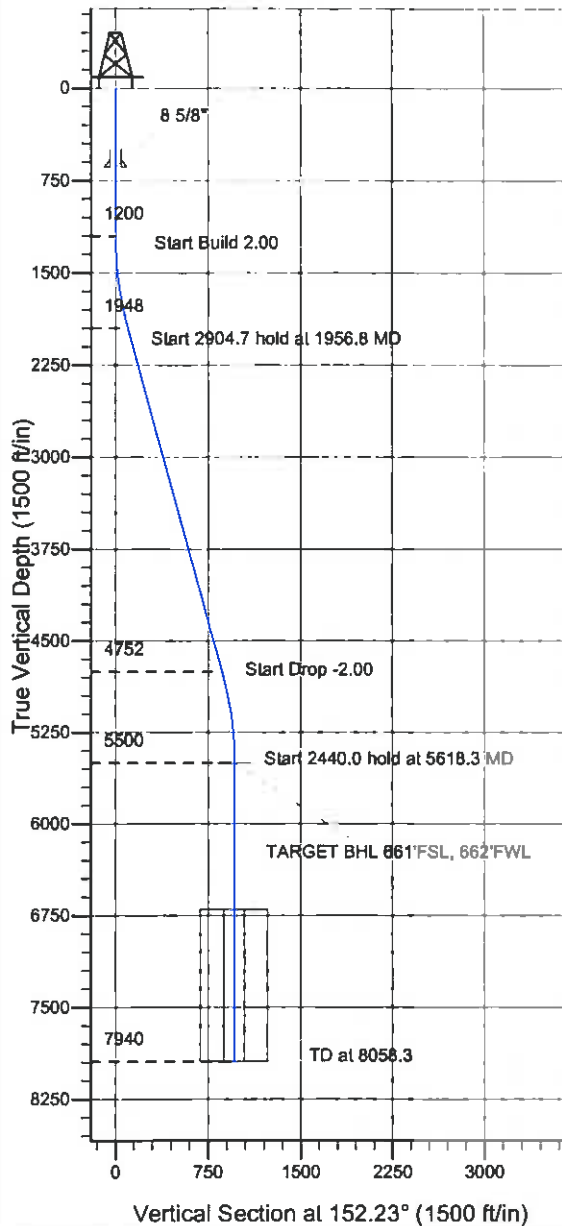
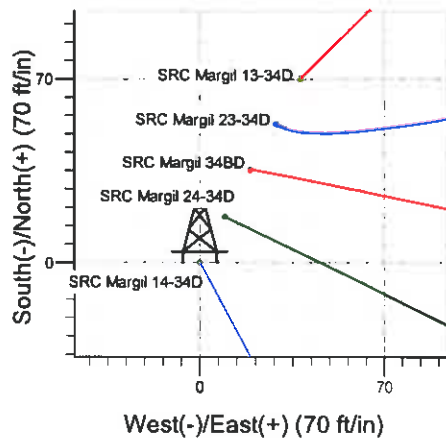
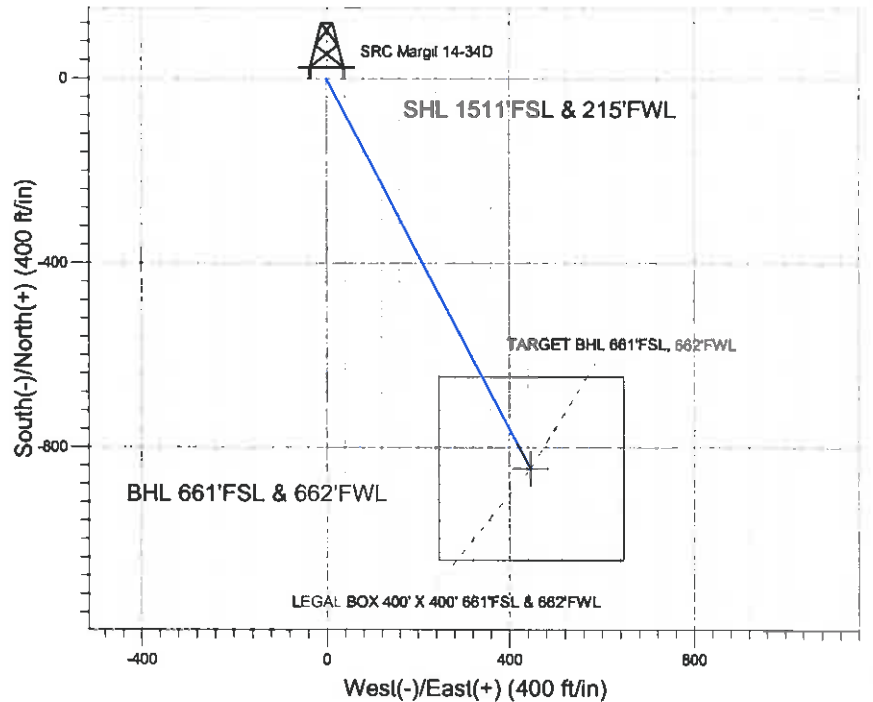


**ENSIGN****Directional****Well Name: SRC Margil 14-34D**

Surface Location: SRC Margil 13-34D Pad Sec.34-T4N-R68W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5132.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1340393.29 3140111.77 40.266690 -104.997909  
 Original Well Elev WELL @ 5145.0ft (Original Well Elev)

**Synergy Resources**

SRC Margil 13-34D Pad Sec 34-T4N-R68W  
 SRC Margil 14-34D  
 Plan #1 (6-07-11)  
 9:17, June 17 2011



Azimuths to True North  
 Magnetic North: 8.98°

Magnetic Field  
 Strength: 53032.8nT  
 Dip Angle: 66.90°  
 Date: 6/17/2011  
 Model: IGRF2010

**WELLBORE TARGET DETAILS (LAT/LONG)**

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 661'FSL, 662'FWL	5500.0	-847.0	446.0	40.264365	-104.996311	Point
LEGAL BOX 400' X 400' 661'FSL & 662'FWL	6700.0	-847.0	446.0	40.264365	-104.996311	Rectangle (Sides: L400.0 W400.0)

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1956.8	15.14	152.23	1948.0	-87.9	46.3	2.00	152.23	99.4	
4	4861.5	15.14	152.23	4752.0	-759.0	399.7	0.00	0.00	857.8	
5	5618.3	0.00	0.00	5500.0	-847.0	446.0	2.00	180.00	957.2	TARGET BHL 661'FSL, 662'FWL
6	8058.3	0.00	0.00	7940.0	-847.0	446.0	0.00	0.00	957.2	



## **Directional**

### **Synergy Resources**

**SEC.34-T4N-R68W**

**SRC Margil 13-34D Pad Sec.34-T4N-R68W**

**SRC Margil 14-34D**

**Wellbore #1**

**Plan: Plan #1 (6-07-11)**

### **Standard Planning Report**

**17 June, 2011**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Margil 14-34D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Project:</b>	SEC.34-T4N-R68W	<b>MD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Site:</b>	SRC Margil 13-34D Pad Sec.34-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Margil 14-34D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-07-11)		

<b>Project</b>	SEC.34-T4N-R68W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	SRC Margil 13-34D Pad Sec.34-T4N-R68W				
Site Position:		Northing:	1,340,463.83 ft	Latitude:	40.266883
From:	Lat/Long	Easting:	3,140,149.60 ft	Longitude:	-104.997772
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.32 °

Well	SRC Margil 14-34D					
Well Position	+N/-S	-70.3 ft	Northing:	1,340,393.29 ft	Latitude:	40.266690
	+E/-W	-38.2 ft	Easting:	3,140,111.77 ft	Longitude:	-104.997909
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,132.0 ft

<b>Wellbore</b>	Wellbore #1			
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<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/17/2011	8.98	66.90	53,033

<b>Design</b>	Plan #1 (6-07-11)			
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<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0

<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	152.23

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,956.8	15.14	152.23	1,948.0	-87.9	46.3	2.00	2.00	0.00	152.23	
4,861.5	15.14	152.23	4,752.0	-759.0	399.7	0.00	0.00	0.00	0.00	
5,618.3	0.00	0.00	5,500.0	-847.0	446.0	2.00	-2.00	0.00	180.00	TARGET BHL 661'
8,058.3	0.00	0.00	7,940.0	-847.0	446.0	0.00	0.00	0.00	0.00	

# **ENSIGN** Directional

## Planning Report

**Database:** Landmark  
**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Well:** SRC Margil 14-34D  
**Wellbore:** Wellbore #1  
**Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	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
1,240.0	0.80	152.23	1,240.0	-0.2	0.1	0.3	2.00	2.00	0.00
1,280.0	1.60	152.23	1,280.0	-1.0	0.5	1.1	2.00	2.00	0.00
1,320.0	2.40	152.23	1,320.0	-2.2	1.2	2.5	2.00	2.00	0.00
1,360.0	3.20	152.23	1,359.9	-4.0	2.1	4.5	2.00	2.00	0.00
1,400.0	4.00	152.23	1,399.8	-6.2	3.3	7.0	2.00	2.00	0.00
1,440.0	4.80	152.23	1,439.7	-8.9	4.7	10.0	2.00	2.00	0.00
1,480.0	5.60	152.23	1,479.6	-12.1	6.4	13.7	2.00	2.00	0.00
1,520.0	6.40	152.23	1,519.3	-15.8	8.3	17.9	2.00	2.00	0.00
1,560.0	7.20	152.23	1,559.1	-20.0	10.5	22.6	2.00	2.00	0.00
1,600.0	8.00	152.23	1,598.7	-24.7	13.0	27.9	2.00	2.00	0.00
1,640.0	8.80	152.23	1,638.3	-29.8	15.7	33.7	2.00	2.00	0.00
1,680.0	9.60	152.23	1,677.8	-35.5	18.7	40.1	2.00	2.00	0.00
1,720.0	10.40	152.23	1,717.1	-41.6	21.9	47.1	2.00	2.00	0.00
1,760.0	11.20	152.23	1,756.4	-48.3	25.4	54.6	2.00	2.00	0.00
1,800.0	12.00	152.23	1,795.6	-55.4	29.2	62.6	2.00	2.00	0.00
1,840.0	12.80	152.23	1,834.7	-63.0	33.2	71.2	2.00	2.00	0.00
1,880.0	13.60	152.23	1,873.6	-71.1	37.4	80.3	2.00	2.00	0.00
1,920.0	14.40	152.23	1,912.4	-79.6	41.9	90.0	2.00	2.00	0.00
1,956.8	15.14	152.23	1,948.0	-87.9	46.3	99.4	2.00	2.00	0.00
1,960.0	15.14	152.23	1,951.1	-88.7	46.7	100.2	0.00	0.00	0.00
2,000.0	15.14	152.23	1,989.7	-97.9	51.6	110.7	0.00	0.00	0.00
2,040.0	15.14	152.23	2,028.3	-107.2	56.4	121.1	0.00	0.00	0.00

**Database:** Landmark  
**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Well:** SRC Margil 14-34D  
**Wellbore:** Wellbore #1  
**Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### 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)
2,080.0	15.14	152.23	2,067.0	-116.4	61.3	131.6	0.00	0.00	0.00
2,120.0	15.14	152.23	2,105.6	-125.6	66.2	142.0	0.00	0.00	0.00
2,160.0	15.14	152.23	2,144.2	-134.9	71.0	152.4	0.00	0.00	0.00
2,200.0	15.14	152.23	2,182.8	-144.1	75.9	162.9	0.00	0.00	0.00
2,240.0	15.14	152.23	2,221.4	-153.4	80.8	173.3	0.00	0.00	0.00
2,280.0	15.14	152.23	2,260.0	-162.6	85.6	183.8	0.00	0.00	0.00
2,320.0	15.14	152.23	2,298.6	-171.9	90.5	194.2	0.00	0.00	0.00
2,360.0	15.14	152.23	2,337.2	-181.1	95.4	204.7	0.00	0.00	0.00
2,400.0	15.14	152.23	2,375.9	-190.3	100.2	215.1	0.00	0.00	0.00
2,440.0	15.14	152.23	2,414.5	-199.6	105.1	225.6	0.00	0.00	0.00
2,480.0	15.14	152.23	2,453.1	-208.8	110.0	236.0	0.00	0.00	0.00
2,520.0	15.14	152.23	2,491.7	-218.1	114.8	246.4	0.00	0.00	0.00
2,560.0	15.14	152.23	2,530.3	-227.3	119.7	256.9	0.00	0.00	0.00
2,600.0	15.14	152.23	2,568.9	-236.5	124.5	267.3	0.00	0.00	0.00
2,640.0	15.14	152.23	2,607.5	-245.8	129.4	277.8	0.00	0.00	0.00
2,680.0	15.14	152.23	2,646.1	-255.0	134.3	288.2	0.00	0.00	0.00
2,720.0	15.14	152.23	2,684.8	-264.3	139.1	298.7	0.00	0.00	0.00
2,760.0	15.14	152.23	2,723.4	-273.5	144.0	309.1	0.00	0.00	0.00
2,800.0	15.14	152.23	2,762.0	-282.8	148.9	319.6	0.00	0.00	0.00
2,840.0	15.14	152.23	2,800.6	-292.0	153.7	330.0	0.00	0.00	0.00
2,880.0	15.14	152.23	2,839.2	-301.2	158.6	340.4	0.00	0.00	0.00
2,920.0	15.14	152.23	2,877.8	-310.5	163.5	350.9	0.00	0.00	0.00
2,960.0	15.14	152.23	2,916.4	-319.7	168.3	361.3	0.00	0.00	0.00
3,000.0	15.14	152.23	2,955.0	-329.0	173.2	371.8	0.00	0.00	0.00
3,040.0	15.14	152.23	2,993.6	-338.2	178.1	382.2	0.00	0.00	0.00
3,080.0	15.14	152.23	3,032.3	-347.4	182.9	392.7	0.00	0.00	0.00
3,120.0	15.14	152.23	3,070.9	-356.7	187.8	403.1	0.00	0.00	0.00
3,160.0	15.14	152.23	3,109.5	-365.9	192.7	413.6	0.00	0.00	0.00
3,200.0	15.14	152.23	3,148.1	-375.2	197.5	424.0	0.00	0.00	0.00
3,240.0	15.14	152.23	3,186.7	-384.4	202.4	434.4	0.00	0.00	0.00
3,280.0	15.14	152.23	3,225.3	-393.7	207.3	444.9	0.00	0.00	0.00
3,320.0	15.14	152.23	3,263.9	-402.9	212.1	455.3	0.00	0.00	0.00
3,360.0	15.14	152.23	3,302.5	-412.1	217.0	465.8	0.00	0.00	0.00
3,400.0	15.14	152.23	3,341.2	-421.4	221.9	476.2	0.00	0.00	0.00
3,440.0	15.14	152.23	3,379.8	-430.6	226.7	486.7	0.00	0.00	0.00
3,480.0	15.14	152.23	3,418.4	-439.9	231.6	497.1	0.00	0.00	0.00
3,520.0	15.14	152.23	3,457.0	-449.1	236.5	507.6	0.00	0.00	0.00
3,560.0	15.14	152.23	3,495.6	-458.3	241.3	518.0	0.00	0.00	0.00
3,600.0	15.14	152.23	3,534.2	-467.6	246.2	528.4	0.00	0.00	0.00
3,640.0	15.14	152.23	3,572.8	-476.8	251.1	538.9	0.00	0.00	0.00
3,680.0	15.14	152.23	3,611.4	-486.1	255.9	549.3	0.00	0.00	0.00
3,720.0	15.14	152.23	3,650.1	-495.3	260.8	559.8	0.00	0.00	0.00
3,760.0	15.14	152.23	3,688.7	-504.6	265.7	570.2	0.00	0.00	0.00
3,800.0	15.14	152.23	3,727.3	-513.8	270.5	580.7	0.00	0.00	0.00
3,840.0	15.14	152.23	3,765.9	-523.0	275.4	591.1	0.00	0.00	0.00
3,880.0	15.14	152.23	3,804.5	-532.3	280.3	601.6	0.00	0.00	0.00
3,920.0	15.14	152.23	3,843.1	-541.5	285.1	612.0	0.00	0.00	0.00
3,960.0	15.14	152.23	3,881.7	-550.8	290.0	622.4	0.00	0.00	0.00
4,000.0	15.14	152.23	3,920.3	-560.0	294.9	632.9	0.00	0.00	0.00
4,040.0	15.14	152.23	3,959.0	-569.2	299.7	643.3	0.00	0.00	0.00
4,080.0	15.14	152.23	3,997.6	-578.5	304.6	653.8	0.00	0.00	0.00
4,120.0	15.14	152.23	4,036.2	-587.7	309.5	664.2	0.00	0.00	0.00
4,160.0	15.14	152.23	4,074.8	-597.0	314.3	674.7	0.00	0.00	0.00
4,200.0	15.14	152.23	4,113.4	-606.2	319.2	685.1	0.00	0.00	0.00

**Database:** Landmark  
**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Well:** SRC Margil 14-34D  
**Wellbore:** Wellbore #1  
**Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
4,240.0	15.14	152.23	4,152.0	-615.5	324.1	695.6	0.00	0.00	0.00
4,280.0	15.14	152.23	4,190.6	-624.7	328.9	706.0	0.00	0.00	0.00
4,320.0	15.14	152.23	4,229.2	-633.9	333.8	716.4	0.00	0.00	0.00
4,360.0	15.14	152.23	4,267.9	-643.2	338.7	726.9	0.00	0.00	0.00
4,400.0	15.14	152.23	4,306.5	-652.4	343.5	737.3	0.00	0.00	0.00
4,440.0	15.14	152.23	4,345.1	-661.7	348.4	747.8	0.00	0.00	0.00
4,480.0	15.14	152.23	4,383.7	-670.9	353.3	758.2	0.00	0.00	0.00
4,520.0	15.14	152.23	4,422.3	-680.1	358.1	768.7	0.00	0.00	0.00
4,560.0	15.14	152.23	4,460.9	-689.4	363.0	779.1	0.00	0.00	0.00
4,600.0	15.14	152.23	4,499.5	-698.6	367.9	789.6	0.00	0.00	0.00
4,640.0	15.14	152.23	4,538.1	-707.9	372.7	800.0	0.00	0.00	0.00
4,680.0	15.14	152.23	4,576.8	-717.1	377.6	810.4	0.00	0.00	0.00
4,720.0	15.14	152.23	4,615.4	-726.4	382.5	820.9	0.00	0.00	0.00
4,760.0	15.14	152.23	4,654.0	-735.6	387.3	831.3	0.00	0.00	0.00
4,800.0	15.14	152.23	4,692.6	-744.8	392.2	841.8	0.00	0.00	0.00
4,840.0	15.14	152.23	4,731.2	-754.1	397.1	852.2	0.00	0.00	0.00
4,861.5	15.14	152.23	4,752.0	-759.0	399.7	857.8	0.00	0.00	0.00
4,880.0	14.77	152.23	4,769.8	-763.3	401.9	862.6	2.00	-2.00	0.00
4,920.0	13.97	152.23	4,808.6	-772.1	406.5	872.5	2.00	-2.00	0.00
4,960.0	13.17	152.23	4,847.5	-780.4	410.9	881.9	2.00	-2.00	0.00
5,000.0	12.37	152.23	4,886.5	-788.2	415.0	890.8	2.00	-2.00	0.00
5,040.0	11.57	152.23	4,925.6	-795.5	418.9	899.1	2.00	-2.00	0.00
5,080.0	10.77	152.23	4,964.8	-802.4	422.5	906.8	2.00	-2.00	0.00
5,120.0	9.97	152.23	5,004.2	-808.7	425.8	914.0	2.00	-2.00	0.00
5,160.0	9.17	152.23	5,043.6	-814.6	428.9	920.6	2.00	-2.00	0.00
5,200.0	8.37	152.23	5,083.2	-820.0	431.8	926.7	2.00	-2.00	0.00
5,240.0	7.57	152.23	5,122.8	-824.9	434.3	932.3	2.00	-2.00	0.00
5,280.0	6.77	152.23	5,162.5	-829.3	436.7	937.3	2.00	-2.00	0.00
5,320.0	5.97	152.23	5,202.2	-833.3	438.7	941.7	2.00	-2.00	0.00
5,360.0	5.17	152.23	5,242.0	-836.7	440.5	945.6	2.00	-2.00	0.00
5,400.0	4.37	152.23	5,281.9	-839.6	442.1	948.9	2.00	-2.00	0.00
5,440.0	3.57	152.23	5,321.8	-842.1	443.4	951.7	2.00	-2.00	0.00
5,480.0	2.77	152.23	5,361.7	-844.0	444.4	953.9	2.00	-2.00	0.00
5,520.0	1.97	152.23	5,401.7	-845.5	445.2	955.5	2.00	-2.00	0.00
5,560.0	1.17	152.23	5,441.7	-846.5	445.7	956.6	2.00	-2.00	0.00
5,600.0	0.37	152.23	5,481.7	-846.9	445.9	957.2	2.00	-2.00	0.00
5,618.3	0.00	0.00	5,500.0	-847.0	446.0	957.2	2.00	-2.00	0.00
<b>TARGET BHL 661'FSL, 662'FWL</b>									
5,640.0	0.00	0.00	5,521.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,680.0	0.00	0.00	5,561.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,720.0	0.00	0.00	5,601.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,760.0	0.00	0.00	5,641.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,681.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,840.0	0.00	0.00	5,721.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,880.0	0.00	0.00	5,761.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,920.0	0.00	0.00	5,801.7	-847.0	446.0	957.2	0.00	0.00	0.00
5,960.0	0.00	0.00	5,841.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,881.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,040.0	0.00	0.00	5,921.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,080.0	0.00	0.00	5,961.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,120.0	0.00	0.00	6,001.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,160.0	0.00	0.00	6,041.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,081.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,240.0	0.00	0.00	6,121.7	-847.0	446.0	957.2	0.00	0.00	0.00



**Database:** Landmark  
**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Well:** SRC Margil 14-34D  
**Wellbore:** Wellbore #1  
**Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**

Well SRC Margil 14-34D  
 WELL @ 5145.0ft (Original Well Elev)  
 WELL @ 5145.0ft (Original Well Elev)  
 True  
 Minimum Curvature

### 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)
6,280.0	0.00	0.00	6,161.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,320.0	0.00	0.00	6,201.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,360.0	0.00	0.00	6,241.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,281.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,440.0	0.00	0.00	6,321.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,480.0	0.00	0.00	6,361.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,520.0	0.00	0.00	6,401.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,560.0	0.00	0.00	6,441.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,481.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,640.0	0.00	0.00	6,521.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,680.0	0.00	0.00	6,561.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,720.0	0.00	0.00	6,601.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,760.0	0.00	0.00	6,641.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,681.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,818.3	0.00	0.00	6,700.0	-847.0	446.0	957.2	0.00	0.00	0.00
LEGAL BOX 400' X 400' 661'FSL & 662'FWL									
6,840.0	0.00	0.00	6,721.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,880.0	0.00	0.00	6,761.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,920.0	0.00	0.00	6,801.7	-847.0	446.0	957.2	0.00	0.00	0.00
6,960.0	0.00	0.00	6,841.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,000.0	0.00	0.00	6,881.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,040.0	0.00	0.00	6,921.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,080.0	0.00	0.00	6,961.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,120.0	0.00	0.00	7,001.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,160.0	0.00	0.00	7,041.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,200.0	0.00	0.00	7,081.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,240.0	0.00	0.00	7,121.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,280.0	0.00	0.00	7,161.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,320.0	0.00	0.00	7,201.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,360.0	0.00	0.00	7,241.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,281.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,440.0	0.00	0.00	7,321.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,480.0	0.00	0.00	7,361.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,520.0	0.00	0.00	7,401.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,560.0	0.00	0.00	7,441.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,600.0	0.00	0.00	7,481.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,640.0	0.00	0.00	7,521.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,680.0	0.00	0.00	7,561.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,720.0	0.00	0.00	7,601.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,760.0	0.00	0.00	7,641.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,681.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,840.0	0.00	0.00	7,721.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,880.0	0.00	0.00	7,761.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,920.0	0.00	0.00	7,801.7	-847.0	446.0	957.2	0.00	0.00	0.00
7,960.0	0.00	0.00	7,841.7	-847.0	446.0	957.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,881.7	-847.0	446.0	957.2	0.00	0.00	0.00
8,040.0	0.00	0.00	7,921.7	-847.0	446.0	957.2	0.00	0.00	0.00
8,058.3	0.00	0.00	7,940.0	-847.0	446.0	957.2	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Margil 14-34D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Project:</b>	SEC.34-T4N-R68W	<b>MD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Site:</b>	SRC Margil 13-34D Pad Sec.34-T4N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Margil 14-34D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (6-07-11)		

### Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
TARGET BHL 661'FS	0.00	0.00	5,500.0	-847.0	446.0	1,339,548.88	3,140,562.51	40.264365	-104.996311
- plan hits target center									
- Point									
LEGAL BOX 400' X 400'	0.00	0.00	6,700.0	-847.0	446.0	1,339,548.88	3,140,562.54	40.264365	-104.996311
- plan hits target center									
- Rectangle (sides W400.0 H400.0 D1,240.0)									

### Casing Points

Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
640.0	640.0	8 5/8"	8-5/8	12-1/4





## **Directional**

### **Synergy Resources**

**SEC.34-T4N-R68W**

**SRC Margil 13-34D Pad Sec.34-T4N-R68W**

**SRC Margil 14-34D**

**Wellbore #1**

**Plan #1 (6-07-11)**

## **Anticollision Report**

**17 June, 2011**

**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Reference Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Site Error:** 0.0ft  
**Reference Well:** SRC Margil 14-34D  
**Well Error:** 0.0ft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** Landmark  
**Offset TVD Reference:** Offset Datum

Reference Plan #1 (6-07-11)

**Filter type:** NO GLOBAL FILTER: Using user defined selection & filtering criteria  
**Interpolation Method:** Stations  
**Depth Range:** Unlimited  
**Results Limited by:** Maximum center-center distance of 10,000.0ft  
**Warning Levels Evaluated at:** 2.00 Sigma

**Error Model:** ISCWSA  
**Scan Method:** Closest Approach 3D  
**Error Surface:** Elliptical Conic

Survey Tool Program Date 6/17/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,058.3	Plan #1 (6-07-11) (Wellbore #1)	MWD	MWD - Standard

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SRC Margil 13-34D Pad Sec.34-T4N-R68W						
SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)	742.6	742.6	19.9	16.8	6.390 CC	
SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)	800.0	800.0	19.9	16.6	5.926 ES	
SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)	900.0	899.8	20.5	16.7	5.415 SF	

Offset Design SRC Margil 13-34D Pad Sec.34-T4N-R68W - SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
				Reference (ft)	Offset (ft)		+N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	0.0	0.0	0.0	0.0	28.48	17.5	9.5	19.9	19.9	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	28.48	17.5	9.5	19.9	19.7	0.22	88.514	
200.0	200.0	200.0	200.0	0.3	0.3	28.48	17.5	9.5	19.9	19.2	0.67	29.505	
300.0	300.0	300.0	300.0	0.6	0.6	28.48	17.5	9.5	19.9	18.8	1.12	17.703	
400.0	400.0	400.0	400.0	0.8	0.8	28.48	17.5	9.5	19.9	18.3	1.57	12.645	
500.0	500.0	500.0	500.0	1.0	1.0	28.48	17.5	9.5	19.9	17.9	2.02	9.835	
600.0	600.0	600.0	600.0	1.2	1.2	28.48	17.5	9.5	19.9	17.4	2.47	8.047	
700.0	700.0	700.0	700.0	1.5	1.5	28.48	17.5	9.5	19.9	17.0	2.92	6.809	
742.6	742.6	742.6	742.6	1.6	1.6	28.48	17.5	9.5	19.9	16.8	3.11	6.390 CC	
800.0	800.0	800.0	800.0	1.7	1.7	29.74	17.3	9.9	19.9	16.6	3.36	5.926 ES	
900.0	900.0	899.8	899.7	1.9	1.9	39.51	15.8	13.0	20.5	16.7	3.78	5.415 SF	
1,000.0	1,000.0	999.3	999.0	2.1	2.1	56.45	12.8	19.2	23.1	18.9	4.20	5.497	
1,100.0	1,100.0	1,098.2	1,097.3	2.4	2.3	73.81	8.3	28.5	29.8	25.2	4.64	6.426	
1,200.0	1,200.0	1,196.2	1,194.4	2.6	2.6	86.87	2.4	40.7	41.1	36.1	5.08	8.106	
1,300.0	1,300.0	1,293.5	1,290.2	2.8	2.9	-58.43	-4.9	55.7	55.9	50.4	5.51	10.144	
1,400.0	1,399.8	1,390.0	1,384.7	3.0	3.2	-55.60	-13.6	73.6	72.3	66.4	5.92	12.221	
1,500.0	1,499.5	1,485.9	1,477.8	3.2	3.6	-54.84	-23.5	94.1	89.9	83.6	6.35	14.171	
1,600.0	1,598.7	1,581.0	1,569.4	3.4	4.0	-55.16	-34.7	117.2	108.7	101.9	6.81	15.957	
1,700.0	1,697.5	1,675.3	1,659.3	3.6	4.6	-56.04	-47.1	142.8	128.6	121.3	7.33	17.550	
1,800.0	1,795.6	1,768.8	1,747.4	3.9	5.1	-57.22	-60.7	170.8	149.7	141.8	7.91	18.931	
1,900.0	1,893.1	1,861.4	1,833.7	4.2	5.8	-58.55	-75.3	201.1	172.0	163.4	8.57	20.070	
1,956.8	1,948.0	1,913.5	1,881.8	4.4	6.1	-59.33	-84.1	219.2	185.2	176.2	8.99	20.612	
2,000.0	1,989.7	1,953.0	1,918.0	4.6	6.4	-60.03	-91.0	233.5	195.7	186.4	9.33	20.973	
2,100.0	2,086.3	2,043.6	2,000.0	5.0	7.2	-61.15	-107.7	267.9	222.0	211.9	10.16	21.862	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Reference Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Site Error:** 0.0ft  
**Reference Well:** SRC Margil 14-34D  
**Well Error:** 0.0ft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** Landmark  
**Offset TVD Reference:** Offset Datum

Offset Design SRC Margil 13-34D Pad Sec.34-T4N-R68W - SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
2,200.0	2,182.8	2,139.6	2,086.5	5.5	8.0	-61.93	-125.9	305.6	249.7	238.7	11.05	22.606	
2,300.0	2,279.3	2,235.6	2,172.9	6.0	8.9	-62.55	-144.2	343.3	277.5	265.5	11.97	23.179	
2,400.0	2,375.9	2,331.7	2,259.3	6.4	9.8	-63.05	-162.5	380.9	305.2	292.3	12.92	23.620	
2,500.0	2,472.4	2,427.7	2,345.7	6.9	10.6	-63.48	-180.7	418.6	333.0	319.1	13.90	23.962	
2,600.0	2,568.9	2,523.7	2,432.2	7.4	11.5	-63.84	-199.0	456.3	360.8	345.9	14.89	24.230	
2,700.0	2,665.4	2,619.8	2,518.6	7.9	12.4	-64.14	-217.2	494.0	388.6	372.7	15.90	24.442	
2,800.0	2,762.0	2,715.8	2,605.0	8.5	13.3	-64.41	-235.5	531.7	416.4	399.5	16.92	24.612	
2,900.0	2,858.5	2,811.8	2,691.4	9.0	14.2	-64.64	-253.7	569.4	444.3	426.3	17.95	24.748	
3,000.0	2,955.0	2,907.9	2,777.9	9.5	15.1	-64.85	-272.0	607.1	472.1	453.1	18.99	24.858	
3,100.0	3,051.6	3,003.9	2,864.3	10.0	16.0	-65.03	-290.3	644.8	499.9	479.9	20.04	24.949	
3,200.0	3,148.1	3,100.0	2,950.7	10.6	16.9	-65.19	-308.5	682.5	527.8	506.7	21.09	25.022	
3,300.0	3,244.6	3,196.0	3,037.1	11.1	17.8	-65.34	-326.8	720.1	555.6	533.5	22.15	25.083	
3,400.0	3,341.2	3,292.0	3,123.6	11.6	18.7	-65.47	-345.0	757.8	583.5	560.3	23.21	25.134	
3,500.0	3,437.7	3,388.1	3,210.0	12.2	19.6	-65.59	-363.3	795.5	611.3	587.0	24.28	25.176	
3,600.0	3,534.2	3,484.1	3,296.4	12.7	20.5	-65.70	-381.5	833.2	639.2	613.8	25.35	25.211	
3,700.0	3,630.8	3,580.1	3,382.8	13.3	21.4	-65.80	-399.8	870.9	667.0	640.6	26.43	25.240	
3,800.0	3,727.3	3,676.2	3,469.3	13.8	22.3	-65.90	-418.1	908.6	694.9	667.4	27.50	25.265	
3,900.0	3,823.8	3,772.2	3,555.7	14.4	23.2	-65.98	-436.3	946.3	722.7	694.2	28.58	25.285	
4,000.0	3,920.3	3,868.2	3,642.1	14.9	24.1	-66.06	-454.6	984.0	750.6	720.8	29.66	25.303	
4,100.0	4,016.9	3,964.3	3,728.5	15.4	25.0	-66.13	-472.8	1,021.7	778.5	747.7	30.75	25.317	
4,200.0	4,113.4	4,060.3	3,815.0	16.0	25.9	-66.20	-491.1	1,059.3	806.3	774.5	31.83	25.329	
4,300.0	4,209.9	4,156.3	3,901.4	16.5	26.9	-66.27	-509.4	1,097.0	834.2	801.3	32.92	25.340	
4,400.0	4,306.5	4,252.4	3,987.8	17.1	27.8	-66.33	-527.6	1,134.7	862.0	828.0	34.01	25.348	
4,500.0	4,403.0	4,348.4	4,074.2	17.6	28.7	-66.38	-545.9	1,172.4	889.9	854.8	35.10	25.355	
4,600.0	4,499.5	4,444.5	4,160.7	18.2	29.6	-66.43	-564.1	1,210.1	917.8	881.6	36.19	25.361	
4,700.0	4,596.1	4,540.5	4,247.1	18.7	30.5	-66.48	-582.4	1,247.8	945.6	908.4	37.28	25.365	
4,800.0	4,692.6	4,636.5	4,333.5	19.3	31.4	-66.53	-600.6	1,285.5	973.5	935.1	38.37	25.369	
4,861.5	4,752.0	4,695.6	4,386.7	19.6	32.0	-66.56	-611.9	1,308.7	990.6	951.6	39.05	25.371	
4,900.0	4,789.2	4,732.5	4,419.9	19.8	32.3	-66.77	-618.9	1,323.2	1,001.5	962.0	39.49	25.362	
5,000.0	4,886.5	4,828.2	4,506.0	20.2	33.2	-67.20	-637.1	1,360.7	1,030.5	990.0	40.50	25.443	
5,100.0	4,984.5	4,923.3	4,591.6	20.5	34.1	-67.50	-655.2	1,398.0	1,060.8	1,019.4	41.43	25.605	
5,200.0	5,083.2	5,017.8	4,676.6	20.8	35.0	-67.66	-673.1	1,435.1	1,092.5	1,050.2	42.27	25.845	
5,300.0	5,182.3	5,111.6	4,761.0	21.1	35.9	-67.70	-691.0	1,471.9	1,125.5	1,082.5	43.02	26.161	
5,400.0	5,281.9	5,204.5	4,844.6	21.3	36.8	-67.65	-708.6	1,508.4	1,159.9	1,116.2	43.69	26.549	
5,500.0	5,381.7	5,344.9	4,972.3	21.4	37.9	-67.12	-734.1	1,560.9	1,194.0	1,149.7	44.24	26.989	
5,600.0	5,481.7	5,493.3	5,110.1	21.6	38.9	-68.49	-758.0	1,610.3	1,225.4	1,180.8	44.82	27.465	
5,618.3	5,500.0	5,520.9	5,136.1	21.6	39.1	85.86	-762.1	1,618.8	1,230.9	1,186.2	44.67	27.554	
5,700.0	5,581.7	5,646.3	5,255.1	21.7	39.7	86.80	-779.4	1,654.4	1,253.6	1,208.9	44.75	28.016	
5,800.0	5,681.7	5,804.6	5,407.5	21.8	40.5	87.74	-797.9	1,692.6	1,277.4	1,232.5	44.87	28.467	
5,900.0	5,781.7	5,967.3	5,566.5	21.9	41.1	88.48	-813.1	1,724.0	1,296.5	1,251.4	45.03	28.789	
6,000.0	5,881.7	6,133.6	5,730.7	22.0	41.5	89.01	-824.5	1,747.6	1,310.5	1,265.3	45.23	28.974	
6,100.0	5,981.7	6,302.5	5,898.7	22.1	41.9	89.34	-831.8	1,762.7	1,319.4	1,274.0	45.46	29.023	
6,200.0	6,081.7	6,472.7	6,068.8	22.2	42.1	89.47	-834.8	1,768.9	1,323.1	1,277.4	45.72	28.938	
6,300.0	6,181.7	6,585.7	6,181.7	22.3	42.1	89.48	-834.9	1,769.1	1,323.2	1,277.2	45.96	28.790	
6,400.0	6,281.7	6,685.7	6,281.7	22.5	42.2	89.48	-834.9	1,769.1	1,323.2	1,277.0	46.18	28.651	
6,500.0	6,381.7	6,785.7	6,381.7	22.6	42.3	89.48	-834.9	1,769.1	1,323.2	1,276.8	46.41	28.511	
6,600.0	6,481.7	6,885.7	6,481.7	22.7	42.3	89.48	-834.9	1,769.1	1,323.2	1,276.5	46.64	28.371	
6,700.0	6,581.7	6,985.7	6,581.7	22.8	42.4	89.48	-834.9	1,769.1	1,323.2	1,276.3	46.87	28.230	
6,800.0	6,681.7	7,085.7	6,681.7	22.9	42.5	89.48	-834.9	1,769.1	1,323.2	1,276.1	47.11	28.089	
6,900.0	6,781.7	7,185.7	6,781.7	23.1	42.6	89.48	-834.9	1,769.1	1,323.2	1,275.8	47.34	27.948	
7,000.0	6,881.7	7,285.7	6,881.7	23.2	42.6	89.48	-834.9	1,769.1	1,323.2	1,275.6	47.59	27.806	
7,100.0	6,981.7	7,385.7	6,981.7	23.3	42.7	89.48	-834.9	1,769.1	1,323.2	1,275.3	47.83	27.663	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Reference Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Site Error:** 0.0ft  
**Reference Well:** SRC Margil 14-34D  
**Well Error:** 0.0ft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** Landmark  
**Offset TVD Reference:** Offset Datum

Offset Design SRC Margil 13-34D Pad Sec.34-T4N-R68W - SRC Margil 24-34D - Wellbore #1 - Plan #1 (6-07-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,200.0	7,081.7	7,485.7	7,081.7	23.5	42.8	89.48	-834.9	1,769.1	1,323.2	1,275.1	48.08	27.521		
7,300.0	7,181.7	7,585.7	7,181.7	23.6	42.9	89.48	-834.9	1,769.1	1,323.2	1,274.8	48.33	27.378		
7,400.0	7,281.7	7,685.7	7,281.7	23.7	42.9	89.48	-834.9	1,769.1	1,323.2	1,274.6	48.58	27.235		
7,500.0	7,381.7	7,785.7	7,381.7	23.9	43.0	89.48	-834.9	1,769.1	1,323.2	1,274.3	48.84	27.092		
7,600.0	7,481.7	7,885.7	7,481.7	24.0	43.1	89.48	-834.9	1,769.1	1,323.2	1,274.1	49.10	26.949		
7,700.0	7,581.7	7,985.7	7,581.7	24.1	43.2	89.48	-834.9	1,769.1	1,323.2	1,273.8	49.36	26.806		
7,800.0	7,681.7	8,085.7	7,681.7	24.3	43.3	89.48	-834.9	1,769.1	1,323.2	1,273.5	49.63	26.663		
7,900.0	7,781.7	8,185.7	7,781.7	24.4	43.3	89.48	-834.9	1,769.1	1,323.2	1,273.3	49.89	26.521		
8,000.0	7,881.7	8,285.7	7,881.7	24.5	43.4	89.48	-834.9	1,769.1	1,323.2	1,273.0	50.16	26.378		
8,058.3	7,940.0	8,344.0	7,940.0	24.6	43.5	89.48	-834.9	1,769.1	1,323.2	1,272.9	50.32	26.295		

**Company:** Synergy Resources  
**Project:** SEC.34-T4N-R68W  
**Reference Site:** SRC Margil 13-34D Pad Sec.34-T4N-R68W  
**Site Error:** 0.0ft  
**Reference Well:** SRC Margil 14-34D  
**Well Error:** 0.0ft  
**Reference Wellbore:** Wellbore #1  
**Reference Design:** Plan #1 (6-07-11)

**Local Co-ordinate Reference:** Well SRC Margil 14-34D  
**TVD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5145.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** Landmark  
**Offset TVD Reference:** Offset Datum

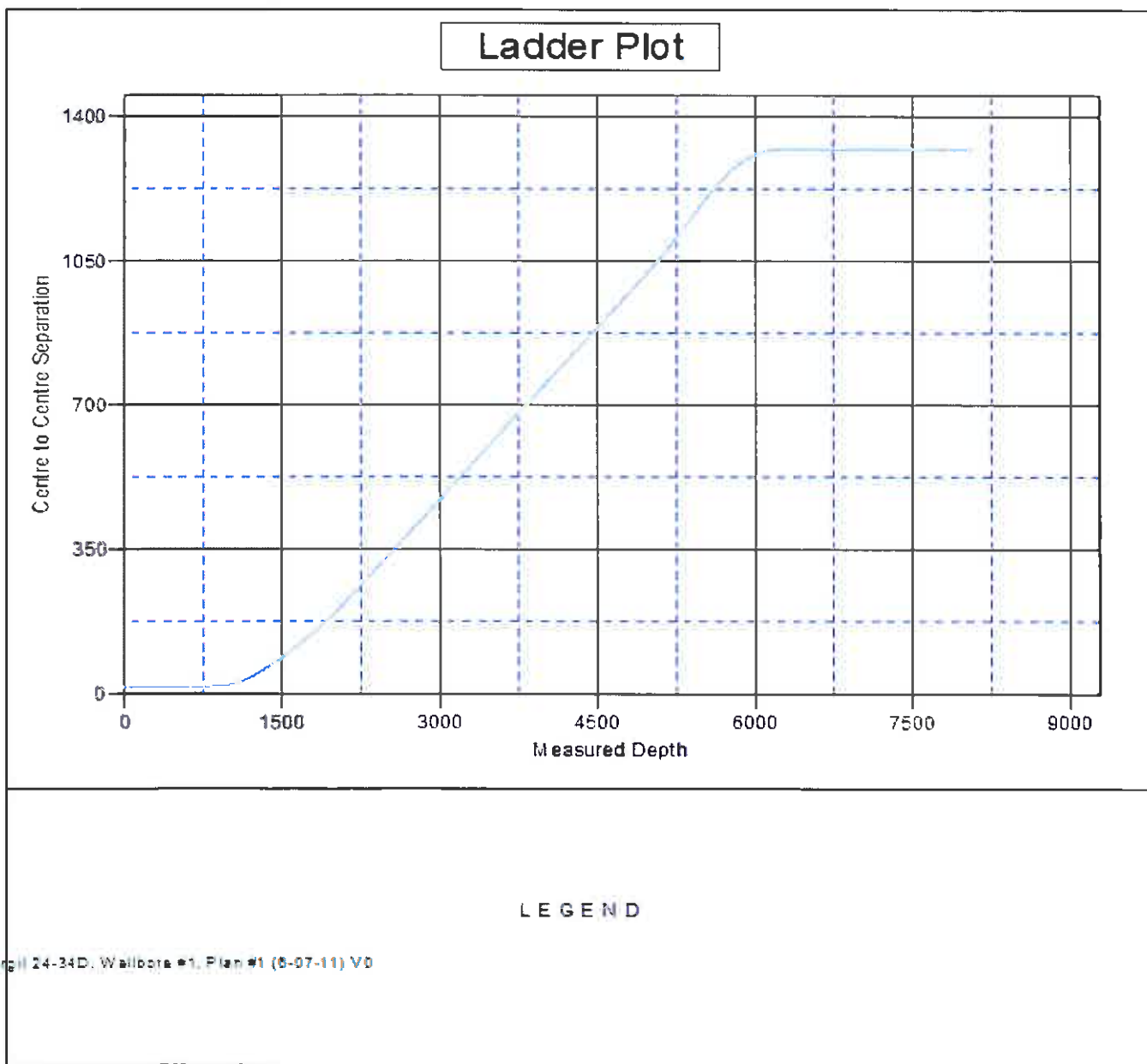
Reference Depths are relative to WELL @ 5145.0ft (Original Well Elev) Coordinates are relative to: SRC Margil 14-34D

Offset Depths are relative to Offset Datum

Central Meridian Is -105.500000 °

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.32°



<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Margil 14-34D
<b>Project:</b>	SEC.34-T4N-R68W	<b>TVD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Margil 13-34D Pad Sec.34-T4N-R68W	<b>MD Reference:</b>	WELL @ 5145.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Margil 14-34D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (6-07-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5145.0ft (Original Well Elev) Coordinates are relative to: SRC Margil 14-34D  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is -105.500000 ° Grid Convergence at Surface Is: 0.32°

