



Extraction Oil & Gas

**WELD COUNTY, CO
WINDER SOUTH PAD
WINDER SOUTH 7**

WINDER SOUTH 7

Survey: Survey #2

Standard Survey Report

12 December, 2016



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well WINDER SOUTH 7
Project:	WELD COUNTY, CO	TVD Reference:	WELL @ 4880.00ft (Patterson 346)
Site:	WINDER SOUTH PAD	MD Reference:	WELL @ 4880.00ft (Patterson 346)
Well:	WINDER SOUTH 7	North Reference:	True
Wellbore:	WINDER SOUTH 7	Survey Calculation Method:	Minimum Curvature
Design:	WINDER SOUTH 7	Database:	EDM 5000.1 Single User Db

Project	WELD COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		WINDER SOUTH PAD			
Site Position:		Northing:	1,426,547.14 usft	Latitude:	40° 30' 9.630 N
From:	Lat/Long	Easting:	3,169,438.32 usft	Longitude:	104° 53' 26.516 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"	Grid Convergence:	0.39 °

Well	WINDER SOUTH 7					
Well Position	+N/-S	0.00 ft	Northing:	1,426,547.08 usft	Latitude:	40° 30' 9.623 N
	+E/-W	0.00 ft	Easting:	3,169,538.41 usft	Longitude:	104° 53' 25.220 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,855.00 ft

Wellbore	WINDER SOUTH 7				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/26/16	8.36	66.93	52,515

Design	WINDER SOUTH 7				
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	259.43

Survey Program	Date	09/29/16			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
134.00	1,561.00	Surface Surveys (WINDER SOUTH 7)	MWD	MWD - Standard	
1,665.00	17,155.00	Survey #2 (WINDER SOUTH 7)	MWD	MWD - Standard	

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)	
TIE ON TO SURFACE										
1,561.00	5.80	167.70	1,552.65	-138.51	42.59	-16.46	0.00	0.00	0.00	
1,665.00	7.97	174.95	1,655.89	-150.83	44.35	-15.92	2.24	2.09	6.97	
1,760.00	7.89	177.87	1,749.99	-163.91	45.17	-14.33	0.43	-0.08	3.07	
1,854.00	9.55	169.51	1,842.90	-178.02	46.83	-13.37	2.22	1.77	-8.89	
1,949.00	10.29	164.85	1,936.48	-193.96	50.48	-14.04	1.15	0.78	-4.91	
2,043.00	11.47	169.49	2,028.79	-211.26	54.38	-14.70	1.56	1.26	4.94	
2,138.00	14.17	170.52	2,121.41	-232.02	58.02	-14.47	2.85	2.84	1.08	
2,232.00	16.36	170.15	2,212.09	-256.41	62.18	-14.08	2.33	2.33	-0.39	
2,327.00	19.66	164.37	2,302.43	-284.99	68.78	-15.32	3.95	3.47	-6.08	
2,421.00	20.55	162.81	2,390.70	-315.98	77.91	-18.62	1.11	0.95	-1.66	
2,516.00	19.53	164.26	2,479.95	-347.20	87.15	-21.97	1.19	-1.07	1.53	

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Wellbore:	WINDER SOUTH 7	Survey Calculation Method:	Minimum Curvature
Design:	WINDER SOUTH 7	Database:	EDM 5000.1 Single User Db

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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)
2,610.00	20.64	163.70	2,568.23	-378.22	96.06	-25.04	1.20	1.18	-0.60
2,705.00	19.62	166.84	2,657.43	-409.83	104.39	-27.43	1.56	-1.07	3.31
2,800.00	17.69	164.72	2,747.44	-439.28	111.83	-29.33	2.15	-2.03	-2.23
2,894.00	19.56	166.76	2,836.51	-468.38	119.20	-31.24	2.11	1.99	2.17
2,988.00	18.68	169.72	2,925.33	-498.51	125.49	-31.89	1.39	-0.94	3.15
3,083.00	18.70	165.70	3,015.32	-528.24	131.96	-32.81	1.36	0.02	-4.23
3,177.00	19.21	167.64	3,104.22	-557.95	139.00	-34.27	0.86	0.54	2.06
3,271.00	17.08	169.57	3,193.55	-586.63	144.81	-34.72	2.35	-2.27	2.05
3,366.00	17.58	170.94	3,284.23	-614.52	149.59	-34.30	0.68	0.53	1.44
3,460.00	18.30	166.35	3,373.67	-642.88	155.31	-34.72	1.69	0.77	-4.88
3,555.00	19.42	168.41	3,463.57	-672.85	162.00	-35.80	1.37	1.18	2.17
3,650.00	17.00	169.53	3,553.80	-701.98	167.70	-36.06	2.57	-2.55	1.18
3,745.00	19.90	172.21	3,643.91	-731.66	172.42	-35.25	3.18	3.05	2.82
3,840.00	19.93	171.47	3,733.23	-763.69	177.01	-33.89	0.27	0.03	-0.78
3,934.00	20.48	173.56	3,821.45	-795.88	181.23	-32.13	0.97	0.59	2.22
4,029.00	20.42	172.28	3,910.46	-828.82	185.32	-30.11	0.47	-0.06	-1.35
4,124.00	18.69	171.78	3,999.98	-860.30	189.72	-28.66	1.83	-1.82	-0.53
4,218.00	16.84	174.17	4,089.49	-888.76	193.26	-26.92	2.12	-1.97	2.54
4,313.00	18.30	164.65	4,180.08	-916.84	198.61	-27.02	3.39	1.54	-10.02
4,407.00	17.00	164.41	4,269.65	-944.31	206.21	-29.45	1.39	-1.38	-0.26
4,502.00	17.21	169.44	4,360.45	-971.50	212.51	-30.66	1.57	0.22	5.29
4,596.00	17.93	166.22	4,450.07	-999.23	218.51	-31.47	1.29	0.77	-3.43
4,690.00	15.08	170.04	4,540.19	-1,025.33	224.07	-32.15	3.24	-3.03	4.06
4,785.00	16.16	163.08	4,631.69	-1,050.15	230.06	-33.48	2.27	1.14	-7.33
4,880.00	17.59	165.44	4,722.60	-1,076.69	237.52	-35.94	1.67	1.51	2.48
4,975.00	18.94	168.67	4,812.81	-1,105.71	244.15	-37.14	1.78	1.42	3.40
5,069.00	17.29	166.03	4,902.15	-1,134.22	250.52	-38.17	1.96	-1.76	-2.81
5,164.00	16.71	169.47	4,993.00	-1,161.35	256.43	-39.00	1.22	-0.61	3.62
5,259.00	16.59	167.01	5,084.02	-1,187.99	261.97	-39.56	0.75	-0.13	-2.59
5,353.00	16.27	168.77	5,174.18	-1,213.99	267.55	-40.28	0.63	-0.34	1.87
5,448.00	15.46	166.05	5,265.56	-1,239.33	273.20	-41.18	1.16	-0.85	-2.86
5,543.00	16.12	170.47	5,356.98	-1,264.62	278.43	-41.68	1.44	0.69	4.65
5,638.00	17.00	163.72	5,448.05	-1,290.96	284.51	-42.83	2.23	0.93	-7.11
5,733.00	17.16	171.16	5,538.87	-1,318.15	290.56	-43.78	2.30	0.17	7.83
5,827.00	16.97	169.38	5,628.73	-1,345.33	295.22	-43.38	0.59	-0.20	-1.89
5,922.00	17.32	163.02	5,719.52	-1,372.49	301.90	-44.97	2.01	0.37	-6.69
6,017.00	17.31	164.54	5,810.21	-1,399.63	309.80	-47.75	0.48	-0.01	1.60
6,111.00	17.11	165.70	5,900.00	-1,426.51	316.94	-49.84	0.42	-0.21	1.23
6,206.00	17.34	163.43	5,990.74	-1,453.62	324.43	-52.23	0.75	0.24	-2.39
6,300.00	16.41	166.59	6,080.70	-1,479.96	331.51	-54.35	1.39	-0.99	3.36
6,395.00	16.25	172.93	6,171.87	-1,506.21	336.26	-54.20	1.88	-0.17	6.67
6,489.00	16.42	171.16	6,262.08	-1,532.39	339.92	-53.00	0.56	0.18	-1.88
6,584.00	16.54	166.74	6,353.18	-1,558.82	345.08	-53.22	1.33	0.13	-4.65
6,678.00	16.24	172.77	6,443.36	-1,584.89	349.81	-53.08	1.84	-0.32	6.41
6,773.00	16.22	174.05	6,534.58	-1,611.26	352.85	-51.24	0.38	-0.02	1.35
6,867.00	16.71	179.84	6,624.73	-1,637.84	354.25	-47.74	1.82	0.52	6.16
6,962.00	14.95	204.43	6,716.23	-1,662.68	349.22	-38.23	7.24	-1.85	25.88
7,057.00	24.18	244.50	6,806.02	-1,682.34	326.44	-12.24	16.63	9.72	42.18
7,151.00	28.26	258.39	6,890.41	-1,695.12	287.21	28.67	7.81	4.34	14.78
7,246.00	36.00	258.97	6,970.80	-1,705.00	237.70	79.15	8.15	8.15	0.61
7,340.00	45.53	254.22	7,041.93	-1,719.45	178.16	140.33	10.66	10.14	-5.05
7,435.00	53.06	257.61	7,103.85	-1,736.84	108.35	212.15	8.37	7.93	3.57
7,529.00	57.89	260.80	7,157.12	-1,751.28	32.30	289.56	5.85	5.14	3.39
7,624.00	67.11	260.69	7,200.94	-1,764.82	-50.78	373.71	9.71	9.71	-0.12

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WS 7 Hard Line Intersect Point									
7,634.31	68.85	260.91	7,204.80	-1,766.34	-60.21	383.26	17.02	16.90	2.18
7,718.00	83.00	262.59	7,225.11	-1,777.92	-140.35	464.16	17.02	16.91	2.00
7,774.38	86.51	261.83	7,230.26	-1,785.53	-195.97	520.24	6.37	6.23	-1.34
7,786.34	87.26	261.67	7,230.91	-1,787.24	-207.78	532.16	6.37	6.23	-1.33
7,813.00	88.92	261.32	7,231.80	-1,791.18	-234.14	558.79	6.37	6.23	-1.33
7,908.00	88.16	263.93	7,234.22	-1,803.37	-328.31	653.60	2.86	-0.80	2.75
8,027.00	90.69	265.76	7,235.41	-1,814.06	-446.81	772.05	2.62	2.13	1.54
8,121.00	91.62	269.73	7,233.52	-1,817.76	-540.70	865.03	4.34	0.99	4.22
8,216.00	92.06	269.97	7,230.47	-1,818.01	-635.65	958.41	0.53	0.46	0.25
8,310.00	92.01	269.33	7,227.13	-1,818.58	-729.58	1,050.86	0.68	-0.05	-0.68
8,405.00	91.56	269.49	7,224.17	-1,819.56	-824.53	1,144.38	0.50	-0.47	0.17
8,499.00	91.62	269.68	7,221.56	-1,820.24	-918.49	1,236.87	0.21	0.06	0.20
8,594.00	91.05	268.98	7,219.35	-1,821.35	-1,013.46	1,330.42	0.95	-0.60	-0.74
8,688.00	90.43	269.18	7,218.13	-1,822.86	-1,107.44	1,423.09	0.69	-0.66	0.21
8,783.00	90.34	270.05	7,217.49	-1,823.50	-1,202.44	1,516.59	0.92	-0.09	0.92
8,877.00	89.44	271.07	7,217.67	-1,822.58	-1,296.43	1,608.81	1.45	-0.96	1.09
8,972.00	91.32	269.61	7,217.04	-1,822.02	-1,391.42	1,702.09	2.51	1.98	-1.54
9,066.00	90.76	269.25	7,215.34	-1,822.95	-1,485.40	1,794.64	0.71	-0.60	-0.38
9,161.00	92.15	270.27	7,212.93	-1,823.35	-1,580.36	1,888.07	1.81	1.46	1.07
9,255.00	92.51	270.85	7,209.10	-1,822.43	-1,674.28	1,980.22	0.73	0.38	0.62
9,350.00	92.76	270.84	7,204.74	-1,821.03	-1,769.17	2,073.25	0.26	0.26	-0.01
9,444.00	91.65	271.57	7,201.12	-1,819.06	-1,863.08	2,165.20	1.41	-1.18	0.78
9,539.00	92.21	272.11	7,197.92	-1,816.01	-1,957.97	2,257.92	0.82	0.59	0.57
9,633.00	90.93	271.65	7,195.35	-1,812.93	-2,051.88	2,349.68	1.45	-1.36	-0.49
9,728.00	89.30	270.17	7,195.16	-1,811.42	-2,146.87	2,442.77	2.32	-1.72	-1.56
9,822.00	89.91	271.39	7,195.80	-1,810.14	-2,240.85	2,534.92	1.45	0.65	1.30
9,917.00	89.83	271.55	7,196.02	-1,807.70	-2,335.82	2,627.83	0.19	-0.08	0.17
10,011.00	89.34	270.28	7,196.70	-1,806.20	-2,429.81	2,719.95	1.45	-0.52	-1.35
10,106.00	89.61	270.33	7,197.57	-1,805.69	-2,524.80	2,813.24	0.29	0.28	0.05
10,200.00	90.90	268.35	7,197.15	-1,806.78	-2,618.79	2,905.82	2.51	1.37	-2.11
10,295.00	91.01	268.20	7,195.57	-1,809.64	-2,713.73	2,999.68	0.20	0.12	-0.16
10,389.00	91.90	270.93	7,193.18	-1,810.35	-2,807.69	3,092.17	3.05	0.95	2.90
10,484.00	91.77	270.71	7,190.14	-1,808.99	-2,902.63	3,185.26	0.27	-0.14	-0.23
10,578.00	91.77	271.42	7,187.24	-1,807.24	-2,996.57	3,277.28	0.75	0.00	0.76
10,672.00	91.05	272.29	7,184.92	-1,804.20	-3,090.49	3,369.05	1.20	-0.77	0.93
10,767.00	91.25	270.59	7,183.02	-1,801.81	-3,185.44	3,461.94	1.80	0.21	-1.79
10,862.00	90.43	270.78	7,181.62	-1,800.68	-3,280.42	3,555.11	0.89	-0.86	0.20
10,956.00	90.88	270.38	7,180.55	-1,799.73	-3,374.41	3,647.32	0.64	0.48	-0.43
11,050.00	91.54	270.09	7,178.56	-1,799.34	-3,468.38	3,739.64	0.77	0.70	-0.31
11,145.00	90.21	268.90	7,177.11	-1,800.18	-3,563.36	3,833.16	1.88	-1.40	-1.25
11,239.00	91.17	269.52	7,175.98	-1,801.48	-3,657.35	3,925.78	1.22	1.02	0.66
11,334.00	90.24	270.52	7,174.81	-1,801.44	-3,752.34	4,019.16	1.44	-0.98	1.05
11,428.00	92.37	270.45	7,172.67	-1,800.65	-3,846.30	4,111.38	2.27	2.27	-0.07
11,523.00	91.39	269.69	7,169.55	-1,800.53	-3,941.25	4,204.70	1.31	-1.03	-0.80
11,617.00	91.59	269.12	7,167.11	-1,801.51	-4,035.21	4,297.24	0.64	0.21	-0.61
11,712.00	90.81	268.28	7,165.12	-1,803.66	-4,130.17	4,390.98	1.21	-0.82	-0.88
11,806.00	91.26	268.27	7,163.42	-1,806.49	-4,224.11	4,483.85	0.48	0.48	-0.01
11,900.00	91.74	267.62	7,160.96	-1,809.86	-4,318.02	4,576.78	0.86	0.51	-0.69
11,995.00	90.92	269.38	7,158.76	-1,812.35	-4,412.95	4,670.56	2.04	-0.86	1.85
12,090.00	90.00	269.62	7,157.99	-1,813.18	-4,507.95	4,764.09	1.00	-0.97	0.25
12,184.00	90.43	269.14	7,157.64	-1,814.19	-4,601.94	4,856.67	0.69	0.46	-0.51

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12,278.00	91.11	271.60	7,156.38	-1,813.59	-4,695.92	4,948.95	2.71	0.72	2.62
12,373.00	89.35	271.06	7,156.00	-1,811.38	-4,790.89	5,041.90	1.94	-1.85	-0.57
12,467.00	88.99	271.04	7,157.36	-1,809.66	-4,884.86	5,133.97	0.38	-0.38	-0.02
12,562.00	90.29	269.81	7,157.96	-1,808.95	-4,979.86	5,227.22	1.88	1.37	-1.29
12,656.00	89.77	269.28	7,157.91	-1,809.70	-5,073.85	5,319.75	0.79	-0.55	-0.56
12,750.00	91.02	269.67	7,157.26	-1,810.56	-5,167.84	5,412.31	1.39	1.33	0.41
12,845.00	90.95	269.70	7,155.62	-1,811.08	-5,262.83	5,505.78	0.08	-0.07	0.03
12,939.00	92.75	270.08	7,152.59	-1,811.26	-5,356.78	5,598.16	1.96	1.91	0.40
13,034.00	92.59	269.45	7,148.16	-1,811.65	-5,451.67	5,691.52	0.68	-0.17	-0.66
13,128.00	92.90	268.98	7,143.66	-1,812.94	-5,545.55	5,784.04	0.60	0.33	-0.50
13,223.00	92.24	270.50	7,139.40	-1,813.37	-5,640.45	5,877.41	1.74	-0.69	1.60
13,317.00	92.68	270.99	7,135.37	-1,812.15	-5,734.36	5,969.50	0.70	0.47	0.52
13,412.00	90.73	270.43	7,132.54	-1,810.97	-5,829.30	6,062.61	2.14	-2.05	-0.59
13,506.00	90.36	270.79	7,131.65	-1,809.97	-5,923.30	6,154.83	0.55	-0.39	0.38
13,600.00	91.51	270.59	7,130.11	-1,808.84	-6,017.27	6,247.00	1.24	1.22	-0.21
13,695.00	91.87	270.64	7,127.31	-1,807.82	-6,112.23	6,340.16	0.38	0.38	0.05
13,789.00	91.88	271.13	7,124.24	-1,806.37	-6,206.17	6,432.23	0.52	0.01	0.52
13,883.00	91.98	271.77	7,121.07	-1,803.99	-6,300.08	6,524.12	0.69	0.11	0.68
13,978.00	92.13	269.67	7,117.66	-1,802.80	-6,395.01	6,617.22	2.21	0.16	-2.21
14,072.00	93.18	271.70	7,113.31	-1,801.68	-6,488.89	6,709.30	2.43	1.12	2.16
14,166.00	92.90	268.80	7,108.32	-1,801.27	-6,582.75	6,801.49	3.10	-0.30	-3.09
14,261.00	93.01	270.08	7,103.43	-1,802.20	-6,677.62	6,894.92	1.35	0.12	1.35
14,355.00	91.67	269.21	7,099.59	-1,802.78	-6,771.53	6,987.35	1.70	-1.43	-0.93
14,449.00	91.74	269.52	7,096.79	-1,803.82	-6,865.49	7,079.89	0.34	0.07	0.33
14,544.00	92.30	270.58	7,093.44	-1,803.74	-6,960.43	7,173.21	1.26	0.59	1.12
14,639.00	92.03	271.85	7,089.85	-1,801.72	-7,055.33	7,266.14	1.37	-0.28	1.34
14,733.00	91.11	269.75	7,087.28	-1,800.41	-7,149.28	7,358.25	2.44	-0.98	-2.23
14,828.00	90.52	269.68	7,085.93	-1,800.88	-7,244.27	7,451.71	0.63	-0.62	-0.07
15,016.00	91.55	269.51	7,082.53	-1,802.21	-7,432.23	7,636.73	0.56	0.55	-0.09
15,111.00	91.19	269.50	7,080.26	-1,803.03	-7,527.20	7,730.24	0.38	-0.38	-0.01
15,206.00	92.73	269.79	7,077.01	-1,803.62	-7,622.14	7,823.67	1.65	1.62	0.31
15,300.00	92.01	270.46	7,073.12	-1,803.42	-7,716.06	7,915.96	1.05	-0.77	0.71
15,395.00	91.50	270.54	7,070.21	-1,802.59	-7,811.01	8,009.15	0.54	-0.54	0.08
15,490.00	92.81	270.18	7,066.64	-1,801.99	-7,905.94	8,102.35	1.43	1.38	-0.38
15,584.00	91.49	269.77	7,063.11	-1,802.03	-7,999.87	8,194.70	1.47	-1.40	-0.44
15,678.00	92.40	270.10	7,059.92	-1,802.14	-8,093.82	8,287.07	1.03	0.97	0.35
15,773.00	92.79	270.35	7,055.62	-1,801.77	-8,188.72	8,380.29	0.49	0.41	0.26
15,868.00	92.27	269.85	7,051.43	-1,801.60	-8,283.63	8,473.55	0.76	-0.55	-0.53
15,962.00	91.53	269.84	7,048.31	-1,801.86	-8,377.57	8,565.95	0.79	-0.79	-0.01
16,057.00	92.24	270.59	7,045.19	-1,801.50	-8,472.52	8,659.22	1.09	0.75	0.79
16,152.00	91.64	270.96	7,041.97	-1,800.22	-8,567.46	8,752.31	0.74	-0.63	0.39
16,246.00	90.37	271.61	7,040.32	-1,798.11	-8,661.42	8,844.29	1.52	-1.35	0.69
16,341.00	91.94	270.99	7,038.41	-1,795.95	-8,756.37	8,937.24	1.78	1.65	-0.65
16,435.00	91.28	271.13	7,035.77	-1,794.21	-8,850.32	9,029.27	0.72	-0.70	0.15
16,530.00	92.47	269.29	7,032.66	-1,793.87	-8,945.26	9,122.54	2.31	1.25	-1.94
16,624.00	91.02	268.73	7,029.80	-1,795.49	-9,039.20	9,215.18	1.65	-1.54	-0.60
16,719.00	93.42	269.38	7,026.12	-1,797.06	-9,134.11	9,308.76	2.62	2.53	0.68
16,814.00	93.18	269.43	7,020.65	-1,798.04	-9,228.94	9,402.17	0.26	-0.25	0.05
16,908.00	93.19	268.99	7,015.43	-1,799.33	-9,322.79	9,494.66	0.47	0.01	-0.47
17,003.00	93.88	269.28	7,009.57	-1,800.77	-9,417.60	9,588.12	0.79	0.73	0.31
Last Svy									
17,089.00	94.00	268.26	7,003.66	-1,802.61	-9,503.37	9,672.78	1.19	0.14	-1.19
Proj Svy - PBHL WINDER SOUTH 7 - PBHL WINDER SOUTH 7 P3									
17,155.00	94.00	268.26	6,999.05	-1,804.61	-9,569.18	9,737.84	0.00	0.00	0.00



Company:	Extraction Oil & Gas	Local Co-ordinate Reference:	Well WINDER SOUTH 7
Project:	WELD COUNTY, CO	TVD Reference:	WELL @ 4880.00ft (Patterson 346)
Site:	WINDER SOUTH PAD	MD Reference:	WELL @ 4880.00ft (Patterson 346)
Well:	WINDER SOUTH 7	North Reference:	True
Wellbore:	WINDER SOUTH 7	Survey Calculation Method:	Minimum Curvature
Design:	WINDER SOUTH 7	Database:	EDM 5000.1 Single User Db

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
WS 7 Hard Line Intersec	0.00	0.00	7,204.82	-1,766.35	-60.25	1,424,780.37	3,169,490.30	40° 29' 52.168 N	104° 53' 26.000 W
- survey hits target center									
- Point									

Survey Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,561.00	1,552.65	-138.51	42.59	TIE ON TO SURFACE	
17,089.00	7,003.66	-1,802.61	-9,503.37	Last Svy	
17,155.00	6,999.05	-1,804.61	-9,569.18	Proj Svy	

Checked By:	_____	Approved By:	_____	Date:	_____
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