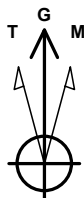


PetroShare Corp

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

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



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

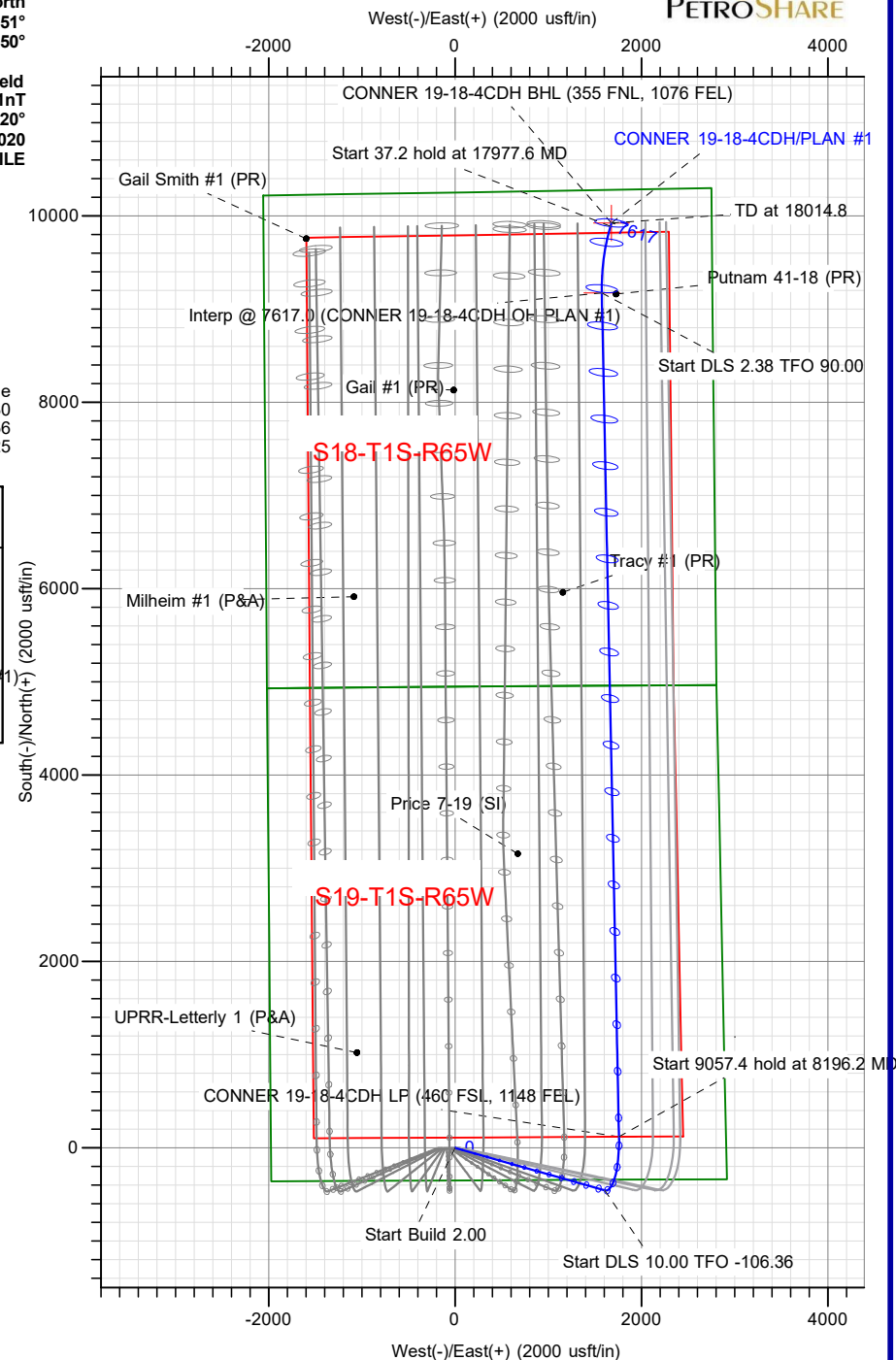
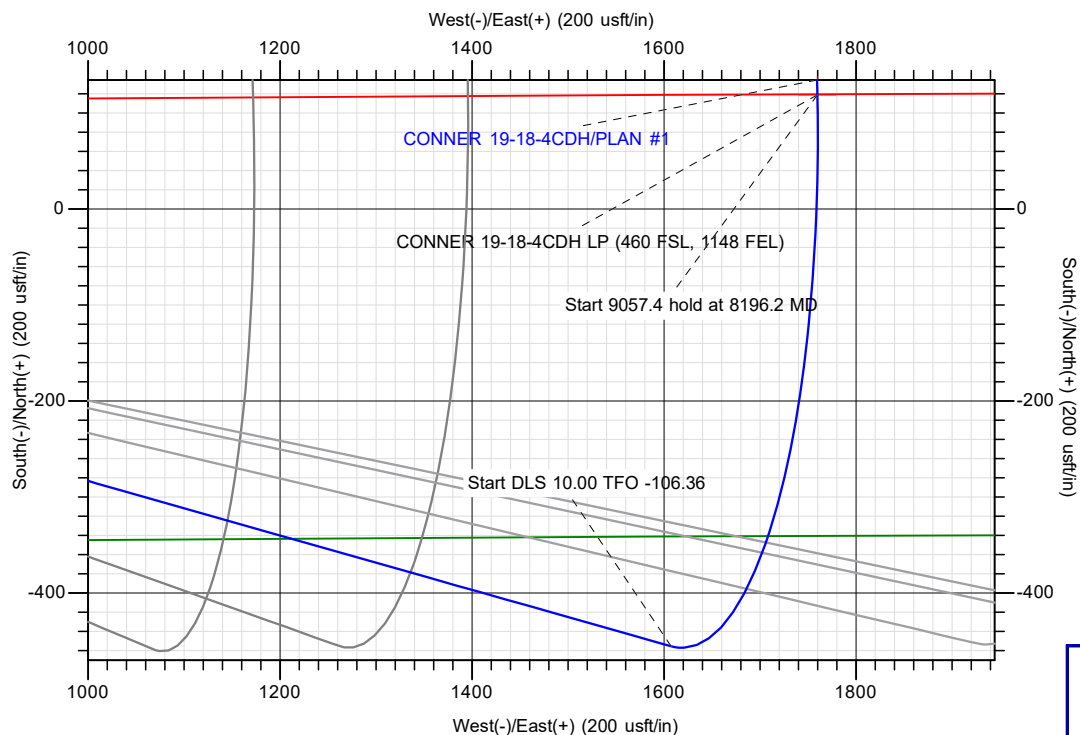
**Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020 FILE**

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-4CDH BHL (355 FNL, 1076 FEL)	7617.0	9925.4	1678.8	1233480.67	3223868.65	39.971520	-104.701230
CONNER 19-18-4CDH LP (460 FSL, 1448 FEL)	7617.0	119.0	1759.9	12323674.19	3223949.75	39.944598	-104.701256
Interp @ 7617.0 (CONNER 19-18-4CDH OH PLAN #1)	7617.0	9174.5	1575.0	1232729.72	3223764.87	39.969461	-104.701625

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1601.3	16.03	105.82	1590.9	-30.3	107.1	2.00	105.82	-12.1	
4	7249.9	16.03	105.82	7020.0	-455.4	1607.6	0.00	0.00	-180.9	
5	8196.2	90.00	358.83	7617.0	119.0	1759.9	10.00	-106.36	410.8	CONNER 19-18-4CDH LP (460 FSL, 1148 FEL)
6	17253.6	90.00	358.83	7617.0	9174.5	1575.0	0.00	0.00	9308.7	Interp @ 7617.0 (CONNER 19-18-4CDH OH PLAN #1)
7	17977.6	90.00	16.06	7617.0	9889.7	1668.5	2.38	90.00	00029.5	
8	18014.8	90.00	16.06	7617.0	9925.4	1678.8	0.00	0.00	0066.4	CONNER 19-18-4CDH BHL (355 FNL, 1076 FEL)



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

Plan: PLAN #1 (CONNER 19-18-4CDH/OH)
S19-T1S-R65W

Created By: Lance Roybal Date: 19:46, March 12 2021

Date: _____

Approved: _____ Date: _____



PetroShare Corp

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



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

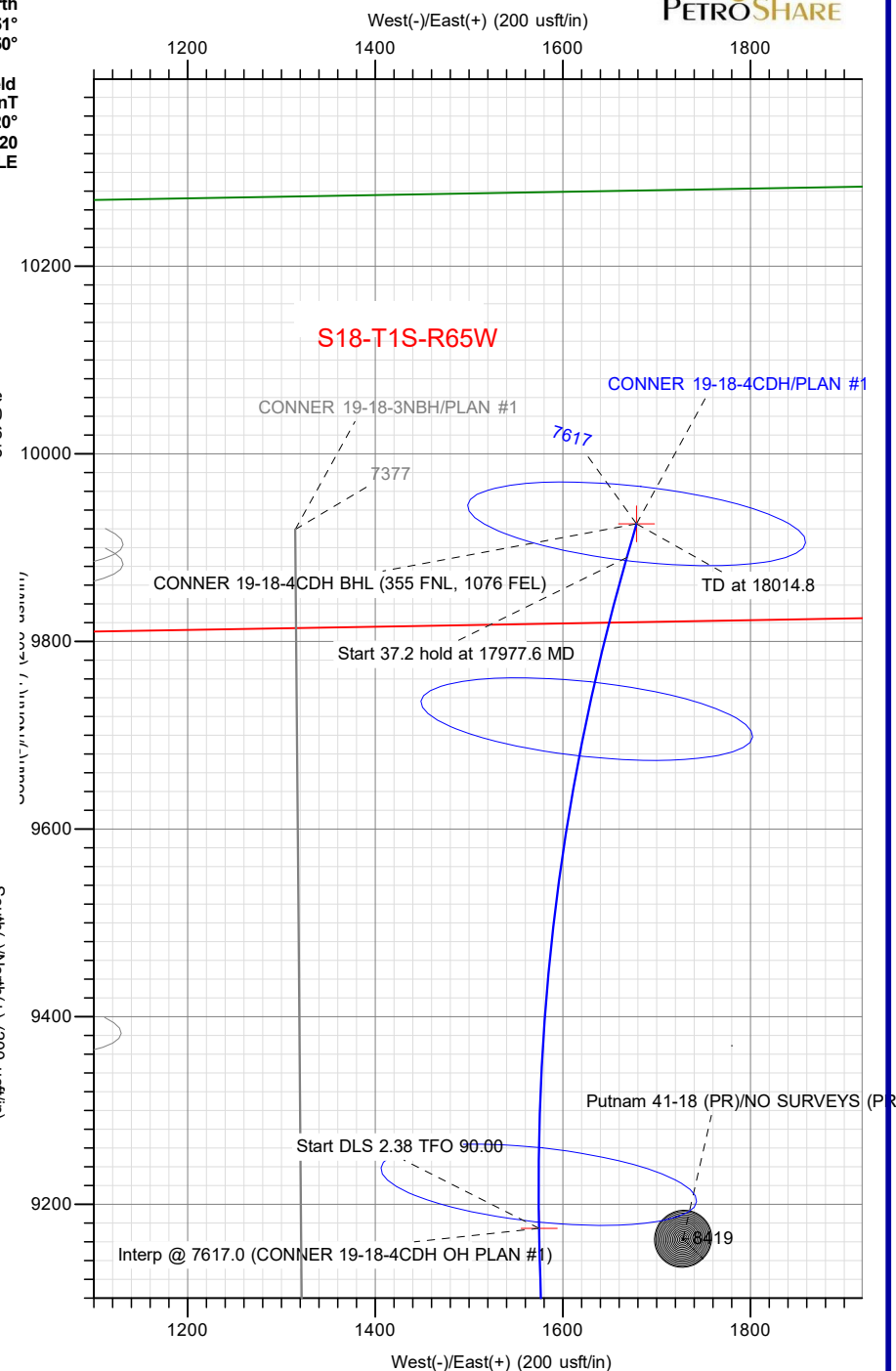
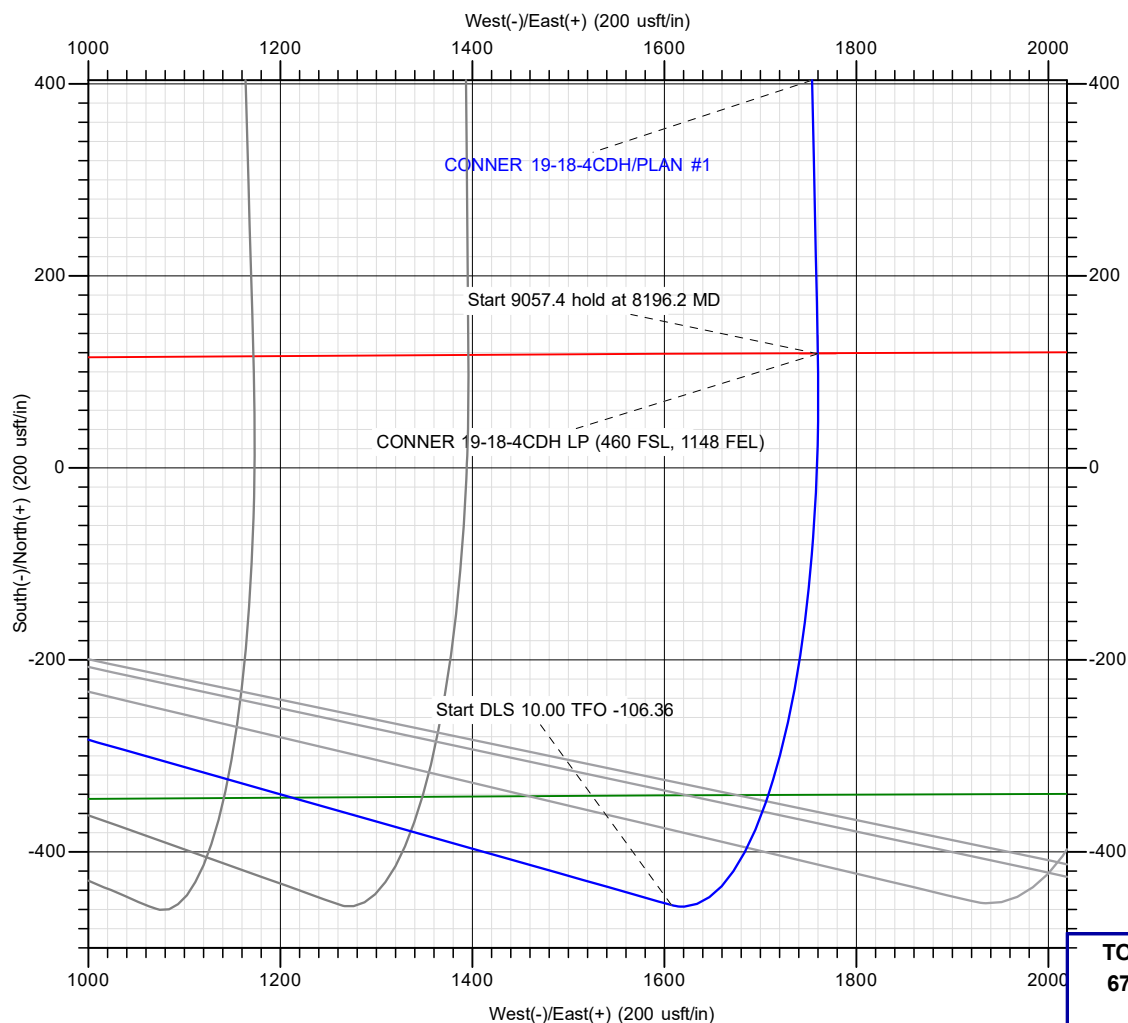
Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



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

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-4CDH BHL (355 FNL, 1076 FEL)	7617.0	9925.4	1678.8	1233480.67	3223868.65	39.971520	-104.701230
CONNER 19-18-4CDH LP (460 FSL, 1148 FEL)	7617.0	119.0	1759.9	1223674.19	3223949.75	39.944598	-104.701256
Interp @ 7617.0 (CONNER 19-18-4CDH OH PLAN #1)	7617.0	9174.5	1575.0	1232729.72	3223764.87	39.969461	-104.701625



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

Plan: PLAN #1 (CONNER 19-18-4CDH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 19:51, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-4CDH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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 19-18-4CDH					
Well Position	+N/-S	0.9 usft	Northing:	1,223,555.23 usft	Latitude:	39.944315
	+E/-W	180.0 usft	Easting:	3,222,189.87 usft	Longitude:	-104.707537
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,142.0 usft

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

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	9.60

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,001.0	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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,601.3	16.03	105.82	1,590.9	-30.3	107.1	2.00	2.00	0.00	105.82	
7,249.9	16.03	105.82	7,020.0	-455.4	1,607.6	0.00	0.00	0.00	0.00	
8,196.2	90.00	358.83	7,617.0	119.0	1,759.9	10.00	7.82	-11.31	-106.36	CONNER 19-18-4CD
17,253.6	90.00	358.83	7,617.0	9,174.5	1,575.0	0.00	0.00	0.00	0.00	Interp @ 7617.0 (CO

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	2.00	105.82	900.0	-0.5	1.7	-0.2	2.00	2.00	0.00
1,000.0	4.00	105.82	999.8	-1.9	6.7	-0.8	2.00	2.00	0.00
1,100.0	6.00	105.82	1,099.5	-4.3	15.1	-1.7	2.00	2.00	0.00
1,200.0	8.00	105.82	1,198.7	-7.6	26.8	-3.0	2.00	2.00	0.00
1,300.0	10.00	105.82	1,297.5	-11.9	41.9	-4.7	2.00	2.00	0.00
1,400.0	12.00	105.82	1,395.6	-17.1	60.2	-6.8	2.00	2.00	0.00
1,500.0	14.00	105.82	1,493.1	-23.2	81.9	-9.2	2.00	2.00	0.00
1,600.0	16.00	105.82	1,589.6	-30.2	106.8	-12.0	2.00	2.00	0.00
1,601.3	16.03	105.82	1,590.9	-30.3	107.1	-12.1	2.00	2.00	0.00
1,700.0	16.03	105.82	1,685.8	-37.8	133.3	-15.0	0.00	0.00	0.00
1,800.0	16.03	105.82	1,781.9	-45.3	159.9	-18.0	0.00	0.00	0.00
1,900.0	16.03	105.82	1,878.0	-52.8	186.5	-21.0	0.00	0.00	0.00
2,000.0	16.03	105.82	1,974.1	-60.3	213.0	-24.0	0.00	0.00	0.00
2,100.0	16.03	105.82	2,070.2	-67.9	239.6	-27.0	0.00	0.00	0.00
2,200.0	16.03	105.82	2,166.3	-75.4	266.2	-29.9	0.00	0.00	0.00
2,300.0	16.03	105.82	2,262.4	-82.9	292.7	-32.9	0.00	0.00	0.00
2,400.0	16.03	105.82	2,358.6	-90.4	319.3	-35.9	0.00	0.00	0.00
2,500.0	16.03	105.82	2,454.7	-98.0	345.8	-38.9	0.00	0.00	0.00
2,600.0	16.03	105.82	2,550.8	-105.5	372.4	-41.9	0.00	0.00	0.00
2,700.0	16.03	105.82	2,646.9	-113.0	399.0	-44.9	0.00	0.00	0.00
2,800.0	16.03	105.82	2,743.0	-120.5	425.5	-47.9	0.00	0.00	0.00
2,900.0	16.03	105.82	2,839.1	-128.1	452.1	-50.9	0.00	0.00	0.00
3,000.0	16.03	105.82	2,935.2	-135.6	478.7	-53.9	0.00	0.00	0.00
3,100.0	16.03	105.82	3,031.3	-143.1	505.2	-56.9	0.00	0.00	0.00
3,200.0	16.03	105.82	3,127.5	-150.6	531.8	-59.8	0.00	0.00	0.00
3,300.0	16.03	105.82	3,223.6	-158.2	558.3	-62.8	0.00	0.00	0.00
3,400.0	16.03	105.82	3,319.7	-165.7	584.9	-65.8	0.00	0.00	0.00
3,500.0	16.03	105.82	3,415.8	-173.2	611.5	-68.8	0.00	0.00	0.00
3,600.0	16.03	105.82	3,511.9	-180.7	638.0	-71.8	0.00	0.00	0.00
3,700.0	16.03	105.82	3,608.0	-188.3	664.6	-74.8	0.00	0.00	0.00
3,800.0	16.03	105.82	3,704.1	-195.8	691.2	-77.8	0.00	0.00	0.00
3,900.0	16.03	105.82	3,800.3	-203.3	717.7	-80.8	0.00	0.00	0.00
4,000.0	16.03	105.82	3,896.4	-210.8	744.3	-83.8	0.00	0.00	0.00
4,100.0	16.03	105.82	3,992.5	-218.4	770.8	-86.7	0.00	0.00	0.00
4,200.0	16.03	105.82	4,088.6	-225.9	797.4	-89.7	0.00	0.00	0.00
4,300.0	16.03	105.82	4,184.7	-233.4	824.0	-92.7	0.00	0.00	0.00
4,400.0	16.03	105.82	4,280.8	-240.9	850.5	-95.7	0.00	0.00	0.00
4,500.0	16.03	105.82	4,376.9	-248.5	877.1	-98.7	0.00	0.00	0.00
4,600.0	16.03	105.82	4,473.0	-256.0	903.7	-101.7	0.00	0.00	0.00
4,700.0	16.03	105.82	4,569.2	-263.5	930.2	-104.7	0.00	0.00	0.00
4,800.0	16.03	105.82	4,665.3	-271.0	956.8	-107.7	0.00	0.00	0.00
4,900.0	16.03	105.82	4,761.4	-278.5	983.4	-110.7	0.00	0.00	0.00
5,000.0	16.03	105.82	4,857.5	-286.1	1,009.9	-113.6	0.00	0.00	0.00
5,100.0	16.03	105.82	4,953.6	-293.6	1,036.5	-116.6	0.00	0.00	0.00
5,200.0	16.03	105.82	5,049.7	-301.1	1,063.0	-119.6	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	16.03	105.82	5,145.8	-308.6	1,089.6	-122.6	0.00	0.00	0.00
5,400.0	16.03	105.82	5,242.0	-316.2	1,116.2	-125.6	0.00	0.00	0.00
5,500.0	16.03	105.82	5,338.1	-323.7	1,142.7	-128.6	0.00	0.00	0.00
5,600.0	16.03	105.82	5,434.2	-331.2	1,169.3	-131.6	0.00	0.00	0.00
5,700.0	16.03	105.82	5,530.3	-338.7	1,195.9	-134.6	0.00	0.00	0.00
5,800.0	16.03	105.82	5,626.4	-346.3	1,222.4	-137.6	0.00	0.00	0.00
5,900.0	16.03	105.82	5,722.5	-353.8	1,249.0	-140.5	0.00	0.00	0.00
6,000.0	16.03	105.82	5,818.6	-361.3	1,275.5	-143.5	0.00	0.00	0.00
6,100.0	16.03	105.82	5,914.7	-368.8	1,302.1	-146.5	0.00	0.00	0.00
6,200.0	16.03	105.82	6,010.9	-376.4	1,328.7	-149.5	0.00	0.00	0.00
6,300.0	16.03	105.82	6,107.0	-383.9	1,355.2	-152.5	0.00	0.00	0.00
6,400.0	16.03	105.82	6,203.1	-391.4	1,381.8	-155.5	0.00	0.00	0.00
6,500.0	16.03	105.82	6,299.2	-398.9	1,408.4	-158.5	0.00	0.00	0.00
6,600.0	16.03	105.82	6,395.3	-406.5	1,434.9	-161.5	0.00	0.00	0.00
6,700.0	16.03	105.82	6,491.4	-414.0	1,461.5	-164.5	0.00	0.00	0.00
6,800.0	16.03	105.82	6,587.5	-421.5	1,488.0	-167.4	0.00	0.00	0.00
6,900.0	16.03	105.82	6,683.7	-429.0	1,514.6	-170.4	0.00	0.00	0.00
7,000.0	16.03	105.82	6,779.8	-436.6	1,541.2	-173.4	0.00	0.00	0.00
7,100.0	16.03	105.82	6,875.9	-444.1	1,567.7	-176.4	0.00	0.00	0.00
7,200.0	16.03	105.82	6,972.0	-451.6	1,594.3	-179.4	0.00	0.00	0.00
7,249.9	16.03	105.82	7,020.0	-455.4	1,607.6	-180.9	0.00	0.00	0.00
7,300.0	15.37	87.38	7,068.2	-456.9	1,620.8	-180.2	10.00	-1.32	-36.80
7,400.0	18.47	54.16	7,164.1	-447.0	1,647.0	-166.1	10.00	3.11	-33.22
7,500.0	25.33	34.31	7,257.0	-420.0	1,672.0	-135.3	10.00	6.85	-19.84
7,600.0	33.71	23.14	7,344.0	-376.7	1,695.0	-88.8	10.00	8.39	-11.17
7,700.0	42.73	16.13	7,422.5	-318.5	1,715.4	-27.9	10.00	9.02	-7.02
7,800.0	52.06	11.20	7,490.1	-247.0	1,732.5	45.4	10.00	9.32	-4.93
7,900.0	61.54	7.39	7,544.8	-164.5	1,745.8	128.9	10.00	9.48	-3.80
8,000.0	71.11	4.22	7,584.9	-73.5	1,755.0	220.2	10.00	9.57	-3.17
8,100.0	80.73	1.40	7,609.2	23.2	1,759.7	316.4	10.00	9.62	-2.82
8,196.2	90.00	358.83	7,617.0	119.0	1,759.9	410.8	10.00	9.64	-2.67
CONNER 19-18-4CDH LP (460 FSL, 1148 FEL)									
8,200.0	90.00	358.83	7,617.0	122.8	1,759.8	414.6	0.00	0.00	0.00
8,300.0	90.00	358.83	7,617.0	222.8	1,757.8	512.8	0.00	0.00	0.00
8,400.0	90.00	358.83	7,617.0	322.8	1,755.7	611.0	0.00	0.00	0.00
8,500.0	90.00	358.83	7,617.0	422.7	1,753.7	709.3	0.00	0.00	0.00
8,600.0	90.00	358.83	7,617.0	522.7	1,751.6	807.5	0.00	0.00	0.00
8,700.0	90.00	358.83	7,617.0	622.7	1,749.6	905.8	0.00	0.00	0.00
8,800.0	90.00	358.83	7,617.0	722.7	1,747.6	1,004.0	0.00	0.00	0.00
8,900.0	90.00	358.83	7,617.0	822.7	1,745.5	1,102.2	0.00	0.00	0.00
9,000.0	90.00	358.83	7,617.0	922.6	1,743.5	1,200.5	0.00	0.00	0.00
9,100.0	90.00	358.83	7,617.0	1,022.6	1,741.4	1,298.7	0.00	0.00	0.00
9,200.0	90.00	358.83	7,617.0	1,122.6	1,739.4	1,397.0	0.00	0.00	0.00
9,300.0	90.00	358.83	7,617.0	1,222.6	1,737.3	1,495.2	0.00	0.00	0.00
9,400.0	90.00	358.83	7,617.0	1,322.6	1,735.3	1,593.4	0.00	0.00	0.00
9,500.0	90.00	358.83	7,617.0	1,422.5	1,733.3	1,691.7	0.00	0.00	0.00
9,600.0	90.00	358.83	7,617.0	1,522.5	1,731.2	1,789.9	0.00	0.00	0.00
9,700.0	90.00	358.83	7,617.0	1,622.5	1,729.2	1,888.1	0.00	0.00	0.00
9,800.0	90.00	358.83	7,617.0	1,722.5	1,727.1	1,986.4	0.00	0.00	0.00
9,900.0	90.00	358.83	7,617.0	1,822.5	1,725.1	2,084.6	0.00	0.00	0.00
10,000.0	90.00	358.83	7,617.0	1,922.4	1,723.1	2,182.9	0.00	0.00	0.00
10,100.0	90.00	358.83	7,617.0	2,022.4	1,721.0	2,281.1	0.00	0.00	0.00
10,200.0	90.00	358.83	7,617.0	2,122.4	1,719.0	2,379.3	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	358.83	7,617.0	2,222.4	1,716.9	2,477.6	0.00	0.00	0.00	
10,400.0	90.00	358.83	7,617.0	2,322.3	1,714.9	2,575.8	0.00	0.00	0.00	
10,500.0	90.00	358.83	7,617.0	2,422.3	1,712.9	2,674.1	0.00	0.00	0.00	
10,600.0	90.00	358.83	7,617.0	2,522.3	1,710.8	2,772.3	0.00	0.00	0.00	
10,700.0	90.00	358.83	7,617.0	2,622.3	1,708.8	2,870.5	0.00	0.00	0.00	
10,800.0	90.00	358.83	7,617.0	2,722.3	1,706.7	2,968.8	0.00	0.00	0.00	
10,900.0	90.00	358.83	7,617.0	2,822.2	1,704.7	3,067.0	0.00	0.00	0.00	
11,000.0	90.00	358.83	7,617.0	2,922.2	1,702.6	3,165.2	0.00	0.00	0.00	
11,100.0	90.00	358.83	7,617.0	3,022.2	1,700.6	3,263.5	0.00	0.00	0.00	
11,200.0	90.00	358.83	7,617.0	3,122.2	1,698.6	3,361.7	0.00	0.00	0.00	
11,300.0	90.00	358.83	7,617.0	3,222.2	1,696.5	3,460.0	0.00	0.00	0.00	
11,400.0	90.00	358.83	7,617.0	3,322.1	1,694.5	3,558.2	0.00	0.00	0.00	
11,500.0	90.00	358.83	7,617.0	3,422.1	1,692.4	3,656.4	0.00	0.00	0.00	
11,600.0	90.00	358.83	7,617.0	3,522.1	1,690.4	3,754.7	0.00	0.00	0.00	
11,700.0	90.00	358.83	7,617.0	3,622.1	1,688.4	3,852.9	0.00	0.00	0.00	
11,800.0	90.00	358.83	7,617.0	3,722.1	1,686.3	3,951.2	0.00	0.00	0.00	
11,900.0	90.00	358.83	7,617.0	3,822.0	1,684.3	4,049.4	0.00	0.00	0.00	
12,000.0	90.00	358.83	7,617.0	3,922.0	1,682.2	4,147.6	0.00	0.00	0.00	
12,100.0	90.00	358.83	7,617.0	4,022.0	1,680.2	4,245.9	0.00	0.00	0.00	
12,200.0	90.00	358.83	7,617.0	4,122.0	1,678.2	4,344.1	0.00	0.00	0.00	
12,300.0	90.00	358.83	7,617.0	4,222.0	1,676.1	4,442.4	0.00	0.00	0.00	
12,400.0	90.00	358.83	7,617.0	4,321.9	1,674.1	4,540.6	0.00	0.00	0.00	
12,500.0	90.00	358.83	7,617.0	4,421.9	1,672.0	4,638.8	0.00	0.00	0.00	
12,600.0	90.00	358.83	7,617.0	4,521.9	1,670.0	4,737.1	0.00	0.00	0.00	
12,700.0	90.00	358.83	7,617.0	4,621.9	1,667.9	4,835.3	0.00	0.00	0.00	
12,800.0	90.00	358.83	7,617.0	4,721.8	1,665.9	4,933.5	0.00	0.00	0.00	
12,900.0	90.00	358.83	7,617.0	4,821.8	1,663.9	5,031.8	0.00	0.00	0.00	
13,000.0	90.00	358.83	7,617.0	4,921.8	1,661.8	5,130.0	0.00	0.00	0.00	
13,100.0	90.00	358.83	7,617.0	5,021.8	1,659.8	5,228.3	0.00	0.00	0.00	
13,200.0	90.00	358.83	7,617.0	5,121.8	1,657.7	5,326.5	0.00	0.00	0.00	
13,300.0	90.00	358.83	7,617.0	5,221.7	1,655.7	5,424.7	0.00	0.00	0.00	
13,400.0	90.00	358.83	7,617.0	5,321.7	1,653.7	5,523.0	0.00	0.00	0.00	
13,500.0	90.00	358.83	7,617.0	5,421.7	1,651.6	5,621.2	0.00	0.00	0.00	
13,600.0	90.00	358.83	7,617.0	5,521.7	1,649.6	5,719.5	0.00	0.00	0.00	
13,700.0	90.00	358.83	7,617.0	5,621.7	1,647.5	5,817.7	0.00	0.00	0.00	
13,800.0	90.00	358.83	7,617.0	5,721.6	1,645.5	5,915.9	0.00	0.00	0.00	
13,900.0	90.00	358.83	7,617.0	5,821.6	1,643.5	6,014.2	0.00	0.00	0.00	
14,000.0	90.00	358.83	7,617.0	5,921.6	1,641.4	6,112.4	0.00	0.00	0.00	
14,100.0	90.00	358.83	7,617.0	6,021.6	1,639.4	6,210.6	0.00	0.00	0.00	
14,200.0	90.00	358.83	7,617.0	6,121.6	1,637.3	6,308.9	0.00	0.00	0.00	
14,300.0	90.00	358.83	7,617.0	6,221.5	1,635.3	6,407.1	0.00	0.00	0.00	
14,400.0	90.00	358.83	7,617.0	6,321.5	1,633.2	6,505.4	0.00	0.00	0.00	
14,500.0	90.00	358.83	7,617.0	6,421.5	1,631.2	6,603.6	0.00	0.00	0.00	
14,600.0	90.00	358.83	7,617.0	6,521.5	1,629.2	6,701.8	0.00	0.00	0.00	
14,700.0	90.00	358.83	7,617.0	6,621.5	1,627.1	6,800.1	0.00	0.00	0.00	
14,800.0	90.00	358.83	7,617.0	6,721.4	1,625.1	6,898.3	0.00	0.00	0.00	
14,900.0	90.00	358.83	7,617.0	6,821.4	1,623.0	6,996.6	0.00	0.00	0.00	
15,000.0	90.00	358.83	7,617.0	6,921.4	1,621.0	7,094.8	0.00	0.00	0.00	
15,100.0	90.00	358.83	7,617.0	7,021.4	1,619.0	7,193.0	0.00	0.00	0.00	
15,200.0	90.00	358.83	7,617.0	7,121.3	1,616.9	7,291.3	0.00	0.00	0.00	
15,300.0	90.00	358.83	7,617.0	7,221.3	1,614.9	7,389.5	0.00	0.00	0.00	
15,400.0	90.00	358.83	7,617.0	7,321.3	1,612.8	7,487.7	0.00	0.00	0.00	
15,500.0	90.00	358.83	7,617.0	7,421.3	1,610.8	7,586.0	0.00	0.00	0.00	
15,600.0	90.00	358.83	7,617.0	7,521.3	1,608.8	7,684.2	0.00	0.00	0.00	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	358.83	7,617.0	7,621.2	1,606.7	7,782.5	0.00	0.00	0.00	
15,800.0	90.00	358.83	7,617.0	7,721.2	1,604.7	7,880.7	0.00	0.00	0.00	
15,900.0	90.00	358.83	7,617.0	7,821.2	1,602.6	7,978.9	0.00	0.00	0.00	
16,000.0	90.00	358.83	7,617.0	7,921.2	1,600.6	8,077.2	0.00	0.00	0.00	
16,100.0	90.00	358.83	7,617.0	8,021.2	1,598.5	8,175.4	0.00	0.00	0.00	
16,200.0	90.00	358.83	7,617.0	8,121.1	1,596.5	8,273.7	0.00	0.00	0.00	
16,300.0	90.00	358.83	7,617.0	8,221.1	1,594.5	8,371.9	0.00	0.00	0.00	
16,400.0	90.00	358.83	7,617.0	8,321.1	1,592.4	8,470.1	0.00	0.00	0.00	
16,500.0	90.00	358.83	7,617.0	8,421.1	1,590.4	8,568.4	0.00	0.00	0.00	
16,600.0	90.00	358.83	7,617.0	8,521.1	1,588.3	8,666.6	0.00	0.00	0.00	
16,700.0	90.00	358.83	7,617.0	8,621.0	1,586.3	8,764.9	0.00	0.00	0.00	
16,800.0	90.00	358.83	7,617.0	8,721.0	1,584.3	8,863.1	0.00	0.00	0.00	
16,900.0	90.00	358.83	7,617.0	8,821.0	1,582.2	8,961.3	0.00	0.00	0.00	
17,000.0	90.00	358.83	7,617.0	8,921.0	1,580.2	9,059.6	0.00	0.00	0.00	
17,100.0	90.00	358.83	7,617.0	9,020.9	1,578.1	9,157.8	0.00	0.00	0.00	
17,200.0	90.00	358.83	7,617.0	9,120.9	1,576.1	9,256.0	0.00	0.00	0.00	
17,253.6	90.00	358.83	7,617.0	9,174.5	1,575.0	9,308.7	0.00	0.00	0.00	
Interp @ 7617.0 (CONNER 19-18-4CDH OH PLAN #1)										
17,300.0	90.00	359.94	7,617.0	9,220.9	1,574.5	9,354.4	2.38	0.00	2.38	
17,400.0	90.00	2.32	7,617.0	9,320.9	1,576.5	9,453.3	2.38	0.00	2.38	
17,500.0	90.00	4.70	7,617.0	9,420.7	1,582.6	9,552.7	2.38	0.00	2.38	
17,600.0	90.00	7.08	7,617.0	9,520.2	1,592.8	9,652.5	2.38	0.00	2.38	
17,700.0	90.00	9.46	7,617.0	9,619.1	1,607.2	9,752.4	2.38	0.00	2.38	
17,800.0	90.00	11.84	7,617.0	9,717.4	1,625.7	9,852.4	2.38	0.00	2.38	
17,900.0	90.00	14.22	7,617.0	9,814.8	1,648.2	9,952.2	2.38	0.00	2.38	
17,977.6	90.00	16.06	7,617.0	9,889.7	1,668.5	10,029.5	2.38	0.00	2.38	
18,000.0	90.00	16.06	7,617.0	9,911.2	1,674.7	10,051.7	0.00	0.00	0.00	
18,014.8	90.00	16.06	7,617.0	9,925.4	1,678.8	10,066.4	0.00	0.00	0.00	
CONNER 19-18-4CDH BHL (355 FNL, 1076 FEL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Interp @ 7617.0 (CONN - hit/miss target - Shape - Point	0.00	0.00	7,617.0	9,174.5	1,575.0	1,232,729.71	3,223,764.87	39.969461	-104.701625	
CONNER 19-18-4CDH I - plan hits target center - Point	0.00	0.00	7,617.0	9,925.4	1,678.8	1,233,480.67	3,223,868.65	39.971520	-104.701230	
CONNER 19-18-4CDH I - plan hits target center - Point	0.00	0.00	7,617.0	119.0	1,759.9	1,223,674.19	3,223,949.75	39.944599	-104.701256	



PetroShare Corp

**ADAMS COUNTY, CO
S19-T1S-R65W
CONNER 19-18-4CDH**

**OH
PLAN #1**

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	18,001.0	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	180.0	175.3	37.941	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	1,100.0	1,065.7	233.3	222.2	21.033	SF
CONNER 19-18-1NBH - OH - PLAN #1	800.0	800.0	135.0	131.9	43.419	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	1,200.0	1,185.5	173.5	167.7	30.123	SF
CONNER 19-18-1NCH - OH - PLAN #1	800.0	800.0	150.0	146.9	48.244	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	1,100.0	1,084.1	178.3	173.2	34.769	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	165.0	159.5	30.087	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	1,100.0	1,075.7	204.2	193.5	19.056	SF
CONNER 19-18-2CDH - OH - PLAN #1	800.0	800.0	120.0	116.9	38.592	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	17,800.0	17,624.8	2,130.5	1,953.5	12.042	SF
CONNER 19-18-2NBH - OH - PLAN #1	800.0	800.0	75.0	71.9	24.130	CC, ES
CONNER 19-18-2NBH - OH - PLAN #1	17,600.0	17,158.5	1,383.1	1,212.6	8.110	SF
CONNER 19-18-2NCH - OH - PLAN #1	800.0	800.0	90.0	83.8	14.477	CC, ES
CONNER 19-18-2NCH - OH - PLAN #1	17,800.0	17,474.2	1,776.3	1,422.6	5.022	SF
CONNER 19-18-2NXH - OH - PLAN #1	800.0	800.0	105.0	101.9	33.778	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	17,800.0	17,194.9	2,061.3	1,888.1	11.902	SF
CONNER 19-18-3CDH - OH - PLAN #1	800.0	800.0	60.0	53.8	9.654	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,600.0	17,474.0	1,010.8	663.5	2.910	SF
CONNER 19-18-3NBH - OH - PLAN #1	800.0	800.0	15.0	11.9	4.820	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	17,600.0	17,281.4	364.7	227.9	2.665	SF
CONNER 19-18-3NCH - OH - PLAN #1	800.0	800.0	30.0	23.8	4.826	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,400.0	17,119.8	637.7	309.8	1.945	SF
CONNER 19-18-3NXH - OH - PLAN #1	800.0	800.0	45.0	41.9	14.469	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,600.0	17,053.4	835.2	680.5	5.400	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	45.0	43.0	22.489	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	18,014.8	17,945.6	637.4	465.6	3.711	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	30.0	27.6	12.618	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	18,014.8	18,006.6	543.6	368.3	3.101	SF
CONNER 19-18-4NXH - OH - PLAN #1	700.0	700.0	15.0	12.2	5.454	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	18,014.8	17,720.2	540.8	399.1	3.816	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	16,244.2	7,548.0	1,610.8	1,433.6	9.089	CC, ES
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	16,300.0	7,548.0	1,611.8	1,434.3	9.083	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)	11,255.4	7,548.0	1,024.0	930.4	10.941	CC, ES, SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	17,240.5	7,548.0	152.9	-41.8	0.786	Level 1, CC, ES, SF
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	14,050.6	7,548.0	483.0	343.4	3.460	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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S19-T1S-R65W						
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&	800.0	731.0	1,467.6	1,462.3	277.622	CC, ES
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&	4,100.0	3,923.5	2,205.6	2,174.3	70.400	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			Distance							Warning
				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	-0.9	-180.0	180.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.28	-0.9	-180.0	180.0	179.4	0.55	325.205		
133.3	133.3	133.3	133.3	0.6	0.6	-90.28	-0.9	-180.0	180.0	179.1	0.90	199.858		
200.0	200.0	200.0	200.0	1.0	1.0	-90.28	-0.9	-180.0	180.0	178.4	1.59	112.857		
300.0	300.0	300.0	300.0	1.5	1.5	-90.28	-0.9	-180.0	180.0	177.6	2.45	73.528		
333.3	333.3	333.3	333.3	1.6	1.6	-90.28	-0.9	-180.0	180.0	177.3	2.71	66.406		
400.0	400.0	400.0	400.0	1.9	1.9	-90.28	-0.9	-180.0	180.0	176.8	3.24	55.629		
500.0	500.0	500.0	500.0	2.3	2.3	-90.28	-0.9	-180.0	180.0	176.0	4.00	45.035		
558.7	558.7	558.7	558.7	2.6	2.6	-90.28	-0.9	-180.0	180.0	175.6	4.44	40.578		
600.0	600.0	600.0	600.0	2.7	2.7	-90.28	-0.9	-180.0	180.0	175.3	4.74	37.941	CC, ES	
700.0	700.0	694.4	694.4	3.1	3.0	-90.46	-1.5	-181.4	181.5	176.0	5.53	32.822		
800.0	800.0	788.7	788.5	3.5	3.9	-90.97	-3.2	-185.8	186.2	179.3	6.91	26.955		
900.0	900.0	882.3	881.9	3.9	4.7	162.50	-6.0	-192.9	195.5	187.2	8.31	23.525		
1,000.0	999.8	974.9	973.8	4.5	5.4	161.82	-9.8	-202.8	211.3	201.5	9.80	21.557		
1,100.0	1,099.5	1,065.7	1,063.7	5.3	6.1	161.20	-14.7	-215.2	233.3	222.2	11.09	21.033	SF	
1,200.0	1,198.7	1,154.4	1,151.0	6.0	6.6	160.65	-20.4	-229.8	261.3	249.2	12.17	21.475		
1,300.0	1,297.5	1,246.1	1,240.8	6.7	6.9	160.21	-27.2	-246.9	294.7	281.7	13.00	22.672		
1,400.0	1,395.6	1,339.2	1,331.9	7.3	7.1	159.98	-34.0	-264.4	331.3	317.5	13.75	24.091		
1,500.0	1,493.1	1,431.0	1,421.8	7.9	7.4	159.92	-40.8	-281.7	370.9	356.4	14.51	25.570		
1,600.0	1,589.6	1,521.4	1,510.4	8.5	7.6	159.97	-47.5	-298.7	413.5	398.3	15.26	27.108		
1,700.0	1,685.8	1,611.1	1,598.2	8.9	7.9	160.34	-54.2	-315.6	457.7	441.8	15.86	28.850		
1,800.0	1,781.9	1,700.8	1,686.1	9.1	8.2	160.66	-60.8	-332.5	501.9	485.5	16.42	30.568		
1,900.0	1,878.0	1,790.5	1,773.9	9.4	8.4	160.92	-67.4	-349.4	546.1	529.1	16.99	32.145		
2,000.0	1,974.1	1,880.1	1,861.7	9.7	8.7	161.15	-74.1	-366.3	590.2	572.7	17.57	33.594		
2,100.0	2,070.2	1,969.8	1,949.5	10.0	9.0	161.34	-80.7	-383.1	634.4	616.3	18.16	34.929		
2,200.0	2,166.3	2,059.5	2,037.4	10.4	9.3	161.51	-87.3	-400.0	678.6	659.9	18.77	36.156		
2,300.0	2,262.4	2,149.2	2,125.2	10.7	9.7	161.66	-94.0	-416.9	722.9	703.5	19.39	37.288		
2,400.0	2,358.6	2,238.9	2,213.0	11.1	10.0	161.79	-100.6	-433.8	767.1	747.1	20.01	38.332		
2,500.0	2,454.7	2,328.6	2,300.9	11.6	10.4	161.91	-107.2	-450.7	811.3	790.6	20.65	39.297		
2,600.0	2,550.8	2,418.2	2,388.7	12.0	10.7	162.01	-113.9	-467.6	855.5	834.2	21.29	40.189		
2,700.0	2,646.9	2,507.9	2,476.5	12.5	11.1	162.11	-120.5	-484.4	899.7	877.8	21.94	41.015		
2,800.0	2,743.0	2,597.6	2,564.3	13.1	11.5	162.19	-127.1	-501.3	943.9	921.3	22.59	41.782		
2,900.0	2,839.1	2,687.3	2,652.2	13.6	11.9	162.27	-133.7	-518.2	988.2	964.9	23.25	42.494		
3,000.0	2,935.2	2,777.0	2,740.0	14.2	12.3	162.34	-140.4	-535.1	1,032.4	1,008.5	23.92	43.157		
3,100.0	3,031.3	2,866.6	2,827.8	14.7	12.7	162.41	-147.0	-552.0	1,076.6	1,052.0	24.59	43.775		
3,200.0	3,127.5	2,956.3	2,915.7	15.3	13.1	162.47	-153.6	-568.8	1,120.8	1,095.6	25.27	44.351		
3,300.0	3,223.6	3,046.0	3,003.5	15.9	13.6	162.52	-160.3	-585.7	1,165.1	1,139.1	25.95	44.890		
3,400.0	3,319.7	3,135.7	3,091.3	16.5	14.0	162.57	-166.9	-602.6	1,209.3	1,182.6	26.64	45.394		
3,500.0	3,415.8	3,225.4	3,179.2	17.1	14.4	162.62	-173.5	-619.5	1,253.5	1,226.2	27.33	45.867		
3,600.0	3,511.9	3,315.1	3,267.0	17.7	14.9	162.67	-180.2	-636.4	1,297.7	1,269.7	28.02	46.310		
3,700.0	3,608.0	3,404.7	3,354.8	18.3	15.3	162.71	-186.8	-653.3	1,342.0	1,313.2	28.72	46.727		

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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
3,800.0	3,704.1	3,494.4	3,442.6	18.8	15.7	162.75	-193.4	-670.1	1,386.2	1,356.8	29.42	47.119		
3,900.0	3,800.3	3,584.1	3,530.5	19.4	16.2	162.78	-200.1	-687.0	1,430.4	1,400.3	30.12	47.489		
4,000.0	3,896.4	3,673.8	3,618.3	20.0	16.6	162.82	-206.7	-703.9	1,474.7	1,443.8	30.83	47.837		
4,100.0	3,992.5	3,763.5	3,706.1	20.6	17.1	162.85	-213.3	-720.8	1,518.9	1,487.3	31.53	48.166		
4,200.0	4,088.6	3,853.2	3,794.0	21.2	17.5	162.88	-220.0	-737.7	1,563.1	1,530.9	32.24	48.477		
4,300.0	4,184.7	3,942.8	3,881.8	21.8	17.9	162.91	-226.6	-754.6	1,607.3	1,574.4	32.96	48.771		
4,400.0	4,280.8	4,032.5	3,969.6	22.4	18.4	162.94	-233.2	-771.4	1,651.6	1,617.9	33.67	49.049		
4,500.0	4,376.9	4,122.2	4,057.5	23.0	18.8	162.96	-239.9	-788.3	1,695.8	1,661.4	34.39	49.314		
4,600.0	4,473.0	4,211.9	4,145.3	23.6	19.3	162.99	-246.5	-805.2	1,740.0	1,704.9	35.11	49.565		
4,700.0	4,569.2	4,301.6	4,233.1	24.2	19.7	163.01	-253.1	-822.1	1,784.3	1,748.4	35.83	49.803		
4,800.0	4,665.3	4,391.3	4,320.9	24.8	20.2	163.03	-259.8	-839.0	1,828.5	1,792.0	36.55	50.030		
4,900.0	4,761.4	4,480.9	4,408.8	25.4	20.6	163.05	-266.4	-855.9	1,872.7	1,835.5	37.27	50.245		
5,000.0	4,857.5	4,570.6	4,496.6	26.0	21.1	163.07	-273.0	-872.7	1,917.0	1,879.0	38.00	50.451		
5,100.0	4,953.6	4,660.3	4,584.4	26.6	21.5	163.09	-279.7	-889.6	1,961.2	1,922.5	38.72	50.646		
5,200.0	5,049.7	4,750.0	4,672.3	27.2	22.0	163.11	-286.3	-906.5	2,005.4	1,966.0	39.45	50.833		
5,300.0	5,145.8	4,839.7	4,760.1	27.8	22.4	163.13	-292.9	-923.4	2,049.7	2,009.5	40.18	51.012		
5,400.0	5,242.0	4,929.4	4,847.9	28.4	22.8	163.15	-299.6	-940.3	2,093.9	2,053.0	40.91	51.182		
5,500.0	5,338.1	5,019.0	4,935.8	29.0	23.3	163.16	-306.2	-957.1	2,138.1	2,096.5	41.64	51.345		
5,600.0	5,434.2	5,108.7	5,023.6	29.7	23.7	163.18	-312.8	-974.0	2,182.4	2,140.0	42.38	51.501		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.26	-0.6	-135.0	135.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.26	-0.6	-135.0	135.0	134.7	0.28	487.478		
133.3	133.3	133.3	133.3	0.6	0.0	-90.26	-0.6	-135.0	135.0	134.5	0.45	299.663		
200.0	200.0	200.0	200.0	1.0	0.0	-90.26	-0.6	-135.0	135.0	134.2	0.80	169.246		
300.0	300.0	300.0	300.0	1.5	0.0	-90.26	-0.6	-135.0	135.0	133.8	1.22	110.273		
333.3	333.3	333.3	333.3	1.6	0.0	-90.26	-0.6	-135.0	135.0	133.6	1.36	99.593		
400.0	400.0	400.0	400.0	1.9	0.0	-90.26	-0.6	-135.0	135.0	133.4	1.62	83.430		
500.0	500.0	500.0	500.0	2.3	0.0	-90.26	-0.6	-135.0	135.0	133.0	2.00	67.543		
533.3	533.3	533.3	533.3	2.5	0.0	-90.26	-0.6	-135.0	135.0	132.9	2.12	63.580		
600.0	600.0	600.0	600.0	2.7	0.0	-90.26	-0.6	-135.0	135.0	132.6	2.37	56.903		
700.0	700.0	700.0	700.0	3.1	0.0	-90.26	-0.6	-135.0	135.0	132.2	2.74	49.232		
800.0	800.0	800.0	800.0	3.5	0.0	-90.26	-0.6	-135.0	135.0	131.9	3.11	43.419 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	164.11	-0.6	-135.0	136.7	133.0	3.66	37.312		
1,000.0	999.8	996.1	996.1	4.5	0.0	164.23	-1.6	-136.2	143.0	138.5	4.46	32.070		
1,100.0	1,099.5	1,091.5	1,091.3	5.3	0.0	163.89	-4.6	-140.0	155.3	150.1	5.15	30.158		
1,200.0	1,198.7	1,185.5	1,185.1	6.0	0.0	163.23	-9.5	-146.1	173.5	167.7	5.76	30.123 SF		
1,300.0	1,297.5	1,277.8	1,276.7	6.7	0.0	162.37	-16.1	-154.4	197.5	191.2	6.30	31.325		
1,400.0	1,395.6	1,373.5	1,371.5	7.3	0.0	161.63	-24.0	-164.4	226.0	219.2	6.82	33.114		
1,500.0	1,493.1	1,468.3	1,465.5	7.9	0.0	161.25	-31.9	-174.2	257.7	250.4	7.33	35.165		
1,600.0	1,589.6	1,562.0	1,558.4	8.5	0.0	161.11	-39.6	-183.9	292.5	284.7	7.83	37.380		
1,700.0	1,685.8	1,655.1	1,650.7	8.9	0.0	161.29	-47.3	-193.6	329.0	320.8	8.17	40.269		
1,800.0	1,781.9	1,748.3	1,743.0	9.1	0.0	161.44	-55.0	-203.3	365.4	356.9	8.44	43.267		
1,900.0	1,878.0	1,841.4	1,835.3	9.4	0.0	161.56	-62.7	-212.9	401.8	393.1	8.73	46.026		
2,000.0	1,974.1	1,934.5	1,927.6	9.7	0.0	161.67	-70.4	-222.6	438.2	429.2	9.02	48.562		
2,100.0	2,070.2	2,027.7	2,019.9	10.0	0.0	161.75	-78.1	-232.3	474.7	465.3	9.33	50.895		
2,200.0	2,166.3	2,120.8	2,112.2	10.4	0.0	161.83	-85.8	-242.0	511.1	501.4	9.64	53.041		
2,300.0	2,262.4	2,213.9	2,204.5	10.7	0.0	161.89	-93.5	-251.6	547.5	537.6	9.95	55.016		
2,400.0	2,358.6	2,307.0	2,296.9	11.1	0.0	161.95	-101.2	-261.3	583.9	573.7	10.27	56.835		
2,500.0	2,454.7	2,400.2	2,389.2	11.6	0.0	162.00	-108.8	-271.0	620.4	609.8	10.60	58.512		
2,600.0	2,550.8	2,493.3	2,481.5	12.0	0.0	162.04	-116.5	-280.6	656.8	645.9	10.94	60.060		
2,700.0	2,646.9	2,586.4	2,573.8	12.5	0.0	162.08	-124.2	-290.3	693.2	681.9	11.27	61.491		
2,800.0	2,743.0	2,679.6	2,666.1	13.1	0.0	162.11	-131.9	-300.0	729.6	718.0	11.62	62.815		
2,900.0	2,839.1	2,772.7	2,758.4	13.6	0.0	162.15	-139.6	-309.6	766.1	754.1	11.96	64.042		
3,000.0	2,935.2	2,865.8	2,850.7	14.2	0.0	162.18	-147.3	-319.3	802.5	790.2	12.31	65.180		
3,100.0	3,031.3	2,958.9	2,943.0	14.7	0.0	162.20	-155.0	-329.0	838.9	826.3	12.67	66.238		
3,200.0	3,127.5	3,052.1	3,035.3	15.3	0.0	162.23	-162.7	-338.6	875.4	862.3	13.02	67.222		
3,300.0	3,223.6	3,145.2	3,127.6	15.9	0.0	162.25	-170.4	-348.3	911.8	898.4	13.38	68.139		
3,400.0	3,319.7	3,238.3	3,219.9	16.5	0.0	162.27	-178.1	-358.0	948.2	934.5	13.74	68.995		
3,500.0	3,415.8	3,331.5	3,312.2	17.1	0.0	162.29	-185.8	-367.6	984.6	970.5	14.11	69.794		
3,600.0	3,511.9	3,424.6	3,404.5	17.7	0.0	162.31	-193.5	-377.3	1,021.1	1,006.6	14.47	70.542		
3,700.0	3,608.0	3,517.7	3,496.8	18.3	0.0	162.32	-201.2	-387.0	1,057.5	1,042.7	14.84	71.243		
3,800.0	3,704.1	3,610.8	3,589.1	18.8	0.0	162.34	-208.9	-396.6	1,093.9	1,078.7	15.21	71.900		
3,900.0	3,800.3	3,704.0	3,681.4	19.4	0.0	162.35	-216.6	-406.3	1,130.4	1,114.8	15.59	72.517		
4,000.0	3,896.4	3,797.1	3,773.7	20.0	0.0	162.37	-224.3	-416.0	1,166.8	1,150.8	15.96	73.098		
4,100.0	3,992.5	3,890.2	3,866.0	20.6	0.0	162.38	-232.0	-425.6	1,203.2	1,186.9	16.34	73.645		
4,200.0	4,088.6	3,983.3	3,958.3	21.2	0.0	162.39	-239.7	-435.3	1,239.7	1,222.9	16.72	74.160		
4,300.0	4,184.7	4,076.5	4,050.6	21.8	0.0	162.40	-247.4	-445.0	1,276.1	1,259.0	17.10	74.646		
4,400.0	4,280.8	4,169.6	4,142.9	22.4	0.0	162.41	-255.0	-454.6	1,312.5	1,295.0	17.48	75.105		
4,500.0	4,376.9	4,262.7	4,235.3	23.0	0.0	162.42	-262.7	-464.3	1,348.9	1,331.1	17.86	75.539		
4,600.0	4,473.0	4,355.9	4,327.6	23.6	0.0	162.43	-270.4	-474.0	1,385.4	1,367.1	18.24	75.950		
4,700.0	4,569.2	4,449.0	4,419.9	24.2	0.0	162.44	-278.1	-483.6	1,421.8	1,403.2	18.62	76.340		
4,800.0	4,665.3	4,542.1	4,512.2	24.8	0.0	162.45	-285.8	-493.3	1,458.2	1,439.2	19.01	76.709		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,635.2	4,604.5	25.4	0.0	162.46	-293.5	-503.0	1,494.7	1,475.3	19.40	77.060		
5,000.0	4,857.5	4,728.4	4,696.8	26.0	0.0	162.47	-301.2	-512.6	1,531.1	1,511.3	19.78	77.393		
5,100.0	4,953.6	4,821.5	4,789.1	26.6	0.0	162.48	-308.9	-522.3	1,567.5	1,547.3	20.17	77.710		
5,200.0	5,049.7	4,914.6	4,881.4	27.2	0.0	162.48	-316.6	-532.0	1,604.0	1,583.4	20.56	78.012		
5,300.0	5,145.8	5,007.8	4,973.7	27.8	0.0	162.49	-324.3	-541.6	1,640.4	1,619.4	20.95	78.299		
5,400.0	5,242.0	5,100.9	5,066.0	28.4	0.0	162.50	-332.0	-551.3	1,676.8	1,655.5	21.34	78.572		
5,500.0	5,338.1	5,194.0	5,158.3	29.0	0.0	162.50	-339.7	-561.0	1,713.2	1,691.5	21.73	78.833		
5,600.0	5,434.2	5,287.1	5,250.6	29.7	0.0	162.51	-347.4	-570.6	1,749.7	1,727.5	22.12	79.083		
5,700.0	5,530.3	5,380.3	5,342.9	30.3	0.0	162.51	-355.1	-580.3	1,786.1	1,763.6	22.52	79.321		
5,800.0	5,626.4	5,473.4	5,435.2	30.9	0.0	162.52	-362.8	-590.0	1,822.5	1,799.6	22.91	79.548		
5,900.0	5,722.5	5,566.5	5,527.5	31.5	0.0	162.52	-370.5	-599.6	1,859.0	1,835.7	23.31	79.766		
6,000.0	5,818.6	5,659.7	5,619.8	32.1	0.0	162.53	-378.2	-609.3	1,895.4	1,871.7	23.70	79.974		
6,100.0	5,914.7	5,752.8	5,712.1	32.7	0.0	162.53	-385.9	-619.0	1,931.8	1,907.7	24.10	80.174		
6,200.0	6,010.9	5,845.9	5,804.4	33.3	0.0	162.54	-393.5	-628.7	1,968.3	1,943.8	24.49	80.365		
6,300.0	6,107.0	5,939.0	5,896.7	33.9	0.0	162.54	-401.2	-638.3	2,004.7	1,979.8	24.89	80.548		
6,400.0	6,203.1	6,032.2	5,989.0	34.5	0.0	162.55	-408.9	-648.0	2,041.1	2,015.8	25.29	80.723		
6,500.0	6,299.2	6,125.3	6,081.3	35.1	0.0	162.55	-416.6	-657.7	2,077.5	2,051.9	25.68	80.892		
6,600.0	6,395.3	6,218.4	6,173.6	35.7	0.0	162.56	-424.3	-667.3	2,114.0	2,087.9	26.08	81.054		
6,700.0	6,491.4	6,311.5	6,266.0	36.3	0.0	162.56	-432.0	-677.0	2,150.4	2,123.9	26.48	81.209		
6,800.0	6,587.5	6,404.7	6,358.3	36.9	0.0	162.56	-439.7	-686.7	2,186.8	2,160.0	26.88	81.358		
6,900.0	6,683.7	6,497.8	6,450.6	37.5	0.0	162.57	-447.4	-696.3	2,223.3	2,196.0	27.28	81.502		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.26	-0.7	-150.0	150.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.26	-0.7	-150.0	150.0	149.7	0.28	541.649		
133.3	133.3	133.3	133.3	0.6	0.0	-90.26	-0.7	-150.0	150.0	149.5	0.45	332.962		
200.0	200.0	200.0	200.0	1.0	0.0	-90.26	-0.7	-150.0	150.0	149.2	0.80	188.053		
300.0	300.0	300.0	300.0	1.5	0.0	-90.26	-0.7	-150.0	150.0	148.8	1.22	122.527		
333.3	333.3	333.3	333.3	1.6	0.0	-90.26	-0.7	-150.0	150.0	148.6	1.36	110.660		
400.0	400.0	400.0	400.0	1.9	0.0	-90.26	-0.7	-150.0	150.0	148.4	1.62	92.702		
500.0	500.0	500.0	500.0	2.3	0.0	-90.26	-0.7	-150.0	150.0	148.0	2.00	75.049		
533.3	533.3	533.3	533.3	2.5	0.0	-90.26	-0.7	-150.0	150.0	147.9	2.12	70.646		
600.0	600.0	600.0	600.0	2.7	0.0	-90.26	-0.7	-150.0	150.0	147.6	2.37	63.226		
700.0	700.0	700.0	700.0	3.1	0.0	-90.26	-0.7	-150.0	150.0	147.2	2.74	54.702		
800.0	800.0	800.0	800.0	3.5	0.0	-90.26	-0.7	-150.0	150.0	146.9	3.11	48.244 CC, ES		
900.0	900.0	895.4	895.4	3.9	0.0	163.80	-1.4	-151.4	153.1	149.5	3.66	41.786		
1,000.0	999.8	990.3	990.2	4.5	0.0	163.48	-3.6	-155.6	162.6	158.2	4.45	36.516		
1,100.0	1,099.5	1,084.1	1,083.6	5.3	0.0	163.01	-7.1	-162.5	178.3	173.2	5.13	34.769 SF		
1,200.0	1,198.7	1,176.2	1,175.1	6.0	0.0	162.47	-12.0	-171.9	200.2	194.4	5.72	34.971		
1,300.0	1,297.5	1,266.2	1,264.1	6.7	0.0	161.90	-18.1	-183.6	228.0	221.8	6.26	36.440		
1,400.0	1,395.6	1,358.5	1,355.1	7.3	0.0	161.39	-25.3	-197.6	261.1	254.3	6.77	38.583		
1,500.0	1,493.1	1,451.7	1,446.9	7.9	0.0	161.12	-32.6	-211.8	297.4	290.1	7.26	40.935		
1,600.0	1,589.6	1,543.6	1,537.5	8.5	0.0	161.05	-39.8	-225.8	336.7	329.0	7.75	43.426		
1,700.0	1,685.8	1,634.8	1,627.4	8.9	0.0	161.29	-47.0	-239.6	377.6	369.5	8.09	46.670		
1,800.0	1,781.9	1,726.1	1,717.2	9.1	0.0	161.50	-54.2	-253.5	418.6	410.2	8.36	50.045		
1,900.0	1,878.0	1,817.3	1,807.1	9.4	0.0	161.66	-61.3	-267.4	459.5	450.8	8.64	53.153		
2,000.0	1,974.1	1,908.6	1,897.0	9.7	0.0	161.80	-68.5	-281.3	500.4	491.5	8.93	56.015		
2,100.0	2,070.2	1,999.8	1,986.9	10.0	0.0	161.92	-75.7	-295.2	541.3	532.1	9.23	58.650		
2,200.0	2,166.3	2,091.0	2,076.8	10.4	0.0	162.02	-82.8	-309.1	582.3	572.7	9.53	61.076		
2,300.0	2,262.4	2,182.3	2,166.7	10.7	0.0	162.11	-90.0	-323.0	623.2	613.3	9.84	63.311		
2,400.0	2,358.6	2,273.5	2,256.6	11.1	0.0	162.19	-97.2	-336.9	664.1	654.0	10.16	65.371		
2,500.0	2,454.7	2,364.7	2,346.5	11.6	0.0	162.26	-104.4	-350.8	705.0	694.6	10.48	67.273		
2,600.0	2,550.8	2,456.0	2,436.3	12.0	0.0	162.32	-111.5	-364.7	746.0	735.2	10.81	69.030		
2,700.0	2,646.9	2,547.2	2,526.2	12.5	0.0	162.37	-118.7	-378.6	786.9	775.8	11.14	70.654		
2,800.0	2,743.0	2,638.5	2,616.1	13.1	0.0	162.42	-125.9	-392.5	827.8	816.4	11.47	72.159		
2,900.0	2,839.1	2,729.7	2,706.0	13.6	0.0	162.47	-133.1	-406.4	868.8	857.0	11.81	73.554		
3,000.0	2,935.2	2,820.9	2,795.9	14.2	0.0	162.51	-140.2	-420.3	909.7	897.5	12.15	74.850		
3,100.0	3,031.3	2,912.2	2,885.8	14.7	0.0	162.55	-147.4	-434.2	950.6	938.1	12.50	76.054		
3,200.0	3,127.5	3,003.4	2,975.7	15.3	0.0	162.58	-154.6	-448.1	991.6	978.7	12.85	77.175		
3,300.0	3,223.6	3,094.6	3,065.5	15.9	0.0	162.61	-161.8	-462.0	1,032.5	1,019.3	13.20	78.221		
3,400.0	3,319.7	3,185.9	3,155.4	16.5	0.0	162.64	-168.9	-475.9	1,073.4	1,059.9	13.55	79.197		
3,500.0	3,415.8	3,277.1	3,245.3	17.1	0.0	162.67	-176.1	-489.8	1,114.4	1,100.5	13.91	80.109		
3,600.0	3,511.9	3,368.4	3,335.2	17.7	0.0	162.69	-183.3	-503.7	1,155.3	1,141.0	14.27	80.962		
3,700.0	3,608.0	3,459.6	3,425.1	18.3	0.0	162.71	-190.4	-517.6	1,196.2	1,181.6	14.63	81.763		
3,800.0	3,704.1	3,550.8	3,515.0	18.8	0.0	162.74	-197.6	-531.5	1,237.2	1,222.2	14.99	82.513		
3,900.0	3,800.3	3,642.1	3,604.9	19.4	0.0	162.76	-204.8	-545.4	1,278.1	1,262.7	15.36	83.218		
4,000.0	3,896.4	3,733.3	3,694.8	20.0	0.0	162.78	-212.0	-559.3	1,319.0	1,303.3	15.73	83.882		
4,100.0	3,992.5	3,824.5	3,784.6	20.6	0.0	162.79	-219.1	-573.2	1,360.0	1,343.9	16.09	84.506		
4,200.0	4,088.6	3,915.8	3,874.5	21.2	0.0	162.81	-226.3	-587.0	1,400.9	1,384.4	16.46	85.095		
4,300.0	4,184.7	4,007.0	3,964.4	21.8	0.0	162.83	-233.5	-600.9	1,441.8	1,425.0	16.83	85.650		
4,400.0	4,280.8	4,098.2	4,054.3	22.4	0.0	162.84	-240.7	-614.8	1,482.8	1,465.6	17.21	86.175		
4,500.0	4,376.9	4,189.5	4,144.2	23.0	0.0	162.86	-247.8	-628.7	1,523.7	1,506.1	17.58	86.671		
4,600.0	4,473.0	4,280.7	4,234.1	23.6	0.0	162.87	-255.0	-642.6	1,564.7	1,546.7	17.96	87.141		
4,700.0	4,569.2	4,372.0	4,324.0	24.2	0.0	162.88	-262.2	-656.5	1,605.6	1,587.3	18.33	87.586		
4,800.0	4,665.3	4,463.2	4,413.8	24.8	0.0	162.89	-269.4	-670.4	1,646.5	1,627.8	18.71	88.008		

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 19-18-4CDH
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 19-18-4CDH	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
4,900.0	4,761.4	4,554.4	4,503.7	25.4	0.0	162.91	-276.5	-684.3	1,687.5	1,668.4	19.09	88.409	
5,000.0	4,857.5	4,645.7	4,593.6	26.0	0.0	162.92	-283.7	-698.2	1,728.4	1,708.9	19.47	88.789	
5,100.0	4,953.6	4,736.9	4,683.5	26.6	0.0	162.93	-290.9	-712.1	1,769.3	1,749.5	19.85	89.151	
5,200.0	5,049.7	4,828.1	4,773.4	27.2	0.0	162.94	-298.0	-726.0	1,810.3	1,790.0	20.23	89.495	
5,300.0	5,145.8	4,919.4	4,863.3	27.8	0.0	162.95	-305.2	-739.9	1,851.2	1,830.6	20.61	89.822	
5,400.0	5,242.0	5,010.6	4,953.2	28.4	0.0	162.96	-312.4	-753.8	1,892.1	1,871.1	20.99	90.134	
5,500.0	5,338.1	5,101.9	5,043.1	29.0	0.0	162.96	-319.6	-767.7	1,933.1	1,911.7	21.38	90.432	
5,600.0	5,434.2	5,193.1	5,132.9	29.7	0.0	162.97	-326.7	-781.6	1,974.0	1,952.2	21.76	90.716	
5,700.0	5,530.3	5,284.3	5,222.8	30.3	0.0	162.98	-333.9	-795.5	2,014.9	1,992.8	22.15	90.987	
5,800.0	5,626.4	5,375.6	5,312.7	30.9	0.0	162.99	-341.1	-809.4	2,055.9	2,033.4	22.53	91.246	
5,900.0	5,722.5	5,466.8	5,402.6	31.5	0.0	163.00	-348.3	-823.3	2,096.8	2,073.9	22.92	91.493	
6,000.0	5,818.6	5,558.0	5,492.5	32.1	0.0	163.00	-355.4	-837.2	2,137.8	2,114.4	23.30	91.730	
6,100.0	5,914.7	5,649.3	5,582.4	32.7	0.0	163.01	-362.6	-851.1	2,178.7	2,155.0	23.69	91.957	
6,200.0	6,010.9	5,740.5	5,672.3	33.3	0.0	163.02	-369.8	-865.0	2,219.6	2,195.5	24.08	92.173	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.27	-0.8	-165.0	165.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.27	-0.8	-165.0	165.0	164.4	0.55	298.097		
133.3	133.3	133.3	133.3	0.6	0.6	-90.27	-0.8	-165.0	165.0	164.1	0.90	183.196		
200.0	200.0	200.0	200.0	1.0	1.0	-90.27	-0.8	-165.0	165.0	163.4	1.59	103.448		
300.0	300.0	300.0	300.0	1.5	1.5	-90.27	-0.8	-165.0	165.0	162.5	2.45	67.397		
333.3	333.3	333.3	333.3	1.6	1.6	-90.27	-0.8	-165.0	165.0	162.3	2.71	60.868		
400.0	400.0	400.0	400.0	1.9	1.9	-90.27	-0.8	-165.0	165.0	161.7	3.24	50.989		
500.0	500.0	500.0	500.0	2.3	2.3	-90.27	-0.8	-165.0	165.0	161.0	4.00	41.279		
600.0	600.0	600.0	600.0	2.7	2.7	-90.27	-0.8	-165.0	165.0	160.2	4.74	34.776		
700.0	700.0	700.0	700.0	3.1	3.1	-90.27	-0.8	-165.0	165.0	159.5	5.48	30.087 CC, ES		
800.0	800.0	794.9	794.9	3.5	3.4	-90.49	-1.4	-166.4	166.5	160.2	6.26	26.610		
900.0	900.0	889.6	889.4	3.9	4.2	163.20	-3.3	-170.7	172.7	165.0	7.76	22.263		
1,000.0	999.8	983.4	982.9	4.5	5.0	162.63	-6.4	-177.8	185.3	176.0	9.35	19.822		
1,100.0	1,099.5	1,075.7	1,074.7	5.3	5.7	162.05	-10.7	-187.5	204.2	193.5	10.72	19.056 SF		
1,200.0	1,198.7	1,166.2	1,164.1	6.0	6.3	161.50	-16.0	-199.6	229.2	217.3	11.93	19.221		
1,300.0	1,297.5	1,254.2	1,250.8	6.7	6.8	160.98	-22.3	-213.9	260.2	247.3	12.92	20.136		
1,400.0	1,395.6	1,345.7	1,340.4	7.3	7.1	160.56	-29.6	-230.5	296.2	282.5	13.70	21.619		
1,500.0	1,493.1	1,437.7	1,430.6	7.9	7.3	160.35	-37.0	-247.3	335.4	320.9	14.44	23.220		
1,600.0	1,589.6	1,528.4	1,519.4	8.5	7.6	160.29	-44.3	-263.9	377.5	362.3	15.19	24.848		
1,700.0	1,685.8	1,618.3	1,607.5	8.9	7.8	160.57	-51.6	-280.3	421.2	405.4	15.80	26.654		
1,800.0	1,781.9	1,708.2	1,695.7	9.1	8.1	160.81	-58.8	-296.7	464.9	448.5	16.36	28.424		
1,900.0	1,878.0	1,798.2	1,783.8	9.4	8.4	161.01	-66.0	-313.1	508.6	491.7	16.92	30.051		
2,000.0	1,974.1	1,888.1	1,871.9	9.7	8.7	161.17	-73.3	-329.6	552.3	534.8	17.51	31.545		
2,100.0	2,070.2	1,978.0	1,960.1	10.0	9.0	161.31	-80.5	-346.0	596.0	577.9	18.10	32.921		
2,200.0	2,166.3	2,068.0	2,048.2	10.4	9.3	161.43	-87.7	-362.4	639.7	621.0	18.71	34.186		
2,300.0	2,262.4	2,157.9	2,136.3	10.7	9.6	161.54	-95.0	-378.8	683.4	664.1	19.33	35.354		
2,400.0	2,358.6	2,247.8	2,224.4	11.1	9.9	161.63	-102.2	-395.3	727.1	707.1	19.96	36.431		
2,500.0	2,454.7	2,337.8	2,312.6	11.6	10.2	161.72	-109.4	-411.7	770.8	750.2	20.60	37.427		
2,600.0	2,550.8	2,427.7	2,400.7	12.0	10.6	161.79	-116.7	-428.1	814.5	793.3	21.24	38.348		
2,700.0	2,646.9	2,517.7	2,488.8	12.5	11.0	161.86	-123.9	-444.5	858.2	836.3	21.89	39.202		
2,800.0	2,743.0	2,607.6	2,576.9	13.1	11.3	161.92	-131.1	-460.9	902.0	879.4	22.55	39.994		
2,900.0	2,839.1	2,697.5	2,665.1	13.6	11.7	161.97	-138.4	-477.4	945.7	922.5	23.22	40.730		
3,000.0	2,935.2	2,787.5	2,753.2	14.2	12.1	162.02	-145.6	-493.8	989.4	965.5	23.89	41.415		
3,100.0	3,031.3	2,877.4	2,841.3	14.7	12.5	162.07	-152.8	-510.2	1,033.1	1,008.5	24.57	42.054		
3,200.0	3,127.5	2,967.3	2,929.5	15.3	12.9	162.11	-160.1	-526.6	1,076.8	1,051.6	25.25	42.650		
3,300.0	3,223.6	3,057.3	3,017.6	15.9	13.4	162.15	-167.3	-543.1	1,120.5	1,094.6	25.93	43.208		
3,400.0	3,319.7	3,147.2	3,105.7	16.5	13.8	162.18	-174.5	-559.5	1,164.3	1,137.6	26.62	43.729		
3,500.0	3,415.8	3,237.1	3,193.8	17.1	14.2	162.22	-181.8	-575.9	1,208.0	1,180.6	27.32	44.219		
3,600.0	3,511.9	3,327.1	3,282.0	17.7	14.6	162.25	-189.0	-592.3	1,251.7	1,223.7	28.02	44.678		
3,700.0	3,608.0	3,417.0	3,370.1	18.3	15.1	162.27	-196.2	-608.7	1,295.4	1,266.7	28.72	45.110		
3,800.0	3,704.1	3,506.9	3,458.2	18.8	15.5	162.30	-203.5	-625.2	1,339.1	1,309.7	29.42	45.516		
3,900.0	3,800.3	3,596.9	3,546.3	19.4	15.9	162.33	-210.7	-641.6	1,382.8	1,352.7	30.13	45.899		
4,000.0	3,896.4	3,686.8	3,634.5	20.0	16.4	162.35	-217.9	-658.0	1,426.6	1,395.7	30.84	46.260		
4,100.0	3,992.5	3,776.8	3,722.6	20.6	16.8	162.37	-225.2	-674.4	1,470.3	1,438.7	31.55	46.601		
4,200.0	4,088.6	3,866.7	3,810.7	21.2	17.3	162.39	-232.4	-690.9	1,514.0	1,481.7	32.26	46.924		
4,300.0	4,184.7	3,956.6	3,898.9	21.8	17.7	162.41	-239.6	-707.3	1,557.7	1,524.7	32.98	47.229		
4,400.0	4,280.8	4,046.6	3,987.0	22.4	18.1	162.43	-246.9	-723.7	1,601.4	1,567.7	33.70	47.519		
4,500.0	4,376.9	4,136.5	4,075.1	23.0	18.6	162.45	-254.1	-740.1	1,645.2	1,610.7	34.42	47.793		
4,600.0	4,473.0	4,226.4	4,163.2	23.6	19.0	162.47	-261.3	-756.5	1,688.9	1,653.7	35.15	48.054		
4,700.0	4,569.2	4,316.4	4,251.4	24.2	19.5	162.48	-268.6	-773.0	1,732.6	1,696.7	35.87	48.302		
4,800.0	4,665.3	4,406.3	4,339.5	24.8	19.9	162.50	-275.8	-789.4	1,776.3	1,739.7	36.60	48.538		
4,900.0	4,761.4	4,496.2	4,427.6	25.4	20.3	162.51	-283.0	-805.8	1,820.0	1,782.7	37.32	48.762		

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 19-18-4CDH
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 19-18-4CDH	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	
5,000.0	4,857.5	4,586.2	4,515.7	26.0	20.8	162.52	-290.3	-822.2	1,863.8	1,825.7	38.05	48.976	
5,100.0	4,953.6	4,676.1	4,603.9	26.6	21.2	162.54	-297.5	-838.7	1,907.5	1,868.7	38.79	49.180	
5,200.0	5,049.7	4,766.0	4,692.0	27.2	21.7	162.55	-304.7	-855.1	1,951.2	1,911.7	39.52	49.375	
5,300.0	5,145.8	4,856.0	4,780.1	27.8	22.1	162.56	-311.9	-871.5	1,994.9	1,954.7	40.25	49.561	
5,400.0	5,242.0	4,945.9	4,868.3	28.4	22.6	162.57	-319.2	-887.9	2,038.6	1,997.6	40.99	49.738	
5,500.0	5,338.1	5,035.9	4,956.4	29.0	23.0	162.58	-326.4	-904.3	2,082.4	2,040.6	41.72	49.908	
5,600.0	5,434.2	5,125.8	5,044.5	29.7	23.5	162.59	-333.6	-920.8	2,126.1	2,083.6	42.46	50.071	
5,700.0	5,530.3	5,215.7	5,132.6	30.3	23.9	162.60	-340.9	-937.2	2,169.8	2,126.6	43.20	50.227	
5,800.0	5,626.4	5,305.7	5,220.8	30.9	24.3	162.61	-348.1	-953.6	2,213.5	2,169.6	43.94	50.377	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.27	-0.6	-120.0	120.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.27	-0.6	-120.0	120.0	119.7	0.28	433.268		
133.3	133.3	133.3	133.3	0.6	0.0	-90.27	-0.6	-120.0	120.0	119.5	0.45	266.340		
200.0	200.0	200.0	200.0	1.0	0.0	-90.27	-0.6	-120.0	120.0	119.2	0.80	150.426		
300.0	300.0	300.0	300.0	1.5	0.0	-90.27	-0.6	-120.0	120.0	118.8	1.22	98.012		
333.3	333.3	333.3	333.3	1.6	0.0	-90.27	-0.6	-120.0	120.0	118.6	1.36	88.519		
400.0	400.0	400.0	400.0	1.9	0.0	-90.27	-0.6	-120.0	120.0	118.4	1.62	74.154		
500.0	500.0	500.0	500.0	2.3	0.0	-90.27	-0.6	-120.0	120.0	118.0	2.00	60.033		
533.3	533.3	533.3	533.3	2.5	0.0	-90.27	-0.6	-120.0	120.0	117.9	2.12	56.511		
600.0	600.0	600.0	600.0	2.7	0.0	-90.27	-0.6	-120.0	120.0	117.6	2.37	50.576		
700.0	700.0	700.0	700.0	3.1	0.0	-90.27	-0.6	-120.0	120.0	117.2	2.74	43.758		
800.0	800.0	800.0	800.0	3.5	0.0	-90.27	-0.6	-120.0	120.0	116.9	3.11	38.592 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	164.13	-0.6	-120.0	121.7	118.0	3.66	33.217		
1,000.0	999.8	999.8	999.8	4.5	0.0	164.76	-0.6	-120.0	126.7	122.2	4.46	28.397		
1,100.0	1,099.5	1,096.8	1,096.8	5.3	0.0	165.08	-1.9	-120.9	136.1	130.9	5.17	26.333		
1,200.0	1,198.7	1,193.0	1,192.8	6.0	0.0	164.64	-5.8	-123.8	150.8	145.0	5.80	26.004		
1,300.0	1,297.5	1,288.2	1,287.7	6.7	0.0	163.66	-12.2	-128.5	170.7	164.3	6.36	26.827		
1,400.0	1,395.6	1,385.2	1,384.3	7.3	0.0	162.81	-19.8	-134.0	194.6	187.7	6.89	28.232		
1,500.0	1,493.1	1,481.5	1,480.1	7.9	0.0	162.38	-27.3	-139.5	221.8	214.4	7.41	29.945		
1,600.0	1,589.6	1,576.7	1,574.9	8.5	0.0	162.23	-34.7	-144.9	252.2	244.3	7.91	31.860		
1,700.0	1,685.8	1,671.5	1,669.2	8.9	0.0	162.38	-42.1	-150.3	284.2	275.9	8.26	34.393		
1,800.0	1,781.9	1,766.2	1,763.5	9.1	0.0	162.50	-49.5	-155.7	316.2	307.6	8.54	37.022		
1,900.0	1,878.0	1,861.0	1,857.8	9.4	0.0	162.60	-56.9	-161.1	348.2	339.3	8.83	39.443		
2,000.0	1,974.1	1,955.7	1,952.1	9.7	0.0	162.68	-64.3	-166.5	380.2	371.0	9.12	41.669		
2,100.0	2,070.2	2,050.4	2,046.4	10.0	0.0	162.75	-71.7	-171.9	412.2	402.7	9.43	43.717		
2,200.0	2,166.3	2,145.2	2,140.7	10.4	0.0	162.81	-79.1	-177.3	444.2	434.4	9.74	45.601		
2,300.0	2,262.4	2,239.9	2,235.0	10.7	0.0	162.86	-86.5	-182.7	476.2	466.1	10.06	47.336		
2,400.0	2,358.6	2,334.7	2,329.3	11.1	0.0	162.90	-93.8	-188.0	508.2	497.8	10.39	48.934		
2,500.0	2,454.7	2,429.4	2,423.6	11.6	0.0	162.94	-101.2	-193.4	540.2	529.5	10.72	50.408		
2,600.0	2,550.8	2,524.1	2,517.9	12.0	0.0	162.98	-108.6	-198.8	572.2	561.1	11.05	51.769		
2,700.0	2,646.9	2,618.9	2,612.2	12.5	0.0	163.01	-116.0	-204.2	604.2	592.8	11.39	53.027		
2,800.0	2,743.0	2,713.6	2,706.5	13.1	0.0	163.04	-123.4	-209.6	636.2	624.5	11.74	54.191		
2,900.0	2,839.1	2,808.3	2,800.8	13.6	0.0	163.06	-130.8	-215.0	668.2	656.1	12.09	55.271		
3,000.0	2,935.2	2,903.1	2,895.1	14.2	0.0	163.08	-138.2	-220.4	700.2	687.8	12.44	56.272		
3,100.0	3,031.3	2,997.8	2,989.4	14.7	0.0	163.11	-145.6	-225.8	732.2	719.4	12.80	57.203		
3,200.0	3,127.5	3,092.6	3,083.7	15.3	0.0	163.13	-153.0	-231.2	764.2	751.1	13.16	58.070		
3,300.0	3,223.6	3,187.3	3,178.0	15.9	0.0	163.14	-160.3	-236.6	796.2	782.7	13.52	58.877		
3,400.0	3,319.7	3,282.0	3,272.3	16.5	0.0	163.16	-167.7	-242.0	828.2	814.3	13.89	59.631		
3,500.0	3,415.8	3,376.8	3,366.5	17.1	0.0	163.17	-175.1	-247.3	860.2	846.0	14.26	60.336		
3,600.0	3,511.9	3,471.5	3,460.8	17.7	0.0	163.19	-182.5	-252.7	892.2	877.6	14.63	60.995		
3,700.0	3,608.0	3,566.3	3,555.1	18.3	0.0	163.20	-189.9	-258.1	924.2	909.2	15.00	61.613		
3,800.0	3,704.1	3,661.0	3,649.4	18.8	0.0	163.21	-197.3	-263.5	956.2	940.9	15.38	62.193		
3,900.0	3,800.3	3,755.7	3,743.7	19.4	0.0	163.23	-204.7	-268.9	988.3	972.5	15.75	62.738		
4,000.0	3,896.4	3,850.5	3,838.0	20.0	0.0	163.24	-212.1	-274.3	1,020.3	1,004.1	16.13	63.250		
4,100.0	3,992.5	3,945.2	3,932.3	20.6	0.0	163.25	-219.4	-279.7	1,052.3	1,035.8	16.51	63.733		
4,200.0	4,088.6	4,040.0	4,026.6	21.2	0.0	163.26	-226.8	-285.1	1,084.3	1,067.4	16.89	64.188		
4,300.0	4,184.7	4,134.7	4,120.9	21.8	0.0	163.26	-234.2	-290.5	1,116.3	1,099.0	17.28	64.618		
4,400.0	4,280.8	4,229.4	4,215.2	22.4	0.0	163.27	-241.6	-295.9	1,148.3	1,130.6	17.66	65.024		
4,500.0	4,376.9	4,324.2	4,309.5	23.0	0.0	163.28	-249.0	-301.3	1,180.3	1,162.2	18.05	65.408		
4,600.0	4,473.0	4,418.9	4,403.8	23.6	0.0	163.29	-256.4	-306.7	1,212.3	1,193.9	18.43	65.772		
4,700.0	4,569.2	4,513.7	4,498.1	24.2	0.0	163.30	-263.8	-312.0	1,244.3	1,225.5	18.82	66.116		
4,800.0	4,665.3	4,608.4	4,592.4	24.8	0.0	163.30	-271.2	-317.4	1,276.3	1,257.1	19.21	66.444		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,703.1	4,686.7	25.4	0.0	163.31	-278.5	-322.8	1,308.3	1,288.7	19.60	66.754		
5,000.0	4,857.5	4,797.9	4,781.0	26.0	0.0	163.32	-285.9	-328.2	1,340.3	1,320.3	19.99	67.050		
5,100.0	4,953.6	4,892.6	4,875.3	26.6	0.0	163.32	-293.3	-333.6	1,372.3	1,351.9	20.38	67.331		
5,200.0	5,049.7	4,987.4	4,969.6	27.2	0.0	163.33	-300.7	-339.0	1,404.3	1,383.6	20.77	67.599		
5,300.0	5,145.8	5,082.1	5,063.9	27.8	0.0	163.33	-308.1	-344.4	1,436.3	1,415.2	21.17	67.854		
5,400.0	5,242.0	5,176.8	5,158.2	28.4	0.0	163.34	-315.5	-349.8	1,468.3	1,446.8	21.56	68.097		
5,500.0	5,338.1	5,271.6	5,252.5	29.0	0.0	163.34	-322.9	-355.2	1,500.3	1,478.4	21.96	68.329		
5,600.0	5,434.2	5,366.3	5,346.8	29.7	0.0	163.35	-330.3	-360.6	1,532.3	1,510.0	22.35	68.551		
5,700.0	5,530.3	5,461.1	5,441.1	30.3	0.0	163.35	-337.7	-366.0	1,564.4	1,541.6	22.75	68.763		
5,800.0	5,626.4	5,555.8	5,535.4	30.9	0.0	163.36	-345.0	-371.3	1,596.4	1,573.2	23.15	68.966		
5,900.0	5,722.5	5,650.5	5,629.7	31.5	0.0	163.36	-352.4	-376.7	1,628.4	1,604.8	23.54	69.160		
6,000.0	5,818.6	5,745.3	5,724.0	32.1	0.0	163.36	-359.8	-382.1	1,660.4	1,636.4	23.94	69.346		
6,100.0	5,914.7	5,840.0	5,818.3	32.7	0.0	163.37	-367.2	-387.5	1,692.4	1,668.0	24.34	69.524		
6,200.0	6,010.9	5,934.8	5,912.6	33.3	0.0	163.37	-374.6	-392.9	1,724.4	1,699.6	24.74	69.695		
6,300.0	6,107.0	6,029.5	6,006.9	33.9	0.0	163.38	-382.0	-398.3	1,756.4	1,731.2	25.14	69.859		
6,400.0	6,203.1	6,124.2	6,101.2	34.5	0.0	163.38	-389.4	-403.7	1,788.4	1,762.9	25.54	70.016		
6,500.0	6,299.2	6,219.0	6,195.5	35.1	0.0	163.38	-396.8	-409.1	1,820.4	1,794.5	25.94	70.167		
6,600.0	6,395.3	6,313.7	6,289.8	35.7	0.0	163.39	-404.1	-414.5	1,852.4	1,826.1	26.35	70.312		
6,700.0	6,491.4	6,408.5	6,384.1	36.3	0.0	163.39	-411.5	-419.9	1,884.4	1,857.7	26.75	70.452		
6,800.0	6,587.5	6,503.2	6,478.4	36.9	0.0	163.39	-418.9	-425.3	1,916.4	1,889.3	27.15	70.586		
6,900.0	6,683.7	6,597.9	6,572.7	37.5	0.0	163.39	-426.3	-430.6	1,948.4	1,920.9	27.55	70.715		
7,000.0	6,779.8	6,692.7	6,667.0	38.1	0.0	163.40	-433.7	-436.0	1,980.4	1,952.5	27.96	70.840		
7,100.0	6,875.9	6,787.4	6,761.3	38.7	0.0	163.40	-441.1	-441.4	2,012.4	1,984.1	28.36	70.959		
7,200.0	6,972.0	6,882.2	6,855.5	39.4	0.0	163.40	-448.5	-446.8	2,044.4	2,015.7	28.76	71.075		
7,300.0	7,068.2	6,976.8	6,949.8	40.0	0.0	-177.21	-455.9	-452.2	2,076.4	2,047.3	29.16	71.200		
7,400.0	7,164.1	7,070.0	7,042.5	40.6	0.0	-142.49	-463.1	-457.5	2,108.1	2,078.5	29.61	71.201		
7,500.0	7,257.0	7,165.9	7,138.1	41.0	0.0	-121.58	-463.1	-463.0	2,138.7	2,108.5	30.18	70.868		
7,600.0	7,344.0	7,267.5	7,237.9	41.4	0.0	-109.66	-445.6	-468.7	2,167.4	2,136.7	30.64	70.729		
7,700.0	7,422.5	7,375.9	7,339.2	41.7	0.0	-102.30	-407.9	-474.6	2,193.3	2,162.3	30.98	70.795		
7,800.0	7,490.1	7,492.5	7,438.2	41.9	0.0	-97.50	-346.8	-480.3	2,215.6	2,184.4	31.23	70.945		
7,900.0	7,617.0	7,629.8	7,662.0	50.1	0.0	-91.16	1,720.0	-495.4	2,223.0	2,177.4	45.56	48.791		
9,900.0	7,617.0	9,729.7	7,662.0	51.1	0.0	-91.16	1,820.0	-495.5	2,221.1	2,174.2	46.85	47.409		
10,000.0	7,617.0	9,829.7	7,662.0	52.3	0.0	-91.16	1,920.0	-495.6	2,219.1	2,171.0	48.17	46.072		
10,100.0	7,617.0	9,929.7	7,662.0	53.5	0.0	-91.16	2,019.9	-495.7	2,217.2	2,167.7	49.51	44.781		
10,200.0	7,617.0	10,029.7	7,662.0	54.7	0.0	-91.16	2,119.9	-495.9	2,215.3	2,164.4	50.88	43.535		
10,300.0	7,617.0	10,129.7	7,662.0	55.9	0.0	-91.17	2,219.9	-496.0	2,213.4	2,161.1	52.28	42.336		
10,400.0	7,617.0	10,229.7	7,662.0	57.2	0.0	-91.17	2,319.9	-496.1	2,211.4	2,157.7	53.70	41.182		
10,500.0	7,617.0	10,329.6	7,662.0	58.5	0.0	-91.17	2,419.9	-496.2	2,209.5	2,154.4	55.14	40.073		
10,600.0	7,617.0	10,429.6	7,662.0	59.9	0.0	-91.17	2,519.8	-496.3	2,207.6	2,151.0	56.59	39.007		
10,700.0	7,617.0	10,529.6	7,662.0	61.2	0.0	-91.17	2,619.8	-496.4	2,205.6	2,147.6	58.07	37.983		
10,800.0	7,617.0	10,629.6	7,662.0	62.6	0.0	-91.17	2,719.8	-496.5	2,203.7	2,144.2	59.56	37.001		
10,900.0	7,617.0	10,729.6	7,662.0	64.0	0.0	-91.17	2,819.8	-496.6	2,201.8	2,140.7	61.06	36.057		
11,000.0	7,617.0	10,829.5	7,662.0	65.5	0.0	-91.17	2,919.8	-496.7	2,199.9	2,137.3	62.58	35.151		
11,100.0	7,617.0	10,929.5	7,662.0	66.9	0.0	-91.17	3,019.8	-496.9	2,197.9	2,133.8	64.12	34.281		
11,200.0	7,617.0	11,029.5	7,662.0	68.4	0.0	-91.17	3,119.7	-497.0	2,196.0	2,130.3	65.66	33.445		
11,300.0	7,617.0	11,129.5	7,662.0	69.8	0.0	-91.18	3,219.7	-497.1	2,194.1	2,126.9	67.21	32.643		
11,400.0	7,617.0	11,229.5	7,662.0	71.3	0.0	-91.18	3,319.7	-497.2	2,192.1	2,123.4	68.78	31.872		
11,500.0	7,617.0	11,329.5	7,662.0	72.8	0.0	-91.18	3,419.7	-497.3	2,190.2	2,119.9	70.36	31.131		
11,600.0	7,617.0	11,429.4	7,662.0	74.4	0.0	-91.18	3,519.7	-497.4	2,188.3	2,116.3	71.94	30.418		
11,700.0	7,617.0	11,529.4	7,662.0	75.9	0.0	-91.18	3,619.6	-497.5	2,186.3	2,112.8	73.53	29.733		
11,800.0	7,617.0	11,629.4	7,662.0	77.4	0.0	-91.18	3,719.6	-497.6	2,184.4	2,109.3	75.13	29.074		
11,900.0	7,617.0	11,729.4	7,662.0	79.0	0.0	-91.18	3,819.6	-497.7	2,182.5	2,105.7	76.74	28.440		

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 19-18-4CDH
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 19-18-4CDH	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		
12,000.0	7,617.0	11,829.4	7,662.0	80.5	0.0	-91.18	3,919.6	-497.9	2,180.6	2,102.2	78.36	27.829		
12,100.0	7,617.0	11,929.3	7,662.0	82.1	0.0	-91.18	4,019.6	-498.0	2,178.6	2,098.7	79.98	27.241		
12,200.0	7,617.0	12,029.3	7,662.0	83.7	0.0	-91.18	4,119.5	-498.1	2,176.7	2,095.1	81.60	26.674		
12,300.0	7,617.0	12,129.3	7,662.0	85.3	0.0	-91.19	4,219.5	-498.2	2,174.8	2,091.5	83.24	26.127		
12,400.0	7,617.0	12,229.3	7,662.0	86.9	0.0	-91.19	4,319.5	-498.3	2,172.8	2,088.0	84.88	25.600		
12,500.0	7,617.0	12,329.3	7,662.0	88.5	0.0	-91.19	4,419.5	-498.4	2,170.9	2,084.4	86.52	25.091		
12,600.0	7,617.0	12,429.2	7,662.0	90.1	0.0	-91.19	4,519.5	-498.5	2,169.0	2,080.8	88.17	24.600		
12,700.0	7,617.0	12,529.2	7,662.0	91.7	0.0	-91.19	4,619.5	-498.6	2,167.1	2,077.2	89.82	24.126		
12,800.0	7,617.0	12,629.2	7,662.0	93.3	0.0	-91.19	4,719.4	-498.7	2,165.1	2,073.6	91.48	23.667		
12,900.0	7,617.0	12,729.2	7,662.0	94.9	0.0	-91.19	4,819.4	-498.9	2,163.2	2,070.1	93.14	23.224		
13,000.0	7,617.0	12,829.2	7,662.0	96.5	0.0	-91.19	4,919.4	-499.0	2,161.3	2,066.5	94.81	22.796		
13,100.0	7,617.0	12,929.2	7,662.0	98.2	0.0	-91.19	5,019.4	-499.1	2,159.3	2,062.9	96.48	22.381		
13,200.0	7,617.0	13,029.1	7,662.0	99.8	0.0	-91.20	5,119.4	-499.2	2,157.4	2,059.3	98.15	21.980		
13,300.0	7,617.0	13,129.1	7,662.0	101.4	0.0	-91.20	5,219.3	-499.3	2,155.5	2,055.6	99.83	21.592		
13,400.0	7,617.0	13,229.1	7,662.0	103.1	0.0	-91.20	5,319.3	-499.4	2,153.5	2,052.0	101.51	21.216		
13,500.0	7,617.0	13,329.1	7,662.0	104.7	0.0	-91.20	5,419.3	-499.5	2,151.6	2,048.4	103.19	20.851		
13,600.0	7,617.0	13,429.1	7,662.0	106.4	0.0	-91.20	5,519.3	-499.6	2,149.7	2,044.8	104.88	20.498		
13,700.0	7,617.0	13,529.0	7,662.0	108.1	0.0	-91.20	5,619.3	-499.8	2,147.8	2,041.2	106.56	20.155		
13,800.0	7,617.0	13,629.0	7,662.0	109.7	0.0	-91.20	5,719.2	-499.9	2,145.8	2,037.6	108.25	19.822		
13,900.0	7,617.0	13,729.0	7,662.0	111.4	0.0	-91.20	5,819.2	-500.0	2,143.9	2,034.0	109.95	19.499		
14,000.0	7,617.0	13,829.0	7,662.0	113.0	0.0	-91.20	5,919.2	-500.1	2,142.0	2,030.3	111.64	19.186		
14,100.0	7,617.0	13,929.0	7,662.0	114.7	0.0	-91.21	6,019.2	-500.2	2,140.0	2,026.7	113.34	18.881		
14,200.0	7,617.0	14,028.9	7,662.0	116.4	0.0	-91.21	6,119.2	-500.3	2,138.1	2,023.1	115.04	18.586		
14,300.0	7,617.0	14,128.9	7,662.0	118.1	0.0	-91.21	6,219.2	-500.4	2,136.2	2,019.4	116.74	18.298		
14,400.0	7,617.0	14,228.9	7,662.0	119.7	0.0	-91.21	6,319.1	-500.5	2,134.3	2,015.8	118.45	18.019		
14,500.0	7,617.0	14,328.9	7,662.0	121.4	0.0	-91.21	6,419.1	-500.6	2,132.3	2,012.2	120.15	17.747		
14,600.0	7,617.0	14,428.9	7,662.0	123.1	0.0	-91.21	6,519.1	-500.8	2,130.4	2,008.5	121.86	17.482		
14,700.0	7,617.0	14,528.9	7,662.0	124.8	0.0	-91.21	6,619.1	-500.9	2,128.5	2,004.9	123.57	17.225		
14,800.0	7,617.0	14,628.8	7,662.0	126.5	0.0	-91.21	6,719.1	-501.0	2,126.5	2,001.3	125.28	16.974		
14,900.0	7,617.0	14,728.8	7,662.0	128.2	0.0	-91.21	6,819.0	-501.1	2,124.6	1,997.6	126.99	16.730		
15,000.0	7,617.0	14,828.8	7,662.0	129.9	0.0	-91.21	6,919.0	-501.2	2,122.7	1,994.0	128.71	16.492		
15,100.0	7,617.0	14,928.8	7,662.0	131.6	0.0	-91.22	7,019.0	-501.3	2,120.7	1,990.3	130.42	16.260		
15,200.0	7,617.0	15,028.8	7,662.0	133.3	0.0	-91.22	7,119.0	-501.4	2,118.8	1,986.7	132.14	16.035		
15,300.0	7,617.0	15,128.7	7,662.0	135.0	0.0	-91.22	7,219.0	-501.5	2,116.9	1,983.0	133.86	15.814		
15,400.0	7,617.0	15,228.7	7,662.0	136.7	0.0	-91.22	7,319.0	-501.6	2,115.0	1,979.4	135.58	15.599		
15,500.0	7,617.0	15,328.7	7,662.0	138.4	0.0	-91.22	7,418.9	-501.8	2,113.0	1,975.7	137.30	15.390		
15,600.0	7,617.0	15,428.7	7,662.0	140.1	0.0	-91.22	7,518.9	-501.9	2,111.1	1,972.1	139.02	15.185		
15,700.0	7,617.0	15,528.7	7,662.0	141.8	0.0	-91.22	7,618.9	-502.0	2,109.2	1,968.4	140.75	14.986		
15,800.0	7,617.0	15,628.7	7,662.0	143.5	0.0	-91.22	7,718.9	-502.1	2,107.2	1,964.8	142.47	14.791		
15,900.0	7,617.0	15,728.6	7,662.0	145.2	0.0	-91.22	7,818.9	-502.2	2,105.3	1,961.1	144.20	14.600		
16,000.0	7,617.0	15,828.6	7,662.0	146.9	0.0	-91.23	7,918.8	-502.3	2,103.4	1,957.5	145.92	14.414		
16,100.0	7,617.0	15,928.6	7,662.0	148.6	0.0	-91.23	8,018.8	-502.4	2,101.5	1,953.8	147.65	14.233		
16,200.0	7,617.0	16,028.6	7,662.0	150.3	0.0	-91.23	8,118.8	-502.5	2,099.5	1,950.1	149.38	14.055		
16,300.0	7,617.0	16,128.6	7,662.0	152.0	0.0	-91.23	8,218.8	-502.6	2,097.6	1,946.5	151.11	13.881		
16,400.0	7,617.0	16,228.5	7,662.0	153.8	0.0	-91.23	8,318.8	-502.8	2,095.7	1,942.8	152.84	13.712		
16,500.0	7,617.0	16,328.5	7,662.0	155.5	0.0	-91.23	8,418.7	-502.9	2,093.7	1,939.2	154.57	13.545		
16,600.0	7,617.0	16,428.5	7,662.0	157.2	0.0	-91.23	8,518.7	-503.0	2,091.8	1,935.5	156.30	13.383		
16,700.0	7,617.0	16,528.5	7,662.0	158.9	0.0	-91.23	8,618.7	-503.1	2,089.9	1,931.8	158.04	13.224		
16,800.0	7,617.0	16,628.5	7,662.0	160.6	0.0	-91.24	8,718.7	-503.2	2,087.9	1,928.2	159.77	13.068		
16,900.0	7,617.0	16,728.4	7,662.0	162.4	0.0	-91.24	8,818.7	-503.3	2,086.0	1,924.5	161.51	12.916		
17,000.0	7,617.0	16,828.4	7,662.0	164.1	0.0	-91.24	8,918.7	-503.4	2,084.1	1,920.8	163.24	12.767		
17,100.0	7,617.0	16,928.4	7,662.0	165.8	0.0	-91.24	9,018.6	-503.5	2,082.2	1,917.2	164.98	12.621		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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
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
17,200.0	7,617.0	17,028.4	7,662.0	167.5	0.0	-91.24	9,118.6	-503.6	2,080.2	1,913.5	166.71	12.478	
17,300.0	7,617.0	17,128.4	7,662.0	169.2	0.0	-91.24	9,218.6	-503.8	2,078.7	1,910.3	168.45	12.341	
17,300.0	7,617.0	17,128.4	7,662.0	169.2	0.0	-91.24	9,218.6	-503.8	2,078.7	1,910.3	168.45	12.341	
17,400.0	7,617.0	17,228.3	7,662.0	171.0	0.0	-91.24	9,318.6	-503.9	2,080.8	1,910.6	170.18	12.227	
17,500.0	7,617.0	17,328.1	7,662.0	172.7	0.0	-91.24	9,418.4	-504.0	2,087.0	1,915.1	171.90	12.141	
17,600.0	7,617.0	17,427.6	7,662.0	174.4	0.0	-91.24	9,517.8	-504.1	2,097.4	1,923.8	173.60	12.082	
17,700.0	7,617.0	17,526.5	7,662.0	176.1	0.0	-91.24	9,616.8	-504.2	2,111.9	1,936.6	175.28	12.049	
17,800.0	7,617.0	17,624.8	7,662.0	177.8	0.0	-91.24	9,715.0	-504.3	2,130.5	1,953.5	176.92	12.042 SF	
17,900.0	7,617.0	17,722.2	7,662.0	179.4	0.0	-91.24	9,812.4	-504.4	2,153.1	1,974.6	178.53	12.060	
18,000.0	7,617.0	17,799.6	7,662.0	181.1	0.0	-91.23	9,889.8	-504.5	2,179.8	1,999.8	179.93	12.114	
18,014.8	7,617.0	17,799.6	7,662.0	181.3	0.0	-91.23	9,889.8	-504.5	2,184.0	2,004.0	180.02	12.132	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.23	-0.3	-75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.23	-0.3	-75.0	75.0	74.7	0.28	270.970		
133.3	133.3	133.3	133.3	0.6	0.0	-90.23	-0.3	-75.0	75.0	74.6	0.45	166.565		
200.0	200.0	200.0	200.0	1.0	0.0	-90.23	-0.3	-75.0	75.0	74.2	0.80	94.072		
300.0	300.0	300.0	300.0	1.5	0.0	-90.23	-0.3	-75.0	75.0	73.8	1.22	61.290		
333.3	333.3	333.3	333.3	1.6	0.0	-90.23	-0.3	-75.0	75.0	73.6	1.36	55.353		
400.0	400.0	400.0	400.0	1.9	0.0	-90.23	-0.3	-75.0	75.0	73.4	1.62	46.369		
500.0	500.0	500.0	500.0	2.3	0.0	-90.23	-0.3	-75.0	75.0	73.0	2.00	37.538		
533.3	533.3	533.3	533.3	2.5	0.0	-90.23	-0.3	-75.0	75.0	72.9	2.12	35.335		
600.0	600.0	600.0	600.0	2.7	0.0	-90.23	-0.3	-75.0	75.0	72.6	2.37	31.624		
700.0	700.0	700.0	700.0	3.1	0.0	-90.23	-0.3	-75.0	75.0	72.3	2.74	27.360		
800.0	800.0	800.0	800.0	3.5	0.0	-90.23	-0.3	-75.0	75.0	71.9	3.11	24.130 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	164.30	-0.3	-75.0	76.7	73.0	3.66	20.947		
1,000.0	999.8	999.8	999.8	4.5	0.0	165.27	-0.3	-75.0	81.7	77.3	4.46	18.317		
1,100.0	1,099.5	1,099.5	1,099.5	5.3	0.0	166.64	-0.3	-75.0	90.2	85.0	5.18	17.398		
1,200.0	1,198.7	1,198.7	1,198.7	6.0	0.0	168.17	-0.3	-75.0	102.1	96.2	5.86	17.427		
1,300.0	1,297.5	1,297.5	1,297.5	6.7	0.0	169.68	-0.3	-75.0	117.4	111.0	6.50	18.076		
1,400.0	1,395.6	1,398.8	1,398.8	7.3	0.0	170.57	-1.7	-74.0	135.1	128.0	7.10	19.020		
1,500.0	1,493.1	1,500.6	1,500.4	7.9	0.0	170.47	-5.9	-70.8	153.8	146.1	7.67	20.059		
1,600.0	1,589.6	1,602.6	1,602.1	8.5	0.0	169.69	-13.1	-65.4	173.5	165.3	8.20	21.156		
1,700.0	1,685.8	1,700.7	1,699.6	8.9	0.0	168.82	-21.5	-59.1	193.6	185.1	8.53	22.691		
1,800.0	1,781.9	1,798.6	1,796.9	9.1	0.0	168.11	-29.9	-52.8	213.8	205.0	8.79	24.329		
1,900.0	1,878.0	1,896.5	1,894.3	9.4	0.0	167.53	-38.3	-46.5	234.0	225.0	9.06	25.834		
2,000.0	1,974.1	1,994.5	1,991.6	9.7	0.0	167.03	-46.7	-40.3	254.3	244.9	9.34	27.215		
2,100.0	2,070.2	2,092.4	2,089.0	10.0	0.0	166.61	-55.1	-34.0	274.5	264.9	9.64	28.481		
2,200.0	2,166.3	2,190.3	2,186.3	10.4	0.0	166.25	-63.4	-27.7	294.7	284.8	9.94	29.641		
2,300.0	2,262.4	2,288.2	2,283.7	10.7	0.0	165.94	-71.8	-21.4	315.0	304.7	10.26	30.705		
2,400.0	2,358.6	2,386.1	2,381.0	11.1	0.0	165.66	-80.2	-15.1	335.3	324.7	10.58	31.679		
2,500.0	2,454.7	2,484.0	2,478.4	11.6	0.0	165.42	-88.6	-8.8	355.6	344.6	10.92	32.574		
2,600.0	2,550.8	2,581.9	2,575.7	12.0	0.0	165.20	-97.0	-2.5	375.8	364.6	11.25	33.395		
2,700.0	2,646.9	2,679.8	2,673.1	12.5	0.0	165.00	-105.4	3.8	396.1	384.5	11.60	34.150		
2,800.0	2,743.0	2,777.8	2,770.4	13.1	0.0	164.82	-113.8	10.1	416.4	404.5	11.95	34.845		
2,900.0	2,839.1	2,875.7	2,867.8	13.6	0.0	164.66	-122.2	16.4	436.7	424.4	12.31	35.486		
3,000.0	2,935.2	2,973.6	2,965.1	14.2	0.0	164.52	-130.6	22.7	457.0	444.3	12.67	36.077		
3,100.0	3,031.3	3,071.5	3,062.5	14.7	0.0	164.38	-139.0	29.0	477.3	464.3	13.03	36.624		
3,200.0	3,127.5	3,169.4	3,159.8	15.3	0.0	164.26	-147.4	35.2	497.6	484.2	13.40	37.131		
3,300.0	3,223.6	3,267.3	3,257.2	15.9	0.0	164.14	-155.8	41.5	517.9	504.1	13.77	37.600		
3,400.0	3,319.7	3,365.2	3,354.5	16.5	0.0	164.04	-164.2	47.8	538.2	524.1	14.15	38.036		
3,500.0	3,415.8	3,463.1	3,451.9	17.1	0.0	163.94	-172.5	54.1	558.5	544.0	14.53	38.441		
3,600.0	3,511.9	3,561.1	3,549.2	17.7	0.0	163.85	-180.9	60.4	578.8	563.9	14.91	38.819		
3,700.0	3,608.0	3,659.0	3,646.6	18.3	0.0	163.77	-189.3	66.7	599.1	583.8	15.30	39.171		
3,800.0	3,704.1	3,756.9	3,743.9	18.8	0.0	163.69	-197.7	73.0	619.5	603.8	15.68	39.500		
3,900.0	3,800.3	3,854.8	3,841.3	19.4	0.0	163.62	-206.1	79.3	639.8	623.7	16.07	39.808		
4,000.0	3,896.4	3,952.7	3,938.6	20.0	0.0	163.55	-214.5	85.6	660.1	643.6	16.46	40.096		
4,100.0	3,992.5	4,050.6	4,036.0	20.6	0.0	163.48	-222.9	91.9	680.4	663.5	16.86	40.367		
4,200.0	4,088.6	4,148.5	4,133.3	21.2	0.0	163.42	-231.3	98.2	700.7	683.5	17.25	40.621		
4,300.0	4,184.7	4,246.4	4,230.7	21.8	0.0	163.36	-239.7	104.4	721.0	703.4	17.65	40.859		
4,400.0	4,280.8	4,344.4	4,328.0	22.4	0.0	163.31	-248.1	110.7	741.3	723.3	18.04	41.084		
4,500.0	4,376.9	4,442.3	4,425.4	23.0	0.0	163.25	-256.5	117.0	761.7	743.2	18.44	41.296		
4,600.0	4,473.0	4,540.2	4,522.7	23.6	0.0	163.21	-264.9	123.3	782.0	763.1	18.84	41.496		
4,700.0	4,569.2	4,638.1	4,620.1	24.2	0.0	163.16	-273.3	129.6	802.3	783.0	19.25	41.685		
4,800.0	4,665.3	4,736.0	4,717.4	24.8	0.0	163.11	-281.6	135.9	822.6	803.0	19.65	41.863		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,833.9	4,814.8	25.4	0.0	163.07	-290.0	142.2	842.9	822.9	20.05	42.032		
5,000.0	4,857.5	4,931.8	4,912.1	26.0	0.0	163.03	-298.4	148.5	863.3	842.8	20.46	42.192		
5,100.0	4,953.6	5,029.7	5,009.5	26.6	0.0	162.99	-306.8	154.8	883.6	862.7	20.87	42.344		
5,200.0	5,049.7	5,127.6	5,106.8	27.2	0.0	162.96	-315.2	161.1	903.9	882.6	21.27	42.489		
5,300.0	5,145.8	5,225.6	5,204.2	27.8	0.0	162.92	-323.6	167.4	924.2	902.5	21.68	42.626		
5,400.0	5,242.0	5,323.5	5,301.5	28.4	0.0	162.89	-332.0	173.6	944.5	922.4	22.09	42.756		
5,500.0	5,338.1	5,421.4	5,398.8	29.0	0.0	162.86	-340.4	179.9	964.9	942.4	22.50	42.881		
5,600.0	5,434.2	5,519.3	5,496.2	29.7	0.0	162.83	-348.8	186.2	985.2	962.3	22.91	42.999		
5,700.0	5,530.3	5,617.2	5,593.5	30.3	0.0	162.80	-357.2	192.5	1,005.5	982.2	23.32	43.112		
5,800.0	5,626.4	5,715.1	5,690.9	30.9	0.0	162.77	-365.6	198.8	1,025.8	1,002.1	23.74	43.220		
5,900.0	5,722.5	5,813.0	5,788.2	31.5	0.0	162.74	-374.0	205.1	1,046.1	1,022.0	24.15	43.323		
6,000.0	5,818.6	5,910.9	5,885.6	32.1	0.0	162.71	-382.4	211.4	1,066.5	1,041.9	24.56	43.421		
6,100.0	5,914.7	6,008.9	5,982.9	32.7	0.0	162.69	-390.7	217.7	1,086.8	1,061.8	24.97	43.515		
6,200.0	6,010.9	6,106.8	6,080.3	33.3	0.0	162.67	-399.1	224.0	1,107.1	1,081.7	25.39	43.605		
6,300.0	6,107.0	6,204.7	6,177.6	33.9	0.0	162.64	-407.5	230.3	1,127.4	1,101.6	25.80	43.691		
6,400.0	6,203.1	6,302.6	6,275.0	34.5	0.0	162.62	-415.9	236.6	1,147.8	1,121.5	26.22	43.774		
6,500.0	6,299.2	6,400.5	6,372.3	35.1	0.0	162.60	-424.3	242.8	1,168.1	1,141.4	26.64	43.853		
6,600.0	6,395.3	6,498.4	6,469.7	35.7	0.0	162.58	-432.7	249.1	1,188.4	1,161.3	27.05	43.929		
6,700.0	6,491.4	6,596.3	6,567.0	36.3	0.0	162.56	-441.1	255.4	1,208.7	1,181.3	27.47	44.002		
6,800.0	6,587.5	6,694.2	6,664.4	36.9	0.0	162.54	-449.5	261.7	1,229.0	1,201.2	27.89	44.073		
6,900.0	6,683.7	6,792.2	6,761.7	37.5	0.0	162.52	-457.9	268.0	1,249.4	1,221.1	28.30	44.140		
7,000.0	6,779.8	6,892.3	6,861.5	38.1	0.0	162.76	-460.8	274.4	1,269.6	1,240.9	28.70	44.235		
7,100.0	6,875.9	6,988.5	6,956.5	38.7	0.0	163.71	-447.4	280.4	1,289.9	1,260.9	29.01	44.468		
7,200.0	6,972.0	7,075.7	7,039.6	39.4	0.0	165.15	-421.7	285.5	1,310.9	1,281.7	29.22	44.859		
7,300.0	7,068.2	7,150.0	7,106.6	40.0	0.0	-174.35	-390.1	289.5	1,333.6	1,304.2	29.36	45.416		
7,400.0	7,164.1	7,225.5	7,170.0	40.6	0.0	-138.58	-349.4	293.2	1,357.3	1,327.8	29.55	45.929		
7,500.0	7,257.0	7,300.0	7,226.8	41.0	0.0	-116.48	-301.3	296.4	1,381.0	1,351.1	29.86	46.244		
7,600.0	7,344.0	7,364.6	7,270.6	41.4	0.0	-103.58	-253.9	298.8	1,403.4	1,373.4	30.04	46.723		
7,700.0	7,422.5	7,432.1	7,310.4	41.7	0.0	-95.28	-199.5	300.9	1,423.8	1,393.7	30.10	47.308		
7,800.0	7,490.1	7,500.0	7,343.7	41.9	0.0	-89.64	-140.4	302.6	1,441.3	1,411.2	30.10	47.886		
7,900.0	7,544.8	7,564.5	7,368.7	42.1	0.0	-85.80	-81.0	303.7	1,455.3	1,425.2	30.09	48.365		
8,000.0	7,584.9	7,630.0	7,387.2	42.2	0.0	-83.30	-18.1	304.4	1,465.1	1,435.0	30.11	48.661		
8,100.0	7,609.2	7,700.0	7,398.8	42.2	0.0	-81.93	50.8	304.5	1,470.6	1,440.4	30.19	48.714		
8,200.0	7,617.0	7,760.9	7,402.0	42.1	0.0	-81.60	111.6	304.2	1,471.4	1,441.1	30.34	48.496		
8,300.0	7,617.0	7,860.1	7,402.0	42.1	0.0	-81.59	210.8	303.4	1,470.2	1,439.6	30.58	48.083		
8,400.0	7,617.0	7,960.1	7,402.0	42.2	0.0	-81.58	310.8	302.6	1,469.0	1,438.1	30.91	47.522		
8,500.0	7,617.0	8,060.1	7,402.0	42.3	0.0	-81.58	410.7	301.8	1,467.8	1,436.5	31.34	46.831		
8,600.0	7,617.0	8,160.1	7,402.0	42.4	0.0	-81.57	510.7	300.9	1,466.6	1,434.7	31.86	46.027		
8,700.0	7,617.0	8,260.0	7,402.0	42.7	0.0	-81.56	610.7	300.1	1,465.4	1,432.9	32.47	45.129		
8,800.0	7,617.0	8,360.0	7,402.0	42.9	0.0	-81.56	710.7	299.3	1,464.2	1,431.0	33.16	44.154		
8,900.0	7,617.0	8,460.0	7,402.0	43.3	0.0	-81.55	810.7	298.4	1,463.0	1,429.1	33.93	43.122		
9,000.0	7,617.0	8,560.0	7,402.0	43.7	0.0	-81.54	910.7	297.6	1,461.8	1,427.0	34.76	42.049		
9,100.0	7,617.0	8,660.0	7,402.0	44.3	0.0	-81.53	1,010.7	296.8	1,460.6	1,424.9	35.67	40.949		
9,200.0	7,617.0	8,760.0	7,402.0	44.9	0.0	-81.53	1,110.7	296.0	1,459.4	1,422.8	36.63	39.837		
9,300.0	7,617.0	8,860.0	7,402.0	45.5	0.0	-81.52	1,210.7	295.1	1,458.2	1,420.5	37.66	38.723		
9,400.0	7,617.0	8,960.0	7,402.0	46.3	0.0	-81.51	1,310.6	294.3	1,457.0	1,418.3	38.73	37.617		
9,500.0	7,617.0	9,060.0	7,402.0	47.1	0.0	-81.51	1,410.6	293.5	1,455.8	1,415.9	39.86	36.527		
9,600.0	7,617.0	9,160.0	7,402.0	48.1	0.0	-81.50	1,510.6	292.7	1,454.6	1,413.6	41.02	35.458		
9,700.0	7,617.0	9,260.0	7,402.0	49.0	0.0	-81.49	1,610.6	291.8	1,453.4	1,411.2	42.23	34.415		
9,800.0	7,617.0	9,360.0	7,402.0	50.1	0.0	-81.49	1,710.6	291.0	1,452.2	1,408.7	43.48	33.402		
9,900.0	7,617.0	9,460.0	7,402.0	51.1	0.0	-81.48	1,810.6	290.2	1,451.0	1,406.2	44.75	32.421		
10,000.0	7,617.0	9,560.0	7,402.0	52.3	0.0	-81.47	1,910.6	289.4	1,449.8	1,403.7	46.06	31.473		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	9,659.9	7,402.0	53.5	0.0	-81.46	2,010.6	288.5	1,448.6	1,401.2	47.40	30.559		
10,200.0	7,617.0	9,759.9	7,402.0	54.7	0.0	-81.46	2,110.6	287.7	1,447.4	1,398.6	48.77	29.679		
10,300.0	7,617.0	9,859.9	7,402.0	55.9	0.0	-81.45	2,210.5	286.9	1,446.2	1,396.0	50.16	28.833		
10,400.0	7,617.0	9,959.9	7,402.0	57.2	0.0	-81.44	2,310.5	286.1	1,445.0	1,393.4	51.57	28.021		
10,500.0	7,617.0	10,059.9	7,402.0	58.5	0.0	-81.44	2,410.5	285.2	1,443.8	1,390.8	53.00	27.241		
10,600.0	7,617.0	10,159.9	7,402.0	59.9	0.0	-81.43	2,510.5	284.4	1,442.6	1,388.1	54.45	26.494		
10,700.0	7,617.0	10,259.9	7,402.0	61.2	0.0	-81.42	2,610.5	283.6	1,441.4	1,385.5	55.92	25.777		
10,800.0	7,617.0	10,359.9	7,402.0	62.6	0.0	-81.41	2,710.5	282.7	1,440.2	1,382.8	57.40	25.090		
10,900.0	7,617.0	10,459.9	7,402.0	64.0	0.0	-81.41	2,810.5	281.9	1,439.0	1,380.1	58.90	24.431		
11,000.0	7,617.0	10,559.9	7,402.0	65.5	0.0	-81.40	2,910.5	281.1	1,437.8	1,377.4	60.41	23.800		
11,100.0	7,617.0	10,659.9	7,402.0	66.9	0.0	-81.39	3,010.5	280.3	1,436.6	1,374.6	61.93	23.195		
11,200.0	7,617.0	10,759.9	7,402.0	68.4	0.0	-81.38	3,110.5	279.4	1,435.4	1,371.9	63.47	22.615		
11,300.0	7,617.0	10,859.9	7,402.0	69.8	0.0	-81.38	3,210.4	278.6	1,434.2	1,369.1	65.02	22.058		
11,400.0	7,617.0	10,959.8	7,402.0	71.3	0.0	-81.37	3,310.4	277.8	1,433.0	1,366.4	66.57	21.524		
11,500.0	7,617.0	11,059.8	7,402.0	72.8	0.0	-81.36	3,410.4	277.0	1,431.8	1,363.6	68.14	21.012		
11,600.0	7,617.0	11,159.8	7,402.0	74.4	0.0	-81.36	3,510.4	276.1	1,430.6	1,360.8	69.72	20.520		
11,700.0	7,617.0	11,259.8	7,402.0	75.9	0.0	-81.35	3,610.4	275.3	1,429.4	1,358.1	71.30	20.047		
11,800.0	7,617.0	11,359.8	7,402.0	77.4	0.0	-81.34	3,710.4	274.5	1,428.2	1,355.3	72.89	19.593		
11,900.0	7,617.0	11,459.8	7,402.0	79.0	0.0	-81.33	3,810.4	273.7	1,427.0	1,352.5	74.49	19.157		
12,000.0	7,617.0	11,559.8	7,402.0	80.5	0.0	-81.33	3,910.4	272.8	1,425.8	1,349.7	76.09	18.737		
12,100.0	7,617.0	11,659.8	7,402.0	82.1	0.0	-81.32	4,010.4	272.0	1,424.6	1,346.9	77.71	18.333		
12,200.0	7,617.0	11,759.8	7,402.0	83.7	0.0	-81.31	4,110.3	271.2	1,423.4	1,344.0	79.32	17.944		
12,300.0	7,617.0	11,859.8	7,402.0	85.3	0.0	-81.30	4,210.3	270.4	1,422.2	1,341.2	80.95	17.569		
12,400.0	7,617.0	11,959.8	7,402.0	86.9	0.0	-81.30	4,310.3	269.5	1,421.0	1,338.4	82.57	17.208		
12,500.0	7,617.0	12,059.8	7,402.0	88.5	0.0	-81.29	4,410.3	268.7	1,419.8	1,335.5	84.21	16.860		
12,600.0	7,617.0	12,159.8	7,402.0	90.1	0.0	-81.28	4,510.3	267.9	1,418.6	1,332.7	85.84	16.525		
12,700.0	7,617.0	12,259.8	7,402.0	91.7	0.0	-81.27	4,610.3	267.0	1,417.4	1,329.9	87.49	16.201		
12,800.0	7,617.0	12,359.7	7,402.0	93.3	0.0	-81.27	4,710.3	266.2	1,416.2	1,327.0	89.13	15.888		
12,900.0	7,617.0	12,459.7	7,402.0	94.9	0.0	-81.26	4,810.3	265.4	1,415.0	1,324.2	90.78	15.586		
13,000.0	7,617.0	12,559.7	7,402.0	96.5	0.0	-81.25	4,910.3	264.6	1,413.7	1,321.3	92.43	15.295		
13,100.0	7,617.0	12,659.7	7,402.0	98.2	0.0	-81.24	5,010.2	263.7	1,412.5	1,318.5	94.09	15.013		
13,200.0	7,617.0	12,759.7	7,402.0	99.8	0.0	-81.24	5,110.2	262.9	1,411.3	1,315.6	95.75	14.740		
13,300.0	7,617.0	12,859.7	7,402.0	101.4	0.0	-81.23	5,210.2	262.1	1,410.1	1,312.7	97.41	14.476		
13,400.0	7,617.0	12,959.7	7,402.0	103.1	0.0	-81.22	5,310.2	261.3	1,408.9	1,309.9	99.08	14.220		
13,500.0	7,617.0	13,059.7	7,402.0	104.7	0.0	-81.21	5,410.2	260.4	1,407.7	1,307.0	100.75	13.973		
13,600.0	7,617.0	13,159.7	7,402.0	106.4	0.0	-81.21	5,510.2	259.6	1,406.5	1,304.1	102.42	13.733		
13,700.0	7,617.0	13,259.7	7,402.0	108.1	0.0	-81.20	5,610.2	258.8	1,405.3	1,301.2	104.10	13.500		
13,800.0	7,617.0	13,359.7	7,402.0	109.7	0.0	-81.19	5,710.2	258.0	1,404.1	1,298.4	105.77	13.275		
13,900.0	7,617.0	13,459.7	7,402.0	111.4	0.0	-81.18	5,810.2	257.1	1,402.9	1,295.5	107.45	13.056		
14,000.0	7,617.0	13,559.7	7,402.0	113.0	0.0	-81.18	5,910.1	256.3	1,401.7	1,292.6	109.13	12.844		
14,100.0	7,617.0	13,659.6	7,402.0	114.7	0.0	-81.17	6,010.1	255.5	1,400.5	1,289.7	110.82	12.638		
14,200.0	7,617.0	13,759.6	7,402.0	116.4	0.0	-81.16	6,110.1	254.6	1,399.3	1,286.8	112.50	12.438		
14,300.0	7,617.0	13,859.6	7,402.0	118.1	0.0	-81.15	6,210.1	253.8	1,398.1	1,284.0	114.19	12.244		
14,400.0	7,617.0	13,959.6	7,402.0	119.7	0.0	-81.15	6,310.1	253.0	1,396.9	1,281.1	115.88	12.055		
14,500.0	7,617.0	14,059.6	7,402.0	121.4	0.0	-81.14	6,410.1	252.2	1,395.7	1,278.2	117.57	11.872		
14,600.0	7,617.0	14,159.6	7,402.0	123.1	0.0	-81.13	6,510.1	251.3	1,394.5	1,275.3	119.26	11.693		
14,700.0	7,617.0	14,259.6	7,402.0	124.8	0.0	-81.12	6,610.1	250.5	1,393.3	1,272.4	120.95	11.520		
14,800.0	7,617.0	14,359.6	7,402.0	126.5	0.0	-81.12	6,710.1	249.7	1,392.1	1,269.5	122.65	11.350		
14,900.0	7,617.0	14,459.6	7,402.0	128.2	0.0	-81.11	6,810.1	248.9	1,390.9	1,266.6	124.35	11.186		
15,000.0	7,617.0	14,559.6	7,402.0	129.9	0.0	-81.10	6,910.0	248.0	1,389.7	1,263.7	126.05	11.026		
15,100.0	7,617.0	14,659.6	7,402.0	131.6	0.0	-81.09	7,010.0	247.2	1,388.5	1,260.8	127.75	10.870		
15,200.0	7,617.0	14,759.6	7,402.0	133.3	0.0	-81.08	7,110.0	246.4	1,387.3	1,257.9	129.45	10.718		

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	14,859.6	7,402.0	135.0	0.0	-81.08	7,210.0	245.6	1,386.1	1,255.0	131.15	10.569		
15,400.0	7,617.0	14,959.6	7,402.0	136.7	0.0	-81.07	7,310.0	244.7	1,384.9	1,252.1	132.85	10.425		
15,500.0	7,617.0	15,059.5	7,402.0	138.4	0.0	-81.06	7,410.0	243.9	1,383.7	1,249.2	134.56	10.284		
15,600.0	7,617.0	15,159.5	7,402.0	140.1	0.0	-81.05	7,510.0	243.1	1,382.5	1,246.3	136.26	10.146		
15,700.0	7,617.0	15,259.5	7,402.0	141.8	0.0	-81.05	7,610.0	242.3	1,381.3	1,243.4	137.97	10.012		
15,800.0	7,617.0	15,359.5	7,402.0	143.5	0.0	-81.04	7,710.0	241.4	1,380.1	1,240.5	139.68	9.881		
15,900.0	7,617.0	15,459.5	7,402.0	145.2	0.0	-81.03	7,809.9	240.6	1,378.9	1,237.6	141.38	9.753		
16,000.0	7,617.0	15,559.5	7,402.0	146.9	0.0	-81.02	7,909.9	239.8	1,377.7	1,234.6	143.09	9.628		
16,100.0	7,617.0	15,659.5	7,402.0	148.6	0.0	-81.01	8,009.9	238.9	1,376.5	1,231.7	144.80	9.506		
16,200.0	7,617.0	15,759.5	7,402.0	150.3	0.0	-81.01	8,109.9	238.1	1,375.3	1,228.8	146.51	9.387		
16,300.0	7,617.0	15,859.5	7,402.0	152.0	0.0	-81.00	8,209.9	237.3	1,374.1	1,225.9	148.23	9.271		
16,400.0	7,617.0	15,959.5	7,402.0	153.8	0.0	-80.99	8,309.9	236.5	1,372.9	1,223.0	149.94	9.157		
16,500.0	7,617.0	16,059.5	7,402.0	155.5	0.0	-80.98	8,409.9	235.6	1,371.7	1,220.1	151.65	9.045		
16,600.0	7,617.0	16,159.5	7,402.0	157.2	0.0	-80.97	8,509.9	234.8	1,370.5	1,217.2	153.37	8.936		
16,700.0	7,617.0	16,259.5	7,402.0	158.9	0.0	-80.97	8,609.9	234.0	1,369.3	1,214.3	155.08	8.830		
16,800.0	7,617.0	16,359.4	7,402.0	160.6	0.0	-80.96	8,709.8	233.2	1,368.1	1,211.3	156.80	8.726		
16,900.0	7,617.0	16,459.4	7,402.0	162.4	0.0	-80.95	8,809.8	232.3	1,366.9	1,208.4	158.51	8.624		
17,000.0	7,617.0	16,559.4	7,402.0	164.1	0.0	-80.94	8,909.8	231.5	1,365.7	1,205.5	160.23	8.524		
17,100.0	7,617.0	16,659.4	7,402.0	165.8	0.0	-80.93	9,009.8	230.7	1,364.5	1,202.6	161.95	8.426		
17,200.0	7,617.0	16,759.4	7,402.0	167.5	0.0	-80.93	9,109.8	229.9	1,363.3	1,199.7	163.67	8.330		
17,284.3	7,617.0	16,843.7	7,402.0	169.0	0.0	-80.92	9,194.1	229.2	1,363.0	1,197.9	165.11	8.255		
17,300.0	7,617.0	16,859.4	7,402.0	169.2	0.0	-80.92	9,209.8	229.0	1,362.6	1,197.2	165.38	8.239		
17,400.0	7,617.0	16,959.4	7,402.0	171.0	0.0	-80.93	9,309.7	228.2	1,365.3	1,198.2	167.11	8.170		
17,500.0	7,617.0	17,059.1	7,402.0	172.7	0.0	-80.95	9,409.5	227.4	1,372.2	1,203.4	168.84	8.127		
17,600.0	7,617.0	17,158.5	7,402.0	174.4	0.0	-80.98	9,508.9	226.6	1,383.1	1,212.6	170.56	8.110 SF		
17,700.0	7,617.0	17,257.3	7,402.0	176.1	0.0	-81.02	9,607.7	225.7	1,398.1	1,225.9	172.26	8.116		
17,800.0	7,617.0	17,355.4	7,402.0	177.8	0.0	-81.07	9,705.8	224.9	1,417.2	1,243.3	173.95	8.147		
17,900.0	7,617.0	17,452.7	7,402.0	179.4	0.0	-81.13	9,803.0	224.1	1,440.3	1,264.7	175.61	8.201		
18,000.0	7,617.0	17,548.9	7,402.0	181.1	0.0	-81.22	9,899.2	223.3	1,467.2	1,290.0	177.25	8.278		
18,014.8	7,617.0	17,551.4	7,402.0	181.3	0.0	-81.22	9,901.8	223.3	1,471.5	1,294.1	177.32	8.298		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.26	-0.4	-90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.26	-0.4	-90.0	90.0	89.5	0.55	162.654		
133.3	133.3	133.3	133.3	0.6	0.6	-90.26	-0.4	-90.0	90.0	89.1	0.90	99.958		
200.0	200.0	200.0	200.0	1.0	1.0	-90.26	-0.4	-90.0	90.0	88.4	1.59	56.444		
300.0	300.0	300.0	300.0	1.5	1.5	-90.26	-0.4	-90.0	90.0	87.6	2.45	36.773		
333.3	333.3	333.3	333.3	1.6	1.6	-90.26	-0.4	-90.0	90.0	87.3	2.71	33.210		
400.0	400.0	400.0	400.0	1.9	1.9	-90.26	-0.4	-90.0	90.0	86.8	3.24	27.820		
500.0	500.0	500.0	500.0	2.3	2.3	-90.26	-0.4	-90.0	90.0	86.0	4.00	22.522		
533.3	533.3	533.3	533.3	2.5	2.5	-90.26	-0.4	-90.0	90.0	85.8	4.25	21.200		
600.0	600.0	600.0	600.0	2.7	2.7	-90.26	-0.4	-90.0	90.0	85.3	4.74	18.973		
700.0	700.0	700.0	700.0	3.1	3.1	-90.26	-0.4	-90.0	90.0	84.5	5.48	16.415		
800.0	800.0	800.0	800.0	3.5	3.5	-90.26	-0.4	-90.0	90.0	83.8	6.22	14.477 CC, ES		
900.0	900.0	900.0	900.0	3.9	3.9	164.22	-0.4	-90.0	91.7	84.6	7.13	12.858		
1,000.0	999.8	999.8	999.8	4.5	4.2	165.04	-0.4	-90.0	96.7	88.4	8.28	11.680		
1,100.0	1,099.5	1,099.5	1,099.5	5.3	4.6	166.22	-0.4	-90.0	105.2	95.8	9.34	11.257		
1,200.0	1,198.7	1,198.7	1,198.7	6.0	5.0	167.59	-0.4	-90.0	117.0	106.7	10.35	11.309		
1,300.0	1,297.5	1,298.1	1,298.1	6.7	5.3	168.27	-2.1	-89.9	132.1	120.8	11.28	11.717		
1,400.0	1,395.6	1,397.2	1,397.0	7.3	6.0	167.73	-7.2	-89.5	150.1	137.9	12.16	12.347		
1,500.0	1,493.1	1,495.2	1,494.7	7.9	6.3	166.57	-15.0	-89.0	171.1	158.1	13.00	13.160		
1,600.0	1,589.6	1,592.2	1,591.4	8.5	6.6	165.80	-23.1	-88.4	195.4	181.5	13.84	14.112		
1,700.0	1,685.8	1,688.7	1,687.6	8.9	6.9	165.41	-31.1	-87.9	221.3	206.8	14.52	15.239		
1,800.0	1,781.9	1,785.3	1,783.8	9.1	7.2	165.10	-39.1	-87.3	247.3	232.2	15.13	16.341		
1,900.0	1,878.0	1,881.8	1,880.0	9.4	7.6	164.85	-47.1	-86.8	273.3	257.5	15.76	17.340		
2,000.0	1,974.1	1,978.4	1,976.3	9.7	7.9	164.64	-55.1	-86.2	299.3	282.9	16.40	18.247		
2,100.0	2,070.2	2,075.0	2,072.5	10.0	8.2	164.47	-63.1	-85.7	325.3	308.2	17.06	19.072		
2,200.0	2,166.3	2,171.5	2,168.7	10.4	8.6	164.32	-71.2	-85.1	351.3	333.6	17.72	19.823		
2,300.0	2,262.4	2,268.1	2,264.9	10.7	8.9	164.20	-79.2	-84.6	377.3	358.9	18.40	20.510		
2,400.0	2,358.6	2,364.6	2,361.1	11.1	9.2	164.09	-87.2	-84.0	403.3	384.2	19.08	21.138		
2,500.0	2,454.7	2,461.2	2,457.4	11.6	9.6	163.99	-95.2	-83.4	429.3	409.5	19.77	21.713		
2,600.0	2,550.8	2,557.7	2,553.6	12.0	9.9	163.90	-103.2	-82.9	455.3	434.8	20.47	22.242		
2,700.0	2,646.9	2,654.3	2,649.8	12.5	10.3	163.83	-111.2	-82.3	481.3	460.1	21.18	22.729		
2,800.0	2,743.0	2,750.9	2,746.0	13.1	10.6	163.76	-119.2	-81.8	507.3	485.4	21.89	23.178		
2,900.0	2,839.1	2,847.4	2,842.3	13.6	11.0	163.69	-127.3	-81.2	533.3	510.7	22.61	23.593		
3,000.0	2,935.2	2,944.0	2,938.5	14.2	11.3	163.64	-135.3	-80.7	559.3	536.0	23.33	23.977		
3,100.0	3,031.3	3,040.5	3,034.7	14.7	11.7	163.59	-143.3	-80.1	585.3	561.3	24.05	24.334		
3,200.0	3,127.5	3,137.1	3,130.9	15.3	12.0	163.54	-151.3	-79.6	611.4	586.6	24.79	24.666		
3,300.0	3,223.6	3,233.6	3,227.1	15.9	12.4	163.50	-159.3	-79.0	637.4	611.8	25.52	24.975		
3,400.0	3,319.7	3,330.2	3,323.4	16.5	12.7	163.46	-167.3	-78.5	663.4	637.1	26.26	25.263		
3,500.0	3,415.8	3,426.8	3,419.6	17.1	13.1	163.42	-175.4	-77.9	689.4	662.4	27.00	25.533		
3,600.0	3,511.9	3,523.3	3,515.8	17.7	13.4	163.39	-183.4	-77.3	715.4	687.7	27.74	25.786		
3,700.0	3,608.0	3,619.9	3,612.0	18.3	13.8	163.35	-191.4	-76.8	741.4	712.9	28.49	26.022		
3,800.0	3,704.1	3,716.4	3,708.3	18.8	14.1	163.32	-199.4	-76.2	767.4	738.2	29.24	26.245		
3,900.0	3,800.3	3,813.0	3,804.5	19.4	14.5	163.30	-207.4	-75.7	793.4	763.4	29.99	26.454		
4,000.0	3,896.4	3,909.5	3,900.7	20.0	14.8	163.27	-215.4	-75.1	819.4	788.7	30.75	26.651		
4,100.0	3,992.5	4,006.1	3,996.9	20.6	15.2	163.25	-223.5	-74.6	845.4	813.9	31.50	26.837		
4,200.0	4,088.6	4,102.7	4,093.1	21.2	15.6	163.22	-231.5	-74.0	871.5	839.2	32.26	27.012		
4,300.0	4,184.7	4,199.2	4,189.4	21.8	15.9	163.20	-239.5	-73.5	897.5	864.4	33.02	27.178		
4,400.0	4,280.8	4,295.8	4,285.6	22.4	16.3	163.18	-247.5	-72.9	923.5	889.7	33.78	27.335		
4,500.0	4,376.9	4,392.3	4,381.8	23.0	16.6	163.16	-255.5	-72.4	949.5	914.9	34.55	27.484		
4,600.0	4,473.0	4,488.9	4,478.0	23.6	17.0	163.14	-263.5	-71.8	975.5	940.2	35.31	27.626		
4,700.0	4,569.2	4,585.5	4,574.3	24.2	17.4	163.13	-271.5	-71.2	1,001.5	965.4	36.08	27.760		
4,800.0	4,665.3	4,682.0	4,670.5	24.8	17.7	163.11	-279.6	-70.7	1,027.5	990.7	36.84	27.888		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,778.6	4,766.7	25.4	18.1	163.10	-287.6	-70.1	1,053.5	1,015.9	37.61	28.010		
5,000.0	4,857.5	4,875.1	4,862.9	26.0	18.5	163.08	-295.6	-69.6	1,079.6	1,041.2	38.38	28.126		
5,100.0	4,953.6	4,971.7	4,959.2	26.6	18.8	163.07	-303.6	-69.0	1,105.6	1,066.4	39.15	28.236		
5,200.0	5,049.7	5,068.2	5,055.4	27.2	19.2	163.05	-311.6	-68.5	1,131.6	1,091.7	39.93	28.342		
5,300.0	5,145.8	5,164.8	5,151.6	27.8	19.6	163.04	-319.6	-67.9	1,157.6	1,116.9	40.70	28.443		
5,400.0	5,242.0	5,261.4	5,247.8	28.4	19.9	163.03	-327.7	-67.4	1,183.6	1,142.1	41.47	28.540		
5,500.0	5,338.1	5,357.9	5,344.0	29.0	20.3	163.02	-335.7	-66.8	1,209.6	1,167.4	42.25	28.632		
5,600.0	5,434.2	5,454.5	5,440.3	29.7	20.6	163.00	-343.7	-66.3	1,235.6	1,192.6	43.02	28.720		
5,700.0	5,530.3	5,551.0	5,536.5	30.3	21.0	162.99	-351.7	-65.7	1,261.6	1,217.8	43.80	28.805		
5,800.0	5,626.4	5,647.6	5,632.7	30.9	21.4	162.98	-359.7	-65.1	1,287.6	1,243.1	44.58	28.887		
5,900.0	5,722.5	5,744.1	5,728.9	31.5	21.7	162.97	-367.7	-64.6	1,313.7	1,268.3	45.35	28.965		
6,000.0	5,818.6	5,840.7	5,825.2	32.1	22.1	162.96	-375.8	-64.0	1,339.7	1,293.5	46.13	29.040		
6,100.0	5,914.7	5,937.3	5,921.4	32.7	22.5	162.95	-383.8	-63.5	1,365.7	1,318.8	46.91	29.112		
6,200.0	6,010.9	6,033.8	6,017.6	33.3	22.8	162.95	-391.8	-62.9	1,391.7	1,344.0	47.69	29.182		
6,300.0	6,107.0	6,130.4	6,113.8	33.9	23.2	162.94	-399.8	-62.4	1,417.7	1,369.2	48.47	29.249		
6,400.0	6,203.1	6,226.9	6,210.0	34.5	23.6	162.93	-407.8	-61.8	1,443.7	1,394.5	49.25	29.313		
6,500.0	6,299.2	6,323.5	6,306.3	35.1	23.9	162.92	-415.8	-61.3	1,469.7	1,419.7	50.03	29.375		
6,600.0	6,395.3	6,420.0	6,402.5	35.7	24.3	162.91	-423.8	-60.7	1,495.7	1,444.9	50.82	29.435		
6,700.0	6,491.4	6,516.6	6,498.7	36.3	24.7	162.91	-431.9	-60.2	1,521.8	1,470.2	51.60	29.492		
6,800.0	6,587.5	6,613.2	6,594.9	36.9	25.1	162.90	-439.9	-59.6	1,547.8	1,495.4	52.38	29.548		
6,900.0	6,683.7	6,709.7	6,691.2	37.5	25.4	162.89	-447.9	-59.0	1,573.8	1,520.6	53.16	29.602		
7,000.0	6,779.8	6,806.3	6,787.4	38.1	25.8	162.89	-455.9	-58.5	1,599.8	1,545.9	53.95	29.654		
7,100.0	6,875.9	6,903.2	6,884.0	38.7	26.2	162.91	-463.0	-57.9	1,625.8	1,571.1	54.73	29.705		
7,200.0	6,972.0	6,998.7	6,979.3	39.4	26.7	163.39	-457.6	-57.5	1,651.8	1,596.2	55.65	29.682		
7,300.0	7,068.2	7,088.4	7,066.7	40.0	27.0	-176.62	-438.1	-57.2	1,678.2	1,622.1	56.12	29.902		
7,400.0	7,164.1	7,174.4	7,146.7	40.6	27.2	-141.22	-406.9	-57.1	1,704.6	1,648.1	56.55	30.144		
7,500.0	7,257.0	7,258.0	7,219.3	41.0	27.5	-119.46	-365.4	-57.0	1,730.3	1,673.2	57.06	30.325		
7,600.0	7,344.0	7,339.9	7,283.7	41.4	27.7	-106.75	-314.9	-57.1	1,754.2	1,696.8	57.43	30.544		
7,700.0	7,422.5	7,420.7	7,339.5	41.7	27.8	-98.65	-256.7	-57.3	1,775.7	1,718.0	57.69	30.782		
7,800.0	7,490.1	7,500.0	7,385.9	41.9	28.0	-93.19	-192.4	-57.6	1,794.0	1,736.1	57.89	30.990		
7,900.0	7,544.8	7,580.0	7,423.2	42.1	28.1	-89.47	-121.7	-58.0	1,808.5	1,750.4	58.10	31.126		
8,000.0	7,584.9	7,659.0	7,450.0	42.2	28.2	-87.06	-47.4	-58.5	1,818.7	1,760.3	58.36	31.162		
8,100.0	7,609.2	7,737.9	7,466.4	42.2	28.3	-85.76	29.7	-59.1	1,824.4	1,765.7	58.71	31.077		
8,200.0	7,617.0	7,818.2	7,472.0	42.1	28.5	-85.44	109.7	-59.7	1,825.3	1,766.2	59.15	30.859		
8,300.0	7,617.0	7,916.2	7,472.0	42.1	28.8	-85.44	207.8	-60.5	1,824.1	1,764.3	59.79	30.506		
8,400.0	7,617.0	8,016.2	7,472.0	42.2	29.2	-85.44	307.7	-61.3	1,822.9	1,762.2	60.64	30.059		
8,500.0	7,617.0	8,116.2	7,472.0	42.3	29.8	-85.43	407.7	-62.2	1,821.7	1,760.0	61.68	29.533		
8,600.0	7,617.0	8,216.2	7,472.0	42.4	30.4	-85.43	507.7	-63.0	1,820.5	1,757.6	62.90	28.941		
8,700.0	7,617.0	8,316.2	7,472.0	42.7	31.2	-85.43	607.7	-63.8	1,819.3	1,755.0	64.29	28.296		
8,800.0	7,617.0	8,416.2	7,472.0	42.9	32.0	-85.43	707.7	-64.6	1,818.0	1,752.2	65.84	27.612		
8,900.0	7,617.0	8,516.2	7,472.0	43.3	32.9	-85.42	807.7	-65.5	1,816.8	1,749.3	67.54	26.900		
9,000.0	7,617.0	8,616.2	7,472.0	43.7	33.9	-85.42	907.7	-66.3	1,815.6	1,746.2	69.38	26.171		
9,100.0	7,617.0	8,716.2	7,472.0	44.3	34.9	-85.42	1,007.7	-67.1	1,814.4	1,743.1	71.34	25.434		
9,200.0	7,617.0	8,816.2	7,472.0	44.9	36.0	-85.41	1,107.7	-67.9	1,813.2	1,739.8	73.42	24.697		
9,300.0	7,617.0	8,916.2	7,472.0	45.5	37.2	-85.41	1,207.6	-68.8	1,812.0	1,736.4	75.60	23.967		
9,400.0	7,617.0	9,016.2	7,472.0	46.3	38.4	-85.41	1,307.6	-69.6	1,810.8	1,732.9	77.89	23.249		
9,500.0	7,617.0	9,116.1	7,472.0	47.1	39.6	-85.40	1,407.6	-70.4	1,809.6	1,729.3	80.26	22.547		
9,600.0	7,617.0	9,216.1	7,472.0	48.1	40.9	-85.40	1,507.6	-71.3	1,808.4	1,725.6	82.71	21.863		
9,700.0	7,617.0	9,316.1	7,472.0	49.0	42.2	-85.40	1,607.6	-72.1	1,807.1	1,721.9	85.24	21.200		
9,800.0	7,617.0	9,416.1	7,472.0	50.1	43.6	-85.39	1,707.6	-72.9	1,805.9	1,718.1	87.84	20.559		
9,900.0	7,617.0	9,516.1	7,472.0	51.1	45.0	-85.39	1,807.6	-73.7	1,804.7	1,714.2	90.50	19.941		
10,000.0	7,617.0	9,616.1	7,472.0	52.3	46.4	-85.39	1,907.6	-74.6	1,803.5	1,710.3	93.22	19.346		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	9,716.1	7,472.0	53.5	47.8	-85.39	2,007.6	-75.4	1,802.3	1,706.3	95.99	18.775		
10,200.0	7,617.0	9,816.1	7,472.0	54.7	49.3	-85.38	2,107.5	-76.2	1,801.1	1,702.3	98.81	18.227		
10,300.0	7,617.0	9,916.1	7,472.0	55.9	50.7	-85.38	2,207.5	-77.0	1,799.9	1,698.2	101.67	17.702		
10,400.0	7,617.0	10,016.1	7,472.0	57.2	52.2	-85.38	2,307.5	-77.9	1,798.7	1,694.1	104.58	17.199		
10,500.0	7,617.0	10,116.1	7,472.0	58.5	53.7	-85.37	2,407.5	-78.7	1,797.5	1,689.9	107.52	16.718		
10,600.0	7,617.0	10,216.1	7,472.0	59.9	55.3	-85.37	2,507.5	-79.5	1,796.3	1,685.8	110.49	16.257		
10,700.0	7,617.0	10,316.1	7,472.0	61.2	56.8	-85.37	2,607.5	-80.3	1,795.0	1,681.5	113.50	15.816		
10,800.0	7,617.0	10,416.1	7,472.0	62.6	58.3	-85.36	2,707.5	-81.2	1,793.8	1,677.3	116.53	15.393		
10,900.0	7,617.0	10,516.0	7,472.0	64.0	59.9	-85.36	2,807.5	-82.0	1,792.6	1,673.0	119.60	14.989		
11,000.0	7,617.0	10,616.0	7,472.0	65.5	61.5	-85.36	2,907.5	-82.8	1,791.4	1,668.7	122.68	14.602		
11,100.0	7,617.0	10,716.0	7,472.0	66.9	63.1	-85.35	3,007.4	-83.7	1,790.2	1,664.4	125.79	14.231		
11,200.0	7,617.0	10,816.0	7,472.0	68.4	64.6	-85.35	3,107.4	-84.5	1,789.0	1,660.1	128.92	13.876		
11,300.0	7,617.0	10,916.0	7,472.0	69.8	66.2	-85.35	3,207.4	-85.3	1,787.8	1,655.7	132.07	13.536		
11,400.0	7,617.0	11,016.0	7,472.0	71.3	67.9	-85.34	3,307.4	-86.1	1,786.6	1,651.3	135.24	13.210		
11,500.0	7,617.0	11,116.0	7,472.0	72.8	69.5	-85.34	3,407.4	-87.0	1,785.4	1,646.9	138.43	12.897		
11,600.0	7,617.0	11,216.0	7,472.0	74.4	71.1	-85.34	3,507.4	-87.8	1,784.1	1,642.5	141.63	12.597		
11,700.0	7,617.0	11,316.0	7,472.0	75.9	72.7	-85.33	3,607.4	-88.6	1,782.9	1,638.1	144.85	12.309		
11,800.0	7,617.0	11,416.0	7,472.0	77.4	74.4	-85.33	3,707.4	-89.4	1,781.7	1,633.6	148.08	12.032		
11,900.0	7,617.0	11,516.0	7,472.0	79.0	76.0	-85.33	3,807.4	-90.3	1,780.5	1,629.2	151.33	11.766		
12,000.0	7,617.0	11,616.0	7,472.0	80.5	77.7	-85.33	3,907.4	-91.1	1,779.3	1,624.7	154.58	11.510		
12,100.0	7,617.0	11,716.0	7,472.0	82.1	79.3	-85.32	4,007.3	-91.9	1,778.1	1,620.2	157.85	11.264		
12,200.0	7,617.0	11,816.0	7,472.0	83.7	81.0	-85.32	4,107.3	-92.7	1,776.9	1,615.8	161.13	11.028		
12,300.0	7,617.0	11,915.9	7,472.0	85.3	82.6	-85.32	4,207.3	-93.6	1,775.7	1,611.3	164.42	10.800		
12,400.0	7,617.0	12,015.9	7,472.0	86.9	84.3	-85.31	4,307.3	-94.4	1,774.5	1,606.7	167.72	10.580		
12,500.0	7,617.0	12,115.9	7,472.0	88.5	86.0	-85.31	4,407.3	-95.2	1,773.3	1,602.2	171.03	10.368		
12,600.0	7,617.0	12,215.9	7,472.0	90.1	87.6	-85.31	4,507.3	-96.1	1,772.0	1,597.7	174.34	10.164		
12,700.0	7,617.0	12,315.9	7,472.0	91.7	89.3	-85.30	4,607.3	-96.9	1,770.8	1,593.2	177.67	9.967		
12,800.0	7,617.0	12,415.9	7,472.0	93.3	91.0	-85.30	4,707.3	-97.7	1,769.6	1,588.6	181.00	9.777		
12,900.0	7,617.0	12,515.9	7,472.0	94.9	92.7	-85.30	4,807.3	-98.5	1,768.4	1,584.1	184.34	9.593		
13,000.0	7,617.0	12,615.9	7,472.0	96.5	94.4	-85.29	4,907.2	-99.4	1,767.2	1,579.5	187.68	9.416		
13,100.0	7,617.0	12,715.9	7,472.0	98.2	96.1	-85.29	5,007.2	-100.2	1,766.0	1,575.0	191.03	9.244		
13,200.0	7,617.0	12,815.9	7,472.0	99.8	97.7	-85.29	5,107.2	-101.0	1,764.8	1,570.4	194.39	9.078		
13,300.0	7,617.0	12,915.9	7,472.0	101.4	99.4	-85.28	5,207.2	-101.8	1,763.6	1,565.8	197.76	8.918		
13,400.0	7,617.0	13,015.9	7,472.0	103.1	101.1	-85.28	5,307.2	-102.7	1,762.4	1,561.2	201.13	8.762		
13,500.0	7,617.0	13,115.9	7,472.0	104.7	102.8	-85.28	5,407.2	-103.5	1,761.1	1,556.6	204.50	8.612		
13,600.0	7,617.0	13,215.8	7,472.0	106.4	104.5	-85.27	5,507.2	-104.3	1,759.9	1,552.1	207.88	8.466		
13,700.0	7,617.0	13,315.8	7,472.0	108.1	106.2	-85.27	5,607.2	-105.1	1,758.7	1,547.5	211.26	8.325		
13,800.0	7,617.0	13,415.8	7,472.0	109.7	108.0	-85.27	5,707.2	-106.0	1,757.5	1,542.9	214.65	8.188		
13,900.0	7,617.0	13,515.8	7,472.0	111.4	109.7	-85.26	5,807.1	-106.8	1,756.3	1,538.3	218.05	8.055		
14,000.0	7,617.0	13,615.8	7,472.0	113.0	111.4	-85.26	5,907.1	-107.6	1,755.1	1,533.7	221.44	7.926		
14,100.0	7,617.0	13,715.8	7,472.0	114.7	113.1	-85.26	6,007.1	-108.5	1,753.9	1,529.0	224.84	7.800		
14,200.0	7,617.0	13,815.8	7,472.0	116.4	114.8	-85.25	6,107.1	-109.3	1,752.7	1,524.4	228.25	7.679		
14,300.0	7,617.0	13,915.8	7,472.0	118.1	116.5	-85.25	6,207.1	-110.1	1,751.5	1,519.8	231.66	7.561		
14,400.0	7,617.0	14,015.8	7,472.0	119.7	118.2	-85.25	6,307.1	-110.9	1,750.3	1,515.2	235.07	7.446		
14,500.0	7,617.0	14,100.0	7,472.0	121.4	119.7	-85.24	6,391.3	-111.6	1,749.1	1,511.1	238.04	7.348		
14,540.1	7,617.0	14,134.8	7,472.0	122.1	120.3	-85.24	6,426.1	-112.1	1,748.9	1,509.6	239.26	7.310		
14,600.0	7,617.0	14,183.8	7,472.0	123.1	121.1	-85.25	6,475.1	-113.5	1,749.3	1,508.4	240.99	7.259		
14,700.0	7,617.0	14,264.8	7,472.0	124.8	122.5	-85.25	6,556.0	-116.6	1,751.0	1,507.1	243.84	7.181		
14,800.0	7,617.0	14,364.7	7,472.0	126.5	124.2	-85.25	6,655.9	-120.3	1,752.7	1,505.4	247.27	7.088		
14,900.0	7,617.0	14,464.7	7,472.0	128.2	126.0	-85.26	6,755.8	-124.1	1,754.4	1,503.6	250.71	6.997		
15,000.0	7,617.0	14,564.7	7,472.0	129.9	127.7	-85.26	6,855.7	-127.8	1,756.1	1,501.9	254.15	6.909		
15,100.0	7,617.0	14,664.7	7,472.0	131.6	129.4	-85.27	6,955.6	-131.6	1,757.8	1,500.2	257.60	6.824		

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 19-18-4CDH
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 19-18-4CDH	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
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
15,200.0	7,617.0	14,764.7	7,472.0	133.3	131.2	-85.27	7,055.6	-135.3	1,759.5	1,498.4	261.04	6.740	
15,300.0	7,617.0	14,864.7	7,472.0	135.0	132.9	-85.28	7,155.5	-139.1	1,761.2	1,496.7	264.49	6.659	
15,400.0	7,617.0	14,964.7	7,472.0	136.7	134.6	-85.28	7,255.4	-142.8	1,762.9	1,494.9	267.94	6.579	
15,500.0	7,617.0	15,064.6	7,472.0	138.4	136.4	-85.29	7,355.3	-146.6	1,764.6	1,493.2	271.40	6.502	
15,600.0	7,617.0	15,164.6	7,472.0	140.1	138.1	-85.29	7,455.2	-150.3	1,766.3	1,491.5	274.85	6.426	
15,700.0	7,617.0	15,264.6	7,472.0	141.8	139.9	-85.30	7,555.1	-154.1	1,768.0	1,489.7	278.31	6.353	
15,800.0	7,617.0	15,364.6	7,472.0	143.5	141.6	-85.30	7,655.0	-157.9	1,769.7	1,487.9	281.77	6.281	
15,900.0	7,617.0	15,464.6	7,472.0	145.2	143.3	-85.30	7,755.0	-161.6	1,771.4	1,486.2	285.23	6.210	
16,000.0	7,617.0	15,564.6	7,472.0	146.9	145.1	-85.31	7,854.9	-165.4	1,773.1	1,484.4	288.69	6.142	
16,100.0	7,617.0	15,664.6	7,472.0	148.6	146.8	-85.31	7,954.8	-169.1	1,774.8	1,482.7	292.16	6.075	
16,200.0	7,617.0	15,764.5	7,472.0	150.3	148.6	-85.32	8,054.7	-172.9	1,776.5	1,480.9	295.63	6.009	
16,300.0	7,617.0	15,864.5	7,472.0	152.0	150.3	-85.32	8,154.6	-176.6	1,778.2	1,479.1	299.09	5.945	
16,400.0	7,617.0	16,030.7	7,472.0	153.8	153.2	-85.32	8,320.7	-180.9	1,779.2	1,474.7	304.47	5.844	
16,500.0	7,617.0	16,177.4	7,472.0	155.5	155.8	-85.31	8,467.4	-178.0	1,774.9	1,465.9	309.03	5.744	
16,600.0	7,617.0	16,277.3	7,472.0	157.2	157.5	-85.30	8,567.2	-175.4	1,770.3	1,457.8	312.47	5.665	
16,700.0	7,617.0	16,377.2	7,472.0	158.9	159.2	-85.28	8,667.1	-172.8	1,765.6	1,449.7	315.91	5.589	
16,800.0	7,617.0	16,477.1	7,472.0	160.6	160.9	-85.27	8,767.0	-170.2	1,761.0	1,441.6	319.36	5.514	
16,900.0	7,617.0	16,577.0	7,472.0	162.4	162.7	-85.26	8,866.8	-167.5	1,756.4	1,433.6	322.80	5.441	
17,000.0	7,617.0	16,676.8	7,472.0	164.1	164.4	-85.25	8,966.7	-164.9	1,751.7	1,425.5	326.25	5.369	
17,100.0	7,617.0	16,776.7	7,472.0	165.8	166.1	-85.23	9,066.5	-162.3	1,747.1	1,417.4	329.69	5.299	
17,200.0	7,617.0	16,876.6	7,472.0	167.5	167.8	-85.22	9,166.4	-159.7	1,742.4	1,409.3	333.14	5.230	
17,300.0	7,617.0	16,976.5	7,472.0	169.2	169.6	-85.21	9,266.3	-157.1	1,738.2	1,401.7	336.59	5.164	
17,365.7	7,617.0	17,042.3	7,472.0	170.4	170.7	-85.21	9,331.9	-155.4	1,737.3	1,398.5	338.86	5.127	
17,400.0	7,617.0	17,076.5	7,472.0	171.0	171.3	-85.21	9,366.2	-154.5	1,737.6	1,397.5	340.04	5.110	
17,500.0	7,617.0	17,176.5	7,472.0	172.7	173.0	-85.22	9,466.1	-151.9	1,741.1	1,397.6	343.49	5.069	
17,600.0	7,617.0	17,276.2	7,472.0	174.4	174.7	-85.22	9,565.8	-149.2	1,748.7	1,401.8	346.93	5.041	
17,700.0	7,617.0	17,375.5	7,472.0	176.1	176.5	-85.23	9,665.0	-146.6	1,760.4	1,410.1	350.34	5.025	
17,800.0	7,617.0	17,474.2	7,472.0	177.8	178.2	-85.24	9,763.7	-144.1	1,776.3	1,422.6	353.71	5.022 SF	
17,900.0	7,617.0	17,572.2	7,472.0	179.4	179.9	-85.25	9,861.7	-141.5	1,796.2	1,439.1	357.06	5.031	
18,000.0	7,617.0	17,606.3	7,472.0	181.1	180.5	-85.24	9,895.8	-140.6	1,821.1	1,462.4	358.76	5.076	
18,014.8	7,617.0	17,606.3	7,472.0	181.3	180.5	-85.24	9,895.8	-140.6	1,825.4	1,466.6	358.83	5.087	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.25	-0.5	-105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.25	-0.5	-105.0	105.0	104.7	0.28	379.265		
133.3	133.3	133.3	133.3	0.6	0.0	-90.25	-0.5	-105.0	105.0	104.6	0.45	233.139		
200.0	200.0	200.0	200.0	1.0	0.0	-90.25	-0.5	-105.0	105.0	104.2	0.80	131.673		
300.0	300.0	300.0	300.0	1.5	0.0	-90.25	-0.5	-105.0	105.0	103.8	1.22	85.791		
333.3	333.3	333.3	333.3	1.6	0.0	-90.25	-0.5	-105.0	105.0	103.6	1.36	77.481		
400.0	400.0	400.0	400.0	1.9	0.0	-90.25	-0.5	-105.0	105.0	103.4	1.62	64.907		
500.0	500.0	500.0	500.0	2.3	0.0	-90.25	-0.5	-105.0	105.0	103.0	2.00	52.546		
533.3	533.3	533.3	533.3	2.5	0.0	-90.25	-0.5	-105.0	105.0	102.9	2.12	49.463		
600.0	600.0	600.0	600.0	2.7	0.0	-90.25	-0.5	-105.0	105.0	102.6	2.37	44.268		
700.0	700.0	700.0	700.0	3.1	0.0	-90.25	-0.5	-105.0	105.0	102.3	2.74	38.300		
800.0	800.0	800.0	800.0	3.5	0.0	-90.25	-0.5	-105.0	105.0	101.9	3.11	33.778 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	164.18	-0.5	-105.0	106.7	103.0	3.66	29.133		
1,000.0	999.8	999.8	999.8	4.5	0.0	164.89	-0.5	-105.0	111.7	107.3	4.46	25.041		
1,100.0	1,099.5	1,099.5	1,099.5	5.3	0.0	165.93	-0.5	-105.0	120.2	115.0	5.18	23.208		
1,200.0	1,198.7	1,197.2	1,197.2	6.0	0.0	166.46	-2.0	-105.6	132.6	126.8	5.83	22.734		
1,300.0	1,297.5	1,294.1	1,293.9	6.7	0.0	165.96	-6.5	-107.5	149.5	143.1	6.42	23.283		
1,400.0	1,395.6	1,390.3	1,389.8	7.3	0.0	164.81	-13.9	-110.6	170.9	164.0	6.96	24.575		
1,500.0	1,493.1	1,487.1	1,486.2	7.9	0.0	163.89	-22.2	-114.0	196.0	188.5	7.47	26.253		
1,600.0	1,589.6	1,583.0	1,581.7	8.5	0.0	163.39	-30.3	-117.4	224.3	216.3	7.97	28.142		
1,700.0	1,685.8	1,678.4	1,676.7	8.9	0.0	163.25	-38.5	-120.8	254.3	245.9	8.31	30.592		
1,800.0	1,781.9	1,773.8	1,771.7	9.1	0.0	163.14	-46.6	-124.1	284.2	275.6	8.58	33.116		
1,900.0	1,878.0	1,869.2	1,866.7	9.4	0.0	163.05	-54.7	-127.5	314.2	305.3	8.87	35.438		
2,000.0	1,974.1	1,964.6	1,961.7	9.7	0.0	162.97	-62.9	-130.9	344.1	335.0	9.16	37.572		
2,100.0	2,070.2	2,060.0	2,056.7	10.0	0.0	162.91	-71.0	-134.2	374.1	364.6	9.46	39.535		
2,200.0	2,166.3	2,155.4	2,151.7	10.4	0.0	162.86	-79.1	-137.6	404.0	394.3	9.77	41.339		
2,300.0	2,262.4	2,250.8	2,246.7	10.7	0.0	162.81	-87.2	-141.0	434.0	423.9	10.09	42.999		
2,400.0	2,358.6	2,346.2	2,341.7	11.1	0.0	162.77	-95.4	-144.3	463.9	453.5	10.42	44.527		
2,500.0	2,454.7	2,441.7	2,436.7	11.6	0.0	162.74	-103.5	-147.7	493.9	483.2	10.75	45.935		
2,600.0	2,550.8	2,537.1	2,531.7	12.0	0.0	162.71	-111.6	-151.1	523.9	512.8	11.09	47.233		
2,700.0	2,646.9	2,632.5	2,626.7	12.5	0.0	162.68	-119.7	-154.4	553.8	542.4	11.43	48.433		
2,800.0	2,743.0	2,727.9	2,721.7	13.1	0.0	162.66	-127.9	-157.8	583.8	572.0	11.78	49.543		
2,900.0	2,839.1	2,823.3	2,816.7	13.6	0.0	162.63	-136.0	-161.2	613.7	601.6	12.14	50.570		
3,000.0	2,935.2	2,918.7	2,911.7	14.2	0.0	162.61	-144.1	-164.5	643.7	631.2	12.49	51.523		
3,100.0	3,031.3	3,014.1	3,006.7	14.7	0.0	162.60	-152.2	-167.9	673.6	660.8	12.85	52.408		
3,200.0	3,127.5	3,109.5	3,101.7	15.3	0.0	162.58	-160.4	-171.3	703.6	690.4	13.22	53.231		
3,300.0	3,223.6	3,204.9	3,196.7	15.9	0.0	162.56	-168.5	-174.7	733.6	720.0	13.58	53.998		
3,400.0	3,319.7	3,300.3	3,291.7	16.5	0.0	162.55	-176.6	-178.0	763.5	749.6	13.95	54.713		
3,500.0	3,415.8	3,395.7	3,386.7	17.1	0.0	162.54	-184.8	-181.4	793.5	779.2	14.33	55.382		
3,600.0	3,511.9	3,491.1	3,481.7	17.7	0.0	162.52	-192.9	-184.8	823.4	808.7	14.70	56.006		
3,700.0	3,608.0	3,586.5	3,576.7	18.3	0.0	162.51	-201.0	-188.1	853.4	838.3	15.08	56.592		
3,800.0	3,704.1	3,681.9	3,671.7	18.8	0.0	162.50	-209.1	-191.5	883.4	867.9	15.46	57.141		
3,900.0	3,800.3	3,777.4	3,766.7	19.4	0.0	162.49	-217.3	-194.9	913.3	897.5	15.84	57.656		
4,000.0	3,896.4	3,872.8	3,861.7	20.0	0.0	162.48	-225.4	-198.2	943.3	927.0	16.22	58.141		
4,100.0	3,992.5	3,968.2	3,956.7	20.6	0.0	162.47	-233.5	-201.6	973.2	956.6	16.61	58.597		
4,200.0	4,088.6	4,063.6	4,051.7	21.2	0.0	162.47	-241.6	-205.0	1,003.2	986.2	17.00	59.028		
4,300.0	4,184.7	4,159.0	4,146.7	21.8	0.0	162.46	-249.8	-208.3	1,033.1	1,015.8	17.38	59.434		
4,400.0	4,280.8	4,254.4	4,241.7	22.4	0.0	162.45	-257.9	-211.7	1,063.1	1,045.3	17.77	59.817		
4,500.0	4,376.9	4,349.8	4,336.7	23.0	0.0	162.44	-266.0	-215.1	1,093.1	1,074.9	18.16	60.180		
4,600.0	4,473.0	4,445.2	4,431.7	23.6	0.0	162.44	-274.1	-218.4	1,123.0	1,104.5	18.56	60.524		
4,700.0	4,569.2	4,540.6	4,526.7	24.2	0.0	162.43	-282.3	-221.8	1,153.0	1,134.0	18.95	60.849		
4,800.0	4,665.3	4,636.0	4,621.7	24.8	0.0	162.43	-290.4	-225.2	1,182.9	1,163.6	19.34	61.158		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,731.4	4,716.7	25.4	0.0	162.42	-298.5	-228.5	1,212.9	1,193.2	19.74	61.451		
5,000.0	4,857.5	4,826.8	4,811.7	26.0	0.0	162.41	-306.7	-231.9	1,242.8	1,222.7	20.13	61.730		
5,100.0	4,953.6	4,922.2	4,906.7	26.6	0.0	162.41	-314.8	-235.3	1,272.8	1,252.3	20.53	61.995		
5,200.0	5,049.7	5,017.6	5,001.7	27.2	0.0	162.40	-322.9	-238.7	1,302.8	1,281.8	20.93	62.248		
5,300.0	5,145.8	5,113.1	5,096.7	27.8	0.0	162.40	-331.0	-242.0	1,332.7	1,311.4	21.33	62.488		
5,400.0	5,242.0	5,208.5	5,191.7	28.4	0.0	162.40	-339.2	-245.4	1,362.7	1,341.0	21.73	62.718		
5,500.0	5,338.1	5,303.9	5,286.7	29.0	0.0	162.39	-347.3	-248.8	1,392.6	1,370.5	22.13	62.937		
5,600.0	5,434.2	5,399.3	5,381.7	29.7	0.0	162.39	-355.4	-252.1	1,422.6	1,400.1	22.53	63.146		
5,700.0	5,530.3	5,494.7	5,476.7	30.3	0.0	162.38	-363.5	-255.5	1,452.6	1,429.6	22.93	63.346		
5,800.0	5,626.4	5,590.1	5,571.7	30.9	0.0	162.38	-371.7	-258.9	1,482.5	1,459.2	23.33	63.537		
5,900.0	5,722.5	5,685.5	5,666.7	31.5	0.0	162.38	-379.8	-262.2	1,512.5	1,488.7	23.74	63.720		
6,000.0	5,818.6	5,780.9	5,761.7	32.1	0.0	162.37	-387.9	-265.6	1,542.4	1,518.3	24.14	63.896		
6,100.0	5,914.7	5,876.3	5,856.7	32.7	0.0	162.37	-396.1	-269.0	1,572.4	1,547.8	24.54	64.064		
6,200.0	6,010.9	5,971.7	5,951.7	33.3	0.0	162.37	-404.2	-272.3	1,602.3	1,577.4	24.95	64.225		
6,300.0	6,107.0	6,067.1	6,046.7	33.9	0.0	162.36	-412.3	-275.7	1,632.3	1,606.9	25.35	64.379		
6,400.0	6,203.1	6,162.5	6,141.7	34.5	0.0	162.36	-420.4	-279.1	1,662.3	1,636.5	25.76	64.528		
6,500.0	6,299.2	6,257.9	6,236.7	35.1	0.0	162.36	-428.6	-282.4	1,692.2	1,666.0	26.17	64.671		
6,600.0	6,395.3	6,353.3	6,331.7	35.7	0.0	162.35	-436.7	-285.8	1,722.2	1,695.6	26.57	64.808		
6,700.0	6,491.4	6,448.8	6,426.7	36.3	0.0	162.35	-444.8	-289.2	1,752.1	1,725.2	26.98	64.940		
6,800.0	6,587.5	6,544.2	6,521.7	36.9	0.0	162.35	-452.9	-292.5	1,782.1	1,754.7	27.39	65.066		
6,900.0	6,683.7	6,639.6	6,616.7	37.5	0.0	162.35	-461.1	-295.9	1,812.0	1,784.3	27.80	65.189		
7,000.0	6,779.8	6,736.9	6,713.9	38.1	0.0	162.54	-463.3	-299.4	1,842.0	1,813.8	28.19	65.337		
7,100.0	6,875.9	6,830.2	6,806.1	38.7	0.0	163.21	-450.2	-302.9	1,871.9	1,843.4	28.52	65.642		
7,200.0	6,972.0	6,915.0	6,887.0	39.4	0.0	164.19	-425.4	-306.0	1,902.4	1,873.6	28.77	66.130		
7,300.0	7,068.2	6,990.1	6,955.0	40.0	0.0	-175.26	-393.7	-308.7	1,933.9	1,905.0	28.95	66.806		
7,400.0	7,164.1	7,061.5	7,015.3	40.6	0.0	-139.06	-355.5	-311.2	1,966.0	1,936.8	29.15	67.433		
7,500.0	7,257.0	7,131.2	7,069.0	41.0	0.0	-116.56	-311.4	-313.5	1,997.3	1,967.8	29.47	67.779		
7,600.0	7,344.0	7,200.0	7,116.5	41.4	0.0	-103.17	-261.7	-315.6	2,026.7	1,997.1	29.66	68.330		
7,700.0	7,422.5	7,267.2	7,156.7	41.7	0.0	-94.51	-208.0	-317.5	2,053.2	2,023.4	29.73	69.054		
7,800.0	7,490.1	7,334.2	7,190.4	41.9	0.0	-88.59	-150.0	-319.2	2,075.8	2,046.0	29.75	69.777		
7,900.0	7,544.8	7,400.0	7,216.6	42.1	0.0	-84.53	-89.8	-320.7	2,093.8	2,064.0	29.75	70.370		
8,000.0	7,584.9	7,467.6	7,236.2	42.2	0.0	-81.88	-25.1	-321.9	2,106.6	2,076.8	29.78	70.726		
8,100.0	7,609.2	7,534.1	7,247.9	42.2	0.0	-80.43	40.3	-322.9	2,113.8	2,083.9	29.87	70.775		
8,200.0	7,617.0	7,602.4	7,252.0	42.1	0.0	-80.06	108.4	-323.6	2,115.2	2,085.2	30.01	70.473		
8,300.0	7,617.0	7,699.6	7,252.0	42.1	0.0	-80.06	205.6	-324.4	2,114.0	2,083.7	30.24	69.900		
8,400.0	7,617.0	7,799.6	7,252.0	42.2	0.0	-80.05	305.6	-325.2	2,112.8	2,082.2	30.57	69.108		
8,500.0	7,617.0	7,899.5	7,252.0	42.3	0.0	-80.05	405.5	-326.1	2,111.6	2,080.6	31.00	68.123		
8,600.0	7,617.0	7,999.5	7,252.0	42.4	0.0	-80.04	505.5	-326.9	2,110.4	2,078.9	31.51	66.970		
8,700.0	7,617.0	8,099.5	7,252.0	42.7	0.0	-80.03	605.5	-327.7	2,109.2	2,077.1	32.12	65.675		
8,800.0	7,617.0	8,199.5	7,252.0	42.9	0.0	-80.03	705.5	-328.5	2,108.0	2,075.2	32.80	64.268		
8,900.0	7,617.0	8,299.5	7,252.0	43.3	0.0	-80.02	805.5	-329.4	2,106.8	2,073.2	33.56	62.773		
9,000.0	7,617.0	8,399.5	7,252.0	43.7	0.0	-80.02	905.5	-330.2	2,105.6	2,071.2	34.40	61.216		
9,100.0	7,617.0	8,499.5	7,252.0	44.3	0.0	-80.01	1,005.5	-331.0	2,104.4	2,069.1	35.30	59.620		
9,200.0	7,617.0	8,599.5	7,252.0	44.9	0.0	-80.01	1,105.5	-331.8	2,103.2	2,067.0	36.26	58.004		
9,300.0	7,617.0	8,699.5	7,252.0	45.5	0.0	-80.00	1,205.5	-332.7	2,102.0	2,064.7	37.28	56.386		
9,400.0	7,617.0	8,799.5	7,252.0	46.3	0.0	-79.99	1,305.4	-333.5	2,100.8	2,062.5	38.35	54.778		
9,500.0	7,617.0	8,899.5	7,252.0	47.1	0.0	-79.99	1,405.4	-334.3	2,099.6	2,060.2	39.47	53.193		
9,600.0	7,617.0	8,999.5	7,252.0	48.1	0.0	-79.98	1,505.4	-335.2	2,098.4	2,057.8	40.64	51.639		
9,700.0	7,617.0	9,099.5	7,252.0	49.0	0.0	-79.98	1,605.4	-336.0	2,097.2	2,055.4	41.84	50.123		
9,800.0	7,617.0	9,199.5	7,252.0	50.1	0.0	-79.97	1,705.4	-336.8	2,096.0	2,053.0	43.08	48.650		
9,900.0	7,617.0	9,299.4	7,252.0	51.1	0.0	-79.97	1,805.4	-337.6	2,094.9	2,050.5	44.36	47.223		
10,000.0	7,617.0	9,399.4	7,252.0	52.3	0.0	-79.96	1,905.4	-338.5	2,093.7	2,048.0	45.67	45.845		

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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.0	7,617.0	9,499.4	7,252.0	53.5	0.0	-79.95	2,005.4	-339.3	2,092.5	2,045.5	47.00	44.517		
10,200.0	7,617.0	9,599.4	7,252.0	54.7	0.0	-79.95	2,105.4	-340.1	2,091.3	2,042.9	48.37	43.238		
10,300.0	7,617.0	9,699.4	7,252.0	55.9	0.0	-79.94	2,205.3	-340.9	2,090.1	2,040.3	49.75	42.010		
10,400.0	7,617.0	9,799.4	7,252.0	57.2	0.0	-79.94	2,305.3	-341.8	2,088.9	2,037.7	51.16	40.830		
10,500.0	7,617.0	9,899.4	7,252.0	58.5	0.0	-79.93	2,405.3	-342.6	2,087.7	2,035.1	52.59	39.698		
10,600.0	7,617.0	9,999.4	7,252.0	59.9	0.0	-79.92	2,505.3	-343.4	2,086.5	2,032.4	54.04	38.613		
10,700.0	7,617.0	10,099.4	7,252.0	61.2	0.0	-79.92	2,605.3	-344.3	2,085.3	2,029.8	55.50	37.573		
10,800.0	7,617.0	10,199.4	7,252.0	62.6	0.0	-79.91	2,705.3	-345.1	2,084.1	2,027.1	56.98	36.576		
10,900.0	7,617.0	10,299.4	7,252.0	64.0	0.0	-79.91	2,805.3	-345.9	2,082.9	2,024.4	58.47	35.620		
11,000.0	7,617.0	10,399.4	7,252.0	65.5	0.0	-79.90	2,905.3	-346.7	2,081.7	2,021.7	59.98	34.705		
11,100.0	7,617.0	10,499.4	7,252.0	66.9	0.0	-79.90	3,005.3	-347.6	2,080.5	2,019.0	61.50	33.827		
11,200.0	7,617.0	10,599.4	7,252.0	68.4	0.0	-79.89	3,105.2	-348.4	2,079.3	2,016.3	63.04	32.986		
11,300.0	7,617.0	10,699.3	7,252.0	69.8	0.0	-79.88	3,205.2	-349.2	2,078.1	2,013.5	64.58	32.179		
11,400.0	7,617.0	10,799.3	7,252.0	71.3	0.0	-79.88	3,305.2	-350.0	2,076.9	2,010.8	66.13	31.405		
11,500.0	7,617.0	10,899.3	7,252.0	72.8	0.0	-79.87	3,405.2	-350.9	2,075.7	2,008.0	67.70	30.662		
11,600.0	7,617.0	10,999.3	7,252.0	74.4	0.0	-79.87	3,505.2	-351.7	2,074.5	2,005.3	69.27	29.950		
11,700.0	7,617.0	11,099.3	7,252.0	75.9	0.0	-79.86	3,605.2	-352.5	2,073.3	2,002.5	70.85	29.265		
11,800.0	7,617.0	11,199.3	7,252.0	77.4	0.0	-79.85	3,705.2	-353.4	2,072.1	1,999.7	72.43	28.607		
11,900.0	7,617.0	11,299.3	7,252.0	79.0	0.0	-79.85	3,805.2	-354.2	2,070.9	1,996.9	74.03	27.975		
12,000.0	7,617.0	11,399.3	7,252.0	80.5	0.0	-79.84	3,905.2	-355.0	2,069.8	1,994.1	75.63	27.367		
12,100.0	7,617.0	11,499.3	7,252.0	82.1	0.0	-79.84	4,005.2	-355.8	2,068.6	1,991.3	77.24	26.782		
12,200.0	7,617.0	11,599.3	7,252.0	83.7	0.0	-79.83	4,105.1	-356.7	2,067.4	1,988.5	78.85	26.219		
12,300.0	7,617.0	11,699.3	7,252.0	85.3	0.0	-79.82	4,205.1	-357.5	2,066.2	1,985.7	80.47	25.677		
12,400.0	7,617.0	11,799.3	7,252.0	86.9	0.0	-79.82	4,305.1	-358.3	2,065.0	1,982.9	82.09	25.154		
12,500.0	7,617.0	11,899.3	7,252.0	88.5	0.0	-79.81	4,405.1	-359.1	2,063.8	1,980.1	83.72	24.651		
12,600.0	7,617.0	11,999.2	7,252.0	90.1	0.0	-79.81	4,505.1	-360.0	2,062.6	1,977.2	85.35	24.165		
12,700.0	7,617.0	12,099.2	7,252.0	91.7	0.0	-79.80	4,605.1	-360.8	2,061.4	1,974.4	86.99	23.697		
12,800.0	7,617.0	12,199.2	7,252.0	93.3	0.0	-79.79	4,705.1	-361.6	2,060.2	1,971.6	88.63	23.244		
12,900.0	7,617.0	12,299.2	7,252.0	94.9	0.0	-79.79	4,805.1	-362.5	2,059.0	1,968.7	90.28	22.807		
13,000.0	7,617.0	12,399.2	7,252.0	96.5	0.0	-79.78	4,905.1	-363.3	2,057.8	1,965.9	91.93	22.385		
13,100.0	7,617.0	12,499.2	7,252.0	98.2	0.0	-79.78	5,005.0	-364.1	2,056.6	1,963.0	93.58	21.977		
13,200.0	7,617.0	12,599.2	7,252.0	99.8	0.0	-79.77	5,105.0	-364.9	2,055.4	1,960.2	95.23	21.583		
13,300.0	7,617.0	12,699.2	7,252.0	101.4	0.0	-79.76	5,205.0	-365.8	2,054.2	1,957.3	96.89	21.201		
13,400.0	7,617.0	12,799.2	7,252.0	103.1	0.0	-79.76	5,305.0	-366.6	2,053.0	1,954.5	98.56	20.831		
13,500.0	7,617.0	12,899.2	7,252.0	104.7	0.0	-79.75	5,405.0	-367.4	2,051.8	1,951.6	100.22	20.473		
13,600.0	7,617.0	12,999.2	7,252.0	106.4	0.0	-79.75	5,505.0	-368.2	2,050.6	1,948.7	101.89	20.127		
13,700.0	7,617.0	13,099.2	7,252.0	108.1	0.0	-79.74	5,605.0	-369.1	2,049.4	1,945.9	103.56	19.791		
13,800.0	7,617.0	13,199.2	7,252.0	109.7	0.0	-79.73	5,705.0	-369.9	2,048.2	1,943.0	105.23	19.465		
13,900.0	7,617.0	13,299.2	7,252.0	111.4	0.0	-79.73	5,805.0	-370.7	2,047.0	1,940.1	106.90	19.149		
14,000.0	7,617.0	13,399.1	7,252.0	113.0	0.0	-79.72	5,904.9	-371.5	2,045.9	1,937.3	108.58	18.842		
14,100.0	7,617.0	13,499.1	7,252.0	114.7	0.0	-79.72	6,004.9	-372.4	2,044.7	1,934.4	110.26	18.544		
14,200.0	7,617.0	13,599.1	7,252.0	116.4	0.0	-79.71	6,104.9	-373.2	2,043.5	1,931.5	111.94	18.255		
14,300.0	7,617.0	13,699.1	7,252.0	118.1	0.0	-79.70	6,204.9	-374.0	2,042.3	1,928.6	113.62	17.974		
14,400.0	7,617.0	13,799.1	7,252.0	119.7	0.0	-79.70	6,304.9	-374.9	2,041.1	1,925.8	115.30	17.702		
14,500.0	7,617.0	13,899.1	7,252.0	121.4	0.0	-79.69	6,404.9	-375.7	2,039.9	1,922.9	116.99	17.436		
14,600.0	7,617.0	13,999.1	7,252.0	123.1	0.0	-79.69	6,504.9	-376.5	2,038.7	1,920.0	118.68	17.178		
14,700.0	7,617.0	14,099.1	7,252.0	124.8	0.0	-79.68	6,604.9	-377.3	2,037.5	1,917.1	120.37	16.927		
14,800.0	7,617.0	14,199.1	7,252.0	126.5	0.0	-79.67	6,704.9	-378.2	2,036.3	1,914.2	122.06	16.683		
14,900.0	7,617.0	14,299.1	7,252.0	128.2	0.0	-79.67	6,804.8	-379.0	2,035.1	1,911.4	123.75	16.445		
15,000.0	7,617.0	14,399.1	7,252.0	129.9	0.0	-79.66	6,904.8	-379.8	2,033.9	1,908.5	125.44	16.214		
15,100.0	7,617.0	14,499.1	7,252.0	131.6	0.0	-79.65	7,004.8	-380.6	2,032.7	1,905.6	127.14	15.988		
15,200.0	7,617.0	14,599.1	7,252.0	133.3	0.0	-79.65	7,104.8	-381.5	2,031.5	1,902.7	128.83	15.768		

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	14,699.0	7,252.0	135.0	0.0	-79.64	7,204.8	-382.3	2,030.3	1,899.8	130.53	15.554		
15,400.0	7,617.0	14,799.0	7,252.0	136.7	0.0	-79.64	7,304.8	-383.1	2,029.1	1,896.9	132.23	15.345		
15,500.0	7,617.0	14,899.0	7,252.0	138.4	0.0	-79.63	7,404.8	-384.0	2,027.9	1,894.0	133.93	15.142		
15,600.0	7,617.0	14,999.0	7,252.0	140.1	0.0	-79.62	7,504.8	-384.8	2,026.7	1,891.1	135.63	14.943		
15,700.0	7,617.0	15,099.0	7,252.0	141.8	0.0	-79.62	7,604.8	-385.6	2,025.5	1,888.2	137.33	14.749		
15,800.0	7,617.0	15,199.0	7,252.0	143.5	0.0	-79.61	7,704.8	-386.4	2,024.4	1,885.3	139.03	14.560		
15,900.0	7,617.0	15,299.0	7,252.0	145.2	0.0	-79.61	7,804.7	-387.3	2,023.2	1,882.4	140.74	14.375		
16,000.0	7,617.0	15,399.0	7,252.0	146.9	0.0	-79.60	7,904.7	-388.1	2,022.0	1,879.5	142.44	14.195		
16,100.0	7,617.0	15,499.0	7,252.0	148.6	0.0	-79.59	8,004.7	-388.9	2,020.8	1,876.6	144.15	14.019		
16,200.0	7,617.0	15,599.0	7,252.0	150.3	0.0	-79.59	8,104.7	-389.7	2,019.6	1,873.7	145.85	13.847		
16,300.0	7,617.0	15,699.0	7,252.0	152.0	0.0	-79.58	8,204.7	-390.6	2,018.4	1,870.8	147.56	13.678		
16,400.0	7,617.0	15,799.0	7,252.0	153.8	0.0	-79.57	8,304.7	-391.4	2,017.2	1,867.9	149.27	13.514		
16,500.0	7,617.0	15,899.0	7,252.0	155.5	0.0	-79.57	8,404.7	-392.2	2,016.0	1,865.0	150.98	13.353		
16,600.0	7,617.0	15,999.0	7,252.0	157.2	0.0	-79.56	8,504.7	-393.1	2,014.8	1,862.1	152.69	13.196		
16,700.0	7,617.0	16,098.9	7,252.0	158.9	0.0	-79.56	8,604.7	-393.9	2,013.6	1,859.2	154.40	13.042		
16,800.0	7,617.0	16,198.9	7,252.0	160.6	0.0	-79.55	8,704.6	-394.7	2,012.4	1,856.3	156.11	12.891		
16,900.0	7,617.0	16,298.9	7,252.0	162.4	0.0	-79.54	8,804.6	-395.5	2,011.2	1,853.4	157.82	12.744		
17,000.0	7,617.0	16,398.9	7,252.0	164.1	0.0	-79.54	8,904.6	-396.4	2,010.0	1,850.5	159.53	12.600		
17,100.0	7,617.0	16,498.9	7,252.0	165.8	0.0	-79.53	9,004.6	-397.2	2,008.8	1,847.6	161.24	12.459		
17,200.0	7,617.0	16,598.9	7,252.0	167.5	0.0	-79.52	9,104.6	-398.0	2,007.6	1,844.7	162.95	12.320		
17,284.3	7,617.0	16,683.2	7,252.0	169.0	0.0	-79.52	9,188.9	-398.7	2,007.3	1,842.9	164.40	12.210		
17,300.0	7,617.0	16,698.9	7,252.0	169.2	0.0	-79.52	9,204.6	-398.8	2,006.9	1,842.2	164.67	12.188		
17,400.0	7,617.0	16,798.9	7,252.0	171.0	0.0	-79.52	9,304.5	-399.7	2,009.6	1,843.2	166.39	12.078		
17,500.0	7,617.0	16,898.6	7,252.0	172.7	0.0	-79.53	9,404.3	-400.5	2,016.4	1,848.3	168.11	11.995		
17,600.0	7,617.0	16,998.0	7,252.0	174.4	0.0	-79.54	9,503.7	-401.3	2,027.3	1,857.5	169.82	11.939		
17,700.0	7,617.0	17,096.8	7,252.0	176.1	0.0	-79.55	9,602.5	-402.1	2,042.3	1,870.8	171.51	11.908		
17,800.0	7,617.0	17,194.9	7,252.0	177.8	0.0	-79.57	9,700.6	-402.9	2,061.3	1,888.1	173.18	11.902 SF		
17,900.0	7,617.0	17,292.2	7,252.0	179.4	0.0	-79.58	9,797.8	-403.7	2,084.3	1,909.4	174.84	11.921		
18,000.0	7,617.0	17,385.9	7,252.0	181.1	0.0	-79.62	9,891.5	-404.5	2,111.1	1,934.7	176.44	11.965		
18,014.8	7,617.0	17,385.9	7,252.0	181.3	0.0	-79.62	9,891.5	-404.5	2,115.3	1,938.8	176.53	11.983		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.20	-0.2	-60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.20	-0.2	-60.0	60.0	59.4	0.55	108.509		
133.3	133.3	133.3	133.3	0.6	0.6	-90.20	-0.2	-60.0	60.0	59.1	0.90	66.680		
200.0	200.0	200.0	200.0	1.0	1.0	-90.20	-0.2	-60.0	60.0	58.4	1.59	37.651		
300.0	300.0	300.0	300.0	1.5	1.5	-90.20	-0.2	-60.0	60.0	57.6	2.45	24.527		
333.3	333.3	333.3	333.3	1.6	1.6	-90.20	-0.2	-60.0	60.0	57.3	2.71	22.150		
400.0	400.0	400.0	400.0	1.9	1.9	-90.20	-0.2	-60.0	60.0	56.8	3.23	18.554		
500.0	500.0	500.0	500.0	2.3	2.3	-90.20	-0.2	-60.0	60.0	56.0	3.99	15.020		
533.3	533.3	533.3	533.3	2.5	2.5	-90.20	-0.2	-60.0	60.0	55.8	4.24	14.138		
600.0	600.0	600.0	600.0	2.7	2.7	-90.20	-0.2	-60.0	60.0	55.3	4.74	12.653		
700.0	700.0	700.0	700.0	3.1	3.1	-90.20	-0.2	-60.0	60.0	54.5	5.48	10.947		
800.0	800.0	800.0	800.0	3.5	3.5	-90.20	-0.2	-60.0	60.0	53.8	6.22	9.654 CC, ES		
900.0	900.0	900.0	900.0	3.9	3.9	164.42	-0.2	-60.0	61.7	54.6	7.13	8.656		
1,000.0	999.8	999.8	999.8	4.5	4.2	165.60	-0.2	-60.0	66.7	58.5	8.27	8.066		
1,100.0	1,099.5	1,099.5	1,099.5	5.3	4.6	167.22	-0.2	-60.0	75.2	65.9	9.34	8.056		
1,200.0	1,198.7	1,198.7	1,198.7	6.0	5.0	168.94	-0.2	-60.0	87.1	76.8	10.35	8.421		
1,300.0	1,297.5	1,300.6	1,300.6	6.7	5.3	170.15	-1.2	-58.5	101.0	89.6	11.44	8.834		
1,400.0	1,395.6	1,403.0	1,402.9	7.3	5.6	170.51	-4.2	-54.0	115.2	102.6	12.64	9.116		
1,500.0	1,493.1	1,505.9	1,505.3	7.9	6.3	170.29	-9.3	-46.5	129.7	115.9	13.76	9.420		
1,600.0	1,589.6	1,609.1	1,607.8	8.5	7.0	169.66	-16.5	-35.8	144.4	129.6	14.81	9.751		
1,700.0	1,685.8	1,708.3	1,705.9	8.9	7.3	168.98	-24.5	-23.9	159.1	143.7	15.43	10.310		
1,800.0	1,781.9	1,807.2	1,803.8	9.1	7.6	168.41	-32.5	-12.0	173.8	157.8	15.99	10.872		
1,900.0	1,878.0	1,906.1	1,901.6	9.4	7.9	167.93	-40.5	-0.2	188.5	172.0	16.56	11.382		
2,000.0	1,974.1	2,005.0	1,999.5	9.7	8.2	167.52	-48.5	11.7	203.3	186.1	17.16	11.843		
2,100.0	2,070.2	2,103.9	2,097.3	10.0	8.6	167.17	-56.5	23.6	218.0	200.2	17.78	12.260		
2,200.0	2,166.3	2,202.8	2,195.2	10.4	8.9	166.86	-64.4	35.4	232.8	214.4	18.42	12.638		
2,300.0	2,262.4	2,301.7	2,293.1	10.7	9.3	166.59	-72.4	47.3	247.5	228.5	19.07	12.981		
2,400.0	2,358.6	2,400.6	2,390.9	11.1	9.6	166.34	-80.4	59.2	262.3	242.6	19.73	13.293		
2,500.0	2,454.7	2,499.5	2,488.8	11.6	10.0	166.13	-88.4	71.0	277.1	256.7	20.41	13.577		
2,600.0	2,550.8	2,598.4	2,586.6	12.0	10.3	165.94	-96.4	82.9	291.9	270.8	21.09	13.835		
2,700.0	2,646.9	2,697.3	2,684.5	12.5	10.7	165.76	-104.4	94.8	306.6	284.8	21.79	14.071		
2,800.0	2,743.0	2,796.2	2,782.3	13.1	11.1	165.60	-112.4	106.6	321.4	298.9	22.50	14.287		
2,900.0	2,839.1	2,895.1	2,880.2	13.6	11.5	165.46	-120.4	118.5	336.2	313.0	23.21	14.485		
3,000.0	2,935.2	2,994.0	2,978.1	14.2	11.9	165.32	-128.3	130.4	351.0	327.0	23.93	14.667		
3,100.0	3,031.3	3,092.9	3,075.9	14.7	12.2	165.20	-136.3	142.2	365.8	341.1	24.66	14.834		
3,200.0	3,127.5	3,191.8	3,173.8	15.3	12.6	165.09	-144.3	154.1	380.5	355.2	25.39	14.988		
3,300.0	3,223.6	3,290.7	3,271.6	15.9	13.0	164.98	-152.3	166.0	395.3	369.2	26.13	15.131		
3,400.0	3,319.7	3,389.6	3,369.5	16.5	13.4	164.89	-160.3	177.9	410.1	383.3	26.87	15.263		
3,500.0	3,415.8	3,488.5	3,467.4	17.1	13.9	164.80	-168.3	189.7	424.9	397.3	27.62	15.385		
3,600.0	3,511.9	3,587.4	3,565.2	17.7	14.3	164.71	-176.3	201.6	439.7	411.3	28.37	15.498		
3,700.0	3,608.0	3,686.3	3,663.1	18.3	14.7	164.63	-184.3	213.5	454.5	425.4	29.13	15.603		
3,800.0	3,704.1	3,785.2	3,760.9	18.8	15.1	164.56	-192.2	225.3	469.3	439.4	29.89	15.702		
3,900.0	3,800.3	3,884.1	3,858.8	19.4	15.5	164.49	-200.2	237.2	484.1	453.4	30.65	15.793		
4,000.0	3,896.4	3,983.0	3,956.6	20.0	15.9	164.43	-208.2	249.1	498.9	467.5	31.42	15.879		
4,100.0	3,992.5	4,081.9	4,054.5	20.6	16.3	164.37	-216.2	260.9	513.7	481.5	32.19	15.959		
4,200.0	4,088.6	4,180.8	4,152.4	21.2	16.7	164.31	-224.2	272.8	528.5	495.5	32.96	16.034		
4,300.0	4,184.7	4,279.7	4,250.2	21.8	17.1	164.25	-232.2	284.7	543.3	509.5	33.73	16.105		
4,400.0	4,280.8	4,378.6	4,348.1	22.4	17.6	164.20	-240.2	296.5	558.1	523.6	34.51	16.171		
4,500.0	4,376.9	4,477.5	4,445.9	23.0	18.0	164.15	-248.2	308.4	572.9	537.6	35.29	16.233		
4,600.0	4,473.0	4,576.4	4,543.8	23.6	18.4	164.11	-256.1	320.3	587.7	551.6	36.07	16.292		
4,700.0	4,569.2	4,675.3	4,641.6	24.2	18.8	164.06	-264.1	332.1	602.5	565.6	36.85	16.347		
4,800.0	4,665.3	4,774.2	4,739.5	24.8	19.2	164.02	-272.1	344.0	617.3	579.6	37.64	16.400		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,873.1	4,837.4	25.4	19.7	163.98	-280.1	355.9	632.1	593.6	38.43	16.449		
5,000.0	4,857.5	4,972.0	4,935.2	26.0	20.1	163.94	-288.1	367.7	646.9	607.6	39.21	16.496		
5,100.0	4,953.6	5,070.9	5,033.1	26.6	20.5	163.90	-296.1	379.6	661.7	621.7	40.00	16.540		
5,200.0	5,049.7	5,169.8	5,130.9	27.2	20.9	163.87	-304.1	391.5	676.5	635.7	40.79	16.583		
5,300.0	5,145.8	5,268.7	5,228.8	27.8	21.4	163.84	-312.1	403.3	691.3	649.7	41.59	16.623		
5,400.0	5,242.0	5,367.6	5,326.6	28.4	21.8	163.80	-320.0	415.2	706.1	663.7	42.38	16.661		
5,500.0	5,338.1	5,466.5	5,424.5	29.0	22.2	163.77	-328.0	427.1	720.9	677.7	43.17	16.697		
5,600.0	5,434.2	5,565.4	5,522.4	29.7	22.6	163.74	-336.0	439.0	735.7	691.7	43.97	16.731		
5,700.0	5,530.3	5,664.3	5,620.2	30.3	23.0	163.72	-344.0	450.8	750.5	705.7	44.77	16.764		
5,800.0	5,626.4	5,763.2	5,718.1	30.9	23.5	163.69	-352.0	462.7	765.3	719.7	45.56	16.795		
5,900.0	5,722.5	5,862.1	5,815.9	31.5	23.9	163.66	-360.0	474.6	780.1	733.7	46.36	16.825		
6,000.0	5,818.6	5,961.0	5,913.8	32.1	24.3	163.64	-368.0	486.4	794.9	747.7	47.16	16.854		
6,100.0	5,914.7	6,059.9	6,011.7	32.7	24.8	163.61	-376.0	498.3	809.7	761.7	47.96	16.881		
6,200.0	6,010.9	6,158.8	6,109.5	33.3	25.2	163.59	-383.9	510.2	824.5	775.7	48.76	16.907		
6,300.0	6,107.0	6,257.6	6,207.4	33.9	25.6	163.57	-391.9	522.0	839.3	789.7	49.57	16.932		
6,400.0	6,203.1	6,356.5	6,305.2	34.5	26.0	163.54	-399.9	533.9	854.1	803.7	50.37	16.956		
6,500.0	6,299.2	6,455.4	6,403.1	35.1	26.5	163.52	-407.9	545.8	868.9	817.7	51.17	16.979		
6,600.0	6,395.3	6,554.3	6,500.9	35.7	26.9	163.50	-415.9	557.6	883.7	831.7	51.98	17.001		
6,700.0	6,491.4	6,653.2	6,598.8	36.3	27.3	163.48	-423.9	569.5	898.5	845.7	52.78	17.022		
6,800.0	6,587.5	6,752.1	6,696.7	36.9	27.7	163.46	-431.9	581.4	913.3	859.7	53.59	17.043		
6,900.0	6,683.7	6,851.0	6,794.5	37.5	28.2	163.45	-439.9	593.2	928.1	873.7	54.39	17.062		
7,000.0	6,779.8	6,949.9	6,892.4	38.1	28.6	163.43	-447.8	605.1	942.9	887.7	55.20	17.081		
7,100.0	6,875.9	7,048.8	6,990.2	38.7	29.0	163.41	-455.8	617.0	957.7	901.7	56.01	17.099		
7,200.0	6,972.0	7,145.1	7,085.6	39.4	29.4	163.49	-462.1	628.5	972.5	915.8	56.78	17.129		
7,300.0	7,068.2	7,236.3	7,175.9	40.0	29.8	-177.28	-455.5	638.7	988.0	930.5	57.51	17.180		
7,400.0	7,164.1	7,325.4	7,262.1	40.6	30.2	-143.12	-435.2	647.9	1,004.0	945.7	58.25	17.236		
7,500.0	7,257.0	7,413.1	7,342.9	41.0	30.5	-122.52	-402.5	655.8	1,020.0	961.0	58.94	17.306		
7,600.0	7,344.0	7,500.0	7,417.3	41.4	30.9	-110.83	-358.2	662.3	1,035.4	976.0	59.45	17.417		
7,700.0	7,422.5	7,585.5	7,483.2	41.7	31.1	-103.62	-304.1	667.4	1,049.8	990.0	59.81	17.553		
7,800.0	7,490.1	7,670.9	7,540.4	41.9	31.2	-98.87	-240.8	671.1	1,062.6	1,002.5	60.09	17.683		
7,900.0	7,544.8	7,756.3	7,587.6	42.1	31.2	-95.69	-169.8	673.2	1,073.5	1,013.2	60.36	17.784		
8,000.0	7,584.9	7,841.8	7,624.0	42.2	31.2	-93.66	-92.5	673.7	1,082.2	1,021.5	60.67	17.837		
8,100.0	7,609.2	7,927.8	7,648.6	42.2	31.2	-92.56	-10.2	672.6	1,088.4	1,027.3	61.05	17.828		
8,200.0	7,617.0	8,014.4	7,660.7	42.1	31.1	-92.30	75.4	669.8	1,091.9	1,030.4	61.51	17.752		
8,300.0	7,617.0	8,108.9	7,662.0	42.1	31.0	-92.36	169.7	665.4	1,094.6	1,032.5	62.03	17.646		
8,400.0	7,617.0	8,208.8	7,662.0	42.2	31.0	-92.35	269.6	660.6	1,097.4	1,034.6	62.74	17.491		
8,500.0	7,617.0	8,308.8	7,662.0	42.3	31.1	-92.35	369.4	655.7	1,100.2	1,036.5	63.64	17.288		
8,600.0	7,617.0	8,408.7	7,662.0	42.4	31.4	-92.34	469.3	650.9	1,103.0	1,038.3	64.72	17.042		
8,700.0	7,617.0	8,508.7	7,662.0	42.7	32.0	-92.33	569.1	646.0	1,105.8	1,039.8	65.98	16.760		
8,800.0	7,617.0	8,608.7	7,662.0	42.9	32.7	-92.33	668.9	641.2	1,108.6	1,041.2	67.40	16.448		
8,900.0	7,617.0	8,708.6	7,662.0	43.3	33.6	-92.32	768.8	636.3	1,111.4	1,042.4	68.97	16.114		
9,000.0	7,617.0	8,808.6	7,662.0	43.7	34.5	-92.32	868.6	631.5	1,114.2	1,043.5	70.69	15.762		
9,100.0	7,617.0	8,908.5	7,662.0	44.3	35.5	-92.31	968.5	626.6	1,117.0	1,044.5	72.54	15.399		
9,200.0	7,617.0	9,008.5	7,662.0	44.9	36.5	-92.30	1,068.3	621.8	1,119.8	1,045.3	74.51	15.029		
9,300.0	7,617.0	9,108.5	7,662.0	45.5	37.6	-92.30	1,168.2	616.9	1,122.7	1,046.1	76.60	14.656		
9,400.0	7,617.0	9,208.4	7,662.0	46.3	38.7	-92.29	1,268.0	612.1	1,125.5	1,046.7	78.79	14.284		
9,500.0	7,617.0	9,308.4	7,662.0	47.1	39.9	-92.29	1,367.8	607.2	1,128.3	1,047.2	81.08	13.916		
9,600.0	7,617.0	9,408.3	7,662.0	48.1	41.1	-92.28	1,467.7	602.4	1,131.1	1,047.6	83.45	13.554		
9,700.0	7,617.0	9,508.3	7,662.0	49.0	42.4	-92.28	1,567.5	597.5	1,133.9	1,048.0	85.91	13.199		
9,800.0	7,617.0	9,608.3	7,662.0	50.1	43.7	-92.27	1,667.4	592.7	1,136.7	1,048.3	88.44	12.853		
9,900.0	7,617.0	9,708.2	7,662.0	51.1	45.0	-92.26	1,767.2	587.8	1,139.5	1,048.5	91.03	12.517		
10,000.0	7,617.0	9,808.2	7,662.0	52.3	46.4	-92.26	1,867.1	583.0	1,142.3	1,048.6	93.69	12.192		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	9,908.1	7,662.0	53.5	47.8	-92.25	1,966.9	578.1	1,145.1	1,048.7	96.41	11.877		
10,200.0	7,617.0	10,008.1	7,662.0	54.7	49.2	-92.25	2,066.7	573.3	1,147.9	1,048.8	99.18	11.574		
10,300.0	7,617.0	10,108.1	7,662.0	55.9	50.6	-92.24	2,166.6	568.4	1,150.7	1,048.7	102.00	11.282		
10,400.0	7,617.0	10,208.0	7,662.0	57.2	52.1	-92.24	2,266.4	563.6	1,153.6	1,048.7	104.86	11.001		
10,500.0	7,617.0	10,308.0	7,662.0	58.5	53.6	-92.23	2,366.3	558.7	1,156.4	1,048.6	107.76	10.731		
10,600.0	7,617.0	10,407.9	7,662.0	59.9	55.1	-92.23	2,466.1	553.9	1,159.2	1,048.5	110.70	10.471		
10,700.0	7,617.0	10,507.9	7,662.0	61.2	56.6	-92.22	2,566.0	549.0	1,162.0	1,048.3	113.68	10.222		
10,800.0	7,617.0	10,607.9	7,662.0	62.6	58.1	-92.21	2,665.8	544.2	1,164.8	1,048.1	116.68	9.982		
10,900.0	7,617.0	10,707.8	7,662.0	64.0	59.6	-92.21	2,765.6	539.3	1,167.6	1,047.9	119.72	9.753		
11,000.0	7,617.0	10,807.8	7,662.0	65.5	61.2	-92.20	2,865.5	534.5	1,170.4	1,047.6	122.78	9.532		
11,100.0	7,617.0	10,907.7	7,662.0	66.9	62.7	-92.20	2,965.3	529.6	1,173.2	1,047.3	125.87	9.321		
11,200.0	7,617.0	11,007.7	7,662.0	68.4	64.3	-92.19	3,065.2	524.8	1,176.0	1,047.0	128.99	9.117		
11,300.0	7,617.0	11,108.6	7,662.0	69.8	65.9	-92.19	3,165.9	519.9	1,178.8	1,046.7	132.15	8.920		
11,400.0	7,617.0	11,208.4	7,662.0	71.3	68.6	-92.19	3,265.7	516.8	1,178.6	1,046.8	137.76	8.555		
11,500.0	7,617.0	11,307.4	7,662.0	72.8	70.2	-92.19	3,365.4	513.9	1,178.5	1,046.6	140.89	8.343		
11,600.0	7,617.0	11,407.3	7,662.0	74.4	71.8	-92.20	3,465.6	511.9	1,178.4	1,046.3	144.08	8.137		
11,700.0	7,617.0	11,507.3	7,662.0	75.9	73.4	-92.21	3,565.6	509.0	1,178.3	1,046.0	147.28	7.939		
11,800.0	7,617.0	11,607.3	7,662.0	77.4	75.0	-92.21	3,665.5	506.1	1,178.2	1,045.7	150.49	7.749		
11,900.0	7,617.0	11,707.2	7,662.0	79.0	76.7	-92.22	3,765.5	503.2	1,178.1	1,045.4	153.72	7.566		
12,000.0	7,617.0	11,807.2	7,662.0	80.5	78.3	-92.22	3,865.4	500.3	1,178.0	1,045.1	156.96	7.390		
12,100.0	7,617.0	11,907.1	7,662.0	82.1	79.9	-92.23	3,965.4	497.4	1,177.9	1,044.8	160.21	7.221		
12,200.0	7,617.0	12,007.1	7,662.0	83.7	81.5	-92.24	4,065.4	494.5	1,177.8	1,044.5	163.47	7.058		
12,300.0	7,617.0	12,107.0	7,662.0	85.3	83.2	-92.24	4,165.4	491.6	1,177.7	1,044.2	166.74	6.901		
12,400.0	7,617.0	12,207.0	7,662.0	86.9	84.8	-92.25	4,265.4	488.7	1,177.6	1,043.9	170.03	6.749		
12,500.0	7,617.0	12,306.9	7,662.0	88.5	86.5	-92.25	4,365.4	485.8	1,177.5	1,043.6	173.32	6.603		
12,600.0	7,617.0	12,406.9	7,662.0	90.1	88.1	-92.26	4,465.4	482.9	1,177.4	1,043.3	176.62	6.462		
12,700.0	7,617.0	12,506.8	7,662.0	91.7	89.8	-92.27	4,565.4	480.0	1,177.3	1,043.0	179.94	6.326		
12,800.0	7,617.0	12,606.8	7,662.0	93.3	91.5	-92.27	4,665.4	477.1	1,177.2	1,042.7	183.25	6.194		
12,900.0	7,617.0	12,706.7	7,662.0	94.9	93.1	-92.28	4,765.4	474.2	1,177.1	1,042.4	186.58	6.067		
13,000.0	7,617.0	12,806.7	7,662.0	96.5	94.8	-92.29	4,865.4	471.3	1,177.0	1,042.1	189.91	5.944		
13,100.0	7,617.0	12,906.6	7,662.0	98.2	96.5	-92.29	4,965.4	468.4	1,176.9	1,041.8	193.25	5.825		
13,200.0	7,617.0	13,006.6	7,662.0	99.8	98.1	-92.30	5,065.4	465.5	1,176.8	1,041.5	196.60	5.710		
13,300.0	7,617.0	13,106.5	7,662.0	101.4	99.8	-92.30	5,165.4	462.6	1,176.7	1,041.2	199.95	5.599		
13,400.0	7,617.0	13,206.5	7,662.0	103.1	101.5	-92.31	5,265.4	459.7	1,176.6	1,040.9	203.31	5.491		
13,500.0	7,617.0	13,306.4	7,662.0	104.7	103.2	-92.32	5,365.4	456.8	1,176.5	1,040.6	206.68	5.387		
13,600.0	7,617.0	13,406.4	7,662.0	106.4	104.9	-92.32	5,465.4	453.9	1,176.4	1,040.3	210.05	5.286		
13,700.0	7,617.0	13,506.3	7,662.0	108.1	106.6	-92.33	5,565.4	451.0	1,176.3	1,040.0	213.42	5.187		
13,800.0	7,617.0	13,606.3	7,662.0	109.7	108.3	-92.34	5,665.4	448.1	1,176.2	1,039.7	216.80	5.092		
13,900.0	7,617.0	13,706.2	7,662.0	111.4	109.9	-92.34	5,765.4	445.2	1,176.1	1,039.4	220.19	5.000		
14,000.0	7,617.0	13,806.2	7,662.0	113.0	111.6	-92.35	5,865.4	442.3	1,176.0	1,039.1	223.57	4.910		
14,100.0	7,617.0	13,906.1	7,662.0	114.7	113.3	-92.36	5,965.4	439.4	1,175.9	1,038.8	226.97	4.823		
14,200.0	7,617.0	14,006.1	7,662.0	116.4	115.0	-92.36	6,065.4	436.5	1,175.8	1,038.5	230.36	4.738		
14,300.0	7,617.0	14,106.0	7,662.0	118.1	116.7	-92.37	6,165.4	433.6	1,175.7	1,038.2	233.76	4.656		
14,400.0	7,617.0	14,206.0	7,662.0	119.7	118.4	-92.38	6,265.4	430.7	1,175.6	1,037.9	237.17	4.576		
14,500.0	7,617.0	14,305.9	7,662.0	121.4	120.1	-92.38	6,365.4	427.8	1,175.5	1,037.6	240.58	4.499		
14,600.0	7,617.0	14,405.9	7,662.0	123.1	121.8	-92.39	6,465.4	424.9	1,175.4	1,037.3	243.99	4.423		
14,700.0	7,617.0	14,505.8	7,662.0	124.8	123.5	-92.40	6,565.4	422.0	1,175.3	1,037.0	247.40	4.349		
14,800.0	7,617.0	14,605.8	7,662.0	126.5	125.3	-92.40	6,665.4	419.1	1,175.2	1,036.7	250.82	4.278		
14,900.0	7,617.0	14,705.8	7,662.0	128.2	127.0	-92.41	6,765.4	416.2	1,175.1	1,036.4	254.24	4.208		
15,000.0	7,617.0	14,805.7	7,662.0	129.9	128.7	-92.42	6,865.4	413.3	1,175.0	1,036.1	257.66	4.140		
15,100.0	7,617.0	14,905.7	7,662.0	131.6	130.4	-92.43	6,965.4	410.4	1,174.9	1,035.8	261.09	4.074		
15,200.0	7,617.0	15,005.6	7,662.0	133.3	132.1	-92.43	7,065.4	407.5	1,174.8	1,035.5	264.51	4.009		

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	15,175.6	7,662.0	135.0	133.8	-92.44	7,232.6	558.5	1,057.4	789.4	267.94	3.946		
15,400.0	7,617.0	15,275.5	7,662.0	136.7	135.5	-92.45	7,332.6	559.6	1,054.3	782.9	271.38	3.885		
15,500.0	7,617.0	15,375.5	7,662.0	138.4	137.2	-92.45	7,432.5	560.7	1,051.2	776.3	274.81	3.825		
15,600.0	7,617.0	15,475.4	7,662.0	140.1	139.0	-92.46	7,532.5	561.7	1,048.0	769.8	278.25	3.767		
15,700.0	7,617.0	15,575.4	7,662.0	141.8	140.7	-92.47	7,632.4	562.8	1,044.9	763.2	281.69	3.710		
15,800.0	7,617.0	15,675.3	7,662.0	143.5	142.4	-92.48	7,732.4	563.9	1,041.8	756.7	285.13	3.654		
15,900.0	7,617.0	15,775.3	7,662.0	145.2	144.1	-92.48	7,832.3	564.9	1,038.7	750.1	288.58	3.599		
16,000.0	7,617.0	15,875.2	7,662.0	146.9	145.8	-92.49	7,932.3	566.0	1,035.6	743.6	292.02	3.546		
16,100.0	7,617.0	15,975.2	7,662.0	148.6	147.6	-92.50	8,032.2	567.1	1,032.5	737.0	295.47	3.494		
16,200.0	7,617.0	16,075.1	7,662.0	150.3	149.3	-92.51	8,132.1	568.2	1,029.4	730.5	298.92	3.444		
16,300.0	7,617.0	16,175.1	7,662.0	152.0	151.0	-92.51	8,232.1	569.2	1,026.3	723.9	302.37	3.394		
16,400.0	7,617.0	16,275.0	7,662.0	153.8	152.7	-92.52	8,332.0	570.3	1,023.2	717.4	305.82	3.346		
16,500.0	7,617.0	16,375.0	7,662.0	155.5	154.5	-92.53	8,432.0	571.4	1,020.1	710.8	309.28	3.298		
16,600.0	7,617.0	16,474.9	7,662.0	157.2	156.2	-92.54	8,531.9	572.4	1,017.0	704.2	312.73	3.252		
16,700.0	7,617.0	16,574.9	7,662.0	158.9	157.9	-92.55	8,631.9	573.5	1,013.9	697.7	316.19	3.206		
16,800.0	7,617.0	16,674.8	7,662.0	160.6	159.6	-92.55	8,731.8	574.6	1,010.7	691.1	319.65	3.162		
16,900.0	7,617.0	16,774.8	7,662.0	162.4	161.4	-92.56	8,831.8	575.6	1,007.6	684.5	323.11	3.119		
17,000.0	7,617.0	16,874.7	7,662.0	164.1	163.1	-92.57	8,931.7	576.7	1,004.5	678.0	326.57	3.076		
17,100.0	7,617.0	16,974.7	7,662.0	165.8	164.8	-92.58	9,031.7	577.8	1,001.4	671.4	330.03	3.034		
17,200.0	7,617.0	17,074.6	7,662.0	167.5	166.6	-92.58	9,131.6	578.9	998.3	664.8	333.50	2.993		
17,300.0	7,617.0	17,174.6	7,662.0	169.2	168.3	-92.59	9,231.6	579.9	995.7	658.7	336.96	2.955		
17,328.5	7,617.0	17,203.1	7,662.0	169.7	168.8	-92.59	9,260.0	580.2	995.5	657.5	337.94	2.946		
17,400.0	7,617.0	17,274.6	7,662.0	171.0	170.0	-92.59	9,331.5	581.0	996.5	656.1	340.42	2.927		
17,500.0	7,617.0	17,374.5	7,662.0	172.7	171.8	-92.58	9,431.4	582.1	1,001.6	657.7	343.87	2.913		
17,600.0	7,617.0	17,474.0	7,662.0	174.4	173.5	-92.57	9,531.0	583.1	1,010.8	663.5	347.30	2.910 SF		
17,700.0	7,617.0	17,573.1	7,662.0	176.1	175.2	-92.55	9,630.1	584.2	1,024.1	673.4	350.70	2.920		
17,800.0	7,617.0	17,671.6	7,662.0	177.8	176.9	-92.52	9,728.5	585.2	1,041.5	687.4	354.05	2.942		
17,900.0	7,617.0	17,769.2	7,662.0	179.4	178.6	-92.50	9,826.2	586.3	1,063.0	705.6	357.36	2.974		
18,000.0	7,617.0	17,850.8	7,662.0	181.1	180.0	-92.47	9,907.7	587.2	1,088.5	728.5	360.01	3.023		
18,014.8	7,617.0	17,850.8	7,662.0	181.3	180.0	-92.47	9,907.7	587.2	1,092.7	732.8	359.87	3.036		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.10	0.0	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.10	0.0	-15.0	15.0	14.7	0.28	54.182		
133.3	133.3	133.3	133.3	0.6	0.0	-90.10	0.0	-15.0	15.0	14.5	0.45	33.301		
200.0	200.0	200.0	200.0	1.0	0.0	-90.10	0.0	-15.0	15.0	14.2	0.80	18.806		
300.0	300.0	300.0	300.0	1.5	0.0	-90.10	0.0	-15.0	15.0	13.8	1.22	12.250		
333.3	333.3	333.3	333.3	1.6	0.0	-90.10	0.0	-15.0	15.0	13.6	1.35	11.062		
400.0	400.0	400.0	400.0	1.9	0.0	-90.10	0.0	-15.0	15.0	13.4	1.62	9.266		
500.0	500.0	500.0	500.0	2.3	0.0	-90.10	0.0	-15.0	15.0	13.0	2.00	7.500		
533.3	533.3	533.3	533.3	2.5	0.0	-90.10	0.0	-15.0	15.0	12.9	2.12	7.060		
600.0	600.0	600.0	600.0	2.7	0.0	-90.10	0.0	-15.0	15.0	12.6	2.37	6.318		
700.0	700.0	700.0	700.0	3.1	0.0	-90.10	0.0	-15.0	15.0	12.2	2.74	5.466		
800.0	800.0	800.0	800.0	3.5	0.0	-90.10	0.0	-15.0	15.0	11.9	3.11	4.820 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	165.73	0.0	-15.0	16.7	13.0	3.65	4.569		
1,000.0	999.8	1,000.5	1,000.5	4.5	0.0	167.85	-0.6	-13.3	20.1	15.6	4.46	4.498		
1,100.0	1,099.5	1,101.2	1,101.0	5.3	0.0	168.80	-2.4	-8.3	23.5	18.4	5.20	4.530		
1,200.0	1,198.7	1,202.0	1,201.5	6.0	0.0	169.00	-5.4	0.0	27.0	21.2	5.86	4.614		
1,300.0	1,297.5	1,302.9	1,301.6	6.7	0.0	168.71	-9.5	11.7	30.6	24.1	6.47	4.727		
1,400.0	1,395.6	1,404.0	1,401.4	7.3	0.0	168.09	-14.9	26.7	34.1	27.1	7.03	4.857		
1,500.0	1,493.1	1,505.1	1,500.6	7.9	0.0	167.23	-21.4	45.0	37.7	30.1	7.54	4.997		
1,600.0	1,589.6	1,606.1	1,599.0	8.5	0.0	166.21	-29.1	66.5	41.3	33.3	8.04	5.141		
1,700.0	1,685.8	1,706.1	1,696.1	8.9	0.0	165.47	-37.1	89.0	45.6	37.2	8.38	5.437		
1,800.0	1,781.9	1,806.0	1,793.1	9.1	0.0	164.86	-45.1	111.4	49.8	41.2	8.65	5.761		
1,900.0	1,878.0	1,905.9	1,890.1	9.4	0.0	164.35	-53.0	133.8	54.1	45.1	8.93	6.055		
2,000.0	1,974.1	2,005.8	1,987.2	9.7	0.0	163.91	-61.0	156.2	58.3	49.1	9.23	6.322		
2,100.0	2,070.2	2,105.7	2,084.2	10.0	0.0	163.53	-69.0	178.6	62.6	53.0	9.53	6.564		
2,200.0	2,166.3	2,205.6	2,181.2	10.4	0.0	163.19	-77.0	201.0	66.8	57.0	9.85	6.783		
2,300.0	2,262.4	2,305.5	2,278.3	10.7	0.0	162.90	-85.0	223.4	71.1	60.9	10.18	6.982		
2,400.0	2,358.6	2,405.4	2,375.3	11.1	0.0	162.64	-93.0	245.8	75.4	64.8	10.52	7.162		
2,500.0	2,454.7	2,505.3	2,472.3	11.6	0.0	162.41	-101.0	268.3	79.6	68.8	10.87	7.326		
2,600.0	2,550.8	2,605.2	2,569.4	12.0	0.0	162.20	-109.0	290.7	83.9	72.7	11.23	7.474		
2,700.0	2,646.9	2,705.1	2,666.4	12.5	0.0	162.02	-117.0	313.1	88.2	76.6	11.59	7.610		
2,800.0	2,743.0	2,805.0	2,763.4	13.1	0.0	161.85	-124.9	335.5	92.4	80.5	11.95	7.733		
2,900.0	2,839.1	2,905.0	2,860.5	13.6	0.0	161.69	-132.9	357.9	96.7	84.4	12.33	7.846		
3,000.0	2,935.2	3,004.9	2,957.5	14.2	0.0	161.55	-140.9	380.3	101.0	88.3	12.70	7.949		
3,100.0	3,031.3	3,104.8	3,054.5	14.7	0.0	161.42	-148.9	402.7	105.2	92.2	13.08	8.043		
3,200.0	3,127.5	3,204.7	3,151.6	15.3	0.0	161.30	-156.9	425.1	109.5	96.0	13.47	8.130		
3,300.0	3,223.6	3,304.6	3,248.6	15.9	0.0	161.19	-164.9	447.5	113.8	99.9	13.86	8.210		
3,400.0	3,319.7	3,404.5	3,345.6	16.5	0.0	161.08	-172.9	470.0	118.1	103.8	14.25	8.283		
3,500.0	3,415.8	3,504.4	3,442.7	17.1	0.0	160.99	-180.9	492.4	122.3	107.7	14.65	8.351		
3,600.0	3,511.9	3,604.3	3,539.7	17.7	0.0	160.90	-188.8	514.8	126.6	111.6	15.05	8.414		
3,700.0	3,608.0	3,704.2	3,636.7	18.3	0.0	160.81	-196.8	537.2	130.9	115.4	15.45	8.472		
3,800.0	3,704.1	3,804.1	3,733.8	18.8	0.0	160.73	-204.8	559.6	135.2	119.3	15.85	8.526		
3,900.0	3,800.3	3,904.0	3,830.8	19.4	0.0	160.66	-212.8	582.0	139.4	123.2	16.26	8.576		
4,000.0	3,896.4	4,004.0	3,927.8	20.0	0.0	160.59	-220.8	604.4	143.7	127.0	16.67	8.622		
4,100.0	3,992.5	4,103.9	4,024.9	20.6	0.0	160.53	-228.8	626.8	148.0	130.9	17.08	8.666		
4,200.0	4,088.6	4,203.8	4,121.9	21.2	0.0	160.46	-236.8	649.3	152.2	134.8	17.49	8.706		
4,300.0	4,184.7	4,303.7	4,218.9	21.8	0.0	160.41	-244.8	671.7	156.5	138.6	17.90	8.744		
4,400.0	4,280.8	4,403.6	4,316.0	22.4	0.0	160.35	-252.8	694.1	160.8	142.5	18.32	8.779		
4,500.0	4,376.9	4,503.5	4,413.0	23.0	0.0	160.30	-260.7	716.5	165.1	146.3	18.73	8.812		
4,600.0	4,473.0	4,603.4	4,510.1	23.6	0.0	160.25	-268.7	738.9	169.3	150.2	19.15	8.843		
4,700.0	4,569.2	4,703.3	4,607.1	24.2	0.0	160.20	-276.7	761.3	173.6	154.0	19.57	8.873		
4,800.0	4,665.3	4,803.2	4,704.1	24.8	0.0	160.16	-284.7	783.7	177.9	157.9	19.99	8.900		

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 19-18-4CDH
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 19-18-4CDH	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		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)						
4,900.0	4,761.4	4,903.1	4,801.2	25.4	0.0	160.11	-292.7	806.1	182.2	161.8	20.41	8.926		
5,000.0	4,857.5	5,003.0	4,898.2	26.0	0.0	160.07	-300.7	828.6	186.4	165.6	20.83	8.950		
5,100.0	4,953.6	5,102.9	4,995.2	26.6	0.0	160.03	-308.7	851.0	190.7	169.5	21.25	8.973		
5,200.0	5,049.7	5,202.9	5,092.3	27.2	0.0	160.00	-316.7	873.4	195.0	173.3	21.68	8.995		
5,300.0	5,145.8	5,302.8	5,189.3	27.8	0.0	159.96	-324.6	895.8	199.3	177.2	22.10	9.016		
5,400.0	5,242.0	5,402.7	5,286.3	28.4	0.0	159.93	-332.6	918.2	203.5	181.0	22.53	9.035		
5,500.0	5,338.1	5,502.6	5,383.4	29.0	0.0	159.89	-340.6	940.6	207.8	184.9	22.95	9.054		
5,600.0	5,434.2	5,602.5	5,480.4	29.7	0.0	159.86	-348.6	963.0	212.1	188.7	23.38	9.071		
5,700.0	5,530.3	5,702.4	5,577.4	30.3	0.0	159.83	-356.6	985.4	216.4	192.6	23.81	9.088		
5,800.0	5,626.4	5,802.3	5,674.5	30.9	0.0	159.80	-364.6	1,007.9	220.6	196.4	24.24	9.104		
5,900.0	5,722.5	5,902.2	5,771.5	31.5	0.0	159.78	-372.6	1,030.3	224.9	200.3	24.67	9.119		
6,000.0	5,818.6	6,002.1	5,868.5	32.1	0.0	159.75	-380.6	1,052.7	229.2	204.1	25.10	9.133		
6,100.0	5,914.7	6,102.0	5,965.6	32.7	0.0	159.72	-388.6	1,075.1	233.5	207.9	25.53	9.147		
6,200.0	6,010.9	6,201.9	6,062.6	33.3	0.0	159.70	-396.5	1,097.5	237.7	211.8	25.96	9.160		
6,300.0	6,107.0	6,301.8	6,159.6	33.9	0.0	159.67	-404.5	1,119.9	242.0	215.6	26.39	9.172		
6,400.0	6,203.1	6,401.8	6,256.7	34.5	0.0	159.65	-412.5	1,142.3	246.3	219.5	26.82	9.184		
6,500.0	6,299.2	6,501.7	6,353.7	35.1	0.0	159.63	-420.5	1,164.7	250.6	223.3	27.25	9.195		
6,600.0	6,395.3	6,601.6	6,450.7	35.7	0.0	159.61	-428.5	1,187.1	254.8	227.2	27.68	9.206		
6,700.0	6,491.4	6,701.5	6,547.8	36.3	0.0	159.58	-436.5	1,209.6	259.1	231.0	28.11	9.217		
6,800.0	6,587.5	6,801.4	6,644.8	36.9	0.0	159.56	-444.5	1,232.0	263.4	234.9	28.55	9.227		
6,900.0	6,683.7	6,901.3	6,741.8	37.5	0.0	159.54	-452.5	1,254.4	267.7	238.7	28.98	9.236		
7,000.0	6,779.8	7,003.5	6,841.3	38.1	0.0	160.43	-456.3	1,277.3	271.7	242.3	29.31	9.269		
7,100.0	6,875.9	7,102.8	6,937.1	38.7	0.0	164.68	-443.6	1,299.3	275.3	246.1	29.26	9.409		
7,200.0	6,972.0	7,192.7	7,021.0	39.4	0.0	171.31	-417.5	1,318.4	282.3	253.2	29.11	9.699		
7,300.0	7,068.2	7,272.0	7,090.8	40.0	0.0	-162.81	-383.7	1,334.2	296.7	267.7	29.00	10.232		
7,400.0	7,164.1	7,350.0	7,154.4	40.6	0.0	-122.73	-341.0	1,348.5	316.9	287.8	29.08	10.900		
7,500.0	7,257.0	7,418.1	7,205.0	41.0	0.0	-97.81	-296.9	1,359.8	339.6	310.8	28.81	11.788		
7,600.0	7,344.0	7,487.5	7,250.9	41.4	0.0	-82.59	-245.8	1,369.9	362.6	334.5	28.14	12.887		
7,700.0	7,422.5	7,550.0	7,286.8	41.7	0.0	-72.93	-195.3	1,377.8	384.1	357.2	26.97	14.243		
7,800.0	7,490.1	7,622.0	7,321.2	41.9	0.0	-66.11	-132.6	1,385.2	402.8	376.8	26.02	15.480		
7,900.0	7,544.8	7,687.7	7,345.8	42.1	0.0	-61.61	-71.9	1,390.3	417.9	392.9	24.95	16.746		
8,000.0	7,584.9	7,750.0	7,362.6	42.2	0.0	-58.73	-12.1	1,393.7	428.6	404.6	24.05	17.825		
8,100.0	7,609.2	7,817.5	7,373.6	42.2	0.0	-57.08	54.5	1,395.7	434.7	411.1	23.58	18.438		
8,200.0	7,617.0	7,882.9	7,377.0	42.1	0.0	-56.59	119.8	1,395.9	435.9	412.4	23.49	18.557		
8,300.0	7,617.0	7,982.9	7,377.0	42.1	0.0	-56.50	219.8	1,395.1	434.9	411.3	23.60	18.431		
8,400.0	7,617.0	8,082.9	7,377.0	42.2	0.0	-56.41	319.8	1,394.3	433.9	410.1	23.80	18.229		
8,500.0	7,617.0	8,182.9	7,377.0	42.3	0.0	-56.33	419.8	1,393.4	432.9	408.8	24.10	17.961		
8,600.0	7,617.0	8,282.9	7,377.0	42.4	0.0	-56.24	519.8	1,392.6	431.9	407.4	24.49	17.633		
8,700.0	7,617.0	8,382.9	7,377.0	42.7	0.0	-56.15	619.7	1,391.8	430.9	405.9	24.97	17.255		
8,800.0	7,617.0	8,482.9	7,377.0	42.9	0.0	-56.06	719.7	1,391.0	429.8	404.3	25.53	16.838		
8,900.0	7,617.0	8,582.9	7,377.0	43.3	0.0	-55.97	819.7	1,390.1	428.8	402.7	26.16	16.392		
9,000.0	7,617.0	8,682.9	7,377.0	43.7	0.0	-55.88	919.7	1,389.3	427.8	401.0	26.86	15.926		
9,100.0	7,617.0	8,782.9	7,377.0	44.3	0.0	-55.78	1,019.7	1,388.5	426.8	399.2	27.63	15.447		
9,200.0	7,617.0	8,882.9	7,377.0	44.9	0.0	-55.69	1,119.7	1,387.7	425.8	397.4	28.46	14.963		
9,300.0	7,617.0	8,982.9	7,377.0	45.5	0.0	-55.60	1,219.7	1,386.8	424.8	395.5	29.34	14.481		
9,400.0	7,617.0	9,082.9	7,377.0	46.3	0.0	-55.51	1,319.7	1,386.0	423.8	393.6	30.26	14.005		
9,500.0	7,617.0	9,182.8	7,377.0	47.1	0.0	-55.41	1,419.7	1,385.2	422.8	391.6	31.23	13.538		
9,600.0	7,617.0	9,282.8	7,377.0	48.1	0.0	-55.32	1,519.6	1,384.3	421.8	389.6	32.24	13.083		
9,700.0	7,617.0	9,382.8	7,377.0	49.0	0.0	-55.23	1,619.6	1,383.5	420.8	387.5	33.29	12.643		
9,800.0	7,617.0	9,482.8	7,377.0	50.1	0.0	-55.13	1,719.6	1,382.7	419.8	385.5	34.36	12.218		
9,900.0	7,617.0	9,582.8	7,377.0	51.1	0.0	-55.04	1,819.6	1,381.9	418.8	383.4	35.47	11.809		
10,000.0	7,617.0	9,682.8	7,377.0	52.3	0.0	-54.94	1,919.6	1,381.0	417.8	381.2	36.60	11.418		

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 19-18-4CDH
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 19-18-4CDH	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	
10,100.0	7,617.0	9,782.8	7,377.0	53.5	0.0	-54.85	2,019.6	1,380.2	416.8	379.1	37.75	11.043	
10,200.0	7,617.0	9,882.8	7,377.0	54.7	0.0	-54.75	2,119.6	1,379.4	415.8	376.9	38.92	10.685	
10,300.0	7,617.0	9,982.8	7,377.0	55.9	0.0	-54.65	2,219.6	1,378.6	414.9	374.7	40.11	10.343	
10,400.0	7,617.0	10,082.8	7,377.0	57.2	0.0	-54.55	2,319.6	1,377.7	413.9	372.5	41.32	10.017	
10,500.0	7,617.0	10,182.8	7,377.0	58.5	0.0	-54.46	2,419.5	1,376.9	412.9	370.3	42.54	9.706	
10,600.0	7,617.0	10,282.8	7,377.0	59.9	0.0	-54.36	2,519.5	1,376.1	411.9	368.1	43.78	9.409	
10,700.0	7,617.0	10,382.8	7,377.0	61.2	0.0	-54.26	2,619.5	1,375.3	410.9	365.9	45.02	9.127	
10,800.0	7,617.0	10,482.8	7,377.0	62.6	0.0	-54.16	2,719.5	1,374.4	409.9	363.6	46.28	8.858	
10,900.0	7,617.0	10,582.7	7,377.0	64.0	0.0	-54.06	2,819.5	1,373.6	408.9	361.4	47.55	8.601	
11,000.0	7,617.0	10,682.7	7,377.0	65.5	0.0	-53.96	2,919.5	1,372.8	408.0	359.1	48.82	8.356	
11,100.0	7,617.0	10,782.7	7,377.0	66.9	0.0	-53.86	3,019.5	1,371.9	407.0	356.9	50.10	8.123	
11,200.0	7,617.0	10,882.7	7,377.0	68.4	0.0	-53.76	3,119.5	1,371.1	406.0	354.6	51.39	7.900	
11,300.0	7,617.0	10,982.7	7,377.0	69.8	0.0	-53.66	3,219.5	1,370.3	405.0	352.3	52.69	7.687	
11,400.0	7,617.0	11,082.7	7,377.0	71.3	0.0	-53.56	3,319.4	1,369.5	404.0	350.0	53.99	7.484	
11,500.0	7,617.0	11,182.7	7,377.0	72.8	0.0	-53.45	3,419.4	1,368.6	403.1	347.8	55.29	7.290	
11,600.0	7,617.0	11,282.7	7,377.0	74.4	0.0	-53.35	3,519.4	1,367.8	402.1	345.5	56.60	7.104	
11,700.0	7,617.0	11,382.7	7,377.0	75.9	0.0	-53.25	3,619.4	1,367.0	401.1	343.2	57.91	6.926	
11,800.0	7,617.0	11,482.7	7,377.0	77.4	0.0	-53.14	3,719.4	1,366.2	400.1	340.9	59.23	6.756	
11,900.0	7,617.0	11,582.7	7,377.0	79.0	0.0	-53.04	3,819.4	1,365.3	399.2	338.6	60.54	6.593	
12,000.0	7,617.0	11,682.7	7,377.0	80.5	0.0	-52.93	3,919.4	1,364.5	398.2	336.3	61.86	6.437	
12,100.0	7,617.0	11,782.7	7,377.0	82.1	0.0	-52.83	4,019.4	1,363.7	397.2	334.0	63.18	6.287	
12,200.0	7,617.0	11,882.6	7,377.0	83.7	0.0	-52.72	4,119.4	1,362.8	396.3	331.8	64.50	6.143	
12,300.0	7,617.0	11,982.6	7,377.0	85.3	0.0	-52.62	4,219.4	1,362.0	395.3	329.5	65.83	6.005	
12,400.0	7,617.0	12,082.6	7,377.0	86.9	0.0	-52.51	4,319.3	1,361.2	394.3	327.2	67.15	5.872	
12,500.0	7,617.0	12,182.6	7,377.0	88.5	0.0	-52.40	4,419.3	1,360.4	393.4	324.9	68.47	5.745	
12,600.0	7,617.0	12,282.6	7,377.0	90.1	0.0	-52.29	4,519.3	1,359.5	392.4	322.6	69.80	5.622	
12,700.0	7,617.0	12,382.6	7,377.0	91.7	0.0	-52.18	4,619.3	1,358.7	391.4	320.3	71.12	5.504	
12,800.0	7,617.0	12,482.6	7,377.0	93.3	0.0	-52.07	4,719.3	1,357.9	390.5	318.0	72.44	5.390	
12,900.0	7,617.0	12,582.6	7,377.0	94.9	0.0	-51.96	4,819.3	1,357.1	389.5	315.8	73.77	5.281	
13,000.0	7,617.0	12,682.6	7,377.0	96.5	0.0	-51.85	4,919.3	1,356.2	388.6	313.5	75.09	5.175	
13,100.0	7,617.0	12,782.6	7,377.0	98.2	0.0	-51.74	5,019.3	1,355.4	387.6	311.2	76.41	5.073	
13,200.0	7,617.0	12,882.6	7,377.0	99.8	0.0	-51.63	5,119.3	1,354.6	386.7	308.9	77.73	4.975	
13,300.0	7,617.0	12,982.6	7,377.0	101.4	0.0	-51.52	5,219.2	1,353.8	385.7	306.7	79.05	4.880	
13,400.0	7,617.0	13,082.6	7,377.0	103.1	0.0	-51.41	5,319.2	1,352.9	384.8	304.4	80.36	4.788	
13,500.0	7,617.0	13,182.6	7,377.0	104.7	0.0	-51.29	5,419.2	1,352.1	383.8	302.1	81.68	4.699	
13,600.0	7,617.0	13,282.5	7,377.0	106.4	0.0	-51.18	5,519.2	1,351.3	382.9	299.9	82.99	4.613	
13,700.0	7,617.0	13,382.5	7,377.0	108.1	0.0	-51.07	5,619.2	1,350.4	381.9	297.6	84.30	4.530	
13,800.0	7,617.0	13,482.5	7,377.0	109.7	0.0	-50.95	5,719.2	1,349.6	381.0	295.4	85.61	4.450	
13,900.0	7,617.0	13,582.5	7,377.0	111.4	0.0	-50.84	5,819.2	1,348.8	380.0	293.1	86.92	4.372	
14,000.0	7,617.0	13,682.5	7,377.0	113.0	0.0	-50.72	5,919.2	1,348.0	379.1	290.9	88.22	4.297	
14,100.0	7,617.0	13,782.5	7,377.0	114.7	0.0	-50.60	6,019.2	1,347.1	378.2	288.6	89.53	4.224	
14,200.0	7,617.0	13,882.5	7,377.0	116.4	0.0	-50.49	6,119.1	1,346.3	377.2	286.4	90.82	4.153	
14,300.0	7,617.0	13,982.5	7,377.0	118.1	0.0	-50.37	6,219.1	1,345.5	376.3	284.2	92.12	4.085	
14,400.0	7,617.0	14,082.5	7,377.0	119.7	0.0	-50.25	6,319.1	1,344.7	375.4	281.9	93.42	4.018	
14,500.0	7,617.0	14,182.5	7,377.0	121.4	0.0	-50.13	6,419.1	1,343.8	374.4	279.7	94.71	3.954	
14,600.0	7,617.0	14,282.5	7,377.0	123.1	0.0	-50.01	6,519.1	1,343.0	373.5	277.5	95.99	3.891	
14,700.0	7,617.0	14,382.5	7,377.0	124.8	0.0	-49.89	6,619.1	1,342.2	372.6	275.3	97.28	3.830	
14,800.0	7,617.0	14,482.5	7,377.0	126.5	0.0	-49.77	6,719.1	1,341.3	371.6	273.1	98.56	3.771	
14,900.0	7,617.0	14,582.4	7,377.0	128.2	0.0	-49.65	6,819.1	1,340.5	370.7	270.9	99.84	3.713	
15,000.0	7,617.0	14,682.4	7,377.0	129.9	0.0	-49.53	6,919.1	1,339.7	369.8	268.7	101.11	3.657	
15,100.0	7,617.0	14,782.4	7,377.0	131.6	0.0	-49.41	7,019.1	1,338.9	368.9	266.5	102.38	3.603	
15,200.0	7,617.0	14,882.4	7,377.0	133.3	0.0	-49.28	7,119.0	1,338.0	367.9	264.3	103.65	3.550	

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	14,982.4	7,377.0	135.0	0.0	-49.16	7,219.0	1,337.2	367.0	262.1	104.92	3.498		
15,400.0	7,617.0	15,082.4	7,377.0	136.7	0.0	-49.04	7,319.0	1,336.4	366.1	259.9	106.18	3.448		
15,500.0	7,617.0	15,182.4	7,377.0	138.4	0.0	-48.91	7,419.0	1,335.6	365.2	257.8	107.43	3.399		
15,600.0	7,617.0	15,282.4	7,377.0	140.1	0.0	-48.79	7,519.0	1,334.7	364.3	255.6	108.69	3.352		
15,700.0	7,617.0	15,382.4	7,377.0	141.8	0.0	-48.66	7,619.0	1,333.9	363.4	253.4	109.94	3.305		
15,800.0	7,617.0	15,482.4	7,377.0	143.5	0.0	-48.53	7,719.0	1,333.1	362.4	251.3	111.18	3.260		
15,900.0	7,617.0	15,582.4	7,377.0	145.2	0.0	-48.41	7,819.0	1,332.2	361.5	249.1	112.42	3.216		
16,000.0	7,617.0	15,682.4	7,377.0	146.9	0.0	-48.28	7,919.0	1,331.4	360.6	247.0	113.66	3.173		
16,100.0	7,617.0	15,782.4	7,377.0	148.6	0.0	-48.15	8,018.9	1,330.6	359.7	244.8	114.89	3.131		
16,200.0	7,617.0	15,882.4	7,377.0	150.3	0.0	-48.02	8,118.9	1,329.8	358.8	242.7	116.12	3.090		
16,300.0	7,617.0	15,982.3	7,377.0	152.0	0.0	-47.89	8,218.9	1,328.9	357.9	240.6	117.34	3.050		
16,400.0	7,617.0	16,082.3	7,377.0	153.8	0.0	-47.76	8,318.9	1,328.1	357.0	238.5	118.56	3.011		
16,500.0	7,617.0	16,182.3	7,377.0	155.5	0.0	-47.63	8,418.9	1,327.3	356.1	236.3	119.77	2.973		
16,600.0	7,617.0	16,282.3	7,377.0	157.2	0.0	-47.50	8,518.9	1,326.5	355.2	234.2	120.98	2.936		
16,700.0	7,617.0	16,382.3	7,377.0	158.9	0.0	-47.36	8,618.9	1,325.6	354.3	232.1	122.19	2.900		
16,800.0	7,617.0	16,482.3	7,377.0	160.6	0.0	-47.23	8,718.9	1,324.8	353.4	230.0	123.39	2.864		
16,900.0	7,617.0	16,582.3	7,377.0	162.4	0.0	-47.10	8,818.9	1,324.0	352.5	228.0	124.59	2.830		
17,000.0	7,617.0	16,682.3	7,377.0	164.1	0.0	-46.96	8,918.8	1,323.2	351.7	225.9	125.78	2.796		
17,100.0	7,617.0	16,782.3	7,377.0	165.8	0.0	-46.83	9,018.8	1,322.3	350.8	223.8	126.96	2.763		
17,200.0	7,617.0	16,882.3	7,377.0	167.5	0.0	-46.69	9,118.8	1,321.5	349.9	221.7	128.14	2.730		
17,284.3	7,617.0	16,966.5	7,377.0	169.0	0.0	-46.65	9,203.1	1,320.8	349.6	220.4	129.25	2.705		
17,300.0	7,617.0	16,982.3	7,377.0	169.2	0.0	-46.60	9,218.8	1,320.7	349.3	219.9	129.39	2.700		
17,400.0	7,617.0	17,082.2	7,377.0	171.0	0.0	-46.88	9,318.8	1,319.8	351.4	220.1	131.23	2.677		
17,500.0	7,617.0	17,182.0	7,377.0	172.7	0.0	-47.56	9,418.5	1,319.0	356.5	222.7	133.74	2.665		
17,600.0	7,617.0	17,281.4	7,377.0	174.4	0.0	-48.60	9,517.9	1,318.2	364.7	227.9	136.85	2.665 SF		
17,700.0	7,617.0	17,380.2	7,377.0	176.1	0.0	-49.95	9,616.7	1,317.4	376.3	235.8	140.48	2.679		
17,800.0	7,617.0	17,478.3	7,377.0	177.8	0.0	-51.53	9,714.8	1,316.6	391.4	246.9	144.48	2.709		
17,900.0	7,617.0	17,575.5	7,377.0	179.4	0.0	-53.27	9,812.1	1,315.8	410.0	261.3	148.72	2.757		
18,000.0	7,617.0	17,671.7	7,377.0	181.1	0.0	-55.16	9,908.3	1,315.0	432.4	279.4	153.03	2.826		
18,014.8	7,617.0	17,683.1	7,377.0	181.3	0.0	-55.41	9,919.6	1,314.9	436.0	282.4	153.52	2.840		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.23	-0.1	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.23	-0.1	-30.0	30.0	29.4	0.55	54.232		
133.3	133.3	133.3	133.3	0.6	0.6	-90.23	-0.1	-30.0	30.0	29.1	0.90	33.327		
200.0	200.0	200.0	200.0	1.0	1.0	-90.23	-0.1	-30.0	30.0	28.4	1.59	18.819		
300.0	300.0	300.0	300.0	1.5	1.5	-90.23	-0.1	-30.0	30.0	27.6	2.45	12.260		
333.3	333.3	333.3	333.3	1.6	1.6	-90.23	-0.1	-30.0	30.0	27.3	2.71	11.072		
400.0	400.0	400.0	400.0	1.9	1.9	-90.23	-0.1	-30.0	30.0	26.8	3.23	9.275		
500.0	500.0	500.0	500.0	2.3	2.3	-90.23	-0.1	-30.0	30.0	26.0	4.00	7.508		
533.3	533.3	533.3	533.3	2.5	2.5	-90.23	-0.1	-30.0	30.0	25.8	4.24	7.068		
600.0	600.0	600.0	600.0	2.7	2.7	-90.23	-0.1	-30.0	30.0	25.3	4.74	6.325		
700.0	700.0	700.0	700.0	3.1	3.1	-90.23	-0.1	-30.0	30.0	24.5	5.48	5.472		
800.0	800.0	800.0	800.0	3.5	3.5	-90.23	-0.1	-30.0	30.0	23.8	6.22	4.826 CC, ES		
900.0	900.0	900.0	900.0	3.9	3.9	164.81	-0.1	-30.0	31.7	24.6	7.12	4.452		
1,000.0	999.8	999.8	999.8	4.5	4.2	166.93	-0.1	-30.0	36.8	28.5	8.26	4.453		
1,100.0	1,099.5	1,100.9	1,100.9	5.3	4.6	168.73	-0.8	-28.4	43.6	34.1	9.49	4.599		
1,200.0	1,198.7	1,202.3	1,202.1	6.0	5.0	169.56	-2.9	-23.4	50.6	39.7	10.89	4.644		
1,300.0	1,297.5	1,303.9	1,303.3	6.7	5.8	169.76	-6.3	-15.1	57.6	45.4	12.18	4.729		
1,400.0	1,395.6	1,405.7	1,404.3	7.3	6.5	169.54	-11.2	-3.5	64.6	51.3	13.36	4.837		
1,500.0	1,493.1	1,507.8	1,505.1	7.9	7.2	169.01	-17.4	11.4	71.7	57.3	14.46	4.958		
1,600.0	1,589.6	1,610.0	1,605.4	8.5	7.9	168.26	-25.0	29.7	78.8	63.3	15.53	5.076		
1,700.0	1,685.8	1,709.7	1,702.9	8.9	8.2	167.57	-33.1	49.0	86.2	69.9	16.21	5.314		
1,800.0	1,781.9	1,809.4	1,800.4	9.1	8.5	166.99	-41.2	68.4	93.5	76.7	16.75	5.581		
1,900.0	1,878.0	1,909.1	1,897.9	9.4	8.8	166.50	-49.2	87.7	100.8	83.5	17.31	5.823		
2,000.0	1,974.1	2,008.9	1,995.4	9.7	9.1	166.07	-57.3	107.0	108.2	90.3	17.90	6.041		
2,100.0	2,070.2	2,108.6	2,092.9	10.0	9.4	165.69	-65.4	126.4	115.5	97.0	18.52	6.238		
2,200.0	2,166.3	2,208.3	2,190.4	10.4	9.8	165.36	-73.4	145.7	122.9	103.7	19.15	6.416		
2,300.0	2,262.4	2,308.0	2,287.9	10.7	10.1	165.07	-81.5	165.0	130.2	110.4	19.80	6.577		
2,400.0	2,358.6	2,407.8	2,385.4	11.1	10.4	164.81	-89.6	184.3	137.6	117.1	20.47	6.722		
2,500.0	2,454.7	2,507.5	2,482.9	11.6	10.8	164.58	-97.7	203.7	144.9	123.8	21.15	6.854		
2,600.0	2,550.8	2,607.2	2,580.4	12.0	11.2	164.36	-105.7	223.0	152.3	130.5	21.84	6.974		
2,700.0	2,646.9	2,707.0	2,677.9	12.5	11.6	164.17	-113.8	242.3	159.7	137.1	22.54	7.082		
2,800.0	2,743.0	2,806.7	2,775.4	13.1	12.0	164.00	-121.9	261.7	167.0	143.8	23.26	7.181		
2,900.0	2,839.1	2,906.4	2,872.9	13.6	12.4	163.84	-129.9	281.0	174.4	150.4	23.98	7.271		
3,000.0	2,935.2	3,006.1	2,970.4	14.2	12.8	163.69	-138.0	300.3	181.8	157.0	24.72	7.353		
3,100.0	3,031.3	3,105.9	3,067.9	14.7	13.3	163.55	-146.1	319.7	189.1	163.7	25.46	7.429		
3,200.0	3,127.5	3,205.6	3,165.4	15.3	13.8	163.43	-154.1	339.0	196.5	170.3	26.21	7.498		
3,300.0	3,223.6	3,305.3	3,262.9	15.9	14.2	163.31	-162.2	358.3	203.9	176.9	26.97	7.561		
3,400.0	3,319.7	3,405.0	3,360.4	16.5	14.7	163.20	-170.3	377.7	211.3	183.5	27.73	7.619		
3,500.0	3,415.8	3,504.8	3,457.9	17.1	15.2	163.10	-178.3	397.0	218.6	190.1	28.49	7.673		
3,600.0	3,511.9	3,604.5	3,555.4	17.7	15.7	163.00	-186.4	416.3	226.0	196.7	29.27	7.722		
3,700.0	3,608.0	3,704.2	3,652.9	18.3	16.2	162.92	-194.5	435.7	233.4	203.3	30.04	7.768		
3,800.0	3,704.1	3,803.9	3,750.4	18.8	16.6	162.83	-202.5	455.0	240.8	209.9	30.83	7.810		
3,900.0	3,800.3	3,903.7	3,847.9	19.4	17.1	162.75	-210.6	474.3	248.1	216.5	31.61	7.850		
4,000.0	3,896.4	4,003.4	3,945.4	20.0	17.6	162.68	-218.7	493.7	255.5	223.1	32.40	7.886		
4,100.0	3,992.5	4,103.1	4,042.9	20.6	18.1	162.61	-226.7	513.0	262.9	229.7	33.19	7.920		
4,200.0	4,088.6	4,202.9	4,140.4	21.2	18.6	162.55	-234.8	532.3	270.3	236.3	33.99	7.952		
4,300.0	4,184.7	4,302.6	4,237.9	21.8	19.1	162.48	-242.9	551.6	277.6	242.9	34.79	7.981		
4,400.0	4,280.8	4,402.3	4,335.4	22.4	19.6	162.42	-250.9	571.0	285.0	249.4	35.59	8.009		
4,500.0	4,376.9	4,502.0	4,432.9	23.0	20.1	162.37	-259.0	590.3	292.4	256.0	36.39	8.034		
4,600.0	4,473.0	4,601.8	4,530.4	23.6	20.6	162.31	-267.1	609.6	299.8	262.6	37.20	8.059		
4,700.0	4,569.2	4,701.5	4,627.9	24.2	21.1	162.26	-275.2	629.0	307.2	269.1	38.01	8.081		
4,800.0	4,665.3	4,801.2	4,725.4	24.8	21.6	162.22	-283.2	648.3	314.5	275.7	38.82	8.103		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,900.9	4,822.9	25.4	22.1	162.17	-291.3	667.6	321.9	282.3	39.63	8.123		
5,000.0	4,857.5	5,000.7	4,920.4	26.0	22.6	162.12	-299.4	687.0	329.3	288.8	40.45	8.141		
5,100.0	4,953.6	5,100.4	5,017.9	26.6	23.1	162.08	-307.4	706.3	336.7	295.4	41.26	8.159		
5,200.0	5,049.7	5,200.1	5,115.4	27.2	23.6	162.04	-315.5	725.6	344.0	302.0	42.08	8.176		
5,300.0	5,145.8	5,299.9	5,212.9	27.8	24.1	162.00	-323.6	745.0	351.4	308.5	42.90	8.192		
5,400.0	5,242.0	5,399.6	5,310.4	28.4	24.6	161.97	-331.6	764.3	358.8	315.1	43.72	8.207		
5,500.0	5,338.1	5,499.3	5,407.9	29.0	25.1	161.93	-339.7	783.6	366.2	321.6	44.54	8.221		
5,600.0	5,434.2	5,599.0	5,505.4	29.7	25.6	161.90	-347.8	803.0	373.6	328.2	45.37	8.234		
5,700.0	5,530.3	5,698.8	5,602.9	30.3	26.1	161.86	-355.8	822.3	381.0	334.8	46.19	8.247		
5,800.0	5,626.4	5,798.5	5,700.4	30.9	26.6	161.83	-363.9	841.6	388.3	341.3	47.02	8.259		
5,900.0	5,722.5	5,898.2	5,798.0	31.5	27.2	161.80	-372.0	861.0	395.7	347.9	47.85	8.270		
6,000.0	5,818.6	5,997.9	5,895.5	32.1	27.7	161.77	-380.0	880.3	403.1	354.4	48.67	8.281		
6,100.0	5,914.7	6,097.7	5,993.0	32.7	28.2	161.74	-388.1	899.6	410.5	361.0	49.50	8.292		
6,200.0	6,010.9	6,197.4	6,090.5	33.3	28.7	161.72	-396.2	918.9	417.9	367.5	50.33	8.302		
6,300.0	6,107.0	6,297.1	6,188.0	33.9	29.2	161.69	-404.2	938.3	425.2	374.1	51.17	8.311		
6,400.0	6,203.1	6,396.9	6,285.5	34.5	29.7	161.67	-412.3	957.6	432.6	380.6	52.00	8.320		
6,500.0	6,299.2	6,496.6	6,383.0	35.1	30.2	161.64	-420.4	976.9	440.0	387.2	52.83	8.328		
6,600.0	6,395.3	6,596.3	6,480.5	35.7	30.7	161.62	-428.4	996.3	447.4	393.7	53.66	8.337		
6,700.0	6,491.4	6,696.0	6,578.0	36.3	31.2	161.59	-436.5	1,015.6	454.8	400.3	54.50	8.344		
6,800.0	6,587.5	6,795.8	6,675.5	36.9	31.7	161.57	-444.6	1,034.9	462.1	406.8	55.33	8.352		
6,900.0	6,683.7	6,895.5	6,773.0	37.5	32.2	161.55	-452.7	1,054.3	469.5	413.4	56.17	8.359		
7,000.0	6,779.8	6,995.7	6,871.0	38.1	32.7	161.60	-460.2	1,073.7	476.9	419.9	56.99	8.368		
7,100.0	6,875.9	7,095.4	6,968.6	38.7	33.2	163.12	-455.2	1,092.7	484.2	426.6	57.52	8.417		
7,200.0	6,972.0	7,188.1	7,057.5	39.4	33.6	166.28	-435.2	1,109.5	492.5	434.6	57.92	8.504		
7,300.0	7,068.2	7,271.3	7,133.6	40.0	33.9	-171.41	-405.0	1,123.6	504.3	446.2	58.06	8.685		
7,400.0	7,164.1	7,350.0	7,201.1	40.6	34.2	-134.63	-366.4	1,135.7	519.0	460.8	58.19	8.919		
7,500.0	7,257.0	7,425.2	7,260.1	41.0	34.4	-111.75	-321.1	1,146.0	535.2	476.9	58.29	9.183		
7,600.0	7,344.0	7,500.0	7,312.6	41.4	34.5	-98.08	-268.7	1,154.7	551.8	493.7	58.11	9.496		
7,700.0	7,422.5	7,569.8	7,355.2	41.7	34.6	-89.34	-213.9	1,161.5	567.6	510.0	57.63	9.850		
7,800.0	7,490.1	7,639.9	7,391.2	41.9	34.7	-83.37	-154.0	1,166.9	581.7	524.7	57.05	10.196		
7,900.0	7,544.8	7,709.0	7,419.4	42.1	34.7	-79.28	-91.0	1,170.6	593.4	536.9	56.51	10.501		
8,000.0	7,584.9	7,777.5	7,439.7	42.2	34.7	-76.62	-25.6	1,172.7	602.0	545.9	56.12	10.727		
8,100.0	7,609.2	7,850.0	7,452.8	42.2	34.6	-75.14	45.6	1,173.2	607.4	551.4	56.02	10.842		
8,200.0	7,617.0	7,913.6	7,457.0	42.1	34.6	-74.77	109.0	1,172.2	609.1	552.9	56.21	10.837		
8,300.0	7,617.0	8,010.6	7,457.0	42.1	34.6	-74.79	206.0	1,169.5	609.9	553.3	56.63	10.770		
8,400.0	7,617.0	8,110.6	7,457.0	42.2	34.6	-74.81	306.0	1,166.6	610.7	553.4	57.25	10.667		
8,500.0	7,617.0	8,210.6	7,457.0	42.3	34.8	-74.83	405.9	1,163.8	611.4	553.4	58.07	10.529		
8,600.0	7,617.0	8,310.6	7,457.0	42.4	35.0	-74.85	505.9	1,160.9	612.2	553.1	59.08	10.363		
8,700.0	7,617.0	8,410.6	7,457.0	42.7	35.3	-74.87	605.8	1,158.1	613.0	552.7	60.27	10.171		
8,800.0	7,617.0	8,510.6	7,457.0	42.9	35.8	-74.89	705.8	1,155.2	613.8	552.2	61.63	9.959		
8,900.0	7,617.0	8,610.6	7,457.0	43.3	36.4	-74.91	805.7	1,152.4	614.6	551.4	63.15	9.731		
9,000.0	7,617.0	8,710.6	7,457.0	43.7	37.1	-74.93	905.7	1,149.5	615.4	550.5	64.82	9.493		
9,100.0	7,617.0	8,810.6	7,457.0	44.3	37.9	-74.95	1,005.6	1,146.7	616.1	549.5	66.63	9.247		
9,200.0	7,617.0	8,910.6	7,457.0	44.9	38.9	-74.97	1,105.6	1,143.8	616.9	548.4	68.56	8.998		
9,300.0	7,617.0	9,010.6	7,457.0	45.5	39.8	-74.99	1,205.6	1,141.0	617.7	547.1	70.61	8.748		
9,400.0	7,617.0	9,110.6	7,457.0	46.3	40.9	-75.01	1,305.5	1,138.1	618.5	545.7	72.76	8.500		
9,500.0	7,617.0	9,210.6	7,457.0	47.1	42.0	-75.03	1,405.5	1,135.3	619.3	544.3	75.02	8.255		
9,600.0	7,617.0	9,310.6	7,457.0	48.1	43.1	-75.05	1,505.4	1,132.4	620.1	542.7	77.36	8.016		
9,700.0	7,617.0	9,410.6	7,457.0	49.0	44.3	-75.07	1,605.4	1,129.6	620.8	541.1	79.78	7.782		
9,800.0	7,617.0	9,510.6	7,457.0	50.1	45.6	-75.08	1,705.3	1,126.7	621.6	539.4	82.28	7.555		
9,900.0	7,617.0	9,610.6	7,457.0	51.1	46.8	-75.10	1,805.3	1,123.9	622.4	537.6	84.84	7.336		
10,000.0	7,617.0	9,710.6	7,457.0	52.3	48.1	-75.12	1,905.3	1,121.0	623.2	535.7	87.46	7.125		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	9,810.6	7,457.0	53.5	49.5	-75.14	2,005.2	1,118.1	624.0	533.8	90.15	6.922		
10,200.0	7,617.0	9,910.6	7,457.0	54.7	50.8	-75.16	2,105.2	1,115.3	624.8	531.9	92.88	6.727		
10,300.0	7,617.0	10,010.6	7,457.0	55.9	52.2	-75.18	2,205.1	1,112.4	625.5	529.9	95.66	6.539		
10,400.0	7,617.0	10,110.6	7,457.0	57.2	53.6	-75.20	2,305.1	1,109.6	626.3	527.8	98.48	6.360		
10,500.0	7,617.0	10,210.6	7,457.0	58.5	55.1	-75.22	2,405.0	1,106.7	627.1	525.8	101.34	6.188		
10,600.0	7,617.0	10,310.6	7,457.0	59.9	56.5	-75.24	2,505.0	1,103.9	627.9	523.7	104.24	6.023		
10,700.0	7,617.0	10,410.6	7,457.0	61.2	58.0	-75.26	2,604.9	1,101.0	628.7	521.5	107.17	5.866		
10,800.0	7,617.0	10,510.6	7,457.0	62.6	59.5	-75.27	2,704.9	1,098.2	629.5	519.3	110.14	5.715		
10,900.0	7,617.0	10,610.6	7,457.0	64.0	61.0	-75.29	2,804.9	1,095.3	630.3	517.1	113.13	5.571		
11,000.0	7,617.0	10,710.6	7,457.0	65.5	62.5	-75.31	2,904.8	1,092.5	631.0	514.9	116.15	5.433		
11,100.0	7,617.0	10,810.5	7,457.0	66.9	64.0	-75.33	3,004.8	1,089.6	631.8	512.6	119.19	5.301		
11,200.0	7,617.0	10,910.5	7,457.0	68.4	65.6	-75.35	3,104.7	1,086.8	632.6	510.3	122.25	5.174		
11,300.0	7,617.0	11,010.5	7,457.0	69.8	67.1	-75.37	3,204.7	1,083.9	633.4	508.0	125.34	5.053		
11,400.0	7,617.0	11,110.5	7,457.0	71.3	68.7	-75.39	3,304.6	1,081.1	634.2	505.7	128.45	4.937		
11,500.0	7,617.0	11,210.5	7,457.0	72.8	70.2	-75.40	3,404.6	1,078.2	635.0	503.4	131.57	4.826		
11,600.0	7,617.0	11,310.5	7,457.0	74.4	71.8	-75.42	3,504.5	1,075.4	635.7	501.0	134.71	4.719		
11,700.0	7,617.0	11,410.5	7,457.0	75.9	73.4	-75.44	3,604.5	1,072.5	636.5	498.7	137.87	4.617		
11,800.0	7,617.0	11,510.5	7,457.0	77.4	75.0	-75.46	3,704.5	1,069.7	637.3	496.3	141.04	4.519		
11,900.0	7,617.0	11,610.5	7,457.0	79.0	76.6	-75.48	3,804.4	1,066.8	638.1	493.9	144.22	4.424		
12,000.0	7,617.0	11,710.5	7,457.0	80.5	78.2	-75.50	3,904.4	1,064.0	638.9	491.5	147.42	4.334		
12,100.0	7,617.0	11,810.5	7,457.0	82.1	79.8	-75.51	4,004.3	1,061.1	639.7	489.0	150.63	4.247		
12,200.0	7,617.0	11,910.5	7,457.0	83.7	81.5	-75.53	4,104.3	1,058.3	640.5	486.6	153.85	4.163		
12,300.0	7,617.0	12,010.5	7,457.0	85.3	83.1	-75.55	4,204.2	1,055.4	641.2	484.2	157.08	4.082		
12,400.0	7,617.0	12,110.5	7,457.0	86.9	84.7	-75.57	4,304.2	1,052.6	642.0	481.7	160.32	4.005		
12,500.0	7,617.0	12,210.5	7,457.0	88.5	86.4	-75.59	4,404.2	1,049.7	642.8	479.2	163.57	3.930		
12,600.0	7,617.0	12,310.5	7,457.0	90.1	88.0	-75.60	4,504.1	1,046.9	643.6	476.8	166.83	3.858		
12,700.0	7,617.0	12,410.5	7,457.0	91.7	89.7	-75.62	4,604.1	1,044.0	644.4	474.3	170.10	3.788		
12,800.0	7,617.0	12,510.5	7,457.0	93.3	91.3	-75.64	4,704.0	1,041.1	645.2	471.8	173.38	3.721		
12,900.0	7,617.0	12,610.5	7,457.0	94.9	93.0	-75.66	4,804.0	1,038.3	646.0	469.3	176.66	3.656		
13,000.0	7,617.0	12,710.5	7,457.0	96.5	94.7	-75.68	4,903.9	1,035.4	646.7	466.8	179.96	3.594		
13,100.0	7,617.0	12,810.5	7,457.0	98.2	96.3	-75.69	5,003.9	1,032.6	647.5	464.3	183.25	3.533		
13,200.0	7,617.0	12,910.5	7,457.0	99.8	98.0	-75.71	5,103.8	1,029.7	648.3	461.7	186.56	3.475		
13,300.0	7,617.0	13,010.5	7,457.0	101.4	99.7	-75.73	5,203.8	1,026.9	649.1	459.2	189.87	3.419		
13,400.0	7,617.0	13,110.5	7,457.0	103.1	101.4	-75.75	5,303.8	1,024.0	649.9	456.7	193.19	3.364		
13,500.0	7,617.0	13,210.5	7,457.0	104.7	103.0	-75.76	5,403.7	1,021.2	650.7	454.2	196.51	3.311		
13,600.0	7,617.0	13,310.5	7,457.0	106.4	104.7	-75.78	5,503.7	1,018.3	651.5	451.6	199.84	3.260		
13,700.0	7,617.0	13,410.5	7,457.0	108.1	106.4	-75.80	5,603.6	1,015.5	652.2	449.1	203.17	3.210		
13,800.0	7,617.0	13,510.5	7,457.0	109.7	108.1	-75.82	5,703.6	1,012.6	653.0	446.5	206.51	3.162		
13,900.0	7,617.0	13,610.5	7,457.0	111.4	109.8	-75.83	5,803.5	1,009.8	653.8	444.0	209.85	3.116		
14,000.0	7,617.0	13,710.5	7,457.0	113.0	111.5	-75.85	5,903.5	1,006.9	654.6	441.4	213.20	3.070		
14,100.0	7,617.0	13,818.7	7,457.0	114.7	113.3	-75.87	6,011.7	1,004.1	655.2	438.1	217.08	3.018		
14,200.0	7,617.0	13,919.9	7,457.0	116.4	115.1	-75.85	6,112.9	1,002.7	654.5	434.1	220.48	2.969		
14,300.0	7,617.0	14,019.9	7,457.0	118.1	116.8	-75.84	6,212.9	1,001.3	653.9	430.1	223.80	2.922		
14,400.0	7,617.0	14,119.9	7,457.0	119.7	118.5	-75.82	6,312.9	1,000.0	653.2	426.1	227.13	2.876		
14,500.0	7,617.0	14,219.9	7,457.0	121.4	120.2	-75.81	6,412.9	998.6	652.6	422.1	230.45	2.832		
14,600.0	7,617.0	14,319.9	7,457.0	123.1	121.9	-75.79	6,512.9	997.3	651.9	418.1	233.79	2.788		
14,700.0	7,617.0	14,419.9	7,457.0	124.8	123.6	-75.78	6,612.9	995.9	651.2	414.1	237.12	2.746		
14,800.0	7,617.0	14,519.9	7,457.0	126.5	125.3	-75.76	6,712.9	994.5	650.6	410.1	240.46	2.706		
14,900.0	7,617.0	14,619.9	7,457.0	128.2	127.0	-75.75	6,812.8	993.2	649.9	406.1	243.80	2.666		
15,000.0	7,617.0	14,719.9	7,457.0	129.9	128.7	-75.73	6,912.8	991.8	649.3	402.1	247.14	2.627		
15,100.0	7,617.0	14,819.9	7,457.0	131.6	130.4	-75.72	7,012.8	990.5	648.6	398.1	250.48	2.589		
15,200.0	7,617.0	14,919.9	7,457.0	133.3	132.1	-75.70	7,112.8	989.1	647.9	394.1	253.83	2.553		

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	15,019.9	7,457.0	135.0	133.8	-75.69	7,212.8	987.7	647.3	390.1	257.17	2.517		
15,400.0	7,617.0	15,119.9	7,457.0	136.7	135.6	-75.67	7,312.8	986.4	646.6	386.1	260.52	2.482		
15,500.0	7,617.0	15,219.9	7,457.0	138.4	137.3	-75.66	7,412.8	985.0	646.0	382.1	263.87	2.448		
15,600.0	7,617.0	15,319.9	7,457.0	140.1	139.0	-75.64	7,512.8	983.7	645.3	378.1	267.23	2.415		
15,700.0	7,617.0	15,419.9	7,457.0	141.8	140.7	-75.63	7,612.8	982.3	644.6	374.1	270.58	2.382		
15,800.0	7,617.0	15,519.9	7,457.0	143.5	142.4	-75.61	7,712.7	980.9	644.0	370.0	273.94	2.351		
15,900.0	7,617.0	15,619.9	7,457.0	145.2	144.2	-75.60	7,812.7	979.6	643.3	366.0	277.29	2.320		
16,000.0	7,617.0	15,719.9	7,457.0	146.9	145.9	-75.58	7,912.7	978.2	642.7	362.0	280.65	2.290		
16,100.0	7,617.0	15,819.9	7,457.0	148.6	147.6	-75.57	8,012.7	976.9	642.0	358.0	284.01	2.260		
16,200.0	7,617.0	15,919.9	7,457.0	150.3	149.3	-75.55	8,112.7	975.5	641.3	354.0	287.37	2.232		
16,300.0	7,617.0	16,019.9	7,457.0	152.0	151.1	-75.54	8,212.7	974.2	640.7	349.9	290.74	2.204		
16,400.0	7,617.0	16,119.9	7,457.0	153.8	152.8	-75.52	8,312.7	972.8	640.0	345.9	294.10	2.176		
16,500.0	7,617.0	16,219.9	7,457.0	155.5	154.5	-75.51	8,412.7	971.4	639.3	341.9	297.46	2.149		
16,600.0	7,617.0	16,319.9	7,457.0	157.2	156.3	-75.49	8,512.6	970.1	638.7	337.9	300.83	2.123		
16,700.0	7,617.0	16,419.9	7,457.0	158.9	158.0	-75.48	8,612.6	968.7	638.0	333.8	304.20	2.097		
16,800.0	7,617.0	16,519.9	7,457.0	160.6	159.7	-75.46	8,712.6	967.4	637.4	329.8	307.56	2.072		
16,900.0	7,617.0	16,619.9	7,457.0	162.4	161.5	-75.45	8,812.6	966.0	636.7	325.8	310.93	2.048		
17,000.0	7,617.0	16,719.9	7,457.0	164.1	163.2	-75.43	8,912.6	964.6	636.0	321.7	314.30	2.024		
17,100.0	7,617.0	16,819.9	7,457.0	165.8	164.9	-75.41	9,012.6	963.3	635.4	317.7	317.67	2.000		
17,200.0	7,617.0	16,919.9	7,457.0	167.5	166.7	-75.40	9,112.6	961.9	634.7	313.7	321.04	1.977		
17,269.4	7,617.0	16,989.3	7,457.0	168.7	167.9	-75.40	9,182.0	961.0	634.7	311.3	323.40	1.963		
17,300.0	7,617.0	17,019.9	7,457.0	169.2	168.4	-75.39	9,212.6	960.6	634.5	310.1	324.43	1.956		
17,400.0	7,617.0	17,119.8	7,457.0	171.0	170.1	-75.45	9,312.5	959.2	637.7	309.8	327.91	1.945 SF		
17,500.0	7,617.0	17,219.5	7,457.0	172.7	171.9	-75.57	9,412.2	957.8	645.0	313.4	331.51	1.945		
17,600.0	7,617.0	17,318.8	7,457.0	174.4	173.6	-75.76	9,511.5	956.5	656.2	321.0	335.20	1.958		
17,700.0	7,617.0	17,417.6	7,457.0	176.1	175.3	-76.00	9,610.2	955.2	671.5	332.5	338.95	1.981		
17,800.0	7,617.0	17,515.6	7,457.0	177.8	177.0	-76.29	9,708.3	953.8	690.7	348.0	342.75	2.015		
17,900.0	7,617.0	17,612.7	7,457.0	179.4	178.7	-76.61	9,805.3	952.5	713.9	367.4	346.56	2.060		
18,000.0	7,617.0	17,708.8	7,457.0	181.1	180.4	-76.99	9,901.4	951.2	741.0	390.7	350.35	2.115		
18,014.8	7,617.0	17,721.0	7,457.0	181.3	180.6	-77.05	9,913.6	951.0	745.2	394.4	350.79	2.124		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	-90.23	-0.2	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.23	-0.2	-45.0	45.0	44.7	0.28	162.480		
133.3	133.3	133.3	133.3	0.6	0.0	-90.23	-0.2	-45.0	45.0	44.5	0.45	99.877		
200.0	200.0	200.0	200.0	1.0	0.0	-90.23	-0.2	-45.0	45.0	44.2	0.80	56.408		
300.0	300.0	300.0	300.0	1.5	0.0	-90.23	-0.2	-45.0	45.0	43.8	1.22	36.751		
333.3	333.3	333.3	333.3	1.6	0.0	-90.23	-0.2	-45.0	45.0	43.6	1.36	33.191		
400.0	400.0	400.0	400.0	1.9	0.0	-90.23	-0.2	-45.0	45.0	43.4	1.62	27.804		
500.0	500.0	500.0	500.0	2.3	0.0	-90.23	-0.2	-45.0	45.0	43.0	2.00	22.509		
533.3	533.3	533.3	533.3	2.5	0.0	-90.23	-0.2	-45.0	45.0	42.9	2.12	21.188		
600.0	600.0	600.0	600.0	2.7	0.0	-90.23	-0.2	-45.0	45.0	42.6	2.37	18.963		
700.0	700.0	700.0	700.0	3.1	0.0	-90.23	-0.2	-45.0	45.0	42.2	2.74	16.406		
800.0	800.0	800.0	800.0	3.5	0.0	-90.23	-0.2	-45.0	45.0	41.9	3.11	14.469 CC, ES		
900.0	900.0	900.0	900.0	3.9	0.0	164.53	-0.2	-45.0	46.7	43.0	3.66	12.753		
1,000.0	999.8	999.8	999.8	4.5	0.0	166.06	-0.2	-45.0	51.7	47.3	4.46	11.588		
1,100.0	1,099.5	1,099.5	1,099.5	5.3	0.0	168.02	-0.2	-45.0	60.2	55.0	5.20	11.590		
1,200.0	1,198.7	1,201.0	1,201.0	6.0	0.0	169.50	-1.0	-43.4	70.6	64.7	5.88	12.004		
1,300.0	1,297.5	1,303.0	1,302.8	6.7	0.0	170.08	-3.5	-38.6	81.1	74.6	6.51	12.454		
1,400.0	1,395.6	1,405.3	1,404.7	7.3	0.0	170.08	-7.7	-30.6	91.7	84.6	7.10	12.924		
1,500.0	1,493.1	1,507.9	1,506.6	7.9	0.0	169.66	-13.5	-19.2	102.5	94.8	7.64	13.404		
1,600.0	1,589.6	1,610.9	1,608.2	8.5	0.0	168.95	-21.1	-4.6	113.3	105.2	8.17	13.878		
1,700.0	1,685.8	1,711.3	1,706.8	8.9	0.0	168.11	-29.7	11.8	123.6	115.1	8.50	14.542		
1,800.0	1,781.9	1,810.7	1,804.6	9.1	0.0	167.40	-38.2	28.2	133.9	125.1	8.76	15.279		
1,900.0	1,878.0	1,910.2	1,902.3	9.4	0.0	166.78	-46.7	44.6	144.1	135.1	9.04	15.949		
2,000.0	1,974.1	2,009.7	2,000.0	9.7	0.0	166.25	-55.2	60.9	154.4	145.0	9.32	16.557		
2,100.0	2,070.2	2,109.1	2,097.8	10.0	0.0	165.78	-63.7	77.3	164.6	155.0	9.62	17.107		
2,200.0	2,166.3	2,208.6	2,195.5	10.4	0.0	165.37	-72.2	93.7	174.9	165.0	9.94	17.605		
2,300.0	2,262.4	2,308.0	2,293.2	10.7	0.0	165.01	-80.7	110.1	185.2	174.9	10.26	18.055		
2,400.0	2,358.6	2,407.5	2,391.0	11.1	0.0	164.68	-89.2	126.5	195.5	184.9	10.59	18.463		
2,500.0	2,454.7	2,507.0	2,488.7	11.6	0.0	164.38	-97.7	142.9	205.8	194.9	10.93	18.833		
2,600.0	2,550.8	2,606.4	2,586.4	12.0	0.0	164.12	-106.3	159.3	216.1	204.8	11.27	19.168		
2,700.0	2,646.9	2,705.9	2,684.2	12.5	0.0	163.88	-114.8	175.6	226.4	214.8	11.63	19.472		
2,800.0	2,743.0	2,805.4	2,781.9	13.1	0.0	163.65	-123.3	192.0	236.7	224.8	11.99	19.749		
2,900.0	2,839.1	2,904.8	2,879.6	13.6	0.0	163.45	-131.8	208.4	247.1	234.7	12.35	20.000		
3,000.0	2,935.2	3,004.3	2,977.4	14.2	0.0	163.26	-140.3	224.8	257.4	244.7	12.72	20.230		
3,100.0	3,031.3	3,103.7	3,075.1	14.7	0.0	163.09	-148.8	241.2	267.7	254.6	13.10	20.439		
3,200.0	3,127.5	3,203.2	3,172.8	15.3	0.0	162.93	-157.3	257.6	278.0	264.6	13.48	20.631		
3,300.0	3,223.6	3,302.7	3,270.6	15.9	0.0	162.79	-165.8	274.0	288.4	274.5	13.86	20.806		
3,400.0	3,319.7	3,402.1	3,368.3	16.5	0.0	162.65	-174.3	290.3	298.7	284.4	14.25	20.967		
3,500.0	3,415.8	3,501.6	3,466.1	17.1	0.0	162.52	-182.8	306.7	309.0	294.4	14.64	21.115		
3,600.0	3,511.9	3,601.1	3,563.8	17.7	0.0	162.40	-191.4	323.1	319.3	304.3	15.03	21.251		
3,700.0	3,608.0	3,700.5	3,661.5	18.3	0.0	162.29	-199.9	339.5	329.7	314.3	15.42	21.376		
3,800.0	3,704.1	3,800.0	3,759.3	18.8	0.0	162.18	-208.4	355.9	340.0	324.2	15.82	21.492		
3,900.0	3,800.3	3,899.4	3,857.0	19.4	0.0	162.08	-216.9	372.3	350.4	334.1	16.22	21.599		
4,000.0	3,896.4	3,998.9	3,954.7	20.0	0.0	161.99	-225.4	388.6	360.7	344.1	16.62	21.698		
4,100.0	3,992.5	4,098.4	4,052.5	20.6	0.0	161.90	-233.9	405.0	371.0	354.0	17.03	21.790		
4,200.0	4,088.6	4,197.8	4,150.2	21.2	0.0	161.82	-242.4	421.4	381.4	363.9	17.43	21.876		
4,300.0	4,184.7	4,297.3	4,247.9	21.8	0.0	161.74	-250.9	437.8	391.7	373.9	17.84	21.955		
4,400.0	4,280.8	4,396.8	4,345.7	22.4	0.0	161.66	-259.4	454.2	402.0	383.8	18.25	22.029		
4,500.0	4,376.9	4,496.2	4,443.4	23.0	0.0	161.59	-267.9	470.6	412.4	393.7	18.66	22.098		
4,600.0	4,473.0	4,595.7	4,541.1	23.6	0.0	161.52	-276.4	487.0	422.7	403.7	19.07	22.162		
4,700.0	4,569.2	4,695.1	4,638.9	24.2	0.0	161.46	-285.0	503.3	433.1	413.6	19.49	22.222		
4,800.0	4,665.3	4,794.6	4,736.6	24.8	0.0	161.39	-293.5	519.7	443.4	423.5	19.90	22.278		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,894.1	4,834.3	25.4	0.0	161.34	-302.0	536.1	453.8	433.4	20.32	22.331		
5,000.0	4,857.5	4,993.5	4,932.1	26.0	0.0	161.28	-310.5	552.5	464.1	443.4	20.74	22.381		
5,100.0	4,953.6	5,093.0	5,029.8	26.6	0.0	161.23	-319.0	568.9	474.4	453.3	21.16	22.427		
5,200.0	5,049.7	5,192.5	5,127.5	27.2	0.0	161.17	-327.5	585.3	484.8	463.2	21.57	22.471		
5,300.0	5,145.8	5,291.9	5,225.3	27.8	0.0	161.12	-336.0	601.6	495.1	473.1	21.99	22.512		
5,400.0	5,242.0	5,391.4	5,323.0	28.4	0.0	161.08	-344.5	618.0	505.5	483.1	22.42	22.550		
5,500.0	5,338.1	5,490.8	5,420.7	29.0	0.0	161.03	-353.0	634.4	515.8	493.0	22.84	22.587		
5,600.0	5,434.2	5,590.3	5,518.5	29.7	0.0	160.99	-361.5	650.8	526.2	502.9	23.26	22.621		
5,700.0	5,530.3	5,689.8	5,616.2	30.3	0.0	160.95	-370.1	667.2	536.5	512.8	23.68	22.654		
5,800.0	5,626.4	5,789.2	5,713.9	30.9	0.0	160.91	-378.6	683.6	546.9	522.8	24.11	22.684		
5,900.0	5,722.5	5,888.7	5,811.7	31.5	0.0	160.87	-387.1	700.0	557.2	532.7	24.53	22.713		
6,000.0	5,818.6	5,988.2	5,909.4	32.1	0.0	160.83	-395.6	716.3	567.6	542.6	24.96	22.741		
6,100.0	5,914.7	6,087.6	6,007.1	32.7	0.0	160.79	-404.1	732.7	577.9	552.5	25.38	22.767		
6,200.0	6,010.9	6,187.1	6,104.9	33.3	0.0	160.76	-412.6	749.1	588.3	562.4	25.81	22.792		
6,300.0	6,107.0	6,286.5	6,202.6	33.9	0.0	160.72	-421.1	765.5	598.6	572.4	26.24	22.815		
6,400.0	6,203.1	6,386.0	6,300.3	34.5	0.0	160.69	-429.6	781.9	608.9	582.3	26.66	22.838		
6,500.0	6,299.2	6,485.5	6,398.1	35.1	0.0	160.66	-438.1	798.3	619.3	592.2	27.09	22.859		
6,600.0	6,395.3	6,584.9	6,495.8	35.7	0.0	160.63	-446.6	814.7	629.6	602.1	27.52	22.879		
6,700.0	6,491.4	6,684.4	6,593.5	36.3	0.0	160.60	-455.1	831.0	640.0	612.0	27.95	22.898		
6,800.0	6,587.5	6,788.8	6,696.3	36.9	0.0	161.13	-457.8	848.2	650.0	621.7	28.33	22.916		
6,900.0	6,683.7	6,889.3	6,794.2	37.5	0.0	163.13	-442.8	864.4	659.7	631.1	28.54	23.117		
7,000.0	6,779.8	6,979.6	6,878.9	38.1	0.0	166.12	-414.7	878.3	670.6	641.9	28.63	23.424		
7,100.0	6,875.9	7,075.5	6,947.6	38.7	0.0	169.49	-379.9	889.5	685.0	656.4	28.65	23.906		
7,200.0	6,972.0	7,173.0	7,001.3	39.4	0.0	172.81	-343.6	898.2	705.1	676.4	28.61	24.645		
7,300.0	7,068.2	7,178.7	7,043.6	40.0	0.0	-164.97	-307.9	904.9	731.7	703.2	28.46	25.708		
7,400.0	7,164.1	7,232.6	7,081.0	40.6	0.0	-127.50	-269.7	910.9	761.7	733.4	28.35	26.869		
7,500.0	7,257.0	7,286.0	7,114.5	41.0	0.0	-103.89	-228.4	916.1	792.6	764.4	28.25	28.060		
7,600.0	7,344.0	7,339.1	7,143.9	41.4	0.0	-89.64	-184.4	920.7	822.5	794.6	27.92	29.458		
7,700.0	7,422.5	7,400.0	7,172.5	41.7	0.0	-80.16	-130.9	925.0	849.9	822.4	27.52	30.885		
7,800.0	7,490.1	7,450.0	7,191.6	41.9	0.0	-73.88	-84.8	927.8	873.5	846.5	26.99	32.363		
7,900.0	7,544.8	7,500.0	7,206.8	42.1	0.0	-69.58	-37.2	929.9	892.3	865.8	26.51	33.654		
8,000.0	7,584.9	7,550.0	7,217.8	42.2	0.0	-66.77	11.5	931.4	905.8	879.6	26.16	34.622		
8,100.0	7,609.2	7,600.0	7,224.5	42.2	0.0	-65.21	61.1	932.1	913.4	887.5	25.99	35.149		
8,200.0	7,617.0	7,655.0	7,227.0	42.1	0.0	-64.77	116.0	932.1	915.0	889.0	26.02	35.161		
8,300.0	7,617.0	7,755.0	7,227.0	42.1	0.0	-64.74	216.0	931.2	913.9	887.8	26.18	34.913		
8,400.0	7,617.0	7,855.0	7,227.0	42.2	0.0	-64.71	315.9	930.4	912.8	886.4	26.43	34.535		
8,500.0	7,617.0	7,954.9	7,227.0	42.3	0.0	-64.67	415.9	929.6	911.8	885.0	26.78	34.040		
8,600.0	7,617.0	8,054.9	7,227.0	42.4	0.0	-64.64	515.9	928.7	910.7	883.4	27.23	33.444		
8,700.0	7,617.0	8,154.9	7,227.0	42.7	0.0	-64.61	615.9	927.9	909.6	881.8	27.76	32.762		
8,800.0	7,617.0	8,254.9	7,227.0	42.9	0.0	-64.58	715.9	927.1	908.5	880.1	28.38	32.011		
8,900.0	7,617.0	8,354.9	7,227.0	43.3	0.0	-64.54	815.9	926.3	907.4	878.3	29.07	31.209		
9,000.0	7,617.0	8,454.9	7,227.0	43.7	0.0	-64.51	915.9	925.4	906.3	876.4	29.84	30.370		
9,100.0	7,617.0	8,554.9	7,227.0	44.3	0.0	-64.48	1,015.9	924.6	905.2	874.5	30.67	29.509		
9,200.0	7,617.0	8,654.9	7,227.0	44.9	0.0	-64.44	1,115.9	923.8	904.1	872.5	31.57	28.637		
9,300.0	7,617.0	8,754.9	7,227.0	45.5	0.0	-64.41	1,215.8	923.0	903.0	870.5	32.52	27.765		
9,400.0	7,617.0	8,854.9	7,227.0	46.3	0.0	-64.38	1,315.8	922.1	901.9	868.4	33.52	26.902		
9,500.0	7,617.0	8,954.9	7,227.0	47.1	0.0	-64.34	1,415.8	921.3	900.8	866.2	34.57	26.053		
9,600.0	7,617.0	9,054.9	7,227.0	48.1	0.0	-64.31	1,515.8	920.5	899.7	864.0	35.67	25.225		
9,700.0	7,617.0	9,154.9	7,227.0	49.0	0.0	-64.28	1,615.8	919.7	898.6	861.8	36.80	24.420		
9,800.0	7,617.0	9,254.9	7,227.0	50.1	0.0	-64.24	1,715.8	918.8	897.5	859.5	37.96	23.641		
9,900.0	7,617.0	9,354.8	7,227.0	51.1	0.0	-64.21	1,815.8	918.0	896.4	857.2	39.16	22.890		
10,000.0	7,617.0	9,454.8	7,227.0	52.3	0.0	-64.17	1,915.8	917.2	895.3	854.9	40.39	22.167		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	9,554.8	7,227.0	53.5	0.0	-64.14	2,015.8	916.3	894.2	852.6	41.64	21.474		
10,200.0	7,617.0	9,654.8	7,227.0	54.7	0.0	-64.11	2,115.7	915.5	893.1	850.2	42.92	20.809		
10,300.0	7,617.0	9,754.8	7,227.0	55.9	0.0	-64.07	2,215.7	914.7	892.0	847.8	44.22	20.173		
10,400.0	7,617.0	9,854.8	7,227.0	57.2	0.0	-64.04	2,315.7	913.9	890.9	845.4	45.54	19.565		
10,500.0	7,617.0	9,954.8	7,227.0	58.5	0.0	-64.00	2,415.7	913.0	889.9	843.0	46.87	18.984		
10,600.0	7,617.0	10,054.8	7,227.0	59.9	0.0	-63.97	2,515.7	912.2	888.8	840.5	48.23	18.429		
10,700.0	7,617.0	10,154.8	7,227.0	61.2	0.0	-63.94	2,615.7	911.4	887.7	838.1	49.60	17.898		
10,800.0	7,617.0	10,254.8	7,227.0	62.6	0.0	-63.90	2,715.7	910.6	886.6	835.6	50.98	17.391		
10,900.0	7,617.0	10,354.8	7,227.0	64.0	0.0	-63.87	2,815.7	909.7	885.5	833.1	52.37	16.907		
11,000.0	7,617.0	10,454.8	7,227.0	65.5	0.0	-63.83	2,915.7	908.9	884.4	830.6	53.78	16.445		
11,100.0	7,617.0	10,554.8	7,227.0	66.9	0.0	-63.80	3,015.6	908.1	883.3	828.1	55.20	16.003		
11,200.0	7,617.0	10,654.7	7,227.0	68.4	0.0	-63.76	3,115.6	907.3	882.2	825.6	56.62	15.581		
11,300.0	7,617.0	10,754.7	7,227.0	69.8	0.0	-63.73	3,215.6	906.4	881.1	823.1	58.06	15.177		
11,400.0	7,617.0	10,854.7	7,227.0	71.3	0.0	-63.69	3,315.6	905.6	880.0	820.5	59.50	14.790		
11,500.0	7,617.0	10,954.7	7,227.0	72.8	0.0	-63.66	3,415.6	904.8	879.0	818.0	60.95	14.420		
11,600.0	7,617.0	11,054.7	7,227.0	74.4	0.0	-63.62	3,515.6	903.9	877.9	815.5	62.41	14.066		
11,700.0	7,617.0	11,154.7	7,227.0	75.9	0.0	-63.59	3,615.6	903.1	876.8	812.9	63.88	13.726		
11,800.0	7,617.0	11,254.7	7,227.0	77.4	0.0	-63.55	3,715.6	902.3	875.7	810.3	65.35	13.401		
11,900.0	7,617.0	11,354.7	7,227.0	79.0	0.0	-63.52	3,815.6	901.5	874.6	807.8	66.82	13.088		
12,000.0	7,617.0	11,454.7	7,227.0	80.5	0.0	-63.48	3,915.6	900.6	873.5	805.2	68.30	12.789		
12,100.0	7,617.0	11,554.7	7,227.0	82.1	0.0	-63.45	4,015.5	899.8	872.4	802.6	69.79	12.501		
12,200.0	7,617.0	11,654.7	7,227.0	83.7	0.0	-63.41	4,115.5	899.0	871.3	800.1	71.28	12.224		
12,300.0	7,617.0	11,754.7	7,227.0	85.3	0.0	-63.37	4,215.5	898.2	870.3	797.5	72.77	11.958		
12,400.0	7,617.0	11,854.7	7,227.0	86.9	0.0	-63.34	4,315.5	897.3	869.2	794.9	74.27	11.702		
12,500.0	7,617.0	11,954.7	7,227.0	88.5	0.0	-63.30	4,415.5	896.5	868.1	792.3	75.77	11.456		
12,600.0	7,617.0	12,054.6	7,227.0	90.1	0.0	-63.27	4,515.5	895.7	867.0	789.7	77.28	11.219		
12,700.0	7,617.0	12,154.6	7,227.0	91.7	0.0	-63.23	4,615.5	894.9	865.9	787.1	78.79	10.991		
12,800.0	7,617.0	12,254.6	7,227.0	93.3	0.0	-63.19	4,715.5	894.0	864.8	784.5	80.30	10.771		
12,900.0	7,617.0	12,354.6	7,227.0	94.9	0.0	-63.16	4,815.5	893.2	863.7	781.9	81.81	10.558		
13,000.0	7,617.0	12,454.6	7,227.0	96.5	0.0	-63.12	4,915.4	892.4	862.7	779.3	83.32	10.353		
13,100.0	7,617.0	12,554.6	7,227.0	98.2	0.0	-63.08	5,015.4	891.5	861.6	776.7	84.84	10.155		
13,200.0	7,617.0	12,654.6	7,227.0	99.8	0.0	-63.05	5,115.4	890.7	860.5	774.1	86.36	9.964		
13,300.0	7,617.0	12,754.6	7,227.0	101.4	0.0	-63.01	5,215.4	889.9	859.4	771.5	87.88	9.779		
13,400.0	7,617.0	12,854.6	7,227.0	103.1	0.0	-62.97	5,315.4	889.1	858.3	768.9	89.40	9.601		
13,500.0	7,617.0	12,954.6	7,227.0	104.7	0.0	-62.94	5,415.4	888.2	857.3	766.3	90.93	9.428		
13,600.0	7,617.0	13,054.6	7,227.0	106.4	0.0	-62.90	5,515.4	887.4	856.2	763.7	92.45	9.261		
13,700.0	7,617.0	13,154.6	7,227.0	108.1	0.0	-62.86	5,615.4	886.6	855.1	761.1	93.98	9.099		
13,800.0	7,617.0	13,254.6	7,227.0	109.7	0.0	-62.83	5,715.4	885.8	854.0	758.5	95.51	8.942		
13,900.0	7,617.0	13,354.5	7,227.0	111.4	0.0	-62.79	5,815.3	884.9	852.9	755.9	97.04	8.790		
14,000.0	7,617.0	13,454.5	7,227.0	113.0	0.0	-62.75	5,915.3	884.1	851.8	753.3	98.57	8.642		
14,100.0	7,617.0	13,554.5	7,227.0	114.7	0.0	-62.71	6,015.3	883.3	850.8	750.7	100.10	8.499		
14,200.0	7,617.0	13,654.5	7,227.0	116.4	0.0	-62.68	6,115.3	882.5	849.7	748.1	101.63	8.361		
14,300.0	7,617.0	13,754.5	7,227.0	118.1	0.0	-62.64	6,215.3	881.6	848.6	745.4	103.16	8.226		
14,400.0	7,617.0	13,854.5	7,227.0	119.7	0.0	-62.60	6,315.3	880.8	847.5	742.8	104.70	8.095		
14,500.0	7,617.0	13,954.5	7,227.0	121.4	0.0	-62.56	6,415.3	880.0	846.5	740.2	106.23	7.968		
14,600.0	7,617.0	14,054.5	7,227.0	123.1	0.0	-62.53	6,515.3	879.1	845.4	737.6	107.76	7.845		
14,700.0	7,617.0	14,154.5	7,227.0	124.8	0.0	-62.49	6,615.3	878.3	844.3	735.0	109.30	7.725		
14,800.0	7,617.0	14,254.5	7,227.0	126.5	0.0	-62.45	6,715.2	877.5	843.2	732.4	110.83	7.608		
14,900.0	7,617.0	14,354.5	7,227.0	128.2	0.0	-62.41	6,815.2	876.7	842.1	729.8	112.37	7.495		
15,000.0	7,617.0	14,454.5	7,227.0	129.9	0.0	-62.37	6,915.2	875.8	841.1	727.2	113.90	7.384		
15,100.0	7,617.0	14,554.5	7,227.0	131.6	0.0	-62.33	7,015.2	875.0	840.0	724.6	115.44	7.277		
15,200.0	7,617.0	14,654.5	7,227.0	133.3	0.0	-62.30	7,115.2	874.2	838.9	721.9	116.97	7.172		

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 19-18-4CDH
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 19-18-4CDH	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		
15,300.0	7,617.0	14,754.4	7,227.0	135.0	0.0	-62.26	7,215.2	873.4	837.8	719.3	118.51	7.070		
15,400.0	7,617.0	14,854.4	7,227.0	136.7	0.0	-62.22	7,315.2	872.5	836.8	716.7	120.05	6.970		
15,500.0	7,617.0	14,954.4	7,227.0	138.4	0.0	-62.18	7,415.2	871.7	835.7	714.1	121.58	6.873		
15,600.0	7,617.0	15,054.4	7,227.0	140.1	0.0	-62.14	7,515.2	870.9	834.6	711.5	123.12	6.779		
15,700.0	7,617.0	15,154.4	7,227.0	141.8	0.0	-62.10	7,615.2	870.1	833.5	708.9	124.65	6.687		
15,800.0	7,617.0	15,254.4	7,227.0	143.5	0.0	-62.06	7,715.1	869.2	832.5	706.3	126.19	6.597		
15,900.0	7,617.0	15,354.4	7,227.0	145.2	0.0	-62.02	7,815.1	868.4	831.4	703.7	127.73	6.509		
16,000.0	7,617.0	15,454.4	7,227.0	146.9	0.0	-61.98	7,915.1	867.6	830.3	701.1	129.26	6.424		
16,100.0	7,617.0	15,554.4	7,227.0	148.6	0.0	-61.94	8,015.1	866.7	829.3	698.5	130.80	6.340		
16,200.0	7,617.0	15,654.4	7,227.0	150.3	0.0	-61.90	8,115.1	865.9	828.2	695.9	132.33	6.258		
16,300.0	7,617.0	15,754.4	7,227.0	152.0	0.0	-61.87	8,215.1	865.1	827.1	693.2	133.86	6.179		
16,400.0	7,617.0	15,854.4	7,227.0	153.8	0.0	-61.83	8,315.1	864.3	826.0	690.6	135.40	6.101		
16,500.0	7,617.0	15,954.4	7,227.0	155.5	0.0	-61.79	8,415.1	863.4	825.0	688.0	136.93	6.025		
16,600.0	7,617.0	16,054.3	7,227.0	157.2	0.0	-61.75	8,515.1	862.6	823.9	685.4	138.47	5.950		
16,700.0	7,617.0	16,154.3	7,227.0	158.9	0.0	-61.71	8,615.0	861.8	822.8	682.8	140.00	5.877		
16,800.0	7,617.0	16,254.3	7,227.0	160.6	0.0	-61.67	8,715.0	861.0	821.8	680.2	141.53	5.806		
16,900.0	7,617.0	16,354.3	7,227.0	162.4	0.0	-61.63	8,815.0	860.1	820.7	677.6	143.06	5.737		
17,000.0	7,617.0	16,454.3	7,227.0	164.1	0.0	-61.58	8,915.0	859.3	819.6	675.0	144.59	5.668		
17,100.0	7,617.0	16,554.3	7,227.0	165.8	0.0	-61.54	9,015.0	858.5	818.6	672.4	146.13	5.602		
17,200.0	7,617.0	16,654.3	7,227.0	167.5	0.0	-61.50	9,115.0	857.7	817.5	669.8	147.66	5.536		
17,284.3	7,617.0	16,738.6	7,227.0	169.0	0.0	-61.49	9,199.3	857.0	817.2	668.2	148.97	5.486		
17,300.0	7,617.0	16,754.3	7,227.0	169.2	0.0	-61.48	9,215.0	856.8	816.8	667.6	149.20	5.475		
17,400.0	7,617.0	16,854.3	7,227.0	171.0	0.0	-61.54	9,314.9	856.0	819.3	668.4	150.88	5.430		
17,500.0	7,617.0	16,954.0	7,227.0	172.7	0.0	-61.71	9,414.7	855.2	825.4	672.7	152.71	5.405		
17,600.0	7,617.0	17,053.4	7,227.0	174.4	0.0	-61.96	9,514.1	854.4	835.2	680.5	154.67	5.400 SF		
17,700.0	7,617.0	17,152.2	7,227.0	176.1	0.0	-62.29	9,612.9	853.5	848.6	691.9	156.75	5.414		
17,800.0	7,617.0	17,250.3	7,227.0	177.8	0.0	-62.69	9,711.0	852.7	865.8	706.9	158.94	5.447		
17,900.0	7,617.0	17,347.6	7,227.0	179.4	0.0	-63.15	9,808.2	851.9	886.7	725.5	161.20	5.501		
18,000.0	7,617.0	17,443.8	7,227.0	181.1	0.0	-63.71	9,904.4	851.1	911.3	747.8	163.50	5.573		
18,014.8	7,617.0	17,451.3	7,227.0	181.3	0.0	-63.77	9,912.0	851.1	915.1	751.4	163.70	5.590		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.63	0.3	45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.63	0.3	45.0	45.0	44.7	0.28	162.212		
133.3	133.3	133.3	133.3	0.6	0.0	89.63	0.3	45.0	45.0	44.5	0.45	99.726		
200.0	200.0	200.0	200.0	1.0	0.0	89.63	0.3	45.0	45.0	44.2	0.80	56.328		
300.0	300.0	300.0	300.0	1.5	0.0	89.63	0.3	45.0	45.0	43.7	1.23	36.707		
333.3	333.3	333.3	333.3	1.6	0.0	89.63	0.3	45.0	45.0	43.6	1.36	33.154		
400.0	400.0	400.0	400.0	1.9	0.0	89.63	0.3	45.0	45.0	43.4	1.62	27.776		
500.0	500.0	500.0	500.0	2.3	0.0	89.63	0.3	45.0	45.0	43.0	2.00	22.489	CC, ES	
600.0	600.0	598.4	598.4	2.7	0.0	90.07	-0.1	46.6	46.7	44.3	2.37	19.704		
700.0	700.0	696.7	696.5	3.1	0.0	91.21	-1.1	51.6	51.7	49.0	2.72	19.010		
800.0	800.0	794.4	793.9	3.5	0.0	92.69	-2.8	59.8	60.1	57.1	3.06	19.648		
900.0	900.0	891.7	890.5	3.9	0.0	-11.89	-5.2	71.1	70.3	66.7	3.60	19.499		
1,000.0	999.8	988.7	986.3	4.5	0.0	-11.13	-8.2	85.7	80.4	75.9	4.43	18.154		
1,100.0	1,099.5	1,085.3	1,081.2	5.3	0.0	-10.70	-11.9	103.3	90.4	85.2	5.14	17.575		
1,200.0	1,198.7	1,181.6	1,175.2	6.0	0.0	-10.49	-16.2	124.0	100.3	94.5	5.79	17.339		
1,300.0	1,297.5	1,277.6	1,268.1	6.7	0.0	-10.44	-21.2	147.6	110.2	103.8	6.37	17.281		
1,400.0	1,395.6	1,373.3	1,359.9	7.3	0.0	-10.50	-26.8	174.3	119.9	113.0	6.92	17.324		
1,500.0	1,493.1	1,468.8	1,450.4	7.9	0.0	-10.66	-32.9	203.8	129.5	122.1	7.43	17.425		
1,600.0	1,589.6	1,564.5	1,540.2	8.5	0.0	-10.90	-39.7	236.3	139.0	131.0	7.93	17.519		
1,700.0	1,685.8	1,664.1	1,633.2	8.9	0.0	-11.22	-47.0	271.3	147.9	139.6	8.29	17.849		
1,800.0	1,781.9	1,763.7	1,726.1	9.1	0.0	-11.51	-54.4	306.2	156.9	148.3	8.56	18.329		
1,900.0	1,878.0	1,863.3	1,819.1	9.4	0.0	-11.76	-61.7	341.2	165.8	157.0	8.84	18.753		
2,000.0	1,974.1	1,962.9	1,912.1	9.7	0.0	-11.99	-69.0	376.2	174.8	165.6	9.14	19.127		
2,100.0	2,070.2	2,062.5	2,005.0	10.0	0.0	-12.19	-76.3	411.1	183.7	174.3	9.44	19.456		
2,200.0	2,166.3	2,162.1	2,098.0	10.4	0.0	-12.38	-83.6	446.1	192.7	182.9	9.76	19.747		
2,300.0	2,262.4	2,261.7	2,191.0	10.7	0.0	-12.55	-90.9	481.1	201.6	191.5	10.08	20.002		
2,400.0	2,358.6	2,361.3	2,283.9	11.1	0.0	-12.70	-98.2	516.0	210.6	200.2	10.41	20.227		
2,500.0	2,454.7	2,460.9	2,376.9	11.6	0.0	-12.85	-105.6	551.0	219.5	208.8	10.75	20.425		
2,600.0	2,550.8	2,560.5	2,469.9	12.0	0.0	-12.98	-112.9	586.0	228.5	217.4	11.09	20.599		
2,700.0	2,646.9	2,660.1	2,562.9	12.5	0.0	-13.10	-120.2	620.9	237.4	226.0	11.44	20.752		
2,800.0	2,743.0	2,759.7	2,655.8	13.1	0.0	-13.21	-127.5	655.9	246.4	234.6	11.80	20.887		
2,900.0	2,839.1	2,859.3	2,748.8	13.6	0.0	-13.32	-134.8	690.9	255.4	243.2	12.16	21.006		
3,000.0	2,935.2	2,958.8	2,841.8	14.2	0.0	-13.41	-142.1	725.8	264.3	251.8	12.52	21.111		
3,100.0	3,031.3	3,058.4	2,934.7	14.7	0.0	-13.51	-149.4	760.8	273.3	260.4	12.89	21.203		
3,200.0	3,127.5	3,158.0	3,027.7	15.3	0.0	-13.59	-156.7	795.7	282.2	269.0	13.26	21.284		
3,300.0	3,223.6	3,257.6	3,120.7	15.9	0.0	-13.67	-164.1	830.7	291.2	277.6	13.64	21.356		
3,400.0	3,319.7	3,357.2	3,213.6	16.5	0.0	-13.75	-171.4	865.7	300.2	286.2	14.01	21.419		
3,500.0	3,415.8	3,456.8	3,306.6	17.1	0.0	-13.82	-178.7	900.6	309.1	294.7	14.40	21.474		
3,600.0	3,511.9	3,556.4	3,399.6	17.7	0.0	-13.88	-186.0	935.6	318.1	303.3	14.78	21.523		
3,700.0	3,608.0	3,656.0	3,492.6	18.3	0.0	-13.95	-193.3	970.6	327.1	311.9	15.17	21.566		
3,800.0	3,704.1	3,755.6	3,585.5	18.8	0.0	-14.01	-200.6	1,005.5	336.0	320.5	15.55	21.604		
3,900.0	3,800.3	3,855.2	3,678.5	19.4	0.0	-14.06	-207.9	1,040.5	345.0	329.1	15.95	21.637		
4,000.0	3,896.4	3,954.8	3,771.5	20.0	0.0	-14.12	-215.3	1,075.5	354.0	337.6	16.34	21.665		
4,100.0	3,992.5	4,054.4	3,864.4	20.6	0.0	-14.17	-222.6	1,110.4	362.9	346.2	16.73	21.691		
4,200.0	4,088.6	4,154.0	3,957.4	21.2	0.0	-14.22	-229.9	1,145.4	371.9	354.8	17.13	21.713		
4,300.0	4,184.7	4,253.6	4,050.4	21.8	0.0	-14.27	-237.2	1,180.4	380.9	363.3	17.53	21.732		
4,400.0	4,280.8	4,353.2	4,143.3	22.4	0.0	-14.31	-244.5	1,215.3	389.8	371.9	17.93	21.748		
4,500.0	4,376.9	4,452.8	4,236.3	23.0	0.0	-14.35	-251.8	1,250.3	398.8	380.5	18.33	21.762		
4,600.0	4,473.0	4,552.4	4,329.3	23.6	0.0	-14.39	-259.1	1,285.3	407.8	389.1	18.73	21.774		
4,700.0	4,569.2	4,652.0	4,422.3	24.2	0.0	-14.43	-266.5	1,320.2	416.7	397.6	19.13	21.784		
4,800.0	4,665.3	4,751.6	4,515.2	24.8	0.0	-14.47	-273.8	1,355.2	425.7	406.2	19.53	21.793		
4,900.0	4,761.4	4,851.2	4,608.2	25.4	0.0	-14.50	-281.1	1,390.1	434.7	414.7	19.94	21.800		

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 19-18-4CDH
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 19-18-4CDH	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		
5,000.0	4,857.5	4,950.8	4,701.2	26.0	0.0	-14.54	-288.4	1,425.1	443.7	423.3	20.35	21.805		
5,100.0	4,953.6	5,050.4	4,794.1	26.6	0.0	-14.57	-295.7	1,460.1	452.6	431.9	20.75	21.810		
5,200.0	5,049.7	5,150.0	4,887.1	27.2	0.0	-14.60	-303.0	1,495.0	461.6	440.4	21.16	21.813		
5,300.0	5,145.8	5,249.6	4,980.1	27.8	0.0	-14.63	-310.3	1,530.0	470.6	449.0	21.57	21.815		
5,400.0	5,242.0	5,349.2	5,073.0	28.4	0.0	-14.66	-317.7	1,565.0	479.5	457.6	21.98	21.817		
5,500.0	5,338.1	5,448.8	5,166.0	29.0	0.0	-14.69	-325.0	1,599.9	488.5	466.1	22.39	21.818		
5,600.0	5,434.2	5,548.4	5,259.0	29.7	0.0	-14.72	-332.3	1,634.9	497.5	474.7	22.80	21.818		
5,700.0	5,530.3	5,648.0	5,352.0	30.3	0.0	-14.74	-339.6	1,669.9	506.4	483.2	23.21	21.817		
5,800.0	5,626.4	5,747.6	5,444.9	30.9	0.0	-14.77	-346.9	1,704.8	515.4	491.8	23.63	21.816		
5,900.0	5,722.5	5,847.2	5,537.9	31.5	0.0	-14.79	-354.2	1,739.8	524.4	500.3	24.04	21.815		
6,000.0	5,818.6	5,946.7	5,630.9	32.1	0.0	-14.82	-361.5	1,774.8	533.4	508.9	24.45	21.812		
6,100.0	5,914.7	6,046.3	5,723.8	32.7	0.0	-14.84	-368.8	1,809.7	542.3	517.5	24.87	21.810		
6,200.0	6,010.9	6,145.9	5,816.8	33.3	0.0	-14.86	-376.2	1,844.7	551.3	526.0	25.28	21.807		
6,300.0	6,107.0	6,245.5	5,909.8	33.9	0.0	-14.88	-383.5	1,879.7	560.3	534.6	25.70	21.804		
6,400.0	6,203.1	6,345.1	6,002.8	34.5	0.0	-14.90	-390.8	1,914.6	569.2	543.1	26.11	21.801		
6,500.0	6,299.2	6,444.7	6,095.7	35.1	0.0	-14.92	-398.1	1,949.6	578.2	551.7	26.53	21.797		
6,600.0	6,395.3	6,544.3	6,188.7	35.7	0.0	-14.94	-405.4	1,984.5	587.2	560.2	26.94	21.793		
6,700.0	6,491.4	6,643.9	6,281.7	36.3	0.0	-14.96	-412.7	2,019.5	596.2	568.8	27.36	21.789		
6,800.0	6,587.5	6,743.5	6,374.6	36.9	0.0	-14.98	-420.0	2,054.5	605.1	577.3	27.78	21.784		
6,900.0	6,683.7	6,843.1	6,467.6	37.5	0.0	-15.00	-427.4	2,089.4	614.1	585.9	28.20	21.780		
7,000.0	6,779.8	6,942.7	6,560.6	38.1	0.0	-15.02	-434.7	2,124.4	623.1	594.5	28.61	21.775		
7,100.0	6,875.9	7,042.3	6,653.5	38.7	0.0	-15.03	-442.0	2,159.4	632.0	603.0	29.03	21.771		
7,200.0	6,972.0	7,141.9	6,746.5	39.4	0.0	-15.05	-449.3	2,194.3	641.0	611.6	29.45	21.766		
7,300.0	7,068.2	7,242.2	6,840.2	40.0	0.0	2.20	-454.0	2,229.5	650.0	620.1	29.87	21.764		
7,400.0	7,164.1	7,342.8	6,933.8	40.6	0.0	33.07	-442.8	2,264.4	659.0	628.7	30.30	21.753		
7,500.0	7,257.0	7,443.3	7,024.1	41.0	0.0	50.55	-414.4	2,297.8	667.8	637.0	30.84	21.655		
7,600.0	7,344.0	7,543.6	7,108.3	41.4	0.0	59.37	-369.7	2,328.7	676.2	644.9	31.31	21.597		
7,700.0	7,422.5	7,643.8	7,183.9	41.7	0.0	64.05	-310.2	2,356.1	683.8	652.1	31.67	21.588		
7,800.0	7,490.1	7,743.9	7,248.7	41.9	0.0	66.64	-237.7	2,379.3	690.4	658.5	31.98	21.588		
7,900.0	7,544.8	7,843.8	7,300.7	42.1	0.0	68.09	-154.4	2,397.5	695.9	663.7	32.27	21.566		
8,000.0	7,584.9	7,943.7	7,338.3	42.2	0.0	68.86	-63.0	2,410.2	700.1	667.5	32.57	21.497		
8,100.0	7,609.2	8,043.3	7,360.6	42.2	0.0	69.19	33.8	2,417.0	702.8	669.9	32.89	21.366		
8,200.0	7,617.0	8,142.9	7,367.0	42.1	0.0	69.20	133.1	2,417.8	704.0	670.8	33.25	21.172		
8,300.0	7,617.0	8,242.9	7,367.0	42.1	0.0	69.21	233.1	2,416.3	704.5	670.9	33.60	20.965		
8,400.0	7,617.0	8,342.9	7,367.0	42.2	0.0	69.23	333.0	2,414.7	704.9	670.9	34.04	20.711		
8,500.0	7,617.0	8,442.9	7,367.0	42.3	0.0	69.24	433.0	2,413.2	705.4	670.8	34.55	20.418		
8,600.0	7,617.0	8,542.9	7,367.0	42.4	0.0	69.26	533.0	2,411.6	705.8	670.7	35.13	20.092		
8,700.0	7,617.0	8,642.9	7,367.0	42.7	0.0	69.27	633.0	2,410.1	706.3	670.5	35.78	19.738		
8,800.0	7,617.0	8,742.9	7,367.0	42.9	0.0	69.28	733.0	2,408.5	706.7	670.2	36.50	19.362		
8,900.0	7,617.0	8,842.9	7,367.0	43.3	0.0	69.30	833.0	2,406.9	707.2	669.9	37.28	18.969		
9,000.0	7,617.0	8,942.9	7,367.0	43.7	0.0	69.31	933.0	2,405.4	707.6	669.5	38.12	18.564		
9,100.0	7,617.0	9,042.9	7,367.0	44.3	0.0	69.32	1,032.9	2,403.8	708.1	669.1	39.01	18.150		
9,200.0	7,617.0	9,142.9	7,367.0	44.9	0.0	69.34	1,132.9	2,402.3	708.5	668.6	39.95	17.733		
9,300.0	7,617.0	9,242.9	7,367.0	45.5	0.0	69.35	1,232.9	2,400.7	709.0	668.0	40.95	17.315		
9,400.0	7,617.0	9,342.9	7,367.0	46.3	0.0	69.37	1,332.9	2,399.1	709.4	667.4	41.98	16.899		
9,500.0	7,617.0	9,442.9	7,367.0	47.1	0.0	69.38	1,432.9	2,397.6	709.9	666.8	43.06	16.487		
9,600.0	7,617.0	9,542.9	7,367.0	48.1	0.0	69.39	1,532.9	2,396.0	710.3	666.2	44.17	16.082		
9,700.0	7,617.0	9,642.9	7,367.0	49.0	0.0	69.41	1,632.9	2,394.5	710.8	665.5	45.32	15.684		
9,800.0	7,617.0	9,742.9	7,367.0	50.1	0.0	69.42	1,732.9	2,392.9	711.2	664.7	46.50	15.296		
9,900.0	7,617.0	9,842.9	7,367.0	51.1	0.0	69.43	1,832.8	2,391.3	711.7	664.0	47.71	14.917		
10,000.0	7,617.0	9,942.9	7,367.0	52.3	0.0	69.45	1,932.8	2,389.8	712.1	663.2	48.95	14.549		
10,100.0	7,617.0	10,042.9	7,367.0	53.5	0.0	69.46	2,032.8	2,388.2	712.6	662.4	50.21	14.191		

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 19-18-4CDH
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 19-18-4CDH	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		
10,200.0	7,617.0	10,142.9	7,367.0	54.7	0.0	69.47	2,132.8	2,386.7	713.0	661.5	51.50	13.845		
10,300.0	7,617.0	10,242.9	7,367.0	55.9	0.0	69.49	2,232.8	2,385.1	713.5	660.7	52.81	13.509		
10,400.0	7,617.0	10,342.9	7,367.0	57.2	0.0	69.50	2,332.8	2,383.6	713.9	659.8	54.15	13.185		
10,500.0	7,617.0	10,442.9	7,367.0	58.5	0.0	69.52	2,432.8	2,382.0	714.4	658.9	55.50	12.873		
10,600.0	7,617.0	10,542.9	7,367.0	59.9	0.0	69.53	2,532.7	2,380.4	714.8	658.0	56.87	12.571		
10,700.0	7,617.0	10,642.9	7,367.0	61.2	0.0	69.54	2,632.7	2,378.9	715.3	657.0	58.25	12.279		
10,800.0	7,617.0	10,742.9	7,367.0	62.6	0.0	69.56	2,732.7	2,377.3	715.7	656.1	59.65	11.999		
10,900.0	7,617.0	10,842.9	7,367.0	64.0	0.0	69.57	2,832.7	2,375.8	716.2	655.1	61.07	11.728		
11,000.0	7,617.0	10,942.9	7,367.0	65.5	0.0	69.58	2,932.7	2,374.2	716.7	654.2	62.50	11.467		
11,100.0	7,617.0	11,042.9	7,367.0	66.9	0.0	69.60	3,032.7	2,372.6	717.1	653.2	63.94	11.216		
11,200.0	7,617.0	11,142.9	7,367.0	68.4	0.0	69.61	3,132.7	2,371.1	717.6	652.2	65.39	10.973		
11,300.0	7,617.0	11,242.9	7,367.0	69.8	0.0	69.62	3,232.7	2,369.5	718.0	651.2	66.86	10.740		
11,400.0	7,617.0	11,342.9	7,367.0	71.3	0.0	69.64	3,332.6	2,368.0	718.5	650.1	68.33	10.514		
11,500.0	7,617.0	11,442.9	7,367.0	72.8	0.0	69.65	3,432.6	2,366.4	718.9	649.1	69.82	10.297		
11,600.0	7,617.0	11,542.9	7,367.0	74.4	0.0	69.66	3,532.6	2,364.8	719.4	648.1	71.31	10.088		
11,700.0	7,617.0	11,642.9	7,367.0	75.9	0.0	69.68	3,632.6	2,363.3	719.8	647.0	72.81	9.886		
11,800.0	7,617.0	11,742.9	7,367.0	77.4	0.0	69.69	3,732.6	2,361.7	720.3	645.9	74.32	9.691		
11,900.0	7,617.0	11,842.9	7,367.0	79.0	0.0	69.70	3,832.6	2,360.2	720.7	644.9	75.84	9.503		
12,000.0	7,617.0	11,942.9	7,367.0	80.5	0.0	69.72	3,932.6	2,358.6	721.2	643.8	77.36	9.322		
12,100.0	7,617.0	12,042.9	7,367.0	82.1	0.0	69.73	4,032.5	2,357.1	721.6	642.7	78.89	9.147		
12,200.0	7,617.0	12,142.9	7,367.0	83.7	0.0	69.74	4,132.5	2,355.5	722.1	641.6	80.43	8.978		
12,300.0	7,617.0	12,242.9	7,367.0	85.3	0.0	69.76	4,232.5	2,353.9	722.5	640.6	81.98	8.814		
12,400.0	7,617.0	12,342.9	7,367.0	86.9	0.0	69.77	4,332.5	2,352.4	723.0	639.5	83.53	8.656		
12,500.0	7,617.0	12,442.9	7,367.0	88.5	0.0	69.78	4,432.5	2,350.8	723.4	638.4	85.08	8.503		
12,600.0	7,617.0	12,542.9	7,367.0	90.1	0.0	69.80	4,532.5	2,349.3	723.9	637.2	86.64	8.355		
12,700.0	7,617.0	12,642.9	7,367.0	91.7	0.0	69.81	4,632.5	2,347.7	724.3	636.1	88.21	8.212		
12,800.0	7,617.0	12,742.9	7,367.0	93.3	0.0	69.82	4,732.5	2,346.1	724.8	635.0	89.77	8.073		
12,900.0	7,617.0	12,842.9	7,367.0	94.9	0.0	69.84	4,832.4	2,344.6	725.2	633.9	91.35	7.939		
13,000.0	7,617.0	12,942.9	7,367.0	96.5	0.0	69.85	4,932.4	2,343.0	725.7	632.8	92.93	7.809		
13,100.0	7,617.0	13,042.9	7,367.0	98.2	0.0	69.86	5,032.4	2,341.5	726.2	631.6	94.51	7.683		
13,200.0	7,617.0	13,142.9	7,367.0	99.8	0.0	69.88	5,132.4	2,339.9	726.6	630.5	96.10	7.561		
13,300.0	7,617.0	13,242.9	7,367.0	101.4	0.0	69.89	5,232.4	2,338.3	727.1	629.4	97.68	7.443		
13,400.0	7,617.0	13,342.9	7,367.0	103.1	0.0	69.90	5,332.4	2,336.8	727.5	628.2	99.28	7.328		
13,500.0	7,617.0	13,442.9	7,367.0	104.7	0.0	69.91	5,432.4	2,335.2	728.0	627.1	100.87	7.217		
13,600.0	7,617.0	13,542.9	7,367.0	106.4	0.0	69.93	5,532.3	2,333.7	728.4	625.9	102.47	7.108		
13,700.0	7,617.0	13,642.9	7,367.0	108.1	0.0	69.94	5,632.3	2,332.1	728.9	624.8	104.08	7.003		
13,800.0	7,617.0	13,742.9	7,367.0	109.7	0.0	69.95	5,732.3	2,330.5	729.3	623.6	105.68	6.901		
13,900.0	7,617.0	13,842.9	7,367.0	111.4	0.0	69.97	5,832.3	2,329.0	729.8	622.5	107.29	6.802		
14,000.0	7,617.0	13,942.9	7,367.0	113.0	0.0	69.98	5,932.3	2,327.4	730.2	621.3	108.90	6.705		
14,100.0	7,617.0	14,042.9	7,367.0	114.7	0.0	69.99	6,032.3	2,325.9	730.7	620.2	110.51	6.612		
14,200.0	7,617.0	14,142.9	7,367.0	116.4	0.0	70.01	6,132.3	2,324.3	731.1	619.0	112.13	6.520		
14,300.0	7,617.0	14,242.9	7,367.0	118.1	0.0	70.02	6,232.3	2,322.8	731.6	617.8	113.75	6.432		
14,400.0	7,617.0	14,342.9	7,367.0	119.7	0.0	70.03	6,332.2	2,321.2	732.0	616.7	115.37	6.345		
14,500.0	7,617.0	14,442.9	7,367.0	121.4	0.0	70.04	6,432.2	2,319.6	732.5	615.5	116.99	6.261		
14,600.0	7,617.0	14,542.9	7,367.0	123.1	0.0	70.06	6,532.2	2,318.1	733.0	614.3	118.62	6.179		
14,700.0	7,617.0	14,642.9	7,367.0	124.8	0.0	70.07	6,632.2	2,316.5	733.4	613.2	120.24	6.099		
14,800.0	7,617.0	14,742.9	7,367.0	126.5	0.0	70.08	6,732.2	2,315.0	733.9	612.0	121.87	6.022		
14,900.0	7,617.0	14,842.9	7,367.0	128.2	0.0	70.10	6,832.2	2,313.4	734.3	610.8	123.50	5.946		
15,000.0	7,617.0	14,942.8	7,367.0	129.9	0.0	70.11	6,932.2	2,311.8	734.8	609.6	125.13	5.872		
15,100.0	7,617.0	15,042.8	7,367.0	131.6	0.0	70.12	7,032.1	2,310.3	735.2	608.4	126.77	5.800		
15,200.0	7,617.0	15,142.8	7,367.0	133.3	0.0	70.13	7,132.1	2,308.7	735.7	607.3	128.40	5.729		
15,300.0	7,617.0	15,242.8	7,367.0	135.0	0.0	70.15	7,232.1	2,307.2	736.1	606.1	130.04	5.661		

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 19-18-4CDH
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 19-18-4CDH	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,400.0	7,617.0	15,342.8	7,367.0	136.7	0.0	70.16	7,332.1	2,305.6	736.6	604.9	131.68	5.594		
15,500.0	7,617.0	15,442.8	7,367.0	138.4	0.0	70.17	7,432.1	2,304.0	737.0	603.7	133.32	5.528		
15,600.0	7,617.0	15,542.8	7,367.0	140.1	0.0	70.18	7,532.1	2,302.5	737.5	602.5	134.96	5.464		
15,700.0	7,617.0	15,642.8	7,367.0	141.8	0.0	70.20	7,632.1	2,300.9	737.9	601.3	136.61	5.402		
15,800.0	7,617.0	15,742.8	7,367.0	143.5	0.0	70.21	7,732.1	2,299.4	738.4	600.1	138.25	5.341		
15,900.0	7,617.0	15,842.8	7,367.0	145.2	0.0	70.22	7,832.0	2,297.8	738.8	598.9	139.90	5.281		
16,000.0	7,617.0	15,942.8	7,367.0	146.9	0.0	70.24	7,932.0	2,296.3	739.3	597.8	141.55	5.223		
16,100.0	7,617.0	16,042.8	7,367.0	148.6	0.0	70.25	8,032.0	2,294.7	739.8	596.6	143.20	5.166		
16,200.0	7,617.0	16,142.8	7,367.0	150.3	0.0	70.26	8,132.0	2,293.1	740.2	595.4	144.85	5.110		
16,300.0	7,617.0	16,242.8	7,367.0	152.0	0.0	70.27	8,232.0	2,291.6	740.7	594.2	146.50	5.056		
16,400.0	7,617.0	16,342.8	7,367.0	153.8	0.0	70.29	8,332.0	2,290.0	741.1	593.0	148.15	5.002		
16,500.0	7,617.0	16,442.8	7,367.0	155.5	0.0	70.30	8,432.0	2,288.5	741.6	591.8	149.80	4.950		
16,600.0	7,617.0	16,542.8	7,367.0	157.2	0.0	70.31	8,531.9	2,286.9	742.0	590.6	151.46	4.899		
16,700.0	7,617.0	16,642.8	7,367.0	158.9	0.0	70.32	8,631.9	2,285.3	742.5	589.4	153.11	4.849		
16,800.0	7,617.0	16,742.8	7,367.0	160.6	0.0	70.34	8,731.9	2,283.8	742.9	588.2	154.77	4.800		
16,900.0	7,617.0	16,842.8	7,367.0	162.4	0.0	70.35	8,831.9	2,282.2	743.4	587.0	156.43	4.752		
17,000.0	7,617.0	16,942.8	7,367.0	164.1	0.0	70.36	8,931.9	2,280.7	743.8	585.8	158.09	4.705		
17,100.0	7,617.0	17,042.8	7,367.0	165.8	0.0	70.37	9,031.9	2,279.1	744.3	584.5	159.75	4.659		
17,200.0	7,617.0	17,142.8	7,367.0	167.5	0.0	70.39	9,131.9	2,277.5	744.8	583.3	161.41	4.614		
17,300.0	7,617.0	17,242.8	7,367.0	169.2	0.0	70.38	9,231.9	2,276.0	744.8	581.7	163.06	4.568		
17,400.0	7,617.0	17,342.8	7,367.0	171.0	0.0	70.27	9,331.8	2,274.4	741.5	576.8	164.65	4.503		
17,500.0	7,617.0	17,442.5	7,367.0	172.7	0.0	70.01	9,431.5	2,272.9	734.2	568.1	166.16	4.419		
17,600.0	7,617.0	17,541.7	7,367.0	174.4	0.0	69.59	9,530.7	2,271.3	723.2	555.6	167.56	4.316		
17,700.0	7,617.0	17,640.5	7,367.0	176.1	0.0	69.02	9,629.4	2,269.8	708.2	539.4	168.84	4.195		
17,800.0	7,617.0	17,738.4	7,367.0	177.8	0.0	68.26	9,727.4	2,268.3	689.6	519.6	169.97	4.057		
17,900.0	7,617.0	17,835.5	7,367.0	179.4	0.0	67.29	9,824.4	2,266.7	667.2	496.3	170.93	3.903		
18,000.0	7,617.0	17,931.5	7,367.0	181.1	0.0	66.13	9,920.4	2,265.2	641.4	469.7	171.66	3.736		
18,014.8	7,617.0	17,945.6	7,367.0	181.3	0.0	65.97	9,934.6	2,265.0	637.4	465.6	171.75	3.711 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	89.49	0.3	30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.49	0.3	30.0	30.0	29.7	0.28	107.932		
133.3	133.3	133.3	133.3	0.6	0.0	89.49	0.3	30.0	30.0	29.5	0.45	66.364		
200.0	200.0	200.0	200.0	1.0	0.0	89.49	0.3	30.0	30.0	29.2	0.80	37.488		
300.0	300.0	300.0	300.0	1.5	0.0	89.49	0.3	30.0	30.0	28.7	1.23	24.435		
333.3	333.3	333.3	333.3	1.6	0.0	89.49	0.3	30.0	30.0	28.6	1.36	22.071		
400.0	400.0	400.0	400.0	1.9	0.0	89.49	0.3	30.0	30.0	28.4	1.62	18.493		
500.0	500.0	500.0	500.0	2.3	0.0	89.49	0.3	30.0	30.0	28.0	2.00	14.975		
558.1	558.1	558.1	558.1	2.6	0.0	89.49	0.3	30.0	30.0	27.8	2.22	13.509		
600.0	600.0	600.0	600.0	2.7	0.0	89.49	0.3	30.0	30.0	27.6	2.38	12.618 CC, ES		
700.0	700.0	698.9	698.9	3.1	0.0	90.16	-0.1	31.6	31.7	28.9	2.74	11.574		
800.0	800.0	797.7	797.5	3.5	0.0	91.81	-1.2	36.6	36.7	33.7	3.08	11.942		
900.0	900.0	896.1	895.5	3.9	0.0	-12.53	-2.9	44.9	43.5	39.9	3.62	12.034		
1,000.0	999.8	994.2	993.0	4.5	0.0	-11.70	-5.4	56.5	50.3	45.9	4.44	11.335		
1,100.0	1,099.5	1,092.2	1,089.8	5.3	0.0	-11.30	-8.6	71.2	57.1	51.9	5.16	11.070		
1,200.0	1,198.7	1,189.9	1,185.8	6.0	0.0	-11.19	-12.4	89.2	63.8	58.0	5.80	11.000		
1,300.0	1,297.5	1,287.4	1,280.9	6.7	0.0	-11.28	-16.9	110.2	70.5	64.1	6.39	11.031		
1,400.0	1,395.6	1,384.7	1,374.9	7.3	0.0	-11.51	-22.1	134.4	77.2	70.2	6.94	11.120		
1,500.0	1,493.1	1,481.8	1,467.9	7.9	0.0	-11.86	-27.9	161.6	83.7	76.3	7.45	11.241		
1,600.0	1,589.6	1,578.7	1,559.8	8.5	0.0	-12.30	-34.4	191.9	90.3	82.3	7.94	11.369		
1,700.0	1,685.8	1,676.7	1,651.7	8.9	0.0	-12.65	-41.5	225.2	98.0	89.8	8.26	11.867		
1,800.0	1,781.9	1,776.4	1,744.9	9.1	0.0	-12.92	-48.9	259.5	106.3	97.7	8.53	12.454		
1,900.0	1,878.0	1,876.0	1,838.2	9.4	0.0	-13.15	-56.2	293.8	114.5	105.7	8.82	12.985		
2,000.0	1,974.1	1,975.7	1,931.5	9.7	0.0	-13.35	-63.6	328.1	122.8	113.7	9.12	13.466		
2,100.0	2,070.2	2,075.3	2,024.8	10.0	0.0	-13.52	-70.9	362.4	131.0	121.6	9.43	13.900		
2,200.0	2,166.3	2,175.0	2,118.0	10.4	0.0	-13.67	-78.3	396.8	139.3	129.5	9.74	14.294		
2,300.0	2,262.4	2,274.7	2,211.3	10.7	0.0	-13.81	-85.6	431.1	147.5	137.5	10.07	14.651		
2,400.0	2,358.6	2,374.3	2,304.6	11.1	0.0	-13.93	-93.0	465.4	155.8	145.4	10.40	14.974		
2,500.0	2,454.7	2,474.0	2,397.9	11.6	0.0	-14.04	-100.3	499.7	164.0	153.3	10.75	15.267		
2,600.0	2,550.8	2,573.6	2,491.1	12.0	0.0	-14.14	-107.7	534.0	172.3	161.2	11.09	15.533		
2,700.0	2,646.9	2,673.3	2,584.4	12.5	0.0	-14.22	-115.0	568.4	180.6	169.1	11.45	15.776		
2,800.0	2,743.0	2,773.0	2,677.7	13.1	0.0	-14.31	-122.4	602.7	188.8	177.0	11.80	15.997		
2,900.0	2,839.1	2,872.6	2,771.0	13.6	0.0	-14.38	-129.7	637.0	197.1	184.9	12.17	16.199		
3,000.0	2,935.2	2,972.3	2,864.2	14.2	0.0	-14.45	-137.1	671.3	205.3	192.8	12.53	16.383		
3,100.0	3,031.3	3,071.9	2,957.5	14.7	0.0	-14.51	-144.4	705.6	213.6	200.7	12.90	16.552		
3,200.0	3,127.5	3,171.6	3,050.8	15.3	0.0	-14.57	-151.8	740.0	221.8	208.6	13.28	16.707		
3,300.0	3,223.6	3,271.2	3,144.0	15.9	0.0	-14.63	-159.1	774.3	230.1	216.5	13.66	16.850		
3,400.0	3,319.7	3,370.9	3,237.3	16.5	0.0	-14.68	-166.5	808.6	238.4	224.3	14.04	16.981		
3,500.0	3,415.8	3,470.6	3,330.6	17.1	0.0	-14.72	-173.8	842.9	246.6	232.2	14.42	17.102		
3,600.0	3,511.9	3,570.2	3,423.9	17.7	0.0	-14.77	-181.2	877.2	254.9	240.1	14.81	17.214		
3,700.0	3,608.0	3,669.9	3,517.1	18.3	0.0	-14.81	-188.5	911.5	263.1	247.9	15.19	17.318		
3,800.0	3,704.1	3,769.5	3,610.4	18.8	0.0	-14.85	-195.9	945.9	271.4	255.8	15.59	17.414		
3,900.0	3,800.3	3,869.2	3,703.7	19.4	0.0	-14.88	-203.2	980.2	279.7	263.7	15.98	17.503		
4,000.0	3,896.4	3,968.8	3,797.0	20.0	0.0	-14.92	-210.6	1,014.5	287.9	271.5	16.37	17.586		
4,100.0	3,992.5	4,068.5	3,890.2	20.6	0.0	-14.95	-217.9	1,048.8	296.2	279.4	16.77	17.663		
4,200.0	4,088.6	4,168.2	3,983.5	21.2	0.0	-14.98	-225.3	1,083.1	304.4	287.3	17.17	17.735		
4,300.0	4,184.7	4,267.8	4,076.8	21.8	0.0	-15.01	-232.6	1,117.5	312.7	295.1	17.57	17.802		
4,400.0	4,280.8	4,367.5	4,170.1	22.4	0.0	-15.04	-240.0	1,151.8	321.0	303.0	17.97	17.865		
4,500.0	4,376.9	4,467.1	4,263.3	23.0	0.0	-15.07	-247.3	1,186.1	329.2	310.9	18.37	17.923		
4,600.0	4,473.0	4,566.8	4,356.6	23.6	0.0	-15.09	-254.7	1,220.4	337.5	318.7	18.77	17.979		
4,700.0	4,569.2	4,666.5	4,449.9	24.2	0.0	-15.11	-262.0	1,254.7	345.7	326.6	19.18	18.030		
4,800.0	4,665.3	4,766.1	4,543.1	24.8	0.0	-15.14	-269.4	1,289.1	354.0	334.4	19.58	18.079		

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 19-18-4CDH
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 19-18-4CDH	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		
4,900.0	4,761.4	4,865.8	4,636.4	25.4	0.0	-15.16	-276.7	1,323.4	362.3	342.3	19.99	18.124		
5,000.0	4,857.5	4,965.4	4,729.7	26.0	0.0	-15.18	-284.1	1,357.7	370.5	350.1	20.39	18.167		
5,100.0	4,953.6	5,065.1	4,823.0	26.6	0.0	-15.20	-291.4	1,392.0	378.8	358.0	20.80	18.208		
5,200.0	5,049.7	5,164.7	4,916.2	27.2	0.0	-15.22	-298.8	1,426.3	387.0	365.8	21.21	18.246		
5,300.0	5,145.8	5,264.4	5,009.5	27.8	0.0	-15.24	-306.1	1,460.6	395.3	373.7	21.62	18.282		
5,400.0	5,242.0	5,364.1	5,102.8	28.4	0.0	-15.25	-313.5	1,495.0	403.6	381.5	22.03	18.317		
5,500.0	5,338.1	5,463.7	5,196.1	29.0	0.0	-15.27	-320.8	1,529.3	411.8	389.4	22.44	18.349		
5,600.0	5,434.2	5,563.4	5,289.3	29.7	0.0	-15.29	-328.2	1,563.6	420.1	397.2	22.86	18.380		
5,700.0	5,530.3	5,663.0	5,382.6	30.3	0.0	-15.30	-335.5	1,597.9	428.3	405.1	23.27	18.409		
5,800.0	5,626.4	5,762.7	5,475.9	30.9	0.0	-15.32	-342.9	1,632.2	436.6	412.9	23.68	18.436		
5,900.0	5,722.5	5,862.4	5,569.2	31.5	0.0	-15.33	-350.2	1,666.6	444.9	420.8	24.10	18.462		
6,000.0	5,818.6	5,962.0	5,662.4	32.1	0.0	-15.34	-357.6	1,700.9	453.1	428.6	24.51	18.487		
6,100.0	5,914.7	6,061.7	5,755.7	32.7	0.0	-15.36	-364.9	1,735.2	461.4	436.5	24.92	18.511		
6,200.0	6,010.9	6,161.3	5,849.0	33.3	0.0	-15.37	-372.3	1,769.5	469.6	444.3	25.34	18.534		
6,300.0	6,107.0	6,261.0	5,942.3	33.9	0.0	-15.38	-379.6	1,803.8	477.9	452.2	25.76	18.555		
6,400.0	6,203.1	6,360.6	6,035.5	34.5	0.0	-15.40	-387.0	1,838.2	486.2	460.0	26.17	18.576		
6,500.0	6,299.2	6,460.3	6,128.8	35.1	0.0	-15.41	-394.3	1,872.5	494.4	467.8	26.59	18.595		
6,600.0	6,395.3	6,560.0	6,222.1	35.7	0.0	-15.42	-401.7	1,906.8	502.7	475.7	27.01	18.614		
6,700.0	6,491.4	6,659.6	6,315.3	36.3	0.0	-15.43	-409.0	1,941.1	510.9	483.5	27.42	18.632		
6,800.0	6,587.5	6,759.3	6,408.6	36.9	0.0	-15.44	-416.4	1,975.4	519.2	491.4	27.84	18.649		
6,900.0	6,683.7	6,858.9	6,501.9	37.5	0.0	-15.45	-423.7	2,009.7	527.5	499.2	28.26	18.665		
7,000.0	6,779.8	6,958.6	6,595.2	38.1	0.0	-15.46	-431.1	2,044.1	535.7	507.1	28.68	18.681		
7,100.0	6,875.9	7,058.3	6,688.4	38.7	0.0	-15.47	-438.4	2,078.4	544.0	514.9	29.10	18.696		
7,200.0	6,972.0	7,157.9	6,781.7	39.4	0.0	-15.48	-445.8	2,112.7	552.3	522.7	29.52	18.710		
7,300.0	7,068.2	7,257.6	6,875.0	40.0	0.0	2.07	-453.1	2,147.0	560.5	530.6	29.90	18.746		
7,400.0	7,164.1	7,358.4	6,969.5	40.6	0.0	33.82	-450.1	2,181.6	569.0	538.7	30.26	18.802		
7,500.0	7,257.0	7,460.4	7,063.3	41.0	0.0	52.14	-429.1	2,215.7	577.3	546.5	30.77	18.760		
7,600.0	7,344.0	7,563.8	7,153.2	41.4	0.0	61.73	-390.2	2,248.1	585.2	554.0	31.23	18.737		
7,700.0	7,422.5	7,668.5	7,236.2	41.7	0.0	67.09	-334.0	2,277.6	592.5	560.9	31.61	18.742		
7,800.0	7,490.1	7,774.3	7,309.1	41.9	0.0	70.26	-261.9	2,303.2	599.0	567.0	31.95	18.748		
7,900.0	7,544.8	7,881.1	7,368.8	42.1	0.0	72.17	-176.0	2,323.8	604.3	572.0	32.26	18.731		
8,000.0	7,584.9	7,988.6	7,412.9	42.2	0.0	73.28	-79.1	2,338.4	608.3	575.7	32.57	18.675		
8,100.0	7,609.2	8,096.6	7,439.3	42.2	0.0	73.81	25.1	2,346.5	610.9	578.0	32.90	18.569		
8,200.0	7,617.0	8,203.9	7,447.0	42.1	0.0	73.87	132.0	2,347.7	612.0	578.8	33.24	18.413		
8,300.0	7,617.0	8,303.9	7,447.0	42.1	0.0	73.89	231.9	2,346.1	612.5	578.9	33.57	18.245		
8,400.0	7,617.0	8,403.9	7,447.0	42.2	0.0	73.90	331.9	2,344.6	613.0	579.0	33.99	18.033		
8,500.0	7,617.0	8,503.9	7,447.0	42.3	0.0	73.91	431.9	2,343.0	613.4	578.9	34.49	17.785		
8,600.0	7,617.0	8,603.9	7,447.0	42.4	0.0	73.92	531.9	2,341.4	613.9	578.8	35.07	17.505		
8,700.0	7,617.0	8,703.9	7,447.0	42.7	0.0	73.94	631.9	2,339.9	614.4	578.6	35.72	17.199		
8,800.0	7,617.0	8,803.9	7,447.0	42.9	0.0	73.95	731.9	2,338.3	614.8	578.4	36.44	16.872		
8,900.0	7,617.0	8,903.9	7,447.0	43.3	0.0	73.96	831.9	2,336.8	615.3	578.1	37.22	16.529		
9,000.0	7,617.0	9,003.9	7,447.0	43.7	0.0	73.97	931.8	2,335.2	615.8	577.7	38.07	16.174		
9,100.0	7,617.0	9,103.9	7,447.0	44.3	0.0	73.99	1,031.8	2,333.7	616.2	577.2	38.97	15.811		
9,200.0	7,617.0	9,203.9	7,447.0	44.9	0.0	74.00	1,131.8	2,332.1	616.7	576.8	39.93	15.444		
9,300.0	7,617.0	9,303.9	7,447.0	45.5	0.0	74.01	1,231.8	2,330.6	617.2	576.2	40.94	15.076		
9,400.0	7,617.0	9,403.9	7,447.0	46.3	0.0	74.02	1,331.8	2,329.0	617.6	575.6	41.99	14.709		
9,500.0	7,617.0	9,503.9	7,447.0	47.1	0.0	74.04	1,431.8	2,327.4	618.1	575.0	43.08	14.346		
9,600.0	7,617.0	9,603.9	7,447.0	48.1	0.0	74.05	1,531.8	2,325.9	618.6	574.3	44.22	13.988		
9,700.0	7,617.0	9,703.9	7,447.0	49.0	0.0	74.06	1,631.8	2,324.3	619.0	573.6	45.39	13.638		
9,800.0	7,617.0	9,803.9	7,447.0	50.1	0.0	74.07	1,731.7	2,322.8	619.5	572.9	46.60	13.295		
9,900.0	7,617.0	9,903.9	7,447.0	51.1	0.0	74.08	1,831.7	2,321.2	619.9	572.1	47.83	12.961		
10,000.0	7,617.0	10,003.9	7,447.0	52.3	0.0	74.10	1,931.7	2,319.7	620.4	571.3	49.10	12.636		

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 19-18-4CDH
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 19-18-4CDH	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		
10,100.0	7,617.0	10,103.9	7,447.0	53.5	0.0	74.11	2,031.7	2,318.1	620.9	570.5	50.39	12.322		
10,200.0	7,617.0	10,203.9	7,447.0	54.7	0.0	74.12	2,131.7	2,316.5	621.3	569.6	51.71	12.017		
10,300.0	7,617.0	10,303.9	7,447.0	55.9	0.0	74.13	2,231.7	2,315.0	621.8	568.8	53.05	11.722		
10,400.0	7,617.0	10,403.9	7,447.0	57.2	0.0	74.15	2,331.7	2,313.4	622.3	567.9	54.41	11.437		
10,500.0	7,617.0	10,503.9	7,447.0	58.5	0.0	74.16	2,431.7	2,311.9	622.7	567.0	55.79	11.163		
10,600.0	7,617.0	10,603.9	7,447.0	59.9	0.0	74.17	2,531.6	2,310.3	623.2	566.0	57.19	10.898		
10,700.0	7,617.0	10,703.9	7,447.0	61.2	0.0	74.18	2,631.6	2,308.8	623.7	565.1	58.60	10.642		
10,800.0	7,617.0	10,803.9	7,447.0	62.6	0.0	74.19	2,731.6	2,307.2	624.1	564.1	60.04	10.396		
10,900.0	7,617.0	10,903.9	7,447.0	64.0	0.0	74.21	2,831.6	2,305.6	624.6	563.1	61.48	10.159		
11,000.0	7,617.0	11,003.9	7,447.0	65.5	0.0	74.22	2,931.6	2,304.1	625.1	562.1	62.94	9.931		
11,100.0	7,617.0	11,103.9	7,447.0	66.9	0.0	74.23	3,031.6	2,302.5	625.5	561.1	64.42	9.711		
11,200.0	7,617.0	11,203.9	7,447.0	68.4	0.0	74.24	3,131.6	2,301.0	626.0	560.1	65.90	9.499		
11,300.0	7,617.0	11,303.9	7,447.0	69.8	0.0	74.25	3,231.5	2,299.4	626.5	559.1	67.40	9.295		
11,400.0	7,617.0	11,403.9	7,447.0	71.3	0.0	74.27	3,331.5	2,297.9	626.9	558.0	68.91	9.098		
11,500.0	7,617.0	11,503.9	7,447.0	72.8	0.0	74.28	3,431.5	2,296.3	627.4	557.0	70.42	8.909		
11,600.0	7,617.0	11,603.9	7,447.0	74.4	0.0	74.29	3,531.5	2,294.8	627.9	555.9	71.95	8.726		
11,700.0	7,617.0	11,703.9	7,447.0	75.9	0.0	74.30	3,631.5	2,293.2	628.3	554.9	73.49	8.551		
11,800.0	7,617.0	11,803.9	7,447.0	77.4	0.0	74.31	3,731.5	2,291.6	628.8	553.8	75.03	8.381		
11,900.0	7,617.0	11,903.9	7,447.0	79.0	0.0	74.33	3,831.5	2,290.1	629.3	552.7	76.58	8.217		
12,000.0	7,617.0	12,003.9	7,447.0	80.5	0.0	74.34	3,931.5	2,288.5	629.7	551.6	78.14	8.059		
12,100.0	7,617.0	12,103.9	7,447.0	82.1	0.0	74.35	4,031.4	2,287.0	630.2	550.5	79.70	7.907		
12,200.0	7,617.0	12,203.9	7,447.0	83.7	0.0	74.36	4,131.4	2,285.4	630.7	549.4	81.27	7.760		
12,300.0	7,617.0	12,303.9	7,447.0	85.3	0.0	74.37	4,231.4	2,283.9	631.1	548.3	82.85	7.618		
12,400.0	7,617.0	12,403.9	7,447.0	86.9	0.0	74.39	4,331.4	2,282.3	631.6	547.2	84.43	7.481		
12,500.0	7,617.0	12,503.9	7,447.0	88.5	0.0	74.40	4,431.4	2,280.7	632.1	546.1	86.02	7.348		
12,600.0	7,617.0	12,603.9	7,447.0	90.1	0.0	74.41	4,531.4	2,279.2	632.5	544.9	87.61	7.220		
12,700.0	7,617.0	12,703.9	7,447.0	91.7	0.0	74.42	4,631.4	2,277.6	633.0	543.8	89.21	7.096		
12,800.0	7,617.0	12,803.9	7,447.0	93.3	0.0	74.43	4,731.3	2,276.1	633.5	542.7	90.81	6.975		
12,900.0	7,617.0	12,903.9	7,447.0	94.9	0.0	74.44	4,831.3	2,274.5	633.9	541.5	92.42	6.859		
13,000.0	7,617.0	13,003.9	7,447.0	96.5	0.0	74.46	4,931.3	2,273.0	634.4	540.4	94.03	6.747		
13,100.0	7,617.0	13,103.9	7,447.0	98.2	0.0	74.47	5,031.3	2,271.4	634.9	539.2	95.65	6.638		
13,200.0	7,617.0	13,203.9	7,447.0	99.8	0.0	74.48	5,131.3	2,269.8	635.3	538.1	97.27	6.532		
13,300.0	7,617.0	13,303.9	7,447.0	101.4	0.0	74.49	5,231.3	2,268.3	635.8	536.9	98.89	6.429		
13,400.0	7,617.0	13,403.9	7,447.0	103.1	0.0	74.50	5,331.3	2,266.7	636.3	535.8	100.52	6.330		
13,500.0	7,617.0	13,503.8	7,447.0	104.7	0.0	74.52	5,431.3	2,265.2	636.7	534.6	102.15	6.234		
13,600.0	7,617.0	13,603.8	7,447.0	106.4	0.0	74.53	5,531.2	2,263.6	637.2	533.4	103.78	6.140		
13,700.0	7,617.0	13,703.8	7,447.0	108.1	0.0	74.54	5,631.2	2,262.1	637.7	532.3	105.41	6.049		
13,800.0	7,617.0	13,803.8	7,447.0	109.7	0.0	74.55	5,731.2	2,260.5	638.1	531.1	107.05	5.961		
13,900.0	7,617.0	13,903.8	7,447.0	111.4	0.0	74.56	5,831.2	2,259.0	638.6	529.9	108.69	5.875		
14,000.0	7,617.0	14,003.8	7,447.0	113.0	0.0	74.57	5,931.2	2,257.4	639.1	528.7	110.34	5.792		
14,100.0	7,617.0	14,103.8	7,447.0	114.7	0.0	74.58	6,031.2	2,255.8	639.6	527.6	111.98	5.711		
14,200.0	7,617.0	14,203.8	7,447.0	116.4	0.0	74.60	6,131.2	2,254.3	640.0	526.4	113.63	5.632		
14,300.0	7,617.0	14,303.8	7,447.0	118.1	0.0	74.61	6,231.1	2,252.7	640.5	525.2	115.28	5.556		
14,400.0	7,617.0	14,403.8	7,447.0	119.7	0.0	74.62	6,331.1	2,251.2	641.0	524.0	116.93	5.481		
14,500.0	7,617.0	14,503.8	7,447.0	121.4	0.0	74.63	6,431.1	2,249.6	641.4	522.8	118.59	5.409		
14,600.0	7,617.0	14,603.8	7,447.0	123.1	0.0	74.64	6,531.1	2,248.1	641.9	521.6	120.25	5.338		
14,700.0	7,617.0	14,703.8	7,447.0	124.8	0.0	74.65	6,631.1	2,246.5	642.4	520.4	121.91	5.269		
14,800.0	7,617.0	14,803.8	7,447.0	126.5	0.0	74.67	6,731.1	2,244.9	642.8	519.3	123.57	5.202		
14,900.0	7,617.0	14,903.8	7,447.0	128.2	0.0	74.68	6,831.1	2,243.4	643.3	518.1	125.23	5.137		
15,000.0	7,617.0	15,003.8	7,447.0	129.9	0.0	74.69	6,931.1	2,241.8	643.8	516.9	126.89	5.073		
15,100.0	7,617.0	15,103.8	7,447.0	131.6	0.0	74.70	7,031.0	2,240.3	644.2	515.7	128.56	5.011		
15,200.0	7,617.0	15,203.8	7,447.0	133.3	0.0	74.71	7,131.0	2,238.7	644.7	514.5	130.23	4.950		

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 19-18-4CDH
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 19-18-4CDH	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,300.0	7,617.0	15,303.8	7,447.0	135.0	0.0	74.72	7,231.0	2,237.2	645.2	513.3	131.90	4.891		
15,400.0	7,617.0	15,403.8	7,447.0	136.7	0.0	74.73	7,331.0	2,235.6	645.6	512.1	133.57	4.834		
15,500.0	7,617.0	15,503.8	7,447.0	138.4	0.0	74.74	7,431.0	2,234.0	646.1	510.9	135.24	4.777		
15,600.0	7,617.0	15,603.8	7,447.0	140.1	0.0	74.76	7,531.0	2,232.5	646.6	509.6	136.92	4.722		
15,700.0	7,617.0	15,703.8	7,447.0	141.8	0.0	74.77	7,631.0	2,230.9	647.0	508.4	138.59	4.669		
15,800.0	7,617.0	15,803.8	7,447.0	143.5	0.0	74.78	7,730.9	2,229.4	647.5	507.2	140.27	4.616		
15,900.0	7,617.0	15,903.8	7,447.0	145.2	0.0	74.79	7,830.9	2,227.8	648.0	506.0	141.95	4.565		
16,000.0	7,617.0	16,003.8	7,447.0	146.9	0.0	74.80	7,930.9	2,226.3	648.4	504.8	143.63	4.515		
16,100.0	7,617.0	16,103.8	7,447.0	148.6	0.0	74.81	8,030.9	2,224.7	648.9	503.6	145.31	4.466		
16,200.0	7,617.0	16,203.8	7,447.0	150.3	0.0	74.82	8,130.9	2,223.2	649.4	502.4	146.99	4.418		
16,300.0	7,617.0	16,303.8	7,447.0	152.0	0.0	74.83	8,230.9	2,221.6	649.8	501.2	148.67	4.371		
16,400.0	7,617.0	16,403.8	7,447.0	153.8	0.0	74.85	8,330.9	2,220.0	650.3	500.0	150.35	4.325		
16,500.0	7,617.0	16,503.8	7,447.0	155.5	0.0	74.86	8,430.9	2,218.5	650.8	498.7	152.04	4.280		
16,600.0	7,617.0	16,603.8	7,447.0	157.2	0.0	74.87	8,530.8	2,216.9	651.2	497.5	153.72	4.236		
16,700.0	7,617.0	16,703.8	7,447.0	158.9	0.0	74.88	8,630.8	2,215.4	651.7	496.3	155.41	4.193		
16,800.0	7,617.0	16,803.8	7,447.0	160.6	0.0	74.89	8,730.8	2,213.8	652.2	495.1	157.10	4.151		
16,900.0	7,617.0	16,903.8	7,447.0	162.4	0.0	74.90	8,830.8	2,212.3	652.6	493.9	158.79	4.110		
17,000.0	7,617.0	17,003.8	7,447.0	164.1	0.0	74.91	8,930.8	2,210.7	653.1	492.6	160.48	4.070		
17,100.0	7,617.0	17,103.8	7,447.0	165.8	0.0	74.92	9,030.8	2,209.1	653.6	491.4	162.17	4.030		
17,200.0	7,617.0	17,203.8	7,447.0	167.5	0.0	74.93	9,130.8	2,207.6	654.0	490.2	163.86	3.992		
17,300.0	7,617.0	17,303.8	7,447.0	169.2	0.0	74.93	9,230.7	2,206.0	654.1	488.5	165.54	3.951		
17,400.0	7,617.0	17,403.7	7,447.0	171.0	0.0	74.83	9,330.7	2,204.5	650.7	483.5	167.19	3.892		
17,500.0	7,617.0	17,503.4	7,447.0	172.7	0.0	74.61	9,430.4	2,202.9	643.3	474.5	168.78	3.811		
17,600.0	7,617.0	17,602.7	7,447.0	174.4	0.0	74.25	9,529.6	2,201.4	631.9	461.6	170.29	3.711		
17,700.0	7,617.0	17,701.4	7,447.0	176.1	0.0	73.75	9,628.3	2,199.8	616.6	444.9	171.70	3.591		
17,800.0	7,617.0	17,799.4	7,447.0	177.8	0.0	73.07	9,726.3	2,198.3	597.4	424.4	173.01	3.453		
17,900.0	7,617.0	17,896.5	7,447.0	179.4	0.0	72.21	9,823.3	2,196.8	574.4	400.2	174.17	3.298		
18,000.0	7,617.0	17,992.5	7,447.0	181.1	0.0	71.15	9,919.3	2,195.3	547.7	372.6	175.16	3.127		
18,014.8	7,617.0	18,006.6	7,447.0	181.3	0.0	71.01	9,933.5	2,195.1	543.6	368.3	175.29	3.101 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.49	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	53.915		
133.3	133.3	133.3	133.3	0.6	0.0	89.49	0.1	15.0	15.0	14.5	0.45	33.151		
200.0	200.0	200.0	200.0	1.0	0.0	89.49	0.1	15.0	15.0	14.2	0.80	18.726		
300.0	300.0	300.0	300.0	1.5	0.0	89.49	0.1	15.0	15.0	13.7	1.23	12.206		
333.3	333.3	333.3	333.3	1.6	0.0	89.49	0.1	15.0	15.0	13.6	1.36	11.025		
400.0	400.0	400.0	400.0	1.9	0.0	89.49	0.1	15.0	15.0	13.4	1.62	9.238		
500.0	500.0	500.0	500.0	2.3	0.0	89.49	0.1	15.0	15.0	13.0	2.00	7.480		
533.3	533.3	533.3	533.3	2.5	0.0	89.49	0.1	15.0	15.0	12.8	2.13	7.042		
600.0	600.0	600.0	600.0	2.7	0.0	89.49	0.1	15.0	15.0	12.6	2.38	6.303		
700.0	700.0	700.0	700.0	3.1	0.0	89.49	0.1	15.0	15.0	12.2	2.75	5.454 CC, ES		
800.0	800.0	799.5	799.4	3.5	0.0	90.91	-0.3	16.7	16.7	13.6	3.09	5.390		
900.0	900.0	898.8	898.6	3.9	0.0	-12.99	-1.5	21.7	20.1	16.4	3.63	5.532		
1,000.0	999.8	998.0	997.4	4.5	0.0	-12.00	-3.4	30.0	23.5	19.0	4.45	5.279		
1,100.0	1,099.5	1,097.0	1,095.8	5.3	0.0	-11.58	-6.2	41.7	26.9	21.8	5.17	5.204		
1,200.0	1,198.7	1,196.0	1,193.5	6.0	0.0	-11.55	-9.7	56.7	30.3	24.5	5.82	5.212		
1,300.0	1,297.5	1,294.9	1,290.6	6.7	0.0	-11.77	-14.0	74.9	33.8	27.3	6.41	5.263		
1,400.0	1,395.6	1,393.6	1,386.8	7.3	0.0	-12.19	-19.1	96.3	37.2	30.2	6.96	5.338		
1,500.0	1,493.1	1,492.2	1,482.2	7.9	0.0	-12.75	-25.0	120.9	40.5	33.1	7.47	5.426		
1,600.0	1,589.6	1,590.7	1,576.5	8.5	0.0	-13.41	-31.5	148.6	43.9	36.0	7.96	5.518		
1,700.0	1,685.8	1,689.1	1,669.5	8.9	0.0	-13.70	-38.8	179.5	48.9	40.7	8.26	5.922		
1,800.0	1,781.9	1,788.8	1,763.3	9.1	0.0	-13.56	-46.6	212.4	55.7	47.2	8.54	6.523		
1,900.0	1,878.0	1,888.5	1,857.1	9.4	0.0	-13.44	-54.4	245.4	62.5	53.7	8.84	7.074		
2,000.0	1,974.1	1,988.3	1,951.0	9.7	0.0	-13.35	-62.2	278.4	69.3	60.2	9.14	7.583		
2,100.0	2,070.2	2,088.1	2,044.8	10.0	0.0	-13.28	-70.1	311.3	76.1	66.7	9.46	8.051		
2,200.0	2,166.3	2,187.8	2,138.6	10.4	0.0	-13.21	-77.9	344.3	83.0	73.2	9.78	8.482		
2,300.0	2,262.4	2,287.6	2,232.5	10.7	0.0	-13.16	-85.7	377.3	89.8	79.7	10.11	8.880		
2,400.0	2,358.6	2,387.4	2,326.3	11.1	0.0	-13.12	-93.5	410.3	96.6	86.1	10.45	9.246		
2,500.0	2,454.7	2,487.1	2,420.2	11.6	0.0	-13.08	-101.3	443.2	103.4	92.6	10.79	9.585		
2,600.0	2,550.8	2,586.9	2,514.0	12.0	0.0	-13.04	-109.1	476.2	110.2	99.1	11.13	9.898		
2,700.0	2,646.9	2,686.7	2,607.8	12.5	0.0	-13.01	-116.9	509.2	117.0	105.5	11.49	10.188		
2,800.0	2,743.0	2,786.4	2,701.7	13.1	0.0	-12.99	-124.7	542.2	123.8	112.0	11.84	10.456		
2,900.0	2,839.1	2,886.2	2,795.5	13.6	0.0	-12.96	-132.5	575.1	130.6	118.4	12.20	10.706		
3,000.0	2,935.2	2,986.0	2,889.3	14.2	0.0	-12.94	-140.3	608.1	137.4	124.9	12.57	10.937		
3,100.0	3,031.3	3,085.7	2,983.2	14.7	0.0	-12.92	-148.2	641.1	144.3	131.3	12.93	11.153		
3,200.0	3,127.5	3,185.5	3,077.0	15.3	0.0	-12.90	-156.0	674.1	151.1	137.8	13.31	11.354		
3,300.0	3,223.6	3,285.3	3,170.8	15.9	0.0	-12.88	-163.8	707.1	157.9	144.2	13.68	11.541		
3,400.0	3,319.7	3,385.0	3,264.7	16.5	0.0	-12.87	-171.6	740.0	164.7	150.6	14.06	11.717		
3,500.0	3,415.8	3,484.8	3,358.5	17.1	0.0	-12.86	-179.4	773.0	171.5	157.1	14.43	11.881		
3,600.0	3,511.9	3,584.6	3,452.4	17.7	0.0	-12.84	-187.2	806.0	178.3	163.5	14.82	12.035		
3,700.0	3,608.0	3,684.4	3,546.2	18.3	0.0	-12.83	-195.0	839.0	185.1	169.9	15.20	12.179		
3,800.0	3,704.1	3,784.1	3,640.0	18.8	0.0	-12.82	-202.8	871.9	191.9	176.3	15.58	12.315		
3,900.0	3,800.3	3,883.9	3,733.9	19.4	0.0	-12.81	-210.6	904.9	198.7	182.8	15.97	12.443		
4,000.0	3,896.4	3,983.7	3,827.7	20.0	0.0	-12.80	-218.4	937.9	205.6	189.2	16.36	12.563		
4,100.0	3,992.5	4,083.4	3,921.5	20.6	0.0	-12.79	-226.3	970.9	212.4	195.6	16.75	12.677		
4,200.0	4,088.6	4,183.2	4,015.4	21.2	0.0	-12.78	-234.1	1,003.8	219.2	202.0	17.14	12.784		
4,300.0	4,184.7	4,283.0	4,109.2	21.8	0.0	-12.77	-241.9	1,036.8	226.0	208.4	17.54	12.886		
4,400.0	4,280.8	4,382.7	4,203.0	22.4	0.0	-12.77	-249.7	1,069.8	232.8	214.9	17.93	12.982		
4,500.0	4,376.9	4,482.5	4,296.9	23.0	0.0	-12.76	-257.5	1,102.8	239.6	221.3	18.33	13.073		
4,600.0	4,473.0	4,582.3	4,390.7	23.6	0.0	-12.75	-265.3	1,135.7	246.4	227.7	18.72	13.160		
4,700.0	4,569.2	4,682.0	4,484.6	24.2	0.0	-12.75	-273.1	1,168.7	253.2	234.1	19.12	13.242		
4,800.0	4,665.3	4,781.8	4,578.4	24.8	0.0	-12.74	-280.9	1,201.7	260.0	240.5	19.52	13.320		

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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,761.4	4,881.6	4,672.2	25.4	0.0	-12.74	-288.7	1,234.7	266.8	246.9	19.92	13.395		
5,000.0	4,857.5	4,981.3	4,766.1	26.0	0.0	-12.73	-296.5	1,267.6	273.7	253.3	20.32	13.466		
5,100.0	4,953.6	5,081.1	4,859.9	26.6	0.0	-12.73	-304.4	1,300.6	280.5	259.7	20.72	13.533		
5,200.0	5,049.7	5,180.9	4,953.7	27.2	0.0	-12.72	-312.2	1,333.6	287.3	266.2	21.13	13.598		
5,300.0	5,145.8	5,280.6	5,047.6	27.8	0.0	-12.72	-320.0	1,366.6	294.1	272.6	21.53	13.659		
5,400.0	5,242.0	5,380.4	5,141.4	28.4	0.0	-12.71	-327.8	1,399.5	300.9	279.0	21.93	13.718		
5,500.0	5,338.1	5,480.2	5,235.2	29.0	0.0	-12.71	-335.6	1,432.5	307.7	285.4	22.34	13.775		
5,600.0	5,434.2	5,579.9	5,329.1	29.7	0.0	-12.70	-343.4	1,465.5	314.5	291.8	22.74	13.829		
5,700.0	5,530.3	5,679.7	5,422.9	30.3	0.0	-12.70	-351.2	1,498.5	321.3	298.2	23.15	13.881		
5,800.0	5,626.4	5,779.5	5,516.8	30.9	0.0	-12.70	-359.0	1,531.4	328.1	304.6	23.56	13.930		
5,900.0	5,722.5	5,879.2	5,610.6	31.5	0.0	-12.69	-366.8	1,564.4	335.0	311.0	23.96	13.978		
6,000.0	5,818.6	5,979.0	5,704.4	32.1	0.0	-12.69	-374.6	1,597.4	341.8	317.4	24.37	14.024		
6,100.0	5,914.7	6,078.8	5,798.3	32.7	0.0	-12.68	-382.5	1,630.4	348.6	323.8	24.78	14.068		
6,200.0	6,010.9	6,178.5	5,892.1	33.3	0.0	-12.68	-390.3	1,663.3	355.4	330.2	25.19	14.110		
6,300.0	6,107.0	6,278.3	5,985.9	33.9	0.0	-12.68	-398.1	1,696.3	362.2	336.6	25.60	14.151		
6,400.0	6,203.1	6,378.1	6,079.8	34.5	0.0	-12.68	-405.9	1,729.3	369.0	343.0	26.01	14.190		
6,500.0	6,299.2	6,477.8	6,173.6	35.1	0.0	-12.67	-413.7	1,762.3	375.8	349.4	26.41	14.228		
6,600.0	6,395.3	6,577.6	6,267.4	35.7	0.0	-12.67	-421.5	1,795.2	382.6	355.8	26.82	14.264		
6,700.0	6,491.4	6,677.4	6,361.3	36.3	0.0	-12.67	-429.3	1,828.2	389.4	362.2	27.24	14.299		
6,800.0	6,587.5	6,777.2	6,455.1	36.9	0.0	-12.66	-437.1	1,861.2	396.3	368.6	27.65	14.333		
6,900.0	6,683.7	6,876.9	6,549.0	37.5	0.0	-12.66	-444.9	1,894.2	403.1	375.0	28.06	14.366		
7,000.0	6,779.8	6,977.1	6,643.2	38.1	0.0	-12.68	-452.7	1,927.3	409.9	381.4	28.47	14.395		
7,100.0	6,875.9	7,078.9	6,739.1	38.7	0.0	-14.19	-449.6	1,960.9	416.3	387.3	29.03	14.343		
7,200.0	6,972.0	7,174.2	6,827.1	39.4	0.0	-17.75	-430.5	1,991.6	423.4	393.7	29.76	14.227		
7,300.0	7,068.2	7,259.8	6,902.7	40.0	0.0	-5.12	-400.3	2,017.9	433.8	403.3	30.57	14.192		
7,400.0	7,164.1	7,340.4	6,969.4	40.6	0.0	21.36	-361.3	2,040.9	447.7	416.6	31.09	14.400		
7,500.0	7,257.0	7,417.8	7,027.9	41.0	0.0	34.98	-315.0	2,061.1	463.6	432.3	31.33	14.795		
7,600.0	7,344.0	7,492.7	7,078.4	41.4	0.0	40.51	-262.6	2,078.3	480.1	448.9	31.22	15.381		
7,700.0	7,422.5	7,565.6	7,121.0	41.7	0.0	42.50	-205.3	2,092.8	496.1	465.3	30.81	16.105		
7,800.0	7,490.1	7,637.2	7,155.9	41.9	0.0	42.98	-143.9	2,104.5	510.7	480.4	30.28	16.867		
7,900.0	7,544.8	7,707.6	7,182.9	42.1	0.0	42.87	-79.5	2,113.5	522.9	493.1	29.80	17.548		
8,000.0	7,584.9	7,777.3	7,202.1	42.2	0.0	42.61	-12.8	2,119.7	532.2	502.7	29.53	18.025		
8,100.0	7,609.2	7,850.0	7,213.8	42.2	0.0	42.37	58.7	2,123.2	538.3	508.7	29.61	18.181		
8,200.0	7,617.0	7,917.2	7,217.0	42.1	0.0	42.30	125.8	2,123.8	540.8	510.8	30.00	18.027		
8,300.0	7,617.0	8,017.2	7,217.0	42.1	0.0	42.39	225.8	2,122.9	541.6	511.2	30.43	17.796		
8,400.0	7,617.0	8,117.2	7,217.0	42.2	0.0	42.49	325.8	2,122.1	542.4	511.5	30.93	17.538		
8,500.0	7,617.0	8,217.2	7,217.0	42.3	0.0	42.58	425.8	2,121.3	543.3	511.8	31.47	17.261		
8,600.0	7,617.0	8,317.2	7,217.0	42.4	0.0	42.68	525.8	2,120.4	544.1	512.0	32.07	16.968		
8,700.0	7,617.0	8,417.2	7,217.0	42.7	0.0	42.77	625.8	2,119.6	544.9	512.2	32.70	16.663		
8,800.0	7,617.0	8,517.2	7,217.0	42.9	0.0	42.86	725.7	2,118.8	545.7	512.4	33.38	16.350		
8,900.0	7,617.0	8,617.1	7,217.0	43.3	0.0	42.96	825.7	2,118.0	546.6	512.5	34.10	16.029		
9,000.0	7,617.0	8,717.1	7,217.0	43.7	0.0	43.05	925.7	2,117.1	547.4	512.5	34.85	15.705		
9,100.0	7,617.0	8,817.1	7,217.0	44.3	0.0	43.14	1,025.7	2,116.3	548.2	512.6	35.65	15.379		
9,200.0	7,617.0	8,917.1	7,217.0	44.9	0.0	43.23	1,125.7	2,115.5	549.1	512.6	36.47	15.053		
9,300.0	7,617.0	9,017.1	7,217.0	45.5	0.0	43.33	1,225.7	2,114.7	549.9	512.5	37.33	14.729		
9,400.0	7,617.0	9,117.1	7,217.0	46.3	0.0	43.42	1,325.7	2,113.8	550.7	512.5	38.22	14.408		
9,500.0	7,617.0	9,217.1	7,217.0	47.1	0.0	43.51	1,425.7	2,113.0	551.6	512.4	39.14	14.092		
9,600.0	7,617.0	9,317.1	7,217.0	48.1	0.0	43.60	1,525.7	2,112.2	552.4	512.3	40.09	13.780		
9,700.0	7,617.0	9,417.1	7,217.0	49.0	0.0	43.69	1,625.7	2,111.3	553.2	512.2	41.06	13.475		
9,800.0	7,617.0	9,517.1	7,217.0	50.1	0.0	43.78	1,725.6	2,110.5	554.1	512.0	42.05	13.177		
9,900.0	7,617.0	9,617.1	7,217.0	51.1	0.0	43.87	1,825.6	2,109.7	554.9	511.8	43.06	12.885		
10,000.0	7,617.0	9,717.1	7,217.0	52.3	0.0	43.96	1,925.6	2,108.9	555.8	511.6	44.10	12.602		

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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.0	7,617.0	9,817.1	7,217.0	53.5	0.0	44.05	2,025.6	2,108.0	556.6	511.4	45.16	12.325		
10,200.0	7,617.0	9,917.1	7,217.0	54.7	0.0	44.14	2,125.6	2,107.2	557.4	511.2	46.23	12.057		
10,300.0	7,617.0	10,017.0	7,217.0	55.9	0.0	44.23	2,225.6	2,106.4	558.3	511.0	47.33	11.796		
10,400.0	7,617.0	10,117.0	7,217.0	57.2	0.0	44.32	2,325.6	2,105.6	559.1	510.7	48.44	11.543		
10,500.0	7,617.0	10,217.0	7,217.0	58.5	0.0	44.41	2,425.6	2,104.7	560.0	510.4	49.56	11.298		
10,600.0	7,617.0	10,317.0	7,217.0	59.9	0.0	44.50	2,525.6	2,103.9	560.8	510.1	50.70	11.061		
10,700.0	7,617.0	10,417.0	7,217.0	61.2	0.0	44.59	2,625.5	2,103.1	561.7	509.8	51.86	10.831		
10,800.0	7,617.0	10,517.0	7,217.0	62.6	0.0	44.68	2,725.5	2,102.3	562.5	509.5	53.03	10.608		
10,900.0	7,617.0	10,617.0	7,217.0	64.0	0.0	44.76	2,825.5	2,101.4	563.4	509.2	54.21	10.393		
11,000.0	7,617.0	10,717.0	7,217.0	65.5	0.0	44.85	2,925.5	2,100.6	564.2	508.8	55.40	10.184		
11,100.0	7,617.0	10,817.0	7,217.0	66.9	0.0	44.94	3,025.5	2,099.8	565.1	508.5	56.61	9.983		
11,200.0	7,617.0	10,917.0	7,217.0	68.4	0.0	45.03	3,125.5	2,098.9	566.0	508.1	57.83	9.787		
11,300.0	7,617.0	11,017.0	7,217.0	69.8	0.0	45.11	3,225.5	2,098.1	566.8	507.8	59.05	9.599		
11,400.0	7,617.0	11,117.0	7,217.0	71.3	0.0	45.20	3,325.5	2,097.3	567.7	507.4	60.29	9.416		
11,500.0	7,617.0	11,217.0	7,217.0	72.8	0.0	45.29	3,425.5	2,096.5	568.5	507.0	61.54	9.239		
11,600.0	7,617.0	11,316.9	7,217.0	74.4	0.0	45.37	3,525.4	2,095.6	569.4	506.6	62.79	9.068		
11,700.0	7,617.0	11,416.9	7,217.0	75.9	0.0	45.46	3,625.4	2,094.8	570.3	506.2	64.06	8.903		
11,800.0	7,617.0	11,516.9	7,217.0	77.4	0.0	45.54	3,725.4	2,094.0	571.1	505.8	65.33	8.743		
11,900.0	7,617.0	11,616.9	7,217.0	79.0	0.0	45.63	3,825.4	2,093.2	572.0	505.4	66.61	8.588		
12,000.0	7,617.0	11,716.9	7,217.0	80.5	0.0	45.71	3,925.4	2,092.3	572.9	505.0	67.90	8.437		
12,100.0	7,617.0	11,816.9	7,217.0	82.1	0.0	45.80	4,025.4	2,091.5	573.8	504.6	69.19	8.292		
12,200.0	7,617.0	11,916.9	7,217.0	83.7	0.0	45.88	4,125.4	2,090.7	574.6	504.1	70.50	8.151		
12,300.0	7,617.0	12,016.9	7,217.0	85.3	0.0	45.97	4,225.4	2,089.9	575.5	503.7	71.81	8.014		
12,400.0	7,617.0	12,116.9	7,217.0	86.9	0.0	46.05	4,325.4	2,089.0	576.4	503.2	73.13	7.882		
12,500.0	7,617.0	12,216.9	7,217.0	88.5	0.0	46.13	4,425.3	2,088.2	577.2	502.8	74.45	7.753		
12,600.0	7,617.0	12,316.9	7,217.0	90.1	0.0	46.22	4,525.3	2,087.4	578.1	502.3	75.78	7.629		
12,700.0	7,617.0	12,416.9	7,217.0	91.7	0.0	46.30	4,625.3	2,086.5	579.0	501.9	77.12	7.508		
12,800.0	7,617.0	12,516.9	7,217.0	93.3	0.0	46.38	4,725.3	2,085.7	579.9	501.4	78.46	7.391		
12,900.0	7,617.0	12,616.9	7,217.0	94.9	0.0	46.47	4,825.3	2,084.9	580.8	500.9	79.81	7.277		
13,000.0	7,617.0	12,716.8	7,217.0	96.5	0.0	46.55	4,925.3	2,084.1	581.6	500.5	81.16	7.167		
13,100.0	7,617.0	12,816.8	7,217.0	98.2	0.0	46.63	5,025.3	2,083.2	582.5	500.0	82.52	7.059		
13,200.0	7,617.0	12,916.8	7,217.0	99.8	0.0	46.71	5,125.3	2,082.4	583.4	499.5	83.88	6.955		
13,300.0	7,617.0	13,016.8	7,217.0	101.4	0.0	46.79	5,225.3	2,081.6	584.3	499.0	85.25	6.854		
13,400.0	7,617.0	13,116.8	7,217.0	103.1	0.0	46.88	5,325.3	2,080.8	585.2	498.5	86.63	6.755		
13,500.0	7,617.0	13,216.8	7,217.0	104.7	0.0	46.96	5,425.2	2,079.9	586.1	498.1	88.00	6.659		
13,600.0	7,617.0	13,316.8	7,217.0	106.4	0.0	47.04	5,525.2	2,079.1	586.9	497.6	89.39	6.566		
13,700.0	7,617.0	13,416.8	7,217.0	108.1	0.0	47.12	5,625.2	2,078.3	587.8	497.1	90.78	6.476		
13,800.0	7,617.0	13,516.8	7,217.0	109.7	0.0	47.20	5,725.2	2,077.5	588.7	496.6	92.17	6.388		
13,900.0	7,617.0	13,616.8	7,217.0	111.4	0.0	47.28	5,825.2	2,076.6	589.6	496.1	93.56	6.302		
14,000.0	7,617.0	13,716.8	7,217.0	113.0	0.0	47.36	5,925.2	2,075.8	590.5	495.5	94.97	6.218		
14,100.0	7,617.0	13,816.8	7,217.0	114.7	0.0	47.44	6,025.2	2,075.0	591.4	495.0	96.37	6.137		
14,200.0	7,617.0	13,916.8	7,217.0	116.4	0.0	47.52	6,125.2	2,074.1	592.3	494.5	97.78	6.057		
14,300.0	7,617.0	14,016.7	7,217.0	118.1	0.0	47.60	6,225.2	2,073.3	593.2	494.0	99.19	5.980		
14,400.0	7,617.0	14,116.7	7,217.0	119.7	0.0	47.68	6,325.1	2,072.5	594.1	493.5	100.61	5.905		
14,500.0	7,617.0	14,216.7	7,217.0	121.4	0.0	47.75	6,425.1	2,071.7	595.0	493.0	102.03	5.831		
14,600.0	7,617.0	14,316.7	7,217.0	123.1	0.0	47.83	6,525.1	2,070.8	595.9	492.4	103.46	5.760		
14,700.0	7,617.0	14,416.7	7,217.0	124.8	0.0	47.91	6,625.1	2,070.0	596.8	491.9	104.88	5.690		
14,800.0	7,617.0	14,516.7	7,217.0	126.5	0.0	47.99	6,725.1	2,069.2	597.7	491.4	106.32	5.622		
14,900.0	7,617.0	14,616.7	7,217.0	128.2	0.0	48.07	6,825.1	2,068.4	598.6	490.8	107.75	5.555		
15,000.0	7,617.0	14,716.7	7,217.0	129.9	0.0	48.15	6,925.1	2,067.5	599.5	490.3	109.19	5.490		
15,100.0	7,617.0	14,816.7	7,217.0	131.6	0.0	48.22	7,025.1	2,066.7	600.4	489.8	110.63	5.427		
15,200.0	7,617.0	14,916.7	7,217.0	133.3	0.0	48.30	7,125.1	2,065.9	601.3	489.2	112.08	5.365		

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 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,300.0	7,617.0	15,016.7	7,217.0	135.0	0.0	48.38	7,225.0	2,065.0	602.2	488.7	113.53	5.305	
15,400.0	7,617.0	15,116.7	7,217.0	136.7	0.0	48.45	7,325.0	2,064.2	603.1	488.2	114.98	5.246	
15,500.0	7,617.0	15,216.7	7,217.0	138.4	0.0	48.53	7,425.0	2,063.4	604.0	487.6	116.43	5.188	
15,600.0	7,617.0	15,316.7	7,217.0	140.1	0.0	48.61	7,525.0	2,062.6	604.9	487.1	117.89	5.131	
15,700.0	7,617.0	15,416.6	7,217.0	141.8	0.0	48.68	7,625.0	2,061.7	605.9	486.5	119.35	5.076	
15,800.0	7,617.0	15,516.6	7,217.0	143.5	0.0	48.76	7,725.0	2,060.9	606.8	486.0	120.82	5.022	
15,900.0	7,617.0	15,616.6	7,217.0	145.2	0.0	48.83	7,825.0	2,060.1	607.7	485.4	122.28	4.969	
16,000.0	7,617.0	15,716.6	7,217.0	146.9	0.0	48.91	7,925.0	2,059.3	608.6	484.8	123.75	4.918	
16,100.0	7,617.0	15,816.6	7,217.0	148.6	0.0	48.98	8,025.0	2,058.4	609.5	484.3	125.23	4.867	
16,200.0	7,617.0	15,916.6	7,217.0	150.3	0.0	49.06	8,125.0	2,057.6	610.4	483.7	126.70	4.818	
16,300.0	7,617.0	16,016.6	7,217.0	152.0	0.0	49.13	8,224.9	2,056.8	611.4	483.2	128.18	4.769	
16,400.0	7,617.0	16,116.6	7,217.0	153.8	0.0	49.21	8,324.9	2,056.0	612.3	482.6	129.66	4.722	
16,500.0	7,617.0	16,216.6	7,217.0	155.5	0.0	49.28	8,424.9	2,055.1	613.2	482.0	131.15	4.676	
16,600.0	7,617.0	16,316.6	7,217.0	157.2	0.0	49.35	8,524.9	2,054.3	614.1	481.5	132.63	4.630	
16,700.0	7,617.0	16,416.6	7,217.0	158.9	0.0	49.43	8,624.9	2,053.5	615.0	480.9	134.12	4.586	
16,800.0	7,617.0	16,516.6	7,217.0	160.6	0.0	49.50	8,724.9	2,052.6	616.0	480.3	135.61	4.542	
16,900.0	7,617.0	16,616.6	7,217.0	162.4	0.0	49.58	8,824.9	2,051.8	616.9	479.8	137.11	4.499	
17,000.0	7,617.0	16,716.5	7,217.0	164.1	0.0	49.65	8,924.9	2,051.0	617.8	479.2	138.60	4.457	
17,100.0	7,617.0	16,816.5	7,217.0	165.8	0.0	49.72	9,024.9	2,050.2	618.7	478.6	140.10	4.416	
17,200.0	7,617.0	16,916.5	7,217.0	167.5	0.0	49.79	9,124.8	2,049.3	619.7	478.1	141.61	4.376	
17,300.0	7,617.0	17,016.5	7,217.0	169.2	0.0	49.84	9,224.8	2,048.5	620.2	477.2	143.07	4.335	
17,400.0	7,617.0	17,116.5	7,217.0	171.0	0.0	49.64	9,324.8	2,047.7	618.1	473.9	144.26	4.285	
17,500.0	7,617.0	17,216.2	7,217.0	172.7	0.0	49.14	9,424.5	2,046.9	612.8	467.7	145.11	4.223	
17,600.0	7,617.0	17,315.6	7,217.0	174.4	0.0	48.32	9,523.9	2,046.0	604.5	458.9	145.57	4.153	
17,700.0	7,617.0	17,414.4	7,217.0	176.1	0.0	47.17	9,622.7	2,045.2	593.2	447.6	145.57	4.075	
17,800.0	7,617.0	17,512.6	7,217.0	177.8	0.0	45.65	9,720.8	2,044.4	579.1	434.0	145.06	3.992	
17,900.0	7,617.0	17,609.8	7,217.0	179.4	0.0	43.72	9,818.1	2,043.6	562.4	418.5	143.92	3.908	
18,000.0	7,617.0	17,706.0	7,217.0	181.1	0.0	41.42	9,914.3	2,042.8	543.6	401.6	142.04	3.827	
18,014.8	7,617.0	17,720.2	7,217.0	181.3	0.0	41.09	9,928.4	2,042.7	540.8	399.1	141.71	3.816 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Gail #1 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,800.0	7,617.0	7,548.0	7,548.0	126.5	28.0	-90.00	8,132.5	-14.9	2,163.4	2,027.1	136.27	15.876		
14,900.0	7,617.0	7,548.0	7,548.0	128.2	28.0	-90.00	8,132.5	-14.9	2,098.0	1,958.3	139.64	15.024		
15,000.0	7,617.0	7,548.0	7,548.0	129.9	28.0	-90.00	8,132.5	-14.9	2,035.4	1,892.3	143.11	14.222		
15,100.0	7,617.0	7,548.0	7,548.0	131.6	28.0	-90.00	8,132.5	-14.9	1,975.8	1,829.2	146.64	13.474		
15,200.0	7,617.0	7,548.0	7,548.0	133.3	28.0	-90.00	8,132.5	-14.9	1,919.6	1,769.4	150.21	12.780		
15,300.0	7,617.0	7,548.0	7,548.0	135.0	28.0	-90.00	8,132.5	-14.9	1,867.1	1,713.3	153.78	12.141		
15,400.0	7,617.0	7,548.0	7,548.0	136.7	28.0	-90.00	8,132.5	-14.9	1,818.6	1,661.3	157.31	11.561		
15,500.0	7,617.0	7,548.0	7,548.0	138.4	28.0	-90.00	8,132.5	-14.9	1,774.4	1,613.7	160.75	11.038		
15,600.0	7,617.0	7,548.0	7,548.0	140.1	28.0	-90.00	8,132.5	-14.9	1,734.8	1,570.8	164.03	10.576		
15,700.0	7,617.0	7,548.0	7,548.0	141.8	28.0	-90.00	8,132.5	-14.9	1,700.2	1,533.1	167.10	10.175		
15,800.0	7,617.0	7,548.0	7,548.0	143.5	28.0	-90.00	8,132.5	-14.9	1,670.9	1,501.0	169.88	9.836		
15,900.0	7,617.0	7,548.0	7,548.0	145.2	28.0	-90.00	8,132.5	-14.9	1,647.2	1,474.8	172.31	9.559		
16,000.0	7,617.0	7,548.0	7,548.0	146.9	28.0	-90.00	8,132.5	-14.9	1,629.2	1,454.9	174.33	9.345		
16,100.0	7,617.0	7,548.0	7,548.0	148.6	28.0	-90.00	8,132.5	-14.9	1,617.2	1,441.3	175.88	9.195		
16,200.0	7,617.0	7,548.0	7,548.0	150.3	28.0	-90.00	8,132.5	-14.9	1,611.4	1,434.5	176.93	9.108		
16,244.2	7,617.0	7,548.0	7,548.0	151.1	28.0	-90.00	8,132.5	-14.9	1,610.8	1,433.6	177.22	9.089 CC, ES		
16,300.0	7,617.0	7,548.0	7,548.0	152.0	28.0	-90.00	8,132.5	-14.9	1,611.8	1,434.3	177.44	9.083 SF		
16,400.0	7,617.0	7,548.0	7,548.0	153.8	28.0	-90.00	8,132.5	-14.9	1,618.3	1,440.9	177.41	9.122		
16,500.0	7,617.0	7,548.0	7,548.0	155.5	28.0	-90.00	8,132.5	-14.9	1,631.0	1,454.1	176.86	9.222		
16,600.0	7,617.0	7,548.0	7,548.0	157.2	28.0	-90.00	8,132.5	-14.9	1,649.6	1,473.8	175.82	9.383		
16,700.0	7,617.0	7,548.0	7,548.0	158.9	28.0	-90.00	8,132.5	-14.9	1,674.0	1,499.7	174.32	9.603		
16,800.0	7,617.0	7,548.0	7,548.0	160.6	28.0	-90.00	8,132.5	-14.9	1,704.0	1,531.6	172.43	9.882		
16,900.0	7,617.0	7,548.0	7,548.0	162.4	28.0	-90.00	8,132.5	-14.9	1,739.2	1,569.0	170.20	10.218		
17,000.0	7,617.0	7,548.0	7,548.0	164.1	28.0	-90.00	8,132.5	-14.9	1,779.3	1,611.6	167.71	10.609		
17,100.0	7,617.0	7,548.0	7,548.0	165.8	28.0	-90.00	8,132.5	-14.9	1,824.0	1,659.0	165.01	11.054		
17,200.0	7,617.0	7,548.0	7,548.0	167.5	28.0	-90.00	8,132.5	-14.9	1,873.0	1,710.9	162.15	11.551		
17,300.0	7,617.0	7,548.0	7,548.0	169.2	28.0	-90.00	8,132.5	-14.9	1,926.3	1,767.1	159.21	12.099		
17,400.0	7,617.0	7,548.0	7,548.0	171.0	28.0	-90.00	8,132.5	-14.9	1,986.1	1,829.8	156.29	12.708		
17,500.0	7,617.0	7,548.0	7,548.0	172.7	28.0	-90.00	8,132.5	-14.9	2,052.2	1,898.7	153.47	13.371		
17,600.0	7,617.0	7,548.0	7,548.0	174.4	28.0	-90.00	8,132.5	-14.9	2,123.8	1,973.0	150.79	14.084		
17,700.0	7,617.0	7,548.0	7,548.0	176.1	28.0	-90.00	8,132.5	-14.9	2,200.3	2,052.0	148.29	14.837		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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	7,617.0	7,548.0	7,548.0	45.5	28.0	-90.00	3,156.6	673.6	2,207.3	2,134.8	72.45	30.467		
9,400.0	7,617.0	7,548.0	7,548.0	46.3	28.0	-90.00	3,156.6	673.6	2,119.2	2,046.1	73.07	29.003		
9,500.0	7,617.0	7,548.0	7,548.0	47.1	28.0	-90.00	3,156.6	673.6	2,032.2	1,958.5	73.75	27.555		
9,600.0	7,617.0	7,548.0	7,548.0	48.1	28.0	-90.00	3,156.6	673.6	1,946.5	1,872.0	74.50	26.127		
9,700.0	7,617.0	7,548.0	7,548.0	49.0	28.0	-90.00	3,156.6	673.6	1,862.2	1,786.9	75.32	24.722		
9,800.0	7,617.0	7,548.0	7,548.0	50.1	28.0	-90.00	3,156.6	673.6	1,779.5	1,703.3	76.23	23.344		
9,900.0	7,617.0	7,548.0	7,548.0	51.1	28.0	-90.00	3,156.6	673.6	1,698.7	1,621.5	77.22	21.997		
10,000.0	7,617.0	7,548.0	7,548.0	52.3	28.0	-90.00	3,156.6	673.6	1,620.1	1,541.7	78.31	20.687		
10,100.0	7,617.0	7,548.0	7,548.0	53.5	28.0	-90.00	3,156.6	673.6	1,543.9	1,464.4	79.50	19.420		
10,200.0	7,617.0	7,548.0	7,548.0	54.7	28.0	-90.00	3,156.6	673.6	1,470.5	1,389.7	80.78	18.203		
10,300.0	7,617.0	7,548.0	7,548.0	55.9	28.0	-90.00	3,156.6	673.6	1,400.5	1,318.3	82.17	17.044		
10,400.0	7,617.0	7,548.0	7,548.0	57.2	28.0	-90.00	3,156.6	673.6	1,334.3	1,250.6	83.64	15.953		
10,500.0	7,617.0	7,548.0	7,548.0	58.5	28.0	-90.00	3,156.6	673.6	1,272.5	1,187.3	85.18	14.939		
10,600.0	7,617.0	7,548.0	7,548.0	59.9	28.0	-90.00	3,156.6	673.6	1,215.8	1,129.0	86.75	14.014		
10,700.0	7,617.0	7,548.0	7,548.0	61.2	28.0	-90.00	3,156.6	673.6	1,164.9	1,076.6	88.32	13.189		
10,800.0	7,617.0	7,548.0	7,548.0	62.6	28.0	-90.00	3,156.6	673.6	1,120.7	1,030.9	89.83	12.477		
10,900.0	7,617.0	7,548.0	7,548.0	64.0	28.0	-90.00	3,156.6	673.6	1,083.9	992.8	91.18	11.888		
11,000.0	7,617.0	7,548.0	7,548.0	65.5	28.0	-90.00	3,156.6	673.6	1,055.4	963.1	92.31	11.434		
11,100.0	7,617.0	7,548.0	7,548.0	66.9	28.0	-90.00	3,156.6	673.6	1,035.8	942.6	93.12	11.123		
11,200.0	7,617.0	7,548.0	7,548.0	68.4	28.0	-90.00	3,156.6	673.6	1,025.5	932.0	93.54	10.963		
11,255.4	7,617.0	7,548.0	7,548.0	69.2	28.0	-90.00	3,156.6	673.6	1,024.0	930.4	93.60	10.941	CC, ES, SF	
11,300.0	7,617.0	7,548.0	7,548.0	69.8	28.0	-90.00	3,156.6	673.6	1,025.0	931.5	93.55	10.957		
11,400.0	7,617.0	7,548.0	7,548.0	71.3	28.0	-90.00	3,156.6	673.6	1,034.2	941.1	93.12	11.106		
11,500.0	7,617.0	7,548.0	7,548.0	72.8	28.0	-90.00	3,156.6	673.6	1,052.9	960.6	92.30	11.406		
11,600.0	7,617.0	7,548.0	7,548.0	74.4	28.0	-90.00	3,156.6	673.6	1,080.5	989.3	91.17	11.852		
11,700.0	7,617.0	7,548.0	7,548.0	75.9	28.0	-90.00	3,156.6	673.6	1,116.4	1,026.6	89.79	12.434		
11,800.0	7,617.0	7,548.0	7,548.0	77.4	28.0	-90.00	3,156.6	673.6	1,159.9	1,071.6	88.26	13.142		
11,900.0	7,617.0	7,548.0	7,548.0	79.0	28.0	-90.00	3,156.6	673.6	1,210.0	1,123.4	86.66	13.964		
12,000.0	7,617.0	7,548.0	7,548.0	80.5	28.0	-90.00	3,156.6	673.6	1,266.2	1,181.1	85.05	14.888		
12,100.0	7,617.0	7,548.0	7,548.0	82.1	28.0	-90.00	3,156.6	673.6	1,327.4	1,244.0	83.48	15.901		
12,200.0	7,617.0	7,548.0	7,548.0	83.7	28.0	-90.00	3,156.6	673.6	1,393.2	1,311.2	81.99	16.993		
12,300.0	7,617.0	7,548.0	7,548.0	85.3	28.0	-90.00	3,156.6	673.6	1,462.8	1,382.3	80.59	18.152		
12,400.0	7,617.0	7,548.0	7,548.0	86.9	28.0	-90.00	3,156.6	673.6	1,535.9	1,456.6	79.30	19.368		
12,500.0	7,617.0	7,548.0	7,548.0	88.5	28.0	-90.00	3,156.6	673.6	1,611.8	1,533.7	78.11	20.634		
12,600.0	7,617.0	7,548.0	7,548.0	90.1	28.0	-90.00	3,156.6	673.6	1,690.2	1,613.1	77.03	21.941		
12,700.0	7,617.0	7,548.0	7,548.0	91.7	28.0	-90.00	3,156.6	673.6	1,770.8	1,694.7	76.06	23.282		
12,800.0	7,617.0	7,548.0	7,548.0	93.3	28.0	-90.00	3,156.6	673.6	1,853.3	1,778.1	75.17	24.653		
12,900.0	7,617.0	7,548.0	7,548.0	94.9	28.0	-90.00	3,156.6	673.6	1,937.4	1,863.0	74.38	26.048		
13,000.0	7,617.0	7,548.0	7,548.0	96.5	28.0	-90.00	3,156.6	673.6	2,023.0	1,949.3	73.66	27.462		
13,100.0	7,617.0	7,548.0	7,548.0	98.2	28.0	-90.00	3,156.6	673.6	2,109.8	2,036.8	73.02	28.894		
13,200.0	7,617.0	7,548.0	7,548.0	99.8	28.0	-90.00	3,156.6	673.6	2,197.8	2,125.3	72.44	30.338		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)												Offset Site Error:	0.0 usft
Survey Program: 100-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,100.0	7,617.0	7,548.0	7,548.0	131.6	28.0	90.00	9,163.4	1,728.3	2,144.8	2,077.0	67.81	31.629	
15,200.0	7,617.0	7,548.0	7,548.0	133.3	28.0	90.00	9,163.4	1,728.3	2,045.1	1,977.4	67.69	30.210	
15,300.0	7,617.0	7,548.0	7,548.0	135.0	28.0	90.00	9,163.4	1,728.3	1,945.4	1,877.8	67.57	28.790	
15,400.0	7,617.0	7,548.0	7,548.0	136.7	28.0	90.00	9,163.4	1,728.3	1,845.7	1,778.2	67.44	27.367	
15,500.0	7,617.0	7,548.0	7,548.0	138.4	28.0	90.00	9,163.4	1,728.3	1,746.0	1,678.7	67.31	25.942	
15,600.0	7,617.0	7,548.0	7,548.0	140.1	28.0	90.00	9,163.4	1,728.3	1,646.4	1,579.3	67.17	24.513	
15,700.0	7,617.0	7,548.0	7,548.0	141.8	28.0	90.00	9,163.4	1,728.3	1,546.9	1,479.9	67.03	23.079	
15,800.0	7,617.0	7,548.0	7,548.0	143.5	28.0	90.00	9,163.4	1,728.3	1,447.4	1,380.5	66.89	21.639	
15,900.0	7,617.0	7,548.0	7,548.0	145.2	28.0	90.00	9,163.4	1,728.3	1,348.0	1,281.3	66.76	20.191	
16,000.0	7,617.0	7,548.0	7,548.0	146.9	28.0	90.00	9,163.4	1,728.3	1,248.7	1,182.1	66.66	18.732	
16,100.0	7,617.0	7,548.0	7,548.0	148.6	28.0	90.00	9,163.4	1,728.3	1,149.6	1,082.9	66.61	17.259	
16,200.0	7,617.0	7,548.0	7,548.0	150.3	28.0	90.00	9,163.4	1,728.3	1,050.5	983.9	66.63	15.766	
16,300.0	7,617.0	7,548.0	7,548.0	152.0	28.0	90.00	9,163.4	1,728.3	951.7	884.9	66.80	14.246	
16,400.0	7,617.0	7,548.0	7,548.0	153.8	28.0	90.00	9,163.4	1,728.3	853.2	785.9	67.22	12.692	
16,500.0	7,617.0	7,548.0	7,548.0	155.5	28.0	90.00	9,163.4	1,728.3	755.0	686.9	68.06	11.093	
16,600.0	7,617.0	7,548.0	7,548.0	157.2	28.0	90.00	9,163.4	1,728.3	657.4	587.7	69.65	9.439	
16,700.0	7,617.0	7,548.0	7,548.0	158.9	28.0	90.00	9,163.4	1,728.3	560.6	488.0	72.58	7.724	
16,800.0	7,617.0	7,548.0	7,548.0	160.6	28.0	90.00	9,163.4	1,728.3	465.2	387.3	77.94	5.969	
16,900.0	7,617.0	7,548.0	7,548.0	162.4	28.0	90.00	9,163.4	1,728.3	372.2	284.4	87.82	4.239	
17,000.0	7,617.0	7,548.0	7,548.0	164.1	28.0	90.00	9,163.4	1,728.3	284.1	177.9	106.15	2.676	
17,100.0	7,617.0	7,548.0	7,548.0	165.8	28.0	90.00	9,163.4	1,728.3	207.0	67.6	139.32	1.486	Level 3
17,200.0	7,617.0	7,548.0	7,548.0	167.5	28.0	90.00	9,163.4	1,728.3	158.0	-26.1	184.07	0.858	Level 1
17,240.5	7,617.0	7,548.0	7,548.0	168.2	28.0	90.00	9,163.4	1,728.3	152.9	-41.8	194.64	0.786	Level 1, CC, ES, SF
17,300.0	7,617.0	7,548.0	7,548.0	169.2	28.0	90.00	9,163.4	1,728.3	164.2	-27.2	191.46	0.858	Level 1
17,400.0	7,617.0	7,548.0	7,548.0	171.0	28.0	90.00	9,163.4	1,728.3	218.8	58.3	160.51	1.363	Level 3
17,500.0	7,617.0	7,548.0	7,548.0	172.7	28.0	90.00	9,163.4	1,728.3	295.7	163.1	132.65	2.229	
17,600.0	7,617.0	7,548.0	7,548.0	174.4	28.0	90.00	9,163.4	1,728.3	381.6	268.0	113.61	3.359	
17,700.0	7,617.0	7,548.0	7,548.0	176.1	28.0	90.00	9,163.4	1,728.3	471.6	371.1	100.48	4.693	
17,800.0	7,617.0	7,548.0	7,548.0	177.8	28.0	90.00	9,163.4	1,728.3	563.4	472.4	91.04	6.189	
17,900.0	7,617.0	7,548.0	7,548.0	179.4	28.0	90.00	9,163.4	1,728.3	656.3	572.3	84.04	7.810	
18,000.0	7,617.0	7,548.0	7,548.0	181.1	28.0	90.00	9,163.4	1,728.3	749.8	671.0	78.77	9.519	
18,014.8	7,617.0	7,548.0	7,548.0	181.3	28.0	90.00	9,163.4	1,728.3	763.7	685.6	78.13	9.775	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	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		
11,900.0	7,617.0	7,548.0	7,548.0	79.0	28.0	-90.00	5,962.3	1,157.5	2,204.2	2,125.9	78.26	28.165		
12,000.0	7,617.0	7,548.0	7,548.0	80.5	28.0	-90.00	5,962.3	1,157.5	2,106.7	2,027.7	78.99	26.672		
12,100.0	7,617.0	7,548.0	7,548.0	82.1	28.0	-90.00	5,962.3	1,157.5	2,009.5	1,929.7	79.79	25.184		
12,200.0	7,617.0	7,548.0	7,548.0	83.7	28.0	-90.00	5,962.3	1,157.5	1,912.6	1,831.9	80.69	23.703		
12,300.0	7,617.0	7,548.0	7,548.0	85.3	28.0	-90.00	5,962.3	1,157.5	1,816.0	1,734.3	81.69	22.230		
12,400.0	7,617.0	7,548.0	7,548.0	86.9	28.0	-90.00	5,962.3	1,157.5	1,719.8	1,637.0	82.81	20.767		
12,500.0	7,617.0	7,548.0	7,548.0	88.5	28.0	-90.00	5,962.3	1,157.5	1,624.1	1,540.0	84.08	19.316		
12,600.0	7,617.0	7,548.0	7,548.0	90.1	28.0	-90.00	5,962.3	1,157.5	1,528.9	1,443.4	85.52	17.879		
12,700.0	7,617.0	7,548.0	7,548.0	91.7	28.0	-90.00	5,962.3	1,157.5	1,434.4	1,347.2	87.15	16.458		
12,800.0	7,617.0	7,548.0	7,548.0	93.3	28.0	-90.00	5,962.3	1,157.5	1,340.6	1,251.6	89.03	15.058		
12,900.0	7,617.0	7,548.0	7,548.0	94.9	28.0	-90.00	5,962.3	1,157.5	1,247.9	1,156.7	91.19	13.684		
13,000.0	7,617.0	7,548.0	7,548.0	96.5	28.0	-90.00	5,962.3	1,157.5	1,156.3	1,062.6	93.70	12.340		
13,100.0	7,617.0	7,548.0	7,548.0	98.2	28.0	-90.00	5,962.3	1,157.5	1,066.3	969.6	96.63	11.035		
13,200.0	7,617.0	7,548.0	7,548.0	99.8	28.0	-90.00	5,962.3	1,157.5	978.1	878.1	100.05	9.776		
13,300.0	7,617.0	7,548.0	7,548.0	101.4	28.0	-90.00	5,962.3	1,157.5	892.6	788.5	104.07	8.577		
13,400.0	7,617.0	7,548.0	7,548.0	103.1	28.0	-90.00	5,962.3	1,157.5	810.3	701.5	108.76	7.450		
13,500.0	7,617.0	7,548.0	7,548.0	104.7	28.0	-90.00	5,962.3	1,157.5	732.4	618.2	114.18	6.414		
13,600.0	7,617.0	7,548.0	7,548.0	106.4	28.0	-90.00	5,962.3	1,157.5	660.5	540.2	120.31	5.490		
13,700.0	7,617.0	7,548.0	7,548.0	108.1	28.0	-90.00	5,962.3	1,157.5	596.8	469.9	126.88	4.704		
13,800.0	7,617.0	7,548.0	7,548.0	109.7	28.0	-90.00	5,962.3	1,157.5	544.1	410.9	133.22	4.084		
13,900.0	7,617.0	7,548.0	7,548.0	111.4	28.0	-90.00	5,962.3	1,157.5	505.9	367.7	138.15	3.662		
14,000.0	7,617.0	7,548.0	7,548.0	113.0	28.0	-90.00	5,962.3	1,157.5	485.6	345.5	140.10	3.466		
14,050.6	7,617.0	7,548.0	7,548.0	113.9	28.0	-90.00	5,962.3	1,157.5	483.0	343.4	139.57	3.460 CC, ES, SF		
14,100.0	7,617.0	7,548.0	7,548.0	114.7	28.0	-90.00	5,962.3	1,157.5	485.5	347.5	138.01	3.518		
14,200.0	7,617.0	7,548.0	7,548.0	116.4	28.0	-90.00	5,962.3	1,157.5	505.5	373.4	132.12	3.826		
14,300.0	7,617.0	7,548.0	7,548.0	118.1	28.0	-90.00	5,962.3	1,157.5	543.5	419.6	123.92	4.386		
14,400.0	7,617.0	7,548.0	7,548.0	119.7	28.0	-90.00	5,962.3	1,157.5	596.1	481.0	115.09	5.179		
14,500.0	7,617.0	7,548.0	7,548.0	121.4	28.0	-90.00	5,962.3	1,157.5	659.7	552.9	106.80	6.177		
14,600.0	7,617.0	7,548.0	7,548.0	123.1	28.0	-90.00	5,962.3	1,157.5	731.5	631.9	99.56	7.347		
14,700.0	7,617.0	7,548.0	7,548.0	124.8	28.0	-90.00	5,962.3	1,157.5	809.3	715.8	93.50	8.655		
14,800.0	7,617.0	7,548.0	7,548.0	126.5	28.0	-90.00	5,962.3	1,157.5	891.5	803.0	88.53	10.071		
14,900.0	7,617.0	7,548.0	7,548.0	128.2	28.0	-90.00	5,962.3	1,157.5	977.1	892.6	84.48	11.565		
15,000.0	7,617.0	7,548.0	7,548.0	129.9	28.0	-90.00	5,962.3	1,157.5	1,065.2	984.0	81.21	13.115		
15,100.0	7,617.0	7,548.0	7,548.0	131.6	28.0	-90.00	5,962.3	1,157.5	1,155.2	1,076.6	78.57	14.702		
15,200.0	7,617.0	7,548.0	7,548.0	133.3	28.0	-90.00	5,962.3	1,157.5	1,246.7	1,170.3	76.44	16.311		
15,300.0	7,617.0	7,548.0	7,548.0	135.0	28.0	-90.00	5,962.3	1,157.5	1,339.5	1,264.8	74.70	17.931		
15,400.0	7,617.0	7,548.0	7,548.0	136.7	28.0	-90.00	5,962.3	1,157.5	1,433.2	1,359.9	73.30	19.554		
15,500.0	7,617.0	7,548.0	7,548.0	138.4	28.0	-90.00	5,962.3	1,157.5	1,527.7	1,455.6	72.15	21.174		
15,600.0	7,617.0	7,548.0	7,548.0	140.1	28.0	-90.00	5,962.3	1,157.5	1,622.9	1,551.7	71.22	22.789		
15,700.0	7,617.0	7,548.0	7,548.0	141.8	28.0	-90.00	5,962.3	1,157.5	1,718.6	1,648.2	70.45	24.395		
15,800.0	7,617.0	7,548.0	7,548.0	143.5	28.0	-90.00	5,962.3	1,157.5	1,814.8	1,745.0	69.83	25.990		
15,900.0	7,617.0	7,548.0	7,548.0	145.2	28.0	-90.00	5,962.3	1,157.5	1,911.4	1,842.1	69.32	27.576		
16,000.0	7,617.0	7,548.0	7,548.0	146.9	28.0	-90.00	5,962.3	1,157.5	2,008.3	1,939.4	68.90	29.150		
16,100.0	7,617.0	7,548.0	7,548.0	148.6	28.0	-90.00	5,962.3	1,157.5	2,105.5	2,037.0	68.56	30.713		
16,200.0	7,617.0	7,548.0	7,548.0	150.3	28.0	-90.00	5,962.3	1,157.5	2,203.0	2,134.7	68.28	32.265		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-4CDH
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 19-18-4CDH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-45.80	1,023.2	-1,052.1	1,469.2					
100.0	100.0	31.0	31.0	0.4	0.3	-45.80	1,023.2	-1,052.1	1,467.6	1,467.4	0.27	5,487.339		
200.0	200.0	131.0	131.0	1.0	1.1	-45.80	1,023.2	-1,052.1	1,467.6	1,466.6	0.99	1,483.939		
300.0	300.0	231.0	231.0	1.5	1.5	-45.80	1,023.2	-1,052.1	1,467.6	1,465.9	1.70	861.537		
400.0	400.0	331.0	331.0	1.9	1.9	-45.80	1,023.2	-1,052.1	1,467.6	1,465.2	2.42	606.568		
500.0	500.0	431.0	431.0	2.3	2.3	-45.80	1,023.2	-1,052.1	1,467.6	1,464.5	3.14	467.982		
600.0	600.0	531.0	531.0	2.7	2.7	-45.80	1,023.2	-1,052.1	1,467.6	1,463.8	3.85	380.927		
700.0	700.0	631.0	631.0	3.1	3.1	-45.80	1,023.2	-1,052.1	1,467.6	1,463.1	4.57	321.173		
800.0	800.0	731.0	731.0	3.5	3.5	-45.80	1,023.2	-1,052.1	1,467.6	1,462.3	5.29	277.622 CC, ES		
900.0	900.0	831.0	831.0	3.9	3.9	-151.63	1,023.2	-1,052.1	1,469.2	1,462.9	6.21	236.452		
1,000.0	999.8	930.8	930.8	4.5	4.2	-151.68	1,023.2	-1,052.1	1,473.8	1,466.2	7.59	194.142		
1,100.0	1,099.5	1,030.5	1,030.5	5.3	4.6	-151.77	1,023.2	-1,052.1	1,481.4	1,472.7	8.79	168.473		
1,200.0	1,198.7	1,129.7	1,129.7	6.0	5.0	-151.89	1,023.2	-1,052.1	1,492.2	1,482.3	9.90	150.783		
1,300.0	1,297.5	1,228.5	1,228.5	6.7	5.3	-152.04	1,023.2	-1,052.1	1,506.1	1,495.1	10.93	137.737		
1,400.0	1,395.6	1,326.6	1,326.6	7.3	5.7	-152.21	1,023.2	-1,052.1	1,523.0	1,511.1	11.93	127.705		
1,500.0	1,493.1	1,424.1	1,424.1	7.9	6.0	-152.41	1,023.2	-1,052.1	1,543.0	1,530.1	12.88	119.776		
1,600.0	1,589.6	1,520.6	1,520.6	8.5	6.4	-152.63	1,023.2	-1,052.1	1,566.1	1,552.3	13.82	113.322		
1,700.0	1,685.8	1,616.8	1,616.8	8.9	6.7	-153.08	1,023.2	-1,052.1	1,590.9	1,576.3	14.57	109.193		
1,800.0	1,781.9	1,712.9	1,712.9	9.1	7.1	-153.52	1,023.2	-1,052.1	1,615.8	1,600.5	15.22	106.153		
1,900.0	1,878.0	1,809.0	1,809.0	9.4	7.4	-153.95	1,023.2	-1,052.1	1,640.7	1,624.8	15.88	103.312		
2,000.0	1,974.1	1,905.1	1,905.1	9.7	7.8	-154.36	1,023.2	-1,052.1	1,665.7	1,649.2	16.55	100.658		
2,100.0	2,070.2	2,001.2	2,001.2	10.0	8.1	-154.76	1,023.2	-1,052.1	1,690.8	1,673.6	17.22	98.179		
2,200.0	2,166.3	2,097.3	2,097.3	10.4	8.5	-155.15	1,023.2	-1,052.1	1,716.0	1,698.1	17.90	95.860		
2,300.0	2,262.4	2,193.4	2,193.4	10.7	8.8	-155.53	1,023.2	-1,052.1	1,741.3	1,722.7	18.59	93.690		
2,400.0	2,358.6	2,289.6	2,289.6	11.1	9.2	-155.90	1,023.2	-1,052.1	1,766.6	1,747.3	19.27	91.658		
2,500.0	2,454.7	2,385.7	2,385.7	11.6	9.5	-156.26	1,023.2	-1,052.1	1,792.0	1,772.0	19.97	89.751		
2,600.0	2,550.8	2,481.8	2,481.8	12.0	9.9	-156.61	1,023.2	-1,052.1	1,817.5	1,796.8	20.66	87.962		
2,700.0	2,646.9	2,577.9	2,577.9	12.5	10.2	-156.95	1,023.2	-1,052.1	1,843.0	1,821.6	21.36	86.279		
2,800.0	2,743.0	2,674.0	2,674.0	13.1	10.5	-157.27	1,023.2	-1,052.1	1,868.6	1,846.5	22.06	84.696		
2,900.0	2,839.1	2,770.1	2,770.1	13.6	10.9	-157.60	1,023.2	-1,052.1	1,894.2	1,871.4	22.77	83.204		
3,000.0	2,935.2	2,866.2	2,866.2	14.2	11.2	-157.91	1,023.2	-1,052.1	1,919.9	1,896.4	23.47	81.796		
3,100.0	3,031.3	2,962.3	2,962.3	14.7	11.6	-158.21	1,023.2	-1,052.1	1,945.7	1,921.5	24.18	80.467		
3,200.0	3,127.5	3,058.5	3,058.5	15.3	11.9	-158.51	1,023.2	-1,052.1	1,971.5	1,946.6	24.89	79.210		
3,300.0	3,223.6	3,154.6	3,154.6	15.9	12.3	-158.80	1,023.2	-1,052.1	1,997.3	1,971.7	25.60	78.019		
3,400.0	3,319.7	3,250.7	3,250.7	16.5	12.6	-159.08	1,023.2	-1,052.1	2,023.2	1,996.9	26.31	76.891		
3,500.0	3,415.8	3,346.8	3,346.8	17.1	13.0	-159.35	1,023.2	-1,052.1	2,049.1	2,022.1	27.03	75.820		
3,600.0	3,511.9	3,442.9	3,442.9	17.7	13.3	-159.62	1,023.2	-1,052.1	2,075.1	2,047.4	27.74	74.803		
3,700.0	3,608.0	3,539.0	3,539.0	18.3	13.7	-159.88	1,023.2	-1,052.1	2,101.1	2,072.7	28.46	73.835		
3,800.0	3,704.1	3,635.1	3,635.1	18.8	14.0	-160.14	1,023.2	-1,052.1	2,127.2	2,098.0	29.17	72.914		
3,900.0	3,800.3	3,731.3	3,731.3	19.4	14.3	-160.38	1,023.2	-1,052.1	2,153.3	2,123.4	29.89	72.037		
4,000.0	3,896.4	3,827.4	3,827.4	20.0	14.7	-160.63	1,023.2	-1,052.1	2,179.4	2,148.8	30.61	71.199		
4,100.0	3,992.5	3,923.5	3,923.5	20.6	15.0	-160.86	1,023.2	-1,052.1	2,205.6	2,174.3	31.33	70.400 SF		

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

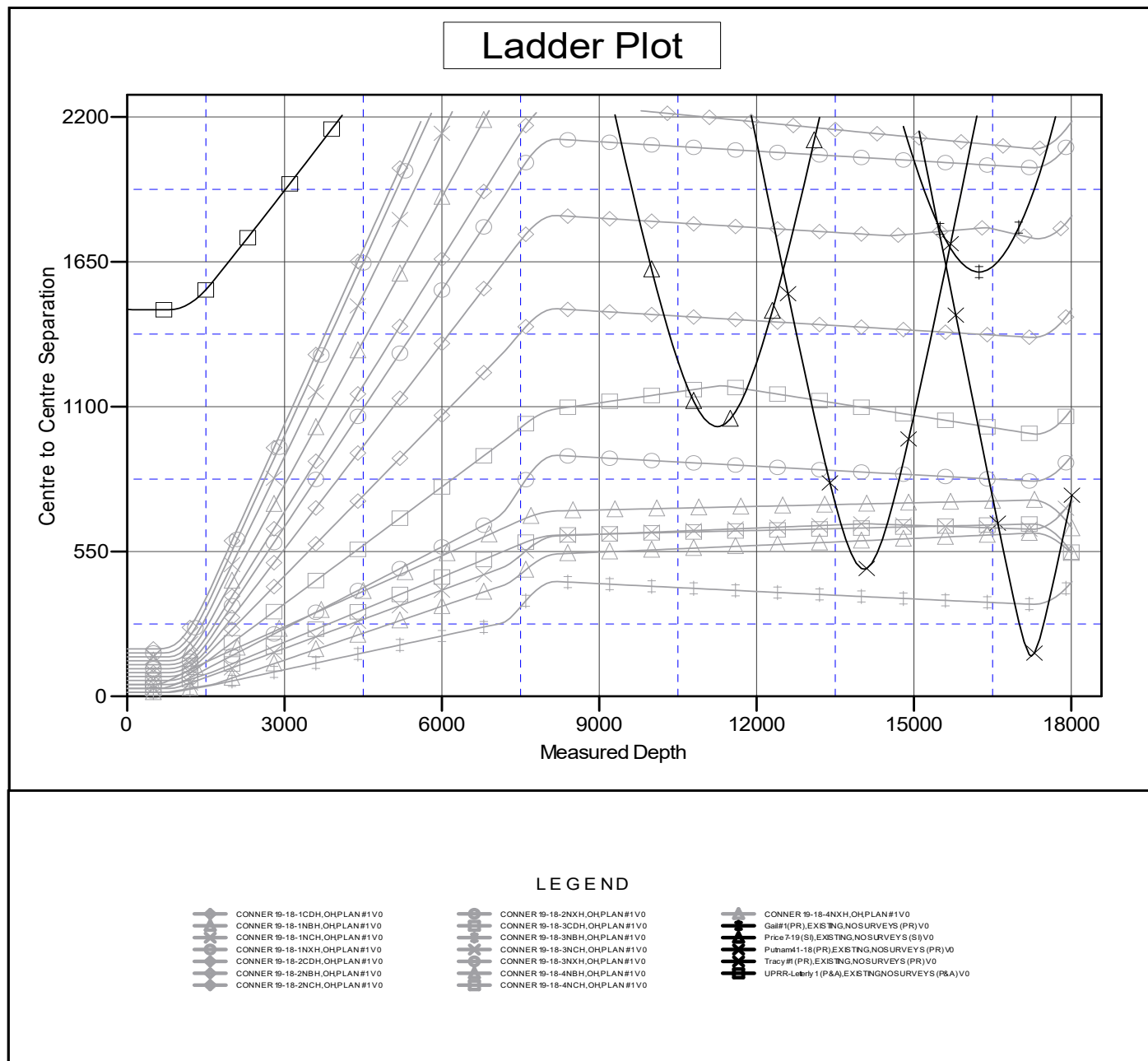
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

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

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 19-18-4CDH
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 19-18-4CDH	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

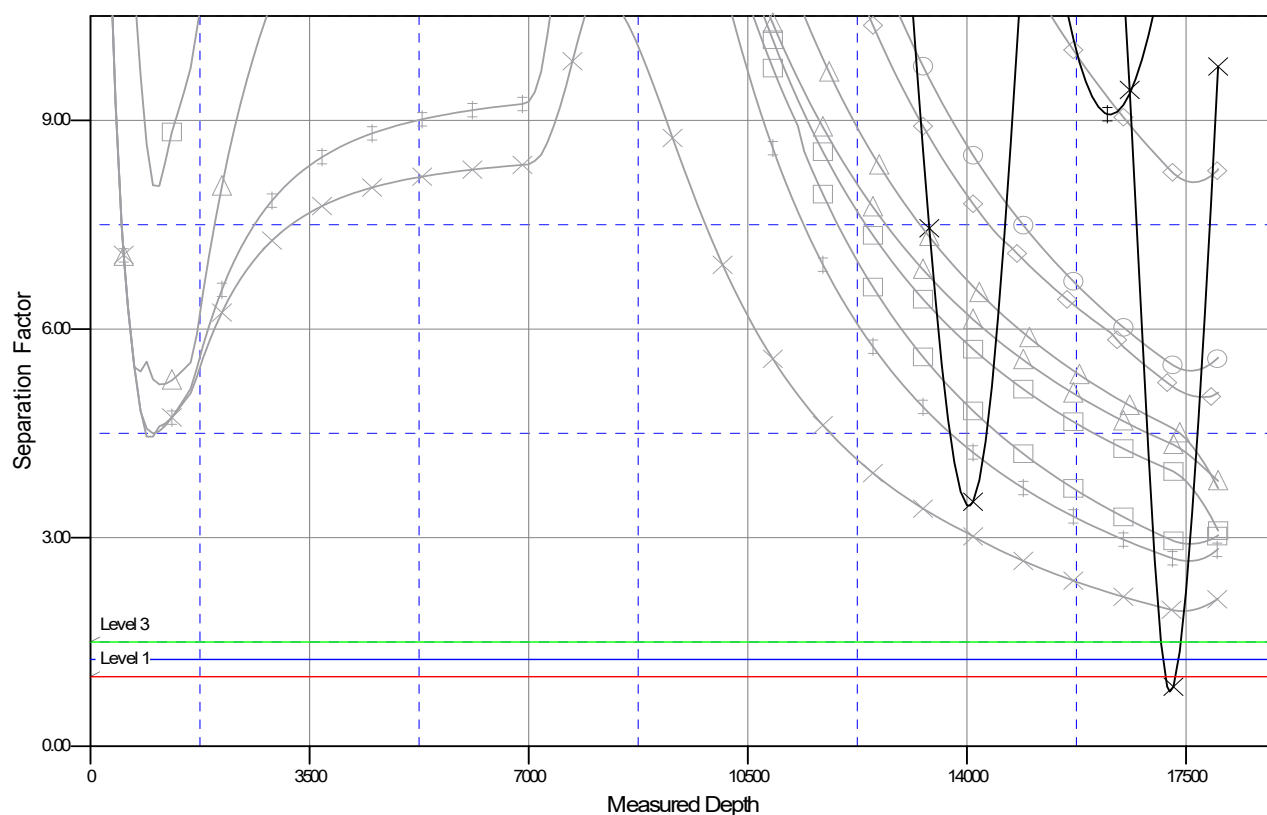
Central Meridian is -105.500000

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

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 19-18-4NBH, OHPLAN#1V0
 CONNER 19-18-4NCH, OHPLAN#1V0

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