

Synergy Resources

Well Name: **SRC Kiehn 22-4CHZ**

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	1365558.32	3137819.06	40.335804	-105.005622	

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

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 201'FSL & 1873'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 2365'FWL	7000.0	4427.8	-1258.2	Point



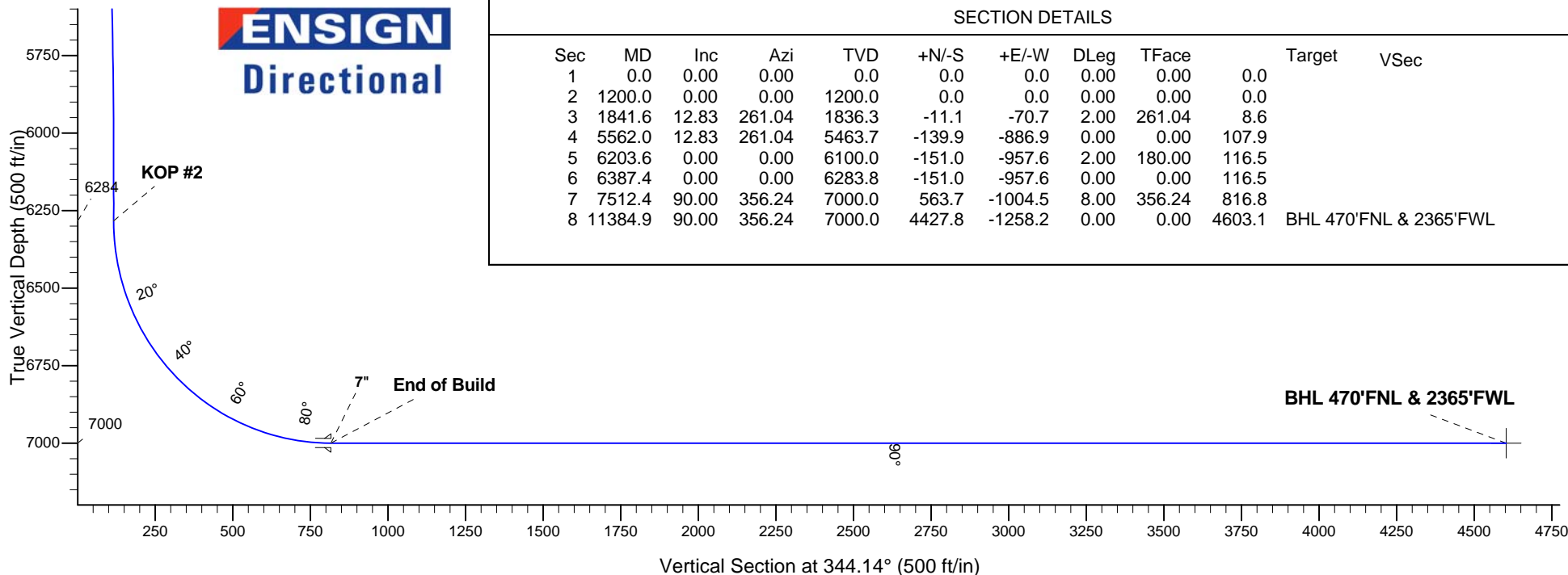
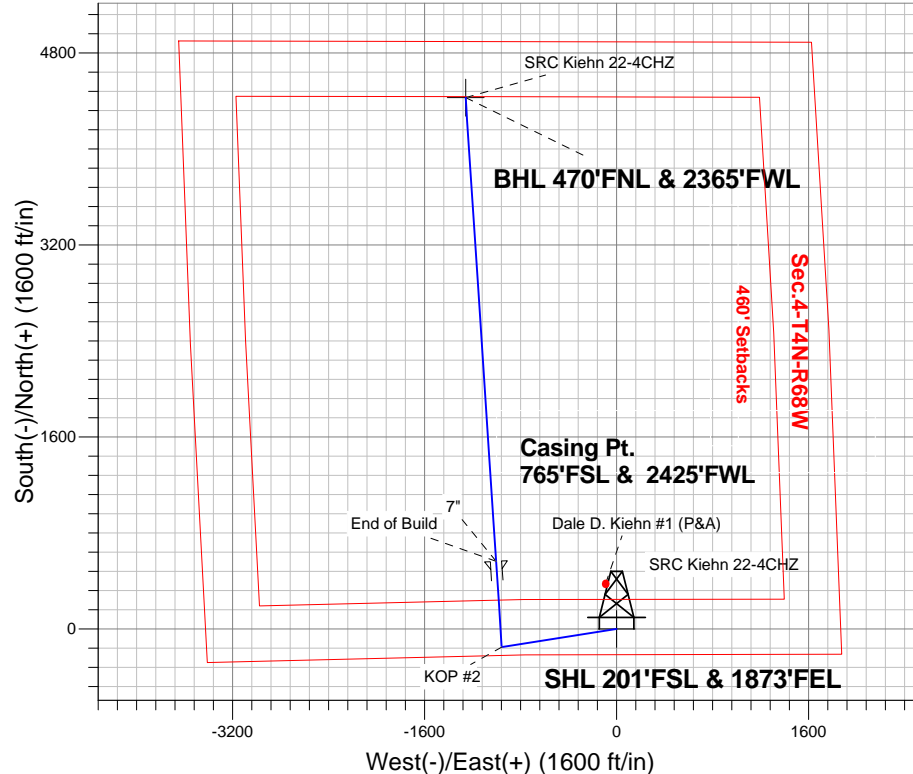
Azimuths to True North
Magnetic North: 8.60°

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

ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	KOP #1
6283.8	6387.4	KOP #2
7000.0	7512.4	End of Build

SRC Kiehn Pad Sec.4-T4N-R68W
SRC Kiehn 22-4CHZ
Plan #2 (4-25-14)
9:04, 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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1841.6	12.83	261.04	1836.3	-11.1	-70.7	2.00	261.04	8.6	
4	5562.0	12.83	261.04	5463.7	-139.9	-886.9	0.00	0.00	107.9	
5	6203.6	0.00	0.00	6100.0	-151.0	-957.6	2.00	180.00	116.5	
6	6387.4	0.00	0.00	6283.8	-151.0	-957.6	0.00	0.00	116.5	
7	7512.4	90.00	356.24	7000.0	563.7	-1004.5	8.00	356.24	816.8	
8	11384.9	90.00	356.24	7000.0	4427.8	-1258.2	0.00	0.00	4603.1	BHL 470'FNL & 2365'FWL



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 22-4CHZ

Wellbore #1

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

Standard Planning Report

29 April, 2014

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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 22-4CHZ					
Well Position	+N-S	-2.6 ft	Northing:	1,365,558.32 ft	Latitude:	40.335804
	+E-W	-155.0 ft	Easting:	3,137,819.06 ft	Longitude:	-105.005622
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	344.14

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,841.6	12.83	261.04	1,836.3	-11.1	-70.7	2.00	2.00	0.00	261.04	
5,562.0	12.83	261.04	5,463.7	-139.9	-886.9	0.00	0.00	0.00	0.00	
6,203.6	0.00	0.00	6,100.0	-151.0	-957.6	2.00	-2.00	0.00	180.00	
6,387.4	0.00	0.00	6,283.8	-151.0	-957.6	0.00	0.00	0.00	0.00	
7,512.4	90.00	356.24	7,000.0	563.7	-1,004.5	8.00	8.00	0.00	356.24	
11,384.9	90.00	356.24	7,000.0	4,427.8	-1,258.2	0.00	0.00	0.00	0.00	BHL 470'FNL & 236

Database:	Landmark	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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 & 1873'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
KOP #1									
1,300.0	2.00	261.04	1,300.0	-0.3	-1.7	0.2	2.00	2.00	0.00
1,400.0	4.00	261.04	1,399.8	-1.1	-6.9	0.8	2.00	2.00	0.00
1,500.0	6.00	261.04	1,499.5	-2.4	-15.5	1.9	2.00	2.00	0.00
1,600.0	8.00	261.04	1,598.7	-4.3	-27.5	3.4	2.00	2.00	0.00
1,700.0	10.00	261.04	1,697.5	-6.8	-43.0	5.2	2.00	2.00	0.00
1,800.0	12.00	261.04	1,795.6	-9.8	-61.8	7.5	2.00	2.00	0.00
1,841.6	12.83	261.04	1,836.3	-11.1	-70.7	8.6	2.00	2.00	0.00
1,900.0	12.83	261.04	1,893.2	-13.2	-83.5	10.2	0.00	0.00	0.00
2,000.0	12.83	261.04	1,990.7	-16.6	-105.4	12.8	0.00	0.00	0.00
2,100.0	12.83	261.04	2,088.2	-20.1	-127.4	15.5	0.00	0.00	0.00
2,200.0	12.83	261.04	2,185.7	-23.5	-149.3	18.2	0.00	0.00	0.00
2,300.0	12.83	261.04	2,283.2	-27.0	-171.2	20.8	0.00	0.00	0.00
2,400.0	12.83	261.04	2,380.7	-30.5	-193.2	23.5	0.00	0.00	0.00
2,500.0	12.83	261.04	2,478.2	-33.9	-215.1	26.2	0.00	0.00	0.00
2,600.0	12.83	261.04	2,575.7	-37.4	-237.1	28.8	0.00	0.00	0.00
2,700.0	12.83	261.04	2,673.2	-40.8	-259.0	31.5	0.00	0.00	0.00
2,800.0	12.83	261.04	2,770.7	-44.3	-280.9	34.2	0.00	0.00	0.00
2,900.0	12.83	261.04	2,868.2	-47.8	-302.9	36.8	0.00	0.00	0.00
3,000.0	12.83	261.04	2,965.7	-51.2	-324.8	39.5	0.00	0.00	0.00
3,100.0	12.83	261.04	3,063.2	-54.7	-346.8	42.2	0.00	0.00	0.00
3,200.0	12.83	261.04	3,160.7	-58.1	-368.7	44.9	0.00	0.00	0.00
3,300.0	12.83	261.04	3,258.2	-61.6	-390.6	47.5	0.00	0.00	0.00
3,400.0	12.83	261.04	3,355.7	-65.1	-412.6	50.2	0.00	0.00	0.00
3,500.0	12.83	261.04	3,453.2	-68.5	-434.5	52.9	0.00	0.00	0.00
3,600.0	12.83	261.04	3,550.7	-72.0	-456.5	55.5	0.00	0.00	0.00
3,700.0	12.83	261.04	3,648.2	-75.4	-478.4	58.2	0.00	0.00	0.00
3,800.0	12.83	261.04	3,745.7	-78.9	-500.3	60.9	0.00	0.00	0.00
3,900.0	12.83	261.04	3,843.2	-82.4	-522.3	63.5	0.00	0.00	0.00
4,000.0	12.83	261.04	3,940.7	-85.8	-544.2	66.2	0.00	0.00	0.00
4,100.0	12.83	261.04	4,038.2	-89.3	-566.2	68.9	0.00	0.00	0.00
4,200.0	12.83	261.04	4,135.7	-92.7	-588.1	71.5	0.00	0.00	0.00
4,300.0	12.83	261.04	4,233.2	-96.2	-610.0	74.2	0.00	0.00	0.00
4,400.0	12.83	261.04	4,330.7	-99.7	-632.0	76.9	0.00	0.00	0.00
4,500.0	12.83	261.04	4,428.2	-103.1	-653.9	79.6	0.00	0.00	0.00
4,600.0	12.83	261.04	4,525.8	-106.6	-675.9	82.2	0.00	0.00	0.00
4,700.0	12.83	261.04	4,623.3	-110.0	-697.8	84.9	0.00	0.00	0.00
4,800.0	12.83	261.04	4,720.8	-113.5	-719.7	87.6	0.00	0.00	0.00
4,900.0	12.83	261.04	4,818.3	-117.0	-741.7	90.2	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 22-4CHZ	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	12.83	261.04	4,915.8	-120.4	-763.6	92.9	0.00	0.00	0.00
5,100.0	12.83	261.04	5,013.3	-123.9	-785.6	95.6	0.00	0.00	0.00
5,200.0	12.83	261.04	5,110.8	-127.3	-807.5	98.2	0.00	0.00	0.00
5,300.0	12.83	261.04	5,208.3	-130.8	-829.4	100.9	0.00	0.00	0.00
5,400.0	12.83	261.04	5,305.8	-134.3	-851.4	103.6	0.00	0.00	0.00
5,500.0	12.83	261.04	5,403.3	-137.7	-873.3	106.2	0.00	0.00	0.00
5,562.0	12.83	261.04	5,463.7	-139.9	-886.9	107.9	0.00	0.00	0.00
5,600.0	12.07	261.04	5,500.8	-141.1	-895.0	108.9	2.00	-2.00	0.00
5,700.0	10.07	261.04	5,599.0	-144.1	-914.0	111.2	2.00	-2.00	0.00
5,800.0	8.07	261.04	5,697.7	-146.6	-929.6	113.1	2.00	-2.00	0.00
5,900.0	6.07	261.04	5,796.9	-148.5	-941.7	114.6	2.00	-2.00	0.00
6,000.0	4.07	261.04	5,896.5	-149.9	-950.5	115.6	2.00	-2.00	0.00
6,100.0	2.07	261.04	5,996.4	-150.7	-955.7	116.3	2.00	-2.00	0.00
6,200.0	0.07	261.04	6,096.4	-151.0	-957.6	116.5	2.00	-2.00	0.00
6,203.6	0.00	0.00	6,100.0	-151.0	-957.6	116.5	2.00	-2.00	0.00
6,300.0	0.00	0.00	6,196.4	-151.0	-957.6	116.5	0.00	0.00	0.00
6,387.4	0.00	0.00	6,283.8	-151.0	-957.6	116.5	0.00	0.00	0.00
KOP #2									
6,400.0	1.01	356.24	6,296.4	-150.9	-957.6	116.6	7.98	7.98	0.00
6,500.0	9.01	356.24	6,395.9	-142.2	-958.2	125.1	8.00	8.00	0.00
6,600.0	17.01	356.24	6,493.3	-119.8	-959.7	147.1	8.00	8.00	0.00
6,700.0	25.01	356.24	6,586.5	-84.0	-962.0	182.1	8.00	8.00	0.00
6,800.0	33.01	356.24	6,673.9	-35.7	-965.2	229.5	8.00	8.00	0.00
6,900.0	41.01	356.24	6,753.7	24.3	-969.1	288.3	8.00	8.00	0.00
7,000.0	49.01	356.24	6,824.4	94.9	-973.7	357.4	8.00	8.00	0.00
7,100.0	57.01	356.24	6,884.5	174.5	-979.0	435.4	8.00	8.00	0.00
7,200.0	65.01	356.24	6,932.9	261.7	-984.7	520.9	8.00	8.00	0.00
7,300.0	73.01	356.24	6,968.7	354.8	-990.8	612.1	8.00	8.00	0.00
7,400.0	81.01	356.24	6,991.2	451.9	-997.2	707.3	8.00	8.00	0.00
7,500.0	89.01	356.24	6,999.9	551.3	-1,003.7	804.6	8.00	8.00	0.00
7,512.4	90.00	356.24	7,000.0	563.6	-1,004.5	816.7	8.00	8.00	0.00
End of Build - 7"									
7,600.0	90.00	356.24	7,000.0	651.0	-1,010.3	902.4	0.00	0.00	0.00
7,700.0	90.00	356.24	7,000.0	750.8	-1,016.8	1,000.2	0.00	0.00	0.00
7,800.0	90.00	356.24	7,000.0	850.6	-1,023.4	1,097.9	0.00	0.00	0.00
7,900.0	90.00	356.24	7,000.0	950.4	-1,029.9	1,195.7	0.00	0.00	0.00
8,000.0	90.00	356.24	7,000.0	1,050.2	-1,036.5	1,293.5	0.00	0.00	0.00
8,100.0	90.00	356.24	7,000.0	1,150.0	-1,043.0	1,391.3	0.00	0.00	0.00
8,200.0	90.00	356.24	7,000.0	1,249.8	-1,049.6	1,489.0	0.00	0.00	0.00
8,300.0	90.00	356.24	7,000.0	1,349.5	-1,056.1	1,586.8	0.00	0.00	0.00
8,400.0	90.00	356.24	7,000.0	1,449.3	-1,062.7	1,684.6	0.00	0.00	0.00
8,500.0	90.00	356.24	7,000.0	1,549.1	-1,069.2	1,782.4	0.00	0.00	0.00
8,600.0	90.00	356.24	7,000.0	1,648.9	-1,075.8	1,880.1	0.00	0.00	0.00
8,700.0	90.00	356.24	7,000.0	1,748.7	-1,082.3	1,977.9	0.00	0.00	0.00
8,800.0	90.00	356.24	7,000.0	1,848.5	-1,088.9	2,075.7	0.00	0.00	0.00
8,900.0	90.00	356.24	7,000.0	1,948.2	-1,095.4	2,173.5	0.00	0.00	0.00
9,000.0	90.00	356.24	7,000.0	2,048.0	-1,102.0	2,271.2	0.00	0.00	0.00
9,100.0	90.00	356.24	7,000.0	2,147.8	-1,108.5	2,369.0	0.00	0.00	0.00
9,200.0	90.00	356.24	7,000.0	2,247.6	-1,115.1	2,466.8	0.00	0.00	0.00
9,300.0	90.00	356.24	7,000.0	2,347.4	-1,121.6	2,564.6	0.00	0.00	0.00
9,400.0	90.00	356.24	7,000.0	2,447.2	-1,128.2	2,662.4	0.00	0.00	0.00
9,500.0	90.00	356.24	7,000.0	2,547.0	-1,134.7	2,760.1	0.00	0.00	0.00
9,600.0	90.00	356.24	7,000.0	2,646.7	-1,141.3	2,857.9	0.00	0.00	0.00
9,700.0	90.00	356.24	7,000.0	2,746.5	-1,147.8	2,955.7	0.00	0.00	0.00

Plan Annotations					
	Measured Depth	Vertical	Local Coordinates		Comment
	Depth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	
	1,200.0	1,200.0	0.0	0.0	
	6,387.4	6,283.8	-151.0	-957.6	
	7,512.4	7,000.0	563.6	-1,004.5	End of Build



Synergy Resources

SEC.4-T4N-R68W

SRC Kiehn Pad Sec.4-T4N-R68W

SRC Kiehn 22-4CHZ

Wellbore #1

Plan #2 (4-25-14)

Anticollision Report

29 April, 2014

Offset Design													Offset Site Error:		0.0 ft
SRC Kiehn (Existing) Pad Sec.4-T4N-R68W - Dale D. Kiehn #1 (P&A) - Wellbore #1 - Wellbore #1													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
1,100.0	1,100.0	3,773.0	3,773.0	2.4	75.5	-13.49	378.9	-90.9	389.6	311.8	77.82	5.007			
1,200.0	1,200.0	3,873.0	3,873.0	2.6	77.5	-13.49	378.9	-90.9	389.6	309.6	80.04	4.867			
1,300.0	1,300.0	3,973.0	3,973.0	2.8	79.5	85.73	378.9	-90.9	389.5	307.2	82.25	4.735			
1,400.0	1,399.8	4,072.8	4,072.8	3.0	81.5	86.50	378.9	-90.9	389.1	304.7	84.45	4.608			
1,500.0	1,499.5	4,172.5	4,172.5	3.2	83.4	87.79	378.9	-90.9	388.7	302.0	86.66	4.485			
1,600.0	1,598.7	4,271.7	4,271.7	3.4	85.4	89.58	378.9	-90.9	388.4	299.5	88.88	4.370			
1,620.2	1,618.7	4,291.7	4,291.7	3.5	85.8	90.00	378.9	-90.9	388.4	299.1	89.33	4.348 CC			
1,700.0	1,697.5	4,370.5	4,370.5	3.7	87.4	91.85	378.9	-90.9	388.6	297.5	91.12	4.265			
1,800.0	1,795.6	4,468.6	4,468.6	4.0	89.4	94.58	378.9	-90.9	389.7	296.3	93.37	4.174 ES			
1,900.0	1,893.2	4,566.2	4,566.2	4.4	91.3	97.69	378.9	-90.9	392.1	296.5	95.63	4.100			
2,000.0	1,990.7	4,663.7	4,663.7	4.7	93.3	100.80	378.9	-90.9	395.8	297.9	97.90	4.042			
2,100.0	2,088.2	4,761.2	4,761.2	5.1	95.2	103.85	378.9	-90.9	400.6	300.4	100.17	3.999			
2,200.0	2,185.7	4,858.7	4,858.7	5.5	97.2	106.82	378.9	-90.9	406.6	304.2	102.44	3.970			
2,300.0	2,283.2	4,956.2	4,956.2	6.0	99.1	109.70	378.9	-90.9	413.7	309.1	104.69	3.952			
2,400.0	2,380.7	5,053.7	5,053.7	6.4	101.1	112.48	378.9	-90.9	421.9	315.0	106.92	3.946 SF			
2,500.0	2,478.2	5,151.2	5,151.2	6.8	103.0	115.15	378.9	-90.9	431.1	321.9	109.14	3.950			
2,600.0	2,575.7	5,248.7	5,248.7	7.3	105.0	117.71	378.9	-90.9	441.2	329.8	111.35	3.962			
2,700.0	2,673.2	5,346.2	5,346.2	7.7	106.9	120.16	378.9	-90.9	452.1	338.6	113.55	3.982			
2,800.0	2,770.7	5,443.7	5,443.7	8.2	108.9	122.49	378.9	-90.9	463.9	348.2	115.73	4.008			
2,900.0	2,868.2	5,541.2	5,541.2	8.6	110.8	124.70	378.9	-90.9	476.4	358.5	117.90	4.041			
3,000.0	2,965.7	5,638.7	5,638.7	9.1	112.8	126.81	378.9	-90.9	489.6	369.5	120.05	4.078			
3,100.0	3,063.2	5,736.2	5,736.2	9.6	114.7	128.80	378.9	-90.9	503.4	381.2	122.20	4.120			
3,200.0	3,160.7	5,833.7	5,833.7	10.0	116.7	130.69	378.9	-90.9	517.8	393.5	124.35	4.165			
3,300.0	3,258.2	5,931.2	5,931.2	10.5	118.6	132.48	378.9	-90.9	532.8	406.3	126.48	4.212			
3,400.0	3,355.7	6,028.7	6,028.7	11.0	120.6	134.17	378.9	-90.9	548.2	419.6	128.61	4.263			
3,500.0	3,453.2	6,126.2	6,126.2	11.5	122.5	135.77	378.9	-90.9	564.1	433.4	130.74	4.315			
3,600.0	3,550.7	6,223.7	6,223.7	11.9	124.5	137.28	378.9	-90.9	580.4	447.6	132.86	4.369			
3,700.0	3,648.2	6,321.2	6,321.2	12.4	126.4	138.71	378.9	-90.9	597.1	462.1	134.98	4.424			
3,800.0	3,745.7	6,418.7	6,418.7	12.9	128.4	140.06	378.9	-90.9	614.2	477.1	137.10	4.480			
3,900.0	3,843.2	6,516.2	6,516.2	13.4	130.3	141.34	378.9	-90.9	631.5	492.3	139.21	4.536			
4,000.0	3,940.7	6,613.7	6,613.7	13.8	132.3	142.56	378.9	-90.9	649.2	507.9	141.33	4.593			
4,100.0	4,038.2	6,711.2	6,711.2	14.3	134.2	143.71	378.9	-90.9	667.1	523.7	143.44	4.651			
4,200.0	4,135.7	6,808.7	6,808.7	14.8	136.2	144.80	378.9	-90.9	685.3	539.7	145.56	4.708			
4,300.0	4,233.2	6,906.2	6,906.2	15.3	138.1	145.83	378.9	-90.9	703.7	556.0	147.68	4.765			
4,400.0	4,330.7	7,003.7	7,003.7	15.8	140.1	146.81	378.9	-90.9	722.3	572.5	149.79	4.822			
4,500.0	4,428.2	7,101.2	7,101.2	16.3	142.0	147.75	378.9	-90.9	741.2	589.2	151.91	4.879			
4,600.0	4,525.8	7,198.8	7,198.8	16.7	144.0	148.63	378.9	-90.9	760.2	606.1	154.03	4.935			
4,700.0	4,623.3	7,296.3	7,296.3	17.2	145.9	149.48	378.9	-90.9	779.3	623.2	156.14	4.991			
4,800.0	4,720.8	7,393.8	7,393.8	17.7	147.9	150.28	378.9	-90.9	798.7	640.4	158.26	5.046			
4,900.0	4,818.3	7,491.3	7,491.3	18.2	149.8	151.05	378.9	-90.9	818.1	657.8	160.38	5.101			
5,000.0	4,915.8	7,588.8	7,588.8	18.7	151.8	151.78	378.9	-90.9	837.8	675.3	162.51	5.155			
5,100.0	5,013.3	7,686.3	7,686.3	19.2	153.7	152.48	378.9	-90.9	857.5	692.9	164.63	5.209			
5,200.0	5,110.8	7,783.8	7,783.8	19.6	155.7	153.15	378.9	-90.9	877.4	710.6	166.75	5.262			
5,300.0	5,208.3	7,790.0	7,790.0	20.1	155.8	153.19	378.9	-90.9	902.0	734.8	167.19	5.395			
5,400.0	5,305.8	7,790.0	7,790.0	20.6	155.8	153.19	378.9	-90.9	936.6	769.1	167.51	5.592			
5,500.0	5,403.3	7,790.0	7,790.0	21.1	155.8	153.19	378.9	-90.9	980.3	812.5	167.83	5.841			

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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		
0.0	0.0	0.0	0.0	0.0	0.0	-91.39	-1.1	-44.9	44.9					
100.0	100.0	100.0	100.0	0.1	0.1	-91.39	-1.1	-44.9	44.9	44.7	0.22	199.754		
200.0	200.0	200.0	200.0	0.3	0.3	-91.39	-1.1	-44.9	44.9	44.2	0.67	66.585		
300.0	300.0	300.0	300.0	0.6	0.6	-91.39	-1.1	-44.9	44.9	43.8	1.12	39.951		
400.0	400.0	400.0	400.0	0.8	0.8	-91.39	-1.1	-44.9	44.9	43.3	1.57	28.536		
500.0	500.0	500.0	500.0	1.0	1.0	-91.39	-1.1	-44.9	44.9	42.9	2.02	22.195		
600.0	600.0	600.0	600.0	1.2	1.2	-91.39	-1.1	-44.9	44.9	42.4	2.47	18.159		
700.0	700.0	700.0	700.0	1.5	1.5	-91.39	-1.1	-44.9	44.9	42.0	2.92	15.366		
800.0	800.0	800.0	800.0	1.7	1.7	-91.39	-1.1	-44.9	44.9	41.5	3.37	13.317 CC, ES		
900.0	900.0	898.4	898.4	1.9	1.9	-91.58	-1.3	-46.6	46.6	42.8	3.80	12.254		
1,000.0	1,000.0	996.6	996.5	2.1	2.1	-92.04	-1.8	-51.6	51.7	47.5	4.23	12.233		
1,100.0	1,100.0	1,094.3	1,093.8	2.4	2.3	-92.65	-2.8	-59.9	60.3	55.6	4.67	12.907		
1,200.0	1,200.0	1,191.4	1,190.2	2.6	2.5	-93.25	-4.1	-71.4	72.2	67.1	5.13	14.067		
1,300.0	1,300.0	1,287.8	1,285.5	2.8	2.8	5.26	-5.7	-86.1	85.7	80.2	5.51	15.569		
1,400.0	1,399.8	1,383.8	1,379.8	3.0	3.1	5.02	-7.7	-103.8	99.2	93.3	5.91	16.777		
1,500.0	1,499.5	1,479.4	1,473.0	3.2	3.5	4.91	-10.0	-124.6	112.5	106.2	6.32	17.791		
1,600.0	1,598.7	1,574.6	1,565.2	3.4	3.9	4.89	-12.6	-148.3	125.6	118.9	6.74	18.638		
1,700.0	1,697.5	1,670.2	1,656.9	3.7	4.4	4.94	-15.6	-175.2	138.5	131.4	7.17	19.326		
1,800.0	1,795.6	1,769.6	1,752.0	4.0	4.9	5.08	-18.9	-204.1	149.1	141.5	7.61	19.585		
1,900.0	1,893.2	1,869.3	1,847.3	4.4	5.4	5.31	-22.1	-233.2	156.8	148.7	8.09	19.383		
2,000.0	1,990.7	1,969.1	1,942.6	4.7	6.0	5.54	-25.3	-262.2	164.2	155.6	8.60	19.098		
2,100.0	2,088.2	2,068.8	2,038.0	5.1	6.6	5.74	-28.6	-291.2	171.6	162.5	9.12	18.826		
2,200.0	2,185.7	2,168.5	2,133.3	5.5	7.2	5.93	-31.8	-320.3	179.0	169.4	9.64	18.567		
2,300.0	2,283.2	2,268.2	2,228.7	6.0	7.8	6.10	-35.1	-349.3	186.4	176.2	10.17	18.321		
2,400.0	2,380.7	2,368.0	2,324.0	6.4	8.4	6.26	-38.3	-378.4	193.8	183.1	10.71	18.089		
2,500.0	2,478.2	2,467.7	2,419.4	6.8	9.0	6.41	-41.6	-407.4	201.2	190.0	11.26	17.871		
2,600.0	2,575.7	2,567.4	2,514.7	7.3	9.6	6.55	-44.8	-436.4	208.6	196.8	11.81	17.665		
2,700.0	2,673.2	2,667.1	2,610.1	7.7	10.2	6.68	-48.0	-465.5	216.0	203.7	12.36	17.472		
2,800.0	2,770.7	2,766.9	2,705.4	8.2	10.8	6.80	-51.3	-494.5	223.4	210.5	12.92	17.291		
2,900.0	2,868.2	2,866.6	2,800.8	8.6	11.4	6.91	-54.5	-523.6	230.8	217.4	13.48	17.120		
3,000.0	2,965.7	2,966.3	2,896.1	9.1	12.0	7.01	-57.8	-552.6	238.3	224.2	14.05	16.959		
3,100.0	3,063.2	3,066.0	2,991.5	9.6	12.6	7.11	-61.0	-581.6	245.7	231.0	14.62	16.808		
3,200.0	3,160.7	3,165.8	3,086.8	10.0	13.3	7.21	-64.2	-610.7	253.1	237.9	15.19	16.666		
3,300.0	3,258.2	3,265.5	3,182.2	10.5	13.9	7.29	-67.5	-639.7	260.5	244.7	15.76	16.531		
3,400.0	3,355.7	3,365.2	3,277.5	11.0	14.5	7.38	-70.7	-668.8	267.9	251.6	16.33	16.404		
3,500.0	3,453.2	3,464.9	3,372.9	11.5	15.1	7.45	-74.0	-697.8	275.3	258.4	16.91	16.284		
3,600.0	3,550.7	3,564.7	3,468.2	11.9	15.7	7.53	-77.2	-726.8	282.7	265.2	17.48	16.171		
3,700.0	3,648.2	3,664.4	3,563.6	12.4	16.4	7.60	-80.5	-755.9	290.1	272.1	18.06	16.063		
3,800.0	3,745.7	3,764.1	3,658.9	12.9	17.0	7.67	-83.7	-784.9	297.6	278.9	18.64	15.961		
3,900.0	3,843.2	3,863.8	3,754.2	13.4	17.6	7.73	-86.9	-813.9	305.0	285.7	19.22	15.864		
4,000.0	3,940.7	3,963.6	3,849.6	13.8	18.2	7.79	-90.2	-843.0	312.4	292.6	19.81	15.772		
4,100.0	4,038.2	4,063.3	3,944.9	14.3	18.9	7.85	-93.4	-872.0	319.8	299.4	20.39	15.684		
4,200.0	4,135.7	4,163.0	4,040.3	14.8	19.5	7.90	-96.7	-901.1	327.2	306.2	20.97	15.601		
4,300.0	4,233.2	4,262.7	4,135.6	15.3	20.1	7.96	-99.9	-930.1	334.6	313.1	21.56	15.521		
4,400.0	4,330.7	4,362.4	4,231.0	15.8	20.7	8.01	-103.1	-959.1	342.1	319.9	22.15	15.445		
4,500.0	4,428.2	4,462.2	4,326.3	16.3	21.4	8.06	-106.4	-988.2	349.5	326.7	22.73	15.373		
4,600.0	4,525.8	4,561.9	4,421.7	16.7	22.0	8.10	-109.6	-1,017.2	356.9	333.6	23.32	15.303		
4,700.0	4,623.3	4,661.6	4,517.0	17.2	22.6	8.15	-112.9	-1,046.3	364.3	340.4	23.91	15.237		
4,800.0	4,720.8	4,761.3	4,612.4	17.7	23.2	8.19	-116.1	-1,075.3	371.7	347.2	24.50	15.173		
4,900.0	4,818.3	4,861.1	4,707.7	18.2	23.9	8.23	-119.3	-1,104.3	379.1	354.1	25.09	15.112		
5,000.0	4,915.8	4,960.8	4,803.1	18.7	24.5	8.27	-122.6	-1,133.4	386.6	360.9	25.68	15.054		
5,100.0	5,013.3	5,060.5	4,898.4	19.2	25.1	8.31	-125.8	-1,162.4	394.0	367.7	26.27	14.998		

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 22-4CHZ
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 22-4CHZ	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	5,110.8	5,160.2	4,993.8	19.6	25.7	8.34	-129.1	-1,191.5	401.4	374.5	26.86	14.944	
5,300.0	5,208.3	5,260.0	5,089.1	20.1	26.4	8.38	-132.3	-1,220.5	408.8	381.4	27.45	14.892	
5,400.0	5,305.8	5,359.7	5,184.5	20.6	27.0	8.41	-135.6	-1,249.5	416.2	388.2	28.04	14.842	
5,500.0	5,403.3	5,462.9	5,283.1	21.1	27.6	8.45	-138.9	-1,279.5	423.6	394.9	28.64	14.789	
5,600.0	5,500.8	5,580.1	5,396.2	21.6	28.1	8.53	-142.4	-1,310.4	428.4	399.2	29.23	14.657	
5,700.0	5,599.0	5,697.6	5,510.6	21.9	28.6	8.62	-145.3	-1,336.8	431.9	402.2	29.72	14.533	
5,800.0	5,697.7	5,815.2	5,626.2	22.2	29.0	8.69	-147.7	-1,358.5	434.8	404.7	30.15	14.423	
5,900.0	5,796.9	5,933.0	5,742.7	22.4	29.3	8.75	-149.6	-1,375.5	437.1	406.6	30.51	14.325	
6,000.0	5,896.5	6,050.9	5,860.0	22.6	29.5	8.79	-151.0	-1,387.7	438.7	407.9	30.82	14.238	
6,100.0	5,996.4	6,168.9	5,977.7	22.8	29.7	8.81	-151.8	-1,395.1	439.7	408.7	31.05	14.161	
6,200.0	6,096.4	6,286.9	6,095.7	22.9	29.9	8.82	-152.1	-1,397.7	440.1	408.8	31.24	14.087	
6,300.0	6,196.4	6,387.6	6,196.4	23.0	30.0	-90.14	-152.1	-1,397.7	440.1	407.9	32.21	13.663	
6,400.0	6,296.4	6,487.1	6,295.9	23.2	30.0	-86.39	-152.0	-1,397.7	440.1	408.2	31.91	13.790	
6,500.0	6,395.9	6,583.4	6,391.8	23.3	30.1	-86.43	-143.9	-1,398.2	440.1	407.8	32.24	13.650	
6,600.0	6,493.3	6,679.8	6,485.8	23.4	30.2	-86.54	-123.1	-1,399.6	440.0	407.5	32.49	13.544	
6,700.0	6,586.5	6,776.3	6,576.2	23.5	30.3	-86.71	-89.8	-1,401.8	439.9	407.2	32.70	13.453	
6,800.0	6,673.9	6,872.9	6,661.6	23.6	30.4	-86.95	-44.6	-1,404.8	439.8	406.9	32.95	13.349	
6,900.0	6,753.7	6,969.9	6,740.2	23.7	30.5	-87.24	11.8	-1,408.5	439.7	406.4	33.32	13.198	
7,000.0	6,824.4	7,067.2	6,810.7	23.8	30.6	-87.59	78.6	-1,412.9	439.6	405.7	33.89	12.972	
7,100.0	6,884.5	7,164.8	6,871.8	24.1	30.8	-87.98	154.5	-1,417.8	439.5	404.8	34.75	12.647	
7,200.0	6,932.9	7,262.8	6,922.1	24.3	31.0	-88.42	238.4	-1,423.4	439.4	403.5	35.94	12.226	
7,300.0	6,968.7	7,361.3	6,960.6	24.8	31.3	-88.88	328.8	-1,429.3	439.3	401.9	37.47	11.726	
7,400.0	6,991.2	7,460.3	6,986.4	25.3	31.7	-89.37	424.0	-1,435.6	439.3	400.0	39.30	11.177	
7,495.5	6,999.8	7,555.4	6,998.6	26.0	32.2	-89.84	518.0	-1,441.8	439.3	398.0	41.30	10.637	
7,500.0	6,999.9	7,559.8	6,998.9	26.0	32.2	-89.87	522.5	-1,442.0	439.3	397.9	41.39	10.613	
7,600.0	7,000.0	7,659.8	7,000.0	26.8	32.9	-90.00	622.2	-1,448.6	439.3	395.5	43.74	10.043	
7,700.0	7,000.0	7,759.8	7,000.0	27.8	33.6	-90.00	722.0	-1,455.2	439.3	393.0	46.31	9.487	
7,800.0	7,000.0	7,859.8	7,000.0	28.9	34.4	-90.00	821.8	-1,461.7	439.3	390.3	49.04	8.957	
7,900.0	7,000.0	7,959.8	7,000.0	30.0	35.3	-90.00	921.6	-1,468.3	439.3	387.4	51.93	8.460	
8,000.0	7,000.0	8,059.8	7,000.0	31.3	36.4	-90.00	1,021.4	-1,474.8	439.3	384.4	54.94	7.996	
8,100.0	7,000.0	8,159.8	7,000.0	32.6	37.5	-90.00	1,121.1	-1,481.4	439.3	381.3	58.06	7.567	
8,200.0	7,000.0	8,259.8	7,000.0	34.1	38.6	-90.00	1,220.9	-1,488.0	439.4	378.1	61.27	7.171	
8,300.0	7,000.0	8,359.8	7,000.0	35.5	39.9	-90.00	1,320.7	-1,494.5	439.4	374.8	64.55	6.807	
8,400.0	7,000.0	8,459.8	7,000.0	37.0	41.2	-90.00	1,420.5	-1,501.1	439.4	371.5	67.90	6.471	
8,500.0	7,000.0	8,559.8	7,000.0	38.6	42.6	-90.00	1,520.3	-1,507.7	439.4	368.1	71.30	6.163	
8,600.0	7,000.0	8,659.8	7,000.0	40.2	44.0	-90.00	1,620.1	-1,514.2	439.4	364.6	74.75	5.878	
8,700.0	7,000.0	8,759.8	7,000.0	41.8	45.4	-90.00	1,719.8	-1,520.8	439.4	361.2	78.24	5.616	
8,800.0	7,000.0	8,859.8	7,000.0	43.5	46.9	-90.00	1,819.6	-1,527.3	439.4	357.6	81.77	5.374	
8,900.0	7,000.0	8,959.8	7,000.0	45.2	48.5	-90.00	1,919.4	-1,533.9	439.4	354.1	85.33	5.150	
9,000.0	7,000.0	9,059.8	7,000.0	46.9	50.0	-90.00	2,019.2	-1,540.5	439.4	350.5	88.92	4.942	
9,100.0	7,000.0	9,159.8	7,000.0	48.6	51.6	-90.00	2,119.0	-1,547.0	439.5	346.9	92.54	4.749	
9,200.0	7,000.0	9,259.8	7,000.0	50.3	53.3	-90.00	2,218.8	-1,553.6	439.5	343.3	96.17	4.569	
9,300.0	7,000.0	9,359.8	7,000.0	52.1	54.9	-90.00	2,318.6	-1,560.2	439.5	339.6	99.83	4.402	
9,400.0	7,000.0	9,459.8	7,000.0	53.8	56.6	-90.00	2,418.3	-1,566.7	439.5	336.0	103.50	4.246	
9,500.0	7,000.0	9,559.8	7,000.0	55.6	58.2	-90.00	2,518.1	-1,573.3	439.5	332.3	107.19	4.100	
9,600.0	7,000.0	9,659.8	7,000.0	57.4	59.9	-90.00	2,617.9	-1,579.8	439.5	328.6	110.89	3.963	
9,700.0	7,000.0	9,759.8	7,000.0	59.2	61.7	-90.00	2,717.7	-1,586.4	439.5	324.9	114.61	3.835	
9,800.0	7,000.0	9,859.8	7,000.0	61.0	63.4	-90.00	2,817.5	-1,593.0	439.5	321.2	118.34	3.714	
9,900.0	7,000.0	9,959.8	7,000.0	62.8	65.1	-90.00	2,917.3	-1,599.5	439.5	317.5	122.08	3.600	
10,000.0	7,000.0	10,059.8	7,000.0	64.6	66.9	-90.00	3,017.0	-1,606.1	439.5	313.7	125.82	3.493	
10,100.0	7,000.0	10,159.8	7,000.0	66.5	68.6	-90.00	3,116.8	-1,612.6	439.6	310.0	129.58	3.392	
10,200.0	7,000.0	10,259.8	7,000.0	68.3	70.4	-90.00	3,216.6	-1,619.2	439.6	306.2	133.35	3.296	

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 22-4CHZ
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 22-4CHZ	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							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.0	7,000.0	10,359.8	7,000.0	70.2	72.2	-90.00	3,316.4	-1,625.8	439.6	302.5	137.12	3.206		
10,400.0	7,000.0	10,459.8	7,000.0	72.0	74.0	-90.00	3,416.2	-1,632.3	439.6	298.7	140.90	3.120		
10,500.0	7,000.0	10,559.8	7,000.0	73.9	75.8	-90.00	3,516.0	-1,638.9	439.6	294.9	144.68	3.038		
10,600.0	7,000.0	10,659.8	7,000.0	75.7	77.6	-90.00	3,615.7	-1,645.5	439.6	291.1	148.47	2.961		
10,700.0	7,000.0	10,759.8	7,000.0	77.6	79.4	-90.00	3,715.5	-1,652.0	439.6	287.4	152.27	2.887		
10,800.0	7,000.0	10,859.8	7,000.0	79.5	81.2	-90.00	3,815.3	-1,658.6	439.6	283.6	156.07	2.817		
10,900.0	7,000.0	10,959.8	7,000.0	81.3	83.1	-90.00	3,915.1	-1,665.1	439.6	279.8	159.88	2.750		
11,000.0	7,000.0	11,059.8	7,000.0	83.2	84.9	-90.00	4,014.9	-1,671.7	439.7	276.0	163.69	2.686		
11,100.0	7,000.0	11,159.8	7,000.0	85.1	86.7	-90.00	4,114.7	-1,678.3	439.7	272.2	167.50	2.625		
11,200.0	7,000.0	11,259.8	7,000.0	87.0	88.6	-90.00	4,214.5	-1,684.8	439.7	268.4	171.32	2.566		
11,300.0	7,000.0	11,359.8	7,000.0	88.8	90.4	-90.00	4,314.2	-1,691.4	439.7	264.5	175.14	2.510		
11,384.9	7,000.0	11,444.8	7,000.0	90.4	92.0	-90.00	4,399.0	-1,697.0	439.7	261.3	178.39	2.465 SF		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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	-91.24	-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 CC, ES		
700.0	700.0	697.7	697.6	1.5	1.4	-91.34	-1.6	-69.1	69.2	66.3	2.90	23.828		
800.0	800.0	795.1	795.0	1.7	1.6	-91.62	-2.1	-74.1	74.3	70.9	3.33	22.300		
900.0	900.0	892.1	891.6	1.9	1.9	-92.02	-2.9	-82.3	82.8	79.0	3.78	21.921		
1,000.0	1,000.0	988.4	987.2	2.1	2.1	-92.45	-4.0	-93.6	94.6	90.3	4.24	22.290		
1,100.0	1,100.0	1,083.9	1,081.6	2.4	2.4	-92.87	-5.4	-108.0	109.7	105.0	4.74	23.132		
1,200.0	1,200.0	1,178.2	1,174.3	2.6	2.7	-93.24	-7.1	-125.4	128.2	122.9	5.28	24.259		
1,300.0	1,300.0	1,271.7	1,265.6	2.8	3.1	5.42	-9.1	-145.5	148.1	142.6	5.52	26.830		
1,400.0	1,399.8	1,364.7	1,355.6	3.0	3.5	5.26	-11.3	-168.4	167.8	161.9	5.94	28.261		
1,500.0	1,499.5	1,457.0	1,444.3	3.2	4.0	5.19	-13.8	-194.1	187.3	180.9	6.36	29.426		
1,600.0	1,598.7	1,549.1	1,531.8	3.4	4.5	5.18	-16.6	-222.5	206.5	199.7	6.80	30.358		
1,700.0	1,697.5	1,647.6	1,625.0	3.7	5.1	5.24	-19.7	-254.3	223.8	216.5	7.26	30.836		
1,800.0	1,795.6	1,746.6	1,718.7	4.0	5.7	5.38	-22.8	-286.2	237.6	229.9	7.73	30.741		
1,900.0	1,893.2	1,846.0	1,812.7	4.4	6.4	5.57	-25.9	-318.3	248.6	240.3	8.23	30.197		
2,000.0	1,990.7	1,945.4	1,906.7	4.7	7.0	5.77	-29.0	-350.4	259.2	250.5	8.76	29.595		
2,100.0	2,088.2	2,044.8	2,000.8	5.1	7.7	5.95	-32.1	-382.5	269.9	260.6	9.30	29.034		
2,200.0	2,185.7	2,144.3	2,094.8	5.5	8.3	6.12	-35.3	-414.5	280.6	270.8	9.84	28.511		
2,300.0	2,283.2	2,243.7	2,188.9	6.0	9.0	6.27	-38.4	-446.6	291.3	280.9	10.39	28.025		
2,400.0	2,380.7	2,343.1	2,283.0	6.4	9.7	6.42	-41.5	-478.7	302.0	291.0	10.95	27.573		
2,500.0	2,478.2	2,442.5	2,377.0	6.8	10.4	6.55	-44.6	-510.8	312.7	301.2	11.51	27.153		
2,600.0	2,575.7	2,542.0	2,471.1	7.3	11.0	6.68	-47.8	-542.9	323.4	311.3	12.08	26.763		
2,700.0	2,673.2	2,641.4	2,565.1	7.7	11.7	6.79	-50.9	-574.9	334.1	321.4	12.65	26.400		
2,800.0	2,770.7	2,740.8	2,659.2	8.2	12.4	6.90	-54.0	-607.0	344.7	331.5	13.23	26.061		
2,900.0	2,868.2	2,840.2	2,753.2	8.6	13.1	7.01	-57.1	-639.1	355.4	341.6	13.81	25.745		
3,000.0	2,965.7	2,939.6	2,847.3	9.1	13.8	7.10	-60.3	-671.2	366.1	351.8	14.39	25.450		
3,100.0	3,063.2	3,039.1	2,941.3	9.6	14.5	7.20	-63.4	-703.2	376.8	361.9	14.97	25.173		
3,200.0	3,160.7	3,138.5	3,035.4	10.0	15.1	7.28	-66.5	-735.3	387.5	372.0	15.55	24.914		
3,300.0	3,258.2	3,237.9	3,129.5	10.5	15.8	7.36	-69.6	-767.4	398.2	382.1	16.14	24.671		
3,400.0	3,355.7	3,337.3	3,223.5	11.0	16.5	7.44	-72.8	-799.5	408.9	392.2	16.73	24.442		
3,500.0	3,453.2	3,436.8	3,317.6	11.5	17.2	7.52	-75.9	-831.6	419.6	402.3	17.32	24.226		
3,600.0	3,550.7	3,536.2	3,411.6	11.9	17.9	7.59	-79.0	-863.6	430.3	412.4	17.91	24.023		
3,700.0	3,648.2	3,635.6	3,505.7	12.4	18.6	7.65	-82.1	-895.7	441.0	422.5	18.51	23.830		
3,800.0	3,745.7	3,735.0	3,599.7	12.9	19.3	7.72	-85.3	-927.8	451.7	432.6	19.10	23.649		
3,900.0	3,843.2	3,834.5	3,693.8	13.4	19.9	7.78	-88.4	-959.9	462.4	442.7	19.70	23.477		
4,000.0	3,940.7	3,933.9	3,787.8	13.8	20.6	7.83	-91.5	-991.9	473.1	452.9	20.29	23.314		
4,100.0	4,038.2	4,033.3	3,881.9	14.3	21.3	7.89	-94.6	-1,024.0	483.8	463.0	20.89	23.159		
4,200.0	4,135.7	4,132.7	3,976.0	14.8	22.0	7.94	-97.8	-1,056.1	494.6	473.1	21.49	23.012		
4,300.0	4,233.2	4,232.2	4,070.0	15.3	22.7	7.99	-100.9	-1,088.2	505.3	483.2	22.09	22.871		
4,400.0	4,330.7	4,331.6	4,164.1	15.8	23.4	8.04	-104.0	-1,120.3	516.0	493.3	22.69	22.738		
4,500.0	4,428.2	4,431.0	4,258.1	16.3	24.1	8.09	-107.1	-1,152.3	526.7	503.4	23.29	22.611		
4,600.0	4,525.8	4,530.4	4,352.2	16.7	24.8	8.13	-110.2	-1,184.4	537.4	513.5	23.89	22.489		
4,700.0	4,623.3	4,629.9	4,446.2	17.2	25.5	8.18	-113.4	-1,216.5	548.1	523.6	24.50	22.373		
4,800.0	4,720.8	4,729.3	4,540.3	17.7	26.2	8.22	-116.5	-1,248.6	558.8	533.7	25.10	22.262		
4,900.0	4,818.3	4,828.7	4,634.3	18.2	26.8	8.26	-119.6	-1,280.7	569.5	543.8	25.70	22.156		
5,000.0	4,915.8	4,928.1	4,728.4	18.7	27.5	8.29	-122.7	-1,312.7	580.2	553.9	26.31	22.054		
5,100.0	5,013.3	5,027.6	4,822.5	19.2	28.2	8.33	-125.9	-1,344.8	590.9	564.0	26.91	21.957		

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

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	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)				
5,200.0	5,110.8	5,127.0	4,916.5	19.6	28.9	8.37	-129.0	-1,376.9	601.6	574.1	27.52	21.863			
5,300.0	5,208.3	5,226.4	5,010.6	20.1	29.6	8.40	-132.1	-1,409.0	612.3	584.2	28.12	21.773			
5,400.0	5,305.8	5,325.8	5,104.6	20.6	30.3	8.44	-135.2	-1,441.0	623.0	594.3	28.73	21.686			
5,500.0	5,403.3	5,433.4	5,206.5	21.1	31.0	8.47	-138.6	-1,475.5	633.6	604.2	29.35	21.590			
5,600.0	5,500.8	5,561.5	5,329.1	21.6	31.6	8.55	-142.2	-1,512.6	641.0	611.1	29.96	21.395			
5,700.0	5,599.0	5,690.2	5,453.7	21.9	32.1	8.64	-145.3	-1,544.3	646.8	616.3	30.47	21.225			
5,800.0	5,697.7	5,819.1	5,579.9	22.2	32.6	8.71	-147.8	-1,570.4	651.6	620.6	30.92	21.075			
5,900.0	5,796.9	5,948.4	5,707.6	22.4	33.0	8.76	-149.8	-1,590.9	655.3	624.0	31.29	20.943			
6,000.0	5,896.5	6,078.0	5,836.2	22.6	33.2	8.80	-151.3	-1,605.7	658.0	626.4	31.59	20.827			
6,100.0	5,996.4	6,207.6	5,965.6	22.8	33.5	8.83	-152.2	-1,614.6	659.6	627.8	31.82	20.728			
6,200.0	6,096.4	6,337.4	6,095.3	22.9	33.6	8.83	-152.5	-1,617.8	660.2	628.2	31.99	20.636			
6,300.0	6,196.4	6,438.5	6,196.4	23.0	33.7	-90.13	-152.5	-1,617.8	660.2	627.2	33.01	19.999			
6,400.0	6,296.4	6,537.8	6,295.7	23.2	33.8	-86.37	-152.4	-1,617.8	660.2	627.5	32.65	20.222			
6,500.0	6,395.9	6,632.3	6,389.8	23.3	33.8	-86.41	-144.6	-1,618.3	660.1	627.2	32.97	20.023			
6,600.0	6,493.3	6,726.9	6,482.1	23.4	33.9	-86.52	-124.5	-1,619.6	660.1	626.9	33.21	19.873			
6,700.0	6,586.5	6,821.7	6,571.2	23.5	34.0	-86.69	-92.4	-1,621.7	660.0	626.5	33.43	19.744			
6,800.0	6,673.9	6,916.7	6,655.5	23.6	34.1	-86.93	-48.7	-1,624.6	659.8	626.1	33.67	19.597			
6,900.0	6,753.7	7,012.1	6,733.5	23.7	34.2	-87.22	6.0	-1,628.2	659.7	625.6	34.03	19.385			
7,000.0	6,824.4	7,108.0	6,803.9	23.8	34.3	-87.56	70.9	-1,632.5	659.5	624.9	34.59	19.068			
7,100.0	6,884.5	7,204.4	6,865.3	24.1	34.4	-87.95	145.0	-1,637.3	659.3	623.9	35.42	18.612			
7,200.0	6,932.9	7,301.4	6,916.4	24.3	34.6	-88.38	227.2	-1,642.8	659.2	622.6	36.58	18.018			
7,300.0	6,968.7	7,399.1	6,956.2	24.8	34.9	-88.84	316.1	-1,648.6	659.1	621.0	38.08	17.308			
7,400.0	6,991.2	7,497.5	6,983.6	25.3	35.3	-89.33	410.3	-1,654.8	659.0	619.1	39.88	16.525			
7,498.2	6,999.9	7,594.8	6,997.8	26.0	35.7	-89.82	506.3	-1,661.1	659.0	617.1	41.89	15.730			
7,500.0	6,999.9	7,596.7	6,997.9	26.0	35.7	-89.83	508.1	-1,661.3	659.0	617.0	41.93	15.716			
7,600.0	7,000.0	7,696.6	7,000.0	26.8	36.3	-90.00	607.7	-1,667.8	659.0	614.8	44.23	14.898			
7,700.0	7,000.0	7,796.6	7,000.0	27.8	36.9	-90.00	707.5	-1,674.4	659.0	612.2	46.77	14.091			
7,800.0	7,000.0	7,896.6	7,000.0	28.9	37.6	-90.00	807.3	-1,681.0	659.0	609.5	49.48	13.320			
7,900.0	7,000.0	7,996.6	7,000.0	30.0	38.5	-90.00	907.1	-1,687.5	659.0	606.7	52.34	12.592			
8,000.0	7,000.0	8,096.6	7,000.0	31.3	39.4	-90.00	1,006.9	-1,694.1	659.1	603.7	55.32	11.913			
8,100.0	7,000.0	8,196.6	7,000.0	32.6	40.4	-90.00	1,106.7	-1,700.7	659.1	600.7	58.42	11.282			
8,200.0	7,000.0	8,296.6	7,000.0	34.1	41.4	-90.00	1,206.5	-1,707.2	659.1	597.5	61.60	10.699			
8,300.0	7,000.0	8,396.6	7,000.0	35.5	42.6	-90.00	1,306.2	-1,713.8	659.1	594.2	64.87	10.161			
8,400.0	7,000.0	8,496.6	7,000.0	37.0	43.8	-90.00	1,406.0	-1,720.4	659.1	590.9	68.19	9.665			
8,500.0	7,000.0	8,596.6	7,000.0	38.6	45.1	-90.00	1,505.8	-1,726.9	659.1	587.6	71.58	9.208			
8,600.0	7,000.0	8,696.6	7,000.0	40.2	46.4	-90.00	1,605.6	-1,733.5	659.2	584.1	75.02	8.787			
8,700.0	7,000.0	8,796.6	7,000.0	41.8	47.7	-90.00	1,705.4	-1,740.1	659.2	580.7	78.50	8.398			
8,800.0	7,000.0	8,896.6	7,000.0	43.5	49.2	-90.00	1,805.2	-1,746.6	659.2	577.2	82.01	8.038			
8,900.0	7,000.0	8,996.6	7,000.0	45.2	50.6	-90.00	1,904.9	-1,753.2	659.2	573.7	85.56	7.705			
9,000.0	7,000.0	9,096.6	7,000.0	46.9	52.1	-90.00	2,004.7	-1,759.8	659.2	570.1	89.14	7.396			
9,100.0	7,000.0	9,196.6	7,000.0	48.6	53.6	-90.00	2,104.5	-1,766.4	659.3	566.5	92.74	7.108			
9,200.0	7,000.0	9,296.6	7,000.0	50.3	55.2	-90.00	2,204.3	-1,772.9	659.3	562.9	96.37	6.841			
9,300.0	7,000.0	9,396.6	7,000.0	52.1	56.7	-90.00	2,304.1	-1,779.5	659.3	559.3	100.02	6.592			
9,400.0	7,000.0	9,496.6	7,000.0	53.8	58.3	-90.00	2,403.9	-1,786.1	659.3	555.6	103.68	6.359			
9,500.0	7,000.0	9,596.6	7,000.0	55.6	60.0	-90.00	2,503.6	-1,792.6	659.3	552.0	107.36	6.141			
9,600.0	7,000.0	9,696.6	7,000.0	57.4	61.6	-90.00	2,603.4	-1,799.2	659.3	548.3	111.06	5.937			
9,700.0	7,000.0	9,796.6	7,000.0	59.2	63.3	-90.00	2,703.2	-1,805.8	659.4	544.6	114.77	5.745			
9,800.0	7,000.0	9,896.6	7,000.0	61.0	65.0	-90.00	2,803.0	-1,812.3	659.4	540.9	118.49	5.565			
9,900.0	7,000.0	9,996.6	7,000.0	62.8	66.6	-90.00	2,902.8	-1,818.9	659.4	537.2	122.22	5.395			
10,000.0	7,000.0	10,096.6	7,000.0	64.6	68.4	-90.00	3,002.6	-1,825.5	659.4	533.5	125.96	5.235			
10,100.0	7,000.0	10,196.6	7,000.0	66.5	70.1	-90.00	3,102.3	-1,832.1	659.4	529.7	129.71	5.084			
10,200.0	7,000.0	10,296.6	7,000.0	68.3	71.8	-90.00	3,202.1	-1,838.6	659.5	526.0	133.47	4.941			

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
10,300.0	7,000.0	10,396.6	7,000.0	70.2	73.6	-90.00	3,301.9	-1,845.2	659.5	522.2	137.24	4.805				
10,400.0	7,000.0	10,496.6	7,000.0	72.0	75.3	-90.00	3,401.7	-1,851.8	659.5	518.5	141.01	4.677				
10,500.0	7,000.0	10,596.6	7,000.0	73.9	77.1	-90.00	3,501.5	-1,858.3	659.5	514.7	144.79	4.555				
10,600.0	7,000.0	10,696.6	7,000.0	75.7	78.9	-90.00	3,601.3	-1,864.9	659.5	510.9	148.58	4.439				
10,700.0	7,000.0	10,796.6	7,000.0	77.6	80.6	-90.00	3,701.1	-1,871.5	659.5	507.2	152.37	4.329				
10,800.0	7,000.0	10,896.6	7,000.0	79.5	82.4	-90.00	3,800.8	-1,878.0	659.6	503.4	156.17	4.223				
10,900.0	7,000.0	10,996.6	7,000.0	81.3	84.2	-90.00	3,900.6	-1,884.6	659.6	499.6	159.97	4.123				
11,000.0	7,000.0	11,096.6	7,000.0	83.2	86.0	-90.00	4,000.4	-1,891.2	659.6	495.8	163.78	4.027				
11,100.0	7,000.0	11,196.6	7,000.0	85.1	87.9	-90.00	4,100.2	-1,897.7	659.6	492.0	167.59	3.936				
11,200.0	7,000.0	11,296.6	7,000.0	87.0	89.7	-90.00	4,200.0	-1,904.3	659.6	488.2	171.40	3.848				
11,300.0	7,000.0	11,396.6	7,000.0	88.8	91.5	-90.00	4,299.8	-1,910.9	659.7	484.4	175.22	3.765				
11,384.9	7,000.0	11,481.5	7,000.0	90.4	93.0	-90.00	4,384.5	-1,916.5	659.7	481.2	178.47	3.696 SF				

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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	-90.94	-0.4	-22.3	22.3				
100.0	100.0	100.0	100.0	0.1	0.1	-90.94	-0.4	-22.3	22.3	22.1	0.22	99.240	
200.0	200.0	200.0	200.0	0.3	0.3	-90.94	-0.4	-22.3	22.3	21.6	0.67	33.080	
300.0	300.0	300.0	300.0	0.6	0.6	-90.94	-0.4	-22.3	22.3	21.2	1.12	19.848	
400.0	400.0	400.0	400.0	0.8	0.8	-90.94	-0.4	-22.3	22.3	20.7	1.57	14.177	
500.0	500.0	500.0	500.0	1.0	1.0	-90.94	-0.4	-22.3	22.3	20.3	2.02	11.027	
600.0	600.0	600.0	600.0	1.2	1.2	-90.94	-0.4	-22.3	22.3	19.8	2.47	9.022	
700.0	700.0	700.0	700.0	1.5	1.5	-90.94	-0.4	-22.3	22.3	19.4	2.92	7.634	
800.0	800.0	800.0	800.0	1.7	1.7	-90.94	-0.4	-22.3	22.3	18.9	3.37	6.616	
900.0	900.0	900.0	900.0	1.9	1.9	-90.94	-0.4	-22.3	22.3	18.5	3.82	5.838	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.94	-0.4	-22.3	22.3	18.0	4.27	5.223 CC, ES	
1,100.0	1,100.0	1,099.2	1,099.2	2.4	2.3	-91.40	-0.6	-24.0	24.0	19.3	4.70	5.108	
1,200.0	1,200.0	1,198.1	1,198.0	2.6	2.5	-92.46	-1.3	-29.1	29.2	24.1	5.13	5.691	
1,300.0	1,300.0	1,296.8	1,296.3	2.8	2.8	5.62	-2.4	-37.5	36.1	30.5	5.53	6.519	
1,400.0	1,399.8	1,395.2	1,394.0	3.0	3.0	5.14	-3.9	-49.3	42.9	37.0	5.93	7.240	
1,500.0	1,499.5	1,493.4	1,491.0	3.2	3.3	4.90	-5.9	-64.3	49.7	43.4	6.32	7.858	
1,600.0	1,598.7	1,591.4	1,587.2	3.4	3.6	4.81	-8.2	-82.6	56.4	49.7	6.72	8.388	
1,700.0	1,697.5	1,689.1	1,682.5	3.7	3.9	4.83	-11.1	-104.1	63.1	55.9	7.13	8.841	
1,800.0	1,795.6	1,787.5	1,777.7	4.0	4.3	4.93	-14.3	-128.7	69.4	61.8	7.55	9.191	
1,900.0	1,893.2	1,887.4	1,874.2	4.4	4.8	5.18	-17.6	-154.4	73.5	65.5	8.01	9.184	
2,000.0	1,990.7	1,987.3	1,970.7	4.7	5.2	5.43	-21.0	-180.1	77.4	68.9	8.49	9.115	
2,100.0	2,088.2	2,087.3	2,067.2	5.1	5.7	5.66	-24.3	-205.7	81.2	72.2	8.99	9.036	
2,200.0	2,185.7	2,187.2	2,163.7	5.5	6.2	5.87	-27.7	-231.4	85.1	75.6	9.50	8.959	
2,300.0	2,283.2	2,287.1	2,260.2	6.0	6.7	6.06	-31.0	-257.0	88.9	78.9	10.01	8.883	
2,400.0	2,380.7	2,387.0	2,356.8	6.4	7.3	6.23	-34.4	-282.7	92.8	82.2	10.53	8.808	
2,500.0	2,478.2	2,487.0	2,453.3	6.8	7.8	6.39	-37.8	-308.4	96.6	85.5	11.06	8.736	
2,600.0	2,575.7	2,586.9	2,549.8	7.3	8.3	6.54	-41.1	-334.0	100.4	88.9	11.59	8.667	
2,700.0	2,673.2	2,686.8	2,646.3	7.7	8.8	6.67	-44.5	-359.7	104.3	92.2	12.13	8.600	
2,800.0	2,770.7	2,786.7	2,742.8	8.2	9.4	6.80	-47.8	-385.4	108.1	95.5	12.67	8.537	
2,900.0	2,868.2	2,886.7	2,839.3	8.6	9.9	6.92	-51.2	-411.0	112.0	98.8	13.21	8.476	
3,000.0	2,965.7	2,986.6	2,935.9	9.1	10.5	7.03	-54.5	-436.7	115.8	102.1	13.76	8.418	
3,100.0	3,063.2	3,086.5	3,032.4	9.6	11.0	7.13	-57.9	-462.4	119.7	105.4	14.31	8.363	
3,200.0	3,160.7	3,186.4	3,128.9	10.0	11.6	7.23	-61.2	-488.0	123.5	108.7	14.86	8.311	
3,300.0	3,258.2	3,286.4	3,225.4	10.5	12.1	7.32	-64.6	-513.7	127.4	112.0	15.42	8.261	
3,400.0	3,355.7	3,386.3	3,321.9	11.0	12.6	7.41	-67.9	-539.4	131.2	115.3	15.98	8.214	
3,500.0	3,453.2	3,486.2	3,418.4	11.5	13.2	7.49	-71.3	-565.0	135.1	118.5	16.54	8.169	
3,600.0	3,550.7	3,586.1	3,514.9	11.9	13.7	7.56	-74.6	-590.7	138.9	121.8	17.10	8.126	
3,700.0	3,648.2	3,686.1	3,611.5	12.4	14.3	7.63	-78.0	-616.3	142.8	125.1	17.66	8.085	
3,800.0	3,745.7	3,786.0	3,708.0	12.9	14.8	7.70	-81.4	-642.0	146.6	128.4	18.23	8.045	
3,900.0	3,843.2	3,885.9	3,804.5	13.4	15.4	7.77	-84.7	-667.7	150.5	131.7	18.79	8.008	
4,000.0	3,940.7	3,985.8	3,901.0	13.8	16.0	7.83	-88.1	-693.3	154.3	135.0	19.36	7.973	
4,100.0	4,038.2	4,085.8	3,997.5	14.3	16.5	7.89	-91.4	-719.0	158.2	138.3	19.93	7.939	
4,200.0	4,135.7	4,185.7	4,094.0	14.8	17.1	7.94	-94.8	-744.7	162.0	141.5	20.50	7.906	
4,300.0	4,233.2	4,285.6	4,190.6	15.3	17.6	8.00	-98.1	-770.3	165.9	144.8	21.07	7.875	
4,400.0	4,330.7	4,385.6	4,287.1	15.8	18.2	8.05	-101.5	-796.0	169.7	148.1	21.64	7.845	
4,500.0	4,428.2	4,485.5	4,383.6	16.3	18.7	8.10	-104.8	-821.7	173.6	151.4	22.21	7.817	
4,600.0	4,525.8	4,585.4	4,480.1	16.7	19.3	8.14	-108.2	-847.3	177.4	154.7	22.78	7.789	
4,700.0	4,623.3	4,685.3	4,576.6	17.2	19.8	8.19	-111.5	-873.0	181.3	157.9	23.35	7.763	
4,800.0	4,720.8	4,785.3	4,673.1	17.7	20.4	8.23	-114.9	-898.7	185.2	161.2	23.93	7.738	
4,900.0	4,818.3	4,885.2	4,769.6	18.2	20.9	8.27	-118.2	-924.3	189.0	164.5	24.50	7.714	
5,000.0	4,915.8	4,985.1	4,866.2	18.7	21.5	8.31	-121.6	-950.0	192.9	167.8	25.08	7.690	
5,100.0	5,013.3	5,085.0	4,962.7	19.2	22.1	8.35	-125.0	-975.6	196.7	171.1	25.65	7.668	

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 22-4CHZ
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 22-4CHZ	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	5,110.8	5,185.0	5,059.2	19.6	22.6	8.38	-128.3	-1,001.3	200.6	174.3	26.23	7.646	
5,300.0	5,208.3	5,284.9	5,155.7	20.1	23.2	8.42	-131.7	-1,027.0	204.4	177.6	26.81	7.626	
5,400.0	5,305.8	5,384.8	5,252.2	20.6	23.7	8.45	-135.0	-1,052.6	208.3	180.9	27.38	7.606	
5,500.0	5,403.3	5,484.7	5,348.7	21.1	24.3	8.48	-138.4	-1,078.3	212.1	184.2	27.96	7.586	
5,600.0	5,500.8	5,591.9	5,452.7	21.6	24.7	8.56	-141.8	-1,104.2	214.7	186.2	28.51	7.530	
5,700.0	5,599.0	5,700.0	5,558.4	21.9	25.1	8.66	-144.7	-1,126.5	216.3	187.3	28.99	7.461	
5,800.0	5,697.7	5,808.1	5,664.9	22.2	25.4	8.73	-147.1	-1,144.8	217.7	188.3	29.42	7.400	
5,900.0	5,796.9	5,916.3	5,772.1	22.4	25.7	8.79	-148.9	-1,159.0	218.7	188.9	29.78	7.345	
6,000.0	5,896.5	6,024.5	5,879.8	22.6	25.9	8.83	-150.3	-1,169.3	219.5	189.4	30.08	7.295	
6,100.0	5,996.4	6,132.7	5,987.9	22.8	26.1	8.86	-151.1	-1,175.5	219.9	189.6	30.33	7.251	
6,200.0	6,096.4	6,241.0	6,096.1	22.9	26.2	8.87	-151.4	-1,177.7	220.1	189.6	30.53	7.209	
6,300.0	6,196.4	6,341.3	6,196.4	23.0	26.3	-90.09	-151.4	-1,177.7	220.1	188.7	31.45	6.998	
6,400.0	6,296.4	6,441.0	6,296.1	23.2	26.5	-86.34	-151.3	-1,177.7	220.1	188.9	31.22	7.050	
6,500.0	6,395.9	6,539.1	6,393.8	23.3	26.6	-86.38	-142.9	-1,178.3	220.1	188.5	31.55	6.976	
6,600.0	6,493.3	6,637.2	6,489.4	23.4	26.7	-86.50	-121.3	-1,179.7	220.1	188.3	31.80	6.920	
6,700.0	6,586.5	6,735.4	6,581.2	23.5	26.7	-86.67	-86.8	-1,181.9	220.0	188.0	32.02	6.872	
6,800.0	6,673.9	6,833.7	6,667.6	23.6	26.8	-86.92	-40.1	-1,185.0	220.0	187.7	32.27	6.817	
6,900.0	6,753.7	6,932.2	6,746.8	23.7	26.9	-87.22	18.1	-1,188.8	219.9	187.3	32.65	6.736	
7,000.0	6,824.4	7,030.8	6,817.4	23.8	27.1	-87.58	86.6	-1,193.3	219.9	186.6	33.23	6.616	
7,100.0	6,884.5	7,129.6	6,878.1	24.1	27.3	-87.98	164.4	-1,198.5	219.8	185.7	34.12	6.443	
7,200.0	6,932.9	7,228.6	6,927.5	24.3	27.5	-88.42	249.9	-1,204.1	219.8	184.4	35.34	6.219	
7,300.0	6,968.7	7,327.9	6,964.7	24.8	27.9	-88.90	341.7	-1,210.1	219.7	182.8	36.90	5.955	
7,400.0	6,991.2	7,427.4	6,988.9	25.3	28.4	-89.39	437.9	-1,216.4	219.7	180.9	38.77	5.667	
7,478.1	6,999.2	7,505.3	6,998.4	25.8	28.8	-89.79	515.1	-1,221.5	219.7	179.3	40.42	5.435	
7,500.0	6,999.9	7,527.2	6,999.5	26.0	28.9	-89.90	536.9	-1,222.9	219.7	178.8	40.90	5.372	
7,600.0	7,000.0	7,627.2	7,000.0	26.8	29.7	-90.00	636.6	-1,229.5	219.7	176.4	43.28	5.077	
7,700.0	7,000.0	7,727.2	7,000.0	27.8	30.5	-90.00	736.4	-1,236.1	219.7	173.8	45.87	4.790	
7,800.0	7,000.0	7,827.2	7,000.0	28.9	31.4	-90.00	836.2	-1,242.6	219.7	171.1	48.64	4.517	
7,900.0	7,000.0	7,927.2	7,000.0	30.0	32.5	-90.00	936.0	-1,249.2	219.7	168.2	51.55	4.262	
8,000.0	7,000.0	8,027.2	7,000.0	31.3	33.6	-90.00	1,035.8	-1,255.7	219.7	165.2	54.59	4.025	
8,100.0	7,000.0	8,127.2	7,000.0	32.6	34.9	-90.00	1,135.6	-1,262.3	219.7	162.0	57.73	3.807	
8,200.0	7,000.0	8,227.2	7,000.0	34.1	36.2	-90.00	1,235.3	-1,268.8	219.8	158.8	60.96	3.605	
8,300.0	7,000.0	8,327.2	7,000.0	35.5	37.5	-90.00	1,335.1	-1,275.4	219.8	155.5	64.26	3.420	
8,400.0	7,000.0	8,427.2	7,000.0	37.0	38.9	-90.00	1,434.9	-1,282.0	219.8	152.1	67.62	3.250	
8,500.0	7,000.0	8,527.2	7,000.0	38.6	40.4	-90.00	1,534.7	-1,288.5	219.8	148.7	71.04	3.094	
8,600.0	7,000.0	8,627.2	7,000.0	40.2	41.9	-90.00	1,634.5	-1,295.1	219.8	145.3	74.51	2.950	
8,700.0	7,000.0	8,727.2	7,000.0	41.8	43.5	-90.00	1,734.3	-1,301.6	219.8	141.8	78.01	2.817	
8,800.0	7,000.0	8,827.2	7,000.0	43.5	45.0	-90.00	1,834.0	-1,308.2	219.8	138.2	81.56	2.695	
8,900.0	7,000.0	8,927.2	7,000.0	45.2	46.6	-90.00	1,933.8	-1,314.8	219.8	134.7	85.13	2.582	
9,000.0	7,000.0	9,027.2	7,000.0	46.9	48.3	-90.00	2,033.6	-1,321.3	219.8	131.1	88.73	2.477	
9,100.0	7,000.0	9,127.2	7,000.0	48.6	49.9	-90.00	2,133.4	-1,327.9	219.8	127.5	92.35	2.380	
9,200.0	7,000.0	9,227.2	7,000.0	50.3	51.6	-90.00	2,233.2	-1,334.4	219.8	123.8	96.00	2.290	
9,300.0	7,000.0	9,327.2	7,000.0	52.1	53.3	-90.00	2,333.0	-1,341.0	219.8	120.2	99.66	2.206	
9,400.0	7,000.0	9,427.2	7,000.0	53.8	55.1	-90.00	2,432.8	-1,347.5	219.8	116.5	103.35	2.127	
9,500.0	7,000.0	9,527.2	7,000.0	55.6	56.8	-90.00	2,532.5	-1,354.1	219.8	112.8	107.04	2.054	
9,600.0	7,000.0	9,627.2	7,000.0	57.4	58.5	-90.00	2,632.3	-1,360.7	219.9	109.1	110.75	1.985	
9,700.0	7,000.0	9,727.2	7,000.0	59.2	60.3	-90.00	2,732.1	-1,367.2	219.9	105.4	114.48	1.921	
9,800.0	7,000.0	9,827.2	7,000.0	61.0	62.1	-90.00	2,831.9	-1,373.8	219.9	101.7	118.21	1.860	
9,900.0	7,000.0	9,927.2	7,000.0	62.8	63.8	-90.00	2,931.7	-1,380.3	219.9	97.9	121.95	1.803	
10,000.0	7,000.0	10,027.2	7,000.0	64.6	65.6	-90.00	3,031.5	-1,386.9	219.9	94.2	125.71	1.749	
10,100.0	7,000.0	10,127.2	7,000.0	66.5	67.4	-90.00	3,131.2	-1,393.5	219.9	90.4	129.47	1.698	
10,200.0	7,000.0	10,227.2	7,000.0	68.3	69.3	-90.00	3,231.0	-1,400.0	219.9	86.7	133.24	1.650	

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 22-4CHZ
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 22-4CHZ	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	10,327.2	7,000.0	70.2	71.1	-90.00	3,330.8	-1,406.6	219.9	82.9	137.02	1.605				
10,400.0	7,000.0	10,427.2	7,000.0	72.0	72.9	-90.00	3,430.6	-1,413.1	219.9	79.1	140.80	1.562				
10,500.0	7,000.0	10,527.2	7,000.0	73.9	74.7	-90.00	3,530.4	-1,419.7	219.9	75.3	144.59	1.521				
10,600.0	7,000.0	10,627.2	7,000.0	75.7	76.6	-90.00	3,630.2	-1,426.2	219.9	71.5	148.38	1.482	Level 3			
10,700.0	7,000.0	10,727.2	7,000.0	77.6	78.4	-90.00	3,730.0	-1,432.8	219.9	67.8	152.18	1.445	Level 3			
10,800.0	7,000.0	10,827.2	7,000.0	79.5	80.2	-90.00	3,829.7	-1,439.4	219.9	64.0	155.99	1.410	Level 3			
10,900.0	7,000.0	10,927.2	7,000.0	81.3	82.1	-90.00	3,929.5	-1,445.9	220.0	60.2	159.80	1.376	Level 3			
11,000.0	7,000.0	11,027.2	7,000.0	83.2	84.0	-90.00	4,029.3	-1,452.5	220.0	56.3	163.61	1.344	Level 3			
11,100.0	7,000.0	11,127.2	7,000.0	85.1	85.8	-90.00	4,129.1	-1,459.0	220.0	52.5	167.43	1.314	Level 3			
11,200.0	7,000.0	11,227.2	7,000.0	87.0	87.7	-90.00	4,228.9	-1,465.6	220.0	48.7	171.25	1.285	Level 3			
11,300.0	7,000.0	11,327.2	7,000.0	88.8	89.5	-90.00	4,328.7	-1,472.2	220.0	44.9	175.07	1.257	Level 3			
11,384.9	7,000.0	11,412.1	7,000.0	90.4	91.1	-90.00	4,413.4	-1,477.7	220.0	41.7	178.32	1.234	Level 2, SF			

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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:	0.0ft
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	89.08	0.7	45.2	45.2					
100.0	100.0	100.0	100.0	0.1	0.1	89.08	0.7	45.2	45.2	44.9	0.22	200.961		
200.0	200.0	200.0	200.0	0.3	0.3	89.08	0.7	45.2	45.2	44.5	0.67	66.987		
300.0	300.0	300.0	300.0	0.6	0.6	89.08	0.7	45.2	45.2	44.0	1.12	40.192		
400.0	400.0	400.0	400.0	0.8	0.8	89.08	0.7	45.2	45.2	43.6	1.57	28.709		
500.0	500.0	500.0	500.0	1.0	1.0	89.08	0.7	45.2	45.2	43.1	2.02	22.329		
600.0	600.0	600.0	600.0	1.2	1.2	89.08	0.7	45.2	45.2	42.7	2.47	18.269		
700.0	700.0	700.0	700.0	1.5	1.5	89.08	0.7	45.2	45.2	42.2	2.92	15.459		
800.0	800.0	800.0	800.0	1.7	1.7	89.08	0.7	45.2	45.2	41.8	3.37	13.397		
900.0	900.0	900.0	900.0	1.9	1.9	89.08	0.7	45.2	45.2	41.3	3.82	11.821		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.08	0.7	45.2	45.2	40.9	4.27	10.577		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	89.08	0.7	45.2	45.2	40.4	4.72	9.570		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.08	0.7	45.2	45.2	40.0	5.17	8.737 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-172.26	0.7	45.2	46.9	41.3	5.60	8.373		
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	-173.02	0.7	45.2	52.1	46.1	6.02	8.660		
1,500.0	1,499.5	1,499.5	1,499.5	3.2	3.3	-174.00	0.7	45.2	60.7	54.3	6.43	9.452		
1,600.0	1,598.7	1,598.7	1,598.7	3.4	3.5	-174.98	0.7	45.2	72.9	66.0	6.83	10.663		
1,700.0	1,697.5	1,700.5	1,700.5	3.7	3.7	-175.66	0.3	43.5	86.8	79.6	7.22	12.014		
1,800.0	1,795.6	1,802.8	1,802.6	4.0	3.9	-175.93	-1.1	38.2	100.7	93.1	7.59	13.258		
1,900.0	1,893.2	1,905.7	1,905.1	4.4	4.1	-175.93	-3.5	29.4	114.0	106.0	8.00	14.251		
2,000.0	1,990.7	2,009.3	2,007.9	4.7	4.3	-175.64	-6.8	17.0	124.0	115.6	8.43	14.708		
2,100.0	2,088.2	2,108.9	2,106.5	5.1	4.6	-175.27	-10.5	3.4	132.4	123.5	8.87	14.927		
2,200.0	2,185.7	2,208.5	2,205.2	5.5	4.8	-174.95	-14.1	-10.1	140.9	131.5	9.32	15.108		
2,300.0	2,283.2	2,308.2	2,303.8	6.0	5.1	-174.66	-17.8	-23.7	149.3	139.5	9.78	15.259		
2,400.0	2,380.7	2,407.8	2,402.5	6.4	5.4	-174.40	-21.4	-37.2	157.7	147.5	10.25	15.386		
2,500.0	2,478.2	2,507.5	2,501.1	6.8	5.7	-174.17	-25.0	-50.8	166.2	155.4	10.73	15.493		
2,600.0	2,575.7	2,607.1	2,599.8	7.3	6.0	-173.96	-28.7	-64.3	174.6	163.4	11.21	15.583		
2,700.0	2,673.2	2,706.7	2,698.4	7.7	6.3	-173.78	-32.3	-77.9	183.1	171.4	11.69	15.659		
2,800.0	2,770.7	2,806.4	2,797.1	8.2	6.6	-173.60	-35.9	-91.4	191.5	179.3	12.18	15.723		
2,900.0	2,868.2	2,906.0	2,895.7	8.6	6.9	-173.45	-39.6	-105.0	200.0	187.3	12.67	15.777		
3,000.0	2,965.7	3,005.7	2,994.3	9.1	7.2	-173.30	-43.2	-118.5	208.4	195.2	13.17	15.823		
3,100.0	3,063.2	3,105.3	3,093.0	9.6	7.5	-173.17	-46.9	-132.1	216.9	203.2	13.67	15.862		
3,200.0	3,160.7	3,205.0	3,191.6	10.0	7.8	-173.04	-50.5	-145.6	225.3	211.1	14.18	15.895		
3,300.0	3,258.2	3,304.6	3,290.3	10.5	8.2	-172.93	-54.1	-159.2	233.8	219.1	14.68	15.923		
3,400.0	3,355.7	3,404.2	3,388.9	11.0	8.5	-172.82	-57.8	-172.7	242.2	227.0	15.19	15.947		
3,500.0	3,453.2	3,503.9	3,487.6	11.5	8.8	-172.72	-61.4	-186.3	250.7	235.0	15.70	15.967		
3,600.0	3,550.7	3,603.5	3,586.2	11.9	9.1	-172.63	-65.0	-199.9	259.1	242.9	16.21	15.984		
3,700.0	3,648.2	3,703.2	3,684.9	12.4	9.5	-172.54	-68.7	-213.4	267.6	250.9	16.73	15.998		
3,800.0	3,745.7	3,802.8	3,783.5	12.9	9.8	-172.46	-72.3	-227.0	276.1	258.8	17.24	16.010		
3,900.0	3,843.2	3,902.4	3,882.2	13.4	10.1	-172.38	-76.0	-240.5	284.5	266.8	17.76	16.019		
4,000.0	3,940.7	4,002.1	3,980.8	13.8	10.5	-172.31	-79.6	-254.1	293.0	274.7	18.28	16.027		
4,100.0	4,038.2	4,101.7	4,079.5	14.3	10.8	-172.24	-83.2	-267.6	301.4	282.6	18.80	16.034		
4,200.0	4,135.7	4,201.4	4,178.1	14.8	11.1	-172.18	-86.9	-281.2	309.9	290.6	19.32	16.039		
4,300.0	4,233.2	4,301.0	4,276.8	15.3	11.5	-172.12	-90.5	-294.7	318.4	298.5	19.84	16.043		
4,400.0	4,330.7	4,400.6	4,375.4	15.8	11.8	-172.06	-94.1	-308.3	326.8	306.5	20.37	16.046		
4,500.0	4,428.2	4,500.3	4,474.1	16.3	12.2	-172.01	-97.8	-321.8	335.3	314.4	20.89	16.048		
4,600.0	4,525.8	4,599.9	4,572.7	16.7	12.5	-171.95	-101.4	-335.4	343.8	322.3	21.42	16.049		
4,700.0	4,623.3	4,699.6	4,671.4	17.2	12.8	-171.90	-105.1	-348.9	352.2	330.3	21.94	16.050		
4,800.0	4,720.8	4,799.2	4,770.0	17.7	13.2	-171.86	-108.7	-362.5	360.7	338.2	22.47	16.050		
4,900.0	4,818.3	4,898.8	4,868.7	18.2	13.5	-171.81	-112.3	-376.0	369.1	346.1	23.00	16.050		
5,000.0	4,915.8	4,998.5	4,967.3	18.7	13.9	-171.77	-116.0	-389.6	377.6	354.1	23.53	16.049		
5,100.0	5,013.3	5,098.1	5,066.0	19.2	14.2	-171.73	-119.6	-403.1	386.1	362.0	24.06	16.048		

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 22-4CHZ
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 22-4CHZ	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
5,200.0	5,110.8	5,197.8	5,164.6	19.6	14.6	-171.69	-123.3	-416.7	394.5	369.9	24.59	16.047	
5,300.0	5,208.3	5,297.4	5,263.3	20.1	14.9	-171.65	-126.9	-430.2	403.0	377.9	25.12	16.045	
5,400.0	5,305.8	5,397.0	5,361.9	20.6	15.2	-171.61	-130.5	-443.8	411.5	385.8	25.65	16.043	
5,500.0	5,403.3	5,496.7	5,460.5	21.1	15.6	-171.58	-134.2	-457.3	419.9	393.7	26.18	16.041	
5,600.0	5,500.8	5,596.4	5,559.2	21.6	15.9	-171.55	-137.8	-470.9	428.1	401.4	26.72	16.022	
5,700.0	5,599.0	5,696.2	5,658.1	21.9	16.3	-171.47	-141.4	-484.5	433.6	406.3	27.24	15.915	
5,800.0	5,697.7	5,788.3	5,749.3	22.2	16.6	-171.35	-144.7	-496.5	436.1	408.4	27.70	15.744	
5,900.0	5,796.9	5,875.5	5,836.0	22.4	16.8	-171.26	-147.1	-505.6	437.9	409.8	28.07	15.600	
6,000.0	5,896.5	5,962.6	5,922.8	22.6	17.0	-171.19	-148.8	-512.0	439.2	410.8	28.39	15.469	
6,100.0	5,996.4	6,049.6	6,009.8	22.8	17.1	-171.15	-149.9	-516.0	440.0	411.3	28.67	15.349	
6,200.0	6,096.4	6,136.7	6,096.8	22.9	17.2	-171.13	-150.3	-517.3	440.3	411.4	28.90	15.233	
6,300.0	6,196.4	6,236.2	6,196.4	23.0	17.4	89.91	-150.3	-517.3	440.3	410.6	29.67	14.836	
6,400.0	6,296.4	6,336.7	6,296.9	23.2	17.6	93.66	-150.2	-517.3	440.3	410.6	29.64	14.856	
6,500.0	6,395.9	6,440.8	6,400.4	23.3	17.7	93.61	-140.7	-518.0	440.2	410.3	29.98	14.684	
6,600.0	6,493.3	6,544.8	6,501.4	23.4	17.8	93.50	-116.5	-519.6	440.2	409.9	30.24	14.555	
6,700.0	6,586.5	6,648.5	6,597.7	23.5	18.0	93.31	-78.0	-522.1	440.1	409.6	30.47	14.443	
6,800.0	6,673.9	6,752.1	6,687.1	23.6	18.1	93.05	-26.2	-525.5	440.0	409.3	30.74	14.312	
6,900.0	6,753.7	6,855.2	6,767.9	23.7	18.2	92.73	37.7	-529.7	439.9	408.7	31.15	14.120	
7,000.0	6,824.4	6,958.0	6,838.4	23.8	18.4	92.36	112.2	-534.5	439.8	408.0	31.79	13.831	
7,100.0	6,884.5	7,060.3	6,897.3	24.1	18.6	91.94	195.6	-540.0	439.6	406.9	32.75	13.425	
7,200.0	6,932.9	7,162.1	6,943.4	24.3	19.0	91.49	286.0	-545.9	439.5	405.5	34.05	12.908	
7,300.0	6,968.7	7,263.4	6,976.2	24.8	19.6	91.00	381.6	-552.2	439.5	403.8	35.71	12.306	
7,400.0	6,991.2	7,364.1	6,995.0	25.3	20.4	90.50	480.2	-558.7	439.4	401.7	37.68	11.661	
7,477.9	6,999.2	7,442.2	7,000.0	25.8	21.2	90.10	558.0	-563.8	439.4	400.0	39.40	11.152	
7,500.0	6,999.9	7,464.3	7,000.0	26.0	21.4	90.01	580.0	-565.2	439.4	399.5	39.90	11.012	
7,600.0	7,000.0	7,564.3	7,000.0	26.8	22.5	90.00	679.8	-571.8	439.4	397.0	42.38	10.368	
7,700.0	7,000.0	7,664.3	7,000.0	27.8	23.8	90.00	779.6	-578.3	439.4	394.4	45.05	9.754	
7,800.0	7,000.0	7,764.3	7,000.0	28.9	25.1	90.00	879.4	-584.9	439.4	391.5	47.89	9.176	
7,900.0	7,000.0	7,864.3	7,000.0	30.0	26.6	90.00	979.2	-591.4	439.4	388.6	50.87	8.639	
8,000.0	7,000.0	7,964.3	7,000.0	31.3	28.1	90.00	1,078.9	-597.9	439.5	385.5	53.96	8.144	
8,100.0	7,000.0	8,064.3	7,000.0	32.6	29.6	90.00	1,178.7	-604.5	439.5	382.3	57.16	7.689	
8,200.0	7,000.0	8,164.3	7,000.0	34.1	31.2	90.00	1,278.5	-611.0	439.5	379.0	60.43	7.272	
8,300.0	7,000.0	8,264.3	7,000.0	35.5	32.8	90.00	1,378.3	-617.6	439.5	375.7	63.78	6.891	
8,400.0	7,000.0	8,364.3	7,000.0	37.0	34.5	90.00	1,478.1	-624.1	439.5	372.3	67.19	6.541	
8,500.0	7,000.0	8,464.3	7,000.0	38.6	36.2	90.00	1,577.9	-630.7	439.5	368.8	70.64	6.221	
8,600.0	7,000.0	8,564.3	7,000.0	40.2	37.9	90.00	1,677.7	-637.2	439.5	365.4	74.14	5.928	
8,700.0	7,000.0	8,664.3	7,000.0	41.8	39.6	90.00	1,777.4	-643.8	439.5	361.8	77.68	5.658	
8,800.0	7,000.0	8,764.3	7,000.0	43.5	41.4	90.00	1,877.2	-650.3	439.5	358.3	81.25	5.409	
8,900.0	7,000.0	8,864.3	7,000.0	45.2	43.2	90.00	1,977.0	-656.8	439.5	354.7	84.85	5.180	
9,000.0	7,000.0	8,964.3	7,000.0	46.9	45.0	90.00	2,076.8	-663.4	439.5	351.1	88.47	4.968	
9,100.0	7,000.0	9,064.3	7,000.0	48.6	46.8	90.00	2,176.6	-669.9	439.5	347.4	92.12	4.771	
9,200.0	7,000.0	9,164.3	7,000.0	50.3	48.6	90.00	2,276.4	-676.5	439.5	343.8	95.79	4.589	
9,300.0	7,000.0	9,264.3	7,000.0	52.1	50.4	90.00	2,376.2	-683.0	439.5	340.1	99.47	4.419	
9,400.0	7,000.0	9,364.3	7,000.0	53.8	52.2	90.00	2,475.9	-689.6	439.6	336.4	103.17	4.261	
9,500.0	7,000.0	9,464.3	7,000.0	55.6	54.1	90.00	2,575.7	-696.1	439.6	332.7	106.88	4.113	
9,600.0	7,000.0	9,564.3	7,000.0	57.4	55.9	90.00	2,675.5	-702.7	439.6	329.0	110.61	3.974	
9,700.0	7,000.0	9,664.3	7,000.0	59.2	57.8	90.00	2,775.3	-709.2	439.6	325.2	114.34	3.844	
9,800.0	7,000.0	9,764.3	7,000.0	61.0	59.6	90.00	2,875.1	-715.7	439.6	321.5	118.09	3.722	
9,900.0	7,000.0	9,864.3	7,000.0	62.8	61.5	90.00	2,974.9	-722.3	439.6	317.7	121.85	3.608	
10,000.0	7,000.0	9,964.3	7,000.0	64.6	63.4	90.00	3,074.7	-728.8	439.6	314.0	125.61	3.500	
10,100.0	7,000.0	10,064.3	7,000.0	66.5	65.2	90.00	3,174.4	-735.4	439.6	310.2	129.39	3.398	
10,200.0	7,000.0	10,164.3	7,000.0	68.3	67.1	90.00	3,274.2	-741.9	439.6	306.4	133.17	3.301	

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 22-4CHZ
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 22-4CHZ	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
10,300.0	7,000.0	10,264.3	7,000.0	70.2	69.0	90.00	3,374.0	-748.5	439.6	302.7	136.95	3.210	
10,400.0	7,000.0	10,364.3	7,000.0	72.0	70.9	90.00	3,473.8	-755.0	439.6	298.9	140.75	3.124	
10,500.0	7,000.0	10,464.3	7,000.0	73.9	72.8	90.00	3,573.6	-761.6	439.6	295.1	144.55	3.041	
10,600.0	7,000.0	10,564.3	7,000.0	75.7	74.7	90.00	3,673.4	-768.1	439.6	291.3	148.35	2.964	
10,700.0	7,000.0	10,664.3	7,000.0	77.6	76.6	90.00	3,773.2	-774.6	439.6	287.5	152.16	2.889	
10,800.0	7,000.0	10,764.3	7,000.0	79.5	78.5	90.00	3,872.9	-781.2	439.7	283.7	155.97	2.819	
10,900.0	7,000.0	10,864.3	7,000.0	81.3	80.4	90.00	3,972.7	-787.7	439.7	279.9	159.78	2.752	
11,000.0	7,000.0	10,964.3	7,000.0	83.2	82.3	90.00	4,072.5	-794.3	439.7	276.1	163.61	2.687	
11,100.0	7,000.0	11,064.3	7,000.0	85.1	84.2	90.00	4,172.3	-800.8	439.7	272.2	167.43	2.626	
11,200.0	7,000.0	11,164.3	7,000.0	87.0	86.1	90.00	4,272.1	-807.4	439.7	268.4	171.26	2.567	
11,300.0	7,000.0	11,264.3	7,000.0	88.8	88.0	90.00	4,371.9	-813.9	439.7	264.6	175.09	2.511	
11,335.8	7,000.0	11,300.2	7,000.0	89.5	88.7	90.00	4,407.6	-816.2	439.7	263.2	176.46	2.492	
11,384.9	7,000.0	11,319.7	7,000.0	90.4	89.0	90.00	4,427.1	-817.5	440.7	263.0	177.70	2.480 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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							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	89.07	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 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-172.17	1.1	67.5	69.2	63.6	5.60	12.355		
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	-172.70	1.1	67.5	74.4	68.4	6.02	12.368		
1,500.0	1,499.5	1,499.5	1,499.5	3.2	3.3	-173.45	1.1	67.5	83.0	76.6	6.43	12.922		
1,600.0	1,598.7	1,598.7	1,598.7	3.4	3.5	-174.26	1.1	67.5	95.2	88.3	6.84	13.922		
1,700.0	1,697.5	1,697.5	1,697.5	3.7	3.7	-175.04	1.1	67.5	110.7	103.5	7.24	15.296		
1,800.0	1,795.6	1,795.6	1,795.6	4.0	3.9	-175.74	1.1	67.5	129.8	122.1	7.64	16.985		
1,900.0	1,893.2	1,893.2	1,893.2	4.4	4.1	-176.18	0.5	65.9	150.1	142.1	8.05	18.648		
2,000.0	1,990.7	2,002.1	2,002.0	4.7	4.3	-176.15	-1.6	60.9	167.4	158.9	8.47	19.771		
2,100.0	2,088.2	2,105.6	2,105.1	5.1	4.5	-175.79	-5.1	52.5	181.3	172.4	8.89	20.388		
2,200.0	2,185.7	2,204.8	2,203.8	5.5	4.8	-175.39	-8.8	43.6	194.3	184.9	9.33	20.826		
2,300.0	2,283.2	2,303.9	2,302.4	6.0	5.0	-175.05	-12.5	34.6	207.3	197.5	9.77	21.208		
2,400.0	2,380.7	2,403.1	2,401.1	6.4	5.2	-174.74	-16.2	25.7	220.3	210.0	10.22	21.541		
2,500.0	2,478.2	2,502.2	2,499.8	6.8	5.4	-174.47	-19.9	16.7	233.3	222.6	10.68	21.834		
2,600.0	2,575.7	2,601.4	2,598.4	7.3	5.7	-174.23	-23.6	7.8	246.3	235.1	11.15	22.091		
2,700.0	2,673.2	2,700.5	2,697.1	7.7	5.9	-174.01	-27.3	-1.2	259.3	247.6	11.62	22.317		
2,800.0	2,770.7	2,799.7	2,795.8	8.2	6.2	-173.82	-31.0	-10.2	272.3	260.2	12.09	22.518		
2,900.0	2,868.2	2,898.8	2,894.5	8.6	6.4	-173.64	-34.7	-19.1	285.3	272.7	12.57	22.696		
3,000.0	2,965.7	2,998.0	2,993.1	9.1	6.7	-173.47	-38.5	-28.1	298.3	285.2	13.05	22.854		
3,100.0	3,063.2	3,097.1	3,091.8	9.6	6.9	-173.32	-42.2	-37.0	311.3	297.8	13.54	22.996		
3,200.0	3,160.7	3,196.3	3,190.5	10.0	7.2	-173.19	-45.9	-46.0	324.3	310.3	14.03	23.123		
3,300.0	3,258.2	3,295.4	3,289.1	10.5	7.4	-173.06	-49.6	-54.9	337.4	322.8	14.52	23.237		
3,400.0	3,355.7	3,394.5	3,387.8	11.0	7.7	-172.94	-53.3	-63.9	350.4	335.4	15.01	23.340		
3,500.0	3,453.2	3,493.7	3,486.5	11.5	8.0	-172.83	-57.0	-72.8	363.4	347.9	15.51	23.433		
3,600.0	3,550.7	3,592.8	3,585.1	11.9	8.2	-172.73	-60.7	-81.8	376.4	360.4	16.01	23.518		
3,700.0	3,648.2	3,692.0	3,683.8	12.4	8.5	-172.64	-64.4	-90.7	389.5	373.0	16.51	23.594		
3,800.0	3,745.7	3,791.1	3,782.5	12.9	8.8	-172.55	-68.1	-99.7	402.5	385.5	17.01	23.664		
3,900.0	3,843.2	3,890.3	3,881.2	13.4	9.1	-172.47	-71.8	-108.6	415.5	398.0	17.51	23.727		
4,000.0	3,940.7	3,989.4	3,979.8	13.8	9.3	-172.39	-75.5	-117.6	428.5	410.5	18.02	23.785		
4,100.0	4,038.2	4,088.6	4,078.5	14.3	9.6	-172.31	-79.2	-126.5	441.6	423.0	18.52	23.839		
4,200.0	4,135.7	4,187.7	4,177.2	14.8	9.9	-172.24	-82.9	-135.5	454.6	435.6	19.03	23.887		
4,300.0	4,233.2	4,286.9	4,275.8	15.3	10.2	-172.18	-86.6	-144.5	467.6	448.1	19.54	23.932		
4,400.0	4,330.7	4,386.0	4,374.5	15.8	10.4	-172.12	-90.4	-153.4	480.7	460.6	20.05	23.974		
4,500.0	4,428.2	4,485.2	4,473.2	16.3	10.7	-172.06	-94.1	-162.4	493.7	473.1	20.56	24.012		
4,600.0	4,525.8	4,584.3	4,571.9	16.7	11.0	-172.00	-97.8	-171.3	506.7	485.7	21.07	24.047		
4,700.0	4,623.3	4,683.4	4,670.5	17.2	11.3	-171.95	-101.5	-180.3	519.8	498.2	21.59	24.080		
4,800.0	4,720.8	4,782.6	4,769.2	17.7	11.6	-171.90	-105.2	-189.2	532.8	510.7	22.10	24.110		
4,900.0	4,818.3	4,881.7	4,867.9	18.2	11.8	-171.85	-108.9	-198.2	545.8	523.2	22.61	24.138		
5,000.0	4,915.8	4,980.9	4,966.5	18.7	12.1	-171.81	-112.6	-207.1	558.9	535.7	23.13	24.164		
5,100.0	5,013.3	5,080.0	5,065.2	19.2	12.4	-171.76	-116.3	-216.1	571.9	548.3	23.64	24.188		

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 22-4CHZ
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 22-4CHZ	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							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	5,110.8	5,179.2	5,163.9	19.6	12.7	-171.72	-120.0	-225.0	584.9	560.8	24.16	24.211		
5,300.0	5,208.3	5,278.3	5,262.6	20.1	13.0	-171.68	-123.7	-234.0	598.0	573.3	24.68	24.232		
5,400.0	5,305.8	5,377.5	5,361.2	20.6	13.2	-171.64	-127.4	-242.9	611.0	585.8	25.19	24.252		
5,500.0	5,403.3	5,476.6	5,459.9	21.1	13.5	-171.61	-131.1	-251.9	624.0	598.3	25.71	24.270		
5,600.0	5,500.8	5,575.8	5,558.6	21.6	13.8	-171.58	-134.8	-260.8	636.8	610.6	26.25	24.264		
5,700.0	5,599.0	5,675.3	5,657.6	21.9	14.1	-171.54	-138.6	-269.8	646.8	620.1	26.76	24.170		
5,800.0	5,697.7	5,775.0	5,756.9	22.2	14.4	-171.44	-142.3	-278.8	653.4	626.2	27.25	23.980		
5,900.0	5,796.9	5,868.6	5,850.0	22.4	14.6	-171.31	-145.7	-287.1	656.7	629.1	27.68	23.728		
6,000.0	5,896.5	5,951.0	5,932.2	22.6	14.8	-171.21	-148.0	-292.7	658.7	630.7	28.01	23.515		
6,100.0	5,996.4	6,033.5	6,014.6	22.8	15.0	-171.15	-149.4	-296.1	659.9	631.6	28.30	23.323		
6,200.0	6,096.4	6,115.9	6,097.0	22.9	15.1	-171.13	-149.9	-297.2	660.4	631.8	28.54	23.137		
6,300.0	6,196.4	6,215.3	6,196.4	23.0	15.3	89.90	-149.9	-297.2	660.4	631.1	29.27	22.565		
6,400.0	6,296.4	6,316.0	6,297.2	23.2	15.5	93.66	-149.8	-297.2	660.4	631.1	29.28	22.550		
6,500.0	6,395.9	6,422.2	6,402.8	23.3	15.6	93.61	-140.0	-297.9	660.3	630.7	29.63	22.283		
6,600.0	6,493.3	6,528.3	6,505.7	23.4	15.8	93.49	-114.7	-299.5	660.3	630.3	29.90	22.081		
6,700.0	6,586.5	6,634.0	6,603.5	23.5	15.9	93.30	-74.8	-302.2	660.1	630.0	30.14	21.905		
6,800.0	6,673.9	6,739.4	6,693.9	23.6	16.0	93.04	-21.1	-305.7	660.0	629.5	30.42	21.697		
6,900.0	6,753.7	6,844.1	6,775.1	23.7	16.2	92.71	44.8	-310.0	659.8	628.9	30.84	21.393		
7,000.0	6,824.4	6,948.3	6,845.4	23.8	16.3	92.34	121.3	-315.0	659.6	628.1	31.50	20.938		
7,100.0	6,884.5	7,051.7	6,903.5	24.1	16.6	91.92	206.6	-320.6	659.4	627.0	32.48	20.301		
7,200.0	6,932.9	7,154.3	6,948.5	24.3	17.2	91.46	298.6	-326.6	659.3	625.5	33.82	19.495		
7,300.0	6,968.7	7,256.2	6,979.6	24.8	18.0	90.97	395.2	-332.9	659.2	623.7	35.51	18.563		
7,400.0	6,991.2	7,357.2	6,996.5	25.3	19.0	90.47	494.5	-339.4	659.1	621.6	37.51	17.571		
7,463.8	6,998.4	7,421.2	7,000.0	25.7	19.7	90.14	558.3	-343.6	659.1	620.2	38.94	16.929		
7,500.0	6,999.9	7,457.3	7,000.0	26.0	20.1	90.01	594.3	-346.0	659.1	619.4	39.77	16.575		
7,600.0	7,000.0	7,557.3	7,000.0	26.8	21.4	90.00	694.1	-352.5	659.1	616.9	42.26	15.595		
7,700.0	7,000.0	7,657.3	7,000.0	27.8	22.7	90.00	793.9	-359.1	659.2	614.2	44.96	14.662		
7,800.0	7,000.0	7,757.3	7,000.0	28.9	24.2	90.00	893.7	-365.6	659.2	611.4	47.81	13.786		
7,900.0	7,000.0	7,857.3	7,000.0	30.0	25.7	90.00	993.5	-372.1	659.2	608.4	50.81	12.974		
8,000.0	7,000.0	7,957.3	7,000.0	31.3	27.2	90.00	1,093.3	-378.7	659.2	605.3	53.92	12.225		
8,100.0	7,000.0	8,057.3	7,000.0	32.6	28.8	90.00	1,193.1	-385.2	659.2	602.1	57.13	11.539		
8,200.0	7,000.0	8,157.3	7,000.0	34.1	30.5	90.00	1,292.8	-391.7	659.2	598.8	60.42	10.911		
8,300.0	7,000.0	8,257.3	7,000.0	35.5	32.2	90.00	1,392.6	-398.3	659.2	595.5	63.77	10.337		
8,400.0	7,000.0	8,357.3	7,000.0	37.0	33.9	90.00	1,492.4	-404.8	659.3	592.1	67.19	9.812		
8,500.0	7,000.0	8,457.3	7,000.0	38.6	35.6	90.00	1,592.2	-411.4	659.3	588.6	70.65	9.331		
8,600.0	7,000.0	8,557.3	7,000.0	40.2	37.3	90.00	1,692.0	-417.9	659.3	585.1	74.16	8.890		
8,700.0	7,000.0	8,657.3	7,000.0	41.8	39.1	90.00	1,791.8	-424.4	659.3	581.6	77.71	8.484		
8,800.0	7,000.0	8,757.3	7,000.0	43.5	40.9	90.00	1,891.6	-431.0	659.3	578.0	81.28	8.111		
8,900.0	7,000.0	8,857.3	7,000.0	45.2	42.7	90.00	1,991.3	-437.5	659.3	574.4	84.89	7.767		
9,000.0	7,000.0	8,957.3	7,000.0	46.9	44.5	90.00	2,091.1	-444.0	659.3	570.8	88.52	7.449		
9,100.0	7,000.0	9,057.3	7,000.0	48.6	46.3	90.00	2,190.9	-450.6	659.4	567.2	92.17	7.154		
9,200.0	7,000.0	9,157.3	7,000.0	50.3	48.2	90.00	2,290.7	-457.1	659.4	563.5	95.84	6.880		
9,300.0	7,000.0	9,257.3	7,000.0	52.1	50.0	90.00	2,390.5	-463.7	659.4	559.9	99.53	6.625		
9,400.0	7,000.0	9,357.3	7,000.0	53.8	51.9	90.00	2,490.3	-470.2	659.4	556.2	103.23	6.388		
9,500.0	7,000.0	9,457.3	7,000.0	55.6	53.7	90.00	2,590.1	-476.7	659.4	552.5	106.95	6.166		
9,600.0	7,000.0	9,557.3	7,000.0	57.4	55.6	90.00	2,689.8	-483.3	659.4	548.8	110.68	5.958		
9,700.0	7,000.0	9,657.3	7,000.0	59.2	57.5	90.00	2,789.6	-489.8	659.4	545.0	114.42	5.763		
9,800.0	7,000.0	9,757.3	7,000.0	61.0	59.3	90.00	2,889.4	-496.3	659.5	541.3	118.17	5.581		
9,900.0	7,000.0	9,857.3	7,000.0	62.8	61.2	90.00	2,989.2	-502.9	659.5	537.5	121.93	5.409		
10,000.0	7,000.0	9,957.3	7,000.0	64.6	63.1	90.00	3,089.0	-509.4	659.5	533.8	125.70	5.247		
10,100.0	7,000.0	10,057.3	7,000.0	66.5	65.0	90.00	3,188.8	-515.9	659.5	530.0	129.47	5.094		
10,200.0	7,000.0	10,157.3	7,000.0	68.3	66.9	90.00	3,288.6	-522.5	659.5	526.3	133.26	4.949		

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 22-4CHZ
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 22-4CHZ	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	10,257.3	7,000.0	70.2	68.8	90.00	3,388.4	-529.0	659.5	522.5	137.04	4.813	
10,400.0	7,000.0	10,357.3	7,000.0	72.0	70.7	90.00	3,488.1	-535.6	659.5	518.7	140.84	4.683	
10,500.0	7,000.0	10,457.3	7,000.0	73.9	72.6	90.00	3,587.9	-542.1	659.6	514.9	144.64	4.560	
10,600.0	7,000.0	10,557.3	7,000.0	75.7	74.5	90.00	3,687.7	-548.6	659.6	511.1	148.44	4.443	
10,700.0	7,000.0	10,657.3	7,000.0	77.6	76.4	90.00	3,787.5	-555.2	659.6	507.3	152.25	4.332	
10,800.0	7,000.0	10,757.3	7,000.0	79.5	78.3	90.00	3,887.3	-561.7	659.6	503.5	156.07	4.226	
10,900.0	7,000.0	10,857.3	7,000.0	81.3	80.2	90.00	3,987.1	-568.2	659.6	499.7	159.89	4.126	
11,000.0	7,000.0	10,957.3	7,000.0	83.2	82.1	90.00	4,086.9	-574.8	659.6	495.9	163.71	4.029	
11,100.0	7,000.0	11,057.3	7,000.0	85.1	84.0	90.00	4,186.6	-581.3	659.6	492.1	167.53	3.937	
11,200.0	7,000.0	11,157.3	7,000.0	87.0	85.9	90.00	4,286.4	-587.9	659.7	488.3	171.36	3.850	
11,300.0	7,000.0	11,257.3	7,000.0	88.8	87.8	90.00	4,386.2	-594.4	659.7	484.5	175.19	3.765	
11,319.7	7,000.0	11,277.0	7,000.0	89.2	88.2	90.00	4,405.9	-595.7	659.7	483.7	175.95	3.749	
11,384.9	7,000.0	11,297.9	7,000.0	90.4	88.6	90.00	4,426.7	-597.0	661.2	483.6	177.60	3.723 SF	

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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 N-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		
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 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-172.53	0.4	22.6	24.3	18.7	5.60	4.341		
1,400.0	1,399.8	1,399.8	1,399.8	3.0	3.0	-173.84	0.4	22.6	29.5	23.5	6.02	4.906		
1,500.0	1,499.5	1,500.7	1,500.7	3.2	3.2	-174.91	0.0	20.8	36.5	30.0	6.41	5.687		
1,600.0	1,598.7	1,601.9	1,601.7	3.4	3.4	-175.44	-1.0	15.6	43.4	36.6	6.79	6.391		
1,700.0	1,697.5	1,703.3	1,702.7	3.7	3.7	-175.66	-2.8	6.8	50.3	43.1	7.17	7.015		
1,800.0	1,795.6	1,805.0	1,803.6	4.0	3.9	-175.68	-5.2	-5.4	57.1	49.6	7.55	7.567		
1,900.0	1,893.2	1,906.9	1,904.3	4.4	4.2	-175.53	-8.3	-21.3	63.4	55.4	7.97	7.951		
2,000.0	1,990.7	2,007.2	2,002.9	4.7	4.4	-175.19	-11.9	-39.2	67.5	59.1	8.42	8.021		
2,100.0	2,088.2	2,107.2	2,101.2	5.1	4.8	-174.88	-15.5	-57.1	71.6	62.7	8.88	8.066		
2,200.0	2,185.7	2,207.1	2,199.4	5.5	5.1	-174.61	-19.0	-75.0	75.7	66.3	9.34	8.101		
2,300.0	2,283.2	2,307.0	2,297.6	6.0	5.4	-174.37	-22.6	-92.9	79.8	70.0	9.82	8.124		
2,400.0	2,380.7	2,406.9	2,395.9	6.4	5.8	-174.14	-26.1	-110.8	83.9	73.6	10.30	8.139		
2,500.0	2,478.2	2,506.8	2,494.1	6.8	6.1	-173.94	-29.7	-128.7	88.0	77.2	10.80	8.149		
2,600.0	2,575.7	2,606.7	2,592.3	7.3	6.5	-173.76	-33.2	-146.6	92.1	80.8	11.29	8.153		
2,700.0	2,673.2	2,706.7	2,690.6	7.7	6.9	-173.59	-36.8	-164.5	96.2	84.4	11.79	8.154		
2,800.0	2,770.7	2,806.6	2,788.8	8.2	7.2	-173.44	-40.3	-182.4	100.3	88.0	12.30	8.152		
2,900.0	2,868.2	2,906.5	2,887.0	8.6	7.6	-173.30	-43.9	-200.3	104.4	91.5	12.81	8.147		
3,000.0	2,965.7	3,006.4	2,985.3	9.1	8.0	-173.17	-47.5	-218.2	108.5	95.1	13.32	8.141		
3,100.0	3,063.2	3,106.3	3,083.5	9.6	8.4	-173.05	-51.0	-236.1	112.6	98.7	13.84	8.133		
3,200.0	3,160.7	3,206.2	3,181.7	10.0	8.8	-172.93	-54.6	-254.0	116.7	102.3	14.36	8.125		
3,300.0	3,258.2	3,306.2	3,280.0	10.5	9.2	-172.83	-58.1	-271.9	120.8	105.9	14.88	8.115		
3,400.0	3,355.7	3,406.1	3,378.2	11.0	9.6	-172.73	-61.7	-289.8	124.9	109.4	15.40	8.105		
3,500.0	3,453.2	3,506.0	3,476.5	11.5	10.0	-172.64	-65.2	-307.7	129.0	113.0	15.93	8.095		
3,600.0	3,550.7	3,605.9	3,574.7	11.9	10.4	-172.55	-68.8	-325.6	133.1	116.6	16.46	8.084		
3,700.0	3,648.2	3,705.8	3,672.9	12.4	10.8	-172.47	-72.3	-343.5	137.2	120.2	16.99	8.073		
3,800.0	3,745.7	3,805.7	3,771.2	12.9	11.2	-172.39	-75.9	-361.4	141.3	123.7	17.52	8.063		
3,900.0	3,843.2	3,905.6	3,869.4	13.4	11.6	-172.32	-79.5	-379.3	145.4	127.3	18.05	8.052		
4,000.0	3,940.7	4,005.6	3,967.6	13.8	12.0	-172.25	-83.0	-397.2	149.5	130.9	18.59	8.041		
4,100.0	4,038.2	4,105.5	4,065.9	14.3	12.4	-172.19	-86.6	-415.1	153.6	134.4	19.12	8.030		
4,200.0	4,135.7	4,205.4	4,164.1	14.8	12.8	-172.13	-90.1	-433.0	157.7	138.0	19.66	8.020		
4,300.0	4,233.2	4,305.3	4,262.3	15.3	13.2	-172.07	-93.7	-450.9	161.8	141.6	20.20	8.009		
4,400.0	4,330.7	4,405.2	4,360.6	15.8	13.6	-172.02	-97.2	-468.8	165.9	145.1	20.74	7.999		
4,500.0	4,428.2	4,505.1	4,458.8	16.3	14.0	-171.96	-100.8	-486.7	170.0	148.7	21.28	7.989		
4,600.0	4,525.8	4,605.1	4,557.0	16.7	14.5	-171.91	-104.3	-504.6	174.1	152.3	21.82	7.979		
4,700.0	4,623.3	4,705.0	4,655.3	17.2	14.9	-171.87	-107.9	-522.5	178.2	155.8	22.36	7.969		
4,800.0	4,720.8	4,804.9	4,753.5	17.7	15.3	-171.82	-111.5	-540.4	182.3	159.4	22.90	7.960		
4,900.0	4,818.3	4,904.8	4,851.7	18.2	15.7	-171.78	-115.0	-558.3	186.4	162.9	23.44	7.951		
5,000.0	4,915.8	5,004.7	4,950.0	18.7	16.1	-171.73	-118.6	-576.2	190.5	166.5	23.99	7.942		
5,100.0	5,013.3	5,104.6	5,048.2	19.2	16.5	-171.69	-122.1	-594.1	194.6	170.1	24.53	7.933		

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 N-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	
5,200.0	5,110.8	5,204.6	5,146.4	19.6	16.9	-171.66	-125.7	-612.0	198.7	173.6	25.08	7.924		
5,300.0	5,208.3	5,304.5	5,244.7	20.1	17.3	-171.62	-129.2	-629.9	202.8	177.2	25.62	7.916		
5,400.0	5,305.8	5,404.4	5,342.9	20.6	17.8	-171.58	-132.8	-647.8	206.9	180.7	26.17	7.907		
5,500.0	5,403.3	5,504.3	5,441.1	21.1	18.2	-171.55	-136.3	-665.7	211.0	184.3	26.71	7.899		
5,600.0	5,500.8	5,604.2	5,539.4	21.6	18.6	-171.51	-139.9	-683.6	214.9	187.6	27.27	7.880		
5,700.0	5,599.0	5,700.0	5,633.7	21.9	18.9	-171.40	-143.2	-700.2	216.5	188.8	27.77	7.799		
5,800.0	5,697.7	5,793.0	5,725.6	22.2	19.2	-171.30	-145.9	-713.6	217.7	189.6	28.18	7.726		
5,900.0	5,796.9	5,886.0	5,818.1	22.4	19.4	-171.23	-147.9	-724.1	218.7	190.1	28.55	7.659		
6,000.0	5,896.5	5,979.0	5,910.8	22.6	19.6	-171.18	-149.4	-731.6	219.3	190.5	28.86	7.599		
6,100.0	5,996.4	6,072.1	6,003.6	22.8	19.8	-171.15	-150.3	-736.1	219.7	190.6	29.13	7.544		
6,200.0	6,096.4	6,165.1	6,096.6	22.9	19.9	-171.13	-150.6	-737.7	219.9	190.5	29.36	7.490		
6,300.0	6,196.4	6,264.8	6,196.4	23.0	20.0	89.91	-150.6	-737.7	219.9	189.7	30.18	7.286		
6,400.0	6,296.4	6,365.0	6,296.6	23.2	20.2	93.66	-150.5	-737.7	219.9	189.8	30.08	7.310		
6,500.0	6,395.9	6,467.0	6,398.1	23.3	20.3	93.62	-141.5	-738.3	219.9	189.5	30.42	7.228		
6,600.0	6,493.3	6,569.0	6,497.3	23.4	20.4	93.50	-118.2	-739.8	219.8	189.2	30.68	7.166		
6,700.0	6,586.5	6,670.8	6,592.0	23.5	20.5	93.31	-81.1	-742.3	219.8	188.9	30.90	7.113		
6,800.0	6,673.9	6,772.6	6,680.4	23.6	20.6	93.06	-31.0	-745.6	219.8	188.6	31.17	7.051		
6,900.0	6,753.7	6,874.1	6,760.7	23.7	20.8	92.75	30.9	-749.6	219.7	188.1	31.56	6.961		
7,000.0	6,824.4	6,975.5	6,831.3	23.8	20.9	92.38	103.3	-754.4	219.7	187.5	32.19	6.824		
7,100.0	6,884.5	7,076.7	6,890.9	24.1	21.2	91.97	184.8	-759.7	219.6	186.5	33.12	6.632		
7,200.0	6,932.9	7,177.6	6,938.2	24.3	21.5	91.52	273.7	-765.5	219.6	185.2	34.39	6.384		
7,300.0	6,968.7	7,278.3	6,972.5	24.8	22.0	91.04	368.0	-771.7	219.5	183.5	36.02	6.095		
7,400.0	6,991.2	7,378.7	6,993.2	25.3	22.6	90.54	466.0	-778.1	219.5	181.6	37.96	5.783		
7,436.4	6,996.0	7,415.1	6,997.3	25.5	22.9	90.35	502.1	-780.5	219.5	180.8	38.74	5.666		
7,500.0	6,999.9	7,478.8	7,000.0	26.0	23.4	90.03	565.6	-784.7	219.5	179.4	40.15	5.468		
7,600.0	7,000.0	7,578.8	7,000.0	26.8	24.4	90.00	665.4	-791.2	219.5	176.9	42.60	5.154		
7,700.0	7,000.0	7,678.8	7,000.0	27.8	25.5	90.00	765.2	-797.7	219.5	174.3	45.24	4.853		
7,800.0	7,000.0	7,778.8	7,000.0	28.9	26.7	90.00	865.0	-804.3	219.6	171.5	48.06	4.568		
7,900.0	7,000.0	7,878.8	7,000.0	30.0	28.0	90.00	964.8	-810.8	219.6	168.5	51.02	4.304		
8,000.0	7,000.0	7,978.8	7,000.0	31.3	29.4	90.00	1,064.5	-817.4	219.6	165.5	54.10	4.059		
8,100.0	7,000.0	8,078.8	7,000.0	32.6	30.9	90.00	1,164.3	-823.9	219.6	162.3	57.28	3.834		
8,200.0	7,000.0	8,178.8	7,000.0	34.1	32.4	90.00	1,264.1	-830.4	219.6	159.1	60.54	3.628		
8,300.0	7,000.0	8,278.8	7,000.0	35.5	34.0	90.00	1,363.9	-837.0	219.6	155.7	63.87	3.438		
8,400.0	7,000.0	8,378.8	7,000.0	37.0	35.6	90.00	1,463.7	-843.5	219.6	152.4	67.27	3.265		
8,500.0	7,000.0	8,478.8	7,000.0	38.6	37.2	90.00	1,563.5	-850.0	219.6	148.9	70.71	3.106		
8,600.0	7,000.0	8,578.8	7,000.0	40.2	38.9	90.00	1,663.3	-856.6	219.7	145.5	74.20	2.960		
8,700.0	7,000.0	8,678.8	7,000.0	41.8	40.5	90.00	1,763.0	-863.1	219.7	141.9	77.73	2.826		
8,800.0	7,000.0	8,778.8	7,000.0	43.5	42.3	90.00	1,862.8	-869.7	219.7	138.4	81.29	2.702		
8,900.0	7,000.0	8,878.8	7,000.0	45.2	44.0	90.00	1,962.6	-876.2	219.7	134.8	84.88	2.588		
9,000.0	7,000.0	8,978.8	7,000.0	46.9	45.7	90.00	2,062.4	-882.7	219.7	131.2	88.50	2.482		
9,100.0	7,000.0	9,078.8	7,000.0	48.6	47.5	90.00	2,162.2	-889.3	219.7	127.6	92.14	2.384		
9,200.0	7,000.0	9,178.8	7,000.0	50.3	49.3	90.00	2,262.0	-895.8	219.7	123.9	95.80	2.294		
9,300.0	7,000.0	9,278.8	7,000.0	52.1	51.1	90.00	2,361.8	-902.4	219.7	120.3	99.48	2.209		
9,400.0	7,000.0	9,378.8	7,000.0	53.8	52.9	90.00	2,461.5	-908.9	219.7	116.6	103.18	2.130		
9,500.0	7,000.0	9,478.8	7,000.0	55.6	54.7	90.00	2,561.3	-915.4	219.8	112.9	106.88	2.056		
9,600.0	7,000.0	9,578.8	7,000.0	57.4	56.5	90.00	2,661.1	-922.0	219.8	109.2	110.61	1.987		
9,700.0	7,000.0	9,678.8	7,000.0	59.2	58.3	90.00	2,760.9	-928.5	219.8	105.4	114.34	1.922		
9,800.0	7,000.0	9,778.8	7,000.0	61.0	60.2	90.00	2,860.7	-935.1	219.8	101.7	118.08	1.861		
9,900.0	7,000.0	9,878.8	7,000.0	62.8	62.0	90.00	2,960.5	-941.6	219.8	98.0	121.84	1.804		
10,000.0	7,000.0	9,978.8	7,000.0	64.6	63.9	90.00	3,060.3	-948.1	219.8	94.2	125.60	1.750		
10,100.0	7,000.0	10,078.8	7,000.0	66.5	65.7	90.00	3,160.0	-954.7	219.8	90.5	129.37	1.699		
10,200.0	7,000.0	10,178.8	7,000.0	68.3	67.6	90.00	3,259.8	-961.2	219.8	86.7	133.14	1.651		

Company:	Synergy Resources	Local Co-ordinate Reference:	Well SRC Kiehn 22-4CHZ
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 22-4CHZ	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

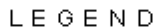
Offset Design SRC Kiehn Pad Sec.4-T4N-R68W - SRC Kiehn N-4NHZ - Wellbore #1 - Plan #2 (4-25-14)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	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	10,278.8	7,000.0	70.2	69.5	90.00	3,359.6	-967.8	219.9	82.9	136.93	1.606	
10,400.0	7,000.0	10,378.8	7,000.0	72.0	71.3	90.00	3,459.4	-974.3	219.9	79.2	140.72	1.562	
10,500.0	7,000.0	10,478.8	7,000.0	73.9	73.2	90.00	3,559.2	-980.8	219.9	75.4	144.51	1.522	
10,600.0	7,000.0	10,578.8	7,000.0	75.7	75.1	90.00	3,659.0	-987.4	219.9	71.6	148.32	1.483 Level 3	
10,700.0	7,000.0	10,678.8	7,000.0	77.6	77.0	90.00	3,758.8	-993.9	219.9	67.8	152.12	1.446 Level 3	
10,800.0	7,000.0	10,778.8	7,000.0	79.5	78.8	90.00	3,858.5	-1,000.4	219.9	64.0	155.93	1.410 Level 3	
10,900.0	7,000.0	10,878.8	7,000.0	81.3	80.7	90.00	3,958.3	-1,007.0	219.9	60.2	159.75	1.377 Level 3	
11,000.0	7,000.0	10,978.8	7,000.0	83.2	82.6	90.00	4,058.1	-1,013.5	219.9	56.4	163.56	1.345 Level 3	
11,100.0	7,000.0	11,078.8	7,000.0	85.1	84.5	90.00	4,157.9	-1,020.1	220.0	52.6	167.39	1.314 Level 3	
11,200.0	7,000.0	11,178.8	7,000.0	87.0	86.4	90.00	4,257.7	-1,026.6	220.0	48.8	171.21	1.285 Level 3	
11,300.0	7,000.0	11,278.8	7,000.0	88.8	88.3	90.00	4,357.5	-1,033.1	220.0	44.9	175.04	1.257 Level 3	
11,345.0	7,000.0	11,323.8	7,000.0	89.7	89.2	90.00	4,402.4	-1,036.1	220.0	43.2	176.76	1.245 Level 2	
11,384.9	7,000.0	11,349.0	7,000.0	90.4	89.6	90.00	4,427.5	-1,037.7	220.5	42.5	178.01	1.239 Level 2, SF	





Reference Depths are relative to WELL @ 5077.0ft (RKB - 13')	Coordinates are relative to: SRC Kiehn 22-4CHZ
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°



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 22-4CHZ
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.32°



Wellbore #1 (P&A), Wellbore #1, Wellbore #1 V0  SRC Kiehn 22-4NHZ, Wellbore #1, Plan #2 (4-25-14) V0  SRC Kiehn N-4NHZ, Wellbore #1, Plan #2 (4-25-14) V0
 Wellbore #1, Plan #2 (4-25-14) V0  SRC Kiehn 31-4CHZ, Wellbore #1, Plan #2 (4-25-14) V0
 Wellbore #1, Plan #2 (4-25-14) V0  SRC Kiehn 31-4NHZ, Wellbore #1, Plan #2 (4-25-14) V0