



Company: Extraction Oil & Gas
 Field: Weld Co., Co
 Location: Sec.14-T07N-R65W
 Well: Burroughs South #13
 Borehole: Original Hole
 Rig: Xtreme 7
 Plan: Rev 1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	Begin Nudge
3	916.62	4.33	129.37	916.42	-5.19	6.33	2.00	129.37	-6.29	Hold Tangent
4	6693.36	4.33	129.37	6676.65	-282.02	343.69	0.00	0.00	-341.34	KOP, Build 10°/100' DLS
5	7627.44	90.00	271.27	7283.00	-297.73	-228.74	10.00	141.81	231.20	LP, Hold to TD
6	17369.69	90.00	271.27	7283.00	-82.57	-9968.61	0.00	0.00	9968.96	PBHL/TD

SHL: 2316' FNL & 230' FEL
 (Sec.14-T07N-R65W)
 PBHL: 2646' FNL & 460' FWL
 (Sec.15-T07N-R65W)

Notice:
 Section Lines and Hardlines
 are estimates only and are
 subject to customer approval

Burroughs South #13 Rev 1

Created By: J Rieke Date: 13:10, October 07 2014

WELL DETAILS: Burroughs South #13

+N/-S	+E/-W	GL 4944.00	KB @ 4960.00usft (Xtreme 7 - 16')	Longitude
0.00	0.00	1453208.86	3244150.82	40° 34' 26.889 N 104° 37' 15.949 W

WELLBORE TARGET DETAILS

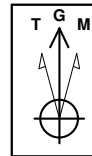
Name	TVD	+N/-S	+E/-W	Shape
LP BS 13	7283.00	-297.73	-228.74	Point
PBHL Burroughs South 13	7283.00	-82.57	-9968.61	Point

FORMATION TOP DETAILS

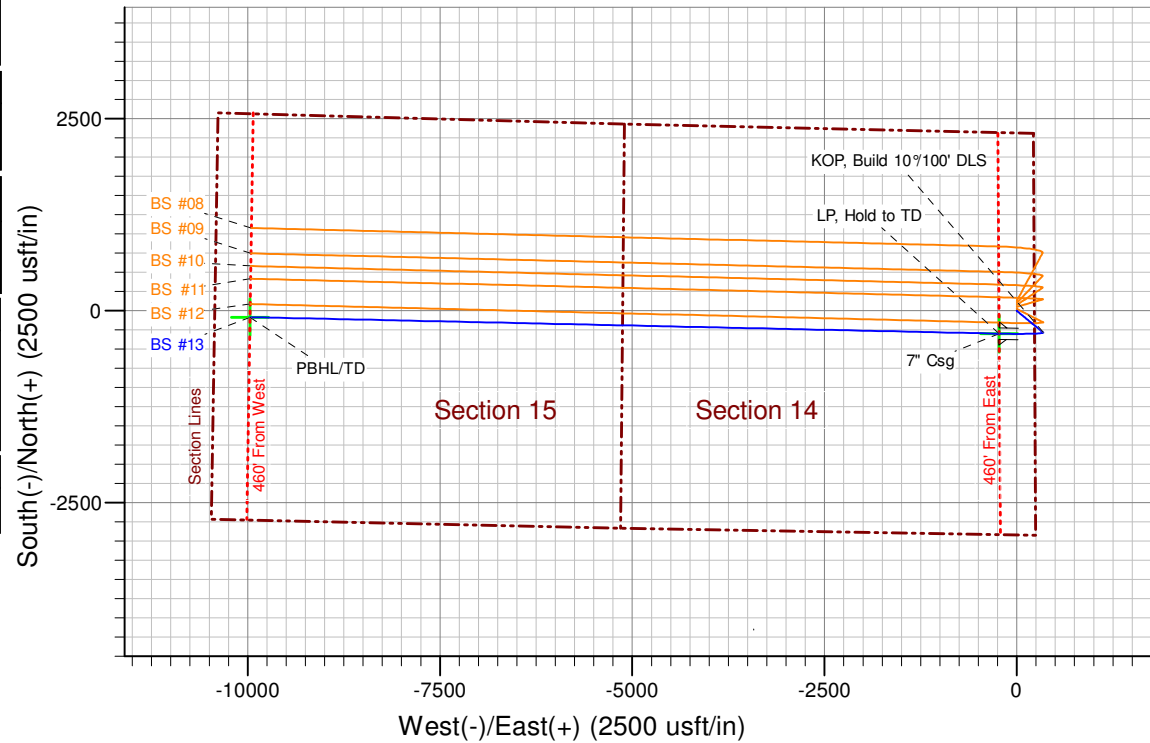
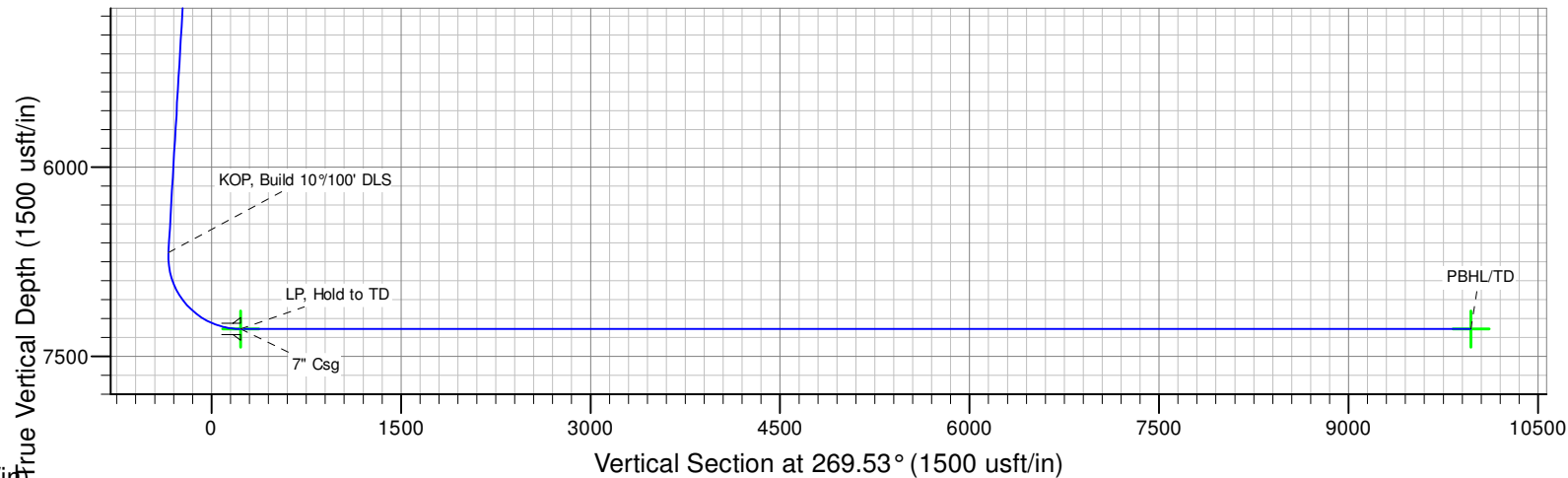
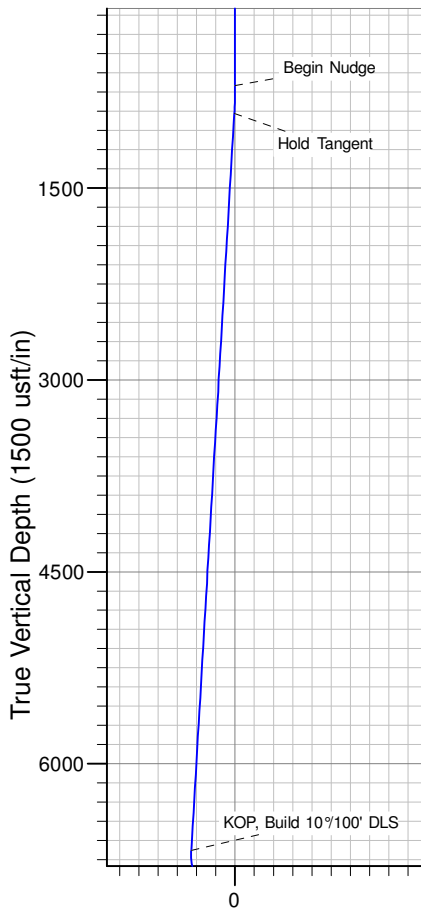
TVDPath	MDPath	Formation
3640.00	3648.01	Parkman
4455.00	4465.35	Sussex
5860.00	5874.37	Shannon
6974.00	7001.38	Niobrara
7261.00	7468.06	Fort Hays
7283.00	7627.44	Codell

CASING DETAILS

TVD	MD	Name	Size
7283.00	7627.44	7" Csg	7



Azimuths to Grid North
 True North: -0.57°
 Magnetic North: 7.82°
 Magnetic Field
 Strength: 52911.0snT
 Dip Angle: 67.11°
 Date: 7/16/2014
 Model: IGRF2010





Extraction Oil & Gas

Weld Co., Co

Sec.14-T07N-R65W

Burroughs South #13

Original Hole

Plan: Rev 1

Standard Planning Report

07 October, 2014

PATHFINDER[®]
A Schlumberger Company



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Burroughs South #13
Company:	Extraction Oil & Gas	TVD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Project:	Weld Co., Co	MD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Project	Weld Co., Co		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec.14-T07N-R65W				
Site Position:		Northing:	1,454,767.97 usft	Latitude:	40° 34' 42.308 N
From:	Lat/Long	Easting:	3,244,017.31 usft	Longitude:	104° 37' 17.479 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.57 °

Well	Burroughs South #13					
Well Position	+N/-S	-1,559.11 usft	Northing:	1,453,208.86 usft	Latitude:	40° 34' 26.889 N
	+E/-W	133.51 usft	Easting:	3,244,150.82 usft	Longitude:	104° 37' 15.949 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	4,960.00 usft	Ground Level:	4,944.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/16/2014	8.39	67.11	52,911

Design	Rev 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.53

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
916.62	4.33	129.37	916.42	-5.19	6.33	2.00	2.00	0.00	129.37	
6,693.36	4.33	129.37	6,676.65	-282.02	343.69	0.00	0.00	0.00	0.00	
7,627.44	90.00	271.27	7,283.00	-297.73	-228.74	10.00	9.17	15.19	141.81	LP BS 13
17,369.69	90.00	271.27	7,283.00	-82.57	-9,968.62	0.00	0.00	0.00	0.00	PBHL Burroughs Sou



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Burroughs South #13
Company:	Extraction Oil & Gas	TVD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Project:	Weld Co., Co	MD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge										
800.00	2.00	129.37	799.98	-1.11	1.35	-1.34	2.00	2.00	2.00	0.00
900.00	4.00	129.37	899.84	-4.43	5.39	-5.36	2.00	2.00	2.00	0.00
916.62	4.33	129.37	916.41	-5.19	6.33	-6.28	2.00	2.00	2.00	0.00
Hold Tangent										
1,000.00	4.33	129.37	999.56	-9.19	11.20	-11.12	0.00	0.00	0.00	0.00
1,100.00	4.33	129.37	1,099.27	-13.98	17.04	-16.92	0.00	0.00	0.00	0.00
1,200.00	4.33	129.37	1,198.98	-18.77	22.88	-22.72	0.00	0.00	0.00	0.00
1,300.00	4.33	129.37	1,298.70	-23.56	28.72	-28.52	0.00	0.00	0.00	0.00
1,400.00	4.33	129.37	1,398.41	-28.36	34.56	-34.32	0.00	0.00	0.00	0.00
1,500.00	4.33	129.37	1,498.13	-33.15	40.40	-40.12	0.00	0.00	0.00	0.00
1,600.00	4.33	129.37	1,597.84	-37.94	46.24	-45.92	0.00	0.00	0.00	0.00
1,700.00	4.33	129.37	1,697.56	-42.73	52.08	-51.72	0.00	0.00	0.00	0.00
1,800.00	4.33	129.37	1,797.27	-47.53	57.92	-57.52	0.00	0.00	0.00	0.00
1,900.00	4.33	129.37	1,896.98	-52.32	63.76	-63.32	0.00	0.00	0.00	0.00
2,000.00	4.33	129.37	1,996.70	-57.11	69.60	-69.12	0.00	0.00	0.00	0.00
2,100.00	4.33	129.37	2,096.41	-61.90	75.44	-74.92	0.00	0.00	0.00	0.00
2,200.00	4.33	129.37	2,196.13	-66.69	81.28	-80.72	0.00	0.00	0.00	0.00
2,300.00	4.33	129.37	2,295.84	-71.49	87.12	-86.52	0.00	0.00	0.00	0.00
2,400.00	4.33	129.37	2,395.55	-76.28	92.96	-92.32	0.00	0.00	0.00	0.00
2,500.00	4.33	129.37	2,495.27	-81.07	98.80	-98.12	0.00	0.00	0.00	0.00
2,600.00	4.33	129.37	2,594.98	-85.86	104.64	-103.92	0.00	0.00	0.00	0.00
2,700.00	4.33	129.37	2,694.70	-90.65	110.48	-109.72	0.00	0.00	0.00	0.00
2,800.00	4.33	129.37	2,794.41	-95.45	116.32	-115.52	0.00	0.00	0.00	0.00
2,900.00	4.33	129.37	2,894.13	-100.24	122.16	-121.32	0.00	0.00	0.00	0.00
3,000.00	4.33	129.37	2,993.84	-105.03	128.00	-127.12	0.00	0.00	0.00	0.00
3,100.00	4.33	129.37	3,093.55	-109.82	133.84	-132.92	0.00	0.00	0.00	0.00
3,200.00	4.33	129.37	3,193.27	-114.61	139.68	-138.72	0.00	0.00	0.00	0.00
3,300.00	4.33	129.37	3,292.98	-119.41	145.52	-144.52	0.00	0.00	0.00	0.00
3,400.00	4.33	129.37	3,392.70	-124.20	151.36	-150.32	0.00	0.00	0.00	0.00
3,500.00	4.33	129.37	3,492.41	-128.99	157.20	-156.12	0.00	0.00	0.00	0.00
3,600.00	4.33	129.37	3,592.13	-133.78	163.04	-161.92	0.00	0.00	0.00	0.00
3,648.01	4.33	129.37	3,640.00	-136.08	165.84	-164.71	0.00	0.00	0.00	0.00
Parkman										
3,700.00	4.33	129.37	3,691.84	-138.57	168.88	-167.72	0.00	0.00	0.00	0.00
3,800.00	4.33	129.37	3,791.55	-143.37	174.72	-173.52	0.00	0.00	0.00	0.00
3,900.00	4.33	129.37	3,891.27	-148.16	180.56	-179.32	0.00	0.00	0.00	0.00
4,000.00	4.33	129.37	3,990.98	-152.95	186.40	-185.12	0.00	0.00	0.00	0.00
4,100.00	4.33	129.37	4,090.70	-157.74	192.24	-190.92	0.00	0.00	0.00	0.00
4,200.00	4.33	129.37	4,190.41	-162.54	198.08	-196.72	0.00	0.00	0.00	0.00
4,300.00	4.33	129.37	4,290.13	-167.33	203.92	-202.52	0.00	0.00	0.00	0.00
4,400.00	4.33	129.37	4,389.84	-172.12	209.76	-208.32	0.00	0.00	0.00	0.00
4,465.35	4.33	129.37	4,455.00	-175.25	213.57	-212.11	0.00	0.00	0.00	0.00
Sussex										
4,500.00	4.33	129.37	4,489.55	-176.91	215.60	-214.12	0.00	0.00	0.00	0.00
4,600.00	4.33	129.37	4,589.27	-181.70	221.44	-219.92	0.00	0.00	0.00	0.00



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Project:	Weld Co., Co	MD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.00	4.33	129.37	4,688.98	-186.50	227.28	-225.72	0.00	0.00	0.00
4,800.00	4.33	129.37	4,788.70	-191.29	233.12	-231.52	0.00	0.00	0.00
4,900.00	4.33	129.37	4,888.41	-196.08	238.96	-237.32	0.00	0.00	0.00
5,000.00	4.33	129.37	4,988.13	-200.87	244.80	-243.12	0.00	0.00	0.00
5,100.00	4.33	129.37	5,087.84	-205.66	250.64	-248.92	0.00	0.00	0.00
5,200.00	4.33	129.37	5,187.55	-210.46	256.48	-254.72	0.00	0.00	0.00
5,300.00	4.33	129.37	5,287.27	-215.25	262.32	-260.52	0.00	0.00	0.00
5,400.00	4.33	129.37	5,386.98	-220.04	268.16	-266.32	0.00	0.00	0.00
5,500.00	4.33	129.37	5,486.70	-224.83	274.00	-272.12	0.00	0.00	0.00
5,600.00	4.33	129.37	5,586.41	-229.62	279.84	-277.92	0.00	0.00	0.00
5,700.00	4.33	129.37	5,686.13	-234.42	285.68	-283.72	0.00	0.00	0.00
5,800.00	4.33	129.37	5,785.84	-239.21	291.52	-289.52	0.00	0.00	0.00
5,874.37	4.33	129.37	5,860.00	-242.77	295.86	-293.84	0.00	0.00	0.00
Shannon									
5,900.00	4.33	129.37	5,885.55	-244.00	297.36	-295.32	0.00	0.00	0.00
6,000.00	4.33	129.37	5,985.27	-248.79	303.20	-301.12	0.00	0.00	0.00
6,100.00	4.33	129.37	6,084.98	-253.59	309.04	-306.92	0.00	0.00	0.00
6,200.00	4.33	129.37	6,184.70	-258.38	314.88	-312.72	0.00	0.00	0.00
6,300.00	4.33	129.37	6,284.41	-263.17	320.72	-318.52	0.00	0.00	0.00
6,400.00	4.33	129.37	6,384.12	-267.96	326.56	-324.32	0.00	0.00	0.00
6,500.00	4.33	129.37	6,483.84	-272.75	332.40	-330.12	0.00	0.00	0.00
6,600.00	4.33	129.37	6,583.55	-277.55	338.23	-335.92	0.00	0.00	0.00
6,693.36	4.33	129.37	6,676.65	-282.02	343.69	-341.34	0.00	0.00	0.00
KOP, Build 10°/100' DLS									
6,700.00	3.83	135.52	6,683.27	-282.34	344.04	-341.69	10.00	-7.53	92.67
6,800.00	7.73	251.12	6,782.96	-286.91	340.00	-337.61	10.00	3.90	115.60
6,900.00	17.46	262.72	6,880.45	-291.00	318.71	-316.28	10.00	9.72	11.59
7,000.00	27.38	266.09	6,972.78	-294.48	280.79	-278.34	10.00	9.92	3.37
7,001.38	27.51	266.12	6,974.00	-294.52	280.16	-277.71	10.00	9.95	2.20
Niobrara									
7,100.00	37.34	267.75	7,057.15	-297.24	227.42	-224.95	10.00	9.96	1.66
7,200.00	47.31	268.79	7,130.99	-299.21	160.20	-157.71	10.00	9.98	1.04
7,300.00	57.30	269.55	7,192.05	-300.32	81.18	-78.69	10.00	9.98	0.75
7,400.00	67.28	270.14	7,238.50	-300.54	-7.24	9.73	10.00	9.99	0.60
7,468.06	74.08	270.50	7,261.00	-300.18	-71.43	73.91	10.00	9.99	0.53
Fort Hays									
7,500.00	77.27	270.66	7,268.90	-299.86	-102.37	104.85	10.00	9.99	0.50
7,600.00	87.26	271.14	7,282.34	-298.31	-201.32	203.79	10.00	9.99	0.48
7,627.44	90.00	271.27	7,283.00	-297.73	-228.75	231.20	10.00	9.99	0.47
LP, Hold to TD - Codell - 7" Csg									
7,700.00	90.00	271.27	7,283.00	-296.13	-301.29	303.73	0.00	0.00	0.00
7,800.00	90.00	271.27	7,283.00	-293.92	-401.26	403.68	0.00	0.00	0.00
7,900.00	90.00	271.27	7,283.00	-291.71	-501.24	503.64	0.00	0.00	0.00
8,000.00	90.00	271.27	7,283.00	-289.50	-601.21	603.59	0.00	0.00	0.00
8,100.00	90.00	271.27	7,283.00	-287.29	-701.19	703.55	0.00	0.00	0.00
8,200.00	90.00	271.27	7,283.00	-285.09	-801.17	803.50	0.00	0.00	0.00
8,300.00	90.00	271.27	7,283.00	-282.88	-901.14	903.45	0.00	0.00	0.00
8,400.00	90.00	271.27	7,283.00	-280.67	-1,001.12	1,003.41	0.00	0.00	0.00
8,500.00	90.00	271.27	7,283.00	-278.46	-1,101.09	1,103.36	0.00	0.00	0.00
8,600.00	90.00	271.27	7,283.00	-276.25	-1,201.07	1,203.32	0.00	0.00	0.00
8,700.00	90.00	271.27	7,283.00	-274.04	-1,301.04	1,303.27	0.00	0.00	0.00
8,800.00	90.00	271.27	7,283.00	-271.83	-1,401.02	1,403.22	0.00	0.00	0.00
8,900.00	90.00	271.27	7,283.00	-269.63	-1,501.00	1,503.18	0.00	0.00	0.00



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Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.00	90.00	271.27	7,283.00	-267.42	-1,600.97	1,603.13	0.00	0.00	0.00
9,100.00	90.00	271.27	7,283.00	-265.21	-1,700.95	1,703.09	0.00	0.00	0.00
9,200.00	90.00	271.27	7,283.00	-263.00	-1,800.92	1,803.04	0.00	0.00	0.00
9,300.00	90.00	271.27	7,283.00	-260.79	-1,900.90	1,902.99	0.00	0.00	0.00
9,400.00	90.00	271.27	7,283.00	-258.58	-2,000.87	2,002.95	0.00	0.00	0.00
9,500.00	90.00	271.27	7,283.00	-256.37	-2,100.85	2,102.90	0.00	0.00	0.00
9,600.00	90.00	271.27	7,283.00	-254.17	-2,200.82	2,202.85	0.00	0.00	0.00
9,700.00	90.00	271.27	7,283.00	-251.96	-2,300.80	2,302.81	0.00	0.00	0.00
9,800.00	90.00	271.27	7,283.00	-249.75	-2,400.78	2,402.76	0.00	0.00	0.00
9,900.00	90.00	271.27	7,283.00	-247.54	-2,500.75	2,502.72	0.00	0.00	0.00
10,000.00	90.00	271.27	7,283.00	-245.33	-2,600.73	2,602.67	0.00	0.00	0.00
10,100.00	90.00	271.27	7,283.00	-243.12	-2,700.70	2,702.62	0.00	0.00	0.00
10,200.00	90.00	271.27	7,283.00	-240.92	-2,800.68	2,802.58	0.00	0.00	0.00
10,300.00	90.00	271.27	7,283.00	-238.71	-2,900.65	2,902.53	0.00	0.00	0.00
10,400.00	90.00	271.27	7,283.00	-236.50	-3,000.63	3,002.49	0.00	0.00	0.00
10,500.00	90.00	271.27	7,283.00	-234.29	-3,100.61	3,102.44	0.00	0.00	0.00
10,600.00	90.00	271.27	7,283.00	-232.08	-3,200.58	3,202.39	0.00	0.00	0.00
10,700.00	90.00	271.27	7,283.00	-229.87	-3,300.56	3,302.35	0.00	0.00	0.00
10,800.00	90.00	271.27	7,283.00	-227.66	-3,400.53	3,402.30	0.00	0.00	0.00
10,900.00	90.00	271.27	7,283.00	-225.46	-3,500.51	3,502.26	0.00	0.00	0.00
11,000.00	90.00	271.27	7,283.00	-223.25	-3,600.48	3,602.21	0.00	0.00	0.00
11,100.00	90.00	271.27	7,283.00	-221.04	-3,700.46	3,702.16	0.00	0.00	0.00
11,200.00	90.00	271.27	7,283.00	-218.83	-3,800.43	3,802.12	0.00	0.00	0.00
11,300.00	90.00	271.27	7,283.00	-216.62	-3,900.41	3,902.07	0.00	0.00	0.00
11,400.00	90.00	271.27	7,283.00	-214.41	-4,000.39	4,002.02	0.00	0.00	0.00
11,500.00	90.00	271.27	7,283.00	-212.20	-4,100.36	4,101.98	0.00	0.00	0.00
11,600.00	90.00	271.27	7,283.00	-210.00	-4,200.34	4,201.93	0.00	0.00	0.00
11,700.00	90.00	271.27	7,283.00	-207.79	-4,300.31	4,301.89	0.00	0.00	0.00
11,800.00	90.00	271.27	7,283.00	-205.58	-4,400.29	4,401.84	0.00	0.00	0.00
11,900.00	90.00	271.27	7,283.00	-203.37	-4,500.26	4,501.79	0.00	0.00	0.00
12,000.00	90.00	271.27	7,283.00	-201.16	-4,600.24	4,601.75	0.00	0.00	0.00
12,100.00	90.00	271.27	7,283.00	-198.95	-4,700.22	4,701.70	0.00	0.00	0.00
12,200.00	90.00	271.27	7,283.00	-196.75	-4,800.19	4,801.66	0.00	0.00	0.00
12,300.00	90.00	271.27	7,283.00	-194.54	-4,900.17	4,901.61	0.00	0.00	0.00
12,400.00	90.00	271.27	7,283.00	-192.33	-5,000.14	5,001.56	0.00	0.00	0.00
12,500.00	90.00	271.27	7,283.00	-190.12	-5,100.12	5,101.52	0.00	0.00	0.00
12,600.00	90.00	271.27	7,283.00	-187.91	-5,200.09	5,201.47	0.00	0.00	0.00
12,700.00	90.00	271.27	7,283.00	-185.70	-5,300.07	5,301.43	0.00	0.00	0.00
12,800.00	90.00	271.27	7,283.00	-183.49	-5,400.04	5,401.38	0.00	0.00	0.00
12,900.00	90.00	271.27	7,283.00	-181.29	-5,500.02	5,501.33	0.00	0.00	0.00
13,000.00	90.00	271.27	7,283.00	-179.08	-5,600.00	5,601.29	0.00	0.00	0.00
13,100.00	90.00	271.27	7,283.00	-176.87	-5,699.97	5,701.24	0.00	0.00	0.00
13,200.00	90.00	271.27	7,283.00	-174.66	-5,799.95	5,801.19	0.00	0.00	0.00
13,300.00	90.00	271.27	7,283.00	-172.45	-5,899.92	5,901.15	0.00	0.00	0.00
13,400.00	90.00	271.27	7,283.00	-170.24	-5,999.90	6,001.10	0.00	0.00	0.00
13,500.00	90.00	271.27	7,283.00	-168.03	-6,099.87	6,101.06	0.00	0.00	0.00
13,600.00	90.00	271.27	7,283.00	-165.83	-6,199.85	6,201.01	0.00	0.00	0.00
13,700.00	90.00	271.27	7,283.00	-163.62	-6,299.82	6,300.96	0.00	0.00	0.00
13,800.00	90.00	271.27	7,283.00	-161.41	-6,399.80	6,400.92	0.00	0.00	0.00
13,900.00	90.00	271.27	7,283.00	-159.20	-6,499.78	6,500.87	0.00	0.00	0.00
14,000.00	90.00	271.27	7,283.00	-156.99	-6,599.75	6,600.83	0.00	0.00	0.00
14,100.00	90.00	271.27	7,283.00	-154.78	-6,699.73	6,700.78	0.00	0.00	0.00
14,200.00	90.00	271.27	7,283.00	-152.58	-6,799.70	6,800.73	0.00	0.00	0.00
14,300.00	90.00	271.27	7,283.00	-150.37	-6,899.68	6,900.69	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Burroughs South #13
Company:	Extraction Oil & Gas	TVD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Project:	Weld Co., Co	MD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,400.00	90.00	271.27	7,283.00	-148.16	-6,999.65	7,000.64	0.00	0.00	0.00	
14,500.00	90.00	271.27	7,283.00	-145.95	-7,099.63	7,100.60	0.00	0.00	0.00	
14,600.00	90.00	271.27	7,283.00	-143.74	-7,199.61	7,200.55	0.00	0.00	0.00	
14,700.00	90.00	271.27	7,283.00	-141.53	-7,299.58	7,300.50	0.00	0.00	0.00	
14,800.00	90.00	271.27	7,283.00	-139.32	-7,399.56	7,400.46	0.00	0.00	0.00	
14,900.00	90.00	271.27	7,283.00	-137.12	-7,499.53	7,500.41	0.00	0.00	0.00	
15,000.00	90.00	271.27	7,283.00	-134.91	-7,599.51	7,600.36	0.00	0.00	0.00	
15,100.00	90.00	271.27	7,283.00	-132.70	-7,699.48	7,700.32	0.00	0.00	0.00	
15,200.00	90.00	271.27	7,283.00	-130.49	-7,799.46	7,800.27	0.00	0.00	0.00	
15,300.00	90.00	271.27	7,283.00	-128.28	-7,899.43	7,900.23	0.00	0.00	0.00	
15,400.00	90.00	271.27	7,283.00	-126.07	-7,999.41	8,000.18	0.00	0.00	0.00	
15,500.00	90.00	271.27	7,283.00	-123.87	-8,099.39	8,100.13	0.00	0.00	0.00	
15,600.00	90.00	271.27	7,283.00	-121.66	-8,199.36	8,200.09	0.00	0.00	0.00	
15,700.00	90.00	271.27	7,283.00	-119.45	-8,299.34	8,300.04	0.00	0.00	0.00	
15,800.00	90.00	271.27	7,283.00	-117.24	-8,399.31	8,400.00	0.00	0.00	0.00	
15,900.00	90.00	271.27	7,283.00	-115.03	-8,499.29	8,499.95	0.00	0.00	0.00	
16,000.00	90.00	271.27	7,283.00	-112.82	-8,599.26	8,599.90	0.00	0.00	0.00	
16,100.00	90.00	271.27	7,283.00	-110.61	-8,699.24	8,699.86	0.00	0.00	0.00	
16,200.00	90.00	271.27	7,283.00	-108.41	-8,799.22	8,799.81	0.00	0.00	0.00	
16,300.00	90.00	271.27	7,283.00	-106.20	-8,899.19	8,899.77	0.00	0.00	0.00	
16,400.00	90.00	271.27	7,283.00	-103.99	-8,999.17	8,999.72	0.00	0.00	0.00	
16,500.00	90.00	271.27	7,283.00	-101.78	-9,099.14	9,099.67	0.00	0.00	0.00	
16,600.00	90.00	271.27	7,283.00	-99.57	-9,199.12	9,199.63	0.00	0.00	0.00	
16,700.00	90.00	271.27	7,283.00	-97.36	-9,299.09	9,299.58	0.00	0.00	0.00	
16,800.00	90.00	271.27	7,283.00	-95.15	-9,399.07	9,399.53	0.00	0.00	0.00	
16,900.00	90.00	271.27	7,283.00	-92.95	-9,499.04	9,499.49	0.00	0.00	0.00	
17,000.00	90.00	271.27	7,283.00	-90.74	-9,599.02	9,599.44	0.00	0.00	0.00	
17,100.00	90.00	271.27	7,283.00	-88.53	-9,699.00	9,699.40	0.00	0.00	0.00	
17,200.00	90.00	271.27	7,283.00	-86.32	-9,798.97	9,799.35	0.00	0.00	0.00	
17,300.00	90.00	271.27	7,283.00	-84.11	-9,898.95	9,899.30	0.00	0.00	0.00	
17,369.69	90.00	271.27	7,283.00	-82.57	-9,968.62	9,968.96	0.00	0.00	0.00	
PBHL/TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LP BS 13 - hit/miss target - Shape - Point	0.00	0.00	7,283.00	-297.73	-228.74	1,452,911.13	3,243,922.08	40° 34' 23.970 N	104° 37' 18.952 W	
PBHL Burroughs South - plan hits target center - Point	0.00	0.00	7,283.00	-82.57	-9,968.62	1,453,126.29	3,234,182.21	40° 34' 27.030 N	104° 39' 25.139 W	

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
7,627.44	7,283.00	7" Csg	7	7-1/2



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Burroughs South #13
Company:	Extraction Oil & Gas	TVD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Project:	Weld Co., Co	MD Reference:	KB @ 4960.00usft (Xtreme 7 - 16')
Site:	Sec.14-T07N-R65W	North Reference:	Grid
Well:	Burroughs South #13	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Rev 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,648.01	3,640.00	Parkman		0.00		
4,465.35	4,455.00	Sussex		0.00		
5,874.37	5,860.00	Shannon		0.00		
7,001.38	6,974.00	Niobrara		0.00		
7,468.06	7,261.00	Fort Hays		0.00		
7,627.44	7,283.00	Codell		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
700.00	700.00	0.00	0.00	Begin Nudge	
916.62	916.41	-5.19	6.33	Hold Tangent	
6,693.36	6,676.65	-282.02	343.69	KOP, Build 10°/100' DLS	
7,627.44	7,283.00	-297.73	-228.75	LP, Hold to TD	
17,369.69	7,283.00	-82.57	-9,968.62	PBHL/TD	