



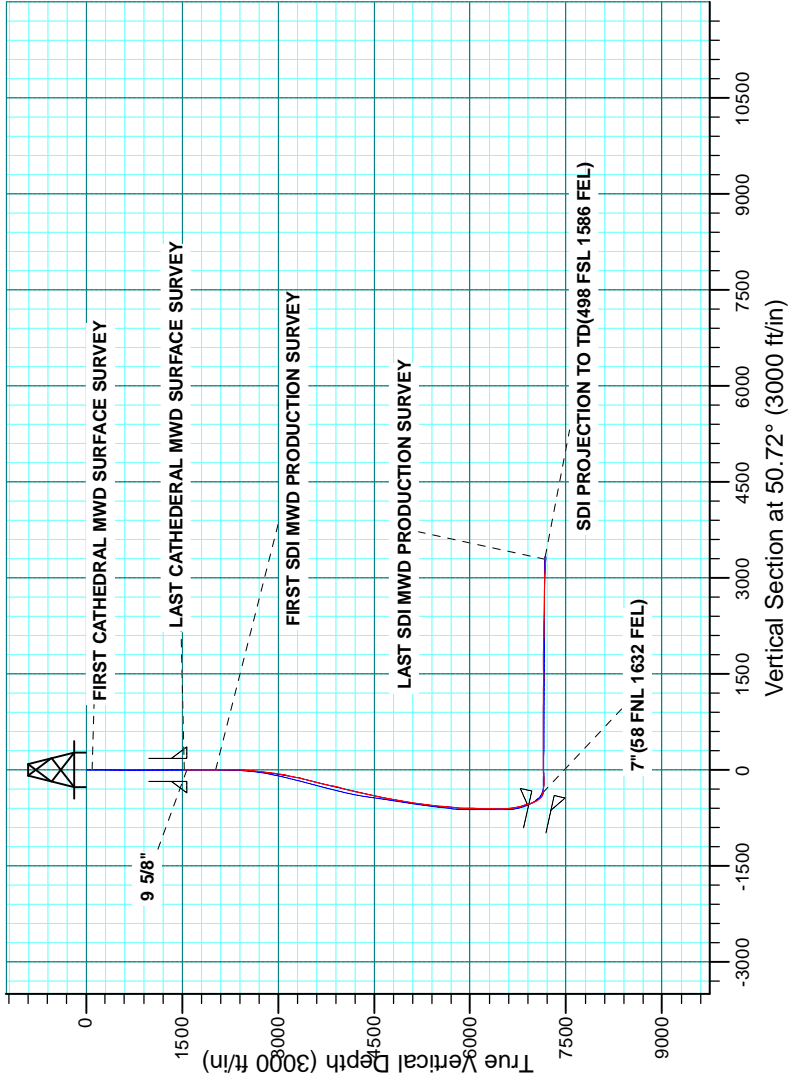
Project: COLORADO NORTHERN ZONE - 83  
Site: GOODIN 15-7HZ Pad  
Well: GOODIN 15N-B6HZ  
Wellbore: OH  
Design: OH



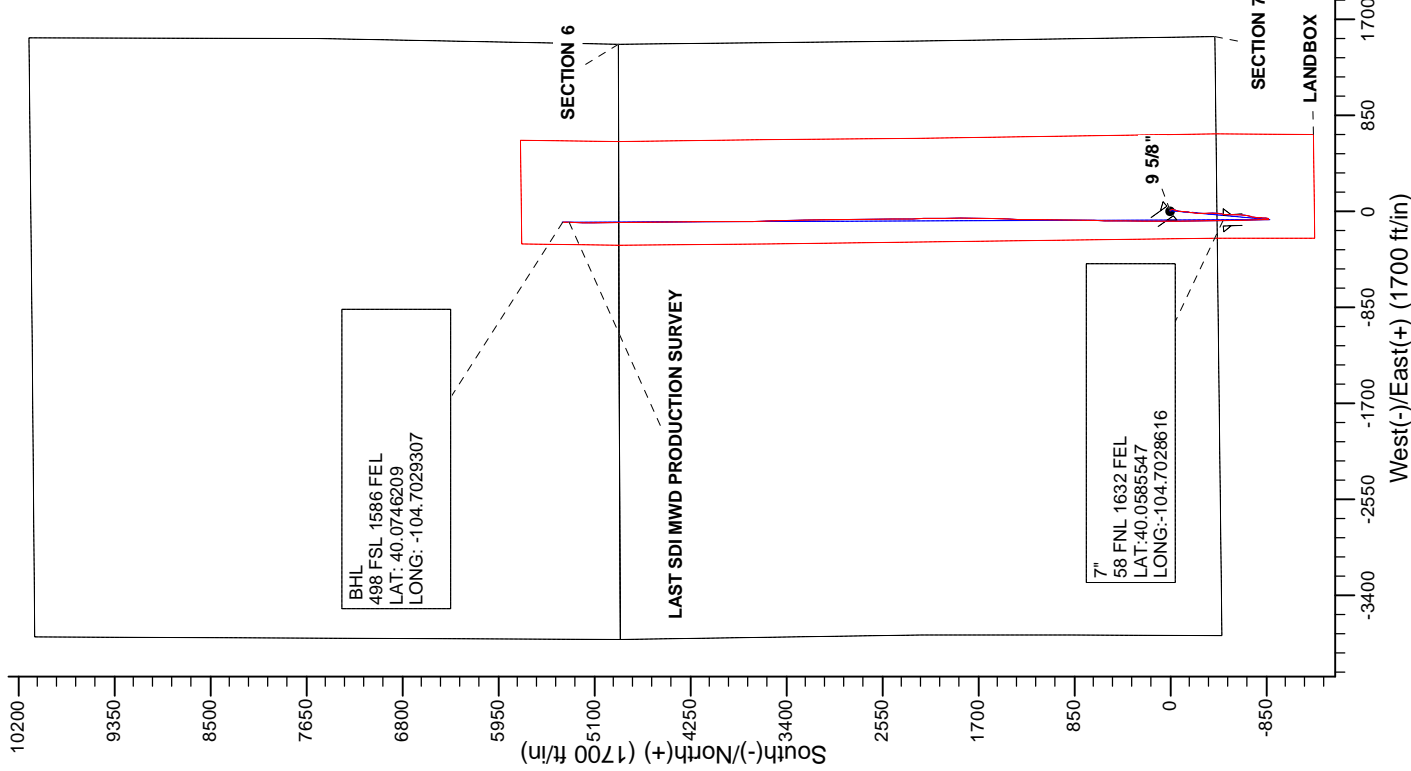
WELL DETAILS: GOODIN 15N-B6HZ					
GL 4979 & KB 25 @ 5004.00ft (HP 307)					
+N/-S 0.00	+E/-W 0.00	Northing 1265650.83	Easting 3223203.82	Latitude 40.0598460	Longitude -104.7025700

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: Colorado Northern Zone	
Location: SECTION 6 T1N R65W	
System Datum: Mean Sea Level	

CASING DETAILS			
TVD	IMD	Name	
1576.94	1577.00	9 5/8"	9.625
7139.96	7431.00	7"	7.000



Survey: Survey #2 SDI MWD PRODUCTION (GOODIN 15N-B6HZOH)
Created By: R.Scott Date: 10:25 May 01 2015



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 15N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 15N-B6HZ	<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

<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		

Site		GOODIN 15-7HZ Pad, SECTION 6 T1N R65W			
Site Position:		Northing:	1,265,650.80 usft	Latitude:	40.0598470
From:	Lat/Long	Easting:	3,223,158.76 usft	Longitude:	-104.7027310
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	GOODIN 15N-B6HZ, 412 FSL 1540 FEL					
Well Position	+N/-S	0.00 ft	Northing:	1,265,650.83 usft	Latitude:	40.0598460
	+E/-W	0.00 ft	Easting:	3,223,203.83 usft	Longitude:	-104.7025700
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,979.00 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>
	IGRF2015	9/8/2014	8.45	66.66	52,538

<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	50.72	

<b>Survey Program</b>	<b>Date</b>	5/1/2015			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
25.00	1,542.00	Survey #1 CATHEDRAL (OH)	MWD	MWD - Standard	
2,024.00	13,286.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

<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	
25.00	0.00	278.50	25.00	0.00	0.00	0.00	0.00	0.00	0.00	
101.00	0.10	278.50	101.00	0.01	-0.07	-0.04	0.13	0.13	0.00	
<b>FIRST CATHEDRAL MWD SURFACE SURVEY</b>										
181.00	0.30	304.10	181.00	0.14	-0.31	-0.15	0.27	0.25	32.00	
259.00	0.30	278.30	259.00	0.28	-0.68	-0.35	0.17	0.00	-33.08	
339.00	0.30	301.10	339.00	0.42	-1.07	-0.56	0.15	0.00	28.50	
419.00	0.40	272.30	419.00	0.54	-1.52	-0.84	0.25	0.13	-36.00	
499.00	0.40	268.50	498.99	0.54	-2.08	-1.27	0.03	0.00	-4.75	
579.00	0.60	263.00	578.99	0.48	-2.78	-1.84	0.26	0.25	-6.88	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 15N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 15N-B6HZ	<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

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)
659.00	0.40	256.40	658.99	0.37	-3.46	-2.45	0.26	-0.25	-8.25
739.00	0.50	238.90	738.99	0.12	-4.03	-3.05	0.21	0.13	-21.88
819.00	0.30	98.30	818.98	-0.09	-4.13	-3.25	0.95	-0.25	-175.75
899.00	0.30	90.00	898.98	-0.12	-3.71	-2.95	0.05	0.00	-10.38
979.00	0.50	98.30	978.98	-0.17	-3.15	-2.55	0.26	0.25	10.38
1,059.00	0.60	74.90	1,058.98	-0.11	-2.41	-1.93	0.30	0.13	-29.25
1,139.00	0.70	65.00	1,138.97	0.21	-1.56	-1.08	0.19	0.13	-12.38
1,219.00	0.60	57.00	1,218.97	0.64	-0.76	-0.19	0.17	-0.13	-10.00
1,299.00	0.70	63.60	1,298.96	1.09	0.03	0.71	0.16	0.13	8.25
1,379.00	0.60	54.70	1,378.96	1.54	0.81	1.60	0.18	-0.13	-11.13
1,459.00	1.00	51.00	1,458.95	2.23	1.69	2.72	0.50	0.50	-4.63
1,542.00	0.90	144.70	1,541.94	2.15	2.63	3.40	1.67	-0.12	112.89
LAST CATHEDRAL MWD SURFACE SURVEY									
1,577.00	0.90	143.65	1,576.94	1.70	2.95	3.36	0.05	0.01	-3.00
9 5/8"									
2,024.00	0.95	130.86	2,023.88	-3.55	7.84	3.82	0.05	0.01	-2.86
FIRST SDI MWD PRODUCTION SURVEY									
2,119.00	1.81	154.52	2,118.85	-5.42	9.08	3.60	1.07	0.91	24.91
2,214.00	2.49	154.96	2,213.78	-8.65	10.60	2.73	0.72	0.72	0.46
2,308.00	3.06	163.10	2,307.67	-12.90	12.19	1.27	0.74	0.61	8.66
2,403.00	3.02	186.00	2,402.54	-17.81	12.67	-1.47	1.27	-0.04	24.11
2,497.00	3.97	190.94	2,496.37	-23.47	11.79	-5.73	1.06	1.01	5.26
2,592.00	5.88	198.71	2,591.01	-31.31	9.61	-12.38	2.13	2.01	8.18
2,686.00	7.99	192.42	2,684.32	-42.25	6.66	-21.59	2.38	2.24	-6.69
2,780.00	9.18	188.89	2,777.27	-56.04	4.09	-32.31	1.38	1.27	-3.76
2,875.00	9.87	190.60	2,870.96	-71.53	1.42	-44.18	0.78	0.73	1.80
2,969.00	11.55	187.63	2,963.32	-88.78	-1.31	-57.21	1.88	1.79	-3.16
3,063.00	11.80	187.64	3,055.37	-107.63	-3.84	-71.11	0.27	0.27	0.01
3,158.00	15.15	185.83	3,147.75	-129.61	-6.39	-87.00	3.55	3.53	-1.91
3,252.00	16.41	183.47	3,238.20	-155.09	-8.44	-104.71	1.50	1.34	-2.51
3,346.00	17.80	182.66	3,328.04	-182.70	-9.91	-123.33	1.50	1.48	-0.86
3,440.00	19.66	186.06	3,417.06	-212.78	-12.25	-144.18	2.29	1.98	3.62
3,534.00	21.67	187.45	3,505.01	-245.71	-16.17	-168.06	2.20	2.14	1.48
3,628.00	20.80	181.33	3,592.64	-279.61	-18.81	-191.57	2.53	-0.93	-6.51
3,723.00	20.75	176.32	3,681.47	-313.27	-18.12	-212.34	1.87	-0.05	-5.27
3,817.00	22.14	177.68	3,768.96	-347.59	-16.33	-232.68	1.57	1.48	1.45
3,911.00	18.42	182.27	3,857.12	-380.14	-16.20	-253.19	4.30	-3.96	4.88
4,005.00	19.10	187.52	3,946.13	-410.23	-18.80	-274.25	1.94	0.72	5.59
4,099.00	18.60	191.47	4,035.10	-440.17	-23.80	-297.07	1.46	-0.53	4.20
4,194.00	16.65	186.16	4,125.64	-468.55	-28.27	-318.50	2.66	-2.05	-5.59
4,288.00	19.46	183.38	4,215.00	-497.58	-30.64	-338.71	3.13	2.99	-2.96
4,382.00	21.36	181.21	4,303.10	-530.33	-31.92	-360.44	2.18	2.02	-2.31
4,476.00	18.94	180.76	4,391.34	-562.70	-32.49	-381.37	2.58	-2.57	-0.48
4,570.00	16.53	180.46	4,480.87	-591.33	-32.80	-399.73	2.57	-2.56	-0.32

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<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 15N-B6HZ	<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

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)
4,664.00	15.82	184.30	4,571.15	-617.48	-33.87	-417.11	1.37	-0.76	4.09
4,758.00	14.96	187.00	4,661.78	-642.30	-36.31	-434.72	1.19	-0.91	2.87
4,853.00	14.00	188.46	4,753.76	-665.84	-39.49	-452.08	1.08	-1.01	1.54
4,947.00	14.76	188.65	4,844.81	-688.92	-42.96	-469.38	0.81	0.81	0.20
5,041.00	13.98	191.16	4,935.87	-711.90	-46.96	-487.03	1.06	-0.83	2.67
5,135.00	11.52	193.10	5,027.55	-732.19	-51.29	-503.22	2.66	-2.62	2.06
5,230.00	11.08	190.12	5,120.71	-750.41	-55.04	-517.66	0.77	-0.46	-3.14
5,324.00	10.03	191.20	5,213.11	-767.34	-58.22	-530.83	1.14	-1.12	1.15
5,418.00	9.84	183.25	5,305.71	-783.39	-60.27	-542.58	1.47	-0.20	-8.46
5,512.00	11.18	182.12	5,398.13	-800.51	-61.06	-554.03	1.44	1.43	-1.20
5,606.00	7.54	181.83	5,490.86	-815.79	-61.59	-564.12	3.87	-3.87	-0.31
5,700.00	7.10	183.42	5,584.10	-827.75	-62.14	-572.11	0.52	-0.47	1.69
5,795.00	7.46	184.97	5,678.33	-839.76	-63.02	-580.39	0.43	0.38	1.63
5,889.00	6.45	188.65	5,771.64	-851.06	-64.34	-588.57	1.17	-1.07	3.91
5,983.00	4.42	188.16	5,865.21	-859.86	-65.65	-595.16	2.16	-2.16	-0.52
6,077.00	2.92	188.73	5,959.02	-865.81	-66.53	-599.61	1.60	-1.60	0.61
6,172.00	1.97	262.80	6,053.95	-868.41	-68.52	-602.79	3.20	-1.00	77.97
6,266.00	1.39	241.72	6,147.91	-869.15	-71.12	-605.28	0.89	-0.62	-22.43
6,361.00	0.85	188.00	6,242.89	-870.40	-72.24	-606.93	1.18	-0.57	-56.55
6,455.00	0.82	188.66	6,336.88	-871.75	-72.43	-607.94	0.03	-0.03	0.70
6,549.00	0.78	193.45	6,430.87	-873.04	-72.69	-608.95	0.08	-0.04	5.10
6,644.00	3.32	5.75	6,525.83	-870.93	-72.56	-607.51	4.31	2.67	181.37
6,738.00	10.82	356.92	6,619.05	-859.40	-72.76	-600.37	8.04	7.98	-9.39
6,832.00	15.79	1.41	6,710.50	-837.79	-72.92	-586.81	5.40	5.29	4.78
6,926.00	21.68	359.48	6,799.48	-807.61	-72.76	-567.59	6.30	6.27	-2.05
7,020.00	27.06	356.28	6,885.08	-768.88	-74.31	-544.27	5.89	5.72	-3.40
7,115.00	33.87	357.87	6,966.92	-720.81	-76.70	-515.68	7.22	7.17	1.67
7,208.00	41.38	356.51	7,040.52	-664.15	-79.54	-482.01	8.12	8.08	-1.46
7,302.00	59.18	1.08	7,100.37	-592.18	-80.68	-437.33	19.29	18.94	4.86
7,348.00	69.08	0.55	7,120.41	-550.84	-80.10	-410.72	21.55	21.52	-1.15
7,389.00	76.76	358.49	7,132.45	-511.69	-80.44	-386.19	19.34	18.73	-5.02
7,431.00	82.63	358.21	7,139.96	-470.40	-81.63	-360.98	14.00	13.98	-0.67
7"(58 FNL 1632 FEL)									
7,443.00	84.31	358.13	7,141.32	-458.48	-82.01	-353.73	14.00	13.98	-0.66
7,538.00	85.39	358.12	7,149.85	-363.92	-85.11	-296.26	1.14	1.14	-0.01
7,632.00	87.68	357.99	7,155.53	-270.15	-88.29	-239.37	2.44	2.44	-0.14
7,821.00	91.78	0.89	7,156.42	-81.22	-90.14	-121.19	2.66	2.17	1.53
7,915.00	92.76	1.25	7,152.70	12.69	-88.38	-60.39	1.11	1.04	0.38
8,010.00	91.95	0.18	7,148.79	107.60	-87.20	0.61	1.41	-0.85	-1.13
8,105.00	91.04	0.65	7,146.32	202.56	-86.51	61.26	1.08	-0.96	0.49
8,199.00	90.54	359.70	7,145.02	296.55	-86.22	120.98	1.14	-0.53	-1.01
8,294.00	89.29	0.46	7,145.16	391.55	-86.09	181.23	1.54	-1.32	0.80
8,388.00	89.56	0.46	7,146.10	485.54	-85.34	241.31	0.29	0.29	0.00

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 15N-B6HZ
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<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 15N-B6HZ	<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

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)	
8,483.00	89.56	0.91	7,146.83	580.53	-84.20	302.32	0.47	0.00	0.47	
8,578.00	90.24	1.18	7,147.00	675.51	-82.47	363.80	0.77	0.72	0.28	
8,672.00	89.29	0.00	7,147.39	769.50	-81.50	424.05	1.61	-1.01	-1.26	
8,767.00	90.37	0.01	7,147.67	864.50	-81.49	484.19	1.14	1.14	0.01	
8,861.00	90.74	1.24	7,146.76	958.49	-80.47	544.48	1.37	0.39	1.31	
8,956.00	90.74	0.69	7,145.53	1,053.47	-78.87	605.85	0.58	0.00	-0.58	
9,050.00	90.67	0.88	7,144.37	1,147.45	-77.58	666.34	0.22	-0.07	0.20	
9,145.00	90.67	0.85	7,143.26	1,242.44	-76.15	727.58	0.03	0.00	-0.03	
9,239.00	90.17	2.07	7,142.57	1,336.40	-73.75	788.92	1.40	-0.53	1.30	
9,334.00	89.50	2.49	7,142.85	1,431.32	-69.97	851.94	0.83	-0.71	0.44	
9,428.00	88.89	2.55	7,144.17	1,525.22	-65.84	914.58	0.65	-0.65	0.06	
9,523.00	89.16	1.56	7,145.78	1,620.15	-62.43	977.31	1.08	0.28	-1.04	
9,618.00	89.23	0.15	7,147.12	1,715.13	-61.02	1,038.53	1.49	0.07	-1.48	
9,712.00	89.87	359.70	7,147.86	1,809.12	-61.14	1,097.94	0.83	0.68	-0.48	
9,806.00	89.46	0.01	7,148.41	1,903.12	-61.38	1,157.26	0.55	-0.44	0.33	
9,900.00	90.17	358.67	7,148.71	1,997.11	-62.46	1,215.92	1.61	0.76	-1.43	
9,993.00	89.66	358.46	7,148.85	2,090.08	-64.79	1,272.98	0.59	-0.55	-0.23	
10,087.00	89.76	359.24	7,149.32	2,184.06	-66.67	1,331.01	0.84	0.11	0.83	
10,182.00	88.52	359.24	7,150.75	2,279.04	-67.93	1,390.16	1.31	-1.31	0.00	
10,276.00	89.36	359.63	7,152.49	2,373.02	-68.86	1,448.94	0.99	0.89	0.41	
10,370.00	89.50	358.85	7,153.42	2,467.00	-70.11	1,507.47	0.84	0.15	-0.83	
10,464.00	91.21	359.08	7,152.84	2,560.98	-71.81	1,565.65	1.84	1.82	0.24	
10,559.00	91.21	358.92	7,150.84	2,655.95	-73.46	1,624.48	0.17	0.00	-0.17	
10,653.00	91.04	359.66	7,148.99	2,749.92	-74.63	1,683.07	0.81	-0.18	0.79	
10,747.00	90.71	359.56	7,147.55	2,843.91	-75.27	1,742.08	0.37	-0.35	-0.11	
10,842.00	89.76	359.27	7,147.16	2,938.90	-76.24	1,801.46	1.05	-1.00	-0.31	
10,936.00	89.29	0.23	7,147.94	3,032.89	-76.65	1,860.65	1.14	-0.50	1.02	
11,030.00	89.09	359.18	7,149.27	3,126.88	-77.13	1,919.77	1.14	-0.21	-1.12	
11,124.00	88.99	358.74	7,150.85	3,220.85	-78.84	1,977.94	0.48	-0.11	-0.47	
11,219.00	88.72	358.38	7,152.75	3,315.80	-81.22	2,036.20	0.47	-0.28	-0.38	
11,313.00	88.69	358.70	7,154.87	3,409.75	-83.62	2,093.82	0.34	-0.03	0.34	
11,408.00	89.33	357.26	7,156.51	3,504.67	-86.97	2,151.32	1.66	0.67	-1.52	
11,502.00	89.56	358.94	7,157.42	3,598.61	-90.08	2,208.38	1.80	0.24	1.79	
11,597.00	90.13	358.52	7,157.68	3,693.59	-92.19	2,266.87	0.75	0.60	-0.44	
11,691.00	89.87	359.78	7,157.68	3,787.58	-93.58	2,325.29	1.37	-0.28	1.34	
11,785.00	90.17	359.29	7,157.65	3,881.57	-94.35	2,384.20	0.61	0.32	-0.52	
11,880.00	89.36	0.41	7,158.04	3,976.57	-94.59	2,444.15	1.45	-0.85	1.18	
11,974.00	88.96	359.67	7,159.41	4,070.56	-94.53	2,503.70	0.89	-0.43	-0.79	
12,068.00	89.97	359.43	7,160.29	4,164.55	-95.27	2,562.63	1.10	1.07	-0.26	
12,162.00	89.03	0.57	7,161.11	4,258.55	-95.27	2,622.13	1.57	-1.00	1.21	
12,257.00	89.60	0.20	7,162.25	4,353.54	-94.63	2,682.76	0.72	0.60	-0.39	
12,351.00	89.06	359.38	7,163.35	4,447.53	-94.97	2,742.00	1.04	-0.57	-0.87	
12,445.00	88.59	358.34	7,165.28	4,541.49	-96.84	2,800.03	1.21	-0.50	-1.11	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 15N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 15N-B6HZ	<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

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)
12,540.00	89.83	359.18	7,166.58	4,636.45	-98.90	2,858.56	1.58	1.31	0.88
12,634.00	91.14	359.24	7,165.79	4,730.44	-100.19	2,917.05	1.40	1.39	0.06
12,729.00	89.46	0.19	7,165.29	4,825.43	-100.67	2,976.82	2.03	-1.77	1.00
12,823.00	87.85	359.62	7,167.50	4,919.40	-100.82	3,036.19	1.82	-1.71	-0.61
12,917.00	87.75	0.01	7,171.11	5,013.33	-101.13	3,095.42	0.43	-0.11	0.41
13,012.00	87.72	359.52	7,174.86	5,108.26	-101.52	3,155.21	0.52	-0.03	-0.52
13,106.00	88.86	0.25	7,177.67	5,202.21	-101.70	3,214.54	1.44	1.21	0.78
13,226.00	88.86	0.24	7,180.05	5,322.19	-101.19	3,290.89	0.01	0.00	-0.01
<b>LAST SDI MWD PRODUCTION SURVEY</b>									
13,286.00	88.86	0.24	7,181.25	5,382.18	-100.94	3,329.06	0.00	0.00	0.00
<b>SDI PROJECTION TO TD(498 FSL 1586 FEL)</b>									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,577.00	1,576.94	9 5/8"	9.625	13.500
7,431.00	7,139.96	7"(58 FNL 1632 FEL)	7.000	8.750

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
101.00	101.00	0.01	-0.07	FIRST CATHEDRAL MWD SURFACE SURVEY
1,542.00	1,541.94	2.15	2.63	LAST CATHEDRAL MWD SURFACE SURVEY
2,024.00	2,023.88	-3.55	7.84	FIRST SDI MWD PRODUCTION SURVEY
13,226.00	7,180.05	5,322.19	-101.19	LAST SDI MWD PRODUCTION SURVEY
13,286.00	7,181.25	5,382.18	-100.94	SDI PROJECTION TO TD(498 FSL 1586 FEL)

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