

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

SE NE SEC. 9 T6N R67W 6th P.M.

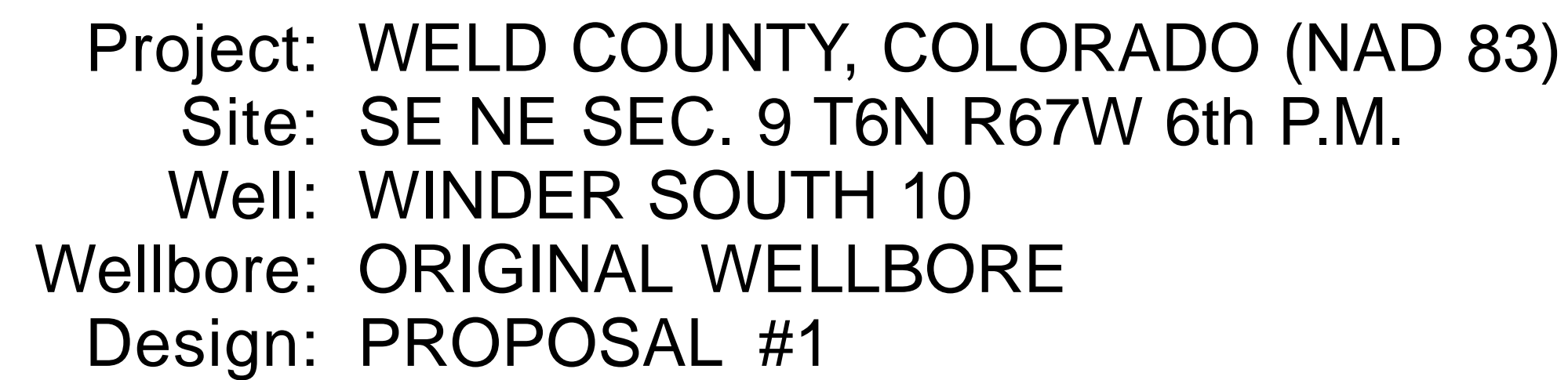
WINDER SOUTH 10

ORIGINAL WELLBORE

15 June, 2016

Plan: PROPOSAL #1





Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WINDER SOUTH 10
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4873.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4873.0usft
Site:	SE NE SEC. 9 T6N R67W 6th P.M.	North Reference:	True
Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		SE NE SEC. 9 T6N R67W 6th P.M.			
Site Position:		Northing:	1,426,547.00 usft	Latitude:	40.502675
From:	Lat/Long	Easting:	3,169,418.27 usft	Longitude:	-104.890771
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.39 °

Well	WINDER SOUTH 10					
Well Position	+N/-S	-1.1 usft	Northing:	1,426,547.14 usft	Latitude:	40.502672
	+E/-W	179.9 usft	Easting:	3,169,598.20 usft	Longitude:	-104.890124
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,857.0 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	14/06/2016	8.39	66.94	52,547

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	255.76

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,873.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-4,573.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,398.9	21.98	172.25	1,372.1	-3,500.9	-206.3	28.1	2.00	2.00	0.00	172.25	
6,927.1	21.98	172.25	6,498.6	1,625.6	-2,256.3	306.9	0.00	0.00	0.00	0.00	
7,856.6	90.00	270.15	7,058.0	2,185.0	-2,478.4	-265.9	10.00	7.32	10.53	97.33	HZ LP *NEW* - WIND
17,261.7	90.00	270.15	7,058.0	2,185.0	-2,453.6	-9,671.0	0.00	0.00	0.00	0.00	BHL - WINDER SO

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4873.0usft
Site:	SE NE SEC. 9 T6N R67W 6th P.M.	North Reference:	True
Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 2306ft FNL & 348ft FEL of Sec 9										
0.0	0.00	0.00	0.0	4,873.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,773.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,673.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	4,573.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	172.25	400.0	4,473.02	-1.7	0.2	0.2	2.00	2.00	0.00
500.0	4.00	172.25	499.8	4,373.16	-6.9	0.9	0.8	2.00	2.00	0.00
600.0	6.00	172.25	599.5	4,273.55	-15.6	2.1	1.8	2.00	2.00	0.00
700.0	8.00	172.25	698.7	4,174.30	-27.6	3.8	3.2	2.00	2.00	0.00
800.0	10.00	172.25	797.5	4,075.53	-43.1	5.9	4.9	2.00	2.00	0.00
900.0	12.00	172.25	895.6	3,977.38	-62.0	8.4	7.1	2.00	2.00	0.00
1,000.0	14.00	172.25	993.1	3,879.94	-84.3	11.5	9.6	2.00	2.00	0.00
1,100.0	16.00	172.25	1,089.6	3,783.36	-110.0	15.0	12.5	2.00	2.00	0.00
1,200.0	18.00	172.25	1,185.3	3,687.73	-138.9	18.9	15.8	2.00	2.00	0.00
1,300.0	20.00	172.25	1,279.8	3,593.18	-171.2	23.3	19.5	2.00	2.00	0.00
EOB TO 21.98° INC										
1,398.9	21.98	172.25	1,372.1	3,500.88	-206.3	28.1	23.5	2.00	2.00	0.00
1,400.0	21.98	172.25	1,373.2	3,499.83	-206.7	28.1	23.6	0.00	0.00	0.00
1,500.0	21.98	172.25	1,465.9	3,407.10	-243.8	33.2	27.8	0.00	0.00	0.00
1,600.0	21.98	172.25	1,558.6	3,314.36	-280.9	38.2	32.0	0.00	0.00	0.00
1,700.0	21.98	172.25	1,651.4	3,221.63	-317.9	43.2	36.3	0.00	0.00	0.00
1,800.0	21.98	172.25	1,744.1	3,128.90	-355.0	48.3	40.5	0.00	0.00	0.00
1,900.0	21.98	172.25	1,836.8	3,036.17	-392.1	53.3	44.7	0.00	0.00	0.00
2,000.0	21.98	172.25	1,929.6	2,943.43	-429.2	58.4	49.0	0.00	0.00	0.00
2,100.0	21.98	172.25	2,022.3	2,850.70	-466.3	63.4	53.2	0.00	0.00	0.00
2,200.0	21.98	172.25	2,115.0	2,757.97	-503.4	68.5	57.4	0.00	0.00	0.00
2,300.0	21.98	172.25	2,207.8	2,665.23	-540.4	73.5	61.7	0.00	0.00	0.00
2,400.0	21.98	172.25	2,300.5	2,572.50	-577.5	78.6	65.9	0.00	0.00	0.00
2,500.0	21.98	172.25	2,393.2	2,479.77	-614.6	83.6	70.1	0.00	0.00	0.00
2,600.0	21.98	172.25	2,486.0	2,387.03	-651.7	88.6	74.3	0.00	0.00	0.00
2,700.0	21.98	172.25	2,578.7	2,294.30	-688.8	93.7	78.6	0.00	0.00	0.00
2,800.0	21.98	172.25	2,671.4	2,201.57	-725.9	98.7	82.8	0.00	0.00	0.00
2,900.0	21.98	172.25	2,764.2	2,108.83	-762.9	103.8	87.0	0.00	0.00	0.00
3,000.0	21.98	172.25	2,856.9	2,016.10	-800.0	108.8	91.3	0.00	0.00	0.00
3,100.0	21.98	172.25	2,949.6	1,923.37	-837.1	113.9	95.5	0.00	0.00	0.00
3,200.0	21.98	172.25	3,042.4	1,830.64	-874.2	118.9	99.7	0.00	0.00	0.00
3,300.0	21.98	172.25	3,135.1	1,737.90	-911.3	123.9	104.0	0.00	0.00	0.00
3,400.0	21.98	172.25	3,227.8	1,645.17	-948.4	129.0	108.2	0.00	0.00	0.00
3,500.0	21.98	172.25	3,320.6	1,552.44	-985.4	134.0	112.4	0.00	0.00	0.00
3,600.0	21.98	172.25	3,413.3	1,459.70	-1,022.5	139.1	116.6	0.00	0.00	0.00
3,700.0	21.98	172.25	3,506.0	1,366.97	-1,059.6	144.1	120.9	0.00	0.00	0.00
PARKMAN										
3,779.8	21.98	172.25	3,580.0	1,293.00	-1,089.2	148.1	124.3	0.00	0.00	0.00
3,800.0	21.98	172.25	3,598.8	1,274.24	-1,096.7	149.2	125.1	0.00	0.00	0.00
3,900.0	21.98	172.25	3,691.5	1,181.50	-1,133.8	154.2	129.3	0.00	0.00	0.00
4,000.0	21.98	172.25	3,784.2	1,088.77	-1,170.9	159.3	133.6	0.00	0.00	0.00
4,100.0	21.98	172.25	3,877.0	996.04	-1,207.9	164.3	137.8	0.00	0.00	0.00
4,200.0	21.98	172.25	3,969.7	903.30	-1,245.0	169.3	142.0	0.00	0.00	0.00
4,300.0	21.98	172.25	4,062.4	810.57	-1,282.1	174.4	146.3	0.00	0.00	0.00
SUSSEX										
4,383.6	21.98	172.25	4,140.0	733.00	-1,313.1	178.6	149.8	0.00	0.00	0.00
4,400.0	21.98	172.25	4,155.2	717.84	-1,319.2	179.4	150.5	0.00	0.00	0.00
4,500.0	21.98	172.25	4,247.9	625.10	-1,356.3	184.5	154.7	0.00	0.00	0.00

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Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.0	21.98	172.25	4,340.6	532.37	-1,393.3	189.5	159.0	0.00	0.00	0.00
4,700.0	21.98	172.25	4,433.4	439.64	-1,430.4	194.6	163.2	0.00	0.00	0.00
4,800.0	21.98	172.25	4,526.1	346.91	-1,467.5	199.6	167.4	0.00	0.00	0.00
4,900.0	21.98	172.25	4,618.8	254.17	-1,504.6	204.6	171.6	0.00	0.00	0.00
SHANNON										
4,987.5	21.98	172.25	4,700.0	173.00	-1,537.1	209.1	175.3	0.00	0.00	0.00
5,000.0	21.98	172.25	4,711.6	161.44	-1,541.7	209.7	175.9	0.00	0.00	0.00
5,100.0	21.98	172.25	4,804.3	68.71	-1,578.8	214.7	180.1	0.00	0.00	0.00
5,200.0	21.98	172.25	4,897.0	-24.03	-1,615.8	219.8	184.3	0.00	0.00	0.00
5,300.0	21.98	172.25	4,989.8	-116.76	-1,652.9	224.8	188.6	0.00	0.00	0.00
5,400.0	21.98	172.25	5,082.5	-209.49	-1,690.0	229.9	192.8	0.00	0.00	0.00
5,500.0	21.98	172.25	5,175.2	-302.23	-1,727.1	234.9	197.0	0.00	0.00	0.00
5,600.0	21.98	172.25	5,268.0	-394.96	-1,764.2	240.0	201.3	0.00	0.00	0.00
5,700.0	21.98	172.25	5,360.7	-487.69	-1,801.3	245.0	205.5	0.00	0.00	0.00
5,800.0	21.98	172.25	5,453.4	-580.43	-1,838.3	250.0	209.7	0.00	0.00	0.00
5,900.0	21.98	172.25	5,546.2	-673.16	-1,875.4	255.1	213.9	0.00	0.00	0.00
6,000.0	21.98	172.25	5,638.9	-765.89	-1,912.5	260.1	218.2	0.00	0.00	0.00
6,100.0	21.98	172.25	5,731.6	-858.62	-1,949.6	265.2	222.4	0.00	0.00	0.00
6,200.0	21.98	172.25	5,824.4	-951.36	-1,986.7	270.2	226.6	0.00	0.00	0.00
6,300.0	21.98	172.25	5,917.1	-1,044.09	-2,023.8	275.3	230.9	0.00	0.00	0.00
6,400.0	21.98	172.25	6,009.8	-1,136.82	-2,060.8	280.3	235.1	0.00	0.00	0.00
6,500.0	21.98	172.25	6,102.6	-1,229.56	-2,097.9	285.3	239.3	0.00	0.00	0.00
6,600.0	21.98	172.25	6,195.3	-1,322.29	-2,135.0	290.4	243.6	0.00	0.00	0.00
6,700.0	21.98	172.25	6,288.0	-1,415.02	-2,172.1	295.4	247.8	0.00	0.00	0.00
6,800.0	21.98	172.25	6,380.8	-1,507.76	-2,209.2	300.5	252.0	0.00	0.00	0.00
6,900.0	21.98	172.25	6,473.5	-1,600.49	-2,246.3	305.5	256.3	0.00	0.00	0.00
KOP (10°/100ft DGLG)										
6,927.1	21.98	172.25	6,498.6	-1,625.62	-2,256.3	306.9	257.4	0.00	0.00	0.00
7,000.0	22.20	191.71	6,566.3	-1,693.26	-2,283.3	305.9	265.0	10.00	0.30	26.69
7,100.0	25.89	214.71	6,657.8	-1,784.77	-2,319.9	289.6	289.8	10.00	3.70	23.00
7,200.0	32.22	230.78	6,745.3	-1,872.27	-2,354.8	256.4	330.5	10.00	6.33	16.07
7,300.0	39.94	241.64	6,826.1	-1,953.11	-2,387.0	207.4	385.9	10.00	7.72	10.85
7,400.0	48.39	249.35	6,897.8	-2,024.83	-2,415.5	144.0	454.4	10.00	8.45	7.72
SHARON SPRINGS										
7,410.9	49.34	250.07	6,905.0	-2,032.00	-2,418.3	136.3	462.6	10.00	8.70	6.54
NIORARA										
7,486.8	56.05	254.54	6,951.0	-2,078.00	-2,436.5	78.8	522.8	10.00	8.84	5.89
7,500.0	57.23	255.24	6,958.3	-2,085.26	-2,439.4	68.2	533.8	10.00	8.96	5.32
7,600.0	66.29	260.04	7,005.5	-2,132.54	-2,458.1	-17.8	621.7	10.00	9.06	4.80
7,700.0	75.49	264.21	7,038.3	-2,165.26	-2,470.9	-111.2	715.5	10.00	9.19	4.17
7,800.0	84.75	268.05	7,055.4	-2,182.41	-2,477.5	-209.4	812.2	10.00	9.26	3.83
NIO B TARGET										
7,853.3	89.39	269.91	7,058.0	-2,185.00	-2,478.4	-262.6	864.0	9.38	8.71	3.49
HZ LANDING PNT *NEW*: 645ft FSL & 603ft FEL of Sec 9										
7,856.6	90.00	270.15	7,058.0	-2,185.00	-2,478.4	-265.9	867.2	20.00	18.57	7.42
7,900.0	90.00	270.15	7,058.0	-2,185.00	-2,478.3	-309.3	909.3	0.00	0.00	0.00
8,000.0	90.00	270.15	7,058.0	-2,185.00	-2,478.0	-409.3	1,006.1	0.00	0.00	0.00
8,100.0	90.00	270.15	7,058.0	-2,185.00	-2,477.8	-509.3	1,103.0	0.00	0.00	0.00
8,200.0	90.00	270.15	7,058.0	-2,185.00	-2,477.5	-609.3	1,199.9	0.00	0.00	0.00
8,300.0	90.00	270.15	7,058.0	-2,185.00	-2,477.2	-709.3	1,296.7	0.00	0.00	0.00
8,400.0	90.00	270.15	7,058.0	-2,185.00	-2,477.0	-809.3	1,393.6	0.00	0.00	0.00
8,500.0	90.00	270.15	7,058.0	-2,185.00	-2,476.7	-909.3	1,490.5	0.00	0.00	0.00
8,600.0	90.00	270.15	7,058.0	-2,185.00	-2,476.4	-1,009.3	1,587.3	0.00	0.00	0.00

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Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.0	90.00	270.15	7,058.0	-2,185.00	-2,476.2	-1,109.3	1,684.2	0.00	0.00	0.00
8,800.0	90.00	270.15	7,058.0	-2,185.00	-2,475.9	-1,209.3	1,781.1	0.00	0.00	0.00
8,900.0	90.00	270.15	7,058.0	-2,185.00	-2,475.6	-1,309.3	1,877.9	0.00	0.00	0.00
9,000.0	90.00	270.15	7,058.0	-2,185.00	-2,475.4	-1,409.3	1,974.8	0.00	0.00	0.00
9,100.0	90.00	270.15	7,058.0	-2,185.00	-2,475.1	-1,509.3	2,071.6	0.00	0.00	0.00
9,200.0	90.00	270.15	7,058.0	-2,185.00	-2,474.9	-1,609.3	2,168.5	0.00	0.00	0.00
9,300.0	90.00	270.15	7,058.0	-2,185.00	-2,474.6	-1,709.3	2,265.4	0.00	0.00	0.00
9,400.0	90.00	270.15	7,058.0	-2,185.00	-2,474.3	-1,809.3	2,362.2	0.00	0.00	0.00
9,500.0	90.00	270.15	7,058.0	-2,185.00	-2,474.1	-1,909.3	2,459.1	0.00	0.00	0.00
9,600.0	90.00	270.15	7,058.0	-2,185.00	-2,473.8	-2,009.3	2,556.0	0.00	0.00	0.00
9,700.0	90.00	270.15	7,058.0	-2,185.00	-2,473.5	-2,109.3	2,652.8	0.00	0.00	0.00
9,800.0	90.00	270.15	7,058.0	-2,185.00	-2,473.3	-2,209.3	2,749.7	0.00	0.00	0.00
9,900.0	90.00	270.15	7,058.0	-2,185.00	-2,473.0	-2,309.3	2,846.6	0.00	0.00	0.00
10,000.0	90.00	270.15	7,058.0	-2,185.00	-2,472.7	-2,409.3	2,943.4	0.00	0.00	0.00
10,100.0	90.00	270.15	7,058.0	-2,185.00	-2,472.5	-2,509.3	3,040.3	0.00	0.00	0.00
10,200.0	90.00	270.15	7,058.0	-2,185.00	-2,472.2	-2,609.3	3,137.1	0.00	0.00	0.00
10,300.0	90.00	270.15	7,058.0	-2,185.00	-2,472.0	-2,709.3	3,234.0	0.00	0.00	0.00
10,400.0	90.00	270.15	7,058.0	-2,185.00	-2,471.7	-2,809.3	3,330.9	0.00	0.00	0.00
10,500.0	90.00	270.15	7,058.0	-2,185.00	-2,471.4	-2,909.3	3,427.7	0.00	0.00	0.00
10,600.0	90.00	270.15	7,058.0	-2,185.00	-2,471.2	-3,009.3	3,524.6	0.00	0.00	0.00
10,700.0	90.00	270.15	7,058.0	-2,185.00	-2,470.9	-3,109.3	3,621.5	0.00	0.00	0.00
10,800.0	90.00	270.15	7,058.0	-2,185.00	-2,470.6	-3,209.3	3,718.3	0.00	0.00	0.00
10,900.0	90.00	270.15	7,058.0	-2,185.00	-2,470.4	-3,309.3	3,815.2	0.00	0.00	0.00
11,000.0	90.00	270.15	7,058.0	-2,185.00	-2,470.1	-3,409.3	3,912.1	0.00	0.00	0.00
11,100.0	90.00	270.15	7,058.0	-2,185.00	-2,469.8	-3,509.3	4,008.9	0.00	0.00	0.00
11,200.0	90.00	270.15	7,058.0	-2,185.00	-2,469.6	-3,609.3	4,105.8	0.00	0.00	0.00
11,300.0	90.00	270.15	7,058.0	-2,185.00	-2,469.3	-3,709.3	4,202.7	0.00	0.00	0.00
11,400.0	90.00	270.15	7,058.0	-2,185.00	-2,469.1	-3,809.3	4,299.5	0.00	0.00	0.00
11,500.0	90.00	270.15	7,058.0	-2,185.00	-2,468.8	-3,909.3	4,396.4	0.00	0.00	0.00
11,600.0	90.00	270.15	7,058.0	-2,185.00	-2,468.5	-4,009.3	4,493.2	0.00	0.00	0.00
11,700.0	90.00	270.15	7,058.0	-2,185.00	-2,468.3	-4,109.3	4,590.1	0.00	0.00	0.00
11,800.0	90.00	270.15	7,058.0	-2,185.00	-2,468.0	-4,209.3	4,687.0	0.00	0.00	0.00
11,900.0	90.00	270.15	7,058.0	-2,185.00	-2,467.7	-4,309.3	4,783.8	0.00	0.00	0.00
12,000.0	90.00	270.15	7,058.0	-2,185.00	-2,467.5	-4,409.3	4,880.7	0.00	0.00	0.00
12,100.0	90.00	270.15	7,058.0	-2,185.00	-2,467.2	-4,509.3	4,977.6	0.00	0.00	0.00
12,200.0	90.00	270.15	7,058.0	-2,185.00	-2,466.9	-4,609.3	5,074.4	0.00	0.00	0.00
12,300.0	90.00	270.15	7,058.0	-2,185.00	-2,466.7	-4,709.3	5,171.3	0.00	0.00	0.00
12,400.0	90.00	270.15	7,058.0	-2,185.00	-2,466.4	-4,809.3	5,268.2	0.00	0.00	0.00
12,500.0	90.00	270.15	7,058.0	-2,185.00	-2,466.2	-4,909.3	5,365.0	0.00	0.00	0.00
12,600.0	90.00	270.15	7,058.0	-2,185.00	-2,465.9	-5,009.3	5,461.9	0.00	0.00	0.00
12,700.0	90.00	270.15	7,058.0	-2,185.00	-2,465.6	-5,109.3	5,558.7	0.00	0.00	0.00
12,800.0	90.00	270.15	7,058.0	-2,185.00	-2,465.4	-5,209.3	5,655.6	0.00	0.00	0.00
12,900.0	90.00	270.15	7,058.0	-2,185.00	-2,465.1	-5,309.3	5,752.5	0.00	0.00	0.00
13,000.0	90.00	270.15	7,058.0	-2,185.00	-2,464.8	-5,409.3	5,849.3	0.00	0.00	0.00
13,100.0	90.00	270.15	7,058.0	-2,185.00	-2,464.6	-5,509.3	5,946.2	0.00	0.00	0.00
13,200.0	90.00	270.15	7,058.0	-2,185.00	-2,464.3	-5,609.3	6,043.1	0.00	0.00	0.00
13,300.0	90.00	270.15	7,058.0	-2,185.00	-2,464.0	-5,709.3	6,139.9	0.00	0.00	0.00
13,400.0	90.00	270.15	7,058.0	-2,185.00	-2,463.8	-5,809.3	6,236.8	0.00	0.00	0.00
13,500.0	90.00	270.15	7,058.0	-2,185.00	-2,463.5	-5,909.3	6,333.7	0.00	0.00	0.00
13,600.0	90.00	270.15	7,058.0	-2,185.00	-2,463.3	-6,009.3	6,430.5	0.00	0.00	0.00
13,700.0	90.00	270.15	7,058.0	-2,185.00	-2,463.0	-6,109.3	6,527.4	0.00	0.00	0.00
13,800.0	90.00	270.15	7,058.0	-2,185.00	-2,462.7	-6,209.3	6,624.2	0.00	0.00	0.00
13,900.0	90.00	270.15	7,058.0	-2,185.00	-2,462.5	-6,309.3	6,721.1	0.00	0.00	0.00
14,000.0	90.00	270.15	7,058.0	-2,185.00	-2,462.2	-6,409.3	6,818.0	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WINDER SOUTH 10
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4873.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4873.0usft
Site:	SE NE SEC. 9 T6N R67W 6th P.M.	North Reference:	True
Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,100.0	90.00	270.15	7,058.0	-2,185.00	-2,461.9	-6,509.3	6,914.8	0.00	0.00	0.00
14,200.0	90.00	270.15	7,058.0	-2,185.00	-2,461.7	-6,609.3	7,011.7	0.00	0.00	0.00
14,300.0	90.00	270.15	7,058.0	-2,185.00	-2,461.4	-6,709.3	7,108.6	0.00	0.00	0.00
14,400.0	90.00	270.15	7,058.0	-2,185.00	-2,461.1	-6,809.3	7,205.4	0.00	0.00	0.00
14,500.0	90.00	270.15	7,058.0	-2,185.00	-2,460.9	-6,909.3	7,302.3	0.00	0.00	0.00
14,600.0	90.00	270.15	7,058.0	-2,185.00	-2,460.6	-7,009.3	7,399.2	0.00	0.00	0.00
14,700.0	90.00	270.15	7,058.0	-2,185.00	-2,460.4	-7,109.3	7,496.0	0.00	0.00	0.00
14,800.0	90.00	270.15	7,058.0	-2,185.00	-2,460.1	-7,209.3	7,592.9	0.00	0.00	0.00
14,900.0	90.00	270.15	7,058.0	-2,185.00	-2,459.8	-7,309.3	7,689.8	0.00	0.00	0.00
15,000.0	90.00	270.15	7,058.0	-2,185.00	-2,459.6	-7,409.3	7,786.6	0.00	0.00	0.00
15,100.0	90.00	270.15	7,058.0	-2,185.00	-2,459.3	-7,509.3	7,883.5	0.00	0.00	0.00
15,200.0	90.00	270.15	7,058.0	-2,185.00	-2,459.0	-7,609.3	7,980.3	0.00	0.00	0.00
15,300.0	90.00	270.15	7,058.0	-2,185.00	-2,458.8	-7,709.3	8,077.2	0.00	0.00	0.00
15,400.0	90.00	270.15	7,058.0	-2,185.00	-2,458.5	-7,809.3	8,174.1	0.00	0.00	0.00
15,500.0	90.00	270.15	7,058.0	-2,185.00	-2,458.2	-7,909.3	8,270.9	0.00	0.00	0.00
15,600.0	90.00	270.15	7,058.0	-2,185.00	-2,458.0	-8,009.3	8,367.8	0.00	0.00	0.00
15,700.0	90.00	270.15	7,058.0	-2,185.00	-2,457.7	-8,109.3	8,464.7	0.00	0.00	0.00
15,800.0	90.00	270.15	7,058.0	-2,185.00	-2,457.5	-8,209.3	8,561.5	0.00	0.00	0.00
15,900.0	90.00	270.15	7,058.0	-2,185.00	-2,457.2	-8,309.3	8,658.4	0.00	0.00	0.00
16,000.0	90.00	270.15	7,058.0	-2,185.00	-2,456.9	-8,409.3	8,755.3	0.00	0.00	0.00
16,100.0	90.00	270.15	7,058.0	-2,185.00	-2,456.7	-8,509.3	8,852.1	0.00	0.00	0.00
16,200.0	90.00	270.15	7,058.0	-2,185.00	-2,456.4	-8,609.3	8,949.0	0.00	0.00	0.00
16,300.0	90.00	270.15	7,058.0	-2,185.00	-2,456.1	-8,709.3	9,045.8	0.00	0.00	0.00
16,400.0	90.00	270.15	7,058.0	-2,185.00	-2,455.9	-8,809.3	9,142.7	0.00	0.00	0.00
16,500.0	90.00	270.15	7,058.0	-2,185.00	-2,455.6	-8,909.3	9,239.6	0.00	0.00	0.00
16,600.0	90.00	270.15	7,058.0	-2,185.00	-2,455.3	-9,009.3	9,336.4	0.00	0.00	0.00
16,700.0	90.00	270.15	7,058.0	-2,185.00	-2,455.1	-9,109.3	9,433.3	0.00	0.00	0.00
16,800.0	90.00	270.15	7,058.0	-2,185.00	-2,454.8	-9,209.3	9,530.2	0.00	0.00	0.00
16,900.0	90.00	270.15	7,058.0	-2,185.00	-2,454.5	-9,309.3	9,627.0	0.00	0.00	0.00
17,000.0	90.00	270.15	7,058.0	-2,185.00	-2,454.3	-9,409.3	9,723.9	0.00	0.00	0.00
17,100.0	90.00	270.15	7,058.0	-2,185.00	-2,454.0	-9,509.3	9,820.8	0.00	0.00	0.00
17,200.0	90.00	270.15	7,058.0	-2,185.00	-2,453.8	-9,609.3	9,917.6	0.00	0.00	0.00
BHL: 716ft FSL & 460ft FWL of Sec 8										
17,261.7	90.00	270.15	7,058.0	-2,185.00	-2,453.6	-9,671.0	9,977.4	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,779.8	3,580.0	PARKMAN			
4,383.6	4,140.0	SUSSEX			
4,987.5	4,700.0	SHANNON			
7,410.9	6,905.0	SHARON SPRINGS			
7,486.8	6,951.0	NIOBRARA			
7,853.3	7,058.0	NIO B TARGET			

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WINDER SOUTH 10
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 4873.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4873.0usft
Site:	SE NE SEC. 9 T6N R67W 6th P.M.	North Reference:	True
Well:	WINDER SOUTH 10	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 2306ft FNL & 348ft FEL of Sec 9
300.0	300.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,398.9	1,372.1	-206.3	28.1	EOB TO 21.98° INC
6,927.1	6,498.6	-2,256.3	306.9	KOP (10°/100ft DGLG)
7,856.6	7,058.0	-2,478.4	-265.9	HZ LANDING PNT *NEW*: 645ft FSL & 603ft FEL of Sec 9
17,261.7	7,058.0	-2,453.6	-9,671.0	BHL: 716ft FSL & 460ft FWL of Sec 8