

# ENSIGN

## Directional

### Well Name: SRC Haythorn 32-36D

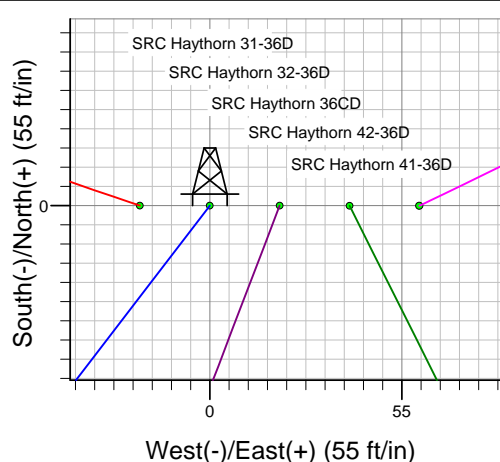
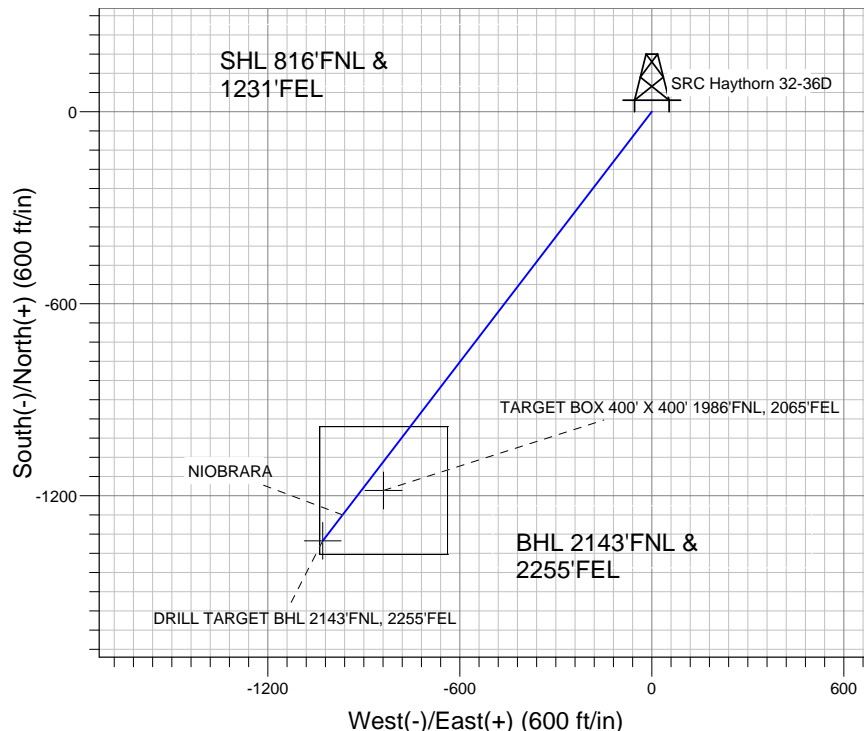
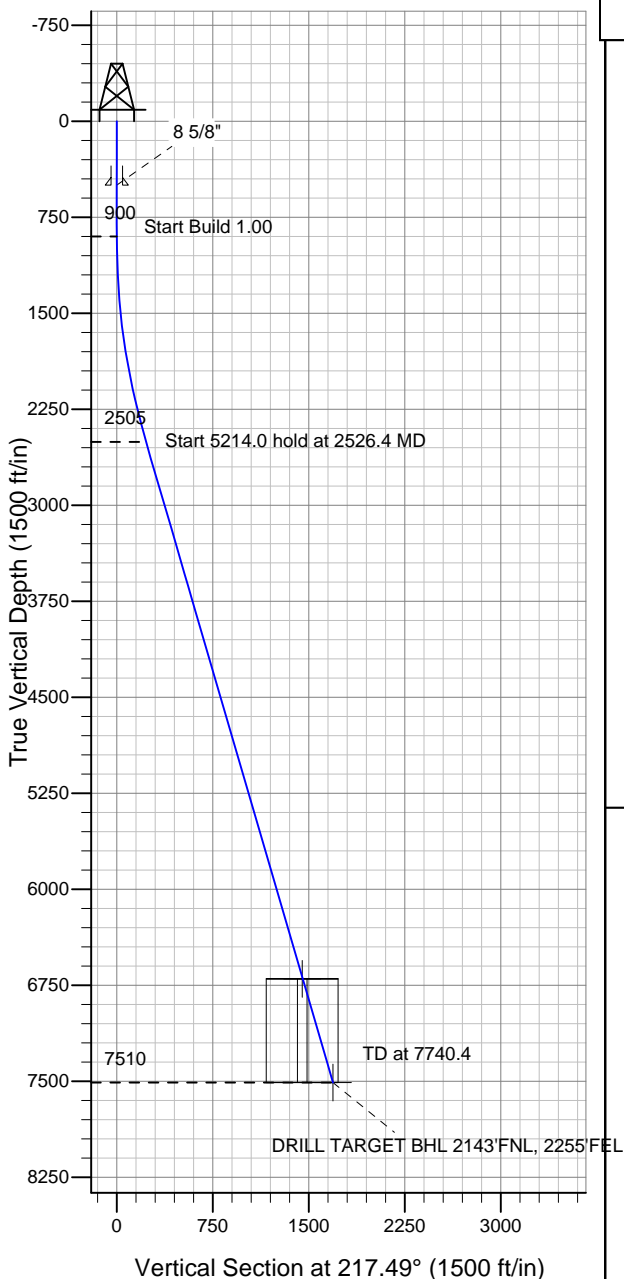
Surface Location: SRC Haythorn 31-36D Pad Sec.36-T7N-R66W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4853.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1439386.22	3216717.93	40.536900	-104.720283	

Original Well Elev WELL @ 4866.0ft (Original Well Elev)

## Synergy Resources



SRC Haythorn 31-36D Pad Sec.36-T7N-R66W  
SRC Haythorn 32-36D  
Plan #1 (2-16-11)  
18:18, February 17 2011



Azimuths to True North  
Magnetic North: 8.85°

Magnetic Field  
Strength: 53263.4nT  
Dip Angle: 67.19°  
Date: 2/16/2011  
Model: IGRF200510

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BOX 400' X 400' 1986'FNL, 2065'FEL	6700.0	-1183.7	-838.2	40.533651	-104.723298	Rectangle (Sides: L400.0 W400.0)
DRILL TARGET BHL 2143'FNL, 2255'FEL	7510.0	-1340.7	-1028.2	40.533220	-104.723982	Point

### 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	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	2526.4	16.26	217.49	2504.7	-181.9	-139.5	1.00	217.49	229.3	
4	7740.4	16.26	217.49	7510.0	-1340.7	-1028.2	0.00	0.00	1689.6	DRILL TARGET BHL 2143'FNL, 2255'FEL



## **Synergy Resources**

**SEC.36-T7N-R66W**

**SRC Haythorn 31-36D Pad Sec.36-T7N-R66W**

**SRC Haythorn 32-36D**

**Wellbore #1**

**Plan: Plan #1 (2-16-11)**

## **Standard Planning Report**

**17 February, 2011**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

<b>Project</b>	SEC.36-T7N-R66W, 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 Haythorn 31-36D Pad Sec.36-T7N-R66W											
Site Position:						Northing:			1,439,386.06 ft			Latitude:			40.536900		
From:			Lat/Long			Easting:			3,216,697.92 ft			Longitude:			-104.720355		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.50 °		

Well	SRC Haythorn 32-36D					
Well Position	+N/-S	0.0 ft	Northing:	1,439,386.22 ft	Latitude:	40.536900
	+E/-W	20.0 ft	Easting:	3,216,717.93 ft	Longitude:	-104.720283
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,853.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	2/16/2011	8.86	67.19	53,263

<b>Design</b>	Plan #1 (2-16-11)			
<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	217.49

<b>Plan Sections</b>										
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	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,526.4	16.26	217.49	2,504.7	-181.9	-139.5	1.00	1.00	0.00	217.49	
7,740.4	16.26	217.49	7,510.0	-1,340.7	-1,028.2	0.00	0.00	0.00	0.00	DRILL TARGET B-

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

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
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
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
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
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
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.20	217.49	920.0	0.0	0.0	0.0	1.00	1.00	0.00
960.0	0.60	217.49	960.0	-0.2	-0.2	0.3	1.00	1.00	0.00
1,000.0	1.00	217.49	1,000.0	-0.7	-0.5	0.9	1.00	1.00	0.00
1,040.0	1.40	217.49	1,040.0	-1.4	-1.0	1.7	1.00	1.00	0.00
1,080.0	1.80	217.49	1,080.0	-2.2	-1.7	2.8	1.00	1.00	0.00
1,120.0	2.20	217.49	1,119.9	-3.4	-2.6	4.2	1.00	1.00	0.00
1,160.0	2.60	217.49	1,159.9	-4.7	-3.6	5.9	1.00	1.00	0.00
1,200.0	3.00	217.49	1,199.9	-6.2	-4.8	7.9	1.00	1.00	0.00
1,240.0	3.40	217.49	1,239.8	-8.0	-6.1	10.1	1.00	1.00	0.00
1,280.0	3.80	217.49	1,279.7	-10.0	-7.7	12.6	1.00	1.00	0.00
1,320.0	4.20	217.49	1,319.6	-12.2	-9.4	15.4	1.00	1.00	0.00
1,360.0	4.60	217.49	1,359.5	-14.6	-11.2	18.5	1.00	1.00	0.00
1,400.0	5.00	217.49	1,399.4	-17.3	-13.3	21.8	1.00	1.00	0.00
1,440.0	5.40	217.49	1,439.2	-20.2	-15.5	25.4	1.00	1.00	0.00
1,480.0	5.80	217.49	1,479.0	-23.3	-17.9	29.3	1.00	1.00	0.00
1,520.0	6.20	217.49	1,518.8	-26.6	-20.4	33.5	1.00	1.00	0.00
1,560.0	6.60	217.49	1,558.5	-30.1	-23.1	38.0	1.00	1.00	0.00
1,600.0	7.00	217.49	1,598.3	-33.9	-26.0	42.7	1.00	1.00	0.00
1,640.0	7.40	217.49	1,637.9	-37.9	-29.0	47.7	1.00	1.00	0.00
1,680.0	7.80	217.49	1,677.6	-42.1	-32.3	53.0	1.00	1.00	0.00
1,720.0	8.20	217.49	1,717.2	-46.5	-35.6	58.6	1.00	1.00	0.00
1,760.0	8.60	217.49	1,756.8	-51.1	-39.2	64.4	1.00	1.00	0.00
1,800.0	9.00	217.49	1,796.3	-56.0	-42.9	70.5	1.00	1.00	0.00
1,840.0	9.40	217.49	1,835.8	-61.0	-46.8	76.9	1.00	1.00	0.00
1,880.0	9.80	217.49	1,875.2	-66.3	-50.9	83.6	1.00	1.00	0.00
1,920.0	10.20	217.49	1,914.6	-71.9	-55.1	90.6	1.00	1.00	0.00
1,960.0	10.60	217.49	1,954.0	-77.6	-59.5	97.8	1.00	1.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

#### 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)
2,000.0	11.00	217.49	1,993.3	-83.5	-64.1	105.3	1.00	1.00	0.00
2,040.0	11.40	217.49	2,032.5	-89.7	-68.8	113.0	1.00	1.00	0.00
2,080.0	11.80	217.49	2,071.7	-96.1	-73.7	121.1	1.00	1.00	0.00
2,120.0	12.20	217.49	2,110.8	-102.7	-78.7	129.4	1.00	1.00	0.00
2,160.0	12.60	217.49	2,149.9	-109.5	-84.0	138.0	1.00	1.00	0.00
2,200.0	13.00	217.49	2,188.9	-116.5	-89.4	146.8	1.00	1.00	0.00
2,240.0	13.40	217.49	2,227.8	-123.8	-94.9	156.0	1.00	1.00	0.00
2,280.0	13.80	217.49	2,266.7	-131.2	-100.7	165.4	1.00	1.00	0.00
2,320.0	14.20	217.49	2,305.5	-138.9	-106.5	175.1	1.00	1.00	0.00
2,360.0	14.60	217.49	2,344.3	-146.8	-112.6	185.0	1.00	1.00	0.00
2,400.0	15.00	217.49	2,382.9	-154.9	-118.8	195.2	1.00	1.00	0.00
2,440.0	15.40	217.49	2,421.5	-163.2	-125.2	205.7	1.00	1.00	0.00
2,480.0	15.80	217.49	2,460.1	-171.8	-131.7	216.5	1.00	1.00	0.00
2,520.0	16.20	217.49	2,498.5	-180.5	-138.5	227.5	1.00	1.00	0.00
2,526.4	16.26	217.49	2,504.7	-181.9	-139.5	229.3	1.00	1.00	0.00
2,560.0	16.26	217.49	2,536.9	-189.4	-145.3	238.7	0.00	0.00	0.00
2,600.0	16.26	217.49	2,575.3	-198.3	-152.1	249.9	0.00	0.00	0.00
2,640.0	16.26	217.49	2,613.7	-207.2	-158.9	261.1	0.00	0.00	0.00
2,680.0	16.26	217.49	2,652.1	-216.1	-165.7	272.3	0.00	0.00	0.00
2,720.0	16.26	217.49	2,690.5	-225.0	-172.5	283.5	0.00	0.00	0.00
2,760.0	16.26	217.49	2,728.9	-233.9	-179.4	294.7	0.00	0.00	0.00
2,800.0	16.26	217.49	2,767.3	-242.7	-186.2	305.9	0.00	0.00	0.00
2,840.0	16.26	217.49	2,805.7	-251.6	-193.0	317.1	0.00	0.00	0.00
2,880.0	16.26	217.49	2,844.1	-260.5	-199.8	328.3	0.00	0.00	0.00
2,920.0	16.26	217.49	2,882.5	-269.4	-206.6	339.5	0.00	0.00	0.00
2,960.0	16.26	217.49	2,920.9	-278.3	-213.4	350.7	0.00	0.00	0.00
3,000.0	16.26	217.49	2,959.3	-287.2	-220.3	361.9	0.00	0.00	0.00
3,040.0	16.26	217.49	2,997.7	-296.1	-227.1	373.1	0.00	0.00	0.00
3,080.0	16.26	217.49	3,036.1	-305.0	-233.9	384.3	0.00	0.00	0.00
3,120.0	16.26	217.49	3,074.5	-313.9	-240.7	395.5	0.00	0.00	0.00
3,160.0	16.26	217.49	3,112.9	-322.7	-247.5	406.7	0.00	0.00	0.00
3,200.0	16.26	217.49	3,151.3	-331.6	-254.3	417.9	0.00	0.00	0.00
3,240.0	16.26	217.49	3,189.7	-340.5	-261.2	429.1	0.00	0.00	0.00
3,280.0	16.26	217.49	3,228.1	-349.4	-268.0	440.3	0.00	0.00	0.00
3,320.0	16.26	217.49	3,266.5	-358.3	-274.8	451.5	0.00	0.00	0.00
3,360.0	16.26	217.49	3,304.9	-367.2	-281.6	462.8	0.00	0.00	0.00
3,400.0	16.26	217.49	3,343.3	-376.1	-288.4	474.0	0.00	0.00	0.00
3,440.0	16.26	217.49	3,381.7	-385.0	-295.3	485.2	0.00	0.00	0.00
3,480.0	16.26	217.49	3,420.1	-393.9	-302.1	496.4	0.00	0.00	0.00
3,520.0	16.26	217.49	3,458.5	-402.7	-308.9	507.6	0.00	0.00	0.00
3,560.0	16.26	217.49	3,496.9	-411.6	-315.7	518.8	0.00	0.00	0.00
3,600.0	16.26	217.49	3,535.3	-420.5	-322.5	530.0	0.00	0.00	0.00
3,640.0	16.26	217.49	3,573.7	-429.4	-329.3	541.2	0.00	0.00	0.00
3,680.0	16.26	217.49	3,612.1	-438.3	-336.2	552.4	0.00	0.00	0.00
3,720.0	16.26	217.49	3,650.5	-447.2	-343.0	563.6	0.00	0.00	0.00
3,760.0	16.26	217.49	3,688.9	-456.1	-349.8	574.8	0.00	0.00	0.00
3,800.0	16.26	217.49	3,727.3	-465.0	-356.6	586.0	0.00	0.00	0.00
3,840.0	16.26	217.49	3,765.7	-473.9	-363.4	597.2	0.00	0.00	0.00
3,880.0	16.26	217.49	3,804.1	-482.8	-370.2	608.4	0.00	0.00	0.00
3,920.0	16.26	217.49	3,842.5	-491.6	-377.1	619.6	0.00	0.00	0.00
3,960.0	16.26	217.49	3,880.9	-500.5	-383.9	630.8	0.00	0.00	0.00
4,000.0	16.26	217.49	3,919.3	-509.4	-390.7	642.0	0.00	0.00	0.00
4,040.0	16.26	217.49	3,957.7	-518.3	-397.5	653.2	0.00	0.00	0.00

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<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad	<b>North Reference:</b>	True
	Sec.36-T7N-R66W		
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

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)
4,080.0	16.26	217.49	3,996.1	-527.2	-404.3	664.4	0.00	0.00	0.00
4,120.0	16.26	217.49	4,034.5	-536.1	-411.2	675.6	0.00	0.00	0.00
4,160.0	16.26	217.49	4,072.9	-545.0	-418.0	686.8	0.00	0.00	0.00
4,200.0	16.26	217.49	4,111.3	-553.9	-424.8	698.0	0.00	0.00	0.00
4,240.0	16.26	217.49	4,149.7	-562.8	-431.6	709.2	0.00	0.00	0.00
4,280.0	16.26	217.49	4,188.1	-571.6	-438.4	720.4	0.00	0.00	0.00
4,320.0	16.26	217.49	4,226.5	-580.5	-445.2	731.6	0.00	0.00	0.00
4,360.0	16.26	217.49	4,264.9	-589.4	-452.1	742.8	0.00	0.00	0.00
4,400.0	16.26	217.49	4,303.3	-598.3	-458.9	754.0	0.00	0.00	0.00
4,440.0	16.26	217.49	4,341.7	-607.2	-465.7	765.2	0.00	0.00	0.00
4,480.0	16.26	217.49	4,380.1	-616.1	-472.5	776.4	0.00	0.00	0.00
4,520.0	16.26	217.49	4,418.5	-625.0	-479.3	787.6	0.00	0.00	0.00
4,560.0	16.26	217.49	4,456.9	-633.9	-486.1	798.8	0.00	0.00	0.00
4,600.0	16.26	217.49	4,495.3	-642.8	-493.0	810.0	0.00	0.00	0.00
4,640.0	16.26	217.49	4,533.7	-651.6	-499.8	821.2	0.00	0.00	0.00
4,680.0	16.26	217.49	4,572.1	-660.5	-506.6	832.4	0.00	0.00	0.00
4,720.0	16.26	217.49	4,610.5	-669.4	-513.4	843.6	0.00	0.00	0.00
4,760.0	16.26	217.49	4,648.9	-678.3	-520.2	854.8	0.00	0.00	0.00
4,800.0	16.26	217.49	4,687.3	-687.2	-527.1	866.0	0.00	0.00	0.00
4,840.0	16.26	217.49	4,725.7	-696.1	-533.9	877.2	0.00	0.00	0.00
4,880.0	16.26	217.49	4,764.1	-705.0	-540.7	888.5	0.00	0.00	0.00
4,920.0	16.26	217.49	4,802.5	-713.9	-547.5	899.7	0.00	0.00	0.00
4,960.0	16.26	217.49	4,840.9	-722.8	-554.3	910.9	0.00	0.00	0.00
5,000.0	16.26	217.49	4,879.3	-731.7	-561.1	922.1	0.00	0.00	0.00
5,040.0	16.26	217.49	4,917.7	-740.5	-568.0	933.3	0.00	0.00	0.00
5,080.0	16.26	217.49	4,956.1	-749.4	-574.8	944.5	0.00	0.00	0.00
5,120.0	16.26	217.49	4,994.5	-758.3	-581.6	955.7	0.00	0.00	0.00
5,160.0	16.26	217.49	5,032.9	-767.2	-588.4	966.9	0.00	0.00	0.00
5,200.0	16.26	217.49	5,071.3	-776.1	-595.2	978.1	0.00	0.00	0.00
5,240.0	16.26	217.49	5,109.7	-785.0	-602.0	989.3	0.00	0.00	0.00
5,280.0	16.26	217.49	5,148.0	-793.9	-608.9	1,000.5	0.00	0.00	0.00
5,320.0	16.26	217.49	5,186.4	-802.8	-615.7	1,011.7	0.00	0.00	0.00
5,360.0	16.26	217.49	5,224.8	-811.7	-622.5	1,022.9	0.00	0.00	0.00
5,400.0	16.26	217.49	5,263.2	-820.5	-629.3	1,034.1	0.00	0.00	0.00
5,440.0	16.26	217.49	5,301.6	-829.4	-636.1	1,045.3	0.00	0.00	0.00
5,480.0	16.26	217.49	5,340.0	-838.3	-643.0	1,056.5	0.00	0.00	0.00
5,520.0	16.26	217.49	5,378.4	-847.2	-649.8	1,067.7	0.00	0.00	0.00
5,560.0	16.26	217.49	5,416.8	-856.1	-656.6	1,078.9	0.00	0.00	0.00
5,600.0	16.26	217.49	5,455.2	-865.0	-663.4	1,090.1	0.00	0.00	0.00
5,640.0	16.26	217.49	5,493.6	-873.9	-670.2	1,101.3	0.00	0.00	0.00
5,680.0	16.26	217.49	5,532.0	-882.8	-677.0	1,112.5	0.00	0.00	0.00
5,720.0	16.26	217.49	5,570.4	-891.7	-683.9	1,123.7	0.00	0.00	0.00
5,760.0	16.26	217.49	5,608.8	-900.5	-690.7	1,134.9	0.00	0.00	0.00
5,800.0	16.26	217.49	5,647.2	-909.4	-697.5	1,146.1	0.00	0.00	0.00
5,840.0	16.26	217.49	5,685.6	-918.3	-704.3	1,157.3	0.00	0.00	0.00
5,880.0	16.26	217.49	5,724.0	-927.2	-711.1	1,168.5	0.00	0.00	0.00
5,920.0	16.26	217.49	5,762.4	-936.1	-717.9	1,179.7	0.00	0.00	0.00
5,960.0	16.26	217.49	5,800.8	-945.0	-724.8	1,190.9	0.00	0.00	0.00
6,000.0	16.26	217.49	5,839.2	-953.9	-731.6	1,202.1	0.00	0.00	0.00
6,040.0	16.26	217.49	5,877.6	-962.8	-738.4	1,213.3	0.00	0.00	0.00
6,080.0	16.26	217.49	5,916.0	-971.7	-745.2	1,224.5	0.00	0.00	0.00
6,120.0	16.26	217.49	5,954.4	-980.6	-752.0	1,235.7	0.00	0.00	0.00
6,160.0	16.26	217.49	5,992.8	-989.4	-758.9	1,246.9	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

#### 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)
6,200.0	16.26	217.49	6,031.2	-998.3	-765.7	1,258.1	0.00	0.00	0.00
6,240.0	16.26	217.49	6,069.6	-1,007.2	-772.5	1,269.3	0.00	0.00	0.00
6,280.0	16.26	217.49	6,108.0	-1,016.1	-779.3	1,280.5	0.00	0.00	0.00
6,320.0	16.26	217.49	6,146.4	-1,025.0	-786.1	1,291.7	0.00	0.00	0.00
6,360.0	16.26	217.49	6,184.8	-1,033.9	-792.9	1,302.9	0.00	0.00	0.00
6,400.0	16.26	217.49	6,223.2	-1,042.8	-799.8	1,314.2	0.00	0.00	0.00
6,440.0	16.26	217.49	6,261.6	-1,051.7	-806.6	1,325.4	0.00	0.00	0.00
6,480.0	16.26	217.49	6,300.0	-1,060.6	-813.4	1,336.6	0.00	0.00	0.00
6,520.0	16.26	217.49	6,338.4	-1,069.4	-820.2	1,347.8	0.00	0.00	0.00
6,560.0	16.26	217.49	6,376.8	-1,078.3	-827.0	1,359.0	0.00	0.00	0.00
6,600.0	16.26	217.49	6,415.2	-1,087.2	-833.8	1,370.2	0.00	0.00	0.00
6,640.0	16.26	217.49	6,453.6	-1,096.1	-840.7	1,381.4	0.00	0.00	0.00
6,680.0	16.26	217.49	6,492.0	-1,105.0	-847.5	1,392.6	0.00	0.00	0.00
6,720.0	16.26	217.49	6,530.4	-1,113.9	-854.3	1,403.8	0.00	0.00	0.00
6,760.0	16.26	217.49	6,568.8	-1,122.8	-861.1	1,415.0	0.00	0.00	0.00
6,800.0	16.26	217.49	6,607.2	-1,131.7	-867.9	1,426.2	0.00	0.00	0.00
6,840.0	16.26	217.49	6,645.6	-1,140.6	-874.8	1,437.4	0.00	0.00	0.00
6,880.0	16.26	217.49	6,684.0	-1,149.4	-881.6	1,448.6	0.00	0.00	0.00
6,895.6	16.26	217.49	6,699.0	-1,152.9	-884.2	1,452.9	0.00	0.00	0.00
<b>TARGET BOX 400' X 400' 1986'FNL, 2065'FEL</b>									
6,920.0	16.26	217.49	6,722.4	-1,158.3	-888.4	1,459.8	0.00	0.00	0.00
6,960.0	16.26	217.49	6,760.8	-1,167.2	-895.2	1,471.0	0.00	0.00	0.00
7,000.0	16.26	217.49	6,799.2	-1,176.1	-902.0	1,482.2	0.00	0.00	0.00
7,040.0	16.26	217.49	6,837.6	-1,185.0	-908.8	1,493.4	0.00	0.00	0.00
7,080.0	16.26	217.49	6,876.0	-1,193.9	-915.7	1,504.6	0.00	0.00	0.00
7,120.0	16.26	217.49	6,914.4	-1,202.8	-922.5	1,515.8	0.00	0.00	0.00
7,160.0	16.26	217.49	6,952.8	-1,211.7	-929.3	1,527.0	0.00	0.00	0.00
7,200.0	16.26	217.49	6,991.2	-1,220.6	-936.1	1,538.2	0.00	0.00	0.00
7,240.0	16.26	217.49	7,029.6	-1,229.5	-942.9	1,549.4	0.00	0.00	0.00
7,280.0	16.26	217.49	7,068.0	-1,238.3	-949.7	1,560.6	0.00	0.00	0.00
7,320.0	16.26	217.49	7,106.4	-1,247.2	-956.6	1,571.8	0.00	0.00	0.00
7,360.0	16.26	217.49	7,144.8	-1,256.1	-963.4	1,583.0	0.00	0.00	0.00
7,375.8	16.26	217.49	7,160.0	-1,259.6	-966.1	1,587.4	0.00	0.00	0.00
<b>NIOBRARA</b>									
7,400.0	16.26	217.49	7,183.2	-1,265.0	-970.2	1,594.2	0.00	0.00	0.00
7,440.0	16.26	217.49	7,221.6	-1,273.9	-977.0	1,605.4	0.00	0.00	0.00
7,480.0	16.26	217.49	7,260.0	-1,282.8	-983.8	1,616.6	0.00	0.00	0.00
7,520.0	16.26	217.49	7,298.4	-1,291.7	-990.7	1,627.8	0.00	0.00	0.00
7,560.0	16.26	217.49	7,336.8	-1,300.6	-997.5	1,639.0	0.00	0.00	0.00
7,600.0	16.26	217.49	7,375.2	-1,309.5	-1,004.3	1,650.2	0.00	0.00	0.00
7,640.0	16.26	217.49	7,413.6	-1,318.3	-1,011.1	1,661.4	0.00	0.00	0.00
7,680.0	16.26	217.49	7,452.0	-1,327.2	-1,017.9	1,672.6	0.00	0.00	0.00
7,720.0	16.26	217.49	7,490.4	-1,336.1	-1,024.7	1,683.8	0.00	0.00	0.00
7,740.4	16.26	217.49	7,510.0	-1,340.7	-1,028.2	1,689.6	0.00	0.00	0.00
<b>DRILL TARGET BHL 2143'FNL, 2255'FEL</b>									

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Company:</b>	Synergy Resources	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Project:</b>	SEC.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	SRC Haythorn 32-36D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (2-16-11)		

## 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									
TARGET BOX 400' X	0.00	0.00	6,700.0	-1,183.7	-838.2	1,438,195.23	3,215,890.20	40.533651	-104.723298
- plan misses target center by 55.4ft at 6895.6ft MD (6699.0 TVD, -1152.9 N, -884.2 E)									
- Rectangle (sides W400.0 H400.0 D810.0)									
DRILL TARGET BHL	0.00	0.00	7,510.0	-1,340.7	-1,028.2	1,438,036.61	3,215,701.58	40.533220	-104.723982
- plan hits target center									
- Point									

## Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
500.0	500.0	8 5/8"	8-5/8	12-1/4

## Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,375.8	7,160.0	NIOBRARA		0.00	





## **Directional**

### **Synergy Resources**

**SEC.36-T7N-R66W**

**SRC Haythorn 31-36D Pad Sec.36-T7N-R66W**

**SRC Haythorn 32-36D**

**Wellbore #1**

**Plan #1 (2-16-11)**

## **Anticollision Report**

**17 February, 2011**

<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Project:</b>	SEC.36-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Haythorn 32-36D	<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 (2-16-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (2-16-11)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 2/17/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,740.4	Plan #1 (2-16-11) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>	
<b>Offset Well - Wellbore - Design</b>						
SRC Haythorn 31-36D Pad Sec.36-T7N-R66W						
SRC Haythorn 31-36D - Wellbore #1 - Plan #1 (2-16-11)	700.0	700.0	20.0	17.1	6.849	CC, ES
SRC Haythorn 31-36D - Wellbore #1 - Plan #1 (2-16-11)	900.0	899.3	23.3	19.5	6.147	SF
SRC Haythorn 36CD - Wellbore #1 - Plan #1 (2-16-11)	900.0	900.0	20.0	16.2	5.238	CC, ES
SRC Haythorn 36CD - Wellbore #1 - Plan #1 (2-16-11)	1,100.0	1,100.0	22.3	17.7	4.798	SF

<b>Offset Design</b>												
SRC Haythorn 31-36D Pad Sec.36-T7N-R66W - SRC Haythorn 31-36D - Wellbore #1 - Plan #1 (2-16-11)												
Survey Program: 0-MWD												
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Minimum Separation</b>		<b>Separation Factor</b>	<b>Warning</b>			
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-20.0	20.0			
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-20.0	20.0	19.8	0.22	89.039
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-20.0	20.0	19.3	0.67	29.680
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-20.0	20.0	18.9	1.12	17.808
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-20.0	20.0	18.4	1.57	12.720
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-20.0	20.0	18.0	2.02	9.893
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-20.0	20.0	17.5	2.47	8.094
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-20.0	20.0	17.1	2.92	6.849 CC, ES
800.0	800.0	799.7	799.7	1.7	1.7	-89.20	0.3	-20.8	20.8	17.5	3.36	6.199
900.0	900.0	899.3	899.2	1.9	1.9	-87.23	1.1	-23.3	23.3	19.5	3.80	6.147 SF
1,000.0	1,000.0	998.7	998.6	2.1	2.1	59.29	2.5	-27.4	27.1	22.9	4.21	6.437
1,100.0	1,100.0	1,098.1	1,097.8	2.3	2.3	65.54	4.5	-33.1	31.9	27.3	4.60	6.927
1,200.0	1,199.9	1,197.2	1,196.6	2.5	2.6	72.58	6.9	-40.4	38.1	33.1	5.01	7.611
1,300.0	1,299.7	1,296.0	1,294.9	2.7	2.8	79.40	10.0	-49.3	46.2	40.8	5.44	8.494
1,400.0	1,399.4	1,394.5	1,392.8	2.9	3.1	85.47	13.5	-59.8	56.2	50.3	5.88	9.554
1,500.0	1,498.9	1,492.6	1,490.0	3.1	3.3	90.61	17.6	-71.8	68.3	62.0	6.36	10.750
1,600.0	1,598.3	1,590.2	1,586.6	3.4	3.6	94.86	22.2	-85.4	82.5	75.7	6.85	12.040
1,700.0	1,697.4	1,688.6	1,683.8	3.6	4.0	98.56	27.2	-100.0	98.2	90.9	7.38	13.310
1,800.0	1,796.3	1,787.0	1,781.0	3.9	4.3	102.04	32.2	-114.6	114.7	106.7	7.94	14.443
1,900.0	1,894.9	1,885.2	1,878.0	4.3	4.6	105.34	37.1	-129.3	131.9	123.3	8.53	15.466
2,000.0	1,993.3	1,983.3	1,974.8	4.6	4.9	108.46	42.1	-143.9	150.0	140.8	9.14	16.406
2,100.0	2,091.2	2,081.0	2,071.3	5.0	5.3	111.42	47.1	-158.4	169.1	159.3	9.78	17.286

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

<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Project:</b>	SEC.36-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Haythorn 32-36D	<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 (2-16-11)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design SRC Haythorn 31-36D Pad Sec.36-T7N-R66W - SRC Haythorn 31-36D - Wellbore #1 - Plan #1 (2-16-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							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		
2,200.0	2,188.9	2,178.5	2,167.6	5.4	5.6	114.22	52.0	-172.9	189.3	178.8	10.44	18.123		
2,300.0	2,286.1	2,275.7	2,263.6	5.8	6.0	116.86	56.9	-187.4	210.7	199.5	11.13	18.933		
2,400.0	2,382.9	2,372.6	2,359.3	6.2	6.3	119.35	61.8	-201.8	233.3	221.5	11.83	19.727		
2,500.0	2,479.3	2,469.1	2,454.6	6.7	6.7	121.68	66.7	-216.2	257.2	244.7	12.54	20.515		
2,526.4	2,504.7	2,494.6	2,479.7	6.9	6.7	122.28	68.0	-220.0	263.7	251.0	12.73	20.723		
2,600.0	2,575.3	2,565.4	2,549.6	7.3	7.0	123.96	71.6	-230.5	282.2	268.9	13.27	21.271		
2,700.0	2,671.3	2,661.6	2,644.7	7.8	7.3	125.93	76.4	-244.9	307.6	293.6	14.00	21.970		
2,800.0	2,767.3	2,757.8	2,739.7	8.3	7.7	127.59	81.3	-259.2	333.3	318.6	14.74	22.618		
2,900.0	2,863.3	2,854.0	2,834.7	8.9	8.0	129.02	86.2	-273.5	359.2	343.8	15.47	23.218		
3,000.0	2,959.3	2,950.2	2,929.7	9.4	8.4	130.26	91.0	-287.8	385.4	369.1	16.21	23.774		
3,100.0	3,055.3	3,046.4	3,024.7	10.0	8.7	131.34	95.9	-302.2	411.6	394.7	16.95	24.289		
3,200.0	3,151.3	3,142.7	3,119.8	10.5	9.1	132.29	100.8	-316.5	438.0	420.3	17.68	24.767		
3,300.0	3,247.3	3,238.9	3,214.8	11.1	9.4	133.14	105.6	-330.8	464.5	446.0	18.42	25.212		
3,400.0	3,343.3	3,335.1	3,309.8	11.7	9.8	133.89	110.5	-345.1	491.0	471.9	19.16	25.626		
3,500.0	3,439.3	3,431.3	3,404.8	12.2	10.2	134.57	115.4	-359.5	517.7	497.8	19.90	26.011		
3,600.0	3,535.3	3,527.5	3,499.8	12.8	10.5	135.18	120.3	-373.8	544.4	523.7	20.64	26.372		
3,700.0	3,631.3	3,623.7	3,594.9	13.4	10.9	135.73	125.1	-388.1	571.1	549.7	21.38	26.709		
3,800.0	3,727.3	3,720.0	3,689.9	13.9	11.2	136.23	130.0	-402.4	597.9	575.8	22.12	27.025		
3,900.0	3,823.3	3,816.2	3,784.9	14.5	11.6	136.69	134.9	-416.8	624.7	601.9	22.87	27.321		
4,000.0	3,919.3	3,912.4	3,879.9	15.1	11.9	137.11	139.7	-431.1	651.6	628.0	23.61	27.600		
4,100.0	4,015.3	4,008.6	3,974.9	15.7	12.3	137.50	144.6	-445.4	678.5	654.1	24.35	27.863		
4,200.0	4,111.3	4,104.8	4,070.0	16.2	12.6	137.86	149.5	-459.7	705.4	680.3	25.09	28.111		
4,300.0	4,207.3	4,201.0	4,165.0	16.8	13.0	138.20	154.3	-474.1	732.4	706.5	25.84	28.345		
4,400.0	4,303.3	4,297.3	4,260.0	17.4	13.4	138.51	159.2	-488.4	759.3	732.7	26.58	28.566		
4,500.0	4,399.3	4,393.5	4,355.0	18.0	13.7	138.79	164.1	-502.7	786.3	759.0	27.33	28.775		
4,600.0	4,495.3	4,489.7	4,450.0	18.6	14.1	139.06	168.9	-517.1	813.3	785.2	28.07	28.974		
4,700.0	4,591.3	4,585.9	4,545.1	19.1	14.4	139.32	173.8	-531.4	840.3	811.5	28.82	29.162		
4,800.0	4,687.3	4,682.1	4,640.1	19.7	14.8	139.55	178.7	-545.7	867.4	837.8	29.56	29.342		
4,900.0	4,783.3	4,778.3	4,735.1	20.3	15.1	139.77	183.5	-560.0	894.4	864.1	30.31	29.512		
5,000.0	4,879.3	4,874.6	4,830.1	20.9	15.5	139.98	188.4	-574.4	921.5	890.4	31.05	29.675		
5,100.0	4,975.3	4,970.8	4,925.1	21.5	15.9	140.18	193.3	-588.7	948.5	916.7	31.80	29.830		
5,200.0	5,071.3	5,067.0	5,020.2	22.0	16.2	140.37	198.2	-603.0	975.6	943.1	32.55	29.977		
5,300.0	5,167.2	5,163.2	5,115.2	22.6	16.6	140.54	203.0	-617.3	1,002.7	969.4	33.29	30.119		
5,400.0	5,263.2	5,259.4	5,210.2	23.2	16.9	140.71	207.9	-631.7	1,029.8	995.8	34.04	30.254		
5,500.0	5,359.2	5,355.6	5,305.2	23.8	17.3	140.87	212.8	-646.0	1,056.9	1,022.1	34.79	30.383		
5,600.0	5,455.2	5,451.9	5,400.2	24.4	17.6	141.02	217.6	-660.3	1,084.0	1,048.5	35.53	30.507		
5,700.0	5,551.2	5,548.1	5,495.3	25.0	18.0	141.16	222.5	-674.6	1,111.1	1,074.9	36.28	30.626		
5,800.0	5,647.2	5,644.3	5,590.3	25.6	18.4	141.30	227.4	-689.0	1,138.3	1,101.2	37.03	30.740		
5,900.0	5,743.2	5,740.5	5,685.3	26.1	18.7	141.43	232.2	-703.3	1,165.4	1,127.6	37.78	30.850		
6,000.0	5,839.2	5,836.7	5,780.3	26.7	19.1	141.55	237.1	-717.6	1,192.5	1,154.0	38.52	30.955		
6,100.0	5,935.2	5,932.9	5,875.3	27.3	19.4	141.67	242.0	-731.9	1,219.7	1,180.4	39.27	31.056		
6,200.0	6,031.2	6,029.2	5,970.4	27.9	19.8	141.78	246.8	-746.3	1,246.8	1,206.8	40.02	31.153		
6,300.0	6,127.2	6,125.4	6,065.4	28.5	20.2	141.89	251.7	-760.6	1,274.0	1,233.2	40.77	31.247		
6,400.0	6,223.2	6,221.6	6,160.4	29.1	20.5	141.99	256.6	-774.9	1,301.1	1,259.6	41.52	31.338		
6,500.0	6,319.2	6,317.8	6,255.4	29.7	20.9	142.09	261.5	-789.2	1,328.3	1,286.0	42.27	31.425		
6,600.0	6,415.2	6,414.0	6,350.4	30.2	21.2	142.19	266.3	-803.6	1,355.4	1,312.4	43.02	31.509		
6,700.0	6,511.2	6,510.2	6,445.4	30.8	21.6	142.28	271.2	-817.9	1,382.6	1,338.8	43.77	31.590		
6,800.0	6,607.2	6,606.5	6,540.5	31.4	22.0	142.37	276.1	-832.2	1,409.8	1,365.2	44.52	31.668		
6,900.0	6,703.2	6,702.7	6,635.5	32.0	22.3	142.46	280.9	-846.5	1,436.9	1,391.7	45.27	31.744		
7,000.0	6,799.2	6,798.9	6,730.5	32.6	22.7	142.54	285.8	-860.9	1,464.1	1,418.1	46.02	31.817		
7,100.0	6,895.2	6,895.1	6,825.5	33.2	23.0	142.62	290.7	-875.2	1,491.3	1,444.5	46.77	31.888		

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

<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Project:</b>	SEC.36-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Haythorn 32-36D	<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 (2-16-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SRC Haythorn 31-36D Pad Sec.36-T7N-R66W - SRC Haythorn 31-36D - Wellbore #1 - Plan #1 (2-16-11)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
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	Warning
7,200.0	6,991.2	6,991.3	6,920.5	33.8	23.4	142.69	295.5	-889.5	1,518.5	1,470.9	47.52	31.956	
7,300.0	7,087.2	7,087.5	7,015.6	34.3	23.8	142.77	300.4	-903.9	1,545.6	1,497.4	48.27	32.023	
7,400.0	7,183.2	7,183.8	7,110.6	34.9	24.1	142.84	305.3	-918.2	1,572.8	1,523.8	49.02	32.087	
7,500.0	7,279.2	7,280.0	7,205.6	35.5	24.5	142.90	310.1	-932.5	1,600.0	1,550.2	49.77	32.149	
7,600.0	7,375.2	7,376.2	7,300.6	36.1	24.8	142.97	315.0	-946.8	1,627.2	1,576.7	50.52	32.210	
7,700.0	7,471.2	7,472.4	7,395.6	36.7	25.2	143.04	319.9	-961.2	1,654.4	1,603.1	51.27	32.268	
7,740.4	7,510.0	7,511.3	7,434.0	36.9	25.3	143.06	321.8	-966.9	1,665.4	1,613.8	51.57	32.292	

SRC Haythorn 31-36D Pad Sec.36-T7N-R66W - SRC Haythorn 36CD - Wellbore #1 - Plan #1 (2-16-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							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		
0.0	0.0	0.0	0.0	0.0	0.0	90.01	0.0	20.0	20.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.01	0.0	20.0	20.0	19.8	0.22	89.039		
200.0	200.0	200.0	200.0	0.3	0.3	90.01	0.0	20.0	20.0	19.3	0.67	29.680		
300.0	300.0	300.0	300.0	0.6	0.6	90.01	0.0	20.0	20.0	18.9	1.12	17.808		
400.0	400.0	400.0	400.0	0.8	0.8	90.01	0.0	20.0	20.0	18.4	1.57	12.720		
500.0	500.0	500.0	500.0	1.0	1.0	90.01	0.0	20.0	20.0	18.0	2.02	9.893		
600.0	600.0	600.0	600.0	1.2	1.2	90.01	0.0	20.0	20.0	17.5	2.47	8.094		
700.0	700.0	700.0	700.0	1.5	1.5	90.01	0.0	20.0	20.0	17.1	2.92	6.849		
800.0	800.0	800.0	800.0	1.7	1.7	90.01	0.0	20.0	20.0	16.6	3.37	5.936		
900.0	900.0	900.0	900.0	1.9	1.9	90.01	0.0	20.0	20.0	16.2	3.82	5.238 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-129.40	0.0	20.0	20.6	16.3	4.24	4.842		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	-134.59	0.0	20.0	22.3	17.7	4.65	4.798 SF		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	-141.55	0.0	20.0	25.6	20.5	5.06	5.050		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	-148.65	0.0	20.0	30.6	25.1	5.48	5.582		
1,400.0	1,399.4	1,399.8	1,399.8	2.9	3.0	-153.99	-0.8	19.7	36.9	31.0	5.87	6.277		
1,500.0	1,498.9	1,500.1	1,500.1	3.1	3.2	-157.18	-3.3	18.8	43.6	37.4	6.25	6.984		
1,600.0	1,598.3	1,600.5	1,600.4	3.4	3.4	-159.00	-7.4	17.2	50.7	44.1	6.63	7.649		
1,700.0	1,697.4	1,701.0	1,700.7	3.6	3.6	-159.92	-13.1	15.0	58.1	51.1	7.03	8.266		
1,800.0	1,796.3	1,801.6	1,800.9	3.9	3.8	-160.24	-20.5	12.2	65.7	58.3	7.44	8.834		
1,900.0	1,894.9	1,901.4	1,900.4	4.3	4.0	-160.38	-29.0	9.0	74.0	66.1	7.86	9.413		
2,000.0	1,993.3	2,000.9	1,999.5	4.6	4.2	-160.87	-37.5	5.7	83.9	75.6	8.29	10.117		
2,100.0	2,091.2	2,100.3	2,098.4	5.0	4.4	-161.58	-45.9	2.5	95.4	86.7	8.73	10.931		
2,200.0	2,188.9	2,199.4	2,197.1	5.4	4.7	-162.40	-54.4	-0.7	108.6	99.4	9.17	11.842		
2,300.0	2,286.1	2,298.3	2,295.5	5.8	4.9	-163.28	-62.8	-4.0	123.4	113.8	9.61	12.838		
2,400.0	2,382.9	2,396.9	2,393.7	6.2	5.1	-164.15	-71.2	-7.2	140.0	129.9	10.06	13.908		
2,500.0	2,479.3	2,495.1	2,491.6	6.7	5.4	-165.00	-79.6	-10.4	158.2	147.7	10.52	15.041		
2,526.4	2,504.7	2,521.1	2,517.4	6.9	5.4	-165.22	-81.8	-11.2	163.3	152.7	10.64	15.350		
2,600.0	2,575.3	2,593.2	2,589.3	7.3	5.6	-165.80	-87.9	-13.5	177.7	166.7	11.00	16.157		
2,700.0	2,671.3	2,691.3	2,686.9	7.8	5.9	-166.45	-96.3	-16.7	197.2	185.8	11.49	17.168		
2,800.0	2,767.3	2,789.3	2,784.5	8.3	6.1	-166.99	-104.6	-19.9	216.8	204.8	11.99	18.090		
2,900.0	2,863.3	2,887.3	2,882.2	8.9	6.4	-167.44	-113.0	-23.1	236.4	223.9	12.49	18.933		
3,000.0	2,959.3	2,985.4	2,979.8	9.4	6.6	-167.82	-121.3	-26.3	256.0	243.0	12.99	19.707		
3,100.0	3,055.3	3,083.4	3,077.5	10.0	6.9	-168.15	-129.7	-29.5	275.6	262.1	13.50	20.419		
3,200.0	3,151.3	3,181.5	3,175.1	10.5	7.2	-168.43	-138.0	-32.7	295.3	281.3	14.01	21.076		
3,300.0	3,247.3	3,279.5	3,272.7	11.1	7.4	-168.68	-146.4	-35.9	314.9	300.4	14.52	21.683		
3,400.0	3,343.3	3,377.6	3,370.4	11.7	7.7	-168.90	-154.7	-39.1	334.5	319.5	15.04	22.246		
3,500.0	3,439.3	3,475.6	3,468.0	12.2	8.0	-169.09	-163.1	-42.3	354.2	338.6	15.56	22.768		
3,600.0	3,535.3	3,573.7	3,565.6	12.8	8.2	-169.26	-171.5	-45.4	373.8	357.7	16.07	23.255		
3,700.0	3,631.3	3,671.7	3,663.3	13.4	8.5	-169.42	-179.8	-48.6	393.5	376.9	16.60	23.709		
3,800.0	3,727.3	3,769.8	3,760.9	13.9	8.8	-169.56	-188.2	-51.8	413.1	396.0	17.12	24.133		
3,900.0	3,823.3	3,867.8	3,858.6	14.5	9.0	-169.69	-196.5	-55.0	432.8	415.1	17.64	24.530		
4,000.0	3,919.3	3,965.8	3,956.2	15.1	9.3	-169.81	-204.9	-58.2	452.4	434.2	18.17	24.903		
4,100.0	4,015.3	4,063.9	4,053.8	15.7	9.6	-169.91	-213.2	-61.4	472.1	453.4	18.69	25.253		
4,200.0	4,111.3	4,161.9	4,151.5	16.2	9.9	-170.01	-221.6	-64.6	491.7	472.5	19.22	25.583		
4,300.0	4,207.3	4,260.0	4,249.1	16.8	10.1	-170.11	-229.9	-67.8	511.4	491.6	19.75	25.894		
4,400.0	4,303.3	4,358.0	4,346.7	17.4	10.4	-170.19	-238.3	-71.0	531.0	510.8	20.28	26.188		
4,500.0	4,399.3	4,456.1	4,444.4	18.0	10.7	-170.27	-246.6	-74.1	550.7	529.9	20.81	26.466		
4,600.0	4,495.3	4,554.1	4,542.0	18.6	10.9	-170.34	-255.0	-77.3	570.3	549.0	21.34	26.729		
4,700.0	4,591.3	4,652.2	4,639.7	19.1	11.2	-170.41	-263.3	-80.5	590.0	568.1	21.87	26.978		
4,800.0	4,687.3	4,750.2	4,737.3	19.7	11.5	-170.47	-271.7	-83.7	609.7	587.3	22.40	27.215		
4,900.0	4,783.3	4,848.3	4,834.9	20.3	11.8	-170.53	-280.1	-86.9	629.3	606.4	22.94	27.440		

COMPASS 2003.21 Build 46

Offset Design											Offset Site Error:		0.0 ft
Survey Program: 0-MWD											Offset Well Error:		0.0 ft
Reference				Semi Major Axis			Distance				Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses			Minimum Separation
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
5,000.0	4,879.3	4,946.3	4,932.6	20.9	12.0	-170.59	-288.4	-90.1	649.0	625.5	23.47	27.654	
5,100.0	4,975.3	5,044.4	5,030.2	21.5	12.3	-170.64	-296.8	-93.3	668.7	644.7	24.00	27.858	
5,200.0	5,071.3	5,142.4	5,127.8	22.0	12.6	-170.69	-305.1	-96.5	688.3	663.8	24.54	28.052	
5,300.0	5,167.2	5,240.4	5,225.5	22.6	12.9	-170.74	-313.5	-99.7	708.0	682.9	25.07	28.238	
5,400.0	5,263.2	5,338.5	5,323.1	23.2	13.2	-170.79	-321.8	-102.8	727.7	702.0	25.61	28.415	
5,500.0	5,359.2	5,436.5	5,420.8	23.8	13.4	-170.83	-330.2	-106.0	747.3	721.2	26.14	28.585	
5,600.0	5,455.2	5,534.6	5,518.4	24.4	13.7	-170.87	-338.5	-109.2	767.0	740.3	26.68	28.748	
5,700.0	5,551.2	5,632.6	5,616.0	25.0	14.0	-170.91	-346.9	-112.4	786.6	759.4	27.22	28.903	
5,800.0	5,647.2	5,730.7	5,713.7	25.6	14.3	-170.94	-355.2	-115.6	806.3	778.6	27.75	29.052	
5,900.0	5,743.2	5,828.7	5,811.3	26.1	14.5	-170.98	-363.6	-118.8	826.0	797.7	28.29	29.196	
6,000.0	5,839.2	5,926.8	5,908.9	26.7	14.8	-171.01	-371.9	-122.0	845.6	816.8	28.83	29.333	
6,100.0	5,935.2	6,024.8	6,006.6	27.3	15.1	-171.04	-380.3	-125.2	865.3	835.9	29.37	29.465	
6,200.0	6,031.2	6,122.9	6,104.2	27.9	15.4	-171.07	-388.7	-128.4	885.0	855.1	29.91	29.592	
6,300.0	6,127.2	6,220.9	6,201.9	28.5	15.7	-171.10	-397.0	-131.6	904.6	874.2	30.44	29.715	
6,400.0	6,223.2	6,319.0	6,299.5	29.1	15.9	-171.13	-405.4	-134.7	924.3	893.3	30.98	29.832	
6,500.0	6,319.2	6,417.0	6,397.1	29.7	16.2	-171.15	-413.7	-137.9	944.0	912.5	31.52	29.946	
6,600.0	6,415.2	6,515.0	6,494.8	30.2	16.5	-171.18	-422.1	-141.1	963.7	931.6	32.06	30.055	
6,700.0	6,511.2	6,613.1	6,592.4	30.8	16.8	-171.20	-430.4	-144.3	983.3	950.7	32.60	30.161	
6,800.0	6,607.2	6,711.1	6,690.0	31.4	17.0	-171.23	-438.8	-147.5	1,003.0	969.8	33.14	30.263	
6,900.0	6,703.2	6,809.2	6,787.7	32.0	17.3	-171.25	-447.1	-150.7	1,022.7	989.0	33.68	30.361	
7,000.0	6,799.2	6,907.2	6,885.3	32.6	17.6	-171.27	-455.5	-153.9	1,042.3	1,008.1	34.22	30.456	
7,100.0	6,895.2	7,005.3	6,982.9	33.2	17.9	-171.29	-463.8	-157.1	1,062.0	1,027.2	34.76	30.548	
7,200.0	6,991.2	7,103.3	7,080.6	33.8	18.2	-171.31	-472.2	-160.3	1,081.7	1,046.4	35.31	30.637	
7,300.0	7,087.2	7,201.4	7,178.2	34.3	18.4	-171.33	-480.5	-163.4	1,101.3	1,065.5	35.85	30.724	
7,400.0	7,183.2	7,299.4	7,275.9	34.9	18.7	-171.35	-488.9	-166.6	1,121.0	1,084.6	36.39	30.807	
7,500.0	7,279.2	7,397.5	7,373.5	35.5	19.0	-171.37	-497.3	-169.8	1,140.7	1,103.7	36.93	30.888	
7,600.0	7,375.2	7,495.5	7,471.1	36.1	19.3	-171.39	-505.6	-173.0	1,160.3	1,122.9	37.47	30.966	
7,700.0	7,471.2	7,534.5	7,510.0	36.7	19.4	-171.39	-508.9	-174.3	1,181.5	1,143.6	37.87	31.196	
7,740.4	7,510.0	7,534.5	7,510.0	36.9	19.4	-171.39	-508.9	-174.3	1,192.0	1,154.0	38.00	31.372	

<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Project:</b>	SEC.36-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Haythorn 32-36D	<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 (2-16-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4866.0ft (Original Well Elev) Coordinates are relative to: SRC Haythorn 32-36D  
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: 0.50°



<b>Company:</b>	Synergy Resources	<b>Local Co-ordinate Reference:</b>	Well SRC Haythorn 32-36D
<b>Project:</b>	SEC.36-T7N-R66W	<b>TVD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Reference Site:</b>	SRC Haythorn 31-36D Pad Sec.36-T7N-R66W	<b>MD Reference:</b>	WELL @ 4866.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SRC Haythorn 32-36D	<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 (2-16-11)	<b>Offset TVD Reference:</b>	Offset Datum

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