



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-4NXH
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



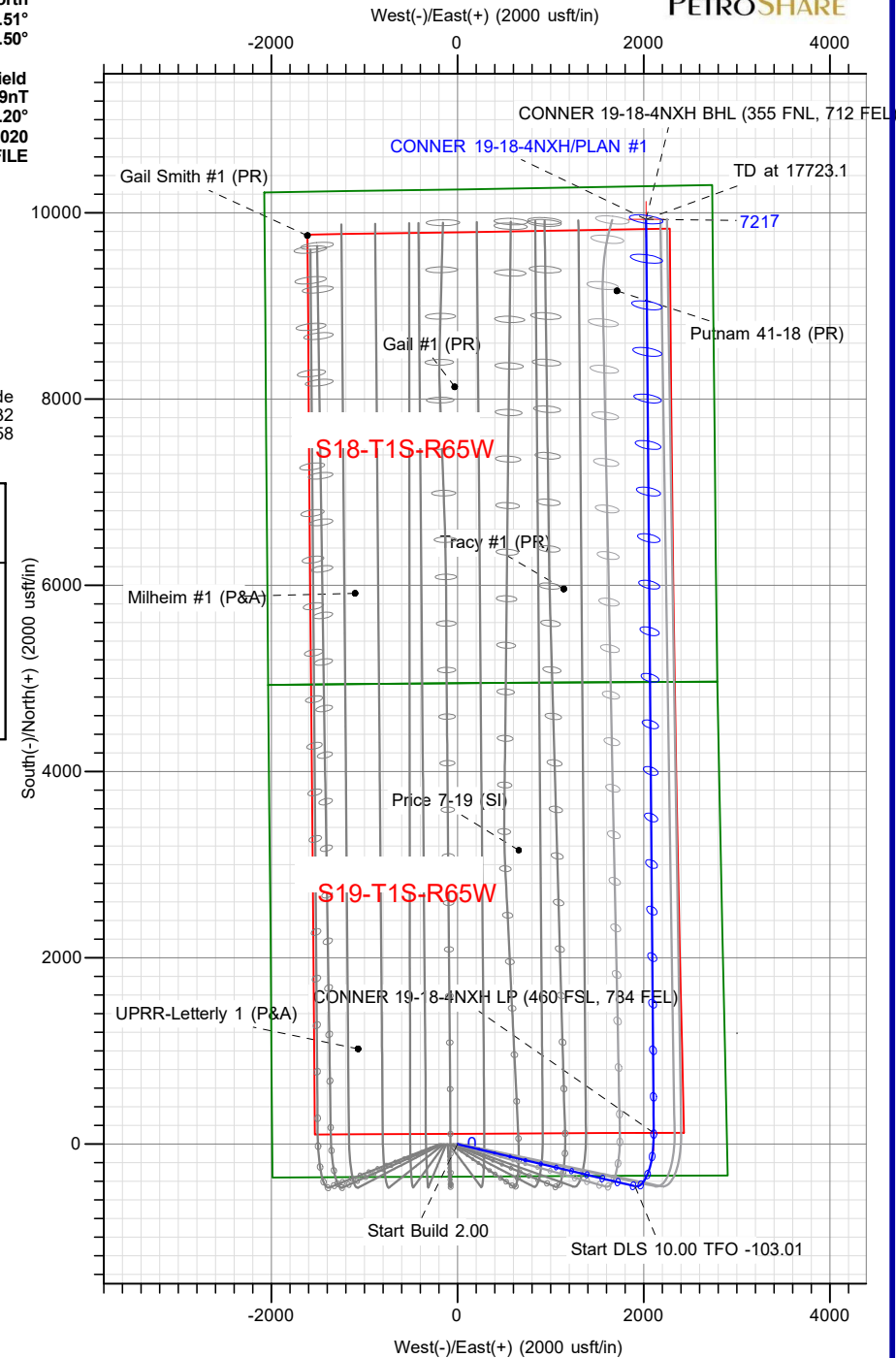
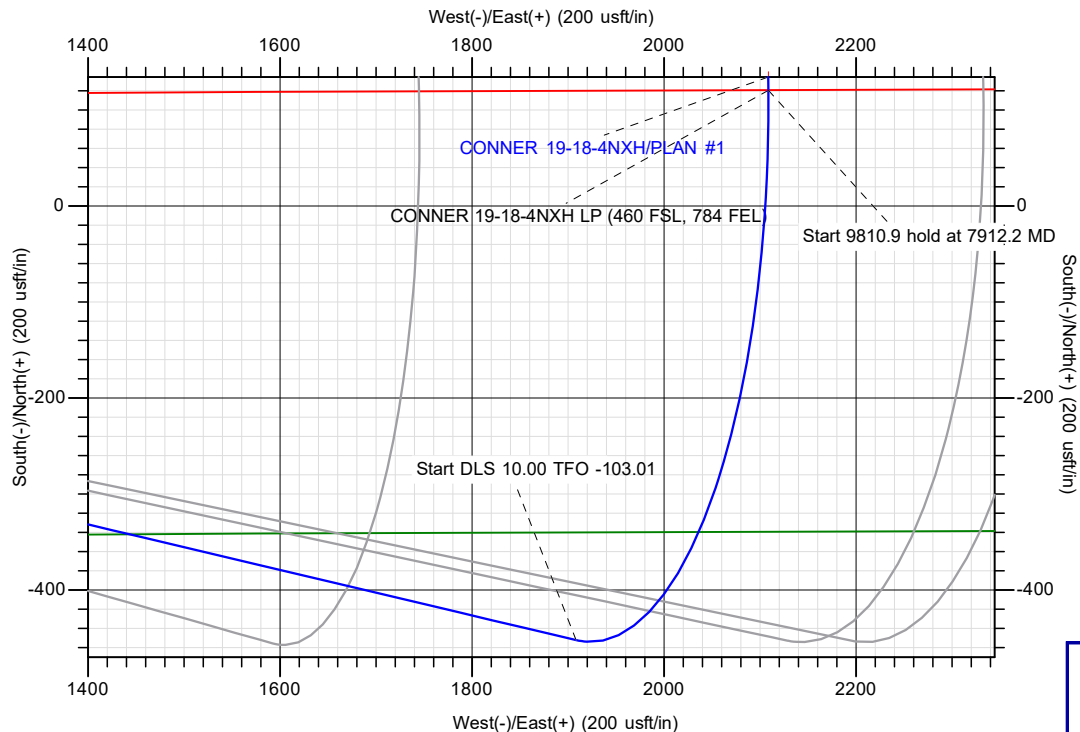
Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°
Magnetic Field
Strength: 51670.9nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-4NXH BHL (355 FNL, 712 FEL)	7217.0	9931.3	2027.7	1233486.64	3224232.54	39.971528	-104.699932
CONNER 19-18-4NXH LP (460 FSL, 784 FEL)	7217.0	120.7	2108.8	1223676.10	3224313.66	39.944595	-104.699958

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1692.8	19.86	103.32	1673.1	-39.3	165.7	2.00	103.32	-5.3	
4	6965.8	19.86	103.32	6632.5	-452.0	1908.6	0.00	0.00	-61.1	
5	7912.2	90.00	359.53	7217.0	120.7	2108.8	10.00	103.01	540.2	CONNER 19-18-4NXH LP (460 FSL, 784 FEL)
6	17723.1	90.00	359.53	7217.0	9931.3	2027.7	0.00	0.00	136.2	CONNER 19-18-4NXH BHL (355 FNL, 712 FEL)



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

Plan: PLAN #1 (CONNER 19-18-4NXH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 20:30, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-4NXH
Wellbore: OH
Design: PLAN #1



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

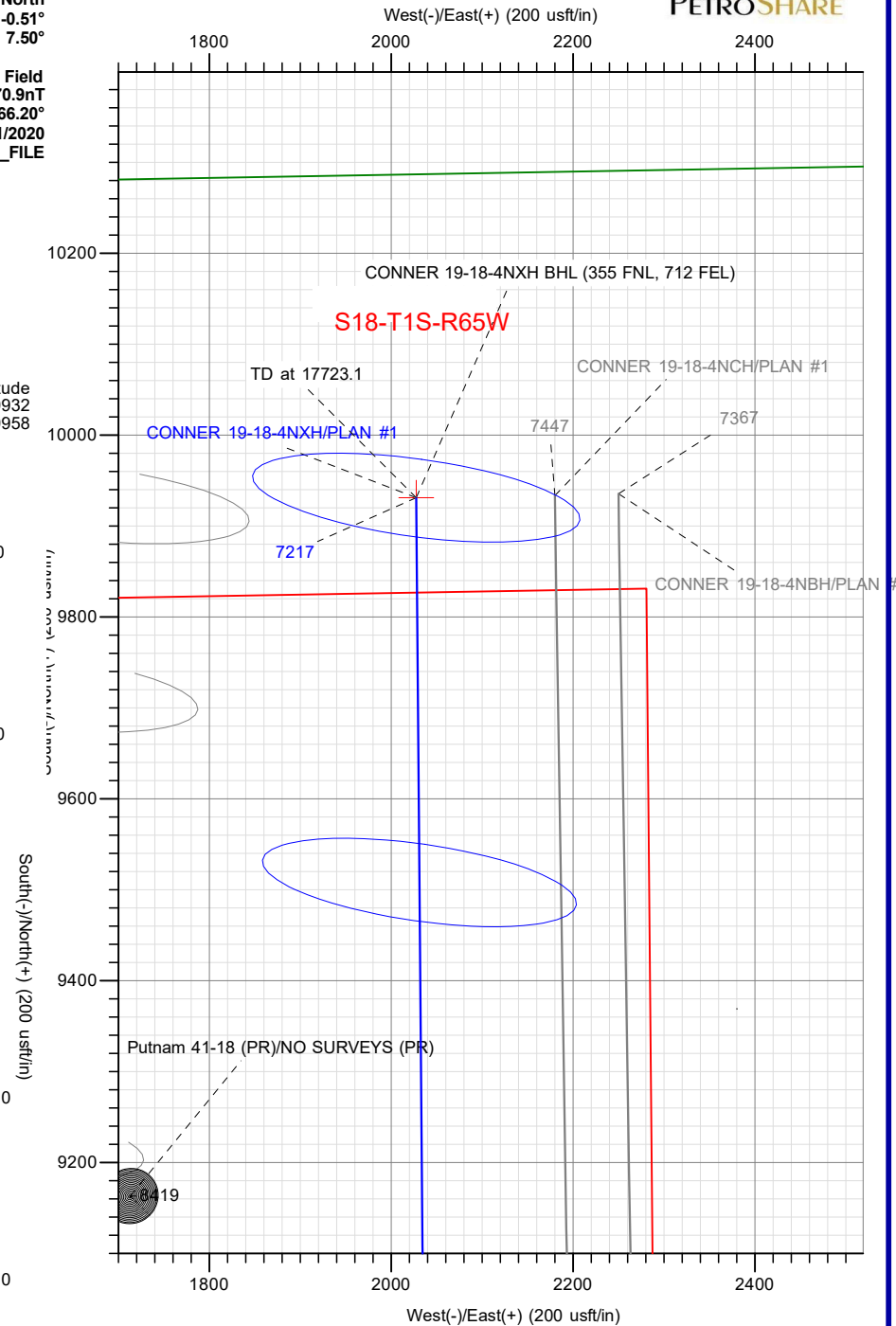
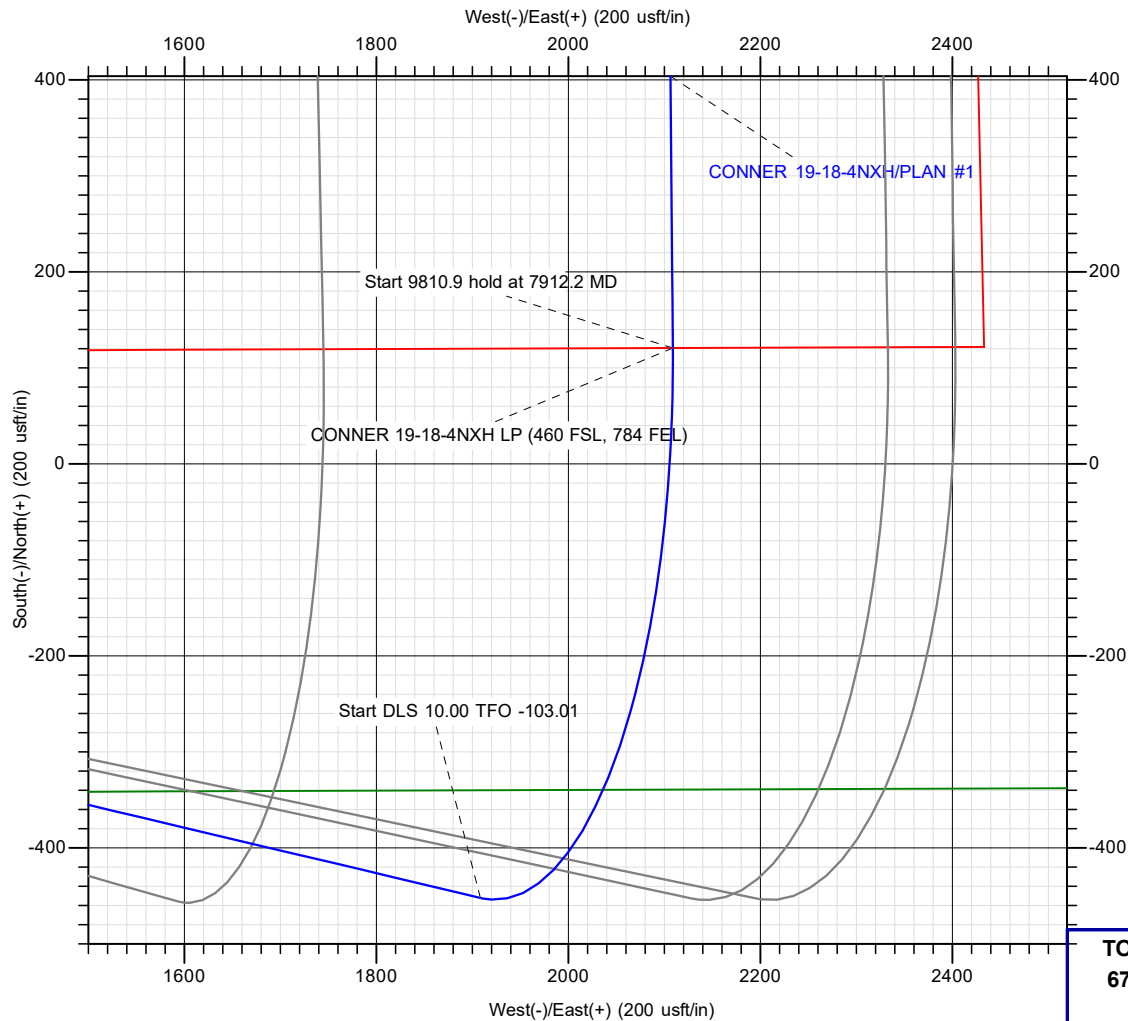
Magnetic Field
Strength: 51670.9nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



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 19-18-4NXH BHL (355 FNL, 712 FEL)	7217.0	9931.3	2027.7	1233486.64	3224232.54	39.971528	-104.699932
CONNER 19-18-4NXH LP (460 FSL, 784 FEL)	7217.0	120.7	2108.8	1223676.10	3224313.66	39.944595	-104.699958



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

Plan: PLAN #1 (CONNER 19-18-4NXH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 20:33, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-4NXH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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 19-18-4NXH					
Well Position	+N/-S	1.0 usft	Northing:	1,223,555.36 usft	Latitude:	39.944315
	+E/-W	195.0 usft	Easting:	3,222,204.84 usft	Longitude:	-104.707483
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	51,670.90000000

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	11.54

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,723.1	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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,692.8	19.86	103.32	1,673.1	-39.3	165.7	2.00	2.00	0.00	103.32	
6,965.8	19.86	103.32	6,632.5	-452.0	1,908.6	0.00	0.00	0.00	0.00	
7,912.2	90.00	359.53	7,217.0	120.7	2,108.8	10.00	7.41	-10.97	-103.01	CONNER 19-18-4NXH
17,723.1	90.00	359.53	7,217.0	9,931.3	2,027.7	0.00	0.00	0.00	0.00	CONNER 19-18-4NXH

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	2.00	103.32	800.0	-0.4	1.7	-0.1	2.00	2.00	0.00
900.0	4.00	103.32	899.8	-1.6	6.8	-0.2	2.00	2.00	0.00
1,000.0	6.00	103.32	999.5	-3.6	15.3	-0.5	2.00	2.00	0.00
1,100.0	8.00	103.32	1,098.7	-6.4	27.1	-0.9	2.00	2.00	0.00
1,200.0	10.00	103.32	1,197.5	-10.0	42.4	-1.4	2.00	2.00	0.00
1,300.0	12.00	103.32	1,295.6	-14.4	60.9	-1.9	2.00	2.00	0.00
1,400.0	14.00	103.32	1,393.1	-19.6	82.8	-2.7	2.00	2.00	0.00
1,500.0	16.00	103.32	1,489.6	-25.6	108.0	-3.5	2.00	2.00	0.00
1,600.0	18.00	103.32	1,585.3	-32.3	136.4	-4.4	2.00	2.00	0.00
1,692.8	19.86	103.32	1,673.1	-39.3	165.7	-5.3	2.00	2.00	0.00
1,700.0	19.86	103.32	1,679.8	-39.8	168.1	-5.4	0.00	0.00	0.00
1,800.0	19.86	103.32	1,773.9	-47.6	201.2	-6.4	0.00	0.00	0.00
1,900.0	19.86	103.32	1,867.9	-55.5	234.2	-7.5	0.00	0.00	0.00
2,000.0	19.86	103.32	1,962.0	-63.3	267.3	-8.6	0.00	0.00	0.00
2,100.0	19.86	103.32	2,056.0	-71.1	300.3	-9.6	0.00	0.00	0.00
2,200.0	19.86	103.32	2,150.1	-79.0	333.4	-10.7	0.00	0.00	0.00
2,300.0	19.86	103.32	2,244.1	-86.8	366.4	-11.7	0.00	0.00	0.00
2,400.0	19.86	103.32	2,338.2	-94.6	399.5	-12.8	0.00	0.00	0.00
2,500.0	19.86	103.32	2,432.3	-102.4	432.5	-13.8	0.00	0.00	0.00
2,600.0	19.86	103.32	2,526.3	-110.3	465.6	-14.9	0.00	0.00	0.00
2,700.0	19.86	103.32	2,620.4	-118.1	498.6	-16.0	0.00	0.00	0.00
2,800.0	19.86	103.32	2,714.4	-125.9	531.7	-17.0	0.00	0.00	0.00
2,900.0	19.86	103.32	2,808.5	-133.8	564.7	-18.1	0.00	0.00	0.00
3,000.0	19.86	103.32	2,902.5	-141.6	597.8	-19.1	0.00	0.00	0.00
3,100.0	19.86	103.32	2,996.6	-149.4	630.8	-20.2	0.00	0.00	0.00
3,200.0	19.86	103.32	3,090.6	-157.2	663.9	-21.2	0.00	0.00	0.00
3,300.0	19.86	103.32	3,184.7	-165.1	696.9	-22.3	0.00	0.00	0.00
3,400.0	19.86	103.32	3,278.7	-172.9	730.0	-23.4	0.00	0.00	0.00
3,500.0	19.86	103.32	3,372.8	-180.7	763.0	-24.4	0.00	0.00	0.00
3,600.0	19.86	103.32	3,466.9	-188.5	796.1	-25.5	0.00	0.00	0.00
3,700.0	19.86	103.32	3,560.9	-196.4	829.2	-26.5	0.00	0.00	0.00
3,800.0	19.86	103.32	3,655.0	-204.2	862.2	-27.6	0.00	0.00	0.00
3,900.0	19.86	103.32	3,749.0	-212.0	895.3	-28.7	0.00	0.00	0.00
4,000.0	19.86	103.32	3,843.1	-219.9	928.3	-29.7	0.00	0.00	0.00
4,100.0	19.86	103.32	3,937.1	-227.7	961.4	-30.8	0.00	0.00	0.00
4,200.0	19.86	103.32	4,031.2	-235.5	994.4	-31.8	0.00	0.00	0.00
4,300.0	19.86	103.32	4,125.2	-243.3	1,027.5	-32.9	0.00	0.00	0.00
4,400.0	19.86	103.32	4,219.3	-251.2	1,060.5	-33.9	0.00	0.00	0.00
4,500.0	19.86	103.32	4,313.3	-259.0	1,093.6	-35.0	0.00	0.00	0.00
4,600.0	19.86	103.32	4,407.4	-266.8	1,126.6	-36.1	0.00	0.00	0.00
4,700.0	19.86	103.32	4,501.5	-274.7	1,159.7	-37.1	0.00	0.00	0.00
4,800.0	19.86	103.32	4,595.5	-282.5	1,192.7	-38.2	0.00	0.00	0.00
4,900.0	19.86	103.32	4,689.6	-290.3	1,225.8	-39.2	0.00	0.00	0.00
5,000.0	19.86	103.32	4,783.6	-298.1	1,258.8	-40.3	0.00	0.00	0.00
5,100.0	19.86	103.32	4,877.7	-306.0	1,291.9	-41.3	0.00	0.00	0.00
5,200.0	19.86	103.32	4,971.7	-313.8	1,324.9	-42.4	0.00	0.00	0.00

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Site:	S19-T1S-R65W	North Reference:	Grid
Well:	CONNER 19-18-4NXH	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	19.86	103.32	5,065.8	-321.6	1,358.0	-43.5	0.00	0.00	0.00
5,400.0	19.86	103.32	5,159.8	-329.5	1,391.0	-44.5	0.00	0.00	0.00
5,500.0	19.86	103.32	5,253.9	-337.3	1,424.1	-45.6	0.00	0.00	0.00
5,600.0	19.86	103.32	5,347.9	-345.1	1,457.1	-46.6	0.00	0.00	0.00
5,700.0	19.86	103.32	5,442.0	-352.9	1,490.2	-47.7	0.00	0.00	0.00
5,800.0	19.86	103.32	5,536.1	-360.8	1,523.2	-48.7	0.00	0.00	0.00
5,900.0	19.86	103.32	5,630.1	-368.6	1,556.3	-49.8	0.00	0.00	0.00
6,000.0	19.86	103.32	5,724.2	-376.4	1,589.4	-50.9	0.00	0.00	0.00
6,100.0	19.86	103.32	5,818.2	-384.2	1,622.4	-51.9	0.00	0.00	0.00
6,200.0	19.86	103.32	5,912.3	-392.1	1,655.5	-53.0	0.00	0.00	0.00
6,300.0	19.86	103.32	6,006.3	-399.9	1,688.5	-54.0	0.00	0.00	0.00
6,400.0	19.86	103.32	6,100.4	-407.7	1,721.6	-55.1	0.00	0.00	0.00
6,500.0	19.86	103.32	6,194.4	-415.6	1,754.6	-56.2	0.00	0.00	0.00
6,600.0	19.86	103.32	6,288.5	-423.4	1,787.7	-57.2	0.00	0.00	0.00
6,700.0	19.86	103.32	6,382.5	-431.2	1,820.7	-58.3	0.00	0.00	0.00
6,800.0	19.86	103.32	6,476.6	-439.0	1,853.8	-59.3	0.00	0.00	0.00
6,900.0	19.86	103.32	6,570.7	-446.9	1,886.8	-60.4	0.00	0.00	0.00
6,965.8	19.86	103.32	6,632.5	-452.0	1,908.6	-61.1	0.00	0.00	0.00
7,000.0	19.36	93.22	6,664.8	-453.7	1,919.9	-60.4	10.00	-1.44	-29.52
7,100.0	21.16	64.52	6,758.8	-446.8	1,952.8	-47.1	10.00	1.79	-28.70
7,200.0	26.69	43.76	6,850.3	-422.8	1,984.7	-17.2	10.00	5.54	-20.76
7,300.0	34.20	30.60	6,936.6	-382.3	2,014.6	28.5	10.00	7.50	-13.16
7,400.0	42.64	21.92	7,014.9	-326.5	2,041.6	88.5	10.00	8.44	-8.68
7,500.0	51.55	15.70	7,083.0	-257.2	2,064.9	161.1	10.00	8.91	-6.22
7,600.0	60.71	10.87	7,138.7	-176.5	2,083.8	243.9	10.00	9.17	-4.83
7,700.0	70.02	6.85	7,180.3	-86.8	2,097.7	334.6	10.00	9.31	-4.02
7,800.0	79.42	3.28	7,206.7	9.2	2,106.1	430.3	10.00	9.39	-3.57
7,900.0	88.84	359.93	7,216.9	108.5	2,108.9	528.2	10.00	9.43	-3.35
7,912.2	90.00	359.53	7,217.0	120.7	2,108.8	540.2	10.00	9.44	-3.31
CONNER 19-18-4NXH LP (460 FSL, 784 FEL)									
8,000.0	90.00	359.53	7,217.0	208.5	2,108.1	626.0	0.00	0.00	0.00
8,100.0	90.00	359.53	7,217.0	308.5	2,107.3	723.8	0.00	0.00	0.00
8,200.0	90.00	359.53	7,217.0	408.5	2,106.4	821.6	0.00	0.00	0.00
8,300.0	90.00	359.53	7,217.0	508.5	2,105.6	919.4	0.00	0.00	0.00
8,400.0	90.00	359.53	7,217.0	608.5	2,104.8	1,017.2	0.00	0.00	0.00
8,500.0	90.00	359.53	7,217.0	708.5	2,104.0	1,115.0	0.00	0.00	0.00
8,600.0	90.00	359.53	7,217.0	808.5	2,103.1	1,212.8	0.00	0.00	0.00
8,700.0	90.00	359.53	7,217.0	908.5	2,102.3	1,310.7	0.00	0.00	0.00
8,800.0	90.00	359.53	7,217.0	1,008.5	2,101.5	1,408.5	0.00	0.00	0.00
8,900.0	90.00	359.53	7,217.0	1,108.4	2,100.7	1,506.3	0.00	0.00	0.00
9,000.0	90.00	359.53	7,217.0	1,208.4	2,099.8	1,604.1	0.00	0.00	0.00
9,100.0	90.00	359.53	7,217.0	1,308.4	2,099.0	1,701.9	0.00	0.00	0.00
9,200.0	90.00	359.53	7,217.0	1,408.4	2,098.2	1,799.7	0.00	0.00	0.00
9,300.0	90.00	359.53	7,217.0	1,508.4	2,097.3	1,897.5	0.00	0.00	0.00
9,400.0	90.00	359.53	7,217.0	1,608.4	2,096.5	1,995.3	0.00	0.00	0.00
9,500.0	90.00	359.53	7,217.0	1,708.4	2,095.7	2,093.1	0.00	0.00	0.00
9,600.0	90.00	359.53	7,217.0	1,808.4	2,094.9	2,190.9	0.00	0.00	0.00
9,700.0	90.00	359.53	7,217.0	1,908.4	2,094.0	2,288.7	0.00	0.00	0.00
9,800.0	90.00	359.53	7,217.0	2,008.4	2,093.2	2,386.6	0.00	0.00	0.00
9,900.0	90.00	359.53	7,217.0	2,108.4	2,092.4	2,484.4	0.00	0.00	0.00
10,000.0	90.00	359.53	7,217.0	2,208.4	2,091.6	2,582.2	0.00	0.00	0.00
10,100.0	90.00	359.53	7,217.0	2,308.4	2,090.7	2,680.0	0.00	0.00	0.00
10,200.0	90.00	359.53	7,217.0	2,408.4	2,089.9	2,777.8	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	7,217.0	2,508.4	2,089.1	2,875.6	0.00	0.00	0.00
10,400.0	90.00	359.53	7,217.0	2,608.4	2,088.3	2,973.4	0.00	0.00	0.00
10,500.0	90.00	359.53	7,217.0	2,708.4	2,087.4	3,071.2	0.00	0.00	0.00
10,600.0	90.00	359.53	7,217.0	2,808.4	2,086.6	3,169.0	0.00	0.00	0.00
10,700.0	90.00	359.53	7,217.0	2,908.4	2,085.8	3,266.8	0.00	0.00	0.00
10,800.0	90.00	359.53	7,217.0	3,008.4	2,084.9	3,364.7	0.00	0.00	0.00
10,900.0	90.00	359.53	7,217.0	3,108.4	2,084.1	3,462.5	0.00	0.00	0.00
11,000.0	90.00	359.53	7,217.0	3,208.4	2,083.3	3,560.3	0.00	0.00	0.00
11,100.0	90.00	359.53	7,217.0	3,308.4	2,082.5	3,658.1	0.00	0.00	0.00
11,200.0	90.00	359.53	7,217.0	3,408.4	2,081.6	3,755.9	0.00	0.00	0.00
11,300.0	90.00	359.53	7,217.0	3,508.4	2,080.8	3,853.7	0.00	0.00	0.00
11,400.0	90.00	359.53	7,217.0	3,608.4	2,080.0	3,951.5	0.00	0.00	0.00
11,500.0	90.00	359.53	7,217.0	3,708.4	2,079.2	4,049.3	0.00	0.00	0.00
11,600.0	90.00	359.53	7,217.0	3,808.4	2,078.3	4,147.1	0.00	0.00	0.00
11,700.0	90.00	359.53	7,217.0	3,908.4	2,077.5	4,244.9	0.00	0.00	0.00
11,800.0	90.00	359.53	7,217.0	4,008.3	2,076.7	4,342.8	0.00	0.00	0.00
11,900.0	90.00	359.53	7,217.0	4,108.3	2,075.8	4,440.6	0.00	0.00	0.00
12,000.0	90.00	359.53	7,217.0	4,208.3	2,075.0	4,538.4	0.00	0.00	0.00
12,100.0	90.00	359.53	7,217.0	4,308.3	2,074.2	4,636.2	0.00	0.00	0.00
12,200.0	90.00	359.53	7,217.0	4,408.3	2,073.4	4,734.0	0.00	0.00	0.00
12,300.0	90.00	359.53	7,217.0	4,508.3	2,072.5	4,831.8	0.00	0.00	0.00
12,400.0	90.00	359.53	7,217.0	4,608.3	2,071.7	4,929.6	0.00	0.00	0.00
12,500.0	90.00	359.53	7,217.0	4,708.3	2,070.9	5,027.4	0.00	0.00	0.00
12,600.0	90.00	359.53	7,217.0	4,808.3	2,070.1	5,125.2	0.00	0.00	0.00
12,700.0	90.00	359.53	7,217.0	4,908.3	2,069.2	5,223.0	0.00	0.00	0.00
12,800.0	90.00	359.53	7,217.0	5,008.3	2,068.4	5,320.9	0.00	0.00	0.00
12,900.0	90.00	359.53	7,217.0	5,108.3	2,067.6	5,418.7	0.00	0.00	0.00
13,000.0	90.00	359.53	7,217.0	5,208.3	2,066.8	5,516.5	0.00	0.00	0.00
13,100.0	90.00	359.53	7,217.0	5,308.3	2,065.9	5,614.3	0.00	0.00	0.00
13,200.0	90.00	359.53	7,217.0	5,408.3	2,065.1	5,712.1	0.00	0.00	0.00
13,300.0	90.00	359.53	7,217.0	5,508.3	2,064.3	5,809.9	0.00	0.00	0.00
13,400.0	90.00	359.53	7,217.0	5,608.3	2,063.4	5,907.7	0.00	0.00	0.00
13,500.0	90.00	359.53	7,217.0	5,708.3	2,062.6	6,005.5	0.00	0.00	0.00
13,600.0	90.00	359.53	7,217.0	5,808.3	2,061.8	6,103.3	0.00	0.00	0.00
13,700.0	90.00	359.53	7,217.0	5,908.3	2,061.0	6,201.1	0.00	0.00	0.00
13,800.0	90.00	359.53	7,217.0	6,008.3	2,060.1	6,299.0	0.00	0.00	0.00
13,900.0	90.00	359.53	7,217.0	6,108.3	2,059.3	6,396.8	0.00	0.00	0.00
14,000.0	90.00	359.53	7,217.0	6,208.3	2,058.5	6,494.6	0.00	0.00	0.00
14,100.0	90.00	359.53	7,217.0	6,308.3	2,057.7	6,592.4	0.00	0.00	0.00
14,200.0	90.00	359.53	7,217.0	6,408.3	2,056.8	6,690.2	0.00	0.00	0.00
14,300.0	90.00	359.53	7,217.0	6,508.3	2,056.0	6,788.0	0.00	0.00	0.00
14,400.0	90.00	359.53	7,217.0	6,608.3	2,055.2	6,885.8	0.00	0.00	0.00
14,500.0	90.00	359.53	7,217.0	6,708.3	2,054.3	6,983.6	0.00	0.00	0.00
14,600.0	90.00	359.53	7,217.0	6,808.3	2,053.5	7,081.4	0.00	0.00	0.00
14,700.0	90.00	359.53	7,217.0	6,908.3	2,052.7	7,179.2	0.00	0.00	0.00
14,800.0	90.00	359.53	7,217.0	7,008.2	2,051.9	7,277.1	0.00	0.00	0.00
14,900.0	90.00	359.53	7,217.0	7,108.2	2,051.0	7,374.9	0.00	0.00	0.00
15,000.0	90.00	359.53	7,217.0	7,208.2	2,050.2	7,472.7	0.00	0.00	0.00
15,100.0	90.00	359.53	7,217.0	7,308.2	2,049.4	7,570.5	0.00	0.00	0.00
15,200.0	90.00	359.53	7,217.0	7,408.2	2,048.6	7,668.3	0.00	0.00	0.00
15,300.0	90.00	359.53	7,217.0	7,508.2	2,047.7	7,766.1	0.00	0.00	0.00
15,400.0	90.00	359.53	7,217.0	7,608.2	2,046.9	7,863.9	0.00	0.00	0.00
15,500.0	90.00	359.53	7,217.0	7,708.2	2,046.1	7,961.7	0.00	0.00	0.00
15,600.0	90.00	359.53	7,217.0	7,808.2	2,045.3	8,059.5	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	7,217.0	7,908.2	2,044.4	8,157.3	0.00	0.00	0.00	
15,800.0	90.00	359.53	7,217.0	8,008.2	2,043.6	8,255.2	0.00	0.00	0.00	
15,900.0	90.00	359.53	7,217.0	8,108.2	2,042.8	8,353.0	0.00	0.00	0.00	
16,000.0	90.00	359.53	7,217.0	8,208.2	2,041.9	8,450.8	0.00	0.00	0.00	
16,100.0	90.00	359.53	7,217.0	8,308.2	2,041.1	8,548.6	0.00	0.00	0.00	
16,200.0	90.00	359.53	7,217.0	8,408.2	2,040.3	8,646.4	0.00	0.00	0.00	
16,300.0	90.00	359.53	7,217.0	8,508.2	2,039.5	8,744.2	0.00	0.00	0.00	
16,400.0	90.00	359.53	7,217.0	8,608.2	2,038.6	8,842.0	0.00	0.00	0.00	
16,500.0	90.00	359.53	7,217.0	8,708.2	2,037.8	8,939.8	0.00	0.00	0.00	
16,600.0	90.00	359.53	7,217.0	8,808.2	2,037.0	9,037.6	0.00	0.00	0.00	
16,700.0	90.00	359.53	7,217.0	8,908.2	2,036.2	9,135.4	0.00	0.00	0.00	
16,800.0	90.00	359.53	7,217.0	9,008.2	2,035.3	9,233.3	0.00	0.00	0.00	
16,900.0	90.00	359.53	7,217.0	9,108.2	2,034.5	9,331.1	0.00	0.00	0.00	
17,000.0	90.00	359.53	7,217.0	9,208.2	2,033.7	9,428.9	0.00	0.00	0.00	
17,100.0	90.00	359.53	7,217.0	9,308.2	2,032.9	9,526.7	0.00	0.00	0.00	
17,200.0	90.00	359.53	7,217.0	9,408.2	2,032.0	9,624.5	0.00	0.00	0.00	
17,300.0	90.00	359.53	7,217.0	9,508.2	2,031.2	9,722.3	0.00	0.00	0.00	
17,400.0	90.00	359.53	7,217.0	9,608.2	2,030.4	9,820.1	0.00	0.00	0.00	
17,500.0	90.00	359.53	7,217.0	9,708.2	2,029.5	9,917.9	0.00	0.00	0.00	
17,600.0	90.00	359.53	7,217.0	9,808.2	2,028.7	10,015.7	0.00	0.00	0.00	
17,700.0	90.00	359.53	7,217.0	9,908.1	2,027.9	10,113.5	0.00	0.00	0.00	
17,723.1	90.00	359.53	7,217.0	9,931.3	2,027.7	10,136.2	0.00	0.00	0.00	
CONNER 19-18-4NXH BHL (355 FNL, 712 FEL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
CONNER 19-18-4NXH L	0.00	0.00	7,217.0	120.7	2,108.8	1,223,676.09	3,224,313.66	39.944595	-104.699958	
- plan hits target center										
- Point										
CONNER 19-18-4NXH E	0.00	0.00	7,217.0	9,931.3	2,027.7	1,233,486.63	3,224,232.54	39.971528	-104.699932	
- plan hits target center										
- Point										



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-4NXH

OH

PLAN #1

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	17,723.1	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	195.0	190.2	41.092	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	1,100.0	1,061.4	259.7	248.3	22.671	SF
CONNER 19-18-1NBH - OH - PLAN #1	700.0	700.0	150.0	147.2	54.686	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	1,100.0	1,089.5	182.2	176.7	32.652	SF
CONNER 19-18-1NCH - OH - PLAN #1	700.0	700.0	165.0	162.2	60.156	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	1,100.0	1,081.2	205.1	199.6	36.952	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	180.0	174.5	32.815	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	1,100.0	1,072.1	230.9	219.8	20.812	SF
CONNER 19-18-2CDH - OH - PLAN #1	700.0	700.0	134.9	132.2	49.212	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	1,100.0	1,095.6	163.1	157.5	29.086	SF
CONNER 19-18-2NBH - OH - PLAN #1	700.0	700.0	90.0	87.2	32.814	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	17,723.1	17,551.4	1,829.0	1,649.1	10.165	SF
CONNER 19-18-2NCH - OH - PLAN #1	700.0	700.0	105.0	99.5	19.142	CC, ES
CONNER 19-18-2NCH - OH - PLAN #1	17,723.1	17,606.3	2,198.4	1,839.0	6.117	SF
CONNER 19-18-2NXH - OH - PLAN #1	700.0	700.0	120.0	117.2	43.754	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	1,200.0	1,195.6	163.1	156.9	26.104	SF
CONNER 19-18-3CDH - OH - PLAN #1	700.0	700.0	75.0	69.5	13.674	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,700.0	17,850.8	1,522.2	1,171.2	4.337	SF
CONNER 19-18-3NBH - OH - PLAN #1	700.0	700.0	29.9	27.2	10.920	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	17,723.1	17,683.1	745.3	566.8	4.177	SF
CONNER 19-18-3NCH - OH - PLAN #1	700.0	700.0	45.0	39.5	8.200	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,723.1	17,721.0	1,117.9	761.5	3.137	SF
CONNER 19-18-3NXH - OH - PLAN #1	700.0	700.0	59.9	57.2	21.860	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,713.4	17,451.2	1,191.8	1,011.9	6.626	SF
CONNER 19-18-4CDH - OH - PLAN #1	700.0	700.0	15.0	9.5	2.727	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	17,700.0	18,014.8	541.2	255.4	1.894	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	30.0	28.0	15.008	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	17,723.1	17,945.9	268.2	116.1	1.763	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	15.0	12.6	6.315	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	17,723.1	18,006.9	275.9	158.6	2.353	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	15,941.2	7,148.0	2,072.3	1,897.1	11.828	CC, ES
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	16,000.0	7,148.0	2,073.2	1,897.7	11.812	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)	10,959.9	7,148.0	1,425.0	1,333.1	15.506	CC, ES
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	11,000.0	7,148.0	1,425.6	1,333.6	15.504	SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,957.7	7,148.0	320.7	127.9	1.663	CC, ES, SF

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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						
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,761.5	7,148.0	917.9	780.0	6.657	CC, ES, SF
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	700.0	631.0	1,478.3	1,473.7	323.475	CC, ES
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	3,600.0	3,397.9	2,222.5	2,194.2	78.687	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 Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-1.0	-195.0	195.0				
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-1.0	-195.0	195.0	194.4	0.55	352.182	
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-1.0	-195.0	195.0	193.4	1.60	122.222	
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-1.0	-195.0	195.0	192.5	2.45	79.632	
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-1.0	-195.0	195.0	191.7	3.24	60.248	
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-1.0	-195.0	195.0	191.0	4.00	48.776	
600.0	600.0	600.0	600.0	2.7	2.7	-90.30	-1.0	-195.0	195.0	190.2	4.74	41.092	CC, ES
700.0	700.0	694.0	694.0	3.1	3.0	-90.46	-1.6	-196.4	196.5	191.0	5.53	35.540	
800.0	800.0	787.7	787.6	3.5	3.9	165.83	-3.3	-200.7	202.8	195.7	7.11	28.512	
900.0	899.8	880.5	880.1	4.2	4.7	165.37	-6.0	-207.7	215.5	206.7	8.79	24.503	
1,000.0	999.5	971.9	970.9	5.0	5.4	164.87	-9.8	-217.4	234.5	224.3	10.21	22.962	
1,100.0	1,098.7	1,061.4	1,059.4	5.8	6.0	164.38	-14.6	-229.5	259.7	248.3	11.46	22.671	SF
1,200.0	1,197.5	1,148.5	1,145.1	6.5	6.5	163.91	-20.2	-243.7	291.0	278.5	12.51	23.261	
1,300.0	1,295.6	1,238.1	1,232.9	7.1	6.9	163.48	-26.7	-260.4	327.6	314.2	13.33	24.577	
1,400.0	1,393.1	1,329.8	1,322.7	7.7	7.1	163.22	-33.5	-277.6	367.5	353.4	14.06	26.135	
1,500.0	1,489.6	1,420.1	1,411.2	8.3	7.3	163.08	-40.2	-294.6	410.5	395.7	14.80	27.735	
1,600.0	1,585.3	1,508.9	1,498.1	8.8	7.6	163.04	-46.7	-311.3	456.4	440.9	15.53	29.397	
1,700.0	1,679.8	1,596.0	1,583.5	9.3	7.8	163.07	-53.2	-327.8	505.3	489.1	16.21	31.172	
1,800.0	1,773.9	1,682.5	1,668.2	9.5	8.1	163.40	-59.6	-344.0	555.5	538.7	16.74	33.184	
1,900.0	1,867.9	1,769.0	1,752.9	9.8	8.4	163.68	-66.0	-360.3	605.6	588.4	17.29	35.032	
2,000.0	1,962.0	1,855.5	1,837.5	10.1	8.6	163.91	-72.4	-376.6	655.8	638.0	17.85	36.737	
2,100.0	2,056.0	1,941.9	1,922.2	10.5	8.9	164.11	-78.8	-392.9	706.0	687.6	18.43	38.313	
2,200.0	2,150.1	2,028.4	2,006.9	10.9	9.2	164.28	-85.2	-409.1	756.2	737.2	19.02	39.768	
2,300.0	2,244.1	2,114.9	2,091.6	11.3	9.5	164.44	-91.5	-425.4	806.4	786.8	19.61	41.114	
2,400.0	2,338.2	2,201.3	2,176.3	11.8	9.9	164.57	-97.9	-441.7	856.6	836.4	20.22	42.359	
2,500.0	2,432.3	2,287.8	2,260.9	12.4	10.2	164.69	-104.3	-458.0	906.8	886.0	20.84	43.511	
2,600.0	2,526.3	2,374.3	2,345.6	13.0	10.5	164.80	-110.7	-474.2	957.0	935.6	21.47	44.580	
2,700.0	2,620.4	2,460.7	2,430.3	13.7	10.9	164.89	-117.1	-490.5	1,007.2	985.1	22.10	45.572	
2,800.0	2,714.4	2,547.2	2,515.0	14.3	11.3	164.98	-123.5	-506.8	1,057.5	1,034.7	22.74	46.494	
2,900.0	2,808.5	2,633.7	2,599.7	15.0	11.7	165.06	-129.9	-523.1	1,107.7	1,084.3	23.39	47.352	
3,000.0	2,902.5	2,720.1	2,684.3	15.7	12.0	165.13	-136.3	-539.4	1,157.9	1,133.9	24.05	48.152	
3,100.0	2,996.6	2,806.6	2,769.0	16.4	12.4	165.20	-142.7	-555.6	1,208.1	1,183.4	24.71	48.899	
3,200.0	3,090.6	2,893.1	2,853.7	17.1	12.8	165.26	-149.1	-571.9	1,258.3	1,233.0	25.37	49.596	
3,300.0	3,184.7	2,979.5	2,938.4	17.7	13.2	165.31	-155.5	-588.2	1,308.6	1,282.5	26.04	50.248	
3,400.0	3,278.7	3,066.0	3,023.1	18.4	13.7	165.37	-161.9	-604.5	1,358.8	1,332.1	26.72	50.859	
3,500.0	3,372.8	3,152.5	3,107.7	19.1	14.1	165.42	-168.3	-620.7	1,409.0	1,381.6	27.40	51.433	
3,600.0	3,466.9	3,238.9	3,192.4	19.8	14.5	165.46	-174.7	-637.0	1,459.2	1,431.1	28.08	51.971	
3,700.0	3,560.9	3,325.4	3,277.1	20.6	14.9	165.50	-181.1	-653.3	1,509.4	1,480.7	28.76	52.477	
3,800.0	3,655.0	3,411.9	3,361.8	21.3	15.3	165.54	-187.5	-669.6	1,559.7	1,530.2	29.45	52.954	
3,900.0	3,749.0	3,498.3	3,446.5	22.0	15.8	165.58	-193.9	-685.9	1,609.9	1,579.8	30.15	53.403	

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 19-18-4NXH
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 19-18-4NXH	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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,000.0	3,843.1	3,584.8	3,531.2	22.7	16.2	165.61	-200.3	-702.1	1,660.1	1,629.3	30.84	53.826	
4,100.0	3,937.1	3,671.3	3,615.8	23.4	16.6	165.65	-206.7	-718.4	1,710.3	1,678.8	31.54	54.226	
4,200.0	4,031.2	3,757.7	3,700.5	24.1	17.0	165.68	-213.0	-734.7	1,760.6	1,728.3	32.24	54.604	
4,300.0	4,125.2	3,844.2	3,785.2	24.8	17.5	165.71	-219.4	-751.0	1,810.8	1,777.9	32.95	54.962	
4,400.0	4,219.3	3,930.7	3,869.9	25.5	17.9	165.73	-225.8	-767.2	1,861.0	1,827.4	33.65	55.302	
4,500.0	4,313.3	4,017.1	3,954.6	26.2	18.3	165.76	-232.2	-783.5	1,911.3	1,876.9	34.36	55.623	
4,600.0	4,407.4	4,103.6	4,039.2	26.9	18.7	165.78	-238.6	-799.8	1,961.5	1,926.4	35.07	55.929	
4,700.0	4,501.5	4,190.1	4,123.9	27.6	19.2	165.81	-245.0	-816.1	2,011.7	1,975.9	35.78	56.219	
4,800.0	4,595.5	4,276.5	4,208.6	28.4	19.6	165.83	-251.4	-832.3	2,061.9	2,025.4	36.50	56.495	
4,900.0	4,689.6	4,363.0	4,293.3	29.1	20.0	165.85	-257.8	-848.6	2,112.2	2,075.0	37.21	56.757	
5,000.0	4,783.6	4,449.5	4,378.0	29.8	20.5	165.87	-264.2	-864.9	2,162.4	2,124.5	37.93	57.008	
5,100.0	4,877.7	4,536.0	4,462.6	30.5	20.9	165.89	-270.6	-881.2	2,212.6	2,174.0	38.65	57.246	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-0.8	-150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.8	-150.0	150.0	149.7	0.28	541.393		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.8	-150.0	150.0	149.2	0.80	187.972		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.8	-150.0	150.0	148.7	1.22	122.479		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.8	-150.0	150.0	148.3	1.62	92.668		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.8	-150.0	150.0	148.0	2.00	75.023		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.8	-150.0	150.0	147.6	2.37	63.206		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.8	-150.0	150.0	147.2	2.74	54.686	CC, ES	
800.0	800.0	800.0	800.0	3.5	0.0	166.53	-0.8	-150.0	151.7	148.3	3.33	45.524		
900.0	899.8	899.8	899.8	4.2	0.0	166.96	-0.8	-150.0	156.7	152.6	4.19	37.404		
1,000.0	999.5	995.2	995.2	5.0	0.0	167.22	-1.7	-151.2	166.5	161.6	4.93	33.784		
1,100.0	1,098.7	1,089.5	1,089.3	5.8	0.0	167.02	-4.7	-154.9	182.2	176.7	5.58	32.652	SF	
1,200.0	1,197.5	1,182.2	1,181.8	6.5	0.0	166.47	-9.4	-160.8	203.8	197.6	6.16	33.066		
1,300.0	1,295.6	1,273.0	1,272.0	7.1	0.0	165.72	-15.9	-168.9	231.1	224.4	6.69	34.557		
1,400.0	1,393.1	1,367.2	1,365.3	7.7	0.0	164.99	-23.6	-178.7	263.0	255.8	7.19	36.566		
1,500.0	1,489.6	1,460.8	1,458.1	8.3	0.0	164.53	-31.4	-188.4	298.1	290.4	7.68	38.802		
1,600.0	1,585.3	1,553.2	1,549.7	8.8	0.0	164.28	-39.0	-198.0	336.4	328.2	8.16	41.212		
1,700.0	1,679.8	1,644.3	1,639.9	9.3	0.0	164.19	-46.5	-207.5	377.7	369.1	8.59	43.951		
1,800.0	1,773.9	1,734.7	1,729.6	9.5	0.0	164.36	-54.0	-216.8	420.4	411.5	8.86	47.469		
1,900.0	1,867.9	1,825.1	1,819.2	9.8	0.0	164.50	-61.5	-226.2	463.1	453.9	9.13	50.695		
2,000.0	1,962.0	1,915.6	1,908.8	10.1	0.0	164.61	-68.9	-235.6	505.7	496.3	9.42	53.676		
2,100.0	2,056.0	2,006.0	1,998.5	10.5	0.0	164.71	-76.4	-245.0	548.4	538.7	9.72	56.427		
2,200.0	2,150.1	2,096.5	2,088.1	10.9	0.0	164.79	-83.9	-254.4	591.0	581.0	10.02	58.967		
2,300.0	2,244.1	2,186.9	2,177.8	11.3	0.0	164.86	-91.4	-263.8	633.7	623.4	10.34	61.312		
2,400.0	2,338.2	2,277.3	2,267.4	11.8	0.0	164.92	-98.8	-273.2	676.4	665.7	10.66	63.477		
2,500.0	2,432.3	2,367.8	2,357.0	12.4	0.0	164.98	-106.3	-282.6	719.0	708.1	10.98	65.478		
2,600.0	2,526.3	2,458.2	2,446.7	13.0	0.0	165.03	-113.8	-292.0	761.7	750.4	11.31	67.328		
2,700.0	2,620.4	2,548.6	2,536.3	13.7	0.0	165.07	-121.2	-301.3	804.4	792.7	11.65	69.040		
2,800.0	2,714.4	2,639.1	2,626.0	14.3	0.0	165.11	-128.7	-310.7	847.0	835.1	11.99	70.626		
2,900.0	2,808.5	2,729.5	2,715.6	15.0	0.0	165.14	-136.2	-320.1	889.7	877.4	12.34	72.097		
3,000.0	2,902.5	2,820.0	2,805.2	15.7	0.0	165.18	-143.7	-329.5	932.4	919.7	12.69	73.462		
3,100.0	2,996.6	2,910.4	2,894.9	16.4	0.0	165.21	-151.1	-338.9	975.1	962.0	13.05	74.732		
3,200.0	3,090.6	3,000.8	2,984.5	17.1	0.0	165.23	-158.6	-348.3	1,017.7	1,004.3	13.41	75.913		
3,300.0	3,184.7	3,091.3	3,074.2	17.7	0.0	165.26	-166.1	-357.7	1,060.4	1,046.6	13.77	77.014		
3,400.0	3,278.7	3,181.7	3,163.8	18.4	0.0	165.28	-173.6	-367.1	1,103.1	1,088.9	14.13	78.041		
3,500.0	3,372.8	3,272.2	3,253.4	19.1	0.0	165.30	-181.0	-376.4	1,145.7	1,131.2	14.50	79.001		
3,600.0	3,466.9	3,362.6	3,343.1	19.8	0.0	165.32	-188.5	-385.8	1,188.4	1,173.5	14.87	79.898		
3,700.0	3,560.9	3,453.0	3,432.7	20.6	0.0	165.34	-196.0	-395.2	1,231.1	1,215.8	15.25	80.738		
3,800.0	3,655.0	3,543.5	3,522.3	21.3	0.0	165.36	-203.4	-404.6	1,273.7	1,258.1	15.62	81.526		
3,900.0	3,749.0	3,633.9	3,612.0	22.0	0.0	165.37	-210.9	-414.0	1,316.4	1,300.4	16.00	82.266		
4,000.0	3,843.1	3,724.4	3,701.6	22.7	0.0	165.39	-218.4	-423.4	1,359.1	1,342.7	16.38	82.960		
4,100.0	3,937.1	3,814.8	3,791.3	23.4	0.0	165.40	-225.9	-432.8	1,401.7	1,385.0	16.76	83.614		
4,200.0	4,031.2	3,905.2	3,880.9	24.1	0.0	165.41	-233.3	-442.2	1,444.4	1,427.3	17.15	84.230		
4,300.0	4,125.2	3,995.7	3,970.5	24.8	0.0	165.43	-240.8	-451.6	1,487.1	1,469.6	17.53	84.810		
4,400.0	4,219.3	4,086.1	4,060.2	25.5	0.0	165.44	-248.3	-460.9	1,529.8	1,511.8	17.92	85.358		
4,500.0	4,313.3	4,176.5	4,149.8	26.2	0.0	165.45	-255.8	-470.3	1,572.4	1,554.1	18.31	85.875		
4,600.0	4,407.4	4,267.0	4,239.5	26.9	0.0	165.46	-263.2	-479.7	1,615.1	1,596.4	18.70	86.365		
4,700.0	4,501.5	4,357.4	4,329.1	27.6	0.0	165.47	-270.7	-489.1	1,657.8	1,638.7	19.09	86.828		
4,800.0	4,595.5	4,447.9	4,418.7	28.4	0.0	165.48	-278.2	-498.5	1,700.4	1,681.0	19.49	87.266		
4,900.0	4,689.6	4,538.3	4,508.4	29.1	0.0	165.49	-285.6	-507.9	1,743.1	1,723.2	19.88	87.682		
5,000.0	4,783.6	4,628.7	4,598.0	29.8	0.0	165.50	-293.1	-517.3	1,785.8	1,765.5	20.28	88.077		
5,100.0	4,877.7	4,719.2	4,687.7	30.5	0.0	165.51	-300.6	-526.7	1,828.5	1,807.8	20.67	88.452		

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 19-18-4NXH
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 19-18-4NXH	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									
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	4,971.7	4,809.6	4,777.3	31.2	0.0	165.51	-308.1	-536.0	1,871.1	1,850.1	21.07	88.808	
5,300.0	5,065.8	4,900.1	4,866.9	31.9	0.0	165.52	-315.5	-545.4	1,913.8	1,892.3	21.47	89.147	
5,400.0	5,159.8	4,990.5	4,956.6	32.7	0.0	165.53	-323.0	-554.8	1,956.5	1,934.6	21.87	89.470	
5,500.0	5,253.9	5,080.9	5,046.2	33.4	0.0	165.54	-330.5	-564.2	1,999.1	1,976.9	22.27	89.777	
5,600.0	5,347.9	5,171.4	5,135.9	34.1	0.0	165.54	-338.0	-573.6	2,041.8	2,019.1	22.67	90.070	
5,700.0	5,442.0	5,261.8	5,225.5	34.8	0.0	165.55	-345.4	-583.0	2,084.5	2,061.4	23.07	90.349	
5,800.0	5,536.1	5,352.2	5,315.1	35.5	0.0	165.55	-352.9	-592.4	2,127.1	2,103.7	23.47	90.616	
5,900.0	5,630.1	5,442.7	5,404.8	36.2	0.0	165.56	-360.4	-601.8	2,169.8	2,145.9	23.88	90.871	
6,000.0	5,724.2	5,533.1	5,494.4	37.0	0.0	165.57	-367.8	-611.2	2,212.5	2,188.2	24.28	91.114	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.29	-0.8	-165.0	165.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.29	-0.8	-165.0	165.0	164.7	0.28	595.563		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.8	-165.0	165.0	164.2	0.80	206.780		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.8	-165.0	165.0	163.7	1.22	134.733		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.8	-165.0	165.0	163.3	1.62	101.939		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.8	-165.0	165.0	163.0	2.00	82.529		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.8	-165.0	165.0	162.6	2.37	69.529		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.8	-165.0	165.0	162.2	2.74	60.156	CC, ES	
800.0	800.0	800.0	800.0	3.5	0.0	166.52	-0.8	-165.0	166.7	163.3	3.33	50.025		
900.0	899.8	894.8	894.7	4.2	0.0	166.64	-1.5	-166.3	173.2	169.0	4.19	41.359		
1,000.0	999.5	988.7	988.6	5.0	0.0	166.50	-3.7	-170.5	186.1	181.1	4.91	37.861		
1,100.0	1,098.7	1,081.2	1,080.8	5.8	0.0	166.17	-7.2	-177.2	205.1	199.6	5.55	36.952	SF	
1,200.0	1,197.5	1,171.9	1,170.8	6.5	0.0	165.72	-11.9	-186.4	230.3	224.2	6.12	37.634		
1,300.0	1,295.6	1,260.1	1,258.1	7.1	0.0	165.19	-17.7	-197.7	261.4	254.7	6.63	39.415		
1,400.0	1,393.1	1,350.5	1,347.2	7.7	0.0	164.67	-24.8	-211.3	297.7	290.6	7.12	41.806		
1,500.0	1,489.6	1,442.2	1,437.6	8.3	0.0	164.33	-32.0	-225.3	337.4	329.8	7.61	44.360		
1,600.0	1,585.3	1,532.7	1,526.7	8.8	0.0	164.15	-39.1	-239.1	380.1	372.0	8.08	47.067		
1,700.0	1,679.8	1,621.6	1,614.3	9.3	0.0	164.09	-46.1	-252.6	425.8	417.3	8.50	50.102		
1,800.0	1,773.9	1,709.8	1,701.2	9.5	0.0	164.30	-53.0	-266.0	472.8	464.1	8.76	54.000		
1,900.0	1,867.9	1,798.1	1,788.2	9.8	0.0	164.48	-59.9	-279.5	519.9	510.8	9.03	57.578		
2,000.0	1,962.0	1,886.3	1,875.1	10.1	0.0	164.63	-66.9	-292.9	566.9	557.6	9.31	60.888		
2,100.0	2,056.0	1,974.5	1,962.0	10.5	0.0	164.76	-73.8	-306.4	613.9	604.3	9.60	63.947		
2,200.0	2,150.1	2,062.8	2,049.0	10.9	0.0	164.87	-80.8	-319.8	661.0	651.1	9.90	66.774		
2,300.0	2,244.1	2,151.0	2,135.9	11.3	0.0	164.96	-87.7	-333.2	708.0	697.8	10.20	69.386		
2,400.0	2,338.2	2,239.3	2,222.8	11.8	0.0	165.04	-94.6	-346.7	755.0	744.5	10.52	71.801		
2,500.0	2,432.3	2,327.5	2,309.8	12.4	0.0	165.11	-101.6	-360.1	802.1	791.2	10.83	74.035		
2,600.0	2,526.3	2,415.8	2,396.7	13.0	0.0	165.18	-108.5	-373.6	849.1	837.9	11.16	76.102		
2,700.0	2,620.4	2,504.0	2,483.7	13.7	0.0	165.24	-115.5	-387.0	896.1	884.6	11.49	78.017		
2,800.0	2,714.4	2,592.3	2,570.6	14.3	0.0	165.29	-122.4	-400.4	943.2	931.3	11.82	79.793		
2,900.0	2,808.5	2,680.5	2,657.5	15.0	0.0	165.33	-129.3	-413.9	990.2	978.0	12.16	81.441		
3,000.0	2,902.5	2,768.7	2,744.5	15.7	0.0	165.38	-136.3	-427.3	1,037.2	1,024.7	12.50	82.973		
3,100.0	2,996.6	2,857.0	2,831.4	16.4	0.0	165.42	-143.2	-440.8	1,084.3	1,071.4	12.85	84.397		
3,200.0	3,090.6	2,945.2	2,918.4	17.1	0.0	165.45	-150.1	-454.2	1,131.3	1,118.1	13.20	85.724		
3,300.0	3,184.7	3,033.5	3,005.3	17.7	0.0	165.48	-157.1	-467.6	1,178.3	1,164.8	13.55	86.961		
3,400.0	3,278.7	3,121.7	3,092.2	18.4	0.0	165.52	-164.0	-481.1	1,225.4	1,211.5	13.91	88.116		
3,500.0	3,372.8	3,210.0	3,179.2	19.1	0.0	165.54	-171.0	-494.5	1,272.4	1,258.2	14.27	89.195		
3,600.0	3,466.9	3,298.2	3,266.1	19.8	0.0	165.57	-177.9	-508.0	1,319.5	1,304.8	14.63	90.205		
3,700.0	3,560.9	3,386.5	3,353.0	20.6	0.0	165.59	-184.8	-521.4	1,366.5	1,351.5	14.99	91.151		
3,800.0	3,655.0	3,474.7	3,440.0	21.3	0.0	165.62	-191.8	-534.8	1,413.5	1,398.2	15.36	92.038		
3,900.0	3,749.0	3,562.9	3,526.9	22.0	0.0	165.64	-198.7	-548.3	1,460.6	1,444.9	15.73	92.871		
4,000.0	3,843.1	3,651.2	3,613.9	22.7	0.0	165.66	-205.6	-561.7	1,507.6	1,491.5	16.10	93.654		
4,100.0	3,937.1	3,739.4	3,700.8	23.4	0.0	165.68	-212.6	-575.2	1,554.7	1,538.2	16.47	94.391		
4,200.0	4,031.2	3,827.7	3,787.7	24.1	0.0	165.69	-219.5	-588.6	1,601.7	1,584.9	16.85	95.085		
4,300.0	4,125.2	3,915.9	3,874.7	24.8	0.0	165.71	-226.5	-602.0	1,648.7	1,631.5	17.22	95.739		
4,400.0	4,219.3	4,004.2	3,961.6	25.5	0.0	165.73	-233.4	-615.5	1,695.8	1,678.2	17.60	96.356		
4,500.0	4,313.3	4,092.4	4,048.5	26.2	0.0	165.74	-240.3	-628.9	1,742.8	1,724.8	17.98	96.940		
4,600.0	4,407.4	4,180.7	4,135.5	26.9	0.0	165.76	-247.3	-642.4	1,789.9	1,771.5	18.36	97.491		
4,700.0	4,501.5	4,268.9	4,224.4	27.6	0.0	165.77	-254.2	-655.8	1,836.9	1,818.2	18.74	98.013		
4,800.0	4,595.5	4,357.1	4,309.4	28.4	0.0	165.78	-261.1	-669.2	1,884.0	1,864.8	19.12	98.508		
4,900.0	4,689.6	4,445.4	4,396.3	29.1	0.0	165.79	-268.1	-682.7	1,931.0	1,911.5	19.51	98.977		
5,000.0	4,783.6	4,533.6	4,483.2	29.8	0.0	165.80	-275.0	-696.1	1,978.0	1,958.1	19.90	99.421		
5,100.0	4,877.7	4,621.9	4,570.2	30.5	0.0	165.82	-282.0	-709.6	2,025.1	2,004.8	20.28	99.844		

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 19-18-4NXH
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 19-18-4NXH	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									
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	4,971.7	4,710.1	4,657.1	31.2	0.0	165.83	-288.9	-723.0	2,072.1	2,051.4	20.67	100.245	
5,300.0	5,065.8	4,798.4	4,744.1	31.9	0.0	165.84	-295.8	-736.4	2,119.2	2,098.1	21.06	100.627	
5,400.0	5,159.8	4,886.6	4,831.0	32.7	0.0	165.85	-302.8	-749.9	2,166.2	2,144.7	21.45	100.990	
5,500.0	5,253.9	4,974.8	4,917.9	33.4	0.0	165.85	-309.7	-763.3	2,213.2	2,191.4	21.84	101.335	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-0.9	-179.9	180.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-0.9	-179.9	180.0	179.4	0.55	325.073		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-0.9	-179.9	180.0	178.4	1.60	112.813		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-0.9	-179.9	180.0	177.5	2.45	73.501		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-0.9	-179.9	180.0	176.7	3.24	55.609		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-0.9	-179.9	180.0	176.0	4.00	45.019		
600.0	600.0	600.0	600.0	2.7	2.7	-90.29	-0.9	-179.9	180.0	175.2	4.74	37.928		
700.0	700.0	700.0	700.0	3.1	3.1	-90.29	-0.9	-179.9	180.0	174.5	5.48	32.815 CC, ES		
800.0	800.0	794.5	794.4	3.5	3.4	166.30	-1.5	-181.4	183.2	176.7	6.47	28.287		
900.0	899.8	888.3	888.2	4.2	4.2	166.05	-3.4	-185.6	192.8	184.5	8.26	23.350		
1,000.0	999.5	981.1	980.6	5.0	5.0	165.68	-6.5	-192.6	208.7	198.9	9.77	21.352		
1,100.0	1,098.7	1,072.1	1,071.1	5.8	5.7	165.24	-10.6	-202.0	230.9	219.8	11.09	20.812 SF		
1,200.0	1,197.5	1,161.0	1,159.0	6.5	6.3	164.76	-15.8	-213.8	259.1	246.8	12.27	21.124		
1,300.0	1,295.6	1,247.3	1,244.0	7.1	6.8	164.28	-21.9	-227.6	293.2	280.0	13.25	22.139		
1,400.0	1,393.1	1,336.5	1,331.4	7.7	7.1	163.84	-29.0	-243.8	332.5	318.5	14.01	23.726		
1,500.0	1,489.6	1,427.0	1,420.1	8.3	7.3	163.55	-36.3	-260.3	375.0	360.3	14.74	25.447		
1,600.0	1,585.3	1,516.1	1,507.4	8.8	7.5	163.40	-43.5	-276.6	420.5	405.0	15.46	27.191		
1,700.0	1,679.8	1,603.6	1,593.1	9.3	7.8	163.35	-50.5	-292.6	468.9	452.8	16.15	29.037		
1,800.0	1,773.9	1,690.3	1,678.1	9.5	8.0	163.60	-57.5	-308.4	518.6	501.9	16.68	31.096		
1,900.0	1,867.9	1,777.1	1,763.1	9.8	8.3	163.81	-64.5	-324.3	568.3	551.1	17.23	32.988		
2,000.0	1,962.0	1,863.8	1,848.1	10.1	8.6	163.99	-71.5	-340.1	618.0	600.2	17.79	34.735		
2,100.0	2,056.0	1,950.6	1,933.1	10.5	8.9	164.14	-78.4	-355.9	667.7	649.3	18.37	36.348		
2,200.0	2,150.1	2,037.3	2,018.2	10.9	9.2	164.27	-85.4	-371.8	717.4	698.5	18.96	37.838		
2,300.0	2,244.1	2,124.1	2,103.2	11.3	9.5	164.38	-92.4	-387.6	767.1	747.6	19.56	39.216		
2,400.0	2,338.2	2,210.9	2,188.2	11.8	9.8	164.48	-99.4	-403.5	816.9	796.7	20.17	40.491		
2,500.0	2,432.3	2,297.6	2,273.2	12.4	10.1	164.56	-106.3	-419.3	866.6	845.8	20.80	41.672		
2,600.0	2,526.3	2,384.4	2,358.2	13.0	10.4	164.64	-113.3	-435.2	916.3	894.9	21.43	42.766		
2,700.0	2,620.4	2,471.1	2,443.2	13.7	10.8	164.71	-120.3	-451.0	966.0	943.9	22.06	43.782		
2,800.0	2,714.4	2,557.9	2,528.2	14.3	11.1	164.78	-127.3	-466.8	1,015.7	993.0	22.71	44.726		
2,900.0	2,808.5	2,644.6	2,613.3	15.0	11.5	164.83	-134.2	-482.7	1,065.5	1,042.1	23.36	45.606		
3,000.0	2,902.5	2,731.4	2,698.3	15.7	11.9	164.88	-141.2	-498.5	1,115.2	1,091.2	24.02	46.425		
3,100.0	2,996.6	2,818.2	2,783.3	16.4	12.3	164.93	-148.2	-514.4	1,164.9	1,140.2	24.69	47.190		
3,200.0	3,090.6	2,904.9	2,868.3	17.1	12.6	164.98	-155.2	-530.2	1,214.6	1,189.3	25.36	47.904		
3,300.0	3,184.7	2,991.7	2,953.3	17.7	13.0	165.02	-162.2	-546.0	1,264.3	1,238.3	26.03	48.573		
3,400.0	3,278.7	3,078.4	3,038.3	18.4	13.5	165.05	-169.1	-561.9	1,314.1	1,287.4	26.71	49.199		
3,500.0	3,372.8	3,165.2	3,123.3	19.1	13.9	165.09	-176.1	-577.7	1,363.8	1,336.4	27.39	49.786		
3,600.0	3,466.9	3,251.9	3,208.3	19.8	14.3	165.12	-183.1	-593.6	1,413.5	1,385.4	28.08	50.338		
3,700.0	3,560.9	3,338.7	3,293.4	20.6	14.7	165.15	-190.1	-609.4	1,463.3	1,434.5	28.77	50.857		
3,800.0	3,655.0	3,425.5	3,378.4	21.3	15.1	165.18	-197.0	-625.3	1,513.0	1,483.5	29.47	51.345		
3,900.0	3,749.0	3,512.2	3,463.4	22.0	15.5	165.20	-204.0	-641.1	1,562.7	1,532.5	30.16	51.806		
4,000.0	3,843.1	3,599.0	3,548.4	22.7	15.9	165.23	-211.0	-656.9	1,612.4	1,581.6	30.87	52.240		
4,100.0	3,937.1	3,685.7	3,633.4	23.4	16.4	165.25	-218.0	-672.8	1,662.2	1,630.6	31.57	52.651		
4,200.0	4,031.2	3,772.5	3,718.4	24.1	16.8	165.27	-224.9	-688.6	1,711.9	1,679.6	32.28	53.039		
4,300.0	4,125.2	3,859.3	3,803.4	24.8	17.2	165.29	-231.9	-704.5	1,761.6	1,728.6	32.99	53.406		
4,400.0	4,219.3	3,946.0	3,888.4	25.5	17.6	165.31	-238.9	-720.3	1,811.3	1,777.6	33.70	53.754		
4,500.0	4,313.3	4,032.8	3,973.5	26.2	18.1	165.33	-245.9	-736.2	1,861.1	1,826.7	34.41	54.085		
4,600.0	4,407.4	4,119.5	4,058.5	26.9	18.5	165.35	-252.9	-752.0	1,910.8	1,875.7	35.13	54.398		
4,700.0	4,501.5	4,206.3	4,143.5	27.6	18.9	165.36	-259.8	-767.8	1,960.5	1,924.7	35.84	54.696		
4,800.0	4,595.5	4,293.0	4,228.5	28.4	19.3	165.38	-266.8	-783.7	2,010.3	1,973.7	36.56	54.980		
4,900.0	4,689.6	4,379.8	4,313.5	29.1	19.8	165.39	-273.8	-799.5	2,060.0	2,022.7	37.28	55.250		
5,000.0	4,783.6	4,466.6	4,398.5	29.8	20.2	165.41	-280.8	-815.4	2,109.7	2,071.7	38.01	55.507		
5,100.0	4,877.7	4,553.3	4,483.5	30.5	20.6	165.42	-287.7	-831.2	2,159.4	2,120.7	38.73	55.752		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	4,640.1	4,568.6	31.2	21.1	165.43	-294.7	-847.0	2,209.2	2,169.7	39.46	55.986	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.30	-0.7	-134.9	134.9					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.7	-134.9	134.9	134.7	0.28	487.182		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.7	-134.9	134.9	134.2	0.80	169.152		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.7	-134.9	134.9	133.7	1.22	110.218		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.7	-134.9	134.9	133.3	1.62	83.391		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.7	-134.9	134.9	132.9	2.00	67.513		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.7	-134.9	134.9	132.6	2.37	56.879		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.7	-134.9	134.9	132.2	2.74	49.212 CC, ES		
800.0	800.0	800.0	800.0	3.5	0.0	166.54	-0.7	-134.9	136.6	133.3	3.33	41.021		
900.0	899.8	899.8	899.8	4.2	0.0	167.01	-0.7	-134.9	141.7	137.5	4.19	33.823		
1,000.0	999.5	999.5	999.5	5.0	0.0	167.72	-0.7	-134.9	150.2	145.3	4.94	30.431		
1,100.0	1,098.7	1,095.6	1,095.6	5.8	0.0	168.09	-2.0	-135.9	163.1	157.5	5.61	29.086 SF		
1,200.0	1,197.5	1,190.7	1,190.6	6.5	0.0	167.75	-5.8	-138.7	181.2	175.0	6.21	29.184		
1,300.0	1,295.6	1,284.6	1,284.1	7.1	0.0	166.90	-12.1	-143.3	204.5	197.8	6.75	30.289		
1,400.0	1,393.1	1,380.7	1,379.8	7.7	0.0	166.09	-19.6	-148.7	231.9	224.7	7.27	31.901		
1,500.0	1,489.6	1,475.9	1,474.5	8.3	0.0	165.60	-27.0	-154.2	262.6	254.8	7.77	33.790		
1,600.0	1,585.3	1,570.0	1,568.2	8.8	0.0	165.33	-34.4	-159.5	296.4	288.2	8.26	35.888		
1,700.0	1,679.8	1,662.9	1,660.6	9.3	0.0	165.24	-41.6	-164.8	333.5	324.8	8.70	38.325		
1,800.0	1,773.9	1,755.2	1,752.6	9.5	0.0	165.38	-48.8	-170.0	371.8	362.9	8.96	41.478		
1,900.0	1,867.9	1,847.6	1,844.5	9.8	0.0	165.49	-56.0	-175.3	410.2	400.9	9.25	44.368		
2,000.0	1,962.0	1,939.9	1,936.4	10.1	0.0	165.59	-63.2	-180.6	448.6	439.0	9.54	47.039		
2,100.0	2,056.0	2,032.3	2,028.3	10.5	0.0	165.67	-70.4	-185.8	486.9	477.1	9.84	49.505		
2,200.0	2,150.1	2,124.6	2,120.2	10.9	0.0	165.73	-77.6	-191.1	525.3	515.1	10.14	51.782		
2,300.0	2,244.1	2,217.0	2,212.1	11.3	0.0	165.79	-84.8	-196.3	563.7	553.2	10.46	53.883		
2,400.0	2,338.2	2,309.3	2,304.0	11.8	0.0	165.84	-92.0	-201.6	602.0	591.2	10.78	55.824		
2,500.0	2,432.3	2,401.6	2,396.0	12.4	0.0	165.89	-99.2	-206.8	640.4	629.3	11.11	57.618		
2,600.0	2,526.3	2,494.0	2,487.9	13.0	0.0	165.93	-106.4	-212.1	678.8	667.3	11.45	59.277		
2,700.0	2,620.4	2,586.3	2,579.8	13.7	0.0	165.96	-113.6	-217.3	717.1	705.3	11.79	60.812		
2,800.0	2,714.4	2,678.7	2,671.7	14.3	0.0	165.99	-120.8	-222.6	755.5	743.4	12.14	62.235		
2,900.0	2,808.5	2,771.0	2,763.6	15.0	0.0	166.02	-128.0	-227.9	793.9	781.4	12.49	63.554		
3,000.0	2,902.5	2,863.4	2,855.5	15.7	0.0	166.05	-135.2	-233.1	832.2	819.4	12.85	64.779		
3,100.0	2,996.6	2,955.7	2,947.4	16.4	0.0	166.07	-142.4	-238.4	870.6	857.4	13.21	65.918		
3,200.0	3,090.6	3,048.1	3,039.4	17.1	0.0	166.09	-149.6	-243.6	909.0	895.4	13.57	66.979		
3,300.0	3,184.7	3,140.4	3,131.3	17.7	0.0	166.11	-156.8	-248.9	947.4	933.4	13.94	67.967		
3,400.0	3,278.7	3,232.7	3,223.2	18.4	0.0	166.13	-164.0	-254.1	985.7	971.4	14.31	68.889		
3,500.0	3,372.8	3,325.1	3,315.1	19.1	0.0	166.15	-171.2	-259.4	1,024.1	1,009.4	14.68	69.751		
3,600.0	3,466.9	3,417.4	3,407.0	19.8	0.0	166.17	-178.4	-264.6	1,062.5	1,047.4	15.06	70.557		
3,700.0	3,560.9	3,509.8	3,498.9	20.6	0.0	166.18	-185.6	-269.9	1,100.8	1,085.4	15.44	71.312		
3,800.0	3,655.0	3,602.1	3,590.8	21.3	0.0	166.19	-192.8	-275.1	1,139.2	1,123.4	15.82	72.020		
3,900.0	3,749.0	3,694.5	3,682.7	22.0	0.0	166.21	-200.0	-280.4	1,177.6	1,161.4	16.20	72.685		
4,000.0	3,843.1	3,786.8	3,774.7	22.7	0.0	166.22	-207.2	-285.7	1,216.0	1,199.4	16.59	73.310		
4,100.0	3,937.1	3,879.2	3,866.6	23.4	0.0	166.23	-214.4	-290.9	1,254.3	1,237.4	16.97	73.898		
4,200.0	4,031.2	3,971.5	3,958.5	24.1	0.0	166.24	-221.6	-296.2	1,292.7	1,275.3	17.36	74.452		
4,300.0	4,125.2	4,063.8	4,050.4	24.8	0.0	166.25	-228.8	-301.4	1,331.1	1,313.3	17.75	74.975		
4,400.0	4,219.3	4,156.2	4,142.3	25.5	0.0	166.26	-236.0	-306.7	1,369.4	1,351.3	18.15	75.468		
4,500.0	4,313.3	4,248.5	4,234.2	26.2	0.0	166.27	-243.2	-311.9	1,407.8	1,389.3	18.54	75.934		
4,600.0	4,407.4	4,340.9	4,326.1	26.9	0.0	166.28	-250.4	-317.2	1,446.2	1,427.2	18.94	76.375		
4,700.0	4,501.5	4,433.2	4,418.1	27.6	0.0	166.29	-257.6	-322.4	1,484.6	1,465.2	19.33	76.793		
4,800.0	4,595.5	4,525.6	4,510.0	28.4	0.0	166.29	-264.8	-327.7	1,522.9	1,503.2	19.73	77.189		
4,900.0	4,689.6	4,617.9	4,601.9	29.1	0.0	166.30	-272.0	-332.9	1,561.3	1,541.2	20.13	77.564		
5,000.0	4,783.6	4,710.3	4,693.8	29.8	0.0	166.31	-279.2	-338.2	1,599.7	1,579.1	20.53	77.921		
5,100.0	4,877.7	4,802.6	4,785.7	30.5	0.0	166.31	-286.4	-343.5	1,638.0	1,617.1	20.93	78.259		

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 19-18-4NXH
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 19-18-4NXH	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									
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	4,971.7	4,895.0	4,877.6	31.2	0.0	166.32	-293.6	-348.7	1,676.4	1,655.1	21.33	78.582	
5,300.0	5,065.8	4,987.3	4,969.5	31.9	0.0	166.33	-300.8	-354.0	1,714.8	1,693.0	21.74	78.888	
5,400.0	5,159.8	5,079.6	5,061.5	32.7	0.0	166.33	-308.0	-359.2	1,753.2	1,731.0	22.14	79.180	
5,500.0	5,253.9	5,172.0	5,153.4	33.4	0.0	166.34	-315.2	-364.5	1,791.5	1,769.0	22.55	79.459	
5,600.0	5,347.9	5,264.3	5,245.3	34.1	0.0	166.34	-322.4	-369.7	1,829.9	1,806.9	22.95	79.724	
5,700.0	5,442.0	5,356.7	5,337.2	34.8	0.0	166.35	-329.6	-375.0	1,868.3	1,844.9	23.36	79.978	
5,800.0	5,536.1	5,449.0	5,429.1	35.5	0.0	166.35	-336.8	-380.2	1,906.6	1,882.9	23.77	80.220	
5,900.0	5,630.1	5,541.4	5,521.0	36.2	0.0	166.36	-344.0	-385.5	1,945.0	1,920.8	24.18	80.451	
6,000.0	5,724.2	5,633.7	5,612.9	37.0	0.0	166.36	-351.3	-390.7	1,983.4	1,958.8	24.59	80.673	
6,100.0	5,818.2	5,726.1	5,704.8	37.7	0.0	166.37	-358.5	-396.0	2,021.8	1,996.8	25.00	80.885	
6,200.0	5,912.3	5,818.4	5,796.8	38.4	0.0	166.37	-365.7	-401.3	2,060.1	2,034.7	25.41	81.087	
6,300.0	6,006.3	5,910.7	5,888.7	39.1	0.0	166.37	-372.9	-406.5	2,098.5	2,072.7	25.82	81.282	
6,400.0	6,100.4	6,003.1	5,980.6	39.8	0.0	166.38	-380.1	-411.8	2,136.9	2,110.6	26.23	81.468	
6,500.0	6,194.4	6,095.4	6,072.5	40.5	0.0	166.38	-387.3	-417.0	2,175.2	2,148.6	26.64	81.646	
6,600.0	6,288.5	6,187.8	6,164.4	41.3	0.0	166.39	-394.5	-422.3	2,213.6	2,186.6	27.06	81.817	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.28	-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	89.7	0.28	324.884		
200.0	200.0	200.0	200.0	1.0	0.0	-90.28	-0.4	-90.0	90.0	89.2	0.80	112.798		
300.0	300.0	300.0	300.0	1.5	0.0	-90.28	-0.4	-90.0	90.0	88.8	1.22	73.496		
400.0	400.0	400.0	400.0	1.9	0.0	-90.28	-0.4	-90.0	90.0	88.4	1.62	55.607		
500.0	500.0	500.0	500.0	2.3	0.0	-90.28	-0.4	-90.0	90.0	88.0	2.00	45.018		
600.0	600.0	600.0	600.0	2.7	0.0	-90.28	-0.4	-90.0	90.0	87.6	2.37	37.927		
700.0	700.0	700.0	700.0	3.1	0.0	-90.28	-0.4	-90.0	90.0	87.2	2.74	32.814	CC, ES	
800.0	800.0	800.0	800.0	3.5	0.0	166.64	-0.4	-90.0	91.7	88.3	3.33	27.528		
900.0	899.8	899.8	899.8	4.2	0.0	167.34	-0.4	-90.0	96.8	92.6	4.19	23.089		
1,000.0	999.5	999.5	999.5	5.0	0.0	168.34	-0.4	-90.0	105.3	100.4	4.94	21.301		
1,100.0	1,098.7	1,098.7	1,098.7	5.8	0.0	169.50	-0.4	-90.0	117.3	111.6	5.63	20.818		
1,200.0	1,197.5	1,197.5	1,197.5	6.5	0.0	170.68	-0.4	-90.0	132.7	126.4	6.28	21.132		
1,300.0	1,295.6	1,295.6	1,295.6	7.1	0.0	171.79	-0.4	-90.0	151.5	144.6	6.89	21.995		
1,400.0	1,393.1	1,397.1	1,397.0	7.7	0.0	172.43	-1.8	-89.0	172.8	165.3	7.48	23.110		
1,500.0	1,489.6	1,499.0	1,498.8	8.3	0.0	172.26	-6.0	-85.8	195.0	187.0	8.02	24.306		
1,600.0	1,585.3	1,601.2	1,600.6	8.8	0.0	171.51	-13.1	-80.5	218.3	209.8	8.54	25.567		
1,700.0	1,679.8	1,698.2	1,697.1	9.3	0.0	170.70	-21.4	-74.3	243.7	234.7	8.98	27.136		
1,800.0	1,773.9	1,794.5	1,792.8	9.5	0.0	170.16	-29.7	-68.1	270.5	261.3	9.22	29.327		
1,900.0	1,867.9	1,890.8	1,888.6	9.8	0.0	169.71	-37.9	-61.9	297.3	287.8	9.49	31.323		
2,000.0	1,962.0	1,987.1	1,984.3	10.1	0.0	169.34	-46.2	-55.7	324.2	314.4	9.78	33.164		
2,100.0	2,056.0	2,083.4	2,080.1	10.5	0.0	169.03	-54.4	-49.5	351.0	341.0	10.07	34.857		
2,200.0	2,150.1	2,179.7	2,175.8	10.9	0.0	168.76	-62.7	-43.3	377.9	367.5	10.38	36.415		
2,300.0	2,244.1	2,276.0	2,271.6	11.3	0.0	168.52	-70.9	-37.1	404.8	394.1	10.70	37.847		
2,400.0	2,338.2	2,372.3	2,367.3	11.8	0.0	168.32	-79.2	-30.9	431.7	420.7	11.02	39.164		
2,500.0	2,432.3	2,468.6	2,463.1	12.4	0.0	168.14	-87.4	-24.8	458.6	447.2	11.36	40.376		
2,600.0	2,526.3	2,565.0	2,558.9	13.0	0.0	167.98	-95.7	-18.6	485.5	473.8	11.70	41.492		
2,700.0	2,620.4	2,661.3	2,654.6	13.7	0.0	167.83	-104.0	-12.4	512.4	500.3	12.05	42.519		
2,800.0	2,714.4	2,757.6	2,750.4	14.3	0.0	167.70	-112.2	-6.2	539.2	526.8	12.41	43.467		
2,900.0	2,808.5	2,853.9	2,846.1	15.0	0.0	167.59	-120.5	0.0	566.1	553.4	12.77	44.342		
3,000.0	2,902.5	2,950.2	2,941.9	15.7	0.0	167.48	-128.7	6.2	593.0	579.9	13.13	45.151		
3,100.0	2,996.6	3,046.5	3,037.6	16.4	0.0	167.38	-137.0	12.4	620.0	606.4	13.51	45.900		
3,200.0	3,090.6	3,142.8	3,133.4	17.1	0.0	167.29	-145.2	18.6	646.9	633.0	13.88	46.594		
3,300.0	3,184.7	3,239.1	3,229.1	17.7	0.0	167.21	-153.5	24.7	673.8	659.5	14.26	47.238		
3,400.0	3,278.7	3,335.4	3,324.9	18.4	0.0	167.14	-161.7	30.9	700.7	686.0	14.65	47.836		
3,500.0	3,372.8	3,431.7	3,420.6	19.1	0.0	167.06	-170.0	37.1	727.6	712.5	15.03	48.393		
3,600.0	3,466.9	3,528.0	3,516.4	19.8	0.0	167.00	-178.2	43.3	754.5	739.1	15.43	48.912		
3,700.0	3,560.9	3,624.3	3,612.1	20.6	0.0	166.94	-186.5	49.5	781.4	765.6	15.82	49.396		
3,800.0	3,655.0	3,720.7	3,707.9	21.3	0.0	166.88	-194.8	55.7	808.3	792.1	16.22	49.848		
3,900.0	3,749.0	3,817.0	3,803.7	22.0	0.0	166.83	-203.0	61.9	835.2	818.6	16.61	50.271		
4,000.0	3,843.1	3,913.3	3,899.4	22.7	0.0	166.78	-211.3	68.1	862.1	845.1	17.02	50.667		
4,100.0	3,937.1	4,009.6	3,995.2	23.4	0.0	166.73	-219.5	74.3	889.0	871.6	17.42	51.039		
4,200.0	4,031.2	4,105.9	4,090.9	24.1	0.0	166.69	-227.8	80.4	916.0	898.1	17.82	51.388		
4,300.0	4,125.2	4,202.2	4,186.7	24.8	0.0	166.65	-236.0	86.6	942.9	924.6	18.23	51.716		
4,400.0	4,219.3	4,298.5	4,282.4	25.5	0.0	166.61	-244.3	92.8	969.8	951.1	18.64	52.025		
4,500.0	4,313.3	4,394.8	4,378.2	26.2	0.0	166.57	-252.5	99.0	996.7	977.6	19.05	52.316		
4,600.0	4,407.4	4,491.1	4,473.9	26.9	0.0	166.54	-260.8	105.2	1,023.6	1,004.1	19.46	52.590		
4,700.0	4,501.5	4,587.4	4,569.7	27.6	0.0	166.50	-269.0	111.4	1,050.5	1,030.6	19.88	52.849		
4,800.0	4,595.5	4,683.7	4,665.4	28.4	0.0	166.47	-277.3	117.6	1,077.4	1,057.1	20.29	53.094		
4,900.0	4,689.6	4,780.0	4,761.2	29.1	0.0	166.44	-285.6	123.8	1,104.4	1,083.6	20.71	53.326		
5,000.0	4,783.6	4,876.3	4,856.9	29.8	0.0	166.41	-293.8	129.9	1,131.3	1,110.1	21.13	53.545		
5,100.0	4,877.7	4,972.7	4,952.7	30.5	0.0	166.39	-302.1	136.1	1,158.2	1,136.6	21.55	53.754		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,069.0	5,048.5	31.2	0.0	166.36	-310.3	142.3	1,185.1	1,163.1	21.97	53.951		
5,300.0	5,065.8	5,165.3	5,144.2	31.9	0.0	166.33	-318.6	148.5	1,212.0	1,189.6	22.39	54.139		
5,400.0	5,159.8	5,261.6	5,240.0	32.7	0.0	166.31	-326.8	154.7	1,238.9	1,216.1	22.81	54.317		
5,500.0	5,253.9	5,357.9	5,335.7	33.4	0.0	166.29	-335.1	160.9	1,265.9	1,242.6	23.23	54.487		
5,600.0	5,347.9	5,454.2	5,431.5	34.1	0.0	166.27	-343.3	167.1	1,292.8	1,269.1	23.66	54.648		
5,700.0	5,442.0	5,550.5	5,527.2	34.8	0.0	166.25	-351.6	173.3	1,319.7	1,295.6	24.08	54.802		
5,800.0	5,536.1	5,646.8	5,623.0	35.5	0.0	166.22	-359.8	179.4	1,346.6	1,322.1	24.51	54.949		
5,900.0	5,630.1	5,743.1	5,718.7	36.2	0.0	166.21	-368.1	185.6	1,373.5	1,348.6	24.93	55.089		
6,000.0	5,724.2	5,839.4	5,814.5	37.0	0.0	166.19	-376.4	191.8	1,400.4	1,375.1	25.36	55.223		
6,100.0	5,818.2	5,935.7	5,910.2	37.7	0.0	166.17	-384.6	198.0	1,427.4	1,401.6	25.79	55.351		
6,200.0	5,912.3	6,032.0	6,006.0	38.4	0.0	166.15	-392.9	204.2	1,454.3	1,428.1	26.22	55.473		
6,300.0	6,006.3	6,128.4	6,101.7	39.1	0.0	166.14	-401.1	210.4	1,481.2	1,454.6	26.64	55.590		
6,400.0	6,100.4	6,224.7	6,197.5	39.8	0.0	166.12	-409.4	216.6	1,508.1	1,481.0	27.07	55.702		
6,500.0	6,194.4	6,321.0	6,293.3	40.5	0.0	166.10	-417.6	222.8	1,535.0	1,507.5	27.50	55.810		
6,600.0	6,288.5	6,417.3	6,389.0	41.3	0.0	166.09	-425.9	229.0	1,562.0	1,534.0	27.94	55.913		
6,700.0	6,382.5	6,513.6	6,484.8	42.0	0.0	166.07	-434.1	235.1	1,588.9	1,560.5	28.37	56.011		
6,800.0	6,476.6	6,609.9	6,580.5	42.7	0.0	166.06	-442.4	241.3	1,615.8	1,587.0	28.80	56.106		
6,900.0	6,570.7	6,706.2	6,676.3	43.4	0.0	166.05	-450.7	247.5	1,642.7	1,613.5	29.23	56.197		
7,000.0	6,664.8	6,802.5	6,772.0	44.1	0.0	176.47	-458.9	253.7	1,669.6	1,640.0	29.66	56.290		
7,100.0	6,758.8	6,897.8	6,867.0	44.9	0.0	-154.03	-460.6	259.8	1,696.5	1,666.5	30.08	56.402		
7,200.0	6,850.3	6,994.6	6,962.4	45.5	0.0	-132.62	-446.2	265.8	1,722.8	1,692.2	30.60	56.308		
7,300.0	6,936.6	7,093.4	7,056.0	45.9	0.0	-119.06	-415.1	271.5	1,747.5	1,716.5	31.08	56.227		
7,400.0	7,014.9	7,194.8	7,144.9	46.3	0.0	-110.31	-367.1	276.8	1,770.1	1,738.7	31.44	56.294		
7,500.0	7,083.0	7,298.9	7,226.0	46.6	0.0	-104.44	-302.1	281.4	1,789.8	1,758.1	31.71	56.445		
7,600.0	7,138.7	7,405.9	7,295.7	46.8	0.0	-100.46	-221.3	285.2	1,806.0	1,774.1	31.92	56.583		
7,700.0	7,180.3	7,515.5	7,350.4	46.9	0.0	-97.85	-126.5	287.9	1,818.2	1,786.0	32.11	56.620		
7,800.0	7,206.7	7,627.3	7,386.5	47.0	0.0	-96.34	-21.0	289.4	1,825.9	1,793.6	32.33	56.483		
7,900.0	7,216.9	7,740.4	7,401.6	47.0	0.0	-95.81	91.0	289.4	1,828.9	1,796.3	32.59	56.127		
8,000.0	7,217.0	7,842.9	7,402.0	47.0	0.0	-95.81	193.4	288.6	1,829.0	1,796.1	32.87	55.641		
8,100.0	7,217.0	7,942.9	7,402.0	47.0	0.0	-95.81	293.4	287.8	1,829.0	1,795.7	33.25	55.009		
8,200.0	7,217.0	8,042.9	7,402.0	47.1	0.0	-95.81	393.4	286.9	1,829.0	1,795.2	33.71	54.248		
8,300.0	7,217.0	8,142.9	7,402.0	47.2	0.0	-95.81	493.4	286.1	1,829.0	1,794.7	34.26	53.377		
8,400.0	7,217.0	8,242.9	7,402.0	47.4	0.0	-95.81	593.4	285.3	1,829.0	1,794.1	34.89	52.413		
8,500.0	7,217.0	8,342.9	7,402.0	47.6	0.0	-95.81	693.4	284.4	1,829.0	1,793.4	35.60	51.374		
8,600.0	7,217.0	8,442.9	7,402.0	47.9	0.0	-95.81	793.4	283.6	1,829.0	1,792.6	36.38	50.276		
8,700.0	7,217.0	8,542.9	7,402.0	48.2	0.0	-95.81	893.4	282.8	1,829.0	1,791.7	37.22	49.136		
8,800.0	7,217.0	8,642.9	7,402.0	48.6	0.0	-95.81	993.4	282.0	1,829.0	1,790.8	38.13	47.967		
8,900.0	7,217.0	8,742.9	7,402.0	49.0	0.0	-95.81	1,093.4	281.1	1,829.0	1,789.9	39.09	46.784		
9,000.0	7,217.0	8,842.9	7,402.0	49.6	0.0	-95.81	1,193.4	280.3	1,829.0	1,788.8	40.11	45.595		
9,100.0	7,217.0	8,942.9	7,402.0	50.1	0.0	-95.81	1,293.4	279.5	1,829.0	1,787.8	41.18	44.412		
9,200.0	7,217.0	9,042.9	7,402.0	50.8	0.0	-95.81	1,393.4	278.7	1,829.0	1,786.7	42.30	43.242		
9,300.0	7,217.0	9,142.9	7,402.0	51.5	0.0	-95.81	1,493.4	277.8	1,829.0	1,785.5	43.45	42.090		
9,400.0	7,217.0	9,242.9	7,402.0	52.3	0.0	-95.81	1,593.4	277.0	1,829.0	1,784.3	44.65	40.962		
9,500.0	7,217.0	9,342.9	7,402.0	53.1	0.0	-95.81	1,693.4	276.2	1,829.0	1,783.1	45.88	39.861		
9,600.0	7,217.0	9,442.9	7,402.0	54.0	0.0	-95.81	1,793.4	275.4	1,829.0	1,781.8	47.15	38.791		
9,700.0	7,217.0	9,542.9	7,402.0	55.0	0.0	-95.81	1,893.4	274.5	1,829.0	1,780.5	48.45	37.752		
9,800.0	7,217.0	9,642.9	7,402.0	56.0	0.0	-95.81	1,993.4	273.7	1,829.0	1,779.2	49.77	36.747		
9,900.0	7,217.0	9,742.9	7,402.0	57.1	0.0	-95.81	2,093.4	272.9	1,829.0	1,777.8	51.12	35.776		
10,000.0	7,217.0	9,842.9	7,402.0	58.2	0.0	-95.81	2,193.4	272.0	1,829.0	1,776.5	52.50	34.838		
10,100.0	7,217.0	9,942.9	7,402.0	59.4	0.0	-95.81	2,293.4	271.2	1,829.0	1,775.1	53.90	33.935		
10,200.0	7,217.0	10,042.9	7,402.0	60.6	0.0	-95.81	2,393.4	270.4	1,829.0	1,773.6	55.31	33.064		
10,300.0	7,217.0	10,142.9	7,402.0	61.8	0.0	-95.81	2,493.4	269.6	1,829.0	1,772.2	56.75	32.227		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,242.9	7,402.0	63.1	0.0	-95.81	2,593.4	268.7	1,829.0	1,770.7	58.21	31.421		
10,500.0	7,217.0	10,342.9	7,402.0	64.4	0.0	-95.81	2,693.4	267.9	1,829.0	1,769.3	59.68	30.647		
10,600.0	7,217.0	10,442.9	7,402.0	65.7	0.0	-95.81	2,793.4	267.1	1,829.0	1,767.8	61.17	29.902		
10,700.0	7,217.0	10,542.9	7,402.0	67.1	0.0	-95.81	2,893.3	266.3	1,828.9	1,766.3	62.67	29.186		
10,800.0	7,217.0	10,642.9	7,402.0	68.4	0.0	-95.81	2,993.3	265.4	1,828.9	1,764.8	64.18	28.497		
10,900.0	7,217.0	10,742.9	7,402.0	69.8	0.0	-95.81	3,093.3	264.6	1,828.9	1,763.2	65.71	27.836		
11,000.0	7,217.0	10,842.9	7,402.0	71.3	0.0	-95.81	3,193.3	263.8	1,828.9	1,761.7	67.24	27.199		
11,100.0	7,217.0	10,942.9	7,402.0	72.7	0.0	-95.81	3,293.3	263.0	1,828.9	1,760.2	68.79	26.587		
11,200.0	7,217.0	11,042.9	7,402.0	74.1	0.0	-95.81	3,393.3	262.1	1,828.9	1,758.6	70.35	25.998		
11,300.0	7,217.0	11,142.9	7,402.0	75.6	0.0	-95.81	3,493.3	261.3	1,828.9	1,757.0	71.92	25.432		
11,400.0	7,217.0	11,242.9	7,402.0	77.1	0.0	-95.81	3,593.3	260.5	1,828.9	1,755.5	73.49	24.887		
11,500.0	7,217.0	11,342.9	7,402.0	78.6	0.0	-95.81	3,693.3	259.7	1,828.9	1,753.9	75.08	24.362		
11,600.0	7,217.0	11,442.9	7,402.0	80.1	0.0	-95.81	3,793.3	258.8	1,828.9	1,752.3	76.67	23.856		
11,700.0	7,217.0	11,542.9	7,402.0	81.6	0.0	-95.81	3,893.3	258.0	1,828.9	1,750.7	78.27	23.369		
11,800.0	7,217.0	11,642.9	7,402.0	83.1	0.0	-95.81	3,993.3	257.2	1,828.9	1,749.1	79.87	22.899		
11,900.0	7,217.0	11,742.9	7,402.0	84.7	0.0	-95.81	4,093.3	256.3	1,828.9	1,747.5	81.48	22.446		
12,000.0	7,217.0	11,842.9	7,402.0	86.2	0.0	-95.81	4,193.3	255.5	1,828.9	1,745.8	83.10	22.009		
12,100.0	7,217.0	11,942.9	7,402.0	87.8	0.0	-95.81	4,293.3	254.7	1,828.9	1,744.2	84.72	21.587		
12,200.0	7,217.0	12,042.9	7,402.0	89.3	0.0	-95.81	4,393.3	253.9	1,828.9	1,742.6	86.35	21.180		
12,300.0	7,217.0	12,142.9	7,402.0	90.9	0.0	-95.81	4,493.3	253.0	1,828.9	1,741.0	87.99	20.787		
12,400.0	7,217.0	12,242.9	7,402.0	92.5	0.0	-95.81	4,593.3	252.2	1,828.9	1,739.3	89.62	20.407		
12,500.0	7,217.0	12,342.9	7,402.0	94.1	0.0	-95.81	4,693.3	251.4	1,828.9	1,737.7	91.27	20.040		
12,600.0	7,217.0	12,442.9	7,402.0	95.7	0.0	-95.81	4,793.3	250.6	1,828.9	1,736.0	92.91	19.684		
12,700.0	7,217.0	12,542.9	7,402.0	97.3	0.0	-95.81	4,893.3	249.7	1,828.9	1,734.4	94.56	19.341		
12,800.0	7,217.0	12,642.9	7,402.0	98.9	0.0	-95.81	4,993.3	248.9	1,828.9	1,732.7	96.22	19.008		
12,900.0	7,217.0	12,742.9	7,402.0	100.5	0.0	-95.81	5,093.3	248.1	1,828.9	1,731.1	97.88	18.686		
13,000.0	7,217.0	12,842.9	7,402.0	102.1	0.0	-95.81	5,193.3	247.3	1,828.9	1,729.4	99.54	18.374		
13,100.0	7,217.0	12,942.9	7,402.0	103.7	0.0	-95.81	5,293.3	246.4	1,828.9	1,727.7	101.20	18.072		
13,200.0	7,217.0	13,042.9	7,402.0	105.3	0.0	-95.81	5,393.3	245.6	1,828.9	1,726.1	102.87	17.779		
13,300.0	7,217.0	13,142.9	7,402.0	107.0	0.0	-95.81	5,493.3	244.8	1,828.9	1,724.4	104.54	17.495		
13,400.0	7,217.0	13,242.9	7,402.0	108.6	0.0	-95.81	5,593.3	243.9	1,828.9	1,722.7	106.22	17.219		
13,500.0	7,217.0	13,342.9	7,402.0	110.3	0.0	-95.81	5,693.3	243.1	1,828.9	1,721.0	107.89	16.951		
13,600.0	7,217.0	13,442.9	7,402.0	111.9	0.0	-95.81	5,793.2	242.3	1,828.9	1,719.4	109.57	16.691		
13,700.0	7,217.0	13,542.9	7,402.0	113.5	0.0	-95.81	5,893.2	241.5	1,828.9	1,717.7	111.26	16.439		
13,800.0	7,217.0	13,642.9	7,402.0	115.2	0.0	-95.81	5,993.2	240.6	1,828.9	1,716.0	112.94	16.194		
13,900.0	7,217.0	13,742.9	7,402.0	116.9	0.0	-95.81	6,093.2	239.8	1,828.9	1,714.3	114.63	15.956		
14,000.0	7,217.0	13,842.9	7,402.0	118.5	0.0	-95.81	6,193.2	239.0	1,828.9	1,712.6	116.31	15.724		
14,100.0	7,217.0	13,942.9	7,402.0	120.2	0.0	-95.81	6,293.2	238.2	1,828.9	1,710.9	118.00	15.499		
14,200.0	7,217.0	14,042.9	7,402.0	121.8	0.0	-95.81	6,393.2	237.3	1,828.9	1,709.2	119.70	15.280		
14,300.0	7,217.0	14,142.9	7,402.0	123.5	0.0	-95.81	6,493.2	236.5	1,828.9	1,707.5	121.39	15.067		
14,400.0	7,217.0	14,242.9	7,402.0	125.2	0.0	-95.81	6,593.2	235.7	1,828.9	1,705.8	123.09	14.859		
14,500.0	7,217.0	14,342.9	7,402.0	126.9	0.0	-95.81	6,693.2	234.9	1,828.9	1,704.2	124.78	14.657		
14,600.0	7,217.0	14,442.9	7,402.0	128.5	0.0	-95.81	6,793.2	234.0	1,828.9	1,702.5	126.48	14.460		
14,700.0	7,217.0	14,542.9	7,402.0	130.2	0.0	-95.81	6,893.2	233.2	1,828.9	1,700.7	128.19	14.268		
14,800.0	7,217.0	14,642.9	7,402.0	131.9	0.0	-95.81	6,993.2	232.4	1,828.9	1,699.0	129.89	14.081		
14,900.0	7,217.0	14,742.9	7,402.0	133.6	0.0	-95.81	7,093.2	231.6	1,828.9	1,697.3	131.59	13.899		
15,000.0	7,217.0	14,842.9	7,402.0	135.3	0.0	-95.81	7,193.2	230.7	1,828.9	1,695.6	133.30	13.721		
15,100.0	7,217.0	14,942.9	7,402.0	136.9	0.0	-95.81	7,293.2	229.9	1,828.9	1,693.9	135.00	13.547		
15,200.0	7,217.0	15,042.9	7,402.0	138.6	0.0	-95.81	7,393.2	229.1	1,828.9	1,692.2	136.71	13.378		
15,300.0	7,217.0	15,142.9	7,402.0	140.3	0.0	-95.81	7,493.2	228.2	1,828.9	1,690.5	138.42	13.213		
15,400.0	7,217.0	15,242.9	7,402.0	142.0	0.0	-95.81	7,593.2	227.4	1,828.9	1,688.8	140.13	13.051		
15,500.0	7,217.0	15,342.9	7,402.0	143.7	0.0	-95.81	7,693.2	226.6	1,828.9	1,687.1	141.84	12.894		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	15,442.9	7,402.0	145.4	0.0	-95.81	7,793.2	225.8	1,828.9	1,685.4	143.56	12.740		
15,700.0	7,217.0	15,542.9	7,402.0	147.1	0.0	-95.81	7,893.2	224.9	1,828.9	1,683.7	145.27	12.590		
15,800.0	7,217.0	15,642.9	7,402.0	148.8	0.0	-95.81	7,993.2	224.1	1,828.9	1,681.9	146.99	12.443		
15,900.0	7,217.0	15,742.9	7,402.0	150.5	0.0	-95.81	8,093.2	223.3	1,828.9	1,680.2	148.70	12.299		
16,000.0	7,217.0	15,842.9	7,402.0	152.2	0.0	-95.81	8,193.2	222.5	1,828.9	1,678.5	150.42	12.159		
16,100.0	7,217.0	15,942.9	7,402.0	153.9	0.0	-95.81	8,293.2	221.6	1,828.9	1,676.8	152.14	12.022		
16,200.0	7,217.0	16,042.9	7,402.0	155.6	0.0	-95.81	8,393.2	220.8	1,828.9	1,675.1	153.86	11.887		
16,300.0	7,217.0	16,142.9	7,402.0	157.3	0.0	-95.81	8,493.2	220.0	1,828.9	1,673.4	155.58	11.756		
16,400.0	7,217.0	16,242.9	7,402.0	159.0	0.0	-95.81	8,593.2	219.2	1,828.9	1,671.6	157.30	11.627		
16,500.0	7,217.0	16,342.9	7,402.0	160.7	0.0	-95.81	8,693.2	218.3	1,828.9	1,669.9	159.02	11.501		
16,600.0	7,217.0	16,442.9	7,402.0	162.4	0.0	-95.81	8,793.1	217.5	1,828.9	1,668.2	160.74	11.378		
16,700.0	7,217.0	16,542.9	7,402.0	164.1	0.0	-95.81	8,893.1	216.7	1,828.9	1,666.5	162.46	11.257		
16,800.0	7,217.0	16,642.9	7,402.0	165.9	0.0	-95.81	8,993.1	215.8	1,828.9	1,664.7	164.19	11.139		
16,900.0	7,217.0	16,742.9	7,402.0	167.6	0.0	-95.81	9,093.1	215.0	1,828.9	1,663.0	165.91	11.023		
17,000.0	7,217.0	16,842.9	7,402.0	169.3	0.0	-95.81	9,193.1	214.2	1,828.9	1,661.3	167.64	10.910		
17,100.0	7,217.0	16,942.9	7,402.0	171.0	0.0	-95.81	9,293.1	213.4	1,828.9	1,659.6	169.36	10.799		
17,200.0	7,217.0	17,042.9	7,402.0	172.7	0.0	-95.81	9,393.1	212.5	1,828.9	1,657.8	171.09	10.690		
17,300.0	7,217.0	17,142.9	7,402.0	174.4	0.0	-95.81	9,493.1	211.7	1,828.9	1,656.1	172.82	10.583		
17,400.0	7,217.0	17,242.9	7,402.0	176.2	0.0	-95.81	9,593.1	210.9	1,828.9	1,654.4	174.54	10.478		
17,500.0	7,217.0	17,342.9	7,402.0	177.9	0.0	-95.81	9,693.1	210.1	1,828.9	1,652.7	176.27	10.375		
17,600.0	7,217.0	17,442.9	7,402.0	179.6	0.0	-95.81	9,793.1	209.2	1,828.9	1,650.9	178.00	10.275		
17,700.0	7,217.0	17,542.9	7,402.0	181.3	0.0	-95.81	9,893.1	208.4	1,828.9	1,649.2	179.73	10.176		
17,708.2	7,217.0	17,551.0	7,402.0	181.5	0.0	-95.81	9,901.3	208.3	1,828.9	1,649.1	179.87	10.168		
17,723.1	7,217.0	17,551.4	7,402.0	181.7	0.0	-95.81	9,901.7	208.3	1,829.0	1,649.1	179.93	10.165 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-0.5	-105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-0.5	-105.0	105.0	104.4	0.55	189.630		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-0.5	-105.0	105.0	103.4	1.60	65.809		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-0.5	-105.0	105.0	102.5	2.45	42.877		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-0.5	-105.0	105.0	101.7	3.24	32.439		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-0.5	-105.0	105.0	101.0	4.00	26.262		
600.0	600.0	600.0	600.0	2.7	2.7	-90.29	-0.5	-105.0	105.0	100.2	4.74	22.125		
700.0	700.0	700.0	700.0	3.1	3.1	-90.29	-0.5	-105.0	105.0	99.5	5.48	19.142 CC, ES		
800.0	800.0	800.0	800.0	3.5	3.5	166.59	-0.5	-105.0	106.7	100.2	6.44	16.574		
900.0	899.8	899.8	899.8	4.2	3.9	167.19	-0.5	-105.0	111.8	104.1	7.65	14.606		
1,000.0	999.5	999.5	999.5	5.0	4.2	168.08	-0.5	-105.0	120.3	111.5	8.75	13.746		
1,100.0	1,098.7	1,098.7	1,098.7	5.8	4.6	169.12	-0.5	-105.0	132.2	122.5	9.78	13.521		
1,200.0	1,197.5	1,197.5	1,197.5	6.5	5.0	170.22	-0.5	-105.0	147.6	136.9	10.76	13.716		
1,300.0	1,295.6	1,296.4	1,296.4	7.1	5.3	170.72	-2.2	-104.9	166.2	154.6	11.67	14.248		
1,400.0	1,393.1	1,394.9	1,394.8	7.7	5.9	170.22	-7.2	-104.5	187.7	175.2	12.53	14.987		
1,500.0	1,489.6	1,492.2	1,491.8	8.3	6.3	169.18	-14.9	-104.0	212.3	198.9	13.35	15.896		
1,600.0	1,585.3	1,588.2	1,587.4	8.8	6.6	168.41	-22.9	-103.4	240.1	225.9	14.17	16.937		
1,700.0	1,679.8	1,683.3	1,682.1	9.3	6.9	167.93	-30.8	-102.9	271.2	256.2	14.95	18.139		
1,800.0	1,773.9	1,777.8	1,776.4	9.5	7.2	167.70	-38.6	-102.3	303.6	288.1	15.54	19.542		
1,900.0	1,867.9	1,872.4	1,870.6	9.8	7.5	167.53	-46.5	-101.8	336.1	320.0	16.15	20.810		
2,000.0	1,962.0	1,967.0	1,964.9	10.1	7.8	167.38	-54.3	-101.3	368.6	351.9	16.78	21.966		
2,100.0	2,056.0	2,061.5	2,059.1	10.5	8.2	167.25	-62.2	-100.7	401.1	383.7	17.42	23.021		
2,200.0	2,150.1	2,156.1	2,153.3	10.9	8.5	167.15	-70.0	-100.2	433.6	415.6	18.08	23.985		
2,300.0	2,244.1	2,250.7	2,247.6	11.3	8.8	167.06	-77.9	-99.6	466.1	447.4	18.75	24.867		
2,400.0	2,338.2	2,345.2	2,341.8	11.8	9.2	166.98	-85.7	-99.1	498.6	479.2	19.42	25.675		
2,500.0	2,432.3	2,439.8	2,436.1	12.4	9.5	166.91	-93.6	-98.5	531.2	511.0	20.11	26.418		
2,600.0	2,526.3	2,534.4	2,530.3	13.0	9.8	166.85	-101.4	-98.0	563.7	542.9	20.80	27.101		
2,700.0	2,620.4	2,628.9	2,624.5	13.7	10.2	166.80	-109.3	-97.5	596.2	574.7	21.50	27.730		
2,800.0	2,714.4	2,723.5	2,718.8	14.3	10.5	166.75	-117.1	-96.9	628.7	606.5	22.21	28.312		
2,900.0	2,808.5	2,818.1	2,813.0	15.0	10.9	166.70	-125.0	-96.4	661.2	638.3	22.92	28.849		
3,000.0	2,902.5	2,912.6	2,907.3	15.7	11.2	166.66	-132.8	-95.8	693.7	670.0	23.64	29.348		
3,100.0	2,996.6	3,007.2	3,001.5	16.4	11.5	166.63	-140.7	-95.3	726.2	701.8	24.36	29.810		
3,200.0	3,090.6	3,101.8	3,095.7	17.1	11.9	166.59	-148.5	-94.7	758.7	733.6	25.09	30.241		
3,300.0	3,184.7	3,196.3	3,190.0	17.7	12.2	166.56	-156.4	-94.2	791.2	765.4	25.82	30.642		
3,400.0	3,278.7	3,290.9	3,284.2	18.4	12.6	166.54	-164.2	-93.7	823.7	797.2	26.56	31.016		
3,500.0	3,372.8	3,385.5	3,378.5	19.1	12.9	166.51	-172.1	-93.1	856.2	828.9	27.30	31.366		
3,600.0	3,466.9	3,480.1	3,472.7	19.8	13.3	166.49	-179.9	-92.6	888.7	860.7	28.04	31.693		
3,700.0	3,560.9	3,574.6	3,566.9	20.6	13.6	166.46	-187.8	-92.0	921.2	892.4	28.79	32.000		
3,800.0	3,655.0	3,669.2	3,661.2	21.3	14.0	166.44	-195.6	-91.5	953.7	924.2	29.54	32.288		
3,900.0	3,749.0	3,763.8	3,755.4	22.0	14.3	166.42	-203.5	-90.9	986.3	956.0	30.29	32.559		
4,000.0	3,843.1	3,858.3	3,849.7	22.7	14.7	166.40	-211.3	-90.4	1,018.8	987.7	31.05	32.815		
4,100.0	3,937.1	3,952.9	3,943.9	23.4	15.0	166.39	-219.2	-89.8	1,051.3	1,019.5	31.80	33.055		
4,200.0	4,031.2	4,047.5	4,038.1	24.1	15.4	166.37	-227.0	-89.3	1,083.8	1,051.2	32.56	33.283		
4,300.0	4,125.2	4,142.0	4,132.4	24.8	15.7	166.36	-234.9	-88.8	1,116.3	1,083.0	33.32	33.497		
4,400.0	4,219.3	4,236.6	4,226.6	25.5	16.1	166.34	-242.7	-88.2	1,148.8	1,114.7	34.09	33.701		
4,500.0	4,313.3	4,331.2	4,320.9	26.2	16.4	166.33	-250.6	-87.7	1,181.3	1,146.4	34.85	33.893		
4,600.0	4,407.4	4,425.7	4,415.1	26.9	16.8	166.32	-258.4	-87.1	1,213.8	1,178.2	35.62	34.076		
4,700.0	4,501.5	4,520.3	4,509.3	27.6	17.1	166.30	-266.3	-86.6	1,246.3	1,209.9	36.39	34.250		
4,800.0	4,595.5	4,614.9	4,603.6	28.4	17.5	166.29	-274.1	-86.0	1,278.8	1,241.7	37.16	34.415		
4,900.0	4,689.6	4,709.4	4,697.8	29.1	17.8	166.28	-282.0	-85.5	1,311.3	1,273.4	37.93	34.572		
5,000.0	4,783.6	4,804.0	4,792.1	29.8	18.2	166.27	-289.8	-85.0	1,343.8	1,305.1	38.70	34.721		
5,100.0	4,877.7	4,898.6	4,886.3	30.5	18.5	166.26	-297.7	-84.4	1,376.4	1,336.9	39.48	34.864		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	4,993.1	4,980.5	31.2	18.9	166.25	-305.5	-83.9	1,408.9	1,368.6	40.25	35.000		
5,300.0	5,065.8	5,087.7	5,074.8	31.9	19.3	166.24	-313.4	-83.3	1,441.4	1,400.3	41.03	35.130		
5,400.0	5,159.8	5,182.3	5,169.0	32.7	19.6	166.23	-321.2	-82.8	1,473.9	1,432.1	41.81	35.254		
5,500.0	5,253.9	5,276.8	5,263.3	33.4	20.0	166.23	-329.1	-82.2	1,506.4	1,463.8	42.59	35.373		
5,600.0	5,347.9	5,371.4	5,357.5	34.1	20.3	166.22	-336.9	-81.7	1,538.9	1,495.5	43.37	35.486		
5,700.0	5,442.0	5,466.0	5,451.7	34.8	20.7	166.21	-344.8	-81.2	1,571.4	1,527.3	44.15	35.595		
5,800.0	5,536.1	5,560.6	5,546.0	35.5	21.0	166.20	-352.6	-80.6	1,603.9	1,559.0	44.93	35.699		
5,900.0	5,630.1	5,655.1	5,640.2	36.2	21.4	166.20	-360.5	-80.1	1,636.4	1,590.7	45.71	35.800		
6,000.0	5,724.2	5,749.7	5,734.5	37.0	21.8	166.19	-368.3	-79.5	1,668.9	1,622.4	46.49	35.896		
6,100.0	5,818.2	5,844.3	5,828.7	37.7	22.1	166.18	-376.2	-79.0	1,701.4	1,654.2	47.28	35.988		
6,200.0	5,912.3	5,938.8	5,922.9	38.4	22.5	166.18	-384.0	-78.4	1,734.0	1,685.9	48.06	36.077		
6,300.0	6,006.3	6,033.4	6,017.2	39.1	22.8	166.17	-391.9	-77.9	1,766.5	1,717.6	48.85	36.162		
6,400.0	6,100.4	6,128.0	6,111.4	39.8	23.2	166.17	-399.7	-77.4	1,799.0	1,749.3	49.63	36.245		
6,500.0	6,194.4	6,222.5	6,205.7	40.5	23.6	166.16	-407.6	-76.8	1,831.5	1,781.1	50.42	36.324		
6,600.0	6,288.5	6,317.1	6,299.9	41.3	23.9	166.15	-415.4	-76.3	1,864.0	1,812.8	51.21	36.400		
6,700.0	6,382.5	6,411.7	6,394.1	42.0	24.3	166.15	-423.3	-75.7	1,896.5	1,844.5	52.00	36.474		
6,800.0	6,476.6	6,506.2	6,488.4	42.7	24.6	166.14	-431.1	-75.2	1,929.0	1,876.2	52.79	36.544		
6,900.0	6,570.7	6,600.8	6,582.6	43.4	25.0	166.14	-439.0	-74.6	1,961.5	1,907.9	53.57	36.613		
7,000.0	6,664.8	6,695.3	6,676.8	44.1	25.4	176.80	-446.8	-74.1	1,994.0	1,939.7	54.36	36.681		
7,100.0	6,758.8	6,788.7	6,769.8	44.9	25.7	-153.22	-454.6	-73.6	2,026.4	1,971.3	55.16	36.738		
7,200.0	6,850.3	6,878.4	6,859.2	45.5	26.1	-131.72	-462.0	-73.0	2,058.2	2,002.1	56.09	36.693		
7,300.0	6,936.6	6,972.2	6,953.0	45.9	26.5	-118.25	-460.8	-72.6	2,088.8	2,031.6	57.21	36.512		
7,400.0	7,014.9	7,074.2	7,053.1	46.3	27.0	-109.66	-442.3	-72.2	2,117.4	2,059.3	58.04	36.481		
7,500.0	7,083.0	7,186.9	7,158.0	46.6	27.3	-104.04	-401.5	-72.0	2,143.2	2,084.5	58.65	36.544		
7,600.0	7,138.7	7,313.3	7,263.5	46.8	27.6	-100.39	-332.5	-72.1	2,165.1	2,106.0	59.13	36.619		
7,700.0	7,180.3	7,455.7	7,361.1	46.9	27.9	-98.16	-229.2	-72.4	2,182.3	2,122.7	59.53	36.657		
7,800.0	7,206.7	7,614.3	7,436.1	47.0	28.1	-97.01	-90.0	-73.2	2,193.6	2,133.6	59.99	36.569		
7,900.0	7,216.9	7,784.9	7,471.0	47.0	28.4	-96.65	76.3	-74.4	2,198.3	2,137.6	60.65	36.248		
8,000.0	7,217.0	7,899.0	7,472.0	47.0	28.7	-96.66	190.4	-75.3	2,198.3	2,137.0	61.34	35.837		
8,100.0	7,217.0	7,999.0	7,472.0	47.0	29.1	-96.66	290.4	-76.2	2,198.3	2,136.1	62.21	35.340		
8,200.0	7,217.0	8,099.0	7,472.0	47.1	29.7	-96.66	390.4	-77.0	2,198.3	2,135.1	63.25	34.754		
8,300.0	7,217.0	8,199.0	7,472.0	47.2	30.3	-96.66	490.4	-77.8	2,198.3	2,133.9	64.48	34.095		
8,400.0	7,217.0	8,299.0	7,472.0	47.4	31.0	-96.66	590.4	-78.6	2,198.3	2,132.5	65.87	33.376		
8,500.0	7,217.0	8,399.0	7,472.0	47.6	31.8	-96.66	690.4	-79.5	2,198.3	2,130.9	67.41	32.612		
8,600.0	7,217.0	8,499.0	7,472.0	47.9	32.7	-96.66	790.4	-80.3	2,198.3	2,129.2	69.10	31.816		
8,700.0	7,217.0	8,599.0	7,472.0	48.2	33.7	-96.66	890.4	-81.1	2,198.3	2,127.4	70.92	30.999		
8,800.0	7,217.0	8,699.0	7,472.0	48.6	34.7	-96.66	990.4	-81.9	2,198.3	2,125.5	72.86	30.172		
8,900.0	7,217.0	8,799.0	7,472.0	49.0	35.8	-96.66	1,090.4	-82.8	2,198.3	2,123.4	74.92	29.343		
9,000.0	7,217.0	8,899.0	7,472.0	49.6	37.0	-96.66	1,190.4	-83.6	2,198.3	2,121.3	77.08	28.520		
9,100.0	7,217.0	8,999.0	7,472.0	50.1	38.2	-96.66	1,290.4	-84.4	2,198.3	2,119.0	79.34	27.707		
9,200.0	7,217.0	9,099.0	7,472.0	50.8	39.4	-96.66	1,390.4	-85.3	2,198.3	2,116.7	81.69	26.911		
9,300.0	7,217.0	9,199.0	7,472.0	51.5	40.7	-96.66	1,490.4	-86.1	2,198.3	2,114.2	84.12	26.134		
9,400.0	7,217.0	9,299.0	7,472.0	52.3	42.0	-96.66	1,590.4	-86.9	2,198.3	2,111.7	86.62	25.379		
9,500.0	7,217.0	9,399.0	7,472.0	53.1	43.4	-96.66	1,690.4	-87.7	2,198.3	2,109.1	89.19	24.648		
9,600.0	7,217.0	9,499.0	7,472.0	54.0	44.7	-96.66	1,790.4	-88.6	2,198.3	2,106.5	91.82	23.941		
9,700.0	7,217.0	9,599.0	7,472.0	55.0	46.1	-96.66	1,890.4	-89.4	2,198.3	2,103.8	94.51	23.260		
9,800.0	7,217.0	9,699.0	7,472.0	56.0	47.6	-96.66	1,990.4	-90.2	2,198.3	2,101.1	97.26	22.604		
9,900.0	7,217.0	9,799.0	7,472.0	57.1	49.0	-96.66	2,090.4	-91.0	2,198.3	2,098.3	100.05	21.973		
10,000.0	7,217.0	9,899.0	7,472.0	58.2	50.5	-96.66	2,190.4	-91.9	2,198.3	2,095.5	102.88	21.368		
10,100.0	7,217.0	9,999.0	7,472.0	59.4	52.0	-96.66	2,290.4	-92.7	2,198.3	2,092.6	105.75	20.787		
10,200.0	7,217.0	10,099.0	7,472.0	60.6	53.5	-96.66	2,390.4	-93.5	2,198.3	2,089.7	108.67	20.230		
10,300.0	7,217.0	10,199.0	7,472.0	61.8	55.0	-96.66	2,490.3	-94.3	2,198.3	2,086.7	111.61	19.696		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,299.0	7,472.0	63.1	56.5	-96.66	2,590.3	-95.2	2,198.3	2,083.7	114.59	19.184		
10,500.0	7,217.0	10,399.0	7,472.0	64.4	58.1	-96.66	2,690.3	-96.0	2,198.3	2,080.7	117.60	18.694		
10,600.0	7,217.0	10,499.0	7,472.0	65.7	59.6	-96.66	2,790.3	-96.8	2,198.3	2,077.7	120.63	18.223		
10,700.0	7,217.0	10,599.0	7,472.0	67.1	61.2	-96.66	2,890.3	-97.7	2,198.3	2,074.6	123.69	17.773		
10,800.0	7,217.0	10,699.0	7,472.0	68.4	62.8	-96.66	2,990.3	-98.5	2,198.3	2,071.6	126.78	17.340		
10,900.0	7,217.0	10,799.0	7,472.0	69.8	64.4	-96.66	3,090.3	-99.3	2,198.3	2,068.5	129.88	16.926		
11,000.0	7,217.0	10,899.0	7,472.0	71.3	66.0	-96.66	3,190.3	-100.1	2,198.3	2,065.3	133.01	16.528		
11,100.0	7,217.0	10,999.0	7,472.0	72.7	67.6	-96.66	3,290.3	-101.0	2,198.3	2,062.2	136.15	16.146		
11,200.0	7,217.0	11,099.0	7,472.0	74.1	69.2	-96.66	3,390.3	-101.8	2,198.3	2,059.0	139.31	15.780		
11,300.0	7,217.0	11,199.0	7,472.0	75.6	70.8	-96.66	3,490.3	-102.6	2,198.3	2,055.8	142.49	15.428		
11,400.0	7,217.0	11,299.0	7,472.0	77.1	72.5	-96.66	3,590.3	-103.4	2,198.3	2,052.7	145.68	15.090		
11,500.0	7,217.0	11,399.0	7,472.0	78.6	74.1	-96.66	3,690.3	-104.3	2,198.3	2,049.4	148.89	14.765		
11,600.0	7,217.0	11,499.0	7,472.0	80.1	75.7	-96.66	3,790.3	-105.1	2,198.3	2,046.2	152.11	14.452		
11,700.0	7,217.0	11,599.0	7,472.0	81.6	77.4	-96.66	3,890.3	-105.9	2,198.3	2,043.0	155.35	14.151		
11,800.0	7,217.0	11,699.0	7,472.0	83.1	79.0	-96.66	3,990.3	-106.8	2,198.3	2,039.7	158.59	13.862		
11,900.0	7,217.0	11,799.0	7,472.0	84.7	80.7	-96.66	4,090.3	-107.6	2,198.3	2,036.5	161.85	13.583		
12,000.0	7,217.0	11,899.0	7,472.0	86.2	82.3	-96.66	4,190.3	-108.4	2,198.3	2,033.2	165.12	13.314		
12,100.0	7,217.0	11,999.0	7,472.0	87.8	84.0	-96.66	4,290.3	-109.2	2,198.3	2,029.9	168.39	13.055		
12,200.0	7,217.0	12,099.0	7,472.0	89.3	85.7	-96.66	4,390.3	-110.1	2,198.3	2,026.7	171.68	12.805		
12,300.0	7,217.0	12,199.0	7,472.0	90.9	87.4	-96.66	4,490.3	-110.9	2,198.3	2,023.4	174.97	12.564		
12,400.0	7,217.0	12,299.0	7,472.0	92.5	89.0	-96.66	4,590.3	-111.7	2,198.3	2,020.1	178.28	12.331		
12,500.0	7,217.0	12,399.0	7,472.0	94.1	90.7	-96.66	4,690.3	-112.5	2,198.3	2,016.7	181.59	12.106		
12,600.0	7,217.0	12,499.0	7,472.0	95.7	92.4	-96.66	4,790.3	-113.4	2,198.3	2,013.4	184.91	11.889		
12,700.0	7,217.0	12,599.0	7,472.0	97.3	94.1	-96.66	4,890.3	-114.2	2,198.3	2,010.1	188.23	11.679		
12,800.0	7,217.0	12,699.0	7,472.0	98.9	95.8	-96.66	4,990.3	-115.0	2,198.3	2,006.8	191.57	11.476		
12,900.0	7,217.0	12,799.0	7,472.0	100.5	97.5	-96.66	5,090.3	-115.8	2,198.3	2,003.4	194.90	11.279		
13,000.0	7,217.0	12,899.0	7,472.0	102.1	99.2	-96.66	5,190.3	-116.7	2,198.3	2,000.1	198.25	11.089		
13,100.0	7,217.0	12,999.0	7,472.0	103.7	100.9	-96.66	5,290.3	-117.5	2,198.3	1,996.7	201.60	10.905		
13,200.0	7,217.0	13,099.0	7,472.0	105.3	102.6	-96.66	5,390.2	-118.3	2,198.3	1,993.4	204.95	10.726		
13,300.0	7,217.0	13,199.0	7,472.0	107.0	104.3	-96.66	5,490.2	-119.2	2,198.3	1,990.0	208.32	10.553		
13,400.0	7,217.0	13,299.0	7,472.0	108.6	106.0	-96.66	5,590.2	-120.0	2,198.3	1,986.7	211.68	10.385		
13,500.0	7,217.0	13,399.0	7,472.0	110.3	107.7	-96.66	5,690.2	-120.8	2,198.3	1,983.3	215.05	10.222		
13,600.0	7,217.0	13,499.0	7,472.0	111.9	109.4	-96.66	5,790.2	-121.6	2,198.3	1,979.9	218.43	10.064		
13,700.0	7,217.0	13,599.0	7,472.0	113.5	111.1	-96.66	5,890.2	-122.5	2,198.3	1,976.5	221.81	9.911		
13,800.0	7,217.0	13,699.0	7,472.0	115.2	112.8	-96.66	5,990.2	-123.3	2,198.3	1,973.1	225.19	9.762		
13,900.0	7,217.0	13,799.0	7,472.0	116.9	114.5	-96.66	6,090.2	-124.1	2,198.3	1,969.8	228.58	9.618		
14,000.0	7,217.0	13,899.0	7,472.0	118.5	116.2	-96.66	6,190.2	-124.9	2,198.3	1,966.4	231.97	9.477		
14,100.0	7,217.0	13,999.0	7,472.0	120.2	117.9	-96.66	6,290.2	-125.8	2,198.3	1,963.0	235.36	9.340		
14,200.0	7,217.0	14,099.0	7,472.0	121.8	119.7	-96.66	6,390.2	-126.6	2,198.3	1,959.6	238.76	9.207		
14,200.9	7,217.0	14,100.0	7,472.0	121.9	119.7	-96.66	6,391.1	-126.6	2,198.3	1,959.5	238.79	9.206		
14,300.0	7,217.0	14,156.2	7,472.0	123.5	120.6	-96.66	6,447.4	-127.6	2,199.3	1,958.4	240.93	9.128		
14,400.0	7,217.0	14,235.1	7,472.0	125.2	122.0	-96.65	6,526.2	-130.4	2,202.0	1,958.3	243.70	9.036		
14,500.0	7,217.0	14,335.0	7,472.0	126.9	123.7	-96.64	6,626.1	-134.2	2,204.9	1,957.8	247.11	8.923		
14,600.0	7,217.0	14,435.0	7,472.0	128.5	125.5	-96.64	6,726.0	-137.9	2,207.8	1,957.3	250.53	8.812		
14,700.0	7,217.0	14,535.0	7,472.0	130.2	127.2	-96.63	6,825.9	-141.7	2,210.7	1,956.7	253.95	8.705		
14,800.0	7,217.0	14,634.9	7,472.0	131.9	128.9	-96.62	6,925.7	-145.4	2,213.6	1,956.2	257.38	8.601		
14,900.0	7,217.0	14,734.9	7,472.0	133.6	130.7	-96.61	7,025.6	-149.2	2,216.5	1,955.7	260.80	8.499		
15,000.0	7,217.0	14,834.8	7,472.0	135.3	132.4	-96.60	7,125.5	-152.9	2,219.4	1,955.2	264.23	8.399		
15,100.0	7,217.0	14,934.8	7,472.0	136.9	134.1	-96.59	7,225.4	-156.7	2,222.3	1,954.7	267.67	8.303		
17,000.0	7,217.0	16,976.3	7,472.0	169.3	169.6	-96.60	9,265.9	-172.1	2,221.2	1,884.2	336.94	6.592		
17,100.0	7,217.0	17,076.3	7,472.0	171.0	171.3	-96.61	9,365.8	-169.4	2,217.8	1,877.4	340.38	6.516		
17,200.0	7,217.0	17,176.2	7,472.0	172.7	173.0	-96.62	9,465.7	-166.8	2,214.3	1,870.5	343.82	6.440		

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 19-18-4NXH
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 19-18-4NXH	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	
17,300.0	7,217.0	17,276.2	7,472.0	174.4	174.7	-96.63	9,565.7	-164.2	2,210.9	1,863.7	347.26	6.367	
17,400.0	7,217.0	17,376.1	7,472.0	176.2	176.5	-96.64	9,665.6	-161.6	2,207.5	1,856.8	350.70	6.295	
17,500.0	7,217.0	17,476.0	7,472.0	177.9	178.2	-96.65	9,765.5	-159.0	2,204.1	1,849.9	354.14	6.224	
17,600.0	7,217.0	17,576.0	7,472.0	179.6	179.9	-96.66	9,865.4	-156.4	2,200.7	1,843.1	357.59	6.154	
17,700.0	7,217.0	17,606.3	7,472.0	181.3	180.5	-96.66	9,895.7	-155.6	2,198.3	1,839.1	359.25	6.119	
17,705.6	7,217.0	17,606.3	7,472.0	181.4	180.5	-96.66	9,895.7	-155.6	2,198.3	1,839.1	359.28	6.119	
17,723.1	7,217.0	17,606.3	7,472.0	181.7	180.5	-96.66	9,895.7	-155.6	2,198.4	1,839.0	359.38	6.117 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.29	-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	433.179		
200.0	200.0	200.0	200.0	1.0	0.0	-90.29	-0.6	-120.0	120.0	119.2	0.80	150.399		
300.0	300.0	300.0	300.0	1.5	0.0	-90.29	-0.6	-120.0	120.0	118.8	1.22	97.997		
400.0	400.0	400.0	400.0	1.9	0.0	-90.29	-0.6	-120.0	120.0	118.4	1.62	74.144		
500.0	500.0	500.0	500.0	2.3	0.0	-90.29	-0.6	-120.0	120.0	118.0	2.00	60.026		
600.0	600.0	600.0	600.0	2.7	0.0	-90.29	-0.6	-120.0	120.0	117.6	2.37	50.571		
700.0	700.0	700.0	700.0	3.1	0.0	-90.29	-0.6	-120.0	120.0	117.2	2.74	43.754 CC, ES		
800.0	800.0	800.0	800.0	3.5	0.0	166.58	-0.6	-120.0	121.7	118.3	3.33	36.529		
900.0	899.8	899.8	899.8	4.2	0.0	167.10	-0.6	-120.0	126.8	122.6	4.19	30.249		
1,000.0	999.5	999.5	999.5	5.0	0.0	167.89	-0.6	-120.0	135.3	130.3	4.94	27.390		
1,100.0	1,098.7	1,098.7	1,098.7	5.8	0.0	168.84	-0.6	-120.0	147.2	141.6	5.62	26.183		
1,200.0	1,197.5	1,195.6	1,195.6	6.5	0.0	169.29	-2.1	-120.6	163.1	156.9	6.25	26.104 SF		
1,300.0	1,295.6	1,291.6	1,291.4	7.1	0.0	168.86	-6.5	-122.4	183.6	176.7	6.82	26.926		
1,400.0	1,393.1	1,386.6	1,386.2	7.7	0.0	167.84	-13.8	-125.4	208.4	201.1	7.33	28.417		
1,500.0	1,489.6	1,482.4	1,481.6	8.3	0.0	166.95	-21.9	-128.8	237.0	229.1	7.83	30.256		
1,600.0	1,585.3	1,577.2	1,575.9	8.8	0.0	166.38	-30.0	-132.2	268.8	260.4	8.32	32.312		
1,700.0	1,679.8	1,670.9	1,669.2	9.3	0.0	166.06	-38.0	-135.5	303.8	295.0	8.75	34.696		
1,800.0	1,773.9	1,764.0	1,762.0	9.5	0.0	166.00	-45.9	-138.8	340.1	331.1	9.01	37.738		
1,900.0	1,867.9	1,857.2	1,854.7	9.8	0.0	165.95	-53.8	-142.0	376.5	367.2	9.29	40.526		
2,000.0	1,962.0	1,950.4	1,947.5	10.1	0.0	165.91	-61.8	-145.3	412.9	403.3	9.58	43.100		
2,100.0	2,056.0	2,043.5	2,040.2	10.5	0.0	165.88	-69.7	-148.6	449.2	439.3	9.88	45.475		
2,200.0	2,150.1	2,136.7	2,133.0	10.9	0.0	165.85	-77.6	-151.9	485.6	475.4	10.19	47.666		
2,300.0	2,244.1	2,229.8	2,225.8	11.3	0.0	165.83	-85.6	-155.2	521.9	511.4	10.50	49.688		
2,400.0	2,338.2	2,323.0	2,318.5	11.8	0.0	165.81	-93.5	-158.5	558.3	547.5	10.83	51.553		
2,500.0	2,432.3	2,416.1	2,411.3	12.4	0.0	165.79	-101.4	-161.8	594.7	583.5	11.16	53.275		
2,600.0	2,526.3	2,509.3	2,504.0	13.0	0.0	165.77	-109.4	-165.1	631.0	619.5	11.50	54.866		
2,700.0	2,620.4	2,602.4	2,596.8	13.7	0.0	165.76	-117.3	-168.4	667.4	655.6	11.85	56.337		
2,800.0	2,714.4	2,695.6	2,689.5	14.3	0.0	165.74	-125.3	-171.6	703.8	691.6	12.20	57.700		
2,900.0	2,808.5	2,788.7	2,782.3	15.0	0.0	165.73	-133.2	-174.9	740.1	727.6	12.55	58.962		
3,000.0	2,902.5	2,881.9	2,875.1	15.7	0.0	165.72	-141.1	-178.2	776.5	763.6	12.91	60.134		
3,100.0	2,996.6	2,975.0	2,967.8	16.4	0.0	165.71	-149.1	-181.5	812.9	799.6	13.28	61.222		
3,200.0	3,090.6	3,068.2	3,060.6	17.1	0.0	165.70	-157.0	-184.8	849.2	835.6	13.65	62.234		
3,300.0	3,184.7	3,161.4	3,153.3	17.7	0.0	165.70	-164.9	-188.1	885.6	871.6	14.02	63.177		
3,400.0	3,278.7	3,254.5	3,246.1	18.4	0.0	165.69	-172.9	-191.4	922.0	907.6	14.39	64.056		
3,500.0	3,372.8	3,347.7	3,338.8	19.1	0.0	165.68	-180.8	-194.7	958.3	943.5	14.77	64.877		
3,600.0	3,466.9	3,440.8	3,431.6	19.8	0.0	165.67	-188.7	-198.0	994.7	979.5	15.15	65.645		
3,700.0	3,560.9	3,534.0	3,524.4	20.6	0.0	165.67	-196.7	-201.2	1,031.0	1,015.5	15.54	66.364		
3,800.0	3,655.0	3,627.1	3,617.1	21.3	0.0	165.66	-204.6	-204.5	1,067.4	1,051.5	15.92	67.037		
3,900.0	3,749.0	3,720.3	3,709.9	22.0	0.0	165.66	-212.5	-207.8	1,103.8	1,087.5	16.31	67.669		
4,000.0	3,843.1	3,813.4	3,802.6	22.7	0.0	165.65	-220.5	-211.1	1,140.1	1,123.4	16.70	68.263		
4,100.0	3,937.1	3,906.6	3,895.4	23.4	0.0	165.65	-228.4	-214.4	1,176.5	1,159.4	17.09	68.822		
4,200.0	4,031.2	3,999.7	3,988.1	24.1	0.0	165.64	-236.3	-217.7	1,212.9	1,195.4	17.49	69.348		
4,300.0	4,125.2	4,092.9	4,080.9	24.8	0.0	165.64	-244.3	-221.0	1,249.2	1,231.3	17.89	69.843		
4,400.0	4,219.3	4,186.0	4,173.6	25.5	0.0	165.64	-252.2	-224.3	1,285.6	1,267.3	18.28	70.311		
4,500.0	4,313.3	4,279.2	4,266.4	26.2	0.0	165.63	-260.1	-227.6	1,322.0	1,303.3	18.68	70.754		
4,600.0	4,407.4	4,372.4	4,359.2	26.9	0.0	165.63	-268.1	-230.8	1,358.3	1,339.2	19.09	71.172		
4,700.0	4,501.5	4,465.5	4,451.9	27.6	0.0	165.63	-276.0	-234.1	1,394.7	1,375.2	19.49	71.568		
4,800.0	4,595.5	4,558.7	4,544.7	28.4	0.0	165.62	-283.9	-237.4	1,431.1	1,411.2	19.89	71.943		
4,900.0	4,689.6	4,651.8	4,637.4	29.1	0.0	165.62	-291.9	-240.7	1,467.4	1,447.1	20.30	72.299		
5,000.0	4,783.6	4,745.0	4,730.2	29.8	0.0	165.62	-299.8	-244.0	1,503.8	1,483.1	20.70	72.636		
5,100.0	4,877.7	4,838.1	4,822.9	30.5	0.0	165.61	-307.8	-247.3	1,540.1	1,519.0	21.11	72.957		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	4,931.3	4,915.7	31.2	0.0	165.61	-315.7	-250.6	1,576.5	1,555.0	21.52	73.262		
5,300.0	5,065.8	5,024.4	5,008.5	31.9	0.0	165.61	-323.6	-253.9	1,612.9	1,590.9	21.93	73.553		
5,400.0	5,159.8	5,117.6	5,101.2	32.7	0.0	165.61	-331.6	-257.2	1,649.2	1,626.9	22.34	73.830		
5,500.0	5,253.9	5,210.7	5,194.0	33.4	0.0	165.60	-339.5	-260.4	1,685.6	1,662.9	22.75	74.093		
5,600.0	5,347.9	5,303.9	5,286.7	34.1	0.0	165.60	-347.4	-263.7	1,722.0	1,698.8	23.16	74.345		
5,700.0	5,442.0	5,397.0	5,379.5	34.8	0.0	165.60	-355.4	-267.0	1,758.3	1,734.8	23.57	74.585		
5,800.0	5,536.1	5,490.2	5,472.2	35.5	0.0	165.60	-363.3	-270.3	1,794.7	1,770.7	23.99	74.814		
5,900.0	5,630.1	5,583.4	5,565.0	36.2	0.0	165.60	-371.2	-273.6	1,831.1	1,806.7	24.40	75.033		
6,000.0	5,724.2	5,676.5	5,657.8	37.0	0.0	165.59	-379.2	-276.9	1,867.4	1,842.6	24.82	75.243		
6,100.0	5,818.2	5,769.7	5,750.5	37.7	0.0	165.59	-387.1	-280.2	1,903.8	1,878.6	25.23	75.443		
6,200.0	5,912.3	5,862.8	5,843.3	38.4	0.0	165.59	-395.0	-283.5	1,940.2	1,914.5	25.65	75.635		
6,300.0	6,006.3	5,956.0	5,936.0	39.1	0.0	165.59	-403.0	-286.8	1,976.5	1,950.4	26.07	75.820		
6,400.0	6,100.4	6,049.1	6,028.8	39.8	0.0	165.59	-410.9	-290.0	2,012.9	1,986.4	26.49	75.996		
6,500.0	6,194.4	6,142.3	6,121.5	40.5	0.0	165.59	-418.8	-293.3	2,049.2	2,022.3	26.91	76.165		
6,600.0	6,288.5	6,235.4	6,214.3	41.3	0.0	165.59	-426.8	-296.6	2,085.6	2,058.3	27.32	76.328		
6,700.0	6,382.5	6,328.6	6,307.1	42.0	0.0	165.58	-434.7	-299.9	2,122.0	2,094.2	27.74	76.483		
6,800.0	6,476.6	6,421.7	6,399.8	42.7	0.0	165.58	-442.6	-303.2	2,158.3	2,130.2	28.16	76.633		
6,900.0	6,570.7	6,514.9	6,492.6	43.4	0.0	165.58	-450.6	-306.5	2,194.7	2,166.1	28.59	76.777		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.26	-0.3	-75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.26	-0.3	-75.0	75.0	74.4	0.55	135.485		
200.0	200.0	200.0	200.0	1.0	1.0	-90.26	-0.3	-75.0	75.0	73.4	1.59	47.016		
300.0	300.0	300.0	300.0	1.5	1.5	-90.26	-0.3	-75.0	75.0	72.5	2.45	30.631		
400.0	400.0	400.0	400.0	1.9	1.9	-90.26	-0.3	-75.0	75.0	71.7	3.24	23.174		
500.0	500.0	500.0	500.0	2.3	2.3	-90.26	-0.3	-75.0	75.0	71.0	4.00	18.760		
600.0	600.0	600.0	600.0	2.7	2.7	-90.26	-0.3	-75.0	75.0	70.2	4.74	15.805		
700.0	700.0	700.0	700.0	3.1	3.1	-90.26	-0.3	-75.0	75.0	69.5	5.48	13.674	CC, ES	
800.0	800.0	800.0	800.0	3.5	3.5	166.71	-0.3	-75.0	76.7	70.2	6.43	11.918		
900.0	899.8	899.8	899.8	4.2	3.9	167.53	-0.3	-75.0	81.8	74.1	7.65	10.692		
1,000.0	999.5	999.5	999.5	5.0	4.2	168.69	-0.3	-75.0	90.3	81.6	8.75	10.324		
1,100.0	1,098.7	1,098.7	1,098.7	5.8	4.6	169.99	-0.3	-75.0	102.3	92.5	9.78	10.459		
1,200.0	1,197.5	1,197.5	1,197.5	6.5	5.0	171.27	-0.3	-75.0	117.7	107.0	10.77	10.935		
1,300.0	1,295.6	1,299.8	1,299.8	7.1	5.3	172.13	-1.3	-73.5	135.2	123.3	11.83	11.423		
1,400.0	1,393.1	1,402.8	1,402.6	7.7	5.6	172.31	-4.3	-69.0	152.9	139.9	13.01	11.749		
1,500.0	1,489.6	1,506.3	1,505.7	8.3	6.3	172.01	-9.5	-61.4	170.9	156.8	14.12	12.102		
1,600.0	1,585.3	1,610.3	1,608.9	8.8	7.0	171.36	-16.7	-50.6	189.2	174.1	15.14	12.494		
1,700.0	1,679.8	1,708.6	1,706.2	9.3	7.3	170.72	-24.7	-38.8	209.2	193.3	15.88	13.175		
1,800.0	1,773.9	1,806.3	1,802.8	9.5	7.6	170.31	-32.5	-27.1	230.6	214.2	16.42	14.044		
1,900.0	1,867.9	1,903.9	1,899.4	9.8	7.9	169.97	-40.4	-15.4	252.1	235.1	17.00	14.829		
2,000.0	1,962.0	2,001.6	1,996.1	10.1	8.2	169.68	-48.3	-3.7	273.5	255.9	17.60	15.544		
2,100.0	2,056.0	2,099.2	2,092.7	10.5	8.6	169.43	-56.2	8.0	295.0	276.7	18.21	16.195		
2,200.0	2,150.1	2,196.9	2,189.3	10.9	8.9	169.22	-64.1	19.8	316.4	297.6	18.85	16.788		
2,300.0	2,244.1	2,294.6	2,286.0	11.3	9.2	169.03	-72.0	31.5	337.9	318.4	19.50	17.330		
2,400.0	2,338.2	2,392.2	2,382.6	11.8	9.6	168.87	-79.9	43.2	359.3	339.2	20.16	17.824		
2,500.0	2,432.3	2,489.9	2,479.3	12.4	9.9	168.72	-87.8	54.9	380.8	360.0	20.84	18.276		
2,600.0	2,526.3	2,587.6	2,575.9	13.0	10.3	168.59	-95.6	66.6	402.3	380.8	21.52	18.690		
2,700.0	2,620.4	2,685.2	2,672.5	13.7	10.7	168.47	-103.5	78.4	423.8	401.5	22.22	19.069		
2,800.0	2,714.4	2,782.9	2,769.2	14.3	11.0	168.37	-111.4	90.1	445.2	422.3	22.93	19.418		
2,900.0	2,808.5	2,880.6	2,865.8	15.0	11.4	168.27	-119.3	101.8	466.7	443.1	23.64	19.739		
3,000.0	2,902.5	2,978.2	2,962.4	15.7	11.8	168.19	-127.2	113.5	488.2	463.8	24.37	20.035		
3,100.0	2,996.6	3,075.9	3,059.1	16.4	12.2	168.11	-135.1	125.2	509.7	484.6	25.10	20.308		
3,200.0	3,090.6	3,173.6	3,155.7	17.1	12.6	168.03	-143.0	137.0	531.1	505.3	25.83	20.561		
3,300.0	3,184.7	3,271.2	3,252.3	17.7	13.0	167.96	-150.9	148.7	552.6	526.0	26.57	20.795		
3,400.0	3,278.7	3,368.9	3,349.0	18.4	13.4	167.90	-158.8	160.4	574.1	546.8	27.32	21.012		
3,500.0	3,372.8	3,466.5	3,445.6	19.1	13.8	167.84	-166.6	172.1	595.6	567.5	28.07	21.214		
3,600.0	3,466.9	3,564.2	3,542.3	19.8	14.2	167.79	-174.5	183.8	617.1	588.2	28.83	21.403		
3,700.0	3,560.9	3,661.9	3,638.9	20.6	14.6	167.74	-182.4	195.6	638.5	608.9	29.59	21.578		
3,800.0	3,655.0	3,759.5	3,735.5	21.3	15.0	167.69	-190.3	207.3	660.0	629.7	30.36	21.742		
3,900.0	3,749.0	3,857.2	3,832.2	22.0	15.4	167.65	-198.2	219.0	681.5	650.4	31.13	21.895		
4,000.0	3,843.1	3,954.9	3,928.8	22.7	15.8	167.61	-206.1	230.7	703.0	671.1	31.90	22.039		
4,100.0	3,937.1	4,052.5	4,025.4	23.4	16.2	167.57	-214.0	242.4	724.5	691.8	32.67	22.174		
4,200.0	4,031.2	4,150.2	4,122.1	24.1	16.6	167.53	-221.9	254.2	745.9	712.5	33.45	22.301		
4,300.0	4,125.2	4,247.9	4,218.7	24.8	17.0	167.50	-229.7	265.9	767.4	733.2	34.23	22.420		
4,400.0	4,219.3	4,345.5	4,315.4	25.5	17.4	167.46	-237.6	277.6	788.9	753.9	35.01	22.532		
4,500.0	4,313.3	4,443.2	4,412.0	26.2	17.8	167.43	-245.5	289.3	810.4	774.6	35.80	22.638		
4,600.0	4,407.4	4,540.8	4,508.6	26.9	18.3	167.40	-253.4	301.0	831.9	795.3	36.59	22.738		
4,700.0	4,501.5	4,638.5	4,605.3	27.6	18.7	167.37	-261.3	312.8	853.4	816.0	37.38	22.832		
4,800.0	4,595.5	4,736.2	4,701.9	28.4	19.1	167.35	-269.2	324.5	874.8	836.7	38.17	22.922		
4,900.0	4,689.6	4,833.8	4,798.5	29.1	19.5	167.32	-277.1	336.2	896.3	857.4	38.96	23.006		
5,000.0	4,783.6	4,931.5	4,895.2	29.8	19.9	167.30	-285.0	347.9	917.8	878.1	39.76	23.087		
5,100.0	4,877.7	5,029.2	4,991.8	30.5	20.3	167.27	-292.8	359.6	939.3	898.7	40.55	23.163		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,126.8	5,088.4	31.2	20.7	167.25	-300.7	371.4	960.8	919.4	41.35	23.235		
5,300.0	5,065.8	5,224.5	5,185.1	31.9	21.2	167.23	-308.6	383.1	982.3	940.1	42.15	23.304		
5,400.0	5,159.8	5,322.2	5,281.7	32.7	21.6	167.21	-316.5	394.8	1,003.8	960.8	42.95	23.370		
5,500.0	5,253.9	5,419.8	5,378.4	33.4	22.0	167.19	-324.4	406.5	1,025.2	981.5	43.75	23.432		
5,600.0	5,347.9	5,517.5	5,475.0	34.1	22.4	167.17	-332.3	418.2	1,046.7	1,002.2	44.56	23.492		
5,700.0	5,442.0	5,615.2	5,571.6	34.8	22.8	167.16	-340.2	430.0	1,068.2	1,022.9	45.36	23.549		
5,800.0	5,536.1	5,712.8	5,668.3	35.5	23.3	167.14	-348.1	441.7	1,089.7	1,043.5	46.17	23.603		
5,900.0	5,630.1	5,810.5	5,764.9	36.2	23.7	167.12	-356.0	453.4	1,111.2	1,064.2	46.97	23.655		
6,000.0	5,724.2	5,908.1	5,861.5	37.0	24.1	167.11	-363.8	465.1	1,132.7	1,084.9	47.78	23.705		
6,100.0	5,818.2	6,005.8	5,958.2	37.7	24.5	167.09	-371.7	476.8	1,154.2	1,105.6	48.59	23.753		
6,200.0	5,912.3	6,103.5	6,054.8	38.4	24.9	167.08	-379.6	488.6	1,175.6	1,126.2	49.40	23.798		
6,300.0	6,006.3	6,201.1	6,151.5	39.1	25.4	167.06	-387.5	500.3	1,197.1	1,146.9	50.21	23.842		
6,400.0	6,100.4	6,298.8	6,248.1	39.8	25.8	167.05	-395.4	512.0	1,218.6	1,167.6	51.02	23.884		
6,500.0	6,194.4	6,396.5	6,344.7	40.5	26.2	167.03	-403.3	523.7	1,240.1	1,188.3	51.83	23.924		
6,600.0	6,288.5	6,494.1	6,441.4	41.3	26.6	167.02	-411.2	535.4	1,261.6	1,208.9	52.65	23.963		
6,700.0	6,382.5	6,591.8	6,538.0	42.0	27.0	167.01	-419.1	547.2	1,283.1	1,229.6	53.46	24.000		
6,800.0	6,476.6	6,689.5	6,634.6	42.7	27.5	167.00	-426.9	558.9	1,304.6	1,250.3	54.27	24.036		
6,900.0	6,570.7	6,787.1	6,731.3	43.4	27.9	166.99	-434.8	570.6	1,326.0	1,271.0	55.09	24.071		
7,000.0	6,664.8	6,884.8	6,827.9	44.1	28.3	177.20	-442.7	582.3	1,347.5	1,291.6	55.91	24.104		
7,100.0	6,758.8	6,981.2	6,923.3	44.9	28.7	-154.25	-450.5	593.9	1,368.9	1,312.1	56.78	24.110		
7,200.0	6,850.3	7,073.7	7,014.8	45.5	29.1	-134.31	-458.0	605.0	1,389.9	1,332.1	57.84	24.030		
7,300.0	6,936.6	7,160.6	7,101.0	45.9	29.5	-122.39	-462.1	615.3	1,411.2	1,352.3	58.94	23.941		
7,400.0	7,014.9	7,252.4	7,191.6	46.3	29.8	-115.16	-453.0	625.5	1,432.7	1,372.7	60.08	23.847		
7,500.0	7,083.0	7,352.8	7,287.8	46.6	30.3	-110.68	-426.5	635.5	1,453.9	1,392.8	61.11	23.793		
7,600.0	7,138.7	7,465.1	7,388.2	46.8	30.7	-108.00	-377.4	644.9	1,474.2	1,412.3	61.83	23.843		
7,700.0	7,180.3	7,593.2	7,488.8	46.9	31.1	-106.62	-298.8	652.9	1,492.5	1,430.2	62.28	23.964		
7,800.0	7,206.7	7,741.3	7,580.1	47.0	31.2	-106.23	-182.9	657.9	1,507.8	1,445.3	62.54	24.111		
7,900.0	7,216.9	7,911.4	7,644.8	47.0	31.2	-106.53	-26.3	657.9	1,518.7	1,455.9	62.84	24.170		
8,000.0	7,217.0	8,077.0	7,662.0	47.0	31.1	-106.99	137.8	652.0	1,524.2	1,460.8	63.45	24.024		
8,100.0	7,217.0	8,176.9	7,662.0	47.0	31.0	-106.94	237.6	647.1	1,528.1	1,463.9	64.18	23.808		
8,200.0	7,217.0	8,276.8	7,662.0	47.1	31.0	-106.90	337.4	642.3	1,531.9	1,466.8	65.10	23.532		
8,300.0	7,217.0	8,376.7	7,662.0	47.2	31.2	-106.86	437.2	637.4	1,535.8	1,469.6	66.18	23.208		
8,400.0	7,217.0	8,476.7	7,662.0	47.4	31.8	-106.81	537.0	632.6	1,539.6	1,472.2	67.41	22.840		
8,500.0	7,217.0	8,576.6	7,662.0	47.6	32.5	-106.77	636.8	627.7	1,543.5	1,474.7	68.79	22.437		
8,600.0	7,217.0	8,676.5	7,662.0	47.9	33.3	-106.73	736.6	622.9	1,547.4	1,477.0	70.32	22.005		
8,700.0	7,217.0	8,776.4	7,662.0	48.2	34.2	-106.68	836.4	618.1	1,551.2	1,479.2	71.97	21.553		
8,800.0	7,217.0	8,876.3	7,662.0	48.6	35.1	-106.64	936.2	613.2	1,555.1	1,481.3	73.75	21.086		
8,900.0	7,217.0	8,976.2	7,662.0	49.0	36.2	-106.60	1,036.0	608.4	1,558.9	1,483.3	75.64	20.609		
9,000.0	7,217.0	9,076.2	7,662.0	49.6	37.2	-106.56	1,135.8	603.5	1,562.8	1,485.1	77.64	20.129		
9,100.0	7,217.0	9,176.1	7,662.0	50.1	38.4	-106.51	1,235.6	598.7	1,566.6	1,486.9	79.73	19.648		
9,200.0	7,217.0	9,276.0	7,662.0	50.8	39.5	-106.47	1,335.4	593.8	1,570.5	1,488.6	81.92	19.171		
9,300.0	7,217.0	9,375.9	7,662.0	51.5	40.7	-106.43	1,435.2	589.0	1,574.4	1,490.2	84.19	18.700		
9,400.0	7,217.0	9,475.8	7,662.0	52.3	42.0	-106.39	1,535.0	584.1	1,578.2	1,491.7	86.54	18.238		
9,500.0	7,217.0	9,575.8	7,662.0	53.1	43.3	-106.35	1,634.8	579.3	1,582.1	1,493.1	88.95	17.785		
9,600.0	7,217.0	9,675.7	7,662.0	54.0	44.6	-106.31	1,734.6	574.4	1,585.9	1,494.5	91.44	17.344		
9,700.0	7,217.0	9,775.6	7,662.0	55.0	45.9	-106.27	1,834.4	569.6	1,589.8	1,495.8	93.98	16.916		
9,800.0	7,217.0	9,875.5	7,662.0	56.0	47.3	-106.23	1,934.2	564.7	1,593.7	1,497.1	96.58	16.501		
9,900.0	7,217.0	9,975.4	7,662.0	57.1	48.7	-106.19	2,034.0	559.9	1,597.5	1,498.3	99.23	16.099		
10,000.0	7,217.0	10,075.4	7,662.0	58.2	50.2	-106.15	2,133.8	555.0	1,601.4	1,499.5	101.93	15.710		
10,100.0	7,217.0	10,175.3	7,662.0	59.4	51.6	-106.11	2,233.6	550.2	1,605.3	1,500.6	104.68	15.336		
10,200.0	7,217.0	10,275.2	7,662.0	60.6	53.1	-106.07	2,333.4	545.3	1,609.1	1,501.7	107.46	14.974		
10,300.0	7,217.0	10,375.1	7,662.0	61.8	54.6	-106.03	2,433.2	540.5	1,613.0	1,502.7	110.28	14.626		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,475.0	7,662.0	63.1	56.1	-105.99	2,533.0	535.7	1,616.9	1,503.7	113.14	14.291		
10,500.0	7,217.0	10,575.0	7,662.0	64.4	57.6	-105.95	2,632.8	530.8	1,620.7	1,504.7	116.03	13.969		
10,600.0	7,217.0	10,674.9	7,662.0	65.7	59.1	-105.91	2,732.6	526.0	1,624.6	1,505.7	118.95	13.658		
10,700.0	7,217.0	10,774.8	7,662.0	67.1	60.7	-105.87	2,832.4	521.1	1,628.5	1,506.6	121.89	13.360		
10,800.0	7,217.0	10,874.7	7,662.0	68.4	62.2	-105.83	2,932.2	516.3	1,632.4	1,507.5	124.87	13.073		
10,900.0	7,217.0	10,974.6	7,662.0	69.8	63.8	-105.79	3,032.0	511.4	1,636.2	1,508.4	127.86	12.797		
11,000.0	7,217.0	11,074.5	7,662.0	71.3	65.4	-105.76	3,131.8	506.6	1,640.1	1,509.2	130.89	12.531		
11,100.0	7,217.0	11,174.4	7,662.0	72.7	68.3	-105.72	3,231.5	501.7	1,642.2	1,505.7	136.58	12.024		
11,200.0	7,217.0	11,274.3	7,662.0	74.1	70.1	-105.74	3,331.2	502.8	1,640.4	1,500.5	139.91	11.725		
11,300.0	7,217.0	11,374.2	7,662.0	75.6	71.7	-105.76	3,430.9	503.9	1,638.6	1,495.6	142.98	11.461		
11,400.0	7,217.0	11,474.1	7,662.0	77.1	73.3	-105.78	3,530.6	504.9	1,636.8	1,490.7	146.06	11.207		
11,500.0	7,217.0	11,574.0	7,662.0	78.6	74.9	-105.80	3,630.3	506.0	1,635.0	1,485.8	149.15	10.962		
11,600.0	7,217.0	11,673.9	7,662.0	80.1	76.5	-105.81	3,730.0	507.1	1,633.1	1,480.9	152.25	10.726		
11,700.0	7,217.0	11,773.8	7,662.0	81.6	78.1	-105.83	3,829.7	508.2	1,631.3	1,475.9	155.37	10.499		
11,800.0	7,217.0	11,873.7	7,662.0	83.1	79.8	-105.85	3,929.4	509.2	1,629.5	1,471.0	158.50	10.281		
11,900.0	7,217.0	11,973.6	7,662.0	84.7	81.4	-105.87	4,029.1	510.3	1,627.7	1,466.0	161.64	10.069		
12,000.0	7,217.0	12,073.5	7,662.0	86.2	83.0	-105.89	4,128.8	511.4	1,625.8	1,461.0	164.79	9.866		
12,100.0	7,217.0	12,173.4	7,662.0	87.8	84.7	-105.91	4,228.5	512.4	1,624.0	1,456.1	167.95	9.669		
12,200.0	7,217.0	12,273.3	7,662.0	89.3	86.3	-105.92	4,328.2	513.5	1,622.2	1,451.1	171.12	9.480		
12,300.0	7,217.0	12,373.2	7,662.0	90.9	88.0	-105.94	4,427.9	514.6	1,620.4	1,446.1	174.30	9.296		
12,400.0	7,217.0	12,473.1	7,662.0	92.5	89.7	-105.96	4,527.6	515.6	1,618.5	1,441.0	177.49	9.119		
12,500.0	7,217.0	12,573.0	7,662.0	94.1	91.3	-105.98	4,627.3	516.7	1,616.7	1,436.0	180.68	8.948		
12,600.0	7,217.0	12,672.9	7,662.0	95.7	93.0	-106.00	4,727.0	517.8	1,614.9	1,431.0	183.88	8.782		
12,700.0	7,217.0	12,772.8	7,662.0	97.3	94.6	-106.02	4,826.7	518.9	1,613.1	1,426.0	187.09	8.622		
12,800.0	7,217.0	12,872.7	7,662.0	98.9	96.3	-106.04	4,926.4	519.9	1,611.2	1,420.9	190.31	8.467		
12,900.0	7,217.0	12,972.6	7,662.0	100.5	98.0	-106.05	5,026.1	521.0	1,609.4	1,415.9	193.53	8.316		
13,000.0	7,217.0	13,072.5	7,662.0	102.1	99.7	-106.07	5,125.8	522.1	1,607.6	1,410.8	196.75	8.171		
13,100.0	7,217.0	13,172.4	7,662.0	103.7	101.4	-106.09	5,225.5	523.1	1,605.8	1,405.8	199.98	8.029		
13,200.0	7,217.0	13,272.3	7,662.0	105.3	103.0	-106.11	5,325.2	524.2	1,603.9	1,400.7	203.22	7.893		
13,300.0	7,217.0	13,372.2	7,662.0	107.0	104.7	-106.13	5,424.9	525.3	1,602.1	1,395.7	206.46	7.760		
13,400.0	7,217.0	13,472.1	7,662.0	108.6	106.4	-106.15	5,524.6	526.3	1,600.3	1,390.6	209.71	7.631		
13,500.0	7,217.0	13,572.0	7,662.0	110.3	108.1	-106.17	5,624.3	527.4	1,598.5	1,385.5	212.96	7.506		
13,600.0	7,217.0	13,671.9	7,662.0	111.9	109.8	-106.19	5,724.0	528.5	1,596.7	1,380.4	216.21	7.385		
13,700.0	7,217.0	13,771.8	7,662.0	113.5	111.5	-106.20	5,823.7	529.6	1,594.8	1,375.4	219.47	7.267		
13,800.0	7,217.0	13,871.7	7,662.0	115.2	113.2	-106.22	5,923.4	530.6	1,593.0	1,370.3	222.73	7.152		
13,900.0	7,217.0	13,971.6	7,662.0	116.9	114.9	-106.24	6,023.1	531.7	1,591.2	1,365.2	226.00	7.041		
14,000.0	7,217.0	14,071.5	7,662.0	118.5	116.6	-106.26	6,122.8	532.8	1,589.4	1,360.1	229.27	6.932		
14,100.0	7,217.0	14,171.4	7,662.0	120.2	118.3	-106.28	6,222.5	533.8	1,587.6	1,355.0	232.54	6.827		
14,200.0	7,217.0	14,271.3	7,662.0	121.8	120.0	-106.30	6,322.2	534.9	1,585.7	1,349.9	235.82	6.724		
14,300.0	7,217.0	14,371.2	7,662.0	123.5	121.7	-106.32	6,421.9	536.0	1,583.9	1,344.8	239.10	6.625		
14,400.0	7,217.0	14,471.1	7,662.0	125.2	123.4	-106.34	6,521.6	537.0	1,582.1	1,339.7	242.38	6.527		
14,500.0	7,217.0	14,571.0	7,662.0	126.9	125.1	-106.36	6,621.3	538.1	1,580.3	1,334.6	245.66	6.433		
14,600.0	7,217.0	14,670.9	7,662.0	128.5	126.8	-106.38	6,721.0	539.2	1,578.5	1,329.5	248.95	6.340		
14,700.0	7,217.0	14,770.8	7,662.0	130.2	128.5	-106.40	6,820.7	540.3	1,576.6	1,324.4	252.24	6.251		
14,800.0	7,217.0	14,870.7	7,662.0	131.9	130.2	-106.42	6,920.4	541.3	1,574.8	1,319.3	255.53	6.163		
14,900.0	7,217.0	14,970.6	7,662.0	133.6	132.0	-106.44	7,020.1	542.4	1,573.0	1,314.2	258.82	6.078		
15,000.0	7,217.0	15,070.5	7,662.0	135.3	133.7	-106.46	7,119.8	543.5	1,571.2	1,309.1	262.12	5.994		
15,100.0	7,217.0	15,170.4	7,662.0	136.9	135.4	-106.48	7,219.5	544.5	1,569.4	1,303.9	265.41	5.913		
15,200.0	7,217.0	15,270.3	7,662.0	138.6	137.1	-106.50	7,319.2	545.6	1,567.5	1,298.8	268.71	5.834		
15,300.0	7,217.0	15,370.2	7,662.0	140.3	138.8	-106.51	7,418.9	546.7	1,565.7	1,293.7	272.01	5.756		
15,400.0	7,217.0	15,470.1	7,662.0	142.0	140.5	-106.53	7,518.6	547.7	1,563.9	1,288.6	275.31	5.680		
15,500.0	7,217.0	15,570.0	7,662.0	143.7	142.3	-106.55	7,618.3	548.8	1,562.1	1,283.5	278.62	5.607		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	15,767.3	7,662.0	145.4	144.0	-106.57	7,824.2	549.9	1,560.3	1,278.3	281.92	5.534		
15,700.0	7,217.0	15,867.3	7,662.0	147.1	145.7	-106.59	7,924.2	551.0	1,558.4	1,273.2	285.23	5.464		
15,800.0	7,217.0	15,967.3	7,662.0	148.8	147.4	-106.61	8,024.2	552.0	1,556.6	1,268.1	288.54	5.395		
15,900.0	7,217.0	16,067.3	7,662.0	150.5	149.2	-106.63	8,124.2	553.1	1,554.8	1,263.0	291.85	5.327		
16,000.0	7,217.0	16,167.2	7,662.0	152.2	150.9	-106.65	8,224.1	554.2	1,553.0	1,257.8	295.16	5.262		
16,100.0	7,217.0	16,267.2	7,662.0	153.9	152.6	-106.67	8,324.1	555.2	1,551.2	1,252.7	298.47	5.197		
16,200.0	7,217.0	16,367.2	7,662.0	155.6	154.3	-106.69	8,424.1	556.3	1,549.4	1,247.6	301.78	5.134		
16,300.0	7,217.0	16,467.2	7,662.0	157.3	156.1	-106.71	8,524.1	557.4	1,547.5	1,242.4	305.09	5.072		
16,400.0	7,217.0	16,567.2	7,662.0	159.0	157.8	-106.73	8,624.0	558.4	1,545.7	1,237.3	308.41	5.012		
16,500.0	7,217.0	16,667.2	7,662.0	160.7	159.5	-106.75	8,724.0	559.5	1,543.9	1,232.2	311.72	4.953		
16,600.0	7,217.0	16,767.1	7,662.0	162.4	161.2	-106.78	8,824.0	560.6	1,542.1	1,227.0	315.04	4.895		
16,700.0	7,217.0	16,867.1	7,662.0	164.1	163.0	-106.80	8,924.0	561.7	1,540.3	1,221.9	318.36	4.838		
16,800.0	7,217.0	16,967.1	7,662.0	165.9	164.7	-106.82	9,023.9	562.7	1,538.5	1,216.8	321.67	4.783		
16,900.0	7,217.0	17,067.1	7,662.0	167.6	166.4	-106.84	9,123.9	563.8	1,536.6	1,211.6	324.99	4.728		
17,000.0	7,217.0	17,167.1	7,662.0	169.3	168.2	-106.86	9,223.9	564.9	1,534.8	1,206.5	328.31	4.675		
17,100.0	7,217.0	17,267.0	7,662.0	171.0	169.9	-106.88	9,323.9	565.9	1,533.0	1,201.4	331.63	4.623		
17,200.0	7,217.0	17,367.0	7,662.0	172.7	171.6	-106.90	9,423.8	567.0	1,531.2	1,196.2	334.95	4.571		
17,300.0	7,217.0	17,467.0	7,662.0	174.4	173.4	-106.92	9,523.8	568.1	1,529.4	1,191.1	338.27	4.521		
17,400.0	7,217.0	17,567.0	7,662.0	176.2	175.1	-106.94	9,623.8	569.1	1,527.6	1,186.0	341.59	4.472		
17,500.0	7,217.0	17,667.0	7,662.0	177.9	176.8	-106.96	9,723.8	570.2	1,525.7	1,180.8	344.91	4.424		
17,600.0	7,217.0	17,767.0	7,662.0	179.6	178.6	-106.98	9,823.8	571.3	1,523.9	1,175.7	348.24	4.376		
17,700.0	7,217.0	17,850.8	7,662.0	181.3	180.0	-107.00	9,907.5	572.2	1,522.2	1,171.2	350.99	4.337 SF		
17,711.4	7,217.0	17,850.8	7,662.0	181.5	180.0	-107.00	9,907.5	572.2	1,522.2	1,171.2	350.94	4.337		
17,723.1	7,217.0	17,850.8	7,662.0	181.7	180.0	-107.00	9,907.5	572.2	1,522.2	1,171.3	350.88	4.338		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-90.30	-0.2	-29.9	29.9					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.2	-29.9	29.9	29.7	0.28	108.096		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.2	-29.9	29.9	29.1	0.80	37.532		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.2	-29.9	29.9	28.7	1.22	24.456		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.2	-29.9	29.9	28.3	1.62	18.504		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.2	-29.9	29.9	27.9	2.00	14.981		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.2	-29.9	29.9	27.6	2.37	12.621		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.2	-29.9	29.9	27.2	2.74	10.920	CC, ES	
800.0	800.0	800.0	800.0	3.5	0.0	167.11	-0.2	-29.9	31.6	28.3	3.33	9.515		
900.0	899.8	899.8	899.8	4.2	0.0	168.91	-0.2	-29.9	36.8	32.6	4.19	8.765		
1,000.0	999.5	1,001.0	1,000.9	5.0	0.0	170.42	-0.8	-28.3	43.7	38.7	4.96	8.798		
1,100.0	1,098.7	1,102.3	1,102.1	5.8	0.0	171.07	-2.6	-23.2	50.6	45.0	5.66	8.949		
1,200.0	1,197.5	1,203.9	1,203.4	6.5	0.0	171.17	-5.6	-14.8	57.6	51.3	6.29	9.160		
1,300.0	1,295.6	1,305.8	1,304.4	7.1	0.0	170.89	-9.8	-2.9	64.6	57.7	6.87	9.401		
1,400.0	1,393.1	1,407.9	1,405.2	7.7	0.0	170.35	-15.2	12.3	71.6	64.2	7.42	9.658		
1,500.0	1,489.6	1,510.2	1,505.6	8.3	0.0	169.61	-21.9	31.0	78.7	70.7	7.93	9.924		
1,600.0	1,585.3	1,612.1	1,604.8	8.8	0.0	168.75	-29.7	52.9	85.8	77.4	8.42	10.195		
1,700.0	1,679.8	1,711.6	1,701.5	9.3	0.0	168.26	-37.6	75.2	95.4	86.5	8.88	10.744		
1,800.0	1,773.9	1,811.0	1,798.0	9.5	0.0	168.06	-45.6	97.5	106.4	97.3	9.14	11.639		
1,900.0	1,867.9	1,910.4	1,894.5	9.8	0.0	167.89	-53.5	119.8	117.5	108.0	9.43	12.452		
2,000.0	1,962.0	2,009.8	1,991.0	10.1	0.0	167.76	-61.5	142.1	128.5	118.8	9.74	13.198		
2,100.0	2,056.0	2,109.2	2,087.6	10.5	0.0	167.64	-69.4	164.4	139.5	129.5	10.05	13.884		
2,200.0	2,150.1	2,208.5	2,184.1	10.9	0.0	167.55	-77.4	186.7	150.6	140.2	10.37	14.513		
2,300.0	2,244.1	2,307.9	2,280.6	11.3	0.0	167.46	-85.3	209.0	161.6	150.9	10.71	15.090		
2,400.0	2,338.2	2,407.3	2,377.2	11.8	0.0	167.39	-93.3	231.3	172.6	161.6	11.05	15.620		
2,500.0	2,432.3	2,506.7	2,473.7	12.4	0.0	167.33	-101.2	253.6	183.7	172.3	11.40	16.106		
2,600.0	2,526.3	2,606.1	2,570.2	13.0	0.0	167.27	-109.2	275.9	194.7	182.9	11.76	16.554		
2,700.0	2,620.4	2,705.5	2,666.7	13.7	0.0	167.22	-117.1	298.2	205.7	193.6	12.13	16.966		
2,800.0	2,714.4	2,804.9	2,763.3	14.3	0.0	167.17	-125.1	320.5	216.8	204.3	12.50	17.346		
2,900.0	2,808.5	2,904.3	2,859.8	15.0	0.0	167.13	-133.0	342.8	227.8	214.9	12.87	17.696		
3,000.0	2,902.5	3,003.7	2,956.3	15.7	0.0	167.09	-141.0	365.1	238.9	225.6	13.26	18.020		
3,100.0	2,996.6	3,103.0	3,052.9	16.4	0.0	167.06	-148.9	387.4	249.9	236.3	13.64	18.320		
3,200.0	3,090.6	3,202.4	3,149.4	17.1	0.0	167.03	-156.8	409.7	260.9	246.9	14.03	18.597		
3,300.0	3,184.7	3,301.8	3,245.9	17.7	0.0	167.00	-164.8	432.0	272.0	257.5	14.42	18.855		
3,400.0	3,278.7	3,401.2	3,342.4	18.4	0.0	166.97	-172.7	454.3	283.0	268.2	14.82	19.095		
3,500.0	3,372.8	3,500.6	3,439.0	19.1	0.0	166.95	-180.7	476.5	294.0	278.8	15.22	19.318		
3,600.0	3,466.9	3,600.0	3,535.5	19.8	0.0	166.93	-188.6	498.8	305.1	289.5	15.62	19.526		
3,700.0	3,560.9	3,699.4	3,632.0	20.6	0.0	166.90	-196.6	521.1	316.1	300.1	16.03	19.720		
3,800.0	3,655.0	3,798.8	3,728.6	21.3	0.0	166.89	-204.5	543.4	327.2	310.7	16.44	19.901		
3,900.0	3,749.0	3,898.2	3,825.1	22.0	0.0	166.87	-212.5	565.7	338.2	321.3	16.85	20.071		
4,000.0	3,843.1	3,997.5	3,921.6	22.7	0.0	166.85	-220.4	588.0	349.2	332.0	17.26	20.230		
4,100.0	3,937.1	4,096.9	4,018.2	23.4	0.0	166.83	-228.4	610.3	360.3	342.6	17.68	20.380		
4,200.0	4,031.2	4,196.3	4,114.7	24.1	0.0	166.82	-236.3	632.6	371.3	353.2	18.10	20.520		
4,300.0	4,125.2	4,295.7	4,211.2	24.8	0.0	166.80	-244.3	654.9	382.3	363.8	18.51	20.652		
4,400.0	4,219.3	4,395.1	4,307.7	25.5	0.0	166.79	-252.2	677.2	393.4	374.5	18.93	20.777		
4,500.0	4,313.3	4,494.5	4,404.3	26.2	0.0	166.78	-260.2	699.5	404.4	385.1	19.36	20.894		
4,600.0	4,407.4	4,593.9	4,500.8	26.9	0.0	166.76	-268.1	721.8	415.5	395.7	19.78	21.005		
4,700.0	4,501.5	4,693.3	4,597.3	27.6	0.0	166.75	-276.0	744.1	426.5	406.3	20.20	21.110		
4,800.0	4,595.5	4,792.7	4,693.9	28.4	0.0	166.74	-284.0	766.4	437.5	416.9	20.63	21.209		
4,900.0	4,689.6	4,892.0	4,790.4	29.1	0.0	166.73	-291.9	788.7	448.6	427.5	21.06	21.303		
5,000.0	4,783.6	4,991.4	4,886.9	29.8	0.0	166.72	-299.9	811.0	459.6	438.1	21.48	21.393		
5,100.0	4,877.7	5,090.8	4,983.4	30.5	0.0	166.71	-307.8	833.3	470.7	448.7	21.91	21.477		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,190.2	5,080.0	31.2	0.0	166.70	-315.8	855.6	481.7	459.3	22.34	21.558		
5,300.0	5,065.8	5,289.6	5,176.5	31.9	0.0	166.70	-323.7	877.9	492.7	470.0	22.78	21.634		
5,400.0	5,159.8	5,389.0	5,273.0	32.7	0.0	166.69	-331.7	900.2	503.8	480.6	23.21	21.707		
5,500.0	5,253.9	5,488.4	5,369.6	33.4	0.0	166.68	-339.6	922.5	514.8	491.2	23.64	21.777		
5,600.0	5,347.9	5,587.8	5,466.1	34.1	0.0	166.67	-347.6	944.8	525.8	501.8	24.07	21.843		
5,700.0	5,442.0	5,687.2	5,562.6	34.8	0.0	166.66	-355.5	967.0	536.9	512.4	24.51	21.906		
5,800.0	5,536.1	5,786.5	5,659.2	35.5	0.0	166.66	-363.5	989.3	547.9	523.0	24.94	21.967		
5,900.0	5,630.1	5,885.9	5,755.7	36.2	0.0	166.65	-371.4	1,011.6	559.0	533.6	25.38	22.024		
6,000.0	5,724.2	5,985.3	5,852.2	37.0	0.0	166.64	-379.4	1,033.9	570.0	544.2	25.82	22.080		
6,100.0	5,818.2	6,084.7	5,948.7	37.7	0.0	166.64	-387.3	1,056.2	581.0	554.8	26.25	22.133		
6,200.0	5,912.3	6,184.1	6,045.3	38.4	0.0	166.63	-395.2	1,078.5	592.1	565.4	26.69	22.183		
6,300.0	6,006.3	6,283.5	6,141.8	39.1	0.0	166.63	-403.2	1,100.8	603.1	576.0	27.13	22.232		
6,400.0	6,100.4	6,382.9	6,238.3	39.8	0.0	166.62	-411.1	1,123.1	614.1	586.6	27.57	22.278		
6,500.0	6,194.4	6,482.3	6,334.9	40.5	0.0	166.62	-419.1	1,145.4	625.2	597.2	28.01	22.323		
6,600.0	6,288.5	6,581.7	6,431.4	41.3	0.0	166.61	-427.0	1,167.7	636.2	607.8	28.45	22.366		
6,700.0	6,382.5	6,681.0	6,527.9	42.0	0.0	166.61	-435.0	1,190.0	647.3	618.4	28.89	22.408		
6,800.0	6,476.6	6,780.4	6,624.4	42.7	0.0	166.60	-442.9	1,212.3	658.3	629.0	29.33	22.447		
6,900.0	6,570.7	6,879.8	6,721.0	43.4	0.0	166.60	-450.9	1,234.6	669.3	639.6	29.77	22.486		
7,000.0	6,664.8	6,979.1	6,817.5	44.1	0.0	176.56	-457.0	1,256.9	680.4	650.2	30.19	22.536		
7,100.0	6,758.8	7,077.9	6,913.3	44.9	0.0	-155.19	-448.5	1,278.9	691.4	660.9	30.56	22.623		
7,200.0	6,853.3	7,176.5	7,006.2	45.5	0.0	-134.96	-423.4	1,300.0	702.2	671.1	31.04	22.621		
7,300.0	6,936.6	7,275.0	7,093.3	45.9	0.0	-122.48	-382.4	1,319.8	712.3	680.8	31.51	22.604		
7,400.0	7,014.9	7,373.3	7,172.3	46.3	0.0	-114.68	-326.7	1,337.5	721.5	689.6	31.89	22.626		
7,500.0	7,083.0	7,471.7	7,241.0	46.6	0.0	-109.60	-258.0	1,352.7	729.5	697.3	32.19	22.663		
7,600.0	7,138.7	7,570.2	7,297.2	46.8	0.0	-106.23	-178.3	1,365.0	736.0	703.6	32.45	22.681		
7,700.0	7,180.3	7,668.7	7,339.3	46.9	0.0	-104.07	-89.9	1,374.0	740.9	708.2	32.71	22.650		
7,800.0	7,206.7	7,767.3	7,366.2	47.0	0.0	-102.84	4.7	1,379.4	744.0	711.0	32.99	22.549		
7,900.0	7,216.9	7,865.9	7,376.8	47.0	0.0	-102.40	102.7	1,381.1	745.2	711.9	33.32	22.367		
8,000.0	7,217.0	7,965.7	7,377.0	47.0	0.0	-102.40	202.5	1,380.3	745.2	711.6	33.64	22.155		
8,100.0	7,217.0	8,065.7	7,377.0	47.0	0.0	-102.40	302.5	1,379.4	745.2	711.2	34.04	21.891		
8,200.0	7,217.0	8,165.7	7,377.0	47.1	0.0	-102.40	402.5	1,378.6	745.2	710.7	34.53	21.581		
8,300.0	7,217.0	8,265.7	7,377.0	47.2	0.0	-102.40	502.4	1,377.8	745.2	710.1	35.10	21.232		
8,400.0	7,217.0	8,365.7	7,377.0	47.4	0.0	-102.40	602.4	1,377.0	745.2	709.5	35.74	20.850		
8,500.0	7,217.0	8,465.7	7,377.0	47.6	0.0	-102.40	702.4	1,376.1	745.2	708.8	36.46	20.442		
8,600.0	7,217.0	8,565.7	7,377.0	47.9	0.0	-102.40	802.4	1,375.3	745.2	708.0	37.24	20.013		
8,700.0	7,217.0	8,665.7	7,377.0	48.2	0.0	-102.40	902.4	1,374.5	745.2	707.2	38.08	19.570		
8,800.0	7,217.0	8,765.7	7,377.0	48.6	0.0	-102.40	1,002.4	1,373.7	745.2	706.2	38.98	19.117		
8,900.0	7,217.0	8,865.7	7,377.0	49.0	0.0	-102.40	1,102.4	1,372.8	745.2	705.3	39.94	18.659		
9,000.0	7,217.0	8,965.7	7,377.0	49.6	0.0	-102.40	1,202.4	1,372.0	745.2	704.3	40.95	18.199		
9,100.0	7,217.0	9,065.7	7,377.0	50.1	0.0	-102.40	1,302.4	1,371.2	745.2	703.2	42.00	17.742		
9,200.0	7,217.0	9,165.7	7,377.0	50.8	0.0	-102.40	1,402.4	1,370.3	745.2	702.1	43.10	17.289		
9,300.0	7,217.0	9,265.7	7,377.0	51.5	0.0	-102.40	1,502.4	1,369.5	745.2	701.0	44.24	16.844		
9,400.0	7,217.0	9,365.7	7,377.0	52.3	0.0	-102.40	1,602.4	1,368.7	745.2	699.8	45.42	16.407		
9,500.0	7,217.0	9,465.7	7,377.0	53.1	0.0	-102.40	1,702.4	1,367.9	745.2	698.6	46.63	15.981		
9,600.0	7,217.0	9,565.7	7,377.0	54.0	0.0	-102.40	1,802.4	1,367.0	745.2	697.4	47.88	15.565		
9,700.0	7,217.0	9,665.7	7,377.0	55.0	0.0	-102.40	1,902.4	1,366.2	745.2	696.1	49.15	15.162		
9,800.0	7,217.0	9,765.7	7,377.0	56.0	0.0	-102.40	2,002.4	1,365.4	745.2	694.8	50.45	14.771		
9,900.0	7,217.0	9,865.7	7,377.0	57.1	0.0	-102.40	2,102.4	1,364.6	745.2	693.5	51.78	14.392		
10,000.0	7,217.0	9,965.7	7,377.0	58.2	0.0	-102.40	2,202.4	1,363.7	745.2	692.1	53.13	14.027		
10,100.0	7,217.0	10,065.7	7,377.0	59.4	0.0	-102.40	2,302.4	1,362.9	745.2	690.7	54.50	13.674		
10,200.0	7,217.0	10,165.7	7,377.0	60.6	0.0	-102.40	2,402.4	1,362.1	745.2	689.3	55.89	13.333		
10,300.0	7,217.0	10,265.7	7,377.0	61.8	0.0	-102.40	2,502.4	1,361.2	745.2	687.9	57.30	13.005		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,365.7	7,377.0	63.1	0.0	-102.40	2,602.4	1,360.4	745.2	686.5	58.73	12.689		
10,500.0	7,217.0	10,465.7	7,377.0	64.4	0.0	-102.40	2,702.4	1,359.6	745.2	685.1	60.17	12.384		
10,600.0	7,217.0	10,565.7	7,377.0	65.7	0.0	-102.40	2,802.4	1,358.8	745.2	683.6	61.63	12.091		
10,700.0	7,217.0	10,665.7	7,377.0	67.1	0.0	-102.40	2,902.4	1,357.9	745.2	682.1	63.11	11.809		
10,800.0	7,217.0	10,765.7	7,377.0	68.4	0.0	-102.40	3,002.4	1,357.1	745.2	680.6	64.59	11.538		
10,900.0	7,217.0	10,865.7	7,377.0	69.8	0.0	-102.40	3,102.4	1,356.3	745.2	679.1	66.09	11.276		
11,000.0	7,217.0	10,965.7	7,377.0	71.3	0.0	-102.40	3,202.4	1,355.5	745.2	677.6	67.60	11.025		
11,100.0	7,217.0	11,065.7	7,377.0	72.7	0.0	-102.40	3,302.4	1,354.6	745.2	676.1	69.12	10.782		
11,200.0	7,217.0	11,165.7	7,377.0	74.1	0.0	-102.40	3,402.4	1,353.8	745.2	674.6	70.65	10.549		
11,300.0	7,217.0	11,265.7	7,377.0	75.6	0.0	-102.40	3,502.3	1,353.0	745.2	673.1	72.18	10.324		
11,400.0	7,217.0	11,365.7	7,377.0	77.1	0.0	-102.40	3,602.3	1,352.1	745.2	671.5	73.73	10.108		
11,500.0	7,217.0	11,465.7	7,377.0	78.6	0.0	-102.40	3,702.3	1,351.3	745.2	669.9	75.29	9.899		
11,600.0	7,217.0	11,565.7	7,377.0	80.1	0.0	-102.40	3,802.3	1,350.5	745.2	668.4	76.85	9.697		
11,700.0	7,217.0	11,665.7	7,377.0	81.6	0.0	-102.40	3,902.3	1,349.7	745.2	666.8	78.42	9.503		
11,800.0	7,217.0	11,765.7	7,377.0	83.1	0.0	-102.40	4,002.3	1,348.8	745.2	665.2	79.99	9.316		
11,900.0	7,217.0	11,865.7	7,377.0	84.7	0.0	-102.40	4,102.3	1,348.0	745.2	663.7	81.58	9.135		
12,000.0	7,217.0	11,965.7	7,377.0	86.2	0.0	-102.40	4,202.3	1,347.2	745.2	662.1	83.17	8.961		
12,100.0	7,217.0	12,065.7	7,377.0	87.8	0.0	-102.40	4,302.3	1,346.4	745.2	660.5	84.76	8.792		
12,200.0	7,217.0	12,165.7	7,377.0	89.3	0.0	-102.40	4,402.3	1,345.5	745.2	658.9	86.36	8.629		
12,300.0	7,217.0	12,265.7	7,377.0	90.9	0.0	-102.40	4,502.3	1,344.7	745.2	657.3	87.97	8.472		
12,400.0	7,217.0	12,365.7	7,377.0	92.5	0.0	-102.40	4,602.3	1,343.9	745.2	655.7	89.57	8.320		
12,500.0	7,217.0	12,465.7	7,377.0	94.1	0.0	-102.40	4,702.3	1,343.1	745.2	654.0	91.19	8.172		
12,600.0	7,217.0	12,565.7	7,377.0	95.7	0.0	-102.40	4,802.3	1,342.2	745.2	652.4	92.81	8.030		
12,700.0	7,217.0	12,665.7	7,377.0	97.3	0.0	-102.40	4,902.3	1,341.4	745.2	650.8	94.43	7.892		
12,800.0	7,217.0	12,765.7	7,377.0	98.9	0.0	-102.40	5,002.3	1,340.6	745.2	649.2	96.06	7.758		
12,900.0	7,217.0	12,865.7	7,377.0	100.5	0.0	-102.40	5,102.3	1,339.7	745.2	647.6	97.69	7.629		
13,000.0	7,217.0	12,965.7	7,377.0	102.1	0.0	-102.40	5,202.3	1,338.9	745.2	645.9	99.32	7.503		
13,100.0	7,217.0	13,065.7	7,377.0	103.7	0.0	-102.40	5,302.3	1,338.1	745.2	644.3	100.96	7.382		
13,200.0	7,217.0	13,165.7	7,377.0	105.3	0.0	-102.40	5,402.3	1,337.3	745.2	642.6	102.60	7.264		
13,300.0	7,217.0	13,265.7	7,377.0	107.0	0.0	-102.40	5,502.3	1,336.4	745.2	641.0	104.24	7.149		
13,400.0	7,217.0	13,365.7	7,377.0	108.6	0.0	-102.40	5,602.3	1,335.6	745.2	639.4	105.89	7.038		
13,500.0	7,217.0	13,465.7	7,377.0	110.3	0.0	-102.40	5,702.3	1,334.8	745.2	637.7	107.53	6.930		
13,600.0	7,217.0	13,565.7	7,377.0	111.9	0.0	-102.40	5,802.3	1,334.0	745.2	636.1	109.19	6.825		
13,700.0	7,217.0	13,665.7	7,377.0	113.5	0.0	-102.40	5,902.3	1,333.1	745.2	634.4	110.84	6.724		
13,800.0	7,217.0	13,765.7	7,377.0	115.2	0.0	-102.40	6,002.3	1,332.3	745.2	632.7	112.49	6.625		
13,900.0	7,217.0	13,865.7	7,377.0	116.9	0.0	-102.40	6,102.3	1,331.5	745.2	631.1	114.15	6.528		
14,000.0	7,217.0	13,965.7	7,377.0	118.5	0.0	-102.40	6,202.3	1,330.6	745.2	629.4	115.81	6.435		
14,100.0	7,217.0	14,065.7	7,377.0	120.2	0.0	-102.40	6,302.3	1,329.8	745.2	627.8	117.48	6.344		
14,200.0	7,217.0	14,165.7	7,377.0	121.8	0.0	-102.40	6,402.2	1,329.0	745.2	626.1	119.14	6.255		
14,300.0	7,217.0	14,265.7	7,377.0	123.5	0.0	-102.40	6,502.2	1,328.2	745.2	624.4	120.81	6.169		
14,400.0	7,217.0	14,365.7	7,377.0	125.2	0.0	-102.40	6,602.2	1,327.3	745.2	622.8	122.48	6.085		
14,500.0	7,217.0	14,465.7	7,377.0	126.9	0.0	-102.40	6,702.2	1,326.5	745.2	621.1	124.15	6.003		
14,600.0	7,217.0	14,565.7	7,377.0	128.5	0.0	-102.40	6,802.2	1,325.7	745.2	619.4	125.82	5.923		
14,700.0	7,217.0	14,665.7	7,377.0	130.2	0.0	-102.40	6,902.2	1,324.9	745.2	617.7	127.49	5.845		
14,800.0	7,217.0	14,765.7	7,377.0	131.9	0.0	-102.40	7,002.2	1,324.0	745.2	616.1	129.17	5.770		
14,900.0	7,217.0	14,865.7	7,377.0	133.6	0.0	-102.40	7,102.2	1,323.2	745.2	614.4	130.84	5.696		
15,000.0	7,217.0	14,965.7	7,377.0	135.3	0.0	-102.40	7,202.2	1,322.4	745.2	612.7	132.52	5.624		
15,100.0	7,217.0	15,065.7	7,377.0	136.9	0.0	-102.40	7,302.2	1,321.6	745.2	611.0	134.20	5.553		
15,200.0	7,217.0	15,165.7	7,377.0	138.6	0.0	-102.40	7,402.2	1,320.7	745.2	609.4	135.88	5.485		
15,300.0	7,217.0	15,265.7	7,377.0	140.3	0.0	-102.40	7,502.2	1,319.9	745.2	607.7	137.56	5.417		
15,400.0	7,217.0	15,365.7	7,377.0	142.0	0.0	-102.40	7,602.2	1,319.1	745.2	606.0	139.25	5.352		
15,500.0	7,217.0	15,465.7	7,377.0	143.7	0.0	-102.40	7,702.2	1,318.2	745.2	604.3	140.93	5.288		

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 19-18-4NXH
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 19-18-4NXH	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		
15,600.0	7,217.0	15,565.7	7,377.0	145.4	0.0	-102.40	7,802.2	1,317.4	745.2	602.6	142.62	5.225		
15,700.0	7,217.0	15,665.7	7,377.0	147.1	0.0	-102.40	7,902.2	1,316.6	745.2	600.9	144.30	5.164		
15,800.0	7,217.0	15,765.7	7,377.0	148.8	0.0	-102.40	8,002.2	1,315.8	745.2	599.3	145.99	5.105		
15,900.0	7,217.0	15,865.7	7,377.0	150.5	0.0	-102.40	8,102.2	1,314.9	745.2	597.6	147.68	5.046		
16,000.0	7,217.0	15,965.7	7,377.0	152.2	0.0	-102.40	8,202.2	1,314.1	745.2	595.9	149.37	4.989		
16,100.0	7,217.0	16,065.7	7,377.0	153.9	0.0	-102.40	8,302.2	1,313.3	745.2	594.2	151.06	4.933		
16,200.0	7,217.0	16,165.7	7,377.0	155.6	0.0	-102.40	8,402.2	1,312.5	745.2	592.5	152.75	4.879		
16,300.0	7,217.0	16,265.7	7,377.0	157.3	0.0	-102.40	8,502.2	1,311.6	745.2	590.8	154.45	4.825		
16,400.0	7,217.0	16,365.7	7,377.0	159.0	0.0	-102.40	8,602.2	1,310.8	745.2	589.1	156.14	4.773		
16,500.0	7,217.0	16,465.7	7,377.0	160.7	0.0	-102.40	8,702.2	1,310.0	745.2	587.4	157.83	4.722		
16,600.0	7,217.0	16,565.7	7,377.0	162.4	0.0	-102.40	8,802.2	1,309.1	745.2	585.7	159.53	4.672		
16,700.0	7,217.0	16,665.7	7,377.0	164.1	0.0	-102.40	8,902.2	1,308.3	745.2	584.0	161.23	4.622		
16,800.0	7,217.0	16,765.7	7,377.0	165.9	0.0	-102.40	9,002.2	1,307.5	745.2	582.3	162.92	4.574		
16,900.0	7,217.0	16,865.7	7,377.0	167.6	0.0	-102.40	9,102.2	1,306.7	745.2	580.6	164.62	4.527		
17,000.0	7,217.0	16,965.7	7,377.0	169.3	0.0	-102.40	9,202.2	1,305.8	745.2	578.9	166.32	4.481		
17,100.0	7,217.0	17,065.7	7,377.0	171.0	0.0	-102.40	9,302.1	1,305.0	745.2	577.2	168.02	4.436		
17,200.0	7,217.0	17,165.7	7,377.0	172.7	0.0	-102.40	9,402.1	1,304.2	745.2	575.5	169.72	4.391		
17,300.0	7,217.0	17,265.7	7,377.0	174.4	0.0	-102.40	9,502.1	1,303.4	745.2	573.8	171.42	4.348		
17,400.0	7,217.0	17,365.7	7,377.0	176.2	0.0	-102.40	9,602.1	1,302.5	745.2	572.1	173.12	4.305		
17,500.0	7,217.0	17,465.7	7,377.0	177.9	0.0	-102.40	9,702.1	1,301.7	745.2	570.4	174.82	4.263		
17,600.0	7,217.0	17,565.7	7,377.0	179.6	0.0	-102.40	9,802.1	1,300.9	745.2	568.7	176.52	4.222		
17,700.0	7,217.0	17,665.7	7,377.0	181.3	0.0	-102.40	9,902.1	1,300.0	745.2	567.0	178.23	4.181		
17,700.0	7,217.0	17,665.8	7,377.0	181.3	0.0	-102.40	9,902.1	1,300.0	745.2	567.0	178.23	4.181		
17,723.1	7,217.0	17,683.1	7,377.0	181.7	0.0	-102.40	9,919.5	1,299.9	745.3	566.8	178.42	4.177 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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 19-18-3NCH - 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	-90.33	-0.3	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.33	-0.3	-45.0	45.0	44.4	0.55	81.209		
200.0	200.0	200.0	200.0	1.0	1.0	-90.33	-0.3	-45.0	45.0	43.4	1.60	28.184		
300.0	300.0	300.0	300.0	1.5	1.5	-90.33	-0.3	-45.0	45.0	42.5	2.45	18.364		
400.0	400.0	400.0	400.0	1.9	1.9	-90.33	-0.3	-45.0	45.0	41.7	3.24	13.894		
500.0	500.0	500.0	500.0	2.3	2.3	-90.33	-0.3	-45.0	45.0	41.0	4.00	11.249		
600.0	600.0	600.0	600.0	2.7	2.7	-90.33	-0.3	-45.0	45.0	40.2	4.75	9.477		
700.0	700.0	700.0	700.0	3.1	3.1	-90.33	-0.3	-45.0	45.0	39.5	5.48	8.200 CC, ES		
800.0	800.0	800.0	800.0	3.5	3.5	166.85	-0.3	-45.0	46.7	40.2	6.43	7.258		
900.0	899.8	899.8	899.8	4.2	3.9	168.14	-0.3	-45.0	51.8	44.1	7.64	6.777		
1,000.0	999.5	999.5	999.5	5.0	4.2	169.81	-0.3	-45.0	60.3	51.6	8.74	6.903		
1,100.0	1,098.7	1,101.1	1,101.1	5.8	4.6	171.08	-0.9	-43.3	70.7	60.8	9.94	7.110		
1,200.0	1,197.5	1,203.1	1,202.9	6.5	5.0	171.61	-3.0	-38.3	81.2	69.9	11.32	7.171		
1,300.0	1,295.6	1,305.5	1,304.9	7.1	5.8	171.64	-6.5	-30.0	91.7	79.1	12.58	7.287		
1,400.0	1,393.1	1,408.3	1,406.9	7.7	6.5	171.33	-11.4	-18.2	102.2	88.5	13.75	7.437		
1,500.0	1,489.6	1,511.4	1,508.7	8.3	7.2	170.77	-17.8	-3.0	112.8	98.0	14.84	7.604		
1,600.0	1,585.3	1,614.5	1,609.8	8.8	7.9	170.03	-25.5	15.6	123.5	107.6	15.89	7.773		
1,700.0	1,679.8	1,713.7	1,706.8	9.3	8.2	169.47	-33.6	34.8	136.1	119.4	16.68	8.160		
1,800.0	1,773.9	1,812.7	1,803.5	9.5	8.5	169.15	-41.6	54.0	150.2	133.0	17.22	8.725		
1,900.0	1,867.9	1,911.7	1,900.3	9.8	8.8	168.88	-49.6	73.2	164.3	146.5	17.79	9.237		
2,000.0	1,962.0	2,010.7	1,997.1	10.1	9.1	168.66	-57.6	92.4	178.5	160.1	18.39	9.705		
2,100.0	2,056.0	2,109.7	2,093.9	10.5	9.4	168.47	-65.6	111.6	192.6	173.6	19.01	10.132		
2,200.0	2,150.1	2,208.7	2,190.7	10.9	9.8	168.30	-73.6	130.8	206.7	187.0	19.64	10.522		
2,300.0	2,244.1	2,307.7	2,287.5	11.3	10.1	168.16	-81.6	150.0	220.8	200.5	20.30	10.878		
2,400.0	2,338.2	2,406.6	2,384.3	11.8	10.4	168.03	-89.6	169.2	234.9	214.0	20.97	11.204		
2,500.0	2,432.3	2,505.6	2,481.1	12.4	10.8	167.92	-97.6	188.3	249.1	227.4	21.65	11.502		
2,600.0	2,526.3	2,604.6	2,577.9	13.0	11.2	167.82	-105.6	207.5	263.2	240.8	22.35	11.775		
2,700.0	2,620.4	2,703.6	2,674.6	13.7	11.5	167.73	-113.7	226.7	277.3	254.2	23.06	12.026		
2,800.0	2,714.4	2,802.6	2,771.4	14.3	12.0	167.65	-121.7	245.9	291.4	267.7	23.78	12.257		
2,900.0	2,808.5	2,901.6	2,868.2	15.0	12.4	167.57	-129.7	265.1	305.6	281.0	24.50	12.469		
3,000.0	2,902.5	3,000.6	2,965.0	15.7	12.8	167.51	-137.7	284.3	319.7	294.4	25.24	12.665		
3,100.0	2,996.6	3,099.6	3,061.8	16.4	13.3	167.45	-145.7	303.5	333.8	307.8	25.99	12.846		
3,200.0	3,090.6	3,198.6	3,158.6	17.1	13.7	167.39	-153.7	322.7	347.9	321.2	26.74	13.013		
3,300.0	3,184.7	3,297.6	3,255.4	17.7	14.2	167.34	-161.7	341.9	362.1	334.6	27.50	13.168		
3,400.0	3,278.7	3,396.6	3,352.2	18.4	14.7	167.29	-169.7	361.1	376.2	347.9	28.26	13.312		
3,500.0	3,372.8	3,495.6	3,448.9	19.1	15.1	167.24	-177.7	380.2	390.3	361.3	29.03	13.445		
3,600.0	3,466.9	3,594.6	3,545.7	19.8	15.6	167.20	-185.7	399.4	404.4	374.6	29.80	13.570		
3,700.0	3,560.9	3,693.6	3,642.5	20.6	16.1	167.16	-193.7	418.6	418.6	388.0	30.58	13.686		
3,800.0	3,655.0	3,792.6	3,739.3	21.3	16.6	167.13	-201.8	437.8	432.7	401.3	31.37	13.794		
3,900.0	3,749.0	3,891.6	3,836.1	22.0	17.1	167.09	-209.8	457.0	446.8	414.7	32.16	13.896		
4,000.0	3,843.1	3,990.6	3,932.9	22.7	17.6	167.06	-217.8	476.2	461.0	428.0	32.95	13.990		
4,100.0	3,937.1	4,089.6	4,029.7	23.4	18.1	167.03	-225.8	495.4	475.1	441.3	33.74	14.080		
4,200.0	4,031.2	4,188.6	4,126.5	24.1	18.5	167.00	-233.8	514.6	489.2	454.7	34.54	14.163		
4,300.0	4,125.2	4,287.6	4,223.3	24.8	19.0	166.98	-241.8	533.8	503.3	468.0	35.34	14.242		
4,400.0	4,219.3	4,386.6	4,320.0	25.5	19.5	166.95	-249.8	553.0	517.5	481.3	36.15	14.316		
4,500.0	4,313.3	4,485.6	4,416.8	26.2	20.0	166.93	-257.8	572.1	531.6	494.6	36.95	14.386		
4,600.0	4,407.4	4,584.6	4,513.6	26.9	20.5	166.91	-265.8	591.3	545.7	508.0	37.76	14.451		
4,700.0	4,501.5	4,683.6	4,610.4	27.6	21.0	166.88	-273.8	610.5	559.9	521.3	38.57	14.514		
4,800.0	4,595.5	4,782.6	4,707.2	28.4	21.5	166.86	-281.8	629.7	574.0	534.6	39.39	14.572		
4,900.0	4,689.6	4,881.6	4,804.0	29.1	22.0	166.84	-289.9	648.9	588.1	547.9	40.20	14.628		
5,000.0	4,783.6	4,980.6	4,900.8	29.8	22.5	166.83	-297.9	668.1	602.2	561.2	41.02	14.681		
5,100.0	4,877.7	5,079.6	4,997.6	30.5	23.0	166.81	-305.9	687.3	616.4	574.5	41.84	14.731		

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 19-18-4NXH
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 19-18-4NXH	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 19-18-3NCH - 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	4,971.7	5,178.6	5,094.3	31.2	23.5	166.79	-313.9	706.5	630.5	587.8	42.66	14.779		
5,300.0	5,065.8	5,277.6	5,191.1	31.9	24.0	166.78	-321.9	725.7	644.6	601.1	43.48	14.824		
5,400.0	5,159.8	5,376.5	5,287.9	32.7	24.5	166.76	-329.9	744.9	658.8	614.4	44.31	14.867		
5,500.0	5,253.9	5,475.5	5,384.7	33.4	25.0	166.75	-337.9	764.0	672.9	627.8	45.13	14.908		
5,600.0	5,347.9	5,574.5	5,481.5	34.1	25.5	166.73	-345.9	783.2	687.0	641.1	45.96	14.948		
5,700.0	5,442.0	5,673.5	5,578.3	34.8	26.0	166.72	-353.9	802.4	701.1	654.4	46.79	14.985		
5,800.0	5,536.1	5,772.5	5,675.1	35.5	26.5	166.70	-361.9	821.6	715.3	667.7	47.62	15.021		
5,900.0	5,630.1	5,871.5	5,771.9	36.2	27.0	166.69	-369.9	840.8	729.4	681.0	48.45	15.055		
6,000.0	5,724.2	5,970.5	5,868.6	37.0	27.5	166.68	-378.0	860.0	743.5	694.3	49.28	15.087		
6,100.0	5,818.2	6,069.5	5,965.4	37.7	28.0	166.67	-386.0	879.2	757.7	707.5	50.11	15.119		
6,200.0	5,912.3	6,168.5	6,062.2	38.4	28.5	166.66	-394.0	898.4	771.8	720.8	50.95	15.149		
6,300.0	6,006.3	6,267.5	6,159.0	39.1	29.0	166.65	-402.0	917.6	785.9	734.1	51.78	15.177		
6,400.0	6,100.4	6,366.5	6,255.8	39.8	29.5	166.64	-410.0	936.8	800.1	747.4	52.62	15.205		
6,500.0	6,194.4	6,465.5	6,352.6	40.5	30.0	166.63	-418.0	955.9	814.2	760.7	53.46	15.231		
6,600.0	6,288.5	6,564.5	6,449.4	41.3	30.5	166.62	-426.0	975.1	828.3	774.0	54.29	15.256		
6,700.0	6,382.5	6,663.5	6,546.2	42.0	31.0	166.61	-434.0	994.3	842.4	787.3	55.13	15.281		
6,800.0	6,476.6	6,762.5	6,643.0	42.7	31.5	166.60	-442.0	1,013.5	856.6	800.6	55.97	15.304		
6,900.0	6,570.7	6,861.5	6,739.7	43.4	32.0	166.59	-450.0	1,032.7	870.7	813.9	56.81	15.327		
7,000.0	6,664.8	6,960.5	6,836.5	44.1	32.5	176.52	-458.0	1,051.9	884.8	827.2	57.65	15.347		
7,100.0	6,758.8	7,056.7	6,930.8	44.9	33.1	-155.55	-459.3	1,070.4	899.1	840.6	58.51	15.366		
7,200.0	6,850.3	7,153.8	7,025.0	45.5	33.5	-135.62	-444.4	1,088.4	913.4	853.8	59.59	15.328		
7,300.0	6,936.6	7,252.5	7,116.8	45.9	33.8	-123.41	-412.9	1,105.5	927.3	866.7	60.64	15.293		
7,400.0	7,014.9	7,352.9	7,203.5	46.3	34.2	-115.84	-364.9	1,121.1	940.4	879.0	61.40	15.316		
7,500.0	7,083.0	7,455.2	7,282.0	46.6	34.5	-110.96	-301.0	1,134.7	952.3	890.4	61.96	15.370		
7,600.0	7,138.7	7,559.5	7,349.4	46.8	34.6	-107.76	-222.4	1,145.6	962.6	900.2	62.40	15.426		
7,700.0	7,180.3	7,665.6	7,402.5	46.9	34.7	-105.72	-131.1	1,153.5	971.0	908.2	62.82	15.456		
7,800.0	7,206.7	7,773.5	7,438.7	47.0	34.7	-104.55	-29.7	1,157.7	977.2	913.9	63.30	15.439		
7,900.0	7,216.9	7,882.7	7,455.8	47.0	34.6	-104.13	78.0	1,157.9	981.0	917.1	63.88	15.356		
8,000.0	7,217.0	7,986.1	7,457.0	47.0	34.6	-104.13	181.3	1,155.2	983.0	918.5	64.50	15.241		
8,100.0	7,217.0	8,086.0	7,457.0	47.0	34.6	-104.11	281.2	1,152.4	985.0	919.7	65.28	15.090		
8,200.0	7,217.0	8,186.0	7,457.0	47.1	34.7	-104.08	381.2	1,149.5	986.9	920.7	66.22	14.903		
8,300.0	7,217.0	8,286.0	7,457.0	47.2	34.9	-104.05	481.1	1,146.7	988.9	921.6	67.34	14.686		
8,400.0	7,217.0	8,386.0	7,457.0	47.4	35.2	-104.02	581.0	1,143.8	990.9	922.3	68.61	14.443		
8,500.0	7,217.0	8,486.0	7,457.0	47.6	35.7	-103.99	681.0	1,141.0	992.8	922.8	70.02	14.179		
8,600.0	7,217.0	8,585.9	7,457.0	47.9	36.3	-103.96	780.9	1,138.1	994.8	923.2	71.58	13.898		
8,700.0	7,217.0	8,685.9	7,457.0	48.2	36.9	-103.94	880.9	1,135.3	996.8	923.5	73.26	13.605		
8,800.0	7,217.0	8,785.9	7,457.0	48.6	37.7	-103.91	980.8	1,132.4	998.7	923.7	75.07	13.304		
8,900.0	7,217.0	8,885.9	7,457.0	49.0	38.6	-103.88	1,080.7	1,129.5	1,000.7	923.7	76.99	12.998		
9,000.0	7,217.0	8,985.9	7,457.0	49.6	39.6	-103.85	1,180.7	1,126.7	1,002.7	923.7	79.02	12.690		
9,100.0	7,217.0	9,085.8	7,457.0	50.1	40.6	-103.82	1,280.6	1,123.8	1,004.6	923.5	81.14	12.382		
9,200.0	7,217.0	9,185.8	7,457.0	50.8	41.7	-103.80	1,380.6	1,121.0	1,006.6	923.3	83.35	12.077		
9,300.0	7,217.0	9,285.8	7,457.0	51.5	42.8	-103.77	1,480.5	1,118.1	1,008.6	922.9	85.64	11.776		
9,400.0	7,217.0	9,385.8	7,457.0	52.3	44.0	-103.74	1,580.4	1,115.3	1,010.5	922.5	88.01	11.482		
9,500.0	7,217.0	9,485.7	7,457.0	53.1	45.3	-103.71	1,680.4	1,112.4	1,012.5	922.1	90.45	11.194		
9,600.0	7,217.0	9,585.7	7,457.0	54.0	46.5	-103.69	1,780.3	1,109.6	1,014.5	921.5	92.96	10.913		
9,700.0	7,217.0	9,685.7	7,457.0	55.0	47.8	-103.66	1,880.3	1,106.7	1,016.4	920.9	95.53	10.641		
9,800.0	7,217.0	9,785.7	7,457.0	56.0	49.1	-103.63	1,980.2	1,103.9	1,018.4	920.3	98.15	10.376		
9,900.0	7,217.0	9,885.7	7,457.0	57.1	50.5	-103.61	2,080.1	1,101.0	1,020.4	919.6	100.82	10.121		
10,000.0	7,217.0	9,985.6	7,457.0	58.2	51.9	-103.58	2,180.1	1,098.2	1,022.3	918.8	103.54	9.874		
10,100.0	7,217.0	10,085.6	7,457.0	59.4	53.3	-103.55	2,280.0	1,095.3	1,024.3	918.0	106.30	9.636		
10,200.0	7,217.0	10,185.6	7,457.0	60.6	54.7	-103.53	2,379.9	1,092.5	1,026.3	917.2	109.10	9.407		
10,300.0	7,217.0	10,285.6	7,457.0	61.8	56.2	-103.50	2,479.9	1,089.6	1,028.3	916.3	111.94	9.186		

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 19-18-4NXH
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 19-18-4NXH	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 19-18-3NCH - 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	7,217.0	10,385.6	7,457.0	63.1	57.6	-103.47	2,579.8	1,086.8	1,030.2	915.4	114.82	8.973		
10,500.0	7,217.0	10,485.5	7,457.0	64.4	59.1	-103.45	2,679.8	1,083.9	1,032.2	914.5	117.72	8.768		
10,600.0	7,217.0	10,585.5	7,457.0	65.7	60.6	-103.42	2,779.7	1,081.1	1,034.2	913.5	120.66	8.571		
10,700.0	7,217.0	10,685.5	7,457.0	67.1	62.1	-103.40	2,879.6	1,078.2	1,036.1	912.5	123.62	8.381		
10,800.0	7,217.0	10,785.5	7,457.0	68.4	63.6	-103.37	2,979.6	1,075.4	1,038.1	911.5	126.61	8.199		
10,900.0	7,217.0	10,885.5	7,457.0	69.8	65.2	-103.34	3,079.5	1,072.5	1,040.1	910.4	129.63	8.023		
11,000.0	7,217.0	10,985.4	7,457.0	71.3	66.7	-103.32	3,179.5	1,069.7	1,042.0	909.4	132.67	7.855		
11,100.0	7,217.0	11,085.4	7,457.0	72.7	68.3	-103.29	3,279.4	1,066.8	1,044.0	908.3	135.72	7.692		
11,200.0	7,217.0	11,185.4	7,457.0	74.1	69.8	-103.27	3,379.3	1,064.0	1,046.0	907.2	138.80	7.536		
11,300.0	7,217.0	11,285.4	7,457.0	75.6	71.4	-103.24	3,479.3	1,061.1	1,048.0	906.1	141.90	7.385		
11,400.0	7,217.0	11,385.4	7,457.0	77.1	73.0	-103.22	3,579.2	1,058.3	1,049.9	904.9	145.01	7.240		
11,500.0	7,217.0	11,485.3	7,457.0	78.6	74.6	-103.19	3,679.2	1,055.4	1,051.9	903.8	148.14	7.101		
11,600.0	7,217.0	11,585.3	7,457.0	80.1	76.2	-103.17	3,779.1	1,052.6	1,053.9	902.6	151.28	6.966		
11,700.0	7,217.0	11,685.3	7,457.0	81.6	77.8	-103.14	3,879.0	1,049.7	1,055.8	901.4	154.44	6.836		
11,800.0	7,217.0	11,785.3	7,457.0	83.1	79.4	-103.12	3,979.0	1,046.9	1,057.8	900.2	157.62	6.711		
11,900.0	7,217.0	11,885.3	7,457.0	84.7	81.1	-103.09	4,078.9	1,044.0	1,059.8	899.0	160.80	6.591		
12,000.0	7,217.0	11,985.2	7,457.0	86.2	82.7	-103.07	4,178.8	1,041.2	1,061.8	897.8	164.00	6.474		
12,100.0	7,217.0	12,085.2	7,457.0	87.8	84.3	-103.04	4,278.8	1,038.3	1,063.7	896.5	167.21	6.362		
12,200.0	7,217.0	12,185.2	7,457.0	89.3	86.0	-103.02	4,378.7	1,035.5	1,065.7	895.3	170.43	6.253		
12,300.0	7,217.0	12,285.2	7,457.0	90.9	87.6	-102.99	4,478.7	1,032.6	1,067.7	894.0	173.66	6.148		
12,400.0	7,217.0	12,385.2	7,457.0	92.5	89.3	-102.97	4,578.6	1,029.8	1,069.7	892.8	176.89	6.047		
12,500.0	7,217.0	12,485.1	7,457.0	94.1	90.9	-102.94	4,678.5	1,026.9	1,071.6	891.5	180.14	5.949		
12,600.0	7,217.0	12,585.1	7,457.0	95.7	92.6	-102.92	4,778.5	1,024.0	1,073.6	890.2	183.40	5.854		
12,700.0	7,217.0	12,685.1	7,457.0	97.3	94.2	-102.90	4,878.4	1,021.2	1,075.6	888.9	186.67	5.762		
12,800.0	7,217.0	12,785.1	7,457.0	98.9	95.9	-102.87	4,978.4	1,018.3	1,077.6	887.6	189.94	5.673		
12,900.0	7,217.0	12,885.1	7,457.0	100.5	97.6	-102.85	5,078.3	1,015.5	1,079.5	886.3	193.22	5.587		
13,000.0	7,217.0	12,985.0	7,457.0	102.1	99.3	-102.82	5,178.2	1,012.6	1,081.5	885.0	196.51	5.504		
13,100.0	7,217.0	13,085.0	7,457.0	103.7	100.9	-102.80	5,278.2	1,009.8	1,083.5	883.7	199.80	5.423		
13,200.0	7,217.0	13,185.0	7,457.0	105.3	102.6	-102.78	5,378.1	1,006.9	1,085.5	882.3	203.10	5.344		
13,300.0	7,217.0	13,285.0	7,457.0	107.0	104.3	-102.75	5,478.1	1,004.1	1,087.4	881.0	206.41	5.268		
13,400.0	7,217.0	13,384.9	7,457.0	108.6	106.0	-102.73	5,578.0	1,001.2	1,089.4	879.7	209.72	5.194		
13,500.0	7,217.0	13,484.9	7,457.0	110.3	107.7	-102.71	5,677.9	998.4	1,091.4	878.3	213.04	5.123		
13,600.0	7,217.0	13,584.9	7,457.0	111.9	109.4	-102.68	5,777.9	995.5	1,093.4	877.0	216.37	5.053		
13,700.0	7,217.0	13,684.9	7,457.0	113.5	111.1	-102.66	5,877.8	992.7	1,095.3	875.6	219.70	4.986		
13,800.0	7,217.0	13,786.8	7,457.0	115.2	112.8	-102.64	5,979.7	989.8	1,097.3	874.2	223.13	4.918		
13,900.0	7,217.0	13,900.9	7,457.0	116.9	114.7	-102.63	6,093.7	988.0	1,098.0	870.8	227.17	4.833		
14,000.0	7,217.0	14,000.8	7,457.0	118.5	116.4	-102.62	6,193.7	986.6	1,098.5	868.0	230.50	4.766		
14,100.0	7,217.0	14,100.8	7,457.0	120.2	118.1	-102.61	6,293.7	985.3	1,099.0	865.2	233.83	4.700		
14,200.0	7,217.0	14,200.8	7,457.0	121.8	119.8	-102.61	6,393.7	983.9	1,099.5	862.4	237.18	4.636		
14,300.0	7,217.0	14,300.8	7,457.0	123.5	121.5	-102.60	6,493.7	982.5	1,100.1	859.5	240.52	4.574		
14,400.0	7,217.0	14,400.8	7,457.0	125.2	123.2	-102.60	6,593.7	981.2	1,100.6	856.7	243.87	4.513		
14,500.0	7,217.0	14,500.8	7,457.0	126.9	125.0	-102.59	6,693.6	979.8	1,101.1	853.9	247.22	4.454		
14,600.0	7,217.0	14,600.8	7,457.0	128.5	126.7	-102.58	6,793.6	978.5	1,101.6	851.0	250.58	4.396		
14,700.0	7,217.0	14,700.8	7,457.0	130.2	128.4	-102.58	6,893.6	977.1	1,102.1	848.2	253.93	4.340		
14,800.0	7,217.0	14,800.8	7,457.0	131.9	130.1	-102.57	6,993.6	975.8	1,102.7	845.4	257.29	4.286		
14,900.0	7,217.0	14,900.8	7,457.0	133.6	131.8	-102.57	7,093.6	974.4	1,103.2	842.5	260.66	4.232		
15,000.0	7,217.0	15,000.8	7,457.0	135.3	133.5	-102.56	7,193.6	973.0	1,103.7	839.7	264.03	4.180		
15,100.0	7,217.0	15,100.8	7,457.0	136.9	135.2	-102.55	7,293.6	971.7	1,104.2	836.8	267.40	4.130		
15,200.0	7,217.0	15,200.8	7,457.0	138.6	137.0	-102.55	7,393.6	970.3	1,104.7	834.0	270.77	4.080		
15,300.0	7,217.0	15,300.8	7,457.0	140.3	138.7	-102.54	7,493.6	969.0	1,105.3	831.1	274.14	4.032		
15,400.0	7,217.0	15,400.8	7,457.0	142.0	140.4	-102.54	7,593.6	967.6	1,105.8	828.3	277.52	3.984		
15,500.0	7,217.0	15,500.8	7,457.0	143.7	142.1	-102.53	7,693.5	966.2	1,106.3	825.4	280.90	3.938		

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 19-18-4NXH
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 19-18-4NXH	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 19-18-3NCH - 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	7,217.0	15,600.8	7,457.0	145.4	143.8	-102.52	7,793.5	964.9	1,106.8	822.5	284.28	3.893			
15,700.0	7,217.0	15,700.8	7,457.0	147.1	145.6	-102.52	7,893.5	963.5	1,107.3	819.7	287.67	3.849			
15,800.0	7,217.0	15,800.8	7,457.0	148.8	147.3	-102.51	7,993.5	962.2	1,107.9	816.8	291.05	3.806			
15,900.0	7,217.0	15,900.8	7,457.0	150.5	149.0	-102.51	8,093.5	960.8	1,108.4	813.9	294.44	3.764			
16,000.0	7,217.0	16,000.8	7,457.0	152.2	150.7	-102.50	8,193.5	959.4	1,108.9	811.1	297.83	3.723			
16,100.0	7,217.0	16,100.8	7,457.0	153.9	152.5	-102.49	8,293.5	958.1	1,109.4	808.2	301.22	3.683			
16,200.0	7,217.0	16,200.8	7,457.0	155.6	154.2	-102.49	8,393.5	956.7	1,109.9	805.3	304.62	3.644			
16,300.0	7,217.0	16,300.8	7,457.0	157.3	155.9	-102.48	8,493.5	955.4	1,110.5	802.4	308.01	3.605			
16,400.0	7,217.0	16,400.8	7,457.0	159.0	157.7	-102.48	8,593.4	954.0	1,111.0	799.6	311.41	3.568			
16,500.0	7,217.0	16,500.8	7,457.0	160.7	159.4	-102.47	8,693.4	952.6	1,111.5	796.7	314.81	3.531			
16,600.0	7,217.0	16,600.8	7,457.0	162.4	161.1	-102.46	8,793.4	951.3	1,112.0	793.8	318.21	3.495			
16,700.0	7,217.0	16,700.8	7,457.0	164.1	162.9	-102.46	8,893.4	949.9	1,112.5	790.9	321.62	3.459			
16,800.0	7,217.0	16,800.8	7,457.0	165.9	164.6	-102.45	8,993.4	948.6	1,113.1	788.0	325.02	3.425			
16,900.0	7,217.0	16,900.8	7,457.0	167.6	166.3	-102.45	9,093.4	947.2	1,113.6	785.1	328.43	3.391			
17,000.0	7,217.0	17,000.8	7,457.0	169.3	168.1	-102.44	9,193.4	945.8	1,114.1	782.3	331.83	3.357			
17,100.0	7,217.0	17,100.8	7,457.0	171.0	169.8	-102.43	9,293.4	944.5	1,114.6	779.4	335.24	3.325			
17,200.0	7,217.0	17,200.8	7,457.0	172.7	171.5	-102.43	9,393.4	943.1	1,115.1	776.5	338.65	3.293			
17,300.0	7,217.0	17,300.8	7,457.0	174.4	173.3	-102.42	9,493.4	941.8	1,115.7	773.6	342.06	3.262			
17,400.0	7,217.0	17,400.8	7,457.0	176.2	175.0	-102.42	9,593.3	940.4	1,116.2	770.7	345.48	3.231			
17,500.0	7,217.0	17,500.8	7,457.0	177.9	176.7	-102.41	9,693.3	939.0	1,116.7	767.8	348.89	3.201			
17,600.0	7,217.0	17,600.8	7,457.0	179.6	178.5	-102.41	9,793.3	937.7	1,117.2	764.9	352.31	3.171			
17,700.0	7,217.0	17,700.8	7,457.0	181.3	180.2	-102.40	9,893.3	936.3	1,117.7	762.0	355.72	3.142			
17,723.1	7,217.0	17,721.0	7,457.0	181.7	180.6	-102.40	9,913.5	936.1	1,117.9	761.5	356.36	3.137 SF			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-0.3	-59.9	59.9					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.3	-59.9	59.9	59.7	0.28	216.394		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.3	-59.9	59.9	59.1	0.80	75.134		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.3	-59.9	59.9	58.7	1.22	48.957		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.3	-59.9	59.9	58.3	1.62	37.042		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.3	-59.9	59.9	57.9	2.00	29.989		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.3	-59.9	59.9	57.6	2.37	25.266		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.3	-59.9	59.9	57.2	2.74	21.860	CC, ES	
800.0	800.0	800.0	800.0	3.5	0.0	166.75	-0.3	-59.9	61.6	58.3	3.33	18.516		
900.0	899.8	899.8	899.8	4.2	0.0	167.75	-0.3	-59.9	66.7	62.6	4.19	15.922		
1,000.0	999.5	999.5	999.5	5.0	0.0	169.13	-0.3	-59.9	75.3	70.3	4.95	15.208		
1,100.0	1,098.7	1,098.7	1,098.7	5.8	0.0	170.60	-0.3	-59.9	87.3	81.6	5.65	15.456		
1,200.0	1,197.5	1,200.8	1,200.8	6.5	0.0	171.64	-1.1	-58.4	101.2	94.9	6.30	16.055		
1,300.0	1,295.6	1,303.4	1,303.2	7.1	0.0	171.99	-3.6	-53.5	115.2	108.3	6.91	16.678		
1,400.0	1,393.1	1,406.4	1,405.9	7.7	0.0	171.87	-7.9	-45.4	129.4	121.9	7.48	17.308		
1,500.0	1,489.6	1,510.0	1,508.6	8.3	0.0	171.40	-13.8	-34.0	143.7	135.7	8.01	17.939		
1,600.0	1,585.3	1,614.0	1,611.2	8.8	0.0	170.68	-21.5	-19.1	158.1	149.6	8.52	18.565		
1,700.0	1,679.8	1,713.8	1,709.3	9.3	0.0	169.96	-30.0	-2.8	173.7	164.7	8.96	19.373		
1,800.0	1,773.9	1,812.3	1,806.1	9.5	0.0	169.48	-38.4	13.5	190.7	181.4	9.22	20.686		
1,900.0	1,867.9	1,910.9	1,903.0	9.8	0.0	169.08	-46.9	29.7	207.7	198.2	9.49	21.872		
2,000.0	1,962.0	2,009.4	1,999.8	10.1	0.0	168.74	-55.3	45.9	224.7	214.9	9.79	22.958		
2,100.0	2,056.0	2,107.9	2,096.6	10.5	0.0	168.45	-63.7	62.2	241.7	231.6	10.09	23.951		
2,200.0	2,150.1	2,206.5	2,193.4	10.9	0.0	168.19	-72.2	78.4	258.7	248.3	10.41	24.858		
2,300.0	2,244.1	2,305.0	2,290.3	11.3	0.0	167.97	-80.6	94.6	275.7	265.0	10.74	25.686		
2,400.0	2,338.2	2,403.5	2,387.1	11.8	0.0	167.78	-89.0	110.9	292.8	281.7	11.07	26.444		
2,500.0	2,432.3	2,502.1	2,483.9	12.4	0.0	167.60	-97.5	127.1	309.8	298.4	11.42	27.136		
2,600.0	2,526.3	2,600.6	2,580.7	13.0	0.0	167.45	-105.9	143.3	326.8	315.1	11.77	27.769		
2,700.0	2,620.4	2,699.1	2,677.5	13.7	0.0	167.30	-114.3	159.6	343.9	331.8	12.13	28.349		
2,800.0	2,714.4	2,797.7	2,774.4	14.3	0.0	167.18	-122.7	175.8	360.9	348.4	12.50	28.881		
2,900.0	2,808.5	2,896.2	2,871.2	15.0	0.0	167.06	-131.2	192.0	378.0	365.1	12.87	29.369		
3,000.0	2,902.5	2,994.7	2,968.0	15.7	0.0	166.95	-139.6	208.3	395.0	381.8	13.25	29.818		
3,100.0	2,996.6	3,093.3	3,064.8	16.4	0.0	166.86	-148.0	224.5	412.0	398.4	13.63	30.231		
3,200.0	3,090.6	3,191.8	3,161.6	17.1	0.0	166.77	-156.5	240.7	429.1	415.1	14.02	30.612		
3,300.0	3,184.7	3,290.3	3,258.5	17.7	0.0	166.68	-164.9	256.9	446.1	431.7	14.41	30.964		
3,400.0	3,278.7	3,388.9	3,355.3	18.4	0.0	166.61	-173.3	273.2	463.2	448.4	14.80	31.289		
3,500.0	3,372.8	3,487.4	3,452.1	19.1	0.0	166.54	-181.8	289.4	480.2	465.0	15.20	31.590		
3,600.0	3,466.9	3,585.9	3,548.9	19.8	0.0	166.47	-190.2	305.6	497.3	481.7	15.60	31.869		
3,700.0	3,560.9	3,684.5	3,645.8	20.6	0.0	166.41	-198.6	321.9	514.3	498.3	16.01	32.128		
3,800.0	3,655.0	3,783.0	3,742.6	21.3	0.0	166.35	-207.1	338.1	531.4	515.0	16.42	32.369		
3,900.0	3,749.0	3,881.6	3,839.4	22.0	0.0	166.30	-215.5	354.3	548.4	531.6	16.83	32.593		
4,000.0	3,843.1	3,980.1	3,936.2	22.7	0.0	166.25	-223.9	370.6	565.5	548.2	17.24	32.803		
4,100.0	3,937.1	4,078.6	4,033.0	23.4	0.0	166.20	-232.3	386.8	582.5	564.9	17.65	32.998		
4,200.0	4,031.2	4,177.2	4,129.9	24.1	0.0	166.15	-240.8	403.0	599.6	581.5	18.07	33.181		
4,300.0	4,125.2	4,275.7	4,226.7	24.8	0.0	166.11	-249.2	419.3	616.6	598.1	18.49	33.352		
4,400.0	4,219.3	4,374.2	4,323.5	25.5	0.0	166.07	-257.6	435.5	633.7	614.8	18.91	33.512		
4,500.0	4,313.3	4,472.8	4,420.3	26.2	0.0	166.03	-266.1	451.7	650.7	631.4	19.33	33.663		
4,600.0	4,407.4	4,571.3	4,517.2	26.9	0.0	165.99	-274.5	468.0	667.8	648.0	19.75	33.804		
4,700.0	4,501.5	4,669.8	4,614.0	27.6	0.0	165.96	-282.9	484.2	684.8	664.7	20.18	33.937		
4,800.0	4,595.5	4,768.4	4,710.8	28.4	0.0	165.93	-291.4	500.4	701.9	681.3	20.61	34.063		
4,900.0	4,689.6	4,866.9	4,807.6	29.1	0.0	165.89	-299.8	516.7	718.9	697.9	21.03	34.181		
5,000.0	4,783.6	4,965.4	4,904.4	29.8	0.0	165.86	-308.2	532.9	736.0	714.5	21.46	34.293		
5,100.0	4,877.7	5,064.0	5,001.3	30.5	0.0	165.84	-316.6	549.1	753.0	731.2	21.89	34.398		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,162.5	5,098.1	31.2	0.0	165.81	-325.1	565.4	770.1	747.8	22.32	34.498		
5,300.0	5,065.8	5,261.0	5,194.9	31.9	0.0	165.78	-333.5	581.6	787.2	764.4	22.76	34.592		
5,400.0	5,159.8	5,359.6	5,291.7	32.7	0.0	165.76	-341.9	597.8	804.2	781.0	23.19	34.682		
5,500.0	5,253.9	5,458.1	5,388.6	33.4	0.0	165.73	-350.4	614.1	821.3	797.6	23.62	34.767		
5,600.0	5,347.9	5,556.6	5,485.4	34.1	0.0	165.71	-358.8	630.3	838.3	814.3	24.06	34.847		
5,700.0	5,442.0	5,655.2	5,582.2	34.8	0.0	165.69	-367.2	646.5	855.4	830.9	24.49	34.924		
5,800.0	5,536.1	5,753.7	5,679.0	35.5	0.0	165.67	-375.7	662.7	872.4	847.5	24.93	34.997		
5,900.0	5,630.1	5,852.2	5,775.8	36.2	0.0	165.65	-384.1	679.0	889.5	864.1	25.37	35.066		
6,000.0	5,724.2	5,950.8	5,872.7	37.0	0.0	165.63	-392.5	695.2	906.5	880.7	25.80	35.132		
6,100.0	5,818.2	6,049.3	5,969.5	37.7	0.0	165.61	-400.9	711.4	923.6	897.3	26.24	35.195		
6,200.0	5,912.3	6,147.8	6,066.3	38.4	0.0	165.59	-409.4	727.7	940.6	914.0	26.68	35.255		
6,300.0	6,006.3	6,246.4	6,163.1	39.1	0.0	165.57	-417.8	743.9	957.7	930.6	27.12	35.312		
6,400.0	6,100.4	6,344.9	6,260.0	39.8	0.0	165.56	-426.2	760.1	974.8	947.2	27.56	35.367		
6,500.0	6,194.4	6,443.4	6,356.8	40.5	0.0	165.54	-434.7	776.4	991.8	963.8	28.00	35.419		
6,600.0	6,288.5	6,542.0	6,453.6	41.3	0.0	165.52	-443.1	792.6	1,008.9	980.4	28.44	35.469		
6,700.0	6,382.5	6,640.5	6,550.4	42.0	0.0	165.51	-451.5	808.8	1,025.9	997.0	28.88	35.517		
6,800.0	6,476.6	6,739.8	6,648.0	42.7	0.0	165.56	-458.9	825.2	1,043.0	1,013.6	29.32	35.570		
6,900.0	6,570.7	6,838.2	6,744.8	43.4	0.0	166.34	-452.7	841.3	1,060.0	1,030.3	29.65	35.748		
7,000.0	6,664.8	6,929.6	6,832.6	44.1	0.0	177.93	-432.1	855.8	1,077.5	1,047.6	29.86	36.087		
7,100.0	6,758.8	7,016.1	6,911.7	44.9	0.0	-151.80	-399.7	868.7	1,095.8	1,065.8	30.04	36.479		
7,200.0	6,850.3	7,100.0	6,982.9	45.5	0.0	-129.69	-357.2	880.3	1,114.3	1,084.0	30.38	36.681		
7,300.0	6,936.6	7,180.6	7,044.9	45.9	0.0	-115.53	-306.8	890.2	1,132.2	1,101.5	30.72	36.857		
7,400.0	7,014.9	7,259.8	7,098.5	46.3	0.0	-106.26	-249.2	898.7	1,148.6	1,117.7	30.96	37.105		
7,500.0	7,083.0	7,337.6	7,143.1	46.6	0.0	-99.96	-185.9	905.6	1,163.1	1,132.0	31.12	37.379		
7,600.0	7,138.7	7,414.4	7,178.4	46.8	0.0	-95.63	-117.9	910.9	1,175.0	1,143.8	31.24	37.614		
7,700.0	7,180.3	7,490.5	7,204.2	46.9	0.0	-92.77	-46.4	914.6	1,184.0	1,152.6	31.36	37.750		
7,800.0	7,206.7	7,566.2	7,220.4	47.0	0.0	-91.09	27.4	916.7	1,189.6	1,158.1	31.52	37.740		
7,900.0	7,216.9	7,641.7	7,226.9	47.0	0.0	-90.48	102.6	917.2	1,191.8	1,160.0	31.74	37.551		
8,000.0	7,217.0	7,737.8	7,227.0	47.0	0.0	-90.48	198.6	916.4	1,191.8	1,159.8	32.00	37.248		
8,100.0	7,217.0	7,837.8	7,227.0	47.0	0.0	-90.48	298.6	915.6	1,191.8	1,159.4	32.35	36.841		
8,200.0	7,217.0	7,937.8	7,227.0	47.1	0.0	-90.48	398.6	914.7	1,191.8	1,159.0	32.79	36.340		
8,300.0	7,217.0	8,037.8	7,227.0	47.2	0.0	-90.48	498.6	913.9	1,191.8	1,158.4	33.33	35.759		
8,400.0	7,217.0	8,137.8	7,227.0	47.4	0.0	-90.48	598.6	913.1	1,191.8	1,157.8	33.95	35.109		
8,500.0	7,217.0	8,237.8	7,227.0	47.6	0.0	-90.48	698.6	912.3	1,191.8	1,157.1	34.64	34.403		
8,600.0	7,217.0	8,337.8	7,227.0	47.9	0.0	-90.48	798.6	911.4	1,191.8	1,156.4	35.41	33.655		
8,700.0	7,217.0	8,437.8	7,227.0	48.2	0.0	-90.48	898.6	910.6	1,191.8	1,155.5	36.25	32.875		
8,800.0	7,217.0	8,537.8	7,227.0	48.6	0.0	-90.48	998.6	909.8	1,191.8	1,154.6	37.16	32.074		
8,900.0	7,217.0	8,637.8	7,227.0	49.0	0.0	-90.48	1,098.6	909.0	1,191.8	1,153.7	38.12	31.262		
9,000.0	7,217.0	8,737.8	7,227.0	49.6	0.0	-90.48	1,198.6	908.1	1,191.8	1,152.6	39.14	30.446		
9,100.0	7,217.0	8,837.8	7,227.0	50.1	0.0	-90.48	1,298.6	907.3	1,191.8	1,151.6	40.22	29.634		
9,200.0	7,217.0	8,937.8	7,227.0	50.8	0.0	-90.48	1,398.6	906.5	1,191.8	1,150.4	41.34	28.831		
9,300.0	7,217.0	9,037.8	7,227.0	51.5	0.0	-90.48	1,498.6	905.7	1,191.8	1,149.3	42.50	28.041		
9,400.0	7,217.0	9,137.8	7,227.0	52.3	0.0	-90.48	1,598.6	904.8	1,191.8	1,148.1	43.71	27.268		
9,500.0	7,217.0	9,237.8	7,227.0	53.1	0.0	-90.48	1,698.6	904.0	1,191.8	1,146.8	44.95	26.515		
9,600.0	7,217.0	9,337.8	7,227.0	54.0	0.0	-90.48	1,798.6	903.2	1,191.8	1,145.6	46.22	25.783		
9,700.0	7,217.0	9,437.8	7,227.0	55.0	0.0	-90.48	1,898.6	902.3	1,191.8	1,144.2	47.53	25.074		
9,800.0	7,217.0	9,537.8	7,227.0	56.0	0.0	-90.48	1,998.6	901.5	1,191.8	1,142.9	48.87	24.388		
9,900.0	7,217.0	9,637.8	7,227.0	57.1	0.0	-90.48	2,098.6	900.7	1,191.8	1,141.5	50.23	23.727		
10,000.0	7,217.0	9,737.8	7,227.0	58.2	0.0	-90.48	2,198.6	899.9	1,191.8	1,140.2	51.62	23.089		
10,100.0	7,217.0	9,837.8	7,227.0	59.4	0.0	-90.48	2,298.6	899.0	1,191.8	1,138.7	53.03	22.475		
10,200.0	7,217.0	9,937.8	7,227.0	60.6	0.0	-90.48	2,398.6	898.2	1,191.8	1,137.3	54.46	21.885		
10,300.0	7,217.0	10,037.8	7,227.0	61.8	0.0	-90.48	2,498.5	897.4	1,191.8	1,135.9	55.91	21.318		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,137.8	7,227.0	63.1	0.0	-90.48	2,598.5	896.6	1,191.8	1,134.4	57.37	20.772		
10,500.0	7,217.0	10,237.8	7,227.0	64.4	0.0	-90.48	2,698.5	895.7	1,191.8	1,132.9	58.86	20.249		
10,600.0	7,217.0	10,337.8	7,227.0	65.7	0.0	-90.48	2,798.5	894.9	1,191.8	1,131.4	60.36	19.746		
10,700.0	7,217.0	10,437.8	7,227.0	67.1	0.0	-90.48	2,898.5	894.1	1,191.8	1,129.9	61.87	19.263		
10,800.0	7,217.0	10,537.8	7,227.0	68.4	0.0	-90.48	2,998.5	893.3	1,191.8	1,128.4	63.39	18.799		
10,900.0	7,217.0	10,637.8	7,227.0	69.8	0.0	-90.48	3,098.5	892.4	1,191.8	1,126.8	64.93	18.354		
11,000.0	7,217.0	10,737.8	7,227.0	71.3	0.0	-90.48	3,198.5	891.6	1,191.8	1,125.3	66.48	17.926		
11,100.0	7,217.0	10,837.8	7,227.0	72.7	0.0	-90.48	3,298.5	890.8	1,191.8	1,123.7	68.04	17.515		
11,200.0	7,217.0	10,937.8	7,227.0	74.1	0.0	-90.48	3,398.5	889.9	1,191.8	1,122.2	69.61	17.120		
11,300.0	7,217.0	11,037.8	7,227.0	75.6	0.0	-90.48	3,498.5	889.1	1,191.8	1,120.6	71.19	16.741		
11,400.0	7,217.0	11,137.8	7,227.0	77.1	0.0	-90.48	3,598.5	888.3	1,191.8	1,119.0	72.78	16.376		
11,500.0	7,217.0	11,237.8	7,227.0	78.6	0.0	-90.48	3,698.5	887.5	1,191.8	1,117.4	74.37	16.024		
11,600.0	7,217.0	11,337.8	7,227.0	80.1	0.0	-90.48	3,798.5	886.6	1,191.8	1,115.8	75.98	15.686		
11,700.0	7,217.0	11,437.8	7,227.0	81.6	0.0	-90.48	3,898.5	885.8	1,191.8	1,114.2	77.59	15.361		
11,800.0	7,217.0	11,537.8	7,227.0	83.1	0.0	-90.48	3,998.5	885.0	1,191.8	1,112.6	79.20	15.047		
11,900.0	7,217.0	11,637.8	7,227.0	84.7	0.0	-90.48	4,098.5	884.2	1,191.8	1,110.9	80.83	14.745		
12,000.0	7,217.0	11,737.8	7,227.0	86.2	0.0	-90.48	4,198.5	883.3	1,191.8	1,109.3	82.45	14.454		
12,100.0	7,217.0	11,837.8	7,227.0	87.8	0.0	-90.48	4,298.5	882.5	1,191.8	1,107.7	84.09	14.173		
12,200.0	7,217.0	11,937.8	7,227.0	89.3	0.0	-90.48	4,398.5	881.7	1,191.8	1,106.0	85.73	13.902		
12,300.0	7,217.0	12,037.8	7,227.0	90.9	0.0	-90.48	4,498.5	880.8	1,191.8	1,104.4	87.37	13.640		
12,400.0	7,217.0	12,137.8	7,227.0	92.5	0.0	-90.48	4,598.5	880.0	1,191.8	1,102.8	89.02	13.387		
12,500.0	7,217.0	12,237.8	7,227.0	94.1	0.0	-90.48	4,698.5	879.2	1,191.8	1,101.1	90.68	13.143		
12,600.0	7,217.0	12,337.8	7,227.0	95.7	0.0	-90.48	4,798.5	878.4	1,191.8	1,099.4	92.33	12.907		
12,700.0	7,217.0	12,437.8	7,227.0	97.3	0.0	-90.48	4,898.5	877.5	1,191.8	1,097.8	93.99	12.679		
12,800.0	7,217.0	12,537.8	7,227.0	98.9	0.0	-90.48	4,998.5	876.7	1,191.8	1,096.1	95.66	12.458		
12,900.0	7,217.0	12,637.8	7,227.0	100.5	0.0	-90.48	5,098.5	875.9	1,191.8	1,094.4	97.33	12.245		
13,000.0	7,217.0	12,737.8	7,227.0	102.1	0.0	-90.48	5,198.5	875.1	1,191.8	1,092.8	99.00	12.038		
13,100.0	7,217.0	12,837.8	7,227.0	103.7	0.0	-90.48	5,298.5	874.2	1,191.8	1,091.1	100.68	11.838		
13,200.0	7,217.0	12,937.8	7,227.0	105.3	0.0	-90.48	5,398.4	873.4	1,191.8	1,089.4	102.35	11.644		
13,300.0	7,217.0	13,037.8	7,227.0	107.0	0.0	-90.48	5,498.4	872.6	1,191.8	1,087.7	104.04	11.455		
13,400.0	7,217.0	13,137.8	7,227.0	108.6	0.0	-90.48	5,598.4	871.8	1,191.8	1,086.1	105.72	11.273		
13,500.0	7,217.0	13,237.8	7,227.0	110.3	0.0	-90.48	5,698.4	870.9	1,191.8	1,084.4	107.41	11.096		
13,600.0	7,217.0	13,337.8	7,227.0	111.9	0.0	-90.48	5,798.4	870.1	1,191.8	1,082.7	109.10	10.924		
13,700.0	7,217.0	13,437.8	7,227.0	113.5	0.0	-90.48	5,898.4	869.3	1,191.8	1,081.0	110.79	10.757		
13,800.0	7,217.0	13,537.8	7,227.0	115.2	0.0	-90.48	5,998.4	868.4	1,191.8	1,079.3	112.48	10.595		
13,900.0	7,217.0	13,637.8	7,227.0	116.9	0.0	-90.48	6,098.4	867.6	1,191.8	1,077.6	114.18	10.438		
14,000.0	7,217.0	13,737.8	7,227.0	118.5	0.0	-90.48	6,198.4	866.8	1,191.8	1,075.9	115.88	10.285		
14,100.0	7,217.0	13,837.8	7,227.0	120.2	0.0	-90.48	6,298.4	866.0	1,191.8	1,074.2	117.58	10.136		
14,200.0	7,217.0	13,937.8	7,227.0	121.8	0.0	-90.48	6,398.4	865.1	1,191.8	1,072.5	119.28	9.992		
14,300.0	7,217.0	14,037.8	7,227.0	123.5	0.0	-90.48	6,498.4	864.3	1,191.8	1,070.8	120.98	9.851		
14,400.0	7,217.0	14,137.8	7,227.0	125.2	0.0	-90.48	6,598.4	863.5	1,191.8	1,069.1	122.69	9.714		
14,500.0	7,217.0	14,237.8	7,227.0	126.9	0.0	-90.48	6,698.4	862.7	1,191.8	1,067.4	124.39	9.581		
14,600.0	7,217.0	14,337.8	7,227.0	128.5	0.0	-90.48	6,798.4	861.8	1,191.8	1,065.7	126.10	9.451		
14,700.0	7,217.0	14,437.8	7,227.0	130.2	0.0	-90.48	6,898.4	861.0	1,191.8	1,064.0	127.81	9.324		
14,800.0	7,217.0	14,537.8	7,227.0	131.9	0.0	-90.48	6,998.4	860.2	1,191.8	1,062.2	129.52	9.201		
14,900.0	7,217.0	14,637.8	7,227.0	133.6	0.0	-90.48	7,098.4	859.4	1,191.8	1,060.5	131.24	9.081		
15,000.0	7,217.0	14,737.8	7,227.0	135.3	0.0	-90.48	7,198.4	858.5	1,191.8	1,058.8	132.95	8.964		
15,100.0	7,217.0	14,837.8	7,227.0	136.9	0.0	-90.48	7,298.4	857.7	1,191.8	1,057.1	134.67	8.850		
15,200.0	7,217.0	14,937.8	7,227.0	138.6	0.0	-90.48	7,398.4	856.9	1,191.8	1,055.4	136.39	8.738		
15,300.0	7,217.0	15,037.8	7,227.0	140.3	0.0	-90.48	7,498.4	856.0	1,191.8	1,053.7	138.10	8.630		
15,400.0	7,217.0	15,137.8	7,227.0	142.0	0.0	-90.48	7,598.4	855.2	1,191.8	1,051.9	139.82	8.523		
15,500.0	7,217.0	15,237.8	7,227.0	143.7	0.0	-90.48	7,698.4	854.4	1,191.8	1,050.2	141.54	8.420		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	15,337.8	7,227.0	145.4	0.0	-90.48	7,798.4	853.6	1,191.8	1,048.5	143.27	8.319		
15,700.0	7,217.0	15,437.8	7,227.0	147.1	0.0	-90.48	7,898.4	852.7	1,191.8	1,046.8	144.99	8.220		
15,800.0	7,217.0	15,537.8	7,227.0	148.8	0.0	-90.48	7,998.4	851.9	1,191.8	1,045.1	146.71	8.123		
15,900.0	7,217.0	15,637.8	7,227.0	150.5	0.0	-90.48	8,098.4	851.1	1,191.8	1,043.3	148.44	8.029		
16,000.0	7,217.0	15,737.8	7,227.0	152.2	0.0	-90.48	8,198.4	850.3	1,191.8	1,041.6	150.16	7.936		
16,100.0	7,217.0	15,837.8	7,227.0	153.9	0.0	-90.48	8,298.3	849.4	1,191.8	1,039.9	151.89	7.846		
16,200.0	7,217.0	15,937.8	7,227.0	155.6	0.0	-90.48	8,398.3	848.6	1,191.8	1,038.2	153.62	7.758		
16,300.0	7,217.0	16,037.8	7,227.0	157.3	0.0	-90.48	8,498.3	847.8	1,191.8	1,036.4	155.35	7.672		
16,400.0	7,217.0	16,137.8	7,227.0	159.0	0.0	-90.48	8,598.3	847.0	1,191.8	1,034.7	157.08	7.587		
16,500.0	7,217.0	16,237.8	7,227.0	160.7	0.0	-90.48	8,698.3	846.1	1,191.8	1,033.0	158.81	7.505		
16,600.0	7,217.0	16,337.8	7,227.0	162.4	0.0	-90.48	8,798.3	845.3	1,191.8	1,031.2	160.54	7.424		
16,700.0	7,217.0	16,437.8	7,227.0	164.1	0.0	-90.48	8,898.3	844.5	1,191.8	1,029.5	162.27	7.344		
16,800.0	7,217.0	16,537.8	7,227.0	165.9	0.0	-90.48	8,998.3	843.6	1,191.8	1,027.8	164.00	7.267		
16,900.0	7,217.0	16,637.8	7,227.0	167.6	0.0	-90.48	9,098.3	842.8	1,191.8	1,026.0	165.73	7.191		
17,000.0	7,217.0	16,737.8	7,227.0	169.3	0.0	-90.48	9,198.3	842.0	1,191.8	1,024.3	167.47	7.116		
17,100.0	7,217.0	16,837.8	7,227.0	171.0	0.0	-90.48	9,298.3	841.2	1,191.8	1,022.6	169.20	7.043		
17,200.0	7,217.0	16,937.8	7,227.0	172.7	0.0	-90.48	9,398.3	840.3	1,191.8	1,020.8	170.94	6.972		
17,300.0	7,217.0	17,037.8	7,227.0	174.4	0.0	-90.48	9,498.3	839.5	1,191.8	1,019.1	172.67	6.902		
17,400.0	7,217.0	17,137.8	7,227.0	176.2	0.0	-90.48	9,598.3	838.7	1,191.8	1,017.4	174.41	6.833		
17,500.0	7,217.0	17,237.8	7,227.0	177.9	0.0	-90.48	9,698.3	837.9	1,191.8	1,015.6	176.15	6.766		
17,600.0	7,217.0	17,337.8	7,227.0	179.6	0.0	-90.48	9,798.3	837.0	1,191.8	1,013.9	177.88	6.700		
17,700.0	7,217.0	17,437.8	7,227.0	181.3	0.0	-90.48	9,898.3	836.2	1,191.8	1,012.1	179.62	6.635		
17,713.4	7,217.0	17,451.2	7,227.0	181.6	0.0	-90.48	9,911.7	836.1	1,191.8	1,011.9	179.85	6.626 SF		
17,723.1	7,217.0	17,451.3	7,227.0	181.7	0.0	-90.48	9,911.9	836.1	1,191.8	1,012.0	179.82	6.628		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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-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	-90.51	-0.1	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.51	-0.1	-15.0	15.0	14.4	0.56	26.977		
200.0	200.0	200.0	200.0	1.0	1.0	-90.51	-0.1	-15.0	15.0	13.4	1.60	9.366		
300.0	300.0	300.0	300.0	1.5	1.5	-90.51	-0.1	-15.0	15.0	12.5	2.45	6.104		
400.0	400.0	400.0	400.0	1.9	1.9	-90.51	-0.1	-15.0	15.0	11.7	3.24	4.619		
500.0	500.0	500.0	500.0	2.3	2.3	-90.51	-0.1	-15.0	15.0	11.0	4.00	3.741		
600.0	600.0	600.0	600.0	2.7	2.7	-90.51	-0.1	-15.0	15.0	10.2	4.75	3.152		
700.0	700.0	700.0	700.0	3.1	3.1	-90.51	-0.1	-15.0	15.0	9.5	5.49	2.727 CC, ES		
800.0	800.0	800.0	800.0	3.5	3.5	167.59	-0.1	-15.0	16.7	10.3	6.41	2.600		
900.0	899.8	900.5	900.5	4.2	3.9	169.51	-0.6	-13.3	20.1	12.3	7.83	2.567		
1,000.0	999.5	1,001.2	1,001.1	5.0	4.5	170.49	-2.1	-8.2	23.6	14.1	9.43	2.498		
1,100.0	1,098.7	1,102.0	1,101.5	5.8	5.3	170.89	-4.5	0.3	27.0	16.2	10.85	2.490		
1,200.0	1,197.5	1,203.0	1,201.7	6.5	6.0	170.91	-7.8	12.3	30.5	18.3	12.13	2.512		
1,300.0	1,295.6	1,304.0	1,301.4	7.1	6.7	170.66	-12.2	27.6	33.9	20.6	13.31	2.548		
1,400.0	1,393.1	1,405.2	1,400.7	7.7	7.3	170.21	-17.5	46.3	37.4	22.9	14.41	2.592		
1,500.0	1,489.6	1,506.5	1,499.4	8.3	7.9	169.61	-23.8	68.4	40.8	25.3	15.44	2.642		
1,600.0	1,585.3	1,607.8	1,597.1	8.8	8.5	168.91	-31.0	93.9	44.2	27.8	16.41	2.694		
1,700.0	1,679.8	1,707.6	1,693.1	9.3	8.9	168.69	-38.5	120.4	49.5	32.3	17.23	2.875		
1,800.0	1,773.9	1,807.4	1,789.0	9.5	9.1	168.83	-46.0	146.9	56.4	38.6	17.79	3.167		
1,900.0	1,867.9	1,907.2	1,884.9	9.8	9.4	168.94	-53.5	173.4	63.2	44.8	18.39	3.435		
2,000.0	1,962.0	2,007.0	1,980.8	10.1	9.7	169.03	-61.0	199.9	70.0	51.0	19.00	3.683		
2,100.0	2,056.0	2,106.7	2,076.7	10.5	10.1	169.10	-68.5	226.4	76.8	57.2	19.63	3.912		
2,200.0	2,150.1	2,206.5	2,172.6	10.9	10.4	169.16	-76.0	252.9	83.6	63.3	20.28	4.122		
2,300.0	2,244.1	2,306.3	2,268.5	11.3	10.8	169.21	-83.5	279.4	90.4	69.5	20.94	4.317		
2,400.0	2,338.2	2,406.0	2,364.3	11.8	11.2	169.26	-91.0	305.9	97.2	75.6	21.62	4.497		
2,500.0	2,432.3	2,505.8	2,460.2	12.4	11.6	169.30	-98.5	332.4	104.0	81.7	22.31	4.663		
2,600.0	2,526.3	2,605.6	2,556.1	13.0	12.1	169.33	-106.0	358.9	110.8	87.8	23.01	4.817		
2,700.0	2,620.4	2,705.3	2,652.0	13.7	12.6	169.36	-113.5	385.4	117.6	93.9	23.72	4.959		
2,800.0	2,714.4	2,805.1	2,747.9	14.3	13.1	169.39	-121.1	411.9	124.5	100.0	24.45	5.091		
2,900.0	2,808.5	2,904.9	2,843.8	15.0	13.6	169.41	-128.6	438.4	131.3	106.1	25.18	5.214		
3,000.0	2,902.5	3,004.6	2,939.7	15.7	14.2	169.43	-136.1	464.9	138.1	112.2	25.92	5.327		
3,100.0	2,996.6	3,104.4	3,035.6	16.4	14.8	169.45	-143.6	491.4	144.9	118.2	26.67	5.433		
3,200.0	3,090.6	3,204.2	3,131.5	17.1	15.3	169.47	-151.1	517.9	151.7	124.3	27.42	5.532		
3,300.0	3,184.7	3,303.9	3,227.4	17.7	15.9	169.49	-158.6	544.4	158.5	130.3	28.18	5.625		
3,400.0	3,278.7	3,403.7	3,323.2	18.4	16.5	169.50	-166.1	570.9	165.3	136.4	28.95	5.711		
3,500.0	3,372.8	3,503.5	3,419.1	19.1	17.1	169.52	-173.6	597.4	172.1	142.4	29.72	5.792		
3,600.0	3,466.9	3,603.2	3,515.0	19.8	17.7	169.53	-181.1	623.9	178.9	148.4	30.50	5.867		
3,700.0	3,560.9	3,703.0	3,610.9	20.6	18.3	169.54	-188.6	650.4	185.8	154.5	31.28	5.938		
3,800.0	3,655.0	3,802.8	3,706.8	21.3	18.9	169.55	-196.1	676.9	192.6	160.5	32.07	6.005		
3,900.0	3,749.0	3,902.5	3,802.7	22.0	19.5	169.56	-203.6	703.4	199.4	166.5	32.86	6.068		
4,000.0	3,843.1	4,002.3	3,898.6	22.7	20.0	169.57	-211.1	729.9	206.2	172.5	33.65	6.127		
4,100.0	3,937.1	4,102.1	3,994.5	23.4	20.6	169.58	-218.6	756.4	213.0	178.5	34.45	6.183		
4,200.0	4,031.2	4,201.8	4,090.4	24.1	21.2	169.59	-226.2	782.9	219.8	184.6	35.25	6.236		
4,300.0	4,125.2	4,301.6	4,186.3	24.8	21.8	169.60	-233.7	809.4	226.6	190.6	36.05	6.285		
4,400.0	4,219.3	4,401.4	4,282.1	25.5	22.4	169.60	-241.2	835.9	233.4	196.6	36.86	6.333		
4,500.0	4,313.3	4,501.1	4,378.0	26.2	23.0	169.61	-248.7	862.4	240.2	202.6	37.67	6.377		
4,600.0	4,407.4	4,600.9	4,473.9	26.9	23.6	169.62	-256.2	888.9	247.1	208.6	38.48	6.420		
4,700.0	4,501.5	4,700.7	4,569.8	27.6	24.2	169.62	-263.7	915.4	253.9	214.6	39.30	6.460		
4,800.0	4,595.5	4,800.5	4,665.7	28.4	24.8	169.63	-271.2	941.9	260.7	220.6	40.11	6.498		
4,900.0	4,689.6	4,900.2	4,761.6	29.1	25.4	169.64	-278.7	968.4	267.5	226.6	40.93	6.535		
5,000.0	4,783.6	5,000.0	4,857.5	29.8	26.0	169.64	-286.2	994.9	274.3	232.5	41.75	6.569		
5,100.0	4,877.7	5,099.8	4,953.4	30.5	26.6	169.65	-293.7	1,021.4	281.1	238.5	42.58	6.603		

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 19-18-4NXH
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 19-18-4NXH	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-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	4,971.7	5,199.5	5,049.3	31.2	27.2	169.65	-301.2	1,047.9	287.9	244.5	43.40	6.634		
5,300.0	5,065.8	5,299.3	5,145.2	31.9	27.8	169.66	-308.7	1,074.4	294.7	250.5	44.23	6.664		
5,400.0	5,159.8	5,399.1	5,241.0	32.7	28.4	169.66	-316.2	1,100.9	301.5	256.5	45.05	6.693		
5,500.0	5,253.9	5,498.8	5,336.9	33.4	29.0	169.66	-323.7	1,127.4	308.3	262.5	45.88	6.721		
5,600.0	5,347.9	5,598.6	5,432.8	34.1	29.6	169.67	-331.2	1,153.9	315.2	268.4	46.71	6.747		
5,700.0	5,442.0	5,698.4	5,528.7	34.8	30.2	169.67	-338.8	1,180.4	322.0	274.4	47.54	6.772		
5,800.0	5,536.1	5,798.1	5,624.6	35.5	30.9	169.68	-346.3	1,206.9	328.8	280.4	48.38	6.796		
5,900.0	5,630.1	5,897.9	5,720.5	36.2	31.5	169.68	-353.8	1,233.5	335.6	286.4	49.21	6.820		
6,000.0	5,724.2	5,997.7	5,816.4	37.0	32.1	169.68	-361.3	1,260.0	342.4	292.4	50.05	6.842		
6,100.0	5,818.2	6,097.4	5,912.3	37.7	32.7	169.69	-368.8	1,286.5	349.2	298.3	50.88	6.863		
6,200.0	5,912.3	6,197.2	6,008.2	38.4	33.3	169.69	-376.3	1,313.0	356.0	304.3	51.72	6.884		
6,300.0	6,006.3	6,297.0	6,104.1	39.1	33.9	169.69	-383.8	1,339.5	362.8	310.3	52.56	6.904		
6,400.0	6,100.4	6,396.7	6,200.0	39.8	34.5	169.70	-391.3	1,366.0	369.6	316.3	53.40	6.923		
6,500.0	6,194.4	6,496.5	6,295.8	40.5	35.1	169.70	-398.8	1,392.5	376.5	322.2	54.24	6.941		
6,600.0	6,288.5	6,596.3	6,391.7	41.3	35.7	169.70	-406.3	1,419.0	383.3	328.2	55.08	6.959		
6,700.0	6,382.5	6,696.0	6,487.6	42.0	36.3	169.70	-413.8	1,445.5	390.1	334.2	55.92	6.976		
6,800.0	6,476.6	6,795.8	6,583.5	42.7	36.9	169.71	-421.3	1,472.0	396.9	340.1	56.76	6.992		
6,900.0	6,570.7	6,895.6	6,679.4	43.4	37.5	169.71	-428.8	1,498.5	403.7	346.1	57.60	7.008		
7,000.0	6,664.8	6,995.3	6,775.3	44.1	38.1	179.32	-436.3	1,525.0	410.5	352.0	58.47	7.020		
7,100.0	6,758.8	7,093.9	6,870.1	44.9	38.7	-155.03	-443.8	1,551.2	416.8	357.1	59.69	6.983		
7,200.0	6,850.3	7,188.6	6,961.0	45.5	39.3	-139.29	-450.9	1,576.3	424.1	362.5	61.62	6.882		
7,300.0	6,936.6	7,279.9	7,048.8	45.9	39.8	-132.38	-457.0	1,600.5	435.5	371.2	64.33	6.769		
7,400.0	7,014.9	7,382.6	7,147.5	46.3	40.5	-130.42	-450.1	1,627.5	452.1	385.0	67.07	6.740		
7,500.0	7,083.0	7,498.2	7,255.3	46.6	41.0	-130.84	-420.8	1,656.5	472.5	403.6	68.93	6.855		
7,600.0	7,138.7	7,631.0	7,369.3	46.8	41.5	-132.54	-360.3	1,686.6	494.7	425.8	68.90	7.180		
7,700.0	7,180.3	7,785.5	7,481.1	46.9	41.9	-134.77	-258.3	1,715.3	515.8	449.4	66.43	7.765		
7,800.0	7,206.7	7,963.7	7,572.1	47.0	42.1	-136.76	-107.5	1,737.2	532.3	469.7	62.59	8.504		
7,900.0	7,216.9	8,160.3	7,615.9	47.0	42.2	-137.69	83.0	1,745.3	540.4	479.5	60.92	8.871		
8,000.0	7,217.0	8,278.4	7,617.0	47.0	42.1	-137.63	201.0	1,743.2	541.5	479.6	61.83	8.757		
8,100.0	7,217.0	8,378.4	7,617.0	47.0	42.2	-137.53	301.0	1,741.2	542.3	479.5	62.81	8.634		
8,200.0	7,217.0	8,478.4	7,617.0	47.1	42.3	-137.44	401.0	1,739.1	543.1	479.2	63.89	8.500		
8,300.0	7,217.0	8,578.4	7,617.0	47.2	42.4	-137.34	500.9	1,737.1	543.9	478.9	65.06	8.360		
8,400.0	7,217.0	8,678.3	7,617.0	47.4	42.6	-137.25	600.9	1,735.1	544.7	478.4	66.32	8.214		
8,500.0	7,217.0	8,778.3	7,617.0	47.6	42.9	-137.16	700.9	1,733.0	545.6	477.9	67.67	8.063		
8,600.0	7,217.0	8,878.3	7,617.0	47.9	43.2	-137.06	800.9	1,731.0	546.4	477.3	69.09	7.908		
8,700.0	7,217.0	8,978.3	7,617.0	48.2	43.6	-136.97	900.8	1,728.9	547.2	476.6	70.59	7.752		
8,800.0	7,217.0	9,078.3	7,617.0	48.6	44.1	-136.88	1,000.8	1,726.9	548.1	475.9	72.16	7.595		
8,900.0	7,217.0	9,178.3	7,617.0	49.0	44.7	-136.78	1,100.8	1,724.9	548.9	475.1	73.80	7.438		
9,000.0	7,217.0	9,278.3	7,617.0	49.6	45.4	-136.69	1,200.7	1,722.8	549.7	474.2	75.50	7.281		
9,100.0	7,217.0	9,378.3	7,617.0	50.1	46.1	-136.60	1,300.7	1,720.8	550.6	473.3	77.26	7.126		
9,200.0	7,217.0	9,478.3	7,617.0	50.8	47.0	-136.51	1,400.7	1,718.7	551.4	472.3	79.08	6.973		
9,300.0	7,217.0	9,578.3	7,617.0	51.5	47.8	-136.42	1,500.7	1,716.7	552.2	471.3	80.95	6.822		
9,400.0	7,217.0	9,678.3	7,617.0	52.3	48.8	-136.32	1,600.6	1,714.7	553.1	470.2	82.87	6.674		
9,500.0	7,217.0	9,778.3	7,617.0	53.1	49.8	-136.23	1,700.6	1,712.6	553.9	469.1	84.84	6.529		
9,600.0	7,217.0	9,878.3	7,617.0	54.0	50.9	-136.14	1,800.6	1,710.6	554.7	467.9	86.86	6.387		
9,700.0	7,217.0	9,978.3	7,617.0	55.0	52.0	-136.05	1,900.6	1,708.5	555.6	466.7	88.91	6.249		
9,800.0	7,217.0	10,078.2	7,617.0	56.0	53.2	-135.96	2,000.5	1,706.5	556.4	465.4	91.01	6.114		
9,900.0	7,217.0	10,178.2	7,617.0	57.1	54.4	-135.87	2,100.5	1,704.4	557.3	464.1	93.14	5.983		
10,000.0	7,217.0	10,278.2	7,617.0	58.2	55.7	-135.78	2,200.5	1,702.4	558.1	462.8	95.31	5.856		
10,100.0	7,217.0	10,378.2	7,617.0	59.4	56.9	-135.69	2,300.4	1,700.4	559.0	461.5	97.52	5.732		
10,200.0	7,217.0	10,478.2	7,617.0	60.6	58.2	-135.61	2,400.4	1,698.3	559.8	460.1	99.75	5.612		
10,300.0	7,217.0	10,578.2	7,617.0	61.8	59.6	-135.52	2,500.4	1,696.3	560.7	458.7	102.02	5.496		

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 19-18-4NXH
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 19-18-4NXH	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-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	7,217.0	10,678.2	7,617.0	63.1	60.9	-135.43	2,600.4	1,694.2	561.5	457.2	104.31	5.383		
10,500.0	7,217.0	10,778.2	7,617.0	64.4	62.3	-135.34	2,700.3	1,692.2	562.4	455.7	106.63	5.274		
10,600.0	7,217.0	10,878.2	7,617.0	65.7	63.7	-135.25	2,800.3	1,690.2	563.2	454.3	108.98	5.168		
10,700.0	7,217.0	10,978.2	7,617.0	67.1	65.2	-135.17	2,900.3	1,688.1	564.1	452.7	111.35	5.066		
10,800.0	7,217.0	11,078.2	7,617.0	68.4	66.6	-135.08	3,000.2	1,686.1	564.9	451.2	113.74	4.967		
10,900.0	7,217.0	11,178.2	7,617.0	69.8	68.1	-134.99	3,100.2	1,684.0	565.8	449.6	116.16	4.871		
11,000.0	7,217.0	11,278.2	7,617.0	71.3	69.5	-134.90	3,200.2	1,682.0	566.7	448.1	118.60	4.778		
11,100.0	7,217.0	11,378.1	7,617.0	72.7	71.0	-134.82	3,300.2	1,680.0	567.5	446.5	121.06	4.688		
11,200.0	7,217.0	11,478.1	7,617.0	74.1	72.5	-134.73	3,400.1	1,677.9	568.4	444.8	123.53	4.601		
11,300.0	7,217.0	11,578.1	7,617.0	75.6	74.0	-134.64	3,500.1	1,675.9	569.2	443.2	126.03	4.517		
11,400.0	7,217.0	11,678.1	7,617.0	77.1	75.6	-134.56	3,600.1	1,673.8	570.1	441.6	128.54	4.435		
11,500.0	7,217.0	11,778.1	7,617.0	78.6	77.1	-134.47	3,700.0	1,671.8	571.0	439.9	131.08	4.356		
11,600.0	7,217.0	11,878.1	7,617.0	80.1	78.6	-134.39	3,800.0	1,669.8	571.8	438.2	133.62	4.280		
11,700.0	7,217.0	11,978.1	7,617.0	81.6	80.2	-134.30	3,900.0	1,667.7	572.7	436.5	136.19	4.205		
11,800.0	7,217.0	12,078.1	7,617.0	83.1	81.8	-134.22	4,000.0	1,665.7	573.6	434.8	138.77	4.133		
11,900.0	7,217.0	12,178.1	7,617.0	84.7	83.3	-134.13	4,099.9	1,663.6	574.5	433.1	141.36	4.064		
12,000.0	7,217.0	12,278.1	7,617.0	86.2	84.9	-134.05	4,199.9	1,661.6	575.3	431.4	143.97	3.996		
12,100.0	7,217.0	12,378.1	7,617.0	87.8	86.5	-133.97	4,299.9	1,659.5	576.2	429.6	146.59	3.931		
12,200.0	7,217.0	12,478.1	7,617.0	89.3	88.1	-133.88	4,399.8	1,657.5	577.1	427.9	149.22	3.867		
12,300.0	7,217.0	12,578.1	7,617.0	90.9	89.7	-133.80	4,499.8	1,655.5	577.9	426.1	151.87	3.806		
12,400.0	7,217.0	12,678.1	7,617.0	92.5	91.3	-133.72	4,599.8	1,653.4	578.8	424.3	154.53	3.746		
12,500.0	7,217.0	12,778.0	7,617.0	94.1	92.9	-133.63	4,699.8	1,651.4	579.7	422.5	157.20	3.688		
12,600.0	7,217.0	12,878.0	7,617.0	95.7	94.6	-133.55	4,799.7	1,649.3	580.6	420.7	159.88	3.631		
12,700.0	7,217.0	12,978.0	7,617.0	97.3	96.2	-133.47	4,899.7	1,647.3	581.5	418.9	162.58	3.577		
12,800.0	7,217.0	13,078.0	7,617.0	98.9	97.8	-133.39	4,999.7	1,645.3	582.3	417.1	165.28	3.523		
12,900.0	7,217.0	13,178.0	7,617.0	100.5	99.4	-133.30	5,099.6	1,643.2	583.2	415.2	168.00	3.472		
13,000.0	7,217.0	13,278.0	7,617.0	102.1	101.1	-133.22	5,199.6	1,641.2	584.1	413.4	170.72	3.421		
13,100.0	7,217.0	13,378.0	7,617.0	103.7	102.7	-133.14	5,299.6	1,639.1	585.0	411.5	173.46	3.373		
13,200.0	7,217.0	13,478.0	7,617.0	105.3	104.4	-133.06	5,399.6	1,637.1	585.9	409.7	176.20	3.325		
13,300.0	7,217.0	13,578.0	7,617.0	107.0	106.0	-132.98	5,499.5	1,635.1	586.8	407.8	178.96	3.279		
13,400.0	7,217.0	13,678.0	7,617.0	108.6	107.7	-132.90	5,599.5	1,633.0	587.7	405.9	181.72	3.234		
13,500.0	7,217.0	13,778.0	7,617.0	110.3	109.3	-132.82	5,699.5	1,631.0	588.6	404.1	184.50	3.190		
13,600.0	7,217.0	13,878.0	7,617.0	111.9	111.0	-132.74	5,799.5	1,628.9	589.4	402.2	187.28	3.147		
13,700.0	7,217.0	13,978.0	7,617.0	113.5	112.7	-132.66	5,899.4	1,626.9	590.3	400.3	190.07	3.106		
13,800.0	7,217.0	14,077.9	7,617.0	115.2	114.4	-132.58	5,999.4	1,624.8	591.2	398.4	192.87	3.065		
13,900.0	7,217.0	14,177.9	7,617.0	116.9	116.0	-132.50	6,099.4	1,622.8	592.1	396.5	195.68	3.026		
14,000.0	7,217.0	14,277.9	7,617.0	118.5	117.7	-132.42	6,199.3	1,620.8	593.0	394.5	198.49	2.988		
14,100.0	7,217.0	14,377.9	7,617.0	120.2	119.4	-132.34	6,299.3	1,618.7	593.9	392.6	201.31	2.950		
14,200.0	7,217.0	14,477.9	7,617.0	121.8	121.1	-132.26	6,399.3	1,616.7	594.8	390.7	204.15	2.914		
14,300.0	7,217.0	14,577.9	7,617.0	123.5	122.7	-132.18	6,499.3	1,614.6	595.7	388.7	206.98	2.878		
14,400.0	7,217.0	14,677.9	7,617.0	125.2	124.4	-132.10	6,599.2	1,612.6	596.6	386.8	209.83	2.843		
14,500.0	7,217.0	14,777.9	7,617.0	126.9	126.1	-132.03	6,699.2	1,610.6	597.5	384.8	212.68	2.809		
14,600.0	7,217.0	14,877.9	7,617.0	128.5	127.8	-131.95	6,799.2	1,608.5	598.4	382.9	215.54	2.776		
14,700.0	7,217.0	14,977.9	7,617.0	130.2	129.5	-131.87	6,899.1	1,606.5	599.3	380.9	218.41	2.744		
14,800.0	7,217.0	15,077.9	7,617.0	131.9	131.2	-131.79	6,999.1	1,604.4	600.2	378.9	221.28	2.713		
14,900.0	7,217.0	15,177.9	7,617.0	133.6	132.9	-131.72	7,099.1	1,602.4	601.1	377.0	224.16	2.682		
15,000.0	7,217.0	15,277.9	7,617.0	135.3	134.6	-131.64	7,199.1	1,600.4	602.0	375.0	227.05	2.652		
15,100.0	7,217.0	15,377.9	7,617.0	136.9	136.3	-131.56	7,299.0	1,598.3	603.0	373.0	229.94	2.622		
15,200.0	7,217.0	15,477.8	7,617.0	138.6	138.0	-131.49	7,399.0	1,596.3	603.9	371.0	232.84	2.593		
15,300.0	7,217.0	15,577.8	7,617.0	140.3	139.7	-131.41	7,499.0	1,594.2	604.8	369.0	235.75	2.565		
15,400.0	7,217.0	15,677.8	7,617.0	142.0	141.4	-131.33	7,598.9	1,592.2	605.7	367.0	238.66	2.538		
15,500.0	7,217.0	15,777.8	7,617.0	143.7	143.1	-131.26	7,698.9	1,590.2	606.6	365.0	241.58	2.511		

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 19-18-4NXH
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 19-18-4NXH	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-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis 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	7,217.0	15,877.8	7,617.0	145.4	144.8	-131.18	7,798.9	1,588.1	607.5	363.0	244.51	2.485		
15,700.0	7,217.0	15,977.8	7,617.0	147.1	146.5	-131.11	7,898.9	1,586.1	608.4	361.0	247.44	2.459		
15,800.0	7,217.0	16,077.8	7,617.0	148.8	148.2	-131.03	7,998.8	1,584.0	609.3	359.0	250.37	2.434		
15,900.0	7,217.0	16,177.8	7,617.0	150.5	149.9	-130.96	8,098.8	1,582.0	610.3	356.9	253.31	2.409		
16,000.0	7,217.0	16,277.8	7,617.0	152.2	151.7	-130.88	8,198.8	1,579.9	611.2	354.9	256.26	2.385		
16,100.0	7,217.0	16,377.8	7,617.0	153.9	153.4	-130.81	8,298.7	1,577.9	612.1	352.9	259.21	2.361		
16,200.0	7,217.0	16,477.8	7,617.0	155.6	155.1	-130.73	8,398.7	1,575.9	613.0	350.8	262.17	2.338		
16,300.0	7,217.0	16,577.8	7,617.0	157.3	156.8	-130.66	8,498.7	1,573.8	613.9	348.8	265.14	2.316		
16,400.0	7,217.0	16,677.8	7,617.0	159.0	158.5	-130.59	8,598.7	1,571.8	614.9	346.8	268.10	2.293		
16,500.0	7,217.0	16,777.7	7,617.0	160.7	160.2	-130.51	8,698.6	1,569.7	615.8	344.7	271.08	2.272		
16,600.0	7,217.0	16,877.7	7,617.0	162.4	162.0	-130.44	8,798.6	1,567.7	616.7	342.6	274.06	2.250		
16,700.0	7,217.0	16,977.7	7,617.0	164.1	163.7	-130.37	8,898.6	1,565.7	617.6	340.6	277.04	2.229		
16,800.0	7,217.0	17,077.7	7,617.0	165.9	165.4	-130.29	8,998.5	1,563.6	618.6	338.5	280.03	2.209		
16,900.0	7,217.0	17,177.7	7,617.0	167.6	167.1	-130.22	9,098.5	1,561.6	619.5	336.5	283.03	2.189		
17,000.0	7,217.0	17,283.6	7,617.0	169.3	169.0	-130.15	9,204.4	1,559.6	620.3	333.8	286.49	2.165		
17,100.0	7,217.0	17,408.0	7,617.0	171.0	171.1	-130.35	9,328.8	1,561.8	618.3	327.7	290.55	2.128		
17,200.0	7,217.0	17,531.8	7,617.0	172.7	173.2	-130.93	9,452.2	1,570.4	612.4	319.3	293.13	2.089		
17,300.0	7,217.0	17,654.2	7,617.0	174.4	175.3	-131.92	9,573.8	1,585.1	602.7	308.6	294.12	2.049		
17,400.0	7,217.0	17,774.8	7,617.0	176.2	177.4	-133.33	9,692.5	1,605.7	589.5	296.1	293.41	2.009		
17,500.0	7,217.0	17,892.9	7,617.0	177.9	179.3	-135.20	9,807.7	1,631.5	573.0	282.1	290.88	1.970		
17,600.0	7,217.0	18,003.2	7,617.0	179.6	181.1	-137.45	9,914.2	1,660.6	553.9	267.1	286.78	1.931		
17,700.0	7,217.0	18,014.8	7,617.0	181.3	181.3	-137.70	9,925.3	1,663.8	541.2	255.4	285.72	1.894 SF		
17,720.2	7,217.0	18,014.8	7,617.0	181.7	181.3	-137.70	9,925.3	1,663.8	540.8	256.2	284.62	1.900		
17,723.1	7,217.0	18,014.8	7,617.0	181.7	181.3	-137.70	9,925.3	1,663.8	540.8	256.4	284.43	1.901		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation		
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.70	0.2	30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.2	30.0	30.0	29.7	0.28	108.297		
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.2	30.0	30.0	29.2	0.80	37.602		
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.2	30.0	30.0	28.8	1.22	24.501		
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.2	30.0	30.0	28.4	1.62	18.538		
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.2	30.0	30.0	28.0	2.00	15.008	CC, ES	
600.0	600.0	598.9	598.9	2.7	0.0	90.35	-0.2	31.7	31.7	29.3	2.36	13.406		
700.0	700.0	697.7	697.5	3.1	0.0	91.93	-1.2	36.7	36.8	34.1	2.71	13.571		
800.0	800.0	796.1	795.5	3.5	0.0	-9.90	-3.0	45.0	43.6	40.3	3.29	13.249		
900.0	899.8	894.2	893.0	4.2	0.0	-8.91	-5.4	56.5	50.3	46.2	4.18	12.054		
1,000.0	999.5	992.2	989.8	5.0	0.0	-8.26	-8.5	71.3	57.0	52.1	4.93	11.562		
1,100.0	1,098.7	1,089.9	1,085.8	5.8	0.0	-7.83	-12.2	89.2	63.7	58.1	5.61	11.354		
1,200.0	1,197.5	1,187.4	1,180.9	6.5	0.0	-7.56	-16.6	110.3	70.3	64.1	6.23	11.285		
1,300.0	1,295.6	1,284.7	1,275.0	7.1	0.0	-7.41	-21.7	134.5	76.8	70.0	6.80	11.292		
1,400.0	1,393.1	1,381.8	1,368.0	7.7	0.0	-7.34	-27.4	161.8	83.2	75.9	7.34	11.340		
1,500.0	1,489.6	1,478.7	1,459.8	8.3	0.0	-7.35	-33.7	192.1	89.6	81.7	7.85	11.412		
1,600.0	1,585.3	1,576.2	1,551.1	8.8	0.0	-7.41	-40.7	225.5	95.7	87.4	8.35	11.461		
1,700.0	1,679.8	1,676.2	1,644.4	9.3	0.0	-7.68	-48.1	260.5	99.3	90.5	8.82	11.256		
1,800.0	1,773.9	1,776.1	1,737.7	9.5	0.0	-8.06	-55.4	295.6	101.4	92.4	9.08	11.174		
1,900.0	1,867.9	1,876.1	1,831.1	9.8	0.0	-8.42	-62.7	330.7	103.6	94.2	9.36	11.067		
2,000.0	1,962.0	1,976.1	1,924.4	10.1	0.0	-8.77	-70.1	365.8	105.7	96.1	9.65	10.952		
2,100.0	2,056.0	2,076.1	2,017.7	10.5	0.0	-9.10	-77.4	400.9	107.8	97.9	9.96	10.832		
2,200.0	2,150.1	2,176.0	2,111.0	10.9	0.0	-9.42	-84.8	436.0	110.0	99.7	10.27	10.707		
2,300.0	2,244.1	2,276.0	2,204.4	11.3	0.0	-9.73	-92.1	471.1	112.1	101.5	10.60	10.579		
2,400.0	2,338.2	2,376.0	2,297.7	11.8	0.0	-10.02	-99.5	506.2	114.3	103.3	10.94	10.450		
2,500.0	2,432.3	2,476.0	2,391.0	12.4	0.0	-10.31	-106.8	541.3	116.4	105.2	11.28	10.321		
2,600.0	2,526.3	2,575.9	2,484.3	13.0	0.0	-10.58	-114.1	576.4	118.6	107.0	11.63	10.193		
2,700.0	2,620.4	2,675.9	2,577.6	13.7	0.0	-10.85	-121.5	611.5	120.7	108.7	11.99	10.066		
2,800.0	2,714.4	2,775.9	2,671.0	14.3	0.0	-11.11	-128.8	646.6	122.9	110.5	12.36	9.941		
2,900.0	2,808.5	2,875.9	2,764.3	15.0	0.0	-11.35	-136.2	681.7	125.1	112.3	12.74	9.818		
3,000.0	2,902.5	2,975.8	2,857.6	15.7	0.0	-11.59	-143.5	716.8	127.2	114.1	13.12	9.698		
3,100.0	2,996.6	3,075.8	2,950.9	16.4	0.0	-11.82	-150.8	751.9	129.4	115.9	13.50	9.581		
3,200.0	3,090.6	3,175.8	3,044.3	17.1	0.0	-12.04	-158.2	787.0	131.6	117.7	13.90	9.467		
3,300.0	3,184.7	3,275.8	3,137.6	17.7	0.0	-12.26	-165.5	822.1	133.7	119.4	14.29	9.356		
3,400.0	3,278.7	3,375.7	3,230.9	18.4	0.0	-12.47	-172.9	857.2	135.9	121.2	14.69	9.248		
3,500.0	3,372.8	3,475.7	3,324.2	19.1	0.0	-12.67	-180.2	892.3	138.1	123.0	15.10	9.143		
3,600.0	3,466.9	3,575.7	3,417.6	19.8	0.0	-12.87	-187.6	927.4	140.2	124.7	15.51	9.042		
3,700.0	3,560.9	3,675.7	3,510.9	20.6	0.0	-13.06	-194.9	962.5	142.4	126.5	15.92	8.944		
3,800.0	3,655.0	3,775.6	3,604.2	21.3	0.0	-13.24	-202.2	997.6	144.6	128.3	16.34	8.849		
3,900.0	3,749.0	3,875.6	3,697.5	22.0	0.0	-13.42	-209.6	1,032.7	146.8	130.0	16.76	8.757		
4,000.0	3,843.1	3,975.6	3,790.9	22.7	0.0	-13.59	-216.9	1,067.8	149.0	131.8	17.19	8.668		
4,100.0	3,937.1	4,075.6	3,884.2	23.4	0.0	-13.76	-224.3	1,102.9	151.1	133.5	17.61	8.581		
4,200.0	4,031.2	4,175.5	3,977.5	24.1	0.0	-13.93	-231.6	1,138.0	153.3	135.3	18.04	8.498		
4,300.0	4,125.2	4,275.5	4,070.8	24.8	0.0	-14.09	-238.9	1,173.1	155.5	137.0	18.47	8.418		
4,400.0	4,219.3	4,375.5	4,164.1	25.5	0.0	-14.24	-246.3	1,208.2	157.7	138.8	18.91	8.340		
4,500.0	4,313.3	4,475.5	4,257.5	26.2	0.0	-14.39	-253.6	1,243.3	159.9	140.5	19.35	8.264		
4,600.0	4,407.4	4,575.4	4,350.8	26.9	0.0	-14.54	-261.0	1,278.4	162.1	142.3	19.78	8.191		
4,700.0	4,501.5	4,675.4	4,444.1	27.6	0.0	-14.68	-268.3	1,313.5	164.3	144.0	20.23	8.121		
4,800.0	4,595.5	4,775.4	4,537.4	28.4	0.0	-14.82	-275.6	1,348.6	166.4	145.8	20.67	8.053		
4,900.0	4,689.6	4,875.4	4,630.8	29.1	0.0	-14.96	-283.0	1,383.7	168.6	147.5	21.12	7.986		
5,000.0	4,783.6	4,975.3	4,724.1	29.8	0.0	-15.09	-290.3	1,418.8	170.8	149.3	21.56	7.922		
5,100.0	4,877.7	5,075.3	4,817.4	30.5	0.0	-15.22	-297.7	1,453.9	173.0	151.0	22.01	7.860		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,175.3	4,910.7	31.2	0.0	-15.34	-305.0	1,489.0	175.2	152.7	22.46	7.800		
5,300.0	5,065.8	5,275.3	5,004.1	31.9	0.0	-15.46	-312.4	1,524.1	177.4	154.5	22.91	7.742		
5,400.0	5,159.8	5,375.2	5,097.4	32.7	0.0	-15.58	-319.7	1,559.1	179.6	156.2	23.37	7.686		
5,500.0	5,253.9	5,475.2	5,190.7	33.4	0.0	-15.70	-327.0	1,594.2	181.8	158.0	23.82	7.631		
5,600.0	5,347.9	5,575.2	5,284.0	34.1	0.0	-15.81	-334.4	1,629.3	184.0	159.7	24.28	7.578		
5,700.0	5,442.0	5,675.2	5,377.4	34.8	0.0	-15.92	-341.7	1,664.4	186.2	161.5	24.74	7.527		
5,800.0	5,536.1	5,775.1	5,470.7	35.5	0.0	-16.03	-349.1	1,699.5	188.4	163.2	25.20	7.477		
5,900.0	5,630.1	5,875.1	5,564.0	36.2	0.0	-16.14	-356.4	1,734.6	190.6	164.9	25.66	7.428		
6,000.0	5,724.2	5,975.1	5,657.3	37.0	0.0	-16.24	-363.7	1,769.7	192.8	166.7	26.12	7.381		
6,100.0	5,818.2	6,075.1	5,750.6	37.7	0.0	-16.34	-371.1	1,804.8	195.0	168.4	26.58	7.336		
6,200.0	5,912.3	6,175.0	5,844.0	38.4	0.0	-16.44	-378.4	1,839.9	197.2	170.1	27.04	7.291		
6,300.0	6,006.3	6,275.0	5,937.3	39.1	0.0	-16.54	-385.8	1,875.0	199.4	171.9	27.51	7.248		
6,400.0	6,100.4	6,375.0	6,030.6	39.8	0.0	-16.63	-393.1	1,910.1	201.6	173.6	27.97	7.206		
6,500.0	6,194.4	6,475.0	6,123.9	40.5	0.0	-16.72	-400.5	1,945.2	203.8	175.3	28.44	7.166		
6,600.0	6,288.5	6,574.9	6,217.3	41.3	0.0	-16.81	-407.8	1,980.3	206.0	177.1	28.91	7.126		
6,700.0	6,382.5	6,674.9	6,310.6	42.0	0.0	-16.90	-415.1	2,015.4	208.2	178.8	29.38	7.087		
6,800.0	6,476.6	6,774.9	6,403.9	42.7	0.0	-16.99	-422.5	2,050.5	210.4	180.6	29.84	7.050		
6,900.0	6,570.7	6,874.9	6,497.2	43.4	0.0	-17.07	-429.8	2,085.6	212.6	182.3	30.31	7.013		
7,000.0	6,664.8	6,974.8	6,590.5	44.1	0.0	-7.43	-437.2	2,120.7	214.7	184.0	30.73	6.988		
7,100.0	6,758.8	7,073.7	6,682.8	44.9	0.0	23.13	-444.4	2,155.4	216.4	185.8	30.55	7.083		
7,200.0	6,853.3	7,168.5	6,771.4	45.5	0.0	49.43	-451.4	2,188.7	220.6	190.2	30.40	7.256		
7,300.0	6,936.6	7,267.2	6,863.7	45.9	0.0	69.99	-453.0	2,223.3	232.1	200.7	31.36	7.401		
7,400.0	7,014.9	7,376.2	6,964.3	46.3	0.0	85.27	-435.4	2,260.8	249.9	217.0	32.90	7.595		
7,500.0	7,083.0	7,496.7	7,069.8	46.6	0.0	96.80	-392.7	2,299.7	271.3	237.7	33.63	8.069		
7,600.0	7,138.7	7,631.1	7,174.9	46.8	0.0	105.46	-318.6	2,337.9	293.4	260.8	32.61	8.995		
7,700.0	7,180.3	7,780.7	7,269.4	46.9	0.0	111.66	-208.3	2,371.6	312.6	282.9	29.75	10.508		
7,800.0	7,206.7	7,944.2	7,338.5	47.0	0.0	115.51	-62.6	2,395.2	325.8	299.6	26.14	12.461		
7,900.0	7,216.9	8,116.6	7,366.8	47.0	0.0	117.00	106.6	2,403.2	330.3	306.0	24.36	13.562		
8,000.0	7,217.0	8,223.1	7,367.0	47.0	0.0	117.07	213.1	2,401.6	329.7	305.2	24.46	13.478		
8,100.0	7,217.0	8,323.1	7,367.0	47.0	0.0	117.12	313.0	2,400.1	329.0	304.4	24.66	13.344		
8,200.0	7,217.0	8,423.1	7,367.0	47.1	0.0	117.18	413.0	2,398.5	328.4	303.4	24.96	13.157		
8,300.0	7,217.0	8,523.1	7,367.0	47.2	0.0	117.24	513.0	2,397.0	327.7	302.4	25.35	12.926		
8,400.0	7,217.0	8,623.1	7,367.0	47.4	0.0	117.30	613.0	2,395.4	327.1	301.2	25.84	12.655		
8,500.0	7,217.0	8,723.1	7,367.0	47.6	0.0	117.36	713.0	2,393.8	326.4	300.0	26.42	12.354		
8,600.0	7,217.0	8,823.0	7,367.0	47.9	0.0	117.42	813.0	2,392.3	325.8	298.7	27.08	12.028		
8,700.0	7,217.0	8,923.0	7,367.0	48.2	0.0	117.48	913.0	2,390.7	325.1	297.3	27.82	11.687		
8,800.0	7,217.0	9,023.0	7,367.0	48.6	0.0	117.54	1,012.9	2,389.2	324.5	295.8	28.62	11.335		
8,900.0	7,217.0	9,123.0	7,367.0	49.0	0.0	117.60	1,112.9	2,387.6	323.8	294.3	29.49	10.979		
9,000.0	7,217.0	9,223.0	7,367.0	49.6	0.0	117.66	1,212.9	2,386.0	323.2	292.7	30.42	10.623		
9,100.0	7,217.0	9,323.0	7,367.0	50.1	0.0	117.72	1,312.9	2,384.5	322.5	291.1	31.40	10.271		
9,200.0	7,217.0	9,423.0	7,367.0	50.8	0.0	117.78	1,412.9	2,382.9	321.9	289.4	32.43	9.926		
9,300.0	7,217.0	9,523.0	7,367.0	51.5	0.0	117.84	1,512.9	2,381.4	321.2	287.7	33.50	9.589		
9,400.0	7,217.0	9,623.0	7,367.0	52.3	0.0	117.90	1,612.8	2,379.8	320.6	286.0	34.61	9.263		
9,500.0	7,217.0	9,723.0	7,367.0	53.1	0.0	117.96	1,712.8	2,378.2	319.9	284.2	35.75	8.948		
9,600.0	7,217.0	9,823.0	7,367.0	54.0	0.0	118.02	1,812.8	2,376.7	319.3	282.4	36.93	8.646		
9,700.0	7,217.0	9,923.0	7,367.0	55.0	0.0	118.08	1,912.8	2,375.1	318.6	280.5	38.13	8.356		
9,800.0	7,217.0	10,023.0	7,367.0	56.0	0.0	118.15	2,012.8	2,373.6	318.0	278.6	39.37	8.078		
9,900.0	7,217.0	10,123.0	7,367.0	57.1	0.0	118.21	2,112.8	2,372.0	317.3	276.7	40.62	7.813		
10,000.0	7,217.0	10,223.0	7,367.0	58.2	0.0	118.27	2,212.8	2,370.4	316.7	274.8	41.89	7.560		
10,100.0	7,217.0	10,323.0	7,367.0	59.4	0.0	118.33	2,312.7	2,368.9	316.1	272.9	43.19	7.318		
10,200.0	7,217.0	10,423.0	7,367.0	60.6	0.0	118.40	2,412.7	2,367.3	315.4	270.9	44.50	7.088		
10,300.0	7,217.0	10,523.0	7,367.0	61.8	0.0	118.46	2,512.7	2,365.8	314.8	268.9	45.82	6.869		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,623.0	7,367.0	63.1	0.0	118.52	2,612.7	2,364.2	314.1	267.0	47.16	6.660		
10,500.0	7,217.0	10,723.0	7,367.0	64.4	0.0	118.59	2,712.7	2,362.7	313.5	265.0	48.52	6.461		
10,600.0	7,217.0	10,823.0	7,367.0	65.7	0.0	118.65	2,812.7	2,361.1	312.8	263.0	49.88	6.272		
10,700.0	7,217.0	10,923.0	7,367.0	67.1	0.0	118.72	2,912.7	2,359.5	312.2	260.9	51.26	6.091		
10,800.0	7,217.0	11,023.0	7,367.0	68.4	0.0	118.78	3,012.6	2,358.0	311.6	258.9	52.64	5.919		
10,900.0	7,217.0	11,123.0	7,367.0	69.8	0.0	118.85	3,112.6	2,356.4	310.9	256.9	54.03	5.754		
11,000.0	7,217.0	11,223.0	7,367.0	71.3	0.0	118.91	3,212.6	2,354.9	310.3	254.8	55.43	5.597		
11,100.0	7,217.0	11,323.0	7,367.0	72.7	0.0	118.98	3,312.6	2,353.3	309.6	252.8	56.84	5.448		
11,200.0	7,217.0	11,423.0	7,367.0	74.1	0.0	119.04	3,412.6	2,351.7	309.0	250.7	58.25	5.304		
11,300.0	7,217.0	11,523.0	7,367.0	75.6	0.0	119.11	3,512.6	2,350.2	308.4	248.7	59.67	5.167		
11,400.0	7,217.0	11,623.0	7,367.0	77.1	0.0	119.18	3,612.6	2,348.6	307.7	246.6	61.10	5.037		
11,500.0	7,217.0	11,723.0	7,367.0	78.6	0.0	119.24	3,712.5	2,347.1	307.1	244.5	62.53	4.911		
11,600.0	7,217.0	11,823.0	7,367.0	80.1	0.0	119.31	3,812.5	2,345.5	306.4	242.5	63.96	4.791		
11,700.0	7,217.0	11,923.0	7,367.0	81.6	0.0	119.38	3,912.5	2,343.9	305.8	240.4	65.40	4.676		
11,800.0	7,217.0	12,023.0	7,367.0	83.1	0.0	119.44	4,012.5	2,342.4	305.2	238.3	66.84	4.566		
11,900.0	7,217.0	12,123.0	7,367.0	84.7	0.0	119.51	4,112.5	2,340.8	304.5	236.2	68.28	4.460		
12,000.0	7,217.0	12,223.0	7,367.0	86.2	0.0	119.58	4,212.5	2,339.3	303.9	234.2	69.73	4.358		
12,100.0	7,217.0	12,323.0	7,367.0	87.8	0.0	119.65	4,312.4	2,337.7	303.2	232.1	71.18	4.260		
12,200.0	7,217.0	12,423.0	7,367.0	89.3	0.0	119.72	4,412.4	2,336.2	302.6	230.0	72.63	4.167		
12,300.0	7,217.0	12,522.9	7,367.0	90.9	0.0	119.78	4,512.4	2,334.6	302.0	227.9	74.08	4.076		
12,400.0	7,217.0	12,622.9	7,367.0	92.5	0.0	119.85	4,612.4	2,333.0	301.3	225.8	75.54	3.989		
12,500.0	7,217.0	12,722.9	7,367.0	94.1	0.0	119.92	4,712.4	2,331.5	300.7	223.7	76.99	3.906		
12,600.0	7,217.0	12,822.9	7,367.0	95.7	0.0	119.99	4,812.4	2,329.9	300.1	221.6	78.45	3.825		
12,700.0	7,217.0	12,922.9	7,367.0	97.3	0.0	120.06	4,912.4	2,328.4	299.4	219.5	79.91	3.747		
12,800.0	7,217.0	13,022.9	7,367.0	98.9	0.0	120.13	5,012.3	2,326.8	298.8	217.4	81.37	3.672		
12,900.0	7,217.0	13,122.9	7,367.0	100.5	0.0	120.20	5,112.3	2,325.2	298.2	215.3	82.83	3.600		
13,000.0	7,217.0	13,222.9	7,367.0	102.1	0.0	120.27	5,212.3	2,323.7	297.5	213.2	84.29	3.530		
13,100.0	7,217.0	13,322.9	7,367.0	103.7	0.0	120.35	5,312.3	2,322.1	296.9	211.2	85.75	3.462		
13,200.0	7,217.0	13,422.9	7,367.0	105.3	0.0	120.42	5,412.3	2,320.6	296.3	209.1	87.21	3.397		
13,300.0	7,217.0	13,522.9	7,367.0	107.0	0.0	120.49	5,512.3	2,319.0	295.6	207.0	88.68	3.334		
13,400.0	7,217.0	13,622.9	7,367.0	108.6	0.0	120.56	5,612.3	2,317.4	295.0	204.9	90.14	3.273		
13,500.0	7,217.0	13,722.9	7,367.0	110.3	0.0	120.63	5,712.2	2,315.9	294.4	202.8	91.60	3.214		
13,600.0	7,217.0	13,822.9	7,367.0	111.9	0.0	120.71	5,812.2	2,314.3	293.8	200.7	93.06	3.157		
13,700.0	7,217.0	13,922.9	7,367.0	113.5	0.0	120.78	5,912.2	2,312.8	293.1	198.6	94.52	3.101		
13,800.0	7,217.0	14,022.9	7,367.0	115.2	0.0	120.85	6,012.2	2,311.2	292.5	196.5	95.98	3.047		
13,900.0	7,217.0	14,122.9	7,367.0	116.9	0.0	120.93	6,112.2	2,309.7	291.9	194.4	97.44	2.995		
14,000.0	7,217.0	14,222.9	7,367.0	118.5	0.0	121.00	6,212.2	2,308.1	291.2	192.3	98.90	2.945		
14,100.0	7,217.0	14,322.9	7,367.0	120.2	0.0	121.08	6,312.2	2,306.5	290.6	190.3	100.36	2.896		
14,200.0	7,217.0	14,422.9	7,367.0	121.8	0.0	121.15	6,412.1	2,305.0	290.0	188.2	101.82	2.848		
14,300.0	7,217.0	14,522.9	7,367.0	123.5	0.0	121.22	6,512.1	2,303.4	289.4	186.1	103.28	2.802		
14,400.0	7,217.0	14,622.9	7,367.0	125.2	0.0	121.30	6,612.1	2,301.9	288.7	184.0	104.73	2.757		
14,500.0	7,217.0	14,722.9	7,367.0	126.9	0.0	121.38	6,712.1	2,300.3	288.1	181.9	106.19	2.713		
14,600.0	7,217.0	14,822.9	7,367.0	128.5	0.0	121.45	6,812.1	2,298.7	287.5	179.8	107.64	2.671		
14,700.0	7,217.0	14,922.9	7,367.0	130.2	0.0	121.53	6,912.1	2,297.2	286.9	177.8	109.09	2.629		
14,800.0	7,217.0	15,022.9	7,367.0	131.9	0.0	121.60	7,012.0	2,295.6	286.2	175.7	110.55	2.589		
14,900.0	7,217.0	15,122.9	7,367.0	133.6	0.0	121.68	7,112.0	2,294.1	285.6	173.6	112.00	2.550		
15,000.0	7,217.0	15,222.9	7,367.0	135.3	0.0	121.76	7,212.0	2,292.5	285.0	171.5	113.44	2.512		
15,100.0	7,217.0	15,322.9	7,367.0	136.9	0.0	121.84	7,312.0	2,290.9	284.4	169.5	114.89	2.475		
15,200.0	7,217.0	15,422.9	7,367.0	138.6	0.0	121.91	7,412.0	2,289.4	283.7	167.4	116.34	2.439		
15,300.0	7,217.0	15,522.9	7,367.0	140.3	0.0	121.99	7,512.0	2,287.8	283.1	165.3	117.78	2.404		
15,400.0	7,217.0	15,622.9	7,367.0	142.0	0.0	122.07	7,612.0	2,286.3	282.5	163.3	119.22	2.369		
15,500.0	7,217.0	15,722.9	7,367.0	143.7	0.0	122.15	7,711.9	2,284.7	281.9	161.2	120.67	2.336		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	15,822.9	7,367.0	145.4	0.0	122.23	7,811.9	2,283.2	281.3	159.2	122.11	2.303		
15,700.0	7,217.0	15,922.9	7,367.0	147.1	0.0	122.31	7,911.9	2,281.6	280.6	157.1	123.54	2.272		
15,800.0	7,217.0	16,022.9	7,367.0	148.8	0.0	122.39	8,011.9	2,280.0	280.0	155.0	124.98	2.241		
15,900.0	7,217.0	16,122.9	7,367.0	150.5	0.0	122.47	8,111.9	2,278.5	279.4	153.0	126.41	2.210		
16,000.0	7,217.0	16,222.8	7,367.0	152.2	0.0	122.55	8,211.9	2,276.9	278.8	150.9	127.85	2.181		
16,100.0	7,217.0	16,322.8	7,367.0	153.9	0.0	122.63	8,311.9	2,275.4	278.2	148.9	129.28	2.152		
16,200.0	7,217.0	16,422.8	7,367.0	155.6	0.0	122.71	8,411.8	2,273.8	277.6	146.9	130.70	2.124		
16,300.0	7,217.0	16,522.8	7,367.0	157.3	0.0	122.80	8,511.8	2,272.2	276.9	144.8	132.13	2.096		
16,400.0	7,217.0	16,622.8	7,367.0	159.0	0.0	122.88	8,611.8	2,270.7	276.3	142.8	133.55	2.069		
16,500.0	7,217.0	16,722.8	7,367.0	160.7	0.0	122.96	8,711.8	2,269.1	275.7	140.7	134.98	2.043		
16,600.0	7,217.0	16,822.8	7,367.0	162.4	0.0	123.04	8,811.8	2,267.6	275.1	138.7	136.39	2.017		
16,700.0	7,217.0	16,922.8	7,367.0	164.1	0.0	123.13	8,911.8	2,266.0	274.5	136.7	137.81	1.992		
16,800.0	7,217.0	17,022.8	7,367.0	165.9	0.0	123.21	9,011.8	2,264.4	273.9	134.6	139.23	1.967		
16,900.0	7,217.0	17,122.8	7,367.0	167.6	0.0	123.29	9,111.7	2,262.9	273.3	132.6	140.64	1.943		
17,000.0	7,217.0	17,222.8	7,367.0	169.3	0.0	123.38	9,211.7	2,261.3	272.6	130.6	142.05	1.919		
17,100.0	7,217.0	17,322.8	7,367.0	171.0	0.0	123.46	9,311.7	2,259.8	272.0	128.6	143.46	1.896		
17,200.0	7,217.0	17,422.8	7,367.0	172.7	0.0	123.55	9,411.7	2,258.2	271.4	126.6	144.86	1.874		
17,300.0	7,217.0	17,522.8	7,367.0	174.4	0.0	123.63	9,511.7	2,256.6	270.8	124.5	146.27	1.851		
17,400.0	7,217.0	17,622.8	7,367.0	176.2	0.0	123.72	9,611.7	2,255.1	270.2	122.5	147.67	1.830		
17,500.0	7,217.0	17,722.8	7,367.0	177.9	0.0	123.81	9,711.6	2,253.5	269.6	120.5	149.07	1.809		
17,600.0	7,217.0	17,822.8	7,367.0	179.6	0.0	123.89	9,811.6	2,252.0	269.0	118.5	150.46	1.788		
17,700.0	7,217.0	17,922.8	7,367.0	181.3	0.0	123.98	9,911.6	2,250.4	268.4	116.5	151.86	1.767		
17,723.1	7,217.0	17,945.9	7,367.0	181.7	0.0	124.00	9,934.7	2,250.1	268.2	116.1	152.18	1.763 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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		
0.0	0.0	0.0	0.0	0.0	0.0	89.49	0.1	15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.49	0.1	15.0	15.0	14.7	0.28	54.017		
200.0	200.0	200.0	200.0	1.0	0.0	89.49	0.1	15.0	15.0	14.2	0.80	18.762		
300.0	300.0	300.0	300.0	1.5	0.0	89.49	0.1	15.0	15.0	13.8	1.23	12.229		
400.0	400.0	400.0	400.0	1.9	0.0	89.49	0.1	15.0	15.0	13.4	1.62	9.255		
500.0	500.0	500.0	500.0	2.3	0.0	89.49	0.1	15.0	15.0	13.0	2.00	7.494		
600.0	600.0	600.0	600.0	2.7	0.0	89.49	0.1	15.0	15.0	12.6	2.38	6.315 CC, ES		
700.0	700.0	699.5	699.4	3.1	0.0	90.78	-0.2	16.7	16.7	14.0	2.73	6.124		
800.0	800.0	798.8	798.6	3.5	0.0	-10.71	-1.3	21.7	20.1	16.8	3.30	6.092		
900.0	899.8	898.0	897.4	4.2	0.0	-9.60	-3.1	30.1	23.5	19.3	4.18	5.621		
1,000.0	999.5	997.0	995.8	5.0	0.0	-8.94	-5.6	41.9	26.9	22.0	4.94	5.444		
1,100.0	1,098.7	1,096.0	1,093.5	5.8	0.0	-8.57	-8.8	56.9	30.3	24.7	5.62	5.387		
1,200.0	1,197.5	1,194.8	1,190.6	6.5	0.0	-8.40	-12.8	75.2	33.6	27.4	6.24	5.389		
1,300.0	1,295.6	1,293.6	1,286.8	7.1	0.0	-8.39	-17.4	96.7	37.0	30.1	6.82	5.422		
1,400.0	1,393.1	1,392.2	1,382.2	7.7	0.0	-8.48	-22.7	121.4	40.2	32.9	7.36	5.472		
1,500.0	1,489.6	1,490.7	1,476.5	8.3	0.0	-8.67	-28.6	149.3	43.5	35.6	7.86	5.531		
1,600.0	1,585.3	1,589.1	1,569.6	8.8	0.0	-8.92	-35.3	180.3	46.7	38.3	8.35	5.594		
1,700.0	1,679.8	1,688.4	1,662.6	9.3	0.0	-9.32	-42.5	214.2	49.3	40.5	8.79	5.608		
1,800.0	1,773.9	1,788.4	1,756.2	9.5	0.0	-9.92	-49.9	248.7	50.7	41.7	9.04	5.611		
1,900.0	1,867.9	1,888.4	1,849.8	9.8	0.0	-10.49	-57.3	283.1	52.2	42.9	9.32	5.599		
2,000.0	1,962.0	1,988.4	1,943.4	10.1	0.0	-11.03	-64.7	317.5	53.6	44.0	9.61	5.579		
2,100.0	2,056.0	2,088.4	2,037.0	10.5	0.0	-11.55	-72.0	352.0	55.1	45.1	9.92	5.553		
2,200.0	2,150.1	2,188.4	2,130.5	10.9	0.0	-12.03	-79.4	386.4	56.5	46.3	10.23	5.522		
2,300.0	2,244.1	2,288.4	2,224.1	11.3	0.0	-12.49	-86.8	420.8	58.0	47.4	10.56	5.487		
2,400.0	2,338.2	2,388.3	2,317.7	11.8	0.0	-12.93	-94.2	455.3	59.4	48.5	10.91	5.449		
2,500.0	2,432.3	2,488.3	2,411.3	12.4	0.0	-13.35	-101.5	489.7	60.9	49.6	11.26	5.409		
2,600.0	2,526.3	2,588.3	2,504.9	13.0	0.0	-13.75	-108.9	524.1	62.4	50.7	11.62	5.367		
2,700.0	2,620.4	2,688.3	2,598.5	13.7	0.0	-14.12	-116.3	558.6	63.8	51.8	11.99	5.323		
2,800.0	2,714.4	2,788.3	2,692.0	14.3	0.0	-14.49	-123.7	593.0	65.3	52.9	12.37	5.279		
2,900.0	2,808.5	2,888.3	2,785.6	15.0	0.0	-14.83	-131.0	627.4	66.8	54.0	12.76	5.234		
3,000.0	2,902.5	2,988.3	2,879.2	15.7	0.0	-15.17	-138.4	661.9	68.3	55.1	13.15	5.190		
3,100.0	2,996.6	3,088.3	2,972.8	16.4	0.0	-15.48	-145.8	696.3	69.7	56.2	13.55	5.145		
3,200.0	3,090.6	3,188.2	3,066.4	17.1	0.0	-15.79	-153.2	730.7	71.2	57.3	13.96	5.101		
3,300.0	3,184.7	3,288.2	3,160.0	17.7	0.0	-16.08	-160.5	765.2	72.7	58.3	14.37	5.058		
3,400.0	3,278.7	3,388.2	3,253.5	18.4	0.0	-16.36	-167.9	799.6	74.2	59.4	14.79	5.015		
3,500.0	3,372.8	3,488.2	3,347.1	19.1	0.0	-16.63	-175.3	834.0	75.7	60.5	15.22	4.973		
3,600.0	3,466.9	3,588.2	3,440.7	19.8	0.0	-16.89	-182.7	868.4	77.2	61.5	15.64	4.932		
3,700.0	3,560.9	3,688.2	3,534.3	20.6	0.0	-17.14	-190.0	902.9	78.6	62.6	16.08	4.892		
3,800.0	3,655.0	3,788.2	3,627.9	21.3	0.0	-17.38	-197.4	937.3	80.1	63.6	16.51	4.853		
3,900.0	3,749.0	3,888.2	3,721.4	22.0	0.0	-17.61	-204.8	971.7	81.6	64.7	16.95	4.815		
4,000.0	3,843.1	3,988.2	3,815.0	22.7	0.0	-17.83	-212.1	1,006.2	83.1	65.7	17.40	4.778		
4,100.0	3,937.1	4,088.1	3,908.6	23.4	0.0	-18.04	-219.5	1,040.6	84.6	66.8	17.85	4.741		
4,200.0	4,031.2	4,188.1	4,002.2	24.1	0.0	-18.25	-226.9	1,075.0	86.1	67.8	18.30	4.706		
4,300.0	4,125.2	4,288.1	4,095.8	24.8	0.0	-18.45	-234.3	1,109.5	87.6	68.9	18.75	4.672		
4,400.0	4,219.3	4,388.1	4,189.4	25.5	0.0	-18.64	-241.6	1,143.9	89.1	69.9	19.21	4.639		
4,500.0	4,313.3	4,488.1	4,282.9	26.2	0.0	-18.83	-249.0	1,178.3	90.6	70.9	19.67	4.607		
4,600.0	4,407.4	4,588.1	4,376.5	26.9	0.0	-19.01	-256.4	1,212.8	92.1	72.0	20.13	4.575		
4,700.0	4,501.5	4,688.1	4,470.1	27.6	0.0	-19.19	-263.8	1,247.2	93.6	73.0	20.60	4.545		
4,800.0	4,595.5	4,788.1	4,563.7	28.4	0.0	-19.36	-271.1	1,281.6	95.1	74.0	21.06	4.515		
4,900.0	4,689.6	4,888.1	4,657.3	29.1	0.0	-19.52	-278.5	1,316.1	96.6	75.1	21.53	4.487		
5,000.0	4,783.6	4,988.0	4,750.9	29.8	0.0	-19.68	-285.9	1,350.5	98.1	76.1	22.00	4.459		
5,100.0	4,877.7	5,088.0	4,844.4	30.5	0.0	-19.84	-293.3	1,384.9	99.6	77.1	22.48	4.432		

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 19-18-4NXH
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 19-18-4NXH	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	4,971.7	5,188.0	4,938.0	31.2	0.0	-19.99	-300.6	1,419.4	101.1	78.2	22.95	4.406		
5,300.0	5,065.8	5,288.0	5,031.6	31.9	0.0	-20.13	-308.0	1,453.8	102.6	79.2	23.43	4.381		
5,400.0	5,159.8	5,388.0	5,125.2	32.7	0.0	-20.27	-315.4	1,488.2	104.1	80.2	23.91	4.356		
5,500.0	5,253.9	5,488.0	5,218.8	33.4	0.0	-20.41	-322.8	1,522.7	105.6	81.3	24.39	4.332		
5,600.0	5,347.9	5,588.0	5,312.4	34.1	0.0	-20.54	-330.1	1,557.1	107.2	82.3	24.87	4.309		
5,700.0	5,442.0	5,688.0	5,405.9	34.8	0.0	-20.67	-337.5	1,591.5	108.7	83.3	25.35	4.286		
5,800.0	5,536.1	5,787.9	5,499.5	35.5	0.0	-20.80	-344.9	1,626.0	110.2	84.3	25.83	4.264		
5,900.0	5,630.1	5,887.9	5,593.1	36.2	0.0	-20.92	-352.3	1,660.4	111.7	85.4	26.32	4.243		
6,000.0	5,724.2	5,987.9	5,686.7	37.0	0.0	-21.04	-359.6	1,694.8	113.2	86.4	26.81	4.222		
6,100.0	5,818.2	6,087.9	5,780.3	37.7	0.0	-21.16	-367.0	1,729.3	114.7	87.4	27.29	4.202		
6,200.0	5,912.3	6,187.9	5,873.8	38.4	0.0	-21.27	-374.4	1,763.7	116.2	88.4	27.78	4.183		
6,300.0	6,006.3	6,287.9	5,967.4	39.1	0.0	-21.38	-381.8	1,798.1	117.7	89.4	28.27	4.164		
6,400.0	6,100.4	6,387.9	6,061.0	39.8	0.0	-21.49	-389.1	1,832.6	119.2	90.5	28.76	4.145		
6,500.0	6,194.4	6,487.9	6,154.6	40.5	0.0	-21.59	-396.5	1,867.0	120.7	91.5	29.26	4.127		
6,600.0	6,288.5	6,587.9	6,248.2	41.3	0.0	-21.70	-403.9	1,901.4	122.3	92.5	29.75	4.110		
6,700.0	6,382.5	6,687.8	6,341.8	42.0	0.0	-21.80	-411.3	1,935.9	123.8	93.5	30.24	4.093		
6,800.0	6,476.6	6,787.8	6,435.3	42.7	0.0	-21.89	-418.6	1,970.3	125.3	94.5	30.74	4.076		
6,900.0	6,570.7	6,887.8	6,528.9	43.4	0.0	-21.99	-426.0	2,004.7	126.8	95.6	31.23	4.060		
7,000.0	6,664.8	6,987.8	6,622.5	44.1	0.0	-12.15	-433.4	2,039.1	128.1	96.5	31.63	4.052		
7,100.0	6,758.8	7,086.6	6,715.0	44.9	0.0	21.13	-440.7	2,073.2	128.2	97.4	30.87	4.155		
7,200.0	6,850.3	7,181.5	6,803.8	45.5	0.0	52.72	-447.7	2,105.9	132.1	101.8	30.36	4.352		
7,300.0	6,936.6	7,272.7	6,889.1	45.9	0.0	79.11	-453.9	2,137.3	149.7	116.8	32.88	4.554		
7,400.0	7,014.9	7,376.8	6,986.6	46.3	0.0	99.35	-447.7	2,172.9	180.9	144.5	36.41	4.969		
7,500.0	7,083.0	7,494.6	7,093.7	46.6	0.0	113.43	-418.3	2,211.7	218.2	180.5	37.65	5.795		
7,600.0	7,138.7	7,630.6	7,207.3	46.8	0.0	123.23	-356.3	2,252.4	255.9	220.1	35.76	7.157		
7,700.0	7,180.3	7,789.6	7,318.5	46.9	0.0	129.94	-250.5	2,291.5	288.9	258.4	30.53	9.464		
7,800.0	7,206.7	7,972.9	7,407.5	47.0	0.0	134.06	-93.9	2,321.7	312.2	289.3	22.90	13.630		
7,900.0	7,216.9	8,173.8	7,446.7	47.0	0.0	135.72	101.7	2,333.1	321.1	303.1	17.98	17.863		
8,000.0	7,217.0	8,284.1	7,447.0	47.0	0.0	135.84	212.0	2,331.5	320.6	302.6	18.03	17.784		
8,100.0	7,217.0	8,384.1	7,447.0	47.0	0.0	135.93	311.9	2,329.9	320.1	301.9	18.18	17.607		
8,200.0	7,217.0	8,484.0	7,447.0	47.1	0.0	136.02	411.9	2,328.3	319.6	301.2	18.43	17.341		
8,300.0	7,217.0	8,584.0	7,447.0	47.2	0.0	136.12	511.9	2,326.8	319.1	300.3	18.77	16.997		
8,400.0	7,217.0	8,684.0	7,447.0	47.4	0.0	136.21	611.9	2,325.2	318.6	299.4	19.20	16.590		
8,500.0	7,217.0	8,784.0	7,447.0	47.6	0.0	136.31	711.9	2,323.7	318.1	298.4	19.71	16.135		
8,600.0	7,217.0	8,884.0	7,447.0	47.9	0.0	136.40	811.9	2,322.1	317.6	297.3	20.30	15.645		
8,700.0	7,217.0	8,984.0	7,447.0	48.2	0.0	136.50	911.9	2,320.6	317.1	296.1	20.95	15.134		
8,800.0	7,217.0	9,084.0	7,447.0	48.6	0.0	136.59	1,011.8	2,319.0	316.6	294.9	21.66	14.613		
8,900.0	7,217.0	9,184.0	7,447.0	49.0	0.0	136.69	1,111.8	2,317.4	316.1	293.7	22.43	14.091		
9,000.0	7,217.0	9,284.0	7,447.0	49.6	0.0	136.79	1,211.8	2,315.9	315.6	292.3	23.25	13.575		
9,100.0	7,217.0	9,384.0	7,447.0	50.1	0.0	136.88	1,311.8	2,314.3	315.1	291.0	24.11	13.071		
9,200.0	7,217.0	9,484.0	7,447.0	50.8	0.0	136.98	1,411.8	2,312.8	314.6	289.6	25.00	12.582		
9,300.0	7,217.0	9,584.0	7,447.0	51.5	0.0	137.08	1,511.8	2,311.2	314.1	288.2	25.93	12.112		
9,400.0	7,217.0	9,684.0	7,447.0	52.3	0.0	137.18	1,611.7	2,309.7	313.6	286.7	26.89	11.661		
9,500.0	7,217.0	9,784.0	7,447.0	53.1	0.0	137.27	1,711.7	2,308.1	313.1	285.2	27.88	11.231		
9,600.0	7,217.0	9,884.0	7,447.0	54.0	0.0	137.37	1,811.7	2,306.6	312.6	283.7	28.89	10.822		
9,700.0	7,217.0	9,984.0	7,447.0	55.0	0.0	137.47	1,911.7	2,305.0	312.1	282.2	29.92	10.433		
9,800.0	7,217.0	10,084.0	7,447.0	56.0	0.0	137.57	2,011.7	2,303.4	311.6	280.7	30.96	10.064		
9,900.0	7,217.0	10,184.0	7,447.0	57.1	0.0	137.67	2,111.7	2,301.9	311.1	279.1	32.03	9.715		
10,000.0	7,217.0	10,284.0	7,447.0	58.2	0.0	137.77	2,211.7	2,300.3	310.6	277.5	33.10	9.384		
10,100.0	7,217.0	10,384.0	7,447.0	59.4	0.0	137.87	2,311.6	2,298.8	310.1	276.0	34.19	9.071		
10,200.0	7,217.0	10,484.0	7,447.0	60.6	0.0	137.97	2,411.6	2,297.2	309.7	274.4	35.29	8.775		
10,300.0	7,217.0	10,584.0	7,447.0	61.8	0.0	138.07	2,511.6	2,295.7	309.2	272.8	36.40	8.494		

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 19-18-4NXH
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 19-18-4NXH	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	7,217.0	10,684.0	7,447.0	63.1	0.0	138.17	2,611.6	2,294.1	308.7	271.2	37.51	8.229		
10,500.0	7,217.0	10,784.0	7,447.0	64.4	0.0	138.27	2,711.6	2,292.5	308.2	269.6	38.64	7.977		
10,600.0	7,217.0	10,884.0	7,447.0	65.7	0.0	138.37	2,811.6	2,291.0	307.7	267.9	39.76	7.738		
10,700.0	7,217.0	10,984.0	7,447.0	67.1	0.0	138.47	2,911.6	2,289.4	307.2	266.3	40.90	7.512		
10,800.0	7,217.0	11,084.0	7,447.0	68.4	0.0	138.58	3,011.5	2,287.9	306.7	264.7	42.04	7.297		
10,900.0	7,217.0	11,184.0	7,447.0	69.8	0.0	138.68	3,111.5	2,286.3	306.3	263.1	43.18	7.093		
11,000.0	7,217.0	11,284.0	7,447.0	71.3	0.0	138.78	3,211.5	2,284.8	305.8	261.5	44.33	6.899		
11,100.0	7,217.0	11,384.0	7,447.0	72.7	0.0	138.88	3,311.5	2,283.2	305.3	259.8	45.47	6.714		
11,200.0	7,217.0	11,484.0	7,447.0	74.1	0.0	138.99	3,411.5	2,281.6	304.8	258.2	46.62	6.538		
11,300.0	7,217.0	11,584.0	7,447.0	75.6	0.0	139.09	3,511.5	2,280.1	304.3	256.6	47.78	6.370		
11,400.0	7,217.0	11,684.0	7,447.0	77.1	0.0	139.19	3,611.5	2,278.5	303.9	254.9	48.93	6.210		
11,500.0	7,217.0	11,784.0	7,447.0	78.6	0.0	139.30	3,711.4	2,277.0	303.4	253.3	50.08	6.058		
11,600.0	7,217.0	11,884.0	7,447.0	80.1	0.0	139.40	3,811.4	2,275.4	302.9	251.7	51.24	5.912		
11,700.0	7,217.0	11,984.0	7,447.0	81.6	0.0	139.51	3,911.4	2,273.9	302.4	250.0	52.39	5.773		
11,800.0	7,217.0	12,084.0	7,447.0	83.1	0.0	139.61	4,011.4	2,272.3	302.0	248.4	53.55	5.639		
11,900.0	7,217.0	12,184.0	7,447.0	84.7	0.0	139.72	4,111.4	2,270.8	301.5	246.8	54.70	5.512		
12,000.0	7,217.0	12,283.9	7,447.0	86.2	0.0	139.83	4,211.4	2,269.2	301.0	245.2	55.86	5.389		
12,100.0	7,217.0	12,383.9	7,447.0	87.8	0.0	139.93	4,311.4	2,267.6	300.5	243.5	57.01	5.272		
12,200.0	7,217.0	12,483.9	7,447.0	89.3	0.0	140.04	4,411.3	2,266.1	300.1	241.9	58.16	5.159		
12,300.0	7,217.0	12,583.9	7,447.0	90.9	0.0	140.15	4,511.3	2,264.5	299.6	240.3	59.31	5.051		
12,400.0	7,217.0	12,683.9	7,447.0	92.5	0.0	140.25	4,611.3	2,263.0	299.1	238.7	60.46	4.948		
12,500.0	7,217.0	12,783.9	7,447.0	94.1	0.0	140.36	4,711.3	2,261.4	298.7	237.1	61.61	4.848		
12,600.0	7,217.0	12,883.9	7,447.0	95.7	0.0	140.47	4,811.3	2,259.9	298.2	235.5	62.76	4.752		
12,700.0	7,217.0	12,983.9	7,447.0	97.3	0.0	140.58	4,911.3	2,258.3	297.7	233.8	63.90	4.660		
12,800.0	7,217.0	13,083.9	7,447.0	98.9	0.0	140.68	5,011.2	2,256.7	297.3	232.2	65.04	4.571		
12,900.0	7,217.0	13,183.9	7,447.0	100.5	0.0	140.79	5,111.2	2,255.2	296.8	230.6	66.18	4.485		
13,000.0	7,217.0	13,283.9	7,447.0	102.1	0.0	140.90	5,211.2	2,253.6	296.4	229.0	67.32	4.402		
13,100.0	7,217.0	13,383.9	7,447.0	103.7	0.0	141.01	5,311.2	2,252.1	295.9	227.4	68.46	4.322		
13,200.0	7,217.0	13,483.9	7,447.0	105.3	0.0	141.12	5,411.2	2,250.5	295.4	225.9	69.59	4.245		
13,300.0	7,217.0	13,583.9	7,447.0	107.0	0.0	141.23	5,511.2	2,249.0	295.0	224.3	70.72	4.171		
13,400.0	7,217.0	13,683.9	7,447.0	108.6	0.0	141.34	5,611.2	2,247.4	294.5	222.7	71.85	4.099		
13,500.0	7,217.0	13,783.9	7,447.0	110.3	0.0	141.46	5,711.1	2,245.8	294.1	221.1	72.98	4.030		
13,600.0	7,217.0	13,883.9	7,447.0	111.9	0.0	141.57	5,811.1	2,244.3	293.6	219.5	74.10	3.963		
13,700.0	7,217.0	13,983.9	7,447.0	113.5	0.0	141.68	5,911.1	2,242.7	293.2	217.9	75.22	3.897		
13,800.0	7,217.0	14,083.9	7,447.0	115.2	0.0	141.79	6,011.1	2,241.2	292.7	216.4	76.34	3.835		
13,900.0	7,217.0	14,183.9	7,447.0	116.9	0.0	141.90	6,111.1	2,239.6	292.3	214.8	77.45	3.774		
14,000.0	7,217.0	14,283.9	7,447.0	118.5	0.0	142.02	6,211.1	2,238.1	291.8	213.3	78.56	3.714		
14,100.0	7,217.0	14,383.9	7,447.0	120.2	0.0	142.13	6,311.1	2,236.5	291.4	211.7	79.67	3.657		
14,200.0	7,217.0	14,483.9	7,447.0	121.8	0.0	142.24	6,411.0	2,235.0	290.9	210.1	80.78	3.602		
14,300.0	7,217.0	14,583.9	7,447.0	123.5	0.0	142.36	6,511.0	2,233.4	290.5	208.6	81.88	3.548		
14,400.0	7,217.0	14,683.9	7,447.0	125.2	0.0	142.47	6,611.0	2,231.8	290.0	207.1	82.97	3.495		
14,500.0	7,217.0	14,783.9	7,447.0	126.9	0.0	142.58	6,711.0	2,230.3	289.6	205.5	84.07	3.445		
14,600.0	7,217.0	14,883.9	7,447.0	128.5	0.0	142.70	6,811.0	2,228.7	289.1	204.0	85.16	3.395		
14,700.0	7,217.0	14,983.9	7,447.0	130.2	0.0	142.81	6,911.0	2,227.2	288.7	202.5	86.25	3.347		
14,800.0	7,217.0	15,083.9	7,447.0	131.9	0.0	142.93	7,011.0	2,225.6	288.3	200.9	87.33	3.301		
14,900.0	7,217.0	15,183.9	7,447.0	133.6	0.0	143.05	7,110.9	2,224.1	287.8	199.4	88.41	3.255		
15,000.0	7,217.0	15,283.9	7,447.0	135.3	0.0	143.16	7,210.9	2,222.5	287.4	197.9	89.49	3.211		
15,100.0	7,217.0	15,383.9	7,447.0	136.9	0.0	143.28	7,310.9	2,220.9	286.9	196.4	90.56	3.168		
15,200.0	7,217.0	15,483.9	7,447.0	138.6	0.0	143.40	7,410.9	2,219.4	286.5	194.9	91.63	3.127		
15,300.0	7,217.0	15,583.9	7,447.0	140.3	0.0	143.51	7,510.9	2,217.8	286.1	193.4	92.70	3.086		
15,400.0	7,217.0	15,683.9	7,447.0	142.0	0.0	143.63	7,610.9	2,216.3	285.6	191.9	93.76	3.046		
15,500.0	7,217.0	15,783.9	7,447.0	143.7	0.0	143.75	7,710.8	2,214.7	285.2	190.4	94.82	3.008		

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 19-18-4NXH
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 19-18-4NXH	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)					
15,600.0	7,217.0	15,883.9	7,447.0	145.4	0.0	143.87	7,810.8	2,213.2	284.8	188.9	95.87	2.970	
15,700.0	7,217.0	15,983.8	7,447.0	147.1	0.0	143.99	7,910.8	2,211.6	284.3	187.4	96.92	2.934	
15,800.0	7,217.0	16,083.8	7,447.0	148.8	0.0	144.11	8,010.8	2,210.0	283.9	185.9	97.97	2.898	
15,900.0	7,217.0	16,183.8	7,447.0	150.5	0.0	144.22	8,110.8	2,208.5	283.5	184.5	99.01	2.863	
16,000.0	7,217.0	16,283.8	7,447.0	152.2	0.0	144.34	8,210.8	2,206.9	283.1	183.0	100.05	2.829	
16,100.0	7,217.0	16,383.8	7,447.0	153.9	0.0	144.46	8,310.8	2,205.4	282.6	181.6	101.09	2.796	
16,200.0	7,217.0	16,483.8	7,447.0	155.6	0.0	144.59	8,410.7	2,203.8	282.2	180.1	102.12	2.764	
16,300.0	7,217.0	16,583.8	7,447.0	157.3	0.0	144.71	8,510.7	2,202.3	281.8	178.7	103.14	2.732	
16,400.0	7,217.0	16,683.8	7,447.0	159.0	0.0	144.83	8,610.7	2,200.7	281.4	177.2	104.16	2.701	
16,500.0	7,217.0	16,783.8	7,447.0	160.7	0.0	144.95	8,710.7	2,199.1	281.0	175.8	105.18	2.671	
16,600.0	7,217.0	16,883.8	7,447.0	162.4	0.0	145.07	8,810.7	2,197.6	280.5	174.3	106.20	2.642	
16,700.0	7,217.0	16,983.8	7,447.0	164.1	0.0	145.19	8,910.7	2,196.0	280.1	172.9	107.20	2.613	
16,800.0	7,217.0	17,083.8	7,447.0	165.9	0.0	145.32	9,010.7	2,194.5	279.7	171.5	108.21	2.585	
16,900.0	7,217.0	17,183.8	7,447.0	167.6	0.0	145.44	9,110.6	2,192.9	279.3	170.1	109.21	2.557	
17,000.0	7,217.0	17,283.8	7,447.0	169.3	0.0	145.56	9,210.6	2,191.4	278.9	168.7	110.21	2.530	
17,100.0	7,217.0	17,383.8	7,447.0	171.0	0.0	145.69	9,310.6	2,189.8	278.5	167.3	111.20	2.504	
17,200.0	7,217.0	17,483.8	7,447.0	172.7	0.0	145.81	9,410.6	2,188.3	278.1	165.9	112.19	2.478	
17,300.0	7,217.0	17,583.8	7,447.0	174.4	0.0	145.94	9,510.6	2,186.7	277.6	164.5	113.17	2.453	
17,400.0	7,217.0	17,683.8	7,447.0	176.2	0.0	146.06	9,610.6	2,185.1	277.2	163.1	114.15	2.429	
17,500.0	7,217.0	17,783.8	7,447.0	177.9	0.0	146.19	9,710.6	2,183.6	276.8	161.7	115.12	2.405	
17,600.0	7,217.0	17,883.8	7,447.0	179.6	0.0	146.31	9,810.5	2,182.0	276.4	160.3	116.09	2.381	
17,700.0	7,217.0	17,983.8	7,447.0	181.3	0.0	146.44	9,910.5	2,180.5	276.0	159.0	117.06	2.358	
17,723.1	7,217.0	18,006.9	7,447.0	181.7	0.0	146.47	9,933.6	2,180.1	275.9	158.6	117.28	2.353 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	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)				
15,200.0	7,217.0	7,148.0	7,148.0	138.6	26.6	-90.00	8,132.3	-29.8	2,200.9	2,037.9	162.99	13.503			
15,300.0	7,217.0	7,148.0	7,148.0	140.3	26.6	-90.00	8,132.3	-29.8	2,169.3	2,003.9	165.38	13.117			
15,400.0	7,217.0	7,148.0	7,148.0	142.0	26.6	-90.00	8,132.3	-29.8	2,141.8	1,974.3	167.59	12.780			
15,500.0	7,217.0	7,148.0	7,148.0	143.7	26.6	-90.00	8,132.3	-29.8	2,118.8	1,949.2	169.59	12.494			
15,600.0	7,217.0	7,148.0	7,148.0	145.4	26.6	-90.00	8,132.3	-29.8	2,100.2	1,928.9	171.35	12.257			
15,700.0	7,217.0	7,148.0	7,148.0	147.1	26.6	-90.00	8,132.3	-29.8	2,086.3	1,913.5	172.84	12.071			
15,800.0	7,217.0	7,148.0	7,148.0	148.8	26.6	-90.00	8,132.3	-29.8	2,077.1	1,903.1	174.04	11.935			
15,900.0	7,217.0	7,148.0	7,148.0	150.5	26.6	-90.00	8,132.3	-29.8	2,072.7	1,897.8	174.93	11.849			
15,941.2	7,217.0	7,148.0	7,148.0	151.2	26.6	-90.00	8,132.3	-29.8	2,072.3	1,897.1	175.21	11.828 CC, ES			
16,000.0	7,217.0	7,148.0	7,148.0	152.2	26.6	-90.00	8,132.3	-29.8	2,073.2	1,897.7	175.51	11.812 SF			
16,100.0	7,217.0	7,148.0	7,148.0	153.9	26.6	-90.00	8,132.3	-29.8	2,078.4	1,902.6	175.76	11.825			
16,200.0	7,217.0	7,148.0	7,148.0	155.6	26.6	-90.00	8,132.3	-29.8	2,088.4	1,912.7	175.70	11.886			
16,300.0	7,217.0	7,148.0	7,148.0	157.3	26.6	-90.00	8,132.3	-29.8	2,103.2	1,927.8	175.33	11.996			
16,400.0	7,217.0	7,148.0	7,148.0	159.0	26.6	-90.00	8,132.3	-29.8	2,122.5	1,947.8	174.66	12.152			
16,500.0	7,217.0	7,148.0	7,148.0	160.7	26.6	-90.00	8,132.3	-29.8	2,146.3	1,972.6	173.72	12.355			
16,600.0	7,217.0	7,148.0	7,148.0	162.4	26.6	-90.00	8,132.3	-29.8	2,174.5	2,002.0	172.53	12.604			
16,700.0	7,217.0	7,148.0	7,148.0	164.1	26.6	-90.00	8,132.3	-29.8	2,206.9	2,035.7	171.12	12.897			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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		
9,300.0	7,217.0	7,148.0	7,148.0	51.5	26.6	-90.00	3,156.5	658.6	2,187.7	2,110.7	77.03	28.401		
9,400.0	7,217.0	7,148.0	7,148.0	52.3	26.6	-90.00	3,156.5	658.6	2,112.8	2,035.0	77.84	27.144		
9,500.0	7,217.0	7,148.0	7,148.0	53.1	26.6	-90.00	3,156.5	658.6	2,040.1	1,961.4	78.70	25.921		
9,600.0	7,217.0	7,148.0	7,148.0	54.0	26.6	-90.00	3,156.5	658.6	1,969.8	1,890.2	79.63	24.738		
9,700.0	7,217.0	7,148.0	7,148.0	55.0	26.6	-90.00	3,156.5	658.6	1,902.1	1,821.5	80.60	23.600		
9,800.0	7,217.0	7,148.0	7,148.0	56.0	26.6	-90.00	3,156.5	658.6	1,837.4	1,755.8	81.62	22.511		
9,900.0	7,217.0	7,148.0	7,148.0	57.1	26.6	-90.00	3,156.5	658.6	1,776.0	1,693.3	82.69	21.478		
10,000.0	7,217.0	7,148.0	7,148.0	58.2	26.6	-90.00	3,156.5	658.6	1,718.2	1,634.4	83.79	20.506		
10,100.0	7,217.0	7,148.0	7,148.0	59.4	26.6	-90.00	3,156.5	658.6	1,664.4	1,579.5	84.91	19.602		
10,200.0	7,217.0	7,148.0	7,148.0	60.6	26.6	-90.00	3,156.5	658.6	1,615.0	1,528.9	86.03	18.772		
10,300.0	7,217.0	7,148.0	7,148.0	61.8	26.6	-90.00	3,156.5	658.6	1,570.4	1,483.3	87.13	18.023		
10,400.0	7,217.0	7,148.0	7,148.0	63.1	26.6	-90.00	3,156.5	658.6	1,531.1	1,442.9	88.19	17.361		
10,500.0	7,217.0	7,148.0	7,148.0	64.4	26.6	-90.00	3,156.5	658.6	1,497.4	1,408.2	89.18	16.792		
10,600.0	7,217.0	7,148.0	7,148.0	65.7	26.6	-90.00	3,156.5	658.6	1,469.8	1,379.7	90.05	16.321		
10,700.0	7,217.0	7,148.0	7,148.0	67.1	26.6	-90.00	3,156.5	658.6	1,448.5	1,357.7	90.80	15.954		
10,800.0	7,217.0	7,148.0	7,148.0	68.4	26.6	-90.00	3,156.5	658.6	1,434.0	1,342.6	91.37	15.694		
10,900.0	7,217.0	7,148.0	7,148.0	69.8	26.6	-90.00	3,156.5	658.6	1,426.3	1,334.5	91.76	15.543		
10,959.9	7,217.0	7,148.0	7,148.0	70.7	26.6	-90.00	3,156.5	658.6	1,425.0	1,333.1	91.90	15.506 CC, ES		
11,000.0	7,217.0	7,148.0	7,148.0	71.3	26.6	-90.00	3,156.5	658.6	1,425.6	1,333.6	91.95	15.504 SF		
11,100.0	7,217.0	7,148.0	7,148.0	72.7	26.6	-90.00	3,156.5	658.6	1,431.9	1,340.0	91.93	15.575		
11,200.0	7,217.0	7,148.0	7,148.0	74.1	26.6	-90.00	3,156.5	658.6	1,445.1	1,353.4	91.72	15.756		
11,300.0	7,217.0	7,148.0	7,148.0	75.6	26.6	-90.00	3,156.5	658.6	1,465.1	1,373.7	91.31	16.044		
11,400.0	7,217.0	7,148.0	7,148.0	77.1	26.6	-90.00	3,156.5	658.6	1,491.4	1,400.7	90.75	16.435		
11,500.0	7,217.0	7,148.0	7,148.0	78.6	26.6	-90.00	3,156.5	658.6	1,524.0	1,433.9	90.04	16.924		
11,600.0	7,217.0	7,148.0	7,148.0	80.1	26.6	-90.00	3,156.5	658.6	1,562.2	1,473.0	89.23	17.507		
11,700.0	7,217.0	7,148.0	7,148.0	81.6	26.6	-90.00	3,156.5	658.6	1,605.8	1,517.4	88.35	18.176		
11,800.0	7,217.0	7,148.0	7,148.0	83.1	26.6	-90.00	3,156.5	658.6	1,654.2	1,566.8	87.41	18.925		
11,900.0	7,217.0	7,148.0	7,148.0	84.7	26.6	-90.00	3,156.5	658.6	1,707.2	1,620.8	86.44	19.749		
12,000.0	7,217.0	7,148.0	7,148.0	86.2	26.6	-90.00	3,156.5	658.6	1,764.2	1,678.8	85.47	20.641		
12,100.0	7,217.0	7,148.0	7,148.0	87.8	26.6	-90.00	3,156.5	658.6	1,825.0	1,740.5	84.51	21.594		
12,200.0	7,217.0	7,148.0	7,148.0	89.3	26.6	-90.00	3,156.5	658.6	1,889.1	1,805.5	83.57	22.603		
12,300.0	7,217.0	7,148.0	7,148.0	90.9	26.6	-90.00	3,156.5	658.6	1,956.2	1,873.5	82.67	23.662		
12,400.0	7,217.0	7,148.0	7,148.0	92.5	26.6	-90.00	3,156.5	658.6	2,026.0	1,944.2	81.80	24.766		
12,500.0	7,217.0	7,148.0	7,148.0	94.1	26.6	-90.00	3,156.5	658.6	2,098.2	2,017.3	80.98	25.911		
12,600.0	7,217.0	7,148.0	7,148.0	95.7	26.6	-90.00	3,156.5	658.6	2,172.7	2,092.5	80.20	27.090		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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
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		
14,800.0	7,217.0	7,148.0	7,148.0	131.9	26.6	-90.00	9,163.2	1,713.3	2,181.4	2,095.9	85.51	25.511		
14,900.0	7,217.0	7,148.0	7,148.0	133.6	26.6	-90.00	9,163.2	1,713.3	2,082.6	1,996.2	86.33	24.122		
15,000.0	7,217.0	7,148.0	7,148.0	135.3	26.6	-90.00	9,163.2	1,713.3	1,983.8	1,896.6	87.25	22.738		
15,100.0	7,217.0	7,148.0	7,148.0	136.9	26.6	-90.00	9,163.2	1,713.3	1,885.2	1,796.9	88.26	21.359		
15,200.0	7,217.0	7,148.0	7,148.0	138.6	26.6	-90.00	9,163.2	1,713.3	1,786.7	1,697.3	89.40	19.986		
15,300.0	7,217.0	7,148.0	7,148.0	140.3	26.6	-90.00	9,163.2	1,713.3	1,688.4	1,597.8	90.68	18.621		
15,400.0	7,217.0	7,148.0	7,148.0	142.0	26.6	-90.00	9,163.2	1,713.3	1,590.4	1,498.3	92.12	17.264		
15,500.0	7,217.0	7,148.0	7,148.0	143.7	26.6	-90.00	9,163.2	1,713.3	1,492.6	1,398.8	93.77	15.918		
15,600.0	7,217.0	7,148.0	7,148.0	145.4	26.6	-90.00	9,163.2	1,713.3	1,395.1	1,299.4	95.66	14.583		
15,700.0	7,217.0	7,148.0	7,148.0	147.1	26.6	-90.00	9,163.2	1,713.3	1,298.0	1,200.1	97.85	13.264		
15,800.0	7,217.0	7,148.0	7,148.0	148.8	26.6	-90.00	9,163.2	1,713.3	1,201.3	1,100.9	100.42	11.963		
15,900.0	7,217.0	7,148.0	7,148.0	150.5	26.6	-90.00	9,163.2	1,713.3	1,105.3	1,001.8	103.44	10.685		
16,000.0	7,217.0	7,148.0	7,148.0	152.2	26.6	-90.00	9,163.2	1,713.3	1,010.0	902.9	107.06	9.434		
16,100.0	7,217.0	7,148.0	7,148.0	153.9	26.6	-90.00	9,163.2	1,713.3	915.7	804.3	111.42	8.218		
16,200.0	7,217.0	7,148.0	7,148.0	155.6	26.6	-90.00	9,163.2	1,713.3	822.8	706.0	116.76	7.047		
16,300.0	7,217.0	7,148.0	7,148.0	157.3	26.6	-90.00	9,163.2	1,713.3	731.7	608.4	123.37	5.931		
16,400.0	7,217.0	7,148.0	7,148.0	159.0	26.6	-90.00	9,163.2	1,713.3	643.3	511.7	131.63	4.887		
16,500.0	7,217.0	7,148.0	7,148.0	160.7	26.6	-90.00	9,163.2	1,713.3	558.9	416.9	142.00	3.936		
16,600.0	7,217.0	7,148.0	7,148.0	162.4	26.6	-90.00	9,163.2	1,713.3	480.4	325.6	154.82	3.103		
16,700.0	7,217.0	7,148.0	7,148.0	164.1	26.6	-90.00	9,163.2	1,713.3	411.4	241.6	169.83	2.423		
16,800.0	7,217.0	7,148.0	7,148.0	165.9	26.6	-90.00	9,163.2	1,713.3	357.4	172.7	184.72	1.935		
16,900.0	7,217.0	7,148.0	7,148.0	167.6	26.6	-90.00	9,163.2	1,713.3	325.9	132.4	193.50	1.684		
16,957.7	7,217.0	7,148.0	7,148.0	168.6	26.6	-90.00	9,163.2	1,713.3	320.7	127.9	192.80	1.663 CC, ES, SF		
17,000.0	7,217.0	7,148.0	7,148.0	169.3	26.6	-90.00	9,163.2	1,713.3	323.5	134.4	189.12	1.710		
17,100.0	7,217.0	7,148.0	7,148.0	171.0	26.6	-90.00	9,163.2	1,713.3	350.9	178.6	172.22	2.037		
17,200.0	7,217.0	7,148.0	7,148.0	172.7	26.6	-90.00	9,163.2	1,713.3	401.9	251.0	150.90	2.664		
17,300.0	7,217.0	7,148.0	7,148.0	174.4	26.6	-90.00	9,163.2	1,713.3	469.1	337.5	131.54	3.566		
17,400.0	7,217.0	7,148.0	7,148.0	176.2	26.6	-90.00	9,163.2	1,713.3	546.3	430.2	116.12	4.705		
17,500.0	7,217.0	7,148.0	7,148.0	177.9	26.6	-90.00	9,163.2	1,713.3	630.0	525.6	104.43	6.033		
17,600.0	7,217.0	7,148.0	7,148.0	179.6	26.6	-90.00	9,163.2	1,713.3	717.9	622.2	95.69	7.502		
17,700.0	7,217.0	7,148.0	7,148.0	181.3	26.6	-90.00	9,163.2	1,713.3	808.6	719.4	89.19	9.066		
17,723.1	7,217.0	7,148.0	7,148.0	181.7	26.6	-90.00	9,163.2	1,713.3	829.9	741.9	87.94	9.437		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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		
11,800.0	7,217.0	7,148.0	7,148.0	83.1	26.6	-90.00	5,962.2	1,142.6	2,165.7	2,074.3	91.36	23.706		
11,900.0	7,217.0	7,148.0	7,148.0	84.7	26.6	-90.00	5,962.2	1,142.6	2,075.5	1,982.7	92.83	22.359		
12,000.0	7,217.0	7,148.0	7,148.0	86.2	26.6	-90.00	5,962.2	1,142.6	1,986.3	1,891.9	94.43	21.036		
12,100.0	7,217.0	7,148.0	7,148.0	87.8	26.6	-90.00	5,962.2	1,142.6	1,898.2	1,802.0	96.17	19.738		
12,200.0	7,217.0	7,148.0	7,148.0	89.3	26.6	-90.00	5,962.2	1,142.6	1,811.3	1,713.3	98.07	18.469		
12,300.0	7,217.0	7,148.0	7,148.0	90.9	26.6	-90.00	5,962.2	1,142.6	1,725.9	1,625.7	100.15	17.233		
12,400.0	7,217.0	7,148.0	7,148.0	92.5	26.6	-90.00	5,962.2	1,142.6	1,642.0	1,539.6	102.42	16.033		
12,500.0	7,217.0	7,148.0	7,148.0	94.1	26.6	-90.00	5,962.2	1,142.6	1,560.1	1,455.2	104.88	14.875		
12,600.0	7,217.0	7,148.0	7,148.0	95.7	26.6	-90.00	5,962.2	1,142.6	1,480.4	1,372.9	107.56	13.764		
12,700.0	7,217.0	7,148.0	7,148.0	97.3	26.6	-90.00	5,962.2	1,142.6	1,403.4	1,292.9	110.46	12.705		
12,800.0	7,217.0	7,148.0	7,148.0	98.9	26.6	-90.00	5,962.2	1,142.6	1,329.3	1,215.8	113.57	11.705		
12,900.0	7,217.0	7,148.0	7,148.0	100.5	26.6	-90.00	5,962.2	1,142.6	1,258.9	1,142.0	116.87	10.772		
13,000.0	7,217.0	7,148.0	7,148.0	102.1	26.6	-90.00	5,962.2	1,142.6	1,192.7	1,072.4	120.33	9.912		
13,100.0	7,217.0	7,148.0	7,148.0	103.7	26.6	-90.00	5,962.2	1,142.6	1,131.5	1,007.6	123.87	9.134		
13,200.0	7,217.0	7,148.0	7,148.0	105.3	26.6	-90.00	5,962.2	1,142.6	1,076.1	948.7	127.40	8.447		
13,300.0	7,217.0	7,148.0	7,148.0	107.0	26.6	-90.00	5,962.2	1,142.6	1,027.4	896.7	130.74	7.858		
13,400.0	7,217.0	7,148.0	7,148.0	108.6	26.6	-90.00	5,962.2	1,142.6	986.6	852.8	133.72	7.378		
13,500.0	7,217.0	7,148.0	7,148.0	110.3	26.6	-90.00	5,962.2	1,142.6	954.5	818.4	136.09	7.014		
13,600.0	7,217.0	7,148.0	7,148.0	111.9	26.6	-90.00	5,962.2	1,142.6	932.0	794.4	137.62	6.772		
13,700.0	7,217.0	7,148.0	7,148.0	113.5	26.6	-90.00	5,962.2	1,142.6	920.0	781.9	138.13	6.660		
13,761.5	7,217.0	7,148.0	7,148.0	114.6	26.6	-90.00	5,962.2	1,142.6	917.9	780.0	137.88	6.657 CC, ES, SF		
13,800.0	7,217.0	7,148.0	7,148.0	115.2	26.6	-90.00	5,962.2	1,142.6	918.7	781.2	137.51	6.681		
13,900.0	7,217.0	7,148.0	7,148.0	116.9	26.6	-90.00	5,962.2	1,142.6	928.3	792.6	135.76	6.838		
14,000.0	7,217.0	7,148.0	7,148.0	118.5	26.6	-90.00	5,962.2	1,142.6	948.4	815.4	133.03	7.129		
14,100.0	7,217.0	7,148.0	7,148.0	120.2	26.6	-90.00	5,962.2	1,142.6	978.4	848.8	129.53	7.553		
14,200.0	7,217.0	7,148.0	7,148.0	121.8	26.6	-90.00	5,962.2	1,142.6	1,017.3	891.8	125.52	8.105		
14,300.0	7,217.0	7,148.0	7,148.0	123.5	26.6	-90.00	5,962.2	1,142.6	1,064.2	943.0	121.23	8.778		
14,400.0	7,217.0	7,148.0	7,148.0	125.2	26.6	-90.00	5,962.2	1,142.6	1,118.2	1,001.3	116.89	9.566		
14,500.0	7,217.0	7,148.0	7,148.0	126.9	26.6	-90.00	5,962.2	1,142.6	1,178.1	1,065.5	112.65	10.458		
14,600.0	7,217.0	7,148.0	7,148.0	128.5	26.6	-90.00	5,962.2	1,142.6	1,243.2	1,134.6	108.61	11.447		
14,700.0	7,217.0	7,148.0	7,148.0	130.2	26.6	-90.00	5,962.2	1,142.6	1,312.8	1,207.9	104.84	12.522		
14,800.0	7,217.0	7,148.0	7,148.0	131.9	26.6	-90.00	5,962.2	1,142.6	1,386.0	1,284.7	101.36	13.674		
14,900.0	7,217.0	7,148.0	7,148.0	133.6	26.6	-90.00	5,962.2	1,142.6	1,462.4	1,364.3	98.19	14.894		
15,000.0	7,217.0	7,148.0	7,148.0	135.3	26.6	-90.00	5,962.2	1,142.6	1,541.6	1,446.3	95.32	16.173		
15,100.0	7,217.0	7,148.0	7,148.0	136.9	26.6	-90.00	5,962.2	1,142.6	1,623.0	1,530.3	92.72	17.504		
15,200.0	7,217.0	7,148.0	7,148.0	138.6	26.6	-90.00	5,962.2	1,142.6	1,706.4	1,616.0	90.39	18.878		
15,300.0	7,217.0	7,148.0	7,148.0	140.3	26.6	-90.00	5,962.2	1,142.6	1,791.5	1,703.2	88.30	20.288		
15,400.0	7,217.0	7,148.0	7,148.0	142.0	26.6	-90.00	5,962.2	1,142.6	1,878.1	1,791.7	86.43	21.729		
15,500.0	7,217.0	7,148.0	7,148.0	143.7	26.6	-90.00	5,962.2	1,142.6	1,965.9	1,881.2	84.76	23.195		
15,600.0	7,217.0	7,148.0	7,148.0	145.4	26.6	-90.00	5,962.2	1,142.6	2,054.9	1,971.7	83.26	24.682		
15,700.0	7,217.0	7,148.0	7,148.0	147.1	26.6	-90.00	5,962.2	1,142.6	2,144.8	2,062.9	81.91	26.184		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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	-46.20	1,023.1	-1,067.1	1,479.9					
100.0	100.0	31.0	31.0	0.4	0.3	-46.20	1,023.1	-1,067.1	1,478.3	1,478.0	0.27	5,523.947		
200.0	200.0	131.0	131.0	1.0	1.1	-46.20	1,023.1	-1,067.1	1,478.3	1,477.3	0.99	1,494.100		
300.0	300.0	231.0	231.0	1.5	1.5	-46.20	1,023.1	-1,067.1	1,478.3	1,476.6	1.70	867.572		
400.0	400.0	331.0	331.0	1.9	1.9	-46.20	1,023.1	-1,067.1	1,478.3	1,475.9	2.42	610.862		
500.0	500.0	431.0	431.0	2.3	2.3	-46.20	1,023.1	-1,067.1	1,478.3	1,475.2	3.14	471.315		
600.0	600.0	531.0	531.0	2.7	2.7	-46.20	1,023.1	-1,067.1	1,478.3	1,474.4	3.85	383.650		
700.0	700.0	631.0	631.0	3.1	3.1	-46.20	1,023.1	-1,067.1	1,478.3	1,473.7	4.57	323.475	CC, ES	
800.0	800.0	731.0	731.0	3.5	3.5	-149.55	1,023.1	-1,067.1	1,479.8	1,474.3	5.52	268.009		
900.0	899.8	830.8	830.8	4.2	3.9	-149.60	1,023.1	-1,067.1	1,484.3	1,477.4	6.94	213.799		
1,000.0	999.5	930.5	930.5	5.0	4.2	-149.70	1,023.1	-1,067.1	1,491.8	1,483.7	8.16	182.799		
1,100.0	1,098.7	1,029.7	1,029.7	5.8	4.6	-149.82	1,023.1	-1,067.1	1,502.4	1,493.1	9.27	162.039		
1,200.0	1,197.5	1,128.5	1,128.5	6.5	5.0	-149.98	1,023.1	-1,067.1	1,516.0	1,505.7	10.31	146.981		
1,300.0	1,295.6	1,226.6	1,226.6	7.1	5.3	-150.17	1,023.1	-1,067.1	1,532.6	1,521.3	11.31	135.521		
1,400.0	1,393.1	1,324.1	1,324.1	7.7	5.7	-150.39	1,023.1	-1,067.1	1,552.2	1,540.0	12.27	126.521		
1,500.0	1,489.6	1,420.6	1,420.6	8.3	6.0	-150.62	1,023.1	-1,067.1	1,575.0	1,561.8	13.20	119.299		
1,600.0	1,585.3	1,516.3	1,516.3	8.8	6.4	-150.87	1,023.1	-1,067.1	1,600.7	1,586.6	14.11	113.414		
1,700.0	1,679.8	1,610.8	1,610.8	9.3	6.7	-151.15	1,023.1	-1,067.1	1,629.6	1,614.6	14.96	108.942		
1,800.0	1,773.9	1,704.9	1,704.9	9.5	7.0	-151.71	1,023.1	-1,067.1	1,659.8	1,644.2	15.59	106.462		
1,900.0	1,867.9	1,798.9	1,798.9	9.8	7.4	-152.25	1,023.1	-1,067.1	1,690.2	1,673.9	16.26	103.972		
2,000.0	1,962.0	1,893.0	1,893.0	10.1	7.7	-152.77	1,023.1	-1,067.1	1,720.7	1,703.7	16.93	101.635		
2,100.0	2,056.0	1,987.0	1,987.0	10.5	8.1	-153.27	1,023.1	-1,067.1	1,751.3	1,733.7	17.61	99.445		
2,200.0	2,150.1	2,081.1	2,081.1	10.9	8.4	-153.76	1,023.1	-1,067.1	1,782.1	1,763.8	18.30	97.391		
2,300.0	2,244.1	2,175.1	2,175.1	11.3	8.7	-154.23	1,023.1	-1,067.1	1,812.9	1,793.9	18.99	95.467		
2,400.0	2,338.2	2,269.2	2,269.2	11.8	9.1	-154.68	1,023.1	-1,067.1	1,843.9	1,824.2	19.69	93.662		
2,500.0	2,432.3	2,363.3	2,363.3	12.4	9.4	-155.12	1,023.1	-1,067.1	1,875.0	1,854.6	20.39	91.967		
2,600.0	2,526.3	2,457.3	2,457.3	13.0	9.8	-155.54	1,023.1	-1,067.1	1,906.2	1,885.1	21.09	90.376		
2,700.0	2,620.4	2,551.4	2,551.4	13.7	10.1	-155.96	1,023.1	-1,067.1	1,937.5	1,915.7	21.80	88.880		
2,800.0	2,714.4	2,645.4	2,645.4	14.3	10.4	-156.36	1,023.1	-1,067.1	1,968.8	1,946.3	22.51	87.472		
2,900.0	2,808.5	2,739.5	2,739.5	15.0	10.8	-156.74	1,023.1	-1,067.1	2,000.3	1,977.0	23.22	86.145		
3,000.0	2,902.5	2,833.5	2,833.5	15.7	11.1	-157.12	1,023.1	-1,067.1	2,031.8	2,007.9	23.93	84.894		
3,100.0	2,996.6	2,927.6	2,927.6	16.4	11.5	-157.48	1,023.1	-1,067.1	2,063.4	2,038.8	24.65	83.713		
3,200.0	3,090.6	3,021.6	3,021.6	17.1	11.8	-157.83	1,023.1	-1,067.1	2,095.1	2,069.7	25.37	82.596		
3,300.0	3,184.7	3,115.7	3,115.7	17.7	12.1	-158.18	1,023.1	-1,067.1	2,126.8	2,100.8	26.08	81.539		
3,400.0	3,278.7	3,209.7	3,209.7	18.4	12.5	-158.51	1,023.1	-1,067.1	2,158.7	2,131.9	26.80	80.538		
3,500.0	3,372.8	3,303.8	3,303.8	19.1	12.8	-158.83	1,023.1	-1,067.1	2,190.5	2,163.0	27.52	79.589		
3,600.0	3,466.9	3,397.9	3,397.9	19.8	13.2	-159.15	1,023.1	-1,067.1	2,222.5	2,194.2	28.24	78.687	SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4NXH
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 19-18-4NXH	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

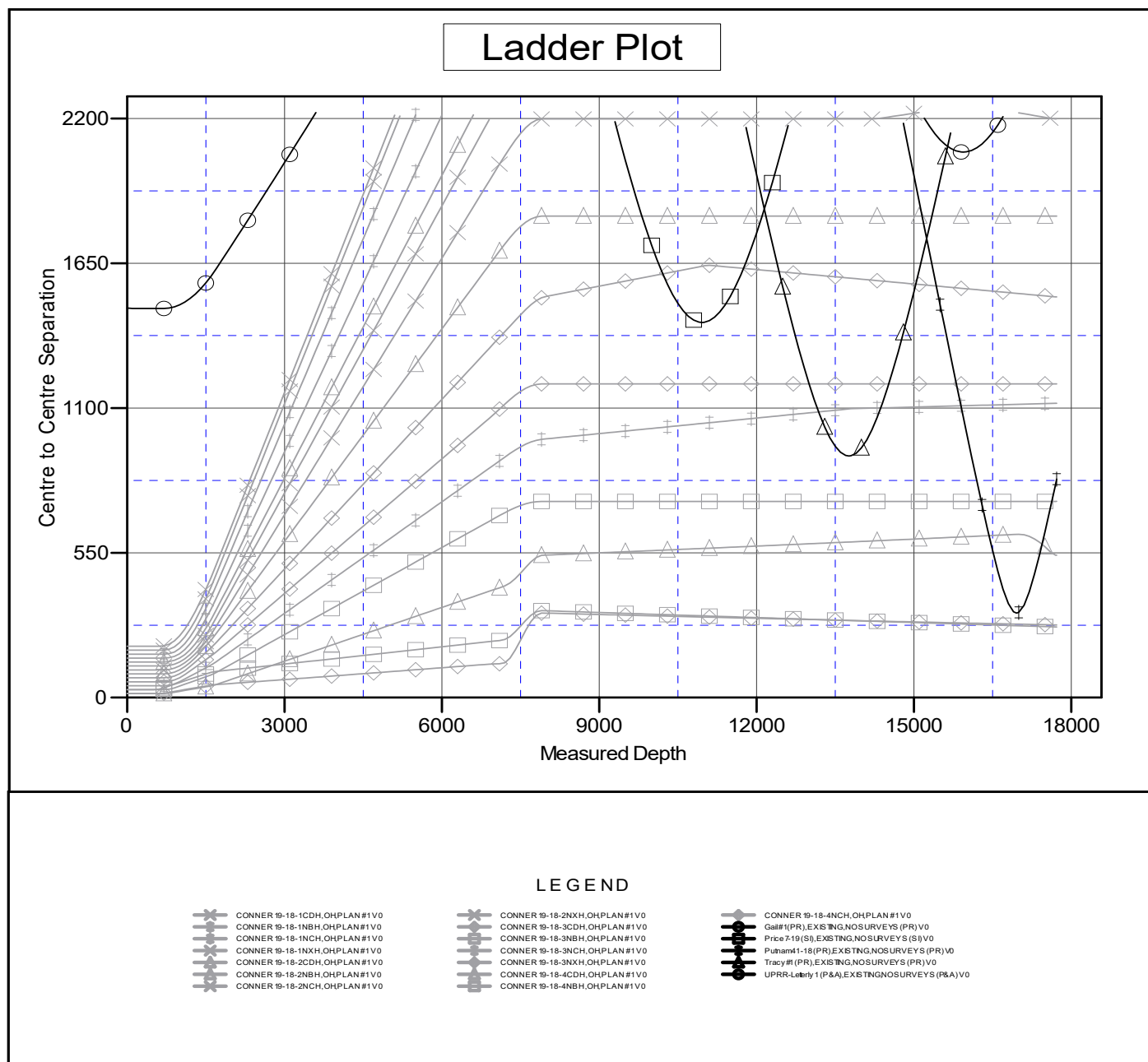
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-4NXH

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 19-18-4NXH
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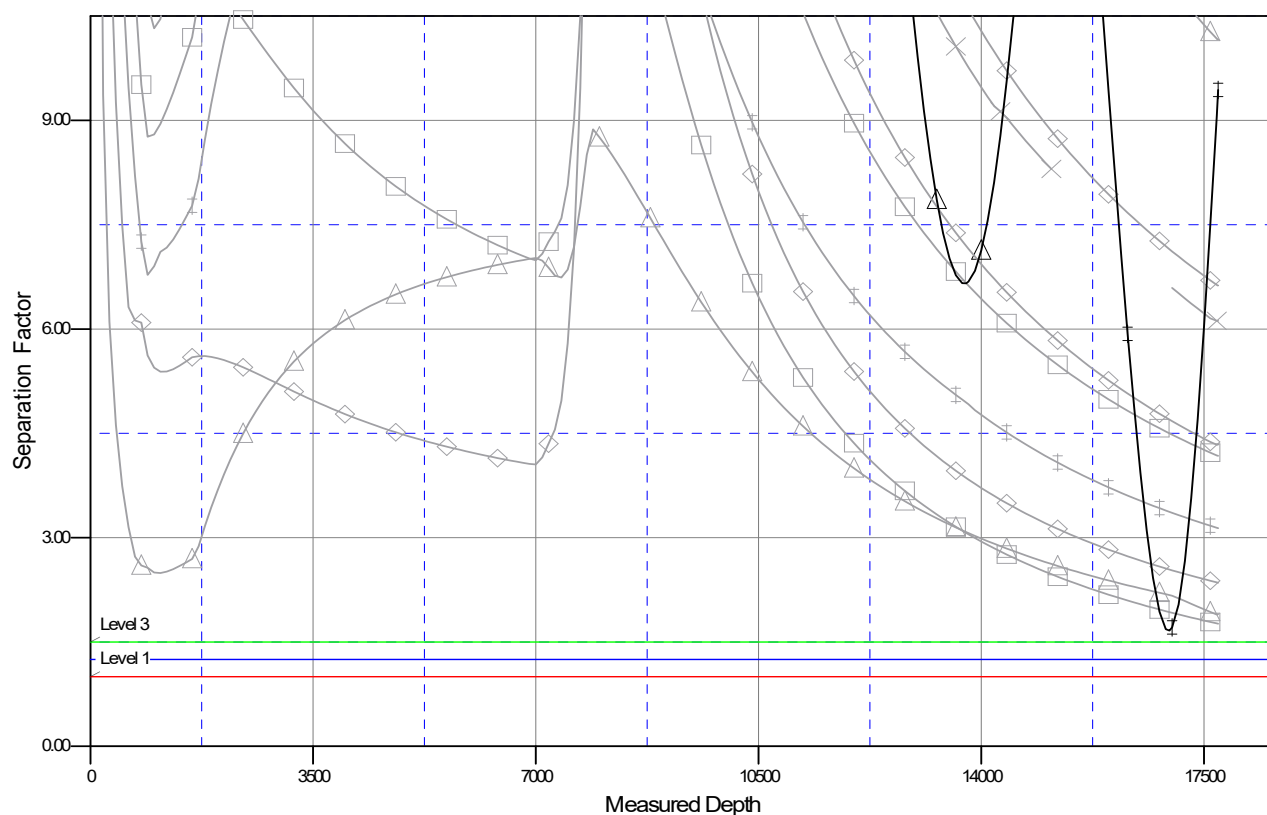
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-4NXH

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 19-18-3NBH,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
 Gall#1(PR),EXISTING,NOSURVEYS (PR)V0
 Price 7-19(S),EXISTING,NOSURVEYS (S)V0
 Putnam1-18(PR),EXISTING,NOSURVEYS (PR)V0
 Tracy#1 (PR),EXISTING,NOSURVEYS (PR)V0
 UPRR-Laberty 1(P&A),EXISTING,NOSURVEYS (P&A)V0