

WELL DETAILS: Wilson Ranch 4C-27HZ

GL 4953' & KB 20' @ 4973.00ft (Precision 461)			
4953.00			
Northing	Easting	Latitude	Longitude
14632306.55	1650648.15	40.2899110	-104.9633100

Design: OH (Wilson Ranch 4C-27HZ/OH)

Created By: Seth Burstad Date: 9-14-2016

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Annotation
159.00	159.00	0.44	297.80	0.28	-0.54	FIRST SDI MWD SURFACE SURVEY
1803.43	1819.00	9.77	170.51	-198.65	9.38	LAST SDI MWD SURFACE SURVEY
1925.59	1943.00	10.01	172.01	-219.70	12.61	First SDI MWD Production Survey
7297.67	7720.00	88.89	270.45	-437.71	-677.07	Landing Point: 1165' FNL 1399' FEL Sec 26
7270.43	16401.00	92.48	269.19	-419.72	-9355.22	Last SDI MWD Survey
7268.09	16455.00	92.48	269.19	-420.48	-9409.16	Projection to TD: 1034' FNL 467' FWL Sec 27

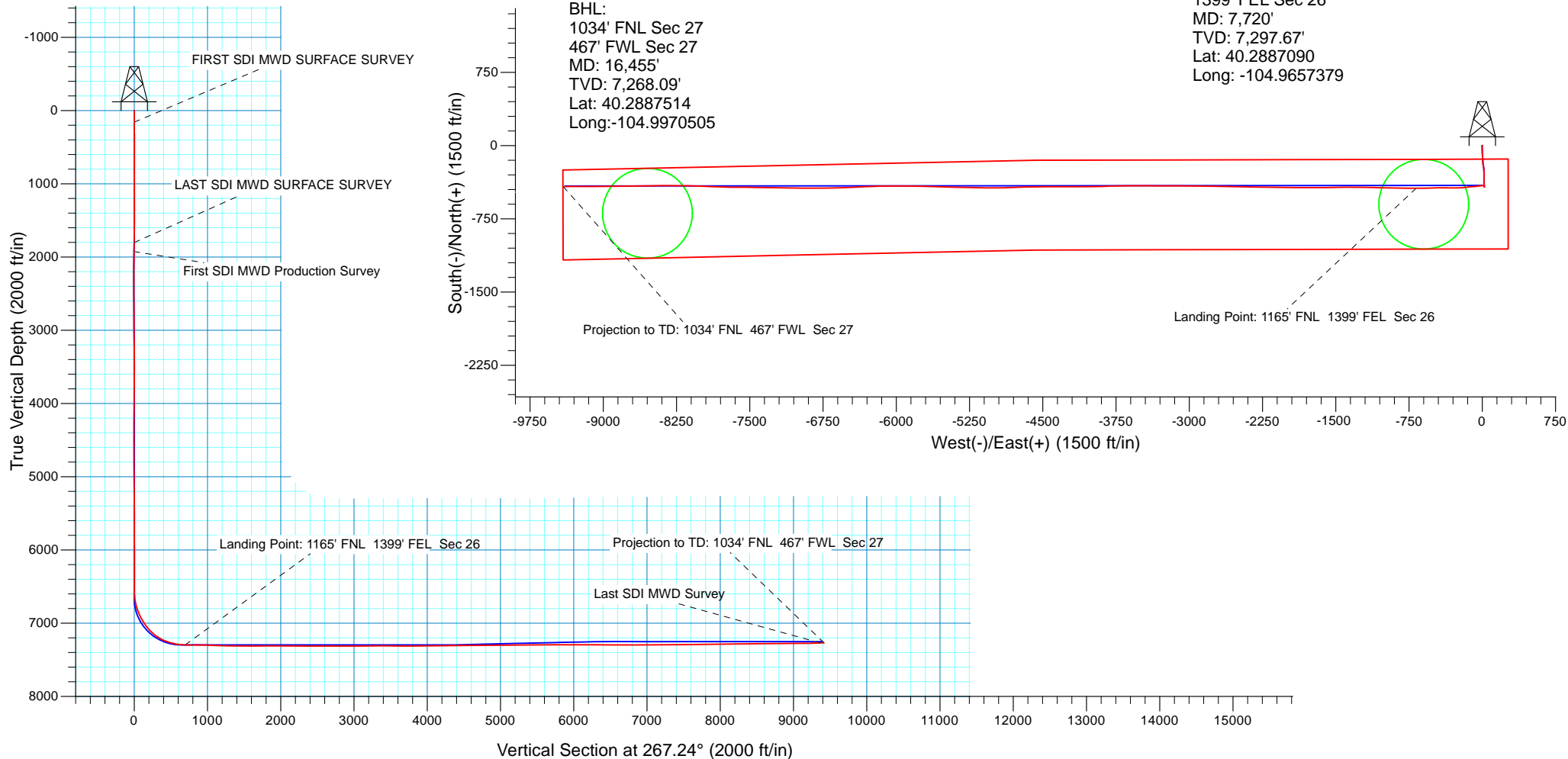
PROJECT DETAILS: US Rockies Wattenberg Planning

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

Landing Point:  
 1165' FNL Sec 26  
 1399' FEL Sec 26  
 MD: 7,720'  
 TVD: 7,297.67'  
 Lat: 40.2887090  
 Long: -104.9657379

Surface Hole:  
 727' FNL 722' FEL  
 Sec 26 T4N R68W



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Wilson Ranch 4C-27HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Site:</b>	Wilson Ranch 1-26HZ Pad 4N-68W-26	<b>MD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Well:</b>	Wilson Ranch 4C-27HZ	<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)		

Site	Wilson Ranch 1-26HZ Pad 4N-68W-26				
Site Position:		Northing:	14,632,372.08 usft	Latitude:	40.2900910
From:	Lat/Long	Easting:	1,650,611.59 usft	Longitude:	-104.9634410
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.02 °

Well	Wilson Ranch 4C-27HZ, 727' FNL 722' FEL Sec 26 T4N R68W					
Well Position	+N/-S	0.00 ft	Northing:	14,632,306.55 usft	Latitude:	40.2899110
	+E/-W	0.00 ft	Easting:	1,650,648.15 usft	Longitude:	-104.9633100
Position Uncertainty		2.68 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,953.00 ft

<b>Wellbore</b>	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/23/2015	8.78	66.77	52,490
	BGGM2016	8/25/2016	8.55	66.78	52,434

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		267.24

<b>Survey Program</b>	<b>Date</b>	9/14/2016			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
158.99	1,818.99	Survey #1 SDI MWD SURFACE (OH)	APC_ISCWSA REV 2 MWD	Fixed:v2:standard declination	
1,943.00	16,455.00	Survey #2 - Production (OH)	APC_ISCWSA REV 2 MWD+	Fixed:v2:Rockies, crustal dec + 3-axis correction	

<b>Survey</b>										
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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
159.00	0.44	297.80	159.00	0.28	-0.54	0.53	0.28	0.28	0.00	
<b>FIRST SDI MWD SURFACE SURVEY</b>										
250.00	0.91	229.87	249.99	-0.02	-1.40	1.40	0.93	0.52	-74.65	
342.00	1.29	210.53	341.98	-1.38	-2.49	2.55	0.57	0.41	-21.02	
432.00	2.32	175.99	431.93	-4.07	-2.87	3.07	1.62	1.14	-38.38	
522.00	3.58	177.48	521.81	-8.70	-2.62	3.04	1.40	1.40	1.66	
612.00	3.46	168.65	611.64	-14.17	-1.96	2.64	0.62	-0.13	-9.81	

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<b>Site:</b>	Wilson Ranch 1-26HZ Pad 4N-68W-26	<b>MD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Well:</b>	Wilson Ranch 4C-27HZ	<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)
702.00	4.86	179.59	701.40	-20.64	-1.40	2.40	1.78	1.56	12.16
792.00	5.62	178.86	791.03	-28.86	-1.29	2.68	0.85	0.84	-0.81
882.00	7.10	177.59	880.47	-38.82	-0.97	2.83	1.65	1.64	-1.41
972.00	7.69	176.25	969.72	-50.39	-0.34	2.76	0.68	0.66	-1.49
1,062.00	8.64	174.95	1,058.81	-63.13	0.65	2.39	1.08	1.06	-1.44
1,152.00	9.61	175.89	1,147.67	-77.36	1.78	1.94	1.09	1.08	1.04
1,242.00	9.95	178.81	1,236.36	-92.63	2.48	1.98	0.67	0.38	3.24
1,332.00	9.90	180.58	1,325.02	-108.14	2.57	2.64	0.34	-0.06	1.97
1,422.00	11.00	179.08	1,413.52	-124.46	2.63	3.37	1.26	1.22	-1.67
1,512.00	11.58	175.06	1,501.78	-142.04	3.54	3.30	1.09	0.64	-4.47
1,602.00	10.62	179.88	1,590.10	-159.34	4.34	3.34	1.48	-1.07	5.36
1,692.00	11.12	172.01	1,678.49	-176.23	5.56	2.93	1.74	0.56	-8.74
1,782.00	9.92	168.95	1,766.97	-192.43	8.25	1.02	1.47	-1.33	-3.40
1,819.00	9.77	170.51	1,803.43	-198.65	9.38	0.19	0.83	-0.41	4.22
LAST SDI MWD SURFACE SURVEY									
1,943.00	10.01	172.01	1,925.59	-219.70	12.61	-2.02	0.28	0.19	1.21
First SDI MWD Production Survey									
2,038.00	9.35	169.76	2,019.23	-235.47	15.13	-3.78	0.80	-0.69	-2.37
2,133.00	8.59	171.98	2,113.07	-250.09	17.50	-5.43	0.88	-0.80	2.34
2,227.00	8.45	180.95	2,206.04	-263.95	18.36	-5.63	1.42	-0.15	9.54
2,320.00	8.09	180.99	2,298.07	-277.33	18.13	-4.76	0.39	-0.39	0.04
2,415.00	8.26	179.46	2,392.11	-290.83	18.08	-4.06	0.29	0.18	-1.61
2,510.00	8.17	180.13	2,486.13	-304.41	18.13	-3.45	0.14	-0.09	0.71
2,605.00	8.29	180.83	2,580.15	-318.01	18.02	-2.68	0.16	0.13	0.74
2,698.00	7.77	179.03	2,672.24	-331.00	18.03	-2.07	0.62	-0.56	-1.94
2,792.00	7.38	179.06	2,765.42	-343.39	18.23	-1.68	0.41	-0.41	0.03
2,885.00	6.93	179.34	2,857.70	-354.97	18.40	-1.28	0.49	-0.48	0.30
2,979.00	6.47	178.68	2,951.05	-365.93	18.58	-0.94	0.50	-0.49	-0.70
3,073.00	5.97	179.30	3,044.50	-376.12	18.77	-0.63	0.54	-0.53	0.66
3,167.00	5.63	183.03	3,138.02	-385.61	18.58	0.01	0.54	-0.36	3.97
3,263.00	4.97	183.88	3,233.61	-394.46	18.05	0.96	0.69	-0.69	0.89
3,357.00	4.07	182.89	3,327.31	-401.85	17.61	1.76	0.96	-0.96	-1.05
3,452.00	3.37	181.32	3,422.11	-408.01	17.37	2.29	0.74	-0.74	-1.65
3,547.00	2.59	179.73	3,516.98	-412.95	17.32	2.59	0.83	-0.82	-1.67
3,641.00	1.90	172.95	3,610.91	-416.62	17.52	2.56	0.79	-0.73	-7.21
3,735.00	1.89	175.78	3,704.86	-419.71	17.83	2.41	0.10	-0.01	3.01
3,828.00	1.81	174.92	3,797.81	-422.71	18.07	2.31	0.09	-0.09	-0.92
3,922.00	1.55	96.26	3,891.78	-424.32	19.46	0.99	2.28	-0.28	-83.68
4,017.00	1.68	96.73	3,986.74	-424.63	22.12	-1.65	0.14	0.14	0.49
4,112.00	0.95	16.05	4,081.73	-424.03	23.72	-3.28	1.89	-0.77	-84.93
4,206.00	0.95	2.51	4,175.71	-422.51	23.97	-3.60	0.24	0.00	-14.40
4,291.00	0.83	351.47	4,260.70	-421.19	23.91	-3.60	0.25	-0.14	-12.99
4,395.00	0.84	346.44	4,364.69	-419.71	23.62	-3.39	0.07	0.01	-4.84
4,489.00	0.83	345.36	4,458.68	-418.38	23.29	-3.12	0.02	-0.01	-1.15

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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)
4,583.00	1.20	354.06	4,552.67	-416.74	23.02	-2.92	0.43	0.39	9.26
4,678.00	1.10	356.72	4,647.65	-414.84	22.86	-2.86	0.12	-0.11	2.80
4,772.00	1.06	342.59	4,741.63	-413.11	22.55	-2.63	0.29	-0.04	-15.03
4,866.00	1.26	341.09	4,835.61	-411.30	21.95	-2.12	0.22	0.21	-1.60
5,081.00	0.88	317.36	5,050.57	-407.85	20.07	-0.41	0.27	-0.18	-11.04
5,175.00	0.99	315.86	5,144.56	-406.74	19.02	0.59	0.12	0.12	-1.60
5,269.00	1.07	310.05	5,238.55	-405.59	17.78	1.77	0.14	0.09	-6.18
5,363.00	0.54	321.74	5,332.54	-404.68	16.83	2.67	0.59	-0.56	12.44
5,552.00	0.31	159.52	5,521.54	-404.46	16.46	3.04	0.44	-0.12	-85.83
5,647.00	0.14	258.72	5,616.53	-404.72	16.43	3.07	0.38	-0.18	104.42
5,741.00	0.24	289.57	5,710.53	-404.68	16.14	3.37	0.15	0.11	32.82
5,836.00	0.10	281.34	5,805.53	-404.60	15.87	3.63	0.15	-0.15	-8.66
5,928.00	0.29	252.83	5,897.53	-404.65	15.57	3.94	0.23	0.21	-30.99
6,023.00	0.41	206.34	5,992.53	-405.02	15.19	4.33	0.31	0.13	-48.94
6,117.00	0.59	186.73	6,086.53	-405.81	14.98	4.58	0.26	0.19	-20.86
6,211.00	0.62	193.61	6,180.52	-406.78	14.80	4.80	0.08	0.03	7.32
6,305.00	0.70	186.99	6,274.52	-407.85	14.61	5.04	0.12	0.09	-7.04
6,399.00	0.15	215.52	6,368.51	-408.52	14.47	5.21	0.61	-0.59	30.35
6,493.00	0.20	321.06	6,462.51	-408.49	14.30	5.39	0.30	0.05	112.28
6,588.00	0.28	331.41	6,557.51	-408.15	14.08	5.59	0.10	0.08	10.89
6,683.00	3.71	263.72	6,652.44	-408.29	10.92	8.76	3.80	3.61	-71.25
6,775.00	14.35	261.05	6,743.17	-410.39	-3.35	23.10	11.57	11.57	-2.90
6,870.00	20.73	261.97	6,833.71	-414.58	-31.65	51.58	6.72	6.72	0.97
6,963.00	27.39	266.62	6,918.59	-418.14	-69.35	89.41	7.44	7.16	5.00
7,059.00	33.89	262.98	7,001.15	-422.72	-118.02	138.23	7.04	6.77	-3.79
7,153.00	39.45	263.65	7,076.52	-429.23	-173.75	194.22	5.93	5.91	0.71
7,249.00	50.90	269.87	7,144.11	-432.70	-241.57	262.13	12.77	11.93	6.48
7,344.00	57.28	270.14	7,199.80	-432.69	-318.48	338.94	6.72	6.72	0.28
7,437.00	68.56	269.57	7,242.07	-432.92	-401.15	421.53	12.14	12.13	-0.61
7,532.00	75.22	268.86	7,271.58	-434.17	-491.38	511.72	7.05	7.01	-0.75
7,627.00	82.03	268.16	7,290.31	-436.59	-584.43	604.77	7.20	7.17	-0.74
7,720.00	88.89	270.45	7,297.67	-437.71	-677.07	697.36	7.77	7.38	2.46
Landing Point: 1165' FNL 1399' FEL Sec 26									
7,815.00	89.06	270.25	7,299.37	-437.13	-772.05	792.20	0.28	0.18	-0.21
7,908.00	91.14	270.62	7,299.21	-436.42	-865.04	885.05	2.27	2.24	0.40
8,002.00	88.66	271.79	7,299.37	-434.44	-959.01	978.82	2.92	-2.64	1.24
8,097.00	87.38	271.94	7,302.65	-431.35	-1,053.90	1,073.45	1.36	-1.35	0.16
8,191.00	87.48	271.69	7,306.87	-428.38	-1,147.76	1,167.06	0.29	0.11	-0.27
8,286.00	87.31	270.03	7,311.19	-426.96	-1,242.65	1,261.77	1.75	-0.18	-1.75
8,379.00	91.21	268.98	7,312.39	-427.76	-1,335.62	1,354.67	4.34	4.19	-1.13
8,473.00	90.10	269.72	7,311.31	-428.83	-1,429.60	1,448.60	1.42	-1.18	0.79
8,567.00	88.99	269.53	7,312.06	-429.44	-1,523.60	1,542.51	1.20	-1.18	-0.20
8,662.00	90.23	269.24	7,312.70	-430.46	-1,618.59	1,637.44	1.34	1.31	-0.31

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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)
8,757.00	90.37	269.28	7,312.21	-431.69	-1,713.58	1,732.38	0.15	0.15	0.04
8,851.00	90.30	271.04	7,311.66	-431.43	-1,807.57	1,826.25	1.87	-0.07	1.87
8,946.00	90.17	271.09	7,311.27	-429.66	-1,902.56	1,921.04	0.15	-0.14	0.05
9,041.00	89.87	270.67	7,311.23	-428.20	-1,997.55	2,015.85	0.54	-0.32	-0.44
9,136.00	89.80	270.36	7,311.51	-427.35	-2,092.54	2,110.69	0.33	-0.07	-0.33
9,323.00	90.27	270.65	7,311.39	-425.70	-2,279.53	2,297.39	0.30	0.25	0.16
9,417.00	89.43	270.64	7,311.64	-424.64	-2,373.53	2,391.22	0.89	-0.89	-0.01
9,510.00	89.20	270.78	7,312.75	-423.49	-2,466.51	2,484.04	0.29	-0.25	0.15
9,604.00	89.20	271.37	7,314.06	-421.72	-2,560.49	2,577.82	0.63	0.00	0.63
9,698.00	89.36	271.00	7,315.25	-419.78	-2,654.46	2,671.59	0.43	0.17	-0.39
9,884.00	91.04	271.96	7,314.60	-414.98	-2,840.39	2,857.07	1.04	0.90	0.52
9,977.00	90.60	270.11	7,313.27	-413.30	-2,933.36	2,949.86	2.04	-0.47	-1.99
10,071.00	90.44	269.97	7,312.41	-413.23	-3,027.35	3,043.74	0.23	-0.17	-0.15
10,164.00	90.94	269.80	7,311.29	-413.42	-3,120.35	3,136.63	0.57	0.54	-0.18
10,258.00	91.31	269.95	7,309.45	-413.62	-3,214.33	3,230.52	0.42	0.39	0.16
10,352.00	90.03	270.87	7,308.35	-412.95	-3,308.32	3,324.36	1.68	-1.36	0.98
10,447.00	89.23	270.31	7,308.96	-411.97	-3,403.31	3,419.20	1.03	-0.84	-0.59
10,540.00	88.49	269.97	7,310.81	-411.75	-3,496.29	3,512.06	0.88	-0.80	-0.37
10,634.00	89.03	269.43	7,312.85	-412.24	-3,590.26	3,605.95	0.81	0.57	-0.57
10,728.00	90.20	269.20	7,313.48	-413.36	-3,684.25	3,699.88	1.27	1.24	-0.24
10,820.00	90.47	268.52	7,312.94	-415.19	-3,776.23	3,791.84	0.80	0.29	-0.74
10,914.00	90.47	268.31	7,312.17	-417.79	-3,870.19	3,885.82	0.22	0.00	-0.22
11,008.00	89.73	269.37	7,312.00	-419.69	-3,964.17	3,979.78	1.38	-0.79	1.13
11,101.00	90.27	269.99	7,312.00	-420.21	-4,057.17	4,072.70	0.88	0.58	0.67
11,194.00	90.30	269.56	7,311.54	-420.58	-4,150.17	4,165.61	0.46	0.03	-0.46
11,286.00	89.87	269.10	7,311.41	-421.65	-4,242.16	4,257.54	0.68	-0.47	-0.50
11,380.00	92.42	269.34	7,309.53	-422.93	-4,336.13	4,351.46	2.72	2.71	0.26
11,474.00	91.75	270.58	7,306.11	-423.00	-4,430.06	4,445.29	1.50	-0.71	1.32
11,569.00	91.31	270.38	7,303.57	-422.20	-4,525.02	4,540.10	0.51	-0.46	-0.21
11,662.00	90.57	269.03	7,302.04	-422.68	-4,618.01	4,633.00	1.66	-0.80	-1.45
11,756.00	88.32	267.18	7,302.96	-425.79	-4,711.94	4,726.98	3.10	-2.39	-1.97
11,851.00	90.70	268.01	7,303.77	-429.78	-4,806.85	4,821.97	2.65	2.51	0.87
11,944.00	91.75	269.21	7,301.78	-432.03	-4,899.79	4,914.91	1.71	1.13	1.29
12,037.00	92.18	270.11	7,298.59	-432.58	-4,992.74	5,007.78	1.07	0.46	0.97
12,130.00	89.60	270.30	7,297.15	-432.25	-5,085.72	5,100.63	2.78	-2.77	0.20
12,224.00	89.16	270.94	7,298.16	-431.23	-5,179.71	5,194.46	0.83	-0.47	0.68
12,319.00	89.70	271.21	7,299.11	-429.45	-5,274.68	5,289.24	0.64	0.57	0.28
12,412.00	90.67	271.41	7,298.81	-427.33	-5,367.66	5,382.01	1.06	1.04	0.22
12,506.00	90.30	271.30	7,298.01	-425.10	-5,461.63	5,475.76	0.41	-0.39	-0.12
12,598.00	90.91	271.01	7,297.04	-423.25	-5,553.60	5,567.54	0.73	0.66	-0.32
12,693.00	90.03	271.40	7,296.26	-421.25	-5,648.58	5,662.31	1.01	-0.93	0.41
12,786.00	90.57	271.41	7,295.77	-418.97	-5,741.55	5,755.06	0.58	0.58	0.01
12,973.00	90.07	271.76	7,294.73	-413.80	-5,928.47	5,941.52	0.33	-0.27	0.19
13,067.00	89.33	269.33	7,295.22	-412.90	-6,022.46	6,035.36	2.70	-0.79	-2.59

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Wilson Ranch 4C-27HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Site:</b>	Wilson Ranch 1-26HZ Pad 4N-68W-26	<b>MD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Well:</b>	Wilson Ranch 4C-27HZ	<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)
13,161.00	90.47	268.64	7,295.39	-414.57	-6,116.44	6,129.31	1.42	1.21	-0.73
13,255.00	90.03	267.36	7,294.98	-417.85	-6,210.38	6,223.30	1.44	-0.47	-1.36
13,350.00	89.80	268.45	7,295.12	-421.32	-6,305.32	6,318.29	1.17	-0.24	1.15
13,444.00	88.66	267.02	7,296.38	-425.04	-6,399.23	6,412.28	1.95	-1.21	-1.52
13,537.00	91.07	267.16	7,296.60	-429.76	-6,492.10	6,505.27	2.60	2.59	0.15
13,632.00	88.49	267.86	7,296.96	-433.88	-6,587.01	6,600.26	2.81	-2.72	0.74
13,725.00	89.26	270.02	7,298.79	-435.60	-6,679.97	6,693.19	2.47	0.83	2.32
13,819.00	89.97	269.14	7,299.42	-436.29	-6,773.96	6,787.11	1.20	0.76	-0.94
13,913.00	90.77	270.10	7,298.82	-436.92	-6,867.95	6,881.03	1.33	0.85	1.02
14,008.00	90.94	270.73	7,297.40	-436.23	-6,962.94	6,975.87	0.69	0.18	0.66
14,102.00	89.33	271.08	7,297.18	-434.74	-7,056.93	7,069.67	1.75	-1.71	0.37
14,197.00	91.07	271.35	7,296.84	-432.73	-7,151.90	7,164.44	1.85	1.83	0.28
14,289.00	90.44	270.57	7,295.63	-431.19	-7,243.88	7,256.24	1.09	-0.68	-0.85
14,384.00	90.84	270.08	7,294.57	-430.65	-7,338.87	7,351.09	0.67	0.42	-0.52
14,477.00	91.11	270.53	7,292.99	-430.15	-7,431.85	7,443.95	0.56	0.29	0.48
14,571.00	90.47	270.54	7,291.69	-429.28	-7,525.84	7,537.78	0.68	-0.68	0.01
14,666.00	90.17	270.75	7,291.16	-428.21	-7,620.83	7,632.61	0.39	-0.32	0.22
14,758.00	90.70	271.28	7,290.46	-426.58	-7,712.82	7,724.41	0.81	0.58	0.58
14,850.00	90.47	271.84	7,289.52	-424.07	-7,804.78	7,816.14	0.66	-0.25	0.61
14,945.00	90.94	271.67	7,288.36	-421.16	-7,899.72	7,910.84	0.53	0.49	-0.18
15,038.00	88.83	271.93	7,288.54	-418.24	-7,992.67	8,003.54	2.29	-2.27	0.28
15,133.00	90.64	271.73	7,288.98	-415.21	-8,087.62	8,098.23	1.92	1.91	-0.21
15,227.00	92.11	271.80	7,286.73	-412.32	-8,181.54	8,191.91	1.57	1.56	0.07
15,322.00	91.78	270.47	7,283.50	-410.44	-8,276.47	8,286.63	1.44	-0.35	-1.40
15,415.00	90.70	270.06	7,281.49	-410.01	-8,369.44	8,379.48	1.24	-1.16	-0.44
15,508.00	91.04	269.71	7,280.08	-410.19	-8,462.43	8,472.37	0.52	0.37	-0.38
15,602.00	90.17	269.46	7,279.08	-410.87	-8,556.43	8,566.28	0.96	-0.93	-0.27
15,697.00	89.30	268.07	7,279.52	-412.92	-8,651.40	8,661.25	1.73	-0.92	-1.46
15,790.00	89.60	268.78	7,280.42	-415.48	-8,744.36	8,754.22	0.83	0.32	0.76
15,883.00	90.40	269.39	7,280.42	-416.96	-8,837.35	8,847.17	1.08	0.86	0.66
15,976.00	91.21	269.08	7,279.11	-418.20	-8,930.33	8,940.11	0.93	0.87	-0.33
16,071.00	91.04	270.14	7,277.24	-418.85	-9,025.31	9,035.00	1.13	-0.18	1.12
16,165.00	90.77	269.95	7,275.76	-418.78	-9,119.29	9,128.88	0.35	-0.29	-0.20
16,259.00	90.81	270.01	7,274.46	-418.81	-9,213.28	9,222.76	0.08	0.04	0.06
16,353.00	91.88	269.53	7,272.26	-419.19	-9,307.26	9,316.64	1.25	1.14	-0.51
16,401.00	92.48	269.19	7,270.43	-419.72	-9,355.22	9,364.58	1.44	1.25	-0.71
Last SDI MWD Survey									
16,455.00	92.48	269.19	7,268.09	-420.48	-9,409.16	9,418.49	0.00	0.00	0.00
Projection to TD: 1034' FNL 467' FWL Sec 27									

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well Wilson Ranch 4C-27HZ
<b>Project:</b>	US Rockies Wattenberg Planning	<b>TVD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Site:</b>	Wilson Ranch 1-26HZ Pad 4N-68W-26	<b>MD Reference:</b>	GL 4953' & KB 20' @ 4973.00ft (Precision 461)
<b>Well:</b>	Wilson Ranch 4C-27HZ	<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

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
159.00	159.00	0.28	-0.54	FIRST SDI MWD SURFACE SURVEY
1,819.00	1,803.43	-198.65	9.38	LAST SDI MWD SURFACE SURVEY
1,943.00	1,925.59	-219.70	12.61	First SDI MWD Production Survey
7,720.00	7,297.67	-437.71	-677.07	Landing Point: 1165' FNL 1399' FEL Sec 26
16,401.00	7,270.43	-419.72	-9,355.22	Last SDI MWD Survey
16,455.00	7,268.09	-420.48	-9,409.16	Projection to TD: 1034' FNL 467' FWL Sec 27

Checked By: _____	Approved By: _____	Date: _____
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