



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-2NCH
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



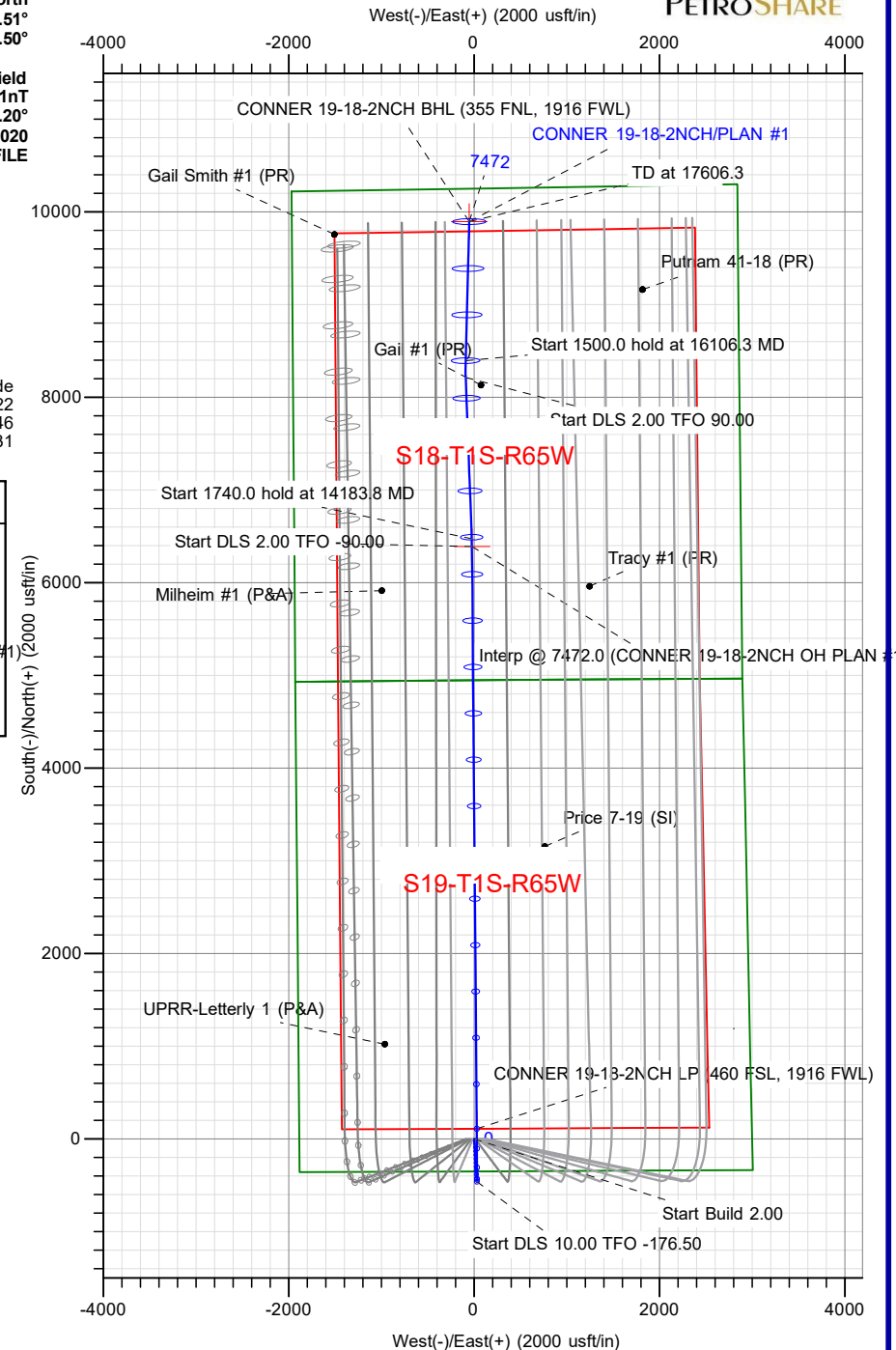
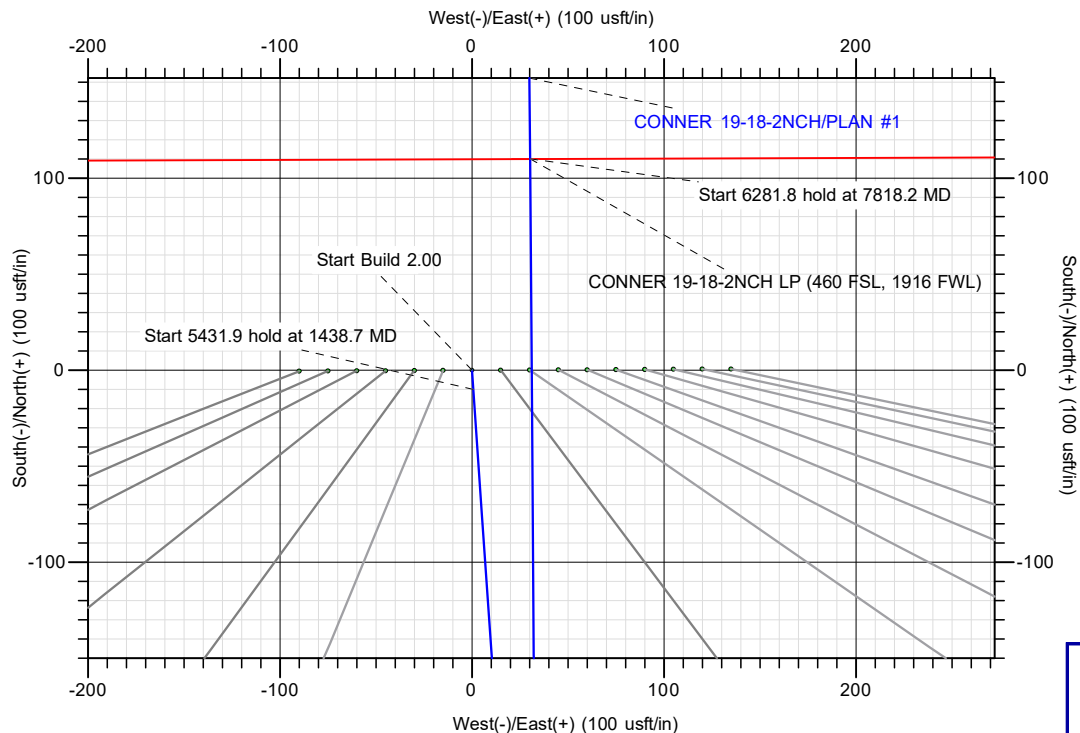
Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.50°
Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CONNER 19-18-2NCH BHL (355 FNL, 1916 FWL)	7472.0	9896.2	-50.6	1233451.05	3222049.27	39.971484	-104.707722
CONNER 19-18-2NCH LP (460 FSL, 1916 FWL)	7472.0	110.1	30.3	1223664.97	3222130.18	39.944618	-104.707746
Interp @ 7472.0 (CONNER 19-18-2NCH OH PLAN #1)	7472.0	6391.7	-21.6	1229946.53	3222078.24	39.961863	-104.707731

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1438.7	4.77	176.04	1438.4	-9.9	0.7	2.00	176.04	-9.9	
4	6870.6	4.77	176.04	6851.5	-460.8	31.9	0.00	0.00	-461.0	
5	7818.2	90.00	359.53	7472.0	110.1	30.3	10.00	-176.50	110.0	CONNER 19-18-2NCH LP (460 FSL, 1916 FWL)
6	14100.0	90.00	359.53	7472.0	6391.7	-21.6	0.00	0.00	6391.7	Interp @ 7472.0 (CONNER 19-18-2NCH OH PLAN #1)
7	14183.8	90.00	357.85	7472.0	6475.5	-23.5	2.00	-90.00	6475.5	
8	15923.8	90.00	357.85	7472.0	8214.3	-88.8	0.00	0.00	8214.6	
9	16106.3	90.00	1.50	7472.0	8396.7	-89.9	2.00	90.00	8397.1	
10	17606.3	90.00	1.50	7472.0	9896.2	-50.6	0.00	0.00	9896.3	CONNER 19-18-2NCH BHL (355 FNL, 1916 FWL)



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

Plan: PLAN #1 (CONNER 19-18-2NCH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 17:19, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

Project: ADAMS COUNTY, CO
Site: S19-T1S-R65W
Well: CONNER 19-18-2NCH
Wellbore: OH
Design: PLAN #1



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

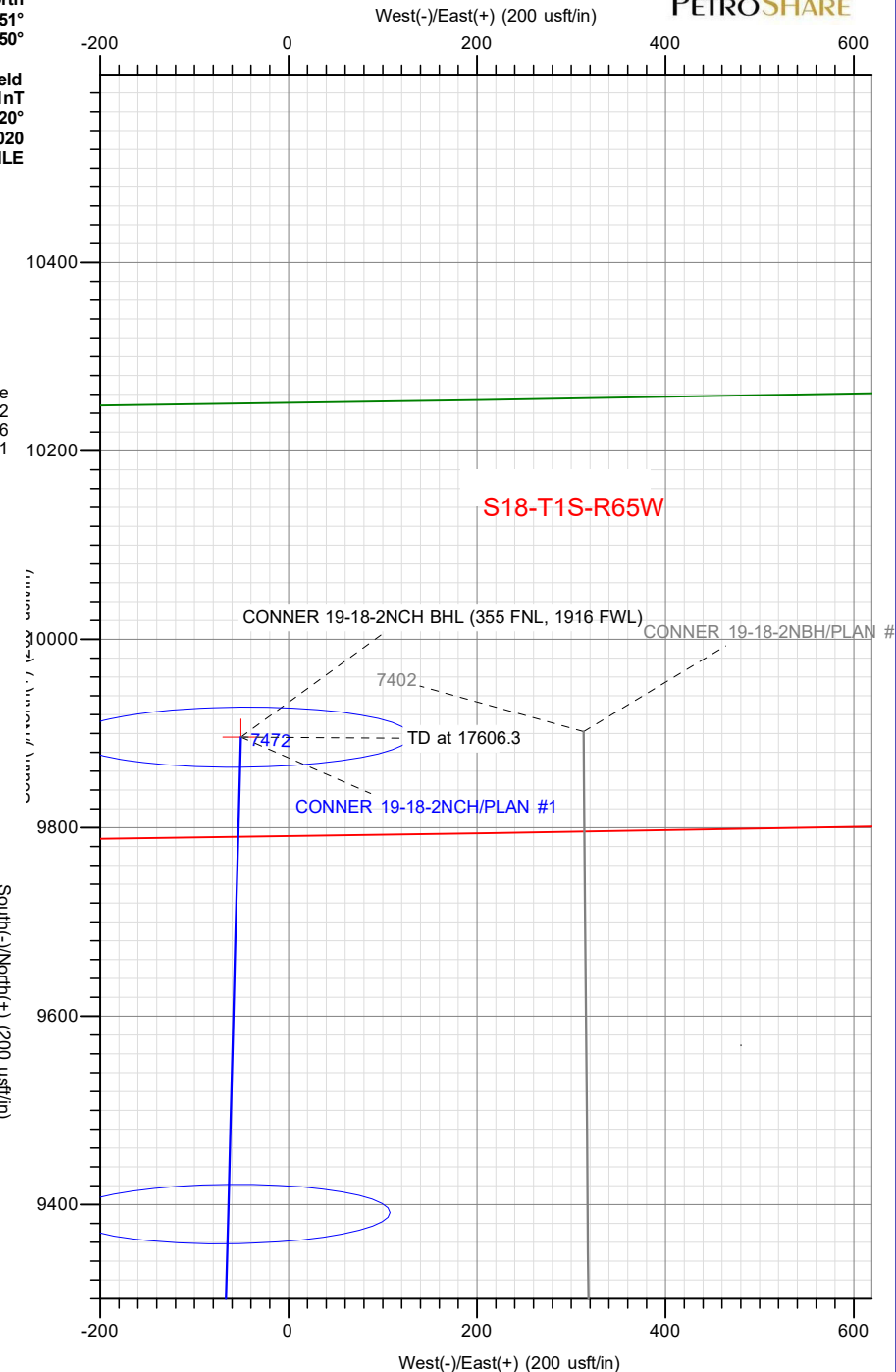
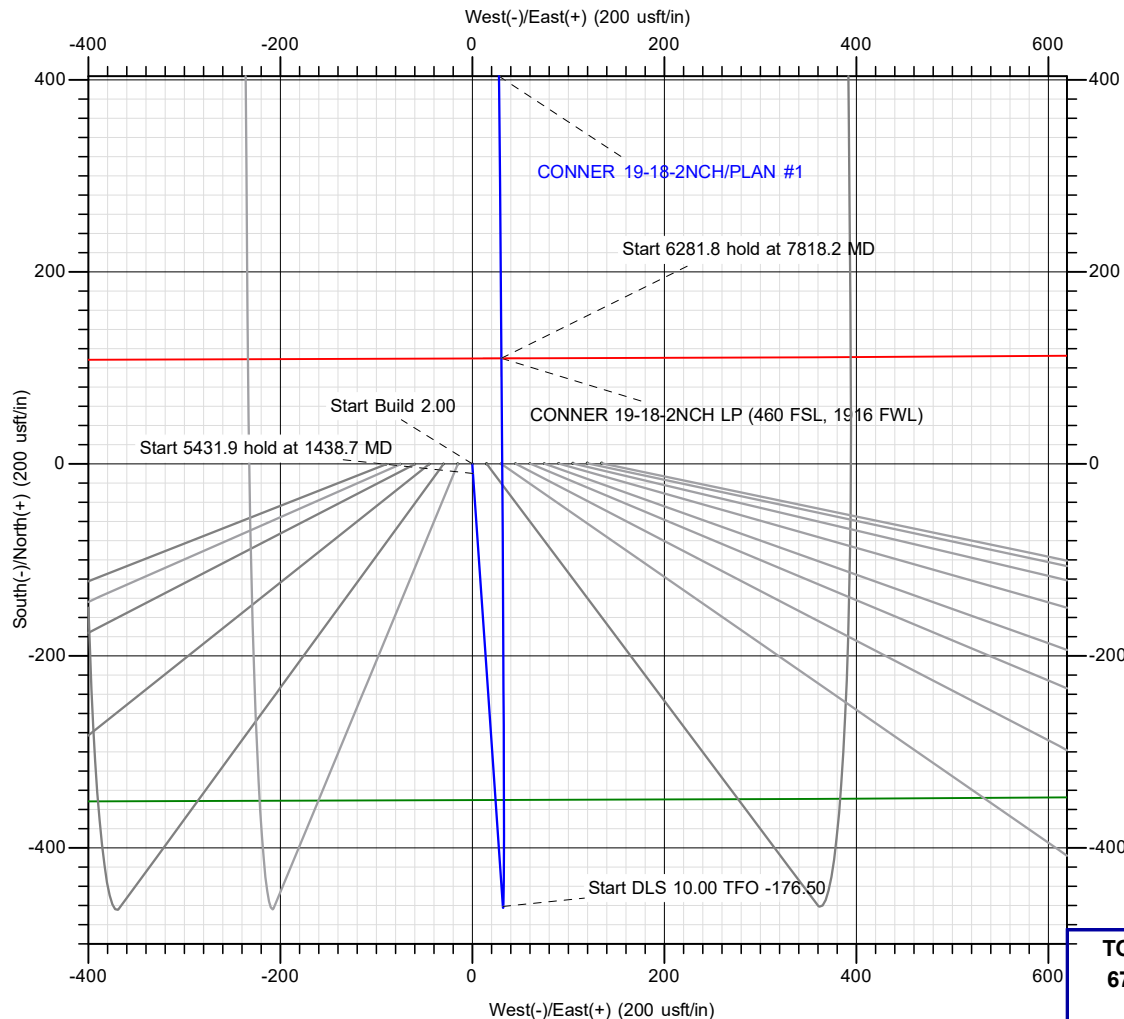
Magnetic Field
Strength: 51671.1nT
Dip Angle: 66.20°
Date: 12/31/2020
Model: HDGM2020_FILE



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

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671 Academy Ct, Windsor, CO 80550
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Plan: PLAN #1 (CONNER 19-18-2NCH/OH)
S19-T1S-R65W
Created By: Lance Roybal
Date: 17:22, March 12 2021
Approved: _____
Date: _____



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-2NCH

OH

Plan: PLAN #1

Standard Planning Report

12 March, 2021



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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 19-18-2NCH					
Well Position	+N/-S	0.5 usft	Northing:	1,223,554.83 usft	Latitude:	39.944316
	+E/-W	90.0 usft	Easting:	3,222,099.87 usft	Longitude:	-104.707858
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	359.71

Plan Survey Tool Program	Date	3/12/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,606.3	PLAN #1 (OH)	MWD
				OWSG MWD - Standard

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,438.7	4.77	176.04	1,438.4	-9.9	0.7	2.00	2.00	0.00	176.04	
6,870.6	4.77	176.04	6,851.5	-460.8	31.9	0.00	0.00	0.00	0.00	
7,818.2	90.00	359.53	7,472.0	110.1	30.3	10.00	8.99	-18.63	-176.50	CONNER 19-18-2NC
14,100.0	90.00	359.53	7,472.0	6,391.7	-21.6	0.00	0.00	0.00	0.00	Interp @ 7472.0 (CO
14,183.8	90.00	357.85	7,472.0	6,475.5	-23.5	2.00	0.00	-2.00	-90.00	
15,923.8	90.00	357.85	7,472.0	8,214.3	-88.8	0.00	0.00	0.00	0.00	
16,106.3	90.00	1.50	7,472.0	8,396.7	-89.9	2.00	0.00	2.00	90.00	
17,606.3	90.00	1.50	7,472.0	9,896.2	-50.6	0.00	0.00	0.00	0.00	CONNER 19-18-2NC

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	176.04	1,300.0	-1.7	0.1	-1.7	2.00	2.00	0.00
1,400.0	4.00	176.04	1,399.8	-7.0	0.5	-7.0	2.00	2.00	0.00
1,438.7	4.77	176.04	1,438.4	-9.9	0.7	-9.9	2.00	2.00	0.00
1,500.0	4.77	176.04	1,499.5	-15.0	1.0	-15.0	0.00	0.00	0.00
1,600.0	4.77	176.04	1,599.2	-23.3	1.6	-23.3	0.00	0.00	0.00
1,700.0	4.77	176.04	1,698.8	-31.6	2.2	-31.6	0.00	0.00	0.00
1,800.0	4.77	176.04	1,798.5	-39.9	2.8	-39.9	0.00	0.00	0.00
1,900.0	4.77	176.04	1,898.1	-48.2	3.3	-48.2	0.00	0.00	0.00
2,000.0	4.77	176.04	1,997.8	-56.5	3.9	-56.5	0.00	0.00	0.00
2,100.0	4.77	176.04	2,097.4	-64.8	4.5	-64.8	0.00	0.00	0.00
2,200.0	4.77	176.04	2,197.1	-73.1	5.1	-73.1	0.00	0.00	0.00
2,300.0	4.77	176.04	2,296.7	-81.4	5.6	-81.4	0.00	0.00	0.00
2,400.0	4.77	176.04	2,396.4	-89.7	6.2	-89.7	0.00	0.00	0.00
2,500.0	4.77	176.04	2,496.0	-98.0	6.8	-98.1	0.00	0.00	0.00
2,600.0	4.77	176.04	2,595.7	-106.3	7.4	-106.4	0.00	0.00	0.00
2,700.0	4.77	176.04	2,695.3	-114.6	7.9	-114.7	0.00	0.00	0.00
2,800.0	4.77	176.04	2,795.0	-122.9	8.5	-123.0	0.00	0.00	0.00
2,900.0	4.77	176.04	2,894.7	-131.2	9.1	-131.3	0.00	0.00	0.00
3,000.0	4.77	176.04	2,994.3	-139.5	9.7	-139.6	0.00	0.00	0.00
3,100.0	4.77	176.04	3,094.0	-147.8	10.2	-147.9	0.00	0.00	0.00
3,200.0	4.77	176.04	3,193.6	-156.1	10.8	-156.2	0.00	0.00	0.00
3,300.0	4.77	176.04	3,293.3	-164.4	11.4	-164.5	0.00	0.00	0.00
3,400.0	4.77	176.04	3,392.9	-172.7	11.9	-172.8	0.00	0.00	0.00
3,500.0	4.77	176.04	3,492.6	-181.0	12.5	-181.1	0.00	0.00	0.00
3,600.0	4.77	176.04	3,592.2	-189.3	13.1	-189.4	0.00	0.00	0.00
3,700.0	4.77	176.04	3,691.9	-197.6	13.7	-197.7	0.00	0.00	0.00
3,800.0	4.77	176.04	3,791.5	-205.9	14.2	-206.0	0.00	0.00	0.00
3,900.0	4.77	176.04	3,891.2	-214.2	14.8	-214.3	0.00	0.00	0.00
4,000.0	4.77	176.04	3,990.8	-222.5	15.4	-222.6	0.00	0.00	0.00
4,100.0	4.77	176.04	4,090.5	-230.8	16.0	-230.9	0.00	0.00	0.00
4,200.0	4.77	176.04	4,190.1	-239.1	16.5	-239.2	0.00	0.00	0.00
4,300.0	4.77	176.04	4,289.8	-247.4	17.1	-247.5	0.00	0.00	0.00
4,400.0	4.77	176.04	4,389.5	-255.7	17.7	-255.8	0.00	0.00	0.00
4,500.0	4.77	176.04	4,489.1	-264.1	18.3	-264.1	0.00	0.00	0.00
4,600.0	4.77	176.04	4,588.8	-272.4	18.8	-272.4	0.00	0.00	0.00
4,700.0	4.77	176.04	4,688.4	-280.7	19.4	-280.7	0.00	0.00	0.00
4,800.0	4.77	176.04	4,788.1	-289.0	20.0	-289.1	0.00	0.00	0.00
4,900.0	4.77	176.04	4,887.7	-297.3	20.6	-297.4	0.00	0.00	0.00
5,000.0	4.77	176.04	4,987.4	-305.6	21.1	-305.7	0.00	0.00	0.00
5,100.0	4.77	176.04	5,087.0	-313.9	21.7	-314.0	0.00	0.00	0.00
5,200.0	4.77	176.04	5,186.7	-322.2	22.3	-322.3	0.00	0.00	0.00

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Wellbore:	OH		
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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	4.77	176.04	5,286.3	-330.5	22.9	-330.6	0.00	0.00	0.00
5,400.0	4.77	176.04	5,386.0	-338.8	23.4	-338.9	0.00	0.00	0.00
5,500.0	4.77	176.04	5,485.6	-347.1	24.0	-347.2	0.00	0.00	0.00
5,600.0	4.77	176.04	5,585.3	-355.4	24.6	-355.5	0.00	0.00	0.00
5,700.0	4.77	176.04	5,684.9	-363.7	25.2	-363.8	0.00	0.00	0.00
5,800.0	4.77	176.04	5,784.6	-372.0	25.7	-372.1	0.00	0.00	0.00
5,900.0	4.77	176.04	5,884.3	-380.3	26.3	-380.4	0.00	0.00	0.00
6,000.0	4.77	176.04	5,983.9	-388.6	26.9	-388.7	0.00	0.00	0.00
6,100.0	4.77	176.04	6,083.6	-396.9	27.5	-397.0	0.00	0.00	0.00
6,200.0	4.77	176.04	6,183.2	-405.2	28.0	-405.3	0.00	0.00	0.00
6,300.0	4.77	176.04	6,282.9	-413.5	28.6	-413.6	0.00	0.00	0.00
6,400.0	4.77	176.04	6,382.5	-421.8	29.2	-421.9	0.00	0.00	0.00
6,500.0	4.77	176.04	6,482.2	-430.1	29.8	-430.2	0.00	0.00	0.00
6,600.0	4.77	176.04	6,581.8	-438.4	30.3	-438.5	0.00	0.00	0.00
6,700.0	4.77	176.04	6,681.5	-446.7	30.9	-446.8	0.00	0.00	0.00
6,800.0	4.77	176.04	6,781.1	-455.0	31.5	-455.1	0.00	0.00	0.00
6,870.6	4.77	176.04	6,851.5	-460.8	31.9	-461.0	0.00	0.00	0.00
6,900.0	1.85	170.46	6,880.8	-462.5	32.0	-462.7	10.00	-9.95	-18.96
7,000.0	8.18	1.55	6,980.6	-457.0	32.5	-457.2	10.00	6.34	-168.92
7,100.0	18.18	0.41	7,077.8	-434.2	32.8	-434.4	10.00	10.00	-1.14
7,200.0	28.18	0.07	7,169.6	-394.9	33.0	-395.1	10.00	10.00	-0.34
7,300.0	38.18	359.90	7,253.2	-340.3	32.9	-340.4	10.00	10.00	-0.17
7,400.0	48.18	359.79	7,326.0	-271.9	32.7	-272.1	10.00	10.00	-0.11
7,500.0	58.18	359.71	7,385.9	-192.0	32.4	-192.1	10.00	10.00	-0.08
7,600.0	68.18	359.64	7,430.9	-102.8	31.9	-103.0	10.00	10.00	-0.06
7,700.0	78.18	359.59	7,459.8	-7.2	31.2	-7.4	10.00	10.00	-0.06
7,800.0	88.18	359.54	7,471.7	91.9	30.5	91.8	10.00	10.00	-0.05
7,818.2	90.00	359.53	7,472.0	110.1	30.3	110.0	10.00	10.00	-0.05
CONNER 19-18-2NCH LP (460 FSL, 1916 FWL)									
7,900.0	90.00	359.53	7,472.0	191.9	29.6	191.8	0.00	0.00	0.00
8,000.0	90.00	359.53	7,472.0	291.9	28.8	291.8	0.00	0.00	0.00
8,100.0	90.00	359.53	7,472.0	391.9	28.0	391.8	0.00	0.00	0.00
8,200.0	90.00	359.53	7,472.0	491.9	27.2	491.8	0.00	0.00	0.00
8,300.0	90.00	359.53	7,472.0	591.9	26.3	591.8	0.00	0.00	0.00
8,400.0	90.00	359.53	7,472.0	691.9	25.5	691.8	0.00	0.00	0.00
8,500.0	90.00	359.53	7,472.0	791.9	24.7	791.8	0.00	0.00	0.00
8,600.0	90.00	359.53	7,472.0	891.9	23.8	891.8	0.00	0.00	0.00
8,700.0	90.00	359.53	7,472.0	991.9	23.0	991.8	0.00	0.00	0.00
8,800.0	90.00	359.53	7,472.0	1,091.9	22.2	1,091.8	0.00	0.00	0.00
8,900.0	90.00	359.53	7,472.0	1,191.9	21.4	1,191.8	0.00	0.00	0.00
9,000.0	90.00	359.53	7,472.0	1,291.9	20.5	1,291.8	0.00	0.00	0.00
9,100.0	90.00	359.53	7,472.0	1,391.9	19.7	1,391.8	0.00	0.00	0.00
9,200.0	90.00	359.53	7,472.0	1,491.9	18.9	1,491.8	0.00	0.00	0.00
9,300.0	90.00	359.53	7,472.0	1,591.9	18.1	1,591.8	0.00	0.00	0.00
9,400.0	90.00	359.53	7,472.0	1,691.9	17.2	1,691.8	0.00	0.00	0.00
9,500.0	90.00	359.53	7,472.0	1,791.9	16.4	1,791.8	0.00	0.00	0.00
9,600.0	90.00	359.53	7,472.0	1,891.9	15.6	1,891.8	0.00	0.00	0.00
9,700.0	90.00	359.53	7,472.0	1,991.9	14.8	1,991.8	0.00	0.00	0.00
9,800.0	90.00	359.53	7,472.0	2,091.9	13.9	2,091.8	0.00	0.00	0.00
9,900.0	90.00	359.53	7,472.0	2,191.8	13.1	2,191.8	0.00	0.00	0.00
10,000.0	90.00	359.53	7,472.0	2,291.8	12.3	2,291.8	0.00	0.00	0.00
10,100.0	90.00	359.53	7,472.0	2,391.8	11.4	2,391.8	0.00	0.00	0.00
10,200.0	90.00	359.53	7,472.0	2,491.8	10.6	2,491.8	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,300.0	90.00	359.53	7,472.0	2,591.8	9.8	2,591.8	0.00	0.00	0.00	
10,400.0	90.00	359.53	7,472.0	2,691.8	9.0	2,691.8	0.00	0.00	0.00	
10,500.0	90.00	359.53	7,472.0	2,791.8	8.1	2,791.7	0.00	0.00	0.00	
10,600.0	90.00	359.53	7,472.0	2,891.8	7.3	2,891.7	0.00	0.00	0.00	
10,700.0	90.00	359.53	7,472.0	2,991.8	6.5	2,991.7	0.00	0.00	0.00	
10,800.0	90.00	359.53	7,472.0	3,091.8	5.7	3,091.7	0.00	0.00	0.00	
10,900.0	90.00	359.53	7,472.0	3,191.8	4.8	3,191.7	0.00	0.00	0.00	
11,000.0	90.00	359.53	7,472.0	3,291.8	4.0	3,291.7	0.00	0.00	0.00	
11,100.0	90.00	359.53	7,472.0	3,391.8	3.2	3,391.7	0.00	0.00	0.00	
11,200.0	90.00	359.53	7,472.0	3,491.8	2.4	3,491.7	0.00	0.00	0.00	
11,300.0	90.00	359.53	7,472.0	3,591.8	1.5	3,591.7	0.00	0.00	0.00	
11,400.0	90.00	359.53	7,472.0	3,691.8	0.7	3,691.7	0.00	0.00	0.00	
11,500.0	90.00	359.53	7,472.0	3,791.8	-0.1	3,791.7	0.00	0.00	0.00	
11,600.0	90.00	359.53	7,472.0	3,891.8	-1.0	3,891.7	0.00	0.00	0.00	
11,700.0	90.00	359.53	7,472.0	3,991.8	-1.8	3,991.7	0.00	0.00	0.00	
11,800.0	90.00	359.53	7,472.0	4,091.8	-2.6	4,091.7	0.00	0.00	0.00	
11,900.0	90.00	359.53	7,472.0	4,191.8	-3.4	4,191.7	0.00	0.00	0.00	
12,000.0	90.00	359.53	7,472.0	4,291.8	-4.3	4,291.7	0.00	0.00	0.00	
12,100.0	90.00	359.53	7,472.0	4,391.8	-5.1	4,391.7	0.00	0.00	0.00	
12,200.0	90.00	359.53	7,472.0	4,491.8	-5.9	4,491.7	0.00	0.00	0.00	
12,300.0	90.00	359.53	7,472.0	4,591.8	-6.7	4,591.7	0.00	0.00	0.00	
12,400.0	90.00	359.53	7,472.0	4,691.8	-7.6	4,691.7	0.00	0.00	0.00	
12,500.0	90.00	359.53	7,472.0	4,791.8	-8.4	4,791.7	0.00	0.00	0.00	
12,600.0	90.00	359.53	7,472.0	4,891.8	-9.2	4,891.7	0.00	0.00	0.00	
12,700.0	90.00	359.53	7,472.0	4,991.8	-10.1	4,991.7	0.00	0.00	0.00	
12,800.0	90.00	359.53	7,472.0	5,091.7	-10.9	5,091.7	0.00	0.00	0.00	
12,900.0	90.00	359.53	7,472.0	5,191.7	-11.7	5,191.7	0.00	0.00	0.00	
13,000.0	90.00	359.53	7,472.0	5,291.7	-12.5	5,291.7	0.00	0.00	0.00	
13,100.0	90.00	359.53	7,472.0	5,391.7	-13.4	5,391.7	0.00	0.00	0.00	
13,200.0	90.00	359.53	7,472.0	5,491.7	-14.2	5,491.7	0.00	0.00	0.00	
13,300.0	90.00	359.53	7,472.0	5,591.7	-15.0	5,591.7	0.00	0.00	0.00	
13,400.0	90.00	359.53	7,472.0	5,691.7	-15.8	5,691.7	0.00	0.00	0.00	
13,500.0	90.00	359.53	7,472.0	5,791.7	-16.7	5,791.7	0.00	0.00	0.00	
13,600.0	90.00	359.53	7,472.0	5,891.7	-17.5	5,891.7	0.00	0.00	0.00	
13,700.0	90.00	359.53	7,472.0	5,991.7	-18.3	5,991.7	0.00	0.00	0.00	
13,800.0	90.00	359.53	7,472.0	6,091.7	-19.1	6,091.7	0.00	0.00	0.00	
13,900.0	90.00	359.53	7,472.0	6,191.7	-20.0	6,191.7	0.00	0.00	0.00	
14,000.0	90.00	359.53	7,472.0	6,291.7	-20.8	6,291.7	0.00	0.00	0.00	
14,100.0	90.00	359.53	7,472.0	6,391.7	-21.6	6,391.7	0.00	0.00	0.00	
Interp @ 7472.0 (CONNER 19-18-2NCH OH PLAN #1)										
14,183.8	90.00	357.85	7,472.0	6,475.5	-23.5	6,475.5	2.00	0.00	-2.00	
14,200.0	90.00	357.85	7,472.0	6,491.7	-24.2	6,491.7	0.00	0.00	0.00	
14,300.0	90.00	357.85	7,472.0	6,591.6	-27.9	6,591.7	0.00	0.00	0.00	
14,400.0	90.00	357.85	7,472.0	6,691.5	-31.7	6,691.6	0.00	0.00	0.00	
14,500.0	90.00	357.85	7,472.0	6,791.5	-35.4	6,791.5	0.00	0.00	0.00	
14,600.0	90.00	357.85	7,472.0	6,891.4	-39.2	6,891.5	0.00	0.00	0.00	
14,700.0	90.00	357.85	7,472.0	6,991.3	-42.9	6,991.4	0.00	0.00	0.00	
14,800.0	90.00	357.85	7,472.0	7,091.2	-46.7	7,091.4	0.00	0.00	0.00	
14,900.0	90.00	357.85	7,472.0	7,191.2	-50.4	7,191.3	0.00	0.00	0.00	
15,000.0	90.00	357.85	7,472.0	7,291.1	-54.2	7,291.3	0.00	0.00	0.00	
15,100.0	90.00	357.85	7,472.0	7,391.0	-57.9	7,391.2	0.00	0.00	0.00	
15,200.0	90.00	357.85	7,472.0	7,491.0	-61.7	7,491.2	0.00	0.00	0.00	
15,300.0	90.00	357.85	7,472.0	7,590.9	-65.4	7,591.1	0.00	0.00	0.00	
15,400.0	90.00	357.85	7,472.0	7,690.8	-69.2	7,691.1	0.00	0.00	0.00	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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)	
15,500.0	90.00	357.85	7,472.0	7,790.8	-72.9	7,791.0	0.00	0.00	0.00	
15,600.0	90.00	357.85	7,472.0	7,890.7	-76.7	7,891.0	0.00	0.00	0.00	
15,700.0	90.00	357.85	7,472.0	7,990.6	-80.4	7,990.9	0.00	0.00	0.00	
15,800.0	90.00	357.85	7,472.0	8,090.5	-84.2	8,090.9	0.00	0.00	0.00	
15,900.0	90.00	357.85	7,472.0	8,190.5	-87.9	8,190.8	0.00	0.00	0.00	
15,923.8	90.00	357.85	7,472.0	8,214.3	-88.8	8,214.6	0.00	0.00	0.00	
16,000.0	90.00	359.37	7,472.0	8,290.4	-90.7	8,290.8	2.00	0.00	2.00	
16,100.0	90.00	1.37	7,472.0	8,390.4	-90.0	8,390.8	2.00	0.00	2.00	
16,106.3	90.00	1.50	7,472.0	8,396.7	-89.9	8,397.1	2.00	0.00	2.00	
16,200.0	90.00	1.50	7,472.0	8,490.4	-87.4	8,490.7	0.00	0.00	0.00	
16,300.0	90.00	1.50	7,472.0	8,590.4	-84.8	8,590.7	0.00	0.00	0.00	
16,400.0	90.00	1.50	7,472.0	8,690.3	-82.2	8,690.6	0.00	0.00	0.00	
16,500.0	90.00	1.50	7,472.0	8,790.3	-79.6	8,790.6	0.00	0.00	0.00	
16,600.0	90.00	1.50	7,472.0	8,890.3	-76.9	8,890.5	0.00	0.00	0.00	
16,700.0	90.00	1.50	7,472.0	8,990.2	-74.3	8,990.5	0.00	0.00	0.00	
16,800.0	90.00	1.50	7,472.0	9,090.2	-71.7	9,090.4	0.00	0.00	0.00	
16,900.0	90.00	1.50	7,472.0	9,190.1	-69.1	9,190.4	0.00	0.00	0.00	
17,000.0	90.00	1.50	7,472.0	9,290.1	-66.5	9,290.3	0.00	0.00	0.00	
17,100.0	90.00	1.50	7,472.0	9,390.1	-63.9	9,390.3	0.00	0.00	0.00	
17,200.0	90.00	1.50	7,472.0	9,490.0	-61.2	9,490.2	0.00	0.00	0.00	
17,300.0	90.00	1.50	7,472.0	9,590.0	-58.6	9,590.2	0.00	0.00	0.00	
17,400.0	90.00	1.50	7,472.0	9,690.0	-56.0	9,690.1	0.00	0.00	0.00	
17,500.0	90.00	1.50	7,472.0	9,789.9	-53.4	9,790.1	0.00	0.00	0.00	
17,600.0	90.00	1.50	7,472.0	9,889.9	-50.8	9,890.0	0.00	0.00	0.00	
17,606.3	90.00	1.50	7,472.0	9,896.2	-50.6	9,896.3	0.00	0.00	0.00	
CONNER 19-18-2NCH BHL (355 FNL, 1916 FWL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Interp @ 7472.0 (CONN - plan hits target center - Point	0.00	0.00	7,472.0	6,391.7	-21.6	1,229,946.53	3,222,078.24	39.961863	-104.707731	
CONNER 19-18-2NCH f - plan hits target center - Point	0.00	0.00	7,472.0	9,896.2	-50.6	1,233,451.05	3,222,049.27	39.971484	-104.707723	
CONNER 19-18-2NCH l - plan hits target center - Point	0.00	0.00	7,472.0	110.1	30.3	1,223,664.97	3,222,130.18	39.944618	-104.707746	



PetroShare Corp

ADAMS COUNTY, CO

S19-T1S-R65W

CONNER 19-18-2NCH

OH

PLAN #1

Anticollision Report

12 March, 2021



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	3/12/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,606.3	PLAN #1 (OH)	MWD	OWSG MWD - Standard

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	90.0	85.3	18.967	CC, ES
CONNER 19-18-1CDH - OH - PLAN #1	17,400.0	17,630.0	1,433.4	1,084.3	4.106	SF
CONNER 19-18-1NBH - OH - PLAN #1	900.0	900.0	45.0	41.5	12.946	CC, ES
CONNER 19-18-1NBH - OH - PLAN #1	17,606.3	17,429.8	754.9	579.6	4.308	SF
CONNER 19-18-1NCH - OH - PLAN #1	800.0	800.0	60.0	56.9	19.292	CC, ES
CONNER 19-18-1NCH - OH - PLAN #1	17,606.3	17,686.9	1,092.0	911.6	6.052	SF
CONNER 19-18-1NXH - OH - PLAN #1	700.0	700.0	75.0	69.5	13.672	CC, ES
CONNER 19-18-1NXH - OH - PLAN #1	17,400.0	17,270.0	1,362.1	1,011.9	3.889	SF
CONNER 19-18-2CDH - OH - PLAN #1	1,000.0	1,000.0	30.0	26.1	7.808	CC, ES
CONNER 19-18-2CDH - OH - PLAN #1	17,606.3	17,799.6	410.6	245.9	2.494	SF
CONNER 19-18-2NBH - OH - PLAN #1	1,273.2	1,273.2	15.0	10.1	3.092	CC
CONNER 19-18-2NBH - OH - PLAN #1	1,300.0	1,300.0	15.0	10.0	3.019	ES
CONNER 19-18-2NBH - OH - PLAN #1	17,606.3	17,548.5	370.6	192.6	2.082	SF
CONNER 19-18-2NXH - OH - PLAN #1	1,100.0	1,100.0	15.0	10.8	3.571	CC, ES
CONNER 19-18-2NXH - OH - PLAN #1	17,606.3	17,385.9	343.6	195.6	2.322	SF
CONNER 19-18-3CDH - OH - PLAN #1	1,200.0	1,200.0	30.0	25.4	6.572	CC, ES
CONNER 19-18-3CDH - OH - PLAN #1	17,606.3	17,838.3	752.2	576.5	4.281	SF
CONNER 19-18-3NBH - OH - PLAN #1	900.0	900.0	75.0	71.6	21.595	CC, ES
CONNER 19-18-3NBH - OH - PLAN #1	17,606.3	17,671.3	1,458.7	1,278.5	8.096	SF
CONNER 19-18-3NCH - OH - PLAN #1	1,000.0	1,000.0	60.0	56.2	15.634	CC, ES
CONNER 19-18-3NCH - OH - PLAN #1	17,606.3	17,720.0	1,091.9	911.4	6.051	SF
CONNER 19-18-3NXH - OH - PLAN #1	1,100.0	1,100.0	45.0	40.8	10.718	CC, ES
CONNER 19-18-3NXH - OH - PLAN #1	17,606.3	17,443.4	1,021.6	845.2	5.791	SF
CONNER 19-18-4CDH - OH - PLAN #1	800.0	800.0	90.0	86.9	28.952	CC, ES
CONNER 19-18-4CDH - OH - PLAN #1	17,606.3	17,986.4	1,825.3	1,645.4	10.143	SF
CONNER 19-18-4NBH - OH - PLAN #1	500.0	500.0	135.0	133.0	67.527	CC, ES
CONNER 19-18-4NBH - OH - PLAN #1	1,000.0	973.6	175.7	171.9	46.595	SF
CONNER 19-18-4NCH - OH - PLAN #1	600.0	600.0	120.0	117.6	50.561	CC, ES
CONNER 19-18-4NCH - OH - PLAN #1	1,000.0	982.0	146.2	142.4	38.581	SF
CONNER 19-18-4NXH - OH - PLAN #1	700.0	700.0	105.0	102.2	38.282	CC, ES
CONNER 19-18-4NXH - OH - PLAN #1	17,606.3	17,705.6	2,198.3	2,018.8	12.244	SF
Gail #1 (PR) - EXISTING - NO SURVEYS (PR)	15,836.3	7,403.0	160.8	-16.1	0.909	Level 1, CC, ES, SF
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,430.1	7,403.0	1,451.4	1,247.1	7.104	CC, ES
Gail Smith #1 (PR) - EXISTING - NO SURVEYS (PR)	17,600.0	7,403.0	1,461.4	1,254.5	7.064	SF
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)	13,632.1	7,403.0	976.7	838.0	7.042	CC, ES
Milheim #1 (P&A) - EXISTING - NO SURVEYS (P&A)	13,700.0	7,403.0	979.0	839.3	7.010	SF
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,858.9	7,403.0	758.5	666.1	8.210	CC, ES

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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						
Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)	10,900.0	7,403.0	759.6	666.7	8.177	SF
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	16,923.0	7,403.0	1,887.4	1,691.9	9.652	CC, ES
Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)	17,100.0	7,403.0	1,895.7	1,698.5	9.611	SF
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,660.6	7,403.0	1,265.6	1,126.4	9.093	CC, ES
Tracy #1 (PR) - EXISTING - NO SURVEYS (PR)	13,800.0	7,403.0	1,273.2	1,132.4	9.042	SF
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	8,739.9	7,403.0	984.8	922.6	15.828	CC, ES
UPRR-Letterly 1 (P&A) - EXISTING - NO SURVEYS (P&A)	8,900.0	7,403.0	997.7	933.6	15.568	SF

Offset Design S19-T1S-R65W - CONNER 19-18-1CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-90.30	-0.5	-90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.30	-0.5	-90.0	90.0	89.4	0.55	162.552		
200.0	200.0	200.0	200.0	1.0	1.0	-90.30	-0.5	-90.0	90.0	88.4	1.60	56.413		
300.0	300.0	300.0	300.0	1.5	1.5	-90.30	-0.5	-90.0	90.0	87.5	2.45	36.755		
400.0	400.0	400.0	400.0	1.9	1.9	-90.30	-0.5	-90.0	90.0	86.8	3.24	27.809		
500.0	500.0	500.0	500.0	2.3	2.3	-90.30	-0.5	-90.0	90.0	86.0	4.00	22.513		
600.0	600.0	600.0	600.0	2.7	2.7	-90.30	-0.5	-90.0	90.0	85.3	4.74	18.967	CC, ES	
700.0	700.0	697.1	697.1	3.1	3.0	-90.68	-1.1	-91.5	91.6	86.0	5.55	16.507		
800.0	800.0	794.0	793.9	3.5	3.9	-91.72	-2.9	-96.1	96.3	89.4	6.98	13.798		
900.0	900.0	890.5	890.0	3.9	4.8	-93.23	-5.9	-103.7	104.3	96.1	8.24	12.669		
1,000.0	1,000.0	986.3	985.1	4.2	5.5	-95.00	-10.0	-114.2	115.6	106.2	9.37	12.342		
1,100.0	1,100.0	1,081.2	1,078.9	4.6	6.2	-96.81	-15.2	-127.5	130.1	119.7	10.41	12.506		
1,200.0	1,200.0	1,175.1	1,171.2	5.0	6.7	-98.52	-21.5	-143.5	148.0	136.7	11.28	13.117		
1,300.0	1,300.0	1,272.7	1,266.8	5.3	6.9	84.10	-28.7	-161.9	167.6	155.7	11.84	14.157		
1,400.0	1,399.8	1,370.8	1,362.9	6.0	7.2	84.05	-36.0	-180.4	186.9	174.4	12.44	15.020		
1,500.0	1,499.5	1,468.9	1,459.0	6.3	7.5	84.98	-43.2	-198.8	205.9	192.9	13.00	15.836		
1,600.0	1,599.2	1,567.0	1,555.0	6.6	7.7	85.94	-50.5	-217.3	225.0	211.4	13.60	16.540		
1,700.0	1,698.8	1,665.1	1,651.1	6.9	8.0	86.75	-57.7	-235.8	244.1	229.9	14.23	17.152		
1,800.0	1,798.5	1,763.2	1,747.2	7.3	8.4	87.44	-65.0	-254.2	263.3	248.4	14.88	17.698		
1,900.0	1,898.1	1,861.3	1,843.2	7.6	8.7	88.04	-72.3	-272.7	282.5	266.9	15.54	18.179		
2,000.0	1,997.8	1,959.4	1,939.3	8.0	9.0	88.56	-79.5	-291.2	301.7	285.5	16.21	18.617		
2,100.0	2,097.4	2,057.5	2,035.4	8.3	9.3	89.02	-86.8	-309.6	320.9	304.1	16.88	19.008		
2,200.0	2,197.1	2,155.6	2,131.5	8.7	9.7	89.43	-94.0	-328.1	340.2	322.6	17.57	19.360		
2,300.0	2,296.7	2,253.7	2,227.5	9.0	10.1	89.79	-101.3	-346.6	359.5	341.2	18.27	19.677		
2,400.0	2,396.4	2,351.8	2,323.6	9.4	10.5	90.12	-108.5	-365.0	378.8	359.8	18.97	19.965		
2,500.0	2,496.0	2,449.9	2,419.7	9.7	10.9	90.41	-115.8	-383.5	398.1	378.4	19.68	20.226		
2,600.0	2,595.7	2,548.0	2,515.8	10.1	11.3	90.68	-123.0	-402.0	417.4	397.0	20.40	20.464		
2,700.0	2,695.3	2,646.1	2,611.8	10.4	11.7	90.93	-130.3	-420.4	436.7	415.6	21.12	20.681		
2,800.0	2,795.0	2,744.2	2,707.9	10.8	12.2	91.15	-137.6	-438.9	456.0	434.2	21.84	20.880		
2,900.0	2,894.7	2,842.3	2,804.0	11.1	12.6	91.36	-144.8	-457.4	475.4	452.8	22.57	21.063		
3,000.0	2,894.3	2,840.4	2,800.0	11.5	13.1	91.54	-152.1	-475.8	494.7	471.4	23.30	21.231		
3,100.0	3,094.0	3,038.5	2,996.1	11.9	13.5	91.72	-159.3	-494.3	514.1	490.0	24.04	21.386		
3,200.0	3,193.6	3,136.6	3,092.2	12.2	14.0	91.88	-166.6	-512.8	533.4	508.6	24.78	21.529		
3,300.0	3,293.3	3,234.7	3,188.3	12.6	14.5	92.03	-173.8	-531.2	552.8	527.2	25.52	21.662		
3,400.0	3,392.9	3,332.8	3,284.3	13.0	14.9	92.17	-181.1	-549.7	572.1	545.9	26.26	21.786		
3,500.0	3,492.6	3,430.9	3,380.4	13.3	15.4	92.31	-188.3	-568.2	591.5	564.5	27.01	21.901		

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 19-18-2NCH
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 19-18-2NCH	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		
3,600.0	3,592.2	3,529.0	3,476.5	13.7	15.9	92.43	-195.6	-586.6	610.8	583.1	27.76	22.008		
3,700.0	3,691.9	3,627.1	3,572.5	14.1	16.4	92.54	-202.8	-605.1	630.2	601.7	28.51	22.108		
3,800.0	3,791.5	3,725.2	3,668.6	14.4	16.9	92.65	-210.1	-623.6	649.6	620.3	29.26	22.202		
3,900.0	3,891.2	3,823.3	3,764.7	14.8	17.4	92.76	-217.4	-642.0	668.9	638.9	30.01	22.289		
4,000.0	3,990.8	3,921.4	3,860.8	15.2	17.8	92.85	-224.6	-660.5	688.3	657.5	30.77	22.372		
4,100.0	4,090.5	4,019.5	3,956.8	15.6	18.3	92.94	-231.9	-679.0	707.7	676.2	31.52	22.449		
4,200.0	4,190.1	4,117.6	4,052.9	15.9	18.8	93.03	-239.1	-697.4	727.1	694.8	32.28	22.522		
4,300.0	4,289.8	4,215.7	4,149.0	16.3	19.3	93.11	-246.4	-715.9	746.4	713.4	33.04	22.591		
4,400.0	4,389.5	4,313.8	4,245.1	16.7	19.8	93.19	-253.6	-734.4	765.8	732.0	33.80	22.656		
4,500.0	4,489.1	4,411.9	4,341.1	17.0	20.3	93.26	-260.9	-752.8	785.2	750.6	34.56	22.717		
4,600.0	4,588.8	4,510.0	4,437.2	17.4	20.8	93.34	-268.1	-771.3	804.6	769.2	35.33	22.775		
4,700.0	4,688.4	4,608.1	4,533.3	17.8	21.2	93.40	-275.4	-789.8	824.0	787.9	36.09	22.830		
4,800.0	4,788.1	4,706.2	4,629.3	18.2	21.7	93.47	-282.7	-808.2	843.3	806.5	36.85	22.883		
4,900.0	4,887.7	4,804.3	4,725.4	18.6	22.2	93.53	-289.9	-826.7	862.7	825.1	37.62	22.932		
5,000.0	4,987.4	4,902.4	4,821.5	18.9	22.7	93.59	-297.2	-845.2	882.1	843.7	38.39	22.980		
5,100.0	5,087.0	5,000.5	4,917.6	19.3	23.2	93.64	-304.4	-863.6	901.5	862.3	39.15	23.024		
5,200.0	5,186.7	5,098.6	5,013.6	19.7	23.7	93.70	-311.7	-882.1	920.9	880.9	39.92	23.067		
5,300.0	5,286.3	5,196.7	5,109.7	20.1	24.2	93.75	-318.9	-900.6	940.3	899.6	40.69	23.108		
5,400.0	5,386.0	5,294.8	5,205.8	20.4	24.7	93.80	-326.2	-919.0	959.6	918.2	41.46	23.147		
5,500.0	5,485.6	5,392.9	5,301.8	20.8	25.2	93.84	-333.4	-937.5	979.0	936.8	42.23	23.184		
5,600.0	5,585.3	5,491.0	5,397.9	21.2	25.6	93.89	-340.7	-956.0	998.4	955.4	43.00	23.220		
5,700.0	5,684.9	5,589.1	5,494.0	21.6	26.1	93.93	-347.9	-974.4	1,017.8	974.0	43.77	23.254		
5,800.0	5,784.6	5,687.2	5,590.1	22.0	26.6	93.98	-355.2	-992.9	1,037.2	992.7	44.54	23.286		
5,900.0	5,884.3	5,785.3	5,686.1	22.3	27.1	94.02	-362.5	-1,011.4	1,056.6	1,011.3	45.31	23.318		
6,000.0	5,983.9	5,883.4	5,782.2	22.7	27.6	94.06	-369.7	-1,029.9	1,076.0	1,029.9	46.08	23.348		
6,100.0	6,083.6	5,981.5	5,878.3	23.1	28.1	94.09	-377.0	-1,048.3	1,095.4	1,048.5	46.86	23.376		
6,200.0	6,183.2	6,079.6	5,974.3	23.5	28.6	94.13	-384.2	-1,066.8	1,114.8	1,067.1	47.63	23.404		
6,300.0	6,282.9	6,177.7	6,070.4	23.9	29.1	94.16	-391.5	-1,085.3	1,134.1	1,085.7	48.40	23.431		
6,400.0	6,382.5	6,275.8	6,166.5	24.2	29.6	94.20	-398.7	-1,103.7	1,153.5	1,104.4	49.18	23.456		
6,500.0	6,482.2	6,373.9	6,262.6	24.6	30.1	94.23	-406.0	-1,122.2	1,172.9	1,123.0	49.95	23.481		
6,600.0	6,581.8	6,472.0	6,358.6	25.0	30.6	94.26	-413.2	-1,140.7	1,192.3	1,141.6	50.73	23.504		
6,700.0	6,681.5	6,570.1	6,454.7	25.4	31.0	94.29	-420.5	-1,159.1	1,211.7	1,160.2	51.50	23.527		
6,800.0	6,781.1	6,668.2	6,550.8	25.8	31.5	94.32	-427.7	-1,177.6	1,231.1	1,178.8	52.28	23.549		
6,900.0	6,880.8	6,766.3	6,646.8	26.1	32.0	100.47	-435.0	-1,196.1	1,250.5	1,197.4	53.04	23.574		
7,000.0	6,980.6	6,863.4	6,742.0	26.7	32.5	-89.30	-442.2	-1,214.3	1,269.5	1,215.6	53.97	23.522		
7,100.0	7,077.8	6,956.9	6,833.6	27.0	33.0	-87.58	-449.1	-1,231.9	1,288.2	1,233.7	54.48	23.646		
7,200.0	7,169.6	7,043.9	6,918.7	27.3	33.4	-87.16	-455.5	-1,248.3	1,307.0	1,252.1	54.86	23.822		
7,300.0	7,253.2	7,121.7	6,995.0	27.6	33.8	-87.07	-461.3	-1,263.0	1,326.9	1,271.8	55.15	24.061		
7,400.0	7,326.0	7,189.6	7,061.4	27.8	34.2	-86.90	-466.3	-1,275.7	1,349.0	1,293.7	55.37	24.366		
7,500.0	7,385.9	7,288.9	7,158.8	28.0	34.7	-87.71	-464.2	-1,294.5	1,373.4	1,317.6	55.86	24.588		
7,600.0	7,430.9	7,422.2	7,286.1	28.1	35.4	-89.40	-434.6	-1,319.3	1,398.9	1,342.3	56.54	24.739		
7,700.0	7,459.8	7,633.5	7,464.5	28.3	36.1	-92.82	-329.4	-1,354.6	1,422.8	1,365.6	57.18	24.883		
7,800.0	7,471.7	8,009.4	7,648.3	28.5	36.4	-97.18	-11.5	-1,392.7	1,437.8	1,380.3	57.50	25.006		
7,900.0	7,472.0	8,201.8	7,660.0	28.7	36.4	-97.51	180.1	-1,396.5	1,438.5	1,380.4	58.19	24.720		
8,000.0	7,472.0	8,301.8	7,660.0	29.1	36.5	-97.51	280.1	-1,397.4	1,438.6	1,379.5	59.02	24.373		
8,100.0	7,472.0	8,401.8	7,660.0	29.7	36.6	-97.51	380.1	-1,398.2	1,438.6	1,378.5	60.05	23.956		
8,200.0	7,472.0	8,501.8	7,660.0	30.3	36.9	-97.51	480.1	-1,399.0	1,438.6	1,377.3	61.26	23.483		
8,300.0	7,472.0	8,601.8	7,660.0	31.0	37.2	-97.51	580.1	-1,399.8	1,438.6	1,375.9	62.64	22.964		
8,400.0	7,472.0	8,701.8	7,660.0	31.8	37.7	-97.51	680.1	-1,400.7	1,438.6	1,374.4	64.19	22.411		
8,500.0	7,472.0	8,801.8	7,660.0	32.7	38.2	-97.51	780.1	-1,401.5	1,438.6	1,372.7	65.88	21.835		
8,600.0	7,472.0	8,901.8	7,660.0	33.7	38.9	-97.51	880.1	-1,402.3	1,438.6	1,370.8	67.72	21.243		
8,700.0	7,472.0	9,001.8	7,660.0	34.8	39.7	-97.51	980.1	-1,403.2	1,438.6	1,368.9	69.68	20.645		

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 19-18-2NCH
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 19-18-2NCH	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		
8,800.0	7,472.0	9,101.8	7,660.0	35.9	40.5	-97.51	1,080.1	-1,404.0	1,438.6	1,366.8	71.76	20.047		
8,900.0	7,472.0	9,201.8	7,660.0	37.0	41.4	-97.51	1,180.1	-1,404.8	1,438.6	1,364.6	73.95	19.454		
9,000.0	7,472.0	9,301.8	7,660.0	38.2	42.4	-97.51	1,280.1	-1,405.6	1,438.6	1,362.3	76.23	18.870		
9,100.0	7,472.0	9,401.8	7,660.0	39.4	43.4	-97.51	1,380.1	-1,406.5	1,438.6	1,360.0	78.61	18.300		
9,200.0	7,472.0	9,501.8	7,660.0	40.7	44.5	-97.51	1,480.1	-1,407.3	1,438.6	1,357.5	81.07	17.745		
9,300.0	7,472.0	9,601.8	7,660.0	42.0	45.7	-97.51	1,580.1	-1,408.1	1,438.6	1,355.0	83.60	17.207		
9,400.0	7,472.0	9,701.8	7,660.0	43.4	46.9	-97.51	1,680.1	-1,409.0	1,438.6	1,352.4	86.20	16.688		
9,500.0	7,472.0	9,801.8	7,660.0	44.7	48.1	-97.51	1,780.0	-1,409.8	1,438.6	1,349.7	88.87	16.188		
9,600.0	7,472.0	9,901.8	7,660.0	46.2	49.3	-97.51	1,880.0	-1,410.6	1,438.6	1,347.0	91.59	15.707		
9,700.0	7,472.0	10,001.8	7,660.0	47.6	50.6	-97.51	1,980.0	-1,411.4	1,438.6	1,344.2	94.36	15.246		
9,800.0	7,472.0	10,101.8	7,660.0	49.0	51.9	-97.51	2,080.0	-1,412.3	1,438.6	1,341.4	97.18	14.803		
9,900.0	7,472.0	10,201.8	7,660.0	50.5	53.3	-97.51	2,180.0	-1,413.1	1,438.6	1,338.5	100.04	14.380		
10,000.0	7,472.0	10,301.8	7,660.0	52.0	54.7	-97.51	2,280.0	-1,413.9	1,438.6	1,335.6	102.95	13.974		
10,100.0	7,472.0	10,401.8	7,660.0	53.5	56.1	-97.51	2,380.0	-1,414.8	1,438.6	1,332.7	105.89	13.586		
10,200.0	7,472.0	10,501.8	7,660.0	55.0	57.5	-97.51	2,480.0	-1,415.6	1,438.6	1,329.7	108.86	13.215		
10,300.0	7,472.0	10,601.8	7,660.0	56.5	58.9	-97.51	2,580.0	-1,416.4	1,438.6	1,326.7	111.86	12.860		
10,400.0	7,472.0	10,701.8	7,660.0	58.1	60.4	-97.51	2,680.0	-1,417.2	1,438.6	1,323.7	114.90	12.521		
10,500.0	7,472.0	10,801.8	7,660.0	59.6	61.8	-97.51	2,780.0	-1,418.1	1,438.6	1,320.6	117.95	12.196		
10,600.0	7,472.0	10,901.8	7,660.0	61.2	63.3	-97.51	2,880.0	-1,418.9	1,438.6	1,317.6	121.04	11.885		
10,700.0	7,472.0	11,001.8	7,660.0	62.8	64.8	-97.51	2,980.0	-1,419.7	1,438.6	1,314.4	124.14	11.588		
10,800.0	7,472.0	11,101.8	7,660.0	64.4	66.3	-97.51	3,080.0	-1,420.6	1,438.6	1,311.3	127.27	11.303		
10,900.0	7,472.0	11,201.8	7,660.0	66.0	67.8	-97.51	3,180.0	-1,421.4	1,438.6	1,308.2	130.42	11.031		
11,000.0	7,472.0	11,301.8	7,660.0	67.6	69.4	-97.51	3,280.0	-1,422.2	1,438.6	1,305.0	133.58	10.769		
11,100.0	7,472.0	11,401.8	7,660.0	69.2	70.9	-97.51	3,380.0	-1,423.0	1,438.6	1,301.8	136.76	10.519		
11,200.0	7,472.0	11,501.8	7,660.0	70.8	72.5	-97.51	3,480.0	-1,423.9	1,438.6	1,298.6	139.96	10.279		
11,300.0	7,472.0	11,601.8	7,660.0	72.5	74.1	-97.51	3,580.0	-1,424.7	1,438.6	1,295.4	143.17	10.048		
11,400.0	7,472.0	11,701.8	7,660.0	74.1	75.6	-97.51	3,680.0	-1,425.5	1,438.6	1,292.2	146.39	9.827		
11,500.0	7,472.0	11,801.8	7,660.0	75.7	77.2	-97.51	3,780.0	-1,426.3	1,438.6	1,289.0	149.63	9.614		
11,600.0	7,472.0	11,901.8	7,660.0	77.4	78.8	-97.51	3,880.0	-1,427.2	1,438.6	1,285.7	152.88	9.410		
11,700.0	7,472.0	12,001.8	7,660.0	79.0	80.4	-97.51	3,980.0	-1,428.0	1,438.6	1,282.5	156.14	9.214		
11,800.0	7,472.0	12,101.8	7,660.0	80.7	82.0	-97.51	4,080.0	-1,428.8	1,438.6	1,279.2	159.41	9.024		
11,900.0	7,472.0	12,201.8	7,660.0	82.4	83.6	-97.51	4,180.0	-1,429.7	1,438.6	1,275.9	162.69	8.843		
12,000.0	7,472.0	12,301.8	7,660.0	84.0	85.2	-97.51	4,280.0	-1,430.5	1,438.6	1,272.6	165.98	8.667		
12,100.0	7,472.0	12,401.8	7,660.0	85.7	86.8	-97.51	4,380.0	-1,431.3	1,438.6	1,269.3	169.28	8.498		
12,200.0	7,472.0	12,501.8	7,660.0	87.4	88.5	-97.51	4,480.0	-1,432.1	1,438.6	1,266.0	172.59	8.336		
12,300.0	7,472.0	12,601.8	7,660.0	89.0	90.1	-97.51	4,580.0	-1,433.0	1,438.6	1,262.7	175.90	8.178		
12,400.0	7,472.0	12,701.8	7,660.0	90.7	91.7	-97.51	4,679.9	-1,433.8	1,438.6	1,259.4	179.23	8.027		
12,500.0	7,472.0	12,801.8	7,660.0	92.4	93.4	-97.51	4,779.9	-1,434.6	1,438.6	1,256.1	182.55	7.881		
12,600.0	7,472.0	12,901.8	7,660.0	94.1	95.0	-97.51	4,879.9	-1,435.5	1,438.6	1,252.7	185.89	7.739		
12,700.0	7,472.0	13,001.8	7,660.0	95.8	96.7	-97.51	4,979.9	-1,436.3	1,438.6	1,249.4	189.23	7.602		
12,800.0	7,472.0	13,101.8	7,660.0	97.5	98.3	-97.51	5,079.9	-1,437.1	1,438.6	1,246.0	192.58	7.470		
12,900.0	7,472.0	13,201.8	7,660.0	99.2	100.0	-97.51	5,179.9	-1,437.9	1,438.6	1,242.7	195.93	7.342		
13,000.0	7,472.0	13,301.8	7,660.0	100.9	101.7	-97.51	5,279.9	-1,438.8	1,438.6	1,239.3	199.29	7.219		
13,100.0	7,472.0	13,401.8	7,660.0	102.6	103.3	-97.51	5,379.9	-1,439.6	1,438.6	1,236.0	202.65	7.099		
13,200.0	7,472.0	13,501.8	7,660.0	104.3	105.0	-97.51	5,479.9	-1,440.4	1,438.6	1,232.6	206.02	6.983		
13,300.0	7,472.0	13,601.8	7,660.0	106.0	106.7	-97.51	5,579.9	-1,441.3	1,438.6	1,229.2	209.40	6.870		
13,400.0	7,472.0	13,701.8	7,660.0	107.7	108.3	-97.51	5,679.9	-1,442.1	1,438.6	1,225.9	212.77	6.761		
13,500.0	7,472.0	13,801.8	7,660.0	109.4	110.0	-97.51	5,779.9	-1,442.9	1,438.6	1,222.5	216.15	6.656		
13,600.0	7,472.0	13,901.8	7,660.0	111.1	111.7	-97.51	5,879.9	-1,443.7	1,438.6	1,219.1	219.54	6.553		
13,700.0	7,472.0	14,001.8	7,660.0	112.8	113.4	-97.51	5,979.9	-1,444.6	1,438.6	1,215.7	222.93	6.453		
13,800.0	7,472.0	14,101.8	7,660.0	114.5	115.1	-97.51	6,079.9	-1,445.4	1,438.6	1,212.3	226.32	6.357		
13,900.0	7,472.0	14,201.8	7,660.0	116.2	116.8	-97.51	6,179.9	-1,446.2	1,438.6	1,208.9	229.72	6.263		

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 19-18-2NCH
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 19-18-2NCH	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		
14,000.0	7,472.0	14,301.8	7,660.0	118.0	118.5	-97.51	6,279.9	-1,447.1	1,438.6	1,205.5	233.12	6.171		
14,100.0	7,472.0	14,401.8	7,660.0	119.7	120.1	-97.51	6,379.9	-1,447.9	1,438.6	1,202.1	236.52	6.083		
14,200.0	7,472.0	14,501.8	7,660.0	121.4	121.8	-97.52	6,479.9	-1,448.7	1,437.0	1,197.0	239.93	5.989		
14,300.0	7,472.0	14,601.8	7,660.0	123.1	123.5	-97.54	6,579.8	-1,449.5	1,434.1	1,190.7	243.34	5.893		
14,400.0	7,472.0	14,701.7	7,660.0	124.9	125.2	-97.55	6,679.8	-1,450.4	1,431.2	1,184.4	246.75	5.800		
14,500.0	7,472.0	14,801.7	7,660.0	126.6	126.9	-97.57	6,779.7	-1,451.2	1,428.3	1,178.1	250.16	5.709		
14,600.0	7,472.0	14,901.6	7,660.0	128.3	128.6	-97.58	6,879.7	-1,452.0	1,425.4	1,171.8	253.58	5.621		
14,700.0	7,472.0	15,001.6	7,660.0	130.1	130.3	-97.60	6,979.6	-1,452.9	1,422.5	1,165.5	257.00	5.535		
14,800.0	7,472.0	15,101.6	7,660.0	131.8	132.0	-97.61	7,079.6	-1,453.7	1,419.6	1,159.2	260.42	5.451		
14,900.0	7,472.0	15,201.5	7,660.0	133.5	133.7	-97.63	7,179.5	-1,454.5	1,416.7	1,152.8	263.84	5.369		
15,000.0	7,472.0	15,301.5	7,660.0	135.3	135.5	-97.64	7,279.5	-1,455.3	1,413.8	1,146.5	267.27	5.290		
15,100.0	7,472.0	15,401.4	7,660.0	137.0	137.2	-97.66	7,379.5	-1,456.2	1,410.9	1,140.2	270.69	5.212		
15,200.0	7,472.0	15,501.4	7,660.0	138.7	138.9	-97.68	7,479.4	-1,457.0	1,408.0	1,133.9	274.12	5.136		
15,300.0	7,472.0	15,601.3	7,660.0	140.5	140.6	-97.69	7,579.4	-1,457.8	1,405.1	1,127.5	277.55	5.062		
15,400.0	7,472.0	15,701.3	7,660.0	142.2	142.3	-97.71	7,679.3	-1,458.7	1,402.2	1,121.2	280.98	4.990		
15,500.0	7,472.0	15,801.3	7,660.0	144.0	144.0	-97.72	7,779.3	-1,459.5	1,399.3	1,114.9	284.42	4.920		
15,600.0	7,472.0	15,901.2	7,660.0	145.7	145.7	-97.74	7,879.2	-1,460.3	1,396.4	1,108.5	287.85	4.851		
15,700.0	7,472.0	16,001.2	7,660.0	147.5	147.4	-97.76	7,979.2	-1,461.1	1,393.5	1,102.2	291.29	4.784		
15,800.0	7,472.0	16,101.1	7,660.0	149.2	149.2	-97.77	8,079.1	-1,462.0	1,390.6	1,095.9	294.73	4.718		
15,900.0	7,472.0	16,201.1	7,660.0	150.9	150.9	-97.79	8,179.1	-1,462.8	1,387.7	1,089.5	298.17	4.654		
16,000.0	7,472.0	16,301.1	7,660.0	152.7	152.6	-97.80	8,279.1	-1,463.6	1,385.8	1,084.2	301.61	4.595		
16,007.6	7,472.0	16,308.6	7,660.0	152.8	152.7	-97.80	8,286.6	-1,463.7	1,385.8	1,083.9	301.87	4.591		
16,100.0	7,472.0	16,401.0	7,660.0	154.4	154.3	-97.79	8,379.0	-1,464.4	1,387.3	1,082.2	305.06	4.547		
16,200.0	7,472.0	16,501.0	7,660.0	156.2	156.0	-97.77	8,479.0	-1,465.3	1,390.7	1,082.2	308.51	4.508		
16,300.0	7,472.0	16,600.9	7,660.0	157.9	157.8	-97.75	8,578.9	-1,466.1	1,394.1	1,082.1	311.96	4.469		
16,400.0	7,472.0	16,700.9	7,660.0	159.6	159.5	-97.74	8,678.8	-1,466.9	1,397.5	1,082.1	315.40	4.431		
16,500.0	7,472.0	16,800.8	7,660.0	161.3	161.2	-97.72	8,778.8	-1,467.8	1,400.9	1,082.1	318.85	4.394		
16,600.0	7,472.0	16,900.8	7,660.0	163.1	162.9	-97.70	8,878.7	-1,468.6	1,404.3	1,082.0	322.30	4.357		
16,700.0	7,472.0	17,000.7	7,660.0	164.8	164.7	-97.68	8,978.7	-1,469.4	1,407.7	1,082.0	325.75	4.322		
16,800.0	7,472.0	17,100.6	7,660.0	166.5	166.4	-97.66	9,078.6	-1,470.2	1,411.2	1,082.0	329.20	4.287		
16,900.0	7,472.0	17,200.6	7,660.0	168.2	168.1	-97.64	9,178.5	-1,471.1	1,414.6	1,081.9	332.65	4.252		
17,000.0	7,472.0	17,300.5	7,660.0	170.0	169.8	-97.62	9,278.5	-1,471.9	1,418.0	1,081.9	336.10	4.219		
17,100.0	7,472.0	17,400.5	7,660.0	171.7	171.6	-97.60	9,378.4	-1,472.7	1,421.4	1,081.9	339.56	4.186		
17,200.0	7,472.0	17,500.4	7,660.0	173.4	173.3	-97.59	9,478.3	-1,473.6	1,424.8	1,081.8	343.01	4.154		
17,300.0	7,472.0	17,600.3	7,660.0	175.2	175.0	-97.57	9,578.3	-1,474.4	1,428.2	1,081.8	346.47	4.122		
17,400.0	7,472.0	17,630.0	7,660.0	176.9	175.5	-97.56	9,607.9	-1,474.6	1,433.4	1,084.3	349.08	4.106 SF		
17,500.0	7,472.0	17,630.0	7,660.0	178.6	175.5	-97.56	9,607.9	-1,474.6	1,445.1	1,095.2	349.94	4.130		
17,600.0	7,472.0	17,630.0	7,660.0	180.3	175.5	-97.56	9,607.9	-1,474.6	1,463.6	1,114.4	349.23	4.191		
17,606.3	7,472.0	17,630.0	7,660.0	180.5	175.5	-97.56	9,607.9	-1,474.6	1,465.0	1,115.9	349.13	4.196		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.28	-0.2	-45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.28	-0.2	-45.0	45.0	44.7	0.28	162.406		
200.0	200.0	200.0	200.0	1.0	0.0	-90.28	-0.2	-45.0	45.0	44.2	0.80	56.387		
300.0	300.0	300.0	300.0	1.5	0.0	-90.28	-0.2	-45.0	45.0	43.8	1.22	36.740		
400.0	400.0	400.0	400.0	1.9	0.0	-90.28	-0.2	-45.0	45.0	43.4	1.62	27.797		
500.0	500.0	500.0	500.0	2.3	0.0	-90.28	-0.2	-45.0	45.0	43.0	2.00	22.504		
600.0	600.0	600.0	600.0	2.7	0.0	-90.28	-0.2	-45.0	45.0	42.6	2.37	18.959		
700.0	700.0	700.0	700.0	3.1	0.0	-90.28	-0.2	-45.0	45.0	42.2	2.74	16.403		
800.0	800.0	800.0	800.0	3.5	0.0	-90.28	-0.2	-45.0	45.0	41.9	3.11	14.467		
900.0	900.0	900.0	900.0	3.9	0.0	-90.28	-0.2	-45.0	45.0	41.5	3.47	12.946	CC, ES	
1,000.0	1,000.0	998.7	998.7	4.2	0.0	-91.58	-1.3	-46.3	46.3	42.5	3.86	12.017		
1,100.0	1,100.0	1,097.3	1,097.1	4.6	0.0	-95.05	-4.4	-50.3	50.6	46.3	4.27	11.849		
1,200.0	1,200.0	1,195.3	1,194.8	5.0	0.0	-99.67	-9.7	-56.9	57.9	53.2	4.69	12.355		
1,300.0	1,300.0	1,293.0	1,291.8	5.3	0.0	80.76	-17.0	-66.0	68.4	63.3	5.02	13.622		
1,400.0	1,399.8	1,392.4	1,390.3	6.0	0.0	80.16	-25.2	-76.3	79.5	74.1	5.40	14.728		
1,500.0	1,499.5	1,491.8	1,488.8	6.3	0.0	81.58	-33.4	-86.7	90.2	84.6	5.68	15.896		
1,600.0	1,599.2	1,591.2	1,587.3	6.6	0.0	82.91	-41.6	-97.0	101.0	95.0	5.98	16.876		
1,700.0	1,698.8	1,690.6	1,685.8	6.9	0.0	83.98	-49.8	-107.3	111.7	105.4	6.31	17.700		
1,800.0	1,798.5	1,790.0	1,784.4	7.3	0.0	84.86	-58.0	-117.6	122.5	115.9	6.65	18.427		
1,900.0	1,898.1	1,889.4	1,882.9	7.6	0.0	85.60	-66.2	-127.9	133.4	126.4	6.99	19.071		
2,000.0	1,997.8	1,988.8	1,981.4	8.0	0.0	86.23	-74.5	-138.2	144.2	136.9	7.34	19.644		
2,100.0	2,097.4	2,088.2	2,079.9	8.3	0.0	86.77	-82.7	-148.6	155.1	147.4	7.69	20.156		
2,200.0	2,197.1	2,187.6	2,178.4	8.7	0.0	87.24	-90.9	-158.9	165.9	157.9	8.05	20.615		
2,300.0	2,296.7	2,287.0	2,277.0	9.0	0.0	87.65	-99.1	-169.2	176.8	168.4	8.41	21.030		
2,400.0	2,296.4	2,286.4	2,275.5	9.4	0.0	88.02	-107.3	-179.5	187.7	179.0	8.77	21.405		
2,500.0	2,496.0	2,485.8	2,474.0	9.7	0.0	88.34	-115.5	-189.8	198.6	189.5	9.13	21.746		
2,600.0	2,595.7	2,585.2	2,572.5	10.1	0.0	88.63	-123.7	-200.2	209.5	200.0	9.50	22.057		
2,700.0	2,695.3	2,684.6	2,671.0	10.4	0.0	88.90	-131.9	-210.5	220.4	210.6	9.87	22.342		
2,800.0	2,795.0	2,784.0	2,769.6	10.8	0.0	89.13	-140.2	-220.8	231.3	221.1	10.23	22.603		
2,900.0	2,894.7	2,883.4	2,868.1	11.1	0.0	89.35	-148.4	-231.1	242.3	231.7	10.60	22.844		
3,000.0	2,994.3	2,982.8	2,966.6	11.5	0.0	89.55	-156.6	-241.4	253.2	242.2	10.98	23.067		
3,100.0	3,094.0	3,082.2	3,065.1	11.9	0.0	89.73	-164.8	-251.7	264.1	252.8	11.35	23.273		
3,200.0	3,193.6	3,181.6	3,163.6	12.2	0.0	89.89	-173.0	-262.1	275.0	263.3	11.72	23.464		
3,300.0	3,293.3	3,281.0	3,262.1	12.6	0.0	90.05	-181.2	-272.4	286.0	273.9	12.10	23.642		
3,400.0	3,392.9	3,380.4	3,360.7	13.0	0.0	90.19	-189.4	-282.7	296.9	284.4	12.47	23.808		
3,500.0	3,492.6	3,479.7	3,459.2	13.3	0.0	90.32	-197.6	-293.0	307.8	295.0	12.85	23.963		
3,600.0	3,592.2	3,579.1	3,557.7	13.7	0.0	90.45	-205.9	-303.3	318.7	305.5	13.22	24.108		
3,700.0	3,691.9	3,678.5	3,656.2	14.1	0.0	90.56	-214.1	-313.7	329.7	316.1	13.60	24.245		
3,800.0	3,791.5	3,777.9	3,754.7	14.4	0.0	90.67	-222.3	-324.0	340.6	326.6	13.98	24.373		
3,900.0	3,891.2	3,877.3	3,853.3	14.8	0.0	90.77	-230.5	-334.3	351.5	337.2	14.35	24.493		
4,000.0	3,990.8	3,976.7	3,951.8	15.2	0.0	90.87	-238.7	-344.6	362.5	347.7	14.73	24.607		
4,100.0	4,090.5	4,076.1	4,050.3	15.6	0.0	90.95	-246.9	-354.9	373.4	358.3	15.11	24.715		
4,200.0	4,190.1	4,175.5	4,148.8	15.9	0.0	91.04	-255.1	-365.2	384.4	368.9	15.49	24.816		
4,300.0	4,289.8	4,274.9	4,247.3	16.3	0.0	91.12	-263.3	-375.6	395.3	379.4	15.87	24.913		
4,400.0	4,389.5	4,374.3	4,345.9	16.7	0.0	91.19	-271.6	-385.9	406.2	390.0	16.25	25.004		
4,500.0	4,489.1	4,473.7	4,444.4	17.0	0.0	91.27	-279.8	-396.2	417.2	400.5	16.63	25.091		
4,600.0	4,588.8	4,573.1	4,542.9	17.4	0.0	91.33	-288.0	-406.5	428.1	411.1	17.01	25.173		
4,700.0	4,688.4	4,672.5	4,641.4	17.8	0.0	91.40	-296.2	-416.8	439.1	421.7	17.39	25.252		
4,800.0	4,788.1	4,771.9	4,739.9	18.2	0.0	91.46	-304.4	-427.2	450.0	432.2	17.77	25.327		
4,900.0	4,887.7	4,871.3	4,838.5	18.6	0.0	91.52	-312.6	-437.5	460.9	442.8	18.15	25.398		
5,000.0	4,987.4	4,970.7	4,937.0	18.9	0.0	91.57	-320.8	-447.8	471.9	453.4	18.53	25.466		
5,100.0	5,087.0	5,070.1	5,035.5	19.3	0.0	91.63	-329.0	-458.1	482.8	463.9	18.91	25.532		

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 19-18-2NCH
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 19-18-2NCH	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		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)						
5,200.0	5,186.7	5,169.5	5,134.0	19.7	0.0	91.68	-337.3	-468.4	493.8	474.5	19.29	25.594		
5,300.0	5,286.3	5,268.9	5,232.5	20.1	0.0	91.72	-345.5	-478.8	504.7	485.0	19.67	25.654		
5,400.0	5,386.0	5,368.3	5,331.1	20.4	0.0	91.77	-353.7	-489.1	515.7	495.6	20.06	25.711		
5,500.0	5,485.6	5,467.7	5,429.6	20.8	0.0	91.82	-361.9	-499.4	526.6	506.2	20.44	25.766		
5,600.0	5,585.3	5,567.1	5,528.1	21.2	0.0	91.86	-370.1	-509.7	537.5	516.7	20.82	25.819		
5,700.0	5,684.9	5,666.5	5,626.6	21.6	0.0	91.90	-378.3	-520.0	548.5	527.3	21.20	25.869		
5,800.0	5,784.6	5,765.9	5,725.1	22.0	0.0	91.94	-386.5	-530.3	559.4	537.9	21.58	25.918		
5,900.0	5,884.3	5,865.3	5,823.7	22.3	0.0	91.98	-394.7	-540.7	570.4	548.4	21.97	25.965		
6,000.0	5,983.9	5,964.7	5,922.2	22.7	0.0	92.01	-403.0	-551.0	581.3	559.0	22.35	26.010		
6,100.0	6,083.6	6,064.1	6,020.7	23.1	0.0	92.05	-411.2	-561.3	592.3	569.5	22.73	26.053		
6,200.0	6,183.2	6,163.5	6,119.2	23.5	0.0	92.08	-419.4	-571.6	603.2	580.1	23.12	26.095		
6,300.0	6,282.9	6,262.9	6,217.7	23.9	0.0	92.12	-427.6	-581.9	614.2	590.7	23.50	26.136		
6,400.0	6,382.5	6,362.3	6,316.3	24.2	0.0	92.15	-435.8	-592.3	625.1	601.2	23.88	26.175		
6,500.0	6,482.2	6,461.7	6,414.8	24.6	0.0	92.18	-444.0	-602.6	636.1	611.8	24.27	26.212		
6,600.0	6,581.8	6,561.1	6,513.3	25.0	0.0	92.21	-452.2	-612.9	647.0	622.4	24.65	26.249		
6,700.0	6,681.5	6,660.5	6,611.8	25.4	0.0	92.24	-460.5	-623.2	658.0	632.9	25.03	26.284		
6,800.0	6,781.1	6,760.5	6,711.1	25.8	0.0	92.27	-468.7	-633.6	668.9	643.5	25.41	26.319		
6,900.0	6,880.8	6,859.9	6,807.4	26.1	0.0	92.30	-476.9	-643.9	679.9	654.2	25.79	26.354		
7,000.0	6,980.6	6,959.4	6,896.9	26.5	0.0	92.33	-485.1	-654.2	690.9	664.9	26.17	26.389		
7,100.0	7,077.8	7,056.2	6,990.0	26.9	0.0	92.36	-493.3	-664.5	701.9	675.6	26.55	26.424		
7,200.0	7,169.6	7,147.6	7,082.2	27.3	0.0	92.39	-501.5	-674.8	712.9	686.3	26.93	26.459		
7,300.0	7,253.2	7,231.2	7,166.0	27.6	0.0	92.42	-509.7	-685.1	723.9	697.0	27.31	26.494		
7,400.0	7,326.0	7,303.0	7,188.0	27.9	0.0	92.45	-517.9	-695.4	734.9	707.7	27.69	26.529		
7,500.0	7,385.9	7,362.4	7,212.0	28.2	0.0	92.48	-526.1	-705.7	745.9	718.4	28.07	26.564		
7,600.0	7,430.9	7,406.9	7,243.5	28.5	0.0	92.51	-534.3	-716.0	756.9	729.1	28.45	26.599		
7,700.0	7,459.8	7,434.8	7,263.1	28.8	0.0	92.54	-542.5	-726.3	767.9	739.8	28.83	26.634		
7,800.0	7,471.7	7,445.7	7,271.8	29.1	0.0	92.57	-550.7	-736.6	778.9	750.5	29.21	26.669		
7,900.0	7,472.0	7,445.1	7,272.0	29.4	0.0	92.60	-558.9	-746.9	789.9	761.2	29.59	26.704		
8,000.0	7,472.0	7,444.1	7,272.0	29.7	0.0	92.63	-567.1	-757.2	799.9	771.9	30.00	26.739		
8,100.0	7,472.0	7,441.1	7,272.0	30.0	0.0	92.66	-575.3	-767.5	810.9	782.6	30.41	26.774		
8,200.0	7,472.0	7,438.1	7,272.0	30.3	0.0	92.69	-583.5	-777.8	820.9	793.3	30.83	26.809		
8,300.0	7,472.0	7,435.1	7,272.0	30.6	0.0	92.72	-591.7	-788.1	831.9	804.0	31.25	26.844		
8,400.0	7,472.0	7,432.1	7,272.0	30.9	0.0	92.75	-600.0	-798.4	841.9	814.7	31.67	26.879		
8,500.0	7,472.0	7,429.1	7,272.0	31.2	0.0	92.78	-608.2	-808.7	851.9	825.4	32.09	26.914		
8,600.0	7,472.0	7,426.1	7,272.0	31.5	0.0	92.81	-616.4	-819.0	861.9	836.1	32.51	26.949		
8,700.0	7,472.0	7,423.1	7,272.0	31.8	0.0	92.84	-624.6	-829.3	871.9	846.8	32.93	26.984		
8,800.0	7,472.0	7,420.1	7,272.0	32.1	0.0	92.87	-632.8	-839.6	881.9	857.5	33.35	27.019		
8,900.0	7,472.0	7,417.1	7,272.0	32.4	0.0	92.90	-641.0	-849.9	891.9	868.2	33.77	27.054		
9,000.0	7,472.0	7,414.1	7,272.0	32.7	0.0	92.93	-649.2	-860.2	901.9	878.9	34.19	27.089		
9,100.0	7,472.0	7,411.1	7,272.0	33.0	0.0	92.96	-657.4	-870.5	911.9	889.6	34.61	27.124		
9,200.0	7,472.0	7,408.1	7,272.0	33.3	0.0	92.99	-665.6	-880.8	921.9	899.3	35.03	27.159		
9,300.0	7,472.0	7,405.1	7,272.0	33.6	0.0	93.02	-673.8	-891.1	931.9	910.0	35.45	27.194		
9,400.0	7,472.0	7,402.1	7,272.0	33.9	0.0	93.05	-682.0	-901.4	941.9	920.7	35.87	27.229		
9,500.0	7,472.0	7,399.1	7,272.0	34.2	0.0	93.08	-690.2	-911.7	951.9	931.4	36.29	27.264		
9,600.0	7,472.0	7,396.1	7,272.0	34.5	0.0	93.11	-698.4	-922.0	961.9	942.1	36.71	27.299		
9,700.0	7,472.0	7,393.1	7,272.0	34.8	0.0	93.14	-706.6	-932.3	971.9	952.8	37.13	27.334		
9,800.0	7,472.0	7,390.1	7,272.0	35.1	0.0	93.17	-714.8	-942.6	981.9	963.5	37.55	27.369		
9,900.0	7,472.0	7,387.1	7,272.0	35.4	0.0	93.20	-723.0	-952.9	991.9	974.2	37.97	27.404		
10,000.0	7,472.0	7,384.1	7,272.0	35.7	0.0	93.23	-731.2	-963.2	1001.9	984.9	38.39	27.439		
10,100.0	7,472.0	7,381.1	7,272.0	36.0	0.0	93.26	-739.4	-973.5	1011.9	995.6	38.81	27.474		
10,200.0	7,472.0	7,378.1	7,272.0	36.3	0.0	93.29	-747.6	-983.8	1021.9	1006.3	39.23	27.509		
10,300.0	7,472.0	7,375.1	7,272.0	36.6	0.0	93.32	-755.8	-994.1	1031.9	1017.0	39.65	27.544		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,231.1	7,272.0	58.1	0.0	-74.63	2,685.8	-718.8	754.8	698.4	56.41	13.382		
10,500.0	7,472.0	10,331.1	7,272.0	59.6	0.0	-74.63	2,785.8	-719.7	754.8	696.9	57.92	13.032		
10,600.0	7,472.0	10,431.1	7,272.0	61.2	0.0	-74.63	2,885.8	-720.5	754.8	695.4	59.45	12.697		
10,700.0	7,472.0	10,531.1	7,272.0	62.8	0.0	-74.63	2,985.8	-721.3	754.8	693.8	60.98	12.378		
10,800.0	7,472.0	10,631.1	7,272.0	64.4	0.0	-74.63	3,085.8	-722.1	754.8	692.3	62.53	12.072		
10,900.0	7,472.0	10,731.1	7,272.0	66.0	0.0	-74.63	3,185.8	-723.0	754.8	690.7	64.08	11.779		
11,000.0	7,472.0	10,831.1	7,272.0	67.6	0.0	-74.63	3,285.8	-723.8	754.8	689.2	65.64	11.499		
11,100.0	7,472.0	10,931.1	7,272.0	69.2	0.0	-74.63	3,385.8	-724.6	754.8	687.6	67.21	11.231		
11,200.0	7,472.0	11,031.1	7,272.0	70.8	0.0	-74.63	3,485.8	-725.5	754.8	686.0	68.78	10.974		
11,300.0	7,472.0	11,131.1	7,272.0	72.5	0.0	-74.63	3,585.8	-726.3	754.8	684.4	70.37	10.727		
11,400.0	7,472.0	11,231.1	7,272.0	74.1	0.0	-74.63	3,685.8	-727.1	754.8	682.9	71.95	10.490		
11,500.0	7,472.0	11,331.1	7,272.0	75.7	0.0	-74.63	3,785.8	-727.9	754.8	681.3	73.55	10.263		
11,600.0	7,472.0	11,431.1	7,272.0	77.4	0.0	-74.63	3,885.8	-728.8	754.8	679.7	75.15	10.044		
11,700.0	7,472.0	11,531.1	7,272.0	79.0	0.0	-74.63	3,985.8	-729.6	754.8	678.1	76.75	9.834		
11,800.0	7,472.0	11,631.1	7,272.0	80.7	0.0	-74.63	4,085.8	-730.4	754.8	676.4	78.36	9.632		
11,900.0	7,472.0	11,731.1	7,272.0	82.4	0.0	-74.63	4,185.8	-731.2	754.8	674.8	79.97	9.438		
12,000.0	7,472.0	11,831.1	7,272.0	84.0	0.0	-74.63	4,285.8	-732.1	754.8	673.2	81.59	9.251		
12,100.0	7,472.0	11,931.1	7,272.0	85.7	0.0	-74.63	4,385.8	-732.9	754.8	671.6	83.21	9.071		
12,200.0	7,472.0	12,031.1	7,272.0	87.4	0.0	-74.63	4,485.7	-733.7	754.8	670.0	84.84	8.897		
12,300.0	7,472.0	12,131.1	7,272.0	89.0	0.0	-74.63	4,585.7	-734.5	754.8	668.3	86.47	8.729		
12,400.0	7,472.0	12,231.1	7,272.0	90.7	0.0	-74.63	4,685.7	-735.4	754.8	666.7	88.10	8.568		
12,500.0	7,472.0	12,331.1	7,272.0	92.4	0.0	-74.63	4,785.7	-736.2	754.8	665.1	89.73	8.412		
12,600.0	7,472.0	12,431.1	7,272.0	94.1	0.0	-74.63	4,885.7	-737.0	754.8	663.4	91.37	8.261		
12,700.0	7,472.0	12,531.1	7,272.0	95.8	0.0	-74.64	4,985.7	-737.9	754.8	661.8	93.01	8.115		
12,800.0	7,472.0	12,631.1	7,272.0	97.5	0.0	-74.64	5,085.7	-738.7	754.8	660.2	94.66	7.974		
12,900.0	7,472.0	12,731.1	7,272.0	99.2	0.0	-74.64	5,185.7	-739.5	754.8	658.5	96.30	7.838		
13,000.0	7,472.0	12,831.1	7,272.0	100.9	0.0	-74.64	5,285.7	-740.3	754.8	656.9	97.95	7.706		
13,100.0	7,472.0	12,931.1	7,272.0	102.6	0.0	-74.64	5,385.7	-741.2	754.8	655.2	99.60	7.578		
13,200.0	7,472.0	13,031.1	7,272.0	104.3	0.0	-74.64	5,485.7	-742.0	754.8	653.6	101.25	7.455		
13,300.0	7,472.0	13,131.1	7,272.0	106.0	0.0	-74.64	5,585.7	-742.8	754.8	651.9	102.91	7.335		
13,400.0	7,472.0	13,231.1	7,272.0	107.7	0.0	-74.64	5,685.7	-743.6	754.8	650.3	104.56	7.219		
13,500.0	7,472.0	13,331.1	7,272.0	109.4	0.0	-74.64	5,785.7	-744.5	754.8	648.6	106.22	7.106		
13,600.0	7,472.0	13,431.1	7,272.0	111.1	0.0	-74.64	5,885.7	-745.3	754.8	646.9	107.88	6.997		
13,700.0	7,472.0	13,531.1	7,272.0	112.8	0.0	-74.64	5,985.7	-746.1	754.8	645.3	109.54	6.891		
13,800.0	7,472.0	13,631.1	7,272.0	114.5	0.0	-74.64	6,085.7	-747.0	754.8	643.6	111.21	6.788		
13,900.0	7,472.0	13,731.1	7,272.0	116.2	0.0	-74.64	6,185.7	-747.8	754.8	641.9	112.87	6.687		
14,000.0	7,472.0	13,831.1	7,272.0	118.0	0.0	-74.64	6,285.7	-748.6	754.8	640.3	114.54	6.590		
14,100.0	7,472.0	13,931.1	7,272.0	119.7	0.0	-74.64	6,385.7	-749.4	754.8	638.6	116.21	6.496		
14,200.0	7,472.0	14,031.1	7,272.0	121.4	0.0	-74.59	6,485.7	-750.3	753.2	635.3	117.87	6.390		
14,300.0	7,472.0	14,131.0	7,272.0	123.1	0.0	-74.54	6,585.6	-751.1	750.4	630.8	119.52	6.278		
14,400.0	7,472.0	14,231.0	7,272.0	124.9	0.0	-74.48	6,685.6	-751.9	747.5	626.4	121.17	6.169		
14,500.0	7,472.0	14,331.0	7,272.0	126.6	0.0	-74.42	6,785.5	-752.7	744.7	621.9	122.82	6.063		
14,600.0	7,472.0	14,430.9	7,272.0	128.3	0.0	-74.35	6,885.5	-753.6	741.9	617.4	124.48	5.960		
14,700.0	7,472.0	14,530.9	7,272.0	130.1	0.0	-74.29	6,985.4	-754.4	739.1	613.0	126.13	5.860		
14,800.0	7,472.0	14,630.8	7,272.0	131.8	0.0	-74.23	7,085.4	-755.2	736.3	608.5	127.78	5.762		
14,900.0	7,472.0	14,730.8	7,272.0	133.5	0.0	-74.17	7,185.3	-756.1	733.5	604.0	129.43	5.667		
15,000.0	7,472.0	14,830.7	7,272.0	135.3	0.0	-74.11	7,285.3	-756.9	730.6	599.6	131.08	5.574		
15,100.0	7,472.0	14,930.7	7,272.0	137.0	0.0	-74.04	7,385.2	-757.7	727.8	595.1	132.74	5.483		
15,200.0	7,472.0	15,030.7	7,272.0	138.7	0.0	-73.98	7,485.2	-758.5	725.0	590.6	134.39	5.395		
15,300.0	7,472.0	15,130.6	7,272.0	140.5	0.0	-73.92	7,585.2	-759.4	722.2	586.2	136.04	5.309		
15,400.0	7,472.0	15,230.6	7,272.0	142.2	0.0	-73.85	7,685.1	-760.2	719.4	581.7	137.69	5.225		
15,500.0	7,472.0	15,330.5	7,272.0	144.0	0.0	-73.79	7,785.1	-761.0	716.6	577.2	139.34	5.143		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,472.0	15,430.5	7,272.0	145.7	0.0	-73.72	7,885.0	-761.8	713.8	572.8	140.99	5.063		
15,700.0	7,472.0	15,530.4	7,272.0	147.5	0.0	-73.66	7,985.0	-762.7	711.0	568.3	142.64	4.984		
15,800.0	7,472.0	15,630.4	7,272.0	149.2	0.0	-73.59	8,084.9	-763.5	708.2	563.9	144.29	4.908		
15,900.0	7,472.0	15,730.4	7,272.0	150.9	0.0	-73.52	8,184.9	-764.3	705.4	559.4	145.94	4.833		
16,000.0	7,472.0	15,830.3	7,272.0	152.7	0.0	-73.48	8,284.9	-765.1	703.5	555.9	147.59	4.767		
16,007.6	7,472.0	15,837.9	7,272.0	152.8	0.0	-73.48	8,292.5	-765.2	703.5	555.8	147.72	4.762		
16,100.0	7,472.0	15,930.3	7,272.0	154.4	0.0	-73.51	8,384.8	-766.0	704.9	555.6	149.30	4.722		
16,200.0	7,472.0	16,030.3	7,272.0	156.2	0.0	-73.59	8,484.8	-766.8	708.2	557.2	151.02	4.690		
16,300.0	7,472.0	16,130.2	7,272.0	157.9	0.0	-73.67	8,584.7	-767.6	711.5	558.8	152.74	4.659		
16,400.0	7,472.0	16,230.1	7,272.0	159.6	0.0	-73.74	8,684.6	-768.5	714.8	560.4	154.45	4.628		
16,500.0	7,472.0	16,330.1	7,272.0	161.3	0.0	-73.82	8,784.6	-769.3	718.2	562.0	156.17	4.598		
16,600.0	7,472.0	16,430.0	7,272.0	163.1	0.0	-73.90	8,884.5	-770.1	721.5	563.6	157.89	4.569		
16,700.0	7,472.0	16,530.0	7,272.0	164.8	0.0	-73.97	8,984.5	-770.9	724.8	565.2	159.61	4.541		
16,800.0	7,472.0	16,629.9	7,272.0	166.5	0.0	-74.05	9,084.4	-771.8	728.1	566.8	161.33	4.513		
16,900.0	7,472.0	16,729.8	7,272.0	168.2	0.0	-74.12	9,184.3	-772.6	731.4	568.3	163.06	4.486		
17,000.0	7,472.0	16,829.8	7,272.0	170.0	0.0	-74.19	9,284.3	-773.4	734.7	569.9	164.78	4.459		
17,100.0	7,472.0	16,929.7	7,272.0	171.7	0.0	-74.27	9,384.2	-774.2	738.0	571.5	166.50	4.433		
17,200.0	7,472.0	17,029.7	7,272.0	173.4	0.0	-74.34	9,484.1	-775.1	741.3	573.1	168.23	4.407		
17,300.0	7,472.0	17,129.6	7,272.0	175.2	0.0	-74.41	9,584.1	-775.9	744.7	574.7	169.95	4.382		
17,400.0	7,472.0	17,229.5	7,272.0	176.9	0.0	-74.48	9,684.0	-776.7	748.0	576.3	171.68	4.357		
17,500.0	7,472.0	17,329.5	7,272.0	178.6	0.0	-74.55	9,784.0	-777.5	751.3	577.9	173.40	4.333		
17,600.0	7,472.0	17,429.4	7,272.0	180.3	0.0	-74.62	9,883.9	-778.4	754.6	579.5	175.13	4.309		
17,606.3	7,472.0	17,429.8	7,272.0	180.5	0.0	-74.62	9,884.3	-778.4	754.9	579.6	175.24	4.308 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.28	-0.3	-60.0	60.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.28	-0.3	-60.0	60.0	59.7	0.28	216.577		
200.0	200.0	200.0	200.0	1.0	0.0	-90.28	-0.3	-60.0	60.0	59.2	0.80	75.194		
300.0	300.0	300.0	300.0	1.5	0.0	-90.28	-0.3	-60.0	60.0	58.8	1.22	48.994		
400.0	400.0	400.0	400.0	1.9	0.0	-90.28	-0.3	-60.0	60.0	58.4	1.62	37.068		
500.0	500.0	500.0	500.0	2.3	0.0	-90.28	-0.3	-60.0	60.0	58.0	2.00	30.010		
600.0	600.0	600.0	600.0	2.7	0.0	-90.28	-0.3	-60.0	60.0	57.6	2.37	25.283		
700.0	700.0	700.0	700.0	3.1	0.0	-90.28	-0.3	-60.0	60.0	57.2	2.74	21.874		
800.0	800.0	800.0	800.0	3.5	0.0	-90.28	-0.3	-60.0	60.0	56.9	3.11	19.292 CC, ES		
900.0	900.0	898.1	898.1	3.9	0.0	-90.99	-1.1	-61.5	61.5	58.0	3.48	17.656		
1,000.0	1,000.0	996.0	995.9	4.2	0.0	-92.92	-3.4	-65.9	66.1	62.3	3.87	17.080		
1,100.0	1,100.0	1,093.5	1,093.0	4.6	0.0	-95.59	-7.2	-73.3	74.0	69.7	4.27	17.342		
1,200.0	1,200.0	1,190.2	1,189.0	5.0	0.0	-98.48	-12.5	-83.6	85.2	80.5	4.66	18.286		
1,300.0	1,300.0	1,286.2	1,283.9	5.3	0.0	83.42	-19.2	-96.6	99.5	94.6	4.96	20.059		
1,400.0	1,399.8	1,384.7	1,380.9	6.0	0.0	83.22	-26.9	-111.5	115.4	110.0	5.32	21.701		
1,500.0	1,499.5	1,483.5	1,478.2	6.3	0.0	84.43	-34.7	-126.6	130.9	125.3	5.60	23.391		
1,600.0	1,599.2	1,582.2	1,575.5	6.6	0.0	85.58	-42.4	-141.6	146.4	140.5	5.90	24.803		
1,700.0	1,698.8	1,680.9	1,672.8	6.9	0.0	86.52	-50.2	-156.7	162.0	155.8	6.23	25.991		
1,800.0	1,798.5	1,779.7	1,770.1	7.3	0.0	87.28	-58.0	-171.7	177.7	171.1	6.57	27.035		
1,900.0	1,898.1	1,878.4	1,867.3	7.6	0.0	87.93	-65.7	-186.7	193.4	186.4	6.92	27.959		
2,000.0	1,997.8	1,977.2	1,964.6	8.0	0.0	88.48	-73.5	-201.8	209.0	201.8	7.26	28.780		
2,100.0	2,097.4	2,075.9	2,061.9	8.3	0.0	88.95	-81.3	-216.8	224.7	217.1	7.61	29.513		
2,200.0	2,197.1	2,174.7	2,159.2	8.7	0.0	89.36	-89.0	-231.9	240.5	232.5	7.97	30.171		
2,300.0	2,296.7	2,273.4	2,256.5	9.0	0.0	89.72	-96.8	-246.9	256.2	247.9	8.33	30.763		
2,400.0	2,396.4	2,372.2	2,353.8	9.4	0.0	90.03	-104.5	-261.9	271.9	263.2	8.69	31.299		
2,500.0	2,496.0	2,470.9	2,451.0	9.7	0.0	90.32	-112.3	-277.0	287.7	278.6	9.05	31.786		
2,600.0	2,595.7	2,569.6	2,548.3	10.1	0.0	90.57	-120.1	-292.0	303.4	294.0	9.41	32.230		
2,700.0	2,695.3	2,668.4	2,645.6	10.4	0.0	90.80	-127.8	-307.1	319.2	309.4	9.78	32.636		
2,800.0	2,795.0	2,767.1	2,742.9	10.8	0.0	91.00	-135.6	-322.1	334.9	324.8	10.15	33.008		
2,900.0	2,894.7	2,865.9	2,840.2	11.1	0.0	91.19	-143.4	-337.1	350.7	340.2	10.52	33.351		
3,000.0	2,994.3	2,964.6	2,937.4	11.5	0.0	91.37	-151.1	-352.2	366.5	355.6	10.88	33.668		
3,100.0	3,094.0	3,063.4	3,034.7	11.9	0.0	91.52	-158.9	-367.2	382.2	371.0	11.25	33.961		
3,200.0	3,193.6	3,162.1	3,132.0	12.2	0.0	91.67	-166.7	-382.3	398.0	386.4	11.63	34.233		
3,300.0	3,293.3	3,260.8	3,229.3	12.6	0.0	91.80	-174.4	-397.3	413.8	401.8	12.00	34.486		
3,400.0	3,392.9	3,359.6	3,326.6	13.0	0.0	91.93	-182.2	-412.3	429.5	417.2	12.37	34.722		
3,500.0	3,492.6	3,458.3	3,423.9	13.3	0.0	92.04	-189.9	-427.4	445.3	432.6	12.74	34.942		
3,600.0	3,592.2	3,557.1	3,521.1	13.7	0.0	92.15	-197.7	-442.4	461.1	448.0	13.12	35.148		
3,700.0	3,691.9	3,655.8	3,618.4	14.1	0.0	92.25	-205.5	-457.5	476.9	463.4	13.49	35.342		
3,800.0	3,791.5	3,754.6	3,715.7	14.4	0.0	92.35	-213.2	-472.5	492.7	478.8	13.87	35.524		
3,900.0	3,891.2	3,853.3	3,813.0	14.8	0.0	92.43	-221.0	-487.5	508.4	494.2	14.24	35.695		
4,000.0	3,990.8	3,952.1	3,910.3	15.2	0.0	92.52	-228.8	-502.6	524.2	509.6	14.62	35.856		
4,100.0	4,090.5	4,050.8	4,007.6	15.6	0.0	92.60	-236.5	-517.6	540.0	525.0	15.00	36.009		
4,200.0	4,190.1	4,149.5	4,104.8	15.9	0.0	92.67	-244.3	-532.6	555.8	540.4	15.37	36.153		
4,300.0	4,289.8	4,248.3	4,202.1	16.3	0.0	92.74	-252.1	-547.7	571.6	555.8	15.75	36.289		
4,400.0	4,389.5	4,347.0	4,299.4	16.7	0.0	92.81	-259.8	-562.7	587.4	571.2	16.13	36.418		
4,500.0	4,489.1	4,445.8	4,396.7	17.0	0.0	92.87	-267.6	-577.8	603.2	586.7	16.51	36.541		
4,600.0	4,588.8	4,544.5	4,494.0	17.4	0.0	92.93	-275.3	-592.8	619.0	602.1	16.88	36.658		
4,700.0	4,688.4	4,643.3	4,591.2	17.8	0.0	92.98	-283.1	-607.8	634.7	617.5	17.26	36.769		
4,800.0	4,788.1	4,742.0	4,688.5	18.2	0.0	93.04	-290.9	-622.9	650.5	632.9	17.64	36.875		
4,900.0	4,887.7	4,840.7	4,785.8	18.6	0.0	93.09	-298.6	-637.9	666.3	648.3	18.02	36.976		
5,000.0	4,987.4	4,939.5	4,883.1	18.9	0.0	93.14	-306.4	-653.0	682.1	663.7	18.40	37.072		
5,100.0	5,087.0	5,038.2	4,980.4	19.3	0.0	93.18	-314.2	-668.0	697.9	679.1	18.78	37.164		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,137.0	5,077.7	19.7	0.0	93.23	-321.9	-683.0	713.7	694.5	19.16	37.252		
5,300.0	5,286.3	5,235.7	5,174.9	20.1	0.0	93.27	-329.7	-698.1	729.5	710.0	19.54	37.337		
5,400.0	5,386.0	5,334.5	5,272.2	20.4	0.0	93.31	-337.4	-713.1	745.3	725.4	19.92	37.417		
5,500.0	5,485.6	5,433.2	5,369.5	20.8	0.0	93.35	-345.2	-728.2	761.1	740.8	20.30	37.495		
5,600.0	5,585.3	5,531.9	5,466.8	21.2	0.0	93.39	-353.0	-743.2	776.9	756.2	20.68	37.569		
5,700.0	5,684.9	5,630.7	5,564.1	21.6	0.0	93.42	-360.7	-758.2	792.7	771.6	21.06	37.640		
5,800.0	5,784.6	5,729.4	5,661.4	22.0	0.0	93.46	-368.5	-773.3	808.5	787.0	21.44	37.709		
5,900.0	5,884.3	5,828.2	5,758.6	22.3	0.0	93.49	-376.3	-788.3	824.3	802.4	21.82	37.775		
6,000.0	5,983.9	5,926.9	5,855.9	22.7	0.0	93.52	-384.0	-803.4	840.1	817.9	22.20	37.838		
6,100.0	6,083.6	6,025.7	5,953.2	23.1	0.0	93.55	-391.8	-818.4	855.9	833.3	22.58	37.899		
6,200.0	6,183.2	6,124.4	6,050.5	23.5	0.0	93.58	-399.6	-833.4	871.6	848.7	22.96	37.958		
6,300.0	6,282.9	6,223.2	6,147.8	23.9	0.0	93.61	-407.3	-848.5	887.4	864.1	23.34	38.015		
6,400.0	6,382.5	6,321.9	6,245.0	24.2	0.0	93.64	-415.1	-863.5	903.2	879.5	23.73	38.069		
6,500.0	6,482.2	6,420.6	6,342.3	24.6	0.0	93.67	-422.8	-878.6	919.0	894.9	24.11	38.122		
6,600.0	6,581.8	6,519.4	6,439.6	25.0	0.0	93.69	-430.6	-893.6	934.8	910.3	24.49	38.173		
6,700.0	6,681.5	6,618.1	6,536.9	25.4	0.0	93.72	-438.4	-908.6	950.6	925.8	24.87	38.223		
6,800.0	6,781.1	6,716.9	6,634.2	25.8	0.0	93.74	-446.1	-923.7	966.4	941.2	25.25	38.270		
6,900.0	6,880.8	6,815.6	6,731.4	26.1	0.0	93.76	-453.9	-938.7	982.2	956.6	25.63	38.327		
7,000.0	6,980.6	6,913.3	6,827.7	26.7	0.0	93.78	-461.6	-953.6	997.9	971.7	26.01	38.384		
7,100.0	7,077.8	7,009.1	6,922.2	27.0	0.0	93.79	-469.3	-968.6	1,013.6	987.1	26.39	38.441		
7,200.0	7,169.6	7,110.1	7,021.4	27.3	0.0	93.80	-477.0	-983.7	1,029.4	1,002.7	26.77	38.498		
7,300.0	7,253.2	7,217.8	7,124.1	27.6	0.0	93.81	-484.7	-998.8	1,045.2	1,018.3	27.15	38.555		
7,400.0	7,326.0	7,333.6	7,226.5	27.8	0.0	93.82	-492.4	-1,013.8	1,060.8	1,033.8	27.53	38.612		
7,500.0	7,385.9	7,458.2	7,323.0	28.0	0.0	93.83	-500.1	-1,028.8	1,076.4	1,048.8	27.91	38.669		
7,600.0	7,430.9	7,592.0	7,405.5	28.1	0.0	93.84	-507.8	-1,043.8	1,091.9	1,063.8	28.29	38.726		
7,700.0	7,459.8	7,733.7	7,464.6	28.3	0.0	93.85	-515.5	-1,058.8	1,107.4	1,078.8	28.67	38.783		
7,800.0	7,471.7	7,880.7	7,491.1	28.5	0.0	93.86	-523.2	-1,073.8	1,122.9	1,093.8	29.05	38.840		
7,900.0	7,472.0	7,991.2	7,492.0	28.7	0.0	93.87	-530.9	-1,088.8	1,138.4	1,108.8	29.43	38.897		
8,000.0	7,472.0	8,091.2	7,492.0	29.1	0.0	93.88	-538.6	-1,103.8	1,153.9	1,123.8	29.81	38.954		
8,100.0	7,472.0	8,191.2	7,492.0	29.7	0.0	93.89	-546.3	-1,118.8	1,169.4	1,138.8	30.19	39.011		
8,200.0	7,472.0	8,291.2	7,492.0	30.3	0.0	93.90	-554.0	-1,133.8	1,184.9	1,153.8	30.57	39.068		
8,300.0	7,472.0	8,391.2	7,492.0	31.0	0.0	93.91	-561.7	-1,148.8	1,199.9	1,168.8	30.95	39.125		
8,400.0	7,472.0	8,491.2	7,492.0	31.8	0.0	93.92	-569.4	-1,163.8	1,214.9	1,183.8	31.33	39.182		
8,500.0	7,472.0	8,591.2	7,492.0	32.7	0.0	93.93	-577.1	-1,178.8	1,229.9	1,198.8	31.71	39.239		
8,600.0	7,472.0	8,691.2	7,492.0	33.7	0.0	93.94	-584.8	-1,193.8	1,244.9	1,213.8	32.09	39.296		
8,700.0	7,472.0	8,791.2	7,492.0	34.8	0.0	93.95	-592.5	-1,208.8	1,259.9	1,228.8	32.47	39.353		
8,800.0	7,472.0	8,891.2	7,492.0	35.9	0.0	93.96	-600.2	-1,223.8	1,274.9	1,243.8	32.85	39.410		
8,900.0	7,472.0	8,991.2	7,492.0	37.0	0.0	93.97	-607.9	-1,238.8	1,289.9	1,258.8	33.23	39.467		
9,000.0	7,472.0	9,091.2	7,492.0	38.2	0.0	93.98	-615.6	-1,253.8	1,304.9	1,273.8	33.61	39.524		
9,100.0	7,472.0	9,191.2	7,492.0	39.4	0.0	93.99	-623.3	-1,268.8	1,319.9	1,288.8	33.99	39.581		
9,200.0	7,472.0	9,291.2	7,492.0	40.7	0.0	94.00	-631.0	-1,283.8	1,334.9	1,303.8	34.37	39.638		
9,300.0	7,472.0	9,391.2	7,492.0	42.0	0.0	94.01	-638.7	-1,298.8	1,349.9	1,318.8	34.75	39.695		
9,400.0	7,472.0	9,491.2	7,492.0	43.4	0.0	94.02	-646.4	-1,313.8	1,364.9	1,333.8	35.13	39.752		
9,500.0	7,472.0	9,591.2	7,492.0	44.7	0.0	94.03	-654.1	-1,328.8	1,379.9	1,348.8	35.51	39.809		
9,600.0	7,472.0	9,691.2	7,492.0	46.2	0.0	94.04	-661.8	-1,343.8	1,394.9	1,363.8	35.89	39.866		
9,700.0	7,472.0	9,791.2	7,492.0	47.6	0.0	94.05	-669.5	-1,358.8	1,409.9	1,378.8	36.27	39.923		
9,800.0	7,472.0	9,891.2	7,492.0	49.0	0.0	94.06	-677.2	-1,373.8	1,424.9	1,393.8	36.65	39.980		
9,900.0	7,472.0	9,991.2	7,492.0	50.5	0.0	94.07	-684.9	-1,388.8	1,439.9	1,408.8	37.03	40.037		
10,000.0	7,472.0	10,091.2	7,492.0	52.0	0.0	94.08	-692.6	-1,403.8	1,454.9	1,423.8	37.41	40.094		
10,100.0	7,472.0	10,191.2	7,492.0	53.5	0.0	94.09	-700.3	-1,418.8	1,469.9	1,438.8	37.79	40.151		
10,200.0	7,472.0	10,291.2	7,492.0	55.0	0.0	94.10	-708.0	-1,433.8	1,484.9	1,453.8	38.17	40.208		
10,300.0	7,472.0	10,391.2	7,492.0	56.5	0.0	94.11	-715.7	-1,448.8	1,499.9	1,468.8	38.55	40.265		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,491.2	7,492.0	58.1	0.0	-91.05	2,682.8	-1,082.7	1,091.9	1,033.8	58.09	18.798		
10,500.0	7,472.0	10,591.2	7,492.0	59.6	0.0	-91.05	2,782.8	-1,083.6	1,091.9	1,032.3	59.65	18.306		
10,600.0	7,472.0	10,691.2	7,492.0	61.2	0.0	-91.05	2,882.8	-1,084.4	1,091.9	1,030.7	61.22	17.837		
10,700.0	7,472.0	10,791.2	7,492.0	62.8	0.0	-91.05	2,982.8	-1,085.2	1,091.9	1,029.1	62.80	17.388		
10,800.0	7,472.0	10,891.2	7,492.0	64.4	0.0	-91.05	3,082.8	-1,086.0	1,091.9	1,027.5	64.39	16.958		
10,900.0	7,472.0	10,991.2	7,492.0	66.0	0.0	-91.05	3,182.8	-1,086.9	1,091.9	1,025.9	65.99	16.547		
11,000.0	7,472.0	11,091.2	7,492.0	67.6	0.0	-91.05	3,282.8	-1,087.7	1,091.9	1,024.3	67.60	16.154		
11,100.0	7,472.0	11,191.2	7,492.0	69.2	0.0	-91.05	3,382.8	-1,088.5	1,091.9	1,022.7	69.21	15.777		
11,200.0	7,472.0	11,291.2	7,492.0	70.8	0.0	-91.05	3,482.8	-1,089.4	1,091.9	1,021.1	70.83	15.415		
11,300.0	7,472.0	11,391.2	7,492.0	72.5	0.0	-91.05	3,582.8	-1,090.2	1,091.9	1,019.5	72.46	15.069		
11,400.0	7,472.0	11,491.2	7,492.0	74.1	0.0	-91.05	3,682.8	-1,091.0	1,091.9	1,017.8	74.10	14.736		
11,500.0	7,472.0	11,591.2	7,492.0	75.7	0.0	-91.05	3,782.8	-1,091.8	1,091.9	1,016.2	75.74	14.417		
11,600.0	7,472.0	11,691.2	7,492.0	77.4	0.0	-91.05	3,882.8	-1,092.7	1,091.9	1,014.5	77.39	14.110		
11,700.0	7,472.0	11,791.2	7,492.0	79.0	0.0	-91.05	3,982.8	-1,093.5	1,091.9	1,012.9	79.04	13.815		
11,800.0	7,472.0	11,891.2	7,492.0	80.7	0.0	-91.05	4,082.8	-1,094.3	1,091.9	1,011.2	80.70	13.531		
11,900.0	7,472.0	11,991.2	7,492.0	82.4	0.0	-91.05	4,182.7	-1,095.1	1,091.9	1,009.6	82.36	13.258		
12,000.0	7,472.0	12,091.2	7,492.0	84.0	0.0	-91.05	4,282.7	-1,096.0	1,091.9	1,007.9	84.02	12.996		
12,100.0	7,472.0	12,191.2	7,492.0	85.7	0.0	-91.05	4,382.7	-1,096.8	1,091.9	1,006.2	85.69	12.742		
12,200.0	7,472.0	12,291.2	7,492.0	87.4	0.0	-91.05	4,482.7	-1,097.6	1,091.9	1,004.6	87.37	12.498		
12,300.0	7,472.0	12,391.2	7,492.0	89.0	0.0	-91.05	4,582.7	-1,098.5	1,091.9	1,002.9	89.04	12.263		
12,400.0	7,472.0	12,491.2	7,492.0	90.7	0.0	-91.05	4,682.7	-1,099.3	1,091.9	1,001.2	90.72	12.036		
12,500.0	7,472.0	12,591.2	7,492.0	92.4	0.0	-91.05	4,782.7	-1,100.1	1,091.9	999.5	92.41	11.817		
12,600.0	7,472.0	12,691.2	7,492.0	94.1	0.0	-91.05	4,882.7	-1,100.9	1,091.9	997.8	94.09	11.605		
12,700.0	7,472.0	12,791.2	7,492.0	95.8	0.0	-91.05	4,982.7	-1,101.8	1,091.9	996.1	95.78	11.400		
12,800.0	7,472.0	12,891.2	7,492.0	97.5	0.0	-91.05	5,082.7	-1,102.6	1,091.9	994.5	97.47	11.202		
12,900.0	7,472.0	12,991.2	7,492.0	99.2	0.0	-91.05	5,182.7	-1,103.4	1,091.9	992.8	99.17	11.011		
13,000.0	7,472.0	13,091.2	7,492.0	100.9	0.0	-91.05	5,282.7	-1,104.2	1,091.9	991.1	100.86	10.826		
13,100.0	7,472.0	13,191.2	7,492.0	102.6	0.0	-91.05	5,382.7	-1,105.1	1,091.9	989.4	102.56	10.646		
13,200.0	7,472.0	13,291.2	7,492.0	104.3	0.0	-91.05	5,482.7	-1,105.9	1,091.9	987.7	104.27	10.473		
13,300.0	7,472.0	13,391.2	7,492.0	106.0	0.0	-91.05	5,582.7	-1,106.7	1,091.9	986.0	105.97	10.304		
13,400.0	7,472.0	13,491.2	7,492.0	107.7	0.0	-91.05	5,682.7	-1,107.6	1,091.9	984.3	107.67	10.141		
13,500.0	7,472.0	13,591.2	7,492.0	109.4	0.0	-91.05	5,782.7	-1,108.4	1,091.9	982.6	109.38	9.983		
13,600.0	7,472.0	13,691.2	7,492.0	111.1	0.0	-91.05	5,882.7	-1,109.2	1,091.9	980.8	111.09	9.829		
13,700.0	7,472.0	13,791.2	7,492.0	112.8	0.0	-91.05	5,982.7	-1,110.0	1,091.9	979.1	112.80	9.680		
13,800.0	7,472.0	13,891.2	7,492.0	114.5	0.0	-91.05	6,082.7	-1,110.9	1,091.9	977.4	114.51	9.535		
13,900.0	7,472.0	13,991.2	7,492.0	116.2	0.0	-91.05	6,182.7	-1,111.7	1,091.9	975.7	116.23	9.395		
14,000.0	7,472.0	14,091.2	7,492.0	118.0	0.0	-91.05	6,282.7	-1,112.5	1,091.9	974.0	117.94	9.258		
14,100.0	7,472.0	14,191.2	7,492.0	119.7	0.0	-91.05	6,382.7	-1,113.3	1,091.9	972.3	119.66	9.125		
14,200.0	7,472.0	14,291.2	7,492.0	121.4	0.0	-91.05	6,482.7	-1,114.2	1,090.2	968.8	121.39	8.981		
14,300.0	7,472.0	14,391.1	7,492.0	123.1	0.0	-91.05	6,582.6	-1,115.0	1,087.3	964.2	123.12	8.832		
14,400.0	7,472.0	14,491.1	7,492.0	124.9	0.0	-91.06	6,682.6	-1,115.8	1,084.4	959.5	124.85	8.686		
14,500.0	7,472.0	14,591.0	7,492.0	126.6	0.0	-91.06	6,782.5	-1,116.6	1,081.5	954.9	126.58	8.544		
14,600.0	7,472.0	14,691.0	7,492.0	128.3	0.0	-91.06	6,882.5	-1,117.5	1,078.5	950.2	128.31	8.406		
14,700.0	7,472.0	14,790.9	7,492.0	130.1	0.0	-91.07	6,982.4	-1,118.3	1,075.6	945.6	130.04	8.271		
14,800.0	7,472.0	14,890.9	7,492.0	131.8	0.0	-91.07	7,082.4	-1,119.1	1,072.7	940.9	131.78	8.140		
14,900.0	7,472.0	14,990.9	7,492.0	133.5	0.0	-91.07	7,182.3	-1,120.0	1,069.8	936.2	133.52	8.012		
15,000.0	7,472.0	15,090.8	7,492.0	135.3	0.0	-91.07	7,282.3	-1,120.8	1,066.8	931.6	135.25	7.888		
15,100.0	7,472.0	15,190.8	7,492.0	137.0	0.0	-91.08	7,382.2	-1,121.6	1,063.9	926.9	136.99	7.766		
15,200.0	7,472.0	15,290.7	7,492.0	138.7	0.0	-91.08	7,482.2	-1,122.4	1,061.0	922.3	138.73	7.648		
15,300.0	7,472.0	15,390.7	7,492.0	140.5	0.0	-91.08	7,582.1	-1,123.3	1,058.1	917.6	140.47	7.532		
15,400.0	7,472.0	15,490.6	7,492.0	142.2	0.0	-91.09	7,682.1	-1,124.1	1,055.1	912.9	142.21	7.420		
15,500.0	7,472.0	15,590.6	7,492.0	144.0	0.0	-91.09	7,782.1	-1,124.9	1,052.2	908.3	143.95	7.309		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,472.0	15,690.6	7,492.0	145.7	0.0	-91.09	7,882.0	-1,125.7	1,049.3	903.6	145.70	7.202		
15,700.0	7,472.0	15,790.5	7,492.0	147.5	0.0	-91.10	7,982.0	-1,126.6	1,046.4	898.9	147.44	7.097		
15,800.0	7,472.0	15,890.5	7,492.0	149.2	0.0	-91.10	8,081.9	-1,127.4	1,043.4	894.3	149.18	6.994		
15,900.0	7,472.0	15,990.4	7,492.0	150.9	0.0	-91.10	8,181.9	-1,128.2	1,040.5	889.6	150.93	6.894		
16,000.0	7,472.0	16,090.4	7,492.0	152.7	0.0	-91.10	8,281.8	-1,129.1	1,038.6	885.9	152.67	6.803		
16,007.6	7,472.0	16,098.0	7,492.0	152.8	0.0	-91.10	8,289.5	-1,129.1	1,038.6	885.8	152.80	6.797		
16,100.0	7,472.0	16,190.4	7,492.0	154.4	0.0	-91.10	8,381.8	-1,129.9	1,040.1	885.7	154.41	6.736		
16,200.0	7,472.0	16,290.3	7,492.0	156.2	0.0	-91.10	8,481.8	-1,130.7	1,043.5	887.4	156.14	6.683		
16,300.0	7,472.0	16,390.3	7,492.0	157.9	0.0	-91.10	8,581.7	-1,131.5	1,047.0	889.1	157.87	6.632		
16,400.0	7,472.0	16,490.2	7,492.0	159.6	0.0	-91.09	8,681.6	-1,132.4	1,050.4	890.8	159.59	6.582		
16,500.0	7,472.0	16,590.2	7,492.0	161.3	0.0	-91.09	8,781.6	-1,133.2	1,053.9	892.5	161.32	6.533		
16,600.0	7,472.0	16,690.1	7,492.0	163.1	0.0	-91.08	8,881.5	-1,134.0	1,057.3	894.3	163.04	6.485		
16,700.0	7,472.0	16,790.0	7,492.0	164.8	0.0	-91.08	8,981.4	-1,134.8	1,060.7	896.0	164.77	6.438		
16,800.0	7,472.0	16,890.0	7,492.0	166.5	0.0	-91.08	9,081.4	-1,135.7	1,064.2	897.7	166.50	6.392		
16,900.0	7,472.0	16,989.9	7,492.0	168.2	0.0	-91.07	9,181.3	-1,136.5	1,067.6	899.4	168.23	6.346		
17,000.0	7,472.0	17,089.9	7,492.0	170.0	0.0	-91.07	9,281.3	-1,137.3	1,071.1	901.1	169.95	6.302		
17,100.0	7,472.0	17,189.8	7,492.0	171.7	0.0	-91.07	9,381.2	-1,138.1	1,074.5	902.8	171.68	6.259		
17,200.0	7,472.0	17,289.7	7,492.0	173.4	0.0	-91.06	9,481.1	-1,139.0	1,078.0	904.5	173.41	6.216		
17,300.0	7,472.0	17,389.7	7,492.0	175.2	0.0	-91.06	9,581.1	-1,139.8	1,081.4	906.3	175.14	6.174		
17,400.0	7,472.0	17,489.6	7,492.0	176.9	0.0	-91.06	9,681.0	-1,140.6	1,084.8	908.0	176.87	6.134		
17,500.0	7,472.0	17,589.6	7,492.0	178.6	0.0	-91.05	9,780.9	-1,141.5	1,088.3	909.7	178.60	6.093		
17,600.0	7,472.0	17,686.9	7,492.0	180.3	0.0	-91.05	9,878.3	-1,142.3	1,091.7	911.4	180.33	6.054		
17,606.3	7,472.0	17,686.9	7,492.0	180.5	0.0	-91.05	9,878.3	-1,142.3	1,092.0	911.6	180.44	6.052 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.4	-75.0	75.0					
100.0	100.0	100.0	100.0	0.4	0.4	-90.29	-0.4	-75.0	75.0	74.4	0.55	135.443		
200.0	200.0	200.0	200.0	1.0	1.0	-90.29	-0.4	-75.0	75.0	73.4	1.60	47.004		
300.0	300.0	300.0	300.0	1.5	1.5	-90.29	-0.4	-75.0	75.0	72.5	2.45	30.624		
400.0	400.0	400.0	400.0	1.9	1.9	-90.29	-0.4	-75.0	75.0	71.7	3.24	23.169		
500.0	500.0	500.0	500.0	2.3	2.3	-90.29	-0.4	-75.0	75.0	71.0	4.00	18.757		
600.0	600.0	600.0	600.0	2.7	2.7	-90.29	-0.4	-75.0	75.0	70.2	4.74	15.802		
700.0	700.0	700.0	700.0	3.1	3.1	-90.29	-0.4	-75.0	75.0	69.5	5.48	13.672	CC, ES	
800.0	800.0	797.6	797.6	3.5	3.4	-90.79	-1.0	-76.5	76.5	70.3	6.28	12.196		
900.0	900.0	895.0	894.9	3.9	4.3	-92.16	-3.1	-81.0	81.3	73.6	7.66	10.611		
1,000.0	1,000.0	992.0	991.4	4.2	5.1	-94.11	-6.4	-88.6	89.2	80.3	8.89	10.032		
1,100.0	1,100.0	1,088.2	1,087.0	4.6	5.8	-96.32	-11.0	-99.0	100.5	90.4	10.02	10.027		
1,200.0	1,200.0	1,183.6	1,181.3	5.0	6.4	-98.51	-16.8	-112.2	115.0	104.0	11.06	10.403		
1,300.0	1,300.0	1,278.2	1,274.3	5.3	6.9	83.81	-23.8	-128.2	132.7	120.9	11.81	11.237		
1,400.0	1,399.8	1,376.4	1,370.5	6.0	7.2	83.60	-31.7	-146.1	151.5	139.1	12.40	12.219		
1,500.0	1,499.5	1,474.6	1,466.7	6.3	7.4	84.56	-39.6	-164.1	170.1	157.2	12.95	13.132		
1,600.0	1,599.2	1,572.8	1,563.0	6.6	7.7	85.53	-47.5	-182.0	188.7	175.1	13.55	13.925		
1,700.0	1,698.8	1,671.0	1,659.2	6.9	8.0	86.32	-55.4	-199.9	207.3	193.1	14.18	14.622		
1,800.0	1,798.5	1,769.2	1,755.4	7.3	8.3	86.99	-63.3	-217.9	226.0	211.2	14.82	15.246		
1,900.0	1,898.1	1,867.4	1,851.7	7.6	8.6	87.55	-71.2	-235.8	244.7	229.2	15.48	15.805		
2,000.0	1,997.8	1,965.7	1,947.9	8.0	8.9	88.03	-79.1	-253.7	263.4	247.2	16.15	16.309		
2,100.0	2,097.4	2,063.9	2,044.2	8.3	9.2	88.45	-87.0	-271.7	282.1	265.3	16.83	16.759		
2,200.0	2,197.1	2,162.1	2,140.4	8.7	9.6	88.82	-94.9	-289.6	300.8	283.3	17.52	17.171		
2,300.0	2,296.7	2,260.3	2,236.6	9.0	9.9	89.14	-102.8	-307.5	319.6	301.4	18.22	17.543		
2,400.0	2,396.4	2,358.5	2,332.9	9.4	10.3	89.43	-110.7	-325.5	338.3	319.4	18.92	17.881		
2,500.0	2,496.0	2,456.7	2,429.1	9.7	10.7	89.68	-118.6	-343.4	357.1	337.5	19.63	18.190		
2,600.0	2,595.7	2,554.9	2,525.3	10.1	11.1	89.91	-126.5	-361.3	375.9	355.5	20.35	18.472		
2,700.0	2,695.3	2,653.1	2,621.6	10.4	11.5	90.12	-134.4	-379.3	394.6	373.6	21.07	18.731		
2,800.0	2,795.0	2,751.4	2,717.8	10.8	12.0	90.31	-142.3	-397.2	413.4	391.6	21.79	18.969		
2,900.0	2,894.7	2,849.6	2,814.1	11.1	12.4	90.49	-150.2	-415.1	432.2	409.7	22.52	19.188		
3,000.0	2,994.3	2,947.8	2,910.3	11.5	12.8	90.65	-158.1	-433.1	451.0	427.7	23.26	19.391		
3,100.0	3,094.0	3,046.0	3,006.5	11.9	13.3	90.79	-166.0	-451.0	469.8	445.8	23.99	19.579		
3,200.0	3,193.6	3,144.2	3,102.8	12.2	13.8	90.93	-173.9	-468.9	488.6	463.8	24.73	19.753		
3,300.0	3,293.3	3,242.4	3,199.0	12.6	14.2	91.06	-181.8	-486.9	507.4	481.9	25.48	19.916		
3,400.0	3,392.9	3,340.6	3,295.2	13.0	14.7	91.17	-189.7	-504.8	526.2	499.9	26.22	20.067		
3,500.0	3,492.6	3,438.8	3,391.5	13.3	15.2	91.28	-197.6	-522.7	545.0	518.0	26.97	20.208		
3,600.0	3,592.2	3,537.0	3,487.7	13.7	15.6	91.38	-205.5	-540.7	563.8	536.0	27.72	20.340		
3,700.0	3,691.9	3,635.3	3,583.9	14.1	16.1	91.48	-213.4	-558.6	582.6	554.1	28.47	20.464		
3,800.0	3,791.5	3,733.5	3,680.2	14.4	16.6	91.56	-221.3	-576.5	601.4	572.1	29.22	20.580		
3,900.0	3,891.2	3,831.7	3,776.4	14.8	17.1	91.65	-229.2	-594.5	620.2	590.2	29.98	20.689		
4,000.0	3,990.8	3,929.9	3,872.7	15.2	17.6	91.73	-237.1	-612.4	639.0	608.2	30.73	20.792		
4,100.0	4,090.5	4,028.1	3,968.9	15.6	18.0	91.80	-245.0	-630.3	657.8	626.3	31.49	20.889		
4,200.0	4,190.1	4,126.3	4,065.1	15.9	18.5	91.87	-252.9	-648.3	676.6	644.3	32.25	20.981		
4,300.0	4,289.8	4,224.5	4,161.4	16.3	19.0	91.94	-260.8	-666.2	695.4	662.4	33.01	21.067		
4,400.0	4,389.5	4,322.7	4,257.6	16.7	19.5	92.00	-268.7	-684.1	714.2	680.4	33.77	21.149		
4,500.0	4,489.1	4,421.0	4,353.8	17.0	20.0	92.06	-276.6	-702.1	733.0	698.5	34.53	21.227		
4,600.0	4,588.8	4,519.2	4,450.1	17.4	20.5	92.11	-284.5	-720.0	751.8	716.5	35.30	21.301		
4,700.0	4,688.4	4,617.4	4,546.3	17.8	20.9	92.17	-292.4	-737.9	770.6	734.6	36.06	21.371		
4,800.0	4,788.1	4,715.6	4,642.6	18.2	21.4	92.22	-300.3	-755.9	789.5	752.6	36.83	21.438		
4,900.0	4,887.7	4,813.8	4,738.8	18.6	21.9	92.27	-308.2	-773.8	808.3	770.7	37.59	21.502		
5,000.0	4,987.4	4,912.0	4,835.0	18.9	22.4	92.31	-316.1	-791.7	827.1	788.7	38.36	21.562		
5,100.0	5,087.0	5,010.2	4,931.3	19.3	22.9	92.36	-324.0	-809.7	845.9	806.8	39.13	21.620		

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 19-18-2NCH
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 19-18-2NCH	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		
5,200.0	5,186.7	5,108.4	5,027.5	19.7	23.4	92.40	-331.8	-827.6	864.7	824.8	39.89	21.675		
5,300.0	5,286.3	5,206.7	5,123.7	20.1	23.9	92.44	-339.7	-845.5	883.5	842.9	40.66	21.728		
5,400.0	5,386.0	5,304.9	5,220.0	20.4	24.3	92.48	-347.6	-863.5	902.3	860.9	41.43	21.778		
5,500.0	5,485.6	5,403.1	5,316.2	20.8	24.8	92.52	-355.5	-881.4	921.2	879.0	42.20	21.827		
5,600.0	5,585.3	5,501.3	5,412.5	21.2	25.3	92.55	-363.4	-899.3	940.0	897.0	42.97	21.873		
5,700.0	5,684.9	5,599.5	5,508.7	21.6	25.8	92.59	-371.3	-917.3	958.8	915.0	43.75	21.918		
5,800.0	5,784.6	5,697.7	5,604.9	22.0	26.3	92.62	-379.2	-935.2	977.6	933.1	44.52	21.960		
5,900.0	5,884.3	5,795.9	5,701.2	22.3	26.8	92.65	-387.1	-953.1	996.4	951.1	45.29	22.001		
6,000.0	5,983.9	5,894.1	5,797.4	22.7	27.3	92.68	-395.0	-971.1	1,015.2	969.2	46.06	22.041		
6,100.0	6,083.6	5,992.4	5,893.6	23.1	27.8	92.71	-402.9	-989.0	1,034.1	987.2	46.84	22.078		
6,200.0	6,183.2	6,090.6	5,989.9	23.5	28.2	92.74	-410.8	-1,006.9	1,052.9	1,005.3	47.61	22.115		
6,300.0	6,282.9	6,188.8	6,086.1	23.9	28.7	92.77	-418.7	-1,024.9	1,071.7	1,023.3	48.38	22.150		
6,400.0	6,382.5	6,287.0	6,182.4	24.2	29.2	92.80	-426.6	-1,042.8	1,090.5	1,041.4	49.16	22.184		
6,500.0	6,482.2	6,385.2	6,278.6	24.6	29.7	92.82	-434.5	-1,060.7	1,109.3	1,059.4	49.93	22.216		
6,600.0	6,581.8	6,483.4	6,374.8	25.0	30.2	92.85	-442.4	-1,078.7	1,128.2	1,077.4	50.71	22.248		
6,700.0	6,681.5	6,581.6	6,471.1	25.4	30.7	92.87	-450.3	-1,096.6	1,147.0	1,095.5	51.48	22.278		
6,800.0	6,781.1	6,679.8	6,567.3	25.8	31.2	92.89	-458.2	-1,114.5	1,165.8	1,113.5	52.26	22.307		
6,900.0	6,880.8	6,778.0	6,663.5	26.1	31.7	92.92	-466.1	-1,132.5	1,184.6	1,131.6	53.02	22.342		
7,000.0	6,980.6	6,874.1	6,757.9	26.7	32.2	92.94	-466.1	-1,150.2	1,203.5	1,149.6	53.92	22.321		
7,100.0	7,077.8	6,971.2	6,851.7	27.0	32.7	92.97	-449.8	-1,168.0	1,222.0	1,167.6	54.40	22.466		
7,200.0	7,169.6	7,069.4	6,942.6	27.3	33.1	92.99	-417.1	-1,185.6	1,239.7	1,184.9	54.77	22.636		
7,300.0	7,253.2	7,169.1	7,027.7	27.6	33.4	93.02	-368.3	-1,202.3	1,255.9	1,200.9	55.07	22.807		
7,400.0	7,326.0	7,270.4	7,104.4	27.8	33.7	93.04	-304.2	-1,217.7	1,270.3	1,215.0	55.34	22.953		
7,500.0	7,385.9	7,373.3	7,169.7	28.0	33.8	93.06	-225.9	-1,231.1	1,282.3	1,226.7	55.64	23.045		
7,600.0	7,430.9	7,477.9	7,220.7	28.1	33.9	93.07	-135.5	-1,242.1	1,291.6	1,235.6	56.01	23.062		
7,700.0	7,459.8	7,583.8	7,255.2	28.3	33.9	93.08	-35.8	-1,250.1	1,297.9	1,241.4	56.47	22.985		
7,800.0	7,471.7	7,690.8	7,271.0	28.5	33.9	93.09	69.8	-1,254.7	1,300.9	1,243.9	57.04	22.808		
7,900.0	7,472.0	7,793.1	7,272.0	28.7	33.9	93.10	172.1	-1,256.5	1,301.7	1,244.0	57.73	22.547		
8,000.0	7,472.0	7,893.1	7,272.0	29.1	34.0	93.11	272.1	-1,258.0	1,302.4	1,243.8	58.63	22.214		
8,100.0	7,472.0	7,993.1	7,272.0	29.7	34.2	93.12	372.0	-1,259.6	1,303.1	1,243.4	59.72	21.821		
8,200.0	7,472.0	8,093.1	7,272.0	30.3	34.5	93.13	472.0	-1,261.1	1,303.8	1,242.8	60.99	21.378		
8,300.0	7,472.0	8,193.1	7,272.0	31.0	34.9	93.14	572.0	-1,262.6	1,304.5	1,242.1	62.43	20.896		
8,400.0	7,472.0	8,293.1	7,272.0	31.8	35.5	93.15	672.0	-1,264.2	1,305.2	1,241.2	64.03	20.384		
8,500.0	7,472.0	8,393.1	7,272.0	32.7	36.1	93.16	772.0	-1,265.7	1,306.0	1,240.2	65.78	19.853		
8,600.0	7,472.0	8,493.1	7,272.0	33.7	36.8	93.17	872.0	-1,267.3	1,306.7	1,239.0	67.66	19.311		
8,700.0	7,472.0	8,593.1	7,272.0	34.8	37.7	93.18	972.0	-1,268.8	1,307.4	1,237.7	69.67	18.764		
8,800.0	7,472.0	8,693.1	7,272.0	35.9	38.6	93.19	1,071.9	-1,270.4	1,308.1	1,236.3	71.80	18.219		
8,900.0	7,472.0	8,793.1	7,272.0	37.0	39.6	93.20	1,171.9	-1,271.9	1,308.8	1,234.8	74.02	17.681		
9,000.0	7,472.0	8,893.1	7,272.0	38.2	40.6	93.21	1,271.9	-1,273.4	1,309.5	1,233.1	76.35	17.152		
9,100.0	7,472.0	8,993.1	7,272.0	39.4	41.7	93.22	1,371.9	-1,275.0	1,310.2	1,231.4	78.76	16.636		
9,200.0	7,472.0	9,093.1	7,272.0	40.7	42.9	93.23	1,471.9	-1,276.5	1,310.9	1,229.7	81.25	16.135		
9,300.0	7,472.0	9,193.1	7,272.0	42.0	44.1	93.24	1,571.9	-1,278.1	1,311.6	1,227.8	83.81	15.650		
9,400.0	7,472.0	9,293.1	7,272.0	43.4	45.3	93.25	1,671.9	-1,279.6	1,312.3	1,225.9	86.44	15.182		
9,500.0	7,472.0	9,393.1	7,272.0	44.7	46.6	93.26	1,771.8	-1,281.2	1,313.0	1,223.9	89.13	14.732		
9,600.0	7,472.0	9,493.1	7,272.0	46.2	47.9	93.27	1,871.8	-1,282.7	1,313.7	1,221.9	91.87	14.300		
9,700.0	7,472.0	9,593.1	7,272.0	47.6	49.2	93.28	1,971.8	-1,284.2	1,314.4	1,219.8	94.66	13.886		
9,800.0	7,472.0	9,693.1	7,272.0	49.0	50.6	93.29	2,071.8	-1,285.8	1,315.2	1,217.7	97.50	13.489		
9,900.0	7,472.0	9,793.1	7,272.0	50.5	52.0	93.30	2,171.8	-1,287.3	1,315.9	1,215.5	100.38	13.109		
10,000.0	7,472.0	9,893.1	7,272.0	52.0	53.4	93.31	2,271.8	-1,288.9	1,316.6	1,213.3	103.30	12.745		
10,100.0	7,472.0	9,993.1	7,272.0	53.5	54.8	93.32	2,371.8	-1,290.4	1,317.3	1,211.0	106.25	12.397		
10,200.0	7,472.0	10,093.1	7,272.0	55.0	56.3	93.33	2,471.7	-1,292.0	1,318.0	1,208.7	109.24	12.065		
10,300.0	7,472.0	10,193.1	7,272.0	56.5	57.8	93.34	2,571.7	-1,293.5	1,318.7	1,206.4	112.26	11.747		

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 19-18-2NCH
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 19-18-2NCH	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-MWMD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,293.1	7,272.0	58.1	59.2	-81.28	2,671.7	-1,295.0	1,319.4	1,204.1	115.30	11.443		
10,500.0	7,472.0	10,393.1	7,272.0	59.6	60.7	-81.29	2,771.7	-1,296.6	1,320.1	1,201.7	118.37	11.152		
10,600.0	7,472.0	10,493.1	7,272.0	61.2	62.3	-81.29	2,871.7	-1,298.1	1,320.8	1,199.4	121.46	10.874		
10,700.0	7,472.0	10,593.1	7,272.0	62.8	63.8	-81.30	2,971.7	-1,299.7	1,321.5	1,197.0	124.58	10.608		
10,800.0	7,472.0	10,693.1	7,272.0	64.4	65.3	-81.30	3,071.7	-1,301.2	1,322.2	1,194.5	127.71	10.353		
10,900.0	7,472.0	10,793.1	7,272.0	66.0	66.9	-81.30	3,171.6	-1,302.8	1,322.9	1,192.1	130.86	10.109		
11,000.0	7,472.0	10,893.1	7,272.0	67.6	68.4	-81.31	3,271.6	-1,304.3	1,323.7	1,189.6	134.04	9.875		
11,100.0	7,472.0	10,993.1	7,272.0	69.2	70.0	-81.31	3,371.6	-1,305.8	1,324.4	1,187.1	137.22	9.651		
11,200.0	7,472.0	11,093.1	7,272.0	70.8	71.6	-81.32	3,471.6	-1,307.4	1,325.1	1,184.6	140.42	9.436		
11,300.0	7,472.0	11,193.1	7,272.0	72.5	73.2	-81.32	3,571.6	-1,308.9	1,325.8	1,182.1	143.64	9.230		
11,400.0	7,472.0	11,293.0	7,272.0	74.1	74.8	-81.33	3,671.6	-1,310.5	1,326.5	1,179.6	146.87	9.032		
11,500.0	7,472.0	11,393.0	7,272.0	75.7	76.4	-81.33	3,771.6	-1,312.0	1,327.2	1,177.1	150.11	8.842		
11,600.0	7,472.0	11,493.0	7,272.0	77.4	78.0	-81.34	3,871.5	-1,313.6	1,327.9	1,174.5	153.36	8.659		
11,700.0	7,472.0	11,593.0	7,272.0	79.0	79.6	-81.34	3,971.5	-1,315.1	1,328.6	1,172.0	156.63	8.483		
11,800.0	7,472.0	11,693.0	7,272.0	80.7	81.2	-81.35	4,071.5	-1,316.6	1,329.3	1,169.4	159.90	8.313		
11,900.0	7,472.0	11,793.0	7,272.0	82.4	82.9	-81.35	4,171.5	-1,318.2	1,330.0	1,166.8	163.18	8.151		
12,000.0	7,472.0	11,893.0	7,272.0	84.0	84.5	-81.36	4,271.5	-1,319.7	1,330.7	1,164.3	166.47	7.994		
12,100.0	7,472.0	11,993.0	7,272.0	85.7	86.1	-81.36	4,371.5	-1,321.3	1,331.4	1,161.7	169.78	7.842		
12,200.0	7,472.0	12,093.0	7,272.0	87.4	87.8	-81.37	4,471.4	-1,322.8	1,332.1	1,159.1	173.08	7.697		
12,300.0	7,472.0	12,193.0	7,272.0	89.0	89.4	-81.37	4,571.4	-1,324.4	1,332.9	1,156.5	176.40	7.556		
12,400.0	7,472.0	12,293.0	7,272.0	90.7	91.1	-81.37	4,671.4	-1,325.9	1,333.6	1,153.8	179.72	7.420		
12,500.0	7,472.0	12,393.0	7,272.0	92.4	92.7	-81.38	4,771.4	-1,327.4	1,334.3	1,151.2	183.05	7.289		
12,600.0	7,472.0	12,493.0	7,272.0	94.1	94.4	-81.38	4,871.4	-1,329.0	1,335.0	1,148.6	186.39	7.162		
12,700.0	7,472.0	12,593.0	7,272.0	95.8	96.1	-81.39	4,971.4	-1,330.5	1,335.7	1,146.0	189.73	7.040		
12,800.0	7,472.0	12,693.0	7,272.0	97.5	97.7	-81.39	5,071.4	-1,332.1	1,336.4	1,143.3	193.08	6.921		
12,900.0	7,472.0	12,793.0	7,272.0	99.2	99.4	-81.40	5,171.3	-1,333.6	1,337.1	1,140.7	196.44	6.807		
13,000.0	7,472.0	12,893.0	7,272.0	100.9	101.1	-81.40	5,271.3	-1,335.2	1,337.8	1,138.0	199.79	6.696		
13,100.0	7,472.0	12,993.0	7,272.0	102.6	102.8	-81.41	5,371.3	-1,336.7	1,338.5	1,135.4	203.16	6.589		
13,200.0	7,472.0	13,093.0	7,272.0	104.3	104.5	-81.41	5,471.3	-1,338.2	1,339.2	1,132.7	206.53	6.485		
13,300.0	7,472.0	13,193.0	7,272.0	106.0	106.1	-81.42	5,571.3	-1,339.8	1,339.9	1,130.0	209.90	6.384		
13,400.0	7,472.0	13,293.0	7,272.0	107.7	107.8	-81.42	5,671.3	-1,341.3	1,340.6	1,127.4	213.28	6.286		
13,500.0	7,472.0	13,393.0	7,272.0	109.4	109.5	-81.42	5,771.3	-1,342.9	1,341.4	1,124.7	216.66	6.191		
13,600.0	7,472.0	13,493.0	7,272.0	111.1	111.2	-81.43	5,871.2	-1,344.4	1,342.1	1,122.0	220.04	6.099		
13,700.0	7,472.0	13,593.0	7,272.0	112.8	112.9	-81.43	5,971.2	-1,346.0	1,342.8	1,119.3	223.43	6.010		
13,800.0	7,472.0	13,693.0	7,272.0	114.5	114.6	-81.44	6,071.2	-1,347.5	1,343.5	1,116.7	226.83	5.923		
13,900.0	7,472.0	13,793.0	7,272.0	116.2	116.3	-81.44	6,171.2	-1,349.0	1,344.2	1,114.0	230.22	5.839		
14,000.0	7,472.0	13,893.0	7,272.0	118.0	118.0	-81.45	6,271.2	-1,350.6	1,344.9	1,111.3	233.62	5.757		
14,100.0	7,472.0	13,993.0	7,272.0	119.7	119.7	-81.45	6,371.2	-1,352.1	1,345.6	1,108.6	237.02	5.677		
14,200.0	7,472.0	14,093.0	7,272.0	121.4	121.4	-81.44	6,471.2	-1,353.7	1,346.6	1,104.2	240.43	5.593		
14,300.0	7,472.0	14,192.9	7,272.0	123.1	123.1	-81.43	6,571.1	-1,355.2	1,342.4	1,098.6	243.84	5.505		
14,400.0	7,472.0	14,292.9	7,272.0	124.9	124.8	-81.42	6,671.1	-1,356.8	1,340.3	1,093.0	247.25	5.421		
14,500.0	7,472.0	14,392.9	7,272.0	126.6	126.5	-81.40	6,771.0	-1,358.3	1,338.1	1,087.4	250.66	5.338		
14,600.0	7,472.0	14,492.9	7,272.0	128.3	128.3	-81.39	6,871.0	-1,359.8	1,335.9	1,081.8	254.08	5.258		
14,700.0	7,472.0	14,592.8	7,272.0	130.1	130.0	-81.37	6,971.0	-1,361.4	1,333.7	1,076.2	257.50	5.179		
14,800.0	7,472.0	14,692.8	7,272.0	131.8	131.7	-81.36	7,070.9	-1,362.9	1,331.5	1,070.6	260.92	5.103		
14,900.0	7,472.0	14,792.8	7,272.0	133.5	133.4	-81.34	7,170.9	-1,364.5	1,329.3	1,065.0	264.34	5.029		
15,000.0	7,472.0	14,892.8	7,272.0	135.3	135.1	-81.33	7,270.9	-1,366.0	1,327.2	1,059.4	267.77	4.956		
15,100.0	7,472.0	14,992.7	7,272.0	137.0	136.8	-81.32	7,370.8	-1,367.5	1,325.0	1,053.8	271.19	4.886		
15,200.0	7,472.0	15,092.7	7,272.0	138.7	138.6	-81.30	7,470.8	-1,369.1	1,322.8	1,048.2	274.62	4.817		
15,300.0	7,472.0	15,192.7	7,272.0	140.5	140.3	-81.29	7,570.8	-1,370.6	1,320.6	1,042.5	278.05	4.750		
15,400.0	7,472.0	15,292.7	7,272.0	142.2	142.0	-81.27	7,670.7	-1,372.2	1,318.4	1,036.9	281.48	4.684		
15,500.0	7,472.0	15,392.7	7,272.0	144.0	143.7	-81.26	7,770.7	-1,373.7	1,316.2	1,031.3	284.91	4.620		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-1NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,600.0	7,472.0	15,492.6	7,272.0	145.7	145.4	-81.24	7,870.6	-1,375.3	1,314.0	1,025.7	288.35	4.557		
15,700.0	7,472.0	15,592.6	7,272.0	147.5	147.2	-81.23	7,970.6	-1,376.8	1,311.9	1,020.1	291.78	4.496		
15,800.0	7,472.0	15,692.6	7,272.0	149.2	148.9	-81.21	8,070.6	-1,378.3	1,309.7	1,014.5	295.22	4.436		
15,900.0	7,472.0	15,792.6	7,272.0	150.9	150.6	-81.20	8,170.5	-1,379.9	1,307.5	1,008.8	298.66	4.378		
15,989.7	7,472.0	15,882.2	7,272.0	152.5	152.2	-81.20	8,260.2	-1,381.3	1,306.6	1,004.8	301.74	4.330		
16,000.0	7,472.0	15,892.5	7,272.0	152.7	152.3	-81.19	8,270.5	-1,381.4	1,306.3	1,004.2	302.10	4.324		
16,100.0	7,472.0	15,992.5	7,272.0	154.4	154.1	-81.20	8,370.5	-1,383.0	1,308.5	1,002.9	305.55	4.282		
16,200.0	7,472.0	16,092.4	7,272.0	156.2	155.8	-81.23	8,470.4	-1,384.5	1,312.6	1,003.6	309.00	4.248		
16,300.0	7,472.0	16,192.3	7,272.0	157.9	157.5	-81.26	8,570.3	-1,386.1	1,316.7	1,004.3	312.44	4.214		
16,400.0	7,472.0	16,292.3	7,272.0	159.6	159.3	-81.28	8,670.2	-1,387.6	1,320.8	1,004.9	315.89	4.181		
16,500.0	7,472.0	16,392.2	7,272.0	161.3	161.0	-81.31	8,770.1	-1,389.1	1,324.9	1,005.6	319.33	4.149		
16,600.0	7,472.0	16,492.1	7,272.0	163.1	162.7	-81.34	8,870.0	-1,390.7	1,329.0	1,006.3	322.78	4.117		
16,700.0	7,472.0	16,592.0	7,272.0	164.8	164.5	-81.36	8,969.9	-1,392.2	1,333.1	1,006.9	326.23	4.087		
16,800.0	7,472.0	16,691.9	7,272.0	166.5	166.2	-81.39	9,069.8	-1,393.8	1,337.3	1,007.6	329.68	4.056		
16,900.0	7,472.0	16,791.8	7,272.0	168.2	167.9	-81.42	9,169.7	-1,395.3	1,341.4	1,008.2	333.13	4.027		
17,000.0	7,472.0	16,891.7	7,272.0	170.0	169.7	-81.44	9,269.6	-1,396.8	1,345.5	1,008.9	336.58	3.997		
17,100.0	7,472.0	16,991.6	7,272.0	171.7	171.4	-81.47	9,369.5	-1,398.4	1,349.6	1,009.6	340.04	3.969		
17,200.0	7,472.0	17,091.6	7,272.0	173.4	173.1	-81.50	9,469.4	-1,399.9	1,353.7	1,010.2	343.49	3.941		
17,300.0	7,472.0	17,191.5	7,272.0	175.2	174.9	-81.52	9,569.3	-1,401.5	1,357.8	1,010.9	346.95	3.914		
17,400.0	7,472.0	17,270.0	7,272.0	176.9	176.2	-81.54	9,647.8	-1,402.7	1,362.1	1,011.9	350.21	3.889 SF		
17,500.0	7,472.0	17,270.0	7,272.0	178.6	176.2	-81.54	9,647.8	-1,402.7	1,371.4	1,019.8	351.64	3.900		
17,600.0	7,472.0	17,270.0	7,272.0	180.3	176.2	-81.54	9,647.8	-1,402.7	1,387.9	1,036.6	351.28	3.951		
17,606.3	7,472.0	17,270.0	7,272.0	180.5	176.2	-81.54	9,647.8	-1,402.7	1,389.2	1,038.0	351.20	3.955		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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		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	-90.30	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.30	-0.2	-30.0	30.0	29.7	0.28	108.196		
200.0	200.0	200.0	200.0	1.0	0.0	-90.30	-0.2	-30.0	30.0	29.2	0.80	37.567		
300.0	300.0	300.0	300.0	1.5	0.0	-90.30	-0.2	-30.0	30.0	28.7	1.22	24.478		
400.0	400.0	400.0	400.0	1.9	0.0	-90.30	-0.2	-30.0	30.0	28.4	1.62	18.521		
500.0	500.0	500.0	500.0	2.3	0.0	-90.30	-0.2	-30.0	30.0	28.0	2.00	14.994		
600.0	600.0	600.0	600.0	2.7	0.0	-90.30	-0.2	-30.0	30.0	27.6	2.37	12.632		
700.0	700.0	700.0	700.0	3.1	0.0	-90.30	-0.2	-30.0	30.0	27.2	2.74	10.930		
800.0	800.0	800.0	800.0	3.5	0.0	-90.30	-0.2	-30.0	30.0	26.9	3.11	9.640		
900.0	900.0	900.0	900.0	3.9	0.0	-90.30	-0.2	-30.0	30.0	26.5	3.47	8.626		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	-90.30	-0.2	-30.0	30.0	26.1	3.84	7.808 CC, ES		
1,100.0	1,100.0	1,099.3	1,099.3	4.6	0.0	-92.86	-1.5	-31.0	31.0	26.8	4.24	7.321		
1,200.0	1,200.0	1,198.4	1,198.3	5.0	0.0	-99.52	-5.7	-34.0	34.5	29.8	4.70	7.356		
1,300.0	1,300.0	1,297.4	1,296.9	5.3	0.0	78.36	-12.6	-39.0	40.7	35.7	5.06	8.041		
1,400.0	1,399.8	1,397.2	1,396.2	6.0	0.0	77.19	-20.3	-44.7	47.3	41.8	5.47	8.633		
1,500.0	1,499.5	1,497.0	1,495.5	6.3	0.0	79.33	-28.1	-50.4	53.2	47.5	5.74	9.271		
1,600.0	1,599.2	1,596.8	1,594.9	6.6	0.0	81.32	-35.9	-56.1	59.2	53.2	6.03	9.809		
1,700.0	1,698.8	1,696.6	1,694.2	6.9	0.0	82.94	-43.7	-61.7	65.2	58.9	6.35	10.263		
1,800.0	1,798.5	1,796.4	1,793.6	7.3	0.0	84.29	-51.5	-67.4	71.3	64.6	6.68	10.665		
1,900.0	1,898.1	1,896.2	1,892.9	7.6	0.0	85.43	-59.3	-73.1	77.4	70.4	7.02	11.022		
2,000.0	1,997.8	1,996.0	1,992.2	8.0	0.0	86.40	-67.0	-78.8	83.5	76.2	7.37	11.341		
2,100.0	2,097.4	2,095.8	2,091.6	8.3	0.0	87.23	-74.8	-84.5	89.7	82.0	7.71	11.626		
2,200.0	2,197.1	2,195.6	2,190.9	8.7	0.0	87.96	-82.6	-90.1	95.9	87.8	8.07	11.883		
2,300.0	2,296.7	2,295.4	2,290.2	9.0	0.0	88.60	-90.4	-95.8	102.0	93.6	8.42	12.115		
2,400.0	2,396.4	2,395.2	2,389.6	9.4	0.0	89.17	-98.2	-101.5	108.2	99.5	8.78	12.325		
2,500.0	2,496.0	2,495.0	2,488.9	9.7	0.0	89.68	-106.0	-107.2	114.5	105.3	9.14	12.516		
2,600.0	2,595.7	2,594.8	2,588.2	10.1	0.0	90.13	-113.7	-112.8	120.7	111.2	9.51	12.690		
2,700.0	2,695.3	2,694.6	2,687.6	10.4	0.0	90.54	-121.5	-118.5	126.9	117.0	9.87	12.850		
2,800.0	2,795.0	2,794.4	2,786.9	10.8	0.0	90.91	-129.3	-124.2	133.1	122.9	10.24	12.996		
2,900.0	2,894.7	2,894.2	2,886.3	11.1	0.0	91.25	-137.1	-129.9	139.3	128.7	10.61	13.131		
3,000.0	2,994.3	2,994.0	2,985.6	11.5	0.0	91.56	-144.9	-135.6	145.6	134.6	10.98	13.256		
3,100.0	3,094.0	3,093.8	3,084.9	11.9	0.0	91.84	-152.6	-141.2	151.8	140.5	11.35	13.372		
3,200.0	3,193.6	3,193.6	3,184.3	12.2	0.0	92.10	-160.4	-146.9	158.1	146.3	11.73	13.479		
3,300.0	3,293.3	3,293.4	3,283.6	12.6	0.0	92.35	-168.2	-152.6	164.3	152.2	12.10	13.579		
3,400.0	3,392.9	3,393.2	3,382.9	13.0	0.0	92.57	-176.0	-158.3	170.6	158.1	12.47	13.672		
3,500.0	3,492.6	3,493.1	3,482.3	13.3	0.0	92.78	-183.8	-164.0	176.8	164.0	12.85	13.759		
3,600.0	3,592.2	3,592.9	3,581.6	13.7	0.0	92.97	-191.6	-169.6	183.1	169.8	13.23	13.841		
3,700.0	3,691.9	3,692.7	3,680.9	14.1	0.0	93.15	-199.3	-175.3	189.3	175.7	13.60	13.917		
3,800.0	3,791.5	3,792.5	3,780.3	14.4	0.0	93.32	-207.1	-181.0	195.6	181.6	13.98	13.989		
3,900.0	3,891.2	3,892.3	3,879.6	14.8	0.0	93.48	-214.9	-186.7	201.8	187.5	14.36	14.057		
4,000.0	3,990.8	3,992.1	3,979.0	15.2	0.0	93.63	-222.7	-192.4	208.1	193.4	14.74	14.121		
4,100.0	4,090.5	4,091.9	4,078.3	15.6	0.0	93.77	-230.5	-198.0	214.4	199.2	15.12	14.181		
4,200.0	4,190.1	4,191.7	4,177.6	15.9	0.0	93.90	-238.3	-203.7	220.6	205.1	15.49	14.239		
4,300.0	4,289.8	4,291.5	4,277.0	16.3	0.0	94.03	-246.0	-209.4	226.9	211.0	15.87	14.293		
4,400.0	4,389.5	4,391.3	4,376.3	16.7	0.0	94.15	-253.8	-215.1	233.1	216.9	16.25	14.344		
4,500.0	4,489.1	4,491.1	4,475.6	17.0	0.0	94.26	-261.6	-220.8	239.4	222.8	16.63	14.393		
4,600.0	4,588.8	4,590.9	4,575.0	17.4	0.0	94.37	-269.4	-226.4	245.7	228.7	17.01	14.439		
4,700.0	4,688.4	4,690.7	4,674.3	17.8	0.0	94.47	-277.2	-232.1	251.9	234.6	17.40	14.483		
4,800.0	4,788.1	4,790.5	4,773.6	18.2	0.0	94.56	-285.0	-237.8	258.2	240.4	17.78	14.526		
4,900.0	4,887.7	4,890.3	4,873.0	18.6	0.0	94.66	-292.7	-243.5	264.5	246.3	18.16	14.566		
5,000.0	4,987.4	4,990.1	4,972.3	18.9	0.0	94.74	-300.5	-249.1	270.8	252.2	18.54	14.604		
5,100.0	5,087.0	5,089.9	5,071.7	19.3	0.0	94.83	-308.3	-254.8	277.0	258.1	18.92	14.641		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,189.7	5,171.0	19.7	0.0	94.91	-316.1	-260.5	283.3	264.0	19.30	14.676		
5,300.0	5,286.3	5,289.5	5,270.3	20.1	0.0	94.98	-323.9	-266.2	289.6	269.9	19.69	14.709		
5,400.0	5,386.0	5,389.3	5,369.7	20.4	0.0	95.06	-331.7	-271.9	295.8	275.8	20.07	14.742		
5,500.0	5,485.6	5,489.1	5,469.0	20.8	0.0	95.13	-339.4	-277.5	302.1	281.7	20.45	14.773		
5,600.0	5,585.3	5,588.9	5,568.3	21.2	0.0	95.19	-347.2	-283.2	308.4	287.6	20.83	14.802		
5,700.0	5,684.9	5,688.7	5,667.7	21.6	0.0	95.26	-355.0	-288.9	314.7	293.4	21.22	14.831		
5,800.0	5,784.6	5,788.5	5,767.0	22.0	0.0	95.32	-362.8	-294.6	320.9	299.3	21.60	14.858		
5,900.0	5,884.3	5,888.3	5,866.3	22.3	0.0	95.38	-370.6	-300.3	327.2	305.2	21.98	14.885		
6,000.0	5,983.9	5,988.1	5,965.7	22.7	0.0	95.44	-378.3	-305.9	333.5	311.1	22.37	14.910		
6,100.0	6,083.6	6,087.9	6,065.0	23.1	0.0	95.49	-386.1	-311.6	339.8	317.0	22.75	14.935		
6,200.0	6,183.2	6,187.7	6,164.3	23.5	0.0	95.55	-393.9	-317.3	346.0	322.9	23.13	14.958		
6,300.0	6,282.9	6,287.5	6,263.7	23.9	0.0	95.60	-401.7	-323.0	352.3	328.8	23.52	14.981		
6,400.0	6,382.5	6,387.3	6,363.0	24.2	0.0	95.65	-409.5	-328.7	358.6	334.7	23.90	15.003		
6,500.0	6,482.2	6,487.1	6,462.4	24.6	0.0	95.70	-417.3	-334.3	364.9	340.6	24.28	15.024		
6,600.0	6,581.8	6,586.9	6,561.7	25.0	0.0	95.74	-425.0	-340.0	371.1	346.5	24.67	15.045		
6,700.0	6,681.5	6,686.7	6,661.0	25.4	0.0	95.79	-432.8	-345.7	377.4	352.4	25.05	15.065		
6,800.0	6,781.1	6,786.5	6,760.4	25.8	0.0	95.83	-440.6	-351.4	383.7	358.2	25.44	15.084		
6,900.0	6,880.8	6,886.3	6,859.7	26.1	0.0	101.51	-448.4	-357.1	389.9	364.1	25.82	15.105		
7,000.0	6,980.6	6,985.1	6,958.0	26.7	0.0	-90.94	-456.1	-362.7	395.8	369.4	26.45	14.966		
7,100.0	7,077.8	7,080.5	7,053.0	27.0	0.0	-93.26	-463.5	-368.1	402.7	376.0	26.76	15.049		
7,200.0	7,169.6	7,181.5	7,153.7	27.3	0.0	-97.19	-461.1	-373.9	412.5	385.4	27.07	15.239		
7,300.0	7,253.2	7,290.7	7,260.1	27.6	0.0	-101.11	-438.8	-380.0	424.6	397.2	27.31	15.544		
7,400.0	7,326.0	7,409.5	7,368.9	27.8	0.0	-104.82	-392.0	-386.3	438.0	410.6	27.42	15.975		
7,500.0	7,385.9	7,539.3	7,474.0	28.0	0.0	-108.14	-316.4	-392.4	451.3	424.0	27.30	16.529		
7,600.0	7,430.9	7,680.8	7,566.0	28.1	0.0	-110.87	-209.5	-397.8	462.8	435.8	26.99	17.148		
7,700.0	7,459.8	7,832.5	7,632.4	28.3	0.0	-112.76	-73.7	-401.7	470.8	444.1	26.65	17.666		
7,800.0	7,471.7	7,990.8	7,661.4	28.5	0.0	-113.62	81.4	-403.5	473.8	447.2	26.57	17.833		
7,900.0	7,472.0	8,100.8	7,662.0	28.7	0.0	-113.68	191.4	-403.7	473.2	446.3	26.89	17.596		
8,000.0	7,472.0	8,200.8	7,662.0	29.1	0.0	-113.71	291.4	-403.8	472.5	445.2	27.34	17.280		
8,100.0	7,472.0	8,300.8	7,662.0	29.7	0.0	-113.75	391.4	-403.9	471.9	444.0	27.89	16.918		
8,200.0	7,472.0	8,400.8	7,662.0	30.3	0.0	-113.78	491.4	-404.0	471.2	442.7	28.52	16.521		
8,300.0	7,472.0	8,500.8	7,662.0	31.0	0.0	-113.82	591.4	-404.1	470.5	441.3	29.23	16.098		
8,400.0	7,472.0	8,600.8	7,662.0	31.8	0.0	-113.85	691.4	-404.3	469.9	439.9	30.01	15.656		
8,500.0	7,472.0	8,700.8	7,662.0	32.7	0.0	-113.89	791.4	-404.4	469.2	438.4	30.86	15.204		
8,600.0	7,472.0	8,800.8	7,662.0	33.7	0.0	-113.92	891.4	-404.5	468.6	436.8	31.77	14.747		
8,700.0	7,472.0	8,900.8	7,662.0	34.8	0.0	-113.96	991.4	-404.6	467.9	435.2	32.74	14.291		
8,800.0	7,472.0	9,000.8	7,662.0	35.9	0.0	-113.99	1,091.4	-404.7	467.3	433.5	33.76	13.840		
8,900.0	7,472.0	9,100.8	7,662.0	37.0	0.0	-114.03	1,191.4	-404.8	466.6	431.8	34.83	13.397		
9,000.0	7,472.0	9,200.8	7,662.0	38.2	0.0	-114.06	1,291.4	-404.9	466.0	430.0	35.94	12.966		
9,100.0	7,472.0	9,300.8	7,662.0	39.4	0.0	-114.10	1,391.4	-405.0	465.3	428.2	37.09	12.546		
9,200.0	7,472.0	9,400.8	7,662.0	40.7	0.0	-114.14	1,491.4	-405.2	464.7	426.4	38.27	12.141		
9,300.0	7,472.0	9,500.8	7,662.0	42.0	0.0	-114.17	1,591.4	-405.3	464.0	424.5	39.49	11.751		
9,400.0	7,472.0	9,600.8	7,662.0	43.4	0.0	-114.21	1,691.4	-405.4	463.4	422.6	40.73	11.376		
9,500.0	7,472.0	9,700.8	7,662.0	44.7	0.0	-114.25	1,791.4	-405.5	462.7	420.7	42.00	11.016		
9,600.0	7,472.0	9,800.8	7,662.0	46.2	0.0	-114.28	1,891.4	-405.6	462.0	418.8	43.30	10.672		
9,700.0	7,472.0	9,900.8	7,662.0	47.6	0.0	-114.32	1,991.4	-405.7	461.4	416.8	44.61	10.342		
9,800.0	7,472.0	10,000.8	7,662.0	49.0	0.0	-114.35	2,091.4	-405.8	460.7	414.8	45.95	10.027		
9,900.0	7,472.0	10,100.7	7,662.0	50.5	0.0	-114.39	2,191.4	-405.9	460.1	412.8	47.30	9.726		
10,000.0	7,472.0	10,200.7	7,662.0	52.0	0.0	-114.43	2,291.4	-406.0	459.4	410.8	48.67	9.439		
10,100.0	7,472.0	10,300.7	7,662.0	53.5	0.0	-114.47	2,391.4	-406.2	458.8	408.7	50.06	9.165		
10,200.0	7,472.0	10,400.7	7,662.0	55.0	0.0	-114.50	2,491.4	-406.3	458.1	406.7	51.46	8.903		
10,300.0	7,472.0	10,500.7	7,662.0	56.5	0.0	-114.54	2,591.4	-406.4	457.5	404.6	52.87	8.653		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,472.0	10,600.7	7,662.0	58.1	0.0	-114.58	2,691.4	-406.5	456.8	402.5	54.30	8.414	
10,500.0	7,472.0	10,700.7	7,662.0	59.6	0.0	-114.61	2,791.4	-406.6	456.2	400.5	55.73	8.186	
10,600.0	7,472.0	10,800.7	7,662.0	61.2	0.0	-114.65	2,891.4	-406.7	455.5	398.4	57.17	7.968	
10,700.0	7,472.0	10,900.7	7,662.0	62.8	0.0	-114.69	2,991.4	-406.8	454.9	396.3	58.63	7.759	
10,800.0	7,472.0	11,000.7	7,662.0	64.4	0.0	-114.73	3,091.4	-406.9	454.2	394.2	60.09	7.560	
10,900.0	7,472.0	11,100.7	7,662.0	66.0	0.0	-114.76	3,191.4	-407.0	453.6	392.0	61.55	7.369	
11,000.0	7,472.0	11,200.7	7,662.0	67.6	0.0	-114.80	3,291.4	-407.2	452.9	389.9	63.03	7.186	
11,100.0	7,472.0	11,300.7	7,662.0	69.2	0.0	-114.84	3,391.4	-407.3	452.3	387.8	64.51	7.011	
11,200.0	7,472.0	11,400.7	7,662.0	70.8	0.0	-114.88	3,491.3	-407.4	451.6	385.6	66.00	6.843	
11,300.0	7,472.0	11,500.7	7,662.0	72.5	0.0	-114.92	3,591.3	-407.5	451.0	383.5	67.49	6.682	
11,400.0	7,472.0	11,600.7	7,662.0	74.1	0.0	-114.96	3,691.3	-407.6	450.3	381.4	68.99	6.528	
11,500.0	7,472.0	11,700.7	7,662.0	75.7	0.0	-114.99	3,791.3	-407.7	449.7	379.2	70.49	6.379	
11,600.0	7,472.0	11,800.7	7,662.0	77.4	0.0	-115.03	3,891.3	-407.8	449.0	377.0	72.00	6.237	
11,700.0	7,472.0	11,900.7	7,662.0	79.0	0.0	-115.07	3,991.3	-407.9	448.4	374.9	73.51	6.100	
11,800.0	7,472.0	12,000.7	7,662.0	80.7	0.0	-115.11	4,091.3	-408.0	447.7	372.7	75.03	5.968	
11,900.0	7,472.0	12,100.7	7,662.0	82.4	0.0	-115.15	4,191.3	-408.2	447.1	370.6	76.54	5.841	
12,000.0	7,472.0	12,200.7	7,662.0	84.0	0.0	-115.19	4,291.3	-408.3	446.5	368.4	78.06	5.719	
12,100.0	7,472.0	12,300.7	7,662.0	85.7	0.0	-115.23	4,391.3	-408.4	445.8	366.2	79.59	5.601	
12,200.0	7,472.0	12,400.7	7,662.0	87.4	0.0	-115.27	4,491.3	-408.5	445.2	364.0	81.12	5.488	
12,300.0	7,472.0	12,500.7	7,662.0	89.0	0.0	-115.31	4,591.3	-408.6	444.5	361.9	82.64	5.379	
12,400.0	7,472.0	12,600.7	7,662.0	90.7	0.0	-115.34	4,691.3	-408.7	443.9	359.7	84.18	5.273	
12,500.0	7,472.0	12,700.7	7,662.0	92.4	0.0	-115.38	4,791.3	-408.8	443.2	357.5	85.71	5.171	
12,600.0	7,472.0	12,800.7	7,662.0	94.1	0.0	-115.42	4,891.3	-408.9	442.6	355.3	87.25	5.073	
12,700.0	7,472.0	12,900.7	7,662.0	95.8	0.0	-115.46	4,991.3	-409.0	441.9	353.1	88.78	4.978	
12,800.0	7,472.0	13,000.7	7,662.0	97.5	0.0	-115.50	5,091.3	-409.2	441.3	351.0	90.32	4.886	
12,900.0	7,472.0	13,100.7	7,662.0	99.2	0.0	-115.54	5,191.3	-409.3	440.6	348.8	91.86	4.797	
13,000.0	7,472.0	13,200.7	7,662.0	100.9	0.0	-115.58	5,291.3	-409.4	440.0	346.6	93.40	4.711	
13,100.0	7,472.0	13,300.7	7,662.0	102.6	0.0	-115.62	5,391.3	-409.5	439.3	344.4	94.95	4.627	
13,200.0	7,472.0	13,400.7	7,662.0	104.3	0.0	-115.66	5,491.3	-409.6	438.7	342.2	96.49	4.547	
13,300.0	7,472.0	13,500.7	7,662.0	106.0	0.0	-115.71	5,591.3	-409.7	438.1	340.0	98.04	4.468	
13,400.0	7,472.0	13,600.7	7,662.0	107.7	0.0	-115.75	5,691.3	-409.8	437.4	337.8	99.58	4.392	
13,500.0	7,472.0	13,700.7	7,662.0	109.4	0.0	-115.79	5,791.3	-409.9	436.8	335.6	101.13	4.319	
13,600.0	7,472.0	13,800.7	7,662.0	111.1	0.0	-115.83	5,891.3	-410.1	436.1	333.4	102.68	4.248	
13,700.0	7,472.0	13,900.7	7,662.0	112.8	0.0	-115.87	5,991.3	-410.2	435.5	331.3	104.22	4.178	
13,800.0	7,472.0	14,000.7	7,662.0	114.5	0.0	-115.91	6,091.3	-410.3	434.8	329.1	105.77	4.111	
13,900.0	7,472.0	14,100.6	7,662.0	116.2	0.0	-115.95	6,191.3	-410.4	434.2	326.9	107.32	4.046	
14,000.0	7,472.0	14,200.6	7,662.0	118.0	0.0	-115.99	6,291.3	-410.5	433.5	324.7	108.87	3.982	
14,100.0	7,472.0	14,300.6	7,662.0	119.7	0.0	-116.03	6,391.3	-410.6	432.9	322.5	110.42	3.920	
14,200.0	7,472.0	14,400.6	7,662.0	121.4	0.0	-116.19	6,491.2	-410.7	430.7	318.8	111.91	3.849	
14,300.0	7,472.0	14,500.5	7,662.0	123.1	0.0	-116.40	6,591.2	-410.8	427.5	314.1	113.34	3.772	
14,400.0	7,472.0	14,600.5	7,662.0	124.9	0.0	-116.62	6,691.1	-410.9	424.2	309.4	114.77	3.696	
14,500.0	7,472.0	14,700.4	7,662.0	126.6	0.0	-116.85	6,791.0	-411.1	421.0	304.8	116.18	3.623	
14,600.0	7,472.0	14,800.3	7,662.0	128.3	0.0	-117.07	6,891.0	-411.2	417.7	300.1	117.59	3.552	
14,700.0	7,472.0	14,900.3	7,662.0	130.1	0.0	-117.30	6,990.9	-411.3	414.5	295.5	119.00	3.483	
14,800.0	7,472.0	15,000.2	7,662.0	131.8	0.0	-117.53	7,090.8	-411.4	411.2	290.9	120.39	3.416	
14,900.0	7,472.0	15,100.1	7,662.0	133.5	0.0	-117.77	7,190.8	-411.5	408.0	286.2	121.78	3.351	
15,000.0	7,472.0	15,200.1	7,662.0	135.3	0.0	-118.01	7,290.7	-411.6	404.8	281.6	123.15	3.287	
15,100.0	7,472.0	15,300.0	7,662.0	137.0	0.0	-118.25	7,390.6	-411.7	401.6	277.1	124.52	3.225	
15,200.0	7,472.0	15,399.9	7,662.0	138.7	0.0	-118.50	7,490.6	-411.8	398.4	272.5	125.88	3.165	
15,300.0	7,472.0	15,499.9	7,662.0	140.5	0.0	-118.75	7,590.5	-411.9	395.2	268.0	127.23	3.106	
15,400.0	7,472.0	15,599.8	7,662.0	142.2	0.0	-119.01	7,690.4	-412.1	392.0	263.4	128.56	3.049	
15,500.0	7,472.0	15,699.7	7,662.0	144.0	0.0	-119.27	7,790.4	-412.2	388.8	258.9	129.89	2.993	

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,472.0	15,799.7	7,662.0	145.7	0.0	-119.53	7,890.3	-412.3	385.6	254.4	131.21	2.939		
15,700.0	7,472.0	15,899.6	7,662.0	147.5	0.0	-119.80	7,990.2	-412.4	382.5	250.0	132.51	2.886		
15,800.0	7,472.0	15,999.5	7,662.0	149.2	0.0	-120.08	8,090.2	-412.5	379.3	245.5	133.80	2.835		
15,900.0	7,472.0	16,099.5	7,662.0	150.9	0.0	-120.35	8,190.1	-412.6	376.2	241.1	135.08	2.785		
16,000.0	7,472.0	16,199.4	7,662.0	152.7	0.0	-120.54	8,290.1	-412.7	373.9	237.5	136.43	2.741		
16,028.1	7,472.0	16,227.6	7,662.0	153.2	0.0	-120.55	8,318.2	-412.8	373.8	236.9	136.85	2.731		
16,100.0	7,472.0	16,299.4	7,662.0	154.4	0.0	-120.49	8,390.1	-412.8	374.6	236.5	138.04	2.713		
16,200.0	7,472.0	16,399.4	7,662.0	156.2	0.0	-120.28	8,490.0	-412.9	376.9	237.1	139.81	2.696		
16,300.0	7,472.0	16,499.4	7,662.0	157.9	0.0	-120.07	8,590.0	-413.1	379.3	237.7	141.56	2.679		
16,400.0	7,472.0	16,599.3	7,662.0	159.6	0.0	-119.87	8,690.0	-413.2	381.6	238.3	143.32	2.663		
16,500.0	7,472.0	16,699.3	7,662.0	161.3	0.0	-119.66	8,789.9	-413.3	384.0	238.9	145.08	2.647		
16,600.0	7,472.0	16,799.2	7,662.0	163.1	0.0	-119.46	8,889.9	-413.4	386.4	239.5	146.84	2.631		
16,700.0	7,472.0	16,899.2	7,662.0	164.8	0.0	-119.27	8,989.8	-413.5	388.8	240.2	148.61	2.616		
16,800.0	7,472.0	16,999.2	7,662.0	166.5	0.0	-119.07	9,089.8	-413.6	391.2	240.8	150.37	2.601		
16,900.0	7,472.0	17,099.1	7,662.0	168.2	0.0	-118.88	9,189.8	-413.7	393.5	241.4	152.14	2.587		
17,000.0	7,472.0	17,199.1	7,662.0	170.0	0.0	-118.69	9,289.7	-413.8	395.9	242.0	153.90	2.573		
17,100.0	7,472.0	17,299.1	7,662.0	171.7	0.0	-118.50	9,389.7	-413.9	398.3	242.7	155.67	2.559		
17,200.0	7,472.0	17,399.0	7,662.0	173.4	0.0	-118.31	9,489.7	-414.1	400.7	243.3	157.44	2.545		
17,300.0	7,472.0	17,499.0	7,662.0	175.2	0.0	-118.13	9,589.6	-414.2	403.1	243.9	159.21	2.532		
17,400.0	7,472.0	17,599.0	7,662.0	176.9	0.0	-117.95	9,689.6	-414.3	405.5	244.6	160.98	2.519		
17,500.0	7,472.0	17,698.9	7,662.0	178.6	0.0	-117.77	9,789.5	-414.4	408.0	245.2	162.75	2.507		
17,600.0	7,472.0	17,798.9	7,662.0	180.3	0.0	-117.59	9,889.5	-414.5	410.4	245.8	164.53	2.494		
17,606.3	7,472.0	17,799.6	7,662.0	180.5	0.0	-117.59	9,890.2	-414.5	410.6	245.9	164.63	2.494 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	89.63	0.1	15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.63	0.1	15.0	15.0	14.7	0.28	54.103		
200.0	200.0	200.0	200.0	1.0	0.0	89.63	0.1	15.0	15.0	14.2	0.80	18.787		
300.0	300.0	300.0	300.0	1.5	0.0	89.63	0.1	15.0	15.0	13.8	1.23	12.243		
400.0	400.0	400.0	400.0	1.9	0.0	89.63	0.1	15.0	15.0	13.4	1.62	9.264		
500.0	500.0	500.0	500.0	2.3	0.0	89.63	0.1	15.0	15.0	13.0	2.00	7.501		
600.0	600.0	600.0	600.0	2.7	0.0	89.63	0.1	15.0	15.0	12.6	2.37	6.320		
700.0	700.0	700.0	700.0	3.1	0.0	89.63	0.1	15.0	15.0	12.3	2.74	5.468		
800.0	800.0	800.0	800.0	3.5	0.0	89.63	0.1	15.0	15.0	11.9	3.11	4.823		
900.0	900.0	900.0	900.0	3.9	0.0	89.63	0.1	15.0	15.0	11.5	3.48	4.316		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.63	0.1	15.0	15.0	11.2	3.84	3.907		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.63	0.1	15.0	15.0	10.8	4.20	3.569		
1,200.0	1,200.0	1,200.0	1,200.0	5.0	0.0	89.63	0.1	15.0	15.0	10.4	4.56	3.286		
1,273.2	1,273.2	1,273.2	1,273.2	5.2	0.0	-90.00	0.1	15.0	15.0	10.1	4.84	3.092 CC		
1,300.0	1,300.0	1,300.0	1,300.0	5.3	0.0	-93.09	0.1	15.0	15.0	10.0	4.97	3.019 ES		
1,400.0	1,399.8	1,399.7	1,399.7	6.0	0.0	-106.00	-1.3	16.0	16.6	11.0	5.55	2.984		
1,500.0	1,499.5	1,499.4	1,499.3	6.3	0.0	-113.70	-5.5	19.2	20.5	14.5	5.99	3.421		
1,600.0	1,599.2	1,599.2	1,598.6	6.6	0.0	-111.51	-12.4	24.4	25.2	19.0	6.28	4.021		
1,700.0	1,698.8	1,699.0	1,697.9	6.9	0.0	-106.32	-20.9	30.8	30.5	24.0	6.54	4.671		
1,800.0	1,798.5	1,798.8	1,797.1	7.3	0.0	-102.66	-29.5	37.2	36.0	29.2	6.82	5.275		
1,900.0	1,898.1	1,898.7	1,896.4	7.6	0.0	-99.97	-38.1	43.6	41.6	34.4	7.13	5.828		
2,000.0	1,997.8	1,998.5	1,995.7	8.0	0.0	-97.93	-46.6	50.0	47.2	39.7	7.45	6.333		
2,100.0	2,097.4	2,098.3	2,094.9	8.3	0.0	-96.32	-55.2	56.4	52.9	45.1	7.79	6.792		
2,200.0	2,197.1	2,198.1	2,194.2	8.7	0.0	-95.02	-63.7	62.8	58.6	50.5	8.13	7.210		
2,300.0	2,296.7	2,298.0	2,293.4	9.0	0.0	-93.96	-72.3	69.3	64.4	55.9	8.48	7.593		
2,400.0	2,396.4	2,397.8	2,392.7	9.4	0.0	-93.07	-80.8	75.7	70.1	61.3	8.83	7.942		
2,500.0	2,496.0	2,497.6	2,491.9	9.7	0.0	-92.31	-89.4	82.1	75.9	66.7	9.19	8.263		
2,600.0	2,595.7	2,597.5	2,591.2	10.1	0.0	-91.66	-97.9	88.5	81.7	72.2	9.55	8.558		
2,700.0	2,695.3	2,697.3	2,690.4	10.4	0.0	-91.10	-106.5	94.9	87.5	77.6	9.91	8.830		
2,800.0	2,795.0	2,797.1	2,789.7	10.8	0.0	-90.61	-115.1	101.3	93.3	83.0	10.27	9.081		
2,900.0	2,894.7	2,896.9	2,888.9	11.1	0.0	-90.18	-123.6	107.7	99.1	88.5	10.64	9.314		
3,000.0	2,994.3	2,996.8	2,988.2	11.5	0.0	-89.79	-132.2	114.2	104.9	93.9	11.01	9.530		
3,100.0	3,094.0	3,096.6	3,087.4	11.9	0.0	-89.44	-140.7	120.6	110.8	99.4	11.38	9.732		
3,200.0	3,193.6	3,196.4	3,186.7	12.2	0.0	-89.13	-149.3	127.0	116.6	104.8	11.75	9.920		
3,300.0	3,293.3	3,296.3	3,286.0	12.6	0.0	-88.85	-157.8	133.4	122.4	110.3	12.13	10.096		
3,400.0	3,392.9	3,396.1	3,385.2	13.0	0.0	-88.60	-166.4	139.8	128.2	115.7	12.50	10.260		
3,500.0	3,492.6	3,495.9	3,484.5	13.3	0.0	-88.36	-175.0	146.2	134.1	121.2	12.87	10.415		
3,600.0	3,592.2	3,595.7	3,583.7	13.7	0.0	-88.15	-183.5	152.6	139.9	126.7	13.25	10.560		
3,700.0	3,691.9	3,695.6	3,683.0	14.1	0.0	-87.95	-192.1	159.1	145.8	132.1	13.63	10.697		
3,800.0	3,791.5	3,795.4	3,782.2	14.4	0.0	-87.77	-200.6	165.5	151.6	137.6	14.00	10.826		
3,900.0	3,891.2	3,895.2	3,881.5	14.8	0.0	-87.60	-209.2	171.9	157.4	143.1	14.38	10.948		
4,000.0	3,990.8	3,995.1	3,980.7	15.2	0.0	-87.44	-217.7	178.3	163.3	148.5	14.76	11.063		
4,100.0	4,090.5	4,094.9	4,080.0	15.6	0.0	-87.30	-226.3	184.7	169.1	154.0	15.14	11.172		
4,200.0	4,190.1	4,194.7	4,179.2	15.9	0.0	-87.16	-234.8	191.1	175.0	159.5	15.52	11.276		
4,300.0	4,289.8	4,294.5	4,278.5	16.3	0.0	-87.04	-243.4	197.5	180.8	164.9	15.90	11.375		
4,400.0	4,389.5	4,394.4	4,377.7	16.7	0.0	-86.92	-252.0	204.0	186.7	170.4	16.28	11.468		
4,500.0	4,489.1	4,494.2	4,477.0	17.0	0.0	-86.81	-260.5	210.4	192.5	175.9	16.66	11.558		
4,600.0	4,588.8	4,594.0	4,576.3	17.4	0.0	-86.70	-269.1	216.8	198.4	181.3	17.04	11.643		
4,700.0	4,688.4	4,693.9	4,675.5	17.8	0.0	-86.60	-277.6	223.2	204.2	186.8	17.42	11.724		
4,800.0	4,788.1	4,793.7	4,774.8	18.2	0.0	-86.51	-286.2	229.6	210.1	192.3	17.80	11.801		
4,900.0	4,887.7	4,893.5	4,874.0	18.6	0.0	-86.42	-294.7	236.0	215.9	197.7	18.18	11.876		
5,000.0	4,987.4	4,993.3	4,973.3	18.9	0.0	-86.34	-303.3	242.4	221.8	203.2	18.56	11.946		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	5,087.0	5,093.2	5,072.5	19.3	0.0	-86.26	-311.9	248.9	227.6	208.7	18.94	12.014		
5,200.0	5,186.7	5,193.0	5,171.8	19.7	0.0	-86.18	-320.4	255.3	233.5	214.1	19.33	12.080		
5,300.0	5,286.3	5,292.8	5,271.0	20.1	0.0	-86.11	-329.0	261.7	239.3	219.6	19.71	12.142		
5,400.0	5,386.0	5,392.7	5,370.3	20.4	0.0	-86.04	-337.5	268.1	245.2	225.1	20.09	12.202		
5,500.0	5,485.6	5,492.5	5,469.5	20.8	0.0	-85.97	-346.1	274.5	251.0	230.5	20.47	12.260		
5,600.0	5,585.3	5,592.3	5,568.8	21.2	0.0	-85.91	-354.6	280.9	256.9	236.0	20.86	12.315		
5,700.0	5,684.9	5,692.1	5,668.0	21.6	0.0	-85.85	-363.2	287.3	262.7	241.5	21.24	12.369		
5,800.0	5,784.6	5,792.0	5,767.3	22.0	0.0	-85.80	-371.8	293.8	268.6	247.0	21.62	12.420		
5,900.0	5,884.3	5,891.8	5,866.5	22.3	0.0	-85.74	-380.3	300.2	274.4	252.4	22.01	12.470		
6,000.0	5,983.9	5,991.6	5,965.8	22.7	0.0	-85.69	-388.9	306.6	280.3	257.9	22.39	12.518		
6,100.0	6,083.6	6,091.4	6,065.1	23.1	0.0	-85.64	-397.4	313.0	286.1	263.4	22.77	12.564		
6,200.0	6,183.2	6,191.3	6,164.3	23.5	0.0	-85.59	-406.0	319.4	292.0	268.8	23.16	12.609		
6,300.0	6,282.9	6,291.1	6,263.6	23.9	0.0	-85.54	-414.5	325.8	297.8	274.3	23.54	12.652		
6,400.0	6,382.5	6,390.9	6,362.8	24.2	0.0	-85.50	-423.1	332.2	303.7	279.8	23.93	12.693		
6,500.0	6,482.2	6,490.8	6,462.1	24.6	0.0	-85.46	-431.6	338.7	309.6	285.2	24.31	12.734		
6,600.0	6,581.8	6,590.6	6,561.3	25.0	0.0	-85.42	-440.2	345.1	315.4	290.7	24.69	12.773		
6,700.0	6,681.5	6,690.4	6,660.6	25.4	0.0	-85.38	-448.8	351.5	321.3	296.2	25.08	12.810		
6,800.0	6,781.1	6,790.2	6,759.8	25.8	0.0	-85.34	-457.3	357.9	327.1	301.7	25.46	12.847		
6,900.0	6,880.8	6,890.4	6,859.6	26.1	0.0	-80.71	-460.5	364.3	332.9	307.1	25.86	12.877		
7,000.0	6,980.6	6,989.3	6,957.3	26.7	0.0	86.21	-446.8	370.4	338.9	312.4	26.47	12.801		
7,100.0	7,077.8	7,086.9	7,049.9	27.0	0.0	85.46	-417.1	376.1	344.8	318.1	26.71	12.912		
7,200.0	7,169.6	7,183.2	7,135.2	27.3	0.0	84.08	-372.8	381.2	350.6	323.8	26.88	13.046		
7,300.0	7,253.2	7,278.5	7,211.1	27.6	0.0	82.72	-315.5	385.6	356.0	329.0	27.00	13.188		
7,400.0	7,326.0	7,373.0	7,275.9	27.8	0.0	81.53	-247.0	389.1	360.8	333.7	27.09	13.318		
7,500.0	7,385.9	7,466.7	7,328.3	28.0	0.0	80.55	-169.5	391.8	364.8	337.6	27.19	13.417		
7,600.0	7,430.9	7,559.8	7,367.1	28.1	0.0	79.81	-85.0	393.6	367.8	340.5	27.32	13.462		
7,700.0	7,459.8	7,652.6	7,391.8	28.3	0.0	79.33	4.3	394.5	369.7	342.2	27.51	13.439		
7,800.0	7,471.7	7,745.1	7,401.8	28.5	0.0	79.12	96.2	394.3	370.6	342.8	27.78	13.337		
7,900.0	7,472.0	7,843.8	7,402.0	28.7	0.0	79.11	194.9	393.5	370.6	342.4	28.15	13.164		
8,000.0	7,472.0	7,943.8	7,402.0	29.1	0.0	79.11	294.9	392.7	370.6	342.0	28.63	12.944		
8,100.0	7,472.0	8,043.8	7,402.0	29.7	0.0	79.11	394.9	391.9	370.6	341.4	29.21	12.689		
8,200.0	7,472.0	8,143.8	7,402.0	30.3	0.0	79.11	494.9	391.1	370.6	340.7	29.87	12.405		
8,300.0	7,472.0	8,243.8	7,402.0	31.0	0.0	79.11	594.9	390.2	370.6	340.0	30.62	12.101		
8,400.0	7,472.0	8,343.8	7,402.0	31.8	0.0	79.11	694.9	389.4	370.6	339.1	31.45	11.782		
8,500.0	7,472.0	8,443.8	7,402.0	32.7	0.0	79.11	794.9	388.6	370.6	338.2	32.36	11.454		
8,600.0	7,472.0	8,543.8	7,402.0	33.7	0.0	79.11	894.9	387.8	370.6	337.3	33.32	11.121		
8,700.0	7,472.0	8,643.8	7,402.0	34.8	0.0	79.11	994.9	386.9	370.6	336.2	34.35	10.788		
8,800.0	7,472.0	8,743.8	7,402.0	35.9	0.0	79.11	1,094.9	386.1	370.6	335.2	35.44	10.457		
8,900.0	7,472.0	8,843.8	7,402.0	37.0	0.0	79.11	1,194.9	385.3	370.6	334.0	36.57	10.133		
9,000.0	7,472.0	8,943.8	7,402.0	38.2	0.0	79.11	1,294.9	384.5	370.6	332.8	37.76	9.816		
9,100.0	7,472.0	9,043.8	7,402.0	39.4	0.0	79.11	1,394.9	383.6	370.6	331.6	38.98	9.507		
9,200.0	7,472.0	9,143.8	7,402.0	40.7	0.0	79.11	1,494.9	382.8	370.6	330.4	40.24	9.209		
9,300.0	7,472.0	9,243.8	7,402.0	42.0	0.0	79.11	1,594.9	382.0	370.6	329.1	41.54	8.922		
9,400.0	7,472.0	9,343.8	7,402.0	43.4	0.0	79.11	1,694.9	381.1	370.6	327.7	42.87	8.646		
9,500.0	7,472.0	9,443.8	7,402.0	44.7	0.0	79.11	1,794.9	380.3	370.6	326.4	44.22	8.380		
9,600.0	7,472.0	9,543.8	7,402.0	46.2	0.0	79.11	1,894.9	379.5	370.6	325.0	45.60	8.126		
9,700.0	7,472.0	9,643.8	7,402.0	47.6	0.0	79.11	1,994.9	378.7	370.6	323.6	47.01	7.883		
9,800.0	7,472.0	9,743.8	7,402.0	49.0	0.0	79.11	2,094.9	377.8	370.6	322.2	48.44	7.651		
9,900.0	7,472.0	9,843.8	7,402.0	50.5	0.0	79.11	2,194.9	377.0	370.6	320.7	49.89	7.429		
10,000.0	7,472.0	9,943.8	7,402.0	52.0	0.0	79.11	2,294.9	376.2	370.6	319.2	51.35	7.217		
10,100.0	7,472.0	10,043.8	7,402.0	53.5	0.0	79.11	2,394.8	375.4	370.6	317.8	52.84	7.014		
10,200.0	7,472.0	10,143.8	7,402.0	55.0	0.0	79.11	2,494.8	374.5	370.6	316.3	54.33	6.821		

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 19-18-2NCH
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 19-18-2NCH	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		
10,300.0	7,472.0	10,243.8	7,402.0	56.5	0.0	79.11	2,594.8	373.7	370.6	314.8	55.85	6.636		
10,400.0	7,472.0	10,343.8	7,402.0	58.1	0.0	79.11	2,694.8	372.9	370.6	313.2	57.37	6.460		
10,500.0	7,472.0	10,443.8	7,402.0	59.6	0.0	79.11	2,794.8	372.1	370.6	311.7	58.91	6.291		
10,600.0	7,472.0	10,543.8	7,402.0	61.2	0.0	79.11	2,894.8	371.2	370.6	310.1	60.46	6.130		
10,700.0	7,472.0	10,643.8	7,402.0	62.8	0.0	79.11	2,994.8	370.4	370.6	308.6	62.01	5.976		
10,800.0	7,472.0	10,743.8	7,402.0	64.4	0.0	79.11	3,094.8	369.6	370.6	307.0	63.58	5.829		
10,900.0	7,472.0	10,843.8	7,402.0	66.0	0.0	79.11	3,194.8	368.8	370.6	305.4	65.16	5.688		
11,000.0	7,472.0	10,943.8	7,402.0	67.6	0.0	79.11	3,294.8	367.9	370.6	303.9	66.74	5.553		
11,100.0	7,472.0	11,043.8	7,402.0	69.2	0.0	79.11	3,394.8	367.1	370.6	302.3	68.33	5.423		
11,200.0	7,472.0	11,143.8	7,402.0	70.8	0.0	79.11	3,494.8	366.3	370.6	300.7	69.93	5.299		
11,300.0	7,472.0	11,243.8	7,402.0	72.5	0.0	79.11	3,594.8	365.4	370.6	299.1	71.54	5.180		
11,400.0	7,472.0	11,343.8	7,402.0	74.1	0.0	79.11	3,694.8	364.6	370.6	297.5	73.15	5.066		
11,500.0	7,472.0	11,443.8	7,402.0	75.7	0.0	79.11	3,794.8	363.8	370.6	295.8	74.77	4.957		
11,600.0	7,472.0	11,543.8	7,402.0	77.4	0.0	79.11	3,894.8	363.0	370.6	294.2	76.39	4.851		
11,700.0	7,472.0	11,643.8	7,402.0	79.0	0.0	79.11	3,994.8	362.1	370.6	292.6	78.02	4.750		
11,800.0	7,472.0	11,743.8	7,402.0	80.7	0.0	79.11	4,094.8	361.3	370.6	291.0	79.65	4.653		
11,900.0	7,472.0	11,843.8	7,402.0	82.4	0.0	79.11	4,194.8	360.5	370.6	289.3	81.29	4.559		
12,000.0	7,472.0	11,943.8	7,402.0	84.0	0.0	79.11	4,294.8	359.7	370.6	287.7	82.93	4.469		
12,100.0	7,472.0	12,043.8	7,402.0	85.7	0.0	79.11	4,394.8	358.8	370.6	286.0	84.58	4.382		
12,200.0	7,472.0	12,143.8	7,402.0	87.4	0.0	79.11	4,494.8	358.0	370.6	284.4	86.23	4.298		
12,300.0	7,472.0	12,243.8	7,402.0	89.0	0.0	79.11	4,594.8	357.2	370.6	282.7	87.88	4.217		
12,400.0	7,472.0	12,343.8	7,402.0	90.7	0.0	79.11	4,694.8	356.4	370.6	281.1	89.54	4.139		
12,500.0	7,472.0	12,443.8	7,402.0	92.4	0.0	79.11	4,794.8	355.5	370.6	279.4	91.19	4.064		
12,600.0	7,472.0	12,543.8	7,402.0	94.1	0.0	79.11	4,894.8	354.7	370.6	277.8	92.86	3.991		
12,700.0	7,472.0	12,643.8	7,402.0	95.8	0.0	79.11	4,994.8	353.9	370.6	276.1	94.52	3.921		
12,800.0	7,472.0	12,743.8	7,402.0	97.5	0.0	79.11	5,094.8	353.0	370.6	274.4	96.19	3.853		
12,900.0	7,472.0	12,843.8	7,402.0	99.2	0.0	79.11	5,194.8	352.2	370.6	272.7	97.86	3.787		
13,000.0	7,472.0	12,943.8	7,402.0	100.9	0.0	79.11	5,294.8	351.4	370.6	271.1	99.53	3.723		
13,100.0	7,472.0	13,043.8	7,402.0	102.6	0.0	79.11	5,394.7	350.6	370.6	269.4	101.21	3.662		
13,200.0	7,472.0	13,143.8	7,402.0	104.3	0.0	79.11	5,494.7	349.7	370.6	267.7	102.88	3.602		
13,300.0	7,472.0	13,243.8	7,402.0	106.0	0.0	79.11	5,594.7	348.9	370.6	266.0	104.56	3.544		
13,400.0	7,472.0	13,343.8	7,402.0	107.7	0.0	79.11	5,694.7	348.1	370.6	264.4	106.24	3.488		
13,500.0	7,472.0	13,443.8	7,402.0	109.4	0.0	79.11	5,794.7	347.3	370.6	262.7	107.93	3.434		
13,600.0	7,472.0	13,543.8	7,402.0	111.1	0.0	79.11	5,894.7	346.4	370.6	261.0	109.61	3.381		
13,700.0	7,472.0	13,643.8	7,402.0	112.8	0.0	79.11	5,994.7	345.6	370.6	259.3	111.30	3.330		
13,800.0	7,472.0	13,743.8	7,402.0	114.5	0.0	79.11	6,094.7	344.8	370.6	257.6	112.99	3.280		
13,900.0	7,472.0	13,843.8	7,402.0	116.2	0.0	79.11	6,194.7	344.0	370.6	255.9	114.68	3.232		
14,000.0	7,472.0	13,943.8	7,402.0	118.0	0.0	79.11	6,294.7	343.1	370.6	254.2	116.37	3.185		
14,100.0	7,472.0	14,043.8	7,402.0	119.7	0.0	79.11	6,394.7	342.3	370.6	252.6	118.06	3.139		
14,200.0	7,472.0	14,143.8	7,402.0	121.4	0.0	79.16	6,494.7	341.5	372.3	252.5	119.78	3.108		
14,300.0	7,472.0	14,243.8	7,402.0	123.1	0.0	79.24	6,594.6	340.7	375.2	253.6	121.51	3.088		
14,400.0	7,472.0	14,343.7	7,402.0	124.9	0.0	79.32	6,694.6	339.8	378.0	254.8	123.24	3.067		
14,500.0	7,472.0	14,443.7	7,402.0	126.6	0.0	79.41	6,794.6	339.0	380.9	255.9	124.97	3.048		
14,600.0	7,472.0	14,543.6	7,402.0	128.3	0.0	79.49	6,894.5	338.2	383.8	257.1	126.71	3.029		
14,700.0	7,472.0	14,643.6	7,402.0	130.1	0.0	79.57	6,994.5	337.3	386.7	258.2	128.44	3.010		
14,800.0	7,472.0	14,743.6	7,402.0	131.8	0.0	79.64	7,094.4	336.5	389.5	259.4	130.18	2.992		
14,900.0	7,472.0	14,843.5	7,402.0	133.5	0.0	79.72	7,194.4	335.7	392.4	260.5	131.92	2.975		
15,000.0	7,472.0	14,943.5	7,402.0	135.3	0.0	79.80	7,294.3	334.9	395.3	261.6	133.66	2.958		
15,100.0	7,472.0	15,043.4	7,402.0	137.0	0.0	79.87	7,394.3	334.0	398.2	262.8	135.40	2.941		
15,200.0	7,472.0	15,143.4	7,402.0	138.7	0.0	79.94	7,494.2	333.2	401.1	263.9	137.14	2.924		
15,300.0	7,472.0	15,243.3	7,402.0	140.5	0.0	80.02	7,594.2	332.4	403.9	265.1	138.88	2.908		
15,400.0	7,472.0	15,343.3	7,402.0	142.2	0.0	80.09	7,694.1	331.6	406.8	266.2	140.63	2.893		

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 19-18-2NCH
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 19-18-2NCH	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		
15,500.0	7,472.0	15,443.3	7,402.0	144.0	0.0	80.16	7,794.1	330.7	409.7	267.3	142.37	2.878		
15,600.0	7,472.0	15,543.2	7,402.0	145.7	0.0	80.23	7,894.0	329.9	412.6	268.5	144.12	2.863		
15,700.0	7,472.0	15,643.2	7,402.0	147.5	0.0	80.30	7,994.0	329.1	415.5	269.6	145.86	2.848		
15,800.0	7,472.0	15,743.1	7,402.0	149.2	0.0	80.36	8,094.0	328.3	418.4	270.7	147.61	2.834		
15,900.0	7,472.0	15,843.1	7,402.0	150.9	0.0	80.43	8,193.9	327.4	421.2	271.9	149.36	2.820		
16,000.0	7,472.0	15,943.1	7,402.0	152.7	0.0	80.48	8,293.9	326.6	423.1	272.0	151.10	2.800		
16,100.0	7,472.0	16,043.0	7,402.0	154.4	0.0	80.44	8,393.9	325.8	421.7	268.9	152.81	2.759		
16,200.0	7,472.0	16,143.0	7,402.0	156.2	0.0	80.36	8,493.8	325.0	418.3	263.8	154.50	2.707		
16,300.0	7,472.0	16,242.9	7,402.0	157.9	0.0	80.28	8,593.7	324.1	414.9	258.7	156.17	2.657		
16,400.0	7,472.0	16,342.9	7,402.0	159.6	0.0	80.20	8,693.7	323.3	411.5	253.6	157.85	2.607		
16,500.0	7,472.0	16,442.8	7,402.0	161.3	0.0	80.12	8,793.6	322.5	408.1	248.6	159.52	2.558		
16,600.0	7,472.0	16,542.8	7,402.0	163.1	0.0	80.03	8,893.5	321.7	404.7	243.5	161.20	2.511		
16,700.0	7,472.0	16,642.7	7,402.0	164.8	0.0	79.95	8,993.5	320.8	401.3	238.4	162.87	2.464		
16,800.0	7,472.0	16,742.6	7,402.0	166.5	0.0	79.86	9,093.4	320.0	397.9	233.4	164.54	2.418		
16,900.0	7,472.0	16,842.6	7,402.0	168.2	0.0	79.77	9,193.4	319.2	394.5	228.3	166.21	2.374		
17,000.0	7,472.0	16,942.5	7,402.0	170.0	0.0	79.68	9,293.3	318.3	391.1	223.3	167.88	2.330		
17,100.0	7,472.0	17,042.5	7,402.0	171.7	0.0	79.59	9,393.2	317.5	387.8	218.2	169.55	2.287		
17,200.0	7,472.0	17,142.4	7,402.0	173.4	0.0	79.50	9,493.2	316.7	384.4	213.2	171.22	2.245		
17,300.0	7,472.0	17,242.3	7,402.0	175.2	0.0	79.41	9,593.1	315.9	381.0	208.1	172.88	2.204		
17,400.0	7,472.0	17,342.3	7,402.0	176.9	0.0	79.31	9,693.0	315.0	377.6	203.1	174.55	2.163		
17,500.0	7,472.0	17,442.2	7,402.0	178.6	0.0	79.21	9,793.0	314.2	374.2	198.0	176.21	2.124		
17,600.0	7,472.0	17,542.2	7,402.0	180.3	0.0	79.11	9,892.9	313.4	370.8	193.0	177.87	2.085		
17,606.3	7,472.0	17,548.5	7,402.0	180.5	0.0	79.11	9,899.2	313.3	370.6	192.6	177.98	2.082 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	-90.23	-0.1	-15.0	15.0					
100.0	100.0	100.0	100.0	0.4	0.0	-90.23	-0.1	-15.0	15.0	14.7	0.28	54.192		
200.0	200.0	200.0	200.0	1.0	0.0	-90.23	-0.1	-15.0	15.0	14.2	0.80	18.814		
300.0	300.0	300.0	300.0	1.5	0.0	-90.23	-0.1	-15.0	15.0	13.8	1.22	12.258		
400.0	400.0	400.0	400.0	1.9	0.0	-90.23	-0.1	-15.0	15.0	13.4	1.62	9.274		
500.0	500.0	500.0	500.0	2.3	0.0	-90.23	-0.1	-15.0	15.0	13.0	2.00	7.507		
600.0	600.0	600.0	600.0	2.7	0.0	-90.23	-0.1	-15.0	15.0	12.6	2.37	6.325		
700.0	700.0	700.0	700.0	3.1	0.0	-90.23	-0.1	-15.0	15.0	12.3	2.74	5.472		
800.0	800.0	800.0	800.0	3.5	0.0	-90.23	-0.1	-15.0	15.0	11.9	3.11	4.826		
900.0	900.0	900.0	900.0	3.9	0.0	-90.23	-0.1	-15.0	15.0	11.5	3.47	4.318		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	-90.23	-0.1	-15.0	15.0	11.2	3.84	3.909		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	-90.23	-0.1	-15.0	15.0	10.8	4.20	3.571 CC, ES		
1,200.0	1,200.0	1,199.8	1,199.7	5.0	0.0	-96.07	-1.7	-15.7	15.8	11.1	4.65	3.388		
1,300.0	1,300.0	1,299.4	1,299.2	5.3	0.0	78.99	-6.5	-17.7	18.4	13.3	5.07	3.634		
1,400.0	1,399.8	1,399.0	1,398.5	6.0	0.0	74.88	-14.3	-20.9	22.6	17.1	5.52	4.097		
1,500.0	1,499.5	1,498.9	1,497.9	6.3	0.0	76.74	-22.8	-24.4	26.7	20.9	5.79	4.603		
1,600.0	1,599.2	1,598.8	1,597.4	6.6	0.0	78.61	-31.3	-27.9	30.7	24.6	6.09	5.036		
1,700.0	1,698.8	1,698.7	1,696.9	6.9	0.0	80.05	-39.8	-31.5	34.7	28.3	6.41	5.410		
1,800.0	1,798.5	1,798.6	1,796.4	7.3	0.0	81.19	-48.3	-35.0	38.7	32.0	6.75	5.742		
1,900.0	1,898.1	1,898.6	1,895.9	7.6	0.0	82.11	-56.8	-38.5	42.8	35.7	7.09	6.038		
2,000.0	1,997.8	1,998.5	1,995.4	8.0	0.0	82.88	-65.3	-42.1	46.9	39.4	7.43	6.303		
2,100.0	2,097.4	2,098.4	2,094.9	8.3	0.0	83.52	-73.8	-45.6	50.9	43.2	7.79	6.542		
2,200.0	2,197.1	2,198.3	2,194.4	8.7	0.0	84.06	-82.4	-49.1	55.0	46.9	8.14	6.757		
2,300.0	2,296.7	2,298.2	2,293.9	9.0	0.0	84.53	-90.9	-52.6	59.1	50.6	8.50	6.952		
2,400.0	2,396.4	2,398.1	2,393.4	9.4	0.0	84.94	-99.4	-56.2	63.2	54.3	8.86	7.129		
2,500.0	2,496.0	2,498.0	2,492.8	9.7	0.0	85.30	-107.9	-59.7	67.3	58.1	9.23	7.291		
2,600.0	2,595.7	2,598.0	2,592.3	10.1	0.0	85.62	-116.4	-63.2	71.4	61.8	9.59	7.439		
2,700.0	2,695.3	2,697.9	2,691.8	10.4	0.0	85.91	-124.9	-66.7	75.5	65.5	9.96	7.575		
2,800.0	2,795.0	2,797.8	2,791.3	10.8	0.0	86.16	-133.4	-70.3	79.6	69.2	10.33	7.700		
2,900.0	2,894.7	2,897.7	2,890.8	11.1	0.0	86.39	-141.9	-73.8	83.7	73.0	10.70	7.816		
3,000.0	2,994.3	2,997.6	2,990.3	11.5	0.0	86.60	-150.4	-77.3	87.8	76.7	11.08	7.923		
3,100.0	3,094.0	3,097.5	3,089.8	11.9	0.0	86.79	-159.0	-80.9	91.9	80.4	11.45	8.023		
3,200.0	3,193.6	3,197.5	3,189.3	12.2	0.0	86.96	-167.5	-84.4	96.0	84.1	11.82	8.116		
3,300.0	3,293.3	3,297.4	3,288.8	12.6	0.0	87.12	-176.0	-87.9	100.1	87.9	12.20	8.202		
3,400.0	3,392.9	3,397.3	3,388.3	13.0	0.0	87.27	-184.5	-91.4	104.2	91.6	12.58	8.283		
3,500.0	3,492.6	3,497.2	3,487.7	13.3	0.0	87.40	-193.0	-95.0	108.3	95.3	12.95	8.359		
3,600.0	3,592.2	3,597.1	3,587.2	13.7	0.0	87.53	-201.5	-98.5	112.4	99.0	13.33	8.430		
3,700.0	3,691.9	3,697.0	3,686.7	14.1	0.0	87.65	-210.0	-102.0	116.5	102.8	13.71	8.497		
3,800.0	3,791.5	3,796.9	3,786.2	14.4	0.0	87.76	-218.5	-105.6	120.6	106.5	14.09	8.560		
3,900.0	3,891.2	3,896.9	3,885.7	14.8	0.0	87.86	-227.0	-109.1	124.7	110.2	14.47	8.619		
4,000.0	3,990.8	3,996.8	3,985.2	15.2	0.0	87.95	-235.5	-112.6	128.8	113.9	14.85	8.675		
4,100.0	4,090.5	4,096.7	4,084.7	15.6	0.0	88.04	-244.1	-116.1	132.9	117.7	15.23	8.728		
4,200.0	4,190.1	4,196.6	4,184.2	15.9	0.0	88.13	-252.6	-119.7	137.0	121.4	15.61	8.779		
4,300.0	4,289.8	4,296.5	4,283.7	16.3	0.0	88.21	-261.1	-123.2	141.1	125.1	15.99	8.826		
4,400.0	4,389.5	4,396.4	4,383.1	16.7	0.0	88.28	-269.6	-126.7	145.2	128.8	16.37	8.872		
4,500.0	4,489.1	4,496.4	4,482.6	17.0	0.0	88.35	-278.1	-130.2	149.3	132.6	16.75	8.915		
4,600.0	4,588.8	4,596.3	4,582.1	17.4	0.0	88.42	-286.6	-133.8	153.4	136.3	17.13	8.956		
4,700.0	4,688.4	4,696.2	4,681.6	17.8	0.0	88.48	-295.1	-137.3	157.5	140.0	17.51	8.995		
4,800.0	4,788.1	4,796.1	4,781.1	18.2	0.0	88.54	-303.6	-140.8	161.6	143.7	17.90	9.032		
4,900.0	4,887.7	4,896.0	4,880.6	18.6	0.0	88.60	-312.1	-144.4	165.7	147.5	18.28	9.068		
5,000.0	4,987.4	4,995.9	4,980.1	18.9	0.0	88.65	-320.7	-147.9	169.9	151.2	18.66	9.102		
5,100.0	5,087.0	5,095.8	5,079.6	19.3	0.0	88.70	-329.2	-151.4	174.0	154.9	19.04	9.135		

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 19-18-2NCH
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 19-18-2NCH	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		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)						
5,200.0	5,186.7	5,195.8	5,179.1	19.7	0.0	88.75	-337.7	-154.9	178.1	158.6	19.43	9.166		
5,300.0	5,286.3	5,295.7	5,278.6	20.1	0.0	88.80	-346.2	-158.5	182.2	162.4	19.81	9.196		
5,400.0	5,386.0	5,395.6	5,378.0	20.4	0.0	88.85	-354.7	-162.0	186.3	166.1	20.19	9.225		
5,500.0	5,485.6	5,495.5	5,477.5	20.8	0.0	88.89	-363.2	-165.5	190.4	169.8	20.58	9.253		
5,600.0	5,585.3	5,595.4	5,577.0	21.2	0.0	88.93	-371.7	-169.1	194.5	173.5	20.96	9.279		
5,700.0	5,684.9	5,695.3	5,676.5	21.6	0.0	88.97	-380.2	-172.6	198.6	177.3	21.34	9.305		
5,800.0	5,784.6	5,795.3	5,776.0	22.0	0.0	89.01	-388.7	-176.1	202.7	181.0	21.73	9.330		
5,900.0	5,884.3	5,895.2	5,875.5	22.3	0.0	89.04	-397.3	-179.6	206.8	184.7	22.11	9.353		
6,000.0	5,983.9	5,995.1	5,975.0	22.7	0.0	89.08	-405.8	-183.2	210.9	188.4	22.50	9.376		
6,100.0	6,083.6	6,095.0	6,074.5	23.1	0.0	89.11	-414.3	-186.7	215.0	192.2	22.88	9.398		
6,200.0	6,183.2	6,194.9	6,174.0	23.5	0.0	89.15	-422.8	-190.2	219.2	195.9	23.27	9.420		
6,300.0	6,282.9	6,294.8	6,273.5	23.9	0.0	89.18	-431.3	-193.7	223.3	199.6	23.65	9.440		
6,400.0	6,382.5	6,394.8	6,372.9	24.2	0.0	89.21	-439.8	-197.3	227.4	203.3	24.03	9.460		
6,500.0	6,482.2	6,494.7	6,472.4	24.6	0.0	89.24	-448.3	-200.8	231.5	207.1	24.42	9.479		
6,600.0	6,581.8	6,594.6	6,571.9	25.0	0.0	89.26	-456.8	-204.3	235.6	210.8	24.80	9.498		
6,700.0	6,681.5	6,695.6	6,672.7	25.4	0.0	89.66	-463.9	-207.9	239.6	214.4	25.19	9.513		
6,800.0	6,781.1	6,795.7	6,772.2	25.8	0.0	93.44	-456.4	-211.6	243.2	217.7	25.50	9.536		
6,900.0	6,880.8	6,888.0	6,861.7	26.1	0.0	105.94	-434.2	-215.0	249.4	223.7	25.68	9.711		
7,000.0	6,980.6	6,974.7	6,941.4	26.7	0.0	-77.75	-400.5	-218.2	259.9	234.0	25.89	10.037		
7,100.0	7,077.8	7,057.8	7,012.2	27.0	0.0	-70.17	-357.3	-221.1	273.3	247.6	25.61	10.670		
7,200.0	7,169.6	7,138.0	7,074.0	27.3	0.0	-64.41	-306.3	-223.7	287.9	262.7	25.16	11.441		
7,300.0	7,253.2	7,216.1	7,126.7	27.6	0.0	-59.84	-248.8	-226.1	302.4	277.8	24.61	12.287		
7,400.0	7,326.0	7,292.5	7,170.2	27.8	0.0	-56.29	-186.2	-228.2	315.8	291.7	24.05	13.128		
7,500.0	7,385.9	7,367.5	7,204.6	28.0	0.0	-53.63	-119.5	-230.0	327.1	303.5	23.58	13.872		
7,600.0	7,430.9	7,441.7	7,229.6	28.1	0.0	-51.76	-49.8	-231.5	335.7	312.4	23.28	14.423		
7,700.0	7,459.8	7,515.2	7,245.4	28.3	0.0	-50.64	22.0	-232.6	341.3	318.1	23.23	14.693		
7,800.0	7,471.7	7,588.5	7,251.8	28.5	0.0	-50.19	94.9	-233.5	343.5	320.1	23.48	14.633		
7,900.0	7,472.0	7,683.3	7,252.0	28.7	0.0	-50.19	189.7	-234.3	343.6	319.8	23.80	14.434		
8,000.0	7,472.0	7,783.3	7,252.0	29.1	0.0	-50.19	289.7	-235.1	343.6	319.4	24.20	14.197		
8,100.0	7,472.0	7,883.3	7,252.0	29.7	0.0	-50.19	389.7	-235.9	343.6	318.9	24.68	13.923		
8,200.0	7,472.0	7,983.3	7,252.0	30.3	0.0	-50.19	489.7	-236.8	343.6	318.4	25.23	13.620		
8,300.0	7,472.0	8,083.3	7,252.0	31.0	0.0	-50.19	589.7	-237.6	343.6	317.7	25.85	13.293		
8,400.0	7,472.0	8,183.3	7,252.0	31.8	0.0	-50.19	689.7	-238.4	343.6	317.1	26.53	12.951		
8,500.0	7,472.0	8,283.3	7,252.0	32.7	0.0	-50.19	789.7	-239.2	343.6	316.3	27.27	12.598		
8,600.0	7,472.0	8,383.3	7,252.0	33.7	0.0	-50.19	889.7	-240.1	343.6	315.5	28.07	12.240		
8,700.0	7,472.0	8,483.3	7,252.0	34.8	0.0	-50.19	989.7	-240.9	343.6	314.7	28.92	11.881		
8,800.0	7,472.0	8,583.3	7,252.0	35.9	0.0	-50.19	1,089.7	-241.7	343.6	313.8	29.81	11.524		
8,900.0	7,472.0	8,683.3	7,252.0	37.0	0.0	-50.19	1,189.7	-242.5	343.6	312.8	30.75	11.173		
9,000.0	7,472.0	8,783.3	7,252.0	38.2	0.0	-50.19	1,289.7	-243.4	343.6	311.9	31.72	10.830		
9,100.0	7,472.0	8,883.3	7,252.0	39.4	0.0	-50.19	1,389.7	-244.2	343.6	310.9	32.73	10.496		
9,200.0	7,472.0	8,983.3	7,252.0	40.7	0.0	-50.19	1,489.7	-245.0	343.6	309.8	33.78	10.173		
9,300.0	7,472.0	9,083.3	7,252.0	42.0	0.0	-50.19	1,589.7	-245.8	343.6	308.7	34.85	9.860		
9,400.0	7,472.0	9,183.3	7,252.0	43.4	0.0	-50.19	1,689.7	-246.7	343.6	307.6	35.94	9.560		
9,500.0	7,472.0	9,283.3	7,252.0	44.7	0.0	-50.19	1,789.7	-247.5	343.6	306.5	37.06	9.271		
9,600.0	7,472.0	9,383.3	7,252.0	46.2	0.0	-50.19	1,889.7	-248.3	343.6	305.4	38.20	8.994		
9,700.0	7,472.0	9,483.3	7,252.0	47.6	0.0	-50.19	1,989.7	-249.2	343.6	304.2	39.37	8.728		
9,800.0	7,472.0	9,583.3	7,252.0	49.0	0.0	-50.19	2,089.7	-250.0	343.6	303.0	40.55	8.474		
9,900.0	7,472.0	9,683.3	7,252.0	50.5	0.0	-50.19	2,189.7	-250.8	343.6	301.8	41.74	8.231		
10,000.0	7,472.0	9,783.3	7,252.0	52.0	0.0	-50.19	2,289.7	-251.6	343.6	300.6	42.96	7.999		
10,100.0	7,472.0	9,883.3	7,252.0	53.5	0.0	-50.19	2,389.7	-252.5	343.6	299.4	44.18	7.777		
10,200.0	7,472.0	9,983.3	7,252.0	55.0	0.0	-50.19	2,489.7	-253.3	343.6	298.2	45.42	7.564		
10,300.0	7,472.0	10,083.3	7,252.0	56.5	0.0	-50.19	2,589.7	-254.1	343.6	296.9	46.67	7.362		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-2NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,183.3	7,252.0	58.1	0.0	-50.19	2,689.6	-254.9	343.6	295.7	47.93	7.168		
10,500.0	7,472.0	10,283.3	7,252.0	59.6	0.0	-50.19	2,789.6	-255.8	343.6	294.4	49.21	6.983		
10,600.0	7,472.0	10,383.3	7,252.0	61.2	0.0	-50.19	2,889.6	-256.6	343.6	293.1	50.49	6.805		
10,700.0	7,472.0	10,483.3	7,252.0	62.8	0.0	-50.19	2,989.6	-257.4	343.6	291.8	51.78	6.636		
10,800.0	7,472.0	10,583.3	7,252.0	64.4	0.0	-50.19	3,089.6	-258.3	343.6	290.5	53.08	6.474		
10,900.0	7,472.0	10,683.3	7,252.0	66.0	0.0	-50.19	3,189.6	-259.1	343.6	289.2	54.38	6.318		
11,000.0	7,472.0	10,783.3	7,252.0	67.6	0.0	-50.19	3,289.6	-259.9	343.6	287.9	55.69	6.169		
11,100.0	7,472.0	10,883.3	7,252.0	69.2	0.0	-50.19	3,389.6	-260.7	343.6	286.6	57.01	6.026		
11,200.0	7,472.0	10,983.3	7,252.0	70.8	0.0	-50.19	3,489.6	-261.6	343.6	285.3	58.34	5.890		
11,300.0	7,472.0	11,083.3	7,252.0	72.5	0.0	-50.19	3,589.6	-262.4	343.6	283.9	59.67	5.758		
11,400.0	7,472.0	11,183.3	7,252.0	74.1	0.0	-50.19	3,689.6	-263.2	343.6	282.6	61.01	5.632		
11,500.0	7,472.0	11,283.3	7,252.0	75.7	0.0	-50.19	3,789.6	-264.0	343.6	281.2	62.35	5.511		
11,600.0	7,472.0	11,383.3	7,252.0	77.4	0.0	-50.19	3,889.6	-264.9	343.6	279.9	63.69	5.395		
11,700.0	7,472.0	11,483.3	7,252.0	79.0	0.0	-50.19	3,989.6	-265.7	343.6	278.6	65.04	5.283		
11,800.0	7,472.0	11,583.3	7,252.0	80.7	0.0	-50.19	4,089.6	-266.5	343.6	277.2	66.39	5.175		
11,900.0	7,472.0	11,683.3	7,252.0	82.4	0.0	-50.19	4,189.6	-267.4	343.6	275.8	67.75	5.071		
12,000.0	7,472.0	11,783.3	7,252.0	84.0	0.0	-50.19	4,289.6	-268.2	343.6	274.5	69.11	4.972		
12,100.0	7,472.0	11,883.3	7,252.0	85.7	0.0	-50.19	4,389.6	-269.0	343.6	273.1	70.48	4.875		
12,200.0	7,472.0	11,983.3	7,252.0	87.4	0.0	-50.19	4,489.6	-269.8	343.6	271.8	71.84	4.782		
12,300.0	7,472.0	12,083.3	7,252.0	89.0	0.0	-50.19	4,589.6	-270.7	343.6	270.4	73.22	4.693		
12,400.0	7,472.0	12,183.3	7,252.0	90.7	0.0	-50.19	4,689.6	-271.5	343.6	269.0	74.59	4.607		
12,500.0	7,472.0	12,283.3	7,252.0	92.4	0.0	-50.19	4,789.6	-272.3	343.6	267.6	75.96	4.523		
12,600.0	7,472.0	12,383.3	7,252.0	94.1	0.0	-50.19	4,889.6	-273.1	343.6	266.3	77.34	4.442		
12,700.0	7,472.0	12,483.3	7,252.0	95.8	0.0	-50.19	4,989.6	-274.0	343.6	264.9	78.72	4.365		
12,800.0	7,472.0	12,583.3	7,252.0	97.5	0.0	-50.19	5,089.6	-274.8	343.6	263.5	80.11	4.289		
12,900.0	7,472.0	12,683.3	7,252.0	99.2	0.0	-50.19	5,189.6	-275.6	343.6	262.1	81.49	4.216		
13,000.0	7,472.0	12,783.3	7,252.0	100.9	0.0	-50.19	5,289.6	-276.5	343.6	260.7	82.88	4.146		
13,100.0	7,472.0	12,883.3	7,252.0	102.6	0.0	-50.19	5,389.6	-277.3	343.6	259.3	84.27	4.077		
13,200.0	7,472.0	12,983.3	7,252.0	104.3	0.0	-50.19	5,489.6	-278.1	343.6	257.9	85.66	4.011		
13,300.0	7,472.0	13,083.3	7,252.0	106.0	0.0	-50.19	5,589.5	-278.9	343.6	256.5	87.06	3.947		
13,400.0	7,472.0	13,183.3	7,252.0	107.7	0.0	-50.19	5,689.5	-279.8	343.6	255.1	88.45	3.885		
13,500.0	7,472.0	13,283.3	7,252.0	109.4	0.0	-50.19	5,789.5	-280.6	343.6	253.8	89.85	3.824		
13,600.0	7,472.0	13,383.3	7,252.0	111.1	0.0	-50.19	5,889.5	-281.4	343.6	252.4	91.24	3.766		
13,700.0	7,472.0	13,483.3	7,252.0	112.8	0.0	-50.19	5,989.5	-282.2	343.6	251.0	92.64	3.709		
13,800.0	7,472.0	13,583.3	7,252.0	114.5	0.0	-50.19	6,089.5	-283.1	343.6	249.6	94.04	3.654		
13,900.0	7,472.0	13,683.3	7,252.0	116.2	0.0	-50.19	6,189.5	-283.9	343.6	248.2	95.45	3.600		
14,000.0	7,472.0	13,783.3	7,252.0	118.0	0.0	-50.19	6,289.5	-284.7	343.6	246.7	96.85	3.548		
14,100.0	7,472.0	13,883.3	7,252.0	119.7	0.0	-50.19	6,389.5	-285.6	343.6	245.3	98.25	3.497		
14,200.0	7,472.0	13,983.3	7,252.0	121.4	0.0	-49.99	6,489.5	-286.4	342.3	242.8	99.48	3.441		
14,300.0	7,472.0	14,083.3	7,252.0	123.1	0.0	-49.68	6,589.5	-287.2	340.1	239.5	100.57	3.381		
14,400.0	7,472.0	14,183.2	7,252.0	124.9	0.0	-49.36	6,689.4	-288.0	337.8	236.2	101.64	3.324		
14,500.0	7,472.0	14,283.2	7,252.0	126.6	0.0	-49.03	6,789.4	-288.9	335.6	232.9	102.70	3.268		
14,600.0	7,472.0	14,383.1	7,252.0	128.3	0.0	-48.70	6,889.3	-289.7	333.4	229.7	103.74	3.214		
14,700.0	7,472.0	14,483.1	7,252.0	130.1	0.0	-48.37	6,989.3	-290.5	331.2	226.5	104.77	3.161		
14,800.0	7,472.0	14,583.1	7,252.0	131.8	0.0	-48.03	7,089.2	-291.3	329.0	223.3	105.78	3.111		
14,900.0	7,472.0	14,683.0	7,252.0	133.5	0.0	-47.69	7,189.2	-292.2	326.9	220.1	106.78	3.061		
15,000.0	7,472.0	14,783.0	7,252.0	135.3	0.0	-47.34	7,289.1	-293.0	324.7	217.0	107.76	3.013		
15,100.0	7,472.0	14,882.9	7,252.0	137.0	0.0	-46.99	7,389.1	-293.8	322.6	213.9	108.72	2.967		
15,200.0	7,472.0	14,982.9	7,252.0	138.7	0.0	-46.63	7,489.0	-294.6	320.4	210.8	109.66	2.922		
15,300.0	7,472.0	15,082.8	7,252.0	140.5	0.0	-46.27	7,589.0	-295.5	318.3	207.7	110.59	2.878		
15,400.0	7,472.0	15,182.8	7,252.0	142.2	0.0	-45.90	7,688.9	-296.3	316.2	204.7	111.50	2.836		
15,500.0	7,472.0	15,282.8	7,252.0	144.0	0.0	-45.53	7,788.9	-297.1	314.1	201.7	112.38	2.795		

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 19-18-2NCH
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 19-18-2NCH	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		
15,600.0	7,472.0	15,382.7	7,252.0	145.7	0.0	-45.15	7,888.9	-298.0	312.0	198.8	113.25	2.755		
15,700.0	7,472.0	15,482.7	7,252.0	147.5	0.0	-44.77	7,988.8	-298.8	310.0	195.9	114.10	2.717		
15,800.0	7,472.0	15,582.6	7,252.0	149.2	0.0	-44.39	8,088.8	-299.6	307.9	193.0	114.93	2.679		
15,900.0	7,472.0	15,682.6	7,252.0	150.9	0.0	-43.99	8,188.7	-300.4	305.9	190.1	115.73	2.643		
16,000.0	7,472.0	15,782.6	7,252.0	152.7	0.0	-43.75	8,288.7	-301.3	304.5	187.8	116.71	2.609		
16,007.6	7,472.0	15,790.2	7,252.0	152.8	0.0	-43.75	8,296.3	-301.3	304.5	187.7	116.81	2.607		
16,100.0	7,472.0	15,882.5	7,252.0	154.4	0.0	-43.93	8,388.7	-302.1	305.6	187.3	118.31	2.583		
16,200.0	7,472.0	15,982.5	7,252.0	156.2	0.0	-44.39	8,488.6	-302.9	308.0	187.7	120.28	2.560		
16,300.0	7,472.0	16,082.4	7,252.0	157.9	0.0	-44.85	8,588.5	-303.7	310.4	188.1	122.24	2.539		
16,400.0	7,472.0	16,182.4	7,252.0	159.6	0.0	-45.29	8,688.5	-304.6	312.8	188.6	124.21	2.519		
16,500.0	7,472.0	16,282.3	7,252.0	161.3	0.0	-45.73	8,788.4	-305.4	315.3	189.1	126.18	2.499		
16,600.0	7,472.0	16,382.3	7,252.0	163.1	0.0	-46.17	8,888.4	-306.2	317.8	189.6	128.15	2.480		
16,700.0	7,472.0	16,482.2	7,252.0	164.8	0.0	-46.59	8,988.3	-307.0	320.3	190.1	130.12	2.461		
16,800.0	7,472.0	16,582.1	7,252.0	166.5	0.0	-47.01	9,088.2	-307.9	322.8	190.7	132.09	2.443		
16,900.0	7,472.0	16,682.1	7,252.0	168.2	0.0	-47.43	9,188.2	-308.7	325.3	191.2	134.06	2.426		
17,000.0	7,472.0	16,782.0	7,252.0	170.0	0.0	-47.83	9,288.1	-309.5	327.8	191.8	136.04	2.410		
17,100.0	7,472.0	16,882.0	7,252.0	171.7	0.0	-48.24	9,388.0	-310.4	330.4	192.4	138.01	2.394		
17,200.0	7,472.0	16,981.9	7,252.0	173.4	0.0	-48.63	9,488.0	-311.2	333.0	193.0	139.98	2.379		
17,300.0	7,472.0	17,081.8	7,252.0	175.2	0.0	-49.02	9,587.9	-312.0	335.6	193.6	141.95	2.364		
17,400.0	7,472.0	17,181.8	7,252.0	176.9	0.0	-49.40	9,687.9	-312.8	338.2	194.3	143.92	2.350		
17,500.0	7,472.0	17,281.7	7,252.0	178.6	0.0	-49.78	9,787.8	-313.7	340.8	194.9	145.90	2.336		
17,600.0	7,472.0	17,381.7	7,252.0	180.3	0.0	-50.15	9,887.7	-314.5	343.4	195.6	147.87	2.323		
17,606.3	7,472.0	17,385.9	7,252.0	180.5	0.0	-50.16	9,891.9	-314.5	343.6	195.6	147.99	2.322 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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-													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	0.2	30.0	30.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.63	0.2	30.0	30.0	29.7	0.28	108.212		
200.0	200.0	200.0	200.0	1.0	0.0	89.63	0.2	30.0	30.0	29.2	0.80	37.577		
300.0	300.0	300.0	300.0	1.5	0.0	89.63	0.2	30.0	30.0	28.8	1.23	24.487		
400.0	400.0	400.0	400.0	1.9	0.0	89.63	0.2	30.0	30.0	28.4	1.62	18.529		
500.0	500.0	500.0	500.0	2.3	0.0	89.63	0.2	30.0	30.0	28.0	2.00	15.002		
600.0	600.0	600.0	600.0	2.7	0.0	89.63	0.2	30.0	30.0	27.6	2.37	12.640		
700.0	700.0	700.0	700.0	3.1	0.0	89.63	0.2	30.0	30.0	27.3	2.74	10.936		
800.0	800.0	800.0	800.0	3.5	0.0	89.63	0.2	30.0	30.0	26.9	3.11	9.646		
900.0	900.0	900.0	900.0	3.9	0.0	89.63	0.2	30.0	30.0	26.5	3.48	8.632		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.63	0.2	30.0	30.0	26.2	3.84	7.814		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.63	0.2	30.0	30.0	25.8	4.20	7.139		
1,200.0	1,200.0	1,200.0	1,200.0	5.0	0.0	89.63	0.2	30.0	30.0	25.4	4.56	6.572 CC, ES		
1,300.0	1,300.0	1,299.1	1,299.1	5.3	0.0	-87.74	-0.8	31.4	31.3	26.4	4.89	6.403		
1,400.0	1,399.8	1,398.1	1,398.0	6.0	0.0	-91.12	-3.7	35.6	35.3	30.1	5.27	6.706		
1,500.0	1,499.5	1,496.9	1,496.3	6.3	0.0	-94.48	-8.6	42.6	42.2	36.6	5.64	7.490		
1,600.0	1,599.2	1,595.3	1,594.0	6.6	0.0	-94.50	-15.3	52.4	51.7	45.7	5.96	8.668		
1,700.0	1,698.8	1,694.5	1,692.3	6.9	0.0	-93.23	-23.3	63.9	62.6	56.3	6.28	9.964		
1,800.0	1,798.5	1,793.9	1,790.7	7.3	0.0	-92.32	-31.3	75.4	73.6	67.0	6.62	11.118		
1,900.0	1,898.1	1,893.3	1,889.1	7.6	0.0	-91.65	-39.2	86.9	84.6	77.6	6.96	12.149		
2,000.0	1,997.8	1,992.7	1,987.5	8.0	0.0	-91.13	-47.2	98.5	95.6	88.3	7.31	13.074		
2,100.0	2,097.4	2,092.1	2,085.8	8.3	0.0	-90.72	-55.2	110.0	106.6	98.9	7.66	13.907		
2,200.0	2,197.1	2,191.5	2,184.2	8.7	0.0	-90.38	-63.2	121.5	117.6	109.6	8.02	14.660		
2,300.0	2,296.7	2,290.8	2,282.6	9.0	0.0	-90.11	-71.2	133.0	128.6	120.2	8.38	15.344		
2,400.0	2,396.4	2,390.2	2,381.0	9.4	0.0	-89.88	-79.2	144.6	139.6	130.9	8.74	15.967		
2,500.0	2,496.0	2,489.6	2,479.4	9.7	0.0	-89.68	-87.1	156.1	150.6	141.5	9.11	16.537		
2,600.0	2,595.7	2,589.0	2,577.8	10.1	0.0	-89.50	-95.1	167.6	161.7	152.2	9.48	17.059		
2,700.0	2,695.3	2,688.4	2,676.2	10.4	0.0	-89.36	-103.1	179.2	172.7	162.8	9.84	17.540		
2,800.0	2,795.0	2,787.8	2,774.6	10.8	0.0	-89.22	-111.1	190.7	183.7	173.5	10.21	17.984		
2,900.0	2,894.7	2,887.2	2,873.0	11.1	0.0	-89.11	-119.1	202.2	194.7	184.1	10.59	18.395		
3,000.0	2,994.3	2,986.6	2,971.4	11.5	0.0	-89.00	-127.1	213.7	205.7	194.8	10.96	18.776		
3,100.0	3,094.0	3,086.0	3,069.8	11.9	0.0	-88.91	-135.1	225.3	216.8	205.4	11.33	19.131		
3,200.0	3,193.6	3,185.4	3,168.2	12.2	0.0	-88.82	-143.0	236.8	227.8	216.1	11.71	19.461		
3,300.0	3,293.3	3,284.7	3,266.6	12.6	0.0	-88.75	-151.0	248.3	238.8	226.7	12.08	19.770		
3,400.0	3,392.9	3,384.1	3,365.0	13.0	0.0	-88.68	-159.0	259.9	249.8	237.4	12.46	20.059		
3,500.0	3,492.6	3,483.5	3,463.4	13.3	0.0	-88.61	-167.0	271.4	260.9	248.0	12.83	20.330		
3,600.0	3,592.2	3,582.9	3,561.8	13.7	0.0	-88.55	-175.0	282.9	271.9	258.7	13.21	20.585		
3,700.0	3,691.9	3,682.3	3,660.2	14.1	0.0	-88.50	-183.0	294.4	282.9	269.3	13.59	20.825		
3,800.0	3,791.5	3,781.7	3,758.6	14.4	0.0	-88.45	-191.0	306.0	294.0	280.0	13.96	21.051		
3,900.0	3,891.2	3,881.1	3,857.0	14.8	0.0	-88.40	-198.9	317.5	305.0	290.6	14.34	21.265		
4,000.0	3,990.8	3,980.5	3,955.4	15.2	0.0	-88.36	-206.9	329.0	316.0	301.3	14.72	21.467		
4,100.0	4,090.5	4,079.9	4,053.8	15.6	0.0	-88.32	-214.9	340.5	327.0	311.9	15.10	21.659		
4,200.0	4,190.1	4,179.3	4,152.2	15.9	0.0	-88.28	-222.9	352.1	338.1	322.6	15.48	21.840		
4,300.0	4,289.8	4,278.6	4,250.6	16.3	0.0	-88.25	-230.9	363.6	349.1	333.2	15.86	22.013		
4,400.0	4,389.5	4,378.0	4,348.9	16.7	0.0	-88.21	-238.9	375.1	360.1	343.9	16.24	22.177		
4,500.0	4,489.1	4,477.4	4,447.3	17.0	0.0	-88.18	-246.8	386.7	371.1	354.5	16.62	22.333		
4,600.0	4,588.8	4,576.8	4,545.7	17.4	0.0	-88.15	-254.8	398.2	382.2	365.2	17.00	22.482		
4,700.0	4,688.4	4,676.2	4,644.1	17.8	0.0	-88.12	-262.8	409.7	393.2	375.8	17.38	22.623		
4,800.0	4,788.1	4,775.6	4,742.5	18.2	0.0	-88.10	-270.8	421.2	404.2	386.5	17.76	22.759		
4,900.0	4,887.7	4,875.0	4,840.9	18.6	0.0	-88.07	-278.8	432.8	415.3	397.1	18.14	22.889		
5,000.0	4,987.4	4,974.4	4,939.3	18.9	0.0	-88.05	-286.8	444.3	426.3	407.8	18.52	23.013		
5,100.0	5,087.0	5,073.8	5,037.7	19.3	0.0	-88.03	-294.8	455.8	437.3	418.4	18.91	23.131		

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 19-18-2NCH
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 19-18-2NCH	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-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,173.2	5,136.1	19.7	0.0	-88.01	-302.7	467.4	448.3	429.1	19.29	23.245		
5,300.0	5,286.3	5,272.5	5,234.5	20.1	0.0	-87.98	-310.7	478.9	459.4	439.7	19.67	23.355		
5,400.0	5,386.0	5,371.9	5,332.9	20.4	0.0	-87.97	-318.7	490.4	470.4	450.4	20.05	23.459		
5,500.0	5,485.6	5,471.3	5,431.3	20.8	0.0	-87.95	-326.7	501.9	481.4	461.0	20.43	23.560		
5,600.0	5,585.3	5,570.7	5,529.7	21.2	0.0	-87.93	-334.7	513.5	492.5	471.6	20.82	23.657		
5,700.0	5,684.9	5,670.1	5,628.1	21.6	0.0	-87.91	-342.7	525.0	503.5	482.3	21.20	23.750		
5,800.0	5,784.6	5,769.5	5,726.5	22.0	0.0	-87.90	-350.6	536.5	514.5	492.9	21.58	23.840		
5,900.0	5,884.3	5,868.9	5,824.9	22.3	0.0	-87.88	-358.6	548.0	525.6	503.6	21.96	23.927		
6,000.0	5,983.9	5,968.3	5,923.3	22.7	0.0	-87.87	-366.6	559.6	536.6	514.2	22.35	24.010		
6,100.0	6,083.6	6,067.7	6,021.7	23.1	0.0	-87.85	-374.6	571.1	547.6	524.9	22.73	24.091		
6,200.0	6,183.2	6,167.1	6,120.1	23.5	0.0	-87.84	-382.6	582.6	558.6	535.5	23.11	24.169		
6,300.0	6,282.9	6,266.4	6,218.5	23.9	0.0	-87.83	-390.6	594.2	569.7	546.2	23.50	24.244		
6,400.0	6,382.5	6,365.8	6,316.9	24.2	0.0	-87.81	-398.6	605.7	580.7	556.8	23.88	24.316		
6,500.0	6,482.2	6,465.2	6,415.3	24.6	0.0	-87.80	-406.5	617.2	591.7	567.5	24.26	24.387		
6,600.0	6,581.8	6,564.6	6,513.6	25.0	0.0	-87.79	-414.5	628.7	602.8	578.1	24.65	24.454		
6,700.0	6,681.5	6,664.0	6,612.0	25.4	0.0	-87.78	-422.5	640.3	613.8	588.8	25.03	24.520		
6,800.0	6,781.1	6,763.4	6,710.4	25.8	0.0	-87.77	-430.5	651.8	624.8	599.4	25.42	24.584		
6,900.0	6,880.8	6,862.8	6,808.8	26.1	0.0	-82.44	-438.5	663.3	635.8	610.0	25.79	24.654		
7,000.0	6,980.6	6,961.1	6,906.2	26.7	0.0	86.59	-446.4	674.7	646.6	620.2	26.37	24.522		
7,100.0	7,077.8	7,055.6	6,999.7	27.0	0.0	89.12	-454.0	685.7	657.8	631.3	26.55	24.781		
7,200.0	7,169.6	7,149.0	7,092.3	27.3	0.0	91.71	-459.6	696.5	671.2	644.5	26.66	25.172		
7,300.0	7,253.2	7,254.0	7,196.0	27.6	0.0	94.40	-450.0	708.5	686.8	660.0	26.81	25.623		
7,400.0	7,326.0	7,371.6	7,307.9	27.8	0.0	97.04	-417.0	721.3	703.9	676.9	26.95	26.116		
7,500.0	7,385.9	7,505.3	7,424.0	28.0	0.0	99.62	-352.4	734.3	721.0	693.9	27.06	26.648		
7,600.0	7,430.9	7,658.6	7,534.5	28.1	0.0	102.00	-247.6	746.3	736.3	709.2	27.09	27.181		
7,700.0	7,459.8	7,831.8	7,621.4	28.3	0.0	103.82	-98.8	755.2	747.4	720.3	27.12	27.558		
7,800.0	7,471.7	8,019.2	7,661.2	28.5	0.0	104.62	83.5	758.3	752.1	724.8	27.36	27.494		
7,900.0	7,472.0	8,133.7	7,662.0	28.7	0.0	104.63	197.9	757.4	752.2	724.5	27.74	27.121		
8,000.0	7,472.0	8,233.7	7,662.0	29.1	0.0	104.63	297.9	756.6	752.2	724.0	28.20	26.671		
8,100.0	7,472.0	8,333.7	7,662.0	29.7	0.0	104.63	397.9	755.8	752.2	723.5	28.77	26.148		
8,200.0	7,472.0	8,433.7	7,662.0	30.3	0.0	104.63	497.9	755.0	752.2	722.8	29.42	25.567		
8,300.0	7,472.0	8,533.7	7,662.0	31.0	0.0	104.63	597.9	754.1	752.2	722.1	30.16	24.942		
8,400.0	7,472.0	8,633.7	7,662.0	31.8	0.0	104.63	697.9	753.3	752.2	721.3	30.98	24.285		
8,500.0	7,472.0	8,733.7	7,662.0	32.7	0.0	104.63	797.9	752.5	752.2	720.4	31.86	23.608		
8,600.0	7,472.0	8,833.7	7,662.0	33.7	0.0	104.63	897.9	751.7	752.2	719.4	32.82	22.922		
8,700.0	7,472.0	8,933.7	7,662.0	34.8	0.0	104.63	997.9	750.8	752.2	718.4	33.83	22.235		
8,800.0	7,472.0	9,033.7	7,662.0	35.9	0.0	104.63	1,097.9	750.0	752.2	717.3	34.90	21.553		
8,900.0	7,472.0	9,133.7	7,662.0	37.0	0.0	104.63	1,197.9	749.2	752.2	716.2	36.02	20.883		
9,000.0	7,472.0	9,233.7	7,662.0	38.2	0.0	104.63	1,297.9	748.4	752.2	715.0	37.19	20.228		
9,100.0	7,472.0	9,333.7	7,662.0	39.4	0.0	104.63	1,397.9	747.5	752.2	713.8	38.39	19.592		
9,200.0	7,472.0	9,433.7	7,662.0	40.7	0.0	104.63	1,497.9	746.7	752.2	712.6	39.64	18.977		
9,300.0	7,472.0	9,533.7	7,662.0	42.0	0.0	104.63	1,597.9	745.9	752.2	711.3	40.92	18.383		
9,400.0	7,472.0	9,633.7	7,662.0	43.4	0.0	104.63	1,697.9	745.0	752.2	710.0	42.23	17.813		
9,500.0	7,472.0	9,733.7	7,662.0	44.7	0.0	104.63	1,797.9	744.2	752.2	708.7	43.57	17.265		
9,600.0	7,472.0	9,833.7	7,662.0	46.2	0.0	104.63	1,897.9	743.4	752.2	707.3	44.93	16.740		
9,700.0	7,472.0	9,933.7	7,662.0	47.6	0.0	104.63	1,997.9	742.6	752.2	705.9	46.32	16.239		
9,800.0	7,472.0	10,033.7	7,662.0	49.0	0.0	104.63	2,097.9	741.7	752.2	704.5	47.73	15.759		
9,900.0	7,472.0	10,133.7	7,662.0	50.5	0.0	104.63	2,197.9	740.9	752.2	703.1	49.16	15.300		
10,000.0	7,472.0	10,233.7	7,662.0	52.0	0.0	104.63	2,297.9	740.1	752.2	701.6	50.61	14.863		
10,100.0	7,472.0	10,333.7	7,662.0	53.5	0.0	104.63	2,397.9	739.3	752.2	700.2	52.08	14.445		
10,200.0	7,472.0	10,433.7	7,662.0	55.0	0.0	104.63	2,497.9	738.4	752.2	698.7	53.56	14.045		
10,300.0	7,472.0	10,533.7	7,662.0	56.5	0.0	104.63	2,597.9	737.6	752.2	697.2	55.05	13.664		

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 19-18-2NCH
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 19-18-2NCH	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-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,633.7	7,662.0	58.1	0.0	104.63	2,697.8	736.8	752.2	695.7	56.56	13.300		
10,500.0	7,472.0	10,733.7	7,662.0	59.6	0.0	104.63	2,797.8	735.9	752.2	694.2	58.08	12.953		
10,600.0	7,472.0	10,833.7	7,662.0	61.2	0.0	104.63	2,897.8	735.1	752.2	692.6	59.60	12.620		
10,700.0	7,472.0	10,933.7	7,662.0	62.8	0.0	104.63	2,997.8	734.3	752.2	691.1	61.14	12.303		
10,800.0	7,472.0	11,033.7	7,662.0	64.4	0.0	104.63	3,097.8	733.5	752.2	689.5	62.69	11.999		
10,900.0	7,472.0	11,133.7	7,662.0	66.0	0.0	104.63	3,197.8	732.6	752.2	688.0	64.25	11.708		
11,000.0	7,472.0	11,233.7	7,662.0	67.6	0.0	104.63	3,297.8	731.8	752.2	686.4	65.82	11.429		
11,100.0	7,472.0	11,333.7	7,662.0	69.2	0.0	104.63	3,397.8	731.0	752.2	684.8	67.39	11.163		
11,200.0	7,472.0	11,433.7	7,662.0	70.8	0.0	104.63	3,497.8	730.2	752.2	683.3	68.97	10.907		
11,300.0	7,472.0	11,533.7	7,662.0	72.5	0.0	104.63	3,597.8	729.3	752.2	681.7	70.56	10.662		
11,400.0	7,472.0	11,633.7	7,662.0	74.1	0.0	104.63	3,697.8	728.5	752.2	680.1	72.15	10.426		
11,500.0	7,472.0	11,733.7	7,662.0	75.7	0.0	104.63	3,797.8	727.7	752.2	678.5	73.75	10.200		
11,600.0	7,472.0	11,833.7	7,662.0	77.4	0.0	104.63	3,897.8	726.9	752.2	676.9	75.35	9.983		
11,700.0	7,472.0	11,933.7	7,662.0	79.0	0.0	104.63	3,997.8	726.0	752.2	675.3	76.96	9.774		
11,800.0	7,472.0	12,033.7	7,662.0	80.7	0.0	104.63	4,097.8	725.2	752.2	673.7	78.57	9.574		
11,900.0	7,472.0	12,133.7	7,662.0	82.4	0.0	104.63	4,197.8	724.4	752.2	672.0	80.19	9.381		
12,000.0	7,472.0	12,233.7	7,662.0	84.0	0.0	104.63	4,297.8	723.5	752.2	670.4	81.81	9.195		
12,100.0	7,472.0	12,333.7	7,662.0	85.7	0.0	104.63	4,397.8	722.7	752.2	668.8	83.44	9.015		
12,200.0	7,472.0	12,433.7	7,662.0	87.4	0.0	104.63	4,497.8	721.9	752.2	667.2	85.07	8.843		
12,300.0	7,472.0	12,533.7	7,662.0	89.0	0.0	104.63	4,597.8	721.1	752.2	665.5	86.70	8.676		
12,400.0	7,472.0	12,633.7	7,662.0	90.7	0.0	104.63	4,697.8	720.2	752.2	663.9	88.34	8.515		
12,500.0	7,472.0	12,733.7	7,662.0	92.4	0.0	104.63	4,797.8	719.4	752.2	662.3	89.98	8.360		
12,600.0	7,472.0	12,833.7	7,662.0	94.1	0.0	104.63	4,897.8	718.6	752.2	660.6	91.62	8.210		
12,700.0	7,472.0	12,933.7	7,662.0	95.8	0.0	104.63	4,997.8	717.8	752.2	659.0	93.26	8.066		
12,800.0	7,472.0	13,033.7	7,662.0	97.5	0.0	104.63	5,097.8	716.9	752.2	657.3	94.91	7.926		
12,900.0	7,472.0	13,133.7	7,662.0	99.2	0.0	104.63	5,197.8	716.1	752.2	655.7	96.56	7.790		
13,000.0	7,472.0	13,233.7	7,662.0	100.9	0.0	104.63	5,297.8	715.3	752.2	654.0	98.21	7.659		
13,100.0	7,472.0	13,333.7	7,662.0	102.6	0.0	104.63	5,397.8	714.5	752.2	652.4	99.87	7.532		
13,200.0	7,472.0	13,433.7	7,662.0	104.3	0.0	104.63	5,497.8	713.6	752.2	650.7	101.53	7.409		
13,300.0	7,472.0	13,533.7	7,662.0	106.0	0.0	104.63	5,597.7	712.8	752.2	649.0	103.18	7.290		
13,400.0	7,472.0	13,633.7	7,662.0	107.7	0.0	104.63	5,697.7	712.0	752.2	647.4	104.85	7.175		
13,500.0	7,472.0	13,733.7	7,662.0	109.4	0.0	104.63	5,797.7	711.1	752.2	645.7	106.51	7.063		
13,600.0	7,472.0	13,833.7	7,662.0	111.1	0.0	104.63	5,897.7	710.3	752.2	644.1	108.17	6.954		
13,700.0	7,472.0	13,933.7	7,662.0	112.8	0.0	104.63	5,997.7	709.5	752.2	642.4	109.84	6.848		
13,800.0	7,472.0	14,033.7	7,662.0	114.5	0.0	104.63	6,097.7	708.7	752.2	640.7	111.51	6.746		
13,900.0	7,472.0	14,133.7	7,662.0	116.2	0.0	104.63	6,197.7	707.8	752.2	639.0	113.18	6.646		
14,000.0	7,472.0	14,233.7	7,662.0	118.0	0.0	104.63	6,297.7	707.0	752.2	637.4	114.85	6.550		
14,100.0	7,472.0	14,333.7	7,662.0	119.7	0.0	104.63	6,397.7	706.2	752.2	635.7	116.52	6.456		
14,100.0	7,472.0	14,333.7	7,662.0	119.7	0.0	104.63	6,397.7	706.2	752.2	635.7	116.52	6.456		
14,200.0	7,472.0	14,433.7	7,662.0	121.4	0.0	104.60	6,497.7	705.4	753.9	635.7	118.22	6.377		
14,300.0	7,472.0	14,533.6	7,662.0	123.1	0.0	104.55	6,597.7	704.5	756.7	636.8	119.92	6.310		
14,400.0	7,472.0	14,633.6	7,662.0	124.9	0.0	104.49	6,697.6	703.7	759.5	637.9	121.63	6.244		
14,500.0	7,472.0	14,733.5	7,662.0	126.6	0.0	104.44	6,797.6	702.9	762.4	639.0	123.34	6.181		
14,600.0	7,472.0	14,833.5	7,662.0	128.3	0.0	104.38	6,897.5	702.1	765.2	640.1	125.06	6.119		
14,700.0	7,472.0	14,933.5	7,662.0	130.1	0.0	104.33	6,997.5	701.2	768.0	641.3	126.77	6.058		
14,800.0	7,472.0	15,033.4	7,662.0	131.8	0.0	104.27	7,097.4	700.4	770.9	642.4	128.49	6.000		
14,900.0	7,472.0	15,133.4	7,662.0	133.5	0.0	104.22	7,197.4	699.6	773.7	643.5	130.20	5.942		
15,000.0	7,472.0	15,233.3	7,662.0	135.3	0.0	104.17	7,297.3	698.7	776.5	644.6	131.92	5.886		
15,100.0	7,472.0	15,333.3	7,662.0	137.0	0.0	104.12	7,397.3	697.9	779.4	645.7	133.64	5.832		
15,200.0	7,472.0	15,433.2	7,662.0	138.7	0.0	104.06	7,497.2	697.1	782.2	646.9	135.36	5.779		
15,300.0	7,472.0	15,533.2	7,662.0	140.5	0.0	104.01	7,597.2	696.3	785.1	648.0	137.09	5.727		
15,400.0	7,472.0	15,633.2	7,662.0	142.2	0.0	103.96	7,697.1	695.4	787.9	649.1	138.81	5.676		

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 19-18-2NCH
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 19-18-2NCH	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-													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		
15,500.0	7,472.0	15,733.1	7,662.0	144.0	0.0	103.91	7,797.1	694.6	790.7	650.2	140.54	5.627		
15,600.0	7,472.0	15,833.1	7,662.0	145.7	0.0	103.86	7,897.1	693.8	793.6	651.3	142.26	5.578		
15,700.0	7,472.0	15,933.0	7,662.0	147.5	0.0	103.81	7,997.0	693.0	796.4	652.4	143.99	5.531		
15,800.0	7,472.0	16,033.0	7,662.0	149.2	0.0	103.76	8,097.0	692.1	799.3	653.5	145.72	5.485		
15,900.0	7,472.0	16,132.9	7,662.0	150.9	0.0	103.71	8,196.9	691.3	802.1	654.7	147.45	5.440		
16,000.0	7,472.0	16,232.9	7,662.0	152.7	0.0	103.67	8,296.9	690.5	804.0	654.8	149.17	5.390		
16,100.0	7,472.0	16,332.9	7,662.0	154.4	0.0	103.70	8,396.9	689.7	802.5	651.7	150.86	5.320		
16,200.0	7,472.0	16,432.8	7,662.0	156.2	0.0	103.76	8,496.8	688.8	799.2	646.7	152.52	5.240		
16,300.0	7,472.0	16,532.8	7,662.0	157.9	0.0	103.82	8,596.7	688.0	795.8	641.7	154.17	5.162		
16,400.0	7,472.0	16,632.7	7,662.0	159.6	0.0	103.88	8,696.7	687.2	792.5	636.7	155.82	5.086		
16,500.0	7,472.0	16,732.7	7,662.0	161.3	0.0	103.94	8,796.6	686.4	789.2	631.7	157.48	5.011		
16,600.0	7,472.0	16,832.6	7,662.0	163.1	0.0	104.00	8,896.6	685.5	785.8	626.7	159.13	4.938		
16,700.0	7,472.0	16,932.5	7,662.0	164.8	0.0	104.06	8,996.5	684.7	782.5	621.7	160.78	4.867		
16,800.0	7,472.0	17,032.5	7,662.0	166.5	0.0	104.12	9,096.4	683.9	779.1	616.7	162.43	4.797		
16,900.0	7,472.0	17,132.4	7,662.0	168.2	0.0	104.18	9,196.4	683.0	775.8	611.7	164.08	4.728		
17,000.0	7,472.0	17,232.4	7,662.0	170.0	0.0	104.25	9,296.3	682.2	772.4	606.7	165.73	4.661		
17,100.0	7,472.0	17,332.3	7,662.0	171.7	0.0	104.31	9,396.2	681.4	769.1	601.7	167.38	4.595		
17,200.0	7,472.0	17,432.2	7,662.0	173.4	0.0	104.37	9,496.2	680.6	765.8	596.7	169.03	4.530		
17,300.0	7,472.0	17,532.2	7,662.0	175.2	0.0	104.44	9,596.1	679.7	762.4	591.8	170.68	4.467		
17,400.0	7,472.0	17,632.1	7,662.0	176.9	0.0	104.50	9,696.1	678.9	759.1	586.8	172.32	4.405		
17,500.0	7,472.0	17,732.1	7,662.0	178.6	0.0	104.57	9,796.0	678.1	755.8	581.8	173.97	4.344		
17,600.0	7,472.0	17,832.0	7,662.0	180.3	0.0	104.63	9,895.9	677.3	752.4	576.8	175.61	4.285		
17,606.3	7,472.0	17,838.3	7,662.0	180.5	0.0	104.64	9,902.2	677.2	752.2	576.5	175.72	4.281 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.71	0.4	75.0	75.0				
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.4	75.0	75.0	74.8	0.28	270.891	
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.4	75.0	75.0	74.2	0.80	94.054	
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.4	75.0	75.0	73.8	1.22	61.284	
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.4	75.0	75.0	73.4	1.62	46.367	
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.4	75.0	75.0	73.0	2.00	37.539	
600.0	600.0	600.0	600.0	2.7	0.0	89.71	0.4	75.0	75.0	72.7	2.37	31.626	
700.0	700.0	700.0	700.0	3.1	0.0	89.71	0.4	75.0	75.0	72.3	2.74	27.362	
800.0	800.0	800.0	800.0	3.5	0.0	89.71	0.4	75.0	75.0	71.9	3.11	24.132	
900.0	900.0	900.0	900.0	3.9	0.0	89.71	0.4	75.0	75.0	71.6	3.47	21.595 CC, ES	
1,000.0	1,000.0	997.6	997.5	4.2	0.0	90.13	-0.2	76.6	76.6	72.8	3.83	20.004	
1,100.0	1,100.0	1,094.9	1,094.7	4.6	0.0	91.30	-1.8	81.3	81.5	77.3	4.17	19.526	
1,200.0	1,200.0	1,191.8	1,191.3	5.0	0.0	92.96	-4.6	89.0	89.6	85.1	4.50	19.902	
1,300.0	1,300.0	1,288.1	1,286.9	5.3	0.0	-81.95	-8.4	99.8	100.7	95.9	4.79	21.041	
1,400.0	1,399.8	1,383.6	1,381.3	6.0	0.0	-82.20	-13.3	113.4	114.6	109.5	5.08	22.536	
1,500.0	1,499.5	1,478.3	1,474.4	6.3	0.0	-83.29	-19.2	129.8	131.3	125.9	5.39	24.347	
1,600.0	1,599.2	1,571.9	1,565.8	6.6	0.0	-83.95	-26.0	148.9	151.1	145.4	5.71	26.477	
1,700.0	1,698.8	1,668.7	1,659.8	6.9	0.0	-84.25	-33.7	170.6	172.9	166.8	6.05	28.596	
1,800.0	1,798.5	1,766.2	1,754.5	7.3	0.0	-84.48	-41.5	192.5	194.7	188.3	6.39	30.458	
1,900.0	1,898.1	1,863.8	1,849.3	7.6	0.0	-84.67	-49.3	214.4	216.6	209.8	6.74	32.114	
2,000.0	1,997.8	1,961.4	1,944.1	8.0	0.0	-84.82	-57.1	236.2	238.5	231.4	7.10	33.593	
2,100.0	2,097.4	2,059.0	2,038.8	8.3	0.0	-84.94	-64.9	258.1	260.3	252.9	7.45	34.921	
2,200.0	2,197.1	2,156.6	2,133.6	8.7	0.0	-85.05	-72.7	280.0	282.2	274.4	7.81	36.119	
2,300.0	2,296.7	2,254.1	2,228.4	9.0	0.0	-85.14	-80.5	301.9	304.1	295.9	8.17	37.203	
2,400.0	2,396.4	2,351.7	2,323.2	9.4	0.0	-85.22	-88.3	323.8	325.9	317.4	8.53	38.189	
2,500.0	2,496.0	2,449.3	2,417.9	9.7	0.0	-85.29	-96.1	345.7	347.8	338.9	8.90	39.088	
2,600.0	2,595.7	2,546.9	2,512.7	10.1	0.0	-85.35	-103.9	367.6	369.7	360.4	9.26	39.911	
2,700.0	2,695.3	2,644.5	2,607.5	10.4	0.0	-85.40	-111.7	389.5	391.5	381.9	9.63	40.667	
2,800.0	2,795.0	2,742.0	2,702.2	10.8	0.0	-85.45	-119.5	411.4	413.4	403.4	9.99	41.364	
2,900.0	2,894.7	2,839.6	2,797.0	11.1	0.0	-85.49	-127.3	433.2	435.3	424.9	10.36	42.007	
3,000.0	2,994.3	2,937.2	2,891.8	11.5	0.0	-85.53	-135.1	455.1	457.1	446.4	10.73	42.603	
3,100.0	3,094.0	3,034.8	2,986.6	11.9	0.0	-85.56	-142.9	477.0	479.0	467.9	11.10	43.157	
3,200.0	3,193.6	3,132.3	3,081.3	12.2	0.0	-85.60	-150.7	498.9	500.9	489.4	11.47	43.673	
3,300.0	3,293.3	3,229.9	3,176.1	12.6	0.0	-85.63	-158.5	520.8	522.8	510.9	11.84	44.153	
3,400.0	3,392.9	3,327.5	3,270.9	13.0	0.0	-85.65	-166.3	542.7	544.6	532.4	12.21	44.603	
3,500.0	3,492.6	3,425.1	3,365.6	13.3	0.0	-85.68	-174.1	564.6	566.5	553.9	12.58	45.024	
3,600.0	3,592.2	3,522.7	3,460.4	13.7	0.0	-85.70	-181.9	586.5	588.4	575.4	12.95	45.419	
3,700.0	3,691.9	3,620.2	3,555.2	14.1	0.0	-85.72	-189.7	608.4	610.2	596.9	13.33	45.791	
3,800.0	3,791.5	3,717.8	3,649.9	14.4	0.0	-85.74	-197.5	630.3	632.1	618.4	13.70	46.141	
3,900.0	3,891.2	3,815.4	3,744.7	14.8	0.0	-85.76	-205.3	652.1	654.0	639.9	14.07	46.471	
4,000.0	3,990.8	3,913.0	3,839.5	15.2	0.0	-85.78	-213.1	674.0	675.9	661.4	14.45	46.783	
4,100.0	4,090.5	4,010.6	3,934.3	15.6	0.0	-85.80	-220.9	695.9	697.7	682.9	14.82	47.078	
4,200.0	4,190.1	4,108.1	4,029.0	15.9	0.0	-85.81	-228.7	717.8	719.6	704.4	15.20	47.358	
4,300.0	4,289.8	4,205.7	4,123.8	16.3	0.0	-85.83	-236.5	739.7	741.5	725.9	15.57	47.623	
4,400.0	4,389.5	4,303.3	4,218.6	16.7	0.0	-85.84	-244.3	761.6	763.4	747.4	15.94	47.875	
4,500.0	4,489.1	4,400.9	4,313.3	17.0	0.0	-85.85	-252.1	783.5	785.2	768.9	16.32	48.115	
4,600.0	4,588.8	4,498.4	4,408.1	17.4	0.0	-85.87	-259.9	805.4	807.1	790.4	16.70	48.343	
4,700.0	4,688.4	4,596.0	4,502.9	17.8	0.0	-85.88	-267.7	827.3	829.0	811.9	17.07	48.560	
4,800.0	4,788.1	4,693.6	4,597.7	18.2	0.0	-85.89	-275.5	849.1	850.8	833.4	17.45	48.767	
4,900.0	4,887.7	4,791.2	4,692.4	18.6	0.0	-85.90	-283.3	871.0	872.7	854.9	17.82	48.965	
5,000.0	4,987.4	4,888.8	4,787.2	18.9	0.0	-85.91	-291.1	892.9	894.6	876.4	18.20	49.155	
5,100.0	5,087.0	4,986.3	4,882.0	19.3	0.0	-85.92	-298.9	914.8	916.5	897.9	18.58	49.336	

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,083.9	4,976.7	19.7	0.0	-85.93	-306.7	936.7	938.3	919.4	18.95	49.509		
5,300.0	5,286.3	5,181.5	5,071.5	20.1	0.0	-85.94	-314.5	958.6	960.2	940.9	19.33	49.675		
5,400.0	5,386.0	5,279.1	5,166.3	20.4	0.0	-85.94	-322.3	980.5	982.1	962.4	19.71	49.835		
5,500.0	5,485.6	5,376.7	5,261.1	20.8	0.0	-85.95	-330.2	1,002.4	1,003.9	983.9	20.08	49.987		
5,600.0	5,585.3	5,474.2	5,355.8	21.2	0.0	-85.96	-338.0	1,024.3	1,025.8	1,005.4	20.46	50.134		
5,700.0	5,684.9	5,571.8	5,450.6	21.6	0.0	-85.97	-345.8	1,046.1	1,047.7	1,026.9	20.84	50.276		
5,800.0	5,784.6	5,669.4	5,545.4	22.0	0.0	-85.97	-353.6	1,068.0	1,069.6	1,048.3	21.22	50.411		
5,900.0	5,884.3	5,767.0	5,640.1	22.3	0.0	-85.98	-361.4	1,089.9	1,091.4	1,069.8	21.59	50.542		
6,000.0	5,983.9	5,864.5	5,734.9	22.7	0.0	-85.99	-369.2	1,111.8	1,113.3	1,091.3	21.97	50.668		
6,100.0	6,083.6	5,962.1	5,829.7	23.1	0.0	-85.99	-377.0	1,133.7	1,135.2	1,112.8	22.35	50.789		
6,200.0	6,183.2	6,059.7	5,924.5	23.5	0.0	-86.00	-384.8	1,155.6	1,157.1	1,134.3	22.73	50.906		
6,300.0	6,282.9	6,157.3	6,019.2	23.9	0.0	-86.00	-392.6	1,177.5	1,178.9	1,155.8	23.11	51.019		
6,400.0	6,382.5	6,254.9	6,114.0	24.2	0.0	-86.01	-400.4	1,199.4	1,200.8	1,177.3	23.49	51.128		
6,500.0	6,482.2	6,352.4	6,208.8	24.6	0.0	-86.01	-408.2	1,221.3	1,222.7	1,198.8	23.86	51.233		
6,600.0	6,581.8	6,450.0	6,303.5	25.0	0.0	-86.02	-416.0	1,243.2	1,244.5	1,220.3	24.24	51.335		
6,700.0	6,681.5	6,547.6	6,398.3	25.4	0.0	-86.02	-423.8	1,265.0	1,266.4	1,241.8	24.62	51.433		
6,800.0	6,781.1	6,645.2	6,493.1	25.8	0.0	-86.03	-431.6	1,286.9	1,288.3	1,263.3	25.00	51.528		
6,900.0	6,880.8	6,742.7	6,587.8	26.1	0.0	-81.09	-439.4	1,308.8	1,310.2	1,284.8	25.37	51.637		
7,000.0	6,980.6	6,839.3	6,681.6	26.7	0.0	86.16	-447.1	1,330.5	1,332.0	1,306.0	25.96	51.747		
7,100.0	7,077.8	6,931.9	6,771.6	27.0	0.0	86.30	-454.5	1,351.3	1,353.7	1,327.5	26.16	51.747		
7,200.0	7,169.6	7,030.4	6,867.4	27.3	0.0	86.08	-454.2	1,373.3	1,375.3	1,348.9	26.35	52.192		
7,300.0	7,253.2	7,137.4	6,969.9	27.6	0.0	85.85	-434.8	1,396.8	1,396.2	1,369.6	26.56	52.574		
7,400.0	7,326.0	7,255.3	7,076.4	27.8	0.0	85.76	-391.2	1,420.9	1,415.5	1,388.7	26.79	52.840		
7,500.0	7,385.9	7,386.2	7,181.9	28.0	0.0	85.82	-317.9	1,444.6	1,432.5	1,405.4	27.05	52.951		
7,600.0	7,430.9	7,531.4	7,276.7	28.1	0.0	86.01	-210.3	1,465.6	1,446.0	1,418.6	27.35	52.871		
7,700.0	7,459.8	7,690.1	7,346.5	28.3	0.0	86.21	-69.3	1,480.5	1,455.0	1,427.3	27.68	52.562		
7,800.0	7,471.7	7,857.3	7,376.6	28.5	0.0	86.27	94.6	1,486.0	1,458.7	1,430.6	28.05	51.997		
7,900.0	7,472.0	7,966.7	7,377.0	28.7	0.0	86.27	204.0	1,485.2	1,458.7	1,430.3	28.44	51.300		
8,000.0	7,472.0	8,066.7	7,377.0	29.1	0.0	86.27	304.0	1,484.4	1,458.7	1,429.8	28.92	50.444		
8,100.0	7,472.0	8,166.7	7,377.0	29.7	0.0	86.27	403.9	1,483.6	1,458.7	1,429.2	29.50	49.450		
8,200.0	7,472.0	8,266.7	7,377.0	30.3	0.0	86.27	503.9	1,482.8	1,458.7	1,428.6	30.17	48.346		
8,300.0	7,472.0	8,366.7	7,377.0	31.0	0.0	86.27	603.9	1,481.9	1,458.7	1,427.8	30.93	47.160		
8,400.0	7,472.0	8,466.7	7,377.0	31.8	0.0	86.27	703.9	1,481.1	1,458.7	1,427.0	31.77	45.915		
8,500.0	7,472.0	8,566.7	7,377.0	32.7	0.0	86.27	803.9	1,480.3	1,458.7	1,426.1	32.68	44.633		
8,600.0	7,472.0	8,666.7	7,377.0	33.7	0.0	86.27	903.9	1,479.4	1,458.7	1,425.1	33.66	43.333		
8,700.0	7,472.0	8,766.7	7,377.0	34.8	0.0	86.27	1,003.9	1,478.6	1,458.7	1,424.0	34.71	42.032		
8,800.0	7,472.0	8,866.7	7,377.0	35.9	0.0	86.27	1,103.9	1,477.8	1,458.7	1,422.9	35.80	40.742		
8,900.0	7,472.0	8,966.7	7,377.0	37.0	0.0	86.27	1,203.9	1,477.0	1,458.7	1,421.8	36.95	39.475		
9,000.0	7,472.0	9,066.7	7,377.0	38.2	0.0	86.27	1,303.9	1,476.1	1,458.7	1,420.6	38.15	38.236		
9,100.0	7,472.0	9,166.7	7,377.0	39.4	0.0	86.27	1,403.9	1,475.3	1,458.7	1,419.4	39.39	37.033		
9,200.0	7,472.0	9,266.7	7,377.0	40.7	0.0	86.27	1,503.9	1,474.5	1,458.7	1,418.1	40.67	35.869		
9,300.0	7,472.0	9,366.7	7,377.0	42.0	0.0	86.27	1,603.9	1,473.7	1,458.7	1,416.8	41.98	34.747		
9,400.0	7,472.0	9,466.7	7,377.0	43.4	0.0	86.27	1,703.9	1,472.8	1,458.7	1,415.4	43.33	33.669		
9,500.0	7,472.0	9,566.7	7,377.0	44.7	0.0	86.27	1,803.9	1,472.0	1,458.7	1,414.0	44.70	32.634		
9,600.0	7,472.0	9,666.7	7,377.0	46.2	0.0	86.27	1,903.9	1,471.2	1,458.7	1,412.6	46.10	31.642		
9,700.0	7,472.0	9,766.7	7,377.0	47.6	0.0	86.27	2,003.9	1,470.3	1,458.7	1,411.2	47.53	30.694		
9,800.0	7,472.0	9,866.7	7,377.0	49.0	0.0	86.27	2,103.9	1,469.5	1,458.7	1,409.8	48.97	29.787		
9,900.0	7,472.0	9,966.7	7,377.0	50.5	0.0	86.27	2,203.9	1,468.7	1,458.7	1,408.3	50.44	28.921		
10,000.0	7,472.0	10,066.7	7,377.0	52.0	0.0	86.27	2,303.9	1,467.9	1,458.7	1,406.8	51.92	28.094		
10,100.0	7,472.0	10,166.7	7,377.0	53.5	0.0	86.27	2,403.9	1,467.0	1,458.7	1,405.3	53.43	27.304		
10,200.0	7,472.0	10,266.7	7,377.0	55.0	0.0	86.27	2,503.9	1,466.2	1,458.7	1,403.8	54.94	26.550		
10,300.0	7,472.0	10,366.7	7,377.0	56.5	0.0	86.27	2,603.9	1,465.4	1,458.7	1,402.3	56.48	25.830		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NBH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,472.0	10,466.7	7,377.0	58.1	0.0	86.27	2,703.9	1,464.6	1,458.7	1,400.7	58.02	25.142	
10,500.0	7,472.0	10,566.7	7,377.0	59.6	0.0	86.27	2,803.9	1,463.7	1,458.7	1,399.2	59.58	24.485	
10,600.0	7,472.0	10,666.7	7,377.0	61.2	0.0	86.27	2,903.9	1,462.9	1,458.7	1,397.6	61.15	23.857	
10,700.0	7,472.0	10,766.7	7,377.0	62.8	0.0	86.27	3,003.9	1,462.1	1,458.7	1,396.0	62.72	23.256	
10,800.0	7,472.0	10,866.7	7,377.0	64.4	0.0	86.27	3,103.9	1,461.3	1,458.7	1,394.4	64.31	22.682	
10,900.0	7,472.0	10,966.7	7,377.0	66.0	0.0	86.27	3,203.9	1,460.4	1,458.7	1,392.8	65.91	22.133	
11,000.0	7,472.0	11,066.7	7,377.0	67.6	0.0	86.27	3,303.8	1,459.6	1,458.7	1,391.2	67.51	21.606	
11,100.0	7,472.0	11,166.7	7,377.0	69.2	0.0	86.27	3,403.8	1,458.8	1,458.7	1,389.6	69.13	21.102	
11,200.0	7,472.0	11,266.7	7,377.0	70.8	0.0	86.27	3,503.8	1,457.9	1,458.7	1,388.0	70.75	20.619	
11,300.0	7,472.0	11,366.7	7,377.0	72.5	0.0	86.27	3,603.8	1,457.1	1,458.7	1,386.4	72.37	20.156	
11,400.0	7,472.0	11,466.7	7,377.0	74.1	0.0	86.27	3,703.8	1,456.3	1,458.7	1,384.7	74.01	19.711	
11,500.0	7,472.0	11,566.7	7,377.0	75.7	0.0	86.27	3,803.8	1,455.5	1,458.7	1,383.1	75.65	19.284	
11,600.0	7,472.0	11,666.7	7,377.0	77.4	0.0	86.27	3,903.8	1,454.6	1,458.7	1,381.4	77.29	18.874	
11,700.0	7,472.0	11,766.7	7,377.0	79.0	0.0	86.27	4,003.8	1,453.8	1,458.7	1,379.8	78.94	18.479	
11,800.0	7,472.0	11,866.7	7,377.0	80.7	0.0	86.27	4,103.8	1,453.0	1,458.7	1,378.1	80.59	18.100	
11,900.0	7,472.0	11,966.7	7,377.0	82.4	0.0	86.27	4,203.8	1,452.2	1,458.7	1,376.5	82.25	17.735	
12,000.0	7,472.0	12,066.7	7,377.0	84.0	0.0	86.27	4,303.8	1,451.3	1,458.7	1,374.8	83.91	17.384	
12,100.0	7,472.0	12,166.7	7,377.0	85.7	0.0	86.27	4,403.8	1,450.5	1,458.7	1,373.2	85.58	17.045	
12,200.0	7,472.0	12,266.7	7,377.0	87.4	0.0	86.27	4,503.8	1,449.7	1,458.7	1,371.5	87.25	16.719	
12,300.0	7,472.0	12,366.7	7,377.0	89.0	0.0	86.27	4,603.8	1,448.8	1,458.7	1,369.8	88.93	16.404	
12,400.0	7,472.0	12,466.7	7,377.0	90.7	0.0	86.27	4,703.8	1,448.0	1,458.7	1,368.1	90.60	16.100	
12,500.0	7,472.0	12,566.7	7,377.0	92.4	0.0	86.27	4,803.8	1,447.2	1,458.7	1,366.5	92.28	15.807	
12,600.0	7,472.0	12,666.7	7,377.0	94.1	0.0	86.27	4,903.8	1,446.4	1,458.7	1,364.8	93.97	15.524	
12,700.0	7,472.0	12,766.7	7,377.0	95.8	0.0	86.27	5,003.8	1,445.5	1,458.7	1,363.1	95.65	15.250	
12,800.0	7,472.0	12,866.7	7,377.0	97.5	0.0	86.27	5,103.8	1,444.7	1,458.7	1,361.4	97.34	14.985	
12,900.0	7,472.0	12,966.7	7,377.0	99.2	0.0	86.27	5,203.8	1,443.9	1,458.7	1,359.7	99.04	14.729	
13,000.0	7,472.0	13,066.7	7,377.0	100.9	0.0	86.27	5,303.8	1,443.1	1,458.7	1,358.0	100.73	14.482	
13,100.0	7,472.0	13,166.7	7,377.0	102.6	0.0	86.27	5,403.8	1,442.2	1,458.7	1,356.3	102.43	14.242	
13,200.0	7,472.0	13,266.7	7,377.0	104.3	0.0	86.27	5,503.8	1,441.4	1,458.7	1,354.6	104.13	14.009	
13,300.0	7,472.0	13,366.7	7,377.0	106.0	0.0	86.27	5,603.8	1,440.6	1,458.7	1,352.9	105.83	13.784	
13,400.0	7,472.0	13,466.7	7,377.0	107.7	0.0	86.27	5,703.8	1,439.7	1,458.7	1,351.2	107.53	13.566	
13,500.0	7,472.0	13,566.7	7,377.0	109.4	0.0	86.27	5,803.8	1,438.9	1,458.7	1,349.5	109.23	13.354	
13,600.0	7,472.0	13,666.7	7,377.0	111.1	0.0	86.27	5,903.8	1,438.1	1,458.7	1,347.8	110.94	13.149	
13,700.0	7,472.0	13,766.7	7,377.0	112.8	0.0	86.27	6,003.8	1,437.3	1,458.7	1,346.1	112.65	12.949	
13,800.0	7,472.0	13,866.7	7,377.0	114.5	0.0	86.27	6,103.8	1,436.4	1,458.7	1,344.4	114.36	12.756	
13,900.0	7,472.0	13,966.7	7,377.0	116.2	0.0	86.27	6,203.7	1,435.6	1,458.7	1,342.7	116.07	12.568	
14,000.0	7,472.0	14,066.7	7,377.0	118.0	0.0	86.27	6,303.7	1,434.8	1,458.7	1,340.9	117.78	12.385	
14,100.0	7,472.0	14,166.7	7,377.0	119.7	0.0	86.27	6,403.7	1,434.0	1,458.7	1,339.2	119.50	12.207	
14,200.0	7,472.0	14,266.7	7,377.0	121.4	0.0	86.27	6,503.7	1,433.1	1,460.4	1,339.2	121.22	12.048	
14,300.0	7,472.0	14,366.6	7,377.0	123.1	0.0	86.28	6,603.7	1,432.3	1,463.3	1,340.4	122.95	11.902	
14,400.0	7,472.0	14,466.6	7,377.0	124.9	0.0	86.28	6,703.6	1,431.5	1,466.3	1,341.6	124.68	11.761	
14,500.0	7,472.0	14,566.6	7,377.0	126.6	0.0	86.29	6,803.6	1,430.7	1,469.2	1,342.8	126.41	11.623	
14,600.0	7,472.0	14,666.5	7,377.0	128.3	0.0	86.30	6,903.5	1,429.8	1,472.1	1,344.0	128.14	11.488	
14,700.0	7,472.0	14,766.5	7,377.0	130.1	0.0	86.31	7,003.5	1,429.0	1,475.0	1,345.2	129.87	11.358	
14,800.0	7,472.0	14,866.4	7,377.0	131.8	0.0	86.31	7,103.4	1,428.2	1,477.9	1,346.3	131.60	11.230	
14,900.0	7,472.0	14,966.4	7,377.0	133.5	0.0	86.32	7,203.4	1,427.3	1,480.9	1,347.5	133.34	11.106	
15,000.0	7,472.0	15,066.3	7,377.0	135.3	0.0	86.33	7,303.4	1,426.5	1,483.8	1,348.7	135.07	10.985	
15,100.0	7,472.0	15,166.3	7,377.0	137.0	0.0	86.33	7,403.3	1,425.7	1,486.7	1,349.9	136.81	10.867	
15,200.0	7,472.0	15,266.3	7,377.0	138.7	0.0	86.34	7,503.3	1,424.9	1,489.6	1,351.1	138.55	10.752	
15,300.0	7,472.0	15,366.2	7,377.0	140.5	0.0	86.35	7,603.2	1,424.0	1,492.5	1,352.3	140.29	10.639	
15,400.0	7,472.0	15,466.2	7,377.0	142.2	0.0	86.36	7,703.2	1,423.2	1,495.5	1,353.4	142.02	10.530	

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 19-18-2NCH
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 19-18-2NCH	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		
15,500.0	7,472.0	15,566.1	7,377.0	144.0	0.0	86.36	7,803.1	1,422.4	1,498.4	1,354.6	143.76	10.422		
15,600.0	7,472.0	15,666.1	7,377.0	145.7	0.0	86.37	7,903.1	1,421.6	1,501.3	1,355.8	145.51	10.318		
15,700.0	7,472.0	15,766.0	7,377.0	147.5	0.0	86.38	8,003.0	1,420.7	1,504.2	1,357.0	147.25	10.216		
15,800.0	7,472.0	15,866.0	7,377.0	149.2	0.0	86.38	8,103.0	1,419.9	1,507.1	1,358.2	148.99	10.116		
15,900.0	7,472.0	15,966.0	7,377.0	150.9	0.0	86.39	8,202.9	1,419.1	1,510.1	1,359.3	150.73	10.018		
16,000.0	7,472.0	16,065.9	7,377.0	152.7	0.0	86.40	8,302.9	1,418.3	1,512.0	1,359.5	152.47	9.916		
16,100.0	7,472.0	16,165.9	7,377.0	154.4	0.0	86.39	8,402.9	1,417.4	1,510.5	1,356.3	154.22	9.795		
16,200.0	7,472.0	16,265.9	7,377.0	156.2	0.0	86.38	8,502.8	1,416.6	1,507.1	1,351.1	155.94	9.664		
16,300.0	7,472.0	16,365.8	7,377.0	157.9	0.0	86.38	8,602.8	1,415.8	1,503.6	1,346.0	157.66	9.537		
16,400.0	7,472.0	16,465.7	7,377.0	159.6	0.0	86.37	8,702.7	1,414.9	1,500.2	1,340.8	159.38	9.412		
16,500.0	7,472.0	16,565.7	7,377.0	161.3	0.0	86.36	8,802.6	1,414.1	1,496.7	1,335.6	161.10	9.291		
16,600.0	7,472.0	16,665.6	7,377.0	163.1	0.0	86.35	8,902.6	1,413.3	1,493.3	1,330.5	162.83	9.171		
16,700.0	7,472.0	16,765.6	7,377.0	164.8	0.0	86.34	9,002.5	1,412.5	1,489.9	1,325.3	164.55	9.054		
16,800.0	7,472.0	16,865.5	7,377.0	166.5	0.0	86.33	9,102.5	1,411.6	1,486.4	1,320.2	166.27	8.940		
16,900.0	7,472.0	16,965.4	7,377.0	168.2	0.0	86.32	9,202.4	1,410.8	1,483.0	1,315.0	168.00	8.828		
17,000.0	7,472.0	17,065.4	7,377.0	170.0	0.0	86.32	9,302.3	1,410.0	1,479.6	1,309.8	169.72	8.718		
17,100.0	7,472.0	17,165.3	7,377.0	171.7	0.0	86.31	9,402.3	1,409.2	1,476.1	1,304.7	171.45	8.610		
17,200.0	7,472.0	17,265.3	7,377.0	173.4	0.0	86.30	9,502.2	1,408.3	1,472.7	1,299.5	173.17	8.504		
17,300.0	7,472.0	17,365.2	7,377.0	175.2	0.0	86.29	9,602.1	1,407.5	1,469.3	1,294.4	174.90	8.401		
17,400.0	7,472.0	17,465.1	7,377.0	176.9	0.0	86.28	9,702.1	1,406.7	1,465.8	1,289.2	176.62	8.299		
17,500.0	7,472.0	17,565.1	7,377.0	178.6	0.0	86.27	9,802.0	1,405.9	1,462.4	1,284.0	178.35	8.200		
17,600.0	7,472.0	17,665.0	7,377.0	180.3	0.0	86.26	9,901.9	1,405.0	1,458.9	1,278.9	180.08	8.102		
17,606.3	7,472.0	17,671.3	7,377.0	180.5	0.0	86.26	9,908.3	1,405.0	1,458.7	1,278.5	180.18	8.096 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.73	0.3	60.0	60.0				
100.0	100.0	100.0	100.0	0.4	0.0	89.73	0.3	60.0	60.0	59.7	0.28	216.687	
200.0	200.0	200.0	200.0	1.0	0.0	89.73	0.3	60.0	60.0	59.2	0.80	75.231	
300.0	300.0	300.0	300.0	1.5	0.0	89.73	0.3	60.0	60.0	58.8	1.22	49.018	
400.0	400.0	400.0	400.0	1.9	0.0	89.73	0.3	60.0	60.0	58.4	1.62	37.086	
500.0	500.0	500.0	500.0	2.3	0.0	89.73	0.3	60.0	60.0	58.0	2.00	30.024	
600.0	600.0	600.0	600.0	2.7	0.0	89.73	0.3	60.0	60.0	57.6	2.37	25.294	
700.0	700.0	700.0	700.0	3.1	0.0	89.73	0.3	60.0	60.0	57.3	2.74	21.884	
800.0	800.0	800.0	800.0	3.5	0.0	89.73	0.3	60.0	60.0	56.9	3.11	19.301	
900.0	900.0	900.0	900.0	3.9	0.0	89.73	0.3	60.0	60.0	56.5	3.47	17.272	
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.73	0.3	60.0	60.0	56.2	3.84	15.634 CC, ES	
1,100.0	1,100.0	1,098.1	1,098.1	4.6	0.0	90.34	-0.4	61.6	61.6	57.4	4.19	14.695	
1,200.0	1,200.0	1,195.9	1,195.8	5.0	0.0	91.99	-2.3	66.2	66.4	61.8	4.52	14.671	
1,300.0	1,300.0	1,293.4	1,292.8	5.3	0.0	-82.93	-5.5	73.8	74.2	69.4	4.81	15.414	
1,400.0	1,399.8	1,390.3	1,389.1	6.0	0.0	-83.51	-10.0	84.5	84.7	79.6	5.12	16.548	
1,500.0	1,499.5	1,486.5	1,484.1	6.3	0.0	-84.94	-15.6	98.0	98.2	92.8	5.44	18.052	
1,600.0	1,599.2	1,581.8	1,577.8	6.6	0.0	-85.60	-22.4	114.3	114.7	109.0	5.76	19.917	
1,700.0	1,698.8	1,679.2	1,673.1	6.9	0.0	-85.71	-30.3	133.1	133.4	127.3	6.10	21.873	
1,800.0	1,798.5	1,777.4	1,769.1	7.3	0.0	-85.78	-38.2	152.0	152.2	145.7	6.45	23.602	
1,900.0	1,898.1	1,875.6	1,865.2	7.6	0.0	-85.83	-46.1	171.0	170.9	164.1	6.80	25.141	
2,000.0	1,997.8	1,973.9	1,961.2	8.0	0.0	-85.87	-54.1	190.0	189.7	182.5	7.15	26.518	
2,100.0	2,097.4	2,072.1	2,057.2	8.3	0.0	-85.91	-62.0	209.0	208.4	200.9	7.51	27.755	
2,200.0	2,197.1	2,170.3	2,153.3	8.7	0.0	-85.93	-69.9	228.0	227.2	219.3	7.87	28.871	
2,300.0	2,296.7	2,268.5	2,249.3	9.0	0.0	-85.96	-77.9	247.0	246.0	237.7	8.23	29.883	
2,400.0	2,396.4	2,366.8	2,345.4	9.4	0.0	-85.98	-85.8	265.9	264.7	256.1	8.59	30.804	
2,500.0	2,496.0	2,465.0	2,441.4	9.7	0.0	-86.00	-93.7	284.9	283.5	274.5	8.96	31.644	
2,600.0	2,595.7	2,563.2	2,537.5	10.1	0.0	-86.02	-101.7	303.9	302.2	292.9	9.32	32.414	
2,700.0	2,695.3	2,661.4	2,633.5	10.4	0.0	-86.03	-109.6	322.9	321.0	311.3	9.69	33.122	
2,800.0	2,795.0	2,759.7	2,729.6	10.8	0.0	-86.04	-117.6	341.9	339.8	329.7	10.06	33.774	
2,900.0	2,894.7	2,857.9	2,825.6	11.1	0.0	-86.05	-125.5	360.8	358.5	348.1	10.43	34.377	
3,000.0	2,894.3	2,856.1	2,821.7	11.5	0.0	-86.06	-133.4	379.8	377.3	366.5	10.80	34.936	
3,100.0	3,094.0	3,054.3	3,017.7	11.9	0.0	-86.07	-141.4	398.8	396.0	384.9	11.17	35.456	
3,200.0	3,193.6	3,152.6	3,113.7	12.2	0.0	-86.08	-149.3	417.8	414.8	403.3	11.54	35.940	
3,300.0	3,293.3	3,250.8	3,209.8	12.6	0.0	-86.09	-157.2	436.8	433.6	421.6	11.91	36.391	
3,400.0	3,392.9	3,349.0	3,305.8	13.0	0.0	-86.10	-165.2	455.7	452.3	440.0	12.29	36.814	
3,500.0	3,492.6	3,447.2	3,401.9	13.3	0.0	-86.10	-173.1	474.7	471.1	458.4	12.66	37.210	
3,600.0	3,592.2	3,545.5	3,497.9	13.7	0.0	-86.11	-181.0	493.7	489.8	476.8	13.03	37.582	
3,700.0	3,691.9	3,643.7	3,594.0	14.1	0.0	-86.11	-189.0	512.7	508.6	495.2	13.41	37.931	
3,800.0	3,791.5	3,741.9	3,690.0	14.4	0.0	-86.12	-196.9	531.7	527.4	513.6	13.78	38.261	
3,900.0	3,891.2	3,840.1	3,786.1	14.8	0.0	-86.12	-204.8	550.7	546.1	532.0	14.16	38.572	
4,000.0	3,990.8	3,938.4	3,882.1	15.2	0.0	-86.13	-212.8	569.6	564.9	550.4	14.53	38.866	
4,100.0	4,090.5	4,036.6	3,978.2	15.6	0.0	-86.13	-220.7	588.6	583.7	568.7	14.91	39.144	
4,200.0	4,190.1	4,134.8	4,074.2	15.9	0.0	-86.14	-228.7	607.6	602.4	587.1	15.29	39.408	
4,300.0	4,289.8	4,233.0	4,170.2	16.3	0.0	-86.14	-236.6	626.6	621.2	605.5	15.66	39.659	
4,400.0	4,389.5	4,331.3	4,266.3	16.7	0.0	-86.14	-244.5	645.6	639.9	623.9	16.04	39.897	
4,500.0	4,489.1	4,429.5	4,362.3	17.0	0.0	-86.15	-252.5	664.5	658.7	642.3	16.42	40.123	
4,600.0	4,588.8	4,527.7	4,458.4	17.4	0.0	-86.15	-260.4	683.5	677.5	660.7	16.79	40.338	
4,700.0	4,688.4	4,625.9	4,554.4	17.8	0.0	-86.15	-268.3	702.5	696.2	679.0	17.17	40.544	
4,800.0	4,788.1	4,724.2	4,650.5	18.2	0.0	-86.16	-276.3	721.5	715.0	697.4	17.55	40.740	
4,900.0	4,887.7	4,822.4	4,746.5	18.6	0.0	-86.16	-284.2	740.5	733.7	715.8	17.93	40.928	
5,000.0	4,987.4	4,920.6	4,842.6	18.9	0.0	-86.16	-292.1	759.5	752.5	734.2	18.31	41.107	
5,100.0	5,087.0	5,018.8	4,938.6	19.3	0.0	-86.16	-300.1	778.4	771.3	752.6	18.68	41.278	

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 19-18-2NCH
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 19-18-2NCH	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-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,117.0	5,034.7	19.7	0.0	-86.17	-308.0	797.4	790.0	771.0	19.06	41.443		
5,300.0	5,286.3	5,215.3	5,130.7	20.1	0.0	-86.17	-315.9	816.4	808.8	789.3	19.44	41.600		
5,400.0	5,386.0	5,313.5	5,226.7	20.4	0.0	-86.17	-323.9	835.4	827.5	807.7	19.82	41.751		
5,500.0	5,485.6	5,411.7	5,322.8	20.8	0.0	-86.17	-331.8	854.4	846.3	826.1	20.20	41.896		
5,600.0	5,585.3	5,509.9	5,418.8	21.2	0.0	-86.17	-339.7	873.3	865.1	844.5	20.58	42.036		
5,700.0	5,684.9	5,608.2	5,514.9	21.6	0.0	-86.18	-347.7	892.3	883.8	862.9	20.96	42.170		
5,800.0	5,784.6	5,706.4	5,610.9	22.0	0.0	-86.18	-355.6	911.3	902.6	881.2	21.34	42.299		
5,900.0	5,884.3	5,804.6	5,707.0	22.3	0.0	-86.18	-363.6	930.3	921.3	899.6	21.72	42.424		
6,000.0	5,983.9	5,902.8	5,803.0	22.7	0.0	-86.18	-371.5	949.3	940.1	918.0	22.10	42.543		
6,100.0	6,083.6	6,001.1	5,899.1	23.1	0.0	-86.18	-379.4	968.3	958.9	936.4	22.48	42.659		
6,200.0	6,183.2	6,099.3	5,995.1	23.5	0.0	-86.18	-387.4	987.2	977.6	954.8	22.86	42.770		
6,300.0	6,282.9	6,197.5	6,091.2	23.9	0.0	-86.19	-395.3	1,006.2	996.4	973.2	23.24	42.878		
6,400.0	6,382.5	6,295.7	6,187.2	24.2	0.0	-86.19	-403.2	1,025.2	1,015.2	991.5	23.62	42.982		
6,500.0	6,482.2	6,394.0	6,283.3	24.6	0.0	-86.19	-411.2	1,044.2	1,033.9	1,009.9	24.00	43.082		
6,600.0	6,581.8	6,492.2	6,379.3	25.0	0.0	-86.19	-419.1	1,063.2	1,052.7	1,028.3	24.38	43.179		
6,700.0	6,681.5	6,590.4	6,475.3	25.4	0.0	-86.19	-427.0	1,082.1	1,071.4	1,046.7	24.76	43.273		
6,800.0	6,781.1	6,688.6	6,571.4	25.8	0.0	-86.19	-435.0	1,101.1	1,090.2	1,065.1	25.14	43.364		
6,900.0	6,880.8	6,786.8	6,667.4	26.1	0.0	-81.14	-442.9	1,120.1	1,109.0	1,083.4	25.51	43.466		
7,000.0	6,980.6	6,884.0	6,762.4	26.7	0.0	86.54	-450.8	1,138.9	1,127.7	1,101.6	26.10	43.213		
7,100.0	7,077.8	6,978.0	6,854.3	27.0	0.0	87.22	-458.3	1,157.0	1,146.5	1,120.2	26.30	43.596		
7,200.0	7,169.6	7,081.5	6,955.7	27.3	0.0	87.58	-456.0	1,176.8	1,165.3	1,138.8	26.50	43.977		
7,300.0	7,253.2	7,194.1	7,063.8	27.6	0.0	87.88	-432.4	1,197.5	1,183.4	1,156.7	26.71	44.307		
7,400.0	7,326.0	7,317.9	7,174.8	27.8	0.0	88.25	-382.2	1,218.1	1,200.0	1,173.1	26.94	44.550		
7,500.0	7,385.9	7,454.3	7,281.9	28.0	0.0	88.67	-300.5	1,237.2	1,214.1	1,187.0	27.18	44.671		
7,600.0	7,430.9	7,603.3	7,373.7	28.1	0.0	89.07	-184.7	1,252.5	1,224.8	1,197.3	27.44	44.627		
7,700.0	7,459.8	7,762.4	7,436.1	28.3	0.0	89.31	-39.2	1,261.5	1,230.9	1,203.1	27.75	44.361		
7,800.0	7,471.7	7,923.2	7,457.0	28.5	0.0	89.29	119.7	1,262.0	1,231.9	1,203.8	28.10	43.835		
7,900.0	7,472.0	8,023.2	7,457.0	28.7	0.0	89.30	219.7	1,259.7	1,230.5	1,202.0	28.48	43.210		
8,000.0	7,472.0	8,123.2	7,457.0	29.1	0.0	89.30	319.6	1,257.5	1,229.1	1,200.1	28.96	42.441		
8,100.0	7,472.0	8,223.2	7,457.0	29.7	0.0	89.30	419.6	1,255.2	1,227.6	1,198.1	29.54	41.558		
8,200.0	7,472.0	8,323.1	7,457.0	30.3	0.0	89.30	519.6	1,253.0	1,226.2	1,196.0	30.21	40.586		
8,300.0	7,472.0	8,423.1	7,457.0	31.0	0.0	89.30	619.5	1,250.7	1,224.8	1,193.8	30.97	39.545		
8,400.0	7,472.0	8,523.1	7,457.0	31.8	0.0	89.30	719.5	1,248.5	1,223.4	1,191.5	31.81	38.457		
8,500.0	7,472.0	8,623.1	7,457.0	32.7	0.0	89.30	819.5	1,246.2	1,221.9	1,189.2	32.72	37.341		
8,600.0	7,472.0	8,723.1	7,457.0	33.7	0.0	89.30	919.4	1,243.9	1,220.5	1,186.8	33.70	36.212		
8,700.0	7,472.0	8,823.1	7,457.0	34.8	0.0	89.29	1,019.4	1,241.7	1,219.1	1,184.3	34.75	35.084		
8,800.0	7,472.0	8,923.1	7,457.0	35.9	0.0	89.29	1,119.3	1,239.4	1,217.6	1,181.8	35.85	33.968		
8,900.0	7,472.0	9,023.1	7,457.0	37.0	0.0	89.29	1,219.3	1,237.2	1,216.2	1,179.2	37.00	32.873		
9,000.0	7,472.0	9,123.1	7,457.0	38.2	0.0	89.29	1,319.3	1,234.9	1,214.8	1,176.6	38.20	31.805		
9,100.0	7,472.0	9,223.1	7,457.0	39.4	0.0	89.29	1,419.2	1,232.7	1,213.4	1,173.9	39.44	30.768		
9,200.0	7,472.0	9,323.0	7,457.0	40.7	0.0	89.29	1,519.2	1,230.4	1,211.9	1,171.2	40.71	29.766		
9,300.0	7,472.0	9,423.0	7,457.0	42.0	0.0	89.29	1,619.2	1,228.2	1,210.5	1,168.5	42.03	28.801		
9,400.0	7,472.0	9,523.0	7,457.0	43.4	0.0	89.29	1,719.1	1,225.9	1,209.1	1,165.7	43.38	27.874		
9,500.0	7,472.0	9,623.0	7,457.0	44.7	0.0	89.29	1,819.1	1,223.6	1,207.6	1,162.9	44.75	26.985		
9,600.0	7,472.0	9,723.0	7,457.0	46.2	0.0	89.29	1,919.1	1,221.4	1,206.2	1,160.1	46.15	26.134		
9,700.0	7,472.0	9,823.0	7,457.0	47.6	0.0	89.29	2,019.0	1,219.1	1,204.8	1,157.2	47.58	25.321		
9,800.0	7,472.0	9,923.0	7,457.0	49.0	0.0	89.29	2,119.0	1,216.9	1,203.4	1,154.3	49.03	24.544		
9,900.0	7,472.0	10,023.0	7,457.0	50.5	0.0	89.28	2,219.0	1,214.6	1,201.9	1,151.4	50.50	23.802		
10,000.0	7,472.0	10,123.0	7,457.0	52.0	0.0	89.28	2,318.9	1,212.4	1,200.5	1,148.5	51.98	23.093		
10,100.0	7,472.0	10,223.0	7,457.0	53.5	0.0	89.28	2,418.9	1,210.1	1,199.1	1,145.6	53.49	22.417		
10,200.0	7,472.0	10,322.9	7,457.0	55.0	0.0	89.28	2,518.8	1,207.9	1,197.6	1,142.6	55.01	21.772		
10,300.0	7,472.0	10,422.9	7,457.0	56.5	0.0	89.28	2,618.8	1,205.6	1,196.2	1,139.7	56.54	21.156		

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 19-18-2NCH
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 19-18-2NCH	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-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,522.9	7,457.0	58.1	0.0	89.28	2,718.8	1,203.3	1,194.8	1,136.7	58.09	20.568		
10,500.0	7,472.0	10,622.9	7,457.0	59.6	0.0	89.28	2,818.7	1,201.1	1,193.4	1,133.7	59.65	20.007		
10,600.0	7,472.0	10,722.9	7,457.0	61.2	0.0	89.28	2,918.7	1,198.8	1,191.9	1,130.7	61.22	19.470		
10,700.0	7,472.0	10,822.9	7,457.0	62.8	0.0	89.28	3,018.7	1,196.6	1,190.5	1,127.7	62.80	18.957		
10,800.0	7,472.0	10,922.9	7,457.0	64.4	0.0	89.28	3,118.6	1,194.3	1,189.1	1,124.7	64.39	18.467		
10,900.0	7,472.0	11,022.9	7,457.0	66.0	0.0	89.28	3,218.6	1,192.1	1,187.6	1,121.7	65.99	17.998		
11,000.0	7,472.0	11,122.9	7,457.0	67.6	0.0	89.28	3,318.6	1,189.8	1,186.2	1,118.6	67.60	17.549		
11,100.0	7,472.0	11,222.9	7,457.0	69.2	0.0	89.27	3,418.5	1,187.6	1,184.8	1,115.6	69.21	17.118		
11,200.0	7,472.0	11,322.8	7,457.0	70.8	0.0	89.27	3,518.5	1,185.3	1,183.4	1,112.5	70.83	16.706		
11,300.0	7,472.0	11,422.8	7,457.0	72.5	0.0	89.27	3,618.5	1,183.1	1,181.9	1,109.5	72.46	16.311		
11,400.0	7,472.0	11,522.8	7,457.0	74.1	0.0	89.27	3,718.4	1,180.8	1,180.5	1,106.4	74.10	15.932		
11,500.0	7,472.0	11,622.8	7,457.0	75.7	0.0	89.27	3,818.4	1,178.5	1,179.1	1,103.3	75.74	15.568		
11,600.0	7,472.0	11,722.8	7,457.0	77.4	0.0	89.27	3,918.3	1,176.3	1,177.6	1,100.3	77.39	15.218		
11,700.0	7,472.0	11,822.8	7,457.0	79.0	0.0	89.27	4,018.3	1,174.0	1,176.2	1,097.2	79.04	14.882		
11,800.0	7,472.0	11,922.8	7,457.0	80.7	0.0	89.27	4,118.3	1,171.8	1,174.8	1,094.1	80.69	14.559		
11,900.0	7,472.0	12,022.8	7,457.0	82.4	0.0	89.27	4,218.2	1,169.5	1,173.4	1,091.0	82.35	14.248		
12,000.0	7,472.0	12,122.8	7,457.0	84.0	0.0	89.27	4,318.2	1,167.3	1,171.9	1,087.9	84.02	13.948		
12,100.0	7,472.0	12,222.8	7,457.0	85.7	0.0	89.27	4,418.2	1,165.0	1,170.5	1,084.8	85.69	13.660		
12,200.0	7,472.0	12,322.7	7,457.0	87.4	0.0	89.26	4,518.1	1,162.8	1,169.1	1,081.7	87.36	13.382		
12,300.0	7,472.0	12,422.7	7,457.0	89.0	0.0	89.26	4,618.1	1,160.5	1,167.6	1,078.6	89.04	13.114		
12,400.0	7,472.0	12,522.7	7,457.0	90.7	0.0	89.26	4,718.1	1,158.2	1,166.2	1,075.5	90.72	12.855		
12,500.0	7,472.0	12,622.7	7,457.0	92.4	0.0	89.26	4,818.0	1,156.0	1,164.8	1,072.4	92.40	12.606		
12,600.0	7,472.0	12,722.7	7,457.0	94.1	0.0	89.26	4,918.0	1,153.7	1,163.4	1,069.3	94.09	12.365		
12,700.0	7,472.0	12,822.7	7,457.0	95.8	0.0	89.26	5,018.0	1,151.5	1,161.9	1,066.1	95.78	12.132		
12,800.0	7,472.0	12,922.7	7,457.0	97.5	0.0	89.26	5,117.9	1,149.2	1,160.5	1,063.0	97.47	11.906		
12,900.0	7,472.0	13,022.7	7,457.0	99.2	0.0	89.26	5,217.9	1,147.0	1,159.1	1,059.9	99.16	11.689		
13,000.0	7,472.0	13,122.7	7,457.0	100.9	0.0	89.26	5,317.8	1,144.7	1,157.6	1,056.8	100.86	11.478		
13,100.0	7,472.0	13,222.6	7,457.0	102.6	0.0	89.26	5,417.8	1,142.5	1,156.2	1,053.7	102.56	11.274		
13,200.0	7,472.0	13,322.6	7,457.0	104.3	0.0	89.26	5,517.8	1,140.2	1,154.8	1,050.5	104.26	11.076		
13,300.0	7,472.0	13,422.6	7,457.0	106.0	0.0	89.25	5,617.7	1,138.0	1,153.4	1,047.4	105.96	10.884		
13,400.0	7,472.0	13,522.6	7,457.0	107.7	0.0	89.25	5,717.7	1,135.7	1,151.9	1,044.3	107.67	10.699		
13,500.0	7,472.0	13,622.6	7,457.0	109.4	0.0	89.25	5,817.7	1,133.4	1,150.5	1,041.1	109.38	10.519		
13,600.0	7,472.0	13,722.6	7,457.0	111.1	0.0	89.25	5,917.6	1,131.2	1,149.1	1,038.0	111.08	10.344		
13,700.0	7,472.0	13,822.6	7,457.0	112.8	0.0	89.25	6,017.6	1,128.9	1,147.6	1,034.8	112.80	10.174		
13,800.0	7,472.0	13,922.6	7,457.0	114.5	0.0	89.25	6,117.6	1,126.7	1,146.2	1,031.7	114.51	10.010		
13,900.0	7,472.0	14,022.6	7,457.0	116.2	0.0	89.25	6,217.5	1,124.4	1,144.8	1,028.6	116.22	9.850		
14,000.0	7,472.0	14,122.6	7,457.0	118.0	0.0	89.25	6,317.5	1,122.2	1,143.4	1,025.4	117.94	9.695		
14,100.0	7,472.0	14,222.5	7,457.0	119.7	0.0	89.25	6,417.5	1,119.9	1,141.9	1,022.3	119.65	9.543		
14,148.8	7,472.0	14,271.4	7,457.0	120.5	0.0	89.25	6,466.3	1,118.8	1,141.6	1,021.1	120.50	9.474		
14,200.0	7,472.0	14,322.5	7,457.0	121.4	0.0	89.25	6,517.4	1,117.7	1,142.2	1,020.8	121.38	9.410		
14,300.0	7,472.0	14,422.5	7,457.0	123.1	0.0	89.25	6,617.4	1,115.4	1,143.7	1,020.6	123.11	9.290		
14,400.0	7,472.0	14,522.5	7,457.0	124.9	0.0	89.25	6,717.4	1,113.1	1,145.2	1,020.3	124.84	9.173		
14,500.0	7,472.0	14,622.5	7,457.0	126.6	0.0	89.25	6,817.3	1,110.9	1,146.7	1,020.1	126.57	9.059		
14,600.0	7,472.0	14,722.5	7,457.0	128.3	0.0	89.25	6,917.3	1,108.6	1,148.2	1,019.9	128.31	8.949		
14,700.0	7,472.0	14,822.5	7,457.0	130.1	0.0	89.25	7,017.2	1,106.4	1,149.7	1,019.6	130.04	8.841		
14,800.0	7,472.0	14,922.5	7,457.0	131.8	0.0	89.25	7,117.2	1,104.1	1,151.2	1,019.4	131.78	8.736		
14,900.0	7,472.0	15,022.5	7,457.0	133.5	0.0	89.25	7,217.2	1,101.9	1,152.7	1,019.2	133.51	8.633		
15,000.0	7,472.0	15,122.5	7,457.0	135.3	0.0	89.26	7,317.1	1,099.6	1,154.2	1,018.9	135.25	8.533		
15,100.0	7,472.0	15,222.4	7,457.0	137.0	0.0	89.26	7,417.1	1,097.4	1,155.7	1,018.7	136.99	8.436		
15,200.0	7,472.0	15,322.4	7,457.0	138.7	0.0	89.26	7,517.1	1,095.1	1,157.2	1,018.4	138.73	8.341		
15,300.0	7,472.0	15,422.4	7,457.0	140.5	0.0	89.26	7,617.0	1,092.8	1,158.7	1,018.2	140.47	8.248		
15,400.0	7,472.0	15,522.4	7,457.0	142.2	0.0	89.26	7,717.0	1,090.6	1,160.2	1,017.9	142.21	8.158		

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 19-18-2NCH
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 19-18-2NCH	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-													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		
15,500.0	7,472.0	15,622.4	7,457.0	144.0	0.0	89.26	7,816.9	1,088.3	1,161.7	1,017.7	143.96	8.070		
15,600.0	7,472.0	15,722.4	7,457.0	145.7	0.0	89.26	7,916.9	1,086.1	1,163.2	1,017.5	145.70	7.983		
15,700.0	7,472.0	15,822.4	7,457.0	147.5	0.0	89.26	8,016.9	1,083.8	1,164.7	1,017.2	147.44	7.899		
15,800.0	7,472.0	15,922.4	7,457.0	149.2	0.0	89.26	8,116.8	1,081.6	1,166.2	1,017.0	149.19	7.817		
15,900.0	7,472.0	16,022.4	7,457.0	150.9	0.0	89.26	8,216.8	1,079.3	1,167.6	1,016.7	150.93	7.736		
16,000.0	7,472.0	16,122.3	7,457.0	152.7	0.0	89.26	8,316.8	1,077.1	1,168.1	1,015.5	152.68	7.651		
16,100.0	7,472.0	16,222.3	7,457.0	154.4	0.0	89.26	8,416.7	1,074.8	1,165.2	1,010.8	154.42	7.546		
16,200.0	7,472.0	16,322.2	7,457.0	156.2	0.0	89.26	8,516.6	1,072.6	1,160.4	1,004.2	156.15	7.431		
16,300.0	7,472.0	16,422.1	7,457.0	157.9	0.0	89.26	8,616.4	1,070.3	1,155.5	997.6	157.87	7.319		
16,400.0	7,472.0	16,521.9	7,457.0	159.6	0.0	89.25	8,716.3	1,068.1	1,150.6	991.0	159.60	7.210		
16,500.0	7,472.0	16,621.8	7,457.0	161.3	0.0	89.25	8,816.1	1,065.8	1,145.7	984.4	161.32	7.102		
16,600.0	7,472.0	16,721.7	7,457.0	163.1	0.0	89.25	8,916.0	1,063.5	1,140.9	977.8	163.04	6.997		
16,700.0	7,472.0	16,821.6	7,457.0	164.8	0.0	89.24	9,015.8	1,061.3	1,136.0	971.2	164.77	6.895		
16,800.0	7,472.0	16,921.5	7,457.0	166.5	0.0	89.24	9,115.7	1,059.0	1,131.1	964.6	166.50	6.794		
16,900.0	7,472.0	17,021.3	7,457.0	168.2	0.0	89.24	9,215.5	1,056.8	1,126.3	958.0	168.22	6.695		
17,000.0	7,472.0	17,121.2	7,457.0	170.0	0.0	89.23	9,315.4	1,054.5	1,121.4	951.4	169.95	6.598		
17,100.0	7,472.0	17,221.1	7,457.0	171.7	0.0	89.23	9,415.3	1,052.3	1,116.5	944.8	171.68	6.504		
17,200.0	7,472.0	17,321.0	7,457.0	173.4	0.0	89.23	9,515.1	1,050.0	1,111.7	938.2	173.40	6.411		
17,300.0	7,472.0	17,420.9	7,457.0	175.2	0.0	89.22	9,615.0	1,047.8	1,106.8	931.6	175.13	6.320		
17,400.0	7,472.0	17,520.8	7,457.0	176.9	0.0	89.22	9,714.8	1,045.5	1,101.9	925.0	176.86	6.230		
17,500.0	7,472.0	17,620.6	7,457.0	178.6	0.0	89.22	9,814.7	1,043.3	1,097.0	918.4	178.59	6.143		
17,600.0	7,472.0	17,720.0	7,457.0	180.3	0.0	89.21	9,914.0	1,041.0	1,092.2	911.8	180.32	6.057		
17,606.3	7,472.0	17,720.0	7,457.0	180.5	0.0	89.21	9,914.0	1,041.0	1,091.9	911.4	180.44	6.051 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	89.72	0.2	45.0	45.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.72	0.2	45.0	45.0	44.8	0.28	162.592		
200.0	200.0	200.0	200.0	1.0	0.0	89.72	0.2	45.0	45.0	44.2	0.80	56.451		
300.0	300.0	300.0	300.0	1.5	0.0	89.72	0.2	45.0	45.0	43.8	1.22	36.782		
400.0	400.0	400.0	400.0	1.9	0.0	89.72	0.2	45.0	45.0	43.4	1.62	27.829		
500.0	500.0	500.0	500.0	2.3	0.0	89.72	0.2	45.0	45.0	43.0	2.00	22.530		
600.0	600.0	600.0	600.0	2.7	0.0	89.72	0.2	45.0	45.0	42.7	2.37	18.981		
700.0	700.0	700.0	700.0	3.1	0.0	89.72	0.2	45.0	45.0	42.3	2.74	16.422		
800.0	800.0	800.0	800.0	3.5	0.0	89.72	0.2	45.0	45.0	41.9	3.11	14.484		
900.0	900.0	900.0	900.0	3.9	0.0	89.72	0.2	45.0	45.0	41.6	3.47	12.961		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	0.0	89.72	0.2	45.0	45.0	41.2	3.84	11.732		
1,100.0	1,100.0	1,100.0	1,100.0	4.6	0.0	89.72	0.2	45.0	45.0	40.8	4.20	10.718 CC, ES		
1,200.0	1,200.0	1,198.6	1,198.6	5.0	0.0	90.69	-0.6	46.5	46.6	42.0	4.55	10.239		
1,300.0	1,300.0	1,297.0	1,296.8	5.3	0.0	-84.62	-2.9	51.0	51.0	46.2	4.84	10.536		
1,400.0	1,399.8	1,395.0	1,394.5	6.0	0.0	-85.87	-6.8	58.5	58.3	53.1	5.17	11.264		
1,500.0	1,499.5	1,492.6	1,491.4	6.3	0.0	-87.88	-12.2	68.9	68.4	62.9	5.51	12.418		
1,600.0	1,599.2	1,589.6	1,587.2	6.6	0.0	-88.39	-19.0	82.1	81.4	75.6	5.83	13.969		
1,700.0	1,698.8	1,687.2	1,683.2	6.9	0.0	-87.91	-27.2	97.8	97.0	90.9	6.16	15.752		
1,800.0	1,798.5	1,785.9	1,780.2	7.3	0.0	-87.46	-35.6	114.1	112.9	106.4	6.50	17.370		
1,900.0	1,898.1	1,884.6	1,877.2	7.6	0.0	-87.12	-44.1	130.4	128.8	122.0	6.85	18.812		
2,000.0	1,997.8	1,983.4	1,974.2	8.0	0.0	-86.86	-52.5	146.6	144.7	137.5	7.20	20.103		
2,100.0	2,097.4	2,082.1	2,071.2	8.3	0.0	-86.65	-61.0	162.9	160.6	153.0	7.55	21.264		
2,200.0	2,197.1	2,180.8	2,168.2	8.7	0.0	-86.47	-69.4	179.1	176.5	168.6	7.91	22.313		
2,300.0	2,296.7	2,279.5	2,265.2	9.0	0.0	-86.33	-77.9	195.4	192.4	184.1	8.27	23.264		
2,400.0	2,396.4	2,378.3	2,362.2	9.4	0.0	-86.21	-86.3	211.7	208.3	199.7	8.63	24.130		
2,500.0	2,496.0	2,477.0	2,459.2	9.7	0.0	-86.10	-94.8	227.9	224.2	215.2	9.00	24.921		
2,600.0	2,595.7	2,575.7	2,556.3	10.1	0.0	-86.01	-103.2	244.2	240.1	230.8	9.36	25.646		
2,700.0	2,695.3	2,674.4	2,653.3	10.4	0.0	-85.93	-111.7	260.5	256.0	246.3	9.73	26.312		
2,800.0	2,795.0	2,773.2	2,750.3	10.8	0.0	-85.86	-120.1	276.7	271.9	261.8	10.10	26.927		
2,900.0	2,894.7	2,871.9	2,847.3	11.1	0.0	-85.80	-128.6	293.0	287.8	277.4	10.47	27.496		
3,000.0	2,894.3	2,870.6	2,844.3	11.5	0.0	-85.74	-137.0	309.3	303.8	292.9	10.84	28.023		
3,100.0	3,094.0	3,069.3	3,041.3	11.9	0.0	-85.69	-145.5	325.5	319.7	308.5	11.21	28.513		
3,200.0	3,193.6	3,168.1	3,138.3	12.2	0.0	-85.65	-153.9	341.8	335.6	324.0	11.58	28.970		
3,300.0	3,293.3	3,266.8	3,235.3	12.6	0.0	-85.60	-162.3	358.0	351.5	339.5	11.96	29.397		
3,400.0	3,392.9	3,365.5	3,332.3	13.0	0.0	-85.57	-170.8	374.3	367.4	355.1	12.33	29.796		
3,500.0	3,492.6	3,464.2	3,429.4	13.3	0.0	-85.53	-179.2	390.6	383.3	370.6	12.70	30.170		
3,600.0	3,592.2	3,563.0	3,526.4	13.7	0.0	-85.50	-187.7	406.8	399.2	386.1	13.08	30.521		
3,700.0	3,691.9	3,661.7	3,623.4	14.1	0.0	-85.47	-196.1	423.1	415.1	401.7	13.46	30.852		
3,800.0	3,791.5	3,760.4	3,720.4	14.4	0.0	-85.44	-204.6	439.4	431.0	417.2	13.83	31.164		
3,900.0	3,891.2	3,859.2	3,817.4	14.8	0.0	-85.42	-213.0	455.6	446.9	432.7	14.21	31.458		
4,000.0	3,990.8	3,957.9	3,914.4	15.2	0.0	-85.39	-221.5	471.9	462.9	448.3	14.58	31.737		
4,100.0	4,090.5	4,056.6	4,011.4	15.6	0.0	-85.37	-229.9	488.2	478.8	463.8	14.96	32.000		
4,200.0	4,190.1	4,155.3	4,108.4	15.9	0.0	-85.35	-238.4	504.4	494.7	479.3	15.34	32.250		
4,300.0	4,289.8	4,254.1	4,205.4	16.3	0.0	-85.33	-246.8	520.7	510.6	494.9	15.72	32.487		
4,400.0	4,389.5	4,352.8	4,302.4	16.7	0.0	-85.31	-255.3	536.9	526.5	510.4	16.09	32.713		
4,500.0	4,489.1	4,451.5	4,399.5	17.0	0.0	-85.30	-263.7	553.2	542.4	525.9	16.47	32.927		
4,600.0	4,588.8	4,550.2	4,496.5	17.4	0.0	-85.28	-272.2	569.5	558.3	541.5	16.85	33.132		
4,700.0	4,688.4	4,649.0	4,593.5	17.8	0.0	-85.26	-280.6	585.7	574.2	557.0	17.23	33.327		
4,800.0	4,788.1	4,747.7	4,690.5	18.2	0.0	-85.25	-289.0	602.0	590.1	572.5	17.61	33.513		
4,900.0	4,887.7	4,846.4	4,787.5	18.6	0.0	-85.24	-297.5	618.3	606.0	588.1	17.99	33.691		
5,000.0	4,987.4	4,945.1	4,884.5	18.9	0.0	-85.22	-305.9	634.5	622.0	603.6	18.37	33.861		
5,100.0	5,087.0	5,043.9	4,981.5	19.3	0.0	-85.21	-314.4	650.8	637.9	619.1	18.75	34.024		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	5,142.6	5,078.5	19.7	0.0	-85.20	-322.8	667.1	653.8	634.6	19.13	34.180		
5,300.0	5,286.3	5,241.3	5,175.5	20.1	0.0	-85.19	-331.3	683.3	669.7	650.2	19.51	34.330		
5,400.0	5,386.0	5,340.0	5,272.5	20.4	0.0	-85.18	-339.7	699.6	685.6	665.7	19.89	34.473		
5,500.0	5,485.6	5,438.8	5,369.6	20.8	0.0	-85.17	-348.2	715.8	701.5	681.2	20.27	34.611		
5,600.0	5,585.3	5,537.5	5,466.6	21.2	0.0	-85.16	-356.6	732.1	717.4	696.8	20.65	34.744		
5,700.0	5,684.9	5,636.2	5,563.6	21.6	0.0	-85.15	-365.1	748.4	733.3	712.3	21.03	34.872		
5,800.0	5,784.6	5,734.9	5,660.6	22.0	0.0	-85.14	-373.5	764.6	749.2	727.8	21.41	34.995		
5,900.0	5,884.3	5,833.7	5,757.6	22.3	0.0	-85.13	-382.0	780.9	765.1	743.4	21.79	35.113		
6,000.0	5,983.9	5,932.4	5,854.6	22.7	0.0	-85.12	-390.4	797.2	781.1	758.9	22.17	35.227		
6,100.0	6,083.6	6,031.1	5,951.6	23.1	0.0	-85.11	-398.9	813.4	797.0	774.4	22.55	35.337		
6,200.0	6,183.2	6,129.9	6,048.6	23.5	0.0	-85.11	-407.3	829.7	812.9	789.9	22.93	35.443		
6,300.0	6,282.9	6,228.6	6,145.6	23.9	0.0	-85.10	-415.7	846.0	828.8	805.5	23.32	35.546		
6,400.0	6,382.5	6,327.3	6,242.7	24.2	0.0	-85.09	-424.2	862.2	844.7	821.0	23.70	35.645		
6,500.0	6,482.2	6,426.0	6,339.7	24.6	0.0	-85.09	-432.6	878.5	860.6	836.5	24.08	35.741		
6,600.0	6,581.8	6,524.8	6,436.7	25.0	0.0	-85.08	-441.1	894.7	876.5	852.1	24.46	35.833		
6,700.0	6,681.5	6,623.5	6,533.7	25.4	0.0	-85.07	-449.5	911.0	892.4	867.6	24.84	35.923		
6,800.0	6,781.1	6,722.5	6,631.0	25.8	0.0	-85.09	-457.7	927.3	908.3	883.1	25.23	36.008		
6,900.0	6,880.8	6,821.6	6,728.6	26.1	0.0	-80.67	-454.4	943.6	924.2	898.6	25.61	36.084		
7,000.0	6,980.6	6,918.0	6,821.6	26.7	0.0	85.72	-434.9	958.9	940.2	914.0	26.21	35.876		
7,100.0	7,077.8	7,012.3	6,908.2	27.0	0.0	84.47	-400.9	973.1	956.1	929.6	26.42	36.185		
7,200.0	7,169.6	7,104.8	6,986.9	27.3	0.0	82.62	-353.9	985.9	971.1	944.6	26.58	36.543		
7,300.0	7,253.2	7,196.1	7,056.0	27.6	0.0	80.83	-295.6	996.9	985.0	958.3	26.69	36.905		
7,400.0	7,326.0	7,286.2	7,114.6	27.8	0.0	79.27	-227.9	1,006.1	997.1	970.3	26.79	37.218		
7,500.0	7,385.9	7,375.5	7,161.6	28.0	0.0	77.99	-152.4	1,013.4	1,007.1	980.2	26.91	37.430		
7,600.0	7,430.9	7,464.2	7,196.3	28.1	0.0	77.03	-71.0	1,018.5	1,014.6	987.6	27.06	37.491		
7,700.0	7,459.8	7,550.0	7,217.8	28.3	0.0	76.41	12.0	1,021.4	1,019.5	992.2	27.28	37.375		
7,800.0	7,471.7	7,640.5	7,226.8	28.5	0.0	76.13	101.9	1,022.2	1,021.5	994.0	27.57	37.046		
7,900.0	7,472.0	7,738.7	7,227.0	28.7	0.0	76.12	200.1	1,021.4	1,021.6	993.6	27.94	36.559		
8,000.0	7,472.0	7,838.7	7,227.0	29.1	0.0	76.12	300.1	1,020.5	1,021.6	993.2	28.42	35.948		
8,100.0	7,472.0	7,938.7	7,227.0	29.7	0.0	76.12	400.1	1,019.7	1,021.6	992.6	28.99	35.239		
8,200.0	7,472.0	8,038.7	7,227.0	30.3	0.0	76.12	500.1	1,018.9	1,021.6	991.9	29.65	34.453		
8,300.0	7,472.0	8,138.7	7,227.0	31.0	0.0	76.12	600.1	1,018.1	1,021.6	991.2	30.40	33.608		
8,400.0	7,472.0	8,238.7	7,227.0	31.8	0.0	76.12	700.1	1,017.2	1,021.6	990.4	31.22	32.723		
8,500.0	7,472.0	8,338.7	7,227.0	32.7	0.0	76.12	800.1	1,016.4	1,021.6	989.5	32.11	31.812		
8,600.0	7,472.0	8,438.7	7,227.0	33.7	0.0	76.12	900.1	1,015.6	1,021.6	988.5	33.07	30.888		
8,700.0	7,472.0	8,538.7	7,227.0	34.8	0.0	76.12	1,000.1	1,014.8	1,021.6	987.5	34.09	29.964		
8,800.0	7,472.0	8,638.7	7,227.0	35.9	0.0	76.12	1,100.1	1,013.9	1,021.6	986.4	35.17	29.048		
8,900.0	7,472.0	8,738.7	7,227.0	37.0	0.0	76.12	1,200.1	1,013.1	1,021.6	985.3	36.29	28.147		
9,000.0	7,472.0	8,838.7	7,227.0	38.2	0.0	76.12	1,300.1	1,012.3	1,021.6	984.1	37.47	27.267		
9,100.0	7,472.0	8,938.7	7,227.0	39.4	0.0	76.12	1,400.1	1,011.4	1,021.6	982.9	38.68	26.413		
9,200.0	7,472.0	9,038.7	7,227.0	40.7	0.0	76.12	1,500.1	1,010.6	1,021.6	981.7	39.93	25.586		
9,300.0	7,472.0	9,138.7	7,227.0	42.0	0.0	76.12	1,600.1	1,009.8	1,021.6	980.4	41.21	24.788		
9,400.0	7,472.0	9,238.7	7,227.0	43.4	0.0	76.12	1,700.1	1,009.0	1,021.6	979.1	42.53	24.021		
9,500.0	7,472.0	9,338.7	7,227.0	44.7	0.0	76.12	1,800.1	1,008.1	1,021.6	977.7	43.87	23.285		
9,600.0	7,472.0	9,438.7	7,227.0	46.2	0.0	76.12	1,900.1	1,007.3	1,021.6	976.3	45.24	22.580		
9,700.0	7,472.0	9,538.7	7,227.0	47.6	0.0	76.12	2,000.1	1,006.5	1,021.6	974.9	46.64	21.906		
9,800.0	7,472.0	9,638.7	7,227.0	49.0	0.0	76.12	2,100.1	1,005.7	1,021.6	973.5	48.05	21.261		
9,900.0	7,472.0	9,738.7	7,227.0	50.5	0.0	76.12	2,200.0	1,004.8	1,021.6	972.1	49.48	20.644		
10,000.0	7,472.0	9,838.7	7,227.0	52.0	0.0	76.12	2,300.0	1,004.0	1,021.6	970.6	50.94	20.056		
10,100.0	7,472.0	9,938.7	7,227.0	53.5	0.0	76.12	2,400.0	1,003.2	1,021.6	969.2	52.41	19.493		
10,200.0	7,472.0	10,038.7	7,227.0	55.0	0.0	76.12	2,500.0	1,002.4	1,021.6	967.7	53.89	18.957		
10,300.0	7,472.0	10,138.7	7,227.0	56.5	0.0	76.12	2,600.0	1,001.5	1,021.6	966.2	55.39	18.444		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,238.7	7,227.0	58.1	0.0	76.12	2,700.0	1,000.7	1,021.6	964.7	56.90	17.954		
10,500.0	7,472.0	10,338.7	7,227.0	59.6	0.0	76.12	2,800.0	999.9	1,021.6	963.2	58.42	17.486		
10,600.0	7,472.0	10,438.7	7,227.0	61.2	0.0	76.12	2,900.0	999.0	1,021.6	961.6	59.96	17.039		
10,700.0	7,472.0	10,538.7	7,227.0	62.8	0.0	76.12	3,000.0	998.2	1,021.6	960.1	61.50	16.611		
10,800.0	7,472.0	10,638.7	7,227.0	64.4	0.0	76.12	3,100.0	997.4	1,021.6	958.5	63.05	16.202		
10,900.0	7,472.0	10,738.7	7,227.0	66.0	0.0	76.12	3,200.0	996.6	1,021.6	957.0	64.62	15.810		
11,000.0	7,472.0	10,838.7	7,227.0	67.6	0.0	76.12	3,300.0	995.7	1,021.6	955.4	66.19	15.435		
11,100.0	7,472.0	10,938.7	7,227.0	69.2	0.0	76.12	3,400.0	994.9	1,021.6	953.8	67.76	15.076		
11,200.0	7,472.0	11,038.7	7,227.0	70.8	0.0	76.12	3,500.0	994.1	1,021.6	952.2	69.35	14.731		
11,300.0	7,472.0	11,138.7	7,227.0	72.5	0.0	76.12	3,600.0	993.3	1,021.6	950.6	70.94	14.401		
11,400.0	7,472.0	11,238.7	7,227.0	74.1	0.0	76.12	3,700.0	992.4	1,021.6	949.0	72.54	14.084		
11,500.0	7,472.0	11,338.7	7,227.0	75.7	0.0	76.12	3,800.0	991.6	1,021.6	947.4	74.14	13.779		
11,600.0	7,472.0	11,438.7	7,227.0	77.4	0.0	76.12	3,900.0	990.8	1,021.6	945.8	75.75	13.487		
11,700.0	7,472.0	11,538.7	7,227.0	79.0	0.0	76.12	4,000.0	990.0	1,021.6	944.2	77.36	13.206		
11,800.0	7,472.0	11,638.7	7,227.0	80.7	0.0	76.12	4,100.0	989.1	1,021.6	942.6	78.98	12.935		
11,900.0	7,472.0	11,738.7	7,227.0	82.4	0.0	76.12	4,200.0	988.3	1,021.6	941.0	80.60	12.675		
12,000.0	7,472.0	11,838.7	7,227.0	84.0	0.0	76.12	4,300.0	987.5	1,021.6	939.4	82.23	12.424		
12,100.0	7,472.0	11,938.7	7,227.0	85.7	0.0	76.12	4,400.0	986.6	1,021.6	937.7	83.86	12.182		
12,200.0	7,472.0	12,038.7	7,227.0	87.4	0.0	76.12	4,500.0	985.8	1,021.6	936.1	85.49	11.950		
12,300.0	7,472.0	12,138.7	7,227.0	89.0	0.0	76.12	4,600.0	985.0	1,021.6	934.5	87.13	11.725		
12,400.0	7,472.0	12,238.7	7,227.0	90.7	0.0	76.12	4,700.0	984.2	1,021.6	932.8	88.77	11.508		
12,500.0	7,472.0	12,338.7	7,227.0	92.4	0.0	76.12	4,800.0	983.3	1,021.6	931.2	90.41	11.299		
12,600.0	7,472.0	12,438.7	7,227.0	94.1	0.0	76.12	4,900.0	982.5	1,021.6	929.5	92.06	11.097		
12,700.0	7,472.0	12,538.7	7,227.0	95.8	0.0	76.12	5,000.0	981.7	1,021.6	927.9	93.71	10.901		
12,800.0	7,472.0	12,638.7	7,227.0	97.5	0.0	76.12	5,099.9	980.9	1,021.6	926.2	95.36	10.713		
12,900.0	7,472.0	12,738.7	7,227.0	99.2	0.0	76.12	5,199.9	980.0	1,021.6	924.6	97.02	10.530		
13,000.0	7,472.0	12,838.7	7,227.0	100.9	0.0	76.12	5,299.9	979.2	1,021.6	922.9	98.68	10.353		
13,100.0	7,472.0	12,938.7	7,227.0	102.6	0.0	76.12	5,399.9	978.4	1,021.6	921.2	100.34	10.182		
13,200.0	7,472.0	13,038.7	7,227.0	104.3	0.0	76.12	5,499.9	977.5	1,021.6	919.6	102.00	10.016		
13,300.0	7,472.0	13,138.7	7,227.0	106.0	0.0	76.12	5,599.9	976.7	1,021.6	917.9	103.66	9.855		
13,400.0	7,472.0	13,238.7	7,227.0	107.7	0.0	76.12	5,699.9	975.9	1,021.6	916.3	105.33	9.699		
13,500.0	7,472.0	13,338.7	7,227.0	109.4	0.0	76.12	5,799.9	975.1	1,021.6	914.6	106.99	9.548		
13,600.0	7,472.0	13,438.7	7,227.0	111.1	0.0	76.12	5,899.9	974.2	1,021.6	912.9	108.66	9.401		
13,700.0	7,472.0	13,538.7	7,227.0	112.8	0.0	76.12	5,999.9	973.4	1,021.6	911.2	110.34	9.259		
13,800.0	7,472.0	13,638.7	7,227.0	114.5	0.0	76.12	6,099.9	972.6	1,021.6	909.6	112.01	9.121		
13,900.0	7,472.0	13,738.7	7,227.0	116.2	0.0	76.12	6,199.9	971.8	1,021.6	907.9	113.68	8.986		
14,000.0	7,472.0	13,838.7	7,227.0	118.0	0.0	76.12	6,299.9	970.9	1,021.6	906.2	115.36	8.856		
14,100.0	7,472.0	13,938.7	7,227.0	119.7	0.0	76.12	6,399.9	970.1	1,021.6	904.5	117.04	8.729		
14,200.0	7,472.0	14,038.7	7,227.0	121.4	0.0	76.14	6,499.9	969.3	1,023.2	904.5	118.73	8.618		
14,300.0	7,472.0	14,138.7	7,227.0	123.1	0.0	76.18	6,599.8	968.5	1,026.1	905.6	120.43	8.520		
14,400.0	7,472.0	14,238.6	7,227.0	124.9	0.0	76.22	6,699.8	967.6	1,028.9	906.8	122.14	8.424		
14,500.0	7,472.0	14,338.6	7,227.0	126.6	0.0	76.26	6,799.7	966.8	1,031.8	907.9	123.85	8.331		
14,600.0	7,472.0	14,438.5	7,227.0	128.3	0.0	76.30	6,899.7	966.0	1,034.6	909.0	125.56	8.240		
14,700.0	7,472.0	14,538.5	7,227.0	130.1	0.0	76.33	6,999.7	965.2	1,037.4	910.2	127.27	8.152		
14,800.0	7,472.0	14,638.4	7,227.0	131.8	0.0	76.37	7,099.6	964.3	1,040.3	911.3	128.98	8.065		
14,900.0	7,472.0	14,738.4	7,227.0	133.5	0.0	76.41	7,199.6	963.5	1,043.1	912.4	130.69	7.982		
15,000.0	7,472.0	14,838.4	7,227.0	135.3	0.0	76.45	7,299.5	962.7	1,046.0	913.6	132.41	7.900		
15,100.0	7,472.0	14,938.3	7,227.0	137.0	0.0	76.49	7,399.5	961.8	1,048.8	914.7	134.12	7.820		
15,200.0	7,472.0	15,038.3	7,227.0	138.7	0.0	76.52	7,499.4	961.0	1,051.7	915.8	135.84	7.742		
15,300.0	7,472.0	15,138.2	7,227.0	140.5	0.0	76.56	7,599.4	960.2	1,054.5	916.9	137.56	7.666		
15,400.0	7,472.0	15,238.2	7,227.0	142.2	0.0	76.60	7,699.3	959.4	1,057.4	918.1	139.28	7.592		
15,500.0	7,472.0	15,338.1	7,227.0	144.0	0.0	76.63	7,799.3	958.5	1,060.2	919.2	141.00	7.519		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-3NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,600.0	7,472.0	15,438.1	7,227.0	145.7	0.0	76.67	7,899.2	957.7	1,063.0	920.3	142.72	7.448		
15,700.0	7,472.0	15,538.1	7,227.0	147.5	0.0	76.71	7,999.2	956.9	1,065.9	921.5	144.44	7.379		
15,800.0	7,472.0	15,638.0	7,227.0	149.2	0.0	76.74	8,099.1	956.1	1,068.7	922.6	146.17	7.312		
15,900.0	7,472.0	15,738.0	7,227.0	150.9	0.0	76.78	8,199.1	955.2	1,071.6	923.7	147.89	7.246		
16,000.0	7,472.0	15,838.0	7,227.0	152.7	0.0	76.81	8,299.1	954.4	1,073.5	923.8	149.61	7.175		
16,100.0	7,472.0	15,937.9	7,227.0	154.4	0.0	76.78	8,399.1	953.6	1,072.0	920.7	151.31	7.085		
16,200.0	7,472.0	16,037.9	7,227.0	156.2	0.0	76.74	8,499.0	952.8	1,068.7	915.7	152.98	6.986		
16,300.0	7,472.0	16,137.8	7,227.0	157.9	0.0	76.70	8,598.9	951.9	1,065.3	910.7	154.65	6.889		
16,400.0	7,472.0	16,237.8	7,227.0	159.6	0.0	76.65	8,698.9	951.1	1,062.0	905.6	156.32	6.794		
16,500.0	7,472.0	16,337.7	7,227.0	161.3	0.0	76.61	8,798.8	950.3	1,058.6	900.6	157.98	6.701		
16,600.0	7,472.0	16,437.6	7,227.0	163.1	0.0	76.57	8,898.7	949.4	1,055.3	895.6	159.65	6.610		
16,700.0	7,472.0	16,537.6	7,227.0	164.8	0.0	76.52	8,998.7	948.6	1,051.9	890.6	161.32	6.521		
16,800.0	7,472.0	16,637.5	7,227.0	166.5	0.0	76.48	9,098.6	947.8	1,048.6	885.6	162.98	6.434		
16,900.0	7,472.0	16,737.5	7,227.0	168.2	0.0	76.44	9,198.5	947.0	1,045.2	880.6	164.65	6.348		
17,000.0	7,472.0	16,837.4	7,227.0	170.0	0.0	76.39	9,298.5	946.1	1,041.9	875.6	166.31	6.264		
17,100.0	7,472.0	16,937.3	7,227.0	171.7	0.0	76.35	9,398.4	945.3	1,038.5	870.5	167.98	6.182		
17,200.0	7,472.0	17,037.3	7,227.0	173.4	0.0	76.30	9,498.4	944.5	1,035.2	865.5	169.64	6.102		
17,300.0	7,472.0	17,137.2	7,227.0	175.2	0.0	76.26	9,598.3	943.7	1,031.8	860.5	171.31	6.023		
17,400.0	7,472.0	17,237.2	7,227.0	176.9	0.0	76.21	9,698.2	942.8	1,028.5	855.5	172.97	5.946		
17,500.0	7,472.0	17,337.1	7,227.0	178.6	0.0	76.17	9,798.2	942.0	1,025.1	850.5	174.64	5.870		
17,600.0	7,472.0	17,437.0	7,227.0	180.3	0.0	76.12	9,898.1	941.2	1,021.8	845.5	176.30	5.796		
17,606.3	7,472.0	17,443.4	7,227.0	180.5	0.0	76.12	9,904.4	941.1	1,021.6	845.2	176.41	5.791 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.74	0.4	90.0	90.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.74	0.4	90.0	90.0	89.7	0.28	325.072		
200.0	200.0	200.0	200.0	1.0	0.0	89.74	0.4	90.0	90.0	89.2	0.80	112.859		
300.0	300.0	300.0	300.0	1.5	0.0	89.74	0.4	90.0	90.0	88.8	1.22	73.533		
400.0	400.0	400.0	400.0	1.9	0.0	89.74	0.4	90.0	90.0	88.4	1.62	55.633		
500.0	500.0	500.0	500.0	2.3	0.0	89.74	0.4	90.0	90.0	88.0	2.00	45.039		
600.0	600.0	600.0	600.0	2.7	0.0	89.74	0.4	90.0	90.0	87.6	2.37	37.944		
700.0	700.0	700.0	700.0	3.1	0.0	89.74	0.4	90.0	90.0	87.3	2.74	32.828		
800.0	800.0	800.0	800.0	3.5	0.0	89.74	0.4	90.0	90.0	86.9	3.11	28.952 CC, ES		
900.0	900.0	897.0	897.0	3.9	0.0	90.03	0.0	91.6	91.6	88.2	3.47	26.416		
1,000.0	1,000.0	993.8	993.7	4.2	0.0	90.82	-1.4	96.3	96.5	92.7	3.82	25.286		
1,100.0	1,100.0	1,090.2	1,089.7	4.6	0.0	91.98	-3.6	104.1	104.7	100.5	4.15	25.200		
1,200.0	1,200.0	1,185.9	1,184.8	5.0	0.0	93.32	-6.7	115.0	116.2	111.7	4.48	25.913		
1,300.0	1,300.0	1,280.9	1,278.6	5.3	0.0	-81.79	-10.6	128.7	130.7	125.9	4.77	27.402		
1,400.0	1,399.8	1,374.9	1,371.0	6.0	0.0	-81.99	-15.3	145.3	147.9	142.8	5.06	29.219		
1,500.0	1,499.5	1,467.8	1,461.8	6.3	0.0	-82.97	-20.7	164.6	167.9	162.5	5.36	31.319		
1,600.0	1,599.2	1,559.5	1,550.7	6.6	0.0	-83.71	-26.9	186.3	191.0	185.3	5.67	33.690		
1,700.0	1,698.8	1,653.6	1,641.2	6.9	0.0	-84.13	-33.9	211.0	216.6	210.6	6.00	36.107		
1,800.0	1,798.5	1,750.2	1,734.1	7.3	0.0	-84.46	-41.1	236.5	242.5	236.1	6.34	38.216		
1,900.0	1,898.1	1,846.8	1,826.9	7.6	0.0	-84.72	-48.3	262.1	268.3	261.6	6.69	40.090		
2,000.0	1,997.8	1,943.4	1,919.8	8.0	0.0	-84.94	-55.6	287.6	294.2	287.2	7.04	41.764		
2,100.0	2,097.4	2,040.0	2,012.7	8.3	0.0	-85.12	-62.8	313.2	320.1	312.7	7.40	43.267		
2,200.0	2,197.1	2,136.6	2,105.5	8.7	0.0	-85.28	-70.1	338.7	346.0	338.2	7.75	44.622		
2,300.0	2,296.7	2,233.2	2,198.4	9.0	0.0	-85.41	-77.3	364.3	371.9	363.8	8.11	45.848		
2,400.0	2,296.4	2,229.7	2,291.3	9.4	0.0	-85.53	-84.5	389.8	397.8	389.3	8.47	46.962		
2,500.0	2,296.0	2,226.3	2,384.1	9.7	0.0	-85.63	-91.8	415.4	423.7	414.8	8.83	47.979		
2,600.0	2,595.7	2,522.9	2,477.0	10.1	0.0	-85.72	-99.0	440.9	449.6	440.4	9.19	48.909		
2,700.0	2,695.3	2,619.5	2,569.9	10.4	0.0	-85.80	-106.2	466.5	475.5	465.9	9.55	49.763		
2,800.0	2,795.0	2,716.1	2,662.7	10.8	0.0	-85.87	-113.5	492.0	501.4	491.4	9.92	50.550		
2,900.0	2,894.7	2,812.7	2,755.6	11.1	0.0	-85.94	-120.7	517.5	527.2	517.0	10.28	51.277		
3,000.0	2,994.3	2,909.3	2,848.5	11.5	0.0	-85.99	-128.0	543.1	553.1	542.5	10.65	51.950		
3,100.0	3,094.0	3,005.8	2,941.3	11.9	0.0	-86.05	-135.2	568.6	579.0	568.0	11.01	52.575		
3,200.0	3,193.6	3,102.4	3,034.2	12.2	0.0	-86.10	-142.4	594.2	604.9	593.6	11.38	53.156		
3,300.0	3,293.3	3,199.0	3,127.0	12.6	0.0	-86.14	-149.7	619.7	630.8	619.1	11.75	53.698		
3,400.0	3,392.9	3,295.6	3,219.9	13.0	0.0	-86.18	-156.9	645.3	656.7	644.6	12.12	54.205		
3,500.0	3,492.6	3,392.2	3,312.8	13.3	0.0	-86.22	-164.1	670.8	682.6	670.2	12.48	54.680		
3,600.0	3,592.2	3,488.8	3,405.6	13.7	0.0	-86.26	-171.4	696.4	708.5	695.7	12.85	55.126		
3,700.0	3,691.9	3,585.4	3,498.5	14.1	0.0	-86.29	-178.6	721.9	734.4	721.2	13.22	55.544		
3,800.0	3,791.5	3,682.0	3,591.4	14.4	0.0	-86.32	-185.9	747.5	760.3	746.7	13.59	55.938		
3,900.0	3,891.2	3,778.5	3,684.2	14.8	0.0	-86.35	-193.1	773.0	786.2	772.3	13.96	56.310		
4,000.0	3,990.8	3,875.1	3,777.1	15.2	0.0	-86.38	-200.3	798.6	812.1	797.8	14.33	56.661		
4,100.0	4,090.5	3,971.7	3,870.0	15.6	0.0	-86.40	-207.6	824.1	838.0	823.3	14.70	56.993		
4,200.0	4,190.1	4,068.3	3,962.8	15.9	0.0	-86.43	-214.8	849.7	863.9	848.9	15.08	57.308		
4,300.0	4,289.8	4,164.9	4,055.7	16.3	0.0	-86.45	-222.0	875.2	889.8	874.4	15.45	57.606		
4,400.0	4,389.5	4,261.5	4,148.6	16.7	0.0	-86.47	-229.3	900.8	915.7	899.9	15.82	57.889		
4,500.0	4,489.1	4,358.1	4,241.4	17.0	0.0	-86.49	-236.5	926.3	941.6	925.4	16.19	58.158		
4,600.0	4,588.8	4,454.7	4,334.3	17.4	0.0	-86.51	-243.8	951.9	967.5	951.0	16.56	58.414		
4,700.0	4,688.4	4,551.2	4,427.2	17.8	0.0	-86.53	-251.0	977.4	993.4	976.5	16.94	58.658		
4,800.0	4,788.1	4,647.8	4,520.0	18.2	0.0	-86.54	-258.2	1,003.0	1,019.3	1,002.0	17.31	58.891		
4,900.0	4,887.7	4,744.4	4,612.9	18.6	0.0	-86.56	-265.5	1,028.5	1,045.2	1,027.6	17.68	59.113		
5,000.0	4,987.4	4,841.0	4,705.8	18.9	0.0	-86.57	-272.7	1,054.1	1,071.1	1,053.1	18.06	59.325		
5,100.0	5,087.0	4,937.6	4,798.6	19.3	0.0	-86.59	-279.9	1,079.6	1,097.0	1,078.6	18.43	59.527		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		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)					
5,200.0	5,186.7	5,034.2	4,891.5	19.7	0.0	-86.60	-287.2	1,105.2	1,122.9	1,104.1	18.80	59.722	
5,300.0	5,286.3	5,130.8	4,984.4	20.1	0.0	-86.62	-294.4	1,130.7	1,148.8	1,129.7	19.18	59.908	
5,400.0	5,386.0	5,227.4	5,077.2	20.4	0.0	-86.63	-301.7	1,156.3	1,174.7	1,155.2	19.55	60.086	
5,500.0	5,485.6	5,323.9	5,170.1	20.8	0.0	-86.64	-308.9	1,181.8	1,200.6	1,180.7	19.93	60.257	
5,600.0	5,585.3	5,420.5	5,262.9	21.2	0.0	-86.65	-316.1	1,207.4	1,226.5	1,206.2	20.30	60.421	
5,700.0	5,684.9	5,517.1	5,355.8	21.6	0.0	-86.66	-323.4	1,232.9	1,252.4	1,231.8	20.67	60.578	
5,800.0	5,784.6	5,613.7	5,448.7	22.0	0.0	-86.67	-330.6	1,258.5	1,278.3	1,257.3	21.05	60.730	
5,900.0	5,884.3	5,710.3	5,541.5	22.3	0.0	-86.69	-337.8	1,284.0	1,304.2	1,282.8	21.42	60.876	
6,000.0	5,983.9	5,806.9	5,634.4	22.7	0.0	-86.70	-345.1	1,309.6	1,330.1	1,308.3	21.80	61.016	
6,100.0	6,083.6	5,903.5	5,727.3	23.1	0.0	-86.70	-352.3	1,335.1	1,356.1	1,333.9	22.18	61.151	
6,200.0	6,183.2	6,000.0	5,820.1	23.5	0.0	-86.71	-359.6	1,360.7	1,382.0	1,359.4	22.55	61.281	
6,300.0	6,282.9	6,096.6	5,913.0	23.9	0.0	-86.72	-366.8	1,386.2	1,407.9	1,384.9	22.93	61.407	
6,400.0	6,382.5	6,193.2	6,005.9	24.2	0.0	-86.73	-374.0	1,411.8	1,433.8	1,410.5	23.30	61.528	
6,500.0	6,482.2	6,289.8	6,098.7	24.6	0.0	-86.74	-381.3	1,437.3	1,459.7	1,436.0	23.68	61.645	
6,600.0	6,581.8	6,386.4	6,191.6	25.0	0.0	-86.75	-388.5	1,462.9	1,485.6	1,461.5	24.05	61.757	
6,700.0	6,681.5	6,483.0	6,284.5	25.4	0.0	-86.75	-395.7	1,488.4	1,511.5	1,487.0	24.43	61.866	
6,800.0	6,781.1	6,579.6	6,377.3	25.8	0.0	-86.76	-403.0	1,513.9	1,537.4	1,512.6	24.81	61.972	
6,900.0	6,880.8	6,676.1	6,470.2	26.1	0.0	-81.96	-410.2	1,539.5	1,563.3	1,538.1	25.18	62.093	
7,000.0	6,980.6	6,771.7	6,562.1	26.7	0.0	84.78	-417.4	1,564.8	1,588.9	1,563.1	25.76	61.686	
7,100.0	7,077.8	6,863.6	6,650.4	27.0	0.0	84.37	-424.3	1,589.1	1,613.9	1,587.9	25.97	62.149	
7,200.0	7,169.6	6,949.0	6,732.5	27.3	0.0	83.62	-430.7	1,611.7	1,638.5	1,612.4	26.12	62.728	
7,300.0	7,253.2	7,025.2	6,805.8	27.6	0.0	82.92	-436.4	1,631.8	1,663.1	1,636.9	26.23	63.405	
7,400.0	7,326.0	7,090.1	6,868.2	27.8	0.0	82.10	-441.2	1,649.0	1,688.4	1,662.1	26.32	64.149	
7,500.0	7,385.9	7,141.5	6,917.6	28.0	0.0	80.93	-445.1	1,662.6	1,714.9	1,688.5	26.42	64.920	
7,600.0	7,430.9	7,178.1	6,952.8	28.1	0.0	79.22	-447.8	1,672.3	1,743.2	1,716.6	26.54	65.671	
7,700.0	7,459.8	7,198.5	6,972.4	28.3	0.0	76.84	-449.4	1,677.7	1,773.1	1,746.4	26.72	66.355	
7,800.0	7,471.7	7,202.3	6,976.1	28.5	0.0	73.79	-449.6	1,678.7	1,804.3	1,777.4	26.96	66.935	
7,900.0	7,472.0	8,281.8	7,617.0	28.7	0.0	94.56	207.0	1,849.2	1,825.4	1,797.0	28.37	64.334	
8,000.0	7,472.0	8,381.8	7,617.0	29.1	0.0	94.56	307.0	1,848.3	1,825.4	1,796.5	28.85	63.264	
8,100.0	7,472.0	8,481.8	7,617.0	29.7	0.0	94.56	407.0	1,847.5	1,825.4	1,795.9	29.43	62.019	
8,200.0	7,472.0	8,581.8	7,617.0	30.3	0.0	94.56	507.0	1,846.7	1,825.4	1,795.3	30.10	60.637	
8,300.0	7,472.0	8,681.8	7,617.0	31.0	0.0	94.56	607.0	1,845.9	1,825.4	1,794.5	30.86	59.150	
8,400.0	7,472.0	8,781.8	7,617.0	31.8	0.0	94.56	706.9	1,845.0	1,825.4	1,793.7	31.70	57.588	
8,500.0	7,472.0	8,881.8	7,617.0	32.7	0.0	94.56	806.9	1,844.2	1,825.4	1,792.7	32.61	55.980	
8,600.0	7,472.0	8,981.8	7,617.0	33.7	0.0	94.56	906.9	1,843.4	1,825.4	1,791.8	33.59	54.350	
8,700.0	7,472.0	9,081.8	7,617.0	34.8	0.0	94.56	1,006.9	1,842.5	1,825.4	1,790.7	34.63	52.717	
8,800.0	7,472.0	9,181.8	7,617.0	35.9	0.0	94.56	1,106.9	1,841.7	1,825.4	1,789.6	35.72	51.098	
8,900.0	7,472.0	9,281.8	7,617.0	37.0	0.0	94.56	1,206.9	1,840.9	1,825.4	1,788.5	36.87	49.507	
9,000.0	7,472.0	9,381.8	7,617.0	38.2	0.0	94.56	1,306.9	1,840.1	1,825.4	1,787.3	38.07	47.952	
9,100.0	7,472.0	9,481.8	7,617.0	39.4	0.0	94.56	1,406.9	1,839.2	1,825.4	1,786.0	39.30	46.442	
9,200.0	7,472.0	9,581.8	7,617.0	40.7	0.0	94.56	1,506.9	1,838.4	1,825.4	1,784.8	40.58	44.981	
9,300.0	7,472.0	9,681.8	7,617.0	42.0	0.0	94.56	1,606.9	1,837.6	1,825.4	1,783.5	41.89	43.573	
9,400.0	7,472.0	9,781.8	7,617.0	43.4	0.0	94.56	1,706.9	1,836.8	1,825.4	1,782.1	43.24	42.219	
9,500.0	7,472.0	9,881.8	7,617.0	44.7	0.0	94.56	1,806.9	1,835.9	1,825.4	1,780.7	44.61	40.920	
9,600.0	7,472.0	9,981.8	7,617.0	46.2	0.0	94.56	1,906.9	1,835.1	1,825.4	1,779.3	46.01	39.675	
9,700.0	7,472.0	10,081.8	7,617.0	47.6	0.0	94.56	2,006.9	1,834.3	1,825.4	1,777.9	47.43	38.485	
9,800.0	7,472.0	10,181.8	7,617.0	49.0	0.0	94.56	2,106.9	1,833.4	1,825.4	1,776.5	48.88	37.347	
9,900.0	7,472.0	10,281.8	7,617.0	50.5	0.0	94.56	2,206.9	1,832.6	1,825.4	1,775.0	50.34	36.260	
10,000.0	7,472.0	10,381.8	7,617.0	52.0	0.0	94.56	2,306.9	1,831.8	1,825.4	1,773.5	51.82	35.222	
10,100.0	7,472.0	10,481.8	7,617.0	53.5	0.0	94.56	2,406.9	1,831.0	1,825.4	1,772.0	53.33	34.230	
10,200.0	7,472.0	10,581.8	7,617.0	55.0	0.0	94.56	2,506.9	1,830.1	1,825.4	1,770.5	54.84	33.284	
10,300.0	7,472.0	10,681.8	7,617.0	56.5	0.0	94.56	2,606.9	1,829.3	1,825.3	1,769.0	56.37	32.380	

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	7,472.0	10,781.8	7,617.0	58.1	0.0	94.56	2,706.9	1,828.5	1,825.3	1,767.4	57.92	31.518	
10,500.0	7,472.0	10,881.8	7,617.0	59.6	0.0	94.56	2,806.9	1,827.7	1,825.3	1,765.9	59.47	30.693	
10,600.0	7,472.0	10,981.8	7,617.0	61.2	0.0	94.56	2,906.9	1,826.8	1,825.3	1,764.3	61.04	29.905	
10,700.0	7,472.0	11,081.8	7,617.0	62.8	0.0	94.56	3,006.9	1,826.0	1,825.3	1,762.7	62.61	29.152	
10,800.0	7,472.0	11,181.8	7,617.0	64.4	0.0	94.56	3,106.9	1,825.2	1,825.3	1,761.1	64.20	28.432	
10,900.0	7,472.0	11,281.8	7,617.0	66.0	0.0	94.56	3,206.9	1,824.3	1,825.3	1,759.6	65.80	27.742	
11,000.0	7,472.0	11,381.8	7,617.0	67.6	0.0	94.56	3,306.9	1,823.5	1,825.3	1,757.9	67.40	27.082	
11,100.0	7,472.0	11,481.8	7,617.0	69.2	0.0	94.56	3,406.9	1,822.7	1,825.3	1,756.3	69.01	26.450	
11,200.0	7,472.0	11,581.8	7,617.0	70.8	0.0	94.56	3,506.9	1,821.9	1,825.3	1,754.7	70.63	25.844	
11,300.0	7,472.0	11,681.8	7,617.0	72.5	0.0	94.56	3,606.8	1,821.0	1,825.3	1,753.1	72.26	25.262	
11,400.0	7,472.0	11,781.8	7,617.0	74.1	0.0	94.56	3,706.8	1,820.2	1,825.3	1,751.5	73.89	24.704	
11,500.0	7,472.0	11,881.8	7,617.0	75.7	0.0	94.56	3,806.8	1,819.4	1,825.3	1,749.8	75.52	24.169	
11,600.0	7,472.0	11,981.8	7,617.0	77.4	0.0	94.56	3,906.8	1,818.6	1,825.3	1,748.2	77.17	23.654	
11,700.0	7,472.0	12,081.8	7,617.0	79.0	0.0	94.56	4,006.8	1,817.7	1,825.3	1,746.5	78.82	23.160	
11,800.0	7,472.0	12,181.8	7,617.0	80.7	0.0	94.56	4,106.8	1,816.9	1,825.3	1,744.9	80.47	22.684	
11,900.0	7,472.0	12,281.8	7,617.0	82.4	0.0	94.56	4,206.8	1,816.1	1,825.3	1,743.2	82.13	22.226	
12,000.0	7,472.0	12,381.8	7,617.0	84.0	0.0	94.56	4,306.8	1,815.3	1,825.3	1,741.6	83.79	21.786	
12,100.0	7,472.0	12,481.8	7,617.0	85.7	0.0	94.56	4,406.8	1,814.4	1,825.3	1,739.9	85.45	21.361	
12,200.0	7,472.0	12,581.8	7,617.0	87.4	0.0	94.56	4,506.8	1,813.6	1,825.3	1,738.2	87.12	20.952	
12,300.0	7,472.0	12,681.8	7,617.0	89.0	0.0	94.56	4,606.8	1,812.8	1,825.3	1,736.6	88.79	20.557	
12,400.0	7,472.0	12,781.8	7,617.0	90.7	0.0	94.56	4,706.8	1,811.9	1,825.3	1,734.9	90.47	20.176	
12,500.0	7,472.0	12,881.8	7,617.0	92.4	0.0	94.56	4,806.8	1,811.1	1,825.3	1,733.2	92.15	19.809	
12,600.0	7,472.0	12,981.8	7,617.0	94.1	0.0	94.56	4,906.8	1,810.3	1,825.3	1,731.5	93.83	19.454	
12,700.0	7,472.0	13,081.8	7,617.0	95.8	0.0	94.56	5,006.8	1,809.5	1,825.3	1,729.8	95.52	19.110	
12,800.0	7,472.0	13,181.8	7,617.0	97.5	0.0	94.56	5,106.8	1,808.6	1,825.3	1,728.1	97.20	18.779	
12,900.0	7,472.0	13,281.8	7,617.0	99.2	0.0	94.56	5,206.8	1,807.8	1,825.3	1,726.5	98.89	18.458	
13,000.0	7,472.0	13,381.8	7,617.0	100.9	0.0	94.56	5,306.8	1,807.0	1,825.3	1,724.8	100.59	18.147	
13,100.0	7,472.0	13,481.8	7,617.0	102.6	0.0	94.56	5,406.8	1,806.2	1,825.3	1,723.1	102.28	17.846	
13,200.0	7,472.0	13,581.8	7,617.0	104.3	0.0	94.56	5,506.8	1,805.3	1,825.3	1,721.4	103.98	17.555	
13,300.0	7,472.0	13,681.8	7,617.0	106.0	0.0	94.56	5,606.8	1,804.5	1,825.3	1,719.7	105.68	17.273	
13,400.0	7,472.0	13,781.8	7,617.0	107.7	0.0	94.56	5,706.8	1,803.7	1,825.3	1,718.0	107.38	16.999	
13,500.0	7,472.0	13,881.8	7,617.0	109.4	0.0	94.56	5,806.8	1,802.8	1,825.3	1,716.3	109.08	16.734	
13,600.0	7,472.0	13,981.8	7,617.0	111.1	0.0	94.56	5,906.8	1,802.0	1,825.3	1,714.6	110.79	16.476	
13,700.0	7,472.0	14,081.8	7,617.0	112.8	0.0	94.56	6,006.8	1,801.2	1,825.3	1,712.8	112.49	16.226	
13,800.0	7,472.0	14,181.8	7,617.0	114.5	0.0	94.56	6,106.8	1,800.4	1,825.3	1,711.1	114.20	15.983	
13,900.0	7,472.0	14,281.8	7,617.0	116.2	0.0	94.56	6,206.8	1,799.5	1,825.3	1,709.4	115.91	15.747	
14,000.0	7,472.0	14,381.8	7,617.0	118.0	0.0	94.56	6,306.8	1,798.7	1,825.3	1,707.7	117.62	15.518	
14,100.0	7,472.0	14,481.8	7,617.0	119.7	0.0	94.56	6,406.8	1,797.9	1,825.3	1,706.0	119.34	15.296	
14,200.0	7,472.0	14,581.8	7,617.0	121.4	0.0	94.55	6,506.7	1,797.1	1,827.0	1,706.0	121.06	15.092	
14,300.0	7,472.0	14,681.7	7,617.0	123.1	0.0	94.55	6,606.7	1,796.2	1,830.0	1,707.2	122.79	14.904	
14,400.0	7,472.0	14,781.7	7,617.0	124.9	0.0	94.54	6,706.6	1,795.4	1,832.9	1,708.4	124.51	14.720	
14,500.0	7,472.0	14,881.6	7,617.0	126.6	0.0	94.53	6,806.6	1,794.6	1,835.8	1,709.5	126.24	14.542	
14,600.0	7,472.0	14,981.6	7,617.0	128.3	0.0	94.52	6,906.5	1,793.8	1,838.7	1,710.7	127.97	14.368	
14,700.0	7,472.0	15,081.5	7,617.0	130.1	0.0	94.52	7,006.5	1,792.9	1,841.6	1,711.9	129.70	14.199	
14,800.0	7,472.0	15,181.5	7,617.0	131.8	0.0	94.51	7,106.5	1,792.1	1,844.5	1,713.1	131.43	14.034	
14,900.0	7,472.0	15,281.5	7,617.0	133.5	0.0	94.50	7,206.4	1,791.3	1,847.5	1,714.3	133.17	13.873	
15,000.0	7,472.0	15,381.4	7,617.0	135.3	0.0	94.50	7,306.4	1,790.4	1,850.4	1,715.5	134.90	13.717	
15,100.0	7,472.0	15,481.4	7,617.0	137.0	0.0	94.49	7,406.3	1,789.6	1,853.3	1,716.6	136.64	13.564	
15,200.0	7,472.0	15,581.3	7,617.0	138.7	0.0	94.48	7,506.3	1,788.8	1,856.2	1,717.8	138.37	13.415	
15,300.0	7,472.0	15,681.3	7,617.0	140.5	0.0	94.48	7,606.2	1,788.0	1,859.1	1,719.0	140.11	13.269	
15,400.0	7,472.0	15,781.2	7,617.0	142.2	0.0	94.47	7,706.2	1,787.1	1,862.0	1,720.2	141.85	13.127	

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4CDH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,500.0	7,472.0	15,881.2	7,617.0	144.0	0.0	94.46	7,806.1	1,786.3	1,865.0	1,721.4	143.59	12.988		
15,600.0	7,472.0	15,981.2	7,617.0	145.7	0.0	94.45	7,906.1	1,785.5	1,867.9	1,722.5	145.33	12.853		
15,700.0	7,472.0	16,081.1	7,617.0	147.5	0.0	94.45	8,006.0	1,784.7	1,870.8	1,723.7	147.07	12.721		
15,800.0	7,472.0	16,181.1	7,617.0	149.2	0.0	94.44	8,106.0	1,783.8	1,873.7	1,724.9	148.81	12.592		
15,900.0	7,472.0	16,281.0	7,617.0	150.9	0.0	94.43	8,205.9	1,783.0	1,876.6	1,726.1	150.55	12.465		
16,000.0	7,472.0	16,381.0	7,617.0	152.7	0.0	94.43	8,305.9	1,782.2	1,878.5	1,726.2	152.29	12.335		
16,100.0	7,472.0	16,481.0	7,617.0	154.4	0.0	94.43	8,405.9	1,781.4	1,877.0	1,723.0	154.03	12.186		
16,200.0	7,472.0	16,580.9	7,617.0	156.2	0.0	94.44	8,505.8	1,780.5	1,873.6	1,717.9	155.75	12.030		
16,300.0	7,472.0	16,680.9	7,617.0	157.9	0.0	94.45	8,605.8	1,779.7	1,870.2	1,712.7	157.47	11.876		
16,400.0	7,472.0	16,780.8	7,617.0	159.6	0.0	94.46	8,705.7	1,778.9	1,866.8	1,707.6	159.19	11.727		
16,500.0	7,472.0	16,880.7	7,617.0	161.3	0.0	94.47	8,805.6	1,778.0	1,863.3	1,702.4	160.91	11.580		
16,600.0	7,472.0	16,980.7	7,617.0	163.1	0.0	94.47	8,905.6	1,777.2	1,859.9	1,697.3	162.63	11.436		
16,700.0	7,472.0	17,080.6	7,617.0	164.8	0.0	94.48	9,005.5	1,776.4	1,856.5	1,692.1	164.35	11.296		
16,800.0	7,472.0	17,180.6	7,617.0	166.5	0.0	94.49	9,105.5	1,775.6	1,853.0	1,686.9	166.07	11.158		
16,900.0	7,472.0	17,280.5	7,617.0	168.2	0.0	94.50	9,205.4	1,774.7	1,849.6	1,681.8	167.79	11.023		
17,000.0	7,472.0	17,380.5	7,617.0	170.0	0.0	94.51	9,305.3	1,773.9	1,846.2	1,676.6	169.52	10.891		
17,100.0	7,472.0	17,480.4	7,617.0	171.7	0.0	94.52	9,405.3	1,773.1	1,842.7	1,671.5	171.24	10.761		
17,200.0	7,472.0	17,580.3	7,617.0	173.4	0.0	94.52	9,505.2	1,772.3	1,839.3	1,666.3	172.96	10.634		
17,300.0	7,472.0	17,680.3	7,617.0	175.2	0.0	94.53	9,605.1	1,771.4	1,835.9	1,661.2	174.69	10.509		
17,400.0	7,472.0	17,780.2	7,617.0	176.9	0.0	94.54	9,705.1	1,770.6	1,832.4	1,656.0	176.41	10.387		
17,500.0	7,472.0	17,880.2	7,617.0	178.6	0.0	94.55	9,805.0	1,769.8	1,829.0	1,650.8	178.13	10.267		
17,600.0	7,472.0	17,980.1	7,617.0	180.3	0.0	94.56	9,905.0	1,769.0	1,825.6	1,645.7	179.86	10.150		
17,606.3	7,472.0	17,986.4	7,617.0	180.5	0.0	94.56	9,911.3	1,768.9	1,825.3	1,645.4	179.97	10.143 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	89.70	0.7	135.0	135.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.70	0.7	135.0	135.0	134.7	0.28	487.284		
200.0	200.0	200.0	200.0	1.0	0.0	89.70	0.7	135.0	135.0	134.2	0.80	169.187		
300.0	300.0	300.0	300.0	1.5	0.0	89.70	0.7	135.0	135.0	133.8	1.22	110.240		
400.0	400.0	400.0	400.0	1.9	0.0	89.70	0.7	135.0	135.0	133.4	1.62	83.409		
500.0	500.0	500.0	500.0	2.3	0.0	89.70	0.7	135.0	135.0	133.0	2.00	67.527 CC, ES		
600.0	600.0	595.6	595.5	2.7	0.0	89.84	0.4	136.5	136.6	134.2	2.37	57.623		
700.0	700.0	690.9	690.8	3.1	0.0	90.25	-0.6	141.2	141.5	138.8	2.73	51.767		
800.0	800.0	785.8	785.4	3.5	0.0	90.85	-2.2	148.9	149.7	146.6	3.09	48.472		
900.0	900.0	880.1	879.0	3.9	0.0	91.60	-4.5	159.6	161.1	157.6	3.43	46.915		
1,000.0	1,000.0	973.6	971.5	4.2	0.0	92.41	-7.3	173.2	175.7	171.9	3.77	46.595 SF		
1,100.0	1,100.0	1,066.1	1,062.4	4.6	0.0	93.24	-10.7	189.5	193.5	189.4	4.10	47.195		
1,200.0	1,200.0	1,157.4	1,151.6	5.0	0.0	94.03	-14.7	208.5	214.5	210.1	4.42	48.501		
1,300.0	1,300.0	1,247.4	1,239.0	5.3	0.0	-81.19	-19.2	229.9	238.3	233.6	4.70	50.719		
1,400.0	1,399.8	1,336.2	1,324.3	6.0	0.0	-81.01	-24.1	253.6	264.7	259.7	4.97	53.229		
1,500.0	1,499.5	1,423.4	1,407.5	6.3	0.0	-81.53	-29.5	279.4	293.5	288.3	5.25	55.920		
1,600.0	1,599.2	1,509.1	1,488.3	6.6	0.0	-82.10	-35.3	307.1	325.2	319.7	5.54	58.742		
1,700.0	1,698.8	1,598.2	1,571.7	6.9	0.0	-82.54	-41.8	338.2	359.4	353.5	5.85	61.444		
1,800.0	1,798.5	1,692.1	1,659.3	7.3	0.0	-82.91	-48.7	371.1	393.9	387.7	6.18	63.681		
1,900.0	1,898.1	1,785.9	1,746.8	7.6	0.0	-83.22	-55.6	404.0	428.4	421.8	6.52	65.659		
2,000.0	1,997.8	1,879.7	1,834.4	8.0	0.0	-83.48	-62.5	437.0	462.9	456.0	6.87	67.416		
2,100.0	2,097.4	1,973.6	1,922.0	8.3	0.0	-83.71	-69.4	469.9	497.4	490.2	7.21	68.986		
2,200.0	2,197.1	2,067.4	2,009.6	8.7	0.0	-83.91	-76.3	502.9	531.9	524.4	7.56	70.395		
2,300.0	2,296.7	2,161.2	2,097.2	9.0	0.0	-84.08	-83.1	535.8	566.5	558.6	7.90	71.665		
2,400.0	2,396.4	2,255.1	2,184.8	9.4	0.0	-84.24	-90.0	568.7	601.0	592.8	8.25	72.815		
2,500.0	2,496.0	2,348.9	2,272.4	9.7	0.0	-84.38	-96.9	601.7	635.6	627.0	8.60	73.859		
2,600.0	2,595.7	2,442.7	2,360.0	10.1	0.0	-84.50	-103.8	634.6	670.1	661.1	8.96	74.812		
2,700.0	2,695.3	2,536.6	2,447.6	10.4	0.0	-84.61	-110.7	667.6	704.6	695.3	9.31	75.683		
2,800.0	2,795.0	2,630.4	2,535.2	10.8	0.0	-84.71	-117.6	700.5	739.2	729.5	9.66	76.483		
2,900.0	2,894.7	2,724.2	2,622.8	11.1	0.0	-84.80	-124.5	733.5	773.8	763.7	10.02	77.219		
3,000.0	2,994.3	2,818.1	2,710.4	11.5	0.0	-84.89	-131.4	766.4	808.3	797.9	10.38	77.899		
3,100.0	3,094.0	2,911.9	2,797.9	11.9	0.0	-84.97	-138.3	799.3	842.9	832.1	10.73	78.528		
3,200.0	3,193.6	3,005.7	2,885.5	12.2	0.0	-85.04	-145.2	832.3	877.4	866.3	11.09	79.112		
3,300.0	3,293.3	3,099.6	2,973.1	12.6	0.0	-85.10	-152.1	865.2	912.0	900.5	11.45	79.654		
3,400.0	3,392.9	3,193.4	3,060.7	13.0	0.0	-85.16	-158.9	898.2	946.5	934.7	11.81	80.160		
3,500.0	3,492.6	3,287.2	3,148.3	13.3	0.0	-85.22	-165.8	931.1	981.1	968.9	12.17	80.632		
3,600.0	3,592.2	3,381.1	3,235.9	13.7	0.0	-85.27	-172.7	964.0	1,015.7	1,003.1	12.53	81.074		
3,700.0	3,691.9	3,474.9	3,323.5	14.1	0.0	-85.32	-179.6	997.0	1,050.2	1,037.3	12.89	81.488		
3,800.0	3,791.5	3,568.7	3,411.1	14.4	0.0	-85.37	-186.5	1,029.9	1,084.8	1,071.5	13.25	81.877		
3,900.0	3,891.2	3,662.6	3,498.7	14.8	0.0	-85.41	-193.4	1,062.9	1,119.3	1,105.7	13.61	82.243		
4,000.0	3,990.8	3,756.4	3,586.3	15.2	0.0	-85.45	-200.3	1,095.8	1,153.9	1,139.9	13.97	82.587		
4,100.0	4,090.5	3,850.2	3,673.9	15.6	0.0	-85.49	-207.2	1,128.8	1,188.5	1,174.1	14.33	82.912		
4,200.0	4,190.1	3,944.1	3,761.4	15.9	0.0	-85.53	-214.1	1,161.7	1,223.0	1,208.3	14.70	83.218		
4,300.0	4,289.8	4,037.9	3,849.0	16.3	0.0	-85.56	-221.0	1,194.6	1,257.6	1,242.5	15.06	83.508		
4,400.0	4,389.5	4,131.7	3,936.6	16.7	0.0	-85.59	-227.8	1,227.6	1,292.2	1,276.7	15.42	83.783		
4,500.0	4,489.1	4,225.6	4,024.2	17.0	0.0	-85.62	-234.7	1,260.5	1,326.7	1,310.9	15.79	84.043		
4,600.0	4,588.8	4,319.4	4,111.8	17.4	0.0	-85.65	-241.6	1,293.5	1,361.3	1,345.1	16.15	84.290		
4,700.0	4,688.4	4,413.3	4,199.4	17.8	0.0	-85.68	-248.5	1,326.4	1,395.8	1,379.3	16.51	84.525		
4,800.0	4,788.1	4,507.1	4,287.0	18.2	0.0	-85.71	-255.4	1,359.3	1,430.4	1,413.5	16.88	84.748		
4,900.0	4,887.7	4,600.9	4,374.6	18.6	0.0	-85.73	-262.3	1,392.3	1,465.0	1,447.7	17.24	84.960		
5,000.0	4,987.4	4,694.8	4,462.2	18.9	0.0	-85.76	-269.2	1,425.2	1,499.5	1,481.9	17.61	85.162		
5,100.0	5,087.0	4,788.6	4,549.8	19.3	0.0	-85.78	-276.1	1,458.2	1,534.1	1,516.1	17.97	85.355		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NBH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	4,882.4	4,637.4	19.7	0.0	-85.80	-283.0	1,491.1	1,568.7	1,550.3	18.34	85.538		
5,300.0	5,286.3	4,976.3	4,724.9	20.1	0.0	-85.82	-289.9	1,524.1	1,603.2	1,584.5	18.70	85.714		
5,400.0	5,386.0	5,070.1	4,812.5	20.4	0.0	-85.84	-296.8	1,557.0	1,637.8	1,618.7	19.07	85.882		
5,500.0	5,485.6	5,163.9	4,900.1	20.8	0.0	-85.86	-303.6	1,589.9	1,672.4	1,652.9	19.44	86.042		
5,600.0	5,585.3	5,257.8	4,987.7	21.2	0.0	-85.88	-310.5	1,622.9	1,706.9	1,687.1	19.80	86.195		
5,700.0	5,684.9	5,351.6	5,075.3	21.6	0.0	-85.90	-317.4	1,655.8	1,741.5	1,721.3	20.17	86.342		
5,800.0	5,784.6	5,445.4	5,162.9	22.0	0.0	-85.91	-324.3	1,688.8	1,776.1	1,755.5	20.54	86.482		
5,900.0	5,884.3	5,539.3	5,250.5	22.3	0.0	-85.93	-331.2	1,721.7	1,810.6	1,789.7	20.90	86.617		
6,000.0	5,983.9	5,633.1	5,338.1	22.7	0.0	-85.95	-338.1	1,754.6	1,845.2	1,823.9	21.27	86.746		
6,100.0	6,083.6	5,726.9	5,425.7	23.1	0.0	-85.96	-345.0	1,787.6	1,879.8	1,858.1	21.64	86.870		
6,200.0	6,183.2	5,820.8	5,513.3	23.5	0.0	-85.98	-351.9	1,820.5	1,914.3	1,892.3	22.01	86.989		
6,300.0	6,282.9	5,914.6	5,600.9	23.9	0.0	-85.99	-358.8	1,853.5	1,948.9	1,926.5	22.37	87.103		
6,400.0	6,382.5	6,008.4	5,688.5	24.2	0.0	-86.00	-365.7	1,886.4	1,983.5	1,960.7	22.74	87.212		
6,500.0	6,482.2	6,102.3	5,776.0	24.6	0.0	-86.02	-372.5	1,919.4	2,018.1	1,994.9	23.11	87.318		
6,600.0	6,581.8	6,196.1	5,863.6	25.0	0.0	-86.03	-379.4	1,952.3	2,052.6	2,029.1	23.48	87.419		
6,700.0	6,681.5	6,289.9	5,951.2	25.4	0.0	-86.04	-386.3	1,985.2	2,087.2	2,063.3	23.85	87.516		
6,800.0	6,781.1	6,383.8	6,038.8	25.8	0.0	-86.05	-393.2	2,018.2	2,121.8	2,097.5	24.22	87.610		
6,900.0	6,880.8	6,477.6	6,126.4	26.1	0.0	-81.56	-400.1	2,051.1	2,156.3	2,131.7	24.58	87.727		
7,000.0	6,980.6	6,570.4	6,213.1	26.7	0.0	84.05	-406.9	2,083.7	2,190.7	2,165.5	25.15	87.096		
7,100.0	7,077.8	6,659.6	6,296.3	27.0	0.0	82.40	-413.5	2,115.0	2,224.1	2,198.8	25.37	87.673		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.68	0.7	120.0	120.0				
100.0	100.0	100.0	100.0	0.4	0.0	89.68	0.7	120.0	120.0	119.7	0.28	433.002	
200.0	200.0	200.0	200.0	1.0	0.0	89.68	0.7	120.0	120.0	119.2	0.80	150.347	
300.0	300.0	300.0	300.0	1.5	0.0	89.68	0.7	120.0	120.0	118.8	1.22	97.968	
400.0	400.0	400.0	400.0	1.9	0.0	89.68	0.7	120.0	120.0	118.4	1.62	74.126	
500.0	500.0	500.0	500.0	2.3	0.0	89.68	0.7	120.0	120.0	118.0	2.00	60.013	
600.0	600.0	600.0	600.0	2.7	0.0	89.68	0.7	120.0	120.0	117.6	2.37	50.561 CC, ES	
700.0	700.0	696.0	696.0	3.1	0.0	89.84	0.3	121.5	121.6	118.9	2.74	44.385	
800.0	800.0	791.9	791.7	3.5	0.0	90.31	-0.7	126.3	126.5	123.4	3.10	40.839	
900.0	900.0	887.2	886.8	3.9	0.0	91.00	-2.3	134.0	134.7	131.3	3.45	39.075	
1,000.0	1,000.0	982.0	980.9	4.2	0.0	91.84	-4.7	144.8	146.2	142.4	3.79	38.581 SF	
1,100.0	1,100.0	1,075.9	1,073.7	4.6	0.0	92.74	-7.6	158.5	160.9	156.8	4.12	39.030	
1,200.0	1,200.0	1,168.8	1,165.1	5.0	0.0	93.63	-11.1	175.0	178.8	174.4	4.45	40.202	
1,300.0	1,300.0	1,260.6	1,254.8	5.3	0.0	-81.62	-15.2	194.1	199.7	194.9	4.73	42.229	
1,400.0	1,399.8	1,351.2	1,342.6	6.0	0.0	-81.59	-19.8	215.7	223.1	218.1	5.01	44.548	
1,500.0	1,499.5	1,440.4	1,428.4	6.3	0.0	-82.27	-25.0	239.6	249.2	243.9	5.29	47.086	
1,600.0	1,599.2	1,528.1	1,511.9	6.6	0.0	-82.93	-30.5	265.7	278.2	272.6	5.59	49.801	
1,700.0	1,698.8	1,614.1	1,593.1	6.9	0.0	-83.37	-36.5	293.7	310.1	304.2	5.88	52.724	
1,800.0	1,798.5	1,706.4	1,679.5	7.3	0.0	-83.70	-43.3	325.4	343.9	337.7	6.21	55.383	
1,900.0	1,898.1	1,800.5	1,767.5	7.6	0.0	-83.98	-50.3	357.8	377.8	371.2	6.55	57.680	
2,000.0	1,997.8	1,894.6	1,855.6	8.0	0.0	-84.21	-57.2	390.2	411.6	404.7	6.89	59.729	
2,100.0	2,097.4	1,988.7	1,943.6	8.3	0.0	-84.40	-64.1	422.6	445.5	438.3	7.24	61.566	
2,200.0	2,197.1	2,082.7	2,031.7	8.7	0.0	-84.57	-71.1	455.0	479.4	471.8	7.58	63.219	
2,300.0	2,296.7	2,176.8	2,119.7	9.0	0.0	-84.71	-78.0	487.4	513.3	505.3	7.93	64.713	
2,400.0	2,396.4	2,270.9	2,207.8	9.4	0.0	-84.84	-85.0	519.8	547.1	538.9	8.28	66.069	
2,500.0	2,496.0	2,365.0	2,295.8	9.7	0.0	-84.95	-91.9	552.2	581.0	572.4	8.63	67.304	
2,600.0	2,595.7	2,459.1	2,383.9	10.1	0.0	-85.05	-98.8	584.6	614.9	605.9	8.99	68.433	
2,700.0	2,695.3	2,553.1	2,472.0	10.4	0.0	-85.14	-105.8	617.0	648.8	639.5	9.34	69.469	
2,800.0	2,795.0	2,647.2	2,560.0	10.8	0.0	-85.22	-112.7	649.4	682.7	673.0	9.69	70.421	
2,900.0	2,894.7	2,741.3	2,648.1	11.1	0.0	-85.30	-119.7	681.8	716.6	706.5	10.05	71.299	
3,000.0	2,994.3	2,835.4	2,736.1	11.5	0.0	-85.36	-126.6	714.2	750.5	740.1	10.41	72.112	
3,100.0	3,094.0	2,929.5	2,824.2	11.9	0.0	-85.42	-133.5	746.6	784.4	773.6	10.76	72.866	
3,200.0	3,193.6	3,023.5	2,912.2	12.2	0.0	-85.48	-140.5	779.0	818.2	807.1	11.12	73.566	
3,300.0	3,293.3	3,117.6	3,000.3	12.6	0.0	-85.53	-147.4	811.4	852.1	840.7	11.48	74.218	
3,400.0	3,392.9	3,211.7	3,088.3	13.0	0.0	-85.58	-154.3	843.8	886.0	874.2	11.84	74.828	
3,500.0	3,492.6	3,305.8	3,176.4	13.3	0.0	-85.62	-161.3	876.2	919.9	907.7	12.20	75.397	
3,600.0	3,592.2	3,399.9	3,264.4	13.7	0.0	-85.66	-168.2	908.6	953.8	941.3	12.56	75.931	
3,700.0	3,691.9	3,493.9	3,352.5	14.1	0.0	-85.70	-175.2	941.0	987.7	974.8	12.92	76.432	
3,800.0	3,791.5	3,588.0	3,440.5	14.4	0.0	-85.74	-182.1	973.4	1,021.6	1,008.3	13.28	76.904	
3,900.0	3,891.2	3,682.1	3,528.6	14.8	0.0	-85.77	-189.0	1,005.8	1,055.5	1,041.9	13.65	77.347	
4,000.0	3,990.8	3,776.2	3,616.6	15.2	0.0	-85.80	-196.0	1,038.2	1,089.4	1,075.4	14.01	77.766	
4,100.0	4,090.5	3,870.2	3,704.7	15.6	0.0	-85.83	-202.9	1,070.6	1,123.3	1,108.9	14.37	78.161	
4,200.0	4,190.1	3,964.3	3,792.7	15.9	0.0	-85.86	-209.9	1,102.9	1,157.2	1,142.4	14.73	78.535	
4,300.0	4,289.8	4,058.4	3,880.8	16.3	0.0	-85.88	-216.8	1,135.3	1,191.1	1,176.0	15.10	78.890	
4,400.0	4,389.5	4,152.5	3,968.8	16.7	0.0	-85.91	-223.7	1,167.7	1,225.0	1,209.5	15.46	79.225	
4,500.0	4,489.1	4,246.6	4,056.9	17.0	0.0	-85.93	-230.7	1,200.1	1,258.9	1,243.0	15.83	79.544	
4,600.0	4,588.8	4,340.6	4,144.9	17.4	0.0	-85.95	-237.6	1,232.5	1,292.8	1,276.6	16.19	79.847	
4,700.0	4,688.4	4,434.7	4,233.0	17.8	0.0	-85.97	-244.5	1,264.9	1,326.7	1,310.1	16.56	80.135	
4,800.0	4,788.1	4,528.8	4,321.0	18.2	0.0	-85.99	-251.5	1,297.3	1,360.6	1,343.6	16.92	80.409	
4,900.0	4,887.7	4,622.9	4,409.1	18.6	0.0	-86.01	-258.4	1,329.7	1,394.5	1,377.2	17.29	80.671	
5,000.0	4,987.4	4,717.0	4,497.1	18.9	0.0	-86.03	-265.4	1,362.1	1,428.4	1,410.7	17.65	80.920	
5,100.0	5,087.0	4,811.0	4,585.2	19.3	0.0	-86.05	-272.3	1,394.5	1,462.3	1,444.2	18.02	81.158	

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NCH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	4,905.1	4,673.2	19.7	0.0	-86.06	-279.2	1,426.9	1,496.1	1,477.8	18.38	81.386		
5,300.0	5,286.3	4,999.2	4,761.3	20.1	0.0	-86.08	-286.2	1,459.3	1,530.0	1,511.3	18.75	81.603		
5,400.0	5,386.0	5,093.3	4,849.3	20.4	0.0	-86.09	-293.1	1,491.7	1,563.9	1,544.8	19.12	81.811		
5,500.0	5,485.6	5,187.4	4,937.4	20.8	0.0	-86.11	-300.1	1,524.1	1,597.8	1,578.4	19.48	82.011		
5,600.0	5,585.3	5,281.4	5,025.5	21.2	0.0	-86.12	-307.0	1,556.5	1,631.7	1,611.9	19.85	82.202		
5,700.0	5,684.9	5,375.5	5,113.5	21.6	0.0	-86.13	-313.9	1,588.9	1,665.6	1,645.4	20.22	82.385		
5,800.0	5,784.6	5,469.6	5,201.6	22.0	0.0	-86.15	-320.9	1,621.3	1,699.5	1,678.9	20.59	82.560		
5,900.0	5,884.3	5,563.7	5,289.6	22.3	0.0	-86.16	-327.8	1,653.7	1,733.4	1,712.5	20.95	82.729		
6,000.0	5,983.9	5,657.7	5,377.7	22.7	0.0	-86.17	-334.7	1,686.1	1,767.3	1,746.0	21.32	82.891		
6,100.0	6,083.6	5,751.8	5,465.7	23.1	0.0	-86.18	-341.7	1,718.5	1,801.2	1,779.5	21.69	83.047		
6,200.0	6,183.2	5,845.9	5,553.8	23.5	0.0	-86.19	-348.6	1,750.9	1,835.1	1,813.1	22.06	83.196		
6,300.0	6,282.9	5,940.0	5,641.8	23.9	0.0	-86.20	-355.6	1,783.3	1,869.0	1,846.6	22.43	83.340		
6,400.0	6,382.5	6,034.1	5,729.9	24.2	0.0	-86.21	-362.5	1,815.7	1,902.9	1,880.1	22.80	83.478		
6,500.0	6,482.2	6,128.1	5,817.9	24.6	0.0	-86.22	-369.4	1,848.1	1,936.8	1,913.7	23.16	83.612		
6,600.0	6,581.8	6,222.2	5,906.0	25.0	0.0	-86.23	-376.4	1,880.5	1,970.7	1,947.2	23.53	83.740		
6,700.0	6,681.5	6,316.3	5,994.0	25.4	0.0	-86.24	-383.3	1,912.9	2,004.6	1,980.7	23.90	83.864		
6,800.0	6,781.1	6,410.4	6,082.1	25.8	0.0	-86.25	-390.3	1,945.3	2,038.5	2,014.2	24.27	83.983		
6,900.0	6,880.8	6,504.4	6,170.1	26.1	0.0	-81.72	-397.2	1,977.7	2,072.4	2,047.8	24.64	84.124		
7,000.0	6,980.6	6,597.5	6,257.2	26.7	0.0	83.98	-404.1	2,009.7	2,106.0	2,080.8	25.21	83.546		
7,100.0	7,077.8	6,687.0	6,340.9	27.0	0.0	82.45	-410.7	2,040.5	2,138.8	2,113.4	25.42	84.125		
7,200.0	7,169.6	6,770.0	6,418.7	27.3	0.0	80.59	-416.8	2,069.1	2,170.3	2,144.8	25.59	84.821		
7,300.0	7,253.2	6,844.2	6,488.1	27.6	0.0	78.87	-422.3	2,094.7	2,200.7	2,174.9	25.71	85.584		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	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	89.71	0.5	105.0	105.0					
100.0	100.0	100.0	100.0	0.4	0.0	89.71	0.5	105.0	105.0	104.7	0.28	378.986		
200.0	200.0	200.0	200.0	1.0	0.0	89.71	0.5	105.0	105.0	104.2	0.80	131.586		
300.0	300.0	300.0	300.0	1.5	0.0	89.71	0.5	105.0	105.0	103.8	1.22	85.739		
400.0	400.0	400.0	400.0	1.9	0.0	89.71	0.5	105.0	105.0	103.4	1.62	64.871		
500.0	500.0	500.0	500.0	2.3	0.0	89.71	0.5	105.0	105.0	103.0	2.00	52.519		
600.0	600.0	600.0	600.0	2.7	0.0	89.71	0.5	105.0	105.0	102.6	2.37	44.247		
700.0	700.0	700.0	700.0	3.1	0.0	89.71	0.5	105.0	105.0	102.2	2.74	38.282 CC, ES		
800.0	800.0	796.5	796.5	3.5	0.0	89.91	0.2	106.6	106.6	103.5	3.11	34.329		
900.0	900.0	892.8	892.7	3.9	0.0	90.49	-1.0	111.3	111.5	108.1	3.46	32.240		
1,000.0	1,000.0	988.7	988.2	4.2	0.0	91.35	-2.8	119.1	119.7	115.9	3.80	31.477		
1,100.0	1,100.0	1,083.9	1,082.8	4.6	0.0	92.37	-5.4	130.0	131.2	127.1	4.14	31.699		
1,200.0	1,200.0	1,178.3	1,176.1	5.0	0.0	93.44	-8.6	143.7	146.0	141.5	4.47	32.676		
1,300.0	1,300.0	1,271.7	1,267.9	5.3	0.0	-81.79	-12.6	160.3	163.7	159.0	4.75	34.460		
1,400.0	1,399.8	1,364.1	1,358.2	6.0	0.0	-81.89	-17.1	179.5	184.1	179.1	5.04	36.551		
1,500.0	1,499.5	1,455.2	1,446.5	6.3	0.0	-82.73	-22.3	201.3	207.3	201.9	5.33	38.892		
1,600.0	1,599.2	1,544.9	1,532.7	6.6	0.0	-83.46	-28.0	225.3	233.4	227.8	5.63	41.457		
1,700.0	1,698.8	1,633.1	1,616.7	6.9	0.0	-83.91	-34.2	251.5	262.5	256.6	5.93	44.257		
1,800.0	1,798.5	1,722.3	1,700.8	7.3	0.0	-84.16	-41.0	280.5	294.4	288.1	6.24	47.171		
1,900.0	1,898.1	1,816.9	1,789.7	7.6	0.0	-84.35	-48.4	311.7	326.9	320.3	6.58	49.670		
2,000.0	1,997.8	1,911.4	1,878.7	8.0	0.0	-84.50	-55.8	343.0	359.4	352.4	6.92	51.904		
2,100.0	2,097.4	2,006.0	1,967.6	8.3	0.0	-84.63	-63.2	374.2	391.9	384.6	7.27	53.909		
2,200.0	2,197.1	2,100.6	2,056.6	8.7	0.0	-84.74	-70.6	405.5	424.4	416.8	7.62	55.717		
2,300.0	2,296.7	2,195.1	2,145.5	9.0	0.0	-84.84	-78.0	436.7	456.9	448.9	7.97	57.353		
2,400.0	2,396.4	2,289.7	2,234.5	9.4	0.0	-84.92	-85.4	468.0	489.4	481.1	8.32	58.841		
2,500.0	2,496.0	2,384.3	2,323.4	9.7	0.0	-84.99	-92.8	499.3	521.9	513.2	8.67	60.198		
2,600.0	2,595.7	2,478.8	2,412.4	10.1	0.0	-85.05	-100.2	530.5	554.4	545.4	9.02	61.440		
2,700.0	2,695.3	2,573.4	2,501.3	10.4	0.0	-85.11	-107.6	561.8	586.9	577.5	9.38	62.580		
2,800.0	2,795.0	2,668.0	2,590.2	10.8	0.0	-85.16	-115.1	593.0	619.4	609.7	9.73	63.630		
2,900.0	2,894.7	2,762.5	2,679.2	11.1	0.0	-85.21	-122.5	624.3	651.9	641.8	10.09	64.600		
3,000.0	2,994.3	2,857.1	2,768.1	11.5	0.0	-85.25	-129.9	655.5	684.4	674.0	10.45	65.497		
3,100.0	3,094.0	2,951.7	2,857.1	11.9	0.0	-85.28	-137.3	686.8	716.9	706.1	10.81	66.331		
3,200.0	3,193.6	3,046.3	2,946.0	12.2	0.0	-85.32	-144.7	718.1	749.4	738.3	11.17	67.107		
3,300.0	3,293.3	3,140.8	3,035.0	12.6	0.0	-85.35	-152.1	749.3	781.9	770.4	11.53	67.830		
3,400.0	3,392.9	3,235.4	3,123.9	13.0	0.0	-85.38	-159.5	780.6	814.4	802.5	11.89	68.505		
3,500.0	3,492.6	3,330.0	3,212.9	13.3	0.0	-85.40	-166.9	811.8	846.9	834.7	12.25	69.138		
3,600.0	3,592.2	3,424.5	3,301.8	13.7	0.0	-85.43	-174.3	843.1	879.5	866.8	12.61	69.732		
3,700.0	3,691.9	3,519.1	3,390.8	14.1	0.0	-85.45	-181.7	874.3	912.0	899.0	12.97	70.289		
3,800.0	3,791.5	3,613.7	3,479.7	14.4	0.0	-85.47	-189.1	905.6	944.5	931.1	13.34	70.814		
3,900.0	3,891.2	3,708.2	3,568.7	14.8	0.0	-85.49	-196.5	936.8	977.0	963.3	13.70	71.309		
4,000.0	3,990.8	3,802.8	3,657.6	15.2	0.0	-85.51	-203.9	968.1	1,009.5	995.4	14.06	71.776		
4,100.0	4,090.5	3,897.4	3,746.5	15.6	0.0	-85.53	-211.3	999.4	1,042.0	1,027.6	14.43	72.217		
4,200.0	4,190.1	3,991.9	3,835.5	15.9	0.0	-85.55	-218.7	1,030.6	1,074.5	1,059.7	14.79	72.635		
4,300.0	4,289.8	4,086.5	3,924.4	16.3	0.0	-85.56	-226.1	1,061.9	1,107.0	1,091.8	15.16	73.031		
4,400.0	4,389.5	4,181.1	4,013.4	16.7	0.0	-85.58	-233.5	1,093.1	1,139.5	1,124.0	15.52	73.407		
4,500.0	4,489.1	4,275.6	4,102.3	17.0	0.0	-85.59	-240.9	1,124.4	1,172.0	1,156.1	15.89	73.764		
4,600.0	4,588.8	4,370.2	4,191.3	17.4	0.0	-85.60	-248.3	1,155.6	1,204.5	1,188.3	16.25	74.104		
4,700.0	4,688.4	4,464.8	4,280.2	17.8	0.0	-85.61	-255.7	1,186.9	1,237.0	1,220.4	16.62	74.427		
4,800.0	4,788.1	4,559.3	4,369.2	18.2	0.0	-85.63	-263.1	1,218.2	1,269.6	1,252.6	16.99	74.736		
4,900.0	4,887.7	4,653.9	4,458.1	18.6	0.0	-85.64	-270.5	1,249.4	1,302.1	1,284.7	17.35	75.030		
5,000.0	4,987.4	4,748.5	4,547.1	18.9	0.0	-85.65	-277.9	1,280.7	1,334.6	1,316.8	17.72	75.310		
5,100.0	5,087.0	4,843.0	4,636.0	19.3	0.0	-85.66	-285.3	1,311.9	1,367.1	1,349.0	18.09	75.578		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,186.7	4,937.6	4,724.9	19.7	0.0	-85.67	-292.7	1,343.2	1,399.6	1,381.1	18.46	75.835		
5,300.0	5,286.3	5,032.2	4,813.9	20.1	0.0	-85.68	-300.1	1,374.4	1,432.1	1,413.3	18.82	76.080		
5,400.0	5,386.0	5,126.8	4,902.8	20.4	0.0	-85.68	-307.5	1,405.7	1,464.6	1,445.4	19.19	76.316		
5,500.0	5,485.6	5,221.3	4,991.8	20.8	0.0	-85.69	-314.9	1,437.0	1,497.1	1,477.6	19.56	76.541		
5,600.0	5,585.3	5,315.9	5,080.7	21.2	0.0	-85.70	-322.3	1,468.2	1,529.6	1,509.7	19.93	76.757		
5,700.0	5,684.9	5,410.5	5,169.7	21.6	0.0	-85.71	-329.7	1,499.5	1,562.1	1,541.8	20.30	76.965		
5,800.0	5,784.6	5,505.0	5,258.6	22.0	0.0	-85.72	-337.1	1,530.7	1,594.6	1,574.0	20.67	77.164		
5,900.0	5,884.3	5,599.6	5,347.6	22.3	0.0	-85.72	-344.5	1,562.0	1,627.1	1,606.1	21.03	77.355		
6,000.0	5,983.9	5,694.2	5,436.5	22.7	0.0	-85.73	-351.9	1,593.2	1,659.7	1,638.3	21.40	77.539		
6,100.0	6,083.6	5,788.7	5,525.5	23.1	0.0	-85.74	-359.3	1,624.5	1,692.2	1,670.4	21.77	77.717		
6,200.0	6,183.2	5,883.3	5,614.4	23.5	0.0	-85.74	-366.7	1,655.8	1,724.7	1,702.5	22.14	77.887		
6,300.0	6,282.9	5,977.9	5,703.3	23.9	0.0	-85.75	-374.1	1,687.0	1,757.2	1,734.7	22.51	78.051		
6,400.0	6,382.5	6,072.4	5,792.3	24.2	0.0	-85.75	-381.6	1,718.3	1,789.7	1,766.8	22.88	78.209		
6,500.0	6,482.2	6,167.0	5,881.2	24.6	0.0	-85.76	-389.0	1,749.5	1,822.2	1,799.0	23.25	78.362		
6,600.0	6,581.8	6,261.6	5,970.2	25.0	0.0	-85.77	-396.4	1,780.8	1,854.7	1,831.1	23.62	78.509		
6,700.0	6,681.5	6,356.1	6,059.1	25.4	0.0	-85.77	-403.8	1,812.0	1,887.2	1,863.2	24.00	78.650		
6,800.0	6,781.1	6,450.7	6,148.1	25.8	0.0	-85.78	-411.2	1,843.3	1,919.7	1,895.4	24.37	78.787		
6,900.0	6,880.8	6,545.3	6,237.0	26.1	0.0	-81.20	-418.6	1,874.5	1,952.2	1,927.5	24.73	78.944		
7,000.0	6,980.6	6,638.8	6,325.0	26.7	0.0	84.68	-425.9	1,905.5	1,984.6	1,959.3	25.30	78.433		
7,100.0	7,077.8	6,728.5	6,409.4	27.0	0.0	83.32	-432.9	1,935.1	2,016.3	1,990.8	25.52	79.019		
7,200.0	7,169.6	6,811.9	6,487.8	27.3	0.0	81.61	-439.4	1,962.7	2,047.1	2,021.4	25.68	79.727		
7,300.0	7,253.2	6,886.2	6,557.7	27.6	0.0	80.00	-445.3	1,987.2	2,077.0	2,051.2	25.80	80.511		
7,400.0	7,326.0	6,949.3	6,617.0	27.8	0.0	78.42	-450.2	2,008.1	2,106.3	2,080.4	25.90	81.313		
7,500.0	7,385.9	7,030.8	6,693.8	28.0	0.0	77.46	-452.9	2,035.0	2,134.9	2,108.8	26.12	81.737		
7,600.0	7,430.9	7,154.3	6,809.0	28.1	0.0	77.59	-435.3	2,075.3	2,161.7	2,135.2	26.52	81.510		
7,700.0	7,459.8	7,335.6	6,965.3	28.3	0.0	78.98	-363.2	2,129.5	2,185.0	2,157.9	27.09	80.666		
7,800.0	7,471.7	7,841.3	7,212.9	28.5	0.0	83.29	50.5	2,212.9	2,198.2	2,170.2	27.95	78.657		
7,900.0	7,472.0	8,001.0	7,217.0	28.7	0.0	83.34	210.0	2,213.1	2,198.3	2,170.0	28.36	77.523		
8,000.0	7,472.0	8,101.0	7,217.0	29.1	0.0	83.34	310.0	2,212.2	2,198.3	2,169.5	28.84	76.228		
8,100.0	7,472.0	8,201.0	7,217.0	29.7	0.0	83.34	410.0	2,211.4	2,198.3	2,168.9	29.42	74.726		
8,200.0	7,472.0	8,301.0	7,217.0	30.3	0.0	83.34	510.0	2,210.6	2,198.3	2,168.3	30.09	73.058		
8,300.0	7,472.0	8,401.0	7,217.0	31.0	0.0	83.34	610.0	2,209.8	2,198.3	2,167.5	30.85	71.265		
8,400.0	7,472.0	8,501.0	7,217.0	31.8	0.0	83.34	710.0	2,208.9	2,198.3	2,166.7	31.68	69.384		
8,500.0	7,472.0	8,601.0	7,217.0	32.7	0.0	83.34	810.0	2,208.1	2,198.3	2,165.7	32.59	67.448		
8,600.0	7,472.0	8,701.0	7,217.0	33.7	0.0	83.34	909.9	2,207.3	2,198.3	2,164.8	33.57	65.485		
8,700.0	7,472.0	8,801.0	7,217.0	34.8	0.0	83.34	1,009.9	2,206.4	2,198.3	2,163.7	34.61	63.521		
8,800.0	7,472.0	8,901.0	7,217.0	35.9	0.0	83.34	1,109.9	2,205.6	2,198.3	2,162.6	35.70	61.573		
8,900.0	7,472.0	9,001.0	7,217.0	37.0	0.0	83.34	1,209.9	2,204.8	2,198.3	2,161.5	36.85	59.658		
9,000.0	7,472.0	9,101.0	7,217.0	38.2	0.0	83.34	1,309.9	2,204.0	2,198.3	2,160.3	38.04	57.788		
9,100.0	7,472.0	9,201.0	7,217.0	39.4	0.0	83.34	1,409.9	2,203.1	2,198.3	2,159.1	39.28	55.971		
9,200.0	7,472.0	9,301.0	7,217.0	40.7	0.0	83.34	1,509.9	2,202.3	2,198.3	2,157.8	40.55	54.214		
9,300.0	7,472.0	9,401.0	7,217.0	42.0	0.0	83.34	1,609.9	2,201.5	2,198.3	2,156.5	41.86	52.519		
9,400.0	7,472.0	9,501.0	7,217.0	43.4	0.0	83.34	1,709.9	2,200.7	2,198.3	2,155.1	43.20	50.890		
9,500.0	7,472.0	9,601.0	7,217.0	44.7	0.0	83.34	1,809.9	2,199.8	2,198.3	2,153.8	44.57	49.327		
9,600.0	7,472.0	9,701.0	7,217.0	46.2	0.0	83.34	1,909.9	2,199.0	2,198.3	2,152.4	45.96	47.829		
9,700.0	7,472.0	9,801.0	7,217.0	47.6	0.0	83.34	2,009.9	2,198.2	2,198.3	2,151.0	47.38	46.397		
9,800.0	7,472.0	9,901.0	7,217.0	49.0	0.0	83.34	2,109.9	2,197.4	2,198.3	2,149.5	48.82	45.027		
9,900.0	7,472.0	10,001.0	7,217.0	50.5	0.0	83.34	2,209.9	2,196.5	2,198.3	2,148.1	50.28	43.719		
10,000.0	7,472.0	10,101.0	7,217.0	52.0	0.0	83.34	2,309.9	2,195.7	2,198.3	2,146.6	51.76	42.469		
10,100.0	7,472.0	10,201.0	7,217.0	53.5	0.0	83.34	2,409.9	2,194.9	2,198.3	2,145.1	53.26	41.276		
10,200.0	7,472.0	10,301.0	7,217.0	55.0	0.0	83.34	2,509.9	2,194.0	2,198.3	2,143.6	54.77	40.136		
10,300.0	7,472.0	10,401.0	7,217.0	56.5	0.0	83.34	2,609.9	2,193.2	2,198.3	2,142.0	56.30	39.048		

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 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - CONNER 19-18-4NXH - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	7,472.0	10,501.0	7,217.0	58.1	0.0	83.34	2,709.9	2,192.4	2,198.3	2,140.5	57.84	38.009		
10,500.0	7,472.0	10,601.0	7,217.0	59.6	0.0	83.34	2,809.9	2,191.6	2,198.3	2,139.0	59.39	37.016		
10,600.0	7,472.0	10,701.0	7,217.0	61.2	0.0	83.34	2,909.9	2,190.7	2,198.3	2,137.4	60.95	36.068		
10,700.0	7,472.0	10,801.0	7,217.0	62.8	0.0	83.34	3,009.9	2,189.9	2,198.3	2,135.8	62.52	35.161		
10,800.0	7,472.0	10,901.0	7,217.0	64.4	0.0	83.34	3,109.9	2,189.1	2,198.3	2,134.2	64.11	34.293		
10,900.0	7,472.0	11,001.0	7,217.0	66.0	0.0	83.34	3,209.9	2,188.3	2,198.3	2,132.6	65.70	33.462		
11,000.0	7,472.0	11,101.0	7,217.0	67.6	0.0	83.34	3,309.9	2,187.4	2,198.3	2,131.0	67.30	32.667		
11,100.0	7,472.0	11,201.0	7,217.0	69.2	0.0	83.34	3,409.9	2,186.6	2,198.3	2,129.4	68.90	31.905		
11,200.0	7,472.0	11,301.0	7,217.0	70.8	0.0	83.34	3,509.9	2,185.8	2,198.3	2,127.8	70.52	31.175		
11,300.0	7,472.0	11,401.0	7,217.0	72.5	0.0	83.34	3,609.9	2,184.9	2,198.3	2,126.2	72.14	30.475		
11,400.0	7,472.0	11,501.0	7,217.0	74.1	0.0	83.34	3,709.9	2,184.1	2,198.3	2,124.6	73.76	29.803		
11,500.0	7,472.0	11,601.0	7,217.0	75.7	0.0	83.34	3,809.8	2,183.3	2,198.3	2,122.9	75.40	29.157		
11,600.0	7,472.0	11,701.0	7,217.0	77.4	0.0	83.34	3,909.8	2,182.5	2,198.3	2,121.3	77.03	28.537		
11,700.0	7,472.0	11,801.0	7,217.0	79.0	0.0	83.34	4,009.8	2,181.6	2,198.3	2,119.7	78.68	27.941		
11,800.0	7,472.0	11,901.0	7,217.0	80.7	0.0	83.34	4,109.8	2,180.8	2,198.3	2,118.0	80.33	27.368		
11,900.0	7,472.0	12,001.0	7,217.0	82.4	0.0	83.34	4,209.8	2,180.0	2,198.3	2,116.4	81.98	26.816		
12,000.0	7,472.0	12,101.0	7,217.0	84.0	0.0	83.34	4,309.8	2,179.2	2,198.3	2,114.7	83.63	26.285		
12,100.0	7,472.0	12,201.0	7,217.0	85.7	0.0	83.34	4,409.8	2,178.3	2,198.3	2,113.0	85.29	25.773		
12,200.0	7,472.0	12,301.0	7,217.0	87.4	0.0	83.34	4,509.8	2,177.5	2,198.3	2,111.4	86.96	25.280		
12,300.0	7,472.0	12,401.0	7,217.0	89.0	0.0	83.34	4,609.8	2,176.7	2,198.3	2,109.7	88.63	24.804		
12,400.0	7,472.0	12,501.0	7,217.0	90.7	0.0	83.34	4,709.8	2,175.9	2,198.3	2,108.0	90.30	24.345		
12,500.0	7,472.0	12,601.0	7,217.0	92.4	0.0	83.34	4,809.8	2,175.0	2,198.3	2,106.4	91.97	23.902		
12,600.0	7,472.0	12,701.0	7,217.0	94.1	0.0	83.34	4,909.8	2,174.2	2,198.3	2,104.7	93.65	23.474		
12,700.0	7,472.0	12,801.0	7,217.0	95.8	0.0	83.34	5,009.8	2,173.4	2,198.3	2,103.0	95.33	23.060		
12,800.0	7,472.0	12,901.0	7,217.0	97.5	0.0	83.34	5,109.8	2,172.5	2,198.3	2,101.3	97.01	22.660		
12,900.0	7,472.0	13,001.0	7,217.0	99.2	0.0	83.34	5,209.8	2,171.7	2,198.3	2,099.6	98.70	22.273		
13,000.0	7,472.0	13,101.0	7,217.0	100.9	0.0	83.34	5,309.8	2,170.9	2,198.3	2,098.0	100.39	21.899		
13,100.0	7,472.0	13,201.0	7,217.0	102.6	0.0	83.34	5,409.8	2,170.1	2,198.3	2,096.3	102.08	21.536		
13,200.0	7,472.0	13,301.0	7,217.0	104.3	0.0	83.34	5,509.8	2,169.2	2,198.3	2,094.6	103.77	21.185		
13,300.0	7,472.0	13,401.0	7,217.0	106.0	0.0	83.34	5,609.8	2,168.4	2,198.3	2,092.9	105.46	20.844		
13,400.0	7,472.0	13,501.0	7,217.0	107.7	0.0	83.34	5,709.8	2,167.6	2,198.3	2,091.2	107.16	20.514		
13,500.0	7,472.0	13,601.0	7,217.0	109.4	0.0	83.34	5,809.8	2,166.8	2,198.3	2,089.5	108.86	20.194		
13,600.0	7,472.0	13,701.0	7,217.0	111.1	0.0	83.34	5,909.8	2,165.9	2,198.3	2,087.8	110.56	19.884		
13,700.0	7,472.0	13,801.0	7,217.0	112.8	0.0	83.34	6,009.8	2,165.1	2,198.3	2,086.1	112.26	19.582		
13,800.0	7,472.0	13,901.0	7,217.0	114.5	0.0	83.34	6,109.8	2,164.3	2,198.3	2,084.4	113.96	19.290		
13,900.0	7,472.0	14,001.0	7,217.0	116.2	0.0	83.34	6,209.8	2,163.5	2,198.3	2,082.7	115.67	19.005		
14,000.0	7,472.0	14,101.0	7,217.0	118.0	0.0	83.34	6,309.8	2,162.6	2,198.3	2,081.0	117.38	18.729		
14,100.0	7,472.0	14,201.0	7,217.0	119.7	0.0	83.34	6,409.8	2,161.8	2,198.3	2,079.3	119.08	18.460		
14,100.0	7,472.0	14,201.0	7,217.0	119.7	0.0	83.34	6,409.8	2,161.8	2,198.3	2,079.3	119.08	18.460		
14,200.0	7,472.0	14,300.9	7,217.0	121.4	0.0	83.34	6,509.7	2,161.0	2,200.0	2,079.2	120.80	18.212		
14,300.0	7,472.0	14,400.9	7,217.0	123.1	0.0	83.35	6,609.7	2,160.1	2,202.9	2,080.4	122.52	17.980		
14,400.0	7,472.0	14,500.8	7,217.0	124.9	0.0	83.36	6,709.6	2,159.3	2,205.8	2,081.6	124.25	17.754		
14,500.0	7,472.0	14,600.8	7,217.0	126.6	0.0	83.37	6,809.6	2,158.5	2,208.7	2,082.8	125.97	17.534		
14,600.0	7,472.0	14,700.8	7,217.0	128.3	0.0	83.38	6,909.6	2,157.7	2,211.6	2,084.0	127.70	17.320		
14,700.0	7,472.0	14,800.7	7,217.0	130.1	0.0	83.39	7,009.5	2,156.8	2,214.6	2,085.1	129.42	17.111		
14,800.0	7,472.0	14,900.7	7,217.0	131.8	0.0	83.39	7,109.5	2,156.0	2,217.5	2,086.3	131.15	16.908		
14,900.0	7,472.0	15,000.6	7,217.0	133.5	0.0	83.40	7,209.4	2,155.2	2,220.4	2,087.5	132.88	16.709		
15,000.0	7,472.0	15,100.6	7,217.0	135.3	0.0	83.41	7,309.4	2,154.4	2,223.3	2,088.7	134.61	16.516		
16,900.0	7,472.0	16,999.7	7,217.0	168.2	0.0	83.41	9,208.4	2,138.7	2,222.5	2,055.1	167.41	13.275		
17,000.0	7,472.0	17,099.6	7,217.0	170.0	0.0	83.40	9,308.3	2,137.8	2,219.1	2,049.9	169.13	13.120		
17,100.0	7,472.0	17,199.6	7,217.0	171.7	0.0	83.39	9,408.3	2,137.0	2,215.7	2,044.8	170.85	12.969		
17,200.0	7,472.0	17,299.5	7,217.0	173.4	0.0	83.38	9,508.2	2,136.2	2,212.2	2,039.7	172.56	12.820		

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 19-18-2NCH
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 19-18-2NCH	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	
17,300.0	7,472.0	17,399.5	7,217.0	175.2	0.0	83.37	9,608.2	2,135.4	2,208.8	2,034.5	174.28	12.674	
17,400.0	7,472.0	17,499.4	7,217.0	176.9	0.0	83.36	9,708.1	2,134.5	2,205.4	2,029.4	176.00	12.531	
17,500.0	7,472.0	17,599.3	7,217.0	178.6	0.0	83.35	9,808.0	2,133.7	2,202.0	2,024.3	177.72	12.390	
17,600.0	7,472.0	17,699.3	7,217.0	180.3	0.0	83.34	9,908.0	2,132.9	2,198.6	2,019.1	179.44	12.252	
17,606.3	7,472.0	17,705.6	7,217.0	180.5	0.0	83.33	9,914.3	2,132.8	2,198.3	2,018.8	179.55	12.244 SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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		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)						
13,700.0	7,472.0	7,403.0	7,403.0	112.8	27.5	90.00	8,132.9	75.2	2,143.2	2,086.3	56.88	37.677		
13,800.0	7,472.0	7,403.0	7,403.0	114.5	27.5	90.00	8,132.9	75.2	2,043.3	1,986.3	57.01	35.842		
13,900.0	7,472.0	7,403.0	7,403.0	116.2	27.5	90.00	8,132.9	75.2	1,943.5	1,886.3	57.15	34.007		
14,000.0	7,472.0	7,403.0	7,403.0	118.0	27.5	90.00	8,132.9	75.2	1,843.6	1,786.3	57.31	32.172		
14,100.0	7,472.0	7,403.0	7,403.0	119.7	27.5	90.00	8,132.9	75.2	1,743.8	1,686.4	57.48	30.338		
14,200.0	7,472.0	7,403.0	7,403.0	121.4	27.5	90.00	8,132.9	75.2	1,644.2	1,586.5	57.72	28.485		
14,300.0	7,472.0	7,403.0	7,403.0	123.1	27.5	90.00	8,132.9	75.2	1,544.7	1,486.7	58.04	26.615		
14,400.0	7,472.0	7,403.0	7,403.0	124.9	27.5	90.00	8,132.9	75.2	1,445.3	1,386.9	58.42	24.738		
14,500.0	7,472.0	7,403.0	7,403.0	126.6	27.5	90.00	8,132.9	75.2	1,345.9	1,287.1	58.89	22.854		
14,600.0	7,472.0	7,403.0	7,403.0	128.3	27.5	90.00	8,132.9	75.2	1,246.7	1,187.2	59.48	20.961		
14,700.0	7,472.0	7,403.0	7,403.0	130.1	27.5	90.00	8,132.9	75.2	1,147.6	1,087.4	60.22	19.057		
14,800.0	7,472.0	7,403.0	7,403.0	131.8	27.5	90.00	8,132.9	75.2	1,048.7	987.5	61.17	17.143		
14,900.0	7,472.0	7,403.0	7,403.0	133.5	27.5	90.00	8,132.9	75.2	950.0	887.6	62.42	15.219		
15,000.0	7,472.0	7,403.0	7,403.0	135.3	27.5	90.00	8,132.9	75.2	851.6	787.5	64.10	13.286		
15,100.0	7,472.0	7,403.0	7,403.0	137.0	27.5	90.00	8,132.9	75.2	753.7	687.3	66.39	11.352		
15,200.0	7,472.0	7,403.0	7,403.0	138.7	27.5	90.00	8,132.9	75.2	656.3	586.7	69.62	9.427		
15,300.0	7,472.0	7,403.0	7,403.0	140.5	27.5	90.00	8,132.9	75.2	559.9	485.6	74.31	7.534		
15,400.0	7,472.0	7,403.0	7,403.0	142.2	27.5	90.00	8,132.9	75.2	465.0	383.6	81.37	5.714		
15,500.0	7,472.0	7,403.0	7,403.0	144.0	27.5	90.00	8,132.9	75.2	372.8	280.3	92.45	4.032		
15,600.0	7,472.0	7,403.0	7,403.0	145.7	27.5	90.00	8,132.9	75.2	285.8	175.3	110.51	2.587		
15,700.0	7,472.0	7,403.0	7,403.0	147.5	27.5	90.00	8,132.9	75.2	210.8	71.3	139.51	1.511		
15,800.0	7,472.0	7,403.0	7,403.0	149.2	27.5	90.00	8,132.9	75.2	164.9	-7.3	172.18	0.957 Level 1		
15,836.3	7,472.0	7,403.0	7,403.0	149.8	27.5	90.00	8,132.9	75.2	160.8	-16.1	176.86	0.909 Level 1, CC, ES, SF		
15,900.0	7,472.0	7,403.0	7,403.0	150.9	27.5	90.00	8,132.9	75.2	173.0	4.2	168.73	1.025 Level 2		
16,000.0	7,472.0	7,403.0	7,403.0	152.7	27.5	90.00	8,132.9	75.2	228.8	90.9	137.82	1.660		
16,100.0	7,472.0	7,403.0	7,403.0	154.4	27.5	90.00	8,132.9	75.2	306.0	193.7	112.23	2.726		
16,200.0	7,472.0	7,403.0	7,403.0	156.2	27.5	90.00	8,132.9	75.2	392.8	297.3	95.46	4.114		
16,300.0	7,472.0	7,403.0	7,403.0	157.9	27.5	90.00	8,132.9	75.2	484.7	399.8	84.84	5.713		
16,400.0	7,472.0	7,403.0	7,403.0	159.6	27.5	90.00	8,132.9	75.2	579.2	501.4	77.89	7.437		
16,500.0	7,472.0	7,403.0	7,403.0	161.3	27.5	90.00	8,132.9	75.2	675.4	602.2	73.17	9.231		
16,600.0	7,472.0	7,403.0	7,403.0	163.1	27.5	90.00	8,132.9	75.2	772.5	702.7	69.86	11.058		
16,700.0	7,472.0	7,403.0	7,403.0	164.8	27.5	90.00	8,132.9	75.2	870.3	802.8	67.49	12.896		
16,800.0	7,472.0	7,403.0	7,403.0	166.5	27.5	90.00	8,132.9	75.2	968.5	902.8	65.74	14.732		
16,900.0	7,472.0	7,403.0	7,403.0	168.2	27.5	90.00	8,132.9	75.2	1,067.1	1,002.6	64.44	16.560		
17,000.0	7,472.0	7,403.0	7,403.0	170.0	27.5	90.00	8,132.9	75.2	1,165.9	1,102.4	63.45	18.375		
17,100.0	7,472.0	7,403.0	7,403.0	171.7	27.5	90.00	8,132.9	75.2	1,264.9	1,202.2	62.69	20.176		
17,200.0	7,472.0	7,403.0	7,403.0	173.4	27.5	90.00	8,132.9	75.2	1,364.0	1,301.9	62.11	21.962		
17,300.0	7,472.0	7,403.0	7,403.0	175.2	27.5	90.00	8,132.9	75.2	1,463.3	1,401.6	61.65	23.734		
17,400.0	7,472.0	7,403.0	7,403.0	176.9	27.5	90.00	8,132.9	75.2	1,562.6	1,501.3	61.30	25.493		
17,500.0	7,472.0	7,403.0	7,403.0	178.6	27.5	90.00	8,132.9	75.2	1,662.1	1,601.0	61.02	27.238		
17,600.0	7,472.0	7,403.0	7,403.0	180.3	27.5	90.00	8,132.9	75.2	1,761.6	1,700.8	60.80	28.971		
17,606.3	7,472.0	7,403.0	7,403.0	180.5	27.5	90.00	8,132.9	75.2	1,767.8	1,707.0	60.79	29.080		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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 Smith #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			
15,800.0	7,472.0	7,403.0	7,403.0	149.2	27.5	-90.00	9,758.1	-1,506.2	2,191.5	2,066.8	124.66	17.580			
15,900.0	7,472.0	7,403.0	7,403.0	150.9	27.5	-90.00	9,758.1	-1,506.2	2,113.9	1,985.1	128.86	16.405			
16,000.0	7,472.0	7,403.0	7,403.0	152.7	27.5	-90.00	9,758.1	-1,506.2	2,039.0	1,905.7	133.35	15.290			
16,100.0	7,472.0	7,403.0	7,403.0	154.4	27.5	-90.00	9,758.1	-1,506.2	1,968.7	1,830.5	138.26	14.239			
16,200.0	7,472.0	7,403.0	7,403.0	156.2	27.5	-90.00	9,758.1	-1,506.2	1,902.6	1,759.1	143.47	13.261			
16,300.0	7,472.0	7,403.0	7,403.0	157.9	27.5	-90.00	9,758.1	-1,506.2	1,839.5	1,690.6	148.88	12.356			
16,400.0	7,472.0	7,403.0	7,403.0	159.6	27.5	-90.00	9,758.1	-1,506.2	1,779.8	1,625.4	154.46	11.523			
16,500.0	7,472.0	7,403.0	7,403.0	161.3	27.5	-90.00	9,758.1	-1,506.2	1,723.9	1,563.7	160.18	10.762			
16,600.0	7,472.0	7,403.0	7,403.0	163.1	27.5	-90.00	9,758.1	-1,506.2	1,672.1	1,506.1	165.96	10.075			
16,700.0	7,472.0	7,403.0	7,403.0	164.8	27.5	-90.00	9,758.1	-1,506.2	1,624.7	1,453.0	171.75	9.460			
16,800.0	7,472.0	7,403.0	7,403.0	166.5	27.5	-90.00	9,758.1	-1,506.2	1,582.3	1,404.9	177.46	8.917			
16,900.0	7,472.0	7,403.0	7,403.0	168.2	27.5	-90.00	9,758.1	-1,506.2	1,545.2	1,362.3	182.97	8.445			
17,000.0	7,472.0	7,403.0	7,403.0	170.0	27.5	-90.00	9,758.1	-1,506.2	1,513.8	1,325.7	188.17	8.045			
17,100.0	7,472.0	7,403.0	7,403.0	171.7	27.5	-90.00	9,758.1	-1,506.2	1,488.5	1,295.6	192.95	7.714			
17,200.0	7,472.0	7,403.0	7,403.0	173.4	27.5	-90.00	9,758.1	-1,506.2	1,469.6	1,272.4	197.19	7.453			
17,300.0	7,472.0	7,403.0	7,403.0	175.2	27.5	-90.00	9,758.1	-1,506.2	1,457.3	1,256.5	200.77	7.258			
17,400.0	7,472.0	7,403.0	7,403.0	176.9	27.5	-90.00	9,758.1	-1,506.2	1,451.8	1,248.1	203.62	7.130			
17,430.1	7,472.0	7,403.0	7,403.0	177.4	27.5	-90.00	9,758.1	-1,506.2	1,451.4	1,247.1	204.32	7.104 CC, ES			
17,500.0	7,472.0	7,403.0	7,403.0	178.6	27.5	-90.00	9,758.1	-1,506.2	1,453.1	1,247.5	205.66	7.066			
17,600.0	7,472.0	7,403.0	7,403.0	180.3	27.5	-90.00	9,758.1	-1,506.2	1,461.4	1,254.5	206.88	7.064 SF			
17,606.3	7,472.0	7,403.0	7,403.0	180.5	27.5	-90.00	9,758.1	-1,506.2	1,462.1	1,255.2	206.93	7.066			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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 - Milheim #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		
11,700.0	7,472.0	7,403.0	7,403.0	79.0	27.5	-90.00	5,915.7	-994.4	2,164.9	2,094.7	70.26	30.813		
11,800.0	7,472.0	7,403.0	7,403.0	80.7	27.5	-90.00	5,915.7	-994.4	2,076.2	2,004.1	72.01	28.830		
11,900.0	7,472.0	7,403.0	7,403.0	82.4	27.5	-90.00	5,915.7	-994.4	1,988.5	1,914.5	73.95	26.888		
12,000.0	7,472.0	7,403.0	7,403.0	84.0	27.5	-90.00	5,915.7	-994.4	1,902.0	1,825.9	76.10	24.994		
12,100.0	7,472.0	7,403.0	7,403.0	85.7	27.5	-90.00	5,915.7	-994.4	1,816.9	1,738.4	78.47	23.154		
12,200.0	7,472.0	7,403.0	7,403.0	87.4	27.5	-90.00	5,915.7	-994.4	1,733.4	1,652.3	81.09	21.377		
12,300.0	7,472.0	7,403.0	7,403.0	89.0	27.5	-90.00	5,915.7	-994.4	1,651.8	1,567.8	83.98	19.669		
12,400.0	7,472.0	7,403.0	7,403.0	90.7	27.5	-90.00	5,915.7	-994.4	1,572.2	1,485.1	87.16	18.039		
12,500.0	7,472.0	7,403.0	7,403.0	92.4	27.5	-90.00	5,915.7	-994.4	1,495.2	1,404.5	90.65	16.495		
12,600.0	7,472.0	7,403.0	7,403.0	94.1	27.5	-90.00	5,915.7	-994.4	1,420.9	1,326.5	94.45	15.044		
12,700.0	7,472.0	7,403.0	7,403.0	95.8	27.5	-90.00	5,915.7	-994.4	1,350.1	1,251.5	98.59	13.694		
12,800.0	7,472.0	7,403.0	7,403.0	97.5	27.5	-90.00	5,915.7	-994.4	1,283.1	1,180.0	103.03	12.453		
12,900.0	7,472.0	7,403.0	7,403.0	99.2	27.5	-90.00	5,915.7	-994.4	1,220.6	1,112.8	107.76	11.327		
13,000.0	7,472.0	7,403.0	7,403.0	100.9	27.5	-90.00	5,915.7	-994.4	1,163.4	1,050.7	112.69	10.323		
13,100.0	7,472.0	7,403.0	7,403.0	102.6	27.5	-90.00	5,915.7	-994.4	1,112.2	994.5	117.74	9.446		
13,200.0	7,472.0	7,403.0	7,403.0	104.3	27.5	-90.00	5,915.7	-994.4	1,068.0	945.2	122.74	8.701		
13,300.0	7,472.0	7,403.0	7,403.0	106.0	27.5	-90.00	5,915.7	-994.4	1,031.6	904.1	127.50	8.091		
13,400.0	7,472.0	7,403.0	7,403.0	107.7	27.5	-90.00	5,915.7	-994.4	1,003.9	872.1	131.80	7.617		
13,500.0	7,472.0	7,403.0	7,403.0	109.4	27.5	-90.00	5,915.7	-994.4	985.5	850.2	135.38	7.280		
13,600.0	7,472.0	7,403.0	7,403.0	111.1	27.5	-90.00	5,915.7	-994.4	977.2	839.1	138.05	7.078		
13,632.1	7,472.0	7,403.0	7,403.0	111.6	27.5	-90.00	5,915.7	-994.4	976.7	838.0	138.69	7.042 CC, ES		
13,700.0	7,472.0	7,403.0	7,403.0	112.8	27.5	-90.00	5,915.7	-994.4	979.0	839.3	139.67	7.010 SF		
13,800.0	7,472.0	7,403.0	7,403.0	114.5	27.5	-90.00	5,915.7	-994.4	991.0	850.8	140.18	7.069		
13,900.0	7,472.0	7,403.0	7,403.0	116.2	27.5	-90.00	5,915.7	-994.4	1,012.7	873.1	139.66	7.252		
14,000.0	7,472.0	7,403.0	7,403.0	118.0	27.5	-90.00	5,915.7	-994.4	1,043.7	905.4	138.23	7.550		
14,100.0	7,472.0	7,403.0	7,403.0	119.7	27.5	-90.00	5,915.7	-994.4	1,083.0	946.9	136.09	7.958		
14,200.0	7,472.0	7,403.0	7,403.0	121.4	27.5	-90.00	5,915.7	-994.4	1,128.3	994.9	133.42	8.457		
14,300.0	7,472.0	7,403.0	7,403.0	123.1	27.5	-90.00	5,915.7	-994.4	1,179.3	1,049.0	130.38	9.045		
14,400.0	7,472.0	7,403.0	7,403.0	124.9	27.5	-90.00	5,915.7	-994.4	1,236.4	1,109.2	127.15	9.724		
14,500.0	7,472.0	7,403.0	7,403.0	126.6	27.5	-90.00	5,915.7	-994.4	1,298.7	1,174.8	123.87	10.484		
14,600.0	7,472.0	7,403.0	7,403.0	128.3	27.5	-90.00	5,915.7	-994.4	1,365.4	1,244.8	120.61	11.321		
14,700.0	7,472.0	7,403.0	7,403.0	130.1	27.5	-90.00	5,915.7	-994.4	1,436.0	1,318.6	117.45	12.227		
14,800.0	7,472.0	7,403.0	7,403.0	131.8	27.5	-90.00	5,915.7	-994.4	1,510.0	1,395.5	114.43	13.196		
14,900.0	7,472.0	7,403.0	7,403.0	133.5	27.5	-90.00	5,915.7	-994.4	1,586.8	1,475.2	111.57	14.223		
15,000.0	7,472.0	7,403.0	7,403.0	135.3	27.5	-90.00	5,915.7	-994.4	1,666.0	1,557.1	108.88	15.302		
15,100.0	7,472.0	7,403.0	7,403.0	137.0	27.5	-90.00	5,915.7	-994.4	1,747.4	1,641.0	106.37	16.428		
15,200.0	7,472.0	7,403.0	7,403.0	138.7	27.5	-90.00	5,915.7	-994.4	1,830.6	1,726.6	104.03	17.598		
15,300.0	7,472.0	7,403.0	7,403.0	140.5	27.5	-90.00	5,915.7	-994.4	1,915.5	1,813.6	101.85	18.807		
15,400.0	7,472.0	7,403.0	7,403.0	142.2	27.5	-90.00	5,915.7	-994.4	2,001.7	1,901.9	99.83	20.051		
15,500.0	7,472.0	7,403.0	7,403.0	144.0	27.5	-90.00	5,915.7	-994.4	2,089.2	1,991.2	97.96	21.327		
15,600.0	7,472.0	7,403.0	7,403.0	145.7	27.5	-90.00	5,915.7	-994.4	2,177.7	2,081.5	96.22	22.632		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Price 7-19 (SI) - EXISTING - NO SURVEYS (SI)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,472.0	7,403.0	7,403.0	35.9	27.5	90.00	3,157.0	763.6	2,194.2	2,137.8	56.40	38.902		
8,900.0	7,472.0	7,403.0	7,403.0	37.0	27.5	90.00	3,157.0	763.6	2,100.7	2,043.9	56.71	37.040		
9,000.0	7,472.0	7,403.0	7,403.0	38.2	27.5	90.00	3,157.0	763.6	2,007.7	1,950.6	57.09	35.171		
9,100.0	7,472.0	7,403.0	7,403.0	39.4	27.5	90.00	3,157.0	763.6	1,915.5	1,858.0	57.53	33.296		
9,200.0	7,472.0	7,403.0	7,403.0	40.7	27.5	90.00	3,157.0	763.6	1,824.1	1,766.0	58.06	31.417		
9,300.0	7,472.0	7,403.0	7,403.0	42.0	27.5	90.00	3,157.0	763.6	1,733.7	1,675.0	58.69	29.538		
9,400.0	7,472.0	7,403.0	7,403.0	43.4	27.5	90.00	3,157.0	763.6	1,644.3	1,584.9	59.45	27.660		
9,500.0	7,472.0	7,403.0	7,403.0	44.7	27.5	90.00	3,157.0	763.6	1,556.3	1,495.9	60.35	25.788		
9,600.0	7,472.0	7,403.0	7,403.0	46.2	27.5	90.00	3,157.0	763.6	1,469.8	1,408.3	61.42	23.931		
9,700.0	7,472.0	7,403.0	7,403.0	47.6	27.5	90.00	3,157.0	763.6	1,385.1	1,322.4	62.69	22.095		
9,800.0	7,472.0	7,403.0	7,403.0	49.0	27.5	90.00	3,157.0	763.6	1,302.5	1,238.4	64.19	20.293		
9,900.0	7,472.0	7,403.0	7,403.0	50.5	27.5	90.00	3,157.0	763.6	1,222.6	1,156.7	65.95	18.538		
10,000.0	7,472.0	7,403.0	7,403.0	52.0	27.5	90.00	3,157.0	763.6	1,145.9	1,077.9	68.01	16.848		
10,100.0	7,472.0	7,403.0	7,403.0	53.5	27.5	90.00	3,157.0	763.6	1,073.0	1,002.6	70.39	15.242		
10,200.0	7,472.0	7,403.0	7,403.0	55.0	27.5	90.00	3,157.0	763.6	1,004.7	931.6	73.11	13.744		
10,300.0	7,472.0	7,403.0	7,403.0	56.5	27.5	90.00	3,157.0	763.6	942.2	866.0	76.12	12.377		
10,400.0	7,472.0	7,403.0	7,403.0	58.1	27.5	90.00	3,157.0	763.6	886.5	807.1	79.39	11.167		
10,500.0	7,472.0	7,403.0	7,403.0	59.6	27.5	90.00	3,157.0	763.6	839.1	756.3	82.77	10.138		
10,600.0	7,472.0	7,403.0	7,403.0	61.2	27.5	90.00	3,157.0	763.6	801.5	715.4	86.07	9.312		
10,700.0	7,472.0	7,403.0	7,403.0	62.8	27.5	90.00	3,157.0	763.6	774.9	685.9	89.03	8.705		
10,800.0	7,472.0	7,403.0	7,403.0	64.4	27.5	90.00	3,157.0	763.6	760.8	669.4	91.37	8.326		
10,858.9	7,472.0	7,403.0	7,403.0	65.3	27.5	90.00	3,157.0	763.6	758.5	666.1	92.38	8.210 CC, ES		
10,900.0	7,472.0	7,403.0	7,403.0	66.0	27.5	90.00	3,157.0	763.6	759.6	666.7	92.89	8.177 SF		
11,000.0	7,472.0	7,403.0	7,403.0	67.6	27.5	90.00	3,157.0	763.6	771.5	678.0	93.48	8.252		
11,100.0	7,472.0	7,403.0	7,403.0	69.2	27.5	90.00	3,157.0	763.6	795.9	702.6	93.21	8.539		
11,200.0	7,472.0	7,403.0	7,403.0	70.8	27.5	90.00	3,157.0	763.6	831.6	739.4	92.22	9.017		
11,300.0	7,472.0	7,403.0	7,403.0	72.5	27.5	90.00	3,157.0	763.6	877.4	786.6	90.75	9.668		
11,400.0	7,472.0	7,403.0	7,403.0	74.1	27.5	90.00	3,157.0	763.6	931.7	842.7	88.99	10.469		
11,500.0	7,472.0	7,403.0	7,403.0	75.7	27.5	90.00	3,157.0	763.6	993.1	906.0	87.11	11.400		
11,600.0	7,472.0	7,403.0	7,403.0	77.4	27.5	90.00	3,157.0	763.6	1,060.4	975.2	85.23	12.442		
11,700.0	7,472.0	7,403.0	7,403.0	79.0	27.5	90.00	3,157.0	763.6	1,132.5	1,049.1	83.42	13.577		
11,800.0	7,472.0	7,403.0	7,403.0	80.7	27.5	90.00	3,157.0	763.6	1,208.7	1,126.9	81.72	14.791		
11,900.0	7,472.0	7,403.0	7,403.0	82.4	27.5	90.00	3,157.0	763.6	1,288.1	1,207.9	80.14	16.072		
12,000.0	7,472.0	7,403.0	7,403.0	84.0	27.5	90.00	3,157.0	763.6	1,370.1	1,291.4	78.70	17.409		
12,100.0	7,472.0	7,403.0	7,403.0	85.7	27.5	90.00	3,157.0	763.6	1,454.5	1,377.1	77.40	18.792		
12,200.0	7,472.0	7,403.0	7,403.0	87.4	27.5	90.00	3,157.0	763.6	1,540.7	1,464.5	76.21	20.215		
12,300.0	7,472.0	7,403.0	7,403.0	89.0	27.5	90.00	3,157.0	763.6	1,628.5	1,553.3	75.14	21.672		
12,400.0	7,472.0	7,403.0	7,403.0	90.7	27.5	90.00	3,157.0	763.6	1,717.6	1,643.4	74.18	23.156		
12,500.0	7,472.0	7,403.0	7,403.0	92.4	27.5	90.00	3,157.0	763.6	1,807.9	1,734.6	73.30	24.663		
12,600.0	7,472.0	7,403.0	7,403.0	94.1	27.5	90.00	3,157.0	763.6	1,899.1	1,826.6	72.51	26.190		
12,700.0	7,472.0	7,403.0	7,403.0	95.8	27.5	90.00	3,157.0	763.6	1,991.2	1,919.4	71.79	27.734		
12,800.0	7,472.0	7,403.0	7,403.0	97.5	27.5	90.00	3,157.0	763.6	2,084.0	2,012.8	71.14	29.292		
12,900.0	7,472.0	7,403.0	7,403.0	99.2	27.5	90.00	3,157.0	763.6	2,177.4	2,106.9	70.55	30.862		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T1S-R65W - Putnam 41-18 (PR) - EXISTING - NO SURVEYS (PR)													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,800.0	7,472.0	7,403.0	7,403.0	149.2	27.5	90.00	9,163.8	1,818.3	2,184.3	2,025.1	159.20	13.720		
15,900.0	7,472.0	7,403.0	7,403.0	150.9	27.5	90.00	9,163.8	1,818.3	2,140.3	1,976.9	163.48	13.092		
16,000.0	7,472.0	7,403.0	7,403.0	152.7	27.5	90.00	9,163.8	1,818.3	2,099.3	1,931.6	167.68	12.520		
16,100.0	7,472.0	7,403.0	7,403.0	154.4	27.5	90.00	9,163.8	1,818.3	2,059.1	1,887.4	171.72	11.991		
16,200.0	7,472.0	7,403.0	7,403.0	156.2	27.5	90.00	9,163.8	1,818.3	2,021.2	1,845.6	175.59	11.511		
16,300.0	7,472.0	7,403.0	7,403.0	157.9	27.5	90.00	9,163.8	1,818.3	1,987.6	1,808.3	179.29	11.086		
16,400.0	7,472.0	7,403.0	7,403.0	159.6	27.5	90.00	9,163.8	1,818.3	1,958.6	1,775.8	182.77	10.716		
16,500.0	7,472.0	7,403.0	7,403.0	161.3	27.5	90.00	9,163.8	1,818.3	1,934.3	1,748.3	185.98	10.400		
16,600.0	7,472.0	7,403.0	7,403.0	163.1	27.5	90.00	9,163.8	1,818.3	1,914.9	1,726.0	188.87	10.139		
16,700.0	7,472.0	7,403.0	7,403.0	164.8	27.5	90.00	9,163.8	1,818.3	1,900.6	1,709.2	191.40	9.930		
16,800.0	7,472.0	7,403.0	7,403.0	166.5	27.5	90.00	9,163.8	1,818.3	1,891.4	1,697.9	193.52	9.774		
16,900.0	7,472.0	7,403.0	7,403.0	168.2	27.5	90.00	9,163.8	1,818.3	1,887.6	1,692.4	195.22	9.669		
16,923.0	7,472.0	7,403.0	7,403.0	168.6	27.5	90.00	9,163.8	1,818.3	1,887.4	1,691.9	195.54	9.652 CC, ES		
17,000.0	7,472.0	7,403.0	7,403.0	170.0	27.5	90.00	9,163.8	1,818.3	1,889.0	1,692.6	196.46	9.615		
17,100.0	7,472.0	7,403.0	7,403.0	171.7	27.5	90.00	9,163.8	1,818.3	1,895.7	1,698.5	197.23	9.611 SF		
17,200.0	7,472.0	7,403.0	7,403.0	173.4	27.5	90.00	9,163.8	1,818.3	1,907.7	1,710.1	197.56	9.656		
17,300.0	7,472.0	7,403.0	7,403.0	175.2	27.5	90.00	9,163.8	1,818.3	1,924.7	1,727.3	197.44	9.748		
17,400.0	7,472.0	7,403.0	7,403.0	176.9	27.5	90.00	9,163.8	1,818.3	1,946.8	1,749.9	196.90	9.887		
17,500.0	7,472.0	7,403.0	7,403.0	178.6	27.5	90.00	9,163.8	1,818.3	1,973.7	1,777.7	195.98	10.071		
17,600.0	7,472.0	7,403.0	7,403.0	180.3	27.5	90.00	9,163.8	1,818.3	2,005.2	1,810.5	194.72	10.298		
17,606.3	7,472.0	7,403.0	7,403.0	180.5	27.5	90.00	9,163.8	1,818.3	2,007.3	1,812.7	194.63	10.314		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	7,472.0	7,403.0	7,403.0	82.4	27.5	90.00	5,962.7	1,247.5	2,168.2	2,087.3	80.91	26.797		
12,000.0	7,472.0	7,403.0	7,403.0	84.0	27.5	90.00	5,962.7	1,247.5	2,087.8	2,004.5	83.33	25.057		
12,100.0	7,472.0	7,403.0	7,403.0	85.7	27.5	90.00	5,962.7	1,247.5	2,009.2	1,923.3	85.93	23.382		
12,200.0	7,472.0	7,403.0	7,403.0	87.4	27.5	90.00	5,962.7	1,247.5	1,932.6	1,843.9	88.73	21.780		
12,300.0	7,472.0	7,403.0	7,403.0	89.0	27.5	90.00	5,962.7	1,247.5	1,858.2	1,766.4	91.74	20.254		
12,400.0	7,472.0	7,403.0	7,403.0	90.7	27.5	90.00	5,962.7	1,247.5	1,786.2	1,691.3	94.96	18.811		
12,500.0	7,472.0	7,403.0	7,403.0	92.4	27.5	90.00	5,962.7	1,247.5	1,717.1	1,618.8	98.38	17.454		
12,600.0	7,472.0	7,403.0	7,403.0	94.1	27.5	90.00	5,962.7	1,247.5	1,651.2	1,549.2	102.00	16.188		
12,700.0	7,472.0	7,403.0	7,403.0	95.8	27.5	90.00	5,962.7	1,247.5	1,588.8	1,483.0	105.80	15.017		
12,800.0	7,472.0	7,403.0	7,403.0	97.5	27.5	90.00	5,962.7	1,247.5	1,530.4	1,420.7	109.74	13.946		
12,900.0	7,472.0	7,403.0	7,403.0	99.2	27.5	90.00	5,962.7	1,247.5	1,476.5	1,362.7	113.79	12.976		
13,000.0	7,472.0	7,403.0	7,403.0	100.9	27.5	90.00	5,962.7	1,247.5	1,427.6	1,309.7	117.88	12.111		
13,100.0	7,472.0	7,403.0	7,403.0	102.6	27.5	90.00	5,962.7	1,247.5	1,384.2	1,262.2	121.93	11.352		
13,200.0	7,472.0	7,403.0	7,403.0	104.3	27.5	90.00	5,962.7	1,247.5	1,346.8	1,220.9	125.85	10.701		
13,300.0	7,472.0	7,403.0	7,403.0	106.0	27.5	90.00	5,962.7	1,247.5	1,315.9	1,186.4	129.54	10.159		
13,400.0	7,472.0	7,403.0	7,403.0	107.7	27.5	90.00	5,962.7	1,247.5	1,292.1	1,159.2	132.87	9.724		
13,500.0	7,472.0	7,403.0	7,403.0	109.4	27.5	90.00	5,962.7	1,247.5	1,275.7	1,140.0	135.75	9.398		
13,600.0	7,472.0	7,403.0	7,403.0	111.1	27.5	90.00	5,962.7	1,247.5	1,267.0	1,128.9	138.07	9.177		
13,660.6	7,472.0	7,403.0	7,403.0	112.1	27.5	90.00	5,962.7	1,247.5	1,265.6	1,126.4	139.18	9.093 CC, ES		
13,700.0	7,472.0	7,403.0	7,403.0	112.8	27.5	90.00	5,962.7	1,247.5	1,266.2	1,126.4	139.77	9.059		
13,800.0	7,472.0	7,403.0	7,403.0	114.5	27.5	90.00	5,962.7	1,247.5	1,273.2	1,132.4	140.82	9.042 SF		
13,900.0	7,472.0	7,403.0	7,403.0	116.2	27.5	90.00	5,962.7	1,247.5	1,288.0	1,146.8	141.21	9.122		
14,000.0	7,472.0	7,403.0	7,403.0	118.0	27.5	90.00	5,962.7	1,247.5	1,310.3	1,169.3	140.98	9.294		
14,100.0	7,472.0	7,403.0	7,403.0	119.7	27.5	90.00	5,962.7	1,247.5	1,339.7	1,199.5	140.20	9.555		
14,200.0	7,472.0	7,403.0	7,403.0	121.4	27.5	90.00	5,962.7	1,247.5	1,377.3	1,238.3	138.98	9.910		
14,300.0	7,472.0	7,403.0	7,403.0	123.1	27.5	90.00	5,962.7	1,247.5	1,422.0	1,284.6	137.40	10.350		
14,400.0	7,472.0	7,403.0	7,403.0	124.9	27.5	90.00	5,962.7	1,247.5	1,472.2	1,336.7	135.55	10.861		
14,500.0	7,472.0	7,403.0	7,403.0	126.6	27.5	90.00	5,962.7	1,247.5	1,527.3	1,393.8	133.52	11.439		
14,600.0	7,472.0	7,403.0	7,403.0	128.3	27.5	90.00	5,962.7	1,247.5	1,586.8	1,455.4	131.37	12.079		
14,700.0	7,472.0	7,403.0	7,403.0	130.1	27.5	90.00	5,962.7	1,247.5	1,650.2	1,521.1	129.16	12.776		
14,800.0	7,472.0	7,403.0	7,403.0	131.8	27.5	90.00	5,962.7	1,247.5	1,717.1	1,590.2	126.94	13.527		
14,900.0	7,472.0	7,403.0	7,403.0	133.5	27.5	90.00	5,962.7	1,247.5	1,787.1	1,662.4	124.75	14.326		
15,000.0	7,472.0	7,403.0	7,403.0	135.3	27.5	90.00	5,962.7	1,247.5	1,859.8	1,737.2	122.60	15.170		
15,100.0	7,472.0	7,403.0	7,403.0	137.0	27.5	90.00	5,962.7	1,247.5	1,935.0	1,814.5	120.51	16.056		
15,200.0	7,472.0	7,403.0	7,403.0	138.7	27.5	90.00	5,962.7	1,247.5	2,012.3	1,893.8	118.51	16.981		
15,300.0	7,472.0	7,403.0	7,403.0	140.5	27.5	90.00	5,962.7	1,247.5	2,091.6	1,975.0	116.59	17.940		
15,400.0	7,472.0	7,403.0	7,403.0	142.2	27.5	90.00	5,962.7	1,247.5	2,172.6	2,057.8	114.75	18.932		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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	-43.22	1,023.7	-962.1	1,406.5					
100.0	100.0	31.0	31.0	0.4	0.3	-43.22	1,023.7	-962.1	1,404.8	1,404.5	0.27	5,242.823		
200.0	200.0	131.0	131.0	1.0	1.1	-43.22	1,023.7	-962.1	1,404.8	1,403.8	0.99	1,418.575		
300.0	300.0	231.0	231.0	1.5	1.5	-43.22	1,023.7	-962.1	1,404.8	1,403.1	1.70	823.982		
400.0	400.0	331.0	331.0	1.9	1.9	-43.22	1,023.7	-962.1	1,404.8	1,402.4	2.42	580.258		
500.0	500.0	431.0	431.0	2.3	2.3	-43.22	1,023.7	-962.1	1,404.8	1,401.7	3.14	447.740		
600.0	600.0	531.0	531.0	2.7	2.7	-43.22	1,023.7	-962.1	1,404.8	1,400.9	3.85	364.481		
700.0	700.0	631.0	631.0	3.1	3.1	-43.22	1,023.7	-962.1	1,404.8	1,400.2	4.57	307.325		
800.0	800.0	731.0	731.0	3.5	3.5	-43.22	1,023.7	-962.1	1,404.8	1,399.5	5.29	265.663		
900.0	900.0	831.0	831.0	3.9	3.9	-43.22	1,023.7	-962.1	1,404.8	1,398.8	6.00	233.947		
1,000.0	1,000.0	931.0	931.0	4.2	4.2	-43.22	1,023.7	-962.1	1,404.8	1,398.1	6.72	208.995		
1,100.0	1,100.0	1,031.0	1,031.0	4.6	4.6	-43.22	1,023.7	-962.1	1,404.8	1,397.4	7.44	188.853		
1,200.0	1,200.0	1,131.0	1,131.0	5.0	5.0	-43.22	1,023.7	-962.1	1,404.8	1,396.6	8.16	172.252		
1,300.0	1,300.0	1,231.0	1,231.0	5.3	5.3	140.76	1,023.7	-962.1	1,406.1	1,397.2	8.91	157.835		
1,400.0	1,399.8	1,330.8	1,330.8	6.0	5.7	140.84	1,023.7	-962.1	1,410.2	1,400.4	9.80	143.932		
1,500.0	1,499.5	1,430.5	1,430.5	6.3	6.1	141.02	1,023.7	-962.1	1,416.5	1,406.0	10.49	135.020		
1,600.0	1,599.2	1,530.2	1,530.2	6.6	6.4	141.23	1,023.7	-962.1	1,423.0	1,411.8	11.17	127.371		
1,700.0	1,698.8	1,629.8	1,629.8	6.9	6.8	141.44	1,023.7	-962.1	1,429.5	1,417.6	11.86	120.541		
1,800.0	1,798.5	1,729.5	1,729.5	7.3	7.1	141.65	1,023.7	-962.1	1,436.0	1,423.4	12.55	114.417		
1,900.0	1,898.1	1,829.1	1,829.1	7.6	7.5	141.85	1,023.7	-962.1	1,442.5	1,429.3	13.25	108.900		
2,000.0	1,997.8	1,928.8	1,928.8	8.0	7.9	142.05	1,023.7	-962.1	1,449.1	1,435.2	13.95	103.910		
2,100.0	2,097.4	2,028.4	2,028.4	8.3	8.2	142.26	1,023.7	-962.1	1,455.7	1,441.0	14.65	99.377		
2,200.0	2,197.1	2,128.1	2,128.1	8.7	8.6	142.46	1,023.7	-962.1	1,462.3	1,446.9	15.35	95.244		
2,300.0	2,296.7	2,227.7	2,227.7	9.0	8.9	142.65	1,023.7	-962.1	1,468.9	1,452.8	16.06	91.463		
2,400.0	2,396.4	2,327.4	2,327.4	9.4	9.3	142.85	1,023.7	-962.1	1,475.5	1,458.8	16.77	87.992		
2,500.0	2,496.0	2,427.0	2,427.0	9.7	9.7	143.04	1,023.7	-962.1	1,482.2	1,464.7	17.48	84.795		
2,600.0	2,595.7	2,526.7	2,526.7	10.1	10.0	143.23	1,023.7	-962.1	1,488.8	1,470.6	18.19	81.842		
2,700.0	2,695.3	2,626.3	2,626.3	10.4	10.4	143.43	1,023.7	-962.1	1,495.5	1,476.6	18.90	79.107		
2,800.0	2,795.0	2,726.0	2,726.0	10.8	10.7	143.61	1,023.7	-962.1	1,502.2	1,482.6	19.62	76.568		
2,900.0	2,894.7	2,825.7	2,825.7	11.1	11.1	143.80	1,023.7	-962.1	1,508.9	1,488.6	20.33	74.204		
3,000.0	2,994.3	2,925.3	2,925.3	11.5	11.5	143.99	1,023.7	-962.1	1,515.7	1,494.6	21.05	71.999		
3,100.0	3,094.0	3,025.0	3,025.0	11.9	11.8	144.17	1,023.7	-962.1	1,522.4	1,500.6	21.77	69.937		
3,200.0	3,193.6	3,124.6	3,124.6	12.2	12.2	144.35	1,023.7	-962.1	1,529.2	1,506.7	22.49	68.005		
3,300.0	3,293.3	3,224.3	3,224.3	12.6	12.5	144.53	1,023.7	-962.1	1,536.0	1,512.7	23.20	66.192		
3,400.0	3,392.9	3,323.9	3,323.9	13.0	12.9	144.71	1,023.7	-962.1	1,542.7	1,518.8	23.92	64.486		
3,500.0	3,492.6	3,423.6	3,423.6	13.3	13.2	144.89	1,023.7	-962.1	1,549.6	1,524.9	24.64	62.879		
3,600.0	3,592.2	3,523.2	3,523.2	13.7	13.6	145.07	1,023.7	-962.1	1,556.4	1,531.0	25.36	61.364		
3,700.0	3,691.9	3,622.9	3,622.9	14.1	14.0	145.24	1,023.7	-962.1	1,563.2	1,537.1	26.08	59.931		
3,800.0	3,791.5	3,722.5	3,722.5	14.4	14.3	145.41	1,023.7	-962.1	1,570.1	1,543.3	26.80	58.575		
3,900.0	3,891.2	3,822.2	3,822.2	14.8	14.7	145.59	1,023.7	-962.1	1,576.9	1,549.4	27.53	57.290		
4,000.0	3,990.8	3,921.8	3,921.8	15.2	15.0	145.76	1,023.7	-962.1	1,583.8	1,555.6	28.25	56.071		
4,100.0	4,090.5	4,021.5	4,021.5	15.6	15.4	145.92	1,023.7	-962.1	1,590.7	1,561.7	28.97	54.912		
4,200.0	4,190.1	4,121.1	4,121.1	15.9	15.7	146.09	1,023.7	-962.1	1,597.6	1,567.9	29.69	53.809		
4,300.0	4,289.8	4,220.8	4,220.8	16.3	16.1	146.26	1,023.7	-962.1	1,604.5	1,574.1	30.41	52.759		
4,400.0	4,389.5	4,320.5	4,320.5	16.7	16.5	146.42	1,023.7	-962.1	1,611.5	1,580.3	31.13	51.758		
4,500.0	4,489.1	4,420.1	4,420.1	17.0	16.8	146.58	1,023.7	-962.1	1,618.4	1,586.6	31.86	50.802		
4,600.0	4,588.8	4,519.8	4,519.8	17.4	17.2	146.74	1,023.7	-962.1	1,625.4	1,592.8	32.58	49.889		
4,700.0	4,688.4	4,619.4	4,619.4	17.8	17.5	146.90	1,023.7	-962.1	1,632.3	1,599.0	33.30	49.016		
4,800.0	4,788.1	4,719.1	4,719.1	18.2	17.9	147.06	1,023.7	-962.1	1,639.3	1,605.3	34.03	48.180		
4,900.0	4,887.7	4,818.7	4,818.7	18.6	18.3	147.22	1,023.7	-962.1	1,646.3	1,611.6	34.75	47.379		
5,000.0	4,987.4	4,918.4	4,918.4	18.9	18.6	147.38	1,023.7	-962.1	1,653.3	1,617.9	35.47	46.611		
5,100.0	5,087.0	5,018.0	5,018.0	19.3	19.0	147.53	1,023.7	-962.1	1,660.4	1,624.2	36.19	45.873		

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 19-18-2NCH
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 19-18-2NCH	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		
5,200.0	5,186.7	5,117.7	5,117.7	19.7	19.3	147.68	1,023.7	-962.1	1,667.4	1,630.5	36.92	45.165		
5,300.0	5,286.3	5,217.3	5,217.3	20.1	19.7	147.84	1,023.7	-962.1	1,674.4	1,636.8	37.64	44.484		
5,400.0	5,386.0	5,317.0	5,317.0	20.4	20.0	147.99	1,023.7	-962.1	1,681.5	1,643.1	38.36	43.829		
5,500.0	5,485.6	5,416.6	5,416.6	20.8	20.4	148.14	1,023.7	-962.1	1,688.6	1,649.5	39.09	43.199		
5,600.0	5,585.3	5,516.3	5,516.3	21.2	20.8	148.29	1,023.7	-962.1	1,695.6	1,655.8	39.81	42.592		
5,700.0	5,684.9	5,615.9	5,615.9	21.6	21.1	148.43	1,023.7	-962.1	1,702.7	1,662.2	40.53	42.007		
5,800.0	5,784.6	5,715.6	5,715.6	22.0	21.5	148.58	1,023.7	-962.1	1,709.8	1,668.6	41.26	41.442		
5,900.0	5,884.3	5,815.3	5,815.3	22.3	21.8	148.72	1,023.7	-962.1	1,716.9	1,675.0	41.98	40.897		
6,000.0	5,983.9	5,914.9	5,914.9	22.7	22.2	148.87	1,023.7	-962.1	1,724.1	1,681.4	42.71	40.371		
6,100.0	6,083.6	6,014.6	6,014.6	23.1	22.5	149.01	1,023.7	-962.1	1,731.2	1,687.8	43.43	39.862		
6,200.0	6,183.2	6,114.2	6,114.2	23.5	22.9	149.15	1,023.7	-962.1	1,738.4	1,694.2	44.15	39.371		
6,300.0	6,282.9	6,213.9	6,213.9	23.9	23.3	149.29	1,023.7	-962.1	1,745.5	1,700.6	44.88	38.895		
6,400.0	6,382.5	6,313.5	6,313.5	24.2	23.6	149.43	1,023.7	-962.1	1,752.7	1,707.1	45.60	38.435		
6,500.0	6,482.2	6,413.2	6,413.2	24.6	24.0	149.57	1,023.7	-962.1	1,759.8	1,713.5	46.32	37.990		
6,600.0	6,581.8	6,512.8	6,512.8	25.0	24.3	149.70	1,023.7	-962.1	1,767.0	1,720.0	47.05	37.558		
6,700.0	6,681.5	6,612.5	6,612.5	25.4	24.7	149.84	1,023.7	-962.1	1,774.2	1,726.5	47.77	37.140		
6,800.0	6,781.1	6,712.1	6,712.1	25.8	25.0	149.97	1,023.7	-962.1	1,781.4	1,732.9	48.50	36.734		
6,900.0	6,880.8	6,811.8	6,811.8	26.1	25.4	155.75	1,023.7	-962.1	1,788.0	1,738.8	49.22	36.326		
7,000.0	6,980.6	6,911.6	6,911.6	26.7	25.8	-35.72	1,023.7	-962.1	1,783.7	1,733.7	49.99	35.681		
7,100.0	7,077.8	7,008.8	7,008.8	27.0	26.1	-36.11	1,023.7	-962.1	1,765.0	1,714.2	50.81	34.738		
7,200.0	7,169.6	7,100.6	7,100.6	27.3	26.4	-38.58	1,023.7	-962.1	1,732.7	1,681.2	51.54	33.622		
7,300.0	7,253.2	7,184.2	7,184.2	27.6	26.7	-42.75	1,023.7	-962.1	1,688.3	1,636.1	52.15	32.372		
7,400.0	7,326.0	7,257.0	7,257.0	27.8	27.0	-48.81	1,023.7	-962.1	1,633.4	1,580.8	52.65	31.025		
7,500.0	7,385.9	7,316.9	7,316.9	28.0	27.2	-56.92	1,023.7	-962.1	1,570.6	1,517.5	53.04	29.613		
7,600.0	7,430.9	7,361.9	7,361.9	28.1	27.4	-66.90	1,023.7	-962.1	1,502.3	1,449.0	53.34	28.167		
7,700.0	7,459.8	7,390.8	7,390.8	28.3	27.5	-77.83	1,023.7	-962.1	1,431.6	1,378.0	53.58	26.718		
7,800.0	7,471.7	7,402.7	7,402.7	28.5	27.5	-88.26	1,023.7	-962.1	1,361.3	1,307.5	53.81	25.300		
7,900.0	7,472.0	7,403.0	7,403.0	28.7	27.5	-90.00	1,023.7	-962.1	1,294.3	1,240.2	54.09	23.931		
8,000.0	7,472.0	7,403.0	7,403.0	29.1	27.5	-90.00	1,023.7	-962.1	1,231.8	1,177.3	54.50	22.602		
8,100.0	7,472.0	7,403.0	7,403.0	29.7	27.5	-90.00	1,023.7	-962.1	1,174.4	1,119.4	55.07	21.327		
8,200.0	7,472.0	7,403.0	7,403.0	30.3	27.5	-90.00	1,023.7	-962.1	1,123.1	1,067.3	55.81	20.123		
8,300.0	7,472.0	7,403.0	7,403.0	31.0	27.5	-90.00	1,023.7	-962.1	1,078.6	1,021.8	56.74	19.010		
8,400.0	7,472.0	7,403.0	7,403.0	31.8	27.5	-90.00	1,023.7	-962.1	1,041.8	984.0	57.83	18.015		
8,500.0	7,472.0	7,403.0	7,403.0	32.7	27.5	-90.00	1,023.7	-962.1	1,013.6	954.5	59.06	17.162		
8,600.0	7,472.0	7,403.0	7,403.0	33.7	27.5	-90.00	1,023.7	-962.1	994.7	934.3	60.37	16.475		
8,700.0	7,472.0	7,403.0	7,403.0	34.8	27.5	-90.00	1,023.7	-962.1	985.6	923.9	61.70	15.975		
8,739.9	7,472.0	7,403.0	7,403.0	35.2	27.5	-90.00	1,023.7	-962.1	984.8	922.6	62.22	15.828 CC, ES		
8,800.0	7,472.0	7,403.0	7,403.0	35.9	27.5	-90.00	1,023.7	-962.1	986.6	923.7	62.96	15.671		
8,900.0	7,472.0	7,403.0	7,403.0	37.0	27.5	-90.00	1,023.7	-962.1	997.7	933.6	64.09	15.568 SF		
9,000.0	7,472.0	7,403.0	7,403.0	38.2	27.5	-90.00	1,023.7	-962.1	1,018.6	953.5	65.04	15.660		
9,100.0	7,472.0	7,403.0	7,403.0	39.4	27.5	-90.00	1,023.7	-962.1	1,048.6	982.8	65.80	15.936		
9,200.0	7,472.0	7,403.0	7,403.0	40.7	27.5	-90.00	1,023.7	-962.1	1,087.0	1,020.6	66.36	16.380		
9,300.0	7,472.0	7,403.0	7,403.0	42.0	27.5	-90.00	1,023.7	-962.1	1,132.9	1,066.2	66.74	16.976		
9,400.0	7,472.0	7,403.0	7,403.0	43.4	27.5	-90.00	1,023.7	-962.1	1,185.6	1,118.6	66.96	17.705		
9,500.0	7,472.0	7,403.0	7,403.0	44.7	27.5	-90.00	1,023.7	-962.1	1,244.0	1,177.0	67.06	18.550		
9,600.0	7,472.0	7,403.0	7,403.0	46.2	27.5	-90.00	1,023.7	-962.1	1,307.5	1,240.4	67.07	19.495		
9,700.0	7,472.0	7,403.0	7,403.0	47.6	27.5	-90.00	1,023.7	-962.1	1,375.4	1,308.4	67.00	20.527		
9,800.0	7,472.0	7,403.0	7,403.0	49.0	27.5	-90.00	1,023.7	-962.1	1,446.9	1,380.1	66.89	21.632		
9,900.0	7,472.0	7,403.0	7,403.0	50.5	27.5	-90.00	1,023.7	-962.1	1,521.7	1,455.0	66.74	22.801		
10,000.0	7,472.0	7,403.0	7,403.0	52.0	27.5	-90.00	1,023.7	-962.1	1,599.3	1,532.7	66.57	24.024		
10,100.0	7,472.0	7,403.0	7,403.0	53.5	27.5	-90.00	1,023.7	-962.1	1,679.2	1,612.8	66.39	25.294		
10,200.0	7,472.0	7,403.0	7,403.0	55.0	27.5	-90.00	1,023.7	-962.1	1,761.2	1,695.0	66.20	26.604		

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 19-18-2NCH
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 19-18-2NCH	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	
10,300.0	7,472.0	7,403.0	7,403.0	56.5	27.5	-90.00	1,023.7	-962.1	1,844.9	1,778.9	66.01	27.948	
10,400.0	7,472.0	7,403.0	7,403.0	58.1	27.5	-90.00	1,023.7	-962.1	1,930.2	1,864.4	65.83	29.323	
10,500.0	7,472.0	7,403.0	7,403.0	59.6	27.5	-90.00	1,023.7	-962.1	2,016.9	1,951.2	65.65	30.723	
10,600.0	7,472.0	7,403.0	7,403.0	61.2	27.5	-90.00	1,023.7	-962.1	2,104.7	2,039.2	65.47	32.145	
10,700.0	7,472.0	7,403.0	7,403.0	62.8	27.5	-90.00	1,023.7	-962.1	2,193.6	2,128.3	65.31	33.587	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well CONNER 19-18-2NCH
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 19-18-2NCH	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

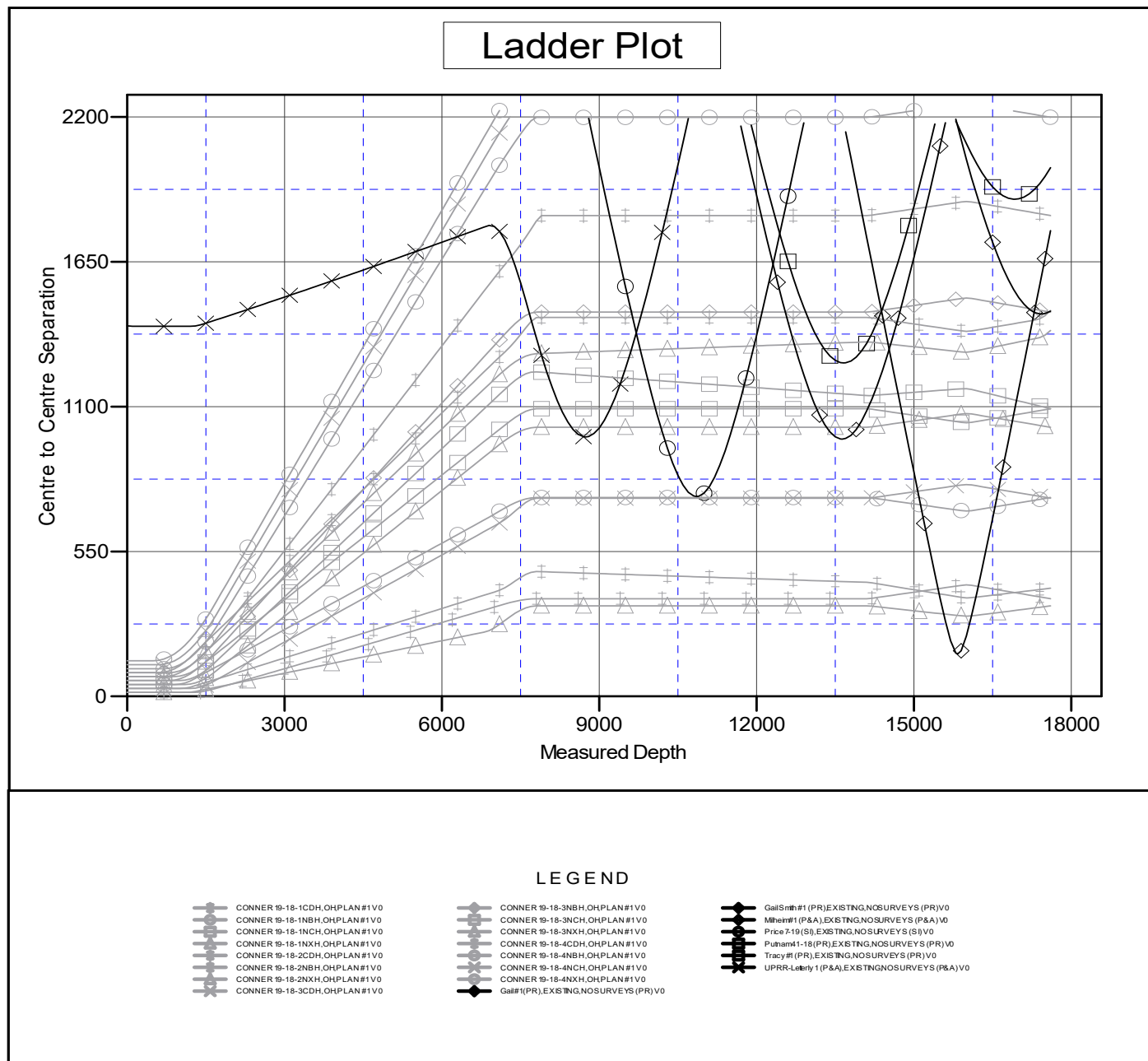
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-2NCH

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 19-18-2NCH
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 19-18-2NCH	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

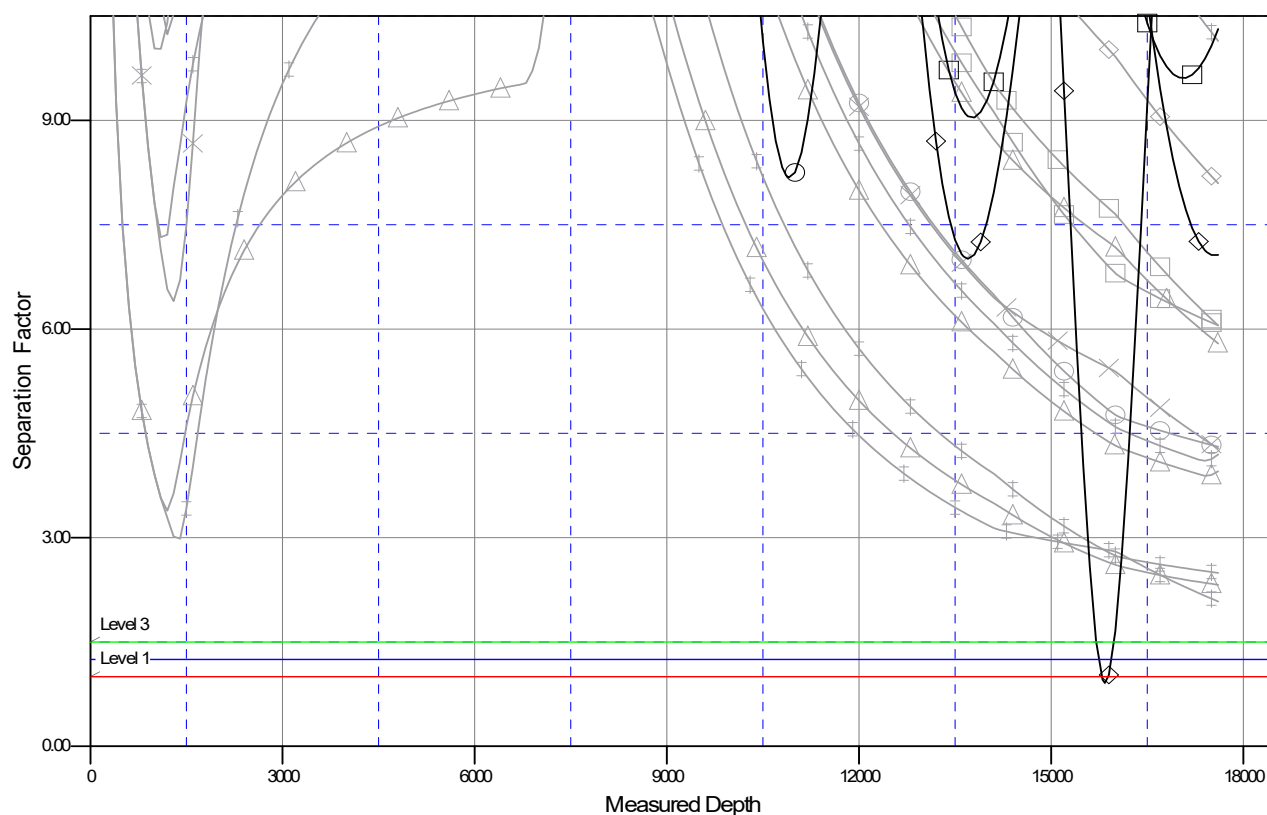
Central Meridian is -105.500000

Coordinates are relative to: CONNER 19-18-2NCH

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 19-18-2NXH.OHPLAN#1V0
CONNER 19-18-3CDH.OHPLAN#1V0

CONNER 19-18-3NBH.OHPLAN#1V0
CONNER 19-18-3NCH.OHPLAN#1V0
CONNER 19-18-3NXH.OHPLAN#1V0
CONNER 19-18-4CDH.OHPLAN#1V0
CONNER 19-18-4NBH.OHPLAN#1V0
CONNER 19-18-4NCH.OHPLAN#1V0
CONNER 19-18-4NXH.OHPLAN#1V0
Gal#1(PR).EXISTING.NOSURVEYS (PR)V0

Gal#5n#1(PR).EXISTING.NOSURVEYS (PR)V0
Mihem#1(P&A).EXISTING.NOSURVEYS (P&A)V0
Price#1-19(S).EXISTING.NOSURVEYS (S)V0
Putnam#1-18(PR).EXISTING.NOSURVEYS (PR)V0
Tracy#1(PR).EXISTING.NOSURVEYS (PR)V0
UPRR-Laberty 1(P&A).EXISTING.NOSURVEYS (P&A)V0