

Wellstar Corporation

**Jackson County, CO
Section 27-T8N-R78W
Three Rivers Unit 41-27
Wellbore #1**

Plan: Preliminary Directional Plan for APD 12/02/11

Standard Planning Report

02 December, 2011



Wellstar Corporation
Three Rivers Unit 41-27
Jackson County, CO



Geodetic System: US State Plane 1983
Zone: Colorado Northern Zone
WELL @ 8391.6ft (Ungraded Ground Level)
Ground Level: 8391.6

Latitude: 40° 38' 29.240 N

Longitude: 106° 7' 27.820 W

Magnetic North is 9.53° East of True North (Magnetic Declination)

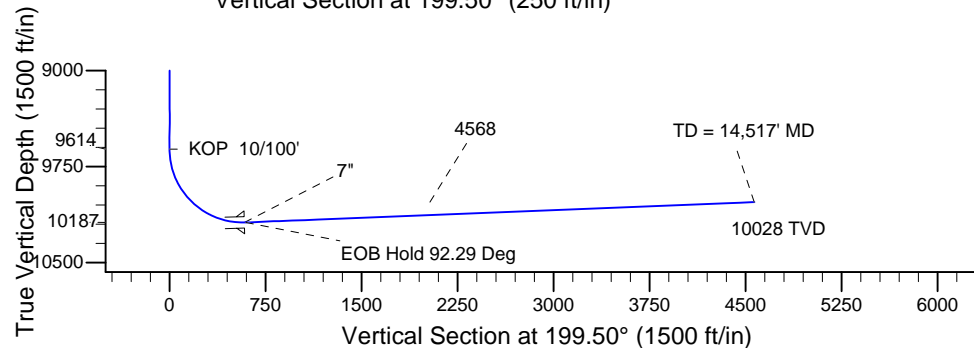
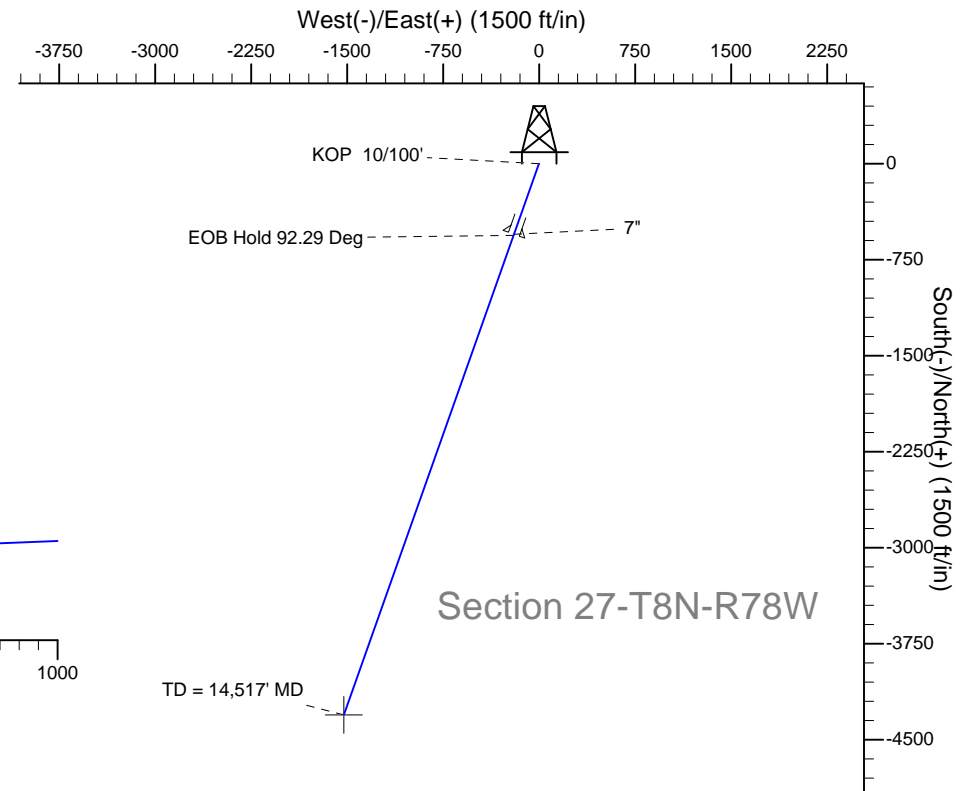
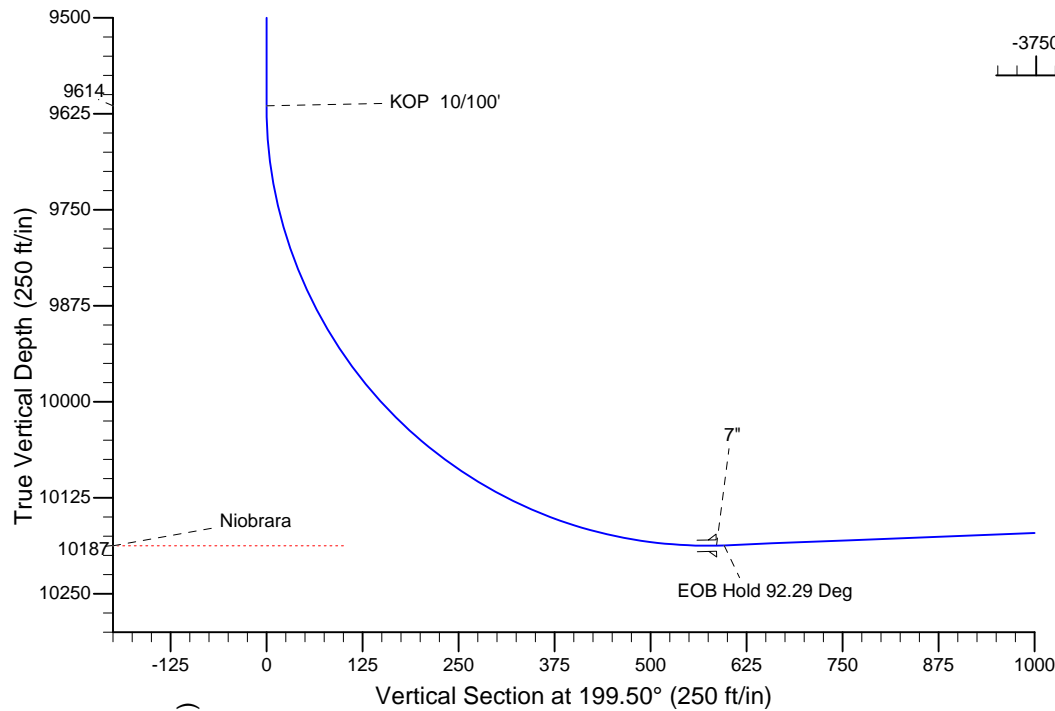
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
9614.5	0.00	0.00	9614.5	0.0	0.0	0.00	0.00	0.0	
10537.4	92.29	199.50	10187.0	-561.7	-198.9	10.00	199.50	595.9	
14513.7	92.29	199.50	10028.1	-4307.0	-1525.0	0.00	0.00	4569.0	Three Rivers PBHL



Azimuths to True North
Magnetic North: 9.53°

Magnetic Field
Strength: 53027.6nT
Dip Angle: 67.00°
Date: 12/02/2011
Model: IGRF2010



Plan: Preliminary Directional Plan for APD 12/02/11 (Three Rivers Unit 41-27/Wellbore #)

Created By: Mike Kirby Date: 9:21, December 02 2011
Checked: Date:
Reviewed: Date:
Approved: Date:

Crescent Directional Drilling, LP

Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Three Rivers Unit 41-27
Company:	Wellstar Corporation	TVD Reference:	WELL @ 8391.6ft (Ungraded Ground Level)
Project:	Jackson County, CO	MD Reference:	WELL @ 8391.6ft (Ungraded Ground Level)
Site:	Section 27-T8N-R78W	North Reference:	True
Well:	Three Rivers Unit 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Preliminary Directional Plan for APD 12/02/11		

Project	Jackson 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		Section 27-T8N-R78W				
Site Position:		Northing:	1,477,134.55 ft	Latitude:	40° 38' 29.240 N	
From:	Lat/Long	Easting:	2,826,720.50 ft	Longitude:	106° 7' 27.820 W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	-0.40 °

Well	Three Rivers Unit 41-27					
Well Position	+N/-S	0.0 ft	Northing:	1,477,134.55 ft	Latitude:	40° 38' 29.240 N
	+E/-W	0.0 ft	Easting:	2,826,720.50 ft	Longitude:	106° 7' 27.820 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,391.6 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/02/11	9.53	67.00	53,028

Design	Preliminary Directional Plan for APD 12/02/11			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	199.50

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,614.5	0.00	0.00	9,614.5	0.0	0.0	0.00	0.00	0.00	0.00	
10,537.4	92.29	199.50	10,187.0	-561.7	-198.9	10.00	10.00	0.00	199.50	
14,513.7	92.29	199.50	10,028.1	-4,307.0	-1,525.0	0.00	0.00	0.00	0.00	Three Rivers PBHL

Crescent Directional Drilling, LP

Planning Report



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Project:	Jackson County, CO	MD Reference:	WELL @ 8391.6ft (Ungraded Ground Level)
Site:	Section 27-T8N-R78W	North Reference:	True
Well:	Three Rivers Unit 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Preliminary Directional Plan for APD 12/02/11		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 170' FNL - 625' FEL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

Crescent Directional Drilling, LP

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Wellbore:	Wellbore #1		
Design:	Preliminary Directional Plan for APD 12/02/11		

Planned 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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,614.5	0.00	0.00	9,614.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP 10/100'									
9,700.0	8.55	199.50	9,699.7	-6.0	-2.1	6.4	10.00	10.00	0.00
9,800.0	18.55	199.50	9,796.8	-28.1	-9.9	29.8	10.00	10.00	0.00
9,900.0	28.55	199.50	9,888.3	-65.7	-23.3	69.7	10.00	10.00	0.00
10,000.0	38.55	199.50	9,971.6	-117.7	-41.7	124.9	10.00	10.00	0.00
10,100.0	48.55	199.50	10,044.0	-182.6	-64.6	193.7	10.00	10.00	0.00
10,200.0	58.55	199.50	10,103.3	-258.3	-91.5	274.0	10.00	10.00	0.00

Crescent Directional Drilling, LP

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Planned 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)
10,300.0	68.55	199.50	10,147.8	-342.6	-121.3	363.4	10.00	10.00	0.00
10,400.0	78.55	199.50	10,176.1	-432.9	-153.3	459.2	10.00	10.00	0.00
10,500.0	88.55	199.50	10,187.3	-526.4	-186.4	558.5	10.00	10.00	0.00
10,527.4	91.29	199.50	10,187.3	-552.3	-195.5	585.9	10.00	10.00	0.00
7"									
10,537.4	92.29	199.50	10,187.0	-561.7	-198.9	595.9	10.00	10.00	0.00
EOB Hold 92.29 Deg									
10,600.0	92.29	199.50	10,184.5	-620.6	-219.8	658.4	0.00	0.00	0.00
10,700.0	92.29	199.50	10,180.5	-714.8	-253.1	758.3	0.00	0.00	0.00
10,800.0	92.29	199.50	10,176.5	-809.0	-286.5	858.2	0.00	0.00	0.00
10,900.0	92.29	199.50	10,172.5	-903.2	-319.8	958.2	0.00	0.00	0.00
11,000.0	92.29	199.50	10,168.5	-997.4	-353.2	1,058.1	0.00	0.00	0.00
11,100.0	92.29	199.50	10,164.5	-1,091.6	-386.5	1,158.0	0.00	0.00	0.00
11,200.0	92.29	199.50	10,160.5	-1,185.8	-419.9	1,257.9	0.00	0.00	0.00
11,300.0	92.29	199.50	10,156.5	-1,280.0	-453.2	1,357.8	0.00	0.00	0.00
11,400.0	92.29	199.50	10,152.5	-1,374.2	-486.6	1,457.8	0.00	0.00	0.00
11,500.0	92.29	199.50	10,148.5	-1,468.4	-519.9	1,557.7	0.00	0.00	0.00
11,600.0	92.29	199.50	10,144.5	-1,562.5	-553.3	1,657.6	0.00	0.00	0.00
11,700.0	92.29	199.50	10,140.5	-1,656.7	-586.6	1,757.5	0.00	0.00	0.00
11,800.0	92.29	199.50	10,136.6	-1,750.9	-620.0	1,857.4	0.00	0.00	0.00
11,900.0	92.29	199.50	10,132.6	-1,845.1	-653.3	1,957.4	0.00	0.00	0.00
12,000.0	92.29	199.50	10,128.6	-1,939.3	-686.7	2,057.3	0.00	0.00	0.00
12,100.0	92.29	199.50	10,124.6	-2,033.5	-720.0	2,157.2	0.00	0.00	0.00
12,200.0	92.29	199.50	10,120.6	-2,127.7	-753.4	2,257.1	0.00	0.00	0.00
12,300.0	92.29	199.50	10,116.6	-2,221.9	-786.7	2,357.0	0.00	0.00	0.00
12,400.0	92.29	199.50	10,112.6	-2,316.1	-820.1	2,457.0	0.00	0.00	0.00
12,500.0	92.29	199.50	10,108.6	-2,410.3	-853.4	2,556.9	0.00	0.00	0.00
12,600.0	92.29	199.50	10,104.6	-2,504.4	-886.8	2,656.8	0.00	0.00	0.00
12,700.0	92.29	199.50	10,100.6	-2,598.6	-920.1	2,756.7	0.00	0.00	0.00
12,800.0	92.29	199.50	10,096.6	-2,692.8	-953.5	2,856.6	0.00	0.00	0.00
12,900.0	92.29	199.50	10,092.6	-2,787.0	-986.8	2,956.6	0.00	0.00	0.00
13,000.0	92.29	199.50	10,088.6	-2,881.2	-1,020.2	3,056.5	0.00	0.00	0.00
13,100.0	92.29	199.50	10,084.6	-2,975.4	-1,053.5	3,156.4	0.00	0.00	0.00
13,200.0	92.29	199.50	10,080.6	-3,069.6	-1,086.9	3,256.3	0.00	0.00	0.00
13,300.0	92.29	199.50	10,076.6	-3,163.8	-1,120.2	3,356.2	0.00	0.00	0.00
13,400.0	92.29	199.50	10,072.6	-3,258.0	-1,153.6	3,456.2	0.00	0.00	0.00
13,500.0	92.29	199.50	10,068.6	-3,352.2	-1,186.9	3,556.1	0.00	0.00	0.00
13,600.0	92.29	199.50	10,064.6	-3,446.3	-1,220.3	3,656.0	0.00	0.00	0.00
13,700.0	92.29	199.50	10,060.6	-3,540.5	-1,253.6	3,755.9	0.00	0.00	0.00
13,800.0	92.29	199.50	10,056.6	-3,634.7	-1,287.0	3,855.8	0.00	0.00	0.00
13,900.0	92.29	199.50	10,052.6	-3,728.9	-1,320.3	3,955.8	0.00	0.00	0.00
14,000.0	92.29	199.50	10,048.6	-3,823.1	-1,353.7	4,055.7	0.00	0.00	0.00
14,100.0	92.29	199.50	10,044.6	-3,917.3	-1,387.0	4,155.6	0.00	0.00	0.00
14,200.0	92.29	199.50	10,040.7	-4,011.5	-1,420.4	4,255.5	0.00	0.00	0.00
14,300.0	92.29	199.50	10,036.7	-4,105.7	-1,453.7	4,355.4	0.00	0.00	0.00
14,400.0	92.29	199.50	10,032.7	-4,199.9	-1,487.1	4,455.4	0.00	0.00	0.00
14,500.0	92.29	199.50	10,028.7	-4,294.1	-1,520.4	4,555.3	0.00	0.00	0.00
14,513.0	92.29	199.50	10,028.1	-4,306.3	-1,524.8	4,568.3	0.00	0.00	0.00
TD = 14,517' MD									
14,513.7	92.29	199.50	10,028.1	-4,307.0	-1,525.0	4,569.0	0.00	0.00	0.00
Three Rivers PBHL									

Crescent Directional Drilling, LP

Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Three Rivers Unit 41-27
Company:	Wellstar Corporation	TVD Reference:	WELL @ 8391.6ft (Ungraded Ground Level)
Project:	Jackson County, CO	MD Reference:	WELL @ 8391.6ft (Ungraded Ground Level)
Site:	Section 27-T8N-R78W	North Reference:	True
Well:	Three Rivers Unit 41-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Preliminary Directional Plan for APD 12/02/11		

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Three Rivers PBHL	0.00	0.00	10,028.0	-4,307.0	-1,525.0	1,472,838.40	2,825,165.21	40° 37' 46.680 N	106° 7' 47.599 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
10,527.4	10,187.3	7"	7	8-3/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
10,187.6		Niobrara		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
0.0	0.0	0.0	0.0	SHL 170' FNL - 625' FEL
9,614.5	9,614.5	0.0	0.0	KOP 10/100'
10,537.4	10,187.0	-561.7	-198.9	EOB Hold 92.29 Deg
14,513.0	10,028.1	-4,306.3	-1,524.8	TD = 14,517' MD