



Project: Weld County, CO NAD 83
Site: Johnson Trust
Well: Johnson Trust 6
Wellbore: OH
Design: Plan 3

Plan: Plan 3 (Johnson Trust 6/OH)
Created By: Seth Burstad Date: 1-25-2016



T **M**
Azimuths to True North
Magnetic North: 8.60°

Magnetic Field
Strength: 52403.1snT
Dip Angle: 66.70°
Date: 12/29/2015
Model: BGGM2015

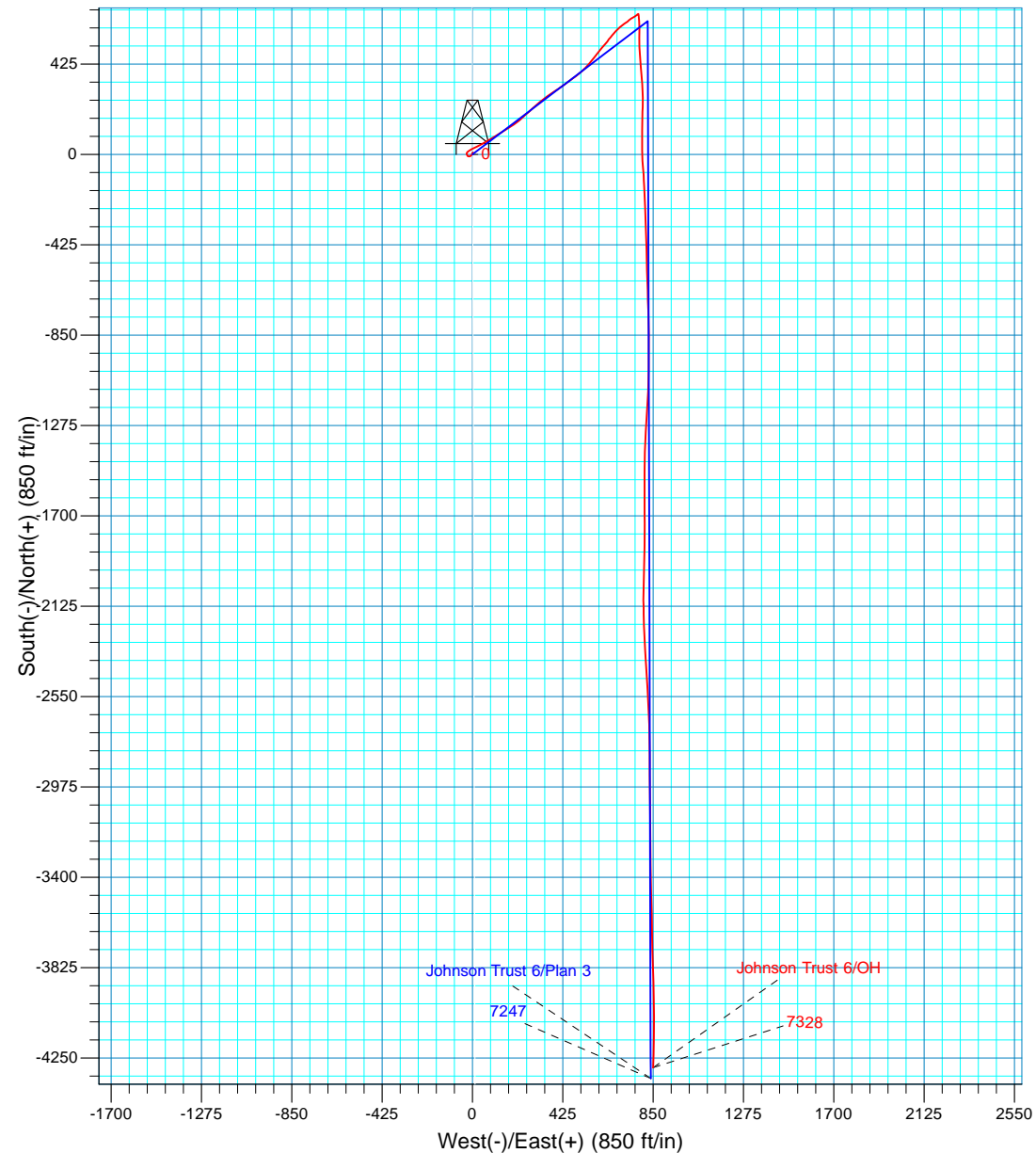
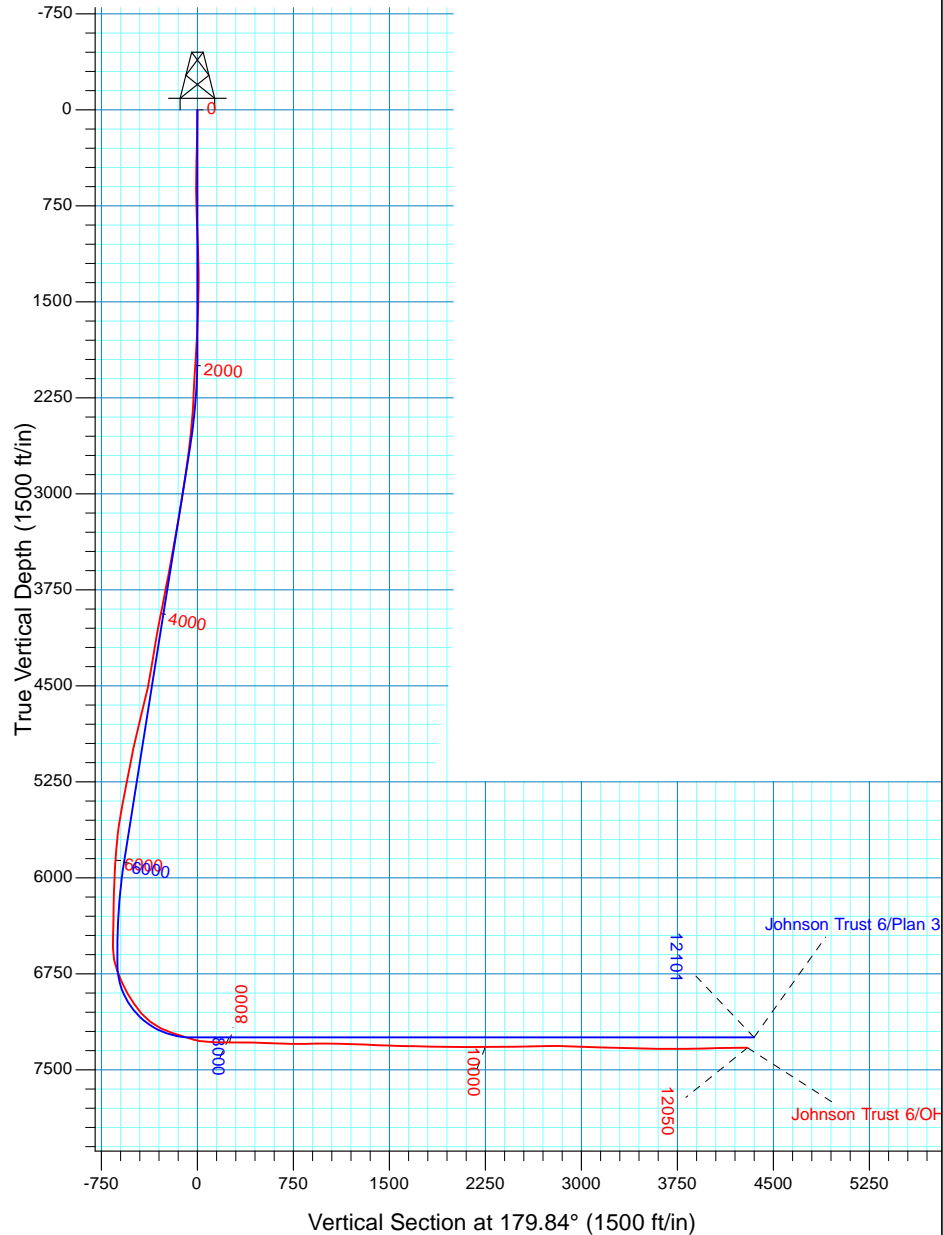
WELL DETAILS: Johnson Trust 6

GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346) 4924.00
Northing Easting Latitude Longitude
1293308.50 3151083.76 40° 8' 14.143 N 104° 57' 34.632 W

PROJECT DETAILS: Weld County, CO NAD 83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True





Extraction Oil & Gas

Weld County, CO NAD 83

Johnson Trust

Johnson Trust 6

OH

Design: OH

Standard Survey Report

01 February, 2016



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Johnson Trust 6
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Site:	Johnson Trust	MD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Well:	Johnson Trust 6	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Project	Weld County, CO NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Johnson Trust, Site Center : Johnson Trust 1				
Site Position:		Northing:	1,293,448.40 usft	Latitude:	40° 8' 15.526 N
From:	Lat/Long	Easting:	3,151,083.18 usft	Longitude:	104° 57' 34.628 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.35 °

Well	Johnson Trust 6, 2125' FSL 388' FWL Sec 13 T2N R68W					
Well Position	+N/-S	0.00 ft	Northing:	1,293,308.50 usft	Latitude:	40° 8' 14.143 N
	+E/-W	0.00 ft	Easting:	3,151,083.76 usft	Longitude:	104° 57' 34.632 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,924.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	12/29/2015	8.60	66.70	52,403

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	179.84	

Survey Program	Date	2/1/2016			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
228.00	1,534.00	Survey #1 - Surface (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
1,663.00	12,050.00	Survey #2 - Production (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

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	
228.00	1.59	17.17	227.97	3.02	0.93	-3.02	0.70	0.70	0.00	
First SDI MWD Survey										
412.00	1.03	6.23	411.92	7.11	1.87	-7.10	0.33	-0.30	-5.95	
508.00	0.78	2.98	507.91	8.62	1.99	-8.61	0.27	-0.26	-3.39	
603.00	0.35	12.63	602.91	9.54	2.09	-9.54	0.46	-0.45	10.16	
698.00	0.81	207.28	697.90	9.23	1.85	-9.23	1.21	0.48	-174.05	
793.00	2.44	198.32	792.86	6.71	0.90	-6.71	1.73	1.72	-9.43	

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Johnson Trust 6
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Site:	Johnson Trust	MD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Well:	Johnson Trust 6	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
887.00	3.10	211.07	886.75	2.64	-1.04	-2.64	0.96	0.70	13.56
982.00	3.18	215.03	981.61	-1.72	-3.88	1.71	0.24	0.08	4.17
1,077.00	2.71	228.90	1,076.49	-5.35	-7.08	5.33	0.90	-0.49	14.60
1,171.00	2.12	238.67	1,170.40	-7.72	-10.24	7.69	0.76	-0.63	10.39
1,266.00	2.16	255.63	1,265.34	-9.08	-13.48	9.04	0.67	0.04	17.85
1,360.00	2.40	273.08	1,359.26	-9.41	-17.16	9.36	0.78	0.26	18.56
1,456.00	2.34	301.05	1,455.18	-8.29	-20.84	8.23	1.19	-0.06	29.14
1,534.00	2.45	314.63	1,533.12	-6.30	-23.39	6.23	0.74	0.14	17.41
Last SDI MWD Surface Survey									
1,663.00	3.01	339.08	1,661.97	-1.20	-26.56	1.12	0.99	0.43	18.95
1,757.00	2.48	346.10	1,755.87	3.08	-27.93	-3.16	0.67	-0.56	7.47
1,852.00	3.73	39.26	1,850.74	7.47	-26.47	-7.54	3.15	1.32	55.96
1,947.00	5.88	48.17	1,945.40	13.11	-20.89	-13.17	2.39	2.26	9.38
2,041.00	7.18	57.36	2,038.80	19.49	-12.36	-19.52	1.77	1.38	9.78
2,136.00	6.04	63.90	2,133.16	24.89	-2.87	-24.90	1.44	-1.20	6.88
2,230.00	5.71	61.19	2,226.67	29.32	5.67	-29.30	0.46	-0.35	-2.88
2,325.00	7.14	63.39	2,321.07	34.24	15.09	-34.20	1.53	1.51	2.32
2,420.00	9.10	63.69	2,415.11	40.22	27.11	-40.14	2.06	2.06	0.32
2,516.00	13.40	62.25	2,509.25	48.76	43.76	-48.64	4.49	4.48	-1.50
2,611.00	14.25	61.43	2,601.49	59.48	63.77	-59.30	0.92	0.89	-0.86
2,705.00	14.36	58.22	2,692.58	71.15	83.84	-70.92	0.85	0.12	-3.41
2,800.00	15.52	57.51	2,784.37	84.19	104.58	-83.89	1.24	1.22	-0.75
2,894.00	14.37	58.33	2,875.19	97.07	125.12	-96.72	1.24	-1.22	0.87
2,989.00	16.08	58.16	2,966.85	110.20	146.33	-109.79	1.80	1.80	-0.18
3,084.00	17.10	59.34	3,057.89	124.26	169.52	-123.79	1.13	1.07	1.24
3,179.00	16.38	55.83	3,148.87	138.91	192.62	-138.37	1.31	-0.76	-3.69
3,274.00	15.90	50.68	3,240.13	154.68	213.77	-154.08	1.59	-0.51	-5.42
3,369.00	15.42	45.69	3,331.61	171.75	232.87	-171.09	1.50	-0.51	-5.25
3,464.00	15.49	48.97	3,423.17	188.90	251.48	-188.19	0.92	0.07	3.45
3,558.00	14.88	48.51	3,513.89	205.13	269.99	-204.38	0.66	-0.65	-0.49
3,653.00	15.17	48.83	3,605.64	221.40	288.49	-220.59	0.32	0.31	0.34
3,747.00	16.76	49.00	3,696.02	238.38	307.97	-237.52	1.69	1.69	0.18
3,843.00	18.10	50.32	3,787.61	256.99	329.90	-256.07	1.46	1.40	1.38
3,937.00	18.25	56.73	3,876.92	274.39	353.44	-273.40	2.13	0.16	6.82
4,032.00	18.86	56.23	3,966.99	291.08	378.65	-290.02	0.66	0.64	-0.53
4,126.00	18.90	53.62	4,055.93	308.56	403.53	-307.43	0.90	0.04	-2.78
4,221.00	17.13	55.53	4,146.27	325.60	427.46	-324.41	1.96	-1.86	2.01
4,316.00	16.75	53.65	4,237.15	341.64	450.02	-340.38	0.70	-0.40	-1.98
4,411.00	15.13	55.48	4,328.49	356.78	471.26	-355.46	1.79	-1.71	1.93
4,506.00	14.39	50.11	4,420.36	371.37	490.53	-370.00	1.64	-0.78	-5.65
4,601.00	17.63	47.66	4,511.67	388.64	510.23	-387.21	3.48	3.41	-2.58
4,696.00	20.19	46.90	4,601.53	409.53	532.84	-408.04	2.71	2.69	-0.80

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Site:	Johnson Trust	MD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Well:	Johnson Trust 6	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
4,790.00	17.60	40.21	4,690.47	431.48	553.86	-429.93	3.59	-2.76	-7.12
4,885.00	15.71	34.93	4,781.49	452.99	570.50	-451.40	2.55	-1.99	-5.56
4,979.00	16.66	37.10	4,871.76	474.17	585.92	-472.54	1.20	1.01	2.31
5,073.00	16.95	42.03	4,961.75	495.10	603.22	-493.41	1.55	0.31	5.24
5,168.00	14.57	40.93	5,053.17	514.42	620.32	-512.68	2.52	-2.51	-1.16
5,263.00	13.36	36.82	5,145.37	532.23	634.73	-530.46	1.65	-1.27	-4.33
5,357.00	14.36	37.90	5,236.63	550.13	648.40	-548.31	1.10	1.06	1.15
5,452.00	15.14	44.54	5,328.50	568.27	664.34	-566.41	1.96	0.82	6.99
5,546.00	14.75	44.69	5,419.32	585.52	681.36	-583.62	0.42	-0.41	0.16
5,641.00	14.91	48.02	5,511.16	602.29	698.95	-600.34	0.91	0.17	3.51
5,736.00	13.23	55.68	5,603.31	616.60	717.02	-614.60	2.64	-1.77	8.06
5,831.00	9.70	52.48	5,696.41	627.61	732.35	-625.56	3.77	-3.72	-3.37
5,925.00	7.98	49.06	5,789.29	636.71	743.56	-634.63	1.91	-1.83	-3.64
6,020.00	6.79	62.30	5,883.50	643.64	753.52	-641.53	2.18	-1.25	13.94
6,115.00	5.13	60.23	5,977.99	648.36	762.18	-646.23	1.76	-1.75	-2.18
6,210.00	3.66	53.70	6,072.70	652.26	768.31	-650.12	1.63	-1.55	-6.87
6,305.00	2.73	53.46	6,167.56	655.41	772.57	-653.25	0.98	-0.98	-0.25
6,400.00	1.89	57.89	6,262.48	657.59	775.71	-655.42	0.90	-0.88	4.66
6,494.00	1.52	52.78	6,356.44	659.16	778.02	-656.99	0.43	-0.39	-5.44
6,588.00	0.97	50.75	6,450.41	660.42	779.63	-658.24	0.59	-0.59	-2.16
6,683.00	0.51	28.36	6,545.41	661.30	780.45	-659.12	0.56	-0.48	-23.57
6,778.00	11.28	173.60	6,639.81	652.41	781.69	-650.22	12.32	11.34	152.88
6,873.00	19.69	175.88	6,731.28	627.17	783.88	-624.98	8.87	8.85	2.40
6,968.00	24.10	178.90	6,819.41	591.79	785.41	-589.60	4.79	4.64	3.18
7,063.00	30.62	183.35	6,903.75	548.20	784.36	-546.01	7.19	6.86	4.68
7,159.00	33.89	175.69	6,984.96	497.07	784.95	-494.87	5.45	3.41	-7.98
7,254.00	40.50	174.53	7,060.59	439.88	789.88	-437.68	7.00	6.96	-1.22
7,350.00	53.79	175.11	7,125.74	369.95	796.18	-367.72	13.85	13.84	0.60
7,445.00	62.56	179.71	7,175.81	289.42	799.67	-287.19	10.10	9.23	4.84
7,540.00	72.07	180.25	7,212.40	201.87	799.69	-199.64	10.02	10.01	0.57
7,635.00	72.15	181.49	7,241.59	111.48	798.32	-109.25	1.24	0.08	1.31
7,730.00	76.11	178.64	7,267.57	20.13	798.23	-17.90	5.07	4.17	-3.00
7,825.00	86.41	175.58	7,281.99	-73.51	803.00	75.75	11.30	10.84	-3.22
7,920.00	89.16	177.64	7,285.66	-168.26	808.61	170.52	3.62	2.89	2.17
8,015.00	89.56	177.12	7,286.72	-263.16	812.95	265.42	0.69	0.42	-0.55
8,109.00	89.60	178.54	7,287.41	-357.08	816.51	359.36	1.51	0.04	1.51
8,203.00	88.15	179.03	7,289.25	-451.04	818.50	453.32	1.63	-1.54	0.52
8,297.00	87.85	178.10	7,292.53	-544.95	820.85	547.24	1.04	-0.32	-0.99
8,393.00	88.15	177.81	7,295.88	-640.83	824.28	643.13	0.43	0.31	-0.30
8,487.00	89.70	178.83	7,297.65	-734.77	827.03	737.08	1.97	1.65	1.09
8,582.00	90.47	178.45	7,297.51	-829.74	829.29	832.06	0.90	0.81	-0.40
8,677.00	90.20	180.67	7,296.95	-924.73	830.02	927.05	2.35	-0.28	2.34

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Well:	Johnson Trust 6	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)	
8,772.00	90.03	180.89	7,296.76	-1,019.72	828.72	1,022.04	0.29	-0.18	0.23	
8,867.00	88.93	182.30	7,297.62	-1,114.68	826.08	1,116.98	1.88	-1.16	1.48	
8,962.00	88.05	183.39	7,300.13	-1,209.53	821.37	1,211.82	1.47	-0.93	1.15	
9,057.00	87.58	183.79	7,303.75	-1,304.27	815.42	1,306.54	0.65	-0.49	0.42	
9,152.00	87.65	181.56	7,307.70	-1,399.08	810.99	1,401.34	2.35	0.07	-2.35	
9,247.00	87.52	180.44	7,311.70	-1,493.98	809.34	1,496.23	1.19	-0.14	-1.18	
9,343.00	88.76	179.75	7,314.82	-1,589.93	809.18	1,592.18	1.48	1.29	-0.72	
9,439.00	89.97	180.36	7,315.88	-1,685.92	809.09	1,688.17	1.41	1.26	0.64	
9,534.00	88.83	179.75	7,316.88	-1,780.91	808.99	1,783.16	1.36	-1.20	-0.64	
9,629.00	88.76	180.21	7,318.88	-1,875.89	809.03	1,878.14	0.49	-0.07	0.48	
9,724.00	88.42	182.28	7,321.22	-1,970.83	806.96	1,973.08	2.21	-0.36	2.18	
9,819.00	88.86	180.62	7,323.47	-2,065.77	804.56	2,068.01	1.81	0.46	-1.75	
9,914.00	90.37	178.33	7,324.11	-2,160.76	805.43	2,163.00	2.89	1.59	-2.41	
10,008.00	90.44	177.55	7,323.44	-2,254.69	808.81	2,256.94	0.83	0.07	-0.83	
10,103.00	90.94	176.74	7,322.30	-2,349.57	813.54	2,351.83	1.00	0.53	-0.85	
10,198.00	91.71	176.79	7,320.10	-2,444.39	818.90	2,446.67	0.81	0.81	0.05	
10,292.00	91.48	176.09	7,317.49	-2,538.17	824.74	2,540.47	0.78	-0.24	-0.74	
10,388.00	91.24	177.73	7,315.21	-2,634.00	829.91	2,636.31	1.73	-0.25	1.71	
10,482.00	90.50	178.92	7,313.78	-2,727.95	832.66	2,730.26	1.49	-0.79	1.27	
10,577.00	88.19	179.48	7,314.87	-2,822.93	833.98	2,825.24	2.50	-2.43	0.59	
10,671.00	88.12	180.20	7,317.89	-2,916.88	834.24	2,919.20	0.77	-0.07	0.77	
10,767.00	88.05	179.30	7,321.10	-3,012.82	834.66	3,015.14	0.94	-0.07	-0.94	
10,862.00	87.84	179.62	7,324.51	-3,107.76	835.56	3,110.08	0.40	-0.22	0.34	
10,957.00	87.65	179.59	7,328.25	-3,202.68	836.21	3,205.00	0.20	-0.20	-0.03	
11,052.00	89.09	178.87	7,330.95	-3,297.63	837.49	3,299.96	1.69	1.52	-0.76	
11,147.00	89.16	178.97	7,332.40	-3,392.60	839.28	3,394.93	0.13	0.07	0.11	
11,242.00	89.13	178.99	7,333.82	-3,487.58	840.97	3,489.91	0.04	-0.03	0.02	
11,337.00	89.30	178.61	7,335.12	-3,582.55	842.96	3,584.89	0.44	0.18	-0.40	
11,432.00	89.16	178.73	7,336.39	-3,677.51	845.16	3,679.86	0.19	-0.15	0.13	
11,527.00	89.80	178.74	7,337.26	-3,772.48	847.26	3,774.84	0.67	0.67	0.01	
11,622.00	90.60	177.61	7,336.93	-3,867.43	850.29	3,869.79	1.46	0.84	-1.19	
11,717.00	92.12	179.25	7,334.67	-3,962.36	852.89	3,964.73	2.35	1.60	1.73	
11,811.00	91.81	178.96	7,331.45	-4,056.30	854.36	4,058.67	0.45	-0.33	-0.31	
11,907.00	90.64	181.59	7,329.39	-4,152.26	853.90	4,154.63	3.00	-1.22	2.74	
11,990.00	90.57	181.47	7,328.52	-4,235.23	851.68	4,237.59	0.17	-0.08	-0.14	
Last SDI MWD Survey										
12,050.00	90.57	181.47	7,327.92	-4,295.21	850.14	4,297.57	0.00	0.00	0.00	
Projection to TD										

Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well Johnson Trust 6
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Site:	Johnson Trust	MD Reference:	GL 4924' & KB 24.5' @ 4948.50ft (Patterson 346)
Well:	Johnson Trust 6	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
228.00	227.97	3.02	0.93	First SDI MWD Survey
1,534.00	1,533.12	-6.30	-23.39	Last SDI MWD Surface Survey
11,990.00	7,328.52	-4,235.23	851.68	Last SDI MWD Survey
12,050.00	7,327.92	-4,295.21	850.14	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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