



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-3NBH
Wellbore: OH
Design: PLAN #1

PROJECT DETAILS: ADAMS COUNTY, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°

Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE

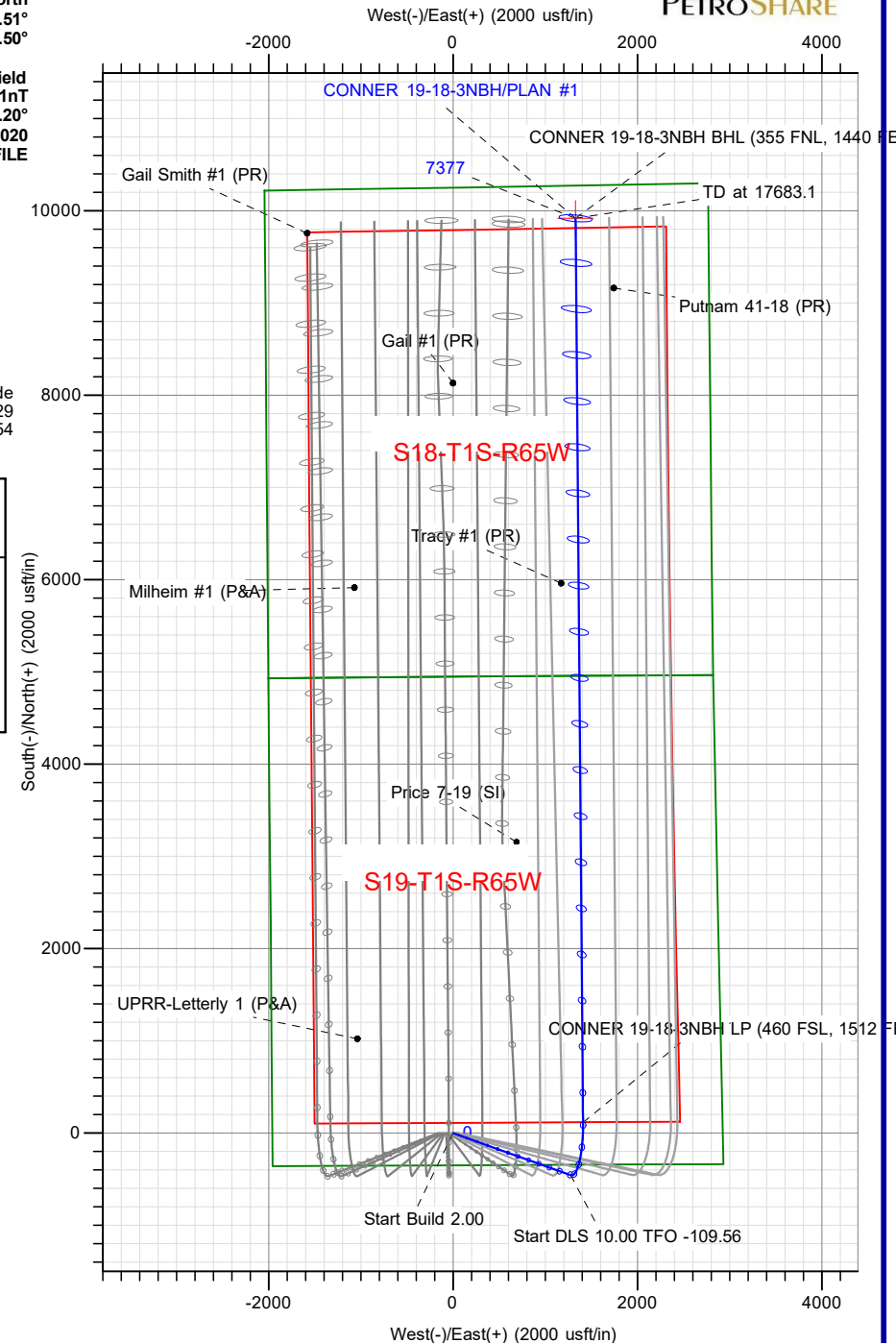
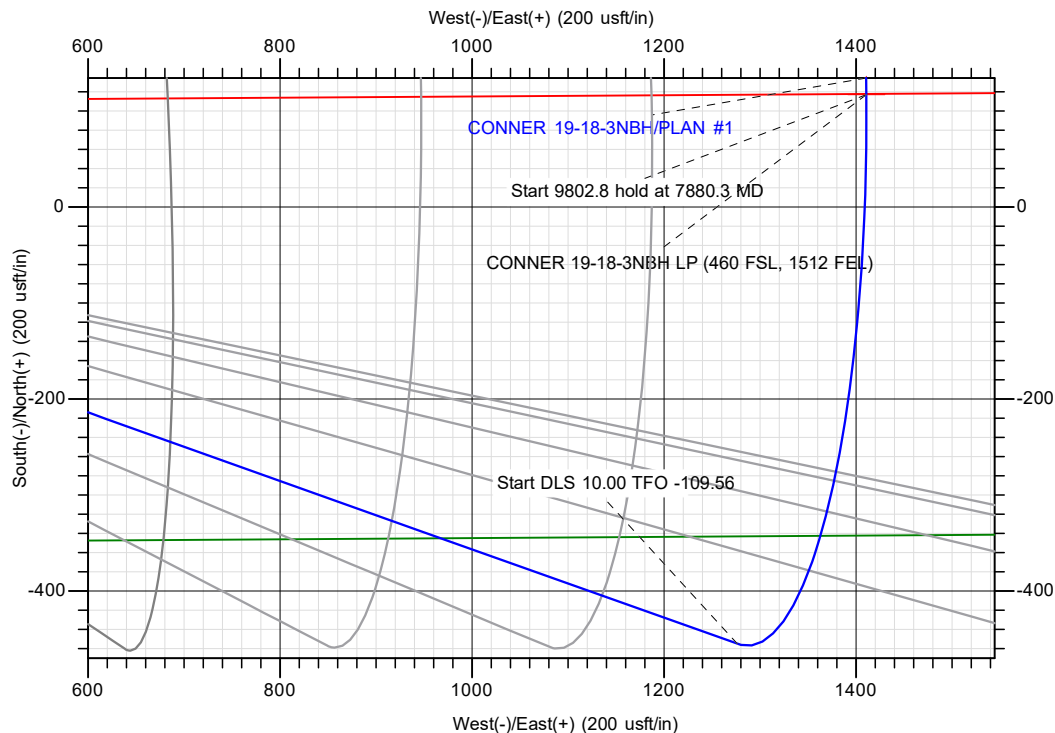


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-3NBH BHL (355 FNL, 1440 FEL)	7377.0	9919.6	1329.8	1233474.82	3223504.75	39.971513	-104.702529
CONNER 19-18-3NBH LP (460 FSL, 1512 FEL)	7377.0	117.2	1410.9	1223672.38	3223585.82	39.944603	-104.702554

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1588.9	13.78	109.62	1582.2	-27.7	77.6	2.00	109.62	-17.1	
4	6933.4	13.78	109.62	6773.0	-455.0	1276.6	0.00	0.00	-281.3	
5	7880.3	90.00	359.53	7377.0	117.2	1410.9	10.00	-109.56	303.6	CONNER 19-18-3NBH LP (460 FSL, 1512 FEL)
6	17683.1	90.00	359.53	7377.0	9919.6	1329.8	0.00	0.00	0008.4	CONNER 19-18-3NBH BHL (355 FNL, 1440 FEL)



TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
Phone: (970) 460-9402

Plan: PLAN #1 (CONNER 19-18-3NBH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 19:07, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-3NBH
Wellbore: OH
Design: PLAN #1



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°

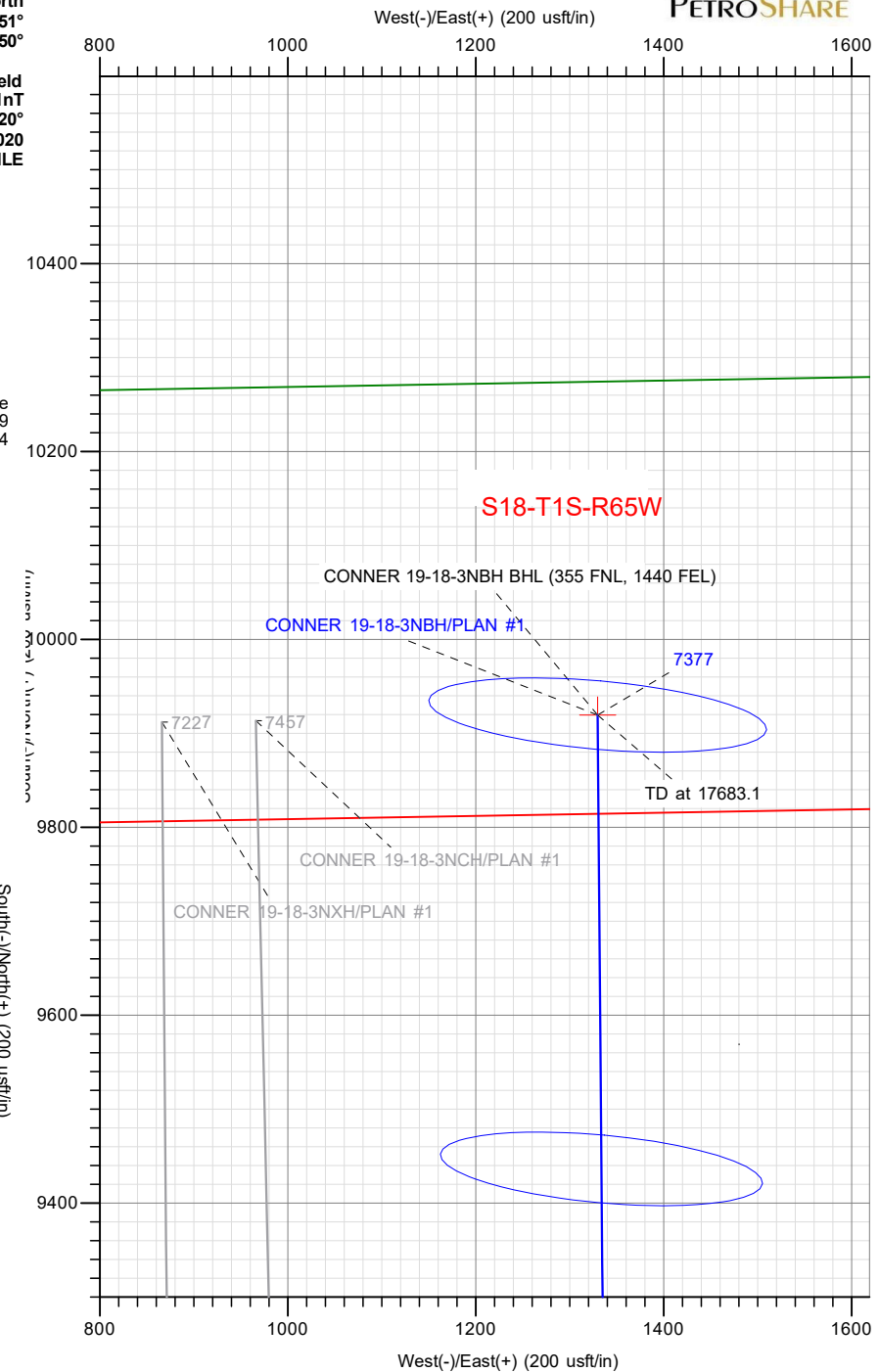
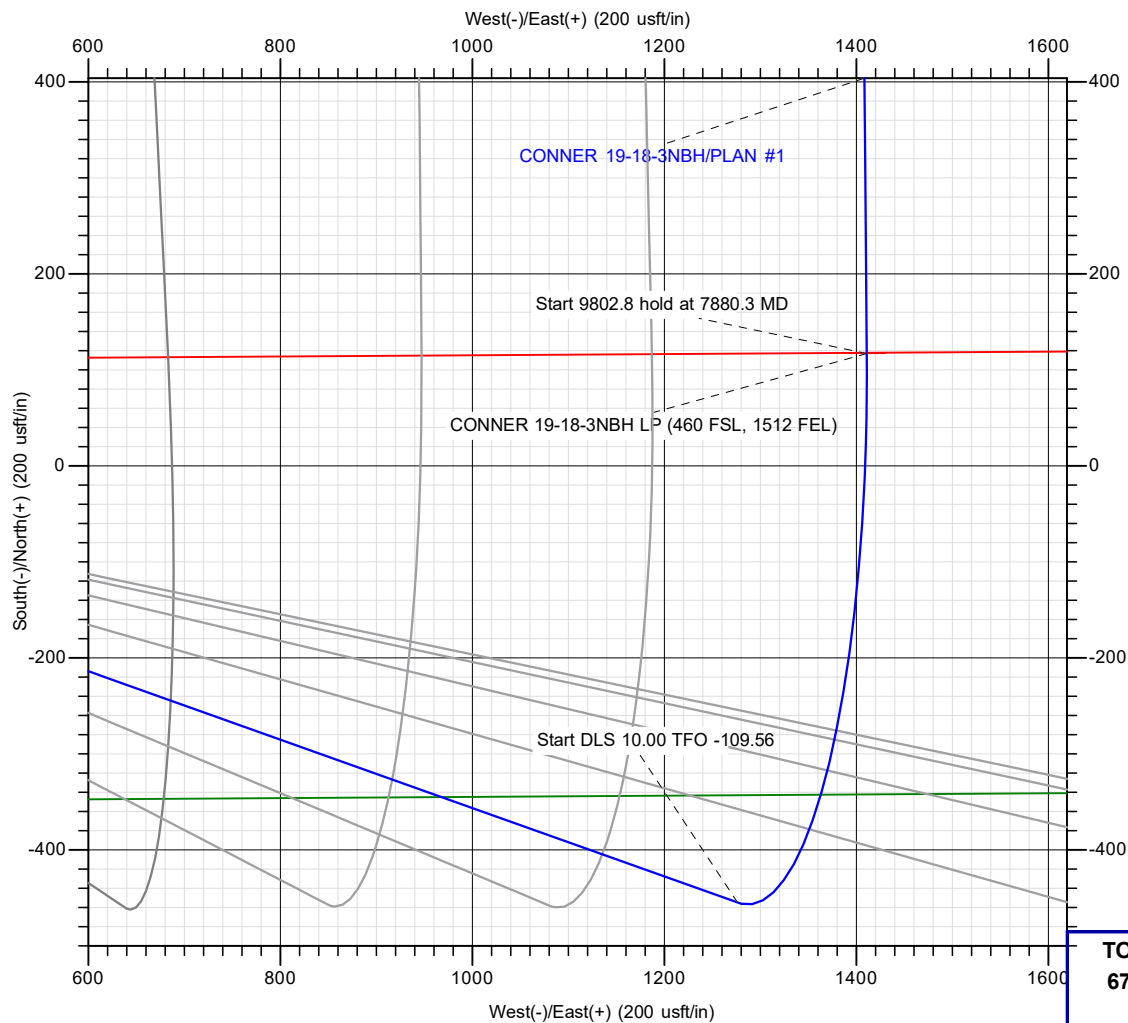
Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



PROJECT DETAILS: ADAMS COUNTY, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-3NBH BHL (355 FNL, 1440 FEL)	7377.0	9919.6	1329.8	1233474.82	3223504.75	39.971513	-104.702529
CONNER 19-18-3NBH LP (460 FSL, 1512 FEL)	7377.0	117.2	1410.9	1223672.38	3223585.82	39.944603	-104.702554



TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
Phone: (970) 460-9402

Plan: PLAN #1 (CONNER 19-18-3NBH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 19:11, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-3NBH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	ADAMS COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S19-T1S-R65W			
Site Position:		Northing:	1,223,554.35 usft	Latitude:	39.944317
From:	Map	Easting:	3,222,009.87 usft	Longitude:	-104.708179
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51

Well	CONNER 19-18-3NBH					
Well Position	+N/-S	0.9 usft	Northing:	1,223,555.21 usft	Latitude:	39.944316
	+E/-W	165.0 usft	Easting:	3,222,174.90 usft	Longitude:	-104.707590
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,142.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020_FILE	12/31/2020	8.02	66.20	51,671.10000000

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	7.64

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,683.1	PLAN #1 (OH)	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,588.9	13.78	109.62	1,582.2	-27.7	77.6	2.00	2.00	0.00	109.62	
6,933.4	13.78	109.62	6,773.0	-455.0	1,276.6	0.00	0.00	0.00	0.00	
7,880.3	90.00	359.53	7,377.0	117.2	1,410.9	10.00	8.05	-11.63	-109.56	CONNER 19-18-3NBH
17,683.1	90.00	359.53	7,377.0	9,919.6	1,329.8	0.00	0.00	0.00	0.00	CONNER 19-18-3NBH

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
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	2.00	109.62	1,000.0	-0.6	1.6	-0.4	2.00	2.00	0.00
1,100.0	4.00	109.62	1,099.8	-2.3	6.6	-1.4	2.00	2.00	0.00
1,200.0	6.00	109.62	1,199.5	-5.3	14.8	-3.3	2.00	2.00	0.00
1,300.0	8.00	109.62	1,298.7	-9.4	26.3	-5.8	2.00	2.00	0.00
1,400.0	10.00	109.62	1,397.5	-14.6	41.0	-9.0	2.00	2.00	0.00
1,500.0	12.00	109.62	1,495.6	-21.0	59.0	-13.0	2.00	2.00	0.00
1,588.9	13.78	109.62	1,582.2	-27.7	77.6	-17.1	2.00	2.00	0.00
1,600.0	13.78	109.62	1,593.1	-28.6	80.1	-17.7	0.00	0.00	0.00
1,700.0	13.78	109.62	1,690.2	-36.6	102.6	-22.6	0.00	0.00	0.00
1,800.0	13.78	109.62	1,787.3	-44.6	125.0	-27.5	0.00	0.00	0.00
1,900.0	13.78	109.62	1,884.4	-52.5	147.4	-32.5	0.00	0.00	0.00
2,000.0	13.78	109.62	1,981.6	-60.5	169.9	-37.4	0.00	0.00	0.00
2,100.0	13.78	109.62	2,078.7	-68.5	192.3	-42.4	0.00	0.00	0.00
2,200.0	13.78	109.62	2,175.8	-76.5	214.7	-47.3	0.00	0.00	0.00
2,300.0	13.78	109.62	2,272.9	-84.5	237.2	-52.3	0.00	0.00	0.00
2,400.0	13.78	109.62	2,370.0	-92.5	259.6	-57.2	0.00	0.00	0.00
2,500.0	13.78	109.62	2,467.2	-100.5	282.0	-62.2	0.00	0.00	0.00
2,600.0	13.78	109.62	2,564.3	-108.5	304.5	-67.1	0.00	0.00	0.00
2,700.0	13.78	109.62	2,661.4	-116.5	326.9	-72.0	0.00	0.00	0.00
2,800.0	13.78	109.62	2,758.5	-124.5	349.3	-77.0	0.00	0.00	0.00
2,900.0	13.78	109.62	2,855.7	-132.5	371.8	-81.9	0.00	0.00	0.00
3,000.0	13.78	109.62	2,952.8	-140.5	394.2	-86.9	0.00	0.00	0.00
3,100.0	13.78	109.62	3,049.9	-148.5	416.6	-91.8	0.00	0.00	0.00
3,200.0	13.78	109.62	3,147.0	-156.5	439.1	-96.8	0.00	0.00	0.00
3,300.0	13.78	109.62	3,244.1	-164.5	461.5	-101.7	0.00	0.00	0.00
3,400.0	13.78	109.62	3,341.3	-172.5	483.9	-106.7	0.00	0.00	0.00
3,500.0	13.78	109.62	3,438.4	-180.5	506.4	-111.6	0.00	0.00	0.00
3,600.0	13.78	109.62	3,535.5	-188.5	528.8	-116.5	0.00	0.00	0.00
3,700.0	13.78	109.62	3,632.6	-196.5	551.2	-121.5	0.00	0.00	0.00
3,800.0	13.78	109.62	3,729.8	-204.5	573.7	-126.4	0.00	0.00	0.00
3,900.0	13.78	109.62	3,826.9	-212.5	596.1	-131.4	0.00	0.00	0.00
4,000.0	13.78	109.62	3,924.0	-220.5	618.5	-136.3	0.00	0.00	0.00
4,100.0	13.78	109.62	4,021.1	-228.5	641.0	-141.3	0.00	0.00	0.00
4,200.0	13.78	109.62	4,118.3	-236.4	663.4	-146.2	0.00	0.00	0.00
4,300.0	13.78	109.62	4,215.4	-244.4	685.8	-151.1	0.00	0.00	0.00
4,400.0	13.78	109.62	4,312.5	-252.4	708.3	-156.1	0.00	0.00	0.00
4,500.0	13.78	109.62	4,409.6	-260.4	730.7	-161.0	0.00	0.00	0.00
4,600.0	13.78	109.62	4,506.7	-268.4	753.1	-166.0	0.00	0.00	0.00
4,700.0	13.78	109.62	4,603.9	-276.4	775.5	-170.9	0.00	0.00	0.00
4,800.0	13.78	109.62	4,701.0	-284.4	798.0	-175.9	0.00	0.00	0.00
4,900.0	13.78	109.62	4,798.1	-292.4	820.4	-180.8	0.00	0.00	0.00
5,000.0	13.78	109.62	4,895.2	-300.4	842.8	-185.8	0.00	0.00	0.00
5,100.0	13.78	109.62	4,992.4	-308.4	865.3	-190.7	0.00	0.00	0.00
5,200.0	13.78	109.62	5,089.5	-316.4	887.7	-195.6	0.00	0.00	0.00

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Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	13.78	109.62	5,186.6	-324.4	910.1	-200.6	0.00	0.00	0.00
5,400.0	13.78	109.62	5,283.7	-332.4	932.6	-205.5	0.00	0.00	0.00
5,500.0	13.78	109.62	5,380.9	-340.4	955.0	-210.5	0.00	0.00	0.00
5,600.0	13.78	109.62	5,478.0	-348.4	977.4	-215.4	0.00	0.00	0.00
5,700.0	13.78	109.62	5,575.1	-356.4	999.9	-220.4	0.00	0.00	0.00
5,800.0	13.78	109.62	5,672.2	-364.4	1,022.3	-225.3	0.00	0.00	0.00
5,900.0	13.78	109.62	5,769.3	-372.4	1,044.7	-230.3	0.00	0.00	0.00
6,000.0	13.78	109.62	5,866.5	-380.4	1,067.2	-235.2	0.00	0.00	0.00
6,100.0	13.78	109.62	5,963.6	-388.4	1,089.6	-240.1	0.00	0.00	0.00
6,200.0	13.78	109.62	6,060.7	-396.4	1,112.0	-245.1	0.00	0.00	0.00
6,300.0	13.78	109.62	6,157.8	-404.4	1,134.5	-250.0	0.00	0.00	0.00
6,400.0	13.78	109.62	6,255.0	-412.4	1,156.9	-255.0	0.00	0.00	0.00
6,500.0	13.78	109.62	6,352.1	-420.3	1,179.3	-259.9	0.00	0.00	0.00
6,600.0	13.78	109.62	6,449.2	-428.3	1,201.8	-264.9	0.00	0.00	0.00
6,700.0	13.78	109.62	6,546.3	-436.3	1,224.2	-269.8	0.00	0.00	0.00
6,800.0	13.78	109.62	6,643.4	-444.3	1,246.6	-274.7	0.00	0.00	0.00
6,900.0	13.78	109.62	6,740.6	-452.3	1,269.1	-279.7	0.00	0.00	0.00
6,933.4	13.78	109.62	6,773.0	-455.0	1,276.6	-281.3	0.00	0.00	0.00
7,000.0	13.11	80.81	6,837.9	-456.5	1,291.5	-280.8	10.00	-0.99	-43.24
7,100.0	17.58	46.15	6,934.5	-444.2	1,313.7	-265.7	10.00	4.46	-34.66
7,200.0	25.35	28.61	7,027.6	-414.8	1,334.8	-233.8	10.00	7.77	-17.54
7,300.0	34.24	19.30	7,114.3	-369.4	1,354.4	-186.1	10.00	8.89	-9.31
7,400.0	43.57	13.53	7,192.0	-309.2	1,371.9	-124.1	10.00	9.33	-5.77
7,500.0	53.10	9.48	7,258.5	-236.0	1,386.5	-49.7	10.00	9.53	-4.05
7,600.0	62.75	6.34	7,311.5	-152.2	1,398.1	34.9	10.00	9.64	-3.14
7,700.0	72.45	3.70	7,349.6	-60.2	1,406.1	127.2	10.00	9.70	-2.64
7,800.0	82.18	1.34	7,371.5	37.1	1,410.3	224.2	10.00	9.73	-2.36
7,880.3	90.00	359.53	7,377.0	117.2	1,410.9	303.6	10.00	9.74	-2.26
CONNER 19-18-3NBH LP (460 FSL, 1512 FEL)									
7,900.0	90.00	359.53	7,377.0	136.9	1,410.8	323.1	0.00	0.00	0.00
8,000.0	90.00	359.53	7,377.0	236.9	1,409.9	422.1	0.00	0.00	0.00
8,100.0	90.00	359.53	7,377.0	336.9	1,409.1	521.1	0.00	0.00	0.00
8,200.0	90.00	359.53	7,377.0	436.9	1,408.3	620.1	0.00	0.00	0.00
8,300.0	90.00	359.53	7,377.0	536.9	1,407.4	719.1	0.00	0.00	0.00
8,400.0	90.00	359.53	7,377.0	636.9	1,406.6	818.1	0.00	0.00	0.00
8,500.0	90.00	359.53	7,377.0	736.9	1,405.8	917.1	0.00	0.00	0.00
8,600.0	90.00	359.53	7,377.0	836.9	1,405.0	1,016.1	0.00	0.00	0.00
8,700.0	90.00	359.53	7,377.0	936.8	1,404.1	1,115.1	0.00	0.00	0.00
8,800.0	90.00	359.53	7,377.0	1,036.8	1,403.3	1,214.1	0.00	0.00	0.00
8,900.0	90.00	359.53	7,377.0	1,136.8	1,402.5	1,313.1	0.00	0.00	0.00
9,000.0	90.00	359.53	7,377.0	1,236.8	1,401.7	1,412.1	0.00	0.00	0.00
9,100.0	90.00	359.53	7,377.0	1,336.8	1,400.8	1,511.1	0.00	0.00	0.00
9,200.0	90.00	359.53	7,377.0	1,436.8	1,400.0	1,610.1	0.00	0.00	0.00
9,300.0	90.00	359.53	7,377.0	1,536.8	1,399.2	1,709.1	0.00	0.00	0.00
9,400.0	90.00	359.53	7,377.0	1,636.8	1,398.4	1,808.1	0.00	0.00	0.00
9,500.0	90.00	359.53	7,377.0	1,736.8	1,397.5	1,907.1	0.00	0.00	0.00
9,600.0	90.00	359.53	7,377.0	1,836.8	1,396.7	2,006.1	0.00	0.00	0.00
9,700.0	90.00	359.53	7,377.0	1,936.8	1,395.9	2,105.1	0.00	0.00	0.00
9,800.0	90.00	359.53	7,377.0	2,036.8	1,395.0	2,204.1	0.00	0.00	0.00
9,900.0	90.00	359.53	7,377.0	2,136.8	1,394.2	2,303.1	0.00	0.00	0.00
10,000.0	90.00	359.53	7,377.0	2,236.8	1,393.4	2,402.1	0.00	0.00	0.00
10,100.0	90.00	359.53	7,377.0	2,336.8	1,392.6	2,501.1	0.00	0.00	0.00
10,200.0	90.00	359.53	7,377.0	2,436.8	1,391.7	2,600.1	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,300.0	90.00	359.53	7,377.0	2,536.8	1,390.9	2,699.1	0.00	0.00	0.00	
10,400.0	90.00	359.53	7,377.0	2,636.8	1,390.1	2,798.1	0.00	0.00	0.00	
10,500.0	90.00	359.53	7,377.0	2,736.8	1,389.3	2,897.1	0.00	0.00	0.00	
10,600.0	90.00	359.53	7,377.0	2,836.8	1,388.4	2,996.1	0.00	0.00	0.00	
10,700.0	90.00	359.53	7,377.0	2,936.8	1,387.6	3,095.1	0.00	0.00	0.00	
10,800.0	90.00	359.53	7,377.0	3,036.8	1,386.8	3,194.1	0.00	0.00	0.00	
10,900.0	90.00	359.53	7,377.0	3,136.8	1,385.9	3,293.1	0.00	0.00	0.00	
11,000.0	90.00	359.53	7,377.0	3,236.8	1,385.1	3,392.1	0.00	0.00	0.00	
11,100.0	90.00	359.53	7,377.0	3,336.8	1,384.3	3,491.1	0.00	0.00	0.00	
11,200.0	90.00	359.53	7,377.0	3,436.8	1,383.5	3,590.1	0.00	0.00	0.00	
11,300.0	90.00	359.53	7,377.0	3,536.8	1,382.6	3,689.1	0.00	0.00	0.00	
11,400.0	90.00	359.53	7,377.0	3,636.8	1,381.8	3,788.1	0.00	0.00	0.00	
11,500.0	90.00	359.53	7,377.0	3,736.8	1,381.0	3,887.1	0.00	0.00	0.00	
11,600.0	90.00	359.53	7,377.0	3,836.8	1,380.2	3,986.1	0.00	0.00	0.00	
11,700.0	90.00	359.53	7,377.0	3,936.7	1,379.3	4,085.1	0.00	0.00	0.00	
11,800.0	90.00	359.53	7,377.0	4,036.7	1,378.5	4,184.1	0.00	0.00	0.00	
11,900.0	90.00	359.53	7,377.0	4,136.7	1,377.7	4,283.1	0.00	0.00	0.00	
12,000.0	90.00	359.53	7,377.0	4,236.7	1,376.8	4,382.1	0.00	0.00	0.00	
12,100.0	90.00	359.53	7,377.0	4,336.7	1,376.0	4,481.1	0.00	0.00	0.00	
12,200.0	90.00	359.53	7,377.0	4,436.7	1,375.2	4,580.1	0.00	0.00	0.00	
12,300.0	90.00	359.53	7,377.0	4,536.7	1,374.4	4,679.1	0.00	0.00	0.00	
12,400.0	90.00	359.53	7,377.0	4,636.7	1,373.5	4,778.1	0.00	0.00	0.00	
12,500.0	90.00	359.53	7,377.0	4,736.7	1,372.7	4,877.1	0.00	0.00	0.00	
12,600.0	90.00	359.53	7,377.0	4,836.7	1,371.9	4,976.1	0.00	0.00	0.00	
12,700.0	90.00	359.53	7,377.0	4,936.7	1,371.1	5,075.1	0.00	0.00	0.00	
12,800.0	90.00	359.53	7,377.0	5,036.7	1,370.2	5,174.1	0.00	0.00	0.00	
12,900.0	90.00	359.53	7,377.0	5,136.7	1,369.4	5,273.1	0.00	0.00	0.00	
13,000.0	90.00	359.53	7,377.0	5,236.7	1,368.6	5,372.1	0.00	0.00	0.00	
13,100.0	90.00	359.53	7,377.0	5,336.7	1,367.8	5,471.1	0.00	0.00	0.00	
13,200.0	90.00	359.53	7,377.0	5,436.7	1,366.9	5,570.1	0.00	0.00	0.00	
13,300.0	90.00	359.53	7,377.0	5,536.7	1,366.1	5,669.1	0.00	0.00	0.00	
13,400.0	90.00	359.53	7,377.0	5,636.7	1,365.3	5,768.1	0.00	0.00	0.00	
13,500.0	90.00	359.53	7,377.0	5,736.7	1,364.4	5,867.1	0.00	0.00	0.00	
13,600.0	90.00	359.53	7,377.0	5,836.7	1,363.6	5,966.1	0.00	0.00	0.00	
13,700.0	90.00	359.53	7,377.0	5,936.7	1,362.8	6,065.1	0.00	0.00	0.00	
13,800.0	90.00	359.53	7,377.0	6,036.7	1,362.0	6,164.1	0.00	0.00	0.00	
13,900.0	90.00	359.53	7,377.0	6,136.7	1,361.1	6,263.1	0.00	0.00	0.00	
14,000.0	90.00	359.53	7,377.0	6,236.7	1,360.3	6,362.1	0.00	0.00	0.00	
14,100.0	90.00	359.53	7,377.0	6,336.7	1,359.5	6,461.1	0.00	0.00	0.00	
14,200.0	90.00	359.53	7,377.0	6,436.7	1,358.7	6,560.1	0.00	0.00	0.00	
14,300.0	90.00	359.53	7,377.0	6,536.7	1,357.8	6,659.1	0.00	0.00	0.00	
14,400.0	90.00	359.53	7,377.0	6,636.7	1,357.0	6,758.1	0.00	0.00	0.00	
14,500.0	90.00	359.53	7,377.0	6,736.7	1,356.2	6,857.1	0.00	0.00	0.00	
14,600.0	90.00	359.53	7,377.0	6,836.6	1,355.3	6,956.1	0.00	0.00	0.00	
14,700.0	90.00	359.53	7,377.0	6,936.6	1,354.5	7,055.1	0.00	0.00	0.00	
14,800.0	90.00	359.53	7,377.0	7,036.6	1,353.7	7,154.1	0.00	0.00	0.00	
14,900.0	90.00	359.53	7,377.0	7,136.6	1,352.9	7,253.1	0.00	0.00	0.00	
15,000.0	90.00	359.53	7,377.0	7,236.6	1,352.0	7,352.1	0.00	0.00	0.00	
15,100.0	90.00	359.53	7,377.0	7,336.6	1,351.2	7,451.1	0.00	0.00	0.00	
15,200.0	90.00	359.53	7,377.0	7,436.6	1,350.4	7,550.1	0.00	0.00	0.00	
15,300.0	90.00	359.53	7,377.0	7,536.6	1,349.6	7,649.1	0.00	0.00	0.00	
15,400.0	90.00	359.53	7,377.0	7,636.6	1,348.7	7,748.1	0.00	0.00	0.00	
15,500.0	90.00	359.53	7,377.0	7,736.6	1,347.9	7,847.1	0.00	0.00	0.00	
15,600.0	90.00	359.53	7,377.0	7,836.6	1,347.1	7,946.1	0.00	0.00	0.00	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Company:	PetroShare Corp	TVD Reference:	13' KB @ 5155.0usft
Project:	ADAMS COUNTY, CO	MD Reference:	13' KB @ 5155.0usft
Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.0	90.00	359.53	7,377.0	7,936.6	1,346.3	8,045.1	0.00	0.00	0.00
15,800.0	90.00	359.53	7,377.0	8,036.6	1,345.4	8,144.1	0.00	0.00	0.00
15,900.0	90.00	359.53	7,377.0	8,136.6	1,344.6	8,243.1	0.00	0.00	0.00
16,000.0	90.00	359.53	7,377.0	8,236.6	1,343.8	8,342.1	0.00	0.00	0.00
16,100.0	90.00	359.53	7,377.0	8,336.6	1,342.9	8,441.1	0.00	0.00	0.00
16,200.0	90.00	359.53	7,377.0	8,436.6	1,342.1	8,540.1	0.00	0.00	0.00
16,300.0	90.00	359.53	7,377.0	8,536.6	1,341.3	8,639.1	0.00	0.00	0.00
16,400.0	90.00	359.53	7,377.0	8,636.6	1,340.5	8,738.1	0.00	0.00	0.00
16,500.0	90.00	359.53	7,377.0	8,736.6	1,339.6	8,837.1	0.00	0.00	0.00
16,600.0	90.00	359.53	7,377.0	8,836.6	1,338.8	8,936.1	0.00	0.00	0.00
16,700.0	90.00	359.53	7,377.0	8,936.6	1,338.0	9,035.1	0.00	0.00	0.00
16,800.0	90.00	359.53	7,377.0	9,036.6	1,337.2	9,134.1	0.00	0.00	0.00
16,900.0	90.00	359.53	7,377.0	9,136.6	1,336.3	9,233.1	0.00	0.00	0.00
17,000.0	90.00	359.53	7,377.0	9,236.6	1,335.5	9,332.1	0.00	0.00	0.00
17,100.0	90.00	359.53	7,377.0	9,336.6	1,334.7	9,431.1	0.00	0.00	0.00
17,200.0	90.00	359.53	7,377.0	9,436.6	1,333.8	9,530.1	0.00	0.00	0.00
17,300.0	90.00	359.53	7,377.0	9,536.6	1,333.0	9,629.1	0.00	0.00	0.00
17,400.0	90.00	359.53	7,377.0	9,636.6	1,332.2	9,728.1	0.00	0.00	0.00
17,500.0	90.00	359.53	7,377.0	9,736.5	1,331.4	9,827.1	0.00	0.00	0.00
17,600.0	90.00	359.53	7,377.0	9,836.5	1,330.5	9,926.1	0.00	0.00	0.00
17,683.1	90.00	359.53	7,377.0	9,919.6	1,329.8	10,008.4	0.00	0.00	0.00
CONNER 19-18-3NBH BHL (355 FNL, 1440 FEL)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CONNER 19-18-3NBH L - plan hits target center - Point	0.00	0.00	7,377.0	117.2	1,410.9	1,223,672.38	3,223,585.82	39.944603	-104.702554
CONNER 19-18-3NBH E - plan hits target center - Point	0.00	0.01	7,377.0	9,919.6	1,329.8	1,233,474.82	3,223,504.75	39.971513	-104.702529



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-3NBH

OH

PLAN #1

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/12/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,683.1	PLAN #1 (OH)		

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S19-T1S-R65W						
CONNER 19-18-1CDH - OH - PLAN #1	600.0	600.0	165.0	160.3	34.781	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	1,100.0	1,069.3	210.2	199.5	19.608	SF
CONNER 19-18-1NBH - OH - PLAN #1	900.0	900.0	120.0	116.5	34.542	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	17,683.1	17,429.8	2,186.1	2,007.0	12.208	SF
CONNER 19-18-1NCH - OH - PLAN #1	800.0	800.0	135.0	131.9	43.424	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	1,200.0	1,179.7	173.5	168.2	32.629	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	150.0	144.5	27.354	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	1,100.0	1,078.7	181.0	170.7	17.511	SF
CONNER 19-18-2CDH - OH - PLAN #1	900.0	900.0	105.0	101.5	30.222	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	17,683.1	17,799.6	1,841.8	1,663.0	10.303	SF
CONNER 19-18-2NBH - OH - PLAN #1	900.0	900.0	60.0	56.6	17.280	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	17,683.1	17,551.4	1,092.0	912.4	6.079	SF
CONNER 19-18-2NCH - OH - PLAN #1	900.0	900.0	75.0	68.1	10.798	CC, ES
CONNER 19-18-2NCH - OH - PLAN #1	17,683.1	17,606.3	1,458.8	1,099.0	4.054	SF
CONNER 19-18-2NXH - OH - PLAN #1	900.0	900.0	90.0	86.6	25.914	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	17,683.1	17,385.9	1,724.2	1,545.4	9.647	SF
CONNER 19-18-3CDH - OH - PLAN #1	900.0	900.0	45.0	38.1	6.482	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,677.2	17,850.8	781.6	438.1	2.275	SF
CONNER 19-18-3NCH - OH - PLAN #1	900.0	900.0	15.0	11.6	4.324	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,683.1	17,717.8	372.6	195.1	2.100	SF
CONNER 19-18-3NXH - OH - PLAN #1	900.0	900.0	30.0	26.5	8.635	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,679.2	17,451.3	487.5	316.5	2.851	SF
CONNER 19-18-4CDH - OH - PLAN #1	800.0	800.0	15.0	11.9	4.820	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	17,683.1	17,998.1	435.9	282.1	2.833	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	59.9	57.9	29.989	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	17,683.1	17,945.5	950.3	770.7	5.292	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	44.9	42.6	18.936	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	17,683.1	18,006.4	883.1	704.5	4.944	SF
CONNER 19-18-4NXH - OH - PLAN #1	700.0	700.0	29.9	27.2	10.920	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	17,683.1	17,717.3	745.2	567.6	4.194	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	15,907.0	7,308.0	1,344.5	1,168.9	7.659	CC, ES, SF
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)						Out of range
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)						Out of range
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,925.6	7,308.0	697.2	605.4	7.597	CC, ES, SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,923.5	7,308.0	407.2	214.0	2.108	CC, ES, SF
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,727.3	7,308.0	190.1	52.0	1.376	Level 3, CC, ES, SF
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	900.0	831.0	1,456.9	1,450.9	242.703	CC, ES

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S19-T1S-R65W						
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&	4,600.0	4,437.7	2,207.6	2,173.2	64.225 SF	

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning		
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.9	-165.0	165.0						
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-0.9	-165.0	165.0	164.5	0.55	298.095			
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-0.9	-165.0	165.0	163.4	1.60	103.452			
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-0.9	-165.0	165.0	162.6	2.45	67.402			
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-0.9	-165.0	165.0	161.8	3.24	50.995			
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-0.9	-165.0	165.0	161.0	4.00	41.285			
600.0	600.0	600.0	600.0	2.7	2.7	-90.30	-0.9	-165.0	165.0	160.3	4.74	34.781	CC, ES		
700.0	700.0	694.9	694.8	3.1	3.0	-90.49	-1.4	-166.5	166.6	161.0	5.53	30.102			
800.0	800.0	789.5	789.4	3.5	3.9	-91.06	-3.1	-170.9	171.2	164.3	6.92	24.750			
900.0	900.0	883.8	883.3	3.9	4.7	-91.93	-6.0	-178.1	179.0	170.8	8.15	21.966			
1,000.0	1,000.0	977.2	976.1	4.2	5.4	157.46	-9.9	-188.1	191.5	182.1	9.40	20.376			
1,100.0	1,099.8	1,069.3	1,067.2	4.7	6.1	156.62	-14.9	-200.7	210.2	199.5	10.72	19.608	SF		
1,200.0	1,199.5	1,159.4	1,155.9	5.5	6.6	155.96	-20.8	-215.7	235.1	223.3	11.82	19.895			
1,300.0	1,298.7	1,252.9	1,247.4	6.2	6.9	155.49	-27.6	-233.2	265.1	252.5	12.64	20.967			
1,400.0	1,397.5	1,347.2	1,339.8	6.9	7.1	155.31	-34.6	-251.0	298.3	284.9	13.41	22.247			
1,500.0	1,495.6	1,440.5	1,431.1	7.5	7.4	155.34	-41.5	-268.5	334.4	320.2	14.17	23.599			
1,600.0	1,593.1	1,532.5	1,521.2	8.0	7.6	155.56	-48.3	-285.8	373.5	358.6	14.87	25.116			
1,700.0	1,690.2	1,623.9	1,610.8	8.3	7.9	156.07	-55.1	-303.1	413.7	398.3	15.42	26.822			
1,800.0	1,787.3	1,715.4	1,700.4	8.6	8.2	156.49	-61.9	-320.3	454.0	438.0	16.00	28.378			
1,900.0	1,884.4	1,806.9	1,790.0	8.9	8.5	156.84	-68.6	-337.5	494.3	477.7	16.59	29.800			
2,000.0	1,981.6	1,898.4	1,879.6	9.2	8.8	157.14	-75.4	-354.7	534.6	517.4	17.19	31.103			
2,100.0	2,078.7	1,989.9	1,969.2	9.5	9.1	157.39	-82.1	-371.9	574.9	557.1	17.80	32.296			
2,200.0	2,175.8	2,081.4	2,058.8	9.8	9.4	157.61	-88.9	-389.2	615.3	596.8	18.43	33.391			
2,300.0	2,272.9	2,172.8	2,148.4	10.2	9.8	157.81	-95.7	-406.4	655.6	636.5	19.06	34.397			
2,400.0	2,370.0	2,264.3	2,238.0	10.6	10.1	157.98	-102.4	-423.6	695.9	676.2	19.70	35.323			
2,500.0	2,467.2	2,355.8	2,327.6	11.0	10.5	158.14	-109.2	-440.8	736.3	715.9	20.35	36.176			
2,600.0	2,564.3	2,447.3	2,417.2	11.4	10.8	158.27	-116.0	-458.1	776.6	755.6	21.01	36.963			
2,700.0	2,661.4	2,538.8	2,506.7	11.8	11.2	158.40	-122.7	-475.3	817.0	795.3	21.67	37.692			
2,800.0	2,758.5	2,630.3	2,596.3	12.3	11.6	158.51	-129.5	-492.5	857.3	835.0	22.35	38.366			
2,900.0	2,855.7	2,721.8	2,685.9	12.8	12.1	158.61	-136.3	-509.7	897.7	874.7	23.02	38.992			
3,000.0	2,952.8	2,813.2	2,775.5	13.3	12.5	158.71	-143.0	-526.9	938.0	914.3	23.70	39.574			
3,100.0	3,049.9	2,904.7	2,865.1	13.8	12.9	158.79	-149.8	-544.2	978.4	954.0	24.39	40.115			
3,200.0	3,147.0	2,996.2	2,954.7	14.3	13.3	158.87	-156.6	-561.4	1,018.8	993.7	25.08	40.620			
3,300.0	3,244.1	3,087.7	3,044.3	14.8	13.8	158.95	-163.3	-578.6	1,059.1	1,033.3	25.77	41.091			
3,400.0	3,341.3	3,179.2	3,133.9	15.4	14.2	159.01	-170.1	-595.8	1,099.5	1,073.0	26.47	41.532			
3,500.0	3,438.4	3,270.7	3,223.5	15.9	14.6	159.08	-176.9	-613.0	1,139.8	1,112.7	27.18	41.944			
3,600.0	3,535.5	3,362.1	3,313.1	16.4	15.1	159.14	-183.6	-630.3	1,180.2	1,152.3	27.88	42.331			
3,700.0	3,632.6	3,453.6	3,402.7	17.0	15.5	159.19	-190.4	-647.5	1,220.6	1,192.0	28.59	42.695			
3,800.0	3,729.8	3,545.1	3,492.3	17.5	16.0	159.24	-197.2	-664.7	1,261.0	1,231.7	29.30	43.037			
3,900.0	3,826.9	3,636.6	3,581.9	18.0	16.4	159.29	-203.9	-681.9	1,301.3	1,271.3	30.01	43.359			
4,000.0	3,924.0	3,728.1	3,671.5	18.6	16.9	159.33	-210.7	-699.2	1,341.7	1,311.0	30.73	43.663			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,100.0	4,021.1	3,819.6	3,761.1	19.1	17.3	159.38	-217.5	-716.4	1,382.1	1,350.6	31.45	43.950		
4,200.0	4,118.3	3,911.0	3,850.6	19.6	17.8	159.42	-224.2	-733.6	1,422.4	1,390.3	32.17	44.221		
4,300.0	4,215.4	4,002.5	3,940.2	20.2	18.2	159.46	-231.0	-750.8	1,462.8	1,429.9	32.89	44.478		
4,400.0	4,312.5	4,094.0	4,029.8	20.7	18.7	159.49	-237.8	-768.0	1,503.2	1,469.6	33.61	44.721		
4,500.0	4,409.6	4,185.5	4,119.4	21.3	19.1	159.52	-244.5	-785.3	1,543.6	1,509.2	34.34	44.951		
4,600.0	4,506.7	4,277.0	4,209.0	21.8	19.6	159.56	-251.3	-802.5	1,583.9	1,548.9	35.07	45.170		
4,700.0	4,603.9	4,368.5	4,298.6	22.3	20.1	159.59	-258.1	-819.7	1,624.3	1,588.5	35.80	45.378		
4,800.0	4,701.0	4,459.9	4,388.2	22.9	20.5	159.62	-264.8	-836.9	1,664.7	1,628.1	36.53	45.575		
4,900.0	4,798.1	4,551.4	4,477.8	23.4	21.0	159.64	-271.6	-854.1	1,705.0	1,667.8	37.26	45.763		
5,000.0	4,895.2	4,642.9	4,567.4	24.0	21.4	159.67	-278.4	-871.4	1,745.4	1,707.4	37.99	45.943		
5,100.0	4,992.4	4,734.4	4,657.0	24.5	21.9	159.70	-285.1	-888.6	1,785.8	1,747.1	38.73	46.114		
5,200.0	5,089.5	4,825.9	4,746.6	25.1	22.3	159.72	-291.9	-905.8	1,826.2	1,786.7	39.46	46.277		
5,300.0	5,186.6	4,917.4	4,836.2	25.6	22.8	159.74	-298.6	-923.0	1,866.6	1,826.4	40.20	46.433		
5,400.0	5,283.7	5,008.9	4,925.8	26.2	23.2	159.77	-305.4	-940.3	1,906.9	1,866.0	40.94	46.582		
5,500.0	5,380.9	5,100.3	5,015.4	26.7	23.7	159.79	-312.2	-957.5	1,947.3	1,905.6	41.68	46.725		
5,600.0	5,478.0	5,191.8	5,105.0	27.2	24.2	159.81	-318.9	-974.7	1,987.7	1,945.3	42.42	46.861		
5,700.0	5,575.1	5,283.3	5,194.6	27.8	24.6	159.83	-325.7	-991.9	2,028.1	1,984.9	43.16	46.992		
5,800.0	5,672.2	5,374.8	5,284.1	28.3	25.1	159.85	-332.5	-1,009.1	2,068.4	2,024.5	43.90	47.117		
5,900.0	5,769.3	5,466.3	5,373.7	28.9	25.5	159.86	-339.2	-1,026.4	2,108.8	2,064.2	44.64	47.237		
6,000.0	5,866.5	5,557.8	5,463.3	29.4	26.0	159.88	-346.0	-1,043.6	2,149.2	2,103.8	45.39	47.353		
6,100.0	5,963.6	5,649.2	5,552.9	30.0	26.4	159.90	-352.8	-1,060.8	2,189.6	2,143.4	46.13	47.463		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.6	-120.0	120.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.6	-120.0	120.0	119.7	0.28	433.297		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.6	-120.0	120.0	119.2	0.80	150.440		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.6	-120.0	120.0	118.8	1.22	98.024		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.6	-120.0	120.0	118.4	1.62	74.164		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.6	-120.0	120.0	118.0	2.00	60.043		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.6	-120.0	120.0	117.6	2.37	50.585		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.6	-120.0	120.0	117.3	2.74	43.766		
800.0	800.0	800.0	800.0	3.5	0.0	-90.29	-0.6	-120.0	120.0	116.9	3.11	38.599		
900.0	900.0	900.0	900.0	3.9	0.0	-90.29	-0.6	-120.0	120.0	116.5	3.47	34.542 CC, ES		
1,000.0	1,000.0	996.7	996.7	4.2	0.0	159.87	-1.6	-121.3	123.0	119.0	4.00	30.765		
1,100.0	1,099.8	1,092.9	1,092.8	4.7	0.0	159.26	-4.6	-125.1	131.9	127.2	4.72	27.956		
1,200.0	1,199.5	1,188.1	1,187.6	5.5	0.0	158.39	-9.6	-131.3	146.7	141.3	5.34	27.448		
1,300.0	1,298.7	1,281.8	1,280.7	6.2	0.0	157.42	-16.4	-139.9	167.3	161.4	5.90	28.360		
1,400.0	1,397.5	1,378.6	1,376.7	6.9	0.0	156.70	-24.4	-149.9	192.3	185.9	6.43	29.931		
1,500.0	1,495.6	1,474.6	1,471.8	7.5	0.0	156.44	-32.3	-159.9	220.5	213.5	6.93	31.790		
1,600.0	1,593.1	1,569.6	1,565.9	8.0	0.0	156.52	-40.2	-169.8	251.6	244.3	7.37	34.132		
1,700.0	1,690.2	1,664.2	1,659.7	8.3	0.0	156.88	-48.0	-179.6	284.0	276.4	7.65	37.120		
1,800.0	1,787.3	1,758.8	1,753.4	8.6	0.0	157.16	-55.8	-189.4	316.4	308.5	7.94	39.836		
1,900.0	1,884.4	1,853.4	1,847.2	8.9	0.0	157.40	-63.6	-199.2	348.8	340.6	8.24	42.319		
2,000.0	1,981.6	1,948.0	1,941.0	9.2	0.0	157.59	-71.5	-209.0	381.2	372.7	8.55	44.590		
2,100.0	2,078.7	2,042.6	2,034.7	9.5	0.0	157.75	-79.3	-218.9	413.6	404.8	8.86	46.667		
2,200.0	2,175.8	2,137.2	2,128.5	9.8	0.0	157.89	-87.1	-228.7	446.1	436.9	9.18	48.568		
2,300.0	2,272.9	2,231.8	2,222.2	10.2	0.0	158.01	-94.9	-238.5	478.5	469.0	9.51	50.311		
2,400.0	2,370.0	2,326.4	2,316.0	10.6	0.0	158.12	-102.7	-248.3	510.9	501.0	9.84	51.911		
2,500.0	2,467.2	2,421.0	2,409.8	11.0	0.0	158.21	-110.5	-258.1	543.3	533.1	10.18	53.382		
2,600.0	2,564.3	2,515.6	2,503.5	11.4	0.0	158.29	-118.4	-268.0	575.7	565.2	10.52	54.736		
2,700.0	2,661.4	2,610.1	2,597.3	11.8	0.0	158.36	-126.2	-277.8	608.1	597.3	10.86	55.984		
2,800.0	2,758.5	2,704.7	2,691.0	12.3	0.0	158.43	-134.0	-287.6	640.6	629.4	11.21	57.137		
2,900.0	2,855.7	2,799.3	2,784.8	12.8	0.0	158.49	-141.8	-297.4	673.0	661.4	11.56	58.203		
3,000.0	2,952.8	2,893.9	2,878.6	13.3	0.0	158.54	-149.6	-307.2	705.4	693.5	11.92	59.192		
3,100.0	3,049.9	2,988.5	2,972.3	13.8	0.0	158.59	-157.4	-317.1	737.8	725.6	12.27	60.109		
3,200.0	3,147.0	3,083.1	3,066.1	14.3	0.0	158.64	-165.3	-326.9	770.3	757.6	12.63	60.962		
3,300.0	3,244.1	3,177.7	3,159.8	14.8	0.0	158.68	-173.1	-336.7	802.7	789.7	13.00	61.756		
3,400.0	3,341.3	3,272.3	3,253.6	15.4	0.0	158.72	-180.9	-346.5	835.1	821.7	13.36	62.497		
3,500.0	3,438.4	3,366.9	3,347.4	15.9	0.0	158.75	-188.7	-356.3	867.5	853.8	13.73	63.189		
3,600.0	3,535.5	3,461.5	3,441.1	16.4	0.0	158.79	-196.5	-366.2	899.9	885.9	14.10	63.836		
3,700.0	3,632.6	3,556.1	3,534.9	17.0	0.0	158.82	-204.3	-376.0	932.4	917.9	14.47	64.443		
3,800.0	3,729.8	3,650.7	3,628.6	17.5	0.0	158.85	-212.1	-385.8	964.8	950.0	14.84	65.012		
3,900.0	3,826.9	3,745.3	3,722.4	18.0	0.0	158.87	-220.0	-395.6	997.2	982.0	15.21	65.546		
4,000.0	3,924.0	3,839.9	3,816.2	18.6	0.0	158.90	-227.8	-405.4	1,029.6	1,014.1	15.59	66.049		
4,100.0	4,021.1	3,934.5	3,909.9	19.1	0.0	158.92	-235.6	-415.3	1,062.1	1,046.1	15.97	66.523		
4,200.0	4,118.3	4,029.1	4,003.7	19.6	0.0	158.94	-243.4	-425.1	1,094.5	1,078.2	16.34	66.969		
4,300.0	4,215.4	4,123.7	4,097.4	20.2	0.0	158.96	-251.2	-434.9	1,126.9	1,110.2	16.72	67.391		
4,400.0	4,312.5	4,218.3	4,191.2	20.7	0.0	158.98	-259.0	-444.7	1,159.3	1,142.2	17.10	67.790		
4,500.0	4,409.6	4,312.9	4,285.0	21.3	0.0	159.00	-266.9	-454.5	1,191.8	1,174.3	17.48	68.167		
4,600.0	4,506.7	4,407.5	4,378.7	21.8	0.0	159.02	-274.7	-464.4	1,224.2	1,206.3	17.87	68.524		
4,700.0	4,603.9	4,502.1	4,472.5	22.3	0.0	159.04	-282.5	-474.2	1,256.6	1,238.4	18.25	68.863		
4,800.0	4,701.0	4,596.7	4,566.2	22.9	0.0	159.05	-290.3	-484.0	1,289.1	1,270.4	18.63	69.185		
4,900.0	4,798.1	4,691.3	4,660.0	23.4	0.0	159.07	-298.1	-493.8	1,321.5	1,302.5	19.02	69.491		
5,000.0	4,895.2	4,785.9	4,753.8	24.0	0.0	159.08	-305.9	-503.6	1,353.9	1,334.5	19.40	69.781		
5,100.0	4,992.4	4,880.5	4,847.5	24.5	0.0	159.10	-313.8	-513.5	1,386.3	1,366.5	19.79	70.058		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	4,975.1	4,941.3	25.1	0.0	159.11	-321.6	-523.3	1,418.8	1,398.6	20.18	70.322		
5,300.0	5,186.6	5,069.6	5,035.0	25.6	0.0	159.12	-329.4	-533.1	1,451.2	1,430.6	20.56	70.573		
5,400.0	5,283.7	5,164.2	5,128.8	26.2	0.0	159.13	-337.2	-542.9	1,483.6	1,462.7	20.95	70.813		
5,500.0	5,380.9	5,258.8	5,222.6	26.7	0.0	159.14	-345.0	-552.7	1,516.0	1,494.7	21.34	71.042		
5,600.0	5,478.0	5,353.4	5,316.3	27.2	0.0	159.16	-352.8	-562.6	1,548.5	1,526.7	21.73	71.261		
5,700.0	5,575.1	5,448.0	5,410.1	27.8	0.0	159.17	-360.7	-572.4	1,580.9	1,558.8	22.12	71.470		
5,800.0	5,672.2	5,542.6	5,503.8	28.3	0.0	159.18	-368.5	-582.2	1,613.3	1,590.8	22.51	71.671		
5,900.0	5,769.3	5,637.2	5,597.6	28.9	0.0	159.19	-376.3	-592.0	1,645.7	1,622.8	22.90	71.863		
6,000.0	5,866.5	5,731.8	5,691.4	29.4	0.0	159.19	-384.1	-601.8	1,678.2	1,654.9	23.29	72.046		
6,100.0	5,963.6	5,826.4	5,785.1	30.0	0.0	159.20	-391.9	-611.7	1,710.6	1,686.9	23.69	72.223		
6,200.0	6,060.7	5,921.0	5,878.9	30.5	0.0	159.21	-399.7	-621.5	1,743.0	1,718.9	24.08	72.392		
6,300.0	6,157.8	6,015.6	5,972.6	31.1	0.0	159.22	-407.5	-631.3	1,775.5	1,751.0	24.47	72.554		
6,400.0	6,255.0	6,110.2	6,066.4	31.6	0.0	159.23	-415.4	-641.1	1,807.9	1,783.0	24.86	72.710		
6,500.0	6,352.1	6,204.8	6,160.2	32.2	0.0	159.24	-423.2	-650.9	1,840.3	1,815.0	25.26	72.859		
6,600.0	6,449.2	6,299.4	6,253.9	32.7	0.0	159.24	-431.0	-660.8	1,872.7	1,847.1	25.65	73.003		
6,700.0	6,546.3	6,394.0	6,347.7	33.3	0.0	159.25	-438.8	-670.6	1,905.2	1,879.1	26.05	73.142		
6,800.0	6,643.4	6,488.6	6,441.4	33.8	0.0	159.26	-446.6	-680.4	1,937.6	1,911.1	26.44	73.275		
6,900.0	6,740.6	6,583.2	6,535.2	34.4	0.0	159.26	-454.4	-690.2	1,970.0	1,943.2	26.84	73.403		
7,000.0	6,837.9	6,677.6	6,628.8	34.9	0.0	-170.51	-462.2	-700.0	2,002.5	1,975.3	27.22	73.560		
7,100.0	6,934.5	6,770.8	6,721.3	35.4	0.0	-134.06	-466.1	-709.7	2,034.7	2,007.0	27.69	73.744		
7,200.0	7,027.6	6,866.5	6,815.7	35.8	0.0	-114.95	-465.1	-719.8	2,065.9	2,037.7	28.22	73.212		
7,300.0	7,114.3	6,965.9	6,910.4	36.2	0.0	-104.39	-427.0	-730.0	2,095.2	2,066.6	28.58	73.303		
7,400.0	7,192.0	7,070.2	7,002.9	36.5	0.0	-97.77	-380.4	-740.1	2,121.6	2,092.8	28.83	73.599		
7,500.0	7,258.5	7,179.8	7,089.5	36.7	0.0	-93.34	-314.1	-749.8	2,144.4	2,115.4	29.00	73.935		
7,600.0	7,311.5	7,295.0	7,165.2	36.8	0.0	-90.36	-227.9	-758.5	2,162.9	2,133.7	29.15	74.189		
7,700.0	7,349.6	7,415.7	7,224.4	36.8	0.0	-88.46	-123.2	-765.6	2,176.2	2,146.9	29.30	74.264		
7,800.0	7,371.5	7,540.6	7,261.3	36.8	0.0	-87.46	-4.3	-770.5	2,184.0	2,154.5	29.48	74.081		
7,900.0	7,377.0	7,664.4	7,272.0	36.8	0.0	-87.25	118.8	-772.6	2,186.0	2,156.3	29.70	73.611		
8,000.0	7,377.0	7,764.4	7,272.0	36.8	0.0	-87.25	218.8	-773.5	2,186.0	2,156.0	29.99	72.879		
8,100.0	7,377.0	7,864.4	7,272.0	36.9	0.0	-87.25	318.8	-774.3	2,186.0	2,155.6	30.40	71.918		
8,200.0	7,377.0	7,964.4	7,272.0	37.1	0.0	-87.25	418.8	-775.1	2,186.0	2,155.1	30.89	70.761		
8,300.0	7,377.0	8,064.4	7,272.0	37.3	0.0	-87.25	518.8	-775.9	2,186.0	2,154.5	31.48	69.440		
8,400.0	7,377.0	8,164.4	7,272.0	37.6	0.0	-87.25	618.8	-776.8	2,186.0	2,153.8	32.15	67.984		
8,500.0	7,377.0	8,264.4	7,272.0	38.1	0.0	-87.25	718.8	-777.6	2,186.0	2,153.1	32.91	66.425		
8,600.0	7,377.0	8,364.4	7,272.0	38.6	0.0	-87.25	818.8	-778.4	2,186.0	2,152.2	33.74	64.790		
8,700.0	7,377.0	8,464.4	7,272.0	39.2	0.0	-87.25	918.8	-779.3	2,186.0	2,151.3	34.64	63.106		
8,800.0	7,377.0	8,564.4	7,272.0	40.0	0.0	-87.25	1,018.8	-780.1	2,186.0	2,150.4	35.60	61.396		
8,900.0	7,377.0	8,664.4	7,272.0	40.8	0.0	-87.25	1,118.8	-780.9	2,186.0	2,149.4	36.63	59.679		
9,000.0	7,377.0	8,764.4	7,272.0	41.7	0.0	-87.25	1,218.8	-781.7	2,186.0	2,148.3	37.71	57.971		
9,100.0	7,377.0	8,864.4	7,272.0	42.7	0.0	-87.25	1,318.8	-782.6	2,186.0	2,147.2	38.84	56.285		
9,200.0	7,377.0	8,964.4	7,272.0	43.7	0.0	-87.25	1,418.8	-783.4	2,186.0	2,146.0	40.01	54.632		
9,300.0	7,377.0	9,064.4	7,272.0	44.8	0.0	-87.25	1,518.8	-784.2	2,186.0	2,144.8	41.23	53.019		
9,400.0	7,377.0	9,164.4	7,272.0	45.9	0.0	-87.25	1,618.8	-785.0	2,186.0	2,143.5	42.49	51.452		
9,500.0	7,377.0	9,264.4	7,272.0	47.1	0.0	-87.25	1,718.8	-785.9	2,186.0	2,142.2	43.78	49.935		
9,600.0	7,377.0	9,364.4	7,272.0	48.4	0.0	-87.25	1,818.8	-786.7	2,186.0	2,140.9	45.10	48.470		
9,700.0	7,377.0	9,464.4	7,272.0	49.6	0.0	-87.25	1,918.8	-787.5	2,186.0	2,139.5	46.45	47.059		
9,800.0	7,377.0	9,564.4	7,272.0	50.9	0.0	-87.25	2,018.8	-788.3	2,186.0	2,138.2	47.83	45.703		
9,900.0	7,377.0	9,664.4	7,272.0	52.3	0.0	-87.25	2,118.7	-789.2	2,186.0	2,136.8	49.23	44.400		
10,000.0	7,377.0	9,764.4	7,272.0	53.6	0.0	-87.25	2,218.7	-790.0	2,186.0	2,135.3	50.66	43.150		
10,100.0	7,377.0	9,864.4	7,272.0	55.0	0.0	-87.25	2,318.7	-790.8	2,186.0	2,133.9	52.11	41.952		
10,200.0	7,377.0	9,964.4	7,272.0	56.4	0.0	-87.25	2,418.7	-791.7	2,186.0	2,132.4	53.57	40.804		
10,300.0	7,377.0	10,064.4	7,272.0	57.8	0.0	-87.25	2,518.7	-792.5	2,186.0	2,130.9	55.06	39.705		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,164.4	7,272.0	59.2	0.0	-87.25	2,618.7	-793.3	2,186.0	2,129.4	56.56	38.652		
10,500.0	7,377.0	10,264.4	7,272.0	60.7	0.0	-87.25	2,718.7	-794.1	2,186.0	2,127.9	58.07	37.644		
10,600.0	7,377.0	10,364.4	7,272.0	62.2	0.0	-87.25	2,818.7	-795.0	2,186.0	2,126.4	59.60	36.679		
10,700.0	7,377.0	10,464.4	7,272.0	63.7	0.0	-87.25	2,918.7	-795.8	2,186.0	2,124.9	61.14	35.755		
10,800.0	7,377.0	10,564.4	7,272.0	65.2	0.0	-87.25	3,018.7	-796.6	2,186.0	2,123.3	62.69	34.869		
10,900.0	7,377.0	10,664.4	7,272.0	66.7	0.0	-87.25	3,118.7	-797.4	2,186.0	2,121.7	64.25	34.021		
11,000.0	7,377.0	10,764.4	7,272.0	68.2	0.0	-87.25	3,218.7	-798.3	2,186.0	2,120.2	65.83	33.208		
11,100.0	7,377.0	10,864.4	7,272.0	69.8	0.0	-87.25	3,318.7	-799.1	2,186.0	2,118.6	67.41	32.428		
11,200.0	7,377.0	10,964.4	7,272.0	71.3	0.0	-87.25	3,418.7	-799.9	2,186.0	2,117.0	69.00	31.680		
11,300.0	7,377.0	11,064.4	7,272.0	72.9	0.0	-87.25	3,518.7	-800.8	2,186.0	2,115.4	70.60	30.962		
11,400.0	7,377.0	11,164.4	7,272.0	74.4	0.0	-87.25	3,618.7	-801.6	2,186.0	2,113.8	72.21	30.273		
11,500.0	7,377.0	11,264.4	7,272.0	76.0	0.0	-87.25	3,718.7	-802.4	2,186.0	2,112.2	73.82	29.611		
11,600.0	7,377.0	11,364.4	7,272.0	77.6	0.0	-87.25	3,818.7	-803.2	2,186.0	2,110.5	75.45	28.974		
11,700.0	7,377.0	11,464.4	7,272.0	79.2	0.0	-87.25	3,918.7	-804.1	2,186.0	2,108.9	77.07	28.362		
11,800.0	7,377.0	11,564.4	7,272.0	80.8	0.0	-87.25	4,018.7	-804.9	2,186.0	2,107.3	78.71	27.774		
11,900.0	7,377.0	11,664.4	7,272.0	82.4	0.0	-87.25	4,118.7	-805.7	2,186.0	2,105.6	80.35	27.207		
12,000.0	7,377.0	11,764.4	7,272.0	84.0	0.0	-87.25	4,218.7	-806.5	2,186.0	2,104.0	81.99	26.662		
12,100.0	7,377.0	11,864.4	7,272.0	85.6	0.0	-87.25	4,318.7	-807.4	2,186.0	2,102.4	83.64	26.136		
12,200.0	7,377.0	11,964.4	7,272.0	87.3	0.0	-87.25	4,418.7	-808.2	2,186.0	2,100.7	85.29	25.629		
12,300.0	7,377.0	12,064.4	7,272.0	88.9	0.0	-87.25	4,518.7	-809.0	2,186.0	2,099.0	86.95	25.140		
12,400.0	7,377.0	12,164.4	7,272.0	90.5	0.0	-87.25	4,618.7	-809.9	2,186.0	2,097.4	88.61	24.669		
12,500.0	7,377.0	12,264.4	7,272.0	92.2	0.0	-87.25	4,718.7	-810.7	2,186.0	2,095.7	90.28	24.214		
12,600.0	7,377.0	12,364.4	7,272.0	93.8	0.0	-87.25	4,818.7	-811.5	2,186.0	2,094.0	91.95	23.774		
12,700.0	7,377.0	12,464.4	7,272.0	95.5	0.0	-87.25	4,918.7	-812.3	2,186.0	2,092.4	93.62	23.349		
12,800.0	7,377.0	12,564.4	7,272.0	97.1	0.0	-87.25	5,018.6	-813.2	2,186.0	2,090.7	95.30	22.938		
12,900.0	7,377.0	12,664.4	7,272.0	98.8	0.0	-87.25	5,118.6	-814.0	2,186.0	2,089.0	96.98	22.541		
13,000.0	7,377.0	12,764.4	7,272.0	100.4	0.0	-87.25	5,218.6	-814.8	2,186.0	2,087.3	98.66	22.157		
13,100.0	7,377.0	12,864.4	7,272.0	102.1	0.0	-87.25	5,318.6	-815.6	2,186.0	2,085.6	100.35	21.785		
13,200.0	7,377.0	12,964.4	7,272.0	103.8	0.0	-87.25	5,418.6	-816.5	2,186.0	2,084.0	102.03	21.424		
13,300.0	7,377.0	13,064.4	7,272.0	105.4	0.0	-87.25	5,518.6	-817.3	2,186.0	2,082.3	103.72	21.075		
13,400.0	7,377.0	13,164.4	7,272.0	107.1	0.0	-87.25	5,618.6	-818.1	2,186.0	2,080.6	105.42	20.737		
13,500.0	7,377.0	13,264.4	7,272.0	108.8	0.0	-87.25	5,718.6	-819.0	2,186.0	2,078.9	107.11	20.409		
13,600.0	7,377.0	13,364.4	7,272.0	110.5	0.0	-87.25	5,818.6	-819.8	2,186.0	2,077.2	108.81	20.090		
13,700.0	7,377.0	13,464.4	7,272.0	112.2	0.0	-87.25	5,918.6	-820.6	2,186.0	2,075.5	110.51	19.781		
13,800.0	7,377.0	13,564.4	7,272.0	113.8	0.0	-87.25	6,018.6	-821.4	2,186.0	2,073.8	112.21	19.481		
13,900.0	7,377.0	13,664.4	7,272.0	115.5	0.0	-87.25	6,118.6	-822.3	2,186.0	2,072.1	113.91	19.190		
14,000.0	7,377.0	13,764.4	7,272.0	117.2	0.0	-87.25	6,218.6	-823.1	2,186.0	2,070.4	115.62	18.907		
14,100.0	7,377.0	13,864.4	7,272.0	118.9	0.0	-87.25	6,318.6	-823.9	2,186.0	2,068.7	117.33	18.632		
14,200.0	7,377.0	13,964.4	7,272.0	120.6	0.0	-87.25	6,418.6	-824.7	2,186.0	2,067.0	119.03	18.365		
14,300.0	7,377.0	14,064.4	7,272.0	122.3	0.0	-87.25	6,518.6	-825.6	2,186.0	2,065.3	120.74	18.104		
14,400.0	7,377.0	14,164.4	7,272.0	124.0	0.0	-87.25	6,618.6	-826.4	2,186.0	2,063.5	122.46	17.851		
14,500.0	7,377.0	14,264.4	7,272.0	125.7	0.0	-87.25	6,718.6	-827.2	2,186.0	2,061.8	124.17	17.605		
14,600.0	7,377.0	14,364.4	7,272.0	127.4	0.0	-87.25	6,818.6	-828.1	2,186.0	2,060.1	125.88	17.365		
14,700.0	7,377.0	14,464.4	7,272.0	129.1	0.0	-87.25	6,918.6	-828.9	2,186.0	2,058.4	127.60	17.132		
14,800.0	7,377.0	14,564.4	7,272.0	130.8	0.0	-87.25	7,018.6	-829.7	2,186.0	2,056.7	129.32	16.904		
14,900.0	7,377.0	14,664.4	7,272.0	132.5	0.0	-87.25	7,118.6	-830.5	2,186.0	2,055.0	131.03	16.683		
15,000.0	7,377.0	14,764.4	7,272.0	134.2	0.0	-87.25	7,218.6	-831.4	2,186.0	2,053.2	132.75	16.467		
15,100.0	7,377.0	14,864.4	7,272.0	135.9	0.0	-87.25	7,318.6	-832.2	2,186.0	2,051.5	134.47	16.256		
15,200.0	7,377.0	14,964.4	7,272.0	137.6	0.0	-87.25	7,418.6	-833.0	2,186.0	2,049.8	136.20	16.050		
15,300.0	7,377.0	15,064.4	7,272.0	139.3	0.0	-87.25	7,518.6	-833.8	2,186.0	2,048.1	137.92	15.850		
15,400.0	7,377.0	15,164.4	7,272.0	141.1	0.0	-87.25	7,618.6	-834.7	2,186.0	2,046.4	139.64	15.654		
15,500.0	7,377.0	15,264.4	7,272.0	142.8	0.0	-87.25	7,718.6	-835.5	2,186.0	2,044.6	141.37	15.463		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,364.4	7,272.0	144.5	0.0	-87.25	7,818.6	-836.3	2,186.0	2,042.9	143.09	15.277		
15,700.0	7,377.0	15,464.4	7,272.0	146.2	0.0	-87.25	7,918.5	-837.2	2,186.0	2,041.2	144.82	15.094		
15,800.0	7,377.0	15,564.4	7,272.0	147.9	0.0	-87.25	8,018.5	-838.0	2,186.0	2,039.4	146.55	14.917		
15,900.0	7,377.0	15,664.4	7,272.0	149.6	0.0	-87.25	8,118.5	-838.8	2,186.0	2,037.7	148.28	14.743		
16,000.0	7,377.0	15,764.4	7,272.0	151.4	0.0	-87.25	8,218.5	-839.6	2,186.0	2,036.0	150.01	14.573		
16,100.0	7,377.0	15,864.4	7,272.0	153.1	0.0	-87.25	8,318.5	-840.5	2,186.0	2,034.3	151.74	14.407		
16,200.0	7,377.0	15,964.4	7,272.0	154.8	0.0	-87.25	8,418.5	-841.3	2,186.0	2,032.5	153.47	14.244		
16,300.0	7,377.0	16,064.4	7,272.0	156.5	0.0	-87.25	8,518.5	-842.1	2,186.0	2,030.8	155.20	14.085		
16,400.0	7,377.0	16,164.4	7,272.0	158.3	0.0	-87.25	8,618.5	-842.9	2,186.0	2,029.1	156.93	13.930		
16,500.0	7,377.0	16,264.4	7,272.0	160.0	0.0	-87.25	8,718.5	-843.8	2,186.0	2,027.3	158.66	13.777		
16,600.0	7,377.0	16,364.4	7,272.0	161.7	0.0	-87.25	8,818.5	-844.6	2,186.0	2,025.6	160.40	13.629		
16,700.0	7,377.0	16,464.4	7,272.0	163.4	0.0	-87.25	8,918.5	-845.4	2,186.0	2,023.9	162.13	13.483		
16,800.0	7,377.0	16,564.4	7,272.0	165.2	0.0	-87.25	9,018.5	-846.2	2,186.0	2,022.1	163.87	13.340		
16,900.0	7,377.0	16,664.4	7,272.0	166.9	0.0	-87.25	9,118.5	-847.1	2,186.0	2,020.4	165.60	13.200		
17,000.0	7,377.0	16,764.4	7,272.0	168.6	0.0	-87.25	9,218.5	-847.9	2,186.0	2,018.7	167.34	13.063		
17,100.0	7,377.0	16,864.4	7,272.0	170.3	0.0	-87.25	9,318.5	-848.7	2,186.0	2,016.9	169.08	12.929		
17,200.0	7,377.0	16,964.4	7,272.0	172.1	0.0	-87.25	9,418.5	-849.6	2,186.0	2,015.2	170.81	12.798		
17,300.0	7,377.0	17,064.4	7,272.0	173.8	0.0	-87.25	9,518.5	-850.4	2,186.0	2,013.4	172.55	12.669		
17,400.0	7,377.0	17,164.4	7,272.0	175.5	0.0	-87.25	9,618.5	-851.2	2,186.0	2,011.7	174.29	12.542		
17,500.0	7,377.0	17,264.4	7,272.0	177.3	0.0	-87.25	9,718.5	-852.0	2,186.0	2,010.0	176.03	12.418		
17,600.0	7,377.0	17,364.4	7,272.0	179.0	0.0	-87.25	9,818.5	-852.9	2,186.0	2,008.2	177.77	12.297		
17,601.8	7,377.0	17,366.2	7,272.0	179.0	0.0	-87.25	9,820.3	-852.9	2,186.0	2,008.2	177.80	12.295		
17,683.1	7,377.0	17,429.8	7,272.0	180.4	0.0	-87.25	9,883.9	-853.4	2,186.1	2,007.0	179.08	12.208 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.28	-0.7	-135.0	135.0				
100.0	100.0	100.0	100.0	0.4	0.0	-90.28	-0.7	-135.0	135.0	134.7	0.28	487.467	
200.0	200.0	200.0	200.0	1.0	0.0	-90.28	-0.7	-135.0	135.0	134.2	0.80	169.248	
300.0	300.0	300.0	300.0	1.5	0.0	-90.28	-0.7	-135.0	135.0	133.8	1.22	110.278	
400.0	400.0	400.0	400.0	1.9	0.0	-90.28	-0.7	-135.0	135.0	133.4	1.62	83.436	
500.0	500.0	500.0	500.0	2.3	0.0	-90.28	-0.7	-135.0	135.0	133.0	2.00	67.548	
600.0	600.0	600.0	600.0	2.7	0.0	-90.28	-0.7	-135.0	135.0	132.6	2.37	56.908	
700.0	700.0	700.0	700.0	3.1	0.0	-90.28	-0.7	-135.0	135.0	132.3	2.74	49.237	
800.0	800.0	800.0	800.0	3.5	0.0	-90.28	-0.7	-135.0	135.0	131.9	3.11	43.424 CC, ES	
900.0	900.0	895.9	895.9	3.9	0.0	-90.59	-1.4	-136.4	136.5	133.0	3.48	39.247	
1,000.0	1,000.0	991.6	991.4	4.2	0.0	159.11	-3.6	-140.7	142.6	138.6	4.00	35.643	
1,100.0	1,099.8	1,086.3	1,085.9	4.7	0.0	158.39	-7.2	-147.7	155.0	150.3	4.71	32.932	
1,200.0	1,199.5	1,179.7	1,178.6	5.5	0.0	157.69	-12.2	-157.3	173.5	168.2	5.32	32.629 SF	
1,300.0	1,298.7	1,271.3	1,269.2	6.2	0.0	157.06	-18.4	-169.4	198.1	192.2	5.86	33.785	
1,400.0	1,397.5	1,365.4	1,361.8	6.9	0.0	156.59	-25.8	-183.6	227.7	221.3	6.38	35.687	
1,500.0	1,495.6	1,459.8	1,454.9	7.5	0.0	156.45	-33.2	-198.0	260.5	253.6	6.89	37.831	
1,600.0	1,593.1	1,553.2	1,546.9	8.0	0.0	156.57	-40.5	-212.2	296.2	288.9	7.32	40.482	
1,700.0	1,690.2	1,646.1	1,638.4	8.3	0.0	156.98	-47.8	-226.4	333.2	325.6	7.59	43.881	
1,800.0	1,787.3	1,739.0	1,730.0	8.6	0.0	157.30	-55.1	-240.5	370.2	362.3	7.88	46.973	
1,900.0	1,884.4	1,831.9	1,821.5	8.9	0.0	157.57	-62.4	-254.7	407.1	399.0	8.18	49.802	
2,000.0	1,981.6	1,924.8	1,913.0	9.2	0.0	157.79	-69.7	-268.8	444.1	435.6	8.48	52.391	
2,100.0	2,078.7	2,017.7	2,004.5	9.5	0.0	157.98	-77.1	-283.0	481.1	472.3	8.79	54.761	
2,200.0	2,175.8	2,110.6	2,096.0	9.8	0.0	158.14	-84.4	-297.1	518.1	509.0	9.10	56.933	
2,300.0	2,272.9	2,203.5	2,187.6	10.2	0.0	158.28	-91.7	-311.3	555.1	545.7	9.42	58.925	
2,400.0	2,370.0	2,296.4	2,279.1	10.6	0.0	158.40	-99.0	-325.4	592.1	582.3	9.75	60.755	
2,500.0	2,467.2	2,389.3	2,370.6	11.0	0.0	158.51	-106.3	-339.6	629.1	619.0	10.08	62.438	
2,600.0	2,564.3	2,482.2	2,462.1	11.4	0.0	158.61	-113.6	-353.7	666.1	655.7	10.41	63.988	
2,700.0	2,661.4	2,575.1	2,553.7	11.8	0.0	158.69	-120.9	-367.9	703.1	692.3	10.75	65.418	
2,800.0	2,758.5	2,668.0	2,645.2	12.3	0.0	158.77	-128.2	-382.0	740.1	729.0	11.09	66.740	
2,900.0	2,855.7	2,760.9	2,736.7	12.8	0.0	158.84	-135.5	-396.2	777.1	765.7	11.43	67.963	
3,000.0	2,952.8	2,853.8	2,828.2	13.3	0.0	158.90	-142.8	-410.3	814.1	802.3	11.78	69.097	
3,100.0	3,049.9	2,946.6	2,919.7	13.8	0.0	158.96	-150.1	-424.5	851.1	839.0	12.13	70.150	
3,200.0	3,147.0	3,039.5	3,011.3	14.3	0.0	159.01	-157.4	-438.6	888.1	875.6	12.49	71.129	
3,300.0	3,244.1	3,132.4	3,102.8	14.8	0.0	159.06	-164.7	-452.8	925.1	912.3	12.84	72.041	
3,400.0	3,341.3	3,225.3	3,194.3	15.4	0.0	159.11	-172.0	-466.9	962.1	948.9	13.20	72.892	
3,500.0	3,438.4	3,318.2	3,285.8	15.9	0.0	159.15	-179.3	-481.1	999.1	985.6	13.56	73.686	
3,600.0	3,535.5	3,411.1	3,377.4	16.4	0.0	159.19	-186.6	-495.2	1,036.1	1,022.2	13.92	74.430	
3,700.0	3,632.6	3,504.0	3,468.9	17.0	0.0	159.22	-193.9	-509.4	1,073.2	1,058.9	14.28	75.127	
3,800.0	3,729.8	3,596.9	3,560.4	17.5	0.0	159.26	-201.2	-523.5	1,110.2	1,095.5	14.65	75.781	
3,900.0	3,826.9	3,689.8	3,651.9	18.0	0.0	159.29	-208.5	-537.7	1,147.2	1,132.2	15.02	76.395	
4,000.0	3,924.0	3,782.7	3,743.5	18.6	0.0	159.32	-215.8	-551.8	1,184.2	1,168.8	15.38	76.973	
4,100.0	4,021.1	3,875.6	3,835.0	19.1	0.0	159.34	-223.1	-566.0	1,221.2	1,205.4	15.75	77.517	
4,200.0	4,118.3	3,968.5	3,926.5	19.6	0.0	159.37	-230.4	-580.1	1,258.2	1,242.1	16.12	78.030	
4,300.0	4,215.4	4,061.4	4,018.0	20.2	0.0	159.39	-237.7	-594.3	1,295.2	1,278.7	16.50	78.515	
4,400.0	4,312.5	4,154.3	4,109.5	20.7	0.0	159.42	-245.0	-608.4	1,332.2	1,315.4	16.87	78.973	
4,500.0	4,409.6	4,247.2	4,201.1	21.3	0.0	159.44	-252.3	-622.6	1,369.2	1,352.0	17.24	79.406	
4,600.0	4,506.7	4,340.1	4,292.6	21.8	0.0	159.46	-259.6	-636.7	1,406.3	1,388.6	17.62	79.817	
4,700.0	4,603.9	4,433.0	4,384.1	22.3	0.0	159.48	-267.0	-650.9	1,443.3	1,425.3	17.99	80.206	
4,800.0	4,701.0	4,525.9	4,475.6	22.9	0.0	159.50	-274.3	-665.0	1,480.3	1,461.9	18.37	80.575	
4,900.0	4,798.1	4,618.8	4,567.2	23.4	0.0	159.52	-281.6	-679.2	1,517.3	1,498.5	18.75	80.925	
5,000.0	4,895.2	4,711.7	4,658.7	24.0	0.0	159.53	-288.9	-693.3	1,554.3	1,535.2	19.13	81.259	
5,100.0	4,992.4	4,804.6	4,750.2	24.5	0.0	159.55	-296.2	-707.4	1,591.3	1,571.8	19.51	81.576	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	4,897.5	4,841.7	25.1	0.0	159.57	-303.5	-721.6	1,628.3	1,608.4	19.89	81.878		
5,300.0	5,186.6	4,990.4	4,933.2	25.6	0.0	159.58	-310.8	-735.7	1,665.3	1,645.1	20.27	82.166		
5,400.0	5,283.7	5,083.3	5,024.8	26.2	0.0	159.59	-318.1	-749.9	1,702.3	1,681.7	20.65	82.441		
5,500.0	5,380.9	5,176.2	5,116.3	26.7	0.0	159.61	-325.4	-764.0	1,739.4	1,718.3	21.03	82.703		
5,600.0	5,478.0	5,269.1	5,207.8	27.2	0.0	159.62	-332.7	-778.2	1,776.4	1,755.0	21.41	82.953		
5,700.0	5,575.1	5,362.0	5,299.3	27.8	0.0	159.63	-340.0	-792.3	1,813.4	1,791.6	21.80	83.192		
5,800.0	5,672.2	5,454.9	5,390.9	28.3	0.0	159.65	-347.3	-806.5	1,850.4	1,828.2	22.18	83.421		
5,900.0	5,769.3	5,547.8	5,482.4	28.9	0.0	159.66	-354.6	-820.6	1,887.4	1,864.8	22.57	83.640		
6,000.0	5,866.5	5,640.7	5,573.9	29.4	0.0	159.67	-361.9	-834.8	1,924.4	1,901.5	22.95	83.849		
6,100.0	5,963.6	5,733.6	5,665.4	30.0	0.0	159.68	-369.2	-848.9	1,961.4	1,938.1	23.34	84.050		
6,200.0	6,060.7	5,826.5	5,757.0	30.5	0.0	159.69	-376.5	-863.1	1,998.4	1,974.7	23.72	84.242		
6,300.0	6,157.8	5,919.4	5,848.5	31.1	0.0	159.70	-383.8	-877.2	2,035.5	2,011.3	24.11	84.427		
6,400.0	6,255.0	6,012.3	5,940.0	31.6	0.0	159.71	-391.1	-891.4	2,072.5	2,048.0	24.50	84.604		
6,500.0	6,352.1	6,105.2	6,031.5	32.2	0.0	159.72	-398.4	-905.5	2,109.5	2,084.6	24.88	84.774		
6,600.0	6,449.2	6,198.1	6,123.0	32.7	0.0	159.73	-405.7	-919.7	2,146.5	2,121.2	25.27	84.937		
6,700.0	6,546.3	6,291.0	6,214.6	33.3	0.0	159.73	-413.0	-933.8	2,183.5	2,157.8	25.66	85.094		
6,800.0	6,643.4	6,383.9	6,306.1	33.8	0.0	159.74	-420.3	-948.0	2,220.5	2,194.5	26.05	85.245		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.8	-150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-0.8	-150.0	150.0	149.5	0.55	270.986		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-0.8	-150.0	150.0	148.4	1.60	94.042		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-0.8	-150.0	150.0	147.6	2.45	61.271		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-0.8	-150.0	150.0	146.8	3.24	46.356		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-0.8	-150.0	150.0	146.0	4.00	37.528		
600.0	600.0	600.0	600.0	2.7	2.7	-90.29	-0.8	-150.0	150.0	145.3	4.74	31.617		
700.0	700.0	700.0	700.0	3.1	3.1	-90.29	-0.8	-150.0	150.0	144.5	5.48	27.354	CC, ES	
800.0	800.0	795.4	795.4	3.5	3.4	-90.53	-1.4	-151.5	151.5	145.3	6.26	24.207		
900.0	900.0	890.6	890.4	3.9	4.2	-91.22	-3.3	-155.8	156.1	148.5	7.59	20.574		
1,000.0	1,000.0	985.2	984.7	4.2	5.0	158.25	-6.5	-163.0	165.4	156.5	8.93	18.519		
1,100.0	1,099.8	1,078.7	1,077.5	4.7	5.7	157.44	-10.8	-172.9	181.0	170.7	10.34	17.511	SF	
1,200.0	1,199.5	1,170.5	1,168.4	5.5	6.4	156.75	-16.3	-185.3	202.8	191.2	11.57	17.524		
1,300.0	1,298.7	1,260.2	1,256.6	6.2	6.8	156.19	-22.8	-200.0	230.5	217.9	12.58	18.329		
1,400.0	1,397.5	1,353.5	1,348.1	6.9	7.1	155.81	-30.3	-217.0	263.1	249.8	13.35	19.702		
1,500.0	1,495.6	1,447.0	1,439.6	7.5	7.3	155.70	-37.8	-234.0	298.8	284.7	14.11	21.179		
1,600.0	1,593.1	1,539.2	1,530.0	8.0	7.6	155.82	-45.2	-250.9	337.4	322.6	14.81	22.786		
1,700.0	1,690.2	1,630.9	1,619.9	8.3	7.9	156.25	-52.6	-267.6	377.1	361.8	15.36	24.555		
1,800.0	1,787.3	1,722.6	1,709.8	8.6	8.1	156.60	-59.9	-284.4	416.9	401.0	15.93	26.168		
1,900.0	1,884.4	1,814.3	1,799.6	8.9	8.4	156.88	-67.3	-301.1	456.7	440.2	16.52	27.644		
2,000.0	1,981.6	1,906.0	1,899.5	9.2	8.7	157.12	-74.7	-317.9	496.5	479.4	17.12	28.997		
2,100.0	2,078.7	1,997.8	1,979.4	9.5	9.0	157.33	-82.1	-334.6	536.4	518.6	17.74	30.237		
2,200.0	2,175.8	2,089.5	2,069.2	9.8	9.3	157.51	-89.4	-351.4	576.2	557.8	18.37	31.374		
2,300.0	2,272.9	2,181.2	2,159.1	10.2	9.7	157.66	-96.8	-368.1	616.0	597.0	19.00	32.420		
2,400.0	2,370.0	2,272.9	2,249.0	10.6	10.0	157.79	-104.2	-384.9	655.8	636.2	19.65	33.383		
2,500.0	2,467.2	2,364.6	2,338.9	11.0	10.3	157.91	-111.6	-401.6	695.7	675.4	20.30	34.270		
2,600.0	2,564.3	2,456.3	2,428.7	11.4	10.7	158.02	-118.9	-418.4	735.5	714.5	20.96	35.090		
2,700.0	2,661.4	2,548.1	2,518.6	11.8	11.1	158.12	-126.3	-435.1	775.3	753.7	21.63	35.848		
2,800.0	2,758.5	2,639.8	2,608.5	12.3	11.5	158.20	-133.7	-451.8	815.2	792.9	22.30	36.551		
2,900.0	2,855.7	2,731.5	2,698.4	12.8	11.9	158.28	-141.1	-468.6	855.0	832.0	22.98	37.203		
3,000.0	2,952.8	2,823.2	2,788.2	13.3	12.3	158.35	-148.4	-485.3	894.8	871.2	23.67	37.810		
3,100.0	3,049.9	2,914.9	2,878.1	13.8	12.7	158.42	-155.8	-502.1	934.7	910.3	24.36	38.374		
3,200.0	3,147.0	3,006.6	2,968.0	14.3	13.1	158.48	-163.2	-518.8	974.5	949.5	25.05	38.901		
3,300.0	3,244.1	3,098.4	3,057.8	14.8	13.5	158.53	-170.6	-535.6	1,014.3	988.6	25.75	39.393		
3,400.0	3,341.3	3,190.1	3,147.7	15.4	14.0	158.58	-178.0	-552.3	1,054.2	1,027.7	26.45	39.853		
3,500.0	3,438.4	3,281.8	3,237.6	15.9	14.4	158.63	-185.3	-569.1	1,094.0	1,066.9	27.16	40.285		
3,600.0	3,535.5	3,373.5	3,327.5	16.4	14.9	158.67	-192.7	-585.8	1,133.9	1,106.0	27.87	40.689		
3,700.0	3,632.6	3,465.2	3,417.3	17.0	15.3	158.72	-200.1	-602.6	1,173.7	1,145.1	28.58	41.070		
3,800.0	3,729.8	3,556.9	3,507.2	17.5	15.7	158.75	-207.5	-619.3	1,213.6	1,184.3	29.29	41.427		
3,900.0	3,826.9	3,648.7	3,597.1	18.0	16.2	158.79	-214.8	-636.1	1,253.4	1,223.4	30.01	41.765		
4,000.0	3,924.0	3,740.4	3,687.0	18.6	16.6	158.82	-222.2	-652.8	1,293.2	1,262.5	30.73	42.083		
4,100.0	4,021.1	3,832.1	3,776.8	19.1	17.1	158.86	-229.6	-669.6	1,333.1	1,301.6	31.45	42.383		
4,200.0	4,118.3	3,923.8	3,866.7	19.6	17.5	158.89	-237.0	-686.3	1,372.9	1,340.8	32.18	42.667		
4,300.0	4,215.4	4,015.5	3,956.6	20.2	18.0	158.91	-244.3	-703.1	1,412.8	1,379.9	32.90	42.936		
4,400.0	4,312.5	4,107.2	4,046.4	20.7	18.4	158.94	-251.7	-719.8	1,452.6	1,419.0	33.63	43.191		
4,500.0	4,409.6	4,199.0	4,136.3	21.3	18.9	158.97	-259.1	-736.6	1,492.5	1,458.1	34.36	43.433		
4,600.0	4,506.7	4,290.7	4,226.2	21.8	19.3	158.99	-266.5	-753.3	1,532.3	1,497.2	35.09	43.663		
4,700.0	4,603.9	4,382.4	4,316.1	22.3	19.8	159.01	-273.8	-770.0	1,572.2	1,536.3	35.83	43.881		
4,800.0	4,701.0	4,474.1	4,405.9	22.9	20.2	159.03	-281.2	-786.8	1,612.0	1,575.5	36.56	44.089		
4,900.0	4,798.1	4,565.8	4,495.8	23.4	20.7	159.05	-288.6	-803.5	1,651.9	1,614.6	37.30	44.287		
5,000.0	4,895.2	4,657.5	4,585.7	24.0	21.1	159.07	-296.0	-820.3	1,691.7	1,653.7	38.04	44.476		
5,100.0	4,992.4	4,749.3	4,675.6	24.5	21.6	159.09	-303.3	-837.0	1,731.6	1,692.8	38.78	44.656		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,089.5	4,841.0	4,765.4	25.1	22.0	159.11	-310.7	-853.8	1,771.4	1,731.9	39.52	44.827	
5,300.0	5,186.6	4,932.7	4,855.3	25.6	22.5	159.13	-318.1	-870.5	1,811.2	1,771.0	40.26	44.992	
5,400.0	5,283.7	5,024.4	4,945.2	26.2	23.0	159.14	-325.5	-887.3	1,851.1	1,810.1	41.00	45.149	
5,500.0	5,380.9	5,116.1	5,035.0	26.7	23.4	159.16	-332.8	-904.0	1,890.9	1,849.2	41.74	45.299	
5,600.0	5,478.0	5,207.8	5,124.9	27.2	23.9	159.17	-340.2	-920.8	1,930.8	1,888.3	42.49	45.443	
5,700.0	5,575.1	5,299.6	5,214.8	27.8	24.3	159.19	-347.6	-937.5	1,970.6	1,927.4	43.23	45.581	
5,800.0	5,672.2	5,391.3	5,304.7	28.3	24.8	159.20	-355.0	-954.3	2,010.5	1,966.5	43.98	45.713	
5,900.0	5,769.3	5,483.0	5,394.5	28.9	25.2	159.21	-362.4	-971.0	2,050.3	2,005.6	44.73	45.840	
6,000.0	5,866.5	5,574.7	5,484.4	29.4	25.7	159.23	-369.7	-987.8	2,090.2	2,044.7	45.48	45.962	
6,100.0	5,963.6	5,666.4	5,574.3	30.0	26.1	159.24	-377.1	-1,004.5	2,130.0	2,083.8	46.23	46.080	
6,200.0	6,060.7	5,758.1	5,664.2	30.5	26.6	159.25	-384.5	-1,021.3	2,169.9	2,122.9	46.97	46.192	
6,300.0	6,157.8	5,849.9	5,754.0	31.1	27.0	159.26	-391.9	-1,038.0	2,209.7	2,162.0	47.73	46.301	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.5	-105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.5	-105.0	105.0	104.7	0.28	379.087		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.5	-105.0	105.0	104.2	0.80	131.620		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.5	-105.0	105.0	103.8	1.22	85.762		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.5	-105.0	105.0	103.4	1.62	64.888		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.5	-105.0	105.0	103.0	2.00	52.533		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.5	-105.0	105.0	102.6	2.37	44.258		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.5	-105.0	105.0	102.3	2.74	38.292		
800.0	800.0	800.0	800.0	3.5	0.0	-90.29	-0.5	-105.0	105.0	101.9	3.11	33.772		
900.0	900.0	900.0	900.0	3.9	0.0	-90.29	-0.5	-105.0	105.0	101.5	3.47	30.222 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	160.40	-0.5	-105.0	106.6	102.7	3.99	26.711		
1,100.0	1,099.8	1,097.6	1,097.6	4.7	0.0	160.55	-1.9	-106.0	112.6	107.9	4.72	23.835		
1,200.0	1,199.5	1,194.6	1,194.5	5.5	0.0	159.92	-5.9	-108.9	123.8	118.4	5.37	23.050		
1,300.0	1,298.7	1,291.0	1,290.5	6.2	0.0	158.77	-12.4	-113.7	140.2	134.3	5.94	23.587		
1,400.0	1,397.5	1,388.8	1,387.9	6.9	0.0	157.90	-20.1	-119.3	160.6	154.1	6.48	24.780		
1,500.0	1,495.6	1,486.0	1,484.6	7.5	0.0	157.60	-27.6	-124.8	184.2	177.2	7.00	26.308		
1,600.0	1,593.1	1,582.4	1,580.5	8.0	0.0	157.70	-35.2	-130.3	210.9	203.4	7.45	28.318		
1,700.0	1,690.2	1,678.4	1,676.1	8.3	0.0	158.04	-42.6	-135.7	238.8	231.1	7.73	30.903		
1,800.0	1,787.3	1,774.4	1,771.7	8.6	0.0	158.32	-50.1	-141.2	266.7	258.7	8.02	33.252		
1,900.0	1,884.4	1,870.4	1,867.2	8.9	0.0	158.54	-57.6	-146.7	294.6	286.3	8.32	35.401		
2,000.0	1,981.6	1,966.4	1,962.8	9.2	0.0	158.72	-65.1	-152.1	322.6	313.9	8.63	37.368		
2,100.0	2,078.7	2,062.5	2,058.4	9.5	0.0	158.88	-72.6	-157.6	350.5	341.6	8.95	39.168		
2,200.0	2,175.8	2,158.5	2,153.9	9.8	0.0	159.01	-80.1	-163.0	378.4	369.2	9.27	40.817		
2,300.0	2,272.9	2,254.5	2,249.5	10.2	0.0	159.12	-87.6	-168.5	406.4	396.8	9.60	42.329		
2,400.0	2,370.0	2,350.5	2,345.1	10.6	0.0	159.22	-95.1	-174.0	434.3	424.4	9.93	43.718		
2,500.0	2,467.2	2,446.5	2,440.6	11.0	0.0	159.31	-102.5	-179.4	462.2	452.0	10.27	44.996		
2,600.0	2,564.3	2,542.5	2,536.2	11.4	0.0	159.38	-110.0	-184.9	490.2	479.6	10.62	46.172		
2,700.0	2,661.4	2,638.6	2,631.8	11.8	0.0	159.45	-117.5	-190.4	518.1	507.2	10.96	47.258		
2,800.0	2,758.5	2,734.6	2,727.3	12.3	0.0	159.51	-125.0	-195.8	546.1	534.7	11.31	48.261		
2,900.0	2,855.7	2,830.6	2,822.9	12.8	0.0	159.57	-132.5	-201.3	574.0	562.3	11.67	49.189		
3,000.0	2,952.8	2,926.6	2,918.5	13.3	0.0	159.62	-140.0	-206.8	601.9	589.9	12.03	50.050		
3,100.0	3,049.9	3,022.6	3,014.0	13.8	0.0	159.67	-147.5	-212.2	629.9	617.5	12.39	50.849		
3,200.0	3,147.0	3,118.6	3,109.6	14.3	0.0	159.71	-155.0	-217.7	657.8	645.1	12.75	51.593		
3,300.0	3,244.1	3,214.6	3,205.2	14.8	0.0	159.75	-162.4	-223.1	685.8	672.6	13.12	52.286		
3,400.0	3,341.3	3,310.7	3,300.7	15.4	0.0	159.78	-169.9	-228.6	713.7	700.2	13.48	52.932		
3,500.0	3,438.4	3,406.7	3,396.3	15.9	0.0	159.81	-177.4	-234.1	741.6	727.8	13.85	53.537		
3,600.0	3,535.5	3,502.7	3,491.9	16.4	0.0	159.85	-184.9	-239.5	769.6	755.4	14.22	54.102		
3,700.0	3,632.6	3,598.7	3,587.4	17.0	0.0	159.87	-192.4	-245.0	797.5	782.9	14.60	54.633		
3,800.0	3,729.8	3,694.7	3,683.0	17.5	0.0	159.90	-199.9	-250.5	825.5	810.5	14.97	55.130		
3,900.0	3,826.9	3,790.7	3,778.6	18.0	0.0	159.93	-207.4	-255.9	853.4	838.1	15.35	55.598		
4,000.0	3,924.0	3,886.8	3,874.1	18.6	0.0	159.95	-214.9	-261.4	881.3	865.6	15.73	56.038		
4,100.0	4,021.1	3,982.8	3,969.7	19.1	0.0	159.97	-222.3	-266.9	909.3	893.2	16.11	56.453		
4,200.0	4,118.3	4,078.8	4,065.3	19.6	0.0	159.99	-229.8	-272.3	937.2	920.7	16.49	56.845		
4,300.0	4,215.4	4,174.8	4,160.8	20.2	0.0	160.01	-237.3	-277.8	965.2	948.3	16.87	57.215		
4,400.0	4,312.5	4,270.8	4,256.4	20.7	0.0	160.03	-244.8	-283.3	993.1	975.9	17.25	57.565		
4,500.0	4,409.6	4,366.8	4,352.0	21.3	0.0	160.05	-252.3	-288.7	1,021.1	1,003.4	17.64	57.896		
4,600.0	4,506.7	4,462.9	4,447.5	21.8	0.0	160.06	-259.8	-294.2	1,049.0	1,031.0	18.02	58.210		
4,700.0	4,603.9	4,558.9	4,543.1	22.3	0.0	160.08	-267.3	-299.6	1,076.9	1,058.5	18.41	58.508		
4,800.0	4,701.0	4,654.9	4,638.7	22.9	0.0	160.09	-274.8	-305.1	1,104.9	1,086.1	18.79	58.791		
4,900.0	4,798.1	4,750.9	4,734.3	23.4	0.0	160.11	-282.2	-310.6	1,132.8	1,113.6	19.18	59.060		
5,000.0	4,895.2	4,846.9	4,829.8	24.0	0.0	160.12	-289.7	-316.0	1,160.8	1,141.2	19.57	59.316		
5,100.0	4,992.4	4,942.9	4,925.4	24.5	0.0	160.13	-297.2	-321.5	1,188.7	1,168.8	19.96	59.560		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,039.0	5,021.0	25.1	0.0	160.14	-304.7	-327.0	1,216.7	1,196.3	20.35	59.793		
5,300.0	5,186.6	5,135.0	5,116.5	25.6	0.0	160.15	-312.2	-332.4	1,244.6	1,223.9	20.74	60.015		
5,400.0	5,283.7	5,231.0	5,212.1	26.2	0.0	160.17	-319.7	-337.9	1,272.5	1,251.4	21.13	60.227		
5,500.0	5,380.9	5,327.0	5,307.7	26.7	0.0	160.18	-327.2	-343.4	1,300.5	1,279.0	21.52	60.429		
5,600.0	5,478.0	5,423.0	5,403.2	27.2	0.0	160.19	-334.7	-348.8	1,328.4	1,306.5	21.91	60.623		
5,700.0	5,575.1	5,519.0	5,498.8	27.8	0.0	160.20	-342.1	-354.3	1,356.4	1,334.1	22.31	60.808		
5,800.0	5,672.2	5,615.1	5,594.4	28.3	0.0	160.21	-349.6	-359.7	1,384.3	1,361.6	22.70	60.986		
5,900.0	5,769.3	5,711.1	5,689.9	28.9	0.0	160.21	-357.1	-365.2	1,412.3	1,389.2	23.09	61.156		
6,000.0	5,866.5	5,807.1	5,785.5	29.4	0.0	160.22	-364.6	-370.7	1,440.2	1,416.7	23.49	61.319		
6,100.0	5,963.6	5,903.1	5,881.1	30.0	0.0	160.23	-372.1	-376.1	1,468.2	1,444.3	23.88	61.475		
6,200.0	6,060.7	5,999.1	5,976.6	30.5	0.0	160.24	-379.6	-381.6	1,496.1	1,471.8	24.28	61.626		
6,300.0	6,157.8	6,095.1	6,072.2	31.1	0.0	160.25	-387.1	-387.1	1,524.0	1,499.4	24.67	61.770		
6,400.0	6,255.0	6,191.2	6,167.8	31.6	0.0	160.25	-394.6	-392.5	1,552.0	1,526.9	25.07	61.909		
6,500.0	6,352.1	6,287.2	6,263.3	32.2	0.0	160.26	-402.0	-398.0	1,579.9	1,554.5	25.47	62.042		
6,600.0	6,449.2	6,383.2	6,358.9	32.7	0.0	160.27	-409.5	-403.5	1,607.9	1,582.0	25.86	62.171		
6,700.0	6,546.3	6,479.2	6,454.5	33.3	0.0	160.27	-417.0	-408.9	1,635.8	1,609.6	26.26	62.294		
6,800.0	6,643.4	6,575.2	6,550.0	33.8	0.0	160.28	-424.5	-414.4	1,663.8	1,637.1	26.66	62.414		
6,900.0	6,740.6	6,671.2	6,645.6	34.4	0.0	160.29	-432.0	-419.8	1,691.7	1,664.6	27.05	62.528		
7,000.0	6,837.9	6,767.1	6,741.0	34.9	0.0	-169.85	-439.5	-425.3	1,719.6	1,692.2	27.44	62.661		
7,100.0	6,934.5	6,861.0	6,834.5	35.4	0.0	-134.14	-446.8	-430.6	1,747.2	1,719.2	27.94	62.540		
7,200.0	7,027.6	6,950.2	6,923.3	35.8	0.0	-116.10	-453.8	-435.7	1,774.1	1,745.6	28.51	62.230		
7,300.0	7,114.3	7,031.9	7,004.6	36.2	0.0	-106.71	-460.1	-440.4	1,800.5	1,771.5	28.94	62.214		
7,400.0	7,192.0	7,114.9	7,087.3	36.5	0.0	-101.30	-465.1	-445.1	1,826.6	1,797.3	29.30	62.335		
7,500.0	7,258.5	7,221.6	7,193.2	36.7	0.0	-98.31	-455.7	-451.2	1,851.9	1,822.3	29.69	62.381		
7,600.0	7,311.5	7,355.9	7,321.1	36.8	0.0	-96.99	-416.2	-458.5	1,875.3	1,845.2	30.07	62.371		
7,700.0	7,349.6	7,537.8	7,472.9	36.8	0.0	-97.12	-317.8	-467.3	1,895.1	1,864.7	30.40	62.347		
7,800.0	7,371.5	7,791.6	7,618.1	36.8	0.0	-98.18	-112.3	-475.9	1,908.1	1,877.5	30.61	62.332		
7,900.0	7,377.0	8,044.5	7,662.0	36.8	0.0	-98.58	134.8	-478.7	1,910.8	1,880.0	30.84	61.956		
8,000.0	7,377.0	8,144.5	7,662.0	36.8	0.0	-98.58	234.8	-478.8	1,910.1	1,878.9	31.19	61.248		
8,100.0	7,377.0	8,244.5	7,662.0	36.9	0.0	-98.58	334.8	-478.9	1,909.4	1,877.8	31.63	60.369		
8,200.0	7,377.0	8,344.5	7,662.0	37.1	0.0	-98.59	434.8	-479.0	1,908.7	1,876.5	32.16	59.348		
8,300.0	7,377.0	8,444.5	7,662.0	37.3	0.0	-98.59	534.8	-479.1	1,908.0	1,875.2	32.78	58.210		
8,400.0	7,377.0	8,544.5	7,662.0	37.6	0.0	-98.59	634.8	-479.2	1,907.3	1,873.8	33.47	56.977		
8,500.0	7,377.0	8,644.5	7,662.0	38.1	0.0	-98.60	734.8	-479.3	1,906.6	1,872.3	34.25	55.671		
8,600.0	7,377.0	8,744.5	7,662.0	38.6	0.0	-98.60	834.8	-479.5	1,905.9	1,870.8	35.09	54.314		
8,700.0	7,377.0	8,844.5	7,662.0	39.2	0.0	-98.60	934.8	-479.6	1,905.1	1,869.1	36.00	52.924		
8,800.0	7,377.0	8,944.5	7,662.0	40.0	0.0	-98.61	1,034.8	-479.7	1,904.4	1,867.5	36.97	51.518		
8,900.0	7,377.0	9,044.5	7,662.0	40.8	0.0	-98.61	1,134.7	-479.8	1,903.7	1,865.7	37.99	50.110		
9,000.0	7,377.0	9,144.5	7,662.0	41.7	0.0	-98.61	1,234.7	-479.9	1,903.0	1,864.0	39.07	48.711		
9,100.0	7,377.0	9,244.5	7,662.0	42.7	0.0	-98.62	1,334.7	-480.0	1,902.3	1,862.1	40.19	47.332		
9,200.0	7,377.0	9,344.5	7,662.0	43.7	0.0	-98.62	1,434.7	-480.1	1,901.6	1,860.2	41.36	45.979		
9,300.0	7,377.0	9,444.5	7,662.0	44.8	0.0	-98.62	1,534.7	-480.2	1,900.9	1,858.3	42.56	44.659		
9,400.0	7,377.0	9,544.5	7,662.0	45.9	0.0	-98.63	1,634.7	-480.3	1,900.2	1,856.4	43.81	43.375		
9,500.0	7,377.0	9,644.5	7,662.0	47.1	0.0	-98.63	1,734.7	-480.5	1,899.5	1,854.4	45.09	42.130		
9,600.0	7,377.0	9,744.5	7,662.0	48.4	0.0	-98.63	1,834.7	-480.6	1,898.8	1,852.4	46.39	40.927		
9,700.0	7,377.0	9,844.5	7,662.0	49.6	0.0	-98.64	1,934.7	-480.7	1,898.1	1,850.3	47.73	39.767		
9,800.0	7,377.0	9,944.5	7,662.0	50.9	0.0	-98.64	2,034.7	-480.8	1,897.4	1,848.3	49.09	38.649		
9,900.0	7,377.0	10,044.5	7,662.0	52.3	0.0	-98.64	2,134.7	-480.9	1,896.7	1,846.2	50.48	37.573		
10,000.0	7,377.0	10,144.5	7,662.0	53.6	0.0	-98.65	2,234.7	-481.0	1,895.9	1,844.1	51.89	36.540		
10,100.0	7,377.0	10,244.5	7,662.0	55.0	0.0	-98.65	2,334.7	-481.1	1,895.2	1,841.9	53.32	35.548		
10,200.0	7,377.0	10,344.5	7,662.0	56.4	0.0	-98.65	2,434.7	-481.2	1,894.5	1,839.8	54.76	34.595		
10,300.0	7,377.0	10,444.5	7,662.0	57.8	0.0	-98.66	2,534.7	-481.3	1,893.8	1,837.6	56.23	33.682		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,544.5	7,662.0	59.2	0.0	-98.66	2,634.7	-481.5	1,893.1	1,835.4	57.71	32.806		
10,500.0	7,377.0	10,644.5	7,662.0	60.7	0.0	-98.66	2,734.7	-481.6	1,892.4	1,833.2	59.20	31.965		
10,600.0	7,377.0	10,744.5	7,662.0	62.2	0.0	-98.67	2,834.7	-481.7	1,891.7	1,831.0	60.71	31.160		
10,700.0	7,377.0	10,844.4	7,662.0	63.7	0.0	-98.67	2,934.7	-481.8	1,891.0	1,828.8	62.23	30.387		
10,800.0	7,377.0	10,944.4	7,662.0	65.2	0.0	-98.67	3,034.7	-481.9	1,890.3	1,826.5	63.76	29.645		
10,900.0	7,377.0	11,044.4	7,662.0	66.7	0.0	-98.68	3,134.7	-482.0	1,889.6	1,824.3	65.31	28.934		
11,000.0	7,377.0	11,144.4	7,662.0	68.2	0.0	-98.68	3,234.7	-482.1	1,888.9	1,822.0	66.86	28.251		
11,100.0	7,377.0	11,244.4	7,662.0	69.8	0.0	-98.68	3,334.7	-482.2	1,888.2	1,819.7	68.42	27.595		
11,200.0	7,377.0	11,344.4	7,662.0	71.3	0.0	-98.68	3,434.7	-482.3	1,887.5	1,817.5	70.00	26.965		
11,300.0	7,377.0	11,444.4	7,662.0	72.9	0.0	-98.69	3,534.7	-482.5	1,886.7	1,815.2	71.58	26.360		
11,400.0	7,377.0	11,544.4	7,662.0	74.4	0.0	-98.69	3,634.7	-482.6	1,886.0	1,812.9	73.16	25.778		
11,500.0	7,377.0	11,644.4	7,662.0	76.0	0.0	-98.69	3,734.7	-482.7	1,885.3	1,810.6	74.76	25.219		
11,600.0	7,377.0	11,744.4	7,662.0	77.6	0.0	-98.70	3,834.7	-482.8	1,884.6	1,808.3	76.36	24.681		
11,700.0	7,377.0	11,844.4	7,662.0	79.2	0.0	-98.70	3,934.7	-482.9	1,883.9	1,805.9	77.97	24.162		
11,800.0	7,377.0	11,944.4	7,662.0	80.8	0.0	-98.70	4,034.7	-483.0	1,883.2	1,803.6	79.58	23.664		
11,900.0	7,377.0	12,044.4	7,662.0	82.4	0.0	-98.71	4,134.7	-483.1	1,882.5	1,801.3	81.20	23.183		
12,000.0	7,377.0	12,144.4	7,662.0	84.0	0.0	-98.71	4,234.7	-483.2	1,881.8	1,799.0	82.83	22.720		
12,100.0	7,377.0	12,244.4	7,662.0	85.6	0.0	-98.71	4,334.7	-483.3	1,881.1	1,796.6	84.46	22.273		
12,200.0	7,377.0	12,344.4	7,662.0	87.3	0.0	-98.72	4,434.7	-483.5	1,880.4	1,794.3	86.09	21.842		
12,300.0	7,377.0	12,444.4	7,662.0	88.9	0.0	-98.72	4,534.7	-483.6	1,879.7	1,791.9	87.73	21.426		
12,400.0	7,377.0	12,544.4	7,662.0	90.5	0.0	-98.72	4,634.7	-483.7	1,879.0	1,789.6	89.37	21.024		
12,500.0	7,377.0	12,644.4	7,662.0	92.2	0.0	-98.73	4,734.7	-483.8	1,878.3	1,787.2	91.02	20.636		
12,600.0	7,377.0	12,744.4	7,662.0	93.8	0.0	-98.73	4,834.7	-483.9	1,877.5	1,784.9	92.67	20.260		
12,700.0	7,377.0	12,844.4	7,662.0	95.5	0.0	-98.73	4,934.6	-484.0	1,876.8	1,782.5	94.32	19.898		
12,800.0	7,377.0	12,944.4	7,662.0	97.1	0.0	-98.74	5,034.6	-484.1	1,876.1	1,780.2	95.98	19.547		
12,900.0	7,377.0	13,044.4	7,662.0	98.8	0.0	-98.74	5,134.6	-484.2	1,875.4	1,777.8	97.64	19.207		
13,000.0	7,377.0	13,144.4	7,662.0	100.4	0.0	-98.74	5,234.6	-484.3	1,874.7	1,775.4	99.31	18.878		
13,100.0	7,377.0	13,244.4	7,662.0	102.1	0.0	-98.75	5,334.6	-484.5	1,874.0	1,773.0	100.97	18.559		
13,200.0	7,377.0	13,344.4	7,662.0	103.8	0.0	-98.75	5,434.6	-484.6	1,873.3	1,770.7	102.64	18.251		
13,300.0	7,377.0	13,444.4	7,662.0	105.4	0.0	-98.75	5,534.6	-484.7	1,872.6	1,768.3	104.31	17.951		
13,400.0	7,377.0	13,544.4	7,662.0	107.1	0.0	-98.76	5,634.6	-484.8	1,871.9	1,765.9	105.99	17.661		
13,500.0	7,377.0	13,644.4	7,662.0	108.8	0.0	-98.76	5,734.6	-484.9	1,871.2	1,763.5	107.67	17.380		
13,600.0	7,377.0	13,744.4	7,662.0	110.5	0.0	-98.76	5,834.6	-485.0	1,870.5	1,761.1	109.34	17.106		
13,700.0	7,377.0	13,844.4	7,662.0	112.2	0.0	-98.77	5,934.6	-485.1	1,869.8	1,758.7	111.03	16.841		
13,800.0	7,377.0	13,944.4	7,662.0	113.8	0.0	-98.77	6,034.6	-485.2	1,869.1	1,756.4	112.71	16.583		
13,900.0	7,377.0	14,044.4	7,662.0	115.5	0.0	-98.77	6,134.6	-485.4	1,868.4	1,754.0	114.39	16.333		
14,000.0	7,377.0	14,144.4	7,662.0	117.2	0.0	-98.78	6,234.6	-485.5	1,867.6	1,751.6	116.08	16.089		
14,100.0	7,377.0	14,244.4	7,662.0	118.9	0.0	-98.78	6,334.6	-485.6	1,866.9	1,749.2	117.77	15.853		
14,200.0	7,377.0	14,344.4	7,662.0	120.6	0.0	-98.78	6,434.6	-485.7	1,866.2	1,746.8	119.46	15.622		
14,300.0	7,377.0	14,444.4	7,662.0	122.3	0.0	-98.79	6,534.6	-485.8	1,865.5	1,744.4	121.15	15.398		
14,400.0	7,377.0	14,544.4	7,662.0	124.0	0.0	-98.79	6,634.6	-485.9	1,864.8	1,742.0	122.84	15.180		
14,500.0	7,377.0	14,644.4	7,662.0	125.7	0.0	-98.79	6,734.6	-486.0	1,864.1	1,739.6	124.54	14.968		
14,600.0	7,377.0	14,744.3	7,662.0	127.4	0.0	-98.80	6,834.6	-486.1	1,863.4	1,737.2	126.24	14.761		
14,700.0	7,377.0	14,844.3	7,662.0	129.1	0.0	-98.80	6,934.6	-486.2	1,862.7	1,734.8	127.93	14.560		
14,800.0	7,377.0	14,944.3	7,662.0	130.8	0.0	-98.80	7,034.6	-486.4	1,862.0	1,732.4	129.63	14.363		
14,900.0	7,377.0	15,044.3	7,662.0	132.5	0.0	-98.81	7,134.6	-486.5	1,861.3	1,729.9	131.33	14.172		
15,000.0	7,377.0	15,144.3	7,662.0	134.2	0.0	-98.81	7,234.6	-486.6	1,860.6	1,727.5	133.04	13.986		
15,100.0	7,377.0	15,244.3	7,662.0	135.9	0.0	-98.81	7,334.6	-486.7	1,859.9	1,725.1	134.74	13.804		
15,200.0	7,377.0	15,344.3	7,662.0	137.6	0.0	-98.82	7,434.6	-486.8	1,859.2	1,722.7	136.44	13.626		
15,300.0	7,377.0	15,444.3	7,662.0	139.3	0.0	-98.82	7,534.6	-486.9	1,858.5	1,720.3	138.15	13.453		
15,400.0	7,377.0	15,544.3	7,662.0	141.1	0.0	-98.82	7,634.6	-487.0	1,857.7	1,717.9	139.85	13.283		
15,500.0	7,377.0	15,644.3	7,662.0	142.8	0.0	-98.83	7,734.6	-487.1	1,857.0	1,715.5	141.56	13.118		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,744.3	7,662.0	144.5	0.0	-98.83	7,834.6	-487.2	1,856.3	1,713.1	143.27	12.957		
15,700.0	7,377.0	15,844.3	7,662.0	146.2	0.0	-98.84	7,934.6	-487.4	1,855.6	1,710.6	144.98	12.799		
15,800.0	7,377.0	15,944.3	7,662.0	147.9	0.0	-98.84	8,034.6	-487.5	1,854.9	1,708.2	146.69	12.645		
15,900.0	7,377.0	16,044.3	7,662.0	149.6	0.0	-98.84	8,134.6	-487.6	1,854.2	1,705.8	148.40	12.495		
16,000.0	7,377.0	16,144.3	7,662.0	151.4	0.0	-98.85	8,234.6	-487.7	1,853.5	1,703.4	150.11	12.348		
16,100.0	7,377.0	16,244.3	7,662.0	153.1	0.0	-98.85	8,334.6	-487.8	1,852.8	1,701.0	151.82	12.204		
16,200.0	7,377.0	16,344.3	7,662.0	154.8	0.0	-98.85	8,434.6	-487.9	1,852.1	1,698.6	153.54	12.063		
16,300.0	7,377.0	16,444.3	7,662.0	156.5	0.0	-98.86	8,534.6	-488.0	1,851.4	1,696.1	155.25	11.925		
16,400.0	7,377.0	16,544.3	7,662.0	158.3	0.0	-98.86	8,634.6	-488.1	1,850.7	1,693.7	156.96	11.790		
16,500.0	7,377.0	16,644.3	7,662.0	160.0	0.0	-98.86	8,734.5	-488.2	1,850.0	1,691.3	158.68	11.658		
16,600.0	7,377.0	16,744.3	7,662.0	161.7	0.0	-98.87	8,834.5	-488.4	1,849.3	1,688.9	160.40	11.529		
16,700.0	7,377.0	16,844.3	7,662.0	163.4	0.0	-98.87	8,934.5	-488.5	1,848.6	1,686.4	162.11	11.403		
16,800.0	7,377.0	16,944.3	7,662.0	165.2	0.0	-98.87	9,034.5	-488.6	1,847.8	1,684.0	163.83	11.279		
16,900.0	7,377.0	17,044.3	7,662.0	166.9	0.0	-98.88	9,134.5	-488.7	1,847.1	1,681.6	165.55	11.158		
17,000.0	7,377.0	17,144.3	7,662.0	168.6	0.0	-98.88	9,234.5	-488.8	1,846.4	1,679.2	167.27	11.039		
17,100.0	7,377.0	17,244.3	7,662.0	170.3	0.0	-98.88	9,334.5	-488.9	1,845.7	1,676.7	168.99	10.922		
17,200.0	7,377.0	17,344.3	7,662.0	172.1	0.0	-98.89	9,434.5	-489.0	1,845.0	1,674.3	170.71	10.808		
17,300.0	7,377.0	17,444.3	7,662.0	173.8	0.0	-98.89	9,534.5	-489.1	1,844.3	1,671.9	172.43	10.696		
17,400.0	7,377.0	17,544.3	7,662.0	175.5	0.0	-98.89	9,634.5	-489.2	1,843.6	1,669.5	174.15	10.587		
17,500.0	7,377.0	17,644.3	7,662.0	177.3	0.0	-98.90	9,734.5	-489.4	1,842.9	1,667.0	175.87	10.479		
17,600.0	7,377.0	17,744.3	7,662.0	179.0	0.0	-98.90	9,834.5	-489.5	1,842.2	1,664.6	177.59	10.373		
17,668.4	7,377.0	17,799.6	7,662.0	180.2	0.0	-98.90	9,889.9	-489.5	1,841.8	1,663.1	178.65	10.309		
17,683.1	7,377.0	17,799.6	7,662.0	180.4	0.0	-98.90	9,889.9	-489.5	1,841.8	1,663.0	178.77	10.303 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.27	-0.3	-60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.27	-0.3	-60.0	60.0	59.8	0.28	216.788		
200.0	200.0	200.0	200.0	1.0	0.0	-90.27	-0.3	-60.0	60.0	59.2	0.80	75.266		
300.0	300.0	300.0	300.0	1.5	0.0	-90.27	-0.3	-60.0	60.0	58.8	1.22	49.041		
400.0	400.0	400.0	400.0	1.9	0.0	-90.27	-0.3	-60.0	60.0	58.4	1.62	37.103		
500.0	500.0	500.0	500.0	2.3	0.0	-90.27	-0.3	-60.0	60.0	58.0	2.00	30.038		
600.0	600.0	600.0	600.0	2.7	0.0	-90.27	-0.3	-60.0	60.0	57.7	2.37	25.306		
700.0	700.0	700.0	700.0	3.1	0.0	-90.27	-0.3	-60.0	60.0	57.3	2.74	21.894		
800.0	800.0	800.0	800.0	3.5	0.0	-90.27	-0.3	-60.0	60.0	56.9	3.11	19.310		
900.0	900.0	900.0	900.0	3.9	0.0	-90.27	-0.3	-60.0	60.0	56.6	3.47	17.280 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	160.65	-0.3	-60.0	61.7	57.7	3.99	15.458		
1,100.0	1,099.8	1,099.8	1,099.8	4.7	0.0	162.11	-0.3	-60.0	66.6	61.9	4.73	14.101		
1,200.0	1,199.5	1,199.5	1,199.5	5.5	0.0	164.11	-0.3	-60.0	75.0	69.6	5.41	13.851		
1,300.0	1,298.7	1,298.7	1,298.7	6.2	0.0	166.26	-0.3	-60.0	86.8	80.7	6.07	14.289		
1,400.0	1,397.5	1,399.9	1,399.9	6.9	0.0	167.62	-1.7	-59.0	100.8	94.1	6.70	15.052		
1,500.0	1,495.6	1,501.5	1,501.3	7.5	0.0	167.73	-5.9	-55.8	115.9	108.6	7.28	15.917		
1,600.0	1,593.1	1,603.3	1,602.7	8.0	0.0	167.00	-13.1	-50.4	131.8	124.1	7.73	17.045		
1,700.0	1,690.2	1,702.1	1,701.0	8.3	0.0	166.07	-21.6	-44.1	147.8	139.8	7.98	18.527		
1,800.0	1,787.3	1,800.8	1,799.1	8.6	0.0	165.32	-30.0	-37.7	163.8	155.5	8.25	19.865		
1,900.0	1,884.4	1,899.5	1,897.2	8.9	0.0	164.71	-38.5	-31.4	179.8	171.3	8.53	21.088		
2,000.0	1,981.6	1,998.2	1,995.3	9.2	0.0	164.20	-47.0	-25.0	195.9	187.0	8.82	22.203		
2,100.0	2,078.7	2,096.8	2,093.4	9.5	0.0	163.77	-55.4	-18.7	211.9	202.8	9.13	23.220		
2,200.0	2,175.8	2,195.5	2,191.6	9.8	0.0	163.39	-63.9	-12.4	228.0	218.5	9.44	24.148		
2,300.0	2,272.9	2,294.2	2,289.7	10.2	0.0	163.07	-72.3	-6.0	244.1	234.3	9.76	24.995		
2,400.0	2,370.0	2,392.9	2,387.8	10.6	0.0	162.78	-80.8	0.3	260.1	250.1	10.10	25.769		
2,500.0	2,467.2	2,491.6	2,485.9	11.0	0.0	162.53	-89.3	6.7	276.2	265.8	10.43	26.478		
2,600.0	2,564.3	2,590.3	2,584.1	11.4	0.0	162.31	-97.7	13.0	292.3	281.6	10.78	27.127		
2,700.0	2,661.4	2,689.0	2,682.2	11.8	0.0	162.11	-106.2	19.3	308.4	297.3	11.13	27.723		
2,800.0	2,758.5	2,787.7	2,780.3	12.3	0.0	161.93	-114.6	25.7	324.5	313.0	11.48	28.271		
2,900.0	2,855.7	2,886.4	2,878.4	12.8	0.0	161.77	-123.1	32.0	340.6	328.8	11.84	28.775		
3,000.0	2,952.8	2,985.1	2,976.5	13.3	0.0	161.62	-131.5	38.4	356.7	344.5	12.20	29.240		
3,100.0	3,049.9	3,083.8	3,074.7	13.8	0.0	161.48	-140.0	44.7	372.8	360.3	12.57	29.670		
3,200.0	3,147.0	3,182.4	3,172.8	14.3	0.0	161.36	-148.5	51.1	388.9	376.0	12.94	30.068		
3,300.0	3,244.1	3,281.1	3,270.9	14.8	0.0	161.24	-156.9	57.4	405.1	391.7	13.31	30.437		
3,400.0	3,341.3	3,379.8	3,369.0	15.4	0.0	161.14	-165.4	63.7	421.2	407.5	13.68	30.780		
3,500.0	3,438.4	3,478.5	3,467.2	15.9	0.0	161.04	-173.8	70.1	437.3	423.2	14.06	31.099		
3,600.0	3,535.5	3,577.2	3,565.3	16.4	0.0	160.95	-182.3	76.4	453.4	439.0	14.44	31.396		
3,700.0	3,632.6	3,675.9	3,663.4	17.0	0.0	160.86	-190.8	82.8	469.5	454.7	14.82	31.673		
3,800.0	3,729.8	3,774.6	3,761.5	17.5	0.0	160.78	-199.2	89.1	485.6	470.4	15.21	31.933		
3,900.0	3,826.9	3,873.3	3,859.7	18.0	0.0	160.71	-207.7	95.4	501.7	486.1	15.59	32.175		
4,000.0	3,924.0	3,972.0	3,957.8	18.6	0.0	160.64	-216.1	101.8	517.9	501.9	15.98	32.403		
4,100.0	4,021.1	4,070.7	4,055.9	19.1	0.0	160.58	-224.6	108.1	534.0	517.6	16.37	32.616		
4,200.0	4,118.3	4,169.4	4,154.0	19.6	0.0	160.51	-233.1	114.5	550.1	533.3	16.76	32.817		
4,300.0	4,215.4	4,268.0	4,252.1	20.2	0.0	160.46	-241.5	120.8	566.2	549.1	17.15	33.006		
4,400.0	4,312.5	4,366.7	4,350.3	20.7	0.0	160.40	-250.0	127.1	582.3	564.8	17.55	33.185		
4,500.0	4,409.6	4,465.4	4,448.4	21.3	0.0	160.35	-258.4	133.5	598.5	580.5	17.94	33.353		
4,600.0	4,506.7	4,564.1	4,546.5	21.8	0.0	160.30	-266.9	139.8	614.6	596.2	18.34	33.512		
4,700.0	4,603.9	4,662.8	4,644.6	22.3	0.0	160.25	-275.3	146.2	630.7	612.0	18.74	33.662		
4,800.0	4,701.0	4,761.5	4,742.8	22.9	0.0	160.21	-283.8	152.5	646.8	627.7	19.13	33.804		
4,900.0	4,798.1	4,860.2	4,840.9	23.4	0.0	160.17	-292.3	158.9	662.9	643.4	19.53	33.939		
5,000.0	4,895.2	4,958.9	4,939.0	24.0	0.0	160.13	-300.7	165.2	679.1	659.1	19.93	34.068		
5,100.0	4,992.4	5,057.6	5,037.1	24.5	0.0	160.09	-309.2	171.5	695.2	674.9	20.33	34.189		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,156.3	5,135.2	25.1	0.0	160.05	-317.6	177.9	711.3	690.6	20.73	34.305		
5,300.0	5,186.6	5,254.9	5,233.4	25.6	0.0	160.02	-326.1	184.2	727.4	706.3	21.14	34.415		
5,400.0	5,283.7	5,353.6	5,331.5	26.2	0.0	159.98	-334.6	190.6	743.6	722.0	21.54	34.520		
5,500.0	5,380.9	5,452.3	5,429.6	26.7	0.0	159.95	-343.0	196.9	759.7	737.7	21.94	34.620		
5,600.0	5,478.0	5,551.0	5,527.7	27.2	0.0	159.92	-351.5	203.2	775.8	753.5	22.35	34.716		
5,700.0	5,575.1	5,649.7	5,625.9	27.8	0.0	159.89	-359.9	209.6	791.9	769.2	22.75	34.807		
5,800.0	5,672.2	5,748.4	5,724.0	28.3	0.0	159.86	-368.4	215.9	808.1	784.9	23.16	34.895		
5,900.0	5,769.3	5,847.1	5,822.1	28.9	0.0	159.84	-376.9	222.3	824.2	800.6	23.56	34.978		
6,000.0	5,866.5	5,945.8	5,920.2	29.4	0.0	159.81	-385.3	228.6	840.3	816.3	23.97	35.058		
6,100.0	5,963.6	6,044.5	6,018.4	30.0	0.0	159.79	-393.8	234.9	856.4	832.1	24.38	35.134		
6,200.0	6,060.7	6,143.2	6,116.5	30.5	0.0	159.76	-402.2	241.3	872.6	847.8	24.78	35.208		
6,300.0	6,157.8	6,241.9	6,214.6	31.1	0.0	159.74	-410.7	247.6	888.7	863.5	25.19	35.278		
6,400.0	6,255.0	6,340.5	6,312.7	31.6	0.0	159.72	-419.2	254.0	904.8	879.2	25.60	35.346		
6,500.0	6,352.1	6,439.2	6,410.8	32.2	0.0	159.70	-427.6	260.3	920.9	894.9	26.01	35.411		
6,600.0	6,449.2	6,537.9	6,509.0	32.7	0.0	159.67	-436.1	266.7	937.1	910.6	26.42	35.473		
6,700.0	6,546.3	6,636.6	6,607.1	33.3	0.0	159.65	-444.5	273.0	953.2	926.4	26.82	35.533		
6,800.0	6,643.4	6,735.3	6,705.2	33.8	0.0	159.63	-453.0	279.3	969.3	942.1	27.23	35.591		
6,900.0	6,740.6	6,834.0	6,803.4	34.4	0.0	159.64	-461.0	285.7	985.4	957.8	27.64	35.650		
7,000.0	6,837.9	6,931.8	6,900.8	34.9	0.0	-170.75	-457.2	291.9	1,001.6	973.6	27.98	35.791		
7,100.0	6,934.5	7,028.2	6,994.8	35.4	0.0	-135.14	-437.3	297.7	1,017.8	989.4	28.39	35.850		
7,200.0	7,027.6	7,123.4	7,083.1	35.8	0.0	-116.79	-402.4	303.1	1,033.3	1,004.5	28.86	35.810		
7,300.0	7,114.3	7,217.8	7,163.8	36.2	0.0	-106.90	-353.8	307.8	1,047.9	1,018.7	29.16	35.931		
7,400.0	7,192.0	7,311.5	7,234.9	36.5	0.0	-100.84	-293.2	311.9	1,061.0	1,031.6	29.36	36.137		
7,500.0	7,258.5	7,404.7	7,295.0	36.7	0.0	-96.84	-222.1	315.1	1,072.1	1,042.6	29.50	36.342		
7,600.0	7,311.5	7,497.7	7,342.7	36.8	0.0	-94.15	-142.4	317.5	1,081.0	1,051.4	29.63	36.481		
7,700.0	7,349.6	7,590.5	7,376.9	36.8	0.0	-92.43	-56.3	319.0	1,087.4	1,057.7	29.78	36.511		
7,800.0	7,371.5	7,683.2	7,396.8	36.8	0.0	-91.52	34.2	319.5	1,091.1	1,061.1	29.98	36.401		
7,900.0	7,377.0	7,777.1	7,402.0	36.8	0.0	-91.31	127.9	319.1	1,092.0	1,061.8	30.21	36.146		
8,000.0	7,377.0	7,877.1	7,402.0	36.8	0.0	-91.31	227.9	318.2	1,092.0	1,061.5	30.52	35.775		
8,100.0	7,377.0	7,977.1	7,402.0	36.9	0.0	-91.31	327.8	317.4	1,092.0	1,061.1	30.94	35.296		
8,200.0	7,377.0	8,077.1	7,402.0	37.1	0.0	-91.31	427.8	316.6	1,092.0	1,060.6	31.45	34.725		
8,300.0	7,377.0	8,177.1	7,402.0	37.3	0.0	-91.31	527.8	315.8	1,092.0	1,060.0	32.04	34.078		
8,400.0	7,377.0	8,277.1	7,402.0	37.6	0.0	-91.31	627.8	314.9	1,092.0	1,059.3	32.73	33.368		
8,500.0	7,377.0	8,377.1	7,402.0	38.1	0.0	-91.31	727.8	314.1	1,092.0	1,058.5	33.49	32.609		
8,600.0	7,377.0	8,477.1	7,402.0	38.6	0.0	-91.31	827.8	313.3	1,092.0	1,057.7	34.32	31.816		
8,700.0	7,377.0	8,577.1	7,402.0	39.2	0.0	-91.31	927.8	312.5	1,092.0	1,056.8	35.23	30.999		
8,800.0	7,377.0	8,677.1	7,402.0	40.0	0.0	-91.31	1,027.8	311.6	1,092.0	1,055.8	36.19	30.170		
8,900.0	7,377.0	8,777.1	7,402.0	40.8	0.0	-91.31	1,127.8	310.8	1,092.0	1,054.8	37.22	29.339		
9,000.0	7,377.0	8,877.1	7,402.0	41.7	0.0	-91.31	1,227.8	310.0	1,092.0	1,053.7	38.30	28.511		
9,100.0	7,377.0	8,977.1	7,402.0	42.7	0.0	-91.31	1,327.8	309.1	1,092.0	1,052.6	39.43	27.695		
9,200.0	7,377.0	9,077.1	7,402.0	43.7	0.0	-91.31	1,427.8	308.3	1,092.0	1,051.4	40.61	26.893		
9,300.0	7,377.0	9,177.1	7,402.0	44.8	0.0	-91.31	1,527.8	307.5	1,092.0	1,050.2	41.82	26.111		
9,400.0	7,377.0	9,277.1	7,402.0	45.9	0.0	-91.31	1,627.8	306.7	1,092.0	1,048.9	43.08	25.351		
9,500.0	7,377.0	9,377.1	7,402.0	47.1	0.0	-91.31	1,727.8	305.8	1,092.0	1,047.6	44.37	24.614		
9,600.0	7,377.0	9,477.1	7,402.0	48.4	0.0	-91.31	1,827.8	305.0	1,092.0	1,046.3	45.69	23.902		
9,700.0	7,377.0	9,577.1	7,402.0	49.6	0.0	-91.31	1,927.8	304.2	1,092.0	1,045.0	47.04	23.216		
9,800.0	7,377.0	9,677.1	7,402.0	50.9	0.0	-91.31	2,027.8	303.4	1,092.0	1,043.6	48.41	22.556		
9,900.0	7,377.0	9,777.1	7,402.0	52.3	0.0	-91.31	2,127.8	302.5	1,092.0	1,042.2	49.82	21.921		
10,000.0	7,377.0	9,877.1	7,402.0	53.6	0.0	-91.31	2,227.8	301.7	1,092.0	1,040.8	51.24	21.312		
10,100.0	7,377.0	9,977.1	7,402.0	55.0	0.0	-91.31	2,327.8	300.9	1,092.0	1,039.3	52.68	20.728		
10,200.0	7,377.0	10,077.1	7,402.0	56.4	0.0	-91.31	2,427.8	300.1	1,092.0	1,037.9	54.15	20.167		
10,300.0	7,377.0	10,177.1	7,402.0	57.8	0.0	-91.31	2,527.8	299.2	1,092.0	1,036.4	55.63	19.630		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,277.1	7,402.0	59.2	0.0	-91.31	2,627.8	298.4	1,092.0	1,034.9	57.13	19.116		
10,500.0	7,377.0	10,377.1	7,402.0	60.7	0.0	-91.31	2,727.8	297.6	1,092.0	1,033.4	58.64	18.623		
10,600.0	7,377.0	10,477.1	7,402.0	62.2	0.0	-91.31	2,827.8	296.8	1,092.0	1,031.8	60.16	18.150		
10,700.0	7,377.0	10,577.1	7,402.0	63.7	0.0	-91.31	2,927.8	295.9	1,092.0	1,030.3	61.70	17.698		
10,800.0	7,377.0	10,677.1	7,402.0	65.2	0.0	-91.31	3,027.8	295.1	1,092.0	1,028.7	63.25	17.264		
10,900.0	7,377.0	10,777.1	7,402.0	66.7	0.0	-91.31	3,127.8	294.3	1,092.0	1,027.2	64.81	16.848		
11,000.0	7,377.0	10,877.1	7,402.0	68.2	0.0	-91.31	3,227.7	293.4	1,092.0	1,025.6	66.39	16.449		
11,100.0	7,377.0	10,977.1	7,402.0	69.8	0.0	-91.31	3,327.7	292.6	1,092.0	1,024.0	67.97	16.066		
11,200.0	7,377.0	11,077.1	7,402.0	71.3	0.0	-91.31	3,427.7	291.8	1,092.0	1,022.4	69.56	15.699		
11,300.0	7,377.0	11,177.1	7,402.0	72.9	0.0	-91.31	3,527.7	291.0	1,092.0	1,020.8	71.16	15.346		
11,400.0	7,377.0	11,277.1	7,402.0	74.4	0.0	-91.31	3,627.7	290.1	1,092.0	1,019.2	72.76	15.008		
11,500.0	7,377.0	11,377.1	7,402.0	76.0	0.0	-91.31	3,727.7	289.3	1,092.0	1,017.6	74.38	14.682		
11,600.0	7,377.0	11,477.1	7,402.0	77.6	0.0	-91.31	3,827.7	288.5	1,092.0	1,016.0	76.00	14.369		
11,700.0	7,377.0	11,577.1	7,402.0	79.2	0.0	-91.31	3,927.7	287.7	1,092.0	1,014.4	77.62	14.068		
11,800.0	7,377.0	11,677.1	7,402.0	80.8	0.0	-91.31	4,027.7	286.8	1,092.0	1,012.7	79.25	13.778		
11,900.0	7,377.0	11,777.1	7,402.0	82.4	0.0	-91.31	4,127.7	286.0	1,092.0	1,011.1	80.89	13.499		
12,000.0	7,377.0	11,877.1	7,402.0	84.0	0.0	-91.31	4,227.7	285.2	1,092.0	1,009.5	82.54	13.231		
12,100.0	7,377.0	11,977.1	7,402.0	85.6	0.0	-91.31	4,327.7	284.4	1,092.0	1,007.8	84.18	12.972		
12,200.0	7,377.0	12,077.1	7,402.0	87.3	0.0	-91.31	4,427.7	283.5	1,092.0	1,006.2	85.84	12.722		
12,300.0	7,377.0	12,177.1	7,402.0	88.9	0.0	-91.31	4,527.7	282.7	1,092.0	1,004.5	87.49	12.481		
12,400.0	7,377.0	12,277.1	7,402.0	90.5	0.0	-91.31	4,627.7	281.9	1,092.0	1,002.8	89.16	12.248		
12,500.0	7,377.0	12,377.1	7,402.0	92.2	0.0	-91.31	4,727.7	281.0	1,092.0	1,001.2	90.82	12.024		
12,600.0	7,377.0	12,477.1	7,402.0	93.8	0.0	-91.31	4,827.7	280.2	1,092.0	999.5	92.49	11.807		
12,700.0	7,377.0	12,577.1	7,402.0	95.5	0.0	-91.31	4,927.7	279.4	1,092.0	997.8	94.16	11.597		
12,800.0	7,377.0	12,677.1	7,402.0	97.1	0.0	-91.31	5,027.7	278.6	1,092.0	996.2	95.84	11.394		
12,900.0	7,377.0	12,777.1	7,402.0	98.8	0.0	-91.31	5,127.7	277.7	1,092.0	994.5	97.52	11.198		
13,000.0	7,377.0	12,877.1	7,402.0	100.4	0.0	-91.31	5,227.7	276.9	1,092.0	992.8	99.20	11.008		
13,100.0	7,377.0	12,977.1	7,402.0	102.1	0.0	-91.31	5,327.7	276.1	1,092.0	991.1	100.88	10.824		
13,200.0	7,377.0	13,077.1	7,402.0	103.8	0.0	-91.31	5,427.7	275.3	1,092.0	989.4	102.57	10.646		
13,300.0	7,377.0	13,177.1	7,402.0	105.4	0.0	-91.31	5,527.7	274.4	1,092.0	987.7	104.26	10.474		
13,400.0	7,377.0	13,277.1	7,402.0	107.1	0.0	-91.31	5,627.7	273.6	1,092.0	986.0	105.95	10.306		
13,500.0	7,377.0	13,377.1	7,402.0	108.8	0.0	-91.31	5,727.7	272.8	1,092.0	984.3	107.65	10.144		
13,600.0	7,377.0	13,477.1	7,402.0	110.5	0.0	-91.31	5,827.7	272.0	1,092.0	982.6	109.35	9.987		
13,700.0	7,377.0	13,577.1	7,402.0	112.2	0.0	-91.31	5,927.7	271.1	1,092.0	980.9	111.04	9.834		
13,800.0	7,377.0	13,677.1	7,402.0	113.8	0.0	-91.31	6,027.7	270.3	1,092.0	979.2	112.75	9.685		
13,900.0	7,377.0	13,777.1	7,402.0	115.5	0.0	-91.31	6,127.6	269.5	1,092.0	977.5	114.45	9.541		
14,000.0	7,377.0	13,877.1	7,402.0	117.2	0.0	-91.31	6,227.6	268.7	1,092.0	975.8	116.15	9.401		
14,100.0	7,377.0	13,977.1	7,402.0	118.9	0.0	-91.31	6,327.6	267.8	1,092.0	974.1	117.86	9.265		
14,200.0	7,377.0	14,077.1	7,402.0	120.6	0.0	-91.31	6,427.6	267.0	1,092.0	972.4	119.57	9.133		
14,300.0	7,377.0	14,177.1	7,402.0	122.3	0.0	-91.31	6,527.6	266.2	1,092.0	970.7	121.28	9.004		
14,400.0	7,377.0	14,277.1	7,402.0	124.0	0.0	-91.31	6,627.6	265.3	1,092.0	969.0	122.99	8.879		
14,500.0	7,377.0	14,377.1	7,402.0	125.7	0.0	-91.31	6,727.6	264.5	1,092.0	967.3	124.70	8.757		
14,600.0	7,377.0	14,477.1	7,402.0	127.4	0.0	-91.31	6,827.6	263.7	1,092.0	965.6	126.42	8.638		
14,700.0	7,377.0	14,577.1	7,402.0	129.1	0.0	-91.31	6,927.6	262.9	1,092.0	963.8	128.14	8.522		
14,800.0	7,377.0	14,677.1	7,402.0	130.8	0.0	-91.31	7,027.6	262.0	1,092.0	962.1	129.85	8.409		
14,900.0	7,377.0	14,777.1	7,402.0	132.5	0.0	-91.31	7,127.6	261.2	1,092.0	960.4	131.57	8.300		
15,000.0	7,377.0	14,877.1	7,402.0	134.2	0.0	-91.31	7,227.6	260.4	1,092.0	958.7	133.29	8.192		
15,100.0	7,377.0	14,977.1	7,402.0	135.9	0.0	-91.31	7,327.6	259.6	1,092.0	957.0	135.01	8.088		
15,200.0	7,377.0	15,077.1	7,402.0	137.6	0.0	-91.31	7,427.6	258.7	1,092.0	955.2	136.73	7.986		
15,300.0	7,377.0	15,177.1	7,402.0	139.3	0.0	-91.31	7,527.6	257.9	1,092.0	953.5	138.46	7.887		
15,400.0	7,377.0	15,277.1	7,402.0	141.1	0.0	-91.31	7,627.6	257.1	1,092.0	951.8	140.18	7.790		
15,500.0	7,377.0	15,377.1	7,402.0	142.8	0.0	-91.31	7,727.6	256.3	1,092.0	950.1	141.91	7.695		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,477.1	7,402.0	144.5	0.0	-91.31	7,827.6	255.4	1,092.0	948.3	143.63	7.603		
15,700.0	7,377.0	15,577.1	7,402.0	146.2	0.0	-91.31	7,927.6	254.6	1,092.0	946.6	145.36	7.512		
15,800.0	7,377.0	15,677.1	7,402.0	147.9	0.0	-91.31	8,027.6	253.8	1,092.0	944.9	147.09	7.424		
15,900.0	7,377.0	15,777.1	7,402.0	149.6	0.0	-91.31	8,127.6	252.9	1,092.0	943.2	148.82	7.338		
16,000.0	7,377.0	15,877.1	7,402.0	151.4	0.0	-91.31	8,227.6	252.1	1,092.0	941.4	150.55	7.253		
16,100.0	7,377.0	15,977.1	7,402.0	153.1	0.0	-91.31	8,327.6	251.3	1,092.0	939.7	152.28	7.171		
16,200.0	7,377.0	16,077.1	7,402.0	154.8	0.0	-91.31	8,427.6	250.5	1,092.0	938.0	154.01	7.090		
16,300.0	7,377.0	16,177.1	7,402.0	156.5	0.0	-91.31	8,527.6	249.6	1,092.0	936.2	155.74	7.011		
16,400.0	7,377.0	16,277.1	7,402.0	158.3	0.0	-91.31	8,627.6	248.8	1,092.0	934.5	157.47	6.934		
16,500.0	7,377.0	16,377.1	7,402.0	160.0	0.0	-91.31	8,727.6	248.0	1,092.0	932.8	159.21	6.859		
16,600.0	7,377.0	16,477.1	7,402.0	161.7	0.0	-91.31	8,827.6	247.2	1,092.0	931.0	160.94	6.785		
16,700.0	7,377.0	16,577.1	7,402.0	163.4	0.0	-91.31	8,927.6	246.3	1,092.0	929.3	162.68	6.712		
16,800.0	7,377.0	16,677.1	7,402.0	165.2	0.0	-91.31	9,027.6	245.5	1,092.0	927.6	164.41	6.642		
16,900.0	7,377.0	16,777.1	7,402.0	166.9	0.0	-91.31	9,127.5	244.7	1,092.0	925.8	166.15	6.572		
17,000.0	7,377.0	16,877.1	7,402.0	168.6	0.0	-91.31	9,227.5	243.9	1,092.0	924.1	167.89	6.504		
17,100.0	7,377.0	16,977.1	7,402.0	170.3	0.0	-91.31	9,327.5	243.0	1,092.0	922.3	169.62	6.438		
17,200.0	7,377.0	17,077.1	7,402.0	172.1	0.0	-91.31	9,427.5	242.2	1,092.0	920.6	171.36	6.372		
17,300.0	7,377.0	17,177.1	7,402.0	173.8	0.0	-91.31	9,527.5	241.4	1,092.0	918.9	173.10	6.308		
17,400.0	7,377.0	17,277.1	7,402.0	175.5	0.0	-91.31	9,627.5	240.6	1,092.0	917.1	174.84	6.246		
17,500.0	7,377.0	17,377.1	7,402.0	177.3	0.0	-91.31	9,727.5	239.7	1,092.0	915.4	176.58	6.184		
17,600.0	7,377.0	17,477.1	7,402.0	179.0	0.0	-91.31	9,827.5	238.9	1,092.0	913.6	178.32	6.124		
17,672.1	7,377.0	17,549.2	7,402.0	180.3	0.0	-91.31	9,899.6	238.3	1,092.0	912.4	179.57	6.081		
17,683.1	7,377.0	17,551.4	7,402.0	180.4	0.0	-91.31	9,901.8	238.3	1,092.0	912.4	179.63	6.079 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.4	-75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-0.4	-75.0	75.0	74.5	0.55	135.543		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-0.4	-75.0	75.0	73.4	1.60	47.039		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-0.4	-75.0	75.0	72.6	2.45	30.647		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-0.4	-75.0	75.0	71.8	3.24	23.187		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-0.4	-75.0	75.0	71.0	4.00	18.771		
600.0	600.0	600.0	600.0	2.7	2.7	-90.29	-0.4	-75.0	75.0	70.3	4.74	15.814		
700.0	700.0	700.0	700.0	3.1	3.1	-90.29	-0.4	-75.0	75.0	69.5	5.48	13.682		
800.0	800.0	800.0	800.0	3.5	3.5	-90.29	-0.4	-75.0	75.0	68.8	6.22	12.067		
900.0	900.0	900.0	900.0	3.9	3.9	-90.29	-0.4	-75.0	75.0	68.1	6.95	10.798 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	160.53	-0.4	-75.0	76.7	68.9	7.82	9.802		
1,100.0	1,099.8	1,099.8	1,099.8	4.7	4.6	161.72	-0.4	-75.0	81.6	72.7	8.90	9.171		
1,200.0	1,199.5	1,199.5	1,199.5	5.5	5.0	163.41	-0.4	-75.0	89.9	80.0	9.92	9.070		
1,300.0	1,298.7	1,299.2	1,299.2	6.2	5.3	164.36	-2.1	-74.9	101.4	90.6	10.85	9.345		
1,400.0	1,397.5	1,398.7	1,398.5	6.9	6.0	163.82	-7.2	-74.6	115.8	104.0	11.75	9.854		
1,500.0	1,495.6	1,497.4	1,496.9	7.5	6.3	162.58	-15.2	-74.0	133.1	120.5	12.61	10.560		
1,600.0	1,593.1	1,595.2	1,594.4	8.0	6.6	161.90	-23.3	-73.4	153.7	140.3	13.38	11.485		
1,700.0	1,690.2	1,692.8	1,691.6	8.3	6.9	161.61	-31.4	-72.9	175.5	161.6	13.99	12.551		
1,800.0	1,787.3	1,790.4	1,788.9	8.6	7.2	161.39	-39.5	-72.3	197.4	182.8	14.62	13.506		
1,900.0	1,884.4	1,887.9	1,886.1	8.9	7.6	161.21	-47.6	-71.8	219.3	204.0	15.26	14.369		
2,000.0	1,981.6	1,985.5	1,983.3	9.2	7.9	161.06	-55.7	-71.2	241.1	225.2	15.92	15.150		
2,100.0	2,078.7	2,083.1	2,080.6	9.5	8.2	160.94	-63.8	-70.6	263.0	246.4	16.58	15.859		
2,200.0	2,175.8	2,180.7	2,177.8	9.8	8.6	160.84	-71.9	-70.1	284.9	267.6	17.26	16.503		
2,300.0	2,272.9	2,278.3	2,275.1	10.2	8.9	160.75	-80.0	-69.5	306.7	288.8	17.95	17.089		
2,400.0	2,370.0	2,375.8	2,372.3	10.6	9.3	160.67	-88.1	-69.0	328.6	310.0	18.64	17.625		
2,500.0	2,467.2	2,473.4	2,469.5	11.0	9.6	160.60	-96.2	-68.4	350.5	331.1	19.35	18.116		
2,600.0	2,564.3	2,571.0	2,566.8	11.4	10.0	160.54	-104.3	-67.8	372.3	352.3	20.05	18.566		
2,700.0	2,661.4	2,668.6	2,664.0	11.8	10.3	160.49	-112.4	-67.3	394.2	373.4	20.77	18.981		
2,800.0	2,758.5	2,766.1	2,761.3	12.3	10.7	160.44	-120.5	-66.7	416.1	394.6	21.49	19.363		
2,900.0	2,855.7	2,863.7	2,858.5	12.8	11.0	160.40	-128.6	-66.2	437.9	415.7	22.21	19.716		
3,000.0	2,952.8	2,961.3	2,955.7	13.3	11.4	160.36	-136.7	-65.6	459.8	436.9	22.94	20.043		
3,100.0	3,049.9	3,058.9	3,053.0	13.8	11.7	160.33	-144.8	-65.0	481.7	458.0	23.67	20.347		
3,200.0	3,147.0	3,156.5	3,150.2	14.3	12.1	160.30	-152.9	-64.5	503.6	479.2	24.41	20.629		
3,300.0	3,244.1	3,254.0	3,247.5	14.8	12.4	160.27	-161.0	-63.9	525.4	500.3	25.15	20.892		
3,400.0	3,341.3	3,351.6	3,344.7	15.4	12.8	160.24	-169.1	-63.4	547.3	521.4	25.89	21.137		
3,500.0	3,438.4	3,449.2	3,441.9	15.9	13.1	160.22	-177.2	-62.8	569.2	542.5	26.64	21.367		
3,600.0	3,535.5	3,546.8	3,539.2	16.4	13.5	160.19	-185.3	-62.2	591.0	563.7	27.39	21.582		
3,700.0	3,632.6	3,644.4	3,636.4	17.0	13.9	160.17	-193.4	-61.7	612.9	584.8	28.14	21.784		
3,800.0	3,729.8	3,741.9	3,733.7	17.5	14.2	160.15	-201.5	-61.1	634.8	605.9	28.89	21.974		
3,900.0	3,826.9	3,839.5	3,830.9	18.0	14.6	160.13	-209.6	-60.6	656.7	627.0	29.64	22.152		
4,000.0	3,924.0	3,937.1	3,928.1	18.6	14.9	160.11	-217.7	-60.0	678.5	648.1	30.40	22.321		
4,100.0	4,021.1	4,034.7	4,025.4	19.1	15.3	160.10	-225.8	-59.4	700.4	669.2	31.16	22.479		
4,200.0	4,118.3	4,132.2	4,122.6	19.6	15.7	160.08	-233.9	-58.9	722.3	690.4	31.92	22.630		
4,300.0	4,215.4	4,229.8	4,219.9	20.2	16.0	160.07	-242.0	-58.3	744.1	711.5	32.68	22.772		
4,400.0	4,312.5	4,327.4	4,317.1	20.7	16.4	160.06	-250.1	-57.8	766.0	732.6	33.44	22.907		
4,500.0	4,409.6	4,425.0	4,414.3	21.3	16.8	160.04	-258.2	-57.2	787.9	753.7	34.21	23.034		
4,600.0	4,506.7	4,522.6	4,511.6	21.8	17.1	160.03	-266.3	-56.6	809.8	774.8	34.97	23.156		
4,700.0	4,603.9	4,620.1	4,608.8	22.3	17.5	160.02	-274.4	-56.1	831.6	795.9	35.74	23.271		
4,800.0	4,701.0	4,717.7	4,706.1	22.9	17.9	160.01	-282.5	-55.5	853.5	817.0	36.50	23.381		
4,900.0	4,798.1	4,815.3	4,803.3	23.4	18.2	160.00	-290.6	-55.0	875.4	838.1	37.27	23.486		
5,000.0	4,895.2	4,912.9	4,900.6	24.0	18.6	159.99	-298.7	-54.4	897.3	859.2	38.04	23.586		
5,100.0	4,992.4	5,010.5	4,997.8	24.5	19.0	159.98	-306.8	-53.8	919.1	880.3	38.81	23.681		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,108.0	5,095.0	25.1	19.3	159.97	-314.9	-53.3	941.0	901.4	39.58	23.773		
5,300.0	5,186.6	5,205.6	5,192.3	25.6	19.7	159.96	-323.0	-52.7	962.9	922.5	40.36	23.860		
5,400.0	5,283.7	5,303.2	5,289.5	26.2	20.1	159.95	-331.1	-52.1	984.7	943.6	41.13	23.943		
5,500.0	5,380.9	5,400.8	5,386.8	26.7	20.4	159.94	-339.2	-51.6	1,006.6	964.7	41.90	24.023		
5,600.0	5,478.0	5,498.3	5,484.0	27.2	20.8	159.94	-347.3	-51.0	1,028.5	985.8	42.68	24.100		
5,700.0	5,575.1	5,595.9	5,581.2	27.8	21.2	159.93	-355.4	-50.5	1,050.4	1,006.9	43.45	24.173		
5,800.0	5,672.2	5,693.5	5,678.5	28.3	21.6	159.92	-363.5	-49.9	1,072.2	1,028.0	44.23	24.244		
5,900.0	5,769.3	5,791.1	5,775.7	28.9	21.9	159.92	-371.6	-49.3	1,094.1	1,049.1	45.00	24.312		
6,000.0	5,866.5	5,888.7	5,873.0	29.4	22.3	159.91	-379.7	-48.8	1,116.0	1,070.2	45.78	24.377		
6,100.0	5,963.6	5,986.2	5,970.2	30.0	22.7	159.90	-387.8	-48.2	1,137.9	1,091.3	46.56	24.440		
6,200.0	6,060.7	6,083.8	6,067.4	30.5	23.0	159.90	-395.9	-47.7	1,159.7	1,112.4	47.33	24.501		
6,300.0	6,157.8	6,181.4	6,164.7	31.1	23.4	159.89	-404.0	-47.1	1,181.6	1,133.5	48.11	24.559		
6,400.0	6,255.0	6,279.0	6,261.9	31.6	23.8	159.89	-412.1	-46.5	1,203.5	1,154.6	48.89	24.615		
6,500.0	6,352.1	6,376.6	6,359.2	32.2	24.1	159.88	-420.2	-46.0	1,225.3	1,175.7	49.67	24.669		
6,600.0	6,449.2	6,474.1	6,456.4	32.7	24.5	159.88	-428.3	-45.4	1,247.2	1,196.8	50.45	24.722		
6,700.0	6,546.3	6,571.7	6,553.6	33.3	24.9	159.87	-436.4	-44.9	1,269.1	1,217.9	51.23	24.772		
6,800.0	6,643.4	6,669.3	6,650.9	33.8	25.3	159.87	-444.5	-44.3	1,291.0	1,238.9	52.01	24.821		
6,900.0	6,740.6	6,766.9	6,748.1	34.4	25.6	159.86	-452.6	-43.7	1,312.8	1,260.0	52.79	24.868		
7,000.0	6,837.9	6,864.3	6,845.2	34.9	26.0	-170.77	-460.7	-43.2	1,334.7	1,281.1	53.57	24.917		
7,100.0	6,934.5	6,961.0	6,941.8	35.4	26.5	-135.59	-461.6	-42.7	1,356.5	1,301.9	54.57	24.855		
7,200.0	7,027.6	7,060.1	7,039.5	35.8	26.9	-117.65	-445.7	-42.3	1,377.6	1,322.1	55.51	24.817		
7,300.0	7,114.3	7,162.0	7,135.5	36.2	27.2	-108.13	-412.1	-42.1	1,397.4	1,341.3	56.11	24.903		
7,400.0	7,192.0	7,267.0	7,226.7	36.5	27.5	-102.40	-360.3	-42.1	1,415.3	1,358.7	56.55	25.027		
7,500.0	7,258.5	7,375.4	7,309.2	36.7	27.7	-98.69	-290.3	-42.2	1,430.7	1,373.8	56.89	25.148		
7,600.0	7,311.5	7,487.0	7,378.9	36.8	28.0	-96.24	-203.3	-42.6	1,443.2	1,385.9	57.21	25.226		
7,700.0	7,349.6	7,601.5	7,431.5	36.8	28.1	-94.71	-101.8	-43.2	1,452.2	1,394.6	57.57	25.223		
7,800.0	7,371.5	7,718.2	7,463.3	36.8	28.3	-93.90	10.2	-43.9	1,457.4	1,399.4	58.05	25.108		
7,900.0	7,377.0	7,833.3	7,472.0	36.8	28.5	-93.73	124.8	-44.8	1,458.7	1,400.1	58.64	24.875		
8,000.0	7,377.0	7,933.3	7,472.0	36.8	28.9	-93.73	224.8	-45.7	1,458.7	1,399.4	59.38	24.566		
8,100.0	7,377.0	8,033.3	7,472.0	36.9	29.3	-93.73	324.8	-46.5	1,458.7	1,398.4	60.32	24.184		
8,200.0	7,377.0	8,133.3	7,472.0	37.1	29.9	-93.73	424.8	-47.3	1,458.7	1,397.3	61.44	23.741		
8,300.0	7,377.0	8,233.3	7,472.0	37.3	30.5	-93.73	524.8	-48.2	1,458.7	1,396.0	62.75	23.247		
8,400.0	7,377.0	8,333.3	7,472.0	37.6	31.3	-93.73	624.8	-49.0	1,458.7	1,394.5	64.22	22.715		
8,500.0	7,377.0	8,433.3	7,472.0	38.1	32.1	-93.73	724.8	-49.8	1,458.7	1,392.9	65.85	22.153		
8,600.0	7,377.0	8,533.3	7,472.0	38.6	33.1	-93.73	824.8	-50.6	1,458.7	1,391.1	67.62	21.573		
8,700.0	7,377.0	8,633.3	7,472.0	39.2	34.1	-93.73	924.8	-51.5	1,458.7	1,389.2	69.53	20.982		
8,800.0	7,377.0	8,733.3	7,472.0	40.0	35.1	-93.73	1,024.8	-52.3	1,458.7	1,387.2	71.55	20.387		
8,900.0	7,377.0	8,833.3	7,472.0	40.8	36.2	-93.73	1,124.8	-53.1	1,458.7	1,385.1	73.69	19.794		
9,000.0	7,377.0	8,933.3	7,472.0	41.7	37.4	-93.73	1,224.8	-53.9	1,458.7	1,382.8	75.94	19.209		
9,100.0	7,377.0	9,033.3	7,472.0	42.7	38.6	-93.73	1,324.8	-54.8	1,458.7	1,380.5	78.28	18.635		
9,200.0	7,377.0	9,133.3	7,472.0	43.7	39.9	-93.73	1,424.8	-55.6	1,458.7	1,378.0	80.70	18.076		
9,300.0	7,377.0	9,233.3	7,472.0	44.8	41.2	-93.73	1,524.8	-56.4	1,458.7	1,375.5	83.21	17.532		
9,400.0	7,377.0	9,333.3	7,472.0	45.9	42.5	-93.73	1,624.8	-57.2	1,458.7	1,373.0	85.78	17.005		
9,500.0	7,377.0	9,433.3	7,472.0	47.1	43.8	-93.73	1,724.8	-58.1	1,458.7	1,370.3	88.42	16.497		
9,600.0	7,377.0	9,533.3	7,472.0	48.4	45.2	-93.73	1,824.8	-58.9	1,458.7	1,367.6	91.12	16.009		
9,700.0	7,377.0	9,633.3	7,472.0	49.6	46.6	-93.73	1,924.8	-59.7	1,458.7	1,364.9	93.88	15.539		
9,800.0	7,377.0	9,733.3	7,472.0	50.9	48.1	-93.73	2,024.8	-60.6	1,458.7	1,362.1	96.68	15.088		
9,900.0	7,377.0	9,833.3	7,472.0	52.3	49.5	-93.73	2,124.8	-61.4	1,458.7	1,359.2	99.53	14.656		
10,000.0	7,377.0	9,933.3	7,472.0	53.6	51.0	-93.73	2,224.8	-62.2	1,458.7	1,356.3	102.43	14.242		
10,100.0	7,377.0	10,033.3	7,472.0	55.0	52.5	-93.73	2,324.8	-63.0	1,458.7	1,353.4	105.36	13.845		
10,200.0	7,377.0	10,133.3	7,472.0	56.4	54.0	-93.73	2,424.8	-63.9	1,458.7	1,350.4	108.33	13.466		
10,300.0	7,377.0	10,233.3	7,472.0	57.8	55.5	-93.73	2,524.8	-64.7	1,458.7	1,347.4	111.32	13.103		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,333.3	7,472.0	59.2	57.1	-93.73	2,624.8	-65.5	1,458.7	1,344.4	114.35	12.756		
10,500.0	7,377.0	10,433.3	7,472.0	60.7	58.6	-93.73	2,724.8	-66.3	1,458.7	1,341.3	117.41	12.424		
10,600.0	7,377.0	10,533.3	7,472.0	62.2	60.2	-93.73	2,824.8	-67.2	1,458.7	1,338.2	120.49	12.106		
10,700.0	7,377.0	10,633.3	7,472.0	63.7	61.7	-93.73	2,924.7	-68.0	1,458.7	1,335.1	123.60	11.802		
10,800.0	7,377.0	10,733.3	7,472.0	65.2	63.3	-93.73	3,024.7	-68.8	1,458.7	1,332.0	126.73	11.511		
10,900.0	7,377.0	10,833.3	7,472.0	66.7	64.9	-93.73	3,124.7	-69.6	1,458.7	1,328.9	129.88	11.232		
11,000.0	7,377.0	10,933.3	7,472.0	68.2	66.5	-93.73	3,224.7	-70.5	1,458.7	1,325.7	133.04	10.964		
11,100.0	7,377.0	11,033.3	7,472.0	69.8	68.1	-93.73	3,324.7	-71.3	1,458.7	1,322.5	136.23	10.708		
11,200.0	7,377.0	11,133.3	7,472.0	71.3	69.8	-93.73	3,424.7	-72.1	1,458.7	1,319.3	139.43	10.462		
11,300.0	7,377.0	11,233.3	7,472.0	72.9	71.4	-93.73	3,524.7	-73.0	1,458.7	1,316.1	142.65	10.226		
11,400.0	7,377.0	11,333.3	7,472.0	74.4	73.0	-93.73	3,624.7	-73.8	1,458.7	1,312.9	145.88	10.000		
11,500.0	7,377.0	11,433.3	7,472.0	76.0	74.6	-93.73	3,724.7	-74.6	1,458.7	1,309.6	149.12	9.782		
11,600.0	7,377.0	11,533.3	7,472.0	77.6	76.3	-93.73	3,824.7	-75.4	1,458.7	1,306.4	152.38	9.573		
11,700.0	7,377.0	11,633.3	7,472.0	79.2	77.9	-93.73	3,924.7	-76.3	1,458.7	1,303.1	155.65	9.372		
11,800.0	7,377.0	11,733.3	7,472.0	80.8	79.6	-93.73	4,024.7	-77.1	1,458.7	1,299.8	158.93	9.179		
11,900.0	7,377.0	11,833.3	7,472.0	82.4	81.3	-93.73	4,124.7	-77.9	1,458.7	1,296.5	162.22	8.992		
12,000.0	7,377.0	11,933.3	7,472.0	84.0	82.9	-93.73	4,224.7	-78.7	1,458.7	1,293.2	165.52	8.813		
12,100.0	7,377.0	12,033.3	7,472.0	85.6	84.6	-93.73	4,324.7	-79.6	1,458.7	1,289.9	168.83	8.641		
12,200.0	7,377.0	12,133.3	7,472.0	87.3	86.3	-93.73	4,424.7	-80.4	1,458.7	1,286.6	172.14	8.474		
12,300.0	7,377.0	12,233.3	7,472.0	88.9	87.9	-93.73	4,524.7	-81.2	1,458.7	1,283.3	175.47	8.313		
12,400.0	7,377.0	12,333.3	7,472.0	90.5	89.6	-93.73	4,624.7	-82.0	1,458.7	1,279.9	178.80	8.158		
12,500.0	7,377.0	12,433.3	7,472.0	92.2	91.3	-93.73	4,724.7	-82.9	1,458.7	1,276.6	182.14	8.009		
12,600.0	7,377.0	12,533.3	7,472.0	93.8	93.0	-93.73	4,824.7	-83.7	1,458.7	1,273.2	185.49	7.864		
12,700.0	7,377.0	12,633.3	7,472.0	95.5	94.7	-93.73	4,924.7	-84.5	1,458.7	1,269.9	188.84	7.725		
12,800.0	7,377.0	12,733.3	7,472.0	97.1	96.3	-93.73	5,024.7	-85.4	1,458.7	1,266.5	192.20	7.590		
12,900.0	7,377.0	12,833.3	7,472.0	98.8	98.0	-93.73	5,124.7	-86.2	1,458.7	1,263.2	195.57	7.459		
13,000.0	7,377.0	12,933.3	7,472.0	100.4	99.7	-93.73	5,224.7	-87.0	1,458.7	1,259.8	198.94	7.333		
13,100.0	7,377.0	13,033.3	7,472.0	102.1	101.4	-93.73	5,324.7	-87.8	1,458.7	1,256.4	202.31	7.210		
13,200.0	7,377.0	13,133.3	7,472.0	103.8	103.1	-93.73	5,424.7	-88.7	1,458.7	1,253.0	205.70	7.092		
13,300.0	7,377.0	13,233.3	7,472.0	105.4	104.8	-93.73	5,524.7	-89.5	1,458.7	1,249.7	209.08	6.977		
13,400.0	7,377.0	13,333.3	7,472.0	107.1	106.5	-93.73	5,624.7	-90.3	1,458.7	1,246.3	212.47	6.866		
13,500.0	7,377.0	13,433.3	7,472.0	108.8	108.2	-93.73	5,724.7	-91.1	1,458.7	1,242.9	215.87	6.758		
13,600.0	7,377.0	13,533.3	7,472.0	110.5	110.0	-93.73	5,824.6	-92.0	1,458.7	1,239.5	219.27	6.653		
13,700.0	7,377.0	13,633.3	7,472.0	112.2	111.7	-93.73	5,924.6	-92.8	1,458.7	1,236.1	222.67	6.551		
13,800.0	7,377.0	13,733.3	7,472.0	113.8	113.4	-93.73	6,024.6	-93.6	1,458.7	1,232.7	226.08	6.452		
13,900.0	7,377.0	13,833.3	7,472.0	115.5	115.1	-93.73	6,124.6	-94.5	1,458.7	1,229.2	229.49	6.356		
14,000.0	7,377.0	13,933.3	7,472.0	117.2	116.8	-93.73	6,224.6	-95.3	1,458.7	1,225.8	232.90	6.263		
14,100.0	7,377.0	14,033.3	7,472.0	118.9	118.5	-93.73	6,324.6	-96.1	1,458.7	1,222.4	236.32	6.173		
14,164.1	7,377.0	14,097.4	7,472.0	120.0	119.6	-93.73	6,388.7	-96.6	1,458.7	1,220.2	238.51	6.116		
14,200.0	7,377.0	14,122.1	7,472.0	120.6	120.1	-93.73	6,413.4	-96.9	1,458.9	1,219.4	239.42	6.093		
14,300.0	7,377.0	14,190.7	7,472.0	122.3	121.2	-93.73	6,482.0	-98.8	1,460.8	1,218.9	241.87	6.039		
14,400.0	7,377.0	14,290.6	7,472.0	124.0	123.0	-93.72	6,581.9	-102.6	1,463.7	1,218.4	245.30	5.967		
14,500.0	7,377.0	14,390.6	7,472.0	125.7	124.7	-93.72	6,681.7	-106.3	1,466.6	1,217.9	248.74	5.896		
14,600.0	7,377.0	14,490.5	7,472.0	127.4	126.4	-93.71	6,781.6	-110.1	1,469.5	1,217.4	252.18	5.827		
14,700.0	7,377.0	14,590.5	7,472.0	129.1	128.2	-93.70	6,881.5	-113.8	1,472.5	1,216.8	255.62	5.760		
14,800.0	7,377.0	14,690.5	7,472.0	130.8	129.9	-93.69	6,981.4	-117.6	1,475.4	1,216.3	259.07	5.695		
14,900.0	7,377.0	14,790.4	7,472.0	132.5	131.6	-93.69	7,081.3	-121.3	1,478.3	1,215.8	262.51	5.631		
15,000.0	7,377.0	14,890.4	7,472.0	134.2	133.4	-93.68	7,181.2	-125.1	1,481.2	1,215.3	265.96	5.569		
15,100.0	7,377.0	14,990.3	7,472.0	135.9	135.1	-93.67	7,281.1	-128.8	1,484.1	1,214.7	269.42	5.509		
15,200.0	7,377.0	15,090.3	7,472.0	137.6	136.8	-93.66	7,380.9	-132.6	1,487.1	1,214.2	272.87	5.450		
15,300.0	7,377.0	15,190.2	7,472.0	139.3	138.6	-93.66	7,480.8	-136.3	1,490.0	1,213.6	276.33	5.392		
15,400.0	7,377.0	15,290.2	7,472.0	141.1	140.3	-93.65	7,580.7	-140.1	1,492.9	1,213.1	279.78	5.336		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
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			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
15,500.0	7,377.0	15,390.2	7,472.0	142.8	142.1	-93.64	7,680.6	-143.8	1,495.8	1,212.6	283.24	5.281		
15,600.0	7,377.0	15,490.1	7,472.0	144.5	143.8	-93.64	7,780.5	-147.6	1,498.7	1,212.0	286.71	5.227		
15,700.0	7,377.0	15,590.1	7,472.0	146.2	145.5	-93.63	7,880.4	-151.3	1,501.7	1,211.5	290.17	5.175		
15,800.0	7,377.0	15,690.0	7,472.0	147.9	147.3	-93.62	7,980.3	-155.1	1,504.6	1,210.9	293.64	5.124		
15,900.0	7,377.0	15,790.0	7,472.0	149.6	149.0	-93.61	8,080.2	-158.8	1,507.5	1,210.4	297.10	5.074		
16,000.0	7,377.0	15,889.9	7,472.0	151.4	150.8	-93.61	8,180.0	-162.6	1,510.4	1,209.8	300.57	5.025		
16,100.0	7,377.0	16,063.5	7,472.0	153.1	153.8	-93.60	8,353.5	-165.7	1,511.7	1,205.6	306.15	4.938		
16,200.0	7,377.0	16,186.0	7,472.0	154.8	155.9	-93.61	8,476.0	-162.8	1,508.4	1,198.3	310.11	4.864		
16,300.0	7,377.0	16,285.9	7,472.0	156.5	157.6	-93.62	8,575.9	-160.2	1,505.0	1,191.4	313.56	4.800		
16,400.0	7,377.0	16,385.9	7,472.0	158.3	159.4	-93.63	8,675.8	-157.6	1,501.6	1,184.5	317.01	4.737		
16,500.0	7,377.0	16,485.8	7,472.0	160.0	161.1	-93.64	8,775.7	-155.0	1,498.1	1,177.7	320.47	4.675		
16,600.0	7,377.0	16,585.7	7,472.0	161.7	162.8	-93.65	8,875.6	-152.3	1,494.7	1,170.8	323.92	4.614		
16,700.0	7,377.0	16,685.7	7,472.0	163.4	164.5	-93.65	8,975.5	-149.7	1,491.2	1,163.9	327.37	4.555		
16,800.0	7,377.0	16,785.6	7,472.0	165.2	166.3	-93.66	9,075.4	-147.1	1,487.8	1,157.0	330.83	4.497		
16,900.0	7,377.0	16,885.6	7,472.0	166.9	168.0	-93.67	9,175.3	-144.5	1,484.4	1,150.1	334.28	4.440		
17,000.0	7,377.0	16,985.5	7,472.0	168.6	169.7	-93.68	9,275.3	-141.9	1,480.9	1,143.2	337.74	4.385		
17,100.0	7,377.0	17,085.5	7,472.0	170.3	171.4	-93.69	9,375.2	-139.3	1,477.5	1,136.3	341.20	4.330		
17,200.0	7,377.0	17,185.4	7,472.0	172.1	173.2	-93.70	9,475.1	-136.6	1,474.1	1,129.4	344.66	4.277		
17,300.0	7,377.0	17,285.3	7,472.0	173.8	174.9	-93.71	9,575.0	-134.0	1,470.6	1,122.5	348.12	4.225		
17,400.0	7,377.0	17,385.3	7,472.0	175.5	176.6	-93.71	9,674.9	-131.4	1,467.2	1,115.6	351.58	4.173		
17,500.0	7,377.0	17,485.2	7,472.0	177.3	178.4	-93.72	9,774.8	-128.8	1,463.8	1,108.7	355.04	4.123		
17,600.0	7,377.0	17,585.2	7,472.0	179.0	180.1	-93.73	9,874.7	-126.2	1,460.3	1,101.8	358.50	4.073		
17,671.4	7,377.0	17,606.3	7,472.0	180.2	180.5	-93.73	9,895.8	-125.6	1,458.7	1,099.0	359.74	4.055		
17,683.1	7,377.0	17,606.3	7,472.0	180.4	180.5	-93.73	9,895.8	-125.6	1,458.8	1,099.0	359.80	4.054 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.28	-0.4	-90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.28	-0.4	-90.0	90.0	89.8	0.28	325.083		
200.0	200.0	200.0	200.0	1.0	0.0	-90.28	-0.4	-90.0	90.0	89.2	0.80	112.867		
300.0	300.0	300.0	300.0	1.5	0.0	-90.28	-0.4	-90.0	90.0	88.8	1.22	73.541		
400.0	400.0	400.0	400.0	1.9	0.0	-90.28	-0.4	-90.0	90.0	88.4	1.62	55.641		
500.0	500.0	500.0	500.0	2.3	0.0	-90.28	-0.4	-90.0	90.0	88.0	2.00	45.046		
600.0	600.0	600.0	600.0	2.7	0.0	-90.28	-0.4	-90.0	90.0	87.7	2.37	37.950		
700.0	700.0	700.0	700.0	3.1	0.0	-90.28	-0.4	-90.0	90.0	87.3	2.74	32.834		
800.0	800.0	800.0	800.0	3.5	0.0	-90.28	-0.4	-90.0	90.0	86.9	3.11	28.958		
900.0	900.0	900.0	900.0	3.9	0.0	-90.28	-0.4	-90.0	90.0	86.6	3.47	25.914 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	160.46	-0.4	-90.0	91.7	87.7	3.99	22.965		
1,100.0	1,099.8	1,099.8	1,099.8	4.7	0.0	161.47	-0.4	-90.0	96.6	91.9	4.73	20.449		
1,200.0	1,199.5	1,198.2	1,198.2	5.5	0.0	162.05	-2.0	-90.7	105.5	100.1	5.39	19.560		
1,300.0	1,298.7	1,295.9	1,295.8	6.2	0.0	161.47	-6.6	-92.6	118.9	112.9	6.00	19.824		
1,400.0	1,397.5	1,393.2	1,392.7	6.9	0.0	160.18	-14.2	-95.7	136.8	130.3	6.54	20.910		
1,500.0	1,495.6	1,490.8	1,489.9	7.5	0.0	159.29	-22.5	-99.2	158.2	151.2	7.06	22.418		
1,600.0	1,593.1	1,587.7	1,586.4	8.0	0.0	158.97	-30.7	-102.6	182.9	175.4	7.50	24.390		
1,700.0	1,690.2	1,684.3	1,682.6	8.3	0.0	158.99	-39.0	-106.0	208.7	200.9	7.77	26.868		
1,800.0	1,787.3	1,780.9	1,778.8	8.6	0.0	159.01	-47.2	-109.4	234.6	226.5	8.06	29.119		
1,900.0	1,884.4	1,877.5	1,875.0	8.9	0.0	159.02	-55.4	-112.8	260.4	252.1	8.35	31.177		
2,000.0	1,981.6	1,974.1	1,971.1	9.2	0.0	159.03	-63.6	-116.2	286.3	277.6	8.66	33.059		
2,100.0	2,078.7	2,070.7	2,067.3	9.5	0.0	159.04	-71.9	-119.6	312.2	303.2	8.98	34.781		
2,200.0	2,175.8	2,167.3	2,163.5	9.8	0.0	159.05	-80.1	-123.0	338.0	328.7	9.30	36.357		
2,300.0	2,272.9	2,263.9	2,259.7	10.2	0.0	159.05	-88.3	-126.5	363.9	354.3	9.63	37.802		
2,400.0	2,370.0	2,360.5	2,355.9	10.6	0.0	159.06	-96.6	-129.9	389.7	379.8	9.96	39.127		
2,500.0	2,467.2	2,457.1	2,452.1	11.0	0.0	159.07	-104.8	-133.3	415.6	405.3	10.30	40.345		
2,600.0	2,564.3	2,553.7	2,548.3	11.4	0.0	159.07	-113.0	-136.7	441.5	430.8	10.65	41.466		
2,700.0	2,661.4	2,650.3	2,644.4	11.8	0.0	159.07	-121.2	-140.1	467.3	456.3	11.00	42.500		
2,800.0	2,758.5	2,746.9	2,740.6	12.3	0.0	159.08	-129.5	-143.5	493.2	481.8	11.35	43.455		
2,900.0	2,855.7	2,843.5	2,836.8	12.8	0.0	159.08	-137.7	-146.9	519.0	507.3	11.71	44.338		
3,000.0	2,952.8	2,940.1	2,933.0	13.3	0.0	159.08	-145.9	-150.3	544.9	532.8	12.07	45.156		
3,100.0	3,049.9	3,036.7	3,029.2	13.8	0.0	159.09	-154.1	-153.7	570.8	558.3	12.43	45.915		
3,200.0	3,147.0	3,133.3	3,125.4	14.3	0.0	159.09	-162.4	-157.2	596.6	583.8	12.80	46.621		
3,300.0	3,244.1	3,229.9	3,221.6	14.8	0.0	159.09	-170.6	-160.6	622.5	609.3	13.17	47.278		
3,400.0	3,341.3	3,326.5	3,317.8	15.4	0.0	159.09	-178.8	-164.0	648.4	634.8	13.54	47.892		
3,500.0	3,438.4	3,423.1	3,413.9	15.9	0.0	159.09	-187.1	-167.4	674.2	660.3	13.91	48.464		
3,600.0	3,535.5	3,519.7	3,510.1	16.4	0.0	159.10	-195.3	-170.8	700.1	685.8	14.29	49.000		
3,700.0	3,632.6	3,616.3	3,606.3	17.0	0.0	159.10	-203.5	-174.2	725.9	711.3	14.66	49.502		
3,800.0	3,729.8	3,712.9	3,702.5	17.5	0.0	159.10	-211.7	-177.6	751.8	736.8	15.04	49.974		
3,900.0	3,826.9	3,809.5	3,798.7	18.0	0.0	159.10	-220.0	-181.0	777.7	762.2	15.42	50.416		
4,000.0	3,924.0	3,906.1	3,894.9	18.6	0.0	159.10	-228.2	-184.4	803.5	787.7	15.81	50.833		
4,100.0	4,021.1	4,002.7	3,991.1	19.1	0.0	159.10	-236.4	-187.8	829.4	813.2	16.19	51.226		
4,200.0	4,118.3	4,099.3	4,087.2	19.6	0.0	159.10	-244.7	-191.3	855.2	838.7	16.58	51.596		
4,300.0	4,215.4	4,195.9	4,183.4	20.2	0.0	159.10	-252.9	-194.7	881.1	864.1	16.96	51.946		
4,400.0	4,312.5	4,292.5	4,279.6	20.7	0.0	159.11	-261.1	-198.1	907.0	889.6	17.35	52.276		
4,500.0	4,409.6	4,389.1	4,375.8	21.3	0.0	159.11	-269.3	-201.5	932.8	915.1	17.74	52.590		
4,600.0	4,506.7	4,485.7	4,472.0	21.8	0.0	159.11	-277.6	-204.9	958.7	940.6	18.13	52.886		
4,700.0	4,603.9	4,582.3	4,568.2	22.3	0.0	159.11	-285.8	-208.3	984.5	966.0	18.52	53.168		
4,800.0	4,701.0	4,678.9	4,664.4	22.9	0.0	159.11	-294.0	-211.7	1,010.4	991.5	18.91	53.435		
4,900.0	4,798.1	4,775.5	4,760.6	23.4	0.0	159.11	-302.3	-215.1	1,036.3	1,017.0	19.30	53.690		
5,000.0	4,895.2	4,872.1	4,856.7	24.0	0.0	159.11	-310.5	-218.5	1,062.1	1,042.4	19.69	53.932		
5,100.0	4,992.4	4,968.7	4,952.9	24.5	0.0	159.11	-318.7	-222.0	1,088.0	1,067.9	20.09	54.162		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,065.3	5,049.1	25.1	0.0	159.11	-326.9	-225.4	1,113.9	1,093.4	20.48	54.382		
5,300.0	5,186.6	5,161.9	5,145.3	25.6	0.0	159.11	-335.2	-228.8	1,139.7	1,118.8	20.88	54.591		
5,400.0	5,283.7	5,258.5	5,241.5	26.2	0.0	159.11	-343.4	-232.2	1,165.6	1,144.3	21.27	54.791		
5,500.0	5,380.9	5,355.1	5,337.7	26.7	0.0	159.11	-351.6	-235.6	1,191.4	1,169.8	21.67	54.983		
5,600.0	5,478.0	5,451.6	5,433.9	27.2	0.0	159.11	-359.9	-239.0	1,217.3	1,195.2	22.07	55.166		
5,700.0	5,575.1	5,548.2	5,530.0	27.8	0.0	159.11	-368.1	-242.4	1,243.2	1,220.7	22.46	55.341		
5,800.0	5,672.2	5,644.8	5,626.2	28.3	0.0	159.12	-376.3	-245.8	1,269.0	1,246.2	22.86	55.509		
5,900.0	5,769.3	5,741.4	5,722.4	28.9	0.0	159.12	-384.5	-249.2	1,294.9	1,271.6	23.26	55.669		
6,000.0	5,866.5	5,838.0	5,818.6	29.4	0.0	159.12	-392.8	-252.6	1,320.7	1,297.1	23.66	55.823		
6,100.0	5,963.6	5,934.6	5,914.8	30.0	0.0	159.12	-401.0	-256.1	1,346.6	1,322.5	24.06	55.971		
6,200.0	6,060.7	6,031.2	6,011.0	30.5	0.0	159.12	-409.2	-259.5	1,372.5	1,348.0	24.46	56.114		
6,300.0	6,157.8	6,127.8	6,107.2	31.1	0.0	159.12	-417.4	-262.9	1,398.3	1,373.5	24.86	56.250		
6,400.0	6,255.0	6,224.4	6,203.4	31.6	0.0	159.12	-425.7	-266.3	1,424.2	1,398.9	25.26	56.381		
6,500.0	6,352.1	6,321.0	6,299.5	32.2	0.0	159.12	-433.9	-269.7	1,450.0	1,424.4	25.66	56.508		
6,600.0	6,449.2	6,417.6	6,395.7	32.7	0.0	159.12	-442.1	-273.1	1,475.9	1,449.8	26.06	56.629		
6,700.0	6,546.3	6,514.2	6,491.9	33.3	0.0	159.12	-450.4	-276.5	1,501.8	1,475.3	26.46	56.746		
6,800.0	6,643.4	6,610.8	6,588.1	33.8	0.0	159.12	-458.6	-279.9	1,527.6	1,500.8	26.87	56.859		
6,900.0	6,740.6	6,707.4	6,684.4	34.4	0.0	159.22	-464.3	-283.4	1,553.5	1,526.2	27.26	56.985		
7,000.0	6,837.9	6,801.9	6,778.4	34.9	0.0	-170.46	-465.7	-286.8	1,579.5	1,551.9	27.59	57.246		
7,100.0	6,934.5	6,894.5	6,867.8	35.4	0.0	-133.83	-432.5	-290.3	1,605.3	1,577.4	27.98	57.379		
7,200.0	7,027.6	6,985.7	6,951.1	35.8	0.0	-114.54	-395.8	-293.6	1,630.3	1,601.9	28.41	57.376		
7,300.0	7,114.3	7,076.1	7,026.9	36.2	0.0	-103.80	-346.8	-296.7	1,653.6	1,624.9	28.68	57.652		
7,400.0	7,192.0	7,166.0	7,093.8	36.5	0.0	-97.00	-286.9	-299.6	1,674.5	1,645.7	28.83	58.074		
7,500.0	7,258.5	7,255.7	7,150.3	36.7	0.0	-92.39	-217.5	-302.3	1,692.4	1,663.4	28.93	58.494		
7,600.0	7,311.5	7,345.4	7,195.4	36.8	0.0	-89.23	-140.0	-304.5	1,706.6	1,677.6	29.02	58.806		
7,700.0	7,349.6	7,435.2	7,227.8	36.8	0.0	-87.19	-56.4	-306.4	1,716.8	1,687.7	29.13	58.934		
7,800.0	7,371.5	7,525.1	7,246.8	36.8	0.0	-86.09	31.4	-307.8	1,722.7	1,693.4	29.29	58.823		
7,900.0	7,377.0	7,616.6	7,252.0	36.8	0.0	-85.84	122.7	-308.7	1,724.1	1,694.6	29.49	58.459		
8,000.0	7,377.0	7,716.6	7,252.0	36.8	0.0	-85.84	222.7	-309.6	1,724.1	1,694.3	29.79	57.884		
8,100.0	7,377.0	7,816.6	7,252.0	36.9	0.0	-85.84	322.6	-310.4	1,724.1	1,693.9	30.18	57.124		
8,200.0	7,377.0	7,916.6	7,252.0	37.1	0.0	-85.84	422.6	-311.2	1,724.1	1,693.4	30.67	56.207		
8,300.0	7,377.0	8,016.6	7,252.0	37.3	0.0	-85.84	522.6	-312.1	1,724.1	1,692.8	31.26	55.157		
8,400.0	7,377.0	8,116.6	7,252.0	37.6	0.0	-85.84	622.6	-312.9	1,724.1	1,692.2	31.93	53.998		
8,500.0	7,377.0	8,216.6	7,252.0	38.1	0.0	-85.84	722.6	-313.7	1,724.1	1,691.4	32.68	52.755		
8,600.0	7,377.0	8,316.6	7,252.0	38.6	0.0	-85.84	822.6	-314.5	1,724.1	1,690.6	33.51	51.452		
8,700.0	7,377.0	8,416.6	7,252.0	39.2	0.0	-85.84	922.6	-315.4	1,724.1	1,689.7	34.41	50.108		
8,800.0	7,377.0	8,516.6	7,252.0	40.0	0.0	-85.84	1,022.6	-316.2	1,724.1	1,688.7	35.37	48.744		
8,900.0	7,377.0	8,616.6	7,252.0	40.8	0.0	-85.84	1,122.6	-317.0	1,724.1	1,687.7	36.39	47.373		
9,000.0	7,377.0	8,716.6	7,252.0	41.7	0.0	-85.84	1,222.6	-317.8	1,724.1	1,686.6	37.47	46.011		
9,100.0	7,377.0	8,816.6	7,252.0	42.7	0.0	-85.84	1,322.6	-318.7	1,724.1	1,685.5	38.60	44.666		
9,200.0	7,377.0	8,916.6	7,252.0	43.7	0.0	-85.84	1,422.6	-319.5	1,724.1	1,684.3	39.77	43.347		
9,300.0	7,377.0	9,016.6	7,252.0	44.8	0.0	-85.84	1,522.6	-320.3	1,724.1	1,683.1	40.99	42.060		
9,400.0	7,377.0	9,116.6	7,252.0	45.9	0.0	-85.84	1,622.6	-321.2	1,724.1	1,681.9	42.25	40.811		
9,500.0	7,377.0	9,216.6	7,252.0	47.1	0.0	-85.84	1,722.6	-322.0	1,724.1	1,680.6	43.54	39.601		
9,600.0	7,377.0	9,316.6	7,252.0	48.4	0.0	-85.84	1,822.6	-322.8	1,724.1	1,679.2	44.86	38.434		
9,700.0	7,377.0	9,416.6	7,252.0	49.6	0.0	-85.84	1,922.6	-323.6	1,724.1	1,677.9	46.21	37.310		
9,800.0	7,377.0	9,516.6	7,252.0	50.9	0.0	-85.84	2,022.6	-324.5	1,724.1	1,676.5	47.59	36.229		
9,900.0	7,377.0	9,616.6	7,252.0	52.3	0.0	-85.84	2,122.6	-325.3	1,724.1	1,675.1	48.99	35.192		
10,000.0	7,377.0	9,716.6	7,252.0	53.6	0.0	-85.84	2,222.6	-326.1	1,724.1	1,673.7	50.42	34.197		
10,100.0	7,377.0	9,816.6	7,252.0	55.0	0.0	-85.84	2,322.6	-326.9	1,724.1	1,672.2	51.86	33.243		
10,200.0	7,377.0	9,916.6	7,252.0	56.4	0.0	-85.84	2,422.6	-327.8	1,724.1	1,670.8	53.33	32.330		
10,300.0	7,377.0	10,016.6	7,252.0	57.8	0.0	-85.84	2,522.6	-328.6	1,724.1	1,669.3	54.81	31.455		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,116.6	7,252.0	59.2	0.0	-85.84	2,622.6	-329.4	1,724.1	1,667.8	56.31	30.618		
10,500.0	7,377.0	10,216.6	7,252.0	60.7	0.0	-85.84	2,722.6	-330.3	1,724.1	1,666.3	57.82	29.816		
10,600.0	7,377.0	10,316.6	7,252.0	62.2	0.0	-85.84	2,822.6	-331.1	1,724.1	1,664.8	59.35	29.049		
10,700.0	7,377.0	10,416.6	7,252.0	63.7	0.0	-85.84	2,922.6	-331.9	1,724.1	1,663.2	60.89	28.315		
10,800.0	7,377.0	10,516.6	7,252.0	65.2	0.0	-85.84	3,022.6	-332.7	1,724.1	1,661.7	62.44	27.611		
10,900.0	7,377.0	10,616.6	7,252.0	66.7	0.0	-85.84	3,122.6	-333.6	1,724.1	1,660.1	64.01	26.937		
11,000.0	7,377.0	10,716.6	7,252.0	68.2	0.0	-85.84	3,222.5	-334.4	1,724.1	1,658.5	65.58	26.291		
11,100.0	7,377.0	10,816.6	7,252.0	69.8	0.0	-85.84	3,322.5	-335.2	1,724.1	1,656.9	67.16	25.672		
11,200.0	7,377.0	10,916.6	7,252.0	71.3	0.0	-85.84	3,422.5	-336.0	1,724.1	1,655.4	68.75	25.078		
11,300.0	7,377.0	11,016.6	7,252.0	72.9	0.0	-85.84	3,522.5	-336.9	1,724.1	1,653.8	70.35	24.508		
11,400.0	7,377.0	11,116.6	7,252.0	74.4	0.0	-85.84	3,622.5	-337.7	1,724.1	1,652.1	71.96	23.960		
11,500.0	7,377.0	11,216.6	7,252.0	76.0	0.0	-85.84	3,722.5	-338.5	1,724.1	1,650.5	73.57	23.435		
11,600.0	7,377.0	11,316.6	7,252.0	77.6	0.0	-85.84	3,822.5	-339.4	1,724.1	1,648.9	75.19	22.930		
11,700.0	7,377.0	11,416.6	7,252.0	79.2	0.0	-85.84	3,922.5	-340.2	1,724.1	1,647.3	76.82	22.444		
11,800.0	7,377.0	11,516.6	7,252.0	80.8	0.0	-85.84	4,022.5	-341.0	1,724.1	1,645.7	78.45	21.977		
11,900.0	7,377.0	11,616.6	7,252.0	82.4	0.0	-85.84	4,122.5	-341.8	1,724.1	1,644.0	80.09	21.528		
12,000.0	7,377.0	11,716.6	7,252.0	84.0	0.0	-85.84	4,222.5	-342.7	1,724.1	1,642.4	81.73	21.095		
12,100.0	7,377.0	11,816.6	7,252.0	85.6	0.0	-85.84	4,322.5	-343.5	1,724.1	1,640.7	83.38	20.678		
12,200.0	7,377.0	11,916.6	7,252.0	87.3	0.0	-85.84	4,422.5	-344.3	1,724.1	1,639.1	85.03	20.276		
12,300.0	7,377.0	12,016.6	7,252.0	88.9	0.0	-85.84	4,522.5	-345.1	1,724.1	1,637.4	86.69	19.889		
12,400.0	7,377.0	12,116.6	7,252.0	90.5	0.0	-85.84	4,622.5	-346.0	1,724.1	1,635.8	88.35	19.515		
12,500.0	7,377.0	12,216.6	7,252.0	92.2	0.0	-85.84	4,722.5	-346.8	1,724.1	1,634.1	90.01	19.154		
12,600.0	7,377.0	12,316.6	7,252.0	93.8	0.0	-85.84	4,822.5	-347.6	1,724.1	1,632.4	91.68	18.805		
12,700.0	7,377.0	12,416.6	7,252.0	95.5	0.0	-85.84	4,922.5	-348.4	1,724.1	1,630.8	93.35	18.469		
12,800.0	7,377.0	12,516.6	7,252.0	97.1	0.0	-85.84	5,022.5	-349.3	1,724.1	1,629.1	95.03	18.143		
12,900.0	7,377.0	12,616.6	7,252.0	98.8	0.0	-85.84	5,122.5	-350.1	1,724.1	1,627.4	96.71	17.828		
13,000.0	7,377.0	12,716.6	7,252.0	100.4	0.0	-85.84	5,222.5	-350.9	1,724.1	1,625.7	98.39	17.524		
13,100.0	7,377.0	12,816.6	7,252.0	102.1	0.0	-85.84	5,322.5	-351.8	1,724.1	1,624.0	100.07	17.229		
13,200.0	7,377.0	12,916.6	7,252.0	103.8	0.0	-85.84	5,422.5	-352.6	1,724.1	1,622.3	101.76	16.943		
13,300.0	7,377.0	13,016.6	7,252.0	105.4	0.0	-85.84	5,522.5	-353.4	1,724.1	1,620.7	103.45	16.667		
13,400.0	7,377.0	13,116.6	7,252.0	107.1	0.0	-85.84	5,622.5	-354.2	1,724.1	1,619.0	105.14	16.399		
13,500.0	7,377.0	13,216.6	7,252.0	108.8	0.0	-85.84	5,722.5	-355.1	1,724.1	1,617.3	106.83	16.139		
13,600.0	7,377.0	13,316.6	7,252.0	110.5	0.0	-85.84	5,822.5	-355.9	1,724.1	1,615.6	108.53	15.886		
13,700.0	7,377.0	13,416.6	7,252.0	112.2	0.0	-85.84	5,922.5	-356.7	1,724.1	1,613.9	110.22	15.642		
13,800.0	7,377.0	13,516.6	7,252.0	113.8	0.0	-85.84	6,022.5	-357.5	1,724.1	1,612.2	111.92	15.404		
13,900.0	7,377.0	13,616.6	7,252.0	115.5	0.0	-85.84	6,122.4	-358.4	1,724.1	1,610.5	113.63	15.173		
14,000.0	7,377.0	13,716.6	7,252.0	117.2	0.0	-85.84	6,222.4	-359.2	1,724.1	1,608.8	115.33	14.949		
14,100.0	7,377.0	13,816.6	7,252.0	118.9	0.0	-85.84	6,322.4	-360.0	1,724.1	1,607.1	117.04	14.732		
14,200.0	7,377.0	13,916.6	7,252.0	120.6	0.0	-85.84	6,422.4	-360.9	1,724.1	1,605.4	118.74	14.520		
14,300.0	7,377.0	14,016.6	7,252.0	122.3	0.0	-85.84	6,522.4	-361.7	1,724.1	1,603.7	120.45	14.314		
14,400.0	7,377.0	14,116.6	7,252.0	124.0	0.0	-85.84	6,622.4	-362.5	1,724.1	1,601.9	122.16	14.113		
14,500.0	7,377.0	14,216.6	7,252.0	125.7	0.0	-85.84	6,722.4	-363.3	1,724.1	1,600.2	123.87	13.918		
14,600.0	7,377.0	14,316.6	7,252.0	127.4	0.0	-85.84	6,822.4	-364.2	1,724.1	1,598.5	125.58	13.729		
14,700.0	7,377.0	14,416.6	7,252.0	129.1	0.0	-85.84	6,922.4	-365.0	1,724.1	1,596.8	127.30	13.544		
14,800.0	7,377.0	14,516.6	7,252.0	130.8	0.0	-85.84	7,022.4	-365.8	1,724.1	1,595.1	129.01	13.364		
14,900.0	7,377.0	14,616.6	7,252.0	132.5	0.0	-85.84	7,122.4	-366.6	1,724.1	1,593.4	130.73	13.188		
15,000.0	7,377.0	14,716.6	7,252.0	134.2	0.0	-85.84	7,222.4	-367.5	1,724.1	1,591.7	132.45	13.017		
15,100.0	7,377.0	14,816.6	7,252.0	135.9	0.0	-85.84	7,322.4	-368.3	1,724.1	1,589.9	134.17	12.850		
15,200.0	7,377.0	14,916.6	7,252.0	137.6	0.0	-85.84	7,422.4	-369.1	1,724.1	1,588.2	135.89	12.688		
15,300.0	7,377.0	15,016.6	7,252.0	139.3	0.0	-85.84	7,522.4	-370.0	1,724.1	1,586.5	137.61	12.529		
15,400.0	7,377.0	15,116.6	7,252.0	141.1	0.0	-85.84	7,622.4	-370.8	1,724.1	1,584.8	139.33	12.374		
15,500.0	7,377.0	15,216.6	7,252.0	142.8	0.0	-85.84	7,722.4	-371.6	1,724.1	1,583.1	141.05	12.223		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,600.0	7,377.0	15,316.6	7,252.0	144.5	0.0	-85.84	7,822.4	-372.4	1,724.1	1,581.3	142.78	12.075		
15,700.0	7,377.0	15,416.6	7,252.0	146.2	0.0	-85.84	7,922.4	-373.3	1,724.1	1,579.6	144.50	11.931		
15,800.0	7,377.0	15,516.6	7,252.0	147.9	0.0	-85.84	8,022.4	-374.1	1,724.1	1,577.9	146.23	11.790		
15,900.0	7,377.0	15,616.6	7,252.0	149.6	0.0	-85.84	8,122.4	-374.9	1,724.1	1,576.2	147.96	11.653		
16,000.0	7,377.0	15,716.6	7,252.0	151.4	0.0	-85.84	8,222.4	-375.7	1,724.1	1,574.4	149.68	11.518		
16,100.0	7,377.0	15,816.6	7,252.0	153.1	0.0	-85.84	8,322.4	-376.6	1,724.1	1,572.7	151.41	11.387		
16,200.0	7,377.0	15,916.6	7,252.0	154.8	0.0	-85.84	8,422.4	-377.4	1,724.1	1,571.0	153.14	11.258		
16,300.0	7,377.0	16,016.6	7,252.0	156.5	0.0	-85.84	8,522.4	-378.2	1,724.1	1,569.2	154.87	11.133		
16,400.0	7,377.0	16,116.6	7,252.0	158.3	0.0	-85.84	8,622.4	-379.1	1,724.1	1,567.5	156.60	11.010		
16,500.0	7,377.0	16,216.6	7,252.0	160.0	0.0	-85.84	8,722.4	-379.9	1,724.1	1,565.8	158.33	10.889		
16,600.0	7,377.0	16,316.6	7,252.0	161.7	0.0	-85.84	8,822.4	-380.7	1,724.1	1,564.0	160.06	10.771		
16,700.0	7,377.0	16,416.6	7,252.0	163.4	0.0	-85.84	8,922.4	-381.5	1,724.1	1,562.3	161.80	10.656		
16,800.0	7,377.0	16,516.6	7,252.0	165.2	0.0	-85.84	9,022.3	-382.4	1,724.1	1,560.6	163.53	10.543		
16,900.0	7,377.0	16,616.6	7,252.0	166.9	0.0	-85.84	9,122.3	-383.2	1,724.1	1,558.8	165.26	10.432		
17,000.0	7,377.0	16,716.6	7,252.0	168.6	0.0	-85.84	9,222.3	-384.0	1,724.1	1,557.1	167.00	10.324		
17,100.0	7,377.0	16,816.6	7,252.0	170.3	0.0	-85.84	9,322.3	-384.8	1,724.1	1,555.4	168.73	10.218		
17,200.0	7,377.0	16,916.6	7,252.0	172.1	0.0	-85.84	9,422.3	-385.7	1,724.1	1,553.6	170.47	10.114		
17,300.0	7,377.0	17,016.6	7,252.0	173.8	0.0	-85.84	9,522.3	-386.5	1,724.1	1,551.9	172.21	10.012		
17,400.0	7,377.0	17,116.6	7,252.0	175.5	0.0	-85.84	9,622.3	-387.3	1,724.1	1,550.2	173.94	9.912		
17,500.0	7,377.0	17,216.6	7,252.0	177.3	0.0	-85.84	9,722.3	-388.2	1,724.1	1,548.4	175.68	9.814		
17,600.0	7,377.0	17,316.6	7,252.0	179.0	0.0	-85.84	9,822.3	-389.0	1,724.1	1,546.7	177.42	9.718		
17,603.7	7,377.0	17,320.4	7,252.0	179.1	0.0	-85.84	9,826.1	-389.0	1,724.1	1,546.6	177.48	9.714		
17,683.1	7,377.0	17,385.9	7,252.0	180.4	0.0	-85.84	9,891.5	-389.5	1,724.2	1,545.4	178.72	9.647 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.23	-0.2	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.23	-0.2	-45.0	45.0	44.5	0.55	81.399		
200.0	200.0	200.0	200.0	1.0	1.0	-90.23	-0.2	-45.0	45.0	43.4	1.59	28.246		
300.0	300.0	300.0	300.0	1.5	1.5	-90.23	-0.2	-45.0	45.0	42.6	2.45	18.401		
400.0	400.0	400.0	400.0	1.9	1.9	-90.23	-0.2	-45.0	45.0	41.8	3.23	13.921		
500.0	500.0	500.0	500.0	2.3	2.3	-90.23	-0.2	-45.0	45.0	41.0	4.00	11.269		
600.0	600.0	600.0	600.0	2.7	2.7	-90.23	-0.2	-45.0	45.0	40.3	4.74	9.494		
700.0	700.0	700.0	700.0	3.1	3.1	-90.23	-0.2	-45.0	45.0	39.5	5.48	8.214		
800.0	800.0	800.0	800.0	3.5	3.5	-90.23	-0.2	-45.0	45.0	38.8	6.22	7.244		
900.0	900.0	900.0	900.0	3.9	3.9	-90.23	-0.2	-45.0	45.0	38.1	6.95	6.482 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	160.87	-0.2	-45.0	46.7	38.9	7.81	5.973		
1,100.0	1,099.8	1,099.8	1,099.8	4.7	4.6	162.74	-0.2	-45.0	51.6	42.8	8.89	5.812		
1,200.0	1,199.5	1,199.5	1,199.5	5.5	5.0	165.16	-0.2	-45.0	60.0	50.1	9.90	6.061		
1,300.0	1,298.7	1,300.9	1,300.9	6.2	5.3	167.00	-1.2	-43.6	70.3	59.3	11.00	6.393		
1,400.0	1,397.5	1,402.8	1,402.6	6.9	5.6	167.75	-4.2	-39.1	80.9	68.7	12.23	6.616		
1,500.0	1,495.6	1,504.9	1,504.4	7.5	6.3	167.78	-9.2	-31.6	91.7	78.3	13.38	6.856		
1,600.0	1,593.1	1,607.4	1,606.1	8.0	7.0	167.30	-16.3	-21.0	102.7	88.4	14.35	7.159		
1,700.0	1,690.2	1,707.1	1,704.7	8.3	7.3	166.65	-24.4	-9.1	113.2	98.4	14.88	7.609		
1,800.0	1,787.3	1,806.6	1,803.1	8.6	7.6	166.10	-32.4	2.9	123.8	108.3	15.45	8.009		
1,900.0	1,884.4	1,906.0	1,901.5	8.9	7.9	165.64	-40.4	14.8	134.3	118.2	16.05	8.369		
2,000.0	1,981.6	2,005.5	1,999.9	9.2	8.2	165.24	-48.5	26.7	144.8	128.2	16.66	8.695		
2,100.0	2,078.7	2,104.9	2,098.3	9.5	8.6	164.90	-56.5	38.7	155.4	138.1	17.28	8.988		
2,200.0	2,175.8	2,204.3	2,196.7	9.8	8.9	164.60	-64.5	50.6	165.9	148.0	17.93	9.254		
2,300.0	2,272.9	2,303.8	2,295.1	10.2	9.3	164.34	-72.6	62.5	176.5	157.9	18.59	9.494		
2,400.0	2,370.0	2,403.2	2,393.5	10.6	9.6	164.11	-80.6	74.5	187.0	167.7	19.25	9.712		
2,500.0	2,467.2	2,502.7	2,491.9	11.0	10.0	163.90	-88.6	86.4	197.6	177.6	19.94	9.910		
2,600.0	2,564.3	2,602.1	2,590.3	11.4	10.4	163.71	-96.7	98.3	208.1	187.5	20.63	10.090		
2,700.0	2,661.4	2,701.5	2,688.7	11.8	10.7	163.54	-104.7	110.3	218.7	197.3	21.32	10.254		
2,800.0	2,758.5	2,801.0	2,787.0	12.3	11.1	163.39	-112.7	122.2	229.2	207.2	22.03	10.405		
2,900.0	2,855.7	2,900.4	2,885.4	12.8	11.5	163.25	-120.8	134.1	239.8	217.0	22.74	10.542		
3,000.0	2,952.8	2,999.8	2,983.8	13.3	11.9	163.12	-128.8	146.1	250.4	226.9	23.47	10.669		
3,100.0	3,049.9	3,099.3	3,082.2	13.8	12.3	163.00	-136.8	158.0	260.9	236.7	24.19	10.785		
3,200.0	3,147.0	3,198.7	3,180.6	14.3	12.7	162.90	-144.9	169.9	271.5	246.6	24.92	10.892		
3,300.0	3,244.1	3,298.2	3,279.0	14.8	13.1	162.80	-152.9	181.9	282.0	256.4	25.66	10.991		
3,400.0	3,341.3	3,397.6	3,377.4	15.4	13.5	162.70	-160.9	193.8	292.6	266.2	26.40	11.083		
3,500.0	3,438.4	3,497.0	3,475.8	15.9	13.9	162.62	-168.9	205.7	303.2	276.0	27.15	11.168		
3,600.0	3,535.5	3,596.5	3,574.2	16.4	14.3	162.54	-177.0	217.7	313.7	285.8	27.90	11.247		
3,700.0	3,632.6	3,695.9	3,672.6	17.0	14.7	162.46	-185.0	229.6	324.3	295.7	28.65	11.320		
3,800.0	3,729.8	3,795.4	3,771.0	17.5	15.1	162.39	-193.0	241.5	334.9	305.5	29.40	11.389		
3,900.0	3,826.9	3,894.8	3,869.4	18.0	15.5	162.32	-201.1	253.5	345.4	315.3	30.16	11.453		
4,000.0	3,924.0	3,994.2	3,967.8	18.6	15.9	162.26	-209.1	265.4	356.0	325.1	30.92	11.512		
4,100.0	4,021.1	4,093.7	4,066.2	19.1	16.4	162.20	-217.1	277.3	366.6	334.9	31.69	11.568		
4,200.0	4,118.3	4,193.1	4,164.6	19.6	16.8	162.15	-225.2	289.3	377.2	344.7	32.46	11.621		
4,300.0	4,215.4	4,292.6	4,262.9	20.2	17.2	162.09	-233.2	301.2	387.7	354.5	33.22	11.670		
4,400.0	4,312.5	4,392.0	4,361.3	20.7	17.6	162.04	-241.2	313.1	398.3	364.3	33.99	11.716		
4,500.0	4,409.6	4,491.4	4,459.7	21.3	18.0	162.00	-249.3	325.0	408.9	374.1	34.77	11.760		
4,600.0	4,506.7	4,590.9	4,558.1	21.8	18.5	161.95	-257.3	337.0	419.4	383.9	35.54	11.801		
4,700.0	4,603.9	4,690.3	4,656.5	22.3	18.9	161.91	-265.3	348.9	430.0	393.7	36.32	11.840		
4,800.0	4,701.0	4,789.8	4,754.9	22.9	19.3	161.87	-273.4	360.8	440.6	403.5	37.10	11.877		
4,900.0	4,798.1	4,889.2	4,853.3	23.4	19.7	161.83	-281.4	372.8	451.2	413.3	37.87	11.912		
5,000.0	4,895.2	4,988.6	4,951.7	24.0	20.2	161.79	-289.4	384.7	461.7	423.1	38.66	11.945		
5,100.0	4,992.4	5,088.1	5,050.1	24.5	20.6	161.76	-297.4	396.6	472.3	432.9	39.44	11.976		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,187.5	5,148.5	25.1	21.0	161.72	-305.5	408.6	482.9	442.7	40.22	12.006		
5,300.0	5,186.6	5,286.9	5,246.9	25.6	21.4	161.69	-313.5	420.5	493.4	452.4	41.00	12.034		
5,400.0	5,283.7	5,386.4	5,345.3	26.2	21.9	161.66	-321.5	432.4	504.0	462.2	41.79	12.061		
5,500.0	5,380.9	5,485.8	5,443.7	26.7	22.3	161.63	-329.6	444.4	514.6	472.0	42.58	12.086		
5,600.0	5,478.0	5,585.3	5,542.1	27.2	22.7	161.60	-337.6	456.3	525.2	481.8	43.36	12.111		
5,700.0	5,575.1	5,684.7	5,640.5	27.8	23.1	161.58	-345.6	468.2	535.7	491.6	44.15	12.134		
5,800.0	5,672.2	5,784.1	5,738.8	28.3	23.6	161.55	-353.7	480.2	546.3	501.4	44.94	12.156		
5,900.0	5,769.3	5,883.6	5,837.2	28.9	24.0	161.53	-361.7	492.1	556.9	511.2	45.73	12.177		
6,000.0	5,866.5	5,983.0	5,935.6	29.4	24.4	161.50	-369.7	504.0	567.5	520.9	46.52	12.198		
6,100.0	5,963.6	6,082.5	6,034.0	30.0	24.8	161.48	-377.8	516.0	578.0	530.7	47.31	12.217		
6,200.0	6,060.7	6,181.9	6,132.4	30.5	25.3	161.45	-385.8	527.9	588.6	540.5	48.11	12.236		
6,300.0	6,157.8	6,281.3	6,230.8	31.1	25.7	161.43	-393.8	539.8	599.2	550.3	48.90	12.254		
6,400.0	6,255.0	6,380.8	6,329.2	31.6	26.1	161.41	-401.9	551.8	609.8	560.1	49.69	12.271		
6,500.0	6,352.1	6,480.2	6,427.6	32.2	26.6	161.39	-409.9	563.7	620.3	569.8	50.49	12.287		
6,600.0	6,449.2	6,579.7	6,526.0	32.7	27.0	161.37	-417.9	575.6	630.9	579.6	51.28	12.303		
6,700.0	6,546.3	6,679.1	6,624.4	33.3	27.4	161.35	-425.9	587.6	641.5	589.4	52.08	12.318		
6,800.0	6,643.4	6,778.5	6,722.8	33.8	27.8	161.33	-434.0	599.5	652.0	599.2	52.87	12.333		
6,900.0	6,740.6	6,878.0	6,821.2	34.4	28.3	161.32	-442.0	611.4	662.6	609.0	53.67	12.347		
7,000.0	6,837.9	6,977.3	6,919.4	34.9	28.7	-170.28	-450.0	623.4	673.1	618.6	54.48	12.355		
7,100.0	6,934.5	7,074.5	7,015.6	35.4	29.1	-137.38	-457.9	635.0	683.6	628.1	55.53	12.310		
7,200.0	7,027.6	7,168.5	7,108.8	35.8	29.5	-122.44	-461.7	646.1	695.1	638.3	56.77	12.244		
7,300.0	7,114.3	7,267.0	7,205.9	36.2	29.9	-115.78	-450.0	657.0	708.1	650.1	57.99	12.210		
7,400.0	7,192.0	7,372.3	7,305.9	36.5	30.4	-112.68	-419.2	667.2	722.2	663.3	58.97	12.247		
7,500.0	7,258.5	7,485.8	7,405.6	36.7	30.8	-111.31	-366.2	676.3	736.9	677.3	59.54	12.375		
7,600.0	7,311.5	7,608.6	7,499.6	36.8	31.1	-110.87	-287.8	683.5	751.2	691.4	59.76	12.571		
7,700.0	7,349.6	7,741.5	7,580.2	36.8	31.2	-110.90	-182.6	687.9	764.2	704.4	59.73	12.794		
7,800.0	7,371.5	7,884.1	7,637.6	36.8	31.2	-111.13	-52.4	688.3	774.7	714.9	59.73	12.969		
7,900.0	7,377.0	8,034.3	7,661.7	36.8	31.1	-111.38	95.3	684.0	781.7	721.6	60.12	13.002		
8,000.0	7,377.0	8,140.5	7,662.0	36.8	31.0	-111.29	201.4	678.8	785.5	724.7	60.83	12.913		
8,100.0	7,377.0	8,240.4	7,662.0	36.9	31.0	-111.18	301.2	674.0	789.2	727.5	61.70	12.792		
8,200.0	7,377.0	8,340.3	7,662.0	37.1	31.1	-111.08	401.0	669.1	793.0	730.3	62.73	12.642		
8,300.0	7,377.0	8,440.3	7,662.0	37.3	31.6	-110.97	500.8	664.3	796.7	732.8	63.92	12.464		
8,400.0	7,377.0	8,540.2	7,662.0	37.6	32.2	-110.87	600.6	659.5	800.5	735.2	65.27	12.265		
8,500.0	7,377.0	8,640.1	7,662.0	38.1	33.0	-110.77	700.4	654.6	804.3	737.5	66.75	12.048		
8,600.0	7,377.0	8,740.0	7,662.0	38.6	33.9	-110.67	800.2	649.8	808.0	739.7	68.37	11.818		
8,700.0	7,377.0	8,839.9	7,662.0	39.2	34.8	-110.57	900.0	644.9	811.8	741.7	70.12	11.577		
8,800.0	7,377.0	8,939.9	7,662.0	40.0	35.8	-110.47	999.8	640.1	815.6	743.6	71.99	11.329		
8,900.0	7,377.0	9,039.8	7,662.0	40.8	36.8	-110.37	1,099.6	635.2	819.3	745.4	73.96	11.078		
9,000.0	7,377.0	9,139.7	7,662.0	41.7	37.9	-110.27	1,199.4	630.4	823.1	747.1	76.03	10.826		
9,100.0	7,377.0	9,239.6	7,662.0	42.7	39.1	-110.18	1,299.2	625.5	826.9	748.7	78.20	10.574		
9,200.0	7,377.0	9,339.5	7,662.0	43.7	40.3	-110.08	1,399.0	620.7	830.7	750.2	80.45	10.326		
9,300.0	7,377.0	9,439.4	7,662.0	44.8	41.5	-109.99	1,498.8	615.8	834.4	751.7	82.78	10.081		
9,400.0	7,377.0	9,539.4	7,662.0	45.9	42.8	-109.89	1,598.6	611.0	838.2	753.1	85.18	9.841		
9,500.0	7,377.0	9,639.3	7,662.0	47.1	44.1	-109.80	1,698.4	606.1	842.0	754.4	87.65	9.607		
9,600.0	7,377.0	9,739.2	7,662.0	48.4	45.5	-109.71	1,798.2	601.3	845.8	755.6	90.18	9.379		
9,700.0	7,377.0	9,839.1	7,662.0	49.6	46.8	-109.61	1,898.0	596.4	849.6	756.8	92.77	9.158		
9,800.0	7,377.0	9,939.0	7,662.0	50.9	48.2	-109.52	1,997.8	591.6	853.4	758.0	95.41	8.945		
9,900.0	7,377.0	10,039.0	7,662.0	52.3	49.6	-109.43	2,097.6	586.8	857.2	759.1	98.10	8.738		
10,000.0	7,377.0	10,138.9	7,662.0	53.6	51.1	-109.35	2,197.4	581.9	861.0	760.1	100.83	8.539		
10,100.0	7,377.0	10,238.8	7,662.0	55.0	52.5	-109.26	2,297.2	577.1	864.8	761.2	103.61	8.347		
10,200.0	7,377.0	10,338.7	7,662.0	56.4	54.0	-109.17	2,397.0	572.2	868.6	762.2	106.42	8.162		
10,300.0	7,377.0	10,438.6	7,662.0	57.8	55.5	-109.08	2,496.8	567.4	872.4	763.1	109.27	7.983		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,377.0	10,538.6	7,662.0	59.2	57.0	-109.00	2,596.6	562.5	876.2	764.0	112.16	7.812	
10,500.0	7,377.0	10,638.5	7,662.0	60.7	58.6	-108.91	2,696.4	557.7	880.0	764.9	115.07	7.647	
10,600.0	7,377.0	10,738.4	7,662.0	62.2	60.1	-108.83	2,796.2	552.8	883.8	765.8	118.02	7.489	
10,700.0	7,377.0	10,838.3	7,662.0	63.7	61.7	-108.74	2,896.0	548.0	887.6	766.6	120.99	7.336	
10,800.0	7,377.0	10,938.2	7,662.0	65.2	63.2	-108.66	2,995.8	543.1	891.4	767.4	123.98	7.190	
10,900.0	7,377.0	11,038.1	7,662.0	66.7	64.8	-108.58	3,095.6	538.3	895.2	768.2	127.00	7.049	
11,000.0	7,377.0	11,151.5	7,662.0	68.2	66.6	-108.49	3,208.8	533.1	898.8	768.2	130.57	6.884	
11,100.0	7,377.0	11,288.6	7,662.0	69.8	68.8	-108.49	3,345.9	531.9	898.8	763.9	134.97	6.660	
11,200.0	7,377.0	11,388.6	7,662.0	71.3	70.4	-108.53	3,445.9	533.0	897.0	759.0	137.99	6.501	
11,300.0	7,377.0	11,488.5	7,662.0	72.9	72.0	-108.57	3,545.8	534.0	895.2	754.2	141.03	6.348	
11,400.0	7,377.0	11,588.5	7,662.0	74.4	73.6	-108.61	3,645.8	535.1	893.4	749.4	144.08	6.201	
11,500.0	7,377.0	11,688.5	7,662.0	76.0	75.2	-108.64	3,745.8	536.2	891.6	744.5	147.14	6.060	
11,600.0	7,377.0	11,788.5	7,662.0	77.6	76.8	-108.68	3,845.8	537.2	889.8	739.6	150.22	5.924	
11,700.0	7,377.0	11,888.5	7,662.0	79.2	78.5	-108.72	3,945.7	538.3	888.0	734.7	153.30	5.793	
11,800.0	7,377.0	11,988.4	7,662.0	80.8	80.1	-108.76	4,045.7	539.4	886.2	729.8	156.40	5.667	
11,900.0	7,377.0	12,088.4	7,662.0	82.4	81.7	-108.80	4,145.7	540.5	884.4	724.9	159.50	5.545	
12,000.0	7,377.0	12,188.4	7,662.0	84.0	83.4	-108.84	4,245.7	541.5	882.6	720.0	162.62	5.428	
12,100.0	7,377.0	12,288.4	7,662.0	85.6	85.0	-108.88	4,345.7	542.6	880.9	715.1	165.74	5.315	
12,200.0	7,377.0	12,388.4	7,662.0	87.3	86.7	-108.92	4,445.6	543.7	879.1	710.2	168.87	5.206	
12,300.0	7,377.0	12,488.4	7,662.0	88.9	88.3	-108.96	4,545.6	544.7	877.3	705.3	172.01	5.100	
12,400.0	7,377.0	12,588.3	7,662.0	90.5	90.0	-109.00	4,645.6	545.8	875.5	700.3	175.15	4.998	
12,500.0	7,377.0	12,688.3	7,662.0	92.2	91.7	-109.04	4,745.6	546.9	873.7	695.4	178.30	4.900	
12,600.0	7,377.0	12,788.3	7,662.0	93.8	93.3	-109.08	4,845.5	547.9	871.9	690.4	181.45	4.805	
12,700.0	7,377.0	12,888.3	7,662.0	95.5	95.0	-109.12	4,945.5	549.0	870.1	685.5	184.61	4.713	
12,800.0	7,377.0	12,988.3	7,662.0	97.1	96.7	-109.16	5,045.5	550.1	868.3	680.5	187.78	4.624	
12,900.0	7,377.0	13,088.2	7,662.0	98.8	98.3	-109.21	5,145.5	551.2	866.5	675.6	190.95	4.538	
13,000.0	7,377.0	13,188.2	7,662.0	100.4	100.0	-109.25	5,245.4	552.2	864.7	670.6	194.12	4.455	
13,100.0	7,377.0	13,288.2	7,662.0	102.1	101.7	-109.29	5,345.4	553.3	862.9	665.6	197.30	4.374	
13,200.0	7,377.0	13,388.2	7,662.0	103.8	103.4	-109.33	5,445.4	554.4	861.1	660.7	200.48	4.295	
13,300.0	7,377.0	13,488.2	7,662.0	105.4	105.1	-109.37	5,545.4	555.4	859.3	655.7	203.67	4.219	
13,400.0	7,377.0	13,588.2	7,662.0	107.1	106.8	-109.41	5,645.3	556.5	857.6	650.7	206.85	4.146	
13,500.0	7,377.0	13,688.1	7,662.0	108.8	108.5	-109.46	5,745.3	557.6	855.8	645.7	210.05	4.074	
13,600.0	7,377.0	13,788.1	7,662.0	110.5	110.1	-109.50	5,845.3	558.6	854.0	640.7	213.24	4.005	
13,700.0	7,377.0	13,888.1	7,662.0	112.2	111.8	-109.54	5,945.3	559.7	852.2	635.8	216.44	3.937	
13,800.0	7,377.0	13,988.1	7,662.0	113.8	113.5	-109.58	6,045.3	560.8	850.4	630.8	219.64	3.872	
13,900.0	7,377.0	14,088.1	7,662.0	115.5	115.2	-109.63	6,145.2	561.9	848.6	625.8	222.84	3.808	
14,000.0	7,377.0	14,188.0	7,662.0	117.2	116.9	-109.67	6,245.2	562.9	846.8	620.8	226.04	3.746	
14,100.0	7,377.0	14,288.0	7,662.0	118.9	118.6	-109.71	6,345.2	564.0	845.0	615.8	229.24	3.686	
14,200.0	7,377.0	14,388.0	7,662.0	120.6	120.3	-109.76	6,445.2	565.1	843.3	610.8	232.45	3.628	
14,300.0	7,377.0	14,488.0	7,662.0	122.3	122.0	-109.80	6,545.1	566.1	841.5	605.8	235.66	3.571	
14,400.0	7,377.0	14,588.0	7,662.0	124.0	123.8	-109.84	6,645.1	567.2	839.7	600.8	238.87	3.515	
14,500.0	7,377.0	14,688.0	7,662.0	125.7	125.5	-109.89	6,745.1	568.3	837.9	595.8	242.08	3.461	
14,600.0	7,377.0	14,787.9	7,662.0	127.4	127.2	-109.93	6,845.1	569.3	836.1	590.8	245.29	3.409	
14,700.0	7,377.0	14,887.9	7,662.0	129.1	128.9	-109.98	6,945.0	570.4	834.3	585.8	248.50	3.357	
14,800.0	7,377.0	14,987.9	7,662.0	130.8	130.6	-110.02	7,045.0	571.5	832.5	580.8	251.72	3.307	
14,900.0	7,377.0	15,087.9	7,662.0	132.5	132.3	-110.07	7,145.0	572.6	830.8	575.8	254.93	3.259	
15,000.0	7,377.0	15,187.9	7,662.0	134.2	134.0	-110.11	7,245.0	573.6	829.0	570.8	258.15	3.211	
15,100.0	7,377.0	15,287.8	7,662.0	135.9	135.7	-110.16	7,344.9	574.7	827.2	565.8	261.36	3.165	
15,200.0	7,377.0	15,387.8	7,662.0	137.6	137.5	-110.20	7,444.9	575.8	825.4	560.8	264.58	3.120	
15,300.0	7,377.0	15,487.8	7,662.0	139.3	139.2	-110.25	7,544.9	576.8	823.6	555.8	267.79	3.076	
15,400.0	7,377.0	15,587.8	7,662.0	141.1	140.9	-110.29	7,644.9	577.9	821.9	550.9	271.01	3.033	
15,500.0	7,377.0	15,687.8	7,662.0	142.8	142.6	-110.34	7,744.8	579.0	820.1	545.9	274.23	2.991	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,787.8	7,662.0	144.5	144.3	-110.39	7,844.8	580.1	818.3	540.9	277.44	2.949		
15,700.0	7,377.0	15,887.7	7,662.0	146.2	146.1	-110.43	7,944.8	581.1	816.5	535.9	280.66	2.909		
15,800.0	7,377.0	15,987.7	7,662.0	147.9	147.8	-110.48	8,044.8	582.2	814.7	530.9	283.87	2.870		
15,900.0	7,377.0	16,087.7	7,662.0	149.6	149.5	-110.53	8,144.8	583.3	813.0	525.9	287.09	2.832		
16,000.0	7,377.0	16,187.7	7,662.0	151.4	151.2	-110.57	8,244.7	584.3	811.2	520.9	290.31	2.794		
16,100.0	7,377.0	16,287.7	7,662.0	153.1	153.0	-110.62	8,344.7	585.4	809.4	515.9	293.52	2.758		
16,200.0	7,377.0	16,387.7	7,662.0	154.8	154.7	-110.67	8,444.7	586.5	807.6	510.9	296.74	2.722		
16,300.0	7,377.0	16,487.6	7,662.0	156.5	156.4	-110.71	8,544.7	587.5	805.9	505.9	299.95	2.687		
16,400.0	7,377.0	16,587.6	7,662.0	158.3	158.1	-110.76	8,644.6	588.6	804.1	500.9	303.16	2.652		
16,500.0	7,377.0	16,687.6	7,662.0	160.0	159.9	-110.81	8,744.6	589.7	802.3	495.9	306.38	2.619		
16,600.0	7,377.0	16,787.6	7,662.0	161.7	161.6	-110.86	8,844.6	590.8	800.5	491.0	309.59	2.586		
16,700.0	7,377.0	16,887.6	7,662.0	163.4	163.3	-110.91	8,944.6	591.8	798.8	486.0	312.80	2.554		
16,800.0	7,377.0	16,987.5	7,662.0	165.2	165.1	-110.96	9,044.5	592.9	797.0	481.0	316.01	2.522		
16,900.0	7,377.0	17,087.5	7,662.0	166.9	166.8	-111.00	9,144.5	594.0	795.2	476.0	319.22	2.491		
17,000.0	7,377.0	17,187.5	7,662.0	168.6	168.5	-111.05	9,244.5	595.0	793.5	471.0	322.43	2.461		
17,100.0	7,377.0	17,287.5	7,662.0	170.3	170.2	-111.10	9,344.5	596.1	791.7	466.1	325.64	2.431		
17,200.0	7,377.0	17,387.5	7,662.0	172.1	172.0	-111.15	9,444.4	597.2	789.9	461.1	328.84	2.402		
17,300.0	7,377.0	17,487.5	7,662.0	173.8	173.7	-111.20	9,544.4	598.2	788.2	456.1	332.05	2.374		
17,400.0	7,377.0	17,587.4	7,662.0	175.5	175.4	-111.25	9,644.4	599.3	786.4	451.1	335.25	2.346		
17,500.0	7,377.0	17,687.4	7,662.0	177.3	177.2	-111.30	9,744.4	600.4	784.6	446.2	338.46	2.318		
17,600.0	7,377.0	17,787.4	7,662.0	179.0	178.9	-111.35	9,844.3	601.5	782.8	441.2	341.66	2.291		
17,677.2	7,377.0	17,850.8	7,662.0	180.3	180.0	-111.39	9,907.7	602.1	781.6	438.1	343.52	2.275 SF		
17,683.1	7,377.0	17,850.8	7,662.0	180.4	180.0	-111.39	9,907.7	602.1	781.6	438.2	343.42	2.276		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.37	-0.1	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.37	-0.1	-15.0	15.0	14.8	0.28	54.204		
200.0	200.0	200.0	200.0	1.0	0.0	-90.37	-0.1	-15.0	15.0	14.2	0.80	18.822		
300.0	300.0	300.0	300.0	1.5	0.0	-90.37	-0.1	-15.0	15.0	13.8	1.23	12.266		
400.0	400.0	400.0	400.0	1.9	0.0	-90.37	-0.1	-15.0	15.0	13.4	1.62	9.281		
500.0	500.0	500.0	500.0	2.3	0.0	-90.37	-0.1	-15.0	15.0	13.0	2.00	7.515		
600.0	600.0	600.0	600.0	2.7	0.0	-90.37	-0.1	-15.0	15.0	12.7	2.37	6.331		
700.0	700.0	700.0	700.0	3.1	0.0	-90.37	-0.1	-15.0	15.0	12.3	2.74	5.478		
800.0	800.0	800.0	800.0	3.5	0.0	-90.37	-0.1	-15.0	15.0	11.9	3.11	4.832		
900.0	900.0	900.0	900.0	3.9	0.0	-90.37	-0.1	-15.0	15.0	11.6	3.48	4.324 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	162.05	-0.1	-15.0	16.7	12.7	3.98	4.196		
1,100.0	1,099.8	1,100.5	1,100.5	4.7	0.0	164.86	-0.8	-13.4	20.0	15.3	4.73	4.243		
1,200.0	1,199.5	1,201.2	1,201.0	5.5	0.0	166.40	-2.8	-8.5	23.5	18.0	5.43	4.326		
1,300.0	1,298.7	1,302.0	1,301.4	6.2	0.0	167.15	-6.2	-0.4	26.9	20.9	6.07	4.435		
1,400.0	1,397.5	1,402.9	1,401.6	6.9	0.0	167.36	-11.0	11.1	30.4	23.7	6.67	4.558		
1,500.0	1,495.6	1,503.9	1,501.3	7.5	0.0	167.21	-17.1	25.8	33.9	26.7	7.23	4.690		
1,600.0	1,593.1	1,605.1	1,600.6	8.0	0.0	166.78	-24.7	43.7	37.4	29.7	7.67	4.877		
1,700.0	1,690.2	1,705.0	1,698.3	8.3	0.0	166.20	-32.7	63.0	40.6	32.6	7.92	5.118		
1,800.0	1,787.3	1,805.0	1,796.0	8.6	0.0	165.70	-40.8	82.3	43.7	35.5	8.20	5.330		
1,900.0	1,884.4	1,904.9	1,893.8	8.9	0.0	165.27	-48.9	101.7	46.9	38.4	8.49	5.520		
2,000.0	1,981.6	2,004.9	1,991.5	9.2	0.0	164.89	-57.0	121.0	50.0	41.2	8.79	5.691		
2,100.0	2,078.7	2,104.8	2,089.2	9.5	0.0	164.56	-65.0	140.3	53.2	44.1	9.10	5.844		
2,200.0	2,175.8	2,204.8	2,187.0	9.8	0.0	164.27	-73.1	159.6	56.4	46.9	9.42	5.982		
2,300.0	2,272.9	2,304.7	2,284.7	10.2	0.0	164.00	-81.2	178.9	59.5	49.8	9.75	6.106		
2,400.0	2,370.0	2,404.7	2,382.4	10.6	0.0	163.77	-89.3	198.2	62.7	52.6	10.08	6.217		
2,500.0	2,467.2	2,504.6	2,480.2	11.0	0.0	163.55	-97.3	217.5	65.9	55.4	10.43	6.318		
2,600.0	2,564.3	2,604.6	2,577.9	11.4	0.0	163.36	-105.4	236.9	69.0	58.3	10.77	6.409		
2,700.0	2,661.4	2,704.5	2,675.6	11.8	0.0	163.18	-113.5	256.2	72.2	61.1	11.12	6.491		
2,800.0	2,758.5	2,804.5	2,773.4	12.3	0.0	163.02	-121.6	275.5	75.4	63.9	11.48	6.565		
2,900.0	2,855.7	2,904.4	2,871.1	12.8	0.0	162.87	-129.6	294.8	78.5	66.7	11.84	6.632		
3,000.0	2,952.8	3,004.4	2,968.8	13.3	0.0	162.73	-137.7	314.1	81.7	69.5	12.21	6.694		
3,100.0	3,049.9	3,104.3	3,066.6	13.8	0.0	162.60	-145.8	333.4	84.9	72.3	12.58	6.750		
3,200.0	3,147.0	3,204.3	3,164.3	14.3	0.0	162.48	-153.9	352.7	88.1	75.1	12.95	6.801		
3,300.0	3,244.1	3,304.2	3,262.0	14.8	0.0	162.37	-161.9	372.1	91.2	77.9	13.32	6.847		
3,400.0	3,341.3	3,404.2	3,359.8	15.4	0.0	162.27	-170.0	391.4	94.4	80.7	13.70	6.890		
3,500.0	3,438.4	3,504.1	3,457.5	15.9	0.0	162.18	-178.1	410.7	97.6	83.5	14.08	6.929		
3,600.0	3,535.5	3,604.1	3,555.2	16.4	0.0	162.09	-186.2	430.0	100.8	86.3	14.47	6.965		
3,700.0	3,632.6	3,704.0	3,653.0	17.0	0.0	162.00	-194.2	449.3	103.9	89.1	14.85	6.998		
3,800.0	3,729.8	3,804.0	3,750.7	17.5	0.0	161.92	-202.3	468.6	107.1	91.9	15.24	7.029		
3,900.0	3,826.9	3,903.9	3,848.4	18.0	0.0	161.85	-210.4	488.0	110.3	94.7	15.63	7.057		
4,000.0	3,924.0	4,003.9	3,946.2	18.6	0.0	161.78	-218.5	507.3	113.5	97.4	16.02	7.083		
4,100.0	4,021.1	4,103.8	4,043.9	19.1	0.0	161.71	-226.5	526.6	116.6	100.2	16.41	7.108		
4,200.0	4,118.3	4,203.8	4,141.6	19.6	0.0	161.65	-234.6	545.9	119.8	103.0	16.80	7.130		
4,300.0	4,215.4	4,303.7	4,239.4	20.2	0.0	161.59	-242.7	565.2	123.0	105.8	17.20	7.151		
4,400.0	4,312.5	4,403.7	4,337.1	20.7	0.0	161.53	-250.8	584.5	126.2	108.6	17.59	7.171		
4,500.0	4,409.6	4,503.6	4,434.8	21.3	0.0	161.48	-258.8	603.8	129.3	111.3	17.99	7.189		
4,600.0	4,506.7	4,603.6	4,532.6	21.8	0.0	161.42	-266.9	623.2	132.5	114.1	18.39	7.206		
4,700.0	4,603.9	4,703.5	4,630.3	22.3	0.0	161.37	-275.0	642.5	135.7	116.9	18.79	7.221		
4,800.0	4,701.0	4,803.5	4,728.0	22.9	0.0	161.33	-283.1	661.8	138.9	119.7	19.19	7.236		
4,900.0	4,798.1	4,903.4	4,825.8	23.4	0.0	161.28	-291.1	681.1	142.0	122.4	19.59	7.250		
5,000.0	4,895.2	5,003.4	4,923.5	24.0	0.0	161.24	-299.2	700.4	145.2	125.2	19.99	7.263		
5,100.0	4,992.4	5,103.3	5,021.2	24.5	0.0	161.20	-307.3	719.7	148.4	128.0	20.40	7.275		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,203.3	5,119.0	25.1	0.0	161.16	-315.4	739.0	151.6	130.8	20.80	7.287		
5,300.0	5,186.6	5,303.2	5,216.7	25.6	0.0	161.12	-323.4	758.4	154.7	133.5	21.20	7.298		
5,400.0	5,283.7	5,403.2	5,314.4	26.2	0.0	161.09	-331.5	777.7	157.9	136.3	21.61	7.308		
5,500.0	5,380.9	5,503.1	5,412.1	26.7	0.0	161.05	-339.6	797.0	161.1	139.1	22.02	7.317		
5,600.0	5,478.0	5,603.1	5,509.9	27.2	0.0	161.02	-347.7	816.3	164.3	141.8	22.42	7.326		
5,700.0	5,575.1	5,703.0	5,607.6	27.8	0.0	160.99	-355.7	835.6	167.4	144.6	22.83	7.335		
5,800.0	5,672.2	5,803.0	5,705.3	28.3	0.0	160.95	-363.8	854.9	170.6	147.4	23.24	7.343		
5,900.0	5,769.3	5,902.9	5,803.1	28.9	0.0	160.92	-371.9	874.2	173.8	150.2	23.64	7.351		
6,000.0	5,866.5	6,002.8	5,900.8	29.4	0.0	160.90	-380.0	893.6	177.0	152.9	24.05	7.358		
6,100.0	5,963.6	6,102.8	5,998.5	30.0	0.0	160.87	-388.0	912.9	180.2	155.7	24.46	7.365		
6,200.0	6,060.7	6,202.7	6,096.3	30.5	0.0	160.84	-396.1	932.2	183.3	158.5	24.87	7.371		
6,300.0	6,157.8	6,302.7	6,194.0	31.1	0.0	160.82	-404.2	951.5	186.5	161.2	25.28	7.377		
6,400.0	6,255.0	6,402.6	6,291.7	31.6	0.0	160.79	-412.2	970.8	189.7	164.0	25.69	7.383		
6,500.0	6,352.1	6,502.6	6,389.5	32.2	0.0	160.77	-420.3	990.1	192.9	166.8	26.10	7.389		
6,600.0	6,449.2	6,602.5	6,487.2	32.7	0.0	160.74	-428.4	1,009.5	196.0	169.5	26.51	7.394		
6,700.0	6,546.3	6,702.5	6,584.9	33.3	0.0	160.72	-436.5	1,028.8	199.2	172.3	26.92	7.399		
6,800.0	6,643.4	6,802.4	6,682.7	33.8	0.0	160.70	-444.5	1,048.1	202.4	175.1	27.34	7.404		
6,900.0	6,740.6	6,902.4	6,780.4	34.4	0.0	160.68	-452.6	1,067.4	205.6	177.8	27.75	7.408		
7,000.0	6,837.9	7,002.1	6,878.0	34.9	0.0	-171.90	-459.8	1,086.7	208.8	180.6	28.21	7.401		
7,100.0	6,934.5	7,102.2	6,975.9	35.4	0.0	-139.69	-453.6	1,105.7	212.3	183.5	28.79	7.371		
7,200.0	7,027.6	7,203.3	7,072.4	35.8	0.0	-124.52	-429.9	1,124.0	216.0	186.6	29.43	7.342		
7,300.0	7,114.3	7,305.6	7,164.2	36.2	0.0	-117.50	-388.7	1,141.1	220.0	190.1	29.87	7.364		
7,400.0	7,192.0	7,408.8	7,248.3	36.5	0.0	-113.92	-331.0	1,156.3	223.9	193.7	30.15	7.426		
7,500.0	7,258.5	7,513.1	7,321.6	36.7	0.0	-111.96	-258.1	1,169.0	227.6	197.3	30.32	7.509		
7,600.0	7,311.5	7,618.2	7,381.2	36.8	0.0	-110.84	-172.3	1,178.7	231.1	200.6	30.43	7.593		
7,700.0	7,349.6	7,724.0	7,424.7	36.8	0.0	-110.19	-76.3	1,185.0	234.0	203.4	30.56	7.656		
7,800.0	7,371.5	7,830.2	7,450.2	36.8	0.0	-109.82	26.7	1,187.7	236.3	205.6	30.77	7.681		
7,900.0	7,377.0	7,935.7	7,457.0	36.8	0.0	-109.64	131.8	1,186.7	238.0	206.9	31.06	7.662		
8,000.0	7,377.0	8,035.7	7,457.0	36.8	0.0	-109.53	231.8	1,184.4	239.3	207.9	31.42	7.617		
8,100.0	7,377.0	8,135.7	7,457.0	36.9	0.0	-109.42	331.8	1,182.2	240.7	208.8	31.87	7.552		
8,200.0	7,377.0	8,235.7	7,457.0	37.1	0.0	-109.30	431.7	1,179.9	242.0	209.6	32.40	7.470		
8,300.0	7,377.0	8,335.7	7,457.0	37.3	0.0	-109.19	531.7	1,177.6	243.4	210.4	33.01	7.373		
8,400.0	7,377.0	8,435.6	7,457.0	37.6	0.0	-109.08	631.6	1,175.4	244.7	211.0	33.69	7.264		
8,500.0	7,377.0	8,535.6	7,457.0	38.1	0.0	-108.97	731.6	1,173.1	246.1	211.6	34.44	7.145		
8,600.0	7,377.0	8,635.6	7,457.0	38.6	0.0	-108.87	831.6	1,170.9	247.4	212.2	35.26	7.018		
8,700.0	7,377.0	8,735.6	7,457.0	39.2	0.0	-108.76	931.5	1,168.6	248.8	212.7	36.14	6.885		
8,800.0	7,377.0	8,835.6	7,457.0	40.0	0.0	-108.65	1,031.5	1,166.4	250.1	213.1	37.07	6.748		
8,900.0	7,377.0	8,935.6	7,457.0	40.8	0.0	-108.55	1,131.5	1,164.1	251.5	213.4	38.06	6.608		
9,000.0	7,377.0	9,035.6	7,457.0	41.7	0.0	-108.45	1,231.4	1,161.9	252.8	213.8	39.09	6.468		
9,100.0	7,377.0	9,135.6	7,457.0	42.7	0.0	-108.35	1,331.4	1,159.6	254.2	214.0	40.18	6.327		
9,200.0	7,377.0	9,235.6	7,457.0	43.7	0.0	-108.24	1,431.4	1,157.4	255.6	214.3	41.30	6.188		
9,300.0	7,377.0	9,335.5	7,457.0	44.8	0.0	-108.14	1,531.3	1,155.1	256.9	214.5	42.46	6.050		
9,400.0	7,377.0	9,435.5	7,457.0	45.9	0.0	-108.05	1,631.3	1,152.8	258.3	214.6	43.66	5.915		
9,500.0	7,377.0	9,535.5	7,457.0	47.1	0.0	-107.95	1,731.3	1,150.6	259.6	214.7	44.89	5.783		
9,600.0	7,377.0	9,635.5	7,457.0	48.4	0.0	-107.85	1,831.2	1,148.3	261.0	214.8	46.16	5.654		
9,700.0	7,377.0	9,735.5	7,457.0	49.6	0.0	-107.76	1,931.2	1,146.1	262.4	214.9	47.45	5.529		
9,800.0	7,377.0	9,835.5	7,457.0	50.9	0.0	-107.66	2,031.1	1,143.8	263.7	214.9	48.77	5.408		
9,900.0	7,377.0	9,935.5	7,457.0	52.3	0.0	-107.57	2,131.1	1,141.6	265.1	215.0	50.11	5.290		
10,000.0	7,377.0	10,035.5	7,457.0	53.6	0.0	-107.47	2,231.1	1,139.3	266.4	215.0	51.47	5.176		
10,100.0	7,377.0	10,135.5	7,457.0	55.0	0.0	-107.38	2,331.0	1,137.1	267.8	214.9	52.86	5.066		
10,200.0	7,377.0	10,235.5	7,457.0	56.4	0.0	-107.29	2,431.0	1,134.8	269.2	214.9	54.26	4.960		
10,300.0	7,377.0	10,335.4	7,457.0	57.8	0.0	-107.20	2,531.0	1,132.5	270.5	214.8	55.68	4.858		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,435.4	7,457.0	59.2	0.0	-107.11	2,630.9	1,130.3	271.9	214.8	57.12	4.760		
10,500.0	7,377.0	10,535.4	7,457.0	60.7	0.0	-107.03	2,730.9	1,128.0	273.3	214.7	58.58	4.665		
10,600.0	7,377.0	10,635.4	7,457.0	62.2	0.0	-106.94	2,830.9	1,125.8	274.6	214.6	60.05	4.573		
10,700.0	7,377.0	10,735.4	7,457.0	63.7	0.0	-106.85	2,930.8	1,123.5	276.0	214.5	61.53	4.485		
10,800.0	7,377.0	10,835.4	7,457.0	65.2	0.0	-106.77	3,030.8	1,121.3	277.4	214.3	63.03	4.401		
10,900.0	7,377.0	10,935.4	7,457.0	66.7	0.0	-106.68	3,130.8	1,119.0	278.7	214.2	64.53	4.319		
11,000.0	7,377.0	11,035.4	7,457.0	68.2	0.0	-106.60	3,230.7	1,116.8	280.1	214.0	66.05	4.241		
11,100.0	7,377.0	11,135.4	7,457.0	69.8	0.0	-106.51	3,330.7	1,114.5	281.5	213.9	67.58	4.165		
11,200.0	7,377.0	11,235.4	7,457.0	71.3	0.0	-106.43	3,430.6	1,112.3	282.8	213.7	69.12	4.092		
11,300.0	7,377.0	11,335.3	7,457.0	72.9	0.0	-106.35	3,530.6	1,110.0	284.2	213.5	70.67	4.022		
11,400.0	7,377.0	11,435.3	7,457.0	74.4	0.0	-106.27	3,630.6	1,107.7	285.6	213.4	72.22	3.954		
11,500.0	7,377.0	11,535.3	7,457.0	76.0	0.0	-106.19	3,730.5	1,105.5	286.9	213.2	73.79	3.889		
11,600.0	7,377.0	11,635.3	7,457.0	77.6	0.0	-106.11	3,830.5	1,103.2	288.3	213.0	75.36	3.826		
11,700.0	7,377.0	11,735.3	7,457.0	79.2	0.0	-106.03	3,930.5	1,101.0	289.7	212.8	76.94	3.765		
11,800.0	7,377.0	11,835.3	7,457.0	80.8	0.0	-105.95	4,030.4	1,098.7	291.1	212.5	78.52	3.707		
11,900.0	7,377.0	11,935.3	7,457.0	82.4	0.0	-105.88	4,130.4	1,096.5	292.4	212.3	80.12	3.650		
12,000.0	7,377.0	12,035.3	7,457.0	84.0	0.0	-105.80	4,230.4	1,094.2	293.8	212.1	81.71	3.596		
12,100.0	7,377.0	12,135.3	7,457.0	85.6	0.0	-105.73	4,330.3	1,092.0	295.2	211.9	83.32	3.543		
12,200.0	7,377.0	12,235.3	7,457.0	87.3	0.0	-105.65	4,430.3	1,089.7	296.6	211.6	84.93	3.492		
12,300.0	7,377.0	12,335.2	7,457.0	88.9	0.0	-105.58	4,530.3	1,087.4	297.9	211.4	86.54	3.443		
12,400.0	7,377.0	12,435.2	7,457.0	90.5	0.0	-105.50	4,630.2	1,085.2	299.3	211.2	88.16	3.395		
12,500.0	7,377.0	12,535.2	7,457.0	92.2	0.0	-105.43	4,730.2	1,082.9	300.7	210.9	89.79	3.349		
12,600.0	7,377.0	12,635.2	7,457.0	93.8	0.0	-105.36	4,830.1	1,080.7	302.1	210.7	91.42	3.304		
12,700.0	7,377.0	12,735.2	7,457.0	95.5	0.0	-105.29	4,930.1	1,078.4	303.4	210.4	93.05	3.261		
12,800.0	7,377.0	12,835.2	7,457.0	97.1	0.0	-105.22	5,030.1	1,076.2	304.8	210.1	94.69	3.219		
12,900.0	7,377.0	12,935.2	7,457.0	98.8	0.0	-105.15	5,130.0	1,073.9	306.2	209.9	96.33	3.179		
13,000.0	7,377.0	13,035.2	7,457.0	100.4	0.0	-105.08	5,230.0	1,071.7	307.6	209.6	97.98	3.139		
13,100.0	7,377.0	13,135.2	7,457.0	102.1	0.0	-105.01	5,330.0	1,069.4	309.0	209.3	99.62	3.101		
13,200.0	7,377.0	13,235.2	7,457.0	103.8	0.0	-104.94	5,429.9	1,067.1	310.3	209.1	101.28	3.064		
13,300.0	7,377.0	13,335.1	7,457.0	105.4	0.0	-104.87	5,529.9	1,064.9	311.7	208.8	102.93	3.028		
13,400.0	7,377.0	13,435.1	7,457.0	107.1	0.0	-104.81	5,629.9	1,062.6	313.1	208.5	104.59	2.994		
13,500.0	7,377.0	13,535.1	7,457.0	108.8	0.0	-104.74	5,729.8	1,060.4	314.5	208.2	106.25	2.960		
13,600.0	7,377.0	13,635.1	7,457.0	110.5	0.0	-104.67	5,829.8	1,058.1	315.9	207.9	107.92	2.927		
13,700.0	7,377.0	13,735.1	7,457.0	112.2	0.0	-104.61	5,929.8	1,055.9	317.2	207.7	109.59	2.895		
13,800.0	7,377.0	13,835.1	7,457.0	113.8	0.0	-104.54	6,029.7	1,053.6	318.6	207.4	111.26	2.864		
13,900.0	7,377.0	13,935.1	7,457.0	115.5	0.0	-104.48	6,129.7	1,051.4	320.0	207.1	112.93	2.834		
14,000.0	7,377.0	14,035.1	7,457.0	117.2	0.0	-104.41	6,229.6	1,049.1	321.4	206.8	114.60	2.804		
14,100.0	7,377.0	14,135.1	7,457.0	118.9	0.0	-104.35	6,329.6	1,046.9	322.8	206.5	116.28	2.776		
14,200.0	7,377.0	14,235.0	7,457.0	120.6	0.0	-104.29	6,429.6	1,044.6	324.2	206.2	117.96	2.748		
14,300.0	7,377.0	14,335.0	7,457.0	122.3	0.0	-104.23	6,529.5	1,042.3	325.5	205.9	119.64	2.721		
14,400.0	7,377.0	14,435.0	7,457.0	124.0	0.0	-104.17	6,629.5	1,040.1	326.9	205.6	121.33	2.695		
14,500.0	7,377.0	14,535.0	7,457.0	125.7	0.0	-104.10	6,729.5	1,037.8	328.3	205.3	123.01	2.669		
14,600.0	7,377.0	14,635.0	7,457.0	127.4	0.0	-104.04	6,829.4	1,035.6	329.7	205.0	124.70	2.644		
14,700.0	7,377.0	14,735.0	7,457.0	129.1	0.0	-103.98	6,929.4	1,033.3	331.1	204.7	126.39	2.620		
14,800.0	7,377.0	14,835.0	7,457.0	130.8	0.0	-103.92	7,029.4	1,031.1	332.5	204.4	128.08	2.596		
14,900.0	7,377.0	14,935.0	7,457.0	132.5	0.0	-103.87	7,129.3	1,028.8	333.9	204.1	129.78	2.573		
15,000.0	7,377.0	15,035.0	7,457.0	134.2	0.0	-103.81	7,229.3	1,026.6	335.2	203.8	131.47	2.550		
15,100.0	7,377.0	15,135.0	7,457.0	135.9	0.0	-103.75	7,329.3	1,024.3	336.6	203.5	133.17	2.528		
15,200.0	7,377.0	15,234.9	7,457.0	137.6	0.0	-103.69	7,429.2	1,022.0	338.0	203.2	134.87	2.506		
15,300.0	7,377.0	15,334.9	7,457.0	139.3	0.0	-103.63	7,529.2	1,019.8	339.4	202.8	136.57	2.485		
15,400.0	7,377.0	15,434.9	7,457.0	141.1	0.0	-103.58	7,629.1	1,017.5	340.8	202.5	138.27	2.465		
15,500.0	7,377.0	15,534.9	7,457.0	142.8	0.0	-103.52	7,729.1	1,015.3	342.2	202.2	139.97	2.445		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,600.0	7,377.0	15,634.9	7,457.0	144.5	0.0	-103.47	7,829.1	1,013.0	343.6	201.9	141.68	2.425		
15,700.0	7,377.0	15,734.9	7,457.0	146.2	0.0	-103.41	7,929.0	1,010.8	345.0	201.6	143.38	2.406		
15,800.0	7,377.0	15,834.9	7,457.0	147.9	0.0	-103.36	8,029.0	1,008.5	346.4	201.3	145.09	2.387		
15,900.0	7,377.0	15,934.9	7,457.0	149.6	0.0	-103.30	8,129.0	1,006.3	347.7	200.9	146.80	2.369		
16,000.0	7,377.0	16,034.9	7,457.0	151.4	0.0	-103.25	8,228.9	1,004.0	349.1	200.6	148.51	2.351		
16,100.0	7,377.0	16,134.9	7,457.0	153.1	0.0	-103.19	8,328.9	1,001.8	350.5	200.3	150.22	2.333		
16,200.0	7,377.0	16,234.8	7,457.0	154.8	0.0	-103.14	8,428.9	999.5	351.9	200.0	151.93	2.316		
16,300.0	7,377.0	16,334.8	7,457.0	156.5	0.0	-103.09	8,528.8	997.2	353.3	199.7	153.64	2.300		
16,400.0	7,377.0	16,434.8	7,457.0	158.3	0.0	-103.04	8,628.8	995.0	354.7	199.3	155.36	2.283		
16,500.0	7,377.0	16,534.8	7,457.0	160.0	0.0	-102.98	8,728.8	992.7	356.1	199.0	157.07	2.267		
16,600.0	7,377.0	16,634.8	7,457.0	161.7	0.0	-102.93	8,828.7	990.5	357.5	198.7	158.79	2.251		
16,700.0	7,377.0	16,734.8	7,457.0	163.4	0.0	-102.88	8,928.7	988.2	358.9	198.4	160.51	2.236		
16,800.0	7,377.0	16,834.8	7,457.0	165.2	0.0	-102.83	9,028.7	986.0	360.3	198.0	162.23	2.221		
16,900.0	7,377.0	16,934.8	7,457.0	166.9	0.0	-102.78	9,128.6	983.7	361.7	197.7	163.95	2.206		
17,000.0	7,377.0	17,034.8	7,457.0	168.6	0.0	-102.73	9,228.6	981.5	363.1	197.4	165.67	2.191		
17,100.0	7,377.0	17,134.8	7,457.0	170.3	0.0	-102.68	9,328.5	979.2	364.5	197.1	167.39	2.177		
17,200.0	7,377.0	17,234.7	7,457.0	172.1	0.0	-102.63	9,428.5	976.9	365.8	196.7	169.11	2.163		
17,300.0	7,377.0	17,334.7	7,457.0	173.8	0.0	-102.58	9,528.5	974.7	367.2	196.4	170.83	2.150		
17,400.0	7,377.0	17,434.7	7,457.0	175.5	0.0	-102.54	9,628.4	972.4	368.6	196.1	172.56	2.136		
17,500.0	7,377.0	17,534.7	7,457.0	177.3	0.0	-102.49	9,728.4	970.2	370.0	195.7	174.28	2.123		
17,600.0	7,377.0	17,634.7	7,457.0	179.0	0.0	-102.44	9,828.4	967.9	371.4	195.4	176.01	2.110		
17,683.1	7,377.0	17,717.8	7,457.0	180.4	0.0	-102.40	9,911.4	966.1	372.6	195.1	177.44	2.100 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.2	-30.0	30.0	29.7	0.28	108.299		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.2	-30.0	30.0	29.2	0.80	37.602		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.2	-30.0	30.0	28.8	1.22	24.502		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.2	-30.0	30.0	28.4	1.62	18.538		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.2	-30.0	30.0	28.0	2.00	15.009		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.2	-30.0	30.0	27.6	2.37	12.645		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.2	-30.0	30.0	27.3	2.74	10.940		
800.0	800.0	800.0	800.0	3.5	0.0	-90.30	-0.2	-30.0	30.0	26.9	3.11	9.649		
900.0	900.0	900.0	900.0	3.9	0.0	-90.30	-0.2	-30.0	30.0	26.5	3.47	8.635 CC, ES		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	161.14	-0.2	-30.0	31.6	27.7	3.98	7.942		
1,100.0	1,099.8	1,099.8	1,099.8	4.7	0.0	163.76	-0.2	-30.0	36.6	31.9	4.73	7.753		
1,200.0	1,199.5	1,200.9	1,200.9	5.5	0.0	166.03	-1.0	-28.4	43.4	38.0	5.43	8.003		
1,300.0	1,298.7	1,302.2	1,302.0	6.2	0.0	167.13	-3.4	-23.7	50.4	44.3	6.08	8.283		
1,400.0	1,397.5	1,403.7	1,403.2	6.9	0.0	167.49	-7.6	-15.7	57.4	50.7	6.69	8.585		
1,500.0	1,495.6	1,505.5	1,504.2	7.5	0.0	167.33	-13.4	-4.6	64.6	57.3	7.26	8.899		
1,600.0	1,593.1	1,607.5	1,604.9	8.0	0.0	166.81	-20.8	9.8	71.7	64.1	7.70	9.320		
1,700.0	1,690.2	1,708.0	1,703.6	8.3	0.0	165.96	-29.4	26.2	77.8	69.9	7.94	9.804		
1,800.0	1,787.3	1,807.8	1,801.7	8.6	0.0	165.20	-37.9	42.7	83.8	75.6	8.21	10.210		
1,900.0	1,884.4	1,907.6	1,899.8	8.9	0.0	164.55	-46.4	59.1	89.9	81.4	8.50	10.575		
2,000.0	1,981.6	2,007.4	1,997.8	9.2	0.0	163.97	-55.0	75.6	95.9	87.1	8.79	10.902		
2,100.0	2,078.7	2,107.2	2,095.9	9.5	0.0	163.47	-63.5	92.0	101.9	92.8	9.10	11.195		
2,200.0	2,175.8	2,207.1	2,194.0	9.8	0.0	163.02	-72.1	108.4	107.9	98.5	9.42	11.458		
2,300.0	2,272.9	2,306.9	2,292.1	10.2	0.0	162.61	-80.6	124.9	114.0	104.2	9.75	11.694		
2,400.0	2,370.0	2,406.7	2,390.2	10.6	0.0	162.25	-89.1	141.3	120.0	109.9	10.08	11.905		
2,500.0	2,467.2	2,506.5	2,488.2	11.0	0.0	161.93	-97.7	157.8	126.1	115.6	10.42	12.095		
2,600.0	2,564.3	2,606.3	2,586.3	11.4	0.0	161.63	-106.2	174.2	132.1	121.4	10.77	12.265		
2,700.0	2,661.4	2,706.1	2,684.4	11.8	0.0	161.36	-114.8	190.7	138.2	127.1	11.13	12.419		
2,800.0	2,758.5	2,805.9	2,782.5	12.3	0.0	161.11	-123.3	207.1	144.2	132.8	11.49	12.558		
2,900.0	2,855.7	2,905.8	2,880.6	12.8	0.0	160.88	-131.8	223.5	150.3	138.5	11.85	12.683		
3,000.0	2,952.8	3,005.6	2,978.6	13.3	0.0	160.67	-140.4	240.0	156.4	144.1	12.22	12.797		
3,100.0	3,049.9	3,105.4	3,076.7	13.8	0.0	160.48	-148.9	256.4	162.4	149.8	12.59	12.900		
3,200.0	3,147.0	3,205.2	3,174.8	14.3	0.0	160.30	-157.5	272.9	168.5	155.5	12.97	12.993		
3,300.0	3,244.1	3,305.0	3,272.9	14.8	0.0	160.13	-166.0	289.3	174.6	161.2	13.35	13.078		
3,400.0	3,341.3	3,404.8	3,371.0	15.4	0.0	159.97	-174.5	305.8	180.6	166.9	13.73	13.156		
3,500.0	3,438.4	3,504.6	3,469.0	15.9	0.0	159.82	-183.1	322.2	186.7	172.6	14.12	13.227		
3,600.0	3,535.5	3,604.5	3,567.1	16.4	0.0	159.69	-191.6	338.6	192.8	178.3	14.50	13.292		
3,700.0	3,632.6	3,704.3	3,665.2	17.0	0.0	159.56	-200.2	355.1	198.9	184.0	14.89	13.351		
3,800.0	3,729.8	3,804.1	3,763.3	17.5	0.0	159.44	-208.7	371.5	204.9	189.6	15.29	13.406		
3,900.0	3,826.9	3,903.9	3,861.4	18.0	0.0	159.32	-217.2	388.0	211.0	195.3	15.68	13.456		
4,000.0	3,924.0	4,003.7	3,959.4	18.6	0.0	159.21	-225.8	404.4	217.1	201.0	16.08	13.502		
4,100.0	4,021.1	4,103.5	4,057.5	19.1	0.0	159.11	-234.3	420.9	223.2	206.7	16.48	13.544		
4,200.0	4,118.3	4,203.3	4,155.6	19.6	0.0	159.02	-242.9	437.3	229.2	212.4	16.88	13.584		
4,300.0	4,215.4	4,303.2	4,253.7	20.2	0.0	158.92	-251.4	453.7	235.3	218.0	17.28	13.620		
4,400.0	4,312.5	4,403.0	4,351.8	20.7	0.0	158.84	-259.9	470.2	241.4	223.7	17.68	13.654		
4,500.0	4,409.6	4,502.8	4,449.8	21.3	0.0	158.75	-268.5	486.6	247.5	229.4	18.08	13.685		
4,600.0	4,506.7	4,602.6	4,547.9	21.8	0.0	158.68	-277.0	503.1	253.6	235.1	18.49	13.714		
4,700.0	4,603.9	4,702.4	4,646.0	22.3	0.0	158.60	-285.6	519.5	259.6	240.7	18.90	13.741		
4,800.0	4,701.0	4,802.2	4,744.1	22.9	0.0	158.53	-294.1	536.0	265.7	246.4	19.30	13.766		
4,900.0	4,798.1	4,902.0	4,842.2	23.4	0.0	158.46	-302.6	552.4	271.8	252.1	19.71	13.790		
5,000.0	4,895.2	5,001.9	4,940.2	24.0	0.0	158.40	-311.2	568.8	277.9	257.8	20.12	13.811		
5,100.0	4,992.4	5,101.7	5,038.3	24.5	0.0	158.33	-319.7	585.3	284.0	263.4	20.53	13.832		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,201.5	5,136.4	25.1	0.0	158.27	-328.3	601.7	290.1	269.1	20.94	13.851		
5,300.0	5,186.6	5,301.3	5,234.5	25.6	0.0	158.21	-336.8	618.2	296.1	274.8	21.35	13.869		
5,400.0	5,283.7	5,401.1	5,332.6	26.2	0.0	158.16	-345.3	634.6	302.2	280.5	21.77	13.885		
5,500.0	5,380.9	5,500.9	5,430.6	26.7	0.0	158.11	-353.9	651.1	308.3	286.1	22.18	13.901		
5,600.0	5,478.0	5,600.7	5,528.7	27.2	0.0	158.06	-362.4	667.5	314.4	291.8	22.59	13.916		
5,700.0	5,575.1	5,700.6	5,626.8	27.8	0.0	158.01	-371.0	683.9	320.5	297.5	23.01	13.930		
5,800.0	5,672.2	5,800.4	5,724.9	28.3	0.0	157.96	-379.5	700.4	326.6	303.1	23.42	13.943		
5,900.0	5,769.3	5,900.2	5,823.0	28.9	0.0	157.91	-388.0	716.8	332.6	308.8	23.84	13.955		
6,000.0	5,866.5	6,000.0	5,921.0	29.4	0.0	157.87	-396.6	733.3	338.7	314.5	24.25	13.966		
6,100.0	5,963.6	6,099.8	6,019.1	30.0	0.0	157.83	-405.1	749.7	344.8	320.1	24.67	13.977		
6,200.0	6,060.7	6,199.6	6,117.2	30.5	0.0	157.79	-413.6	766.2	350.9	325.8	25.09	13.988		
6,300.0	6,157.8	6,299.4	6,215.3	31.1	0.0	157.75	-422.2	782.6	357.0	331.5	25.50	13.997		
6,400.0	6,255.0	6,399.3	6,313.4	31.6	0.0	157.71	-430.7	799.0	363.1	337.1	25.92	14.006		
6,500.0	6,352.1	6,499.1	6,411.4	32.2	0.0	157.67	-439.3	815.5	369.2	342.8	26.34	14.015		
6,600.0	6,449.2	6,598.9	6,509.5	32.7	0.0	157.64	-447.8	831.9	375.2	348.5	26.76	14.023		
6,700.0	6,546.3	6,698.7	6,607.6	33.3	0.0	157.60	-456.3	848.4	381.3	354.1	27.18	14.031		
6,800.0	6,643.4	6,800.6	6,707.9	33.8	0.0	158.77	-456.9	865.1	387.1	359.6	27.49	14.082		
6,900.0	6,740.6	6,897.0	6,801.6	34.4	0.0	162.24	-440.9	880.6	393.4	365.8	27.61	14.250		
7,000.0	6,837.9	6,985.0	6,883.7	34.9	0.0	-164.52	-412.6	894.1	402.4	374.8	27.63	14.567		
7,100.0	6,934.5	7,068.5	6,956.9	35.4	0.0	-125.89	-374.2	906.0	414.2	386.4	27.82	14.891		
7,200.0	7,027.6	7,150.0	7,022.2	35.8	0.0	-104.90	-326.8	916.5	427.5	399.5	28.02	15.260		
7,300.0	7,114.3	7,226.7	7,077.1	36.2	0.0	-92.88	-274.0	925.2	441.2	413.3	27.93	15.797		
7,400.0	7,192.0	7,300.0	7,122.6	36.5	0.0	-85.14	-217.1	932.4	454.4	426.7	27.65	16.433		
7,500.0	7,258.5	7,377.1	7,162.3	36.7	0.0	-79.72	-151.4	938.4	466.0	438.7	27.34	17.044		
7,600.0	7,311.5	7,450.0	7,191.6	36.8	0.0	-76.05	-84.8	942.8	475.6	448.6	27.02	17.600		
7,700.0	7,349.6	7,522.9	7,212.3	36.8	0.0	-73.66	-14.9	945.7	482.6	455.8	26.80	18.006		
7,800.0	7,371.5	7,600.0	7,224.5	36.8	0.0	-72.36	61.1	947.1	486.6	459.9	26.74	18.197		
7,900.0	7,377.0	7,672.0	7,227.0	36.8	0.0	-72.08	133.0	946.9	487.5	460.7	26.85	18.159		
8,000.0	7,377.0	7,772.0	7,227.0	36.8	0.0	-72.08	233.0	946.1	487.5	460.4	27.09	17.998		
8,100.0	7,377.0	7,872.0	7,227.0	36.9	0.0	-72.08	333.0	945.2	487.5	460.1	27.43	17.772		
8,200.0	7,377.0	7,972.0	7,227.0	37.1	0.0	-72.08	433.0	944.4	487.5	459.7	27.88	17.490		
8,300.0	7,377.0	8,072.0	7,227.0	37.3	0.0	-72.08	533.0	943.6	487.5	459.1	28.41	17.158		
8,400.0	7,377.0	8,172.0	7,227.0	37.6	0.0	-72.08	633.0	942.8	487.5	458.5	29.04	16.788		
8,500.0	7,377.0	8,272.0	7,227.0	38.1	0.0	-72.08	733.0	941.9	487.5	457.8	29.75	16.386		
8,600.0	7,377.0	8,372.0	7,227.0	38.6	0.0	-72.08	833.0	941.1	487.5	457.0	30.54	15.963		
8,700.0	7,377.0	8,472.0	7,227.0	39.2	0.0	-72.08	933.0	940.3	487.5	456.1	31.40	15.525		
8,800.0	7,377.0	8,572.0	7,227.0	40.0	0.0	-72.08	1,033.0	939.4	487.5	455.2	32.33	15.080		
8,900.0	7,377.0	8,672.0	7,227.0	40.8	0.0	-72.08	1,133.0	938.6	487.5	454.2	33.32	14.633		
9,000.0	7,377.0	8,772.0	7,227.0	41.7	0.0	-72.08	1,233.0	937.8	487.5	453.2	34.36	14.189		
9,100.0	7,377.0	8,872.0	7,227.0	42.7	0.0	-72.08	1,333.0	937.0	487.5	452.1	35.45	13.751		
9,200.0	7,377.0	8,972.0	7,227.0	43.7	0.0	-72.08	1,433.0	936.1	487.5	450.9	36.59	13.323		
9,300.0	7,377.0	9,072.0	7,227.0	44.8	0.0	-72.08	1,533.0	935.3	487.5	449.8	37.78	12.906		
9,400.0	7,377.0	9,172.0	7,227.0	45.9	0.0	-72.08	1,633.0	934.5	487.5	448.5	39.00	12.502		
9,500.0	7,377.0	9,272.0	7,227.0	47.1	0.0	-72.08	1,733.0	933.7	487.5	447.3	40.25	12.112		
9,600.0	7,377.0	9,372.0	7,227.0	48.4	0.0	-72.08	1,833.0	932.8	487.5	446.0	41.54	11.738		
9,700.0	7,377.0	9,472.0	7,227.0	49.6	0.0	-72.08	1,933.0	932.0	487.5	444.7	42.85	11.377		
9,800.0	7,377.0	9,572.0	7,227.0	50.9	0.0	-72.08	2,033.0	931.2	487.5	443.3	44.19	11.032		
9,900.0	7,377.0	9,672.0	7,227.0	52.3	0.0	-72.08	2,133.0	930.4	487.5	442.0	45.56	10.702		
10,000.0	7,377.0	9,772.0	7,227.0	53.6	0.0	-72.08	2,233.0	929.5	487.5	440.6	46.94	10.386		
10,100.0	7,377.0	9,872.0	7,227.0	55.0	0.0	-72.08	2,333.0	928.7	487.5	439.2	48.35	10.084		
10,200.0	7,377.0	9,972.0	7,227.0	56.4	0.0	-72.08	2,433.0	927.9	487.5	437.8	49.77	9.795		
10,300.0	7,377.0	10,072.0	7,227.0	57.8	0.0	-72.08	2,533.0	927.0	487.5	436.3	51.21	9.520		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,172.0	7,227.0	59.2	0.0	-72.08	2,633.0	926.2	487.5	434.9	52.67	9.257		
10,500.0	7,377.0	10,272.0	7,227.0	60.7	0.0	-72.08	2,733.0	925.4	487.5	433.4	54.14	9.005		
10,600.0	7,377.0	10,372.0	7,227.0	62.2	0.0	-72.08	2,832.9	924.6	487.5	431.9	55.62	8.765		
10,700.0	7,377.0	10,472.0	7,227.0	63.7	0.0	-72.08	2,932.9	923.7	487.5	430.4	57.11	8.536		
10,800.0	7,377.0	10,572.0	7,227.0	65.2	0.0	-72.08	3,032.9	922.9	487.5	428.9	58.62	8.317		
10,900.0	7,377.0	10,672.0	7,227.0	66.7	0.0	-72.08	3,132.9	922.1	487.5	427.4	60.14	8.107		
11,000.0	7,377.0	10,772.0	7,227.0	68.2	0.0	-72.08	3,232.9	921.3	487.5	425.9	61.66	7.906		
11,100.0	7,377.0	10,872.0	7,227.0	69.8	0.0	-72.08	3,332.9	920.4	487.5	424.3	63.20	7.715		
11,200.0	7,377.0	10,972.0	7,227.0	71.3	0.0	-72.08	3,432.9	919.6	487.5	422.8	64.74	7.531		
11,300.0	7,377.0	11,072.0	7,227.0	72.9	0.0	-72.08	3,532.9	918.8	487.5	421.2	66.29	7.355		
11,400.0	7,377.0	11,172.0	7,227.0	74.4	0.0	-72.08	3,632.9	918.0	487.5	419.7	67.84	7.186		
11,500.0	7,377.0	11,272.0	7,227.0	76.0	0.0	-72.08	3,732.9	917.1	487.5	418.1	69.41	7.024		
11,600.0	7,377.0	11,372.0	7,227.0	77.6	0.0	-72.08	3,832.9	916.3	487.5	416.5	70.98	6.869		
11,700.0	7,377.0	11,472.0	7,227.0	79.2	0.0	-72.08	3,932.9	915.5	487.5	415.0	72.55	6.720		
11,800.0	7,377.0	11,572.0	7,227.0	80.8	0.0	-72.08	4,032.9	914.6	487.5	413.4	74.13	6.576		
11,900.0	7,377.0	11,672.0	7,227.0	82.4	0.0	-72.08	4,132.9	913.8	487.5	411.8	75.72	6.439		
12,000.0	7,377.0	11,772.0	7,227.0	84.0	0.0	-72.08	4,232.9	913.0	487.5	410.2	77.31	6.306		
12,100.0	7,377.0	11,872.0	7,227.0	85.6	0.0	-72.08	4,332.9	912.2	487.5	408.6	78.90	6.179		
12,200.0	7,377.0	11,972.0	7,227.0	87.3	0.0	-72.08	4,432.9	911.3	487.5	407.0	80.50	6.056		
12,300.0	7,377.0	12,072.0	7,227.0	88.9	0.0	-72.08	4,532.9	910.5	487.5	405.4	82.11	5.938		
12,400.0	7,377.0	12,172.0	7,227.0	90.5	0.0	-72.08	4,632.9	909.7	487.5	403.8	83.71	5.824		
12,500.0	7,377.0	12,272.0	7,227.0	92.2	0.0	-72.08	4,732.9	908.9	487.5	402.2	85.32	5.714		
12,600.0	7,377.0	12,372.0	7,227.0	93.8	0.0	-72.08	4,832.9	908.0	487.5	400.6	86.94	5.608		
12,700.0	7,377.0	12,472.0	7,227.0	95.5	0.0	-72.08	4,932.9	907.2	487.5	399.0	88.55	5.505		
12,800.0	7,377.0	12,572.0	7,227.0	97.1	0.0	-72.08	5,032.9	906.4	487.5	397.3	90.17	5.407		
12,900.0	7,377.0	12,672.0	7,227.0	98.8	0.0	-72.08	5,132.9	905.6	487.5	395.7	91.79	5.311		
13,000.0	7,377.0	12,772.0	7,227.0	100.4	0.0	-72.08	5,232.9	904.7	487.5	394.1	93.42	5.219		
13,100.0	7,377.0	12,872.0	7,227.0	102.1	0.0	-72.08	5,332.9	903.9	487.5	392.5	95.05	5.129		
13,200.0	7,377.0	12,972.0	7,227.0	103.8	0.0	-72.08	5,432.9	903.1	487.5	390.8	96.68	5.043		
13,300.0	7,377.0	13,072.0	7,227.0	105.4	0.0	-72.08	5,532.9	902.2	487.5	389.2	98.31	4.959		
13,400.0	7,377.0	13,172.0	7,227.0	107.1	0.0	-72.08	5,632.9	901.4	487.5	387.6	99.94	4.878		
13,500.0	7,377.0	13,272.0	7,227.0	108.8	0.0	-72.08	5,732.9	900.6	487.5	385.9	101.58	4.799		
13,600.0	7,377.0	13,372.0	7,227.0	110.5	0.0	-72.08	5,832.8	899.8	487.5	384.3	103.22	4.723		
13,700.0	7,377.0	13,472.0	7,227.0	112.2	0.0	-72.08	5,932.8	898.9	487.5	382.7	104.86	4.649		
13,800.0	7,377.0	13,572.0	7,227.0	113.8	0.0	-72.08	6,032.8	898.1	487.5	381.0	106.50	4.578		
13,900.0	7,377.0	13,672.0	7,227.0	115.5	0.0	-72.08	6,132.8	897.3	487.5	379.4	108.14	4.508		
14,000.0	7,377.0	13,772.0	7,227.0	117.2	0.0	-72.08	6,232.8	896.5	487.5	377.7	109.79	4.441		
14,100.0	7,377.0	13,872.0	7,227.0	118.9	0.0	-72.08	6,332.8	895.6	487.5	376.1	111.44	4.375		
14,200.0	7,377.0	13,972.0	7,227.0	120.6	0.0	-72.08	6,432.8	894.8	487.5	374.4	113.08	4.311		
14,300.0	7,377.0	14,072.0	7,227.0	122.3	0.0	-72.08	6,532.8	894.0	487.5	372.8	114.73	4.249		
14,400.0	7,377.0	14,172.0	7,227.0	124.0	0.0	-72.08	6,632.8	893.2	487.5	371.1	116.38	4.189		
14,500.0	7,377.0	14,272.0	7,227.0	125.7	0.0	-72.08	6,732.8	892.3	487.5	369.5	118.04	4.130		
14,600.0	7,377.0	14,372.0	7,227.0	127.4	0.0	-72.08	6,832.8	891.5	487.5	367.8	119.69	4.073		
14,700.0	7,377.0	14,472.0	7,227.0	129.1	0.0	-72.08	6,932.8	890.7	487.5	366.2	121.34	4.018		
14,800.0	7,377.0	14,572.0	7,227.0	130.8	0.0	-72.08	7,032.8	889.8	487.5	364.5	123.00	3.964		
14,900.0	7,377.0	14,672.0	7,227.0	132.5	0.0	-72.08	7,132.8	889.0	487.5	362.9	124.66	3.911		
15,000.0	7,377.0	14,772.0	7,227.0	134.2	0.0	-72.08	7,232.8	888.2	487.5	361.2	126.32	3.859		
15,100.0	7,377.0	14,872.0	7,227.0	135.9	0.0	-72.08	7,332.8	887.4	487.5	359.5	127.97	3.809		
15,200.0	7,377.0	14,972.0	7,227.0	137.6	0.0	-72.08	7,432.8	886.5	487.5	357.9	129.63	3.761		
15,300.0	7,377.0	15,072.0	7,227.0	139.3	0.0	-72.08	7,532.8	885.7	487.5	356.2	131.30	3.713		
15,400.0	7,377.0	15,172.0	7,227.0	141.1	0.0	-72.08	7,632.8	884.9	487.5	354.6	132.96	3.667		
15,500.0	7,377.0	15,272.0	7,227.0	142.8	0.0	-72.08	7,732.8	884.1	487.5	352.9	134.62	3.621		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,372.0	7,227.0	144.5	0.0	-72.08	7,832.8	883.2	487.5	351.2	136.28	3.577		
15,700.0	7,377.0	15,472.0	7,227.0	146.2	0.0	-72.08	7,932.8	882.4	487.5	349.6	137.95	3.534		
15,800.0	7,377.0	15,572.0	7,227.0	147.9	0.0	-72.08	8,032.8	881.6	487.5	347.9	139.61	3.492		
15,900.0	7,377.0	15,672.0	7,227.0	149.6	0.0	-72.08	8,132.8	880.7	487.5	346.2	141.28	3.451		
16,000.0	7,377.0	15,772.0	7,227.0	151.4	0.0	-72.08	8,232.8	879.9	487.5	344.6	142.95	3.410		
16,100.0	7,377.0	15,872.0	7,227.0	153.1	0.0	-72.08	8,332.8	879.1	487.5	342.9	144.61	3.371		
16,200.0	7,377.0	15,972.0	7,227.0	154.8	0.0	-72.08	8,432.8	878.3	487.5	341.2	146.28	3.333		
16,300.0	7,377.0	16,072.0	7,227.0	156.5	0.0	-72.08	8,532.8	877.4	487.5	339.6	147.95	3.295		
16,400.0	7,377.0	16,172.0	7,227.0	158.3	0.0	-72.08	8,632.8	876.6	487.5	337.9	149.62	3.258		
16,500.0	7,377.0	16,272.0	7,227.0	160.0	0.0	-72.08	8,732.7	875.8	487.5	336.2	151.29	3.222		
16,600.0	7,377.0	16,372.0	7,227.0	161.7	0.0	-72.08	8,832.7	875.0	487.5	334.6	152.96	3.187		
16,700.0	7,377.0	16,472.0	7,227.0	163.4	0.0	-72.08	8,932.7	874.1	487.5	332.9	154.63	3.153		
16,800.0	7,377.0	16,572.0	7,227.0	165.2	0.0	-72.08	9,032.7	873.3	487.5	331.2	156.30	3.119		
16,900.0	7,377.0	16,672.0	7,227.0	166.9	0.0	-72.08	9,132.7	872.5	487.5	329.5	157.98	3.086		
17,000.0	7,377.0	16,772.0	7,227.0	168.6	0.0	-72.08	9,232.7	871.7	487.5	327.9	159.65	3.054		
17,100.0	7,377.0	16,872.0	7,227.0	170.3	0.0	-72.08	9,332.7	870.8	487.5	326.2	161.32	3.022		
17,200.0	7,377.0	16,972.0	7,227.0	172.1	0.0	-72.08	9,432.7	870.0	487.5	324.5	163.00	2.991		
17,300.0	7,377.0	17,072.0	7,227.0	173.8	0.0	-72.08	9,532.7	869.2	487.5	322.8	164.67	2.961		
17,400.0	7,377.0	17,172.0	7,227.0	175.5	0.0	-72.08	9,632.7	868.3	487.5	321.2	166.34	2.931		
17,500.0	7,377.0	17,272.0	7,227.0	177.3	0.0	-72.08	9,732.7	867.5	487.5	319.5	168.02	2.901		
17,600.0	7,377.0	17,372.0	7,227.0	179.0	0.0	-72.08	9,832.7	866.7	487.5	317.8	169.70	2.873		
17,679.2	7,377.0	17,451.3	7,227.0	180.4	0.0	-72.08	9,912.0	866.0	487.5	316.5	171.02	2.851 SF		
17,683.1	7,377.0	17,451.3	7,227.0	180.4	0.0	-72.08	9,912.0	866.0	487.5	316.6	170.96	2.852		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.90	0.0	15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.90	0.0	15.0	15.0	14.7	0.28	54.182		
200.0	200.0	200.0	200.0	1.0	0.0	89.90	0.0	15.0	15.0	14.2	0.80	18.806		
300.0	300.0	300.0	300.0	1.5	0.0	89.90	0.0	15.0	15.0	13.8	1.22	12.250		
400.0	400.0	400.0	400.0	1.9	0.0	89.90	0.0	15.0	15.0	13.4	1.62	9.266		
500.0	500.0	500.0	500.0	2.3	0.0	89.90	0.0	15.0	15.0	13.0	2.00	7.500		
600.0	600.0	600.0	600.0	2.7	0.0	89.90	0.0	15.0	15.0	12.6	2.37	6.318		
700.0	700.0	700.0	700.0	3.1	0.0	89.90	0.0	15.0	15.0	12.2	2.74	5.466		
800.0	800.0	800.0	800.0	3.5	0.0	89.90	0.0	15.0	15.0	11.9	3.11	4.820 CC, ES		
900.0	900.0	899.5	899.4	3.9	0.0	91.53	-0.4	16.6	16.6	13.2	3.45	4.830		
1,000.0	1,000.0	998.8	998.6	4.2	0.0	-15.95	-1.9	21.6	20.0	16.1	3.95	5.078		
1,100.0	1,099.8	1,098.0	1,097.4	4.7	0.0	-15.00	-4.2	29.9	23.5	18.8	4.71	4.986		
1,200.0	1,199.5	1,197.1	1,195.8	5.5	0.0	-14.77	-7.5	41.4	27.0	21.6	5.39	4.998		
1,300.0	1,298.7	1,296.0	1,293.6	6.2	0.0	-15.03	-11.7	56.2	30.5	24.4	6.01	5.066		
1,400.0	1,397.5	1,394.9	1,390.6	6.9	0.0	-15.61	-16.7	74.2	34.0	27.4	6.57	5.166		
1,500.0	1,495.6	1,493.6	1,486.9	7.5	0.0	-16.42	-22.8	95.4	37.5	30.4	7.09	5.287		
1,600.0	1,593.1	1,592.2	1,582.2	8.0	0.0	-17.40	-29.6	119.7	41.0	33.6	7.49	5.482		
1,700.0	1,690.2	1,692.1	1,678.2	8.3	0.0	-18.19	-37.1	146.1	45.2	37.4	7.74	5.836		
1,800.0	1,787.3	1,792.0	1,774.2	8.6	0.0	-18.84	-44.6	172.5	49.3	41.3	8.02	6.149		
1,900.0	1,884.4	1,891.9	1,870.3	8.9	0.0	-19.39	-52.1	199.0	53.4	45.1	8.31	6.430		
2,000.0	1,981.6	1,991.8	1,966.4	9.2	0.0	-19.87	-59.6	225.4	57.6	49.0	8.62	6.682		
2,100.0	2,078.7	2,091.7	2,062.4	9.5	0.0	-20.28	-67.1	251.8	61.7	52.8	8.93	6.909		
2,200.0	2,175.8	2,191.6	2,158.5	9.8	0.0	-20.63	-74.6	278.2	65.9	56.6	9.26	7.113		
2,300.0	2,272.9	2,291.5	2,254.5	10.2	0.0	-20.95	-82.0	304.7	70.0	60.4	9.60	7.296		
2,400.0	2,370.0	2,391.5	2,350.6	10.6	0.0	-21.23	-89.5	331.1	74.2	64.2	9.94	7.461		
2,500.0	2,467.2	2,491.4	2,446.7	11.0	0.0	-21.48	-97.0	357.5	78.3	68.0	10.29	7.609		
2,600.0	2,564.3	2,591.3	2,542.7	11.4	0.0	-21.71	-104.5	384.0	82.5	71.8	10.65	7.744		
2,700.0	2,661.4	2,691.2	2,638.8	11.8	0.0	-21.91	-112.0	410.4	86.6	75.6	11.01	7.865		
2,800.0	2,758.5	2,791.1	2,734.9	12.3	0.0	-22.09	-119.5	436.8	90.8	79.4	11.38	7.976		
2,900.0	2,855.7	2,891.0	2,830.9	12.8	0.0	-22.26	-127.0	463.2	94.9	83.2	11.75	8.076		
3,000.0	2,952.8	2,990.9	2,927.0	13.3	0.0	-22.42	-134.5	489.7	99.1	87.0	12.13	8.168		
3,100.0	3,049.9	3,090.9	3,023.0	13.8	0.0	-22.56	-141.9	516.1	103.2	90.7	12.51	8.251		
3,200.0	3,147.0	3,190.8	3,119.1	14.3	0.0	-22.69	-149.4	542.5	107.4	94.5	12.90	8.327		
3,300.0	3,244.1	3,290.7	3,215.2	14.8	0.0	-22.81	-156.9	569.0	111.6	98.3	13.29	8.397		
3,400.0	3,341.3	3,390.6	3,311.2	15.4	0.0	-22.92	-164.4	595.4	115.7	102.0	13.68	8.462		
3,500.0	3,438.4	3,490.5	3,407.3	15.9	0.0	-23.03	-171.9	621.8	119.9	105.8	14.07	8.521		
3,600.0	3,535.5	3,590.4	3,503.4	16.4	0.0	-23.13	-179.4	648.2	124.0	109.6	14.46	8.575		
3,700.0	3,632.6	3,690.3	3,599.4	17.0	0.0	-23.22	-186.9	674.7	128.2	113.3	14.86	8.626		
3,800.0	3,729.8	3,790.2	3,695.5	17.5	0.0	-23.30	-194.3	701.1	132.4	117.1	15.26	8.672		
3,900.0	3,826.9	3,890.2	3,791.6	18.0	0.0	-23.39	-201.8	727.5	136.5	120.9	15.66	8.715		
4,000.0	3,924.0	3,990.1	3,887.6	18.6	0.0	-23.46	-209.3	754.0	140.7	124.6	16.07	8.756		
4,100.0	4,021.1	4,090.0	3,983.7	19.1	0.0	-23.53	-216.8	780.4	144.8	128.4	16.47	8.793		
4,200.0	4,118.3	4,189.9	4,079.7	19.6	0.0	-23.60	-224.3	806.8	149.0	132.1	16.88	8.828		
4,300.0	4,215.4	4,289.8	4,175.8	20.2	0.0	-23.66	-231.8	833.2	153.2	135.9	17.29	8.860		
4,400.0	4,312.5	4,389.7	4,271.9	20.7	0.0	-23.72	-239.3	859.7	157.3	139.6	17.70	8.891		
4,500.0	4,409.6	4,489.6	4,367.9	21.3	0.0	-23.78	-246.8	886.1	161.5	143.4	18.11	8.919		
4,600.0	4,506.7	4,589.6	4,464.0	21.8	0.0	-23.84	-254.2	912.5	165.7	147.1	18.52	8.946		
4,700.0	4,603.9	4,689.5	4,560.1	22.3	0.0	-23.89	-261.7	939.0	169.8	150.9	18.93	8.971		
4,800.0	4,701.0	4,789.4	4,656.1	22.9	0.0	-23.94	-269.2	965.4	174.0	154.6	19.34	8.994		
4,900.0	4,798.1	4,889.3	4,752.2	23.4	0.0	-23.98	-276.7	991.8	178.1	158.4	19.76	9.016		
5,000.0	4,895.2	4,989.2	4,848.2	24.0	0.0	-24.03	-284.2	1,018.2	182.3	162.1	20.17	9.037		
5,100.0	4,992.4	5,089.1	4,944.3	24.5	0.0	-24.07	-291.7	1,044.7	186.5	165.9	20.59	9.057		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,189.0	5,040.4	25.1	0.0	-24.11	-299.2	1,071.1	190.6	169.6	21.01	9.075		
5,300.0	5,186.6	5,288.9	5,136.4	25.6	0.0	-24.15	-306.7	1,097.5	194.8	173.4	21.42	9.093		
5,400.0	5,283.7	5,388.9	5,232.5	26.2	0.0	-24.19	-314.1	1,124.0	199.0	177.1	21.84	9.109		
5,500.0	5,380.9	5,488.8	5,328.6	26.7	0.0	-24.22	-321.6	1,150.4	203.1	180.9	22.26	9.125		
5,600.0	5,478.0	5,588.7	5,424.6	27.2	0.0	-24.26	-329.1	1,176.8	207.3	184.6	22.68	9.140		
5,700.0	5,575.1	5,688.6	5,520.7	27.8	0.0	-24.29	-336.6	1,203.2	211.4	188.3	23.10	9.154		
5,800.0	5,672.2	5,788.5	5,616.8	28.3	0.0	-24.32	-344.1	1,229.7	215.6	192.1	23.52	9.168		
5,900.0	5,769.3	5,888.4	5,712.8	28.9	0.0	-24.36	-351.6	1,256.1	219.8	195.8	23.94	9.180		
6,000.0	5,866.5	5,988.3	5,808.9	29.4	0.0	-24.38	-359.1	1,282.5	223.9	199.6	24.36	9.193		
6,100.0	5,963.6	6,088.2	5,904.9	30.0	0.0	-24.41	-366.5	1,309.0	228.1	203.3	24.78	9.204		
6,200.0	6,060.7	6,188.2	6,001.0	30.5	0.0	-24.44	-374.0	1,335.4	232.3	207.1	25.20	9.215		
6,300.0	6,157.8	6,288.1	6,097.1	31.1	0.0	-24.47	-381.5	1,361.8	236.4	210.8	25.63	9.226		
6,400.0	6,255.0	6,388.0	6,193.1	31.6	0.0	-24.49	-389.0	1,388.2	240.6	214.5	26.05	9.236		
6,500.0	6,352.1	6,487.9	6,289.2	32.2	0.0	-24.52	-396.5	1,414.7	244.8	218.3	26.47	9.246		
6,600.0	6,449.2	6,587.8	6,385.3	32.7	0.0	-24.54	-404.0	1,441.1	248.9	222.0	26.90	9.255		
6,700.0	6,546.3	6,687.7	6,481.3	33.3	0.0	-24.56	-411.5	1,467.5	253.1	225.8	27.32	9.264		
6,800.0	6,643.4	6,787.6	6,577.4	33.8	0.0	-24.59	-419.0	1,494.0	257.2	229.5	27.74	9.272		
6,900.0	6,740.6	6,887.6	6,673.4	34.4	0.0	-24.61	-426.4	1,520.4	261.4	233.2	28.17	9.280		
7,000.0	6,837.9	6,987.3	6,769.4	34.9	0.0	4.01	-433.9	1,546.8	265.3	236.8	28.48	9.313		
7,100.0	6,934.5	7,085.2	6,863.4	35.4	0.0	41.36	-441.2	1,572.7	268.6	240.0	28.54	9.411		
7,200.0	7,027.6	7,178.1	6,952.8	35.8	0.0	64.20	-448.2	1,597.2	274.9	246.2	28.62	9.603		
7,300.0	7,114.3	7,265.6	7,037.0	36.2	0.0	79.90	-454.6	1,620.4	289.8	260.8	28.92	10.020		
7,400.0	7,192.0	7,368.7	7,136.1	36.5	0.0	92.68	-450.2	1,647.6	314.7	285.0	29.69	10.601		
7,500.0	7,258.5	7,487.8	7,247.7	36.7	0.0	102.91	-422.4	1,678.0	346.1	315.9	30.19	11.463		
7,600.0	7,311.5	7,630.1	7,370.2	36.8	0.0	111.33	-358.8	1,711.1	379.6	350.1	29.55	12.847		
7,700.0	7,349.6	7,803.6	7,493.5	36.8	0.0	117.99	-242.3	1,744.0	409.9	382.7	27.20	15.073		
7,800.0	7,371.5	7,991.3	7,582.4	36.8	0.0	121.91	-79.6	1,767.0	430.5	406.1	24.40	17.643		
7,900.0	7,377.0	8,215.1	7,617.0	36.8	0.0	123.40	139.9	1,774.7	435.9	413.2	22.78	19.137		
8,000.0	7,377.0	8,315.1	7,617.0	36.8	0.0	123.40	239.9	1,773.9	435.9	413.0	22.97	18.983		
8,100.0	7,377.0	8,415.1	7,617.0	36.9	0.0	123.40	339.9	1,773.0	435.9	412.7	23.25	18.750		
8,200.0	7,377.0	8,515.1	7,617.0	37.1	0.0	123.40	439.9	1,772.2	435.9	412.3	23.63	18.447		
8,300.0	7,377.0	8,615.1	7,617.0	37.3	0.0	123.40	539.9	1,771.4	435.9	411.8	24.11	18.084		
8,400.0	7,377.0	8,715.1	7,617.0	37.6	0.0	123.40	639.9	1,770.5	435.9	411.3	24.67	17.673		
8,500.0	7,377.0	8,815.1	7,617.0	38.1	0.0	123.40	739.9	1,769.7	435.9	410.6	25.31	17.225		
8,600.0	7,377.0	8,915.1	7,617.0	38.6	0.0	123.40	839.9	1,768.9	435.9	409.9	26.02	16.751		
8,700.0	7,377.0	9,015.1	7,617.0	39.2	0.0	123.40	939.9	1,768.1	435.9	409.1	26.81	16.261		
8,800.0	7,377.0	9,115.1	7,617.0	40.0	0.0	123.40	1,039.9	1,767.2	435.9	408.3	27.66	15.762		
8,900.0	7,377.0	9,215.1	7,617.0	40.8	0.0	123.40	1,139.9	1,766.4	435.9	407.4	28.56	15.262		
9,000.0	7,377.0	9,315.1	7,617.0	41.7	0.0	123.40	1,239.8	1,765.6	435.9	406.4	29.52	14.767		
9,100.0	7,377.0	9,415.1	7,617.0	42.7	0.0	123.40	1,339.8	1,764.8	435.9	405.4	30.53	14.281		
9,200.0	7,377.0	9,515.1	7,617.0	43.7	0.0	123.40	1,439.8	1,763.9	435.9	404.4	31.57	13.807		
9,300.0	7,377.0	9,615.1	7,617.0	44.8	0.0	123.40	1,539.8	1,763.1	435.9	403.3	32.66	13.348		
9,400.0	7,377.0	9,715.1	7,617.0	45.9	0.0	123.40	1,639.8	1,762.3	435.9	402.2	33.78	12.905		
9,500.0	7,377.0	9,815.1	7,617.0	47.1	0.0	123.40	1,739.8	1,761.4	435.9	401.0	34.93	12.479		
9,600.0	7,377.0	9,915.1	7,617.0	48.4	0.0	123.40	1,839.8	1,760.6	435.9	399.8	36.11	12.071		
9,700.0	7,377.0	10,015.1	7,617.0	49.6	0.0	123.40	1,939.8	1,759.8	435.9	398.6	37.32	11.681		
9,800.0	7,377.0	10,115.1	7,617.0	50.9	0.0	123.40	2,039.8	1,759.0	435.9	397.4	38.55	11.308		
9,900.0	7,377.0	10,215.1	7,617.0	52.3	0.0	123.40	2,139.8	1,758.1	435.9	396.1	39.80	10.953		
10,000.0	7,377.0	10,315.1	7,617.0	53.6	0.0	123.40	2,239.8	1,757.3	435.9	394.9	41.07	10.614		
10,100.0	7,377.0	10,415.1	7,617.0	55.0	0.0	123.40	2,339.8	1,756.5	435.9	393.6	42.36	10.291		
10,200.0	7,377.0	10,515.1	7,617.0	56.4	0.0	123.40	2,439.8	1,755.7	435.9	392.3	43.67	9.984		
10,300.0	7,377.0	10,615.1	7,617.0	57.8	0.0	123.40	2,539.8	1,754.8	435.9	391.0	44.99	9.691		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,715.1	7,617.0	59.2	0.0	123.40	2,639.8	1,754.0	435.9	389.6	46.32	9.412		
10,500.0	7,377.0	10,815.1	7,617.0	60.7	0.0	123.40	2,739.8	1,753.2	435.9	388.3	47.66	9.147		
10,600.0	7,377.0	10,915.1	7,617.0	62.2	0.0	123.40	2,839.8	1,752.4	435.9	386.9	49.02	8.894		
10,700.0	7,377.0	11,015.1	7,617.0	63.7	0.0	123.40	2,939.8	1,751.5	435.9	385.6	50.38	8.653		
10,800.0	7,377.0	11,115.1	7,617.0	65.2	0.0	123.40	3,039.8	1,750.7	435.9	384.2	51.76	8.423		
10,900.0	7,377.0	11,215.1	7,617.0	66.7	0.0	123.40	3,139.8	1,749.9	435.9	382.8	53.14	8.203		
11,000.0	7,377.0	11,315.1	7,617.0	68.2	0.0	123.40	3,239.8	1,749.0	435.9	381.4	54.54	7.994		
11,100.0	7,377.0	11,415.1	7,617.0	69.8	0.0	123.40	3,339.8	1,748.2	435.9	380.0	55.94	7.794		
11,200.0	7,377.0	11,515.1	7,617.0	71.3	0.0	123.40	3,439.8	1,747.4	435.9	378.6	57.34	7.603		
11,300.0	7,377.0	11,615.1	7,617.0	72.9	0.0	123.40	3,539.8	1,746.6	435.9	377.2	58.75	7.420		
11,400.0	7,377.0	11,715.1	7,617.0	74.4	0.0	123.40	3,639.8	1,745.7	435.9	375.8	60.17	7.245		
11,500.0	7,377.0	11,815.1	7,617.0	76.0	0.0	123.40	3,739.8	1,744.9	435.9	374.3	61.60	7.077		
11,600.0	7,377.0	11,915.1	7,617.0	77.6	0.0	123.40	3,839.8	1,744.1	435.9	372.9	63.03	6.917		
11,700.0	7,377.0	12,015.1	7,617.0	79.2	0.0	123.40	3,939.8	1,743.3	435.9	371.5	64.46	6.763		
11,800.0	7,377.0	12,115.1	7,617.0	80.8	0.0	123.40	4,039.8	1,742.4	435.9	370.0	65.90	6.615		
11,900.0	7,377.0	12,215.1	7,617.0	82.4	0.0	123.40	4,139.7	1,741.6	435.9	368.6	67.35	6.473		
12,000.0	7,377.0	12,315.1	7,617.0	84.0	0.0	123.40	4,239.7	1,740.8	435.9	367.2	68.79	6.337		
12,100.0	7,377.0	12,415.1	7,617.0	85.6	0.0	123.40	4,339.7	1,739.9	435.9	365.7	70.25	6.206		
12,200.0	7,377.0	12,515.1	7,617.0	87.3	0.0	123.40	4,439.7	1,739.1	435.9	364.2	71.70	6.080		
12,300.0	7,377.0	12,615.1	7,617.0	88.9	0.0	123.40	4,539.7	1,738.3	435.9	362.8	73.16	5.959		
12,400.0	7,377.0	12,715.1	7,617.0	90.5	0.0	123.40	4,639.7	1,737.5	435.9	361.3	74.62	5.842		
12,500.0	7,377.0	12,815.1	7,617.0	92.2	0.0	123.40	4,739.7	1,736.6	435.9	359.9	76.08	5.730		
12,600.0	7,377.0	12,915.1	7,617.0	93.8	0.0	123.40	4,839.7	1,735.8	435.9	358.4	77.55	5.621		
12,700.0	7,377.0	13,015.1	7,617.0	95.5	0.0	123.40	4,939.7	1,735.0	435.9	356.9	79.02	5.517		
12,800.0	7,377.0	13,115.1	7,617.0	97.1	0.0	123.40	5,039.7	1,734.2	435.9	355.5	80.49	5.416		
12,900.0	7,377.0	13,215.1	7,617.0	98.8	0.0	123.40	5,139.7	1,733.3	435.9	354.0	81.97	5.319		
13,000.0	7,377.0	13,315.1	7,617.0	100.4	0.0	123.40	5,239.7	1,732.5	435.9	352.5	83.44	5.225		
13,100.0	7,377.0	13,415.1	7,617.0	102.1	0.0	123.40	5,339.7	1,731.7	435.9	351.0	84.92	5.134		
13,200.0	7,377.0	13,515.1	7,617.0	103.8	0.0	123.40	5,439.7	1,730.9	435.9	349.5	86.40	5.046		
13,300.0	7,377.0	13,615.1	7,617.0	105.4	0.0	123.40	5,539.7	1,730.0	435.9	348.1	87.88	4.961		
13,400.0	7,377.0	13,715.1	7,617.0	107.1	0.0	123.40	5,639.7	1,729.2	435.9	346.6	89.37	4.878		
13,500.0	7,377.0	13,815.1	7,617.0	108.8	0.0	123.40	5,739.7	1,728.4	435.9	345.1	90.85	4.798		
13,600.0	7,377.0	13,915.1	7,617.0	110.5	0.0	123.40	5,839.7	1,727.5	435.9	343.6	92.34	4.721		
13,700.0	7,377.0	14,015.1	7,617.0	112.2	0.0	123.40	5,939.7	1,726.7	435.9	342.1	93.83	4.646		
13,800.0	7,377.0	14,115.1	7,617.0	113.8	0.0	123.40	6,039.7	1,725.9	435.9	340.6	95.32	4.573		
13,900.0	7,377.0	14,215.1	7,617.0	115.5	0.0	123.40	6,139.7	1,725.1	435.9	339.1	96.81	4.503		
14,000.0	7,377.0	14,315.1	7,617.0	117.2	0.0	123.40	6,239.7	1,724.2	435.9	337.6	98.31	4.435		
14,100.0	7,377.0	14,415.1	7,617.0	118.9	0.0	123.40	6,339.7	1,723.4	435.9	336.1	99.80	4.368		
14,200.0	7,377.0	14,515.1	7,617.0	120.6	0.0	123.40	6,439.7	1,722.6	435.9	334.7	101.30	4.304		
14,300.0	7,377.0	14,615.1	7,617.0	122.3	0.0	123.40	6,539.7	1,721.8	435.9	333.2	102.79	4.241		
14,400.0	7,377.0	14,715.1	7,617.0	124.0	0.0	123.40	6,639.7	1,720.9	435.9	331.7	104.29	4.180		
14,500.0	7,377.0	14,815.1	7,617.0	125.7	0.0	123.40	6,739.7	1,720.1	435.9	330.2	105.79	4.121		
14,600.0	7,377.0	14,915.1	7,617.0	127.4	0.0	123.40	6,839.7	1,719.3	435.9	328.7	107.29	4.063		
14,700.0	7,377.0	15,015.1	7,617.0	129.1	0.0	123.40	6,939.7	1,718.4	435.9	327.2	108.79	4.007		
14,800.0	7,377.0	15,115.1	7,617.0	130.8	0.0	123.40	7,039.7	1,717.6	435.9	325.7	110.29	3.953		
14,900.0	7,377.0	15,215.1	7,617.0	132.5	0.0	123.40	7,139.6	1,716.8	435.9	324.2	111.80	3.899		
15,000.0	7,377.0	15,315.1	7,617.0	134.2	0.0	123.40	7,239.6	1,716.0	435.9	322.6	113.30	3.848		
15,100.0	7,377.0	15,415.1	7,617.0	135.9	0.0	123.40	7,339.6	1,715.1	435.9	321.1	114.80	3.797		
15,200.0	7,377.0	15,515.1	7,617.0	137.6	0.0	123.40	7,439.6	1,714.3	435.9	319.6	116.31	3.748		
15,300.0	7,377.0	15,615.1	7,617.0	139.3	0.0	123.40	7,539.6	1,713.5	435.9	318.1	117.82	3.700		
15,400.0	7,377.0	15,715.1	7,617.0	141.1	0.0	123.40	7,639.6	1,712.7	435.9	316.6	119.32	3.653		
15,500.0	7,377.0	15,815.1	7,617.0	142.8	0.0	123.40	7,739.6	1,711.8	435.9	315.1	120.83	3.608		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,915.1	7,617.0	144.5	0.0	123.40	7,839.6	1,711.0	435.9	313.6	122.34	3.563		
15,700.0	7,377.0	16,015.1	7,617.0	146.2	0.0	123.40	7,939.6	1,710.2	435.9	312.1	123.85	3.520		
15,800.0	7,377.0	16,115.1	7,617.0	147.9	0.0	123.40	8,039.6	1,709.3	435.9	310.6	125.36	3.478		
15,900.0	7,377.0	16,215.1	7,617.0	149.6	0.0	123.40	8,139.6	1,708.5	435.9	309.1	126.87	3.436		
16,000.0	7,377.0	16,315.1	7,617.0	151.4	0.0	123.40	8,239.6	1,707.7	435.9	307.6	128.38	3.396		
16,100.0	7,377.0	16,415.1	7,617.0	153.1	0.0	123.40	8,339.6	1,706.9	435.9	306.1	129.89	3.356		
16,200.0	7,377.0	16,515.1	7,617.0	154.8	0.0	123.40	8,439.6	1,706.0	435.9	304.5	131.40	3.318		
16,300.0	7,377.0	16,615.1	7,617.0	156.5	0.0	123.40	8,539.6	1,705.2	435.9	303.0	132.92	3.280		
16,400.0	7,377.0	16,715.1	7,617.0	158.3	0.0	123.40	8,639.6	1,704.4	435.9	301.5	134.43	3.243		
16,500.0	7,377.0	16,815.1	7,617.0	160.0	0.0	123.40	8,739.6	1,703.6	435.9	300.0	135.94	3.207		
16,600.0	7,377.0	16,915.1	7,617.0	161.7	0.0	123.40	8,839.6	1,702.7	435.9	298.5	137.46	3.172		
16,700.0	7,377.0	17,015.1	7,617.0	163.4	0.0	123.40	8,939.6	1,701.9	435.9	297.0	138.97	3.137		
16,800.0	7,377.0	17,115.1	7,617.0	165.2	0.0	123.40	9,039.6	1,701.1	435.9	295.5	140.49	3.103		
16,900.0	7,377.0	17,215.1	7,617.0	166.9	0.0	123.40	9,139.6	1,700.3	435.9	293.9	142.00	3.070		
17,000.0	7,377.0	17,315.1	7,617.0	168.6	0.0	123.40	9,239.6	1,699.4	435.9	292.4	143.52	3.038		
17,100.0	7,377.0	17,415.1	7,617.0	170.3	0.0	123.40	9,339.6	1,698.6	435.9	290.9	145.03	3.006		
17,200.0	7,377.0	17,515.1	7,617.0	172.1	0.0	123.40	9,439.6	1,697.8	435.9	289.4	146.55	2.975		
17,300.0	7,377.0	17,615.1	7,617.0	173.8	0.0	123.40	9,539.6	1,696.9	435.9	287.9	148.07	2.944		
17,400.0	7,377.0	17,715.1	7,617.0	175.5	0.0	123.40	9,639.6	1,696.1	435.9	286.4	149.58	2.914		
17,500.0	7,377.0	17,815.1	7,617.0	177.3	0.0	123.40	9,739.6	1,695.3	435.9	284.8	151.10	2.885		
17,600.0	7,377.0	17,915.1	7,617.0	179.0	0.0	123.40	9,839.6	1,694.5	435.9	283.3	152.62	2.856		
17,683.1	7,377.0	17,998.1	7,617.0	180.4	0.0	123.40	9,922.6	1,693.8	435.9	282.1	153.88	2.833 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.70	0.3	59.9	59.9				
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.3	59.9	59.9	59.7	0.28	216.393	
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.3	59.9	59.9	59.1	0.80	75.134	
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.3	59.9	59.9	58.7	1.22	48.957	
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.3	59.9	59.9	58.3	1.62	37.041	
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.3	59.9	59.9	57.9	2.00	29.989 CC, ES	
600.0	600.0	598.0	597.9	2.7	0.0	90.02	0.0	61.6	61.6	59.3	2.37	26.018	
700.0	700.0	695.7	695.5	3.1	0.0	90.91	-1.1	66.5	66.6	63.9	2.72	24.463	
800.0	800.0	793.0	792.4	3.5	0.0	92.11	-2.7	74.6	75.0	72.0	3.07	24.444	
900.0	900.0	889.6	888.4	3.9	0.0	93.40	-5.1	85.8	86.8	83.4	3.41	25.473	
1,000.0	1,000.0	985.5	983.2	4.2	0.0	-15.18	-8.1	100.1	100.2	96.3	3.91	25.602	
1,100.0	1,099.8	1,081.1	1,077.1	4.7	0.0	-14.62	-11.7	117.4	113.6	108.9	4.67	24.341	
1,200.0	1,199.5	1,176.2	1,170.0	5.5	0.0	-14.37	-15.9	137.7	126.9	121.5	5.33	23.797	
1,300.0	1,298.7	1,271.0	1,261.7	6.2	0.0	-14.35	-20.8	160.9	140.1	134.1	5.93	23.610	
1,400.0	1,397.5	1,365.3	1,352.2	6.9	0.0	-14.50	-26.2	186.9	153.2	146.7	6.49	23.620	
1,500.0	1,495.6	1,459.3	1,441.4	7.5	0.0	-14.77	-32.3	215.7	166.2	159.2	7.00	23.747	
1,600.0	1,593.1	1,553.0	1,529.4	8.0	0.0	-15.15	-38.9	247.2	179.1	171.7	7.39	24.220	
1,700.0	1,690.2	1,652.1	1,621.9	8.3	0.0	-15.59	-46.1	282.0	192.2	184.6	7.65	25.120	
1,800.0	1,787.3	1,751.2	1,714.5	8.6	0.0	-15.98	-53.4	316.8	205.4	197.4	7.93	25.891	
1,900.0	1,884.4	1,850.3	1,807.0	8.9	0.0	-16.32	-60.7	351.6	218.5	210.3	8.22	26.572	
2,000.0	1,981.6	1,949.5	1,899.5	9.2	0.0	-16.62	-68.0	386.4	231.7	223.2	8.53	27.172	
2,100.0	2,078.7	2,048.6	1,992.1	9.5	0.0	-16.89	-75.3	421.2	244.9	236.0	8.84	27.700	
2,200.0	2,175.8	2,147.7	2,084.6	9.8	0.0	-17.14	-82.5	456.0	258.0	248.9	9.16	28.166	
2,300.0	2,272.9	2,246.8	2,177.1	10.2	0.0	-17.35	-89.8	490.8	271.2	261.7	9.49	28.578	
2,400.0	2,370.0	2,345.9	2,269.6	10.6	0.0	-17.55	-97.1	525.6	284.4	274.5	9.83	28.941	
2,500.0	2,467.2	2,445.1	2,362.2	11.0	0.0	-17.73	-104.4	560.4	297.6	287.4	10.17	29.262	
2,600.0	2,564.3	2,544.2	2,454.7	11.4	0.0	-17.90	-111.6	595.2	310.7	300.2	10.52	29.546	
2,700.0	2,661.4	2,643.3	2,547.2	11.8	0.0	-18.05	-118.9	630.0	323.9	313.1	10.87	29.798	
2,800.0	2,758.5	2,742.4	2,639.8	12.3	0.0	-18.19	-126.2	664.8	337.1	325.9	11.23	30.022	
2,900.0	2,855.7	2,841.6	2,732.3	12.8	0.0	-18.32	-133.5	699.6	350.3	338.7	11.59	30.221	
3,000.0	2,952.8	2,940.7	2,824.8	13.3	0.0	-18.44	-140.8	734.4	363.5	351.5	11.96	30.399	
3,100.0	3,049.9	3,039.8	2,917.3	13.8	0.0	-18.55	-148.0	769.2	376.7	364.4	12.33	30.557	
3,200.0	3,147.0	3,138.9	3,009.9	14.3	0.0	-18.66	-155.3	804.0	389.9	377.2	12.70	30.698	
3,300.0	3,244.1	3,238.1	3,102.4	14.8	0.0	-18.75	-162.6	838.8	403.1	390.0	13.08	30.825	
3,400.0	3,341.3	3,337.2	3,194.9	15.4	0.0	-18.85	-169.9	873.6	416.3	402.8	13.45	30.938	
3,500.0	3,438.4	3,436.3	3,287.5	15.9	0.0	-18.93	-177.2	908.4	429.5	415.6	13.84	31.040	
3,600.0	3,535.5	3,535.4	3,380.0	16.4	0.0	-19.01	-184.4	943.2	442.7	428.4	14.22	31.131	
3,700.0	3,632.6	3,634.6	3,472.5	17.0	0.0	-19.09	-191.7	978.0	455.9	441.3	14.60	31.213	
3,800.0	3,729.8	3,733.7	3,565.0	17.5	0.0	-19.16	-199.0	1,012.8	469.1	454.1	14.99	31.287	
3,900.0	3,826.9	3,832.8	3,657.6	18.0	0.0	-19.23	-206.3	1,047.6	482.3	466.9	15.38	31.354	
4,000.0	3,924.0	3,931.9	3,750.1	18.6	0.0	-19.29	-213.6	1,082.4	495.5	479.7	15.77	31.414	
4,100.0	4,021.1	4,031.0	3,842.6	19.1	0.0	-19.35	-220.8	1,117.2	508.7	492.5	16.16	31.468	
4,200.0	4,118.3	4,130.2	3,935.2	19.6	0.0	-19.41	-228.1	1,152.0	521.9	505.3	16.56	31.517	
4,300.0	4,215.4	4,229.3	4,027.7	20.2	0.0	-19.46	-235.4	1,186.8	535.1	518.1	16.95	31.561	
4,400.0	4,312.5	4,328.4	4,120.2	20.7	0.0	-19.52	-242.7	1,221.6	548.3	530.9	17.35	31.601	
4,500.0	4,409.6	4,427.5	4,212.7	21.3	0.0	-19.57	-249.9	1,256.4	561.5	543.7	17.75	31.637	
4,600.0	4,506.7	4,526.7	4,305.3	21.8	0.0	-19.61	-257.2	1,291.2	574.7	556.5	18.15	31.670	
4,700.0	4,603.9	4,625.8	4,397.8	22.3	0.0	-19.66	-264.5	1,326.0	587.9	569.3	18.55	31.699	
4,800.0	4,701.0	4,724.9	4,490.3	22.9	0.0	-19.70	-271.8	1,360.8	601.1	582.1	18.95	31.726	
4,900.0	4,798.1	4,824.0	4,582.9	23.4	0.0	-19.74	-279.1	1,395.6	614.3	594.9	19.35	31.750	
5,000.0	4,895.2	4,923.2	4,675.4	24.0	0.0	-19.78	-286.3	1,430.4	627.5	607.7	19.75	31.772	
5,100.0	4,992.4	5,022.3	4,767.9	24.5	0.0	-19.82	-293.6	1,465.2	640.7	620.5	20.15	31.792	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,121.4	4,860.4	25.1	0.0	-19.86	-300.9	1,500.0	653.9	633.3	20.56	31.810		
5,300.0	5,186.6	5,220.5	4,953.0	25.6	0.0	-19.89	-308.2	1,534.8	667.1	646.1	20.96	31.826		
5,400.0	5,283.7	5,319.6	5,045.5	26.2	0.0	-19.93	-315.5	1,569.6	680.3	658.9	21.37	31.841		
5,500.0	5,380.9	5,418.8	5,138.0	26.7	0.0	-19.96	-322.7	1,604.4	693.5	671.7	21.77	31.854		
5,600.0	5,478.0	5,517.9	5,230.6	27.2	0.0	-19.99	-330.0	1,639.2	706.7	684.5	22.18	31.866		
5,700.0	5,575.1	5,617.0	5,323.1	27.8	0.0	-20.02	-337.3	1,674.0	719.9	697.3	22.58	31.876		
5,800.0	5,672.2	5,716.1	5,415.6	28.3	0.0	-20.05	-344.6	1,708.8	733.1	710.1	22.99	31.886		
5,900.0	5,769.3	5,815.3	5,508.1	28.9	0.0	-20.08	-351.9	1,743.6	746.3	722.9	23.40	31.894		
6,000.0	5,866.5	5,914.4	5,600.7	29.4	0.0	-20.10	-359.1	1,778.4	759.5	735.7	23.81	31.902		
6,100.0	5,963.6	6,013.5	5,693.2	30.0	0.0	-20.13	-366.4	1,813.2	772.7	748.5	24.22	31.909		
6,200.0	6,060.7	6,112.6	5,785.7	30.5	0.0	-20.15	-373.7	1,848.0	786.0	761.3	24.63	31.915		
6,300.0	6,157.8	6,211.8	5,878.3	31.1	0.0	-20.18	-381.0	1,882.8	799.2	774.1	25.04	31.920		
6,400.0	6,255.0	6,310.9	5,970.8	31.6	0.0	-20.20	-388.2	1,917.6	812.4	786.9	25.45	31.924		
6,500.0	6,352.1	6,410.0	6,063.3	32.2	0.0	-20.23	-395.5	1,952.4	825.6	799.7	25.86	31.928		
6,600.0	6,449.2	6,509.1	6,155.8	32.7	0.0	-20.25	-402.8	1,987.2	838.8	812.5	26.27	31.932		
6,700.0	6,546.3	6,608.3	6,248.4	33.3	0.0	-20.27	-410.1	2,022.0	852.0	825.3	26.68	31.935		
6,800.0	6,643.4	6,707.4	6,340.9	33.8	0.0	-20.29	-417.4	2,056.8	865.2	838.1	27.09	31.937		
6,900.0	6,740.6	6,806.5	6,433.4	34.4	0.0	-20.31	-424.6	2,091.6	878.4	850.9	27.50	31.939		
7,000.0	6,837.9	6,905.5	6,525.8	34.9	0.0	7.09	-431.9	2,126.3	891.6	863.7	27.87	31.988		
7,100.0	6,934.5	7,002.5	6,616.4	35.4	0.0	40.54	-439.0	2,160.4	904.5	876.3	28.22	32.055		
7,200.0	7,027.6	7,094.7	6,702.5	35.8	0.0	57.68	-445.8	2,192.7	917.9	889.3	28.60	32.092		
7,300.0	7,114.3	7,179.2	6,781.4	36.2	0.0	66.96	-452.0	2,222.4	933.3	904.4	28.86	32.338		
7,400.0	7,192.0	7,279.2	6,874.9	36.5	0.0	73.30	-451.9	2,257.5	951.5	922.3	29.19	32.598		
7,500.0	7,258.5	7,398.2	6,984.2	36.7	0.0	78.16	-429.2	2,298.1	971.3	941.7	29.61	32.802		
7,600.0	7,311.5	7,543.9	7,108.5	36.8	0.0	82.36	-369.5	2,343.8	991.4	961.4	29.99	33.056		
7,700.0	7,349.6	7,727.9	7,239.1	36.8	0.0	86.13	-250.0	2,390.9	1,009.0	978.9	30.10	33.517		
7,800.0	7,371.5	7,956.4	7,342.1	36.8	0.0	88.85	-50.9	2,426.3	1,020.2	990.3	29.98	34.032		
7,900.0	7,377.0	8,162.6	7,367.0	36.8	0.0	89.44	152.8	2,432.5	1,021.9	991.8	30.13	33.922		
8,000.0	7,377.0	8,262.6	7,367.0	36.8	0.0	89.44	252.8	2,431.0	1,021.2	990.8	30.43	33.560		
8,100.0	7,377.0	8,362.6	7,367.0	36.9	0.0	89.44	352.8	2,429.4	1,020.5	989.6	30.83	33.095		
8,200.0	7,377.0	8,462.6	7,367.0	37.1	0.0	89.44	452.8	2,427.8	1,019.7	988.4	31.33	32.545		
8,300.0	7,377.0	8,562.6	7,367.0	37.3	0.0	89.44	552.7	2,426.3	1,019.0	987.1	31.92	31.921		
8,400.0	7,377.0	8,662.6	7,367.0	37.6	0.0	89.44	652.7	2,424.7	1,018.3	985.7	32.60	31.238		
8,500.0	7,377.0	8,762.6	7,367.0	38.1	0.0	89.44	752.7	2,423.2	1,017.5	984.2	33.35	30.509		
8,600.0	7,377.0	8,862.6	7,367.0	38.6	0.0	89.44	852.7	2,421.6	1,016.8	982.6	34.18	29.748		
8,700.0	7,377.0	8,962.6	7,367.0	39.2	0.0	89.44	952.7	2,420.0	1,016.1	981.0	35.08	28.965		
8,800.0	7,377.0	9,062.6	7,367.0	40.0	0.0	89.44	1,052.7	2,418.5	1,015.3	979.3	36.04	28.171		
8,900.0	7,377.0	9,162.6	7,367.0	40.8	0.0	89.44	1,152.7	2,416.9	1,014.6	977.5	37.06	27.375		
9,000.0	7,377.0	9,262.6	7,367.0	41.7	0.0	89.43	1,252.6	2,415.4	1,013.9	975.7	38.14	26.584		
9,100.0	7,377.0	9,362.6	7,367.0	42.7	0.0	89.43	1,352.6	2,413.8	1,013.1	973.9	39.27	25.803		
9,200.0	7,377.0	9,462.6	7,367.0	43.7	0.0	89.43	1,452.6	2,412.2	1,012.4	972.0	40.44	25.037		
9,300.0	7,377.0	9,562.6	7,367.0	44.8	0.0	89.43	1,552.6	2,410.7	1,011.7	970.0	41.65	24.290		
9,400.0	7,377.0	9,662.6	7,367.0	45.9	0.0	89.43	1,652.6	2,409.1	1,011.0	968.0	42.90	23.564		
9,500.0	7,377.0	9,762.6	7,367.0	47.1	0.0	89.43	1,752.6	2,407.6	1,010.2	966.0	44.19	22.861		
9,600.0	7,377.0	9,862.6	7,367.0	48.4	0.0	89.43	1,852.6	2,406.0	1,009.5	964.0	45.51	22.182		
9,700.0	7,377.0	9,962.6	7,367.0	49.6	0.0	89.43	1,952.5	2,404.5	1,008.8	961.9	46.86	21.528		
9,800.0	7,377.0	10,062.6	7,367.0	50.9	0.0	89.43	2,052.5	2,402.9	1,008.0	959.8	48.23	20.899		
9,900.0	7,377.0	10,162.6	7,367.0	52.3	0.0	89.43	2,152.5	2,401.3	1,007.3	957.7	49.63	20.295		
10,000.0	7,377.0	10,262.6	7,367.0	53.6	0.0	89.43	2,252.5	2,399.8	1,006.6	955.5	51.06	19.715		
10,100.0	7,377.0	10,362.6	7,367.0	55.0	0.0	89.43	2,352.5	2,398.2	1,005.8	953.3	52.50	19.159		
10,200.0	7,377.0	10,462.6	7,367.0	56.4	0.0	89.43	2,452.5	2,396.7	1,005.1	951.1	53.96	18.626		
10,300.0	7,377.0	10,562.6	7,367.0	57.8	0.0	89.43	2,552.5	2,395.1	1,004.4	948.9	55.44	18.115		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,662.6	7,367.0	59.2	0.0	89.43	2,652.4	2,393.5	1,003.6	946.7	56.94	17.626		
10,500.0	7,377.0	10,762.6	7,367.0	60.7	0.0	89.43	2,752.4	2,392.0	1,002.9	944.4	58.45	17.158		
10,600.0	7,377.0	10,862.6	7,367.0	62.2	0.0	89.43	2,852.4	2,390.4	1,002.2	942.2	59.98	16.709		
10,700.0	7,377.0	10,962.6	7,367.0	63.7	0.0	89.43	2,952.4	2,388.9	1,001.4	939.9	61.52	16.279		
10,800.0	7,377.0	11,062.6	7,367.0	65.2	0.0	89.43	3,052.4	2,387.3	1,000.7	937.6	63.07	15.868		
10,900.0	7,377.0	11,162.6	7,367.0	66.7	0.0	89.43	3,152.4	2,385.7	1,000.0	935.3	64.63	15.473		
11,000.0	7,377.0	11,262.6	7,367.0	68.2	0.0	89.43	3,252.3	2,384.2	999.2	933.0	66.20	15.095		
11,100.0	7,377.0	11,362.6	7,367.0	69.8	0.0	89.43	3,352.3	2,382.6	998.5	930.7	67.78	14.732		
11,200.0	7,377.0	11,462.6	7,367.0	71.3	0.0	89.43	3,452.3	2,381.1	997.8	928.4	69.37	14.383		
11,300.0	7,377.0	11,562.6	7,367.0	72.9	0.0	89.43	3,552.3	2,379.5	997.0	926.1	70.97	14.049		
11,400.0	7,377.0	11,662.6	7,367.0	74.4	0.0	89.42	3,652.3	2,378.0	996.3	923.7	72.57	13.728		
11,500.0	7,377.0	11,762.6	7,367.0	76.0	0.0	89.42	3,752.3	2,376.4	995.6	921.4	74.19	13.420		
11,600.0	7,377.0	11,862.6	7,367.0	77.6	0.0	89.42	3,852.3	2,374.8	994.8	919.0	75.81	13.123		
11,700.0	7,377.0	11,962.5	7,367.0	79.2	0.0	89.42	3,952.2	2,373.3	994.1	916.7	77.43	12.838		
11,800.0	7,377.0	12,062.5	7,367.0	80.8	0.0	89.42	4,052.2	2,371.7	993.4	914.3	79.07	12.564		
11,900.0	7,377.0	12,162.5	7,367.0	82.4	0.0	89.42	4,152.2	2,370.2	992.7	911.9	80.71	12.300		
12,000.0	7,377.0	12,262.5	7,367.0	84.0	0.0	89.42	4,252.2	2,368.6	991.9	909.6	82.35	12.045		
12,100.0	7,377.0	12,362.5	7,367.0	85.6	0.0	89.42	4,352.2	2,367.0	991.2	907.2	84.00	11.800		
12,200.0	7,377.0	12,462.5	7,367.0	87.3	0.0	89.42	4,452.2	2,365.5	990.5	904.8	85.65	11.564		
12,300.0	7,377.0	12,562.5	7,367.0	88.9	0.0	89.42	4,552.2	2,363.9	989.7	902.4	87.31	11.336		
12,400.0	7,377.0	12,662.5	7,367.0	90.5	0.0	89.42	4,652.1	2,362.4	989.0	900.0	88.97	11.116		
12,500.0	7,377.0	12,762.5	7,367.0	92.2	0.0	89.42	4,752.1	2,360.8	988.3	897.6	90.63	10.904		
12,600.0	7,377.0	12,862.5	7,367.0	93.8	0.0	89.42	4,852.1	2,359.2	987.5	895.2	92.30	10.699		
12,700.0	7,377.0	12,962.5	7,367.0	95.5	0.0	89.42	4,952.1	2,357.7	986.8	892.8	93.98	10.501		
12,800.0	7,377.0	13,062.5	7,367.0	97.1	0.0	89.42	5,052.1	2,356.1	986.1	890.4	95.65	10.309		
12,900.0	7,377.0	13,162.5	7,367.0	98.8	0.0	89.42	5,152.1	2,354.6	985.3	888.0	97.33	10.123		
13,000.0	7,377.0	13,262.5	7,367.0	100.4	0.0	89.42	5,252.1	2,353.0	984.6	885.6	99.01	9.944		
13,100.0	7,377.0	13,362.5	7,367.0	102.1	0.0	89.42	5,352.0	2,351.5	983.9	883.2	100.70	9.770		
13,200.0	7,377.0	13,462.5	7,367.0	103.8	0.0	89.42	5,452.0	2,349.9	983.1	880.8	102.39	9.602		
13,300.0	7,377.0	13,562.5	7,367.0	105.4	0.0	89.42	5,552.0	2,348.3	982.4	878.3	104.08	9.439		
13,400.0	7,377.0	13,662.5	7,367.0	107.1	0.0	89.42	5,652.0	2,346.8	981.7	875.9	105.77	9.281		
13,500.0	7,377.0	13,762.5	7,367.0	108.8	0.0	89.42	5,752.0	2,345.2	980.9	873.5	107.46	9.128		
13,600.0	7,377.0	13,862.5	7,367.0	110.5	0.0	89.42	5,852.0	2,343.7	980.2	871.0	109.16	8.979		
13,700.0	7,377.0	13,962.5	7,367.0	112.2	0.0	89.42	5,951.9	2,342.1	979.5	868.6	110.86	8.835		
13,800.0	7,377.0	14,062.5	7,367.0	113.8	0.0	89.41	6,051.9	2,340.5	978.7	866.2	112.56	8.695		
13,900.0	7,377.0	14,162.5	7,367.0	115.5	0.0	89.41	6,151.9	2,339.0	978.0	863.7	114.27	8.559		
14,000.0	7,377.0	14,262.5	7,367.0	117.2	0.0	89.41	6,251.9	2,337.4	977.3	861.3	115.97	8.427		
14,100.0	7,377.0	14,362.5	7,367.0	118.9	0.0	89.41	6,351.9	2,335.9	976.5	858.9	117.68	8.298		
14,200.0	7,377.0	14,462.5	7,367.0	120.6	0.0	89.41	6,451.9	2,334.3	975.8	856.4	119.39	8.173		
14,300.0	7,377.0	14,562.5	7,367.0	122.3	0.0	89.41	6,551.9	2,332.7	975.1	854.0	121.10	8.052		
14,400.0	7,377.0	14,662.5	7,367.0	124.0	0.0	89.41	6,651.8	2,331.2	974.4	851.5	122.81	7.934		
14,500.0	7,377.0	14,762.5	7,367.0	125.7	0.0	89.41	6,751.8	2,329.6	973.6	849.1	124.52	7.819		
14,600.0	7,377.0	14,862.5	7,367.0	127.4	0.0	89.41	6,851.8	2,328.1	972.9	846.7	126.24	7.707		
14,700.0	7,377.0	14,962.5	7,367.0	129.1	0.0	89.41	6,951.8	2,326.5	972.2	844.2	127.96	7.598		
14,800.0	7,377.0	15,062.5	7,367.0	130.8	0.0	89.41	7,051.8	2,324.9	971.4	841.8	129.67	7.491		
14,900.0	7,377.0	15,162.5	7,367.0	132.5	0.0	89.41	7,151.8	2,323.4	970.7	839.3	131.39	7.388		
15,000.0	7,377.0	15,262.5	7,367.0	134.2	0.0	89.41	7,251.8	2,321.8	970.0	836.8	133.11	7.287		
15,100.0	7,377.0	15,362.5	7,367.0	135.9	0.0	89.41	7,351.7	2,320.3	969.2	834.4	134.83	7.188		
15,200.0	7,377.0	15,462.5	7,367.0	137.6	0.0	89.41	7,451.7	2,318.7	968.5	831.9	136.56	7.092		
15,300.0	7,377.0	15,562.5	7,367.0	139.3	0.0	89.41	7,551.7	2,317.2	967.8	829.5	138.28	6.999		
15,400.0	7,377.0	15,662.4	7,367.0	141.1	0.0	89.41	7,651.7	2,315.6	967.0	827.0	140.00	6.907		
15,500.0	7,377.0	15,762.4	7,367.0	142.8	0.0	89.41	7,751.7	2,314.0	966.3	824.6	141.73	6.818		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,377.0	15,862.4	7,367.0	144.5	0.0	89.41	7,851.7	2,312.5	965.6	822.1	143.46	6.731		
15,700.0	7,377.0	15,962.4	7,367.0	146.2	0.0	89.41	7,951.7	2,310.9	964.8	819.7	145.18	6.646		
15,800.0	7,377.0	16,062.4	7,367.0	147.9	0.0	89.41	8,051.6	2,309.4	964.1	817.2	146.91	6.562		
15,900.0	7,377.0	16,162.4	7,367.0	149.6	0.0	89.41	8,151.6	2,307.8	963.4	814.7	148.64	6.481		
16,000.0	7,377.0	16,262.4	7,367.0	151.4	0.0	89.40	8,251.6	2,306.2	962.6	812.3	150.37	6.402		
16,100.0	7,377.0	16,362.4	7,367.0	153.1	0.0	89.40	8,351.6	2,304.7	961.9	809.8	152.10	6.324		
16,200.0	7,377.0	16,462.4	7,367.0	154.8	0.0	89.40	8,451.6	2,303.1	961.2	807.3	153.83	6.248		
16,300.0	7,377.0	16,562.4	7,367.0	156.5	0.0	89.40	8,551.6	2,301.6	960.4	804.9	155.57	6.174		
16,400.0	7,377.0	16,662.4	7,367.0	158.3	0.0	89.40	8,651.5	2,300.0	959.7	802.4	157.30	6.101		
16,500.0	7,377.0	16,762.4	7,367.0	160.0	0.0	89.40	8,751.5	2,298.4	959.0	799.9	159.03	6.030		
16,600.0	7,377.0	16,862.4	7,367.0	161.7	0.0	89.40	8,851.5	2,296.9	958.3	797.5	160.77	5.960		
16,700.0	7,377.0	16,962.4	7,367.0	163.4	0.0	89.40	8,951.5	2,295.3	957.5	795.0	162.50	5.892		
16,800.0	7,377.0	17,062.4	7,367.0	165.2	0.0	89.40	9,051.5	2,293.8	956.8	792.5	164.24	5.826		
16,900.0	7,377.0	17,162.4	7,367.0	166.9	0.0	89.40	9,151.5	2,292.2	956.1	790.1	165.98	5.760		
17,000.0	7,377.0	17,262.4	7,367.0	168.6	0.0	89.40	9,251.5	2,290.7	955.3	787.6	167.71	5.696		
17,100.0	7,377.0	17,362.4	7,367.0	170.3	0.0	89.40	9,351.4	2,289.1	954.6	785.1	169.45	5.633		
17,200.0	7,377.0	17,462.4	7,367.0	172.1	0.0	89.40	9,451.4	2,287.5	953.9	782.7	171.19	5.572		
17,300.0	7,377.0	17,562.4	7,367.0	173.8	0.0	89.40	9,551.4	2,286.0	953.1	780.2	172.93	5.512		
17,400.0	7,377.0	17,662.4	7,367.0	175.5	0.0	89.40	9,651.4	2,284.4	952.4	777.7	174.67	5.453		
17,500.0	7,377.0	17,762.4	7,367.0	177.3	0.0	89.40	9,751.4	2,282.9	951.7	775.3	176.41	5.395		
17,600.0	7,377.0	17,862.4	7,367.0	179.0	0.0	89.40	9,851.4	2,281.3	950.9	772.8	178.15	5.338		
17,683.1	7,377.0	17,945.5	7,367.0	180.4	0.0	89.40	9,934.4	2,280.0	950.3	770.7	179.59	5.292 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.63	0.3	44.9	44.9					
100.0	100.0	100.0	100.0	0.4	0.0	89.63	0.3	44.9	44.9	44.7	0.28	162.112		
200.0	200.0	200.0	200.0	1.0	0.0	89.63	0.3	44.9	44.9	44.1	0.80	56.293		
300.0	300.0	300.0	300.0	1.5	0.0	89.63	0.3	44.9	44.9	43.7	1.23	36.685		
400.0	400.0	400.0	400.0	1.9	0.0	89.63	0.3	44.9	44.9	43.3	1.62	27.759		
500.0	500.0	500.0	500.0	2.3	0.0	89.63	0.3	44.9	44.9	42.9	2.00	22.475		
600.0	600.0	600.0	600.0	2.7	0.0	89.63	0.3	44.9	44.9	42.6	2.37	18.936 CC, ES		
700.0	700.0	698.5	698.4	3.1	0.0	90.08	-0.1	46.6	46.6	43.9	2.74	17.037		
800.0	800.0	796.7	796.5	3.5	0.0	91.25	-1.1	51.5	51.7	48.6	3.08	16.752		
900.0	900.0	894.4	893.9	3.9	0.0	92.75	-2.9	59.7	60.1	56.7	3.42	17.566		
1,000.0	1,000.0	991.7	990.5	4.2	0.0	-15.66	-5.3	71.1	70.3	66.3	3.93	17.878		
1,100.0	1,099.8	1,088.7	1,086.3	4.7	0.0	-15.08	-8.4	85.6	80.4	75.7	4.68	17.167		
1,200.0	1,199.5	1,185.3	1,181.2	5.5	0.0	-14.91	-12.2	103.2	90.5	85.2	5.35	16.916		
1,300.0	1,298.7	1,281.6	1,275.2	6.2	0.0	-15.01	-16.6	123.9	100.7	94.7	5.96	16.897		
1,400.0	1,397.5	1,377.6	1,368.1	6.9	0.0	-15.32	-21.7	147.5	110.7	104.2	6.51	17.007		
1,500.0	1,495.6	1,473.3	1,459.8	7.5	0.0	-15.78	-27.4	174.1	120.7	113.7	7.02	17.193		
1,600.0	1,593.1	1,568.6	1,550.3	8.0	0.0	-16.36	-33.7	203.5	130.7	123.3	7.42	17.625		
1,700.0	1,690.2	1,665.0	1,640.7	8.3	0.0	-16.85	-40.7	236.1	142.5	134.8	7.64	18.657		
1,800.0	1,787.3	1,764.2	1,733.6	8.6	0.0	-17.24	-48.0	270.3	154.9	147.0	7.92	19.568		
1,900.0	1,884.4	1,863.4	1,826.4	8.9	0.0	-17.57	-55.3	304.4	167.4	159.2	8.21	20.386		
2,000.0	1,981.6	1,962.7	1,919.3	9.2	0.0	-17.85	-62.6	338.6	179.9	171.4	8.52	21.120		
2,100.0	2,078.7	2,061.9	2,012.2	9.5	0.0	-18.10	-69.9	372.8	192.4	183.5	8.83	21.779		
2,200.0	2,175.8	2,161.1	2,105.0	9.8	0.0	-18.32	-77.2	406.9	204.8	195.7	9.16	22.372		
2,300.0	2,272.9	2,260.3	2,197.9	10.2	0.0	-18.51	-84.6	441.1	217.3	207.8	9.49	22.905		
2,400.0	2,370.0	2,359.5	2,290.7	10.6	0.0	-18.68	-91.9	475.3	229.8	220.0	9.83	23.385		
2,500.0	2,467.2	2,458.7	2,383.6	11.0	0.0	-18.83	-99.2	509.4	242.3	232.1	10.17	23.819		
2,600.0	2,564.3	2,558.0	2,476.5	11.4	0.0	-18.97	-106.5	543.6	254.8	244.3	10.52	24.211		
2,700.0	2,661.4	2,657.2	2,569.3	11.8	0.0	-19.10	-113.8	577.8	267.3	256.4	10.88	24.566		
2,800.0	2,758.5	2,756.4	2,662.2	12.3	0.0	-19.21	-121.1	611.9	279.8	268.5	11.24	24.889		
2,900.0	2,855.7	2,855.6	2,755.0	12.8	0.0	-19.32	-128.5	646.1	292.2	280.6	11.61	25.183		
3,000.0	2,952.8	2,954.8	2,847.9	13.3	0.0	-19.41	-135.8	680.3	304.7	292.8	11.97	25.451		
3,100.0	3,049.9	3,050.4	2,940.8	13.8	0.0	-19.50	-143.1	714.4	317.2	304.9	12.35	25.696		
3,200.0	3,147.0	3,153.2	3,033.6	14.3	0.0	-19.58	-150.4	748.6	329.7	317.0	12.72	25.920		
3,300.0	3,244.1	3,252.5	3,126.5	14.8	0.0	-19.66	-157.7	782.8	342.2	329.1	13.10	26.125		
3,400.0	3,341.3	3,351.7	3,219.3	15.4	0.0	-19.73	-165.0	816.9	354.7	341.2	13.48	26.315		
3,500.0	3,438.4	3,450.9	3,312.2	15.9	0.0	-19.80	-172.4	851.1	367.2	353.4	13.86	26.489		
3,600.0	3,535.5	3,550.1	3,405.0	16.4	0.0	-19.86	-179.7	885.3	379.7	365.5	14.25	26.649		
3,700.0	3,632.6	3,649.3	3,497.9	17.0	0.0	-19.91	-187.0	919.4	392.2	377.6	14.64	26.798		
3,800.0	3,729.8	3,748.5	3,590.8	17.5	0.0	-19.97	-194.3	953.6	404.7	389.7	15.03	26.935		
3,900.0	3,826.9	3,847.8	3,683.6	18.0	0.0	-20.02	-201.6	987.8	417.2	401.8	15.42	27.063		
4,000.0	3,924.0	3,947.0	3,776.5	18.6	0.0	-20.07	-209.0	1,021.9	429.7	413.9	15.81	27.182		
4,100.0	4,021.1	4,046.2	3,869.3	19.1	0.0	-20.11	-216.3	1,056.1	442.2	426.0	16.20	27.292		
4,200.0	4,118.3	4,145.4	3,962.2	19.6	0.0	-20.15	-223.6	1,090.3	454.7	438.1	16.60	27.395		
4,300.0	4,215.4	4,244.6	4,055.1	20.2	0.0	-20.19	-230.9	1,124.4	467.2	450.2	16.99	27.491		
4,400.0	4,312.5	4,343.8	4,147.9	20.7	0.0	-20.23	-238.2	1,158.6	479.7	462.3	17.39	27.581		
4,500.0	4,409.6	4,443.0	4,240.8	21.3	0.0	-20.27	-245.5	1,192.8	492.2	474.4	17.79	27.665		
4,600.0	4,506.7	4,542.3	4,333.6	21.8	0.0	-20.30	-252.9	1,226.9	504.7	486.5	18.19	27.744		
4,700.0	4,603.9	4,641.5	4,426.5	22.3	0.0	-20.34	-260.2	1,261.1	517.2	498.6	18.59	27.818		
4,800.0	4,701.0	4,740.7	4,519.4	22.9	0.0	-20.37	-267.5	1,295.3	529.7	510.7	18.99	27.887		
4,900.0	4,798.1	4,839.9	4,612.2	23.4	0.0	-20.40	-274.8	1,329.4	542.2	522.8	19.40	27.953		
5,000.0	4,895.2	4,939.1	4,705.1	24.0	0.0	-20.43	-282.1	1,363.6	554.7	534.9	19.80	28.014		
5,100.0	4,992.4	5,038.3	4,797.9	24.5	0.0	-20.45	-289.4	1,397.8	567.2	547.0	20.20	28.072		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,137.6	4,890.8	25.1	0.0	-20.48	-296.8	1,431.9	579.7	559.1	20.61	28.127		
5,300.0	5,186.6	5,236.8	4,983.6	25.6	0.0	-20.50	-304.1	1,466.1	592.2	571.2	21.02	28.179		
5,400.0	5,283.7	5,336.0	5,076.5	26.2	0.0	-20.53	-311.4	1,500.3	604.7	583.3	21.42	28.228		
5,500.0	5,380.9	5,435.2	5,169.4	26.7	0.0	-20.55	-318.7	1,534.4	617.2	595.4	21.83	28.275		
5,600.0	5,478.0	5,534.4	5,262.2	27.2	0.0	-20.57	-326.0	1,568.6	629.7	607.5	22.24	28.319		
5,700.0	5,575.1	5,633.6	5,355.1	27.8	0.0	-20.59	-333.3	1,602.8	642.2	619.6	22.64	28.361		
5,800.0	5,672.2	5,732.8	5,447.9	28.3	0.0	-20.61	-340.7	1,636.9	654.7	631.6	23.05	28.400		
5,900.0	5,769.3	5,832.1	5,540.8	28.9	0.0	-20.63	-348.0	1,671.1	667.2	643.7	23.46	28.438		
6,000.0	5,866.5	5,931.3	5,633.7	29.4	0.0	-20.65	-355.3	1,705.3	679.7	655.8	23.87	28.474		
6,100.0	5,963.6	6,030.5	5,726.5	30.0	0.0	-20.67	-362.6	1,739.4	692.2	667.9	24.28	28.508		
6,200.0	6,060.7	6,129.7	5,819.4	30.5	0.0	-20.69	-369.9	1,773.6	704.7	680.0	24.69	28.541		
6,300.0	6,157.8	6,228.9	5,912.2	31.1	0.0	-20.70	-377.3	1,807.8	717.2	692.1	25.10	28.572		
6,400.0	6,255.0	6,328.1	6,005.1	31.6	0.0	-20.72	-384.6	1,841.9	729.7	704.2	25.51	28.602		
6,500.0	6,352.1	6,427.4	6,098.0	32.2	0.0	-20.74	-391.9	1,876.1	742.2	716.3	25.92	28.630		
6,600.0	6,449.2	6,526.6	6,190.8	32.7	0.0	-20.75	-399.2	1,910.3	754.7	728.4	26.34	28.657		
6,700.0	6,546.3	6,625.8	6,283.7	33.3	0.0	-20.77	-406.5	1,944.4	767.2	740.5	26.75	28.683		
6,800.0	6,643.4	6,725.0	6,376.5	33.8	0.0	-20.78	-413.8	1,978.6	779.7	752.5	27.16	28.708		
6,900.0	6,740.6	6,824.2	6,469.4	34.4	0.0	-20.80	-421.2	2,012.8	792.2	764.6	27.57	28.732		
7,000.0	6,837.9	6,923.3	6,562.1	34.9	0.0	6.69	-428.5	2,046.9	804.6	776.7	27.94	28.799		
7,100.0	6,934.5	7,020.4	6,653.0	35.4	0.0	40.36	-435.6	2,080.3	816.7	788.5	28.27	28.892		
7,200.0	7,027.6	7,112.7	6,739.4	35.8	0.0	57.81	-442.4	2,112.1	829.4	800.8	28.64	28.965		
7,300.0	7,114.3	7,197.3	6,818.6	36.2	0.0	67.43	-448.7	2,141.2	844.3	815.4	28.87	29.239		
7,400.0	7,192.0	7,280.4	6,896.4	36.5	0.0	73.68	-453.9	2,169.8	863.2	834.1	29.14	29.627		
7,500.0	7,258.5	7,389.9	6,998.8	36.7	0.0	78.95	-445.5	2,207.3	885.9	856.3	29.60	29.930		
7,600.0	7,311.5	7,528.0	7,122.8	36.8	0.0	83.78	-405.6	2,252.1	910.6	880.6	30.07	30.289		
7,700.0	7,349.6	7,715.0	7,269.8	36.8	0.0	88.73	-304.0	2,304.5	934.3	904.2	30.13	31.011		
7,800.0	7,371.5	7,794.5	7,408.1	36.8	0.0	93.08	-92.3	2,351.9	951.1	921.5	29.56	32.172		
7,900.0	7,377.0	8,223.6	7,447.0	36.8	0.0	94.21	151.7	2,362.3	954.3	924.8	29.49	32.363		
8,000.0	7,377.0	8,323.6	7,447.0	36.8	0.0	94.21	251.7	2,360.8	953.5	923.8	29.77	32.029		
8,100.0	7,377.0	8,423.6	7,447.0	36.9	0.0	94.21	351.7	2,359.2	952.8	922.7	30.16	31.592		
8,200.0	7,377.0	8,523.6	7,447.0	37.1	0.0	94.22	451.6	2,357.7	952.1	921.4	30.64	31.069		
8,300.0	7,377.0	8,623.6	7,447.0	37.3	0.0	94.22	551.6	2,356.1	951.4	920.1	31.22	30.471		
8,400.0	7,377.0	8,723.6	7,447.0	37.6	0.0	94.22	651.6	2,354.6	950.6	918.7	31.89	29.814		
8,500.0	7,377.0	8,823.6	7,447.0	38.1	0.0	94.23	751.6	2,353.0	949.9	917.3	32.63	29.111		
8,600.0	7,377.0	8,923.6	7,447.0	38.6	0.0	94.23	851.6	2,351.4	949.2	915.7	33.45	28.374		
8,700.0	7,377.0	9,023.6	7,447.0	39.2	0.0	94.23	951.6	2,349.9	948.4	914.1	34.34	27.616		
8,800.0	7,377.0	9,123.6	7,447.0	40.0	0.0	94.24	1,051.6	2,348.3	947.7	912.4	35.30	26.846		
8,900.0	7,377.0	9,223.6	7,447.0	40.8	0.0	94.24	1,151.5	2,346.8	947.0	910.7	36.32	26.073		
9,000.0	7,377.0	9,323.6	7,447.0	41.7	0.0	94.24	1,251.5	2,345.2	946.3	908.9	37.39	25.306		
9,100.0	7,377.0	9,423.6	7,447.0	42.7	0.0	94.25	1,351.5	2,343.7	945.5	907.0	38.52	24.548		
9,200.0	7,377.0	9,523.6	7,447.0	43.7	0.0	94.25	1,451.5	2,342.1	944.8	905.1	39.69	23.806		
9,300.0	7,377.0	9,623.6	7,447.0	44.8	0.0	94.25	1,551.5	2,340.6	944.1	903.2	40.90	23.082		
9,400.0	7,377.0	9,723.6	7,447.0	45.9	0.0	94.26	1,651.5	2,339.0	943.4	901.2	42.15	22.380		
9,500.0	7,377.0	9,823.6	7,447.0	47.1	0.0	94.26	1,751.5	2,337.4	942.6	899.2	43.44	21.700		
9,600.0	7,377.0	9,923.6	7,447.0	48.4	0.0	94.26	1,851.4	2,335.9	941.9	897.1	44.76	21.045		
9,700.0	7,377.0	10,023.6	7,447.0	49.6	0.0	94.27	1,951.4	2,334.3	941.2	895.1	46.11	20.413		
9,800.0	7,377.0	10,123.6	7,447.0	50.9	0.0	94.27	2,051.4	2,332.8	940.4	893.0	47.48	19.807		
9,900.0	7,377.0	10,223.6	7,447.0	52.3	0.0	94.27	2,151.4	2,331.2	939.7	890.8	48.88	19.224		
10,000.0	7,377.0	10,323.6	7,447.0	53.6	0.0	94.28	2,251.4	2,329.7	939.0	888.7	50.30	18.666		
10,100.0	7,377.0	10,423.6	7,447.0	55.0	0.0	94.28	2,351.4	2,328.1	938.3	886.5	51.75	18.131		
10,200.0	7,377.0	10,523.6	7,447.0	56.4	0.0	94.28	2,451.4	2,326.5	937.5	884.3	53.21	17.619		
10,300.0	7,377.0	10,623.6	7,447.0	57.8	0.0	94.29	2,551.3	2,325.0	936.8	882.1	54.69	17.129		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,377.0	10,723.6	7,447.0	59.2	0.0	94.29	2,651.3	2,323.4	936.1	879.9	56.19	16.660		
10,500.0	7,377.0	10,823.6	7,447.0	60.7	0.0	94.29	2,751.3	2,321.9	935.4	877.7	57.70	16.211		
10,600.0	7,377.0	10,923.6	7,447.0	62.2	0.0	94.30	2,851.3	2,320.3	934.6	875.4	59.23	15.781		
10,700.0	7,377.0	11,023.5	7,447.0	63.7	0.0	94.30	2,951.3	2,318.8	933.9	873.1	60.76	15.369		
10,800.0	7,377.0	11,123.5	7,447.0	65.2	0.0	94.30	3,051.3	2,317.2	933.2	870.9	62.31	14.975		
10,900.0	7,377.0	11,223.5	7,447.0	66.7	0.0	94.31	3,151.2	2,315.6	932.4	868.6	63.87	14.598		
11,000.0	7,377.0	11,323.5	7,447.0	68.2	0.0	94.31	3,251.2	2,314.1	931.7	866.3	65.45	14.237		
11,100.0	7,377.0	11,423.5	7,447.0	69.8	0.0	94.31	3,351.2	2,312.5	931.0	864.0	67.03	13.890		
11,200.0	7,377.0	11,523.5	7,447.0	71.3	0.0	94.32	3,451.2	2,311.0	930.3	861.6	68.62	13.558		
11,300.0	7,377.0	11,623.5	7,447.0	72.9	0.0	94.32	3,551.2	2,309.4	929.5	859.3	70.21	13.239		
11,400.0	7,377.0	11,723.5	7,447.0	74.4	0.0	94.32	3,651.2	2,307.9	928.8	857.0	71.82	12.933		
11,500.0	7,377.0	11,823.5	7,447.0	76.0	0.0	94.33	3,751.2	2,306.3	928.1	854.6	73.43	12.639		
11,600.0	7,377.0	11,923.5	7,447.0	77.6	0.0	94.33	3,851.1	2,304.7	927.3	852.3	75.05	12.357		
11,700.0	7,377.0	12,023.5	7,447.0	79.2	0.0	94.33	3,951.1	2,303.2	926.6	849.9	76.67	12.085		
11,800.0	7,377.0	12,123.5	7,447.0	80.8	0.0	94.34	4,051.1	2,301.6	925.9	847.6	78.30	11.824		
11,900.0	7,377.0	12,223.5	7,447.0	82.4	0.0	94.34	4,151.1	2,300.1	925.2	845.2	79.94	11.573		
12,000.0	7,377.0	12,323.5	7,447.0	84.0	0.0	94.34	4,251.1	2,298.5	924.4	842.9	81.58	11.331		
12,100.0	7,377.0	12,423.5	7,447.0	85.6	0.0	94.35	4,351.1	2,297.0	923.7	840.5	83.23	11.098		
12,200.0	7,377.0	12,523.5	7,447.0	87.3	0.0	94.35	4,451.1	2,295.4	923.0	838.1	84.88	10.874		
12,300.0	7,377.0	12,623.5	7,447.0	88.9	0.0	94.35	4,551.0	2,293.9	922.3	835.7	86.54	10.658		
12,400.0	7,377.0	12,723.5	7,447.0	90.5	0.0	94.36	4,651.0	2,292.3	921.5	833.3	88.19	10.449		
12,500.0	7,377.0	12,823.5	7,447.0	92.2	0.0	94.36	4,751.0	2,290.7	920.8	830.9	89.86	10.247		
12,600.0	7,377.0	12,923.5	7,447.0	93.8	0.0	94.36	4,851.0	2,289.2	920.1	828.5	91.52	10.053		
12,700.0	7,377.0	13,023.5	7,447.0	95.5	0.0	94.37	4,951.0	2,287.6	919.3	826.2	93.20	9.865		
12,800.0	7,377.0	13,123.5	7,447.0	97.1	0.0	94.37	5,051.0	2,286.1	918.6	823.8	94.87	9.683		
12,900.0	7,377.0	13,223.5	7,447.0	98.8	0.0	94.37	5,151.0	2,284.5	917.9	821.3	96.55	9.507		
13,000.0	7,377.0	13,323.5	7,447.0	100.4	0.0	94.38	5,250.9	2,283.0	917.2	818.9	98.23	9.337		
13,100.0	7,377.0	13,423.5	7,447.0	102.1	0.0	94.38	5,350.9	2,281.4	916.4	816.5	99.91	9.173		
13,200.0	7,377.0	13,523.5	7,447.0	103.8	0.0	94.38	5,450.9	2,279.8	915.7	814.1	101.59	9.014		
13,300.0	7,377.0	13,623.5	7,447.0	105.4	0.0	94.39	5,550.9	2,278.3	915.0	811.7	103.28	8.859		
13,400.0	7,377.0	13,723.5	7,447.0	107.1	0.0	94.39	5,650.9	2,276.7	914.3	809.3	104.97	8.710		
13,500.0	7,377.0	13,823.5	7,447.0	108.8	0.0	94.39	5,750.9	2,275.2	913.5	806.9	106.66	8.565		
13,600.0	7,377.0	13,923.5	7,447.0	110.5	0.0	94.40	5,850.8	2,273.6	912.8	804.4	108.36	8.424		
13,700.0	7,377.0	14,023.5	7,447.0	112.2	0.0	94.40	5,950.8	2,272.1	912.1	802.0	110.05	8.288		
13,800.0	7,377.0	14,123.5	7,447.0	113.8	0.0	94.41	6,050.8	2,270.5	911.3	799.6	111.75	8.155		
13,900.0	7,377.0	14,223.5	7,447.0	115.5	0.0	94.41	6,150.8	2,268.9	910.6	797.2	113.45	8.026		
14,000.0	7,377.0	14,323.5	7,447.0	117.2	0.0	94.41	6,250.8	2,267.4	909.9	794.7	115.15	7.902		
14,100.0	7,377.0	14,423.5	7,447.0	118.9	0.0	94.42	6,350.8	2,265.8	909.2	792.3	116.86	7.780		
14,200.0	7,377.0	14,523.5	7,447.0	120.6	0.0	94.42	6,450.8	2,264.3	908.4	789.9	118.56	7.662		
14,300.0	7,377.0	14,623.5	7,447.0	122.3	0.0	94.42	6,550.7	2,262.7	907.7	787.4	120.27	7.547		
14,400.0	7,377.0	14,723.5	7,447.0	124.0	0.0	94.43	6,650.7	2,261.2	907.0	785.0	121.98	7.436		
14,500.0	7,377.0	14,823.4	7,447.0	125.7	0.0	94.43	6,750.7	2,259.6	906.3	782.6	123.69	7.327		
14,600.0	7,377.0	14,923.4	7,447.0	127.4	0.0	94.43	6,850.7	2,258.1	905.5	780.1	125.40	7.221		
14,700.0	7,377.0	15,023.4	7,447.0	129.1	0.0	94.44	6,950.7	2,256.5	904.8	777.7	127.11	7.118		
14,800.0	7,377.0	15,123.4	7,447.0	130.8	0.0	94.44	7,050.7	2,254.9	904.1	775.2	128.83	7.018		
14,900.0	7,377.0	15,223.4	7,447.0	132.5	0.0	94.44	7,150.7	2,253.4	903.3	772.8	130.54	6.920		
15,000.0	7,377.0	15,323.4	7,447.0	134.2	0.0	94.45	7,250.6	2,251.8	902.6	770.4	132.26	6.825		
15,100.0	7,377.0	15,423.4	7,447.0	135.9	0.0	94.45	7,350.6	2,250.3	901.9	767.9	133.98	6.732		
15,200.0	7,377.0	15,523.4	7,447.0	137.6	0.0	94.46	7,450.6	2,248.7	901.2	765.5	135.69	6.641		
15,300.0	7,377.0	15,623.4	7,447.0	139.3	0.0	94.46	7,550.6	2,247.2	900.4	763.0	137.41	6.553		
15,400.0	7,377.0	15,723.4	7,447.0	141.1	0.0	94.46	7,650.6	2,245.6	899.7	760.6	139.13	6.466		
15,500.0	7,377.0	15,823.4	7,447.0	142.8	0.0	94.47	7,750.6	2,244.0	899.0	758.1	140.86	6.382		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)					
15,600.0	7,377.0	15,923.4	7,447.0	144.5	0.0	94.47	7,850.6	2,242.5	898.3	755.7	142.58	6.300	
15,700.0	7,377.0	16,023.4	7,447.0	146.2	0.0	94.47	7,950.5	2,240.9	897.5	753.2	144.30	6.220	
15,800.0	7,377.0	16,123.4	7,447.0	147.9	0.0	94.48	8,050.5	2,239.4	896.8	750.8	146.03	6.141	
15,900.0	7,377.0	16,223.4	7,447.0	149.6	0.0	94.48	8,150.5	2,237.8	896.1	748.3	147.75	6.065	
16,000.0	7,377.0	16,323.4	7,447.0	151.4	0.0	94.48	8,250.5	2,236.3	895.3	745.9	149.48	5.990	
16,100.0	7,377.0	16,423.4	7,447.0	153.1	0.0	94.49	8,350.5	2,234.7	894.6	743.4	151.20	5.917	
16,200.0	7,377.0	16,523.4	7,447.0	154.8	0.0	94.49	8,450.5	2,233.1	893.9	741.0	152.93	5.845	
16,300.0	7,377.0	16,623.4	7,447.0	156.5	0.0	94.50	8,550.4	2,231.6	893.2	738.5	154.66	5.775	
16,400.0	7,377.0	16,723.4	7,447.0	158.3	0.0	94.50	8,650.4	2,230.0	892.4	736.0	156.39	5.706	
16,500.0	7,377.0	16,823.4	7,447.0	160.0	0.0	94.50	8,750.4	2,228.5	891.7	733.6	158.12	5.639	
16,600.0	7,377.0	16,923.4	7,447.0	161.7	0.0	94.51	8,850.4	2,226.9	891.0	731.1	159.85	5.574	
16,700.0	7,377.0	17,023.4	7,447.0	163.4	0.0	94.51	8,950.4	2,225.4	890.2	728.7	161.58	5.510	
16,800.0	7,377.0	17,123.4	7,447.0	165.2	0.0	94.51	9,050.4	2,223.8	889.5	726.2	163.31	5.447	
16,900.0	7,377.0	17,223.4	7,447.0	166.9	0.0	94.52	9,150.4	2,222.3	888.8	723.8	165.04	5.385	
17,000.0	7,377.0	17,323.4	7,447.0	168.6	0.0	94.52	9,250.3	2,220.7	888.1	721.3	166.78	5.325	
17,100.0	7,377.0	17,423.4	7,447.0	170.3	0.0	94.52	9,350.3	2,219.1	887.3	718.8	168.51	5.266	
17,200.0	7,377.0	17,523.4	7,447.0	172.1	0.0	94.53	9,450.3	2,217.6	886.6	716.4	170.24	5.208	
17,300.0	7,377.0	17,623.4	7,447.0	173.8	0.0	94.53	9,550.3	2,216.0	885.9	713.9	171.98	5.151	
17,400.0	7,377.0	17,723.4	7,447.0	175.5	0.0	94.54	9,650.3	2,214.5	885.2	711.4	173.71	5.096	
17,500.0	7,377.0	17,823.4	7,447.0	177.3	0.0	94.54	9,750.3	2,212.9	884.4	709.0	175.45	5.041	
17,600.0	7,377.0	17,923.4	7,447.0	179.0	0.0	94.54	9,850.3	2,211.4	883.7	706.5	177.18	4.988	
17,683.1	7,377.0	18,006.4	7,447.0	180.4	0.0	94.55	9,933.3	2,210.1	883.1	704.5	178.62	4.944 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.70	0.2	29.9	29.9					
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.2	29.9	29.9	29.7	0.28	108.096		
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.2	29.9	29.9	29.1	0.80	37.532		
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.2	29.9	29.9	28.7	1.22	24.456		
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.2	29.9	29.9	28.3	1.62	18.504		
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.2	29.9	29.9	27.9	2.00	14.981		
600.0	600.0	600.0	600.0	2.7	0.0	89.70	0.2	29.9	29.9	27.6	2.37	12.621		
700.0	700.0	700.0	700.0	3.1	0.0	89.70	0.2	29.9	29.9	27.2	2.74	10.920	CC, ES	
800.0	800.0	799.0	798.9	3.5	0.0	90.43	-0.2	31.6	31.6	28.5	3.10	10.208		
900.0	900.0	897.7	897.5	3.9	0.0	92.21	-1.4	36.6	36.7	33.3	3.43	10.684		
1,000.0	1,000.0	996.1	995.6	4.2	0.0	-15.89	-3.4	44.8	43.5	39.6	3.94	11.036		
1,100.0	1,099.8	1,094.3	1,093.0	4.7	0.0	-15.21	-6.1	56.3	50.3	45.6	4.70	10.711		
1,200.0	1,199.5	1,192.2	1,189.8	5.5	0.0	-15.06	-9.6	71.0	57.2	51.8	5.37	10.643		
1,300.0	1,298.7	1,289.9	1,285.8	6.2	0.0	-15.28	-13.8	88.8	64.1	58.1	5.98	10.708		
1,400.0	1,397.5	1,387.4	1,380.8	6.9	0.0	-15.75	-18.8	109.8	70.9	64.4	6.54	10.847		
1,500.0	1,495.6	1,484.7	1,474.9	7.5	0.0	-16.40	-24.5	133.9	77.8	70.7	7.05	11.032		
1,600.0	1,593.1	1,581.7	1,567.9	8.0	0.0	-17.19	-30.9	160.9	84.7	77.2	7.45	11.372		
1,700.0	1,690.2	1,678.4	1,659.5	8.3	0.0	-17.73	-38.0	191.0	93.6	85.9	7.65	12.230		
1,800.0	1,787.3	1,777.3	1,752.6	8.6	0.0	-17.95	-45.7	223.6	104.6	96.6	7.93	13.188		
1,900.0	1,884.4	1,876.7	1,846.0	8.9	0.0	-18.11	-53.5	256.5	115.6	107.4	8.23	14.050		
2,000.0	1,981.6	1,976.1	1,939.5	9.2	0.0	-18.25	-61.3	289.3	126.6	118.1	8.54	14.834		
2,100.0	2,078.7	2,075.5	2,033.0	9.5	0.0	-18.37	-69.0	322.2	137.7	128.8	8.86	15.546		
2,200.0	2,175.8	2,174.9	2,126.5	9.8	0.0	-18.47	-76.8	355.0	148.7	139.5	9.18	16.195		
2,300.0	2,272.9	2,274.3	2,220.0	10.2	0.0	-18.56	-84.6	387.9	159.7	150.2	9.52	16.785		
2,400.0	2,370.0	2,373.7	2,313.4	10.6	0.0	-18.63	-92.4	420.7	170.8	160.9	9.86	17.325		
2,500.0	2,467.2	2,473.1	2,406.9	11.0	0.0	-18.70	-100.2	453.6	181.8	171.6	10.20	17.818		
2,600.0	2,564.3	2,572.4	2,500.4	11.4	0.0	-18.75	-108.0	486.4	192.8	182.3	10.56	18.269		
2,700.0	2,661.4	2,671.8	2,593.9	11.8	0.0	-18.81	-115.7	519.3	203.9	193.0	10.91	18.684		
2,800.0	2,758.5	2,771.2	2,687.4	12.3	0.0	-18.85	-123.5	552.1	214.9	203.6	11.27	19.065		
2,900.0	2,855.7	2,870.6	2,780.8	12.8	0.0	-18.90	-131.3	585.0	226.0	214.3	11.64	19.416		
3,000.0	2,952.8	2,970.0	2,874.3	13.3	0.0	-18.93	-139.1	617.8	237.0	225.0	12.01	19.739		
3,100.0	3,049.9	3,069.4	2,967.8	13.8	0.0	-18.97	-146.9	650.7	248.0	235.7	12.38	20.039		
3,200.0	3,147.0	3,168.8	3,061.3	14.3	0.0	-19.00	-154.6	683.5	259.1	246.3	12.75	20.316		
3,300.0	3,244.1	3,268.2	3,154.8	14.8	0.0	-19.03	-162.4	716.4	270.1	257.0	13.13	20.573		
3,400.0	3,341.3	3,367.6	3,248.2	15.4	0.0	-19.06	-170.2	749.2	281.1	267.6	13.51	20.812		
3,500.0	3,438.4	3,466.9	3,341.7	15.9	0.0	-19.08	-178.0	782.1	292.2	278.3	13.89	21.035		
3,600.0	3,535.5	3,566.3	3,435.2	16.4	0.0	-19.10	-185.8	814.9	303.2	288.9	14.27	21.243		
3,700.0	3,632.6	3,665.7	3,528.7	17.0	0.0	-19.12	-193.5	847.8	314.3	299.6	14.66	21.437		
3,800.0	3,729.8	3,765.1	3,622.2	17.5	0.0	-19.14	-201.3	880.6	325.3	310.2	15.05	21.618		
3,900.0	3,826.9	3,864.5	3,715.6	18.0	0.0	-19.16	-209.1	913.5	336.3	320.9	15.44	21.789		
4,000.0	3,924.0	3,963.9	3,809.1	18.6	0.0	-19.18	-216.9	946.3	347.4	331.5	15.83	21.949		
4,100.0	4,021.1	4,063.3	3,902.6	19.1	0.0	-19.20	-224.7	979.2	358.4	342.2	16.22	22.099		
4,200.0	4,118.3	4,162.7	3,996.1	19.6	0.0	-19.21	-232.4	1,012.0	369.4	352.8	16.61	22.240		
4,300.0	4,215.4	4,262.1	4,089.6	20.2	0.0	-19.23	-240.2	1,044.9	380.5	363.5	17.01	22.374		
4,400.0	4,312.5	4,361.4	4,183.0	20.7	0.0	-19.24	-248.0	1,077.7	391.5	374.1	17.40	22.500		
4,500.0	4,409.6	4,460.8	4,276.5	21.3	0.0	-19.25	-255.8	1,110.6	402.6	384.8	17.80	22.619		
4,600.0	4,506.7	4,560.2	4,370.0	21.8	0.0	-19.27	-263.6	1,143.4	413.6	395.4	18.20	22.731		
4,700.0	4,603.9	4,659.6	4,463.5	22.3	0.0	-19.28	-271.3	1,176.3	424.6	406.0	18.59	22.838		
4,800.0	4,701.0	4,759.0	4,557.0	22.9	0.0	-19.29	-279.1	1,209.1	435.7	416.7	18.99	22.939		
4,900.0	4,798.1	4,858.4	4,650.4	23.4	0.0	-19.30	-286.9	1,242.0	446.7	427.3	19.39	23.035		
5,000.0	4,895.2	4,957.8	4,743.9	24.0	0.0	-19.31	-294.7	1,274.8	457.8	438.0	19.79	23.126		
5,100.0	4,992.4	5,057.2	4,837.4	24.5	0.0	-19.32	-302.5	1,307.7	468.8	448.6	20.20	23.213		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,089.5	5,156.6	4,930.9	25.1	0.0	-19.33	-310.2	1,340.5	479.8	459.2	20.60	23.296		
5,300.0	5,186.6	5,255.9	5,024.4	25.6	0.0	-19.34	-318.0	1,373.4	490.9	469.9	21.00	23.374		
5,400.0	5,283.7	5,355.3	5,117.8	26.2	0.0	-19.34	-325.8	1,406.2	501.9	480.5	21.40	23.450		
5,500.0	5,380.9	5,454.7	5,211.3	26.7	0.0	-19.35	-333.6	1,439.1	512.9	491.1	21.81	23.521		
5,600.0	5,478.0	5,554.1	5,304.8	27.2	0.0	-19.36	-341.4	1,471.9	524.0	501.8	22.21	23.590		
5,700.0	5,575.1	5,653.5	5,398.3	27.8	0.0	-19.37	-349.1	1,504.8	535.0	512.4	22.62	23.656		
5,800.0	5,672.2	5,752.9	5,491.8	28.3	0.0	-19.37	-356.9	1,537.6	546.1	523.0	23.02	23.719		
5,900.0	5,769.3	5,852.3	5,585.2	28.9	0.0	-19.38	-364.7	1,570.5	557.1	533.7	23.43	23.779		
6,000.0	5,866.5	5,951.7	5,678.7	29.4	0.0	-19.39	-372.5	1,603.3	568.1	544.3	23.83	23.836		
6,100.0	5,963.6	6,051.1	5,772.2	30.0	0.0	-19.39	-380.3	1,636.2	579.2	554.9	24.24	23.892		
6,200.0	6,060.7	6,150.4	5,865.7	30.5	0.0	-19.40	-388.0	1,669.0	590.2	565.6	24.65	23.945		
6,300.0	6,157.8	6,249.8	5,959.2	31.1	0.0	-19.41	-395.8	1,701.9	601.2	576.2	25.06	23.996		
6,400.0	6,255.0	6,349.2	6,052.6	31.6	0.0	-19.41	-403.6	1,734.7	612.3	586.8	25.46	24.045		
6,500.0	6,352.1	6,448.6	6,146.1	32.2	0.0	-19.42	-411.4	1,767.6	623.3	597.5	25.87	24.093		
6,600.0	6,449.2	6,548.0	6,239.6	32.7	0.0	-19.42	-419.2	1,800.4	634.4	608.1	26.28	24.138		
6,700.0	6,546.3	6,647.4	6,333.1	33.3	0.0	-19.43	-426.9	1,833.3	645.4	618.7	26.69	24.182		
6,800.0	6,643.4	6,746.8	6,426.5	33.8	0.0	-19.43	-434.7	1,866.1	656.4	629.3	27.10	24.224		
6,900.0	6,740.6	6,846.2	6,520.0	34.4	0.0	-19.44	-442.5	1,899.0	667.5	640.0	27.51	24.265		
7,000.0	6,837.9	6,945.4	6,613.4	34.9	0.0	8.20	-450.3	1,931.8	678.5	650.6	27.87	24.346		
7,100.0	6,934.5	7,044.8	6,707.0	35.4	0.0	41.83	-452.6	1,964.6	689.6	661.4	28.24	24.421		
7,200.0	7,027.6	7,146.9	6,802.2	35.8	0.0	58.36	-437.5	1,997.9	700.7	671.9	28.74	24.378		
7,300.0	7,114.3	7,252.0	6,896.0	36.2	0.0	66.61	-403.5	2,030.5	711.3	682.1	29.15	24.396		
7,400.0	7,192.0	7,360.2	6,984.9	36.5	0.0	71.25	-350.3	2,061.2	721.0	691.5	29.50	24.442		
7,500.0	7,258.5	7,471.5	7,064.8	36.7	0.0	74.09	-278.1	2,088.7	729.6	699.8	29.81	24.474		
7,600.0	7,311.5	7,585.5	7,131.5	36.8	0.0	75.86	-188.6	2,111.3	736.5	706.4	30.11	24.465		
7,700.0	7,349.6	7,701.9	7,181.0	36.8	0.0	76.94	-84.9	2,127.8	741.6	711.2	30.40	24.393		
7,800.0	7,371.5	7,819.8	7,210.0	36.8	0.0	77.49	28.8	2,137.1	744.5	713.8	30.71	24.244		
7,900.0	7,377.0	7,934.3	7,217.0	36.8	0.0	77.60	142.9	2,138.6	745.2	714.2	31.02	24.025		
8,000.0	7,377.0	8,034.3	7,217.0	36.8	0.0	77.60	242.9	2,137.8	745.2	713.9	31.37	23.757		
8,100.0	7,377.0	8,134.3	7,217.0	36.9	0.0	77.60	342.9	2,136.9	745.2	713.4	31.81	23.424		
8,200.0	7,377.0	8,234.3	7,217.0	37.1	0.0	77.60	442.9	2,136.1	745.2	712.9	32.35	23.039		
8,300.0	7,377.0	8,334.3	7,217.0	37.3	0.0	77.60	542.9	2,135.3	745.2	712.3	32.96	22.609		
8,400.0	7,377.0	8,434.3	7,217.0	37.6	0.0	77.60	642.9	2,134.4	745.2	711.6	33.65	22.144		
8,500.0	7,377.0	8,534.3	7,217.0	38.1	0.0	77.60	742.9	2,133.6	745.2	710.8	34.42	21.651		
8,600.0	7,377.0	8,634.3	7,217.0	38.6	0.0	77.60	842.9	2,132.8	745.2	710.0	35.26	21.138		
8,700.0	7,377.0	8,734.3	7,217.0	39.2	0.0	77.60	942.9	2,132.0	745.2	709.1	36.15	20.613		
8,800.0	7,377.0	8,834.3	7,217.0	40.0	0.0	77.60	1,042.9	2,131.1	745.2	708.1	37.11	20.081		
8,900.0	7,377.0	8,934.3	7,217.0	40.8	0.0	77.60	1,142.9	2,130.3	745.2	707.1	38.12	19.547		
9,000.0	7,377.0	9,034.3	7,217.0	41.7	0.0	77.60	1,242.9	2,129.5	745.2	706.0	39.19	19.017		
9,100.0	7,377.0	9,134.3	7,217.0	42.7	0.0	77.60	1,342.9	2,128.7	745.2	704.9	40.30	18.494		
9,200.0	7,377.0	9,234.3	7,217.0	43.7	0.0	77.60	1,442.9	2,127.8	745.2	703.8	41.45	17.979		
9,300.0	7,377.0	9,334.3	7,217.0	44.8	0.0	77.60	1,542.8	2,127.0	745.2	702.6	42.64	17.477		
9,400.0	7,377.0	9,434.3	7,217.0	45.9	0.0	77.60	1,642.8	2,126.2	745.2	701.4	43.87	16.988		
9,500.0	7,377.0	9,534.3	7,217.0	47.1	0.0	77.60	1,742.8	2,125.4	745.2	700.1	45.13	16.513		
9,600.0	7,377.0	9,634.3	7,217.0	48.4	0.0	77.60	1,842.8	2,124.5	745.2	698.8	46.42	16.054		
9,700.0	7,377.0	9,734.3	7,217.0	49.6	0.0	77.60	1,942.8	2,123.7	745.2	697.5	47.74	15.610		
9,800.0	7,377.0	9,834.3	7,217.0	50.9	0.0	77.60	2,042.8	2,122.9	745.2	696.1	49.09	15.182		
9,900.0	7,377.0	9,934.3	7,217.0	52.3	0.0	77.60	2,142.8	2,122.0	745.2	694.8	50.45	14.770		
10,000.0	7,377.0	10,034.3	7,217.0	53.6	0.0	77.60	2,242.8	2,121.2	745.2	693.4	51.84	14.374		
10,100.0	7,377.0	10,134.3	7,217.0	55.0	0.0	77.60	2,342.8	2,120.4	745.2	692.0	53.26	13.994		
10,200.0	7,377.0	10,234.3	7,217.0	56.4	0.0	77.60	2,442.8	2,119.6	745.2	690.5	54.68	13.628		
10,300.0	7,377.0	10,334.3	7,217.0	57.8	0.0	77.60	2,542.8	2,118.7	745.2	689.1	56.13	13.277		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,377.0	10,434.3	7,217.0	59.2	0.0	77.60	2,642.8	2,117.9	745.2	687.6	57.59	12.940	
10,500.0	7,377.0	10,534.3	7,217.0	60.7	0.0	77.60	2,742.8	2,117.1	745.2	686.2	59.07	12.616	
10,600.0	7,377.0	10,634.3	7,217.0	62.2	0.0	77.60	2,842.8	2,116.3	745.2	684.7	60.56	12.306	
10,700.0	7,377.0	10,734.3	7,217.0	63.7	0.0	77.60	2,942.8	2,115.4	745.2	683.2	62.06	12.008	
10,800.0	7,377.0	10,834.3	7,217.0	65.2	0.0	77.60	3,042.8	2,114.6	745.2	681.7	63.58	11.722	
10,900.0	7,377.0	10,934.3	7,217.0	66.7	0.0	77.60	3,142.8	2,113.8	745.2	680.1	65.10	11.447	
11,000.0	7,377.0	11,034.3	7,217.0	68.2	0.0	77.60	3,242.8	2,113.0	745.2	678.6	66.64	11.183	
11,100.0	7,377.0	11,134.3	7,217.0	69.8	0.0	77.60	3,342.8	2,112.1	745.2	677.1	68.18	10.930	
11,200.0	7,377.0	11,234.3	7,217.0	71.3	0.0	77.60	3,442.8	2,111.3	745.2	675.5	69.74	10.686	
11,300.0	7,377.0	11,334.3	7,217.0	72.9	0.0	77.60	3,542.8	2,110.5	745.2	673.9	71.30	10.452	
11,400.0	7,377.0	11,434.3	7,217.0	74.4	0.0	77.60	3,642.8	2,109.6	745.2	672.4	72.87	10.227	
11,500.0	7,377.0	11,534.3	7,217.0	76.0	0.0	77.60	3,742.8	2,108.8	745.2	670.8	74.45	10.010	
11,600.0	7,377.0	11,634.3	7,217.0	77.6	0.0	77.60	3,842.8	2,108.0	745.2	669.2	76.03	9.802	
11,700.0	7,377.0	11,734.3	7,217.0	79.2	0.0	77.60	3,942.8	2,107.2	745.2	667.6	77.62	9.601	
11,800.0	7,377.0	11,834.3	7,217.0	80.8	0.0	77.60	4,042.8	2,106.3	745.2	666.0	79.22	9.407	
11,900.0	7,377.0	11,934.3	7,217.0	82.4	0.0	77.60	4,142.8	2,105.5	745.2	664.4	80.82	9.221	
12,000.0	7,377.0	12,034.3	7,217.0	84.0	0.0	77.60	4,242.8	2,104.7	745.2	662.8	82.43	9.041	
12,100.0	7,377.0	12,134.3	7,217.0	85.6	0.0	77.60	4,342.8	2,103.9	745.2	661.2	84.04	8.868	
12,200.0	7,377.0	12,234.3	7,217.0	87.3	0.0	77.60	4,442.7	2,103.0	745.2	659.6	85.66	8.700	
12,300.0	7,377.0	12,334.3	7,217.0	88.9	0.0	77.60	4,542.7	2,102.2	745.2	658.0	87.28	8.539	
12,400.0	7,377.0	12,434.3	7,217.0	90.5	0.0	77.60	4,642.7	2,101.4	745.2	656.3	88.90	8.383	
12,500.0	7,377.0	12,534.3	7,217.0	92.2	0.0	77.60	4,742.7	2,100.5	745.2	654.7	90.53	8.232	
12,600.0	7,377.0	12,634.3	7,217.0	93.8	0.0	77.60	4,842.7	2,099.7	745.2	653.1	92.17	8.086	
12,700.0	7,377.0	12,734.3	7,217.0	95.5	0.0	77.60	4,942.7	2,098.9	745.2	651.4	93.80	7.945	
12,800.0	7,377.0	12,834.3	7,217.0	97.1	0.0	77.60	5,042.7	2,098.1	745.2	649.8	95.44	7.808	
12,900.0	7,377.0	12,934.3	7,217.0	98.8	0.0	77.60	5,142.7	2,097.2	745.2	648.2	97.09	7.676	
13,000.0	7,377.0	13,034.3	7,217.0	100.4	0.0	77.60	5,242.7	2,096.4	745.2	646.5	98.73	7.548	
13,100.0	7,377.0	13,134.3	7,217.0	102.1	0.0	77.60	5,342.7	2,095.6	745.2	644.9	100.38	7.424	
13,200.0	7,377.0	13,234.3	7,217.0	103.8	0.0	77.60	5,442.7	2,094.8	745.2	643.2	102.03	7.304	
13,300.0	7,377.0	13,334.3	7,217.0	105.4	0.0	77.60	5,542.7	2,093.9	745.2	641.5	103.69	7.187	
13,400.0	7,377.0	13,434.3	7,217.0	107.1	0.0	77.60	5,642.7	2,093.1	745.2	639.9	105.35	7.074	
13,500.0	7,377.0	13,534.3	7,217.0	108.8	0.0	77.60	5,742.7	2,092.3	745.2	638.2	107.01	6.964	
13,600.0	7,377.0	13,634.3	7,217.0	110.5	0.0	77.60	5,842.7	2,091.5	745.2	636.6	108.67	6.858	
13,700.0	7,377.0	13,734.3	7,217.0	112.2	0.0	77.60	5,942.7	2,090.6	745.2	634.9	110.33	6.754	
13,800.0	7,377.0	13,834.3	7,217.0	113.8	0.0	77.60	6,042.7	2,089.8	745.2	633.2	112.00	6.654	
13,900.0	7,377.0	13,934.3	7,217.0	115.5	0.0	77.60	6,142.7	2,089.0	745.2	631.6	113.67	6.556	
14,000.0	7,377.0	14,034.3	7,217.0	117.2	0.0	77.60	6,242.7	2,088.1	745.2	629.9	115.34	6.461	
14,100.0	7,377.0	14,134.3	7,217.0	118.9	0.0	77.60	6,342.7	2,087.3	745.2	628.2	117.01	6.369	
14,200.0	7,377.0	14,234.3	7,217.0	120.6	0.0	77.60	6,442.7	2,086.5	745.2	626.6	118.68	6.279	
14,300.0	7,377.0	14,334.3	7,217.0	122.3	0.0	77.60	6,542.7	2,085.7	745.2	624.9	120.36	6.192	
14,400.0	7,377.0	14,434.3	7,217.0	124.0	0.0	77.60	6,642.7	2,084.8	745.2	623.2	122.04	6.107	
14,500.0	7,377.0	14,534.3	7,217.0	125.7	0.0	77.60	6,742.7	2,084.0	745.2	621.5	123.72	6.024	
14,600.0	7,377.0	14,634.3	7,217.0	127.4	0.0	77.60	6,842.7	2,083.2	745.2	619.8	125.40	5.943	
14,700.0	7,377.0	14,734.3	7,217.0	129.1	0.0	77.60	6,942.7	2,082.4	745.2	618.2	127.08	5.865	
14,800.0	7,377.0	14,834.3	7,217.0	130.8	0.0	77.60	7,042.7	2,081.5	745.2	616.5	128.76	5.788	
14,900.0	7,377.0	14,934.3	7,217.0	132.5	0.0	77.60	7,142.7	2,080.7	745.2	614.8	130.44	5.713	
15,000.0	7,377.0	15,034.3	7,217.0	134.2	0.0	77.60	7,242.7	2,079.9	745.2	613.1	132.13	5.640	
15,100.0	7,377.0	15,134.3	7,217.0	135.9	0.0	77.60	7,342.6	2,079.1	745.2	611.4	133.82	5.569	
15,200.0	7,377.0	15,234.3	7,217.0	137.6	0.0	77.60	7,442.6	2,078.2	745.2	609.7	135.50	5.500	
15,300.0	7,377.0	15,334.3	7,217.0	139.3	0.0	77.60	7,542.6	2,077.4	745.2	608.0	137.19	5.432	
15,400.0	7,377.0	15,434.3	7,217.0	141.1	0.0	77.60	7,642.6	2,076.6	745.2	606.4	138.88	5.366	
15,500.0	7,377.0	15,534.3	7,217.0	142.8	0.0	77.60	7,742.6	2,075.7	745.2	604.7	140.57	5.301	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,600.0	7,377.0	15,634.3	7,217.0	144.5	0.0	77.60	7,842.6	2,074.9	745.2	603.0	142.27	5.238	
15,700.0	7,377.0	15,734.3	7,217.0	146.2	0.0	77.60	7,942.6	2,074.1	745.2	601.3	143.96	5.177	
15,800.0	7,377.0	15,834.3	7,217.0	147.9	0.0	77.60	8,042.6	2,073.3	745.2	599.6	145.65	5.117	
15,900.0	7,377.0	15,934.3	7,217.0	149.6	0.0	77.60	8,142.6	2,072.4	745.2	597.9	147.35	5.058	
16,000.0	7,377.0	16,034.3	7,217.0	151.4	0.0	77.60	8,242.6	2,071.6	745.2	596.2	149.04	5.000	
16,100.0	7,377.0	16,134.3	7,217.0	153.1	0.0	77.60	8,342.6	2,070.8	745.2	594.5	150.74	4.944	
16,200.0	7,377.0	16,234.3	7,217.0	154.8	0.0	77.60	8,442.6	2,070.0	745.2	592.8	152.44	4.889	
16,300.0	7,377.0	16,334.3	7,217.0	156.5	0.0	77.60	8,542.6	2,069.1	745.2	591.1	154.14	4.835	
16,400.0	7,377.0	16,434.3	7,217.0	158.3	0.0	77.60	8,642.6	2,068.3	745.2	589.4	155.83	4.782	
16,500.0	7,377.0	16,534.3	7,217.0	160.0	0.0	77.60	8,742.6	2,067.5	745.2	587.7	157.53	4.731	
16,600.0	7,377.0	16,634.3	7,217.0	161.7	0.0	77.60	8,842.6	2,066.6	745.2	586.0	159.23	4.680	
16,700.0	7,377.0	16,734.3	7,217.0	163.4	0.0	77.60	8,942.6	2,065.8	745.2	584.3	160.94	4.631	
16,800.0	7,377.0	16,834.3	7,217.0	165.2	0.0	77.60	9,042.6	2,065.0	745.2	582.6	162.64	4.582	
16,900.0	7,377.0	16,934.3	7,217.0	166.9	0.0	77.60	9,142.6	2,064.2	745.2	580.9	164.34	4.535	
17,000.0	7,377.0	17,034.3	7,217.0	168.6	0.0	77.60	9,242.6	2,063.3	745.2	579.2	166.04	4.488	
17,100.0	7,377.0	17,134.3	7,217.0	170.3	0.0	77.60	9,342.6	2,062.5	745.2	577.5	167.75	4.443	
17,200.0	7,377.0	17,234.3	7,217.0	172.1	0.0	77.60	9,442.6	2,061.7	745.2	575.8	169.45	4.398	
17,300.0	7,377.0	17,334.3	7,217.0	173.8	0.0	77.60	9,542.6	2,060.9	745.2	574.1	171.16	4.354	
17,400.0	7,377.0	17,434.3	7,217.0	175.5	0.0	77.60	9,642.6	2,060.0	745.2	572.4	172.86	4.311	
17,500.0	7,377.0	17,534.3	7,217.0	177.3	0.0	77.60	9,742.6	2,059.2	745.2	570.7	174.57	4.269	
17,600.0	7,377.0	17,634.3	7,217.0	179.0	0.0	77.60	9,842.6	2,058.4	745.2	569.0	176.27	4.228	
17,683.1	7,377.0	17,717.3	7,217.0	180.4	0.0	77.60	9,925.6	2,057.7	745.2	567.6	177.69	4.194 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Gail #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.0	7,377.0	7,308.0	7,308.0	120.6	27.2	-90.00	8,132.5	0.1	2,172.9	2,056.0	116.84	18.596		
14,300.0	7,377.0	7,308.0	7,308.0	122.3	27.2	-90.00	8,132.5	0.1	2,095.2	1,975.2	120.06	17.452		
14,400.0	7,377.0	7,308.0	7,308.0	124.0	27.2	-90.00	8,132.5	0.1	2,019.6	1,896.1	123.46	16.358		
14,500.0	7,377.0	7,308.0	7,308.0	125.7	27.2	-90.00	8,132.5	0.1	1,946.1	1,819.0	127.04	15.319		
14,600.0	7,377.0	7,308.0	7,308.0	127.4	27.2	-90.00	8,132.5	0.1	1,875.1	1,744.3	130.80	14.335		
14,700.0	7,377.0	7,308.0	7,308.0	129.1	27.2	-90.00	8,132.5	0.1	1,806.8	1,672.0	134.72	13.411		
14,800.0	7,377.0	7,308.0	7,308.0	130.8	27.2	-90.00	8,132.5	0.1	1,741.6	1,602.8	138.79	12.548		
14,900.0	7,377.0	7,308.0	7,308.0	132.5	27.2	-90.00	8,132.5	0.1	1,679.8	1,536.8	142.98	11.748		
15,000.0	7,377.0	7,308.0	7,308.0	134.2	27.2	-90.00	8,132.5	0.1	1,621.8	1,474.5	147.25	11.014		
15,100.0	7,377.0	7,308.0	7,308.0	135.9	27.2	-90.00	8,132.5	0.1	1,568.1	1,416.5	151.53	10.348		
15,200.0	7,377.0	7,308.0	7,308.0	137.6	27.2	-90.00	8,132.5	0.1	1,519.0	1,363.3	155.76	9.752		
15,300.0	7,377.0	7,308.0	7,308.0	139.3	27.2	-90.00	8,132.5	0.1	1,475.1	1,315.3	159.86	9.228		
15,400.0	7,377.0	7,308.0	7,308.0	141.1	27.2	-90.00	8,132.5	0.1	1,436.9	1,273.2	163.71	8.777		
15,500.0	7,377.0	7,308.0	7,308.0	142.8	27.2	-90.00	8,132.5	0.1	1,404.7	1,237.5	167.20	8.401		
15,600.0	7,377.0	7,308.0	7,308.0	144.5	27.2	-90.00	8,132.5	0.1	1,379.1	1,208.8	170.23	8.101		
15,700.0	7,377.0	7,308.0	7,308.0	146.2	27.2	-90.00	8,132.5	0.1	1,360.3	1,187.6	172.68	7.878		
15,800.0	7,377.0	7,308.0	7,308.0	147.9	27.2	-90.00	8,132.5	0.1	1,348.7	1,174.3	174.45	7.731		
15,900.0	7,377.0	7,308.0	7,308.0	149.6	27.2	-90.00	8,132.5	0.1	1,344.5	1,169.0	175.49	7.661		
15,907.0	7,377.0	7,308.0	7,308.0	149.8	27.2	-90.00	8,132.5	0.1	1,344.5	1,168.9	175.53	7.659 CC, ES, SF		
16,000.0	7,377.0	7,308.0	7,308.0	151.4	27.2	-90.00	8,132.5	0.1	1,347.7	1,171.9	175.75	7.668		
16,100.0	7,377.0	7,308.0	7,308.0	153.1	27.2	-90.00	8,132.5	0.1	1,358.2	1,183.0	175.24	7.751		
16,200.0	7,377.0	7,308.0	7,308.0	154.8	27.2	-90.00	8,132.5	0.1	1,376.0	1,202.0	174.00	7.908		
16,300.0	7,377.0	7,308.0	7,308.0	156.5	27.2	-90.00	8,132.5	0.1	1,400.7	1,228.6	172.12	8.138		
16,400.0	7,377.0	7,308.0	7,308.0	158.3	27.2	-90.00	8,132.5	0.1	1,432.0	1,262.3	169.68	8.440		
16,500.0	7,377.0	7,308.0	7,308.0	160.0	27.2	-90.00	8,132.5	0.1	1,469.4	1,302.6	166.79	8.810		
16,600.0	7,377.0	7,308.0	7,308.0	161.7	27.2	-90.00	8,132.5	0.1	1,512.6	1,349.0	163.56	9.248		
16,700.0	7,377.0	7,308.0	7,308.0	163.4	27.2	-90.00	8,132.5	0.1	1,560.9	1,400.8	160.10	9.749		
16,800.0	7,377.0	7,308.0	7,308.0	165.2	27.2	-90.00	8,132.5	0.1	1,614.0	1,457.5	156.50	10.313		
16,900.0	7,377.0	7,308.0	7,308.0	166.9	27.2	-90.00	8,132.5	0.1	1,671.4	1,518.6	152.83	10.936		
17,000.0	7,377.0	7,308.0	7,308.0	168.6	27.2	-90.00	8,132.5	0.1	1,732.7	1,583.5	149.17	11.616		
17,100.0	7,377.0	7,308.0	7,308.0	170.3	27.2	-90.00	8,132.5	0.1	1,797.5	1,651.9	145.55	12.349		
17,200.0	7,377.0	7,308.0	7,308.0	172.1	27.2	-90.00	8,132.5	0.1	1,865.3	1,723.3	142.02	13.134		
17,300.0	7,377.0	7,308.0	7,308.0	173.8	27.2	-90.00	8,132.5	0.1	1,936.0	1,797.4	138.61	13.967		
17,400.0	7,377.0	7,308.0	7,308.0	175.5	27.2	-90.00	8,132.5	0.1	2,009.1	1,873.8	135.33	14.846		
17,500.0	7,377.0	7,308.0	7,308.0	177.3	27.2	-90.00	8,132.5	0.1	2,084.5	1,952.3	132.19	15.769		
17,600.0	7,377.0	7,308.0	7,308.0	179.0	27.2	-90.00	8,132.5	0.1	2,161.9	2,032.7	129.20	16.733		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.0	7,377.0	7,308.0	7,308.0	40.8	27.2	-90.00	3,156.7	688.6	2,142.3	2,076.6	65.67	32.623		
9,000.0	7,377.0	7,308.0	7,308.0	41.7	27.2	-90.00	3,156.7	688.6	2,048.0	1,981.8	66.12	30.973		
9,100.0	7,377.0	7,308.0	7,308.0	42.7	27.2	-90.00	3,156.7	688.6	1,954.2	1,887.6	66.63	29.330		
9,200.0	7,377.0	7,308.0	7,308.0	43.7	27.2	-90.00	3,156.7	688.6	1,861.2	1,794.0	67.20	27.696		
9,300.0	7,377.0	7,308.0	7,308.0	44.8	27.2	-90.00	3,156.7	688.6	1,768.8	1,701.0	67.84	26.074		
9,400.0	7,377.0	7,308.0	7,308.0	45.9	27.2	-90.00	3,156.7	688.6	1,677.4	1,608.8	68.56	24.466		
9,500.0	7,377.0	7,308.0	7,308.0	47.1	27.2	-90.00	3,156.7	688.6	1,587.0	1,517.6	69.37	22.875		
9,600.0	7,377.0	7,308.0	7,308.0	48.4	27.2	-90.00	3,156.7	688.6	1,497.8	1,427.5	70.30	21.306		
9,700.0	7,377.0	7,308.0	7,308.0	49.6	27.2	-90.00	3,156.7	688.6	1,410.1	1,338.7	71.35	19.762		
9,800.0	7,377.0	7,308.0	7,308.0	50.9	27.2	-90.00	3,156.7	688.6	1,324.1	1,251.5	72.55	18.251		
9,900.0	7,377.0	7,308.0	7,308.0	52.3	27.2	-90.00	3,156.7	688.6	1,240.2	1,166.3	73.91	16.780		
10,000.0	7,377.0	7,308.0	7,308.0	53.6	27.2	-90.00	3,156.7	688.6	1,158.8	1,083.4	75.45	15.359		
10,100.0	7,377.0	7,308.0	7,308.0	55.0	27.2	-90.00	3,156.7	688.6	1,080.6	1,003.4	77.19	13.999		
10,200.0	7,377.0	7,308.0	7,308.0	56.4	27.2	-90.00	3,156.7	688.6	1,006.3	927.1	79.14	12.715		
10,300.0	7,377.0	7,308.0	7,308.0	57.8	27.2	-90.00	3,156.7	688.6	936.7	855.5	81.29	11.524		
10,400.0	7,377.0	7,308.0	7,308.0	59.2	27.2	-90.00	3,156.7	688.6	873.1	789.5	83.58	10.447		
10,500.0	7,377.0	7,308.0	7,308.0	60.7	27.2	-90.00	3,156.7	688.6	816.8	730.9	85.93	9.506		
10,600.0	7,377.0	7,308.0	7,308.0	62.2	27.2	-90.00	3,156.7	688.6	769.5	681.3	88.17	8.727		
10,700.0	7,377.0	7,308.0	7,308.0	63.7	27.2	-90.00	3,156.7	688.6	732.8	642.7	90.08	8.135		
10,800.0	7,377.0	7,308.0	7,308.0	65.2	27.2	-90.00	3,156.7	688.6	708.4	617.0	91.37	7.753		
10,900.0	7,377.0	7,308.0	7,308.0	66.7	27.2	-90.00	3,156.7	688.6	697.6	605.8	91.81	7.599		
10,925.6	7,377.0	7,308.0	7,308.0	67.1	27.2	-90.00	3,156.7	688.6	697.2	605.4	91.77	7.597 CC, ES, SF		
11,000.0	7,377.0	7,308.0	7,308.0	68.2	27.2	-90.00	3,156.7	688.6	701.1	609.9	91.27	7.682		
11,100.0	7,377.0	7,308.0	7,308.0	69.8	27.2	-90.00	3,156.7	688.6	718.6	628.8	89.83	8.000		
11,200.0	7,377.0	7,308.0	7,308.0	71.3	27.2	-90.00	3,156.7	688.6	749.2	661.5	87.69	8.544		
11,300.0	7,377.0	7,308.0	7,308.0	72.9	27.2	-90.00	3,156.7	688.6	791.3	706.2	85.15	9.293		
11,400.0	7,377.0	7,308.0	7,308.0	74.4	27.2	-90.00	3,156.7	688.6	843.2	760.8	82.49	10.223		
11,500.0	7,377.0	7,308.0	7,308.0	76.0	27.2	-90.00	3,156.7	688.6	903.3	823.4	79.89	11.307		
11,600.0	7,377.0	7,308.0	7,308.0	77.6	27.2	-90.00	3,156.7	688.6	970.0	892.5	77.48	12.518		
11,700.0	7,377.0	7,308.0	7,308.0	79.2	27.2	-90.00	3,156.7	688.6	1,042.0	966.6	75.32	13.833		
11,800.0	7,377.0	7,308.0	7,308.0	80.8	27.2	-90.00	3,156.7	688.6	1,118.3	1,044.9	73.42	15.231		
11,900.0	7,377.0	7,308.0	7,308.0	82.4	27.2	-90.00	3,156.7	688.6	1,198.1	1,126.3	71.77	16.692		
12,000.0	7,377.0	7,308.0	7,308.0	84.0	27.2	-90.00	3,156.7	688.6	1,280.7	1,210.4	70.36	18.204		
12,100.0	7,377.0	7,308.0	7,308.0	85.6	27.2	-90.00	3,156.7	688.6	1,365.7	1,296.6	69.14	19.753		
12,200.0	7,377.0	7,308.0	7,308.0	87.3	27.2	-90.00	3,156.7	688.6	1,452.6	1,384.5	68.10	21.331		
12,300.0	7,377.0	7,308.0	7,308.0	88.9	27.2	-90.00	3,156.7	688.6	1,541.1	1,473.9	67.21	22.929		
12,400.0	7,377.0	7,308.0	7,308.0	90.5	27.2	-90.00	3,156.7	688.6	1,630.9	1,564.4	66.45	24.544		
12,500.0	7,377.0	7,308.0	7,308.0	92.2	27.2	-90.00	3,156.7	688.6	1,721.8	1,656.0	65.80	26.169		
12,600.0	7,377.0	7,308.0	7,308.0	93.8	27.2	-90.00	3,156.7	688.6	1,813.7	1,748.5	65.24	27.801		
12,700.0	7,377.0	7,308.0	7,308.0	95.5	27.2	-90.00	3,156.7	688.6	1,906.4	1,841.7	64.76	29.439		
12,800.0	7,377.0	7,308.0	7,308.0	97.1	27.2	-90.00	3,156.7	688.6	1,999.8	1,935.5	64.35	31.079		
12,900.0	7,377.0	7,308.0	7,308.0	98.8	27.2	-90.00	3,156.7	688.6	2,093.8	2,029.8	63.99	32.721		
13,000.0	7,377.0	7,308.0	7,308.0	100.4	27.2	-90.00	3,156.7	688.6	2,188.4	2,124.7	63.68	34.363		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
14,800.0	7,377.0	7,308.0	7,308.0	130.8	27.2	90.00	9,163.4	1,743.3	2,162.1	2,099.8	62.30	34.705		
14,900.0	7,377.0	7,308.0	7,308.0	132.5	27.2	90.00	9,163.4	1,743.3	2,064.0	2,001.3	62.69	32.926		
15,000.0	7,377.0	7,308.0	7,308.0	134.2	27.2	90.00	9,163.4	1,743.3	1,966.1	1,902.9	63.18	31.121		
15,100.0	7,377.0	7,308.0	7,308.0	135.9	27.2	90.00	9,163.4	1,743.3	1,868.4	1,804.6	63.79	29.290		
15,200.0	7,377.0	7,308.0	7,308.0	137.6	27.2	90.00	9,163.4	1,743.3	1,770.9	1,706.3	64.55	27.433		
15,300.0	7,377.0	7,308.0	7,308.0	139.3	27.2	90.00	9,163.4	1,743.3	1,673.7	1,608.2	65.51	25.549		
15,400.0	7,377.0	7,308.0	7,308.0	141.1	27.2	90.00	9,163.4	1,743.3	1,576.9	1,510.2	66.70	23.641		
15,500.0	7,377.0	7,308.0	7,308.0	142.8	27.2	90.00	9,163.4	1,743.3	1,480.5	1,412.4	68.19	21.714		
15,600.0	7,377.0	7,308.0	7,308.0	144.5	27.2	90.00	9,163.4	1,743.3	1,384.7	1,314.6	70.03	19.772		
15,700.0	7,377.0	7,308.0	7,308.0	146.2	27.2	90.00	9,163.4	1,743.3	1,289.4	1,217.1	72.33	17.827		
15,800.0	7,377.0	7,308.0	7,308.0	147.9	27.2	90.00	9,163.4	1,743.3	1,195.0	1,119.8	75.19	15.892		
15,900.0	7,377.0	7,308.0	7,308.0	149.6	27.2	90.00	9,163.4	1,743.3	1,101.5	1,022.7	78.77	13.984		
16,000.0	7,377.0	7,308.0	7,308.0	151.4	27.2	90.00	9,163.4	1,743.3	1,009.2	926.0	83.23	12.126		
16,100.0	7,377.0	7,308.0	7,308.0	153.1	27.2	90.00	9,163.4	1,743.3	918.6	829.8	88.82	10.343		
16,200.0	7,377.0	7,308.0	7,308.0	154.8	27.2	90.00	9,163.4	1,743.3	830.2	734.3	95.82	8.664		
16,300.0	7,377.0	7,308.0	7,308.0	156.5	27.2	90.00	9,163.4	1,743.3	744.6	640.0	104.59	7.120		
16,400.0	7,377.0	7,308.0	7,308.0	158.3	27.2	90.00	9,163.4	1,743.3	663.2	547.6	115.53	5.740		
16,500.0	7,377.0	7,308.0	7,308.0	160.0	27.2	90.00	9,163.4	1,743.3	587.4	458.4	129.01	4.554		
16,600.0	7,377.0	7,308.0	7,308.0	161.7	27.2	90.00	9,163.4	1,743.3	520.0	374.9	145.07	3.584		
16,700.0	7,377.0	7,308.0	7,308.0	163.4	27.2	90.00	9,163.4	1,743.3	464.4	301.6	162.87	2.852		
16,800.0	7,377.0	7,308.0	7,308.0	165.2	27.2	90.00	9,163.4	1,743.3	425.5	245.6	179.82	2.366		
16,900.0	7,377.0	7,308.0	7,308.0	166.9	27.2	90.00	9,163.4	1,743.3	407.8	216.2	191.60	2.129		
16,923.5	7,377.0	7,308.0	7,308.0	167.3	27.2	90.00	9,163.4	1,743.3	407.2	214.0	193.16	2.108	CC, ES, SF	
17,000.0	7,377.0	7,308.0	7,308.0	168.6	27.2	90.00	9,163.4	1,743.3	414.3	219.7	194.58	2.129		
17,100.0	7,377.0	7,308.0	7,308.0	170.3	27.2	90.00	9,163.4	1,743.3	443.8	254.8	189.03	2.348		
17,200.0	7,377.0	7,308.0	7,308.0	172.1	27.2	90.00	9,163.4	1,743.3	492.2	313.7	178.50	2.757		
17,300.0	7,377.0	7,308.0	7,308.0	173.8	27.2	90.00	9,163.4	1,743.3	554.6	388.0	166.54	3.330		
17,400.0	7,377.0	7,308.0	7,308.0	175.5	27.2	90.00	9,163.4	1,743.3	626.8	471.6	155.20	4.039		
17,500.0	7,377.0	7,308.0	7,308.0	177.3	27.2	90.00	9,163.4	1,743.3	705.8	560.6	145.24	4.860		
17,600.0	7,377.0	7,308.0	7,308.0	179.0	27.2	90.00	9,163.4	1,743.3	789.6	652.9	136.76	5.774		
17,683.1	7,377.0	7,308.0	7,308.0	180.4	27.2	90.00	9,163.4	1,743.3	861.9	731.1	130.75	6.591		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,600.0	7,377.0	7,308.0	7,308.0	77.6	27.2	-90.00	5,962.4	1,172.5	2,135.7	2,068.8	66.91	31.917		
11,700.0	7,377.0	7,308.0	7,308.0	79.2	27.2	-90.00	5,962.4	1,172.5	2,036.1	1,969.0	67.19	30.303		
11,800.0	7,377.0	7,308.0	7,308.0	80.8	27.2	-90.00	5,962.4	1,172.5	1,936.6	1,869.1	67.50	28.690		
11,900.0	7,377.0	7,308.0	7,308.0	82.4	27.2	-90.00	5,962.4	1,172.5	1,837.1	1,769.3	67.84	27.078		
12,000.0	7,377.0	7,308.0	7,308.0	84.0	27.2	-90.00	5,962.4	1,172.5	1,737.7	1,669.5	68.23	25.468		
12,100.0	7,377.0	7,308.0	7,308.0	85.6	27.2	-90.00	5,962.4	1,172.5	1,638.3	1,569.7	68.67	23.859		
12,200.0	7,377.0	7,308.0	7,308.0	87.3	27.2	-90.00	5,962.4	1,172.5	1,539.0	1,469.9	69.16	22.253		
12,300.0	7,377.0	7,308.0	7,308.0	88.9	27.2	-90.00	5,962.4	1,172.5	1,439.9	1,370.1	69.73	20.648		
12,400.0	7,377.0	7,308.0	7,308.0	90.5	27.2	-90.00	5,962.4	1,172.5	1,340.8	1,270.4	70.40	19.047		
12,500.0	7,377.0	7,308.0	7,308.0	92.2	27.2	-90.00	5,962.4	1,172.5	1,241.9	1,170.7	71.17	17.449		
12,600.0	7,377.0	7,308.0	7,308.0	93.8	27.2	-90.00	5,962.4	1,172.5	1,143.2	1,071.1	72.10	15.855		
12,700.0	7,377.0	7,308.0	7,308.0	95.5	27.2	-90.00	5,962.4	1,172.5	1,044.7	971.5	73.22	14.267		
12,800.0	7,377.0	7,308.0	7,308.0	97.1	27.2	-90.00	5,962.4	1,172.5	946.5	871.9	74.60	12.688		
12,900.0	7,377.0	7,308.0	7,308.0	98.8	27.2	-90.00	5,962.4	1,172.5	848.8	772.5	76.33	11.120		
13,000.0	7,377.0	7,308.0	7,308.0	100.4	27.2	-90.00	5,962.4	1,172.5	751.7	673.1	78.56	9.569		
13,100.0	7,377.0	7,308.0	7,308.0	102.1	27.2	-90.00	5,962.4	1,172.5	655.4	573.9	81.49	8.043		
13,200.0	7,377.0	7,308.0	7,308.0	103.8	27.2	-90.00	5,962.4	1,172.5	560.5	475.0	85.49	6.556		
13,300.0	7,377.0	7,308.0	7,308.0	105.4	27.2	-90.00	5,962.4	1,172.5	467.6	376.5	91.13	5.132		
13,400.0	7,377.0	7,308.0	7,308.0	107.1	27.2	-90.00	5,962.4	1,172.5	378.4	279.1	99.35	3.809		
13,500.0	7,377.0	7,308.0	7,308.0	108.8	27.2	-90.00	5,962.4	1,172.5	296.3	184.8	111.47	2.658		
13,600.0	7,377.0	7,308.0	7,308.0	110.5	27.2	-90.00	5,962.4	1,172.5	228.7	101.1	127.60	1.793		
13,700.0	7,377.0	7,308.0	7,308.0	112.2	27.2	-90.00	5,962.4	1,172.5	192.0	53.3	138.71	1.384	Level 3	
13,727.3	7,377.0	7,308.0	7,308.0	112.6	27.2	-90.00	5,962.4	1,172.5	190.1	52.0	138.09	1.376	Level 3, CC, ES, SF	
13,800.0	7,377.0	7,308.0	7,308.0	113.8	27.2	-90.00	5,962.4	1,172.5	203.5	76.2	127.32	1.598		
13,900.0	7,377.0	7,308.0	7,308.0	115.5	27.2	-90.00	5,962.4	1,172.5	256.8	152.1	104.71	2.453		
14,000.0	7,377.0	7,308.0	7,308.0	117.2	27.2	-90.00	5,962.4	1,172.5	332.4	244.9	87.58	3.796		
14,100.0	7,377.0	7,308.0	7,308.0	118.9	27.2	-90.00	5,962.4	1,172.5	418.4	341.3	77.11	5.426		
14,200.0	7,377.0	7,308.0	7,308.0	120.6	27.2	-90.00	5,962.4	1,172.5	509.5	438.6	70.92	7.185		
14,300.0	7,377.0	7,308.0	7,308.0	122.3	27.2	-90.00	5,962.4	1,172.5	603.5	536.2	67.23	8.976		
14,400.0	7,377.0	7,308.0	7,308.0	124.0	27.2	-90.00	5,962.4	1,172.5	699.1	634.1	65.00	10.755		
14,500.0	7,377.0	7,308.0	7,308.0	125.7	27.2	-90.00	5,962.4	1,172.5	795.8	732.1	63.63	12.506		
14,600.0	7,377.0	7,308.0	7,308.0	127.4	27.2	-90.00	5,962.4	1,172.5	893.2	830.4	62.79	14.225		
14,700.0	7,377.0	7,308.0	7,308.0	129.1	27.2	-90.00	5,962.4	1,172.5	991.1	928.9	62.28	15.915		
14,800.0	7,377.0	7,308.0	7,308.0	130.8	27.2	-90.00	5,962.4	1,172.5	1,089.5	1,027.5	61.97	17.580		
14,900.0	7,377.0	7,308.0	7,308.0	132.5	27.2	-90.00	5,962.4	1,172.5	1,188.0	1,126.2	61.80	19.224		
15,000.0	7,377.0	7,308.0	7,308.0	134.2	27.2	-90.00	5,962.4	1,172.5	1,286.9	1,225.1	61.72	20.851		
15,100.0	7,377.0	7,308.0	7,308.0	135.9	27.2	-90.00	5,962.4	1,172.5	1,385.8	1,324.1	61.70	22.462		
15,200.0	7,377.0	7,308.0	7,308.0	137.6	27.2	-90.00	5,962.4	1,172.5	1,485.0	1,423.2	61.71	24.062		
15,300.0	7,377.0	7,308.0	7,308.0	139.3	27.2	-90.00	5,962.4	1,172.5	1,584.2	1,522.4	61.76	25.650		
15,400.0	7,377.0	7,308.0	7,308.0	141.1	27.2	-90.00	5,962.4	1,172.5	1,683.5	1,621.7	61.83	27.229		
15,500.0	7,377.0	7,308.0	7,308.0	142.8	27.2	-90.00	5,962.4	1,172.5	1,782.9	1,721.0	61.91	28.800		
15,600.0	7,377.0	7,308.0	7,308.0	144.5	27.2	-90.00	5,962.4	1,172.5	1,882.4	1,820.4	61.99	30.363		
15,700.0	7,377.0	7,308.0	7,308.0	146.2	27.2	-90.00	5,962.4	1,172.5	1,981.9	1,919.8	62.09	31.920		
15,800.0	7,377.0	7,308.0	7,308.0	147.9	27.2	-90.00	5,962.4	1,172.5	2,081.4	2,019.3	62.19	33.471		
15,900.0	7,377.0	7,308.0	7,308.0	149.6	27.2	-90.00	5,962.4	1,172.5	2,181.0	2,118.8	62.29	35.015		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-45.38	1,023.3	-1,037.1	1,458.6					
100.0	100.0	31.0	31.0	0.4	0.3	-45.38	1,023.3	-1,037.1	1,456.9	1,456.7	0.27	5,449.360		
200.0	200.0	131.0	131.0	1.0	1.1	-45.38	1,023.3	-1,037.1	1,456.9	1,456.0	0.99	1,473.515		
300.0	300.0	231.0	231.0	1.5	1.5	-45.38	1,023.3	-1,037.1	1,456.9	1,455.2	1.70	855.405		
400.0	400.0	331.0	331.0	1.9	1.9	-45.38	1,023.3	-1,037.1	1,456.9	1,454.5	2.42	602.225		
500.0	500.0	431.0	431.0	2.3	2.3	-45.38	1,023.3	-1,037.1	1,456.9	1,453.8	3.14	464.619		
600.0	600.0	531.0	531.0	2.7	2.7	-45.38	1,023.3	-1,037.1	1,456.9	1,453.1	3.85	378.183		
700.0	700.0	631.0	631.0	3.1	3.1	-45.38	1,023.3	-1,037.1	1,456.9	1,452.4	4.57	318.857		
800.0	800.0	731.0	731.0	3.5	3.5	-45.38	1,023.3	-1,037.1	1,456.9	1,451.7	5.29	275.617		
900.0	900.0	831.0	831.0	3.9	3.9	-45.38	1,023.3	-1,037.1	1,456.9	1,450.9	6.00	242.703 CC, ES		
1,000.0	1,000.0	931.0	931.0	4.2	4.2	-155.02	1,023.3	-1,037.1	1,458.5	1,451.6	6.91	211.039		
1,100.0	1,099.8	1,030.8	1,030.8	4.7	4.6	-155.06	1,023.3	-1,037.1	1,463.3	1,455.0	8.25	177.283		
1,200.0	1,199.5	1,130.5	1,130.5	5.5	5.0	-155.14	1,023.3	-1,037.1	1,471.2	1,461.7	9.44	155.812		
1,300.0	1,298.7	1,229.7	1,229.7	6.2	5.3	-155.25	1,023.3	-1,037.1	1,482.3	1,471.7	10.54	140.658		
1,400.0	1,397.5	1,328.5	1,328.5	6.9	5.7	-155.38	1,023.3	-1,037.1	1,496.5	1,484.9	11.57	129.325		
1,500.0	1,495.6	1,426.6	1,426.6	7.5	6.0	-155.53	1,023.3	-1,037.1	1,513.9	1,501.4	12.56	120.540		
1,600.0	1,593.1	1,524.1	1,524.1	8.0	6.4	-155.72	1,023.3	-1,037.1	1,534.5	1,521.1	13.42	114.382		
1,700.0	1,690.2	1,621.2	1,621.2	8.3	6.7	-156.08	1,023.3	-1,037.1	1,556.3	1,542.3	14.04	110.878		
1,800.0	1,787.3	1,718.3	1,718.3	8.6	7.1	-156.43	1,023.3	-1,037.1	1,578.2	1,563.5	14.69	107.422		
1,900.0	1,884.4	1,815.4	1,815.4	8.9	7.4	-156.77	1,023.3	-1,037.1	1,600.2	1,584.8	15.35	104.215		
2,000.0	1,981.6	1,912.6	1,912.6	9.2	7.8	-157.10	1,023.3	-1,037.1	1,622.2	1,606.2	16.02	101.236		
2,100.0	2,078.7	2,009.7	2,009.7	9.5	8.2	-157.42	1,023.3	-1,037.1	1,644.2	1,627.5	16.70	98.466		
2,200.0	2,175.8	2,106.8	2,106.8	9.8	8.5	-157.74	1,023.3	-1,037.1	1,666.3	1,649.0	17.38	95.886		
2,300.0	2,272.9	2,203.9	2,203.9	10.2	8.9	-158.04	1,023.3	-1,037.1	1,688.5	1,670.4	18.06	93.480		
2,400.0	2,370.0	2,301.0	2,301.0	10.6	9.2	-158.34	1,023.3	-1,037.1	1,710.7	1,691.9	18.75	91.233		
2,500.0	2,467.2	2,398.2	2,398.2	11.0	9.6	-158.63	1,023.3	-1,037.1	1,732.9	1,713.5	19.44	89.132		
2,600.0	2,564.3	2,495.3	2,495.3	11.4	9.9	-158.91	1,023.3	-1,037.1	1,755.2	1,735.1	20.14	87.163		
2,700.0	2,661.4	2,592.4	2,592.4	11.8	10.3	-159.19	1,023.3	-1,037.1	1,777.5	1,756.7	20.83	85.316		
2,800.0	2,758.5	2,689.5	2,689.5	12.3	10.6	-159.45	1,023.3	-1,037.1	1,799.9	1,778.4	21.53	83.582		
2,900.0	2,855.7	2,786.7	2,786.7	12.8	11.0	-159.72	1,023.3	-1,037.1	1,822.3	1,800.1	22.24	81.949		
3,000.0	2,952.8	2,883.8	2,883.8	13.3	11.3	-159.97	1,023.3	-1,037.1	1,844.7	1,821.8	22.94	80.412		
3,100.0	3,049.9	2,980.9	2,980.9	13.8	11.7	-160.22	1,023.3	-1,037.1	1,867.2	1,843.5	23.65	78.961		
3,200.0	3,147.0	3,078.0	3,078.0	14.3	12.0	-160.46	1,023.3	-1,037.1	1,889.7	1,865.3	24.35	77.590		
3,300.0	3,244.1	3,175.1	3,175.1	14.8	12.3	-160.70	1,023.3	-1,037.1	1,912.2	1,887.2	25.06	76.294		
3,400.0	3,341.3	3,272.3	3,272.3	15.4	12.7	-160.93	1,023.3	-1,037.1	1,934.8	1,909.0	25.77	75.066		
3,500.0	3,438.4	3,369.4	3,369.4	15.9	13.0	-161.16	1,023.3	-1,037.1	1,957.4	1,930.9	26.49	73.902		
3,600.0	3,535.5	3,466.5	3,466.5	16.4	13.4	-161.38	1,023.3	-1,037.1	1,980.0	1,952.8	27.20	72.797		
3,700.0	3,632.6	3,563.6	3,563.6	17.0	13.7	-161.60	1,023.3	-1,037.1	2,002.6	1,974.7	27.91	71.747		
3,800.0	3,729.8	3,660.8	3,660.8	17.5	14.1	-161.81	1,023.3	-1,037.1	2,025.3	1,996.7	28.63	70.747		
3,900.0	3,826.9	3,757.9	3,757.9	18.0	14.4	-162.02	1,023.3	-1,037.1	2,048.0	2,018.7	29.34	69.795		
4,000.0	3,924.0	3,855.0	3,855.0	18.6	14.8	-162.22	1,023.3	-1,037.1	2,070.7	2,040.7	30.06	68.888		
4,100.0	4,021.1	3,952.1	3,952.1	19.1	15.1	-162.42	1,023.3	-1,037.1	2,093.5	2,062.7	30.78	68.022		
4,200.0	4,118.3	4,049.3	4,049.3	19.6	15.5	-162.62	1,023.3	-1,037.1	2,116.3	2,084.8	31.49	67.194		
4,300.0	4,215.4	4,146.4	4,146.4	20.2	15.8	-162.81	1,023.3	-1,037.1	2,139.1	2,106.8	32.21	66.403		
4,400.0	4,312.5	4,243.5	4,243.5	20.7	16.2	-162.99	1,023.3	-1,037.1	2,161.9	2,128.9	32.93	65.646		
4,500.0	4,409.6	4,340.6	4,340.6	21.3	16.5	-163.17	1,023.3	-1,037.1	2,184.7	2,151.1	33.65	64.921		
4,600.0	4,506.7	4,437.7	4,437.7	21.8	16.9	-163.35	1,023.3	-1,037.1	2,207.6	2,173.2	34.37	64.225 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

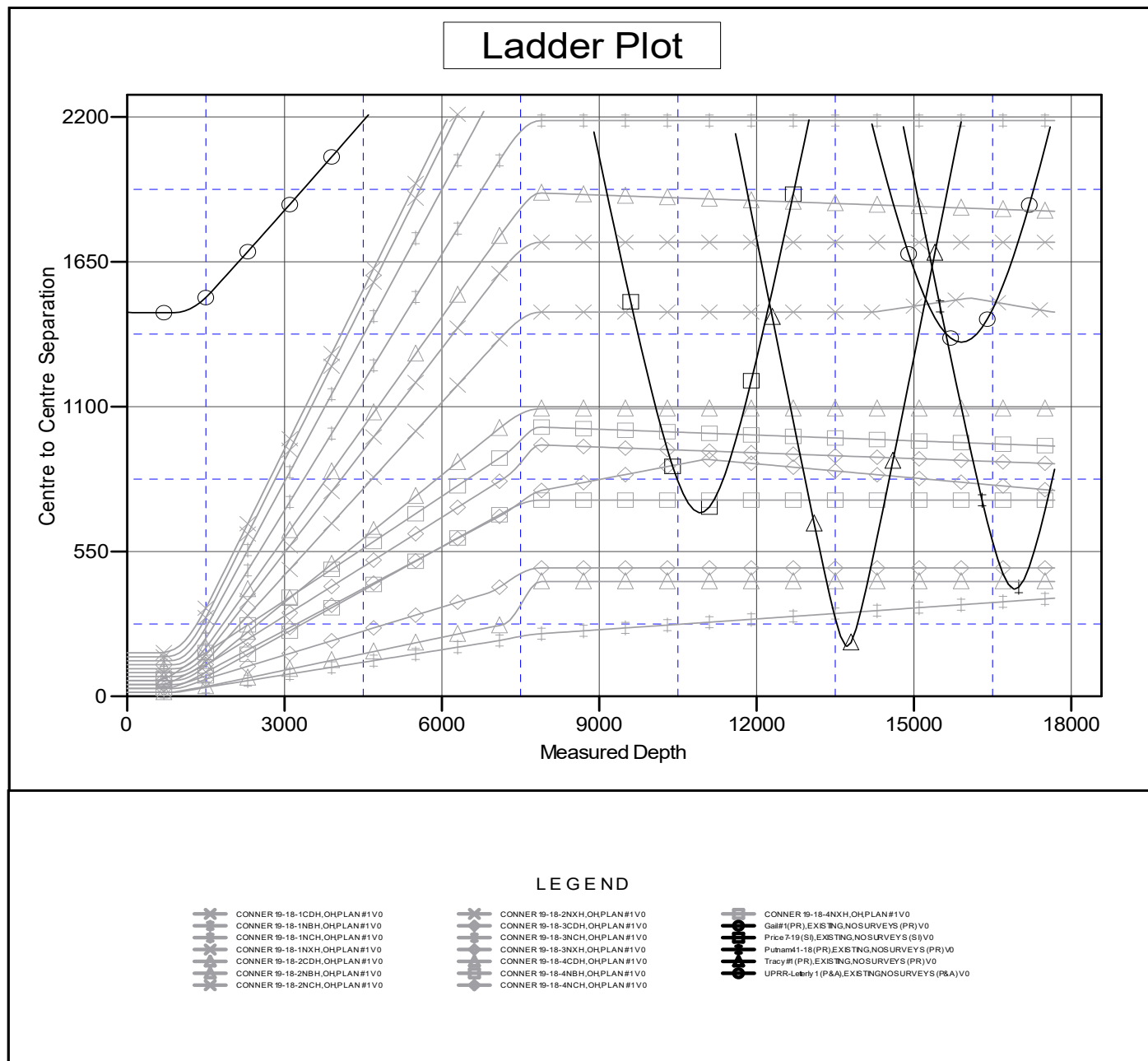
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-3NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-3NBH
Project:	ADAMS COUNTY, CO	TVD Reference:	13' KB @ 5155.0usft
Reference Site:	S19-T1S-R65W	MD Reference:	13' KB @ 5155.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	CONNER 19-18-3NBH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 13' KB @ 5155.0usft

Offset Depths are relative to Offset Datum

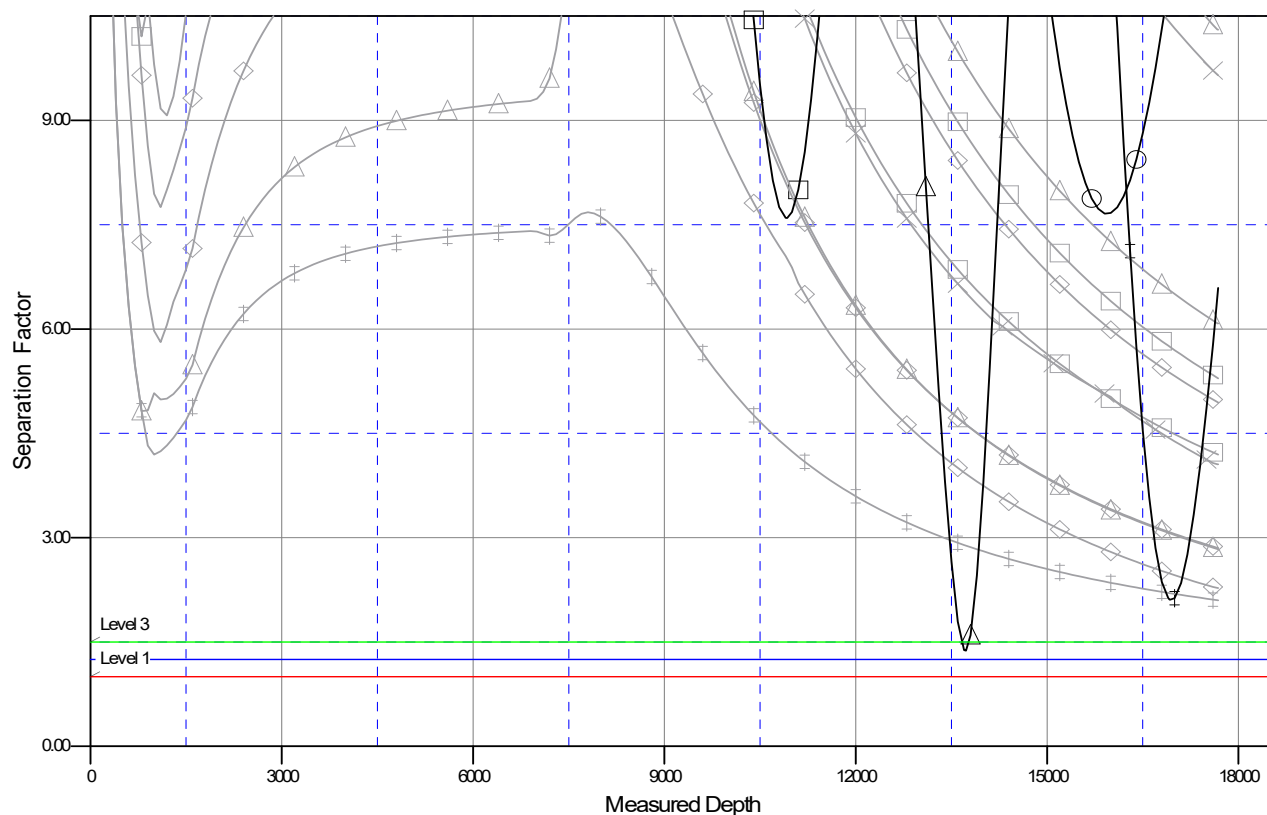
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-3NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.51°

Separation Factor Plot



LEGEND

CONNER 19-18-1CDH, OHPLAN#1V0
 CONNER 19-18-1NBH, OHPLAN#1V0
 CONNER 19-18-1NCH, OHPLAN#1V0
 CONNER 19-18-1NXH, OHPLAN#1V0
 CONNER 19-18-2CDH, OHPLAN#1V0
 CONNER 19-18-2NBH, OHPLAN#1V0
 CONNER 19-18-2NCH, OHPLAN#1V0

CONNER 19-18-2NXH, OHPLAN#1V0
 CONNER 19-18-3CDH, OHPLAN#1V0
 CONNER 19-18-3NCH, OHPLAN#1V0
 CONNER 19-18-3NXH, OHPLAN#1V0
 CONNER 19-18-4CDH, OHPLAN#1V0
 CONNER 19-18-4NBH, OHPLAN#1V0
 CONNER 19-18-4NCH, OHPLAN#1V0

CONNER 19-18-4NXH, OHPLAN#1V0
 Gail#1 (PR), EXISTING, NOSURVEYS (PR) V0
 Price 7-19 (S), EXISTING, NOSURVEYS (S) V0
 Putnam 1-18 (PR), EXISTING, NOSURVEYS (PR) V0
 Tracy# (PR), EXISTING, NOSURVEYS (PR) V0
 UPRR-Laberty 1 (P&A), EXISTING, NOSURVEYS (P&A) V0