

Synergy Resources

Well Name: **SRC Kiehn N-4NHZ**

Surface Location: SRC Kiehn Pad Sec.4-T4N-R68W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

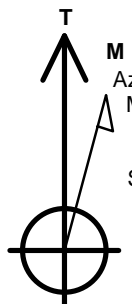
Ground Elevation: 5064.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1365558.81	3137841.64	40.335805	-105.005541	

RKB - 13' WELL @ 5077.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 201'FSL & 1851'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 2586'FWL	7000.0	4427.1	-1060.3	Point



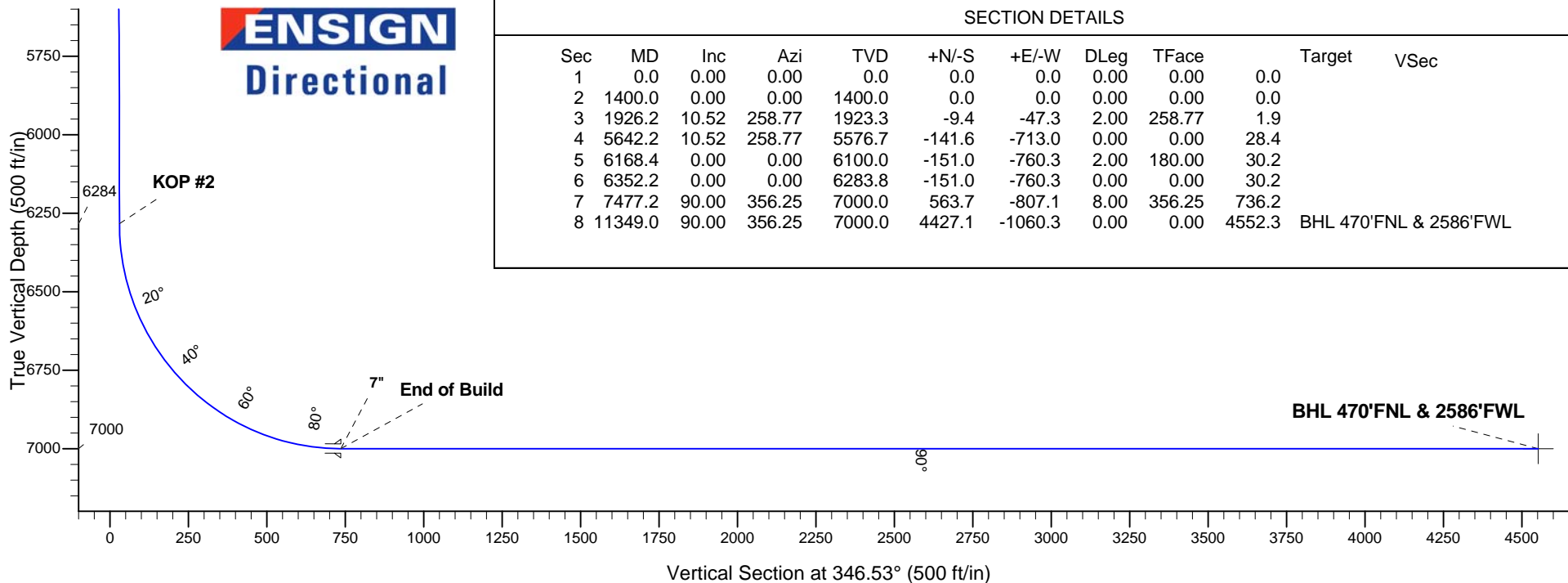
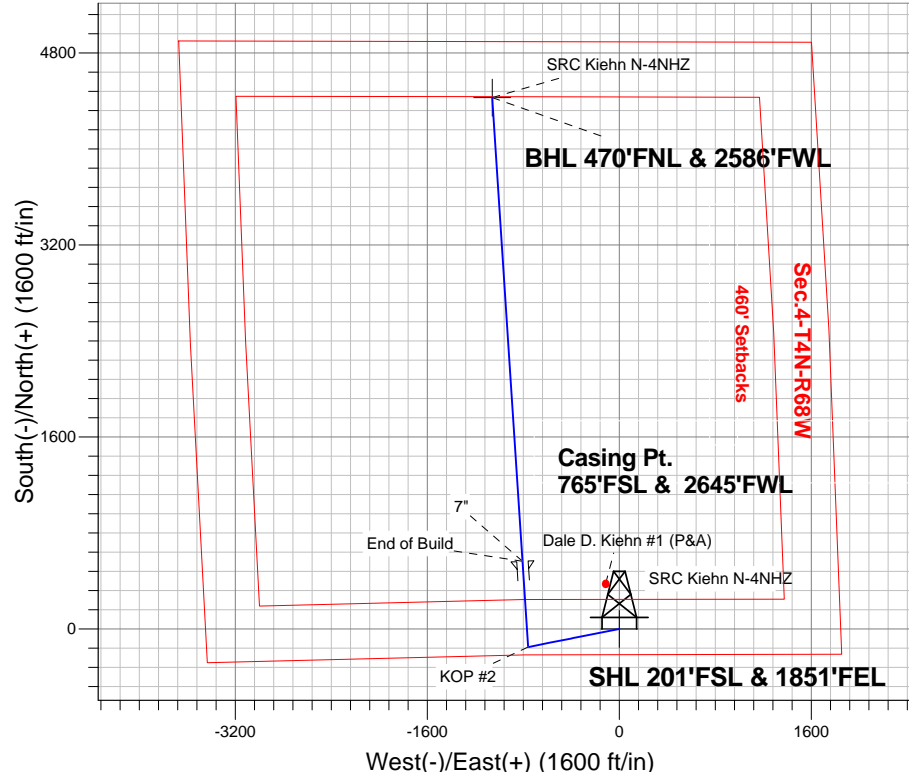
Azimuths to True North
Magnetic North: 8.60°

Magnetic Field
Strength: 52768.9snT
Dip Angle: 66.86°
Date: 4/25/2014
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
1400.0	1400.0	KOP #1
6283.8	6352.2	KOP #2
7000.0	7477.2	End of Build

SRC Kiehn Pad Sec.4-T4N-R68W
SRC Kiehn N-4NHZ
Plan #2 (4-25-14)
9:18, April 29 2014



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	Target	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	1926.2	10.52	258.77	1923.3	-9.4	-47.3	2.00	258.77	1.9	
4	5642.2	10.52	258.77	5576.7	-141.6	-713.0	0.00	0.00	28.4	
5	6168.4	0.00	0.00	6100.0	-151.0	-760.3	2.00	180.00	30.2	
6	6352.2	0.00	0.00	6283.8	-151.0	-760.3	0.00	0.00	30.2	
7	7477.2	90.00	356.25	7000.0	563.7	-807.1	8.00	356.25	736.2	
8	11349.0	90.00	356.25	7000.0	4427.1	-1060.3	0.00	0.00	4552.3	BHL 470'FNL & 2586'FWL



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn N-4NHZ

Wellbore #1

Plan: Plan #2 (4-25-14)

Standard Planning Report

29 April, 2014

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

Project	SEC.4-T4N-R68W, Weld, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						SRC Kiehn Pad Sec.4-T4N-R68W							
Site Position: From: Position Uncertainty:			Lat/Long 0.0 ft			Northing:		1,365,561.75 ft		Latitude:		40.335811	
						Easting:		3,137,974.04 ft		Longitude:		-105.005066	
						Slot Radius:		"		Grid Convergence:		0.32 °	

Well	SRC Kiehn N-4NHZ					
Well Position	+N-S	-2.2 ft	Northing:	1,365,558.81 ft	Latitude:	40.335805
	+E-W	-132.4 ft	Easting:	3,137,841.64 ft	Longitude:	-105.005541
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,064.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/25/2014	8.60	66.86	52,769

Design	Plan #2 (4-25-14)			
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	346.53

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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,926.2	10.52	258.77	1,923.3	-9.4	-47.3	2.00	2.00	0.00	258.77	
5,642.2	10.52	258.77	5,576.7	-141.6	-713.0	0.00	0.00	0.00	0.00	
6,168.4	0.00	0.00	6,100.0	-151.0	-760.3	2.00	-2.00	0.00	180.00	
6,352.2	0.00	0.00	6,283.8	-151.0	-760.3	0.00	0.00	0.00	0.00	
7,477.2	90.00	356.25	7,000.0	563.7	-807.1	8.00	8.00	0.00	356.25	
11,349.0	90.00	356.25	7,000.0	4,427.1	-1,060.3	0.00	0.00	0.00	0.00	BHL 470'FNL & 25°

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 201'FSL & 1851'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
KOP #1									
1,500.0	2.00	258.77	1,500.0	-0.3	-1.7	0.1	2.00	2.00	0.00
1,600.0	4.00	258.77	1,599.8	-1.4	-6.8	0.3	2.00	2.00	0.00
1,700.0	6.00	258.77	1,699.5	-3.1	-15.4	0.6	2.00	2.00	0.00
1,800.0	8.00	258.77	1,798.7	-5.4	-27.3	1.1	2.00	2.00	0.00
1,900.0	10.00	258.77	1,897.5	-8.5	-42.7	1.7	2.00	2.00	0.00
1,926.2	10.52	258.77	1,923.3	-9.4	-47.3	1.9	2.00	2.00	0.00
2,000.0	10.52	258.77	1,995.8	-12.0	-60.5	2.4	0.00	0.00	0.00
2,100.0	10.52	258.77	2,094.1	-15.6	-78.4	3.1	0.00	0.00	0.00
2,200.0	10.52	258.77	2,192.4	-19.1	-96.3	3.8	0.00	0.00	0.00
2,300.0	10.52	258.77	2,290.8	-22.7	-114.2	4.5	0.00	0.00	0.00
2,400.0	10.52	258.77	2,389.1	-26.2	-132.2	5.3	0.00	0.00	0.00
2,500.0	10.52	258.77	2,487.4	-29.8	-150.1	6.0	0.00	0.00	0.00
2,600.0	10.52	258.77	2,585.7	-33.4	-168.0	6.7	0.00	0.00	0.00
2,700.0	10.52	258.77	2,684.0	-36.9	-185.9	7.4	0.00	0.00	0.00
2,800.0	10.52	258.77	2,782.3	-40.5	-203.8	8.1	0.00	0.00	0.00
2,900.0	10.52	258.77	2,880.7	-44.0	-221.7	8.8	0.00	0.00	0.00
3,000.0	10.52	258.77	2,979.0	-47.6	-239.6	9.5	0.00	0.00	0.00
3,100.0	10.52	258.77	3,077.3	-51.2	-257.6	10.2	0.00	0.00	0.00
3,200.0	10.52	258.77	3,175.6	-54.7	-275.5	11.0	0.00	0.00	0.00
3,300.0	10.52	258.77	3,273.9	-58.3	-293.4	11.7	0.00	0.00	0.00
3,400.0	10.52	258.77	3,372.3	-61.8	-311.3	12.4	0.00	0.00	0.00
3,500.0	10.52	258.77	3,470.6	-65.4	-329.2	13.1	0.00	0.00	0.00
3,600.0	10.52	258.77	3,568.9	-68.9	-347.1	13.8	0.00	0.00	0.00
3,700.0	10.52	258.77	3,667.2	-72.5	-365.1	14.5	0.00	0.00	0.00
3,800.0	10.52	258.77	3,765.5	-76.1	-383.0	15.2	0.00	0.00	0.00
3,900.0	10.52	258.77	3,863.8	-79.6	-400.9	15.9	0.00	0.00	0.00
4,000.0	10.52	258.77	3,962.2	-83.2	-418.8	16.7	0.00	0.00	0.00
4,100.0	10.52	258.77	4,060.5	-86.7	-436.7	17.4	0.00	0.00	0.00
4,200.0	10.52	258.77	4,158.8	-90.3	-454.6	18.1	0.00	0.00	0.00
4,300.0	10.52	258.77	4,257.1	-93.9	-472.6	18.8	0.00	0.00	0.00
4,400.0	10.52	258.77	4,355.4	-97.4	-490.5	19.5	0.00	0.00	0.00
4,500.0	10.52	258.77	4,453.7	-101.0	-508.4	20.2	0.00	0.00	0.00
4,600.0	10.52	258.77	4,552.1	-104.5	-526.3	20.9	0.00	0.00	0.00
4,700.0	10.52	258.77	4,650.4	-108.1	-544.2	21.6	0.00	0.00	0.00
4,800.0	10.52	258.77	4,748.7	-111.6	-562.1	22.4	0.00	0.00	0.00
4,900.0	10.52	258.77	4,847.0	-115.2	-580.1	23.1	0.00	0.00	0.00

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Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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)
5,000.0	10.52	258.77	4,945.3	-118.8	-598.0	23.8	0.00	0.00	0.00
5,100.0	10.52	258.77	5,043.7	-122.3	-615.9	24.5	0.00	0.00	0.00
5,200.0	10.52	258.77	5,142.0	-125.9	-633.8	25.2	0.00	0.00	0.00
5,300.0	10.52	258.77	5,240.3	-129.4	-651.7	25.9	0.00	0.00	0.00
5,400.0	10.52	258.77	5,338.6	-133.0	-669.6	26.6	0.00	0.00	0.00
5,500.0	10.52	258.77	5,436.9	-136.6	-687.6	27.3	0.00	0.00	0.00
5,600.0	10.52	258.77	5,535.2	-140.1	-705.5	28.1	0.00	0.00	0.00
5,642.2	10.52	258.77	5,576.7	-141.6	-713.0	28.4	0.00	0.00	0.00
5,700.0	9.37	258.77	5,633.7	-143.6	-722.8	28.7	2.00	-2.00	0.00
5,800.0	7.37	258.77	5,732.6	-146.4	-737.1	29.3	2.00	-2.00	0.00
5,900.0	5.37	258.77	5,832.0	-148.6	-748.0	29.7	2.00	-2.00	0.00
6,000.0	3.37	258.77	5,931.7	-150.0	-755.4	30.0	2.00	-2.00	0.00
6,100.0	1.37	258.77	6,031.6	-150.8	-759.5	30.2	2.00	-2.00	0.00
6,168.4	0.00	0.00	6,100.0	-151.0	-760.3	30.2	2.00	-2.00	0.00
6,200.0	0.00	0.00	6,131.6	-151.0	-760.3	30.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,231.6	-151.0	-760.3	30.2	0.00	0.00	0.00
6,352.2	0.00	0.00	6,283.8	-151.0	-760.3	30.2	0.00	0.00	0.00
KOP #2									
6,400.0	3.82	356.25	6,331.5	-149.4	-760.4	31.8	8.00	8.00	0.00
6,500.0	11.82	356.25	6,430.5	-135.8	-761.3	45.2	8.00	8.00	0.00
6,600.0	19.82	356.25	6,526.7	-108.7	-763.1	72.1	8.00	8.00	0.00
6,700.0	27.82	356.25	6,618.1	-68.4	-765.7	111.8	8.00	8.00	0.00
6,800.0	35.82	356.25	6,703.0	-15.8	-769.2	163.8	8.00	8.00	0.00
6,900.0	43.82	356.25	6,779.7	48.0	-773.3	226.8	8.00	8.00	0.00
7,000.0	51.82	356.25	6,846.8	121.9	-778.2	299.8	8.00	8.00	0.00
7,100.0	59.82	356.25	6,902.9	204.4	-783.6	381.3	8.00	8.00	0.00
7,200.0	67.82	356.25	6,947.0	293.9	-789.5	469.7	8.00	8.00	0.00
7,300.0	75.82	356.25	6,978.2	388.6	-795.7	563.3	8.00	8.00	0.00
7,400.0	83.82	356.25	6,995.8	486.8	-802.1	660.2	8.00	8.00	0.00
7,477.2	90.00	356.25	7,000.0	563.6	-807.1	736.1	8.00	8.00	0.00
End of Build - 7"									
7,500.0	90.00	356.25	7,000.0	586.4	-808.6	758.6	0.01	0.01	0.00
7,600.0	90.00	356.25	7,000.0	686.2	-815.2	857.2	0.00	0.00	0.00
7,700.0	90.00	356.25	7,000.0	786.0	-821.7	955.7	0.00	0.00	0.00
7,800.0	90.00	356.25	7,000.0	885.7	-828.2	1,054.3	0.00	0.00	0.00
7,900.0	90.00	356.25	7,000.0	985.5	-834.8	1,152.9	0.00	0.00	0.00
8,000.0	90.00	356.25	7,000.0	1,085.3	-841.3	1,251.4	0.00	0.00	0.00
8,100.0	90.00	356.25	7,000.0	1,185.1	-847.9	1,350.0	0.00	0.00	0.00
8,200.0	90.00	356.25	7,000.0	1,284.9	-854.4	1,448.6	0.00	0.00	0.00
8,300.0	90.00	356.25	7,000.0	1,384.7	-860.9	1,547.1	0.00	0.00	0.00
8,400.0	90.00	356.25	7,000.0	1,484.5	-867.5	1,645.7	0.00	0.00	0.00
8,500.0	90.00	356.25	7,000.0	1,584.2	-874.0	1,744.2	0.00	0.00	0.00
8,600.0	90.00	356.25	7,000.0	1,684.0	-880.6	1,842.8	0.00	0.00	0.00
8,700.0	90.00	356.25	7,000.0	1,783.8	-887.1	1,941.4	0.00	0.00	0.00
8,800.0	90.00	356.25	7,000.0	1,883.6	-893.6	2,039.9	0.00	0.00	0.00
8,900.0	90.00	356.25	7,000.0	1,983.4	-900.2	2,138.5	0.00	0.00	0.00
9,000.0	90.00	356.25	7,000.0	2,083.2	-906.7	2,237.1	0.00	0.00	0.00
9,100.0	90.00	356.25	7,000.0	2,183.0	-913.2	2,335.6	0.00	0.00	0.00
9,200.0	90.00	356.25	7,000.0	2,282.7	-919.8	2,434.2	0.00	0.00	0.00
9,300.0	90.00	356.25	7,000.0	2,382.5	-926.3	2,532.8	0.00	0.00	0.00
9,400.0	90.00	356.25	7,000.0	2,482.3	-932.9	2,631.3	0.00	0.00	0.00
9,500.0	90.00	356.25	7,000.0	2,582.1	-939.4	2,729.9	0.00	0.00	0.00
9,600.0	90.00	356.25	7,000.0	2,681.9	-945.9	2,828.5	0.00	0.00	0.00
9,700.0	90.00	356.25	7,000.0	2,781.7	-952.5	2,927.0	0.00	0.00	0.00

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Company:	Synergy Resources	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Project:	SEC.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site:	SRC Kiehn Pad Sec.4-T4N-R68W	North Reference:	True
Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (4-25-14)		

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)	
9,800.0	90.00	356.25	7,000.0	2,881.5	-959.0	3,025.6	0.00	0.00	0.00	
9,900.0	90.00	356.25	7,000.0	2,981.3	-965.6	3,124.2	0.00	0.00	0.00	
10,000.0	90.00	356.25	7,000.0	3,081.0	-972.1	3,222.7	0.00	0.00	0.00	
10,100.0	90.00	356.25	7,000.0	3,180.8	-978.6	3,321.3	0.00	0.00	0.00	
10,200.0	90.00	356.25	7,000.0	3,280.6	-985.2	3,419.8	0.00	0.00	0.00	
10,300.0	90.00	356.25	7,000.0	3,380.4	-991.7	3,518.4	0.00	0.00	0.00	
10,400.0	90.00	356.25	7,000.0	3,480.2	-998.3	3,617.0	0.00	0.00	0.00	
10,500.0	90.00	356.25	7,000.0	3,580.0	-1,004.8	3,715.5	0.00	0.00	0.00	
10,600.0	90.00	356.25	7,000.0	3,679.8	-1,011.3	3,814.1	0.00	0.00	0.00	
10,700.0	90.00	356.25	7,000.0	3,779.5	-1,017.9	3,912.7	0.00	0.00	0.00	
10,800.0	90.00	356.25	7,000.0	3,879.3	-1,024.4	4,011.2	0.00	0.00	0.00	
10,900.0	90.00	356.25	7,000.0	3,979.1	-1,031.0	4,109.8	0.00	0.00	0.00	
11,000.0	90.00	356.25	7,000.0	4,078.9	-1,037.5	4,208.4	0.00	0.00	0.00	
11,100.0	90.00	356.25	7,000.0	4,178.7	-1,044.0	4,306.9	0.00	0.00	0.00	
11,200.0	90.00	356.25	7,000.0	4,278.5	-1,050.6	4,405.5	0.00	0.00	0.00	
11,300.0	90.00	356.25	7,000.0	4,378.3	-1,057.1	4,504.1	0.00	0.00	0.00	
11,349.0	90.00	356.25	7,000.0	4,427.1	-1,060.3	4,552.3	0.00	0.00	0.00	
BHL 470'FNL & 2586'FWL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,477.2	7,000.0	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,400.0	1,400.0	0.0	0.0	KOP #1	
6,352.2	6,283.8	-151.0	-760.3	KOP #2	
7,477.2	7,000.0	563.6	-807.1	End of Build	



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn N-4NHZ

Wellbore #1

Plan #2 (4-25-14)

Anticollision Report

29 April, 2014

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Reference	Plan #2 (4-25-14)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 4/29/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,348.9	Plan #2 (4-25-14) (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 Kiehn (Existing) Pad Sec.4-T4N-R68W						
Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1	1,864.4	4,535.4	393.4	298.6	4.151	CC
Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1	2,100.0	4,767.1	395.6	295.6	3.954	ES
Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1	3,000.0	5,652.0	444.4	324.1	3.693	SF
SRC Kiehn Pad Sec.4-T4N-R68W						
SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	800.0	800.0	67.5	64.1	20.015	CC, ES
SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,429.9	659.7	481.9	3.710	SF
SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	600.0	600.0	90.1	87.6	36.428	CC, ES
SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,466.6	879.7	701.8	4.945	SF
SRC Kiehn 22-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	1,200.0	1,200.0	22.6	17.4	4.369	CC, ES
SRC Kiehn 22-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,370.1	220.0	42.3	1.238	Level 2, SF
SRC Kiehn 22-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	1,000.0	1,000.0	44.9	40.6	10.512	CC, ES
SRC Kiehn 22-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,397.3	440.0	262.2	2.475	SF
SRC Kiehn 31-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	1,400.0	1,400.0	22.6	16.5	3.722	CC, ES
SRC Kiehn 31-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,319.7	220.2	42.8	1.241	Level 2, SF
SRC Kiehn 31-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	1,400.0	1,400.0	44.9	38.8	7.397	CC, ES
SRC Kiehn 31-4NHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,297.9	440.7	263.4	2.485	SF
SRC Kiehn 32-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	1,400.0	1,400.0	67.5	61.4	11.119	CC, ES
SRC Kiehn 32-4CHZ - Wellbore #1 - Plan #2 (4-25-14)	11,349.0	11,288.8	617.9	440.7	3.487	SF

Offset Design	SRC Kiehn (Existing) Pad Sec.4-T4N-R68W - Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1										Offset Site Error:	0.0 ft
Survey Program:	7790-UNKNOWN										Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis			Distance				Minimum Separation	Separation Factor	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)		
0.0	0.0	2,673.0	2,673.0	0.0	53.5	-16.69	378.5	-113.5	395.1	341.7	53.46	7.391
100.0	100.0	2,773.0	2,773.0	0.1	55.5	-16.69	378.5	-113.5	395.1	339.6	55.57	7.110
200.0	200.0	2,873.0	2,873.0	0.3	57.5	-16.69	378.5	-113.5	395.1	337.3	57.80	6.837
300.0	300.0	2,973.0	2,973.0	0.6	59.5	-16.69	378.5	-113.5	395.1	335.1	60.02	6.583
400.0	400.0	3,073.0	3,073.0	0.8	61.5	-16.69	378.5	-113.5	395.1	332.9	62.25	6.348
500.0	500.0	3,173.0	3,173.0	1.0	63.5	-16.69	378.5	-113.5	395.1	330.7	64.47	6.129
600.0	600.0	3,273.0	3,273.0	1.2	65.5	-16.69	378.5	-113.5	395.1	328.4	66.70	5.924
700.0	700.0	3,373.0	3,373.0	1.5	67.5	-16.69	378.5	-113.5	395.1	326.2	68.92	5.733
800.0	800.0	3,473.0	3,473.0	1.7	69.5	-16.69	378.5	-113.5	395.1	324.0	71.15	5.554

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 7790-UNKNOWN													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		
900.0	900.0	3,573.0	3,573.0	1.9	71.5	-16.69	378.5	-113.5	395.1	321.8	73.37	5.386		
1,000.0	1,000.0	3,673.0	3,673.0	2.1	73.5	-16.69	378.5	-113.5	395.1	319.5	75.60	5.227		
1,100.0	1,100.0	3,773.0	3,773.0	2.4	75.5	-16.69	378.5	-113.5	395.1	317.3	77.82	5.078		
1,200.0	1,200.0	3,873.0	3,873.0	2.6	77.5	-16.69	378.5	-113.5	395.1	315.1	80.04	4.936		
1,300.0	1,300.0	3,973.0	3,973.0	2.8	79.5	-16.69	378.5	-113.5	395.1	312.9	82.27	4.803		
1,400.0	1,400.0	4,073.0	4,073.0	3.0	81.5	-16.69	378.5	-113.5	395.1	310.6	84.49	4.677		
1,500.0	1,500.0	4,173.0	4,173.0	3.2	83.5	84.80	378.5	-113.5	395.0	308.3	86.70	4.556		
1,600.0	1,599.8	4,272.8	4,272.8	3.4	85.5	85.57	378.5	-113.5	394.5	305.6	88.90	4.438		
1,700.0	1,699.5	4,372.5	4,372.5	3.7	87.4	86.84	378.5	-113.5	394.0	302.9	91.10	4.324		
1,800.0	1,798.7	4,471.7	4,471.7	3.9	89.4	88.60	378.5	-113.5	393.5	300.2	93.32	4.217		
1,864.4	1,862.4	4,535.4	4,535.4	4.0	90.7	90.00	378.5	-113.5	393.4	298.6	94.75	4.151 CC		
1,900.0	1,897.5	4,570.5	4,570.5	4.1	91.4	90.86	378.5	-113.5	393.4	297.8	95.55	4.117		
2,000.0	1,995.8	4,668.8	4,668.8	4.4	93.4	93.45	378.5	-113.5	394.1	296.3	97.80	4.030		
2,100.0	2,094.1	4,767.1	4,767.1	4.7	95.3	96.05	378.5	-113.5	395.6	295.6	100.06	3.954 ES		
2,200.0	2,192.4	4,865.4	4,865.4	5.1	97.3	98.62	378.5	-113.5	398.0	295.7	102.32	3.890		
2,300.0	2,290.8	4,963.8	4,963.8	5.4	99.3	101.16	378.5	-113.5	401.2	296.6	104.59	3.836		
2,400.0	2,389.1	5,062.1	5,062.1	5.7	101.2	103.65	378.5	-113.5	405.2	298.3	106.86	3.792		
2,500.0	2,487.4	5,160.4	5,160.4	6.1	103.2	106.10	378.5	-113.5	409.9	300.8	109.12	3.757		
2,600.0	2,585.7	5,258.7	5,258.7	6.5	105.2	108.48	378.5	-113.5	415.5	304.1	111.37	3.730		
2,700.0	2,684.0	5,357.0	5,357.0	6.8	107.1	110.80	378.5	-113.5	421.7	308.1	113.62	3.711		
2,800.0	2,782.3	5,455.3	5,455.3	7.2	109.1	113.05	378.5	-113.5	428.6	312.7	115.87	3.699		
2,900.0	2,880.7	5,553.7	5,553.7	7.6	111.1	115.23	378.5	-113.5	436.2	318.1	118.10	3.693		
3,000.0	2,979.0	5,652.0	5,652.0	8.0	113.0	117.33	378.5	-113.5	444.4	324.1	120.32	3.693 SF		
3,100.0	3,077.3	5,750.3	5,750.3	8.4	115.0	119.36	378.5	-113.5	453.2	330.6	122.54	3.698		
3,200.0	3,175.6	5,848.6	5,848.6	8.8	117.0	121.31	378.5	-113.5	462.5	337.8	124.75	3.708		
3,300.0	3,273.9	5,946.9	5,946.9	9.2	118.9	123.18	378.5	-113.5	472.4	345.4	126.95	3.721		
3,400.0	3,372.3	6,045.3	6,045.3	9.6	120.9	124.97	378.5	-113.5	482.7	353.6	129.14	3.738		
3,500.0	3,470.6	6,143.6	6,143.6	10.0	122.9	126.69	378.5	-113.5	493.5	362.2	131.33	3.758		
3,600.0	3,568.9	6,241.9	6,241.9	10.4	124.8	128.34	378.5	-113.5	504.8	371.3	133.51	3.781		
3,700.0	3,667.2	6,340.2	6,340.2	10.8	126.8	129.91	378.5	-113.5	516.4	380.7	135.69	3.806		
3,800.0	3,765.5	6,438.5	6,438.5	11.2	128.8	131.41	378.5	-113.5	528.5	390.6	137.86	3.833		
3,900.0	3,863.8	6,536.8	6,536.8	11.6	130.7	132.85	378.5	-113.5	540.8	400.8	140.03	3.862		
4,000.0	3,962.2	6,635.2	6,635.2	12.0	132.7	134.23	378.5	-113.5	553.5	411.3	142.19	3.893		
4,100.0	4,060.5	6,733.5	6,733.5	12.4	134.7	135.54	378.5	-113.5	566.5	422.2	144.35	3.924		
4,200.0	4,158.8	6,831.8	6,831.8	12.8	136.6	136.79	378.5	-113.5	579.8	433.3	146.51	3.957		
4,300.0	4,257.1	6,930.1	6,930.1	13.2	138.6	137.99	378.5	-113.5	593.4	444.7	148.67	3.991		
4,400.0	4,355.4	7,028.4	7,028.4	13.6	140.6	139.14	378.5	-113.5	607.1	456.3	150.83	4.025		
4,500.0	4,453.7	7,126.7	7,126.7	14.0	142.5	140.23	378.5	-113.5	621.2	468.2	152.98	4.060		
4,600.0	4,552.1	7,225.1	7,225.1	14.4	144.5	141.28	378.5	-113.5	635.4	480.3	155.14	4.096		
4,700.0	4,650.4	7,323.4	7,323.4	14.8	146.5	142.28	378.5	-113.5	649.9	492.6	157.29	4.132		
4,800.0	4,748.7	7,421.7	7,421.7	15.3	148.4	143.24	378.5	-113.5	664.5	505.1	159.44	4.168		
4,900.0	4,847.0	7,520.0	7,520.0	15.7	150.4	144.16	378.5	-113.5	679.3	517.7	161.59	4.204		
5,000.0	4,945.3	7,618.3	7,618.3	16.1	152.4	145.03	378.5	-113.5	694.3	530.5	163.75	4.240		
5,100.0	5,043.7	7,716.7	7,716.7	16.5	154.3	145.87	378.5	-113.5	709.4	543.5	165.90	4.276		
5,200.0	5,142.0	7,790.0	7,790.0	16.9	155.8	146.48	378.5	-113.5	725.1	557.5	167.58	4.327		
5,300.0	5,240.3	7,790.0	7,790.0	17.3	155.8	146.48	378.5	-113.5	750.3	582.4	167.89	4.469		
5,400.0	5,338.6	7,790.0	7,790.0	17.7	155.8	146.48	378.5	-113.5	787.4	619.2	168.20	4.682		
5,500.0	5,436.9	7,790.0	7,790.0	18.1	155.8	146.48	378.5	-113.5	835.0	666.5	168.50	4.955		
5,600.0	5,535.2	7,790.0	7,790.0	18.6	155.8	146.48	378.5	-113.5	891.3	722.5	168.81	5.280		
5,700.0	5,633.7	7,790.0	7,790.0	18.9	155.8	147.01	378.5	-113.5	954.4	784.9	169.41	5.633		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	-91.24	-1.5	-67.5	67.5					
100.0	100.0	100.0	100.0	0.1	0.1	-91.24	-1.5	-67.5	67.5	67.3	0.22	300.232		
200.0	200.0	200.0	200.0	0.3	0.3	-91.24	-1.5	-67.5	67.5	66.8	0.67	100.077		
300.0	300.0	300.0	300.0	0.6	0.6	-91.24	-1.5	-67.5	67.5	66.4	1.12	60.046		
400.0	400.0	400.0	400.0	0.8	0.8	-91.24	-1.5	-67.5	67.5	65.9	1.57	42.890		
500.0	500.0	500.0	500.0	1.0	1.0	-91.24	-1.5	-67.5	67.5	65.5	2.02	33.359		
600.0	600.0	600.0	600.0	1.2	1.2	-91.24	-1.5	-67.5	67.5	65.0	2.47	27.294		
700.0	700.0	700.0	700.0	1.5	1.5	-91.24	-1.5	-67.5	67.5	64.6	2.92	23.095		
800.0	800.0	800.0	800.0	1.7	1.7	-91.24	-1.5	-67.5	67.5	64.1	3.37	20.015 CC, ES		
900.0	900.0	897.7	897.7	1.9	1.9	-91.36	-1.6	-69.1	69.2	65.4	3.80	18.196		
1,000.0	1,000.0	995.1	995.0	2.1	2.1	-91.70	-2.2	-74.1	74.3	70.0	4.23	17.573		
1,100.0	1,100.0	1,092.1	1,091.6	2.4	2.3	-92.16	-3.1	-82.3	82.7	78.1	4.67	17.736		
1,200.0	1,200.0	1,188.4	1,187.2	2.6	2.5	-92.68	-4.4	-93.6	94.6	89.4	5.12	18.454		
1,300.0	1,300.0	1,283.9	1,281.6	2.8	2.8	-93.17	-6.0	-108.0	109.7	104.1	5.61	19.550		
1,400.0	1,400.0	1,378.3	1,374.3	3.0	3.1	-93.61	-7.9	-125.3	128.1	122.0	6.13	20.887		
1,500.0	1,500.0	1,471.8	1,465.6	3.2	3.5	7.27	-10.2	-145.4	148.0	141.7	6.39	23.180		
1,600.0	1,599.8	1,564.7	1,555.6	3.4	3.9	7.09	-12.7	-168.3	167.8	161.0	6.80	24.686		
1,700.0	1,699.5	1,657.4	1,644.6	3.7	4.3	7.04	-15.6	-194.0	187.3	180.1	7.21	25.959		
1,800.0	1,798.7	1,755.8	1,738.8	3.9	4.8	7.09	-18.8	-222.7	204.8	197.1	7.65	26.768		
1,900.0	1,897.5	1,854.8	1,833.4	4.1	5.4	7.25	-22.0	-251.5	218.8	210.8	8.09	27.059		
2,000.0	1,995.8	1,954.1	1,928.4	4.4	5.9	7.50	-25.2	-280.4	230.4	221.9	8.57	26.903		
2,100.0	2,094.1	2,053.5	2,023.3	4.7	6.5	7.74	-28.5	-309.4	241.9	232.8	9.06	26.697		
2,200.0	2,192.4	2,152.8	2,118.3	5.1	7.1	7.95	-31.7	-338.3	253.4	243.8	9.57	26.488		
2,300.0	2,290.8	2,252.1	2,213.3	5.4	7.7	8.15	-34.9	-367.2	264.9	254.8	10.08	26.281		
2,400.0	2,389.1	2,351.5	2,308.3	5.7	8.3	8.33	-38.1	-396.1	276.3	265.7	10.60	26.077		
2,500.0	2,487.4	2,450.8	2,403.2	6.1	8.9	8.49	-41.4	-425.1	287.8	276.7	11.12	25.879		
2,600.0	2,585.7	2,550.1	2,498.2	6.5	9.5	8.65	-44.6	-454.0	299.3	287.6	11.65	25.688		
2,700.0	2,684.0	2,649.5	2,593.2	6.8	10.1	8.79	-47.8	-482.9	310.8	298.6	12.19	25.504		
2,800.0	2,782.3	2,748.8	2,688.2	7.2	10.7	8.92	-51.1	-511.8	322.3	309.5	12.72	25.328		
2,900.0	2,880.7	2,848.2	2,783.1	7.6	11.3	9.04	-54.3	-540.8	333.8	320.5	13.27	25.160		
3,000.0	2,979.0	2,947.5	2,878.1	8.0	11.9	9.15	-57.5	-569.7	345.3	331.4	13.81	24.999		
3,100.0	3,077.3	3,046.8	2,973.1	8.4	12.5	9.26	-60.7	-598.6	356.7	342.4	14.36	24.846		
3,200.0	3,175.6	3,146.2	3,068.1	8.8	13.1	9.36	-64.0	-627.5	368.2	353.3	14.91	24.699		
3,300.0	3,273.9	3,245.5	3,163.1	9.2	13.8	9.46	-67.2	-656.5	379.7	364.3	15.46	24.560		
3,400.0	3,372.3	3,344.8	3,258.0	9.6	14.4	9.54	-70.4	-685.4	391.2	375.2	16.02	24.427		
3,500.0	3,470.6	3,444.2	3,353.0	10.0	15.0	9.63	-73.7	-714.3	402.7	386.2	16.57	24.300		
3,600.0	3,568.9	3,543.5	3,448.0	10.4	15.6	9.71	-76.9	-743.3	414.2	397.1	17.13	24.179		
3,700.0	3,667.2	3,642.8	3,543.0	10.8	16.2	9.78	-80.1	-772.2	425.7	408.0	17.69	24.063		
3,800.0	3,765.5	3,742.2	3,637.9	11.2	16.9	9.85	-83.3	-801.1	437.2	419.0	18.25	23.953		
3,900.0	3,863.8	3,841.5	3,732.9	11.6	17.5	9.92	-86.6	-830.0	448.7	429.9	18.82	23.848		
4,000.0	3,962.2	3,940.8	3,827.9	12.0	18.1	9.98	-89.8	-859.0	460.2	440.8	19.38	23.747		
4,100.0	4,060.5	4,040.2	3,922.9	12.4	18.7	10.04	-93.0	-887.9	471.7	451.8	19.94	23.651		
4,200.0	4,158.8	4,139.5	4,017.8	12.8	19.3	10.10	-96.3	-916.8	483.2	462.7	20.51	23.559		
4,300.0	4,257.1	4,238.8	4,112.8	13.2	20.0	10.15	-99.5	-945.7	494.7	473.6	21.08	23.471		
4,400.0	4,355.4	4,338.2	4,207.8	13.6	20.6	10.21	-102.7	-974.7	506.2	484.6	21.65	23.386		
4,500.0	4,453.7	4,437.5	4,302.8	14.0	21.2	10.26	-105.9	-1,003.6	517.7	495.5	22.22	23.305		
4,600.0	4,552.1	4,536.9	4,397.7	14.4	21.8	10.31	-109.2	-1,032.5	529.2	506.4	22.78	23.227		
4,700.0	4,650.4	4,636.2	4,492.7	14.8	22.4	10.35	-112.4	-1,061.4	540.7	517.4	23.36	23.153		
4,800.0	4,748.7	4,735.5	4,587.7	15.3	23.1	10.40	-115.6	-1,090.4	552.2	528.3	23.93	23.081		
4,900.0	4,847.0	4,834.9	4,682.7	15.7	23.7	10.44	-118.9	-1,119.3	563.7	539.2	24.50	23.012		
5,000.0	4,945.3	4,934.2	4,777.6	16.1	24.3	10.48	-122.1	-1,148.2	575.2	550.2	25.07	22.945		
5,100.0	5,043.7	5,033.5	4,872.6	16.5	24.9	10.52	-125.3	-1,177.1	586.7	561.1	25.64	22.881		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													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		
5,200.0	5,142.0	5,132.9	4,967.6	16.9	25.6	10.55	-128.5	-1,206.1	598.2	572.0	26.22	22.820		
5,300.0	5,240.3	5,232.2	5,062.6	17.3	26.2	10.59	-131.8	-1,235.0	609.8	583.0	26.79	22.760		
5,400.0	5,338.6	5,331.5	5,157.5	17.7	26.8	10.63	-135.0	-1,263.9	621.3	593.9	27.36	22.703		
5,500.0	5,436.9	5,430.9	5,252.5	18.1	27.4	10.66	-138.2	-1,292.8	632.8	604.8	27.94	22.648		
5,600.0	5,535.2	5,556.3	5,373.1	18.6	28.0	10.72	-142.1	-1,327.1	642.4	613.9	28.55	22.502		
5,700.0	5,633.7	5,685.0	5,498.3	18.9	28.5	10.84	-145.4	-1,356.8	648.2	619.1	29.11	22.270		
5,800.0	5,732.6	5,814.0	5,625.0	19.2	29.0	10.94	-148.1	-1,380.9	652.7	623.1	29.57	22.075		
5,900.0	5,832.0	5,943.3	5,752.9	19.4	29.3	11.02	-150.1	-1,399.3	656.1	626.1	29.96	21.900		
6,000.0	5,931.7	6,072.8	5,881.8	19.6	29.6	11.07	-151.5	-1,412.0	658.4	628.2	30.29	21.740		
6,100.0	6,031.6	6,202.5	6,011.3	19.8	29.8	11.10	-152.3	-1,418.9	659.7	629.2	30.55	21.595		
6,200.0	6,131.6	6,322.8	6,131.6	19.9	29.9	-90.13	-152.5	-1,420.3	660.0	628.6	31.40	21.020		
6,300.0	6,231.6	6,422.8	6,231.6	20.1	30.0	-90.13	-152.5	-1,420.3	660.0	628.2	31.74	20.795		
6,400.0	6,331.5	6,520.2	6,328.9	20.2	30.1	-86.38	-151.0	-1,420.4	660.0	628.5	31.51	20.946		
6,500.0	6,430.5	6,614.7	6,422.6	20.3	30.2	-86.45	-138.9	-1,421.2	659.9	628.1	31.80	20.749		
6,600.0	6,526.7	6,709.4	6,514.0	20.5	30.2	-86.58	-114.5	-1,422.8	659.8	627.8	32.04	20.597		
6,700.0	6,618.1	6,804.2	6,601.5	20.6	30.3	-86.77	-78.3	-1,425.1	659.7	627.5	32.25	20.455		
6,800.0	6,703.0	6,900.0	6,684.3	20.7	30.4	-87.03	-30.3	-1,428.3	659.6	627.0	32.53	20.278		
6,900.0	6,779.7	6,995.0	6,759.3	20.8	30.5	-87.34	27.8	-1,432.1	659.4	626.5	32.95	20.014		
7,000.0	6,846.8	7,091.1	6,826.6	21.0	30.7	-87.70	96.0	-1,436.6	659.2	625.6	33.60	19.623		
7,100.0	6,902.9	7,187.7	6,884.5	21.2	30.8	-88.10	173.1	-1,441.7	659.1	624.5	34.55	19.078		
7,200.0	6,947.0	7,284.9	6,931.8	21.6	31.1	-88.54	257.8	-1,447.2	659.0	623.1	35.83	18.390		
7,300.0	6,978.2	7,382.8	6,967.3	22.1	31.4	-89.01	348.8	-1,453.2	658.9	621.4	37.45	17.592		
7,400.0	6,995.8	7,481.5	6,990.2	22.8	31.8	-89.51	444.5	-1,459.5	658.8	619.4	39.37	16.733		
7,447.9	6,999.8	7,529.0	6,996.5	23.2	32.1	-89.71	491.4	-1,462.6	658.8	618.4	40.39	16.310		
7,500.0	7,000.0	7,581.0	6,999.7	23.6	32.4	-89.98	543.2	-1,466.0	658.8	617.3	41.53	15.863		
7,600.0	7,000.0	7,680.9	7,000.0	24.6	33.0	-90.00	642.9	-1,472.6	658.8	614.9	43.96	14.986		
7,700.0	7,000.0	7,780.9	7,000.0	25.8	33.7	-90.00	742.7	-1,479.1	658.9	612.3	46.59	14.142		
7,800.0	7,000.0	7,880.9	7,000.0	27.0	34.6	-90.00	842.5	-1,485.7	658.9	609.5	49.39	13.341		
7,900.0	7,000.0	7,980.9	7,000.0	28.3	35.5	-90.00	942.3	-1,492.3	658.9	606.6	52.32	12.593		
8,000.0	7,000.0	8,080.9	7,000.0	29.7	36.6	-90.00	1,042.1	-1,498.8	658.9	603.5	55.38	11.899		
8,100.0	7,000.0	8,180.9	7,000.0	31.2	37.7	-90.00	1,141.9	-1,505.4	658.9	600.4	58.53	11.258		
8,200.0	7,000.0	8,280.9	7,000.0	32.7	38.9	-90.00	1,241.7	-1,511.9	659.0	597.2	61.77	10.668		
8,300.0	7,000.0	8,380.9	7,000.0	34.3	40.2	-90.00	1,341.4	-1,518.5	659.0	593.9	65.08	10.126		
8,400.0	7,000.0	8,480.9	7,000.0	35.9	41.5	-90.00	1,441.2	-1,525.1	659.0	590.6	68.45	9.627		
8,500.0	7,000.0	8,580.9	7,000.0	37.5	42.9	-90.00	1,541.0	-1,531.6	659.0	587.2	71.88	9.168		
8,600.0	7,000.0	8,680.9	7,000.0	39.2	44.3	-90.00	1,640.8	-1,538.2	659.1	583.7	75.35	8.746		
8,700.0	7,000.0	8,780.9	7,000.0	40.9	45.8	-90.00	1,740.6	-1,544.8	659.1	580.2	78.86	8.357		
8,800.0	7,000.0	8,880.9	7,000.0	42.6	47.3	-90.00	1,840.4	-1,551.3	659.1	576.7	82.41	7.998		
8,900.0	7,000.0	8,980.9	7,000.0	44.4	48.8	-90.00	1,940.1	-1,557.9	659.1	573.1	85.98	7.666		
9,000.0	7,000.0	9,080.9	7,000.0	46.1	50.4	-90.00	2,039.9	-1,564.4	659.1	569.6	89.59	7.358		
9,100.0	7,000.0	9,180.9	7,000.0	47.9	52.0	-90.00	2,139.7	-1,571.0	659.2	566.0	93.21	7.072		
9,200.0	7,000.0	9,280.9	7,000.0	49.7	53.6	-90.00	2,239.5	-1,577.6	659.2	562.3	96.86	6.806		
9,300.0	7,000.0	9,380.9	7,000.0	51.5	55.2	-90.00	2,339.3	-1,584.1	659.2	558.7	100.53	6.558		
9,400.0	7,000.0	9,480.9	7,000.0	53.3	56.9	-90.00	2,439.1	-1,590.7	659.2	555.0	104.21	6.326		
9,500.0	7,000.0	9,580.9	7,000.0	55.1	58.6	-90.00	2,538.8	-1,597.2	659.3	551.4	107.91	6.109		
9,600.0	7,000.0	9,680.9	7,000.0	56.9	60.3	-90.00	2,638.6	-1,603.8	659.3	547.7	111.62	5.907		
9,700.0	7,000.0	9,780.9	7,000.0	58.7	62.0	-90.00	2,738.4	-1,610.4	659.3	544.0	115.34	5.716		
9,800.0	7,000.0	9,880.9	7,000.0	60.6	63.8	-90.00	2,838.2	-1,616.9	659.3	540.2	119.08	5.537		
9,900.0	7,000.0	9,980.9	7,000.0	62.4	65.5	-90.00	2,938.0	-1,623.5	659.3	536.5	122.82	5.368		
10,000.0	7,000.0	10,080.9	7,000.0	64.3	67.3	-90.00	3,037.8	-1,630.1	659.4	532.8	126.57	5.209		
10,100.0	7,000.0	10,180.9	7,000.0	66.1	69.0	-90.00	3,137.6	-1,636.6	659.4	529.1	130.34	5.059		
10,200.0	7,000.0	10,280.9	7,000.0	68.0	70.8	-90.00	3,237.3	-1,643.2	659.4	525.3	134.11	4.917		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												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	
10,300.0	7,000.0	10,380.9	7,000.0	69.9	72.6	-90.00	3,337.1	-1,649.7	659.4	521.6	137.88	4.783	
10,400.0	7,000.0	10,480.9	7,000.0	71.7	74.4	-90.00	3,436.9	-1,656.3	659.5	517.8	141.67	4.655	
10,500.0	7,000.0	10,580.9	7,000.0	73.6	76.2	-90.00	3,536.7	-1,662.9	659.5	514.0	145.46	4.534	
10,600.0	7,000.0	10,680.9	7,000.0	75.5	78.0	-90.00	3,636.5	-1,669.4	659.5	510.3	149.25	4.419	
10,700.0	7,000.0	10,780.9	7,000.0	77.4	79.8	-90.00	3,736.3	-1,676.0	659.5	506.5	153.05	4.309	
10,800.0	7,000.0	10,880.9	7,000.0	79.2	81.6	-90.00	3,836.0	-1,682.5	659.6	502.7	156.85	4.205	
10,900.0	7,000.0	10,980.9	7,000.0	81.1	83.5	-90.00	3,935.8	-1,689.1	659.6	498.9	160.66	4.105	
11,000.0	7,000.0	11,080.9	7,000.0	83.0	85.3	-90.00	4,035.6	-1,695.7	659.6	495.1	164.48	4.010	
11,100.0	7,000.0	11,180.9	7,000.0	84.9	87.1	-90.00	4,135.4	-1,702.2	659.6	491.3	168.29	3.919	
11,200.0	7,000.0	11,280.9	7,000.0	86.8	89.0	-90.00	4,235.2	-1,708.8	659.6	487.5	172.11	3.833	
11,300.0	7,000.0	11,380.9	7,000.0	88.7	90.8	-90.00	4,335.0	-1,715.4	659.7	483.7	175.94	3.749	
11,349.0	7,000.0	11,429.9	7,000.0	89.6	91.7	-90.00	4,383.8	-1,718.6	659.7	481.9	177.81	3.710 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													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	-91.16	-1.8	-90.0	90.1					
100.0	100.0	100.0	100.0	0.1	0.1	-91.16	-1.8	-90.0	90.1	89.8	0.22	400.712		
200.0	200.0	200.0	200.0	0.3	0.3	-91.16	-1.8	-90.0	90.1	89.4	0.67	133.571		
300.0	300.0	300.0	300.0	0.6	0.6	-91.16	-1.8	-90.0	90.1	88.9	1.12	80.142		
400.0	400.0	400.0	400.0	0.8	0.8	-91.16	-1.8	-90.0	90.1	88.5	1.57	57.245		
500.0	500.0	500.0	500.0	1.0	1.0	-91.16	-1.8	-90.0	90.1	88.0	2.02	44.524		
600.0	600.0	600.0	600.0	1.2	1.2	-91.16	-1.8	-90.0	90.1	87.6	2.47	36.428 CC, ES		
700.0	700.0	696.9	696.9	1.5	1.4	-91.24	-2.0	-91.7	91.8	88.9	2.90	31.619		
800.0	800.0	793.6	793.5	1.7	1.6	-91.46	-2.5	-96.6	96.8	93.5	3.33	29.092		
900.0	900.0	889.9	889.4	1.9	1.9	-91.77	-3.2	-104.6	105.2	101.4	3.77	27.912		
1,000.0	1,000.0	985.5	984.3	2.1	2.1	-92.14	-4.3	-115.8	117.0	112.7	4.24	27.617		
1,100.0	1,100.0	1,080.3	1,078.0	2.4	2.4	-92.52	-5.7	-130.0	132.0	127.3	4.73	27.899		
1,200.0	1,200.0	1,174.0	1,170.1	2.6	2.7	-92.87	-7.4	-147.1	150.3	145.0	5.26	28.546		
1,300.0	1,300.0	1,266.4	1,260.4	2.8	3.1	-93.19	-9.3	-166.9	171.7	165.9	5.84	29.411		
1,400.0	1,400.0	1,357.5	1,348.7	3.0	3.5	-93.47	-11.5	-189.2	196.3	189.9	6.46	30.395		
1,500.0	1,500.0	1,447.5	1,435.2	3.2	3.9	7.51	-13.9	-213.9	222.3	215.9	6.42	34.625		
1,600.0	1,599.8	1,536.8	1,520.2	3.4	4.4	7.37	-16.5	-241.2	247.9	241.1	6.85	36.219		
1,700.0	1,699.5	1,633.1	1,611.3	3.7	5.0	7.33	-19.6	-272.2	272.0	264.7	7.29	37.315		
1,800.0	1,798.7	1,730.9	1,703.9	3.9	5.6	7.39	-22.6	-303.8	292.7	285.0	7.75	37.797		
1,900.0	1,897.5	1,829.4	1,797.0	4.1	6.3	7.53	-25.7	-335.5	310.1	301.9	8.21	37.759		
2,000.0	1,995.8	1,928.3	1,890.6	4.4	6.9	7.74	-28.8	-367.4	324.9	316.2	8.71	37.305		
2,100.0	2,094.1	2,027.2	1,984.1	4.7	7.6	7.95	-31.9	-399.4	339.7	330.4	9.22	36.821		
2,200.0	2,192.4	2,126.1	2,077.7	5.1	8.2	8.14	-35.1	-431.3	354.4	344.7	9.75	36.358		
2,300.0	2,290.8	2,225.0	2,171.2	5.4	8.9	8.31	-38.2	-463.2	369.2	358.9	10.28	35.918		
2,400.0	2,389.1	2,323.9	2,264.8	5.7	9.6	8.48	-41.3	-495.1	383.9	373.1	10.81	35.502		
2,500.0	2,487.4	2,422.8	2,358.4	6.1	10.2	8.62	-44.4	-527.0	398.7	387.3	11.36	35.109		
2,600.0	2,585.7	2,521.7	2,451.9	6.5	10.9	8.76	-47.5	-558.9	413.4	401.5	11.90	34.738		
2,700.0	2,684.0	2,620.6	2,545.5	6.8	11.6	8.89	-50.6	-590.8	428.2	415.7	12.45	34.388		
2,800.0	2,782.3	2,719.5	2,639.0	7.2	12.3	9.01	-53.7	-622.7	442.9	429.9	13.00	34.059		
2,900.0	2,880.7	2,818.4	2,732.6	7.6	12.9	9.13	-56.8	-654.6	457.7	444.1	13.56	33.748		
3,000.0	2,979.0	2,917.3	2,826.2	8.0	13.6	9.23	-59.9	-686.5	472.5	458.3	14.12	33.455		
3,100.0	3,077.3	3,016.2	2,919.7	8.4	14.3	9.33	-63.0	-718.4	487.2	472.5	14.68	33.179		
3,200.0	3,175.6	3,115.1	3,013.3	8.8	15.0	9.42	-66.1	-750.4	502.0	486.7	15.25	32.918		
3,300.0	3,273.9	3,214.0	3,106.8	9.2	15.7	9.51	-69.2	-782.3	516.8	500.9	15.82	32.672		
3,400.0	3,372.3	3,312.9	3,200.4	9.6	16.3	9.60	-72.4	-814.2	531.5	515.1	16.39	32.438		
3,500.0	3,470.6	3,411.8	3,294.0	10.0	17.0	9.68	-75.5	-846.1	546.3	529.3	16.96	32.218		
3,600.0	3,568.9	3,510.7	3,387.5	10.4	17.7	9.75	-78.6	-878.0	561.1	543.5	17.53	32.008		
3,700.0	3,667.2	3,609.6	3,481.1	10.8	18.4	9.82	-81.7	-909.9	575.8	557.7	18.10	31.810		
3,800.0	3,765.5	3,708.5	3,574.6	11.2	19.1	9.89	-84.8	-941.8	590.6	571.9	18.68	31.621		
3,900.0	3,863.8	3,807.4	3,668.2	11.6	19.8	9.95	-87.9	-973.7	605.4	586.1	19.25	31.442		
4,000.0	3,962.2	3,906.3	3,761.8	12.0	20.4	10.01	-91.0	-1,005.6	620.1	600.3	19.83	31.271		
4,100.0	4,060.5	4,005.2	3,855.3	12.4	21.1	10.07	-94.1	-1,037.5	634.9	614.5	20.41	31.108		
4,200.0	4,158.8	4,104.1	3,948.9	12.8	21.8	10.13	-97.2	-1,069.5	649.7	628.7	20.99	30.953		
4,300.0	4,257.1	4,203.0	4,042.4	13.2	22.5	10.18	-100.3	-1,101.4	664.5	642.9	21.57	30.805		
4,400.0	4,355.4	4,301.9	4,136.0	13.6	23.2	10.23	-103.4	-1,133.3	679.2	657.1	22.15	30.664		
4,500.0	4,453.7	4,400.8	4,229.6	14.0	23.9	10.28	-106.5	-1,165.2	694.0	671.3	22.73	30.529		
4,600.0	4,552.1	4,499.7	4,323.1	14.4	24.6	10.33	-109.6	-1,197.1	708.8	685.5	23.32	30.399		
4,700.0	4,650.4	4,598.6	4,416.7	14.8	25.2	10.37	-112.8	-1,229.0	723.6	699.7	23.90	30.275		
4,800.0	4,748.7	4,697.5	4,510.2	15.3	25.9	10.41	-115.9	-1,260.9	738.3	713.9	24.48	30.157		
4,900.0	4,847.0	4,796.4	4,603.8	15.7	26.6	10.45	-119.0	-1,292.8	753.1	728.1	25.07	30.043		
5,000.0	4,945.3	4,895.3	4,697.4	16.1	27.3	10.49	-122.1	-1,324.7	767.9	742.2	25.65	29.933		
5,100.0	5,043.7	4,994.2	4,790.9	16.5	28.0	10.53	-125.2	-1,356.6	782.7	756.4	26.24	29.828		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
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		
5,200.0	5,142.0	5,093.1	4,884.5	16.9	28.7	10.57	-128.3	-1,388.5	797.5	770.6	26.83	29.727		
5,300.0	5,240.3	5,192.0	4,978.0	17.3	29.4	10.60	-131.4	-1,420.5	812.2	784.8	27.41	29.630		
5,400.0	5,338.6	5,290.9	5,071.6	17.7	30.1	10.64	-134.5	-1,452.4	827.0	799.0	28.00	29.537		
5,500.0	5,436.9	5,389.8	5,165.2	18.1	30.7	10.67	-137.6	-1,484.3	841.8	813.2	28.59	29.446		
5,600.0	5,535.2	5,527.8	5,296.6	18.6	31.4	10.73	-141.7	-1,525.9	854.5	825.2	29.24	29.225		
5,700.0	5,633.7	5,669.9	5,433.9	18.9	32.1	10.84	-145.2	-1,562.2	862.8	833.0	29.83	28.923		
5,800.0	5,732.6	5,812.6	5,573.5	19.2	32.6	10.95	-148.1	-1,591.8	869.4	839.1	30.31	28.679		
5,900.0	5,832.0	5,955.9	5,715.0	19.4	33.0	11.03	-150.3	-1,614.5	874.4	843.6	30.72	28.463		
6,000.0	5,931.7	6,099.6	5,857.8	19.6	33.3	11.08	-151.8	-1,630.1	877.8	846.8	31.05	28.268		
6,100.0	6,031.6	6,243.5	6,001.5	19.8	33.5	11.11	-152.7	-1,638.7	879.7	848.4	31.31	28.098		
6,200.0	6,131.6	6,373.7	6,131.6	19.9	33.6	-90.12	-152.8	-1,640.3	880.0	847.8	32.20	27.330		
6,300.0	6,231.6	6,473.7	6,231.6	20.1	33.7	-90.12	-152.8	-1,640.3	880.0	847.5	32.53	27.052		
6,400.0	6,331.5	6,570.2	6,328.1	20.2	33.8	-86.38	-151.5	-1,640.4	880.0	847.8	32.24	27.298		
6,500.0	6,430.5	6,663.0	6,420.1	20.3	33.9	-86.44	-139.8	-1,641.2	880.0	847.5	32.53	27.049		
6,600.0	6,526.7	6,756.0	6,510.0	20.5	33.9	-86.57	-116.3	-1,642.8	879.9	847.1	32.76	26.857		
6,700.0	6,618.1	6,850.0	6,596.9	20.6	34.0	-86.76	-80.9	-1,645.1	879.7	846.7	32.97	26.679		
6,800.0	6,703.0	6,942.9	6,677.6	20.7	34.1	-87.01	-35.1	-1,648.1	879.5	846.3	33.24	26.457		
6,900.0	6,779.7	7,037.0	6,752.6	20.8	34.2	-87.32	21.6	-1,651.8	879.3	845.6	33.66	26.126		
7,000.0	6,846.8	7,131.7	6,819.9	21.0	34.3	-87.67	88.0	-1,656.2	879.1	844.8	34.29	25.640		
7,100.0	6,902.9	7,227.2	6,878.3	21.2	34.5	-88.07	163.2	-1,661.2	878.9	843.7	35.22	24.957		
7,200.0	6,947.0	7,323.4	6,926.4	21.6	34.7	-88.51	246.3	-1,666.6	878.7	842.2	36.47	24.093		
7,300.0	6,978.2	7,420.5	6,963.3	22.1	35.0	-88.98	335.9	-1,672.5	878.6	840.5	38.06	23.086		
7,400.0	6,995.8	7,518.6	6,987.8	22.8	35.4	-89.47	430.5	-1,678.8	878.5	838.6	39.94	21.996		
7,455.3	7,000.1	7,573.3	6,995.8	23.2	35.6	-89.72	484.5	-1,682.3	878.5	837.4	41.10	21.374		
7,500.0	7,000.0	7,617.7	6,999.2	23.6	35.8	-89.95	528.7	-1,685.2	878.5	836.4	42.06	20.887		
7,600.0	7,000.0	7,717.7	7,000.0	24.6	36.4	-90.00	628.5	-1,691.8	878.5	834.1	44.45	19.762		
7,700.0	7,000.0	7,817.7	7,000.0	25.8	37.1	-90.00	728.2	-1,698.4	878.6	831.5	47.05	18.672		
7,800.0	7,000.0	7,917.7	7,000.0	27.0	37.8	-90.00	828.0	-1,704.9	878.6	828.8	49.82	17.636		
7,900.0	7,000.0	8,017.7	7,000.0	28.3	38.7	-90.00	927.8	-1,711.5	878.6	825.9	52.73	16.663		
8,000.0	7,000.0	8,117.7	7,000.0	29.7	39.6	-90.00	1,027.6	-1,718.1	878.6	822.9	55.76	15.758		
8,100.0	7,000.0	8,217.7	7,000.0	31.2	40.6	-90.00	1,127.4	-1,724.6	878.7	819.8	58.89	14.921		
8,200.0	7,000.0	8,317.7	7,000.0	32.7	41.7	-90.00	1,227.2	-1,731.2	878.7	816.6	62.11	14.148		
8,300.0	7,000.0	8,417.7	7,000.0	34.3	42.8	-90.00	1,326.9	-1,737.8	878.7	813.3	65.40	13.437		
8,400.0	7,000.0	8,517.7	7,000.0	35.9	44.1	-90.00	1,426.7	-1,744.3	878.8	810.0	68.75	12.782		
8,500.0	7,000.0	8,617.7	7,000.0	37.5	45.3	-90.00	1,526.5	-1,750.9	878.8	806.6	72.16	12.178		
8,600.0	7,000.0	8,717.7	7,000.0	39.2	46.7	-90.00	1,626.3	-1,757.5	878.8	803.2	75.62	11.622		
8,700.0	7,000.0	8,817.7	7,000.0	40.9	48.0	-90.00	1,726.1	-1,764.0	878.9	799.7	79.11	11.109		
8,800.0	7,000.0	8,917.7	7,000.0	42.6	49.5	-90.00	1,825.9	-1,770.6	878.9	796.2	82.65	10.634		
8,900.0	7,000.0	9,017.7	7,000.0	44.4	50.9	-90.00	1,925.7	-1,777.2	878.9	792.7	86.21	10.195		
9,000.0	7,000.0	9,117.7	7,000.0	46.1	52.4	-90.00	2,025.4	-1,783.8	878.9	789.1	89.80	9.788		
9,100.0	7,000.0	9,217.7	7,000.0	47.9	53.9	-90.00	2,125.2	-1,790.3	879.0	785.6	93.42	9.409		
9,200.0	7,000.0	9,317.7	7,000.0	49.7	55.5	-90.00	2,225.0	-1,796.9	879.0	781.9	97.06	9.057		
9,300.0	7,000.0	9,417.7	7,000.0	51.5	57.1	-90.00	2,324.8	-1,803.5	879.0	778.3	100.71	8.728		
9,400.0	7,000.0	9,517.7	7,000.0	53.3	58.7	-90.00	2,424.6	-1,810.0	879.1	774.7	104.39	8.421		
9,500.0	7,000.0	9,617.7	7,000.0	55.1	60.3	-90.00	2,524.4	-1,816.6	879.1	771.0	108.08	8.134		
9,600.0	7,000.0	9,717.7	7,000.0	56.9	62.0	-90.00	2,624.1	-1,823.2	879.1	767.3	111.78	7.865		
9,700.0	7,000.0	9,817.7	7,000.0	58.7	63.6	-90.00	2,723.9	-1,829.7	879.2	763.7	115.50	7.612		
9,800.0	7,000.0	9,917.7	7,000.0	60.6	65.3	-90.00	2,823.7	-1,836.3	879.2	760.0	119.22	7.374		
9,900.0	7,000.0	10,017.7	7,000.0	62.4	67.0	-90.00	2,923.5	-1,842.9	879.2	756.3	122.96	7.150		
10,000.0	7,000.0	10,117.7	7,000.0	64.3	68.7	-90.00	3,023.3	-1,849.5	879.2	752.5	126.71	6.939		
10,100.0	7,000.0	10,217.7	7,000.0	66.1	70.4	-90.00	3,123.1	-1,856.0	879.3	748.8	130.47	6.739		
10,200.0	7,000.0	10,317.7	7,000.0	68.0	72.2	-90.00	3,222.8	-1,862.6	879.3	745.1	134.23	6.551		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 21-4NHZ - Wellbore #1 - Plan #2 (4-25-14)		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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
10,300.0	7,000.0	10,417.7	7,000.0	69.9	73.9	-90.00	3,322.6	-1,869.2	879.3	741.3	138.00	6.372				
10,400.0	7,000.0	10,517.7	7,000.0	71.7	75.7	-90.00	3,422.4	-1,875.7	879.4	737.6	141.78	6.202				
10,500.0	7,000.0	10,617.7	7,000.0	73.6	77.5	-90.00	3,522.2	-1,882.3	879.4	733.8	145.57	6.041				
10,600.0	7,000.0	10,717.7	7,000.0	75.5	79.2	-90.00	3,622.0	-1,888.9	879.4	730.1	149.36	5.888				
10,700.0	7,000.0	10,817.7	7,000.0	77.4	81.0	-90.00	3,721.8	-1,895.4	879.5	726.3	153.15	5.742				
10,800.0	7,000.0	10,917.7	7,000.0	79.2	82.8	-90.00	3,821.5	-1,902.0	879.5	722.5	156.95	5.604				
10,900.0	7,000.0	11,017.7	7,000.0	81.1	84.6	-90.00	3,921.3	-1,908.6	879.5	718.8	160.76	5.471				
11,000.0	7,000.0	11,117.7	7,000.0	83.0	86.4	-90.00	4,021.1	-1,915.1	879.6	715.0	164.57	5.345				
11,100.0	7,000.0	11,217.7	7,000.0	84.9	88.2	-90.00	4,120.9	-1,921.7	879.6	711.2	168.38	5.224				
11,200.0	7,000.0	11,317.7	7,000.0	86.8	90.1	-90.00	4,220.7	-1,928.3	879.6	707.4	172.20	5.108				
11,300.0	7,000.0	11,417.7	7,000.0	88.7	91.9	-90.00	4,320.5	-1,934.9	879.6	703.6	176.02	4.997				
11,349.0	7,000.0	11,466.6	7,000.0	89.6	92.8	-90.00	4,369.3	-1,938.1	879.7	701.8	177.89	4.945 SF				

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
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	-90.92	-0.4	-22.6	22.6					
100.0	100.0	100.0	100.0	0.1	0.1	-90.92	-0.4	-22.6	22.6	22.4	0.22	100.481		
200.0	200.0	200.0	200.0	0.3	0.3	-90.92	-0.4	-22.6	22.6	21.9	0.67	33.494		
300.0	300.0	300.0	300.0	0.6	0.6	-90.92	-0.4	-22.6	22.6	21.5	1.12	20.096		
400.0	400.0	400.0	400.0	0.8	0.8	-90.92	-0.4	-22.6	22.6	21.0	1.57	14.354		
500.0	500.0	500.0	500.0	1.0	1.0	-90.92	-0.4	-22.6	22.6	20.6	2.02	11.165		
600.0	600.0	600.0	600.0	1.2	1.2	-90.92	-0.4	-22.6	22.6	20.1	2.47	9.135		
700.0	700.0	700.0	700.0	1.5	1.5	-90.92	-0.4	-22.6	22.6	19.7	2.92	7.729		
800.0	800.0	800.0	800.0	1.7	1.7	-90.92	-0.4	-22.6	22.6	19.2	3.37	6.699		
900.0	900.0	900.0	900.0	1.9	1.9	-90.92	-0.4	-22.6	22.6	18.8	3.82	5.911		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.92	-0.4	-22.6	22.6	18.3	4.27	5.288		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-90.92	-0.4	-22.6	22.6	17.9	4.72	4.785		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.92	-0.4	-22.6	22.6	17.4	5.17	4.369 CC, ES		
1,300.0	1,300.0	1,299.2	1,299.2	2.8	2.8	-91.49	-0.6	-24.3	24.3	18.7	5.60	4.338		
1,400.0	1,400.0	1,398.1	1,398.0	3.0	3.0	-92.79	-1.4	-29.3	29.5	23.4	6.03	4.888		
1,500.0	1,500.0	1,496.8	1,496.2	3.2	3.2	7.38	-2.8	-37.8	36.3	29.9	6.43	5.652		
1,600.0	1,599.8	1,595.2	1,593.9	3.4	3.4	6.83	-4.6	-49.5	43.1	36.3	6.81	6.334		
1,700.0	1,699.5	1,693.4	1,690.9	3.7	3.7	6.59	-7.0	-64.4	49.9	42.7	7.20	6.935		
1,800.0	1,798.7	1,791.3	1,787.1	3.9	4.0	6.55	-9.8	-82.6	56.7	49.1	7.59	7.464		
1,900.0	1,897.5	1,890.1	1,883.5	4.1	4.3	6.67	-13.2	-103.9	62.9	55.0	7.99	7.877		
2,000.0	1,995.8	1,990.0	1,980.9	4.4	4.7	7.01	-16.6	-125.8	67.2	58.7	8.43	7.968		
2,100.0	2,094.1	2,089.9	2,078.4	4.7	5.1	7.32	-20.1	-147.7	71.2	62.4	8.88	8.018		
2,200.0	2,192.4	2,189.8	2,175.8	5.1	5.5	7.59	-23.6	-169.7	75.3	66.0	9.35	8.055		
2,300.0	2,290.8	2,289.7	2,273.2	5.4	5.9	7.84	-27.0	-191.6	79.4	69.6	9.83	8.081		
2,400.0	2,389.1	2,389.7	2,370.6	5.7	6.3	8.06	-30.5	-213.5	83.5	73.2	10.31	8.099		
2,500.0	2,487.4	2,489.6	2,468.0	6.1	6.8	8.27	-33.9	-235.4	87.6	76.8	10.80	8.111		
2,600.0	2,585.7	2,589.5	2,565.5	6.5	7.2	8.45	-37.4	-257.3	91.7	80.4	11.30	8.118		
2,700.0	2,684.0	2,689.4	2,662.9	6.8	7.7	8.62	-40.8	-279.3	95.8	84.0	11.80	8.121		
2,800.0	2,782.3	2,789.3	2,760.3	7.2	8.1	8.77	-44.3	-301.2	99.9	87.6	12.30	8.120		
2,900.0	2,880.7	2,889.2	2,857.7	7.6	8.6	8.92	-47.8	-323.1	104.0	91.2	12.81	8.118		
3,000.0	2,979.0	2,989.2	2,955.1	8.0	9.1	9.05	-51.2	-345.0	108.1	94.8	13.32	8.113		
3,100.0	3,077.3	3,089.1	3,052.6	8.4	9.5	9.17	-54.7	-366.9	112.2	98.4	13.84	8.107		
3,200.0	3,175.6	3,189.0	3,150.0	8.8	10.0	9.28	-58.1	-388.9	116.3	101.9	14.36	8.099		
3,300.0	3,273.9	3,288.9	3,247.4	9.2	10.5	9.39	-61.6	-410.8	120.4	105.5	14.88	8.091		
3,400.0	3,372.3	3,388.8	3,344.8	9.6	10.9	9.49	-65.0	-432.7	124.5	109.1	15.40	8.082		
3,500.0	3,470.6	3,488.7	3,442.2	10.0	11.4	9.58	-68.5	-454.6	128.6	112.7	15.93	8.073		
3,600.0	3,568.9	3,588.6	3,539.7	10.4	11.9	9.67	-71.9	-476.6	132.7	116.2	16.46	8.063		
3,700.0	3,667.2	3,688.6	3,637.1	10.8	12.4	9.75	-75.4	-498.5	136.8	119.8	16.99	8.053		
3,800.0	3,765.5	3,788.5	3,734.5	11.2	12.8	9.82	-78.9	-520.4	140.9	123.4	17.52	8.043		
3,900.0	3,863.8	3,888.4	3,831.9	11.6	13.3	9.90	-82.3	-542.3	145.0	127.0	18.05	8.033		
4,000.0	3,962.2	3,988.3	3,929.3	12.0	13.8	9.97	-85.8	-564.2	149.1	130.5	18.58	8.023		
4,100.0	4,060.5	4,088.2	4,026.8	12.4	14.3	10.03	-89.2	-586.2	153.2	134.1	19.12	8.013		
4,200.0	4,158.8	4,188.1	4,124.2	12.8	14.8	10.09	-92.7	-608.1	157.3	137.7	19.66	8.003		
4,300.0	4,257.1	4,288.1	4,221.6	13.2	15.2	10.15	-96.1	-630.0	161.4	141.2	20.19	7.993		
4,400.0	4,355.4	4,388.0	4,319.0	13.6	15.7	10.21	-99.6	-651.9	165.5	144.8	20.73	7.983		
4,500.0	4,453.7	4,487.9	4,416.4	14.0	16.2	10.26	-103.1	-673.8	169.6	148.3	21.27	7.974		
4,600.0	4,552.1	4,587.8	4,513.9	14.4	16.7	10.31	-106.5	-695.8	173.7	151.9	21.81	7.964		
4,700.0	4,650.4	4,687.7	4,611.3	14.8	17.2	10.36	-110.0	-717.7	177.8	155.5	22.35	7.955		
4,800.0	4,748.7	4,787.6	4,708.7	15.3	17.6	10.40	-113.4	-739.6	181.9	159.0	22.90	7.946		
4,900.0	4,847.0	4,887.6	4,806.1	15.7	18.1	10.45	-116.9	-761.5	186.0	162.6	23.44	7.937		
5,000.0	4,945.3	4,987.5	4,903.5	16.1	18.6	10.49	-120.3	-783.5	190.1	166.2	23.98	7.929		
5,100.0	5,043.7	5,087.4	5,001.0	16.5	19.1	10.53	-123.8	-805.4	194.2	169.7	24.52	7.920		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
5,200.0	5,142.0	5,187.3	5,098.4	16.9	19.6	10.57	-127.3	-827.3	198.3	173.3	25.07	7.912	
5,300.0	5,240.3	5,287.2	5,195.8	17.3	20.1	10.60	-130.7	-849.2	202.4	176.8	25.61	7.904	
5,400.0	5,338.6	5,387.1	5,293.2	17.7	20.6	10.64	-134.2	-871.1	206.6	180.4	26.16	7.896	
5,500.0	5,436.9	5,487.0	5,390.6	18.1	21.0	10.67	-137.6	-893.1	210.7	183.9	26.71	7.888	
5,600.0	5,535.2	5,589.0	5,490.0	18.6	21.5	10.71	-141.1	-915.3	214.6	187.4	27.25	7.877	
5,700.0	5,633.7	5,697.0	5,596.0	18.9	21.9	10.84	-144.4	-936.0	216.5	188.8	27.76	7.799	
5,800.0	5,732.6	5,805.1	5,702.7	19.2	22.2	10.95	-147.1	-952.8	217.8	189.6	28.20	7.723	
5,900.0	5,832.0	5,913.2	5,810.1	19.4	22.5	11.04	-149.1	-965.7	218.8	190.2	28.59	7.653	
6,000.0	5,931.7	6,021.4	5,917.9	19.6	22.7	11.10	-150.5	-974.5	219.4	190.5	28.92	7.589	
6,100.0	6,031.6	6,129.6	6,026.0	19.8	22.8	11.13	-151.2	-979.2	219.8	190.6	29.19	7.529	
6,200.0	6,131.6	6,235.2	6,131.6	19.9	23.0	-90.09	-151.4	-980.2	219.9	189.9	29.95	7.342	
6,300.0	6,231.6	6,335.2	6,231.6	20.1	23.1	-90.09	-151.4	-980.2	219.9	189.6	30.31	7.256	
6,400.0	6,331.5	6,434.3	6,330.6	20.2	23.2	-86.35	-149.8	-980.3	219.9	189.7	30.21	7.279	
6,500.0	6,430.5	6,532.4	6,427.8	20.3	23.3	-86.42	-136.8	-981.1	219.9	189.4	30.51	7.206	
6,600.0	6,526.7	6,630.5	6,522.3	20.5	23.4	-86.56	-110.6	-982.9	219.8	189.1	30.75	7.150	
6,700.0	6,618.1	6,728.8	6,612.4	20.6	23.5	-86.76	-71.7	-985.4	219.8	188.8	30.97	7.097	
6,800.0	6,703.0	6,827.1	6,696.4	20.7	23.6	-87.02	-20.9	-988.7	219.7	188.5	31.26	7.030	
6,900.0	6,779.7	6,925.6	6,772.7	20.8	23.7	-87.35	41.1	-992.8	219.7	188.0	31.70	6.929	
7,000.0	6,846.8	7,024.3	6,840.0	21.0	23.9	-87.72	113.1	-997.5	219.6	187.3	32.38	6.782	
7,100.0	6,902.9	7,123.2	6,896.8	21.2	24.1	-88.14	193.7	-1,002.8	219.6	186.2	33.38	6.578	
7,200.0	6,947.0	7,222.3	6,942.0	21.6	24.4	-88.59	281.6	-1,008.6	219.6	184.8	34.73	6.322	
7,300.0	6,978.2	7,321.7	6,974.7	22.1	24.9	-89.07	375.2	-1,014.8	219.5	183.1	36.42	6.028	
7,400.0	6,995.8	7,421.3	6,994.2	22.8	25.4	-89.57	472.6	-1,021.1	219.5	181.1	38.41	5.715	
7,407.1	6,996.6	7,428.3	6,995.1	22.8	25.5	-89.60	479.6	-1,021.6	219.5	181.0	38.56	5.693	
7,500.0	7,000.0	7,521.2	7,000.0	23.6	26.2	-90.00	572.0	-1,027.7	219.5	178.9	40.64	5.401	
7,600.0	7,000.0	7,621.2	7,000.0	24.6	27.0	-90.00	671.8	-1,034.2	219.5	176.4	43.14	5.089	
7,700.0	7,000.0	7,721.2	7,000.0	25.8	28.0	-90.00	771.6	-1,040.8	219.5	173.7	45.82	4.791	
7,800.0	7,000.0	7,821.2	7,000.0	27.0	29.1	-90.00	871.4	-1,047.3	219.6	170.9	48.67	4.511	
7,900.0	7,000.0	7,921.2	7,000.0	28.3	30.3	-90.00	971.1	-1,053.9	219.6	167.9	51.66	4.250	
8,000.0	7,000.0	8,021.2	7,000.0	29.7	31.6	-90.00	1,070.9	-1,060.4	219.6	164.8	54.76	4.010	
8,100.0	7,000.0	8,121.2	7,000.0	31.2	32.9	-90.00	1,170.7	-1,067.0	219.6	161.6	57.96	3.789	
8,200.0	7,000.0	8,221.2	7,000.0	32.7	34.4	-90.00	1,270.5	-1,073.5	219.6	158.4	61.24	3.586	
8,300.0	7,000.0	8,321.2	7,000.0	34.3	35.8	-90.00	1,370.3	-1,080.1	219.6	155.0	64.58	3.401	
8,400.0	7,000.0	8,421.2	7,000.0	35.9	37.4	-90.00	1,470.1	-1,086.6	219.6	151.6	67.99	3.230	
8,500.0	7,000.0	8,521.2	7,000.0	37.5	38.9	-90.00	1,569.9	-1,093.2	219.6	148.2	71.44	3.074	
8,600.0	7,000.0	8,621.2	7,000.0	39.2	40.5	-90.00	1,669.6	-1,099.7	219.7	144.7	74.94	2.931	
8,700.0	7,000.0	8,721.2	7,000.0	40.9	42.2	-90.00	1,769.4	-1,106.3	219.7	141.2	78.48	2.799	
8,800.0	7,000.0	8,821.2	7,000.0	42.6	43.8	-90.00	1,869.2	-1,112.8	219.7	137.6	82.05	2.677	
8,900.0	7,000.0	8,921.2	7,000.0	44.4	45.5	-90.00	1,969.0	-1,119.4	219.7	134.0	85.65	2.565	
9,000.0	7,000.0	9,021.2	7,000.0	46.1	47.2	-90.00	2,068.8	-1,125.9	219.7	130.4	89.27	2.461	
9,100.0	7,000.0	9,121.2	7,000.0	47.9	48.9	-90.00	2,168.6	-1,132.5	219.7	126.8	92.91	2.365	
9,200.0	7,000.0	9,221.2	7,000.0	49.7	50.7	-90.00	2,268.4	-1,139.0	219.7	123.2	96.58	2.275	
9,300.0	7,000.0	9,321.2	7,000.0	51.5	52.4	-90.00	2,368.1	-1,145.6	219.7	119.5	100.26	2.192	
9,400.0	7,000.0	9,421.2	7,000.0	53.3	54.2	-90.00	2,467.9	-1,152.1	219.8	115.8	103.96	2.114	
9,500.0	7,000.0	9,521.2	7,000.0	55.1	56.0	-90.00	2,567.7	-1,158.7	219.8	112.1	107.67	2.041	
9,600.0	7,000.0	9,621.2	7,000.0	56.9	57.8	-90.00	2,667.5	-1,165.2	219.8	108.4	111.39	1.973	
9,700.0	7,000.0	9,721.2	7,000.0	58.7	59.6	-90.00	2,767.3	-1,171.8	219.8	104.7	115.13	1.909	
9,800.0	7,000.0	9,821.2	7,000.0	60.6	61.4	-90.00	2,867.1	-1,178.4	219.8	100.9	118.87	1.849	
9,900.0	7,000.0	9,921.2	7,000.0	62.4	63.2	-90.00	2,966.9	-1,184.9	219.8	97.2	122.63	1.793	
10,000.0	7,000.0	10,021.2	7,000.0	64.3	65.0	-90.00	3,066.6	-1,191.5	219.8	93.4	126.39	1.739	
10,100.0	7,000.0	10,121.2	7,000.0	66.1	66.9	-90.00	3,166.4	-1,198.0	219.8	89.7	130.16	1.689	
10,200.0	7,000.0	10,221.2	7,000.0	68.0	68.7	-90.00	3,266.2	-1,204.6	219.8	85.9	133.94	1.641	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
10,300.0	7,000.0	10,321.2	7,000.0	69.9	70.5	-90.00	3,366.0	-1,211.1	219.9	82.1	137.73	1.596	
10,400.0	7,000.0	10,421.2	7,000.0	71.7	72.4	-90.00	3,465.8	-1,217.7	219.9	78.4	141.52	1.554	
10,500.0	7,000.0	10,521.2	7,000.0	73.6	74.3	-90.00	3,565.6	-1,224.2	219.9	74.6	145.32	1.513	
10,600.0	7,000.0	10,621.2	7,000.0	75.5	76.1	-90.00	3,665.3	-1,230.8	219.9	70.8	149.12	1.475 Level 3	
10,700.0	7,000.0	10,721.2	7,000.0	77.4	78.0	-90.00	3,765.1	-1,237.3	219.9	67.0	152.92	1.438 Level 3	
10,800.0	7,000.0	10,821.2	7,000.0	79.2	79.8	-90.00	3,864.9	-1,243.9	219.9	63.2	156.74	1.403 Level 3	
10,900.0	7,000.0	10,921.2	7,000.0	81.1	81.7	-90.00	3,964.7	-1,250.4	219.9	59.4	160.55	1.370 Level 3	
11,000.0	7,000.0	11,021.2	7,000.0	83.0	83.6	-90.00	4,064.5	-1,257.0	219.9	55.6	164.37	1.338 Level 3	
11,100.0	7,000.0	11,121.2	7,000.0	84.9	85.5	-90.00	4,164.3	-1,263.5	220.0	51.8	168.19	1.308 Level 3	
11,200.0	7,000.0	11,221.2	7,000.0	86.8	87.4	-90.00	4,264.1	-1,270.1	220.0	48.0	172.02	1.279 Level 3	
11,300.0	7,000.0	11,321.2	7,000.0	88.7	89.2	-90.00	4,363.8	-1,276.6	220.0	44.1	175.85	1.251 Level 3	
11,349.0	7,000.0	11,370.1	7,000.0	89.6	90.2	-90.00	4,412.7	-1,279.8	220.0	42.3	177.72	1.238 Level 2, SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
0.0	0.0	0.0	0.0	0.0	0.0	-90.93	-0.7	-44.9	44.9				
100.0	100.0	100.0	100.0	0.1	0.1	-90.93	-0.7	-44.9	44.9	44.7	0.22	199.721	
200.0	200.0	200.0	200.0	0.3	0.3	-90.93	-0.7	-44.9	44.9	44.2	0.67	66.574	
300.0	300.0	300.0	300.0	0.6	0.6	-90.93	-0.7	-44.9	44.9	43.8	1.12	39.944	
400.0	400.0	400.0	400.0	0.8	0.8	-90.93	-0.7	-44.9	44.9	43.3	1.57	28.532	
500.0	500.0	500.0	500.0	1.0	1.0	-90.93	-0.7	-44.9	44.9	42.9	2.02	22.191	
600.0	600.0	600.0	600.0	1.2	1.2	-90.93	-0.7	-44.9	44.9	42.4	2.47	18.156	
700.0	700.0	700.0	700.0	1.5	1.5	-90.93	-0.7	-44.9	44.9	42.0	2.92	15.363	
800.0	800.0	800.0	800.0	1.7	1.7	-90.93	-0.7	-44.9	44.9	41.5	3.37	13.315	
900.0	900.0	900.0	900.0	1.9	1.9	-90.93	-0.7	-44.9	44.9	41.1	3.82	11.748	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.93	-0.7	-44.9	44.9	40.6	4.27	10.512 CC, ES	
1,100.0	1,100.0	1,098.4	1,098.4	2.4	2.3	-91.17	-0.9	-46.6	46.6	41.9	4.70	9.910	
1,200.0	1,200.0	1,196.6	1,196.5	2.6	2.5	-91.78	-1.6	-51.6	51.7	46.6	5.13	10.089	
1,300.0	1,300.0	1,294.4	1,293.8	2.8	2.8	-92.57	-2.7	-59.9	60.2	54.7	5.56	10.830	
1,400.0	1,400.0	1,391.4	1,390.2	3.0	3.0	-93.36	-4.2	-71.4	72.1	66.1	6.02	11.990	
1,500.0	1,500.0	1,487.8	1,485.5	3.2	3.2	7.28	-6.1	-86.0	85.7	79.3	6.39	13.406	
1,600.0	1,599.8	1,583.8	1,579.8	3.4	3.5	6.98	-8.4	-103.7	99.1	92.3	6.79	14.602	
1,700.0	1,699.5	1,679.4	1,673.1	3.7	3.9	6.87	-11.1	-124.4	112.4	105.3	7.19	15.639	
1,800.0	1,798.7	1,775.7	1,766.2	3.9	4.3	6.88	-14.2	-148.3	125.5	117.9	7.60	16.517	
1,900.0	1,897.5	1,875.1	1,862.3	4.1	4.7	7.04	-17.6	-173.8	136.1	128.0	8.02	16.966	
2,000.0	1,995.8	1,974.8	1,958.6	4.4	5.2	7.33	-20.9	-199.4	144.1	135.6	8.47	17.012	
2,100.0	2,094.1	2,074.4	2,054.8	4.7	5.7	7.59	-24.3	-225.0	152.0	143.1	8.95	16.986	
2,200.0	2,192.4	2,174.1	2,151.1	5.1	6.2	7.83	-27.6	-250.6	159.9	150.5	9.44	16.952	
2,300.0	2,290.8	2,273.8	2,247.4	5.4	6.7	8.05	-31.0	-276.2	167.9	158.0	9.93	16.907	
2,400.0	2,389.1	2,373.5	2,343.7	5.7	7.2	8.25	-34.3	-301.8	175.8	165.4	10.43	16.855	
2,500.0	2,487.4	2,473.2	2,440.0	6.1	7.7	8.43	-37.7	-327.4	183.7	172.8	10.94	16.799	
2,600.0	2,585.7	2,572.9	2,536.2	6.5	8.2	8.59	-41.0	-353.0	191.7	180.2	11.45	16.739	
2,700.0	2,684.0	2,672.5	2,632.5	6.8	8.8	8.75	-44.3	-378.6	199.6	187.7	11.97	16.679	
2,800.0	2,782.3	2,772.2	2,728.8	7.2	9.3	8.89	-47.7	-404.2	207.6	195.1	12.49	16.617	
2,900.0	2,880.7	2,871.9	2,825.1	7.6	9.8	9.02	-51.0	-429.8	215.5	202.5	13.02	16.556	
3,000.0	2,979.0	2,971.6	2,921.4	8.0	10.4	9.14	-54.4	-455.4	223.4	209.9	13.55	16.496	
3,100.0	3,077.3	3,071.3	3,017.6	8.4	10.9	9.25	-57.7	-481.0	231.4	217.3	14.08	16.436	
3,200.0	3,175.6	3,171.0	3,113.9	8.8	11.5	9.36	-61.1	-506.6	239.3	224.7	14.61	16.378	
3,300.0	3,273.9	3,270.6	3,210.2	9.2	12.0	9.46	-64.4	-532.2	247.3	232.1	15.15	16.321	
3,400.0	3,372.3	3,370.3	3,306.5	9.6	12.6	9.55	-67.8	-557.8	255.2	239.5	15.69	16.266	
3,500.0	3,470.6	3,470.0	3,402.8	10.0	13.1	9.63	-71.1	-583.4	263.2	246.9	16.23	16.213	
3,600.0	3,568.9	3,569.7	3,499.1	10.4	13.7	9.72	-74.5	-609.0	271.1	254.3	16.77	16.161	
3,700.0	3,667.2	3,669.4	3,595.3	10.8	14.2	9.79	-77.8	-634.6	279.0	261.7	17.32	16.111	
3,800.0	3,765.5	3,769.1	3,691.6	11.2	14.8	9.87	-81.2	-660.2	287.0	269.1	17.87	16.063	
3,900.0	3,863.8	3,868.7	3,787.9	11.6	15.3	9.94	-84.5	-685.8	294.9	276.5	18.41	16.017	
4,000.0	3,962.2	3,968.4	3,884.2	12.0	15.9	10.00	-87.8	-711.4	302.9	283.9	18.96	15.972	
4,100.0	4,060.5	4,068.1	3,980.5	12.4	16.4	10.06	-91.2	-737.0	310.8	291.3	19.51	15.928	
4,200.0	4,158.8	4,167.8	4,076.7	12.8	17.0	10.12	-94.5	-762.7	318.8	298.7	20.07	15.886	
4,300.0	4,257.1	4,267.5	4,173.0	13.2	17.5	10.18	-97.9	-788.3	326.7	306.1	20.62	15.846	
4,400.0	4,355.4	4,367.2	4,269.3	13.6	18.1	10.23	-101.2	-813.9	334.7	313.5	21.17	15.807	
4,500.0	4,453.7	4,466.8	4,365.6	14.0	18.6	10.28	-104.6	-839.5	342.6	320.9	21.73	15.769	
4,600.0	4,552.1	4,566.5	4,461.9	14.4	19.2	10.33	-107.9	-865.1	350.6	328.3	22.28	15.733	
4,700.0	4,650.4	4,666.2	4,558.1	14.8	19.7	10.38	-111.3	-890.7	358.5	335.7	22.84	15.698	
4,800.0	4,748.7	4,765.9	4,654.4	15.3	20.3	10.42	-114.6	-916.3	366.5	343.1	23.40	15.664	
4,900.0	4,847.0	4,865.6	4,750.7	15.7	20.8	10.46	-118.0	-941.9	374.4	350.5	23.95	15.631	
5,000.0	4,945.3	4,965.3	4,847.0	16.1	21.4	10.50	-121.3	-967.5	382.4	357.9	24.51	15.600	
5,100.0	5,043.7	5,064.9	4,943.3	16.5	21.9	10.54	-124.6	-993.1	390.3	365.2	25.07	15.569	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													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		
5,200.0	5,142.0	5,164.6	5,039.6	16.9	22.5	10.58	-128.0	-1,018.7	398.3	372.6	25.63	15.540		
5,300.0	5,240.3	5,264.3	5,135.8	17.3	23.1	10.62	-131.3	-1,044.3	406.2	380.0	26.19	15.511		
5,400.0	5,338.6	5,364.0	5,232.1	17.7	23.6	10.65	-134.7	-1,069.9	414.2	387.4	26.75	15.483		
5,500.0	5,436.9	5,463.7	5,328.4	18.1	24.2	10.68	-138.0	-1,095.5	422.1	394.8	27.31	15.457		
5,600.0	5,535.2	5,575.4	5,436.6	18.6	24.7	10.74	-141.6	-1,123.1	429.1	401.2	27.87	15.397		
5,700.0	5,633.7	5,692.9	5,551.4	18.9	25.1	10.86	-144.9	-1,147.7	432.8	404.4	28.40	15.239		
5,800.0	5,732.6	5,810.6	5,667.3	19.2	25.5	10.97	-147.5	-1,167.7	435.5	406.7	28.85	15.098		
5,900.0	5,832.0	5,928.3	5,784.1	19.4	25.7	11.05	-149.5	-1,183.0	437.6	408.4	29.23	14.970		
6,000.0	5,931.7	6,046.2	5,901.5	19.6	26.0	11.10	-150.8	-1,193.5	439.1	409.5	29.56	14.852		
6,100.0	6,031.6	6,164.2	6,019.3	19.8	26.2	11.13	-151.6	-1,199.2	439.8	410.0	29.83	14.744		
6,200.0	6,131.6	6,276.5	6,131.6	19.9	26.3	-90.09	-151.7	-1,200.3	440.0	409.4	30.63	14.365		
6,300.0	6,231.6	6,376.5	6,231.6	20.1	26.4	-90.09	-151.7	-1,200.3	440.0	409.0	30.98	14.203		
6,400.0	6,331.5	6,474.7	6,329.7	20.2	26.5	-86.35	-150.3	-1,200.4	440.0	409.2	30.81	14.279		
6,500.0	6,430.5	6,570.9	6,425.1	20.3	26.6	-86.42	-137.7	-1,201.2	440.0	408.8	31.11	14.140		
6,600.0	6,526.7	6,667.3	6,518.0	20.5	26.7	-86.55	-112.4	-1,202.9	439.9	408.5	31.35	14.033		
6,700.0	6,618.1	6,763.8	6,606.8	20.6	26.8	-86.75	-74.9	-1,205.3	439.8	408.2	31.57	13.933		
6,800.0	6,703.0	6,860.5	6,689.9	20.7	26.9	-87.01	-25.7	-1,208.6	439.7	407.9	31.85	13.807		
6,900.0	6,779.7	6,957.5	6,765.9	20.8	27.0	-87.33	34.4	-1,212.5	439.6	407.3	32.28	13.618		
7,000.0	6,846.8	7,054.9	6,833.2	21.0	27.1	-87.70	104.5	-1,217.1	439.5	406.6	32.94	13.341		
7,100.0	6,902.9	7,152.6	6,890.6	21.2	27.3	-88.11	183.3	-1,222.3	439.4	405.5	33.92	12.956		
7,200.0	6,947.0	7,250.8	6,936.9	21.6	27.6	-88.56	269.6	-1,228.0	439.3	404.1	35.23	12.470		
7,300.0	6,978.2	7,349.5	6,971.1	22.1	28.0	-89.04	361.9	-1,234.0	439.3	402.4	36.88	11.909		
7,400.0	6,995.8	7,448.6	6,992.3	22.8	28.5	-89.54	458.5	-1,240.4	439.2	400.4	38.84	11.308		
7,428.0	6,998.4	7,476.5	6,995.8	23.0	28.6	-89.66	486.1	-1,242.2	439.2	399.8	39.45	11.134		
7,500.0	7,000.0	7,548.3	7,000.0	23.6	29.1	-90.00	557.6	-1,246.9	439.2	398.2	41.04	10.702		
7,600.0	7,000.0	7,648.3	7,000.0	24.6	29.8	-90.00	657.4	-1,253.5	439.2	395.7	43.51	10.095		
7,700.0	7,000.0	7,748.3	7,000.0	25.8	30.7	-90.00	757.2	-1,260.0	439.3	393.1	46.17	9.514		
7,800.0	7,000.0	7,848.3	7,000.0	27.0	31.7	-90.00	856.9	-1,266.6	439.3	390.3	48.99	8.967		
7,900.0	7,000.0	7,948.3	7,000.0	28.3	32.7	-90.00	956.7	-1,273.1	439.3	387.4	51.95	8.456		
8,000.0	7,000.0	8,048.3	7,000.0	29.7	33.9	-90.00	1,056.5	-1,279.7	439.3	384.3	55.03	7.983		
8,100.0	7,000.0	8,148.3	7,000.0	31.2	35.1	-90.00	1,156.3	-1,286.3	439.3	381.1	58.21	7.548		
8,200.0	7,000.0	8,248.3	7,000.0	32.7	36.4	-90.00	1,256.1	-1,292.8	439.4	377.9	61.47	7.148		
8,300.0	7,000.0	8,348.3	7,000.0	34.3	37.8	-90.00	1,355.9	-1,299.4	439.4	374.6	64.80	6.781		
8,400.0	7,000.0	8,448.3	7,000.0	35.9	39.2	-90.00	1,455.6	-1,305.9	439.4	371.2	68.19	6.444		
8,500.0	7,000.0	8,548.3	7,000.0	37.5	40.7	-90.00	1,555.4	-1,312.5	439.4	367.8	71.63	6.135		
8,600.0	7,000.0	8,648.3	7,000.0	39.2	42.2	-90.00	1,655.2	-1,319.0	439.4	364.3	75.12	5.850		
8,700.0	7,000.0	8,748.3	7,000.0	40.9	43.8	-90.00	1,755.0	-1,325.6	439.5	360.8	78.64	5.588		
8,800.0	7,000.0	8,848.3	7,000.0	42.6	45.4	-90.00	1,854.8	-1,332.2	439.5	357.3	82.20	5.347		
8,900.0	7,000.0	8,948.3	7,000.0	44.4	47.0	-90.00	1,954.6	-1,338.7	439.5	353.7	85.79	5.123		
9,000.0	7,000.0	9,048.3	7,000.0	46.1	48.6	-90.00	2,054.4	-1,345.3	439.5	350.1	89.40	4.916		
9,100.0	7,000.0	9,148.3	7,000.0	47.9	50.3	-90.00	2,154.1	-1,351.8	439.5	346.5	93.03	4.724		
9,200.0	7,000.0	9,248.3	7,000.0	49.7	52.0	-90.00	2,253.9	-1,358.4	439.6	342.9	96.69	4.546		
9,300.0	7,000.0	9,348.3	7,000.0	51.5	53.7	-90.00	2,353.7	-1,365.0	439.6	339.2	100.37	4.380		
9,400.0	7,000.0	9,448.3	7,000.0	53.3	55.4	-90.00	2,453.5	-1,371.5	439.6	335.5	104.06	4.225		
9,500.0	7,000.0	9,548.3	7,000.0	55.1	57.2	-90.00	2,553.3	-1,378.1	439.6	331.9	107.76	4.080		
9,600.0	7,000.0	9,648.3	7,000.0	56.9	58.9	-90.00	2,653.1	-1,384.6	439.6	328.2	111.48	3.944		
9,700.0	7,000.0	9,748.3	7,000.0	58.7	60.7	-90.00	2,752.8	-1,391.2	439.7	324.4	115.21	3.816		
9,800.0	7,000.0	9,848.3	7,000.0	60.6	62.4	-90.00	2,852.6	-1,397.7	439.7	320.7	118.95	3.696		
9,900.0	7,000.0	9,948.3	7,000.0	62.4	64.2	-90.00	2,952.4	-1,404.3	439.7	317.0	122.70	3.583		
10,000.0	7,000.0	10,048.3	7,000.0	64.3	66.0	-90.00	3,052.2	-1,410.9	439.7	313.3	126.46	3.477		
10,100.0	7,000.0	10,148.3	7,000.0	66.1	67.8	-90.00	3,152.0	-1,417.4	439.7	309.5	130.23	3.377		
10,200.0	7,000.0	10,248.3	7,000.0	68.0	69.6	-90.00	3,251.8	-1,424.0	439.7	305.7	134.00	3.282		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 22-4NHZ - Wellbore #1 - Plan #2 (4-25-14)		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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
10,300.0	7,000.0	10,348.3	7,000.0	69.9	71.5	-90.00	3,351.6	-1,430.5	439.8	302.0	137.78	3.192			
10,400.0	7,000.0	10,448.3	7,000.0	71.7	73.3	-90.00	3,451.3	-1,437.1	439.8	298.2	141.57	3.107			
10,500.0	7,000.0	10,548.3	7,000.0	73.6	75.1	-90.00	3,551.1	-1,443.7	439.8	294.4	145.36	3.026			
10,600.0	7,000.0	10,648.3	7,000.0	75.5	76.9	-90.00	3,650.9	-1,450.2	439.8	290.7	149.16	2.949			
10,700.0	7,000.0	10,748.3	7,000.0	77.4	78.8	-90.00	3,750.7	-1,456.8	439.8	286.9	152.96	2.875			
10,800.0	7,000.0	10,848.3	7,000.0	79.2	80.6	-90.00	3,850.5	-1,463.3	439.9	283.1	156.77	2.806			
10,900.0	7,000.0	10,948.3	7,000.0	81.1	82.5	-90.00	3,950.3	-1,469.9	439.9	279.3	160.59	2.739			
11,000.0	7,000.0	11,048.3	7,000.0	83.0	84.3	-90.00	4,050.0	-1,476.5	439.9	275.5	164.40	2.676			
11,100.0	7,000.0	11,148.3	7,000.0	84.9	86.2	-90.00	4,149.8	-1,483.0	439.9	271.7	168.22	2.615			
11,200.0	7,000.0	11,248.3	7,000.0	86.8	88.1	-90.00	4,249.6	-1,489.6	439.9	267.9	172.04	2.557			
11,300.0	7,000.0	11,348.3	7,000.0	88.7	89.9	-90.00	4,349.4	-1,496.1	440.0	264.1	175.87	2.502			
11,349.0	7,000.0	11,397.3	7,000.0	89.6	90.9	-90.00	4,398.3	-1,499.3	440.0	262.2	177.75	2.475 SF			

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design													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	89.08	0.4	22.6	22.6					
100.0	100.0	100.0	100.0	0.1	0.1	89.08	0.4	22.6	22.6	22.4	0.22	100.481		
200.0	200.0	200.0	200.0	0.3	0.3	89.08	0.4	22.6	22.6	21.9	0.67	33.494		
300.0	300.0	300.0	300.0	0.6	0.6	89.08	0.4	22.6	22.6	21.5	1.12	20.096		
400.0	400.0	400.0	400.0	0.8	0.8	89.08	0.4	22.6	22.6	21.0	1.57	14.354		
500.0	500.0	500.0	500.0	1.0	1.0	89.08	0.4	22.6	22.6	20.6	2.02	11.165		
600.0	600.0	600.0	600.0	1.2	1.2	89.08	0.4	22.6	22.6	20.1	2.47	9.135		
700.0	700.0	700.0	700.0	1.5	1.5	89.08	0.4	22.6	22.6	19.7	2.92	7.729		
800.0	800.0	800.0	800.0	1.7	1.7	89.08	0.4	22.6	22.6	19.2	3.37	6.699		
900.0	900.0	900.0	900.0	1.9	1.9	89.08	0.4	22.6	22.6	18.8	3.82	5.911		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.08	0.4	22.6	22.6	18.3	4.27	5.288		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	89.08	0.4	22.6	22.6	17.9	4.72	4.785		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.08	0.4	22.6	22.6	17.4	5.17	4.369		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.08	0.4	22.6	22.6	17.0	5.62	4.019		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.08	0.4	22.6	22.6	16.5	6.07	3.722 CC, ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.3	-170.42	0.4	22.6	24.3	17.8	6.50	3.740		
1,600.0	1,599.8	1,599.8	1,599.8	3.4	3.5	-172.10	0.4	22.6	29.5	22.6	6.91	4.266		
1,700.0	1,699.5	1,700.7	1,700.7	3.7	3.7	-173.42	-0.1	20.9	36.4	29.1	7.30	4.989		
1,800.0	1,798.7	1,801.9	1,801.7	3.9	3.9	-174.01	-1.5	15.7	43.3	35.7	7.67	5.654		
1,900.0	1,897.5	1,903.3	1,902.7	4.1	4.1	-174.16	-3.8	7.1	50.3	42.2	8.04	6.255		
2,000.0	1,995.8	2,005.0	2,003.6	4.4	4.3	-173.94	-7.0	-5.0	56.2	47.8	8.44	6.662		
2,100.0	2,094.1	2,104.9	2,102.5	4.7	4.6	-173.49	-10.7	-18.6	60.6	51.7	8.87	6.833		
2,200.0	2,192.4	2,204.8	2,201.4	5.1	4.8	-173.10	-14.3	-32.2	64.9	55.6	9.30	6.981		
2,300.0	2,290.8	2,304.7	2,300.3	5.4	5.1	-172.76	-18.0	-45.8	69.3	59.5	9.74	7.110		
2,400.0	2,389.1	2,404.6	2,399.2	5.7	5.4	-172.46	-21.6	-59.4	73.6	63.4	10.20	7.222		
2,500.0	2,487.4	2,504.5	2,498.2	6.1	5.7	-172.19	-25.3	-73.0	78.0	67.3	10.65	7.321		
2,600.0	2,585.7	2,604.4	2,597.1	6.5	6.0	-171.95	-28.9	-86.5	82.3	71.2	11.12	7.408		
2,700.0	2,684.0	2,704.3	2,696.0	6.8	6.3	-171.74	-32.6	-100.1	86.7	75.1	11.59	7.484		
2,800.0	2,782.3	2,804.2	2,794.9	7.2	6.6	-171.54	-36.2	-113.7	91.1	79.0	12.06	7.552		
2,900.0	2,880.7	2,904.1	2,893.8	7.6	6.9	-171.37	-39.9	-127.3	95.4	82.9	12.54	7.612		
3,000.0	2,979.0	3,004.0	2,992.7	8.0	7.2	-171.21	-43.5	-140.9	99.8	86.8	13.02	7.665		
3,100.0	3,077.3	3,103.9	3,091.6	8.4	7.5	-171.06	-47.2	-154.5	104.1	90.6	13.50	7.713		
3,200.0	3,175.6	3,203.8	3,190.5	8.8	7.8	-170.92	-50.8	-168.1	108.5	94.5	13.99	7.756		
3,300.0	3,273.9	3,303.7	3,289.4	9.2	8.2	-170.80	-54.5	-181.7	112.9	98.4	14.48	7.794		
3,400.0	3,372.3	3,403.6	3,388.3	9.6	8.5	-170.68	-58.1	-195.2	117.2	102.3	14.97	7.829		
3,500.0	3,470.6	3,503.5	3,487.2	10.0	8.8	-170.58	-61.8	-208.8	121.6	106.1	15.47	7.860		
3,600.0	3,568.9	3,603.4	3,586.2	10.4	9.1	-170.47	-65.4	-222.4	126.0	110.0	15.97	7.889		
3,700.0	3,667.2	3,703.3	3,685.1	10.8	9.5	-170.38	-69.1	-236.0	130.3	113.9	16.47	7.915		
3,800.0	3,765.5	3,803.2	3,784.0	11.2	9.8	-170.29	-72.7	-249.6	134.7	117.7	16.97	7.938		
3,900.0	3,863.8	3,903.1	3,882.9	11.6	10.1	-170.21	-76.3	-263.2	139.1	121.6	17.47	7.959		
4,000.0	3,962.2	4,003.0	3,981.8	12.0	10.5	-170.14	-80.0	-276.8	143.4	125.4	17.97	7.979		
4,100.0	4,060.5	4,103.0	4,080.7	12.4	10.8	-170.06	-83.6	-290.4	147.8	129.3	18.48	7.997		
4,200.0	4,158.8	4,202.9	4,179.6	12.8	11.1	-170.00	-87.3	-303.9	152.2	133.2	18.99	8.014		
4,300.0	4,257.1	4,302.8	4,278.5	13.2	11.5	-169.93	-90.9	-317.5	156.5	137.0	19.50	8.029		
4,400.0	4,355.4	4,402.7	4,377.4	13.6	11.8	-169.87	-94.6	-331.1	160.9	140.9	20.00	8.043		
4,500.0	4,453.7	4,502.6	4,476.3	14.0	12.2	-169.81	-98.2	-344.7	165.3	144.7	20.51	8.056		
4,600.0	4,552.1	4,602.5	4,575.2	14.4	12.5	-169.76	-101.9	-358.3	169.6	148.6	21.02	8.068		
4,700.0	4,650.4	4,702.4	4,674.1	14.8	12.9	-169.71	-105.5	-371.9	174.0	152.4	21.54	8.079		
4,800.0	4,748.7	4,802.3	4,773.1	15.3	13.2	-169.66	-109.2	-385.5	178.4	156.3	22.05	8.089		
4,900.0	4,847.0	4,902.2	4,872.0	15.7	13.5	-169.61	-112.8	-399.1	182.7	160.2	22.56	8.098		
5,000.0	4,945.3	5,002.1	4,970.9	16.1	13.9	-169.56	-116.5	-412.7	187.1	164.0	23.08	8.107		
5,100.0	5,043.7	5,102.0	5,069.8	16.5	14.2	-169.52	-120.1	-426.2	191.5	167.9	23.59	8.116		

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
5,200.0	5,142.0	5,201.9	5,168.7	16.9	14.6	-169.48	-123.8	-439.8	195.8	171.7	24.11	8.123	
5,300.0	5,240.3	5,301.8	5,267.6	17.3	14.9	-169.44	-127.4	-453.4	200.2	175.6	24.62	8.130	
5,400.0	5,338.6	5,401.7	5,366.5	17.7	15.3	-169.40	-131.1	-467.0	204.6	179.4	25.14	8.137	
5,500.0	5,436.9	5,501.6	5,465.4	18.1	15.6	-169.37	-134.7	-480.6	208.9	183.3	25.66	8.143	
5,600.0	5,535.2	5,601.5	5,564.3	18.6	16.0	-169.33	-138.4	-494.2	213.3	187.1	26.17	8.149	
5,700.0	5,633.7	5,701.4	5,663.3	18.9	16.3	-169.28	-142.0	-507.8	217.1	190.4	26.70	8.131	
5,800.0	5,732.6	5,796.9	5,757.8	19.2	16.6	-169.12	-145.3	-520.1	218.4	191.3	27.16	8.042	
5,900.0	5,832.0	5,890.0	5,850.4	19.4	16.8	-169.00	-147.8	-529.4	219.4	191.8	27.55	7.962	
6,000.0	5,931.7	5,983.1	5,943.3	19.6	17.0	-168.92	-149.5	-535.8	220.0	192.1	27.89	7.888	
6,100.0	6,031.6	6,076.2	6,036.3	19.8	17.2	-168.87	-150.5	-539.2	220.3	192.1	28.18	7.818	
6,200.0	6,131.6	6,171.4	6,131.6	19.9	17.3	89.91	-150.6	-539.9	220.4	191.5	28.84	7.642	
6,300.0	6,231.6	6,271.4	6,231.6	20.1	17.5	89.91	-150.6	-539.9	220.4	191.2	29.21	7.545	
6,400.0	6,331.5	6,372.4	6,332.5	20.2	17.6	93.65	-149.0	-540.0	220.4	191.1	29.23	7.538	
6,500.0	6,430.5	6,474.4	6,433.4	20.3	17.8	93.58	-134.9	-541.0	220.4	190.8	29.55	7.458	
6,600.0	6,526.7	6,576.3	6,531.2	20.5	17.9	93.43	-106.6	-542.8	220.3	190.5	29.79	7.395	
6,700.0	6,618.1	6,678.1	6,624.0	20.6	18.0	93.23	-64.9	-545.5	220.3	190.3	30.03	7.336	
6,800.0	6,703.0	6,779.8	6,709.7	20.7	18.1	92.95	-10.5	-549.1	220.2	189.9	30.33	7.261	
6,900.0	6,779.7	6,881.3	6,786.8	20.8	18.2	92.62	55.3	-553.4	220.2	189.4	30.80	7.148	
7,000.0	6,846.8	6,982.6	6,853.6	21.0	18.4	92.24	131.1	-558.4	220.1	188.6	31.52	6.983	
7,100.0	6,902.9	7,083.7	6,909.0	21.2	18.7	91.81	215.4	-563.9	220.0	187.5	32.57	6.756	
7,200.0	6,947.0	7,184.6	6,951.9	21.6	19.1	91.35	306.4	-569.9	220.0	186.0	33.97	6.476	
7,300.0	6,978.2	7,285.1	6,981.4	22.1	19.8	90.86	402.3	-576.2	219.9	184.2	35.72	6.157	
7,400.0	6,995.8	7,385.4	6,997.2	22.8	20.6	90.36	501.0	-582.7	219.9	182.1	37.78	5.821	
7,500.0	7,000.0	7,485.5	7,000.0	23.6	21.6	90.00	600.8	-589.2	219.9	179.8	40.08	5.487	
7,600.0	7,000.0	7,585.5	7,000.0	24.6	22.8	90.00	700.6	-595.7	219.9	177.3	42.62	5.159	
7,700.0	7,000.0	7,685.5	7,000.0	25.8	24.1	90.00	800.3	-602.3	219.9	174.5	45.36	4.848	
7,800.0	7,000.0	7,785.5	7,000.0	27.0	25.4	90.00	900.1	-608.8	219.9	171.6	48.25	4.557	
7,900.0	7,000.0	7,885.5	7,000.0	28.3	26.9	90.00	999.9	-615.4	219.9	168.6	51.28	4.288	
8,000.0	7,000.0	7,985.5	7,000.0	29.7	28.4	90.00	1,099.7	-621.9	219.9	165.5	54.42	4.041	
8,100.0	7,000.0	8,085.5	7,000.0	31.2	29.9	90.00	1,199.5	-628.5	219.9	162.2	57.65	3.814	
8,200.0	7,000.0	8,185.5	7,000.0	32.7	31.5	90.00	1,299.3	-635.0	219.9	158.9	60.95	3.607	
8,300.0	7,000.0	8,285.5	7,000.0	34.3	33.2	90.00	1,399.1	-641.5	219.9	155.5	64.33	3.418	
8,400.0	7,000.0	8,385.5	7,000.0	35.9	34.8	90.00	1,498.8	-648.1	219.9	152.1	67.76	3.245	
8,500.0	7,000.0	8,485.5	7,000.0	37.5	36.5	90.00	1,598.6	-654.6	219.8	148.6	71.24	3.086	
8,600.0	7,000.0	8,585.5	7,000.0	39.2	38.3	90.00	1,698.4	-661.2	219.8	145.1	74.76	2.941	
8,700.0	7,000.0	8,685.5	7,000.0	40.9	40.0	90.00	1,798.2	-667.7	219.8	141.5	78.31	2.807	
8,800.0	7,000.0	8,785.5	7,000.0	42.6	41.8	90.00	1,898.0	-674.3	219.8	137.9	81.90	2.684	
8,900.0	7,000.0	8,885.5	7,000.0	44.4	43.5	90.00	1,997.8	-680.8	219.8	134.3	85.51	2.571	
9,000.0	7,000.0	8,985.5	7,000.0	46.1	45.3	90.00	2,097.6	-687.4	219.8	130.7	89.15	2.466	
9,100.0	7,000.0	9,085.5	7,000.0	47.9	47.1	90.00	2,197.3	-693.9	219.8	127.0	92.80	2.369	
9,200.0	7,000.0	9,185.5	7,000.0	49.7	49.0	90.00	2,297.1	-700.4	219.8	123.3	96.48	2.278	
9,300.0	7,000.0	9,285.5	7,000.0	51.5	50.8	90.00	2,396.9	-707.0	219.8	119.6	100.18	2.194	
9,400.0	7,000.0	9,385.5	7,000.0	53.3	52.6	90.00	2,496.7	-713.5	219.8	115.9	103.88	2.116	
9,500.0	7,000.0	9,485.5	7,000.0	55.1	54.5	90.00	2,596.5	-720.1	219.8	112.2	107.60	2.043	
9,600.0	7,000.0	9,585.5	7,000.0	56.9	56.3	90.00	2,696.3	-726.6	219.8	108.5	111.34	1.974	
9,700.0	7,000.0	9,685.5	7,000.0	58.7	58.2	90.00	2,796.1	-733.2	219.8	104.7	115.08	1.910	
9,800.0	7,000.0	9,785.5	7,000.0	60.6	60.0	90.00	2,895.8	-739.7	219.8	100.9	118.84	1.849	
9,900.0	7,000.0	9,885.5	7,000.0	62.4	61.9	90.00	2,995.6	-746.3	219.8	97.2	122.60	1.793	
10,000.0	7,000.0	9,985.5	7,000.0	64.3	63.8	90.00	3,095.4	-752.8	219.8	93.4	126.37	1.739	
10,100.0	7,000.0	10,085.5	7,000.0	66.1	65.6	90.00	3,195.2	-759.3	219.8	89.6	130.15	1.689	
10,200.0	7,000.0	10,185.5	7,000.0	68.0	67.5	90.00	3,295.0	-765.9	219.8	85.8	133.93	1.641	
10,300.0	7,000.0	10,285.5	7,000.0	69.9	69.4	90.00	3,394.8	-772.4	219.8	82.0	137.72	1.596	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 31-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
10,400.0	7,000.0	10,385.5	7,000.0	71.7	71.3	90.00	3,494.6	-779.0	219.8	78.2	141.52	1.553	
10,500.0	7,000.0	10,485.5	7,000.0	73.6	73.2	90.00	3,594.3	-785.5	219.8	74.4	145.32	1.512	
10,600.0	7,000.0	10,585.5	7,000.0	75.5	75.1	90.00	3,694.1	-792.1	219.7	70.6	149.13	1.474	Level 3
10,700.0	7,000.0	10,685.5	7,000.0	77.4	77.0	90.00	3,793.9	-798.6	219.7	66.8	152.94	1.437	Level 3
10,800.0	7,000.0	10,785.5	7,000.0	79.2	78.9	90.00	3,893.7	-805.2	219.7	63.0	156.76	1.402	Level 3
10,900.0	7,000.0	10,885.5	7,000.0	81.1	80.8	90.00	3,993.5	-811.7	219.7	59.2	160.58	1.368	Level 3
11,000.0	7,000.0	10,985.5	7,000.0	83.0	82.7	90.00	4,093.3	-818.2	219.7	55.3	164.40	1.337	Level 3
11,100.0	7,000.0	11,085.5	7,000.0	84.9	84.6	90.00	4,193.1	-824.8	219.7	51.5	168.23	1.306	Level 3
11,200.0	7,000.0	11,185.5	7,000.0	86.8	86.5	90.00	4,292.8	-831.3	219.7	47.7	172.06	1.277	Level 3
11,300.0	7,000.0	11,285.5	7,000.0	88.7	88.4	90.00	4,392.6	-837.9	219.7	43.8	175.89	1.249	Level 2
11,330.6	7,000.0	11,316.1	7,000.0	89.3	88.9	90.00	4,423.2	-839.9	219.7	42.7	177.00	1.241	Level 2
11,349.0	7,000.0	11,319.7	7,000.0	89.6	89.0	90.00	4,426.7	-840.1	220.2	42.8	177.41	1.241	Level 2, SF

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 31-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	89.06	0.7	44.9	44.9					
100.0	100.0	100.0	100.0	0.1	0.1	89.06	0.7	44.9	44.9	44.7	0.22	199.721		
200.0	200.0	200.0	200.0	0.3	0.3	89.06	0.7	44.9	44.9	44.2	0.67	66.574		
300.0	300.0	300.0	300.0	0.6	0.6	89.06	0.7	44.9	44.9	43.8	1.12	39.944		
400.0	400.0	400.0	400.0	0.8	0.8	89.06	0.7	44.9	44.9	43.3	1.57	28.532		
500.0	500.0	500.0	500.0	1.0	1.0	89.06	0.7	44.9	44.9	42.9	2.02	22.191		
600.0	600.0	600.0	600.0	1.2	1.2	89.06	0.7	44.9	44.9	42.4	2.47	18.156		
700.0	700.0	700.0	700.0	1.5	1.5	89.06	0.7	44.9	44.9	42.0	2.92	15.363		
800.0	800.0	800.0	800.0	1.7	1.7	89.06	0.7	44.9	44.9	41.5	3.37	13.315		
900.0	900.0	900.0	900.0	1.9	1.9	89.06	0.7	44.9	44.9	41.1	3.82	11.748		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.06	0.7	44.9	44.9	40.6	4.27	10.512		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	89.06	0.7	44.9	44.9	40.2	4.72	9.511		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.06	0.7	44.9	44.9	39.7	5.17	8.684		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.06	0.7	44.9	44.9	39.3	5.62	7.989		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.06	0.7	44.9	44.9	38.8	6.07	7.397 CC, ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.3	-170.08	0.7	44.9	46.6	40.1	6.50	7.172		
1,600.0	1,599.8	1,599.8	1,599.8	3.4	3.5	-171.06	0.7	44.9	51.8	44.9	6.91	7.493		
1,700.0	1,699.5	1,699.5	1,699.5	3.7	3.7	-172.32	0.7	44.9	60.4	53.1	7.32	8.256		
1,800.0	1,798.7	1,798.7	1,798.7	3.9	3.9	-173.58	0.7	44.9	72.5	64.8	7.72	9.394		
1,900.0	1,897.5	1,900.4	1,900.4	4.1	4.1	-174.39	0.1	43.3	86.4	78.3	8.10	10.673		
2,000.0	1,995.8	2,002.7	2,002.5	4.4	4.3	-174.53	-2.0	38.3	99.5	91.0	8.49	11.724		
2,100.0	2,094.1	2,104.9	2,104.3	4.7	4.5	-174.11	-5.4	30.0	109.4	100.5	8.90	12.294		
2,200.0	2,192.4	2,204.5	2,203.5	5.1	4.8	-173.63	-9.2	21.0	118.3	109.0	9.32	12.696		
2,300.0	2,290.8	2,304.1	2,302.6	5.4	5.0	-173.21	-12.9	12.0	127.2	117.4	9.74	13.053		
2,400.0	2,389.1	2,403.7	2,401.7	5.7	5.2	-172.85	-16.6	3.0	136.1	125.9	10.18	13.370		
2,500.0	2,487.4	2,503.3	2,500.8	6.1	5.4	-172.53	-20.3	-6.0	145.0	134.4	10.62	13.654		
2,600.0	2,585.7	2,602.9	2,599.9	6.5	5.7	-172.25	-24.0	-15.0	154.0	142.9	11.07	13.907		
2,700.0	2,684.0	2,702.5	2,699.1	6.8	5.9	-172.00	-27.8	-24.0	162.9	151.4	11.53	14.134		
2,800.0	2,782.3	2,802.1	2,798.2	7.2	6.2	-171.78	-31.5	-33.0	171.8	159.8	11.98	14.338		
2,900.0	2,880.7	2,901.7	2,897.3	7.6	6.4	-171.58	-35.2	-41.9	180.8	168.3	12.45	14.522		
3,000.0	2,979.0	3,001.3	2,996.4	8.0	6.7	-171.39	-38.9	-50.9	189.7	176.8	12.91	14.689		
3,100.0	3,077.3	3,100.9	3,095.5	8.4	6.9	-171.23	-42.7	-59.9	198.7	185.3	13.39	14.841		
3,200.0	3,175.6	3,200.5	3,194.7	8.8	7.2	-171.08	-46.4	-68.9	207.6	193.7	13.86	14.979		
3,300.0	3,273.9	3,300.1	3,293.8	9.2	7.5	-170.94	-50.1	-77.9	216.5	202.2	14.34	15.104		
3,400.0	3,372.3	3,399.7	3,392.9	9.6	7.7	-170.81	-53.8	-86.9	225.5	210.7	14.82	15.219		
3,500.0	3,470.6	3,499.3	3,492.0	10.0	8.0	-170.69	-57.6	-95.9	234.4	219.1	15.30	15.325		
3,600.0	3,568.9	3,598.9	3,591.2	10.4	8.3	-170.58	-61.3	-104.9	243.4	227.6	15.78	15.422		
3,700.0	3,667.2	3,698.5	3,690.3	10.8	8.5	-170.48	-65.0	-113.9	252.3	236.1	16.27	15.511		
3,800.0	3,765.5	3,798.1	3,789.4	11.2	8.8	-170.38	-68.7	-122.9	261.3	244.5	16.76	15.594		
3,900.0	3,863.8	3,897.7	3,888.5	11.6	9.1	-170.29	-72.5	-131.9	270.2	253.0	17.24	15.670		
4,000.0	3,962.2	3,997.3	3,987.6	12.0	9.4	-170.21	-76.2	-140.9	279.2	261.4	17.74	15.741		
4,100.0	4,060.5	4,096.9	4,086.8	12.4	9.6	-170.13	-79.9	-149.9	288.1	269.9	18.23	15.807		
4,200.0	4,158.8	4,196.5	4,185.9	12.8	9.9	-170.06	-83.6	-158.9	297.1	278.4	18.72	15.868		
4,300.0	4,257.1	4,296.1	4,285.0	13.2	10.2	-169.99	-87.4	-167.9	306.0	286.8	19.22	15.926		
4,400.0	4,355.4	4,395.7	4,384.1	13.6	10.5	-169.93	-91.1	-176.9	315.0	295.3	19.71	15.979		
4,500.0	4,453.7	4,495.3	4,483.2	14.0	10.7	-169.86	-94.8	-185.8	323.9	303.7	20.21	16.029		
4,600.0	4,552.1	4,594.8	4,582.4	14.4	11.0	-169.81	-98.5	-194.8	332.9	312.2	20.71	16.076		
4,700.0	4,650.4	4,694.4	4,681.5	14.8	11.3	-169.75	-102.2	-203.8	341.9	320.6	21.21	16.120		
4,800.0	4,748.7	4,794.0	4,780.6	15.3	11.6	-169.70	-106.0	-212.8	350.8	329.1	21.71	16.161		
4,900.0	4,847.0	4,893.6	4,879.7	15.7	11.9	-169.65	-109.7	-221.8	359.8	337.6	22.21	16.200		
5,000.0	4,945.3	4,993.2	4,978.8	16.1	12.2	-169.60	-113.4	-230.8	368.7	346.0	22.71	16.237		
5,100.0	5,043.7	5,092.8	5,078.0	16.5	12.4	-169.56	-117.1	-239.8	377.7	354.5	23.21	16.271		

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

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 31-4NHZ - Wellbore #1 - Plan #2 (4-25-14)													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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.0	5,142.0	5,192.4	5,177.1	16.9	12.7	-169.51	-120.9	-248.8	386.6	362.9	23.71	16.304		
5,300.0	5,240.3	5,292.0	5,276.2	17.3	13.0	-169.47	-124.6	-257.8	395.6	371.4	24.22	16.335		
5,400.0	5,338.6	5,391.6	5,375.3	17.7	13.3	-169.43	-128.3	-266.8	404.5	379.8	24.72	16.364		
5,500.0	5,436.9	5,491.2	5,474.5	18.1	13.6	-169.40	-132.0	-275.8	413.5	388.3	25.23	16.392		
5,600.0	5,535.2	5,590.8	5,573.6	18.6	13.9	-169.36	-135.8	-284.8	422.5	396.7	25.73	16.419		
5,700.0	5,633.7	5,690.5	5,672.7	18.9	14.1	-169.33	-139.5	-293.8	430.8	404.6	26.25	16.443		
5,800.0	5,732.6	5,790.3	5,772.1	19.2	14.4	-169.22	-143.2	-302.8	436.1	409.4	26.74	16.312		
5,900.0	5,832.0	5,883.9	5,865.2	19.4	14.7	-169.06	-146.6	-310.9	438.3	411.2	27.17	16.135		
6,000.0	5,931.7	5,971.4	5,952.6	19.6	14.9	-168.94	-148.8	-316.3	439.6	412.1	27.51	15.978		
6,100.0	6,031.6	6,059.0	6,040.1	19.8	15.0	-168.87	-150.0	-319.2	440.3	412.5	27.82	15.831		
6,200.0	6,131.6	6,150.5	6,131.6	19.9	15.2	89.90	-150.3	-319.8	440.5	412.1	28.43	15.496		
6,300.0	6,231.6	6,250.5	6,231.6	20.1	15.4	89.90	-150.3	-319.8	440.5	411.7	28.80	15.293		
6,400.0	6,331.5	6,352.4	6,333.5	20.2	15.5	93.65	-148.5	-319.9	440.5	411.6	28.89	15.249		
6,500.0	6,430.5	6,456.4	6,436.4	20.3	15.7	93.57	-133.9	-320.9	440.4	411.2	29.20	15.082		
6,600.0	6,526.7	6,560.3	6,535.9	20.5	15.8	93.43	-104.5	-322.8	440.4	410.9	29.45	14.952		
6,700.0	6,618.1	6,664.0	6,630.0	20.6	15.9	93.22	-61.2	-325.6	440.3	410.6	29.69	14.829		
6,800.0	6,703.0	6,767.4	6,716.6	20.7	16.1	92.94	-5.0	-329.3	440.2	410.2	30.01	14.670		
6,900.0	6,779.7	6,870.5	6,793.9	20.8	16.2	92.60	62.8	-333.8	440.0	409.6	30.49	14.432		
7,000.0	6,846.8	6,973.1	6,860.5	21.0	16.4	92.21	140.6	-338.9	439.9	408.7	31.23	14.084		
7,100.0	6,902.9	7,075.2	6,915.0	21.2	16.7	91.78	226.7	-344.5	439.8	407.5	32.31	13.612		
7,200.0	6,947.0	7,176.8	6,956.5	21.6	17.3	91.32	319.2	-350.6	439.7	406.0	33.74	13.031		
7,300.0	6,978.2	7,277.9	6,984.4	22.1	18.2	90.83	416.0	-356.9	439.6	404.1	35.53	12.374		
7,400.0	6,995.8	7,378.5	6,998.3	22.8	19.2	90.32	515.3	-363.4	439.6	402.0	37.61	11.687		
7,458.2	7,000.3	7,436.7	7,000.0	23.3	19.9	89.96	573.4	-367.2	439.6	400.7	38.95	11.287		
7,500.0	7,000.0	7,478.5	7,000.0	23.6	20.4	90.00	615.1	-370.0	439.6	399.7	39.95	11.005		
7,600.0	7,000.0	7,578.5	7,000.0	24.6	21.6	90.00	714.9	-376.5	439.6	397.1	42.51	10.340		
7,700.0	7,000.0	7,678.5	7,000.0	25.8	23.0	90.00	814.7	-383.0	439.6	394.3	45.27	9.711		
7,800.0	7,000.0	7,778.5	7,000.0	27.0	24.5	90.00	914.5	-389.6	439.6	391.4	48.18	9.124		
7,900.0	7,000.0	7,878.5	7,000.0	28.3	26.0	90.00	1,014.3	-396.1	439.6	388.4	51.22	8.582		
8,000.0	7,000.0	7,978.5	7,000.0	29.7	27.6	90.00	1,114.1	-402.6	439.6	385.2	54.38	8.085		
8,100.0	7,000.0	8,078.5	7,000.0	31.2	29.2	90.00	1,213.8	-409.2	439.6	382.0	57.62	7.630		
8,200.0	7,000.0	8,178.5	7,000.0	32.7	30.8	90.00	1,313.6	-415.7	439.6	378.7	60.94	7.214		
8,300.0	7,000.0	8,278.5	7,000.0	34.3	32.5	90.00	1,413.4	-422.2	439.6	375.3	64.33	6.834		
8,400.0	7,000.0	8,378.5	7,000.0	35.9	34.2	90.00	1,513.2	-428.8	439.6	371.9	67.77	6.488		
8,500.0	7,000.0	8,478.5	7,000.0	37.5	36.0	90.00	1,613.0	-435.3	439.6	368.4	71.25	6.170		
8,600.0	7,000.0	8,578.5	7,000.0	39.2	37.7	90.00	1,712.8	-441.9	439.6	364.9	74.78	5.879		
8,700.0	7,000.0	8,678.5	7,000.0	40.9	39.5	90.00	1,812.6	-448.4	439.6	361.3	78.34	5.612		
8,800.0	7,000.0	8,778.5	7,000.0	42.6	41.3	90.00	1,912.3	-454.9	439.6	357.7	81.93	5.366		
8,900.0	7,000.0	8,878.5	7,000.0	44.4	43.1	90.00	2,012.1	-461.5	439.6	354.1	85.55	5.139		
9,000.0	7,000.0	8,978.5	7,000.0	46.1	44.9	90.00	2,111.9	-468.0	439.6	350.4	89.20	4.929		
9,100.0	7,000.0	9,078.5	7,000.0	47.9	46.7	90.00	2,211.7	-474.5	439.6	346.8	92.86	4.735		
9,200.0	7,000.0	9,178.5	7,000.0	49.7	48.6	90.00	2,311.5	-481.1	439.6	343.1	96.54	4.554		
9,300.0	7,000.0	9,278.5	7,000.0	51.5	50.4	90.00	2,411.3	-487.6	439.7	339.4	100.24	4.386		
9,400.0	7,000.0	9,378.5	7,000.0	53.3	52.3	90.00	2,511.1	-494.2	439.7	335.7	103.95	4.229		
9,500.0	7,000.0	9,478.5	7,000.0	55.1	54.1	90.00	2,610.8	-500.7	439.7	332.0	107.67	4.083		
9,600.0	7,000.0	9,578.5	7,000.0	56.9	56.0	90.00	2,710.6	-507.2	439.7	328.2	111.41	3.946		
9,700.0	7,000.0	9,678.5	7,000.0	58.7	57.9	90.00	2,810.4	-513.8	439.7	324.5	115.16	3.818		
9,800.0	7,000.0	9,778.5	7,000.0	60.6	59.7	90.00	2,910.2	-520.3	439.7	320.7	118.92	3.697		
9,900.0	7,000.0	9,878.5	7,000.0	62.4	61.6	90.00	3,010.0	-526.8	439.7	317.0	122.68	3.584		
10,000.0	7,000.0	9,978.5	7,000.0	64.3	63.5	90.00	3,109.8	-533.4	439.7	313.2	126.45	3.477		
10,100.0	7,000.0	10,078.5	7,000.0	66.1	65.4	90.00	3,209.6	-539.9	439.7	309.4	130.24	3.376		
10,200.0	7,000.0	10,178.5	7,000.0	68.0	67.3	90.00	3,309.3	-546.4	439.7	305.6	134.02	3.281		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 31-4NHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
10,300.0	7,000.0	10,278.5	7,000.0	69.9	69.2	90.00	3,409.1	-553.0	439.7	301.9	137.82	3.190	
10,400.0	7,000.0	10,378.5	7,000.0	71.7	71.1	90.00	3,508.9	-559.5	439.7	298.1	141.62	3.105	
10,500.0	7,000.0	10,478.5	7,000.0	73.6	73.0	90.00	3,608.7	-566.1	439.7	294.3	145.42	3.024	
10,600.0	7,000.0	10,578.5	7,000.0	75.5	74.9	90.00	3,708.5	-572.6	439.7	290.5	149.23	2.946	
10,700.0	7,000.0	10,678.5	7,000.0	77.4	76.8	90.00	3,808.3	-579.1	439.7	286.6	153.04	2.873	
10,800.0	7,000.0	10,778.5	7,000.0	79.2	78.7	90.00	3,908.1	-585.7	439.7	282.8	156.86	2.803	
10,900.0	7,000.0	10,878.5	7,000.0	81.1	80.6	90.00	4,007.9	-592.2	439.7	279.0	160.68	2.736	
11,000.0	7,000.0	10,978.5	7,000.0	83.0	82.5	90.00	4,107.6	-598.7	439.7	275.2	164.50	2.673	
11,100.0	7,000.0	11,078.5	7,000.0	84.9	84.4	90.00	4,207.4	-605.3	439.7	271.4	168.33	2.612	
11,200.0	7,000.0	11,178.5	7,000.0	86.8	86.3	90.00	4,307.2	-611.8	439.7	267.5	172.16	2.554	
11,300.0	7,000.0	11,278.5	7,000.0	88.7	88.2	90.00	4,407.0	-618.4	439.7	263.7	176.00	2.498	
11,302.1	7,000.0	11,280.7	7,000.0	88.8	88.3	90.00	4,409.1	-618.5	439.7	263.6	176.08	2.497	
11,349.0	7,000.0	11,297.9	7,000.0	89.6	88.6	90.00	4,426.4	-619.6	440.7	263.4	177.31	2.485 SF	

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 32-4CHZ - Wellbore #1 - Plan #2 (4-25-14)													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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	89.07	1.1	67.5	67.5					
100.0	100.0	100.0	100.0	0.1	0.1	89.07	1.1	67.5	67.5	67.3	0.22	300.202		
200.0	200.0	200.0	200.0	0.3	0.3	89.07	1.1	67.5	67.5	66.8	0.67	100.067		
300.0	300.0	300.0	300.0	0.6	0.6	89.07	1.1	67.5	67.5	66.4	1.12	60.040		
400.0	400.0	400.0	400.0	0.8	0.8	89.07	1.1	67.5	67.5	65.9	1.57	42.886		
500.0	500.0	500.0	500.0	1.0	1.0	89.07	1.1	67.5	67.5	65.5	2.02	33.356		
600.0	600.0	600.0	600.0	1.2	1.2	89.07	1.1	67.5	67.5	65.0	2.47	27.291		
700.0	700.0	700.0	700.0	1.5	1.5	89.07	1.1	67.5	67.5	64.6	2.92	23.092		
800.0	800.0	800.0	800.0	1.7	1.7	89.07	1.1	67.5	67.5	64.1	3.37	20.013		
900.0	900.0	900.0	900.0	1.9	1.9	89.07	1.1	67.5	67.5	63.7	3.82	17.659		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.07	1.1	67.5	67.5	63.2	4.27	15.800		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	89.07	1.1	67.5	67.5	62.8	4.72	14.295		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.07	1.1	67.5	67.5	62.3	5.17	13.052		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.07	1.1	67.5	67.5	61.9	5.62	12.008		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.07	1.1	67.5	67.5	61.4	6.07	11.119 CC, ES		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.3	-169.95	1.1	67.5	69.2	62.7	6.50	10.647		
1,600.0	1,599.8	1,599.8	1,599.8	3.4	3.5	-170.63	1.1	67.5	74.4	67.4	6.91	10.761		
1,700.0	1,699.5	1,699.5	1,699.5	3.7	3.7	-171.59	1.1	67.5	83.0	75.6	7.32	11.341		
1,800.0	1,798.7	1,798.7	1,798.7	3.9	3.9	-172.63	1.1	67.5	95.0	87.3	7.72	12.315		
1,900.0	1,897.5	1,897.5	1,897.5	4.1	4.2	-173.64	1.1	67.5	110.6	102.5	8.11	13.628		
2,000.0	1,995.8	1,995.8	1,995.8	4.4	4.4	-174.52	1.1	67.5	128.6	120.1	8.53	15.071		
2,100.0	2,094.1	2,098.1	2,098.1	4.7	4.6	-174.83	-0.1	66.2	145.5	136.6	8.95	16.256		
2,200.0	2,192.4	2,200.2	2,200.1	5.1	4.8	-174.30	-3.6	62.5	159.7	150.4	9.35	17.080		
2,300.0	2,290.8	2,299.3	2,299.0	5.4	5.0	-173.67	-7.7	58.1	173.2	163.5	9.76	17.745		
2,400.0	2,389.1	2,398.4	2,397.8	5.7	5.1	-173.13	-11.9	53.8	186.7	176.5	10.18	18.342		
2,500.0	2,487.4	2,497.4	2,496.7	6.1	5.3	-172.67	-16.0	49.4	200.2	189.6	10.60	18.880		
2,600.0	2,585.7	2,596.5	2,595.6	6.5	5.5	-172.27	-20.1	45.1	213.7	202.7	11.04	19.365		
2,700.0	2,684.0	2,695.6	2,694.5	6.8	5.7	-171.91	-24.2	40.7	227.2	215.8	11.48	19.803		
2,800.0	2,782.3	2,794.7	2,793.4	7.2	6.0	-171.59	-28.3	36.4	240.8	228.9	11.92	20.200		
2,900.0	2,880.7	2,893.7	2,892.3	7.6	6.2	-171.31	-32.5	32.1	254.3	242.0	12.37	20.561		
3,000.0	2,979.0	2,992.8	2,991.2	8.0	6.4	-171.05	-36.6	27.7	267.9	255.0	12.82	20.889		
3,100.0	3,077.3	3,091.9	3,090.1	8.4	6.6	-170.83	-40.7	23.4	281.4	268.1	13.28	21.188		
3,200.0	3,175.6	3,190.9	3,189.0	8.8	6.8	-170.62	-44.8	19.0	295.0	281.2	13.74	21.462		
3,300.0	3,273.9	3,290.0	3,287.9	9.2	7.0	-170.43	-48.9	14.7	308.5	294.3	14.21	21.714		
3,400.0	3,372.3	3,389.1	3,386.8	9.6	7.3	-170.25	-53.0	10.3	322.1	307.4	14.68	21.944		
3,500.0	3,470.6	3,488.2	3,485.6	10.0	7.5	-170.09	-57.2	6.0	335.6	320.5	15.15	22.157		
3,600.0	3,568.9	3,587.2	3,584.5	10.4	7.7	-169.94	-61.3	1.6	349.2	333.6	15.62	22.353		
3,700.0	3,667.2	3,686.3	3,683.4	10.8	7.9	-169.81	-65.4	-2.7	362.8	346.7	16.10	22.535		
3,800.0	3,765.5	3,785.4	3,782.3	11.2	8.2	-169.68	-69.5	-7.1	376.3	359.8	16.58	22.703		
3,900.0	3,863.8	3,884.4	3,881.2	11.6	8.4	-169.56	-73.6	-11.4	389.9	372.9	17.06	22.859		
4,000.0	3,962.2	3,983.5	3,980.1	12.0	8.6	-169.45	-77.7	-15.8	403.5	386.0	17.54	23.004		
4,100.0	4,060.5	4,082.6	4,079.0	12.4	8.9	-169.35	-81.9	-20.1	417.1	399.0	18.02	23.140		
4,200.0	4,158.8	4,181.7	4,177.9	12.8	9.1	-169.25	-86.0	-24.4	430.6	412.1	18.51	23.266		
4,300.0	4,257.1	4,280.7	4,276.8	13.2	9.3	-169.16	-90.1	-28.8	444.2	425.2	19.00	23.384		
4,400.0	4,355.4	4,379.8	4,375.7	13.6	9.6	-169.08	-94.2	-33.1	457.8	438.3	19.48	23.495		
4,500.0	4,453.7	4,478.9	4,474.6	14.0	9.8	-169.00	-98.3	-37.5	471.4	451.4	19.97	23.599		
4,600.0	4,552.1	4,577.9	4,573.4	14.4	10.1	-168.92	-102.4	-41.8	485.0	464.5	20.47	23.696		
4,700.0	4,650.4	4,677.0	4,672.3	14.8	10.3	-168.85	-106.6	-46.2	498.5	477.6	20.96	23.788		
4,800.0	4,748.7	4,776.1	4,771.2	15.3	10.5	-168.78	-110.7	-50.5	512.1	490.7	21.45	23.875		
4,900.0	4,847.0	4,875.2	4,870.1	15.7	10.8	-168.72	-114.8	-54.9	525.7	503.7	21.94	23.956		
5,000.0	4,945.3	4,974.2	4,969.0	16.1	11.0	-168.65	-118.9	-59.2	539.3	516.8	22.44	24.033		
5,100.0	5,043.7	5,073.3	5,067.9	16.5	11.3	-168.60	-123.0	-63.6	552.9	529.9	22.93	24.106		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWID												Offset Well Error:	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
5,200.0	5,142.0	5,172.4	5,166.8	16.9	11.5	-168.54	-127.2	-67.9	566.4	543.0	23.43	24.175	
5,300.0	5,240.3	5,271.4	5,265.7	17.3	11.7	-168.49	-131.3	-72.3	580.0	556.1	23.93	24.240	
5,400.0	5,338.6	5,370.5	5,364.6	17.7	12.0	-168.44	-135.4	-76.6	593.6	569.2	24.43	24.302	
5,500.0	5,436.9	5,469.6	5,463.5	18.1	12.2	-168.39	-139.5	-81.0	607.2	582.3	24.92	24.361	
5,600.0	5,535.2	5,568.7	5,562.3	18.6	12.5	-168.34	-143.6	-85.3	620.8	595.4	25.42	24.417	
5,700.0	5,633.7	5,663.1	5,656.6	18.9	12.7	-168.33	-147.4	-89.3	633.9	608.0	25.92	24.453	
5,800.0	5,732.6	5,748.6	5,742.0	19.2	12.9	-168.42	-149.5	-91.5	645.7	619.3	26.34	24.510	
5,900.0	5,832.0	5,838.5	5,832.0	19.4	13.1	-168.60	-149.9	-91.9	656.0	629.3	26.73	24.548	
6,000.0	5,931.7	5,938.2	5,931.7	19.6	13.2	-168.76	-149.9	-91.9	663.5	636.4	27.09	24.490	
6,100.0	6,031.6	6,038.1	6,031.6	19.8	13.4	-168.84	-149.9	-91.9	667.6	640.1	27.43	24.338	
6,200.0	6,131.6	6,138.1	6,131.6	19.9	13.6	89.91	-149.9	-91.9	668.4	640.4	28.02	23.857	
6,300.0	6,231.6	6,238.1	6,231.6	20.1	13.8	89.91	-149.9	-91.9	668.4	640.0	28.40	23.537	
6,400.0	6,331.5	6,341.7	6,335.1	20.2	14.0	93.65	-148.1	-92.1	668.3	639.8	28.54	23.418	
6,500.0	6,430.5	6,449.1	6,441.3	20.3	14.2	93.57	-132.4	-93.3	668.1	639.3	28.86	23.147	
6,600.0	6,526.7	6,556.2	6,543.6	20.5	14.3	93.42	-101.3	-95.7	667.7	638.5	29.12	22.927	
6,700.0	6,618.1	6,662.9	6,639.8	20.6	14.5	93.20	-55.4	-99.2	667.0	637.6	29.38	22.707	
6,800.0	6,703.0	6,769.1	6,727.7	20.7	14.6	92.92	3.8	-103.7	666.2	636.5	29.71	22.421	
6,900.0	6,779.7	6,874.5	6,805.3	20.8	14.7	92.57	74.7	-109.1	665.2	635.0	30.23	22.003	
7,000.0	6,846.8	6,979.1	6,871.2	21.0	15.1	92.17	155.6	-115.3	664.2	633.1	31.03	21.406	
7,100.0	6,902.9	7,082.8	6,924.2	21.2	15.8	91.73	244.4	-122.1	663.0	630.8	32.16	20.618	
7,200.0	6,947.0	7,185.5	6,963.4	21.6	16.6	91.26	339.0	-129.4	661.8	628.2	33.65	19.667	
7,300.0	6,978.2	7,287.3	6,988.6	22.1	17.6	90.76	437.2	-136.9	660.6	625.1	35.49	18.612	
7,400.0	6,995.8	7,388.0	6,999.5	22.8	18.7	90.25	537.0	-144.5	659.5	621.8	37.63	17.525	
7,500.0	7,000.0	7,488.0	7,000.0	23.6	19.9	90.00	636.7	-152.2	658.4	618.4	40.01	16.455	
7,600.0	7,000.0	7,588.0	7,000.0	24.6	21.3	90.00	736.4	-159.8	657.3	614.6	42.62	15.423	
7,700.0	7,000.0	7,688.0	7,000.0	25.8	22.7	90.00	836.1	-167.5	656.2	610.8	45.41	14.451	
7,800.0	7,000.0	7,788.0	7,000.0	27.0	24.2	90.00	935.8	-175.1	655.1	606.7	48.35	13.548	
7,900.0	7,000.0	7,888.0	7,000.0	28.3	25.8	90.00	1,035.5	-182.7	654.0	602.5	51.42	12.717	
8,000.0	7,000.0	7,988.0	7,000.0	29.7	27.4	90.00	1,135.2	-190.4	652.9	598.3	54.60	11.957	
8,100.0	7,000.0	8,088.0	7,000.0	31.2	29.1	90.00	1,234.9	-198.0	651.8	593.9	57.87	11.263	
8,200.0	7,000.0	8,188.0	7,000.0	32.7	30.8	90.00	1,334.6	-205.6	650.7	589.4	61.21	10.630	
8,300.0	7,000.0	8,288.0	7,000.0	34.3	32.5	90.00	1,434.3	-213.3	649.6	584.9	64.61	10.053	
8,400.0	7,000.0	8,388.0	7,000.0	35.9	34.2	90.00	1,534.0	-220.9	648.5	580.4	68.07	9.526	
8,500.0	7,000.0	8,488.0	7,000.0	37.5	36.0	90.00	1,633.7	-228.6	647.4	575.8	71.57	9.045	
8,600.0	7,000.0	8,588.0	7,000.0	39.2	37.8	90.00	1,733.4	-236.2	646.3	571.1	75.11	8.604	
8,700.0	7,000.0	8,687.9	7,000.0	40.9	39.6	90.00	1,833.1	-243.8	645.2	566.5	78.69	8.199	
8,800.0	7,000.0	8,787.9	7,000.0	42.6	41.4	90.00	1,932.8	-251.5	644.1	561.8	82.30	7.826	
8,900.0	7,000.0	8,887.9	7,000.0	44.4	43.2	90.00	2,032.5	-259.1	643.0	557.0	85.93	7.482	
9,000.0	7,000.0	8,987.9	7,000.0	46.1	45.1	90.00	2,132.2	-266.7	641.8	552.3	89.58	7.165	
9,100.0	7,000.0	9,087.9	7,000.0	47.9	46.9	90.00	2,231.9	-274.4	640.7	547.5	93.26	6.871	
9,200.0	7,000.0	9,187.9	7,000.0	49.7	48.8	90.00	2,331.6	-282.0	639.6	542.7	96.95	6.598	
9,300.0	7,000.0	9,287.9	7,000.0	51.5	50.6	90.00	2,431.3	-289.6	638.5	537.9	100.66	6.344	
9,400.0	7,000.0	9,387.9	7,000.0	53.3	52.5	90.00	2,531.0	-297.3	637.4	533.1	104.38	6.107	
9,500.0	7,000.0	9,487.9	7,000.0	55.1	54.4	90.00	2,630.7	-304.9	636.3	528.2	108.11	5.886	
9,600.0	7,000.0	9,587.9	7,000.0	56.9	56.3	90.00	2,730.4	-312.6	635.2	523.4	111.86	5.679	
9,700.0	7,000.0	9,687.9	7,000.0	58.7	58.1	90.00	2,830.1	-320.2	634.1	518.5	115.62	5.485	
9,800.0	7,000.0	9,787.9	7,000.0	60.6	60.0	90.00	2,929.8	-327.8	633.0	513.7	119.38	5.303	
9,900.0	7,000.0	9,887.9	7,000.0	62.4	61.9	90.00	3,029.5	-335.5	631.9	508.8	123.16	5.131	
10,000.0	7,000.0	9,987.9	7,000.0	64.3	63.8	90.00	3,129.2	-343.1	630.8	503.9	126.94	4.970	
10,100.0	7,000.0	10,087.9	7,000.0	66.1	65.7	90.00	3,228.9	-350.7	629.7	499.0	130.73	4.817	
10,200.0	7,000.0	10,187.9	7,000.0	68.0	67.6	90.00	3,328.6	-358.4	628.6	494.1	134.52	4.673	
10,300.0	7,000.0	10,287.9	7,000.0	69.9	69.5	90.00	3,428.3	-366.0	627.5	489.2	138.32	4.537	

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

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn N-4NHZ
Project:	SEC.4-T4N-R68W	TVD Reference:	WELL @ 5077.0ft (RKB - 13')
Reference Site:	SRC Kiehn Pad Sec.4-T4N-R68W	MD Reference:	WELL @ 5077.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	SRC Kiehn N-4NHZ	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (4-25-14)	Offset TVD Reference:	Offset Datum

Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn 32-4CHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	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
10,400.0	7,000.0	10,387.8	7,000.0	71.7	71.4	90.00	3,528.0	-373.7	626.4	484.3	142.13	4.408	
10,500.0	7,000.0	10,487.8	7,000.0	73.6	73.4	90.00	3,627.7	-381.3	625.3	479.4	145.94	4.285	
10,600.0	7,000.0	10,587.8	7,000.0	75.5	75.3	90.00	3,727.4	-388.9	624.2	474.5	149.76	4.168	
10,700.0	7,000.0	10,687.8	7,000.0	77.4	77.2	90.00	3,827.1	-396.6	623.1	469.6	153.58	4.057	
10,800.0	7,000.0	10,787.8	7,000.0	79.2	79.1	90.00	3,926.8	-404.2	622.0	464.6	157.40	3.952	
10,900.0	7,000.0	10,887.8	7,000.0	81.1	81.0	90.00	4,026.5	-411.8	620.9	459.7	161.23	3.851	
11,000.0	7,000.0	10,987.8	7,000.0	83.0	82.9	90.00	4,126.2	-419.5	619.8	454.8	165.06	3.755	
11,100.0	7,000.0	11,087.8	7,000.0	84.9	84.9	90.00	4,225.9	-427.1	618.7	449.8	168.90	3.663	
11,200.0	7,000.0	11,187.8	7,000.0	86.8	86.8	90.00	4,325.6	-434.7	617.6	444.9	172.73	3.576	
11,300.0	7,000.0	11,287.8	7,000.0	88.7	88.4	90.00	4,425.3	-442.4	616.5	440.3	176.24	3.498	
11,307.7	7,000.0	11,288.8	7,000.0	88.9	88.4	90.00	4,426.3	-442.5	616.5	440.1	176.40	3.495	
11,349.0	7,000.0	11,288.8	7,000.0	89.6	88.4	90.00	4,426.3	-442.5	617.9	440.7	177.19	3.487 SF	

Reference Depths are relative to WELL @ 5077.0ft (RKB - 13')	Coordinates are relative to: SRC Kiehn N-4NHZ
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°



Company: Synergy Resources
Project: SEC.4-T4N-R68W
Reference Site: SRC Kiehn Pad Sec.4-T4N-R68W
Site Error: 0.0ft
Reference Well: SRC Kiehn N-4NHZ
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #2 (4-25-14)

Local Co-ordinate Reference: Well SRC Kiehn N-4NHZ
TVD Reference: WELL @ 5077.0ft (RKB - 13')
MD Reference: WELL @ 5077.0ft (RKB - 13')
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 @ 5077.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: SRC Kiehn N-4NHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°

