198.71	911.86	7.59	7.56	-0.74
7,804.00	80.66	357.41	7,472.56	1,002.74	-202.82	1,003.30	7.83	7.83	-0.03
7,899.00	86.87	0.05	7,482.87	1,097.10	-204.90	1,097.67	7.10	6.54	2.78
<b>Landing Point: 57' FSL Sec 29 1219' FWL</b>									
7,993.00	88.36	359.06	7,486.78	1,191.01	-205.63	1,191.58	1.90	1.59	-1.05
8,086.00	89.29	359.56	7,488.69	1,283.99	-206.75	1,284.56	1.14	1.00	0.54
8,180.00	90.17	1.05	7,489.13	1,377.98	-206.25	1,378.55	1.84	0.94	1.59
8,274.00	89.90	1.48	7,489.08	1,471.96	-204.18	1,472.52	0.54	-0.29	0.46
8,368.00	90.27	1.04	7,488.94	1,565.93	-202.11	1,566.49	0.61	0.39	-0.47
8,463.00	89.87	2.65	7,488.82	1,660.88	-199.05	1,661.43	1.75	-0.42	1.69
8,557.00	90.67	2.09	7,488.38	1,754.80	-195.16	1,755.34	1.04	0.85	-0.60
8,650.00	89.13	0.89	7,488.54	1,847.76	-192.74	1,848.29	2.10	-1.66	-1.29

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<b>Design:</b>	OH	<b>Database:</b>	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,744.00	89.43	0.07	7,489.72	1,941.75	-191.96	1,942.28	0.93	0.32	-0.87
8,838.00	89.73	359.69	7,490.41	2,035.75	-192.15	2,036.28	0.52	0.32	-0.40
8,933.00	88.42	359.70	7,491.94	2,130.73	-192.66	2,131.26	1.38	-1.38	0.01
9,028.00	87.95	358.97	7,494.95	2,225.68	-193.76	2,226.21	0.91	-0.49	-0.77
9,121.00	90.34	357.42	7,496.34	2,318.61	-196.69	2,319.15	3.06	2.57	-1.67
9,216.00	89.87	358.38	7,496.17	2,413.55	-200.17	2,414.10	1.13	-0.49	1.01
9,310.00	91.01	0.57	7,495.44	2,507.53	-201.03	2,508.08	2.63	1.21	2.33
9,404.00	91.41	0.52	7,493.46	2,601.51	-200.14	2,602.05	0.43	0.43	-0.05
9,499.00	92.08	1.01	7,490.57	2,696.45	-198.87	2,697.00	0.87	0.71	0.52
9,593.00	91.92	0.78	7,487.29	2,790.38	-197.40	2,790.92	0.30	-0.17	-0.24
9,686.00	91.65	0.10	7,484.39	2,883.34	-196.69	2,883.87	0.79	-0.29	-0.73
9,780.00	90.50	359.03	7,482.63	2,977.31	-197.40	2,977.85	1.67	-1.22	-1.14
9,874.00	91.41	359.03	7,481.06	3,071.29	-199.00	3,071.83	0.97	0.97	0.00
9,968.00	92.25	359.31	7,478.06	3,165.23	-200.36	3,165.77	0.94	0.89	0.30
10,061.00	91.55	0.41	7,474.97	3,258.17	-200.58	3,258.72	1.40	-0.75	1.18
10,155.00	92.12	0.90	7,471.96	3,352.12	-199.51	3,352.66	0.80	0.61	0.52
10,249.00	92.18	1.98	7,468.44	3,446.02	-197.15	3,446.56	1.15	0.06	1.15
10,343.00	90.94	3.10	7,465.88	3,539.89	-192.98	3,540.42	1.78	-1.32	1.19
10,437.00	91.37	3.27	7,463.98	3,633.73	-187.76	3,634.24	0.49	0.46	0.18
10,531.00	91.01	0.81	7,462.03	3,727.64	-184.42	3,728.14	2.64	-0.38	-2.62
10,626.00	90.47	1.76	7,460.80	3,822.61	-182.29	3,823.10	1.15	-0.57	1.00
10,720.00	90.91	1.17	7,459.67	3,916.57	-179.88	3,917.05	0.78	0.47	-0.63
10,814.00	91.85	0.84	7,457.41	4,010.52	-178.24	4,011.01	1.06	1.00	-0.35
10,907.00	91.01	0.78	7,455.09	4,103.49	-176.92	4,103.96	0.91	-0.90	-0.06
11,001.00	90.13	0.49	7,454.15	4,197.47	-175.88	4,197.95	0.99	-0.94	-0.31
11,093.00	91.01	1.22	7,453.24	4,289.46	-174.51	4,289.93	1.24	0.96	0.79
11,187.00	90.03	1.59	7,452.38	4,383.42	-172.20	4,383.89	1.11	-1.04	0.39
11,279.00	89.80	0.29	7,452.52	4,475.41	-170.69	4,475.87	1.43	-0.25	-1.41
11,372.00	90.57	0.29	7,452.22	4,568.41	-170.22	4,568.87	0.83	0.83	0.00
11,466.00	90.57	359.18	7,451.28	4,662.40	-170.66	4,662.86	1.18	0.00	-1.18
11,559.00	89.40	358.16	7,451.31	4,755.37	-172.82	4,755.84	1.67	-1.26	-1.10
11,652.00	90.44	358.78	7,451.44	4,848.34	-175.30	4,848.81	1.30	1.12	0.67
11,746.00	89.70	358.29	7,451.32	4,942.31	-177.70	4,942.78	0.94	-0.79	-0.52
11,839.00	89.83	358.08	7,451.71	5,035.26	-180.65	5,035.74	0.27	0.14	-0.23
11,932.00	90.57	357.62	7,451.38	5,128.19	-184.14	5,128.69	0.94	0.80	-0.49
12,027.00	90.10	358.30	7,450.83	5,223.13	-187.52	5,223.63	0.87	-0.49	0.72
12,121.00	90.60	358.62	7,450.25	5,317.09	-190.04	5,317.60	0.63	0.53	0.34
12,214.00	89.06	357.70	7,450.53	5,410.04	-193.03	5,410.56	1.93	-1.66	-0.99
12,307.00	89.19	359.50	7,451.95	5,503.00	-195.30	5,503.52	1.94	0.14	1.94
12,400.00	90.00	359.87	7,452.60	5,595.99	-195.81	5,596.52	0.96	0.87	0.40
12,495.00	91.18	0.40	7,451.63	5,690.99	-195.59	5,691.51	1.36	1.24	0.56
12,590.00	90.07	359.81	7,450.59	5,785.98	-195.42	5,786.50	1.32	-1.17	-0.62
12,685.00	90.27	358.97	7,450.31	5,880.97	-196.43	5,881.50	0.91	0.21	-0.88

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Land Fed 29C-29HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Site:</b>	Land 18-32HZ Pad 2N-66W-32	<b>MD Reference:</b>	GL 4899' & KB 20' @ 4919.00ft (Precision 461)
<b>Well:</b>	Land Fed 29C-29HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales Office

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,779.00	90.27	358.56	7,449.87	5,974.95	-198.45	5,975.48	0.44	0.00	-0.44
12,874.00	90.17	357.63	7,449.50	6,069.89	-201.61	6,070.43	0.98	-0.11	-0.98
12,967.00	90.10	356.86	7,449.28	6,162.79	-206.08	6,163.34	0.83	-0.08	-0.83
13,059.00	90.44	356.49	7,448.85	6,254.63	-211.42	6,255.20	0.55	0.37	-0.40
<b>Last SDI MWD Survey</b>									
13,116.00	90.44	356.49	7,448.41	6,311.52	-214.91	6,312.10	0.00	0.00	0.00
<b>Projection to TD: 5' FSL Sec 20 1221' FWL Sec 20</b>									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
77.50	77.50	0.10	0.30	First SDI Gyro Survey
1,677.50	1,665.27	130.86	-35.25	Last SDI Gyro Survey
1,917.83	1,900.26	177.13	-54.92	Enter Land Box: 1917.83' MD & 1900.26' TVD
1,956.00	1,937.79	183.49	-57.77	First SDI MWD Production Survey
7,899.00	7,482.87	1,097.10	-204.90	Landing Point: 57' FSL Sec 29 1219' FWL
13,059.00	7,448.85	6,254.63	-211.42	Last SDI MWD Survey
13,116.00	7,448.41	6,311.52	-214.91	Projection to TD: 5' FSL Sec 20 1221' FWL Sec 20

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_