



Directional

PetroShare Corp

SEC.3-T1S-R67W

SHOOK PAD 3-1S-67W

SHOOK 3-10-2NAH

Wellbore #1

PLAN 1 (FEB 5 2016)

Anticollision Report

22 February, 2016

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Reference	PLAN 1 (FEB 5 2016)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0 ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	2/22/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,588.4	PLAN 1 (FEB 5 2016) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SHOOK PAD 3-1S-67W						
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	200.0	200.0	162.5	161.8	241.011	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,054.8	259.2	254.5	54.765	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	103.7	100.3	30.750	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,098.1	115.1	110.4	24.920	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	134.5	132.0	54.397	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,084.5	168.4	163.9	37.131	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	148.5	146.9	94.386	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,072.0	208.5	203.9	45.324	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	117.7	114.3	34.905	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,093.0	135.8	131.3	29.891	SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	800.0	800.0	89.7	86.3	26.594	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,200.0	1,199.3	108.8	103.7	21.443	SF
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	800.0	800.0	44.8	41.5	13.297	CC, ES
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,588.4	13,784.8	910.5	655.5	3.570	SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	800.0	800.0	72.9	69.5	21.608	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	1,100.0	1,099.7	83.6	78.9	17.992	SF
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	28.0	24.6	8.311	CC, ES
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,588.4	13,688.0	601.3	344.3	2.339	SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	800.0	800.0	58.8	55.5	17.453	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	1,100.0	1,099.7	69.6	64.9	14.983	SF
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	16.8	14.3	6.800	CC, ES
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,588.4	13,798.9	331.6	101.5	1.441	Level 3, SF
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	14.0	10.6	4.155	CC
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	1,000.0	1,000.6	14.3	10.2	3.441	ES
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 201	1,400.0	1,401.6	17.7	11.7	2.976	SF
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	30.8	29.2	19.590	CC, ES
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	13,588.4	14,122.3	726.1	512.8	3.404	SF

SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)												Offset Site Error:	0.0 ft
Survey Program:		0-MWD										Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation		Separation Factor
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-162.5	162.5				

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)													Offset Site Error:	0.0 ft
Offset Design		Survey Program: 0-MWVD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-162.5	162.5	162.3	0.22	723.033	241.011 CC, ES	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-162.5	162.5	161.8	0.67	148.846		
300.0	300.0	296.7	296.7	0.6	0.5	-90.23	-0.7	-163.5	163.5	162.4	1.10	109.180		
400.0	400.0	393.3	393.3	0.8	0.7	-91.00	-2.9	-166.4	166.5	165.0	1.53	87.014		
500.0	500.0	489.7	489.4	1.0	1.0	-92.22	-6.6	-171.2	171.6	169.7	1.97	73.221		
600.0	600.0	585.7	585.0	1.2	1.2	-93.81	-11.8	-177.9	178.9	176.5	2.44	64.086		
700.0	700.0	681.2	679.9	1.5	1.5	-95.66	-18.5	-186.4	188.4	185.5	2.94	57.776	54.765 SF	
800.0	800.0	776.1	773.9	1.7	1.8	-97.67	-26.5	-196.8	200.2	196.8	3.47	56.498		
900.0	900.0	870.2	866.7	1.9	2.1	143.97	-35.9	-208.8	215.5	211.7	3.81	55.114		
1,000.0	999.9	963.1	958.1	2.1	2.5	142.28	-46.5	-222.5	235.2	231.0	4.27	55.148		
1,100.0	1,099.7	1,054.8	1,047.6	2.3	2.9	140.92	-58.3	-237.7	259.2	254.5	4.73	56.040		
1,200.0	1,199.3	1,144.8	1,135.2	2.5	3.3	139.84	-71.2	-254.3	287.3	282.1	5.21	57.271		
1,300.0	1,298.6	1,233.1	1,220.5	2.8	3.7	139.00	-85.1	-272.2	319.3	313.6	5.70	58.839		
1,400.0	1,397.5	1,319.4	1,303.5	3.0	4.2	138.34	-99.8	-291.2	355.2	349.0	6.20	59.320		
1,500.0	1,496.1	1,400.0	1,380.4	3.4	4.7	137.81	-114.6	-310.2	394.8	388.1	6.71	60.167		
1,539.4	1,534.8	1,436.3	1,414.8	3.5	4.9	137.63	-121.5	-319.2	411.4	404.5	6.94	61.467		
1,600.0	1,594.3	1,485.8	1,461.7	3.7	5.2	137.64	-131.4	-331.9	437.7	430.4	7.27	62.708		
1,700.0	1,692.4	1,566.3	1,537.4	4.1	5.8	137.57	-148.2	-353.5	482.4	474.6	7.85	63.910		
1,800.0	1,790.5	1,645.3	1,611.1	4.4	6.4	137.43	-165.6	-375.9	528.9	520.4	8.43	65.048		
1,900.0	1,888.7	1,722.6	1,682.6	4.8	6.9	137.25	-183.6	-399.1	577.0	568.0	9.03	66.223		
2,000.0	1,986.8	1,800.0	1,753.6	5.2	7.6	137.02	-202.4	-423.4	626.7	617.1	9.64	67.115		
2,100.0	2,084.9	1,872.5	1,819.6	5.6	8.2	136.79	-220.9	-447.2	678.0	667.8	10.24	67.842		
2,200.0	2,183.1	1,954.2	1,893.4	6.0	8.9	136.51	-242.3	-474.8	730.5	719.6	10.88	68.459		
2,300.0	2,281.2	2,039.3	1,970.3	6.4	9.6	136.26	-264.7	-503.6	783.0	771.5	11.54	68.986		
2,400.0	2,379.3	2,124.3	2,047.1	6.8	10.3	136.04	-287.1	-532.4	835.5	823.3	12.20	69.439		
2,500.0	2,477.4	2,209.4	2,123.9	7.3	11.1	135.85	-309.4	-561.2	888.1	875.2	12.87	69.829		
2,600.0	2,575.6	2,294.5	2,200.8	7.7	11.8	135.68	-331.8	-590.1	940.6	927.0	13.55	70.000		
2,700.0	2,673.7	2,379.5	2,277.6	8.1	12.6	135.52	-354.2	-618.9	993.1	978.9	14.22	70.000		

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Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-103.7	103.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-103.7	103.7	103.4	0.22	461.245		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-103.7	103.7	103.0	0.67	153.748		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-103.7	103.7	102.5	1.12	92.249		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-103.7	103.7	102.1	1.57	65.892		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-103.7	103.7	101.6	2.02	51.249		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-103.7	103.7	101.2	2.47	41.931		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.1	-103.7	103.7	100.8	2.92	35.480		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.1	-103.7	103.7	100.3	3.37	30.750 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	154.94	0.1	-103.7	104.8	101.0	3.80	27.576		
1,000.0	999.9	999.9	999.9	2.1	2.1	154.88	0.1	-103.7	108.4	104.2	4.22	25.685		
1,100.0	1,099.7	1,098.1	1,098.1	2.3	2.3	155.69	-1.0	-104.4	115.1	110.4	4.62	24.920 SF		
1,200.0	1,199.3	1,195.8	1,195.7	2.5	2.5	155.88	-4.0	-106.6	125.5	120.5	5.00	25.089		
1,300.0	1,298.6	1,292.9	1,292.6	2.8	2.7	155.58	-9.0	-110.2	139.8	134.4	5.41	25.858		
1,400.0	1,397.5	1,389.2	1,388.5	3.0	2.9	154.94	-16.0	-115.3	157.8	151.9	5.83	27.080		
1,500.0	1,496.1	1,484.4	1,483.1	3.4	3.1	154.09	-24.8	-121.6	179.5	173.2	6.27	28.633		
1,539.4	1,534.8	1,521.6	1,520.0	3.5	3.2	153.73	-28.8	-124.5	189.1	182.6	6.45	29.313		
1,600.0	1,594.3	1,578.4	1,576.2	3.7	3.3	153.19	-35.4	-129.3	204.5	197.7	6.74	30.344		
1,700.0	1,692.4	1,671.6	1,668.1	4.1	3.6	152.09	-47.7	-138.2	231.1	223.8	7.24	31.922		
1,800.0	1,790.5	1,763.8	1,758.7	4.4	3.9	150.81	-61.6	-148.3	259.2	251.4	7.77	33.364		
1,900.0	1,888.7	1,855.0	1,847.9	4.8	4.2	149.43	-77.2	-159.5	288.9	280.5	8.33	34.694		
2,000.0	1,986.8	1,945.0	1,935.4	5.2	4.6	148.00	-94.2	-171.8	320.2	311.2	8.91	35.928		
2,100.0	2,084.9	2,033.9	2,021.3	5.6	5.0	146.57	-112.7	-185.1	353.1	343.6	9.52	37.092		
2,200.0	2,183.1	2,121.4	2,105.4	6.0	5.4	145.15	-132.4	-199.4	387.7	377.5	10.15	38.202		
2,300.0	2,281.2	2,207.6	2,187.6	6.4	5.8	143.77	-153.4	-214.6	424.0	413.2	10.80	39.272		
2,400.0	2,379.3	2,292.5	2,268.0	6.8	6.3	142.43	-175.5	-230.5	462.0	450.6	11.46	40.306		
2,500.0	2,477.4	2,375.9	2,346.3	7.3	6.8	141.14	-198.6	-247.3	501.8	489.6	12.15	41.313		
2,600.0	2,575.6	2,457.8	2,422.7	7.7	7.3	139.91	-222.7	-264.7	543.2	530.4	12.84	42.312		
2,700.0	2,673.7	2,538.2	2,497.0	8.1	7.9	138.74	-247.6	-282.7	586.3	572.8	13.54	43.310		
2,800.0	2,771.8	2,619.5	2,571.5	8.5	8.5	137.60	-274.0	-301.8	631.1	616.8	14.26	44.269		
2,900.0	2,870.0	2,707.9	2,652.2	8.9	9.1	136.48	-303.1	-322.8	676.4	661.4	15.01	45.079		
3,000.0	2,968.1	2,796.3	2,733.0	9.4	9.8	135.50	-332.2	-343.8	722.0	706.2	15.76	45.815		
3,100.0	3,066.2	2,884.7	2,813.8	9.8	10.5	134.64	-361.3	-364.9	767.7	751.2	16.51	46.487		
3,200.0	3,164.4	2,973.1	2,894.5	10.2	11.2	133.87	-390.4	-385.9	813.5	796.2	17.27	47.103		
3,300.0	3,262.5	3,061.4	2,975.3	10.7	11.9	133.19	-419.5	-406.9	859.4	841.4	18.03	47.671		
3,400.0	3,360.6	3,149.8	3,056.0	11.1	12.6	132.57	-448.6	-427.9	905.4	886.6	18.79	48.195		
3,500.0	3,458.8	3,238.2	3,136.8	11.5	13.3	132.01	-477.7	-449.0	951.5	932.0	19.55	48.680		
3,600.0	3,556.9	3,326.6	3,217.6	11.9	14.0	131.50	-506.8	-470.0	997.7	977.4	20.31	49.130		

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Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-134.5	134.5					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-134.5	134.5	134.3	0.22	598.372		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-134.5	134.5	133.8	0.67	199.457		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-134.5	134.5	133.4	1.12	119.674		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-134.5	134.5	132.9	1.57	85.482		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-134.5	134.5	132.5	2.02	66.486		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-134.5	134.5	132.0	2.47	54.397 CC, ES		
700.0	700.0	697.5	697.5	1.5	1.4	-90.34	-0.8	-135.4	135.4	132.5	2.89	46.788		
800.0	800.0	795.0	794.9	1.7	1.6	-91.43	-3.4	-138.0	138.2	134.9	3.30	41.814		
900.0	900.0	892.1	891.8	1.9	1.8	-150.72	-7.8	-142.4	144.0	140.3	3.71	38.844		
1,000.0	999.9	988.7	988.0	2.1	2.0	149.19	-13.9	-148.5	154.1	150.0	4.11	37.478		
1,100.0	1,099.7	1,084.5	1,083.2	2.3	2.3	147.74	-21.6	-156.2	168.4	163.9	4.54	37.131 SF		
1,200.0	1,199.3	1,179.2	1,177.0	2.5	2.5	146.43	-30.9	-165.5	186.9	181.9	4.98	37.542		
1,300.0	1,298.6	1,272.7	1,269.2	2.8	2.8	145.30	-41.6	-176.3	209.5	204.0	5.44	38.503		
1,400.0	1,397.5	1,364.8	1,359.7	3.0	3.2	144.35	-53.8	-188.5	236.1	230.2	5.92	39.852		
1,500.0	1,496.1	1,455.2	1,448.0	3.4	3.5	143.53	-67.2	-202.0	266.6	260.2	6.43	41.463		
1,539.4	1,534.8	1,490.3	1,482.3	3.5	3.7	143.25	-72.9	-207.6	279.7	273.0	6.63	42.160		
1,600.0	1,594.3	1,543.8	1,534.3	3.7	3.9	142.99	-81.8	-216.7	300.5	293.6	6.96	43.166		
1,700.0	1,692.4	1,631.2	1,618.7	4.1	4.3	142.46	-97.6	-232.5	336.4	328.9	7.52	44.732		
1,800.0	1,790.5	1,717.1	1,701.3	4.4	4.7	141.86	-114.4	-249.4	374.1	366.0	8.10	46.192		
1,900.0	1,888.7	1,800.0	1,780.4	4.8	5.2	141.22	-131.9	-266.9	413.5	404.8	8.69	47.609		
2,000.0	1,986.8	1,884.8	1,860.7	5.2	5.7	140.53	-151.0	-286.1	454.7	445.4	9.30	48.872		
2,100.0	2,084.9	1,966.4	1,937.4	5.6	6.2	139.85	-170.6	-305.7	497.5	487.6	9.93	50.122		
2,200.0	2,183.1	2,046.4	2,012.1	6.0	6.8	139.17	-191.0	-326.1	542.0	531.5	10.56	51.339		
2,300.0	2,281.2	2,125.0	2,084.8	6.4	7.3	138.50	-212.0	-347.2	588.2	577.0	11.20	52.534		
2,400.0	2,379.3	2,200.0	2,153.6	6.8	7.9	137.86	-233.1	-368.4	636.0	624.2	11.83	53.750		
2,500.0	2,477.4	2,281.8	2,228.1	7.3	8.6	137.19	-257.0	-392.4	685.3	672.7	12.51	54.772		
2,600.0	2,575.6	2,368.4	2,306.7	7.7	9.3	136.55	-282.6	-418.0	734.9	721.7	13.21	55.636		
2,700.0	2,673.7	2,454.9	2,385.3	8.1	10.0	135.99	-308.1	-443.7	784.5	770.6	13.91	56.406		
2,800.0	2,771.8	2,541.5	2,463.9	8.5	10.7	135.50	-333.7	-469.3	834.2	819.6	14.61	57.091		
2,900.0	2,870.0	2,628.0	2,542.6	8.9	11.4	135.06	-359.2	-494.9	884.0	868.7	15.32	57.704		
3,000.0	2,968.1	2,714.6	2,621.2	9.4	12.1	134.67	-384.8	-520.6	933.8	917.8	16.03	58.255		
3,100.0	3,066.2	2,801.2	2,699.8	9.8	12.9	134.32	-410.4	-546.2	983.6	966.9	16.74	58.752		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-148.5	148.5					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-148.5	148.5	148.3	0.22	660.703		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-148.5	148.5	147.8	0.67	220.234		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-148.5	148.5	147.4	1.12	132.141		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-148.5	148.5	146.9	1.57	94.386 CC, ES		
500.0	500.0	497.1	497.1	1.0	1.0	-90.28	-0.7	-149.4	149.5	147.5	2.00	74.897		
600.0	600.0	594.1	594.1	1.2	1.2	-91.19	-3.2	-152.2	152.4	150.0	2.41	63.187		
700.0	700.0	690.9	690.6	1.5	1.4	-92.63	-7.2	-156.8	157.3	154.4	2.84	55.297		
800.0	800.0	787.3	786.6	1.7	1.6	-94.49	-12.8	-163.3	164.3	161.0	3.30	49.814		
900.0	900.0	883.1	881.8	1.9	1.9	-147.15	-20.0	-171.5	174.7	171.0	3.72	46.995		
1,000.0	999.9	978.1	975.9	2.1	2.2	145.35	-28.7	-181.4	189.5	185.3	4.15	45.641		
1,100.0	1,099.7	1,072.0	1,068.5	2.3	2.5	143.83	-38.7	-192.9	208.5	203.9	4.60	45.324 SF		
1,200.0	1,199.3	1,164.6	1,159.5	2.5	2.8	142.58	-50.1	-205.9	231.8	226.7	5.07	45.754		
1,300.0	1,298.6	1,255.6	1,248.5	2.8	3.2	141.57	-62.7	-220.4	259.2	253.6	5.55	46.711		
1,400.0	1,397.5	1,345.0	1,335.4	3.0	3.6	140.77	-76.4	-236.1	290.5	284.4	6.05	48.031		
1,500.0	1,496.1	1,432.4	1,419.9	3.4	4.0	140.12	-91.2	-252.9	325.6	319.0	6.56	49.599		
1,539.4	1,534.8	1,466.4	1,452.6	3.5	4.2	139.90	-97.2	-259.9	340.5	333.7	6.78	50.247		
1,600.0	1,594.3	1,517.9	1,502.0	3.7	4.5	139.79	-106.8	-270.8	364.1	357.0	7.11	51.188		
1,700.0	1,692.4	1,600.0	1,580.4	4.1	4.9	139.54	-122.9	-289.3	404.6	396.9	7.67	52.716		
1,800.0	1,790.5	1,684.5	1,660.4	4.4	5.5	139.20	-140.7	-309.6	446.8	438.5	8.27	54.037		
1,900.0	1,888.7	1,765.5	1,736.6	4.8	6.0	138.82	-158.8	-330.4	490.7	481.8	8.87	55.341		
2,000.0	1,986.8	1,844.9	1,810.7	5.2	6.6	138.41	-177.6	-351.9	536.3	526.8	9.48	56.601		
2,100.0	2,084.9	1,922.8	1,882.8	5.6	7.1	137.98	-197.0	-374.1	583.6	573.5	10.09	57.831		
2,200.0	2,183.1	2,000.0	1,953.6	6.0	7.7	137.54	-217.2	-397.2	632.4	621.7	10.72	59.020		
2,300.0	2,281.2	2,075.4	2,022.2	6.4	8.3	137.10	-237.8	-420.8	682.9	671.5	11.35	60.175		
2,400.0	2,379.3	2,159.1	2,098.0	6.8	9.1	136.64	-261.2	-447.6	734.1	722.1	12.02	61.089		
2,500.0	2,477.4	2,244.9	2,175.6	7.3	9.8	136.24	-285.1	-475.0	785.4	772.7	12.70	61.868		
2,600.0	2,575.6	2,330.6	2,253.2	7.7	10.5	135.88	-309.1	-502.4	836.8	823.4	13.38	62.549		
2,700.0	2,673.7	2,416.3	2,330.8	8.1	11.2	135.56	-333.0	-529.8	888.1	874.0	14.06	63.146		
2,800.0	2,771.8	2,502.0	2,408.4	8.5	12.0	135.28	-357.0	-557.3	939.5	924.7	14.75	63.674		
2,900.0	2,870.0	2,587.7	2,486.0	8.9	12.7	135.02	-380.9	-584.7	990.9	975.4	15.45	64.140		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Reference Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-117.7	117.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-117.7	117.7	117.5	0.22	523.576		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-117.7	117.7	117.0	0.67	174.525		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-117.7	117.7	116.6	1.12	104.715		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-117.7	117.7	116.1	1.57	74.797		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-117.7	117.7	115.7	2.02	58.175		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-117.7	117.7	115.2	2.47	47.598		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.1	-117.7	117.7	114.8	2.92	40.275		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.1	-117.7	117.7	114.3	3.37	34.905 CC, ES		
900.0	900.0	898.0	898.0	1.9	1.9	153.49	-0.9	-118.5	119.7	115.9	3.77	31.718		
1,000.0	999.9	995.7	995.6	2.1	2.1	152.94	-3.7	-121.0	125.7	121.6	4.15	30.302		
1,100.0	1,099.7	1,093.0	1,092.7	2.3	2.3	152.13	-8.4	-125.0	135.8	131.3	4.54	29.891 SF		
1,200.0	1,199.3	1,189.5	1,188.8	2.5	2.5	151.16	-14.9	-130.7	149.9	144.9	4.96	30.244		
1,300.0	1,298.6	1,285.1	1,283.8	2.8	2.7	150.14	-23.2	-137.8	168.0	162.6	5.39	31.171		
1,400.0	1,397.5	1,379.5	1,377.2	3.0	2.9	149.15	-33.1	-146.4	190.0	184.2	5.84	32.517		
1,500.0	1,496.1	1,472.5	1,469.0	3.4	3.2	148.20	-44.5	-156.4	216.0	209.7	6.32	34.156		
1,539.4	1,534.8	1,508.8	1,504.7	3.5	3.3	147.85	-49.5	-160.6	227.3	220.8	6.52	34.868		
1,600.0	1,594.3	1,564.0	1,559.0	3.7	3.5	147.42	-57.5	-167.6	245.4	238.6	6.83	35.918		
1,700.0	1,692.4	1,654.5	1,647.4	4.1	3.9	146.59	-71.8	-180.0	276.6	269.3	7.37	37.545		
1,800.0	1,790.5	1,743.7	1,734.1	4.4	4.2	145.65	-87.6	-193.7	309.6	301.6	7.93	39.052		
1,900.0	1,888.7	1,831.7	1,819.2	4.8	4.6	144.65	-104.6	-208.4	344.2	335.7	8.51	40.442		
2,000.0	1,986.8	1,918.3	1,902.4	5.2	5.0	143.63	-122.8	-224.2	380.6	371.5	9.11	41.765		
2,100.0	2,084.9	2,000.0	1,980.4	5.6	5.5	142.65	-141.2	-240.1	418.7	409.0	9.72	43.091		
2,200.0	2,183.1	2,087.5	2,063.2	6.0	6.0	141.60	-162.3	-258.5	458.5	448.1	10.37	44.227		
2,300.0	2,281.2	2,169.8	2,140.7	6.4	6.5	140.63	-183.5	-276.9	500.0	489.0	11.02	45.390		
2,400.0	2,379.3	2,250.7	2,216.1	6.8	7.0	139.68	-205.6	-296.0	543.2	531.6	11.67	46.530		
2,500.0	2,477.4	2,331.3	2,290.6	7.3	7.6	138.76	-228.7	-316.1	588.1	575.7	12.35	47.637		
2,600.0	2,575.6	2,419.8	2,372.2	7.7	8.3	137.84	-254.7	-338.5	633.7	620.6	13.05	48.543		
2,700.0	2,673.7	2,508.4	2,453.9	8.1	8.9	137.04	-280.6	-361.0	679.3	665.6	13.76	49.353		
2,800.0	2,771.8	2,597.0	2,535.5	8.5	9.6	136.35	-306.6	-383.5	725.1	710.6	14.48	50.075		
2,900.0	2,870.0	2,685.6	2,617.2	8.9	10.2	135.73	-332.5	-406.0	771.0	755.8	15.20	50.721		
3,000.0	2,968.1	2,774.2	2,698.9	9.4	10.9	135.19	-358.5	-428.5	816.9	801.0	15.92	51.304		
3,100.0	3,066.2	2,862.7	2,780.5	9.8	11.6	134.70	-384.4	-451.0	862.8	846.2	16.65	51.832		
3,200.0	3,164.4	2,951.3	2,862.2	10.2	12.3	134.26	-410.4	-473.5	908.9	891.5	17.37	52.312		
3,300.0	3,262.5	3,039.9	2,943.8	10.7	12.9	133.86	-436.3	-496.0	954.9	936.8	18.10	52.751		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-89.7	89.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-89.7	89.7	89.4	0.22	398.915		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-89.7	89.7	89.0	0.67	132.972		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-89.7	89.7	88.5	1.12	79.783		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-89.7	89.7	88.1	1.57	56.988		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-89.7	89.7	87.6	2.02	44.324		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-89.7	89.7	87.2	2.47	36.265		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-89.7	89.7	86.7	2.92	30.686		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-89.7	89.7	86.3	3.37	26.594 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	-89.97	0.0	-89.7	90.8	87.0	3.80	23.891		
1,000.0	999.9	999.9	999.9	2.1	2.1	155.06	0.0	-89.7	94.4	90.2	4.22	22.366		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	156.60	0.0	-89.7	100.4	95.7	4.64	21.606		
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	158.47	0.0	-89.7	108.8	103.7	5.07	21.443 SF		
1,300.0	1,298.6	1,297.3	1,297.3	2.8	2.8	159.90	-1.0	-90.3	120.3	114.9	5.48	21.956		
1,400.0	1,397.5	1,394.9	1,394.8	3.0	3.0	160.43	-4.2	-92.2	135.4	129.5	5.87	23.050		
1,500.0	1,496.1	1,491.7	1,491.4	3.4	3.1	160.28	-9.6	-95.3	153.8	147.6	6.28	24.501		
1,539.4	1,534.8	1,529.7	1,529.2	3.5	3.2	160.08	-12.2	-96.9	162.1	155.6	6.45	25.147		
1,600.0	1,594.3	1,587.7	1,587.0	3.7	3.3	159.68	-16.9	-99.6	175.3	168.6	6.71	26.131		
1,700.0	1,692.4	1,683.1	1,681.8	4.1	3.5	158.62	-26.3	-105.1	197.9	190.8	7.16	27.631		
1,800.0	1,790.5	1,777.8	1,775.6	4.4	3.8	157.22	-37.6	-111.8	221.7	214.1	7.65	28.991		
1,900.0	1,888.7	1,871.8	1,868.3	4.8	4.0	155.60	-50.8	-119.5	246.7	238.6	8.16	30.226		
2,000.0	1,986.8	1,964.9	1,959.8	5.2	4.3	153.85	-65.8	-128.3	273.1	264.3	8.71	31.354		
2,100.0	2,084.9	2,057.0	2,049.8	5.6	4.6	152.03	-82.5	-138.1	300.8	291.5	9.29	32.395		
2,200.0	2,183.1	2,148.0	2,138.3	6.0	4.9	150.19	-100.9	-148.9	330.1	320.2	9.89	33.357		
2,300.0	2,281.2	2,237.9	2,225.2	6.4	5.3	148.37	-120.8	-160.6	360.9	350.4	10.53	34.272		
2,400.0	2,379.3	2,326.6	2,310.3	6.8	5.7	146.59	-142.2	-173.2	393.4	382.2	11.19	35.151		
2,500.0	2,477.4	2,413.9	2,393.6	7.3	6.2	144.85	-164.9	-186.5	427.5	415.7	11.87	36.008		
2,600.0	2,575.6	2,500.0	2,475.0	7.7	6.6	143.19	-188.9	-200.6	463.4	450.8	12.57	36.853		
2,700.0	2,673.7	2,584.5	2,554.4	8.1	7.1	141.59	-214.0	-215.4	501.0	487.7	13.29	37.683		
2,800.0	2,771.8	2,667.7	2,631.8	8.5	7.6	140.07	-240.1	-230.7	540.3	526.3	14.03	38.514		
2,900.0	2,870.0	2,753.7	2,711.3	8.9	8.2	138.57	-268.5	-247.4	581.1	566.4	14.78	39.310		
3,000.0	2,968.1	2,843.7	2,794.4	9.4	8.8	137.18	-298.4	-264.9	622.5	607.0	15.56	39.996		
3,100.0	3,066.2	2,933.7	2,877.5	9.8	9.5	135.96	-328.2	-282.5	664.2	647.8	16.34	40.635		
3,200.0	3,164.4	3,023.8	2,960.6	10.2	10.1	134.88	-358.1	-300.0	706.0	688.9	17.13	41.227		
3,300.0	3,262.5	3,113.8	3,043.7	10.7	10.7	133.92	-388.0	-317.6	748.1	730.2	17.91	41.776		
3,400.0	3,360.6	3,203.9	3,126.8	11.1	11.4	133.07	-417.9	-335.1	790.3	771.6	18.69	42.287		
3,500.0	3,458.8	3,293.9	3,209.9	11.5	12.1	132.29	-447.8	-352.7	832.7	813.2	19.47	42.762		
3,600.0	3,556.9	3,384.0	3,293.0	11.9	12.7	131.60	-477.7	-370.3	875.1	854.9	20.26	43.205		
3,700.0	3,655.0	3,474.0	3,376.1	12.4	13.4	130.96	-507.6	-387.8	917.7	896.6	21.04	43.619		
3,800.0	3,753.2	3,564.0	3,459.2	12.8	14.1	130.38	-537.5	-405.4	960.3	938.5	21.82	44.007		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.96	0.0	-44.8	44.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-44.8	44.8	44.6	0.22	199.457		
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-44.8	44.8	44.2	0.67	66.486		
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-44.8	44.8	43.7	1.12	39.891		
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-44.8	44.8	43.3	1.57	28.494		
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-44.8	44.8	42.8	2.02	22.162		
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-44.8	44.8	42.4	2.47	18.132		
700.0	700.0	700.0	700.0	1.5	1.5	-89.96	0.0	-44.8	44.8	41.9	2.92	15.343		
800.0	800.0	800.0	800.0	1.7	1.7	-89.96	0.0	-44.8	44.8	41.5	3.37	13.297 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	154.41	0.0	-44.8	46.0	42.2	3.80	12.101		
1,000.0	999.9	999.9	999.9	2.1	2.1	156.35	0.0	-44.8	49.6	45.4	4.22	11.748		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	159.02	0.0	-44.8	55.6	51.0	4.64	11.978		
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	161.90	0.0	-44.8	64.3	59.2	5.07	12.666		
1,300.0	1,298.6	1,299.8	1,299.8	2.8	2.8	163.87	-1.1	-44.2	74.7	69.3	5.48	13.639		
1,400.0	1,397.5	1,400.4	1,400.3	3.0	3.0	164.40	-4.7	-42.4	86.2	80.3	5.87	14.686		
1,500.0	1,496.1	1,501.1	1,500.8	3.4	3.2	163.99	-10.5	-39.5	98.5	92.2	6.27	15.710		
1,539.4	1,534.8	1,540.9	1,540.4	3.5	3.2	163.63	-13.5	-37.9	103.6	97.2	6.44	16.102		
1,600.0	1,594.3	1,601.4	1,600.6	3.7	3.4	162.97	-18.6	-35.3	111.4	104.7	6.70	16.630		
1,700.0	1,692.4	1,700.5	1,699.3	4.1	3.6	162.00	-27.1	-31.0	124.2	117.0	7.15	17.361		
1,800.0	1,790.5	1,799.7	1,798.0	4.4	3.8	161.22	-35.6	-26.7	137.0	129.4	7.62	17.969		
1,900.0	1,888.7	1,898.8	1,896.7	4.8	4.0	160.57	-44.1	-22.4	149.8	141.7	8.11	18.476		
2,000.0	1,986.8	1,998.0	1,995.4	5.2	4.3	160.02	-52.6	-18.1	162.7	154.1	8.61	18.901		
2,100.0	2,084.9	2,097.2	2,094.1	5.6	4.5	159.55	-61.1	-13.7	175.5	166.4	9.11	19.259		
2,200.0	2,183.1	2,196.3	2,192.8	6.0	4.8	159.14	-69.6	-9.4	188.4	178.8	9.63	19.563		
2,300.0	2,281.2	2,295.5	2,291.5	6.4	5.0	158.79	-78.1	-5.1	201.3	191.1	10.15	19.822		
2,400.0	2,379.3	2,394.6	2,390.2	6.8	5.3	158.48	-86.5	-0.8	214.2	203.5	10.68	20.044		
2,500.0	2,477.4	2,493.8	2,488.9	7.3	5.5	158.21	-95.0	3.6	227.1	215.8	11.22	20.236		
2,600.0	2,575.6	2,593.0	2,587.6	7.7	5.8	157.96	-103.5	7.9	239.9	228.2	11.76	20.402		
2,700.0	2,673.7	2,692.1	2,686.3	8.1	6.1	157.74	-112.0	12.2	252.8	240.5	12.31	20.547		
2,800.0	2,771.8	2,791.3	2,785.0	8.5	6.3	157.54	-120.5	16.5	265.7	252.9	12.85	20.673		
2,900.0	2,870.0	2,890.4	2,883.8	8.9	6.6	157.36	-129.0	20.8	278.6	265.2	13.41	20.785		
3,000.0	2,968.1	2,989.6	2,982.5	9.4	6.9	157.20	-137.5	25.2	291.6	277.6	13.96	20.884		
3,100.0	3,066.2	3,088.8	3,081.2	9.8	7.1	157.04	-146.0	29.5	304.5	289.9	14.52	20.971		
3,200.0	3,164.4	3,187.9	3,179.9	10.2	7.4	156.91	-154.5	33.8	317.4	302.3	15.08	21.050		
3,300.0	3,262.5	3,287.1	3,278.6	10.7	7.7	156.78	-163.0	38.1	330.3	314.6	15.64	21.119		
3,400.0	3,360.6	3,386.2	3,377.3	11.1	8.0	156.66	-171.5	42.4	343.2	327.0	16.20	21.182		
3,500.0	3,458.8	3,485.4	3,476.0	11.5	8.3	156.55	-180.0	46.8	356.1	339.3	16.77	21.239		
3,600.0	3,556.9	3,584.6	3,574.7	11.9	8.5	156.45	-188.4	51.1	369.0	351.7	17.33	21.290		
3,700.0	3,655.0	3,683.7	3,673.4	12.4	8.8	156.35	-196.9	55.4	381.9	364.0	17.90	21.336		
3,800.0	3,753.2	3,782.9	3,772.1	12.8	9.1	156.27	-205.4	59.7	394.9	376.4	18.47	21.378		
3,900.0	3,851.3	3,882.0	3,870.8	13.2	9.4	156.18	-213.9	64.1	407.8	388.7	19.04	21.416		
4,000.0	3,949.4	3,981.2	3,969.5	13.7	9.7	156.10	-222.4	68.4	420.7	401.1	19.61	21.451		
4,100.0	4,047.6	4,080.4	4,068.2	14.1	9.9	156.03	-230.9	72.7	433.6	413.4	20.18	21.483		
4,200.0	4,145.7	4,179.5	4,166.9	14.5	10.2	155.96	-239.4	77.0	446.5	425.8	20.76	21.512		
4,300.0	4,243.8	4,278.7	4,265.6	15.0	10.5	155.90	-247.9	81.3	459.5	438.1	21.33	21.539		
4,400.0	4,342.0	4,377.8	4,364.3	15.4	10.8	155.84	-256.4	85.7	472.4	450.5	21.91	21.564		
4,500.0	4,440.1	4,477.0	4,463.0	15.8	11.1	155.78	-264.9	90.0	485.3	462.8	22.48	21.587		
4,600.0	4,538.2	4,576.2	4,561.7	16.3	11.4	155.72	-273.4	94.3	498.2	475.2	23.06	21.608		
4,700.0	4,636.4	4,675.3	4,660.4	16.7	11.6	155.67	-281.9	98.6	511.1	487.5	23.63	21.628		
4,800.0	4,734.5	4,774.5	4,759.1	17.1	11.9	155.62	-290.4	102.9	524.1	499.9	24.21	21.646		
4,900.0	4,832.6	4,873.6	4,857.8	17.6	12.2	155.57	-298.8	107.3	537.0	512.2	24.79	21.663		
5,000.0	4,930.7	4,972.8	4,956.5	18.0	12.5	155.53	-307.3	111.6	549.9	524.6	25.37	21.679		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,028.9	5,072.0	5,055.2	18.4	12.8	155.48	-315.8	115.9	562.8	536.9	25.94	21.694		
5,200.0	5,127.0	5,171.1	5,153.9	18.9	13.1	155.44	-324.3	120.2	575.8	549.2	26.52	21.708		
5,300.0	5,225.1	5,270.3	5,252.6	19.3	13.4	155.40	-332.8	124.6	588.7	561.6	27.10	21.721		
5,400.0	5,323.3	5,369.4	5,351.3	19.7	13.6	155.36	-341.3	128.9	601.6	573.9	27.68	21.733		
5,500.0	5,421.4	5,468.6	5,450.0	20.2	13.9	155.33	-349.8	133.2	614.5	586.3	28.26	21.744		
5,600.0	5,519.5	5,567.8	5,548.7	20.6	14.2	155.29	-358.3	137.5	627.5	598.6	28.84	21.755		
5,700.0	5,617.7	5,666.9	5,647.4	21.0	14.5	155.26	-366.8	141.8	640.4	611.0	29.42	21.765		
5,800.0	5,715.8	5,766.1	5,746.1	21.5	14.8	155.23	-375.3	146.2	653.3	623.3	30.00	21.774		
5,900.0	5,813.9	5,865.2	5,844.8	21.9	15.1	155.20	-383.8	150.5	666.3	635.7	30.59	21.783		
6,000.0	5,912.1	5,964.4	5,943.5	22.3	15.4	155.17	-392.3	154.8	679.2	648.0	31.17	21.791		
6,100.0	6,010.2	6,063.6	6,042.2	22.8	15.7	155.14	-400.7	159.1	692.1	660.4	31.75	21.799		
6,200.0	6,108.3	6,162.7	6,140.9	23.2	15.9	155.11	-409.2	163.5	705.0	672.7	32.33	21.807		
6,300.0	6,206.5	6,261.9	6,239.6	23.6	16.2	155.09	-417.7	167.8	718.0	685.0	32.91	21.814		
6,400.0	6,304.6	6,361.1	6,338.3	24.1	16.5	155.06	-426.2	172.1	730.9	697.4	33.50	21.821		
6,500.0	6,402.7	6,460.2	6,437.0	24.5	16.8	155.04	-434.7	176.4	743.8	709.7	34.08	21.827		
6,600.0	6,500.9	6,559.4	6,535.7	24.9	17.1	155.01	-443.2	180.7	756.7	722.1	34.66	21.833		
6,700.0	6,599.0	6,658.5	6,634.4	25.4	17.4	154.99	-451.7	185.1	769.7	734.4	35.24	21.838		
6,800.0	6,697.1	6,757.7	6,733.1	25.8	17.7	154.97	-460.2	189.4	782.6	746.8	35.83	21.844		
6,853.1	6,749.2	6,810.3	6,785.5	26.0	17.8	154.96	-464.7	191.7	789.5	753.3	36.14	21.847		
6,900.0	6,795.1	6,856.8	6,831.8	26.2	18.0	139.95	-468.7	193.7	795.6	759.1	36.49	21.805		
6,950.0	6,843.5	6,906.1	6,880.9	26.5	18.1	129.11	-472.9	195.8	802.1	765.3	36.84	21.773		
7,000.0	6,891.1	6,955.0	6,929.5	26.7	18.2	121.96	-477.1	198.0	808.7	771.6	37.18	21.753		
7,050.0	6,937.8	7,003.2	6,977.4	27.0	18.4	117.20	-481.2	200.1	815.5	778.0	37.50	21.744		
7,100.0	6,983.2	7,050.7	7,024.8	27.3	18.5	114.01	-485.3	202.2	822.6	784.8	37.82	21.748		
7,150.0	7,027.2	7,102.9	7,076.5	27.6	18.7	111.90	-491.9	204.4	829.8	791.7	38.17	21.743		
7,200.0	7,069.5	7,156.5	7,129.0	28.0	18.9	110.42	-502.7	206.7	837.2	798.6	38.58	21.699		
7,250.0	7,110.0	7,211.8	7,182.0	28.3	19.2	109.38	-517.8	209.1	844.5	805.5	39.07	21.614		
7,300.0	7,148.4	7,268.7	7,235.3	28.7	19.5	108.65	-537.6	211.5	851.8	812.2	39.65	21.485		
7,350.0	7,184.6	7,327.3	7,288.4	29.1	19.8	108.17	-562.4	213.9	859.0	818.7	40.31	21.309		
7,400.0	7,218.4	7,387.9	7,340.8	29.5	20.3	107.87	-592.5	216.2	866.0	825.0	41.07	21.085		
7,450.0	7,249.6	7,450.3	7,392.1	30.0	20.7	107.70	-628.0	218.6	872.8	830.8	41.94	20.810		
7,500.0	7,278.1	7,514.7	7,441.5	30.5	21.3	107.63	-669.2	220.8	879.2	836.2	42.93	20.480		
7,550.0	7,303.7	7,581.0	7,488.4	30.9	22.0	107.63	-716.1	223.0	885.1	841.1	44.03	20.100		
7,600.0	7,326.3	7,649.3	7,531.8	31.5	22.7	107.68	-768.6	225.1	890.5	845.2	45.27	19.673		
7,650.0	7,345.7	7,719.3	7,571.0	32.0	23.5	107.75	-826.6	226.9	895.3	848.7	46.64	19.196		
7,700.0	7,362.0	7,791.0	7,605.1	32.5	24.4	107.84	-889.7	228.6	899.4	851.3	48.14	18.682		
7,750.0	7,375.0	7,864.2	7,633.2	33.1	25.3	107.93	-957.2	230.0	902.7	853.0	49.78	18.135		
7,800.0	7,384.7	7,938.5	7,654.5	33.7	26.4	107.99	-1,028.3	231.2	905.3	853.7	51.53	17.566		
7,850.0	7,391.0	8,013.6	7,668.5	34.3	27.5	108.03	-1,102.1	232.0	906.9	853.5	53.39	16.985		
7,900.0	7,393.8	8,089.2	7,674.7	34.8	28.6	108.04	-1,177.4	232.5	907.6	852.3	55.34	16.401		
7,916.4	7,394.0	8,112.8	7,675.0	35.0	28.9	108.03	-1,201.0	232.6	907.6	851.7	55.97	16.216		
8,000.0	7,394.0	8,196.4	7,675.0	36.1	30.2	108.03	-1,284.5	232.8	907.7	849.2	58.43	15.535		
8,100.0	7,394.0	8,296.4	7,675.0	37.4	31.8	108.03	-1,384.5	233.1	907.7	846.3	61.45	14.771		
8,200.0	7,394.0	8,396.4	7,675.0	38.7	33.4	108.03	-1,484.5	233.4	907.8	843.2	64.54	14.065		
8,300.0	7,394.0	8,496.4	7,675.0	40.1	35.1	108.03	-1,584.5	233.7	907.8	840.1	67.69	13.412		
8,400.0	7,394.0	8,596.4	7,675.0	41.6	36.7	108.03	-1,684.5	234.0	907.9	837.0	70.89	12.807		
8,500.0	7,394.0	8,696.4	7,675.0	43.1	38.4	108.03	-1,784.5	234.3	907.9	833.8	74.13	12.247		
8,600.0	7,394.0	8,796.4	7,675.0	44.6	40.1	108.03	-1,884.5	234.6	908.0	830.6	77.41	11.729		
8,700.0	7,394.0	8,896.4	7,675.0	46.1	41.9	108.03	-1,984.5	234.9	908.0	827.3	80.73	11.248		
8,800.0	7,394.0	8,996.4	7,675.0	47.7	43.6	108.03	-2,084.5	235.2	908.1	824.0	84.07	10.801		
8,900.0	7,394.0	9,096.4	7,675.0	49.3	45.4	108.02	-2,184.5	235.5	908.1	820.7	87.44	10.385		
9,000.0	7,394.0	9,196.4	7,675.0	50.9	47.1	108.02	-2,284.5	235.8	908.2	817.3	90.84	9.998		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,100.0	7,394.0	9,296.4	7,675.0	52.6	48.9	108.02	-2,384.5	236.1	908.2	814.0	94.25	9.636		
9,200.0	7,394.0	9,396.4	7,675.0	54.2	50.7	108.02	-2,484.5	236.4	908.3	810.6	97.69	9.298		
9,300.0	7,394.0	9,496.4	7,675.0	55.9	52.5	108.02	-2,584.5	236.7	908.3	807.2	101.14	8.981		
9,400.0	7,394.0	9,596.4	7,675.0	57.6	54.3	108.02	-2,684.5	237.0	908.4	803.8	104.60	8.684		
9,500.0	7,394.0	9,696.4	7,675.0	59.3	56.1	108.02	-2,784.5	237.3	908.4	800.4	108.08	8.405		
9,600.0	7,394.0	9,796.4	7,675.0	61.0	58.0	108.02	-2,884.5	237.6	908.5	796.9	111.57	8.142		
9,700.0	7,394.0	9,896.4	7,675.0	62.7	59.8	108.02	-2,984.5	237.9	908.5	793.5	115.08	7.895		
9,800.0	7,394.0	9,996.4	7,675.0	64.5	61.6	108.02	-3,084.5	238.2	908.6	790.0	118.59	7.662		
9,900.0	7,394.0	10,096.4	7,675.0	66.2	63.5	108.01	-3,184.5	238.5	908.6	786.5	122.11	7.441		
10,000.0	7,394.0	10,196.4	7,675.0	68.0	65.3	108.01	-3,284.5	238.8	908.7	783.0	125.64	7.232		
10,100.0	7,394.0	10,296.4	7,675.0	69.7	67.1	108.01	-3,384.5	239.1	908.7	779.6	129.18	7.035		
10,200.0	7,394.0	10,396.4	7,675.0	71.5	69.0	108.01	-3,484.5	239.4	908.8	776.1	132.73	6.847		
10,300.0	7,394.0	10,496.4	7,675.0	73.3	70.8	108.01	-3,584.5	239.7	908.8	772.6	136.28	6.669		
10,400.0	7,394.0	10,596.4	7,675.0	75.1	72.7	108.01	-3,684.5	240.0	908.9	769.0	139.84	6.499		
10,500.0	7,394.0	10,696.4	7,675.0	76.9	74.6	108.01	-3,784.5	240.3	908.9	765.5	143.41	6.338		
10,600.0	7,394.0	10,796.4	7,675.0	78.7	76.4	108.01	-3,884.5	240.6	909.0	762.0	146.98	6.185		
10,700.0	7,394.0	10,896.4	7,675.0	80.5	78.3	108.01	-3,984.5	240.9	909.0	758.5	150.55	6.038		
10,800.0	7,394.0	10,996.4	7,675.0	82.3	80.2	108.01	-4,084.5	241.2	909.1	755.0	154.13	5.898		
10,900.0	7,394.0	11,096.4	7,675.0	84.1	82.0	108.00	-4,184.5	241.4	909.1	751.4	157.72	5.764		
11,000.0	7,394.0	11,196.4	7,675.0	85.9	83.9	108.00	-4,284.5	241.7	909.2	747.9	161.31	5.636		
11,100.0	7,394.0	11,296.4	7,675.0	87.7	85.8	108.00	-4,384.5	242.0	909.2	744.3	164.90	5.514		
11,200.0	7,394.0	11,396.4	7,675.0	89.5	87.6	108.00	-4,484.5	242.3	909.3	740.8	168.49	5.397		
11,300.0	7,394.0	11,496.4	7,675.0	91.4	89.5	108.00	-4,584.5	242.6	909.3	737.2	172.09	5.284		
11,400.0	7,394.0	11,596.4	7,675.0	93.2	91.4	108.00	-4,684.5	242.9	909.4	733.7	175.69	5.176		
11,500.0	7,394.0	11,696.4	7,675.0	95.0	93.3	108.00	-4,784.5	243.2	909.4	730.1	179.30	5.072		
11,600.0	7,394.0	11,796.4	7,675.0	96.9	95.2	108.00	-4,884.5	243.5	909.5	726.6	182.91	4.972		
11,700.0	7,394.0	11,896.4	7,675.0	98.7	97.0	108.00	-4,984.5	243.8	909.5	723.0	186.52	4.876		
11,800.0	7,394.0	11,996.4	7,675.0	100.6	98.9	107.99	-5,084.5	244.1	909.6	719.5	190.13	4.784		
11,900.0	7,394.0	12,096.4	7,675.0	102.4	100.8	107.99	-5,184.5	244.4	909.6	715.9	193.74	4.695		
12,000.0	7,394.0	12,196.4	7,675.0	104.3	102.7	107.99	-5,284.5	244.7	909.7	712.3	197.36	4.609		
12,100.0	7,394.0	12,296.4	7,675.0	106.1	104.6	107.99	-5,384.5	245.0	909.7	708.8	200.98	4.527		
12,200.0	7,394.0	12,396.4	7,675.0	108.0	106.5	107.99	-5,484.5	245.3	909.8	705.2	204.60	4.447		
12,300.0	7,394.0	12,496.4	7,675.0	109.8	108.4	107.99	-5,584.5	245.6	909.8	701.6	208.23	4.370		
12,400.0	7,394.0	12,596.4	7,675.0	111.7	110.3	107.99	-5,684.5	245.9	909.9	698.0	211.85	4.295		
12,500.0	7,394.0	12,696.4	7,675.0	113.5	112.1	107.99	-5,784.5	246.2	909.9	694.5	215.48	4.223		
12,600.0	7,394.0	12,796.4	7,675.0	115.4	114.0	107.99	-5,884.5	246.5	910.0	690.9	219.11	4.153		
12,700.0	7,394.0	12,896.4	7,675.0	117.3	115.9	107.99	-5,984.5	246.8	910.0	687.3	222.73	4.086		
12,800.0	7,394.0	12,996.4	7,675.0	119.1	117.8	107.98	-6,084.5	247.1	910.1	683.7	226.37	4.020		
12,900.0	7,394.0	13,096.4	7,675.0	121.0	119.7	107.98	-6,184.5	247.4	910.1	680.2	230.00	3.957		
13,000.0	7,394.0	13,196.4	7,675.0	122.9	121.6	107.98	-6,284.5	247.7	910.2	676.6	233.63	3.896		
13,100.0	7,394.0	13,296.4	7,675.0	124.7	123.5	107.98	-6,384.5	248.0	910.2	673.0	237.27	3.836		
13,200.0	7,394.0	13,396.4	7,675.0	126.6	125.4	107.98	-6,484.5	248.3	910.3	669.4	240.90	3.779		
13,300.0	7,394.0	13,496.4	7,675.0	128.5	127.3	107.98	-6,584.5	248.6	910.4	665.8	244.54	3.723		
13,400.0	7,394.0	13,596.4	7,675.0	130.4	129.2	107.98	-6,684.5	248.9	910.4	662.2	248.18	3.668		
13,500.0	7,394.0	13,696.4	7,675.0	132.2	131.1	107.98	-6,784.5	249.2	910.5	658.6	251.82	3.615		
13,588.4	7,394.0	13,784.8	7,675.0	133.9	132.8	107.98	-6,872.9	249.4	910.5	655.5	255.04	3.570 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-72.9	72.9					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-72.9	72.9	72.6	0.22	324.118		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-72.9	72.9	72.2	0.67	108.039		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-72.9	72.9	71.7	1.12	64.824		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-72.9	72.9	71.3	1.57	46.303		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-72.9	72.9	70.8	2.02	36.013		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-72.9	72.9	70.4	2.47	29.465		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-72.9	72.9	69.9	2.92	24.932		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-72.9	72.9	69.5	3.37	21.608 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	154.13	0.0	-72.9	74.0	70.2	3.80	19.470		
1,000.0	999.9	999.9	999.9	2.1	2.1	155.37	0.0	-72.9	77.6	73.4	4.22	18.384		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	157.21	0.0	-72.9	83.6	78.9	4.64	17.992 SF		
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	159.37	0.0	-72.9	92.1	87.0	5.07	18.145		
1,300.0	1,298.6	1,298.6	1,298.6	2.8	2.8	161.61	0.0	-72.9	103.2	97.7	5.51	18.732		
1,400.0	1,397.5	1,397.5	1,397.5	3.0	3.0	163.77	0.0	-72.9	116.9	110.9	5.94	19.670		
1,500.0	1,496.1	1,495.4	1,495.4	3.4	3.2	165.22	-1.0	-73.3	133.5	127.1	6.35	21.018		
1,539.4	1,534.8	1,533.8	1,533.8	3.5	3.3	165.49	-2.1	-73.8	140.9	134.4	6.51	21.655		
1,600.0	1,594.3	1,592.7	1,592.6	3.7	3.4	165.64	-4.4	-74.9	152.7	146.0	6.75	22.627		
1,700.0	1,692.4	1,689.8	1,689.5	4.1	3.6	165.17	-10.0	-77.4	172.7	165.5	7.17	24.096		
1,800.0	1,790.5	1,786.6	1,785.9	4.4	3.8	164.08	-17.8	-80.9	193.2	185.6	7.60	25.411		
1,900.0	1,888.7	1,882.9	1,881.6	4.8	4.0	162.56	-27.7	-85.4	214.5	206.4	8.07	26.584		
2,000.0	1,986.8	1,978.6	1,976.4	5.2	4.2	160.74	-39.8	-90.9	236.5	228.0	8.56	27.631		
2,100.0	2,084.9	2,073.6	2,070.1	5.6	4.4	158.73	-53.9	-97.3	259.5	250.5	9.09	28.567		
2,200.0	2,183.1	2,167.8	2,162.7	6.0	4.7	156.60	-70.0	-104.6	283.7	274.0	9.65	29.408		
2,300.0	2,281.2	2,261.1	2,253.9	6.4	5.0	154.41	-88.0	-112.7	309.1	298.9	10.25	30.170		
2,400.0	2,379.3	2,353.5	2,343.6	6.8	5.3	152.20	-107.8	-121.7	335.9	325.0	10.88	30.876		
2,500.0	2,477.4	2,444.7	2,431.7	7.3	5.7	150.01	-129.3	-131.4	364.2	352.6	11.55	31.542		
2,600.0	2,575.6	2,534.7	2,518.1	7.7	6.1	147.86	-152.4	-141.8	394.0	381.8	12.24	32.185		
2,700.0	2,673.7	2,623.5	2,602.7	8.1	6.5	145.78	-177.0	-153.0	425.5	412.5	12.97	32.820		
2,800.0	2,771.8	2,711.0	2,685.4	8.5	7.0	143.76	-202.9	-164.7	458.7	445.0	13.71	33.458		
2,900.0	2,870.0	2,797.1	2,766.1	8.9	7.5	141.84	-230.1	-177.0	493.7	479.2	14.48	34.104		
3,000.0	2,968.1	2,888.1	2,851.1	9.4	8.0	139.94	-260.0	-190.5	529.9	514.6	15.28	34.682		
3,100.0	3,066.2	2,979.9	2,936.7	9.8	8.6	138.26	-290.1	-204.2	566.6	550.5	16.09	35.219		
3,200.0	3,164.4	3,071.7	3,022.3	10.2	9.2	136.78	-320.2	-217.8	603.6	586.8	16.90	35.727		
3,300.0	3,262.5	3,163.5	3,108.0	10.7	9.8	135.48	-350.3	-231.4	641.0	623.3	17.70	36.206		
3,400.0	3,360.6	3,255.3	3,193.6	11.1	10.4	134.31	-380.4	-245.1	678.7	660.2	18.51	36.659		
3,500.0	3,458.8	3,347.1	3,279.2	11.5	11.0	133.26	-410.6	-258.7	716.5	697.2	19.32	37.085		
3,600.0	3,556.9	3,438.8	3,364.8	11.9	11.6	132.32	-440.7	-272.3	754.6	734.5	20.13	37.487		
3,700.0	3,655.0	3,530.6	3,450.5	12.4	12.2	131.47	-470.8	-286.0	792.8	771.9	20.94	37.867		
3,800.0	3,753.2	3,622.4	3,536.1	12.8	12.8	130.70	-500.9	-299.6	831.2	809.4	21.74	38.226		
3,900.0	3,851.3	3,714.2	3,621.7	13.2	13.5	129.99	-531.0	-313.2	869.6	847.1	22.55	38.565		
4,000.0	3,949.4	3,806.0	3,707.4	13.7	14.1	129.34	-561.1	-326.8	908.2	884.9	23.36	38.886		
4,100.0	4,047.6	3,897.8	3,793.0	14.1	14.7	128.75	-591.2	-340.5	946.9	922.7	24.16	39.189		
4,200.0	4,145.7	3,989.6	3,878.6	14.5	15.4	128.20	-621.4	-354.1	985.6	960.7	24.97	39.477		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-28.0	28.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-28.0	28.0	27.8	0.22	124.661		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-28.0	28.0	27.3	0.67	41.554		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-28.0	28.0	26.9	1.12	24.932		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-28.0	28.0	26.4	1.57	17.809		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-28.0	28.0	26.0	2.02	13.851		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-28.0	28.0	25.5	2.47	11.333		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-28.0	28.0	25.1	2.92	9.589		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-28.0	28.0	24.6	3.37	8.311	CC, ES	
900.0	900.0	900.0	900.0	1.9	1.9	154.82	0.0	-28.0	29.2	25.4	3.80	7.680		
1,000.0	999.9	999.9	999.9	2.1	2.1	157.72	0.0	-28.0	32.8	28.6	4.22	7.771		
1,100.0	1,099.7	1,100.5	1,100.5	2.3	2.3	160.17	-0.9	-27.1	37.9	33.3	4.62	8.200		
1,200.0	1,199.3	1,201.2	1,201.1	2.5	2.5	161.02	-3.7	-24.3	43.4	38.4	5.01	8.669		
1,300.0	1,298.6	1,302.0	1,301.7	2.8	2.7	160.79	-8.4	-19.6	49.3	43.9	5.41	9.118		
1,400.0	1,397.5	1,402.9	1,402.1	3.0	2.9	159.82	-14.9	-13.0	55.6	49.8	5.83	9.541		
1,500.0	1,496.1	1,503.3	1,501.9	3.4	3.2	158.50	-23.2	-4.7	62.5	56.2	6.27	9.968		
1,539.4	1,534.8	1,542.6	1,540.9	3.5	3.3	158.20	-26.5	-1.4	65.8	59.3	6.45	10.193		
1,600.0	1,594.3	1,602.9	1,600.8	3.7	3.4	157.90	-31.6	3.8	71.1	64.3	6.74	10.547		
1,700.0	1,692.4	1,702.5	1,699.7	4.1	3.7	157.50	-40.1	12.3	79.8	72.6	7.23	11.046		
1,800.0	1,790.5	1,802.1	1,798.6	4.4	4.0	157.18	-48.5	20.8	88.6	80.9	7.73	11.462		
1,900.0	1,888.7	1,901.8	1,897.4	4.8	4.2	156.91	-56.9	29.3	97.4	89.1	8.24	11.811		
2,000.0	1,986.8	2,001.4	1,996.3	5.2	4.5	156.69	-65.4	37.8	106.1	97.4	8.77	12.105		
2,100.0	2,084.9	2,101.0	2,095.2	5.6	4.8	156.50	-73.8	46.3	114.9	105.6	9.30	12.356		
2,200.0	2,183.1	2,200.6	2,194.1	6.0	5.1	156.34	-82.3	54.8	123.7	113.8	9.84	12.571		
2,300.0	2,281.2	2,300.2	2,293.0	6.4	5.4	156.20	-90.7	63.3	132.4	122.1	10.38	12.757		
2,400.0	2,379.3	2,399.8	2,391.9	6.8	5.7	156.08	-99.2	71.8	141.2	130.3	10.93	12.918		
2,500.0	2,477.4	2,499.4	2,490.8	7.3	6.0	155.98	-107.6	80.3	150.0	138.5	11.48	13.059		
2,600.0	2,575.6	2,599.1	2,589.7	7.7	6.3	155.88	-116.1	88.8	158.7	146.7	12.04	13.184		
2,700.0	2,673.7	2,698.7	2,688.6	8.1	6.6	155.79	-124.5	97.3	167.5	154.9	12.60	13.294		
2,800.0	2,771.8	2,798.3	2,787.5	8.5	6.9	155.72	-133.0	105.8	176.3	163.1	13.16	13.391		
2,900.0	2,870.0	2,897.9	2,886.4	8.9	7.2	155.65	-141.4	114.3	185.1	171.3	13.73	13.479		
3,000.0	2,968.1	2,997.5	2,985.2	9.4	7.5	155.58	-149.9	122.8	193.8	179.5	14.30	13.557		
3,100.0	3,066.2	3,097.1	3,084.1	9.8	7.8	155.52	-158.3	131.3	202.6	187.7	14.87	13.628		
3,200.0	3,164.4	3,196.7	3,183.0	10.2	8.1	155.47	-166.8	139.8	211.4	195.9	15.44	13.692		
3,300.0	3,262.5	3,296.4	3,281.9	10.7	8.5	155.42	-175.2	148.3	220.2	204.1	16.01	13.750		
3,400.0	3,360.6	3,396.0	3,380.8	11.1	8.8	155.38	-183.6	156.8	228.9	212.3	16.59	13.803		
3,500.0	3,458.8	3,495.6	3,479.7	11.5	9.1	155.34	-192.1	165.3	237.7	220.5	17.16	13.852		
3,600.0	3,556.9	3,595.2	3,578.6	11.9	9.4	155.30	-200.5	173.8	246.5	228.7	17.74	13.896		
3,700.0	3,655.0	3,694.8	3,677.5	12.4	9.7	155.26	-209.0	182.3	255.3	236.9	18.31	13.937		
3,800.0	3,753.2	3,794.4	3,776.4	12.8	10.0	155.23	-217.4	190.8	264.0	245.1	18.89	13.975		
3,900.0	3,851.3	3,894.0	3,875.3	13.2	10.3	155.20	-225.9	199.3	272.8	253.3	19.47	14.010		
4,000.0	3,949.4	3,993.7	3,974.2	13.7	10.7	155.17	-234.3	207.8	281.6	261.5	20.05	14.042		
4,100.0	4,047.6	4,093.3	4,073.0	14.1	11.0	155.14	-242.8	216.3	290.3	269.7	20.63	14.072		
4,200.0	4,145.7	4,192.9	4,171.9	14.5	11.3	155.11	-251.2	224.8	299.1	277.9	21.21	14.100		
4,300.0	4,243.8	4,292.5	4,270.8	15.0	11.6	155.09	-259.7	233.3	307.9	286.1	21.80	14.127		
4,400.0	4,342.0	4,392.1	4,369.7	15.4	11.9	155.06	-268.1	241.8	316.7	294.3	22.38	14.151		
4,500.0	4,440.1	4,491.7	4,468.6	15.8	12.3	155.04	-276.6	250.3	325.4	302.5	22.96	14.174		
4,600.0	4,538.2	4,591.3	4,567.5	16.3	12.6	155.02	-285.0	258.8	334.2	310.7	23.54	14.195		
4,700.0	4,636.4	4,691.0	4,666.4	16.7	12.9	155.00	-293.5	267.3	343.0	318.9	24.13	14.216		
4,800.0	4,734.5	4,790.6	4,765.3	17.1	13.2	154.98	-301.9	275.8	351.8	327.1	24.71	14.235		
4,900.0	4,832.6	4,890.2	4,864.2	17.6	13.5	154.96	-310.3	284.3	360.5	335.2	25.30	14.253		
5,000.0	4,930.7	4,989.8	4,963.1	18.0	13.8	154.95	-318.8	292.7	369.3	343.4	25.88	14.269		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,028.9	5,089.4	5,062.0	18.4	14.2	154.93	-327.2	301.2	378.1	351.6	26.47	14.285		
5,200.0	5,127.0	5,189.0	5,160.8	18.9	14.5	154.91	-335.7	309.7	386.9	359.8	27.05	14.301		
5,300.0	5,225.1	5,288.6	5,259.7	19.3	14.8	154.90	-344.1	318.2	395.6	368.0	27.64	14.315		
5,400.0	5,323.3	5,388.3	5,358.6	19.7	15.1	154.89	-352.6	326.7	404.4	376.2	28.22	14.329		
5,500.0	5,421.4	5,487.9	5,457.5	20.2	15.4	154.87	-361.0	335.2	413.2	384.4	28.81	14.341		
5,600.0	5,519.5	5,587.5	5,556.4	20.6	15.8	154.86	-369.5	343.7	422.0	392.6	29.40	14.354		
5,700.0	5,617.7	5,687.1	5,655.3	21.0	16.1	154.85	-377.9	352.2	430.7	400.8	29.98	14.365		
5,800.0	5,715.8	5,786.7	5,754.2	21.5	16.4	154.83	-386.4	360.7	439.5	408.9	30.57	14.377		
5,900.0	5,813.9	5,886.3	5,853.1	21.9	16.7	154.82	-394.8	369.2	448.3	417.1	31.16	14.387		
6,000.0	5,912.1	5,985.9	5,952.0	22.3	17.1	154.81	-403.3	377.7	457.1	425.3	31.75	14.397		
6,100.0	6,010.2	6,085.6	6,050.9	22.8	17.4	154.80	-411.7	386.2	465.8	433.5	32.33	14.407		
6,200.0	6,108.3	6,185.2	6,149.8	23.2	17.7	154.79	-420.2	394.7	474.6	441.7	32.92	14.416		
6,300.0	6,206.5	6,284.8	6,248.6	23.6	18.0	154.78	-428.6	403.2	483.4	449.9	33.51	14.425		
6,400.0	6,304.6	6,384.4	6,347.5	24.1	18.3	154.77	-437.0	411.7	492.2	458.1	34.10	14.434		
6,500.0	6,402.7	6,484.0	6,446.4	24.5	18.7	154.76	-445.5	420.2	500.9	466.3	34.69	14.442		
6,600.0	6,500.9	6,583.6	6,545.3	24.9	19.0	154.75	-453.9	428.7	509.7	474.4	35.27	14.450		
6,700.0	6,599.0	6,683.2	6,644.2	25.4	19.3	154.74	-462.4	437.2	518.5	482.6	35.86	14.457		
6,800.0	6,697.1	6,782.9	6,743.1	25.8	19.6	154.74	-470.8	445.7	527.3	490.8	36.45	14.465		
6,853.1	6,749.2	6,835.7	6,795.6	26.0	19.8	154.73	-475.3	450.2	531.9	495.2	36.76	14.468		
6,900.0	6,795.1	6,882.4	6,842.0	26.2	19.9	139.94	-479.3	454.2	536.1	499.0	37.08	14.466		
6,950.0	6,843.5	6,932.0	6,891.1	26.5	20.1	129.45	-483.5	458.4	540.5	503.2	37.37	14.455		
7,000.0	6,891.1	6,982.2	6,941.0	26.7	20.3	122.71	-488.5	462.7	545.1	507.5	37.63	14.487		
7,050.0	6,937.8	7,033.6	6,991.4	27.0	20.5	118.17	-496.9	467.1	549.7	511.8	37.94	14.491		
7,100.0	6,983.2	7,085.6	7,041.7	27.3	20.7	115.00	-509.2	471.4	554.3	516.0	38.31	14.469		
7,150.0	7,027.2	7,138.2	7,091.6	27.6	21.0	112.73	-525.3	475.8	558.9	520.1	38.76	14.420		
7,200.0	7,069.5	7,191.5	7,140.8	28.0	21.3	111.08	-545.2	480.0	563.4	524.1	39.28	14.343		
7,250.0	7,110.0	7,245.4	7,189.0	28.3	21.6	109.85	-569.2	484.3	567.8	527.9	39.88	14.238		
7,300.0	7,148.4	7,300.0	7,235.8	28.7	22.0	108.94	-597.0	488.4	572.0	531.5	40.56	14.103		
7,350.0	7,184.6	7,355.3	7,280.8	29.1	22.4	108.25	-628.8	492.3	576.1	534.8	41.34	13.937		
7,400.0	7,218.4	7,411.2	7,323.7	29.5	22.9	107.72	-664.3	496.1	580.0	537.8	42.20	13.743		
7,450.0	7,249.6	7,467.7	7,364.2	30.0	23.4	107.33	-703.6	499.7	583.6	540.5	43.17	13.520		
7,500.0	7,278.1	7,524.8	7,401.8	30.5	23.9	107.03	-746.3	503.1	587.0	542.8	44.23	13.272		
7,550.0	7,303.7	7,582.4	7,436.3	30.9	24.5	106.81	-792.5	506.2	590.1	544.7	45.39	13.000		
7,600.0	7,326.3	7,640.6	7,467.1	31.5	25.2	106.64	-841.7	509.0	592.8	546.2	46.65	12.707		
7,650.0	7,345.7	7,699.2	7,494.1	32.0	25.9	106.51	-893.6	511.5	595.2	547.2	48.01	12.398		
7,700.0	7,362.0	7,758.2	7,516.9	32.5	26.6	106.42	-948.0	513.7	597.3	547.8	49.46	12.074		
7,750.0	7,375.0	7,817.6	7,535.3	33.1	27.4	106.35	-1,004.4	515.4	598.9	547.9	51.00	11.742		
7,800.0	7,384.7	7,877.2	7,549.0	33.7	28.2	106.30	-1,062.3	516.8	600.1	547.5	52.61	11.405		
7,850.0	7,391.0	7,936.9	7,557.9	34.3	29.0	106.26	-1,121.4	517.8	600.8	546.5	54.29	11.068		
7,900.0	7,393.8	7,996.8	7,561.8	34.8	29.9	106.23	-1,181.1	518.3	601.2	545.2	56.01	10.733		
7,916.4	7,394.0	8,016.1	7,562.0	35.0	30.1	106.23	-1,200.4	518.4	601.2	544.6	56.58	10.626		
8,000.0	7,394.0	8,099.6	7,562.0	36.1	31.4	106.23	-1,284.0	518.7	601.2	542.1	59.04	10.182		
8,100.0	7,394.0	8,199.6	7,562.0	37.4	32.9	106.23	-1,384.0	519.0	601.2	539.1	62.08	9.684		
8,200.0	7,394.0	8,299.6	7,562.0	38.7	34.4	106.23	-1,484.0	519.4	601.2	536.0	65.19	9.222		
8,300.0	7,394.0	8,399.6	7,562.0	40.1	36.0	106.23	-1,584.0	519.7	601.2	532.8	68.35	8.795		
8,400.0	7,394.0	8,499.6	7,562.0	41.6	37.6	106.23	-1,684.0	520.1	601.2	529.6	71.57	8.400		
8,500.0	7,394.0	8,599.6	7,562.0	43.1	39.3	106.23	-1,784.0	520.4	601.2	526.4	74.83	8.034		
8,600.0	7,394.0	8,699.6	7,562.0	44.6	41.0	106.23	-1,884.0	520.8	601.2	523.1	78.13	7.694		
8,700.0	7,394.0	8,799.6	7,562.0	46.1	42.6	106.23	-1,984.0	521.1	601.2	519.7	81.47	7.379		
8,800.0	7,394.0	8,899.6	7,562.0	47.7	44.4	106.23	-2,084.0	521.5	601.2	516.4	84.83	7.087		
8,900.0	7,394.0	8,999.6	7,562.0	49.3	46.1	106.23	-2,184.0	521.8	601.2	513.0	88.23	6.814		
9,000.0	7,394.0	9,099.6	7,562.0	50.9	47.8	106.23	-2,284.0	522.2	601.2	509.6	91.64	6.560		

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

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,100.0	7,394.0	9,199.6	7,562.0	52.6	49.6	106.23	-2,384.0	522.5	601.2	506.1	95.08	6.323		
9,200.0	7,394.0	9,299.6	7,562.0	54.2	51.3	106.23	-2,484.0	522.9	601.2	502.7	98.54	6.101		
9,300.0	7,394.0	9,399.6	7,562.0	55.9	53.1	106.23	-2,584.0	523.2	601.2	499.2	102.01	5.893		
9,400.0	7,394.0	9,499.6	7,562.0	57.6	54.9	106.23	-2,684.0	523.6	601.2	495.7	105.50	5.698		
9,500.0	7,394.0	9,599.6	7,562.0	59.3	56.7	106.23	-2,784.0	523.9	601.2	492.2	109.01	5.515		
9,600.0	7,394.0	9,699.6	7,562.0	61.0	58.5	106.23	-2,884.0	524.2	601.2	488.7	112.52	5.343		
9,700.0	7,394.0	9,799.6	7,562.0	62.7	60.3	106.23	-2,984.0	524.6	601.2	485.2	116.05	5.181		
9,800.0	7,394.0	9,899.6	7,562.0	64.5	62.1	106.23	-3,084.0	524.9	601.2	481.6	119.59	5.027		
9,900.0	7,394.0	9,999.6	7,562.0	66.2	63.9	106.23	-3,184.0	525.3	601.2	478.1	123.14	4.882		
10,000.0	7,394.0	10,099.6	7,562.0	68.0	65.7	106.23	-3,284.0	525.6	601.2	474.5	126.70	4.745		
10,100.0	7,394.0	10,199.6	7,562.0	69.7	67.6	106.23	-3,384.0	526.0	601.2	471.0	130.26	4.616		
10,200.0	7,394.0	10,299.6	7,562.0	71.5	69.4	106.23	-3,484.0	526.3	601.2	467.4	133.83	4.492		
10,300.0	7,394.0	10,399.6	7,562.0	73.3	71.2	106.23	-3,584.0	526.7	601.2	463.8	137.41	4.375		
10,400.0	7,394.0	10,499.6	7,562.0	75.1	73.1	106.23	-3,684.0	527.0	601.2	460.2	141.00	4.264		
10,500.0	7,394.0	10,599.6	7,562.0	76.9	74.9	106.23	-3,784.0	527.4	601.2	456.6	144.59	4.158		
10,600.0	7,394.0	10,699.6	7,562.0	78.7	76.8	106.23	-3,883.9	527.7	601.2	453.1	148.19	4.057		
10,700.0	7,394.0	10,799.6	7,562.0	80.5	78.6	106.23	-3,983.9	528.1	601.2	449.5	151.79	3.961		
10,800.0	7,394.0	10,899.6	7,562.0	82.3	80.5	106.23	-4,083.9	528.4	601.2	445.9	155.40	3.869		
10,900.0	7,394.0	10,999.6	7,562.0	84.1	82.3	106.23	-4,183.9	528.8	601.3	442.2	159.01	3.781		
11,000.0	7,394.0	11,099.6	7,562.0	85.9	84.2	106.23	-4,283.9	529.1	601.3	438.6	162.62	3.697		
11,100.0	7,394.0	11,199.6	7,562.0	87.7	86.1	106.23	-4,383.9	529.5	601.3	435.0	166.24	3.617		
11,200.0	7,394.0	11,299.6	7,562.0	89.5	87.9	106.23	-4,483.9	529.8	601.3	431.4	169.87	3.540		
11,300.0	7,394.0	11,399.6	7,562.0	91.4	89.8	106.23	-4,583.9	530.2	601.3	427.8	173.49	3.466		
11,400.0	7,394.0	11,499.6	7,562.0	93.2	91.7	106.23	-4,683.9	530.5	601.3	424.1	177.12	3.395		
11,500.0	7,394.0	11,599.6	7,562.0	95.0	93.5	106.23	-4,783.9	530.9	601.3	420.5	180.75	3.326		
11,600.0	7,394.0	11,699.6	7,562.0	96.9	95.4	106.22	-4,883.9	531.2	601.3	416.9	184.39	3.261		
11,700.0	7,394.0	11,799.6	7,562.0	98.7	97.3	106.22	-4,983.9	531.6	601.3	413.2	188.02	3.198		
11,800.0	7,394.0	11,899.6	7,562.0	100.6	99.2	106.22	-5,083.9	531.9	601.3	409.6	191.66	3.137		
11,900.0	7,394.0	11,999.6	7,562.0	102.4	101.0	106.22	-5,183.9	532.2	601.3	406.0	195.31	3.079		
12,000.0	7,394.0	12,099.6	7,562.0	104.3	102.9	106.22	-5,283.9	532.6	601.3	402.3	198.95	3.022		
12,100.0	7,394.0	12,199.6	7,562.0	106.1	104.8	106.22	-5,383.9	532.9	601.3	398.7	202.60	2.968		
12,200.0	7,394.0	12,299.6	7,562.0	108.0	106.7	106.22	-5,483.9	533.3	601.3	395.0	206.25	2.915		
12,300.0	7,394.0	12,399.6	7,562.0	109.8	108.6	106.22	-5,583.9	533.6	601.3	391.4	209.90	2.865		
12,400.0	7,394.0	12,499.6	7,562.0	111.7	110.4	106.22	-5,683.9	534.0	601.3	387.7	213.55	2.816		
12,500.0	7,394.0	12,599.6	7,562.0	113.5	112.3	106.22	-5,783.9	534.3	601.3	384.1	217.20	2.768		
12,600.0	7,394.0	12,699.6	7,562.0	115.4	114.2	106.22	-5,883.9	534.7	601.3	380.4	220.86	2.723		
12,700.0	7,394.0	12,799.6	7,562.0	117.3	116.1	106.22	-5,983.9	535.0	601.3	376.8	224.52	2.678		
12,800.0	7,394.0	12,899.6	7,562.0	119.1	118.0	106.22	-6,083.9	535.4	601.3	373.1	228.17	2.635		
12,900.0	7,394.0	12,999.6	7,562.0	121.0	119.9	106.22	-6,183.9	535.7	601.3	369.5	231.83	2.594		
13,000.0	7,394.0	13,099.6	7,562.0	122.9	121.8	106.22	-6,283.9	536.1	601.3	365.8	235.49	2.553		
13,100.0	7,394.0	13,199.6	7,562.0	124.7	123.7	106.22	-6,383.9	536.4	601.3	362.1	239.16	2.514		
13,200.0	7,394.0	13,299.6	7,562.0	126.6	125.5	106.22	-6,483.9	536.8	601.3	358.5	242.82	2.476		
13,300.0	7,394.0	13,399.6	7,562.0	128.5	127.4	106.22	-6,583.9	537.1	601.3	354.8	246.49	2.440		
13,400.0	7,394.0	13,499.6	7,562.0	130.4	129.3	106.22	-6,683.9	537.5	601.3	351.2	250.15	2.404		
13,500.0	7,394.0	13,599.6	7,562.0	132.2	131.2	106.22	-6,783.9	537.8	601.3	347.5	253.82	2.369		
13,588.4	7,394.0	13,688.0	7,562.0	133.9	132.9	106.22	-6,872.3	538.1	601.3	344.3	257.06	2.339 SF		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.0	-58.8	58.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-58.8	58.8	58.6	0.22	261.788		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-58.8	58.8	58.2	0.67	87.263		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-58.8	58.8	57.7	1.12	52.358		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-58.8	58.8	57.3	1.57	37.398		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-58.8	58.8	56.8	2.02	29.088		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-58.8	58.8	56.4	2.47	23.799		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-58.8	58.8	55.9	2.92	20.138		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-58.8	58.8	55.5	3.37	17.453 CC, ES		
900.0	900.0	900.0	900.0	1.9	1.9	154.24	0.0	-58.8	60.0	56.2	3.80	15.785		
1,000.0	999.9	999.9	999.9	2.1	2.1	155.75	0.0	-58.8	63.6	59.4	4.22	15.066		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	157.93	0.0	-58.8	69.6	64.9	4.64	14.983 SF		
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	160.41	0.0	-58.8	78.2	73.1	5.07	15.402		
1,300.0	1,298.6	1,298.6	1,298.6	2.8	2.8	162.89	0.0	-58.8	89.3	83.8	5.51	16.220		
1,400.0	1,397.5	1,397.5	1,397.5	3.0	3.0	165.18	0.0	-58.8	103.1	97.2	5.94	17.361		
1,500.0	1,496.1	1,496.8	1,496.8	3.4	3.2	166.63	-1.2	-58.8	119.3	113.0	6.35	18.792		
1,539.4	1,534.8	1,535.9	1,535.9	3.5	3.3	166.85	-2.4	-58.8	126.2	119.7	6.50	19.413		
1,600.0	1,594.3	1,596.0	1,595.9	3.7	3.4	166.89	-5.0	-58.8	137.0	130.2	6.74	20.312		
1,700.0	1,692.4	1,695.3	1,695.0	4.1	3.6	166.18	-11.4	-58.8	154.3	147.1	7.16	21.545		
1,800.0	1,790.5	1,794.1	1,793.5	4.4	3.8	164.96	-19.7	-58.8	171.2	163.6	7.60	22.527		
1,900.0	1,888.7	1,892.6	1,891.6	4.8	4.0	163.91	-28.2	-58.8	188.1	180.0	8.05	23.354		
2,000.0	1,986.8	1,991.1	1,989.8	5.2	4.2	163.04	-36.7	-58.8	205.1	196.5	8.52	24.058		
2,100.0	2,084.9	2,089.6	2,087.9	5.6	4.4	162.30	-45.1	-58.8	222.1	213.1	9.01	24.659		
2,200.0	2,183.1	2,188.2	2,186.0	6.0	4.6	161.66	-53.6	-58.8	239.1	229.6	9.50	25.173		
2,300.0	2,281.2	2,286.7	2,284.2	6.4	4.8	161.11	-62.1	-58.8	256.2	246.2	10.00	25.615		
2,400.0	2,379.3	2,385.2	2,382.3	6.8	5.1	160.63	-70.5	-58.8	273.3	262.8	10.51	25.997		
2,500.0	2,477.4	2,483.7	2,480.5	7.3	5.3	160.21	-79.0	-58.8	290.4	279.4	11.03	26.329		
2,600.0	2,575.6	2,582.2	2,578.6	7.7	5.5	159.83	-87.5	-58.8	307.5	296.0	11.55	26.618		
2,700.0	2,673.7	2,680.7	2,676.7	8.1	5.8	159.49	-96.0	-58.7	324.7	312.6	12.08	26.871		
2,800.0	2,771.8	2,779.2	2,774.9	8.5	6.0	159.19	-104.4	-58.7	341.8	329.2	12.62	27.094		
2,900.0	2,870.0	2,877.7	2,873.0	8.9	6.3	158.91	-112.9	-58.7	359.0	345.8	13.15	27.291		
3,000.0	2,968.1	2,976.2	2,971.2	9.4	6.5	158.66	-121.4	-58.7	376.1	362.4	13.69	27.465		
3,100.0	3,066.2	3,074.7	3,069.3	9.8	6.8	158.44	-129.8	-58.7	393.3	379.0	14.24	27.621		
3,200.0	3,164.4	3,173.2	3,167.4	10.2	7.0	158.23	-138.3	-58.7	410.4	395.7	14.79	27.760		
3,300.0	3,262.5	3,271.7	3,265.6	10.7	7.3	158.03	-146.8	-58.7	427.6	412.3	15.34	27.884		
3,400.0	3,360.6	3,370.2	3,363.7	11.1	7.6	157.86	-155.2	-58.7	444.8	428.9	15.89	27.996		
3,500.0	3,458.8	3,468.7	3,461.9	11.5	7.8	157.69	-163.7	-58.7	462.0	445.5	16.44	28.098		
3,600.0	3,556.9	3,567.2	3,560.0	11.9	8.1	157.54	-172.2	-58.7	479.2	462.2	17.00	28.190		
3,700.0	3,655.0	3,665.7	3,658.1	12.4	8.3	157.40	-180.6	-58.7	496.4	478.8	17.56	28.273		
3,800.0	3,753.2	3,764.2	3,756.3	12.8	8.6	157.27	-189.1	-58.7	513.6	495.4	18.12	28.349		
3,900.0	3,851.3	3,862.7	3,854.4	13.2	8.9	157.14	-197.6	-58.6	530.8	512.1	18.68	28.418		
4,000.0	3,949.4	3,961.2	3,952.6	13.7	9.1	157.03	-206.1	-58.6	548.0	528.7	19.24	28.482		
4,100.0	4,047.6	4,059.7	4,050.7	14.1	9.4	156.92	-214.5	-58.6	565.2	545.4	19.80	28.540		
4,200.0	4,145.7	4,158.2	4,148.8	14.5	9.7	156.82	-223.0	-58.6	582.4	562.0	20.37	28.594		
4,300.0	4,243.8	4,256.7	4,247.0	15.0	9.9	156.72	-231.5	-58.6	599.6	578.6	20.93	28.643		
4,400.0	4,342.0	4,355.2	4,345.1	15.4	10.2	156.63	-239.9	-58.6	616.8	595.3	21.50	28.689		
4,500.0	4,440.1	4,453.7	4,443.2	15.8	10.5	156.54	-248.4	-58.6	634.0	611.9	22.07	28.731		
4,600.0	4,538.2	4,552.2	4,541.4	16.3	10.7	156.46	-256.9	-58.6	651.2	628.6	22.63	28.770		
4,700.0	4,636.4	4,650.8	4,639.5	16.7	11.0	156.38	-265.3	-58.6	668.4	645.2	23.20	28.807		
4,800.0	4,734.5	4,749.3	4,737.7	17.1	11.3	156.31	-273.8	-58.6	685.6	661.8	23.77	28.841		
4,900.0	4,832.6	4,847.8	4,835.8	17.6	11.5	156.24	-282.3	-58.6	702.8	678.5	24.34	28.872		
5,000.0	4,930.7	4,946.3	4,933.9	18.0	11.8	156.17	-290.7	-58.6	720.0	695.1	24.91	28.902		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,100.0	5,028.9	5,044.8	5,032.1	18.4	12.1	156.11	-299.2	-58.5	737.2	711.8	25.48	28.929		
5,200.0	5,127.0	5,143.3	5,130.2	18.9	12.4	156.05	-307.7	-58.5	754.5	728.4	26.06	28.955		
5,300.0	5,225.1	5,241.8	5,228.4	19.3	12.6	155.99	-316.2	-58.5	771.7	745.1	26.63	28.980		
5,400.0	5,323.3	5,340.3	5,326.5	19.7	12.9	155.94	-324.6	-58.5	788.9	761.7	27.20	29.002		
5,500.0	5,421.4	5,438.8	5,424.6	20.2	13.2	155.88	-333.1	-58.5	806.1	778.3	27.77	29.024		
5,600.0	5,519.5	5,537.3	5,522.8	20.6	13.4	155.83	-341.6	-58.5	823.3	795.0	28.35	29.044		
5,700.0	5,617.7	5,635.8	5,620.9	21.0	13.7	155.78	-350.0	-58.5	840.5	811.6	28.92	29.063		
5,800.0	5,715.8	5,734.3	5,719.1	21.5	14.0	155.74	-358.5	-58.5	857.8	828.3	29.50	29.080		
5,900.0	5,813.9	5,832.8	5,817.2	21.9	14.3	155.69	-367.0	-58.5	875.0	844.9	30.07	29.097		
6,000.0	5,912.1	5,931.3	5,915.3	22.3	14.5	155.65	-375.4	-58.5	892.2	861.6	30.65	29.113		
6,100.0	6,010.2	6,029.8	6,013.5	22.8	14.8	155.61	-383.9	-58.5	909.4	878.2	31.22	29.128		
6,200.0	6,108.3	6,128.3	6,111.6	23.2	15.1	155.57	-392.4	-58.5	926.6	894.8	31.80	29.143		
6,300.0	6,206.5	6,226.8	6,209.8	23.6	15.3	155.53	-400.9	-58.4	943.9	911.5	32.37	29.156		
6,400.0	6,304.6	6,325.3	6,307.9	24.1	15.6	155.49	-409.3	-58.4	961.1	928.1	32.95	29.169		
6,500.0	6,402.7	6,423.8	6,406.0	24.5	15.9	155.45	-417.8	-58.4	978.3	944.8	33.53	29.181		
6,600.0	6,500.9	6,522.3	6,504.2	24.9	16.2	155.42	-426.3	-58.4	995.5	961.4	34.10	29.193		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	16.8	16.8	16.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	16.8	16.8	16.6	0.22	74.797		
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	16.8	16.8	16.1	0.67	24.932		
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	16.8	16.8	15.7	1.12	14.959		
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	16.8	16.8	15.2	1.57	10.685		
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	16.8	16.8	14.8	2.02	8.311		
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	16.8	16.8	14.3	2.47	6.800 CC, ES		
700.0	700.0	699.6	699.6	1.5	1.4	91.55	-0.5	18.0	18.0	15.1	2.90	6.211		
800.0	800.0	799.0	798.9	1.7	1.6	95.05	-1.9	21.6	21.7	18.4	3.33	6.539		
900.0	900.0	898.3	898.0	1.9	1.9	-18.36	-4.3	27.6	26.8	23.1	3.73	7.182		
1,000.0	999.9	997.4	996.7	2.1	2.1	-16.75	-7.6	36.0	31.9	27.8	4.13	7.729		
1,100.0	1,099.7	1,096.4	1,095.0	2.3	2.3	-15.91	-11.8	46.8	37.1	32.6	4.55	8.164		
1,200.0	1,199.3	1,195.2	1,192.8	2.5	2.6	-15.58	-17.0	59.9	42.3	37.4	4.97	8.511		
1,300.0	1,298.6	1,293.9	1,290.1	2.8	2.9	-15.57	-23.1	75.3	47.6	42.1	5.41	8.785		
1,400.0	1,397.5	1,392.5	1,386.9	3.0	3.3	-15.80	-30.0	93.0	52.8	46.9	5.87	8.998		
1,500.0	1,496.1	1,491.7	1,483.7	3.4	3.7	-16.26	-37.9	112.9	57.8	51.4	6.34	9.108		
1,539.4	1,534.8	1,531.1	1,522.2	3.5	3.9	-16.60	-41.0	121.0	59.2	52.6	6.54	9.048		
1,600.0	1,594.3	1,591.6	1,581.2	3.7	4.1	-17.17	-45.9	133.3	61.0	54.2	6.84	8.918		
1,700.0	1,692.4	1,691.6	1,678.7	4.1	4.6	-18.05	-53.9	153.7	64.1	56.7	7.36	8.707		
1,800.0	1,790.5	1,791.5	1,776.3	4.4	5.0	-18.85	-62.0	174.0	67.2	59.3	7.90	8.509		
1,900.0	1,888.7	1,891.5	1,873.8	4.8	5.4	-19.58	-70.0	194.4	70.3	61.9	8.45	8.324		
2,000.0	1,986.8	1,991.4	1,971.3	5.2	5.9	-20.25	-78.0	214.8	73.4	64.4	9.00	8.153		
2,100.0	2,084.9	2,091.4	2,068.8	5.6	6.4	-20.86	-86.0	235.1	76.5	67.0	9.57	7.995		
2,200.0	2,183.1	2,191.3	2,166.3	6.0	6.8	-21.42	-94.0	255.5	79.7	69.5	10.15	7.848		
2,300.0	2,281.2	2,291.3	2,263.9	6.4	7.3	-21.95	-102.1	275.9	82.8	72.1	10.74	7.712		
2,400.0	2,379.3	2,391.2	2,361.4	6.8	7.8	-22.43	-110.1	296.2	86.0	74.6	11.33	7.586		
2,500.0	2,477.4	2,491.2	2,458.9	7.3	8.2	-22.88	-118.1	316.6	89.1	77.2	11.93	7.469		
2,600.0	2,575.6	2,591.1	2,556.4	7.7	8.7	-23.30	-126.1	336.9	92.3	79.7	12.53	7.361		
2,700.0	2,673.7	2,691.1	2,653.9	8.1	9.2	-23.69	-134.2	357.3	95.4	82.3	13.14	7.259		
2,800.0	2,771.8	2,791.0	2,751.5	8.5	9.6	-24.05	-142.2	377.7	98.6	84.8	13.76	7.165		
2,900.0	2,870.0	2,891.0	2,849.0	8.9	10.1	-24.40	-150.2	398.0	101.8	87.4	14.38	7.077		
3,000.0	2,968.1	2,990.9	2,946.5	9.4	10.6	-24.72	-158.2	418.4	104.9	89.9	15.00	6.995		
3,100.0	3,066.2	3,090.9	3,044.0	9.8	11.1	-25.02	-166.3	438.8	108.1	92.5	15.63	6.918		
3,200.0	3,164.4	3,190.8	3,141.6	10.2	11.5	-25.31	-174.3	459.1	111.3	95.0	16.26	6.845		
3,300.0	3,262.5	3,290.8	3,239.1	10.7	12.0	-25.58	-182.3	479.5	114.5	97.6	16.89	6.778		
3,400.0	3,360.6	3,390.7	3,336.6	11.1	12.5	-25.84	-190.3	499.9	117.6	100.1	17.52	6.714		
3,500.0	3,458.8	3,490.7	3,434.1	11.5	13.0	-26.08	-198.3	520.2	120.8	102.7	18.16	6.654		
3,600.0	3,556.9	3,590.6	3,531.6	11.9	13.5	-26.31	-206.4	540.6	124.0	105.2	18.80	6.597		
3,700.0	3,655.0	3,690.6	3,629.2	12.4	13.9	-26.53	-214.4	561.0	127.2	107.8	19.44	6.543		
3,800.0	3,753.2	3,790.5	3,726.7	12.8	14.4	-26.73	-222.4	581.3	130.4	110.3	20.08	6.492		
3,900.0	3,851.3	3,890.4	3,824.2	13.2	14.9	-26.93	-230.4	601.7	133.6	112.9	20.73	6.444		
4,000.0	3,949.4	3,990.4	3,921.7	13.7	15.4	-27.12	-238.5	622.1	136.8	115.4	21.38	6.399		
4,100.0	4,047.6	4,090.3	4,019.3	14.1	15.9	-27.30	-246.5	642.4	140.0	117.9	22.02	6.356		
4,200.0	4,145.7	4,190.3	4,116.8	14.5	16.3	-27.47	-254.5	662.8	143.2	120.5	22.67	6.314		
4,300.0	4,243.8	4,290.2	4,214.3	15.0	16.8	-27.63	-262.5	683.2	146.4	123.0	23.32	6.275		
4,400.0	4,342.0	4,390.2	4,311.8	15.4	17.3	-27.79	-270.6	703.5	149.6	125.6	23.98	6.238		
4,500.0	4,440.1	4,490.1	4,409.3	15.8	17.8	-27.94	-278.6	723.9	152.8	128.1	24.63	6.203		
4,600.0	4,538.2	4,590.1	4,506.9	16.3	18.3	-28.09	-286.6	744.2	156.0	130.7	25.28	6.169		
4,700.0	4,636.4	4,690.0	4,604.4	16.7	18.7	-28.23	-294.6	764.6	159.2	133.2	25.94	6.136		
4,800.0	4,734.5	4,790.0	4,701.9	17.1	19.2	-28.36	-302.6	785.0	162.4	135.8	26.60	6.105		
4,900.0	4,832.6	4,889.9	4,799.4	17.6	19.7	-28.49	-310.7	805.3	165.6	138.3	27.25	6.075		
5,000.0	4,930.7	4,989.9	4,896.9	18.0	20.2	-28.61	-318.7	825.7	168.8	140.9	27.91	6.047		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,028.9	5,089.8	4,994.5	18.4	20.7	-28.73	-326.7	846.1	172.0	143.4	28.57	6.020		
5,200.0	5,127.0	5,189.8	5,092.0	18.9	21.1	-28.84	-334.7	866.4	175.2	146.0	29.23	5.994		
5,300.0	5,225.1	5,289.7	5,189.5	19.3	21.6	-28.95	-342.8	886.8	178.4	148.5	29.89	5.968		
5,400.0	5,323.3	5,389.7	5,287.0	19.7	22.1	-29.06	-350.8	907.2	181.6	151.1	30.55	5.944		
5,500.0	5,421.4	5,489.6	5,384.6	20.2	22.6	-29.16	-358.8	927.5	184.8	153.6	31.21	5.921		
5,600.0	5,519.5	5,589.6	5,482.1	20.6	23.1	-29.26	-366.8	947.9	188.0	156.1	31.88	5.899		
5,700.0	5,617.7	5,689.5	5,579.6	21.0	23.6	-29.36	-374.9	968.3	191.2	158.7	32.54	5.877		
5,800.0	5,715.8	5,789.5	5,677.1	21.5	24.0	-29.45	-382.9	988.6	194.4	161.2	33.20	5.856		
5,900.0	5,813.9	5,889.4	5,774.6	21.9	24.5	-29.54	-390.9	1,009.0	197.7	163.8	33.87	5.836		
6,000.0	5,912.1	5,989.4	5,872.2	22.3	25.0	-29.63	-398.9	1,029.4	200.9	166.3	34.53	5.817		
6,100.0	6,010.2	6,089.3	5,969.7	22.8	25.5	-29.71	-407.0	1,049.7	204.1	168.9	35.19	5.798		
6,200.0	6,108.3	6,189.3	6,067.2	23.2	26.0	-29.79	-415.0	1,070.1	207.3	171.4	35.86	5.780		
6,300.0	6,206.5	6,289.2	6,164.7	23.6	26.4	-29.87	-423.0	1,090.5	210.5	174.0	36.53	5.763		
6,400.0	6,304.6	6,389.1	6,262.3	24.1	26.9	-29.95	-431.0	1,110.8	213.7	176.5	37.19	5.746		
6,500.0	6,402.7	6,489.1	6,359.8	24.5	27.4	-30.02	-439.0	1,131.2	216.9	179.1	37.86	5.730		
6,600.0	6,500.9	6,589.0	6,457.3	24.9	27.9	-30.09	-447.1	1,151.5	220.1	181.6	38.53	5.714		
6,700.0	6,599.0	6,689.0	6,554.8	25.4	28.4	-30.16	-455.1	1,171.9	223.3	184.2	39.19	5.699		
6,800.0	6,697.1	6,788.9	6,652.3	25.8	28.9	-30.23	-463.1	1,192.3	226.6	186.7	39.86	5.684		
6,853.1	6,749.2	6,842.0	6,704.1	26.0	29.1	-30.27	-467.4	1,203.1	228.3	188.1	40.21	5.676		
6,900.0	6,795.1	6,888.8	6,749.8	26.2	29.3	-45.17	-471.1	1,212.6	229.9	189.3	40.62	5.660		
6,950.0	6,843.5	6,938.5	6,798.3	26.5	29.6	-56.92	-475.1	1,222.8	231.9	190.6	41.34	5.610		
7,000.0	6,891.1	6,987.7	6,846.3	26.7	29.8	-65.96	-479.1	1,232.8	234.5	192.2	42.35	5.538		
7,050.0	6,937.8	7,036.2	6,893.6	27.0	30.1	-73.46	-483.0	1,242.7	238.0	194.4	43.59	5.460		
7,100.0	6,983.2	7,085.8	6,942.0	27.3	30.3	-80.15	-487.4	1,252.8	242.8	197.8	45.02	5.393		
7,150.0	7,027.2	7,138.4	6,992.8	27.6	30.5	-86.00	-495.3	1,263.4	248.4	202.0	46.41	5.352		
7,200.0	7,069.5	7,192.2	7,044.2	28.0	30.8	-91.06	-507.4	1,274.1	254.7	207.1	47.66	5.345		
7,250.0	7,110.0	7,247.5	7,095.8	28.3	31.1	-95.49	-523.9	1,285.0	261.6	212.9	48.72	5.369		
7,300.0	7,148.4	7,304.3	7,147.4	28.7	31.5	-99.41	-545.0	1,295.8	268.9	219.3	49.59	5.422		
7,350.0	7,184.6	7,362.7	7,198.6	29.1	31.8	-102.88	-571.0	1,306.5	276.4	226.2	50.24	5.502		
7,400.0	7,218.4	7,422.7	7,248.8	29.5	32.3	-105.96	-602.0	1,317.1	284.1	233.4	50.68	5.606		
7,450.0	7,249.6	7,484.3	7,297.5	30.0	32.7	-108.68	-638.2	1,327.4	291.7	240.8	50.90	5.730		
7,500.0	7,278.1	7,547.5	7,344.2	30.5	33.2	-111.08	-679.7	1,337.2	299.1	248.1	50.94	5.871		
7,550.0	7,303.7	7,612.4	7,388.2	30.9	33.7	-113.17	-726.5	1,346.6	306.1	255.3	50.81	6.024		
7,600.0	7,326.3	7,678.9	7,428.7	31.5	34.3	-114.97	-778.4	1,355.2	312.6	262.0	50.55	6.184		
7,650.0	7,345.7	7,746.8	7,465.1	32.0	34.9	-116.50	-835.2	1,362.9	318.4	268.2	50.18	6.346		
7,700.0	7,362.0	7,816.1	7,496.7	32.5	35.5	-117.75	-896.5	1,369.7	323.5	273.7	49.75	6.502		
7,750.0	7,375.0	7,886.6	7,522.6	33.1	36.2	-118.74	-961.7	1,375.3	327.6	278.3	49.29	6.647		
7,800.0	7,384.7	7,958.0	7,542.4	33.7	36.9	-119.48	-1,030.2	1,379.6	330.8	281.9	48.85	6.772		
7,850.0	7,391.0	8,030.1	7,555.5	34.3	37.7	-119.96	-1,101.0	1,382.6	332.9	284.4	48.47	6.868		
7,900.0	7,393.8	8,102.7	7,561.6	34.8	38.4	-120.18	-1,173.3	1,384.1	333.9	285.7	48.18	6.930		
7,916.4	7,394.0	8,126.6	7,562.0	35.0	38.7	-120.20	-1,197.1	1,384.2	333.9	285.8	48.11	6.941		
8,000.0	7,394.0	8,210.5	7,562.0	36.1	39.6	-120.21	-1,281.1	1,384.5	333.9	283.7	50.26	6.644		
8,100.0	7,394.0	8,310.5	7,562.0	37.4	40.8	-120.21	-1,381.1	1,384.8	333.9	281.0	52.92	6.309		
8,200.0	7,394.0	8,410.5	7,562.0	38.7	42.1	-120.22	-1,481.1	1,385.1	333.8	278.2	55.66	5.998		
8,300.0	7,394.0	8,510.5	7,562.0	40.1	43.3	-120.22	-1,581.1	1,385.4	333.8	275.3	58.47	5.709		
8,400.0	7,394.0	8,610.5	7,562.0	41.6	44.7	-120.22	-1,681.1	1,385.7	333.7	272.4	61.34	5.441		
8,500.0	7,394.0	8,710.5	7,562.0	43.1	46.1	-120.23	-1,781.1	1,386.0	333.7	269.5	64.25	5.193		
8,600.0	7,394.0	8,810.5	7,562.0	44.6	47.5	-120.23	-1,881.1	1,386.3	333.7	266.4	67.22	4.964		
8,700.0	7,394.0	8,910.5	7,562.0	46.1	48.9	-120.24	-1,981.1	1,386.6	333.6	263.4	70.22	4.751		
8,800.0	7,394.0	9,010.5	7,562.0	47.7	50.4	-120.24	-2,081.1	1,386.9	333.6	260.3	73.25	4.554		
8,900.0	7,394.0	9,110.5	7,562.0	49.3	51.9	-120.24	-2,181.1	1,387.2	333.5	257.2	76.31	4.371		
9,000.0	7,394.0	9,210.5	7,562.0	50.9	53.4	-120.25	-2,281.1	1,387.5	333.5	254.1	79.40	4.200		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,100.0	7,394.0	9,310.5	7,562.0	52.6	55.0	-120.25	-2,381.1	1,387.8	333.5	250.9	82.51	4.041	
9,200.0	7,394.0	9,410.5	7,562.0	54.2	56.6	-120.26	-2,481.1	1,388.1	333.4	247.8	85.65	3.893	
9,300.0	7,394.0	9,510.5	7,562.0	55.9	58.2	-120.26	-2,581.1	1,388.4	333.4	244.6	88.80	3.754	
9,400.0	7,394.0	9,610.5	7,562.0	57.6	59.8	-120.27	-2,681.1	1,388.7	333.3	241.4	91.97	3.624	
9,500.0	7,394.0	9,710.5	7,562.0	59.3	61.4	-120.27	-2,781.1	1,389.0	333.3	238.1	95.15	3.503	
9,600.0	7,394.0	9,810.5	7,562.0	61.0	63.1	-120.27	-2,881.1	1,389.3	333.2	234.9	98.34	3.389	
9,700.0	7,394.0	9,910.5	7,562.0	62.7	64.8	-120.28	-2,981.1	1,389.6	333.2	231.7	101.55	3.281	
9,800.0	7,394.0	10,010.5	7,562.0	64.5	66.4	-120.28	-3,081.1	1,389.9	333.2	228.4	104.77	3.180	
9,900.0	7,394.0	10,110.5	7,562.0	66.2	68.1	-120.29	-3,181.1	1,390.2	333.1	225.1	108.00	3.084	
10,000.0	7,394.0	10,210.5	7,562.0	68.0	69.8	-120.29	-3,281.1	1,390.5	333.1	221.8	111.24	2.994	
10,100.0	7,394.0	10,310.5	7,562.0	69.7	71.5	-120.29	-3,381.1	1,390.8	333.0	218.6	114.48	2.909	
10,200.0	7,394.0	10,410.5	7,562.0	71.5	73.3	-120.30	-3,481.1	1,391.1	333.0	215.3	117.74	2.828	
10,300.0	7,394.0	10,510.5	7,562.0	73.3	75.0	-120.30	-3,581.1	1,391.4	333.0	212.0	121.00	2.752	
10,400.0	7,394.0	10,610.5	7,562.0	75.1	76.8	-120.31	-3,681.1	1,391.7	332.9	208.6	124.26	2.679	
10,500.0	7,394.0	10,710.5	7,562.0	76.9	78.5	-120.31	-3,781.1	1,392.0	332.9	205.3	127.54	2.610	
10,600.0	7,394.0	10,810.5	7,562.0	78.7	80.3	-120.32	-3,881.1	1,392.3	332.8	202.0	130.81	2.544	
10,700.0	7,394.0	10,910.5	7,562.0	80.5	82.0	-120.32	-3,981.1	1,392.6	332.8	198.7	134.10	2.482	
10,800.0	7,394.0	11,010.5	7,562.0	82.3	83.8	-120.32	-4,081.1	1,392.9	332.7	195.4	137.39	2.422	
10,900.0	7,394.0	11,110.5	7,562.0	84.1	85.6	-120.33	-4,181.1	1,393.2	332.7	192.0	140.68	2.365	
11,000.0	7,394.0	11,210.5	7,562.0	85.9	87.4	-120.33	-4,281.1	1,393.5	332.7	188.7	143.97	2.311	
11,100.0	7,394.0	11,310.5	7,562.0	87.7	89.2	-120.34	-4,381.1	1,393.8	332.6	185.3	147.27	2.259	
11,200.0	7,394.0	11,410.5	7,562.0	89.5	90.9	-120.34	-4,481.1	1,394.1	332.6	182.0	150.58	2.209	
11,300.0	7,394.0	11,510.5	7,562.0	91.4	92.7	-120.34	-4,581.1	1,394.4	332.5	178.7	153.88	2.161	
11,400.0	7,394.0	11,610.5	7,562.0	93.2	94.6	-120.35	-4,681.1	1,394.8	332.5	175.3	157.19	2.115	
11,500.0	7,394.0	11,710.5	7,562.0	95.0	96.4	-120.35	-4,781.1	1,395.1	332.5	172.0	160.50	2.071	
11,600.0	7,394.0	11,810.5	7,562.0	96.9	98.2	-120.36	-4,881.1	1,395.4	332.4	168.6	163.82	2.029	
11,700.0	7,394.0	11,910.5	7,562.0	98.7	100.0	-120.36	-4,981.1	1,395.7	332.4	165.2	167.13	1.989	
11,800.0	7,394.0	12,010.5	7,562.0	100.6	101.8	-120.37	-5,081.1	1,396.0	332.3	161.9	170.45	1.950	
11,900.0	7,394.0	12,110.5	7,562.0	102.4	103.6	-120.37	-5,181.1	1,396.3	332.3	158.5	173.77	1.912	
12,000.0	7,394.0	12,210.5	7,562.0	104.3	105.5	-120.37	-5,281.1	1,396.6	332.2	155.2	177.10	1.876	
12,100.0	7,394.0	12,310.5	7,562.0	106.1	107.3	-120.38	-5,381.1	1,396.9	332.2	151.8	180.42	1.841	
12,200.0	7,394.0	12,410.5	7,562.0	108.0	109.1	-120.38	-5,481.1	1,397.2	332.2	148.4	183.75	1.808	
12,300.0	7,394.0	12,510.5	7,562.0	109.8	111.0	-120.39	-5,581.1	1,397.5	332.1	145.0	187.08	1.775	
12,400.0	7,394.0	12,610.5	7,562.0	111.7	112.8	-120.39	-5,681.1	1,397.8	332.1	141.7	190.41	1.744	
12,500.0	7,394.0	12,710.5	7,562.0	113.5	114.6	-120.40	-5,781.1	1,398.1	332.0	138.3	193.74	1.714	
12,600.0	7,394.0	12,810.5	7,562.0	115.4	116.5	-120.40	-5,881.1	1,398.4	332.0	134.9	197.07	1.685	
12,700.0	7,394.0	12,910.5	7,562.0	117.3	118.3	-120.40	-5,981.1	1,398.7	332.0	131.6	200.40	1.656	
12,800.0	7,394.0	13,010.5	7,562.0	119.1	120.2	-120.41	-6,081.1	1,399.0	331.9	128.2	203.74	1.629	
12,900.0	7,394.0	13,110.5	7,562.0	121.0	122.0	-120.41	-6,181.1	1,399.3	331.9	124.8	207.08	1.603	
13,000.0	7,394.0	13,210.5	7,562.0	122.9	123.9	-120.42	-6,281.1	1,399.6	331.8	121.4	210.41	1.577	
13,100.0	7,394.0	13,310.5	7,562.0	124.7	125.7	-120.42	-6,381.1	1,399.9	331.8	118.0	213.75	1.552	
13,200.0	7,394.0	13,410.5	7,562.0	126.6	127.6	-120.42	-6,481.1	1,400.2	331.7	114.7	217.09	1.528	
13,300.0	7,394.0	13,510.5	7,562.0	128.5	129.4	-120.43	-6,581.1	1,400.5	331.7	111.3	220.43	1.505	
13,400.0	7,394.0	13,610.5	7,562.0	130.4	131.3	-120.43	-6,681.1	1,400.8	331.7	107.9	223.77	1.482 Level 3	
13,500.0	7,394.0	13,710.5	7,562.0	132.2	133.2	-120.44	-6,781.1	1,401.1	331.6	104.5	227.11	1.460 Level 3	
13,588.4	7,394.0	13,798.9	7,562.0	133.9	134.8	-120.44	-6,869.5	1,401.4	331.6	101.5	230.07	1.441 Level 3, SF	

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-14.0	14.0	14.0	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-14.0	14.0	13.8	0.22	62.330		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-14.0	14.0	13.3	0.67	20.777		
300.0	300.0	300.0	300.0	0.6	0.6	-89.95	0.0	-14.0	14.0	12.9	1.12	12.466		
400.0	400.0	400.0	400.0	0.8	0.8	-89.95	0.0	-14.0	14.0	12.4	1.57	8.904		
500.0	500.0	500.0	500.0	1.0	1.0	-89.95	0.0	-14.0	14.0	12.0	2.02	6.926		
600.0	600.0	600.0	600.0	1.2	1.2	-89.95	0.0	-14.0	14.0	11.5	2.47	5.666		
700.0	700.0	700.0	700.0	1.5	1.5	-89.95	0.0	-14.0	14.0	11.1	2.92	4.795		
800.0	800.0	800.0	800.0	1.7	1.7	-89.95	0.0	-14.0	14.0	10.6	3.37	4.155 CC		
900.0	900.0	900.3	900.3	1.9	1.9	153.14	-0.7	-12.9	14.1	10.3	3.78	3.726		
1,000.0	999.9	1,000.6	1,000.5	2.1	2.1	151.48	-2.9	-9.6	14.3	10.2	4.16	3.441 ES		
1,100.0	1,099.7	1,100.9	1,100.6	2.3	2.3	148.82	-6.5	-4.1	14.7	10.2	4.56	3.231		
1,200.0	1,199.3	1,201.2	1,200.5	2.5	2.5	145.36	-11.5	3.6	15.4	10.4	4.98	3.084		
1,300.0	1,298.6	1,301.5	1,300.1	2.8	2.8	141.32	-18.0	13.5	16.3	10.8	5.44	2.989		
1,400.0	1,397.5	1,401.6	1,399.2	3.0	3.0	137.88	-25.7	25.2	17.7	11.7	5.94	2.976 SF		
1,500.0	1,496.1	1,501.6	1,498.1	3.4	3.3	139.40	-33.6	37.2	20.9	14.4	6.45	3.237		
1,539.4	1,534.8	1,541.0	1,537.1	3.5	3.4	141.04	-36.7	41.9	22.7	16.0	6.64	3.415		
1,600.0	1,594.3	1,601.4	1,596.9	3.7	3.6	143.54	-41.4	49.2	25.8	18.8	6.95	3.709		
1,700.0	1,692.4	1,701.3	1,695.8	4.1	3.9	146.57	-49.2	61.1	30.9	23.5	7.45	4.148		
1,800.0	1,790.5	1,801.2	1,794.6	4.4	4.3	148.73	-57.1	73.1	36.1	28.2	7.97	4.534		
1,900.0	1,888.7	1,901.0	1,893.4	4.8	4.6	150.35	-64.9	85.1	41.4	32.9	8.49	4.875		
2,000.0	1,986.8	2,000.9	1,992.3	5.2	4.9	151.60	-72.8	97.0	46.7	37.7	9.01	5.177		
2,100.0	2,084.9	2,100.7	2,091.1	5.6	5.2	152.59	-80.6	109.0	52.0	42.4	9.54	5.445		
2,200.0	2,183.1	2,200.6	2,189.9	6.0	5.6	153.40	-88.5	121.0	57.3	47.2	10.08	5.684		
2,300.0	2,281.2	2,300.4	2,288.7	6.4	5.9	154.08	-96.3	132.9	62.6	52.0	10.61	5.899		
2,400.0	2,379.3	2,400.3	2,387.6	6.8	6.2	154.65	-104.1	144.9	67.9	56.8	11.15	6.092		
2,500.0	2,477.4	2,500.1	2,486.4	7.3	6.6	155.13	-112.0	156.8	73.3	61.6	11.69	6.266		
2,600.0	2,575.6	2,600.0	2,585.2	7.7	6.9	155.55	-119.8	168.8	78.6	66.4	12.23	6.425		
2,700.0	2,673.7	2,699.9	2,684.0	8.1	7.3	155.92	-127.7	180.8	83.9	71.2	12.78	6.569		
2,800.0	2,771.8	2,799.7	2,782.9	8.5	7.6	156.24	-135.5	192.7	89.3	76.0	13.32	6.701		
2,900.0	2,870.0	2,899.6	2,881.7	8.9	8.0	156.52	-143.4	204.7	94.6	80.8	13.87	6.823		
3,000.0	2,968.1	2,999.4	2,980.5	9.4	8.3	156.78	-151.2	216.7	100.0	85.6	14.42	6.934		
3,100.0	3,066.2	3,099.3	3,079.3	9.8	8.7	157.01	-159.0	228.6	105.3	90.4	14.97	7.037		
3,200.0	3,164.4	3,199.1	3,178.2	10.2	9.0	157.21	-166.9	240.6	110.7	95.2	15.52	7.133		
3,300.0	3,262.5	3,299.0	3,277.0	10.7	9.4	157.40	-174.7	252.6	116.0	100.0	16.07	7.221		
3,400.0	3,360.6	3,398.8	3,375.8	11.1	9.7	157.57	-182.6	264.5	121.4	104.8	16.62	7.304		
3,500.0	3,458.8	3,498.7	3,474.6	11.5	10.1	157.73	-190.4	276.5	126.8	109.6	17.17	7.381		
3,600.0	3,556.9	3,598.6	3,573.5	11.9	10.4	157.88	-198.3	288.4	132.1	114.4	17.73	7.453		
3,700.0	3,655.0	3,698.4	3,672.3	12.4	10.8	158.01	-206.1	300.4	137.5	119.2	18.28	7.520		
3,800.0	3,753.2	3,798.3	3,771.1	12.8	11.1	158.13	-213.9	312.4	142.8	124.0	18.83	7.584		
3,900.0	3,851.3	3,898.1	3,869.9	13.2	11.5	158.25	-221.8	324.3	148.2	128.8	19.39	7.643		
4,000.0	3,949.4	3,998.0	3,968.8	13.7	11.8	158.35	-229.6	336.3	153.6	133.6	19.94	7.699		
4,100.0	4,047.6	4,097.8	4,067.6	14.1	12.2	158.45	-237.5	348.3	158.9	138.4	20.50	7.752		
4,200.0	4,145.7	4,197.7	4,166.4	14.5	12.5	158.54	-245.3	360.2	164.3	143.2	21.06	7.802		
4,300.0	4,243.8	4,297.5	4,265.2	15.0	12.9	158.63	-253.2	372.2	169.6	148.0	21.61	7.850		
4,400.0	4,342.0	4,397.4	4,364.1	15.4	13.2	158.71	-261.0	384.2	175.0	152.8	22.17	7.894		
4,500.0	4,440.1	4,497.3	4,462.9	15.8	13.6	158.79	-268.8	396.1	180.4	157.6	22.72	7.937		
4,600.0	4,538.2	4,597.1	4,561.7	16.3	13.9	158.86	-276.7	408.1	185.7	162.4	23.28	7.977		
4,700.0	4,636.4	4,697.0	4,660.5	16.7	14.3	158.93	-284.5	420.0	191.1	167.2	23.84	8.016		
4,800.0	4,734.5	4,796.8	4,759.4	17.1	14.6	158.99	-292.4	432.0	196.5	172.1	24.40	8.053		
4,900.0	4,832.6	4,896.7	4,858.2	17.6	15.0	159.05	-300.2	444.0	201.8	176.9	24.95	8.088		
5,000.0	4,930.7	4,996.5	4,957.0	18.0	15.4	159.11	-308.1	455.9	207.2	181.7	25.51	8.121		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,028.9	5,096.4	5,055.9	18.4	15.7	159.16	-315.9	467.9	212.5	186.5	26.07	8.153		
5,200.0	5,127.0	5,196.2	5,154.7	18.9	16.1	159.22	-323.7	479.9	217.9	191.3	26.63	8.184		
5,300.0	5,225.1	5,296.1	5,253.5	19.3	16.4	159.27	-331.6	491.8	223.3	196.1	27.19	8.213		
5,400.0	5,323.3	5,396.0	5,352.3	19.7	16.8	159.31	-339.4	503.8	228.6	200.9	27.74	8.241		
5,500.0	5,421.4	5,495.8	5,451.2	20.2	17.1	159.36	-347.3	515.7	234.0	205.7	28.30	8.268		
5,600.0	5,519.5	5,595.7	5,550.0	20.6	17.5	159.40	-355.1	527.7	239.4	210.5	28.86	8.293		
5,700.0	5,617.7	5,695.5	5,648.8	21.0	17.8	159.44	-363.0	539.7	244.7	215.3	29.42	8.318		
5,800.0	5,715.8	5,795.4	5,747.6	21.5	18.2	159.48	-370.8	551.6	250.1	220.1	29.98	8.342		
5,900.0	5,813.9	5,895.2	5,846.5	21.9	18.5	159.52	-378.6	563.6	255.5	224.9	30.54	8.365		
6,000.0	5,912.1	5,995.1	5,945.3	22.3	18.9	159.56	-386.5	575.6	260.8	229.7	31.10	8.387		
6,100.0	6,010.2	6,095.0	6,044.1	22.8	19.2	159.59	-394.3	587.5	266.2	234.5	31.66	8.408		
6,200.0	6,108.3	6,194.8	6,142.9	23.2	19.6	159.63	-402.2	599.5	271.6	239.3	32.22	8.429		
6,300.0	6,206.5	6,294.7	6,241.8	23.6	20.0	159.66	-410.0	611.5	276.9	244.1	32.78	8.449		
6,400.0	6,304.6	6,394.5	6,340.6	24.1	20.3	159.69	-417.9	623.4	282.3	248.9	33.34	8.468		
6,500.0	6,402.7	6,494.4	6,439.4	24.5	20.7	159.72	-425.7	635.4	287.6	253.8	33.90	8.486		
6,600.0	6,500.9	6,594.2	6,538.2	24.9	21.0	159.75	-433.5	647.3	293.0	258.6	34.46	8.504		
6,700.0	6,599.0	6,694.1	6,637.1	25.4	21.4	159.77	-441.4	659.3	298.4	263.4	35.01	8.521		
6,800.0	6,697.1	6,793.9	6,735.9	25.8	21.7	159.80	-449.2	671.3	303.7	268.2	35.57	8.538		
6,853.1	6,749.2	6,846.9	6,788.3	26.0	21.9	159.81	-453.4	677.6	306.6	270.7	35.87	8.547		
6,900.0	6,795.1	6,893.8	6,834.7	26.2	22.1	145.28	-457.1	683.2	309.3	273.2	36.12	8.563		
6,950.0	6,843.5	6,943.4	6,883.8	26.5	22.3	135.28	-461.0	689.2	312.5	276.3	36.27	8.617		
7,000.0	6,891.1	6,992.5	6,932.4	26.7	22.4	129.29	-464.8	695.1	316.3	280.0	36.32	8.709		
7,050.0	6,937.8	7,040.9	6,980.3	27.0	22.6	125.95	-468.6	700.9	320.9	284.6	36.29	8.843		
7,100.0	6,983.2	7,088.4	7,027.3	27.3	22.8	124.37	-472.4	706.5	326.7	290.5	36.20	9.024		
7,150.0	7,027.2	7,134.6	7,073.0	27.6	22.9	123.97	-476.0	712.1	333.9	297.8	36.06	9.259		
7,200.0	7,069.5	7,179.4	7,117.4	28.0	23.1	124.35	-479.5	717.5	343.0	307.1	35.89	9.558		
7,250.0	7,110.0	7,222.6	7,160.1	28.3	23.3	125.18	-482.9	722.6	354.5	318.8	35.70	9.930		
7,300.0	7,148.4	7,269.5	7,206.6	28.7	23.4	126.69	-487.0	728.3	368.4	333.0	35.41	10.404		
7,350.0	7,184.6	7,325.3	7,261.3	29.1	23.6	128.84	-495.3	734.9	383.8	348.8	34.99	10.969		
7,400.0	7,218.4	7,384.6	7,318.5	29.5	23.9	131.04	-508.9	741.9	400.3	365.8	34.56	11.583		
7,450.0	7,249.6	7,447.9	7,378.2	30.0	24.2	133.25	-528.6	749.1	417.5	383.4	34.10	12.243		
7,500.0	7,278.1	7,515.8	7,440.1	30.5	24.6	135.43	-555.6	756.7	434.9	401.3	33.62	12.936		
7,550.0	7,303.7	7,589.1	7,503.7	30.9	25.1	137.55	-591.1	764.5	452.2	419.1	33.15	13.642		
7,600.0	7,326.3	7,668.3	7,567.9	31.5	25.7	139.58	-636.7	772.4	469.0	436.2	32.74	14.325		
7,650.0	7,345.7	7,754.1	7,631.4	32.0	26.3	141.49	-693.8	780.3	484.7	452.2	32.45	14.935		
7,700.0	7,362.0	7,846.8	7,691.9	32.5	27.2	143.20	-763.6	787.8	498.8	466.4	32.39	15.398		
7,750.0	7,375.0	7,946.5	7,746.3	33.1	28.2	144.67	-846.7	794.7	510.8	478.2	32.68	15.633		
7,800.0	7,384.7	8,052.7	7,791.1	33.7	29.4	145.83	-942.6	800.4	520.2	486.8	33.42	15.565		
7,850.0	7,391.0	8,164.0	7,822.4	34.3	30.7	146.60	-1,049.3	804.6	526.5	491.8	34.73	15.160		
7,900.0	7,393.8	8,278.6	7,837.1	34.8	32.2	146.96	-1,162.8	806.8	529.4	492.7	36.66	14.441		
7,916.4	7,394.0	8,315.2	7,838.0	35.0	32.6	146.97	-1,199.4	807.0	529.6	492.1	37.42	14.153		
8,000.0	7,394.0	8,398.8	7,838.0	36.1	33.8	146.97	-1,283.0	807.3	529.6	490.5	39.03	13.568		
8,100.0	7,394.0	8,498.8	7,838.0	37.4	35.2	146.97	-1,383.0	807.6	529.6	488.5	41.02	12.911		
8,200.0	7,394.0	8,598.8	7,838.0	38.7	36.6	146.97	-1,483.0	808.0	529.6	486.5	43.05	12.302		
8,300.0	7,394.0	8,698.8	7,838.0	40.1	38.1	146.97	-1,583.0	808.3	529.6	484.4	45.12	11.738		
8,400.0	7,394.0	8,798.8	7,838.0	41.6	39.6	146.97	-1,683.0	808.7	529.6	482.3	47.22	11.215		
8,500.0	7,394.0	8,898.8	7,838.0	43.1	41.2	146.97	-1,783.0	809.0	529.6	480.2	49.35	10.730		
8,600.0	7,394.0	8,998.8	7,838.0	44.6	42.8	146.97	-1,883.0	809.4	529.6	478.1	51.51	10.280		
8,700.0	7,394.0	9,098.8	7,838.0	46.1	44.4	146.97	-1,983.0	809.7	529.6	475.9	53.70	9.862		
8,800.0	7,394.0	9,198.8	7,838.0	47.7	46.0	146.97	-2,083.0	810.1	529.6	473.7	55.90	9.474		
8,900.0	7,394.0	9,298.8	7,838.0	49.3	47.7	146.97	-2,183.0	810.4	529.6	471.4	58.12	9.112		
9,000.0	7,394.0	9,398.8	7,838.0	50.9	49.4	146.97	-2,283.0	810.8	529.6	469.2	60.35	8.774		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
9,100.0	7,394.0	9,498.8	7,838.0	52.6	51.1	146.97	-2,383.0	811.1	529.6	467.0	62.60	8.459		
9,200.0	7,394.0	9,598.8	7,838.0	54.2	52.8	146.97	-2,483.0	811.5	529.6	464.7	64.87	8.164		
9,300.0	7,394.0	9,698.8	7,838.0	55.9	54.5	146.97	-2,583.0	811.8	529.6	462.4	67.14	7.888		
9,400.0	7,394.0	9,798.8	7,838.0	57.6	56.2	146.97	-2,683.0	812.2	529.6	460.1	69.42	7.628		
9,500.0	7,394.0	9,898.8	7,838.0	59.3	58.0	146.97	-2,783.0	812.5	529.6	457.9	71.72	7.384		
9,600.0	7,394.0	9,998.8	7,838.0	61.0	59.7	146.97	-2,883.0	812.9	529.6	455.6	74.02	7.154		
9,700.0	7,394.0	10,098.8	7,838.0	62.7	61.5	146.97	-2,983.0	813.2	529.6	453.2	76.33	6.938		
9,800.0	7,394.0	10,198.8	7,838.0	64.5	63.3	146.97	-3,083.0	813.6	529.6	450.9	78.65	6.734		
9,900.0	7,394.0	10,298.8	7,838.0	66.2	65.0	146.97	-3,183.0	813.9	529.6	448.6	80.97	6.540		
10,000.0	7,394.0	10,398.8	7,838.0	68.0	66.8	146.97	-3,283.0	814.3	529.6	446.3	83.30	6.358		
10,100.0	7,394.0	10,498.8	7,838.0	69.7	68.6	146.97	-3,383.0	814.6	529.6	443.9	85.63	6.184		
10,200.0	7,394.0	10,598.8	7,838.0	71.5	70.4	146.97	-3,483.0	815.0	529.6	441.6	87.97	6.020		
10,300.0	7,394.0	10,698.8	7,838.0	73.3	72.2	146.97	-3,583.0	815.3	529.6	439.3	90.31	5.864		
10,400.0	7,394.0	10,798.8	7,838.0	75.1	74.0	146.97	-3,683.0	815.7	529.6	436.9	92.66	5.715		
10,500.0	7,394.0	10,898.8	7,838.0	76.9	75.9	146.97	-3,783.0	816.0	529.6	434.6	95.01	5.574		
10,600.0	7,394.0	10,998.8	7,838.0	78.7	77.7	146.97	-3,882.9	816.4	529.6	432.2	97.37	5.439		
10,700.0	7,394.0	11,098.8	7,838.0	80.5	79.5	146.97	-3,982.9	816.7	529.6	429.9	99.73	5.310		
10,800.0	7,394.0	11,198.8	7,838.0	82.3	81.3	146.97	-4,082.9	817.1	529.6	427.5	102.09	5.187		
10,900.0	7,394.0	11,298.8	7,838.0	84.1	83.2	146.97	-4,182.9	817.4	529.6	425.1	104.45	5.070		
11,000.0	7,394.0	11,398.8	7,838.0	85.9	85.0	146.97	-4,282.9	817.8	529.6	422.8	106.82	4.958		
11,100.0	7,394.0	11,498.8	7,838.0	87.7	86.9	146.97	-4,382.9	818.1	529.6	420.4	109.19	4.850		
11,200.0	7,394.0	11,598.8	7,838.0	89.5	88.7	146.97	-4,482.9	818.5	529.6	418.0	111.56	4.747		
11,300.0	7,394.0	11,698.8	7,838.0	91.4	90.6	146.97	-4,582.9	818.8	529.6	415.6	113.94	4.648		
11,400.0	7,394.0	11,798.8	7,838.0	93.2	92.4	146.97	-4,682.9	819.2	529.6	413.3	116.32	4.553		
11,500.0	7,394.0	11,898.8	7,838.0	95.0	94.3	146.97	-4,782.9	819.5	529.6	410.9	118.69	4.462		
11,600.0	7,394.0	11,998.8	7,838.0	96.9	96.1	146.97	-4,882.9	819.9	529.6	408.5	121.08	4.374		
11,700.0	7,394.0	12,098.8	7,838.0	98.7	98.0	146.97	-4,982.9	820.2	529.6	406.1	123.46	4.290		
11,800.0	7,394.0	12,198.8	7,838.0	100.6	99.8	146.97	-5,082.9	820.6	529.6	403.7	125.84	4.208		
11,900.0	7,394.0	12,298.8	7,838.0	102.4	101.7	146.97	-5,182.9	820.9	529.6	401.4	128.23	4.130		
12,000.0	7,394.0	12,398.8	7,838.0	104.3	103.6	146.97	-5,282.9	821.3	529.6	399.0	130.61	4.055		
12,100.0	7,394.0	12,498.8	7,838.0	106.1	105.4	146.97	-5,382.9	821.6	529.6	396.6	133.00	3.982		
12,200.0	7,394.0	12,598.8	7,838.0	108.0	107.3	146.97	-5,482.9	822.0	529.6	394.2	135.39	3.912		
12,300.0	7,394.0	12,698.8	7,838.0	109.8	109.2	146.97	-5,582.9	822.3	529.6	391.8	137.78	3.844		
12,400.0	7,394.0	12,798.8	7,838.0	111.7	111.0	146.97	-5,682.9	822.6	529.6	389.4	140.18	3.778		
12,500.0	7,394.0	12,898.8	7,838.0	113.5	112.9	146.97	-5,782.9	823.0	529.6	387.0	142.57	3.715		
12,600.0	7,394.0	12,998.8	7,838.0	115.4	114.8	146.97	-5,882.9	823.3	529.6	384.6	144.96	3.653		
12,700.0	7,394.0	13,098.8	7,838.0	117.3	116.7	146.97	-5,982.9	823.7	529.6	382.2	147.36	3.594		
12,800.0	7,394.0	13,198.8	7,838.0	119.1	118.5	146.97	-6,082.9	824.0	529.6	379.8	149.76	3.536		
12,900.0	7,394.0	13,298.8	7,838.0	121.0	120.4	146.97	-6,182.9	824.4	529.6	377.4	152.15	3.481		
13,000.0	7,394.0	13,398.8	7,838.0	122.9	122.3	146.97	-6,282.9	824.7	529.6	375.0	154.55	3.427		
13,100.0	7,394.0	13,498.8	7,838.0	124.7	124.2	146.97	-6,382.9	825.1	529.6	372.6	156.95	3.374		
13,200.0	7,394.0	13,598.8	7,838.0	126.6	126.0	146.97	-6,482.9	825.4	529.6	370.2	159.35	3.323		
13,300.0	7,394.0	13,698.8	7,838.0	128.5	127.9	146.97	-6,582.9	825.8	529.6	367.8	161.75	3.274		
13,400.0	7,394.0	13,798.8	7,838.0	130.4	129.8	146.97	-6,682.9	826.1	529.6	365.4	164.15	3.226		
13,500.0	7,394.0	13,898.8	7,838.0	132.2	131.7	146.97	-6,782.9	826.5	529.6	363.0	166.55	3.180		
13,588.4	7,394.0	13,987.2	7,838.0	133.9	133.4	146.97	-6,871.3	826.8	529.6	360.9	168.68	3.140		

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	30.8	30.8	30.6	0.22	137.127		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	30.8	30.8	30.1	0.67	45.709		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	30.8	30.8	29.7	1.12	27.425		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	30.8	30.8	29.2	1.57	19.590 CC, ES		
500.0	500.0	499.0	499.0	1.0	1.0	90.90	-0.5	32.4	32.4	30.4	2.01	16.148		
600.0	600.0	597.8	597.7	1.2	1.2	93.08	-2.0	36.9	37.1	34.6	2.43	15.231		
700.0	700.0	696.2	695.7	1.5	1.4	95.70	-4.4	44.5	45.0	42.1	2.88	15.616		
800.0	800.0	794.0	792.8	1.7	1.7	98.10	-7.8	55.1	56.1	52.8	3.35	16.763		
900.0	900.0	891.1	889.0	1.9	2.0	-16.51	-12.2	68.5	69.2	65.5	3.75	18.473		
1,000.0	999.9	987.7	984.1	2.1	2.3	-15.53	-17.4	84.8	83.0	78.8	4.17	19.913		
1,100.0	1,099.7	1,083.9	1,078.1	2.3	2.7	-15.00	-23.5	103.8	97.4	92.8	4.60	21.157		
1,200.0	1,199.3	1,181.4	1,172.9	2.5	3.1	-14.78	-30.6	125.5	111.9	106.9	5.06	22.130		
1,300.0	1,298.6	1,280.6	1,269.4	2.8	3.6	-14.89	-37.8	147.8	124.3	118.7	5.52	22.495		
1,400.0	1,397.5	1,380.1	1,366.0	3.0	4.1	-15.28	-45.0	170.2	134.1	128.1	6.00	22.330		
1,500.0	1,496.1	1,479.9	1,462.9	3.4	4.5	-15.90	-52.3	192.7	141.4	134.9	6.50	21.749		
1,539.4	1,534.8	1,519.2	1,501.2	3.5	4.7	-16.21	-55.1	201.6	143.6	136.9	6.70	21.423		
1,600.0	1,594.3	1,579.7	1,559.9	3.7	5.0	-16.72	-59.5	215.2	146.7	139.7	7.02	20.894		
1,700.0	1,692.4	1,679.5	1,656.9	4.1	5.5	-17.51	-66.8	237.7	151.8	144.3	7.56	20.091		
1,800.0	1,790.5	1,779.4	1,753.9	4.4	6.0	-18.25	-74.0	260.2	157.0	148.9	8.10	19.368		
1,900.0	1,888.7	1,879.2	1,850.9	4.8	6.5	-18.95	-81.3	282.7	162.1	153.5	8.66	18.716		
2,000.0	1,986.8	1,979.1	1,948.0	5.2	7.0	-19.60	-88.5	305.2	167.3	158.1	9.23	18.126		
2,100.0	2,084.9	2,078.9	2,045.0	5.6	7.5	-20.21	-95.8	327.6	172.5	162.7	9.81	17.590		
2,200.0	2,183.1	2,178.8	2,142.0	6.0	8.0	-20.79	-103.1	350.1	177.8	167.4	10.40	17.101		
2,300.0	2,281.2	2,278.6	2,239.0	6.4	8.6	-21.33	-110.3	372.6	183.0	172.0	10.99	16.655		
2,400.0	2,379.3	2,378.5	2,336.0	6.8	9.1	-21.84	-117.6	395.1	188.3	176.7	11.59	16.247		
2,500.0	2,477.4	2,478.3	2,433.0	7.3	9.6	-22.32	-124.8	417.6	193.6	181.4	12.20	15.871		
2,600.0	2,575.6	2,578.2	2,530.0	7.7	10.1	-22.78	-132.1	440.1	198.9	186.1	12.81	15.525		
2,700.0	2,673.7	2,678.0	2,627.0	8.1	10.6	-23.22	-139.4	462.6	204.2	190.7	13.43	15.206		
2,800.0	2,771.8	2,777.9	2,724.0	8.5	11.1	-23.63	-146.6	485.1	209.5	195.4	14.05	14.910		
2,900.0	2,870.0	2,877.7	2,821.0	8.9	11.6	-24.02	-153.9	507.6	214.8	200.1	14.68	14.635		
3,000.0	2,968.1	2,977.6	2,918.1	9.4	12.1	-24.40	-161.1	530.1	220.2	204.8	15.31	14.380		
3,100.0	3,066.2	3,077.4	3,015.1	9.8	12.6	-24.75	-168.4	552.6	225.5	209.6	15.95	14.142		
3,200.0	3,164.4	3,177.3	3,112.1	10.2	13.2	-25.09	-175.7	575.1	230.9	214.3	16.58	13.920		
3,300.0	3,262.5	3,277.1	3,209.1	10.7	13.7	-25.41	-182.9	597.6	236.2	219.0	17.23	13.712		
3,400.0	3,360.6	3,377.0	3,306.1	11.1	14.2	-25.72	-190.2	620.1	241.6	223.7	17.87	13.517		
3,500.0	3,458.8	3,476.8	3,403.1	11.5	14.7	-26.02	-197.4	642.5	247.0	228.4	18.52	13.333		
3,600.0	3,556.9	3,576.6	3,500.1	11.9	15.2	-26.30	-204.7	665.0	252.3	233.2	19.17	13.161		
3,700.0	3,655.0	3,676.5	3,597.1	12.4	15.7	-26.57	-211.9	687.5	257.7	237.9	19.83	12.999		
3,800.0	3,753.2	3,776.3	3,694.1	12.8	16.2	-26.84	-219.2	710.0	263.1	242.6	20.48	12.845		
3,900.0	3,851.3	3,876.2	3,791.1	13.2	16.7	-27.08	-226.5	732.5	268.5	247.4	21.14	12.701		
4,000.0	3,949.4	3,976.0	3,888.2	13.7	17.3	-27.32	-233.7	755.0	273.9	252.1	21.80	12.563		
4,100.0	4,047.6	4,075.9	3,985.2	14.1	17.8	-27.56	-241.0	777.5	279.3	256.9	22.47	12.433		
4,200.0	4,145.7	4,175.7	4,082.2	14.5	18.3	-27.78	-248.2	800.0	284.7	261.6	23.13	12.310		
4,300.0	4,243.8	4,275.6	4,179.2	15.0	18.8	-27.99	-255.5	822.5	290.2	266.4	23.80	12.193		
4,400.0	4,342.0	4,375.4	4,276.2	15.4	19.3	-28.20	-262.8	845.0	295.6	271.1	24.47	12.082		
4,500.0	4,440.1	4,475.3	4,373.2	15.8	19.8	-28.40	-270.0	867.5	301.0	275.9	25.13	11.975		
4,600.0	4,538.2	4,575.1	4,470.2	16.3	20.3	-28.59	-277.3	890.0	306.4	280.6	25.81	11.874		
4,700.0	4,636.4	4,675.0	4,567.2	16.7	20.9	-28.77	-284.5	912.5	311.9	285.4	26.48	11.778		
4,800.0	4,734.5	4,774.8	4,664.2	17.1	21.4	-28.95	-291.8	935.0	317.3	290.1	27.15	11.685		
4,900.0	4,832.6	4,874.7	4,761.2	17.6	21.9	-29.12	-299.1	957.4	322.7	294.9	27.83	11.597		
5,000.0	4,930.7	4,974.5	4,858.2	18.0	22.4	-29.29	-306.3	979.9	328.2	299.7	28.50	11.513		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,028.9	5,074.4	4,955.3	18.4	22.9	-29.45	-313.6	1,002.4	333.6	304.4	29.18	11.432		
5,200.0	5,127.0	5,174.2	5,052.3	18.9	23.4	-29.61	-320.8	1,024.9	339.1	309.2	29.86	11.355		
5,300.0	5,225.1	5,274.1	5,149.3	19.3	23.9	-29.76	-328.1	1,047.4	344.5	314.0	30.54	11.280		
5,400.0	5,323.3	5,373.9	5,246.3	19.7	24.5	-29.90	-335.4	1,069.9	349.9	318.7	31.22	11.209		
5,500.0	5,421.4	5,473.8	5,343.3	20.2	25.0	-30.05	-342.6	1,092.4	355.4	323.5	31.90	11.140		
5,600.0	5,519.5	5,573.6	5,440.3	20.6	25.5	-30.18	-349.9	1,114.9	360.9	328.3	32.58	11.074		
5,700.0	5,617.7	5,673.4	5,537.3	21.0	26.0	-30.32	-357.1	1,137.4	366.3	333.0	33.27	11.011		
5,800.0	5,715.8	5,773.3	5,634.3	21.5	26.5	-30.45	-364.4	1,159.9	371.8	337.8	33.95	10.950		
5,900.0	5,813.9	5,873.1	5,731.3	21.9	27.0	-30.57	-371.6	1,182.4	377.2	342.6	34.64	10.891		
6,000.0	5,912.1	5,973.0	5,828.3	22.3	27.6	-30.70	-378.9	1,204.9	382.7	347.4	35.32	10.834		
6,100.0	6,010.2	6,072.8	5,925.4	22.8	28.1	-30.81	-386.2	1,227.4	388.1	352.1	36.01	10.779		
6,200.0	6,108.3	6,172.7	6,022.4	23.2	28.6	-30.93	-393.4	1,249.9	393.6	356.9	36.70	10.727		
6,300.0	6,206.5	6,272.5	6,119.4	23.6	29.1	-31.04	-400.7	1,272.3	399.1	361.7	37.38	10.675		
6,400.0	6,304.6	6,372.4	6,216.4	24.1	29.6	-31.15	-407.9	1,294.8	404.5	366.5	38.07	10.626		
6,500.0	6,402.7	6,472.2	6,313.4	24.5	30.1	-31.26	-415.2	1,317.3	410.0	371.3	38.76	10.578		
6,600.0	6,500.9	6,572.1	6,410.4	24.9	30.6	-31.36	-422.5	1,339.8	415.5	376.0	39.45	10.532		
6,700.0	6,599.0	6,671.9	6,507.4	25.4	31.2	-31.46	-429.7	1,362.3	421.0	380.8	40.14	10.487		
6,800.0	6,697.1	6,771.8	6,604.4	25.8	31.7	-31.56	-437.0	1,384.8	426.4	385.6	40.83	10.444		
6,853.1	6,749.2	6,824.8	6,655.9	26.0	31.9	-31.61	-440.8	1,396.7	429.3	388.1	41.20	10.422		
6,900.0	6,795.1	6,871.6	6,701.4	26.2	32.2	-46.26	-444.2	1,407.3	432.1	390.5	41.51	10.408		
6,950.0	6,843.5	6,921.2	6,749.6	26.5	32.4	-57.36	-447.8	1,418.5	435.3	393.3	42.02	10.360		
7,000.0	6,891.1	6,970.3	6,797.3	26.7	32.7	-65.38	-451.4	1,429.5	439.0	396.4	42.68	10.287		
7,050.0	6,937.8	7,018.6	6,844.2	27.0	32.9	-71.55	-454.9	1,440.4	443.4	400.0	43.48	10.198		
7,100.0	6,983.2	7,065.9	6,890.2	27.3	33.2	-76.62	-458.4	1,451.1	448.7	404.4	44.38	10.111		
7,150.0	7,027.2	7,112.1	6,935.0	27.6	33.4	-80.97	-461.7	1,461.5	455.2	409.9	45.33	10.043		
7,200.0	7,069.5	7,156.7	6,978.5	28.0	33.7	-84.81	-465.0	1,471.5	463.2	417.0	46.26	10.013		
7,250.0	7,110.0	7,199.8	7,020.3	28.3	33.9	-88.24	-468.1	1,481.2	473.1	425.9	47.13	10.037		
7,300.0	7,148.4	7,240.9	7,060.3	28.7	34.1	-91.28	-471.1	1,490.5	485.0	437.1	47.87	10.132		
7,350.0	7,184.6	7,280.0	7,098.2	29.1	34.3	-93.93	-473.9	1,499.3	499.4	450.9	48.45	10.308		
7,400.0	7,218.4	7,316.8	7,134.0	29.5	34.5	-96.16	-476.6	1,507.6	516.4	467.6	48.85	10.572		
7,450.0	7,249.6	7,351.2	7,167.4	30.0	34.7	-97.94	-479.1	1,515.3	536.2	487.2	49.07	10.927		
7,500.0	7,278.1	7,388.8	7,203.9	30.5	34.9	-99.71	-481.9	1,523.8	558.9	509.7	49.21	11.356		
7,550.0	7,303.7	7,449.0	7,262.0	30.9	35.2	-102.94	-489.9	1,537.3	583.3	534.0	49.37	11.816		
7,600.0	7,326.3	7,517.8	7,327.3	31.5	35.5	-106.31	-505.1	1,552.5	608.7	559.5	49.26	12.357		
7,650.0	7,345.7	7,598.5	7,401.7	32.0	36.0	-109.94	-531.0	1,569.8	634.6	585.7	48.83	12.994		
7,700.0	7,362.0	7,695.9	7,487.0	32.5	36.6	-113.88	-573.5	1,589.7	660.0	612.0	48.03	13.743		
7,750.0	7,375.0	7,816.5	7,583.6	33.1	37.4	-118.08	-641.9	1,612.3	684.0	637.2	46.81	14.612		
7,800.0	7,384.7	7,968.7	7,687.3	33.7	38.6	-122.23	-750.2	1,636.6	704.8	659.5	45.31	15.554		
7,850.0	7,391.0	8,158.4	7,781.6	34.3	40.2	-125.68	-912.7	1,658.9	720.4	676.3	44.01	16.369		
7,900.0	7,393.8	8,380.8	7,834.9	34.8	42.2	-127.47	-1,127.2	1,671.9	727.9	684.2	43.70	16.656		
7,916.4	7,394.0	8,450.3	7,838.0	35.0	42.9	-127.57	-1,196.6	1,672.9	728.2	684.4	43.86	16.603		
8,000.0	7,394.0	8,533.9	7,838.0	36.1	43.7	-127.57	-1,280.2	1,673.1	728.2	682.4	45.82	15.891		
8,100.0	7,394.0	8,633.9	7,838.0	37.4	44.8	-127.57	-1,380.2	1,673.4	728.2	679.9	48.27	15.087		
8,200.0	7,394.0	8,733.9	7,838.0	38.7	45.9	-127.57	-1,480.2	1,673.7	728.1	677.4	50.79	14.338		
8,300.0	7,394.0	8,833.9	7,838.0	40.1	47.1	-127.58	-1,580.2	1,674.0	728.1	674.7	53.37	13.641		
8,400.0	7,394.0	8,933.9	7,838.0	41.6	48.3	-127.58	-1,680.2	1,674.3	728.1	672.0	56.02	12.996		
8,500.0	7,394.0	9,033.9	7,838.0	43.1	49.6	-127.58	-1,780.2	1,674.6	728.0	669.3	58.72	12.398		
8,600.0	7,394.0	9,133.9	7,838.0	44.6	50.9	-127.58	-1,880.2	1,674.9	728.0	666.5	61.46	11.845		
8,700.0	7,394.0	9,233.9	7,838.0	46.1	52.2	-127.58	-1,980.2	1,675.2	728.0	663.7	64.24	11.331		
8,800.0	7,394.0	9,333.9	7,838.0	47.7	53.6	-127.59	-2,080.2	1,675.5	727.9	660.9	67.06	10.855		
8,900.0	7,394.0	9,433.9	7,838.0	49.3	55.0	-127.59	-2,180.2	1,675.8	727.9	658.0	69.90	10.413		
9,000.0	7,394.0	9,533.9	7,838.0	50.9	56.5	-127.59	-2,280.2	1,676.1	727.8	655.1	72.77	10.002		

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 SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Offset Design		SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)											Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
9,100.0	7,394.0	9,633.9	7,838.0	52.6	57.9	-127.59	-2,380.2	1,676.4	727.8	652.1	75.66	9.619			
9,200.0	7,394.0	9,733.9	7,838.0	54.2	59.4	-127.60	-2,480.2	1,676.7	727.8	649.2	78.58	9.262			
9,300.0	7,394.0	9,833.9	7,838.0	55.9	61.0	-127.60	-2,580.2	1,677.0	727.7	646.2	81.51	8.928			
9,400.0	7,394.0	9,933.9	7,838.0	57.6	62.5	-127.60	-2,680.2	1,677.3	727.7	643.2	84.46	8.616			
9,500.0	7,394.0	10,033.9	7,838.0	59.3	64.1	-127.60	-2,780.2	1,677.7	727.7	640.2	87.42	8.324			
9,600.0	7,394.0	10,133.9	7,838.0	61.0	65.7	-127.60	-2,880.2	1,678.0	727.6	637.2	90.40	8.049			
9,700.0	7,394.0	10,233.9	7,838.0	62.7	67.3	-127.61	-2,980.2	1,678.3	727.6	634.2	93.38	7.791			
9,800.0	7,394.0	10,333.9	7,838.0	64.5	68.9	-127.61	-3,080.2	1,678.6	727.5	631.2	96.38	7.548			
9,900.0	7,394.0	10,433.9	7,838.0	66.2	70.5	-127.61	-3,180.2	1,678.9	727.5	628.1	99.39	7.320			
10,000.0	7,394.0	10,533.9	7,838.0	68.0	72.1	-127.61	-3,280.2	1,679.2	727.5	625.1	102.41	7.104			
10,100.0	7,394.0	10,633.9	7,838.0	69.7	73.8	-127.62	-3,380.2	1,679.5	727.4	622.0	105.44	6.899			
10,200.0	7,394.0	10,733.9	7,838.0	71.5	75.5	-127.62	-3,480.2	1,679.8	727.4	618.9	108.47	6.706			
10,300.0	7,394.0	10,833.9	7,838.0	73.3	77.2	-127.62	-3,580.2	1,680.1	727.4	615.8	111.51	6.523			
10,400.0	7,394.0	10,933.9	7,838.0	75.1	78.9	-127.62	-3,680.2	1,680.4	727.3	612.8	114.56	6.349			
10,500.0	7,394.0	11,033.9	7,838.0	76.9	80.6	-127.63	-3,780.2	1,680.7	727.3	609.7	117.61	6.184			
10,600.0	7,394.0	11,133.9	7,838.0	78.7	82.3	-127.63	-3,880.2	1,681.0	727.2	606.6	120.67	6.027			
10,700.0	7,394.0	11,233.9	7,838.0	80.5	84.0	-127.63	-3,980.2	1,681.3	727.2	603.5	123.73	5.877			
10,800.0	7,394.0	11,333.9	7,838.0	82.3	85.7	-127.63	-4,080.2	1,681.6	727.2	600.4	126.80	5.735			
10,900.0	7,394.0	11,433.9	7,838.0	84.1	87.5	-127.63	-4,180.2	1,681.9	727.1	597.3	129.87	5.599			
11,000.0	7,394.0	11,533.9	7,838.0	85.9	89.2	-127.64	-4,280.2	1,682.2	727.1	594.1	132.94	5.469			
11,100.0	7,394.0	11,633.9	7,838.0	87.7	91.0	-127.64	-4,380.2	1,682.5	727.1	591.0	136.02	5.345			
11,200.0	7,394.0	11,733.9	7,838.0	89.5	92.7	-127.64	-4,480.2	1,682.8	727.0	587.9	139.10	5.226			
11,300.0	7,394.0	11,833.9	7,838.0	91.4	94.5	-127.64	-4,580.2	1,683.1	727.0	584.8	142.19	5.113			
11,400.0	7,394.0	11,933.9	7,838.0	93.2	96.2	-127.65	-4,680.2	1,683.4	726.9	581.7	145.28	5.004			
11,500.0	7,394.0	12,033.9	7,838.0	95.0	98.0	-127.65	-4,780.2	1,683.7	726.9	578.5	148.37	4.899			
11,600.0	7,394.0	12,133.9	7,838.0	96.9	99.8	-127.65	-4,880.2	1,684.0	726.9	575.4	151.46	4.799			
11,700.0	7,394.0	12,233.9	7,838.0	98.7	101.6	-127.65	-4,980.2	1,684.3	726.8	572.3	154.56	4.703			
11,800.0	7,394.0	12,333.9	7,838.0	100.6	103.4	-127.66	-5,080.2	1,684.6	726.8	569.1	157.66	4.610			
11,900.0	7,394.0	12,433.9	7,838.0	102.4	105.2	-127.66	-5,180.2	1,684.9	726.8	566.0	160.76	4.521			
12,000.0	7,394.0	12,533.9	7,838.0	104.3	107.0	-127.66	-5,280.2	1,685.2	726.7	562.9	163.86	4.435			
12,100.0	7,394.0	12,633.9	7,838.0	106.1	108.8	-127.66	-5,380.2	1,685.5	726.7	559.7	166.97	4.352			
12,200.0	7,394.0	12,733.9	7,838.0	108.0	110.6	-127.66	-5,480.2	1,685.8	726.6	556.6	170.07	4.273			
12,300.0	7,394.0	12,833.9	7,838.0	109.8	112.4	-127.67	-5,580.2	1,686.1	726.6	553.4	173.18	4.196			
12,400.0	7,394.0	12,933.9	7,838.0	111.7	114.2	-127.67	-5,680.2	1,686.4	726.6	550.3	176.29	4.121			
12,500.0	7,394.0	13,033.9	7,838.0	113.5	116.0	-127.67	-5,780.2	1,686.7	726.5	547.1	179.40	4.050			
12,600.0	7,394.0	13,133.9	7,838.0	115.4	117.9	-127.67	-5,880.2	1,687.0	726.5	544.0	182.51	3.980			
12,700.0	7,394.0	13,233.9	7,838.0	117.3	119.7	-127.68	-5,980.2	1,687.3	726.5	540.8	185.63	3.913			
12,800.0	7,394.0	13,333.9	7,838.0	119.1	121.5	-127.68	-6,080.2	1,687.7	726.4	537.7	188.74	3.849			
12,900.0	7,394.0	13,433.9	7,838.0	121.0	123.3	-127.68	-6,180.2	1,688.0	726.4	534.5	191.86	3.786			
13,000.0	7,394.0	13,533.9	7,838.0	122.9	125.2	-127.68	-6,280.2	1,688.3	726.3	531.4	194.98	3.725			
13,100.0	7,394.0	13,633.9	7,838.0	124.7	127.0	-127.68	-6,380.2	1,688.6	726.3	528.2	198.10	3.666			
13,200.0	7,394.0	13,733.9	7,838.0	126.6	128.8	-127.69	-6,480.2	1,688.9	726.3	525.1	201.21	3.609			
13,300.0	7,394.0	13,833.9	7,838.0	128.5	130.7	-127.69	-6,580.2	1,689.2	726.2	521.9	204.33	3.554			
13,400.0	7,394.0	13,933.9	7,838.0	130.4	132.5	-127.69	-6,680.2	1,689.5	726.2	518.7	207.46	3.500			
13,500.0	7,394.0	14,033.9	7,838.0	132.2	134.4	-127.69	-6,780.2	1,689.8	726.2	515.6	210.58	3.448			
13,588.4	7,394.0	14,122.3	7,838.0	133.9	136.0	-127.70	-6,868.6	1,690.0	726.1	512.8	213.34	3.404 SF			

Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')

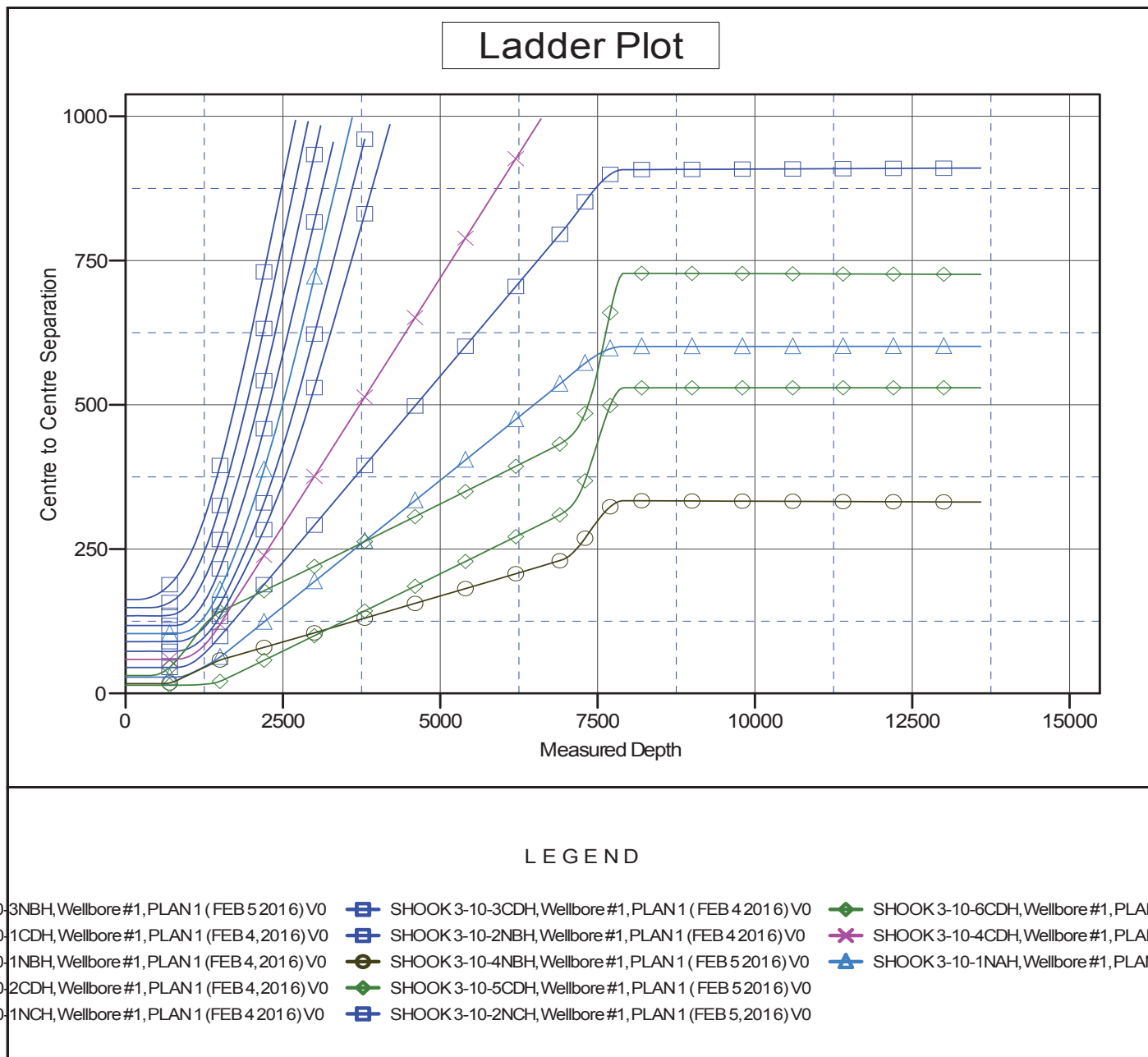
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-2NAH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.41°



Company:	PetroShare Corp	Local Co-ordinate Reference:	Well SHOOK 3-10-2NAH
Project:	SEC.3-T1S-R67W	TVD Reference:	RKB @ 5109.0ft (EST KB 16')
Reference Site:	SHOOK PAD 3-1S-67W	MD Reference:	RKB @ 5109.0ft (EST KB 16')
Site Error:	0.0 ft	North Reference:	True
Reference Well:	SHOOK 3-10-2NAH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	US_EDM
Reference Design:	PLAN 1 (FEB 5 2016)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-2NAH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.41°

