



# **Directional**

## **PetroShare Corp**

**SEC.3-T1S-R67W**

**SHOOK PAD 3-1S-67W**

**SHOOK 3-10-3NBH**

**Wellbore #1**

**PLAN 1 ( FEB 5 2016)**

## **Anticollision Report**

**22 February, 2016**

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

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

Survey Tool Program		Date	2/22/2016	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,689.7	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	134.5	133.8	199.457	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,000.0	967.8	204.3	199.7	44.509	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 ( FEB 4, 201	1,000.0	1,000.0	75.7	71.4	17.715	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 ( FEB 4, 201	1,200.0	1,197.5	82.4	77.4	16.381	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 ( FEB 4, 201	600.0	600.0	106.5	104.0	43.065	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,087.6	131.8	127.2	28.774	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	120.5	118.9	76.577	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,000.0	981.5	157.8	153.5	36.807	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	89.7	86.3	26.594	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,094.9	98.5	93.9	21.445	SF
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 ( FEB 5 201	800.0	800.0	28.0	24.6	8.311	CC, ES
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 ( FEB 5 201	13,689.7	13,588.4	601.3	344.2	2.339	SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,000.0	1,000.0	61.6	57.4	14.434	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,200.0	1,199.9	65.5	60.4	12.827	SF
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	1,000.0	1,000.0	16.8	12.5	3.937	CC, ES
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,689.7	13,785.9	310.0	59.8	1.239	Level 2, SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 ( FEB 4 201	1,000.0	1,000.0	44.8	40.6	10.498	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 ( FEB 4 201	1,200.0	1,199.9	48.7	43.6	9.540	SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 ( FEB 5, 201	1,000.0	1,000.0	30.8	26.6	7.217	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,689.7	13,945.0	637.4	394.2	2.620	SF
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 ( FEB 5 201	600.0	600.0	44.8	42.4	18.132	CC, ES
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 ( FEB 5 201	13,689.7	13,799.8	863.2	598.1	3.256	SF
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 ( FEB 5 201	800.0	800.0	14.0	10.6	4.155	CC, ES
SHOOK 3-10-5CDH - Wellbore #1 - PLAN 1 ( FEB 5 201	13,689.7	13,988.8	399.4	199.8	2.001	SF
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 ( FEB 5 201	400.0	400.0	58.8	57.3	37.398	CC, ES
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 ( FEB 5 201	7,150.0	7,058.0	999.7	959.8	25.001	SF

Offset Design														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 +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)			(ft)	(ft)	(ft)				
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			

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

Offset Design 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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
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 CC, ES		
300.0	300.0	297.3	297.3	0.6	0.5	-90.29	-0.7	-135.5	135.5	134.4	1.10	123.243		
400.0	400.0	394.4	394.3	0.8	0.7	-91.23	-3.0	-138.4	138.5	137.0	1.53	90.714		
500.0	500.0	491.3	491.0	1.0	1.0	-92.69	-6.7	-143.3	143.7	141.7	1.98	72.718		
600.0	600.0	587.8	587.2	1.2	1.2	-94.57	-12.0	-150.0	151.1	148.6	2.45	61.697		
700.0	700.0	683.9	682.6	1.5	1.5	-96.72	-18.7	-158.7	160.7	157.8	2.94	54.574		
800.0	800.0	779.3	777.1	1.7	1.8	-99.01	-26.8	-169.1	172.8	169.3	3.47	49.827		
900.0	900.0	874.0	870.5	1.9	2.1	-101.32	-36.3	-181.3	187.3	183.3	4.02	46.634		
1,000.0	1,000.0	967.8	962.7	2.1	2.5	-103.56	-47.1	-195.3	204.3	199.7	4.59	44.509 SF		
1,100.0	1,100.0	1,060.7	1,053.5	2.3	2.9	-119.51	-59.1	-210.8	224.4	219.7	4.77	47.061		
1,200.0	1,199.9	1,152.5	1,142.6	2.5	3.3	-117.99	-72.4	-227.8	248.2	243.0	5.21	47.611		
1,300.0	1,299.7	1,242.8	1,229.9	2.7	3.8	-116.94	-86.7	-246.2	275.4	269.7	5.67	48.558		
1,400.0	1,399.3	1,331.7	1,315.2	2.9	4.3	-116.25	-102.0	-266.0	305.8	299.7	6.15	49.751		
1,460.6	1,459.5	1,384.8	1,365.9	3.1	4.6	-115.97	-111.7	-278.5	325.8	319.4	6.45	50.549		
1,500.0	1,498.6	1,419.0	1,398.4	3.2	4.8	-115.99	-118.2	-286.8	339.3	332.7	6.65	51.044		
1,600.0	1,597.9	1,504.8	1,479.6	3.4	5.4	-115.97	-135.3	-308.8	375.0	367.9	7.17	52.287		
1,700.0	1,697.1	1,589.3	1,558.9	3.7	5.9	-115.85	-153.2	-331.9	412.7	405.0	7.71	53.506		
1,800.0	1,796.4	1,672.3	1,636.1	3.9	6.6	-115.67	-171.8	-355.9	452.3	444.0	8.27	54.721		
1,900.0	1,895.7	1,753.7	1,711.2	4.2	7.2	-115.45	-191.0	-380.7	493.7	484.9	8.83	55.944		
2,000.0	1,995.0	1,833.7	1,784.3	4.5	7.8	-115.19	-210.9	-406.3	537.0	527.6	9.39	57.181		
2,100.0	2,094.2	1,914.8	1,857.8	4.8	8.5	-114.91	-232.0	-433.4	581.9	572.0	9.97	58.351		
2,200.0	2,193.5	2,003.9	1,938.3	5.1	9.3	-114.62	-255.4	-463.6	627.4	616.8	10.58	59.293		
2,300.0	2,292.8	2,092.9	2,018.7	5.4	10.1	-114.38	-278.8	-493.8	672.9	661.7	11.20	60.097		
2,400.0	2,392.1	2,181.9	2,099.1	5.7	10.8	-114.16	-302.2	-523.9	718.4	706.6	11.82	60.790		
2,500.0	2,491.3	2,270.9	2,179.5	6.0	11.6	-113.97	-325.6	-554.1	763.9	751.4	12.44	61.393		
2,600.0	2,590.6	2,359.9	2,259.9	6.3	12.4	-113.81	-349.0	-584.2	809.4	796.3	13.07	61.921		
2,700.0	2,689.9	2,449.0	2,340.4	6.6	13.2	-113.66	-372.5	-614.4	854.9	841.2	13.70	62.385		
2,800.0	2,789.2	2,538.0	2,420.8	6.9	14.0	-113.52	-395.9	-644.5	900.4	886.1	14.34	62.796		
2,900.0	2,888.4	2,627.0	2,501.2	7.2	14.8	-113.40	-419.3	-674.7	945.9	931.0	14.98	63.162		
3,000.0	2,987.7	2,716.0	2,581.6	7.5	15.6	-113.29	-442.7	-704.8	991.4	975.8	15.62	63.490		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	0.0	-75.7	75.7					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-75.7	75.7	75.4	0.22	336.584		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-75.7	75.7	75.0	0.67	112.195		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-75.7	75.7	74.5	1.12	67.317		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-75.7	75.7	74.1	1.57	48.083		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-75.7	75.7	73.6	2.02	37.398		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-75.7	75.7	73.2	2.47	30.599		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-75.7	75.7	72.7	2.92	25.891		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-75.7	75.7	72.3	3.37	22.439		
900.0	900.0	900.0	900.0	1.9	1.9	-89.97	0.0	-75.7	75.7	71.8	3.82	19.799		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.97	0.0	-75.7	75.7	71.4	4.27	17.715 CC, ES		
1,100.0	1,100.0	1,098.8	1,098.8	2.3	2.3	135.09	-1.0	-76.4	77.3	72.7	4.67	16.568		
1,200.0	1,199.9	1,197.5	1,197.4	2.5	2.5	134.78	-4.1	-78.6	82.4	77.4	5.03	16.381 SF		
1,300.0	1,299.7	1,295.8	1,295.5	2.7	2.7	134.34	-9.2	-82.4	90.8	85.4	5.41	16.785		
1,400.0	1,399.3	1,393.6	1,392.9	2.9	2.9	133.83	-16.4	-87.5	102.6	96.8	5.81	17.649		
1,460.6	1,459.5	1,452.6	1,451.5	3.1	3.0	133.51	-21.7	-91.3	111.3	105.2	6.07	18.341		
1,500.0	1,498.6	1,490.8	1,489.5	3.2	3.1	133.31	-25.5	-94.1	117.5	111.3	6.24	18.833		
1,600.0	1,597.9	1,587.4	1,585.1	3.4	3.4	132.28	-36.5	-102.1	134.3	127.6	6.70	20.062		
1,700.0	1,697.1	1,683.3	1,679.7	3.7	3.6	130.77	-49.4	-111.4	152.8	145.6	7.18	21.278		
1,800.0	1,796.4	1,778.5	1,773.1	3.9	3.9	128.98	-64.0	-122.0	172.9	165.2	7.69	22.486		
1,900.0	1,895.7	1,872.8	1,865.2	4.2	4.3	127.05	-80.4	-133.8	194.8	186.6	8.22	23.694		
2,000.0	1,995.0	1,966.1	1,955.8	4.5	4.7	125.08	-98.5	-146.8	218.6	209.9	8.78	24.909		
2,100.0	2,094.2	2,058.3	2,044.9	4.8	5.1	123.13	-118.0	-161.0	244.4	235.0	9.35	26.138		
2,200.0	2,193.5	2,149.4	2,132.1	5.1	5.5	121.24	-139.1	-176.2	272.1	262.2	9.94	27.387		
2,300.0	2,292.8	2,239.2	2,217.6	5.4	6.0	119.44	-161.5	-192.4	301.9	291.3	10.53	28.656		
2,400.0	2,392.1	2,327.8	2,301.2	5.7	6.5	117.74	-185.1	-209.5	333.6	322.5	11.14	29.947		
2,500.0	2,491.3	2,414.9	2,382.8	6.0	7.0	116.15	-209.9	-227.4	367.4	355.6	11.75	31.261		
2,600.0	2,590.6	2,500.0	2,461.7	6.3	7.6	114.67	-235.6	-246.0	403.2	390.8	12.37	32.604		
2,700.0	2,689.9	2,584.8	2,539.8	6.6	8.2	113.27	-262.6	-265.5	440.9	427.9	12.99	33.942		
2,800.0	2,789.2	2,675.1	2,622.2	6.9	8.9	111.93	-292.3	-287.0	480.0	466.3	13.64	35.197		
2,900.0	2,888.4	2,766.5	2,705.8	7.2	9.6	110.76	-322.4	-308.7	519.3	505.0	14.29	36.347		
3,000.0	2,987.7	2,858.0	2,789.4	7.5	10.3	109.76	-352.5	-330.5	558.7	543.8	14.94	37.403		
3,100.0	3,087.0	2,949.5	2,873.0	7.8	11.0	108.89	-382.7	-352.3	598.3	582.7	15.59	38.374		
3,200.0	3,186.3	3,041.0	2,956.6	8.2	11.7	108.12	-412.8	-374.0	638.0	621.7	16.25	39.270		
3,300.0	3,285.5	3,132.4	3,040.2	8.5	12.4	107.45	-442.9	-395.8	677.7	660.8	16.90	40.097		
3,400.0	3,384.8	3,223.9	3,123.8	8.8	13.1	106.85	-473.0	-417.6	717.6	700.0	17.56	40.863		
3,500.0	3,484.1	3,315.4	3,207.3	9.1	13.9	106.31	-503.1	-439.3	757.5	739.2	18.22	41.574		
3,600.0	3,583.4	3,406.9	3,290.9	9.4	14.6	105.83	-533.2	-461.1	797.4	778.5	18.88	42.235		
3,700.0	3,682.6	3,498.4	3,374.5	9.7	15.3	105.39	-563.3	-482.9	837.4	817.9	19.54	42.850		
3,800.0	3,781.9	3,589.8	3,458.1	10.1	16.1	104.99	-593.5	-504.6	877.4	857.2	20.21	43.424		
3,900.0	3,881.2	3,681.3	3,541.7	10.4	16.8	104.63	-623.6	-526.4	917.5	896.6	20.87	43.961		
4,000.0	3,980.4	3,772.8	3,625.3	10.7	17.5	104.29	-653.7	-548.2	957.6	936.0	21.54	44.465		
4,100.0	4,079.7	3,864.3	3,708.9	11.0	18.3	103.99	-683.8	-569.9	997.7	975.5	22.20	44.937		

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

SHOOK PAD 3-1S-67W - SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 2016)													Offset Site Error:	0.0 ft
Offset Design		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	-106.5	106.5					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-106.5	106.5	106.2	0.22	473.711		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-106.5	106.5	105.8	0.67	157.904		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-106.5	106.5	105.4	1.12	94.742		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-106.5	106.5	104.9	1.57	67.673		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-106.5	106.5	104.5	2.02	52.635		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-106.5	106.5	104.0	2.47	43.065 CC, ES		
700.0	700.0	698.0	698.0	1.5	1.4	-90.45	-0.8	-107.4	107.4	104.5	2.89	37.098		
800.0	800.0	796.0	795.9	1.7	1.6	-91.82	-3.5	-110.0	110.2	106.9	3.31	33.333		
900.0	900.0	893.6	893.3	1.9	1.8	-93.95	-7.9	-114.5	114.9	111.2	3.73	30.810		
1,000.0	1,000.0	990.9	990.2	2.1	2.0	-96.65	-14.1	-120.6	121.8	117.7	4.17	29.187		
1,100.0	1,100.0	1,087.6	1,086.3	2.3	2.3	125.83	-21.9	-128.5	131.8	127.2	4.58	28.774 SF		
1,200.0	1,199.9	1,183.7	1,181.4	2.5	2.6	123.77	-31.4	-138.0	145.6	140.6	5.00	29.140		
1,300.0	1,299.7	1,278.9	1,275.3	2.7	2.9	122.29	-42.4	-149.1	162.9	157.5	5.43	30.009		
1,400.0	1,399.3	1,373.1	1,367.8	2.9	3.2	121.30	-55.0	-161.7	183.8	177.9	5.89	31.224		
1,460.6	1,459.5	1,429.5	1,423.0	3.1	3.4	120.89	-63.3	-170.0	198.0	191.9	6.17	32.074		
1,500.0	1,498.6	1,466.0	1,458.6	3.2	3.6	120.77	-69.0	-175.7	207.9	201.5	6.37	32.642		
1,600.0	1,597.9	1,557.9	1,547.9	3.4	4.0	120.32	-84.3	-191.1	234.3	227.4	6.88	34.065		
1,700.0	1,697.1	1,648.7	1,635.6	3.7	4.4	119.70	-100.9	-207.8	262.6	255.2	7.41	35.466		
1,800.0	1,796.4	1,738.2	1,721.5	3.9	4.9	118.99	-118.8	-225.7	293.0	285.0	7.95	36.859		
1,900.0	1,895.7	1,826.5	1,805.6	4.2	5.4	118.23	-137.8	-244.7	325.3	316.8	8.51	38.245		
2,000.0	1,995.0	1,913.5	1,887.7	4.5	5.9	117.44	-157.8	-264.8	359.6	350.5	9.07	39.631		
2,100.0	2,094.2	2,000.0	1,968.9	4.8	6.5	116.65	-179.1	-286.2	395.8	386.2	9.65	41.003		
2,200.0	2,193.5	2,083.1	2,046.2	5.1	7.0	115.89	-200.7	-307.9	434.0	423.7	10.24	42.392		
2,300.0	2,292.8	2,165.8	2,122.3	5.4	7.7	115.14	-223.4	-330.6	474.0	463.1	10.83	43.773		
2,400.0	2,392.1	2,247.9	2,197.3	5.7	8.3	114.41	-247.0	-354.3	515.8	504.4	11.42	45.149		
2,500.0	2,491.3	2,336.9	2,278.1	6.0	9.0	113.69	-273.3	-380.7	558.6	546.6	12.05	46.355		
2,600.0	2,590.6	2,427.0	2,360.0	6.3	9.8	113.06	-299.9	-407.4	601.5	588.8	12.68	47.429		
2,700.0	2,689.9	2,517.2	2,441.9	6.6	10.5	112.51	-326.5	-434.1	644.5	631.1	13.32	48.390		
2,800.0	2,789.2	2,607.3	2,523.8	6.9	11.2	112.04	-353.1	-460.8	687.4	673.5	13.96	49.254		
2,900.0	2,888.4	2,697.5	2,605.6	7.2	12.0	111.62	-379.8	-487.5	730.4	715.8	14.60	50.034		
3,000.0	2,987.7	2,787.6	2,687.5	7.5	12.8	111.24	-406.4	-514.2	773.5	758.2	15.24	50.741		
3,100.0	3,087.0	2,877.8	2,769.4	7.8	13.5	110.90	-433.0	-540.9	816.5	800.7	15.89	51.384		
3,200.0	3,186.3	2,968.0	2,851.3	8.2	14.3	110.60	-459.6	-567.6	859.6	843.1	16.54	51.972		
3,300.0	3,285.5	3,058.1	2,933.2	8.5	15.0	110.33	-486.2	-594.3	902.7	885.5	17.19	52.511		
3,400.0	3,384.8	3,148.3	3,015.1	8.8	15.8	110.08	-512.8	-621.0	945.8	928.0	17.84	53.006		
3,500.0	3,484.1	3,238.4	3,097.0	9.1	16.6	109.86	-539.5	-647.7	989.0	970.5	18.50	53.464		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-89.97	0.1	-120.5	120.5					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-120.5	120.5	120.3	0.22	536.042		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-120.5	120.5	119.8	0.67	178.681		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-120.5	120.5	119.4	1.12	107.208		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-120.5	120.5	118.9	1.57	76.577 CC, ES		
500.0	500.0	497.7	497.6	1.0	1.0	-90.36	-0.8	-121.4	121.4	119.5	2.00	60.834		
600.0	600.0	595.2	595.1	1.2	1.2	-91.49	-3.2	-124.2	124.4	122.0	2.41	51.550		
700.0	700.0	692.5	692.2	1.5	1.4	-93.24	-7.3	-128.9	129.4	126.5	2.85	45.435		
800.0	800.0	789.4	788.7	1.7	1.6	-95.48	-13.0	-135.4	136.5	133.2	3.30	41.330		
900.0	900.0	885.8	884.5	1.9	1.9	-98.02	-20.2	-143.7	146.0	142.2	3.78	38.588		
1,000.0	1,000.0	981.5	979.3	2.1	2.2	-100.69	-29.0	-153.8	157.8	153.5	4.29	36.807 SF		
1,100.0	1,100.0	1,076.6	1,073.0	2.3	2.5	121.99	-39.3	-165.5	172.9	168.3	4.64	37.244		
1,200.0	1,199.9	1,170.7	1,165.4	2.5	2.8	120.16	-50.9	-178.8	191.7	186.6	5.08	37.763		
1,300.0	1,299.7	1,263.6	1,256.3	2.7	3.2	118.90	-63.9	-193.7	214.0	208.5	5.53	38.726		
1,400.0	1,399.3	1,355.3	1,345.4	2.9	3.6	118.08	-78.1	-210.0	239.7	233.7	6.00	39.977		
1,460.6	1,459.5	1,410.1	1,398.4	3.1	3.9	117.75	-87.3	-220.5	256.9	250.6	6.29	40.837		
1,500.0	1,498.6	1,445.6	1,432.6	3.2	4.1	117.71	-93.5	-227.6	268.6	262.1	6.49	41.378		
1,600.0	1,597.9	1,534.6	1,518.0	3.4	4.6	117.52	-110.0	-246.5	299.8	292.8	7.01	42.745		
1,700.0	1,697.1	1,622.3	1,601.5	3.7	5.1	117.20	-127.5	-266.5	332.9	325.4	7.55	44.104		
1,800.0	1,796.4	1,708.6	1,683.2	3.9	5.6	116.81	-146.0	-287.7	368.0	359.9	8.10	45.453		
1,900.0	1,895.7	1,793.6	1,762.9	4.2	6.2	116.38	-165.3	-309.8	405.1	396.4	8.66	46.791		
2,000.0	1,995.0	1,877.1	1,840.5	4.5	6.8	115.92	-185.5	-332.9	444.0	434.8	9.23	48.121		
2,100.0	2,094.2	1,959.1	1,916.1	4.8	7.4	115.44	-206.4	-356.8	484.9	475.1	9.80	49.456		
2,200.0	2,193.5	2,039.5	1,989.7	5.1	8.1	114.96	-227.9	-381.4	527.5	517.1	10.38	50.801		
2,300.0	2,292.8	2,124.5	2,066.6	5.4	8.8	114.46	-251.5	-408.5	571.7	560.7	10.99	52.023		
2,400.0	2,392.1	2,214.0	2,147.6	5.7	9.5	114.00	-276.5	-437.1	616.0	604.4	11.61	53.065		
2,500.0	2,491.3	2,303.5	2,228.7	6.0	10.3	113.61	-301.5	-465.7	660.4	648.2	12.23	53.981		
2,600.0	2,590.6	2,393.0	2,309.7	6.3	11.0	113.26	-326.6	-494.4	704.8	692.0	12.86	54.789		
2,700.0	2,689.9	2,482.5	2,390.8	6.6	11.8	112.96	-351.6	-523.0	749.3	735.8	13.50	55.507		
2,800.0	2,789.2	2,572.0	2,471.8	6.9	12.6	112.68	-376.6	-551.6	793.7	779.6	14.14	56.149		
2,900.0	2,888.4	2,661.6	2,552.9	7.2	13.4	112.44	-401.6	-580.3	838.2	823.4	14.78	56.727		
3,000.0	2,987.7	2,751.1	2,633.9	7.5	14.1	112.22	-426.6	-608.9	882.7	867.3	15.42	57.248		
3,100.0	3,087.0	2,840.6	2,714.9	7.8	14.9	112.03	-451.6	-637.5	927.2	911.1	16.06	57.720		
3,200.0	3,186.3	2,930.1	2,796.0	8.2	15.7	111.85	-476.6	-666.2	971.7	954.9	16.71	58.150		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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
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	898.5	898.5	1.9	1.9	-90.58	-0.9	-90.5	90.5	86.7	3.79	23.861		
1,000.0	1,000.0	996.8	996.7	2.1	2.1	-92.33	-3.8	-93.0	93.1	88.9	4.20	22.172		
1,100.0	1,100.0	1,094.9	1,094.6	2.3	2.3	130.66	-8.5	-97.1	98.5	93.9	4.59	21.445 SF		
1,200.0	1,199.9	1,192.5	1,191.8	2.5	2.5	128.81	-15.2	-102.9	107.5	102.5	4.98	21.586		
1,300.0	1,299.7	1,289.5	1,288.2	2.7	2.7	127.38	-23.6	-110.2	120.1	114.7	5.39	22.284		
1,400.0	1,399.3	1,385.8	1,383.5	2.9	3.0	126.35	-33.8	-119.0	136.1	130.3	5.82	23.388		
1,460.6	1,459.5	1,443.6	1,440.6	3.1	3.1	125.89	-40.8	-125.1	147.5	141.4	6.10	24.197		
1,500.0	1,498.6	1,481.1	1,477.5	3.2	3.2	125.69	-45.7	-129.3	155.5	149.2	6.28	24.758		
1,600.0	1,597.9	1,575.6	1,570.3	3.4	3.6	124.91	-59.2	-141.1	177.0	170.3	6.77	26.155		
1,700.0	1,697.1	1,669.1	1,661.6	3.7	3.9	123.88	-74.3	-154.2	200.5	193.2	7.28	27.537		
1,800.0	1,796.4	1,761.7	1,751.5	3.9	4.3	122.70	-90.9	-168.5	225.8	218.0	7.81	28.910		
1,900.0	1,895.7	1,853.1	1,839.8	4.2	4.7	121.46	-108.9	-184.2	253.1	244.8	8.36	30.273		
2,000.0	1,995.0	1,943.4	1,926.4	4.5	5.2	120.20	-128.3	-200.9	282.4	273.5	8.93	31.641		
2,100.0	2,094.2	2,032.4	2,011.1	4.8	5.7	118.96	-148.9	-218.8	313.7	304.2	9.50	33.012		
2,200.0	2,193.5	2,120.0	2,093.9	5.1	6.2	117.75	-170.6	-237.6	346.9	336.8	10.09	34.389		
2,300.0	2,292.8	2,206.3	2,174.8	5.4	6.7	116.59	-193.4	-257.3	382.1	371.4	10.68	35.776		
2,400.0	2,392.1	2,291.2	2,253.6	5.7	7.3	115.49	-217.1	-277.9	419.2	408.0	11.28	37.163		
2,500.0	2,491.3	2,380.2	2,335.7	6.0	8.0	114.41	-243.1	-300.5	457.9	446.0	11.90	38.466		
2,600.0	2,590.6	2,472.0	2,420.3	6.3	8.6	113.46	-270.0	-323.8	496.8	484.3	12.54	39.627		
2,700.0	2,689.9	2,563.9	2,505.0	6.6	9.3	112.65	-296.9	-347.1	535.8	522.7	13.17	40.673		
2,800.0	2,789.2	2,655.7	2,589.6	6.9	10.0	111.94	-323.8	-370.4	574.9	561.1	13.81	41.619		
2,900.0	2,888.4	2,747.5	2,674.3	7.2	10.7	111.33	-350.7	-393.7	614.1	599.6	14.46	42.477		
3,000.0	2,987.7	2,839.3	2,758.9	7.5	11.4	110.79	-377.6	-417.1	653.3	638.2	15.10	43.258		
3,100.0	3,087.0	2,931.2	2,843.6	7.8	12.1	110.31	-404.5	-440.4	692.5	676.8	15.75	43.971		
3,200.0	3,186.3	3,023.0	2,928.2	8.2	12.8	109.88	-431.4	-463.7	731.8	715.4	16.40	44.625		
3,300.0	3,285.5	3,114.8	3,012.9	8.5	13.5	109.50	-458.3	-487.0	771.1	754.1	17.05	45.225		
3,400.0	3,384.8	3,206.7	3,097.5	8.8	14.2	109.15	-485.2	-510.3	810.5	792.8	17.70	45.779		
3,500.0	3,484.1	3,298.5	3,182.2	9.1	14.9	108.83	-512.1	-533.7	849.9	831.5	18.36	46.290		
3,600.0	3,583.4	3,390.3	3,266.8	9.4	15.7	108.54	-538.9	-557.0	889.2	870.2	19.02	46.763		
3,700.0	3,682.6	3,482.1	3,351.5	9.7	16.4	108.28	-565.8	-580.3	928.6	909.0	19.67	47.203		
3,800.0	3,781.9	3,574.0	3,436.1	10.1	17.1	108.04	-592.7	-603.6	968.1	947.7	20.33	47.613		

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - 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	90.03	0.0	28.0	28.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.03	0.0	28.0	28.0	27.8	0.22	124.661		
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	28.0	28.0	27.3	0.67	41.554		
300.0	300.0	300.0	300.0	0.6	0.6	90.03	0.0	28.0	28.0	26.9	1.12	24.932		
400.0	400.0	400.0	400.0	0.8	0.8	90.03	0.0	28.0	28.0	26.4	1.57	17.809		
500.0	500.0	500.0	500.0	1.0	1.0	90.03	0.0	28.0	28.0	26.0	2.02	13.851		
600.0	600.0	600.0	600.0	1.2	1.2	90.03	0.0	28.0	28.0	25.5	2.47	11.333		
700.0	700.0	700.0	700.0	1.5	1.5	90.03	0.0	28.0	28.0	25.1	2.92	9.589		
800.0	800.0	800.0	800.0	1.7	1.7	90.03	0.0	28.0	28.0	24.6	3.37	8.311 CC, ES		
900.0	900.0	899.3	899.3	1.9	1.9	91.16	-0.6	29.2	29.2	25.4	3.80	7.682		
1,000.0	1,000.0	998.5	998.4	2.1	2.1	94.04	-2.3	32.6	32.8	28.5	4.22	7.769		
1,100.0	1,100.0	1,097.5	1,097.2	2.3	2.3	-38.32	-5.2	38.4	37.8	33.2	4.61	8.196		
1,200.0	1,199.9	1,196.4	1,195.7	2.5	2.5	-37.42	-9.1	46.4	43.3	38.3	5.00	8.656		
1,300.0	1,299.7	1,295.1	1,293.7	2.7	2.8	-37.58	-14.2	56.7	49.1	43.7	5.40	9.093		
1,400.0	1,399.3	1,393.6	1,391.2	2.9	3.0	-38.46	-20.4	69.3	55.3	49.5	5.82	9.503		
1,460.6	1,459.5	1,453.2	1,450.0	3.1	3.2	-39.24	-24.7	78.0	59.3	53.2	6.09	9.734		
1,500.0	1,498.6	1,492.0	1,488.2	3.2	3.3	-39.72	-27.8	84.0	62.1	55.8	6.27	9.904		
1,600.0	1,597.9	1,590.9	1,585.3	3.4	3.7	-40.34	-36.1	100.8	70.5	63.8	6.74	10.468		
1,700.0	1,697.1	1,690.5	1,683.0	3.7	4.0	-40.75	-44.6	118.0	79.3	72.1	7.23	10.972		
1,800.0	1,796.4	1,790.1	1,780.8	3.9	4.4	-41.08	-53.1	135.2	88.1	80.3	7.73	11.393		
1,900.0	1,895.7	1,889.7	1,878.6	4.2	4.8	-41.34	-61.6	152.3	96.8	88.6	8.24	11.745		
2,000.0	1,995.0	1,989.3	1,976.3	4.5	5.2	-41.57	-70.1	169.5	105.6	96.8	8.77	12.044		
2,100.0	2,094.2	2,088.9	2,074.1	4.8	5.6	-41.76	-78.6	186.7	114.4	105.1	9.30	12.298		
2,200.0	2,193.5	2,188.6	2,171.8	5.1	6.0	-41.92	-87.1	203.9	123.1	113.3	9.84	12.516		
2,300.0	2,292.8	2,288.2	2,269.6	5.4	6.4	-42.06	-95.6	221.0	131.9	121.5	10.38	12.704		
2,400.0	2,392.1	2,387.8	2,367.3	5.7	6.8	-42.18	-104.1	238.2	140.7	129.7	10.93	12.869		
2,500.0	2,491.3	2,487.4	2,465.1	6.0	7.2	-42.29	-112.6	255.4	149.4	138.0	11.49	13.012		
2,600.0	2,590.6	2,587.0	2,562.8	6.3	7.6	-42.39	-121.1	272.6	158.2	146.2	12.04	13.139		
2,700.0	2,689.9	2,686.6	2,660.6	6.6	8.0	-42.47	-129.6	289.7	167.0	154.4	12.60	13.251		
2,800.0	2,789.2	2,786.2	2,758.3	6.9	8.5	-42.55	-138.1	306.9	175.8	162.6	13.17	13.350		
2,900.0	2,888.4	2,885.9	2,856.1	7.2	8.9	-42.62	-146.6	324.1	184.5	170.8	13.73	13.439		
3,000.0	2,987.7	2,985.5	2,953.8	7.5	9.3	-42.68	-155.1	341.3	193.3	179.0	14.30	13.520		
3,100.0	3,087.0	3,085.1	3,051.6	7.8	9.7	-42.74	-163.6	358.4	202.1	187.2	14.87	13.592		
3,200.0	3,186.3	3,184.7	3,149.4	8.2	10.2	-42.80	-172.1	375.6	210.9	195.4	15.44	13.657		
3,300.0	3,285.5	3,284.3	3,247.1	8.5	10.6	-42.84	-180.6	392.8	219.6	203.6	16.01	13.717		
3,400.0	3,384.8	3,383.9	3,344.9	8.8	11.0	-42.89	-189.1	410.0	228.4	211.8	16.59	13.771		
3,500.0	3,484.1	3,483.5	3,442.6	9.1	11.4	-42.93	-197.6	427.1	237.2	220.0	17.16	13.821		
3,600.0	3,583.4	3,583.2	3,540.4	9.4	11.9	-42.97	-206.1	444.3	245.9	228.2	17.74	13.866		
3,700.0	3,682.6	3,682.8	3,638.1	9.7	12.3	-43.01	-214.6	461.5	254.7	236.4	18.31	13.908		
3,800.0	3,781.9	3,782.4	3,735.9	10.1	12.7	-43.04	-223.1	478.7	263.5	244.6	18.89	13.947		
3,900.0	3,881.2	3,882.0	3,833.6	10.4	13.2	-43.07	-231.6	495.8	272.3	252.8	19.47	13.983		
4,000.0	3,980.4	3,981.6	3,931.4	10.7	13.6	-43.10	-240.1	513.0	281.0	261.0	20.05	14.016		
4,100.0	4,079.7	4,081.2	4,029.1	11.0	14.0	-43.13	-248.6	530.2	289.8	269.2	20.63	14.047		
4,200.0	4,179.0	4,180.8	4,126.9	11.3	14.4	-43.16	-257.2	547.3	298.6	277.4	21.21	14.076		
4,300.0	4,278.3	4,280.5	4,224.6	11.6	14.9	-43.18	-265.7	564.5	307.4	285.6	21.80	14.102		
4,400.0	4,377.5	4,380.1	4,322.4	12.0	15.3	-43.21	-274.2	581.7	316.1	293.8	22.38	14.127		
4,500.0	4,476.8	4,479.7	4,420.1	12.3	15.7	-43.23	-282.7	598.9	324.9	302.0	22.96	14.151		
4,600.0	4,576.1	4,579.3	4,517.9	12.6	16.2	-43.25	-291.2	616.0	333.7	310.1	23.54	14.173		
4,700.0	4,675.4	4,678.9	4,615.7	12.9	16.6	-43.27	-299.7	633.2	342.5	318.3	24.13	14.194		
4,800.0	4,774.6	4,778.5	4,713.4	13.2	17.0	-43.29	-308.2	650.4	351.2	326.5	24.71	14.213		
4,900.0	4,873.9	4,878.1	4,811.2	13.6	17.5	-43.31	-316.7	667.6	360.0	334.7	25.30	14.232		
5,000.0	4,973.2	4,977.8	4,908.9	13.9	17.9	-43.32	-325.2	684.7	368.8	342.9	25.88	14.249		

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - 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	5,072.5	5,077.4	5,006.7	14.2	18.3	-43.34	-333.7	701.9	377.6	351.1	26.47	14.266		
5,200.0	5,171.7	5,177.0	5,104.4	14.5	18.8	-43.36	-342.2	719.1	386.3	359.3	27.05	14.281		
5,300.0	5,271.0	5,276.6	5,202.2	14.8	19.2	-43.37	-350.7	736.3	395.1	367.5	27.64	14.296		
5,400.0	5,370.3	5,376.2	5,299.9	15.2	19.6	-43.38	-359.2	753.4	403.9	375.7	28.22	14.310		
5,500.0	5,469.6	5,475.8	5,397.7	15.5	20.1	-43.40	-367.7	770.6	412.7	383.9	28.81	14.324		
5,600.0	5,568.8	5,575.4	5,495.4	15.8	20.5	-43.41	-376.2	787.8	421.4	392.0	29.40	14.336		
5,700.0	5,668.1	5,675.1	5,593.2	16.1	20.9	-43.42	-384.7	805.0	430.2	400.2	29.98	14.348		
5,800.0	5,767.4	5,774.7	5,690.9	16.5	21.3	-43.44	-393.2	822.1	439.0	408.4	30.57	14.360		
5,900.0	5,866.7	5,874.3	5,788.7	16.8	21.8	-43.45	-401.7	839.3	447.8	416.6	31.16	14.371		
6,000.0	5,965.9	5,973.9	5,886.4	17.1	22.2	-43.46	-410.2	856.5	456.5	424.8	31.74	14.381		
6,100.0	6,065.2	6,073.5	5,984.2	17.4	22.6	-43.47	-418.7	873.7	465.3	433.0	32.33	14.392		
6,200.0	6,164.5	6,173.1	6,082.0	17.7	23.1	-43.48	-427.2	890.8	474.1	441.2	32.92	14.401		
6,300.0	6,263.7	6,272.7	6,179.7	18.1	23.5	-43.49	-435.7	908.0	482.9	449.3	33.51	14.410		
6,400.0	6,363.0	6,372.3	6,277.5	18.4	23.9	-43.50	-444.2	925.2	491.6	457.5	34.10	14.419		
6,500.0	6,462.3	6,472.0	6,375.2	18.7	24.4	-43.51	-452.7	942.3	500.4	465.7	34.68	14.428		
6,600.0	6,561.6	6,571.6	6,473.0	19.0	24.8	-43.52	-461.2	959.5	509.2	473.9	35.27	14.436		
6,700.0	6,660.8	6,671.2	6,570.7	19.4	25.2	-43.53	-469.7	976.7	518.0	482.1	35.86	14.444		
6,800.0	6,760.1	6,770.8	6,668.5	19.7	25.7	-43.53	-478.2	993.9	526.7	490.3	36.45	14.451		
6,900.0	6,859.4	6,870.2	6,766.0	20.0	26.1	-43.52	-486.9	1,011.0	535.5	498.5	37.04	14.460		
6,950.1	6,909.1	6,919.4	6,814.0	20.2	26.3	-43.22	-494.0	1,019.4	540.0	502.7	37.28	14.485		
7,000.0	6,958.5	6,968.0	6,860.7	20.3	26.6	-58.54	-504.2	1,027.7	544.4	507.0	37.44	14.542		
7,050.0	7,007.4	7,016.4	6,906.5	20.5	26.8	-65.75	-517.6	1,035.8	548.9	511.2	37.66	14.575		
7,100.0	7,055.5	7,064.5	6,951.1	20.8	27.1	-69.57	-533.9	1,043.6	553.3	515.4	37.95	14.581		
7,150.0	7,102.7	7,112.4	6,994.3	21.0	27.4	-71.74	-553.2	1,051.3	557.7	519.4	38.30	14.561		
7,200.0	7,148.6	7,160.1	7,035.8	21.3	27.7	-73.04	-575.2	1,058.6	562.0	523.2	38.72	14.514		
7,250.0	7,193.0	7,207.5	7,075.7	21.6	28.0	-73.81	-599.9	1,065.7	566.1	526.9	39.20	14.440		
7,300.0	7,235.7	7,254.7	7,113.7	22.0	28.4	-74.25	-627.1	1,072.5	570.1	530.4	39.76	14.339		
7,350.0	7,276.6	7,301.7	7,149.7	22.4	28.7	-74.49	-656.6	1,078.9	574.0	533.6	40.39	14.211		
7,400.0	7,315.4	7,350.0	7,184.6	22.8	29.1	-74.58	-689.3	1,085.1	577.7	536.5	41.11	14.053		
7,450.0	7,351.9	7,395.2	7,215.3	23.2	29.5	-74.60	-722.1	1,090.6	581.1	539.2	41.88	13.874		
7,500.0	7,385.9	7,441.7	7,244.6	23.7	29.9	-74.54	-757.8	1,095.9	584.4	541.6	42.76	13.667		
7,550.0	7,417.4	7,488.1	7,271.5	24.2	30.3	-74.46	-795.2	1,100.7	587.4	543.6	43.71	13.436		
7,600.0	7,446.0	7,534.3	7,295.9	24.7	30.8	-74.35	-834.2	1,105.2	590.1	545.3	44.76	13.184		
7,650.0	7,471.8	7,580.5	7,317.8	25.3	31.3	-74.24	-874.7	1,109.1	592.6	546.7	45.89	12.912		
7,700.0	7,494.5	7,626.5	7,337.0	25.9	31.7	-74.12	-916.4	1,112.6	594.7	547.6	47.12	12.623		
7,750.0	7,514.0	7,672.5	7,353.5	26.5	32.2	-74.02	-959.2	1,115.7	596.6	548.2	48.42	12.321		
7,800.0	7,530.4	7,718.4	7,367.2	27.1	32.7	-73.93	-1,002.9	1,118.3	598.2	548.4	49.81	12.009		
7,850.0	7,543.4	7,764.3	7,378.1	27.8	33.3	-73.86	-1,047.4	1,120.3	599.4	548.1	51.28	11.690		
7,900.0	7,553.0	7,810.1	7,386.2	28.5	33.8	-73.81	-1,092.5	1,121.9	600.3	547.5	52.81	11.367		
7,950.0	7,559.1	7,855.9	7,391.5	29.2	34.3	-73.78	-1,137.9	1,123.0	600.9	546.5	54.41	11.045		
8,000.0	7,561.9	7,901.7	7,393.9	29.9	34.9	-73.77	-1,183.7	1,123.6	601.2	545.1	56.05	10.725		
8,014.1	7,562.0	7,914.6	7,394.0	30.1	35.0	-73.77	-1,196.6	1,123.6	601.2	544.7	56.52	10.636		
8,034.2	7,562.0	7,934.5	7,394.0	30.4	35.3	-73.77	-1,216.5	1,123.7	601.2	544.1	57.11	10.526		
8,100.0	7,562.0	8,000.3	7,394.0	31.4	36.1	-73.77	-1,282.3	1,123.9	601.2	542.1	59.05	10.180		
8,200.0	7,562.0	8,100.3	7,394.0	32.9	37.4	-73.77	-1,382.3	1,124.3	601.2	539.1	62.09	9.682		
8,300.0	7,562.0	8,200.3	7,394.0	34.4	38.7	-73.77	-1,482.3	1,124.6	601.2	536.0	65.20	9.221		
8,400.0	7,562.0	8,300.3	7,394.0	36.0	40.2	-73.77	-1,582.3	1,125.0	601.2	532.8	68.36	8.794		
8,500.0	7,562.0	8,400.3	7,394.0	37.7	41.6	-73.77	-1,682.3	1,125.3	601.2	529.6	71.58	8.399		
8,600.0	7,562.0	8,500.3	7,394.0	39.3	43.1	-73.77	-1,782.3	1,125.7	601.2	526.3	74.84	8.033		
8,700.0	7,562.0	8,600.3	7,394.0	41.0	44.6	-73.77	-1,882.3	1,126.0	601.2	523.1	78.14	7.693		
8,800.0	7,562.0	8,700.3	7,394.0	42.7	46.1	-73.77	-1,982.3	1,126.4	601.2	519.7	81.48	7.378		
8,900.0	7,562.0	8,800.3	7,394.0	44.4	47.7	-73.77	-2,082.3	1,126.7	601.2	516.4	84.85	7.086		

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - 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		
9,000.0	7,562.0	8,900.3	7,394.0	46.1	49.3	-73.77	-2,182.3	1,127.1	601.2	513.0	88.24	6.813		
9,100.0	7,562.0	9,000.3	7,394.0	47.8	50.9	-73.77	-2,282.3	1,127.4	601.2	509.5	91.66	6.559		
9,200.0	7,562.0	9,100.3	7,394.0	49.6	52.6	-73.77	-2,382.3	1,127.8	601.2	506.1	95.09	6.322		
9,300.0	7,562.0	9,200.3	7,394.0	51.3	54.2	-73.77	-2,482.3	1,128.1	601.2	502.7	98.55	6.100		
9,400.0	7,562.0	9,300.3	7,394.0	53.1	55.9	-73.77	-2,582.3	1,128.5	601.2	499.2	102.03	5.893		
9,500.0	7,562.0	9,400.3	7,394.0	54.9	57.6	-73.77	-2,682.3	1,128.8	601.2	495.7	105.52	5.698		
9,600.0	7,562.0	9,500.3	7,394.0	56.7	59.3	-73.77	-2,782.3	1,129.2	601.2	492.2	109.02	5.515		
9,700.0	7,562.0	9,600.3	7,394.0	58.5	61.0	-73.77	-2,882.3	1,129.5	601.2	488.7	112.54	5.342		
9,800.0	7,562.0	9,700.3	7,394.0	60.3	62.7	-73.77	-2,982.3	1,129.9	601.2	485.2	116.06	5.180		
9,900.0	7,562.0	9,800.3	7,394.0	62.1	64.5	-73.77	-3,082.3	1,130.2	601.2	481.6	119.60	5.027		
10,000.0	7,562.0	9,900.3	7,394.0	63.9	66.2	-73.77	-3,182.3	1,130.6	601.2	478.1	123.15	4.882		
10,100.0	7,562.0	10,000.3	7,394.0	65.7	68.0	-73.77	-3,282.3	1,130.9	601.2	474.5	126.71	4.745		
10,200.0	7,562.0	10,100.3	7,394.0	67.6	69.7	-73.77	-3,382.3	1,131.3	601.2	471.0	130.27	4.615		
10,300.0	7,562.0	10,200.3	7,394.0	69.4	71.5	-73.77	-3,482.3	1,131.6	601.2	467.4	133.85	4.492		
10,400.0	7,562.0	10,300.3	7,394.0	71.2	73.3	-73.77	-3,582.3	1,132.0	601.2	463.8	137.43	4.375		
10,500.0	7,562.0	10,400.3	7,394.0	73.1	75.1	-73.77	-3,682.3	1,132.3	601.2	460.2	141.01	4.264		
10,600.0	7,562.0	10,500.3	7,394.0	74.9	76.9	-73.77	-3,782.3	1,132.7	601.2	456.6	144.60	4.158		
10,700.0	7,562.0	10,600.3	7,394.0	76.8	78.7	-73.77	-3,882.3	1,133.0	601.2	453.0	148.20	4.057		
10,800.0	7,562.0	10,700.3	7,394.0	78.6	80.5	-73.77	-3,982.3	1,133.4	601.2	449.4	151.80	3.961		
10,900.0	7,562.0	10,800.3	7,394.0	80.5	82.3	-73.77	-4,082.3	1,133.7	601.2	445.8	155.41	3.869		
11,000.0	7,562.0	10,900.3	7,394.0	82.3	84.1	-73.77	-4,182.3	1,134.1	601.3	442.2	159.02	3.781		
11,100.0	7,562.0	11,000.3	7,394.0	84.2	85.9	-73.77	-4,282.3	1,134.4	601.3	438.6	162.64	3.697		
11,200.0	7,562.0	11,100.3	7,394.0	86.1	87.7	-73.77	-4,382.3	1,134.8	601.3	435.0	166.25	3.616		
11,300.0	7,562.0	11,200.3	7,394.0	87.9	89.5	-73.77	-4,482.3	1,135.1	601.3	431.4	169.88	3.539		
11,400.0	7,562.0	11,300.3	7,394.0	89.8	91.4	-73.77	-4,582.3	1,135.5	601.3	427.8	173.50	3.465		
11,500.0	7,562.0	11,400.3	7,394.0	91.7	93.2	-73.77	-4,682.3	1,135.8	601.3	424.1	177.13	3.394		
11,600.0	7,562.0	11,500.3	7,394.0	93.5	95.0	-73.77	-4,782.3	1,136.2	601.3	420.5	180.76	3.326		
11,700.0	7,562.0	11,600.3	7,394.0	95.4	96.9	-73.78	-4,882.3	1,136.5	601.3	416.9	184.40	3.261		
11,800.0	7,562.0	11,700.3	7,394.0	97.3	98.7	-73.78	-4,982.3	1,136.9	601.3	413.2	188.04	3.198		
11,900.0	7,562.0	11,800.3	7,394.0	99.2	100.6	-73.78	-5,082.3	1,137.2	601.3	409.6	191.68	3.137		
12,000.0	7,562.0	11,900.3	7,394.0	101.0	102.4	-73.78	-5,182.3	1,137.6	601.3	406.0	195.32	3.078		
12,100.0	7,562.0	12,000.3	7,394.0	102.9	104.3	-73.78	-5,282.3	1,137.9	601.3	402.3	198.96	3.022		
12,200.0	7,562.0	12,100.3	7,394.0	104.8	106.1	-73.78	-5,382.3	1,138.3	601.3	398.7	202.61	2.968		
12,300.0	7,562.0	12,200.3	7,394.0	106.7	108.0	-73.78	-5,482.3	1,138.6	601.3	395.0	206.26	2.915		
12,400.0	7,562.0	12,300.3	7,394.0	108.6	109.8	-73.78	-5,582.3	1,139.0	601.3	391.4	209.91	2.865		
12,500.0	7,562.0	12,400.3	7,394.0	110.4	111.7	-73.78	-5,682.3	1,139.4	601.3	387.7	213.56	2.816		
12,600.0	7,562.0	12,500.3	7,394.0	112.3	113.6	-73.78	-5,782.3	1,139.7	601.3	384.1	217.21	2.768		
12,700.0	7,562.0	12,600.3	7,394.0	114.2	115.4	-73.78	-5,882.3	1,140.1	601.3	380.4	220.87	2.722		
12,800.0	7,562.0	12,700.3	7,394.0	116.1	117.3	-73.78	-5,982.3	1,140.4	601.3	376.8	224.53	2.678		
12,900.0	7,562.0	12,800.3	7,394.0	118.0	119.1	-73.78	-6,082.3	1,140.8	601.3	373.1	228.19	2.635		
13,000.0	7,562.0	12,900.3	7,394.0	119.9	121.0	-73.78	-6,182.3	1,141.1	601.3	369.5	231.85	2.594		
13,100.0	7,562.0	13,000.3	7,394.0	121.8	122.9	-73.78	-6,282.3	1,141.5	601.3	365.8	235.51	2.553		
13,200.0	7,562.0	13,100.3	7,394.0	123.7	124.7	-73.78	-6,382.3	1,141.8	601.3	362.1	239.17	2.514		
13,300.0	7,562.0	13,200.3	7,394.0	125.5	126.6	-73.78	-6,482.3	1,142.2	601.3	358.5	242.83	2.476		
13,400.0	7,562.0	13,300.3	7,394.0	127.4	128.5	-73.78	-6,582.3	1,142.5	601.3	354.8	246.50	2.439		
13,500.0	7,562.0	13,400.3	7,394.0	129.3	130.4	-73.78	-6,682.3	1,142.9	601.3	351.1	250.16	2.404		
13,600.0	7,562.0	13,500.3	7,394.0	131.2	132.2	-73.78	-6,782.3	1,143.2	601.3	347.5	253.83	2.369		
13,653.3	7,562.0	13,553.6	7,394.0	132.2	133.2	-73.78	-6,835.6	1,143.4	601.3	345.5	255.78	2.351		
13,689.7	7,562.0	13,588.4	7,394.0	132.9	133.9	-73.78	-6,870.3	1,143.5	601.3	344.2	257.09	2.339 SF		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	-89.98	0.0	-61.6	61.6					
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-61.6	61.6	61.4	0.22	274.254		
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-61.6	61.6	61.0	0.67	91.418		
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-61.6	61.6	60.5	1.12	54.851		
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-61.6	61.6	60.1	1.57	39.179		
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-61.6	61.6	59.6	2.02	30.473		
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-61.6	61.6	59.2	2.47	24.932		
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-61.6	61.6	58.7	2.92	21.096		
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-61.6	61.6	58.3	3.37	18.284		
900.0	900.0	900.0	900.0	1.9	1.9	-89.98	0.0	-61.6	61.6	57.8	3.82	16.133		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.98	0.0	-61.6	61.6	57.4	4.27	14.434 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	136.03	0.0	-61.6	62.6	57.9	4.70	13.326		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	138.39	0.0	-61.6	65.5	60.4	5.10	12.827 SF		
1,300.0	1,299.7	1,298.9	1,298.9	2.7	2.8	140.90	-1.1	-62.3	71.0	65.5	5.49	12.935		
1,400.0	1,399.3	1,397.7	1,397.7	2.9	3.0	142.42	-4.4	-64.2	79.8	73.9	5.86	13.601		
1,460.6	1,459.5	1,457.4	1,457.2	3.1	3.1	142.90	-7.5	-66.0	86.6	80.5	6.10	14.191		
1,500.0	1,498.6	1,496.2	1,495.9	3.2	3.1	143.04	-9.9	-67.5	91.5	85.2	6.26	14.615		
1,600.0	1,597.9	1,594.4	1,593.7	3.4	3.3	142.43	-17.5	-71.9	104.5	97.8	6.68	15.658		
1,700.0	1,697.1	1,692.2	1,690.8	3.7	3.6	140.83	-27.3	-77.7	118.6	111.5	7.12	16.665		
1,800.0	1,796.4	1,789.5	1,787.2	3.9	3.8	138.61	-39.1	-84.6	133.9	126.3	7.59	17.644		
1,900.0	1,895.7	1,886.2	1,882.5	4.2	4.1	136.01	-53.0	-92.8	150.6	142.5	8.09	18.611		
2,000.0	1,995.0	1,982.2	1,976.7	4.5	4.3	133.23	-68.8	-102.1	168.8	160.2	8.62	19.580		
2,100.0	2,094.2	2,077.3	2,069.6	4.8	4.7	130.39	-86.5	-112.4	188.7	179.5	9.18	20.565		
2,200.0	2,193.5	2,171.4	2,161.0	5.1	5.0	127.58	-105.9	-123.9	210.5	200.7	9.76	21.577		
2,300.0	2,292.8	2,264.6	2,250.8	5.4	5.4	124.87	-127.1	-136.3	234.2	223.9	10.35	22.625		
2,400.0	2,392.1	2,356.6	2,339.0	5.7	5.9	122.30	-149.8	-149.6	260.0	249.1	10.97	23.713		
2,500.0	2,491.3	2,447.3	2,425.3	6.0	6.3	119.88	-174.0	-163.9	287.9	276.3	11.59	24.842		
2,600.0	2,590.6	2,536.8	2,509.7	6.3	6.8	117.63	-199.6	-178.9	317.8	305.6	12.22	26.013		
2,700.0	2,689.9	2,624.9	2,592.1	6.6	7.4	115.54	-226.5	-194.7	349.9	337.0	12.85	27.224		
2,800.0	2,789.2	2,711.7	2,672.6	6.9	7.9	113.61	-254.6	-211.2	384.0	370.5	13.49	28.476		
2,900.0	2,888.4	2,804.5	2,758.2	7.2	8.6	111.78	-285.4	-229.3	419.3	405.2	14.15	29.640		
3,000.0	2,987.7	2,897.3	2,843.8	7.5	9.2	110.24	-316.2	-247.4	454.9	440.1	14.81	30.729		
3,100.0	3,087.0	2,990.1	2,929.5	7.8	9.9	108.92	-347.0	-265.4	490.8	475.4	15.46	31.740		
3,200.0	3,186.3	3,082.8	3,015.1	8.2	10.5	107.77	-377.7	-283.5	526.9	510.8	16.12	32.680		
3,300.0	3,285.5	3,175.6	3,100.7	8.5	11.2	106.77	-408.5	-301.6	563.2	546.4	16.78	33.555		
3,400.0	3,384.8	3,268.4	3,186.3	8.8	11.9	105.89	-439.3	-319.7	599.5	582.1	17.44	34.370		
3,500.0	3,484.1	3,361.2	3,272.0	9.1	12.6	105.12	-470.1	-337.8	636.0	617.9	18.11	35.129		
3,600.0	3,583.4	3,453.9	3,357.6	9.4	13.2	104.42	-500.9	-355.9	672.6	653.8	18.77	35.838		
3,700.0	3,682.6	3,546.7	3,443.2	9.7	13.9	103.80	-531.7	-374.0	709.3	689.8	19.43	36.502		
3,800.0	3,781.9	3,639.5	3,528.8	10.1	14.6	103.24	-562.5	-392.1	746.0	725.9	20.09	37.123		
3,900.0	3,881.2	3,732.3	3,614.5	10.4	15.3	102.73	-593.3	-410.1	782.8	762.0	20.76	37.705		
4,000.0	3,980.4	3,825.0	3,700.1	10.7	16.0	102.26	-624.1	-428.2	819.6	798.2	21.43	38.252		
4,100.0	4,079.7	3,917.8	3,785.7	11.0	16.7	101.84	-654.9	-446.3	856.5	834.4	22.09	38.767		
4,200.0	4,179.0	4,010.6	3,871.3	11.3	17.4	101.45	-685.7	-464.4	893.4	870.6	22.76	39.251		
4,300.0	4,278.3	4,103.4	3,957.0	11.6	18.1	101.09	-716.5	-482.5	930.3	906.9	23.43	39.709		
4,400.0	4,377.5	4,196.1	4,042.6	12.0	18.8	100.76	-747.3	-500.6	967.3	943.2	24.10	40.140		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	-16.8	16.8	16.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-16.8	16.8	16.6	0.22	74.797		
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-16.8	16.8	16.1	0.67	24.932		
300.0	300.0	300.0	300.0	0.6	0.6	-89.96	0.0	-16.8	16.8	15.7	1.12	14.959		
400.0	400.0	400.0	400.0	0.8	0.8	-89.96	0.0	-16.8	16.8	15.2	1.57	10.685		
500.0	500.0	500.0	500.0	1.0	1.0	-89.96	0.0	-16.8	16.8	14.8	2.02	8.311		
600.0	600.0	600.0	600.0	1.2	1.2	-89.96	0.0	-16.8	16.8	14.3	2.47	6.800		
700.0	700.0	700.0	700.0	1.5	1.5	-89.96	0.0	-16.8	16.8	13.9	2.92	5.754		
800.0	800.0	800.0	800.0	1.7	1.7	-89.96	0.0	-16.8	16.8	13.4	3.37	4.986		
900.0	900.0	900.0	900.0	1.9	1.9	-89.96	0.0	-16.8	16.8	13.0	3.82	4.400		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.96	0.0	-16.8	16.8	12.5	4.27	3.937 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	138.18	0.0	-16.8	17.8	13.1	4.70	3.783		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	145.37	0.0	-16.8	20.9	15.8	5.10	4.087		
1,300.0	1,299.7	1,300.2	1,300.2	2.7	2.8	151.35	-1.2	-16.2	25.6	20.1	5.49	4.662		
1,400.0	1,399.3	1,400.5	1,400.4	2.9	3.0	154.14	-4.7	-14.4	31.0	25.1	5.86	5.287		
1,460.6	1,459.5	1,461.4	1,461.2	3.1	3.1	154.84	-8.0	-12.8	34.5	28.4	6.09	5.662		
1,500.0	1,498.6	1,501.0	1,500.7	3.2	3.2	154.88	-10.6	-11.4	36.7	30.4	6.24	5.873		
1,600.0	1,597.9	1,601.4	1,600.7	3.4	3.4	153.36	-18.6	-7.3	41.0	34.4	6.65	6.165		
1,700.0	1,697.1	1,701.3	1,700.1	3.7	3.6	151.60	-27.2	-3.0	45.0	37.9	7.08	6.352		
1,800.0	1,796.4	1,801.2	1,799.6	3.9	3.8	150.13	-35.7	1.4	49.0	41.5	7.53	6.507		
1,900.0	1,895.7	1,901.1	1,899.0	4.2	4.0	148.89	-44.3	5.7	53.0	45.0	7.99	6.636		
2,000.0	1,995.0	2,001.0	1,998.5	4.5	4.3	147.82	-52.9	10.1	57.1	48.6	8.46	6.744		
2,100.0	2,094.2	2,101.0	2,097.9	4.8	4.5	146.89	-61.4	14.4	61.1	52.2	8.95	6.834		
2,200.0	2,193.5	2,200.9	2,197.4	5.1	4.8	146.08	-70.0	18.8	65.2	55.8	9.44	6.910		
2,300.0	2,292.8	2,300.8	2,296.8	5.4	5.0	145.36	-78.5	23.2	69.3	59.4	9.94	6.973		
2,400.0	2,392.1	2,400.7	2,396.3	5.7	5.3	144.73	-87.1	27.5	73.4	63.0	10.45	7.026		
2,500.0	2,491.3	2,500.6	2,495.7	6.0	5.5	144.16	-95.6	31.9	77.5	66.6	10.97	7.072		
2,600.0	2,590.6	2,600.5	2,595.2	6.3	5.8	143.65	-104.2	36.2	81.7	70.2	11.49	7.110		
2,700.0	2,689.9	2,700.4	2,694.6	6.6	6.1	143.18	-112.8	40.6	85.8	73.8	12.01	7.143		
2,800.0	2,789.2	2,800.3	2,794.1	6.9	6.4	142.77	-121.3	44.9	89.9	77.4	12.54	7.172		
2,900.0	2,888.4	2,900.3	2,893.5	7.2	6.6	142.38	-129.9	49.3	94.1	81.0	13.07	7.196		
3,000.0	2,987.7	3,000.2	2,993.0	7.5	6.9	142.03	-138.4	53.6	98.2	84.6	13.61	7.217		
3,100.0	3,087.0	3,100.1	3,092.4	7.8	7.2	141.71	-147.0	58.0	102.3	88.2	14.15	7.235		
3,200.0	3,186.3	3,200.0	3,191.9	8.2	7.5	141.41	-155.5	62.3	106.5	91.8	14.69	7.251		
3,300.0	3,285.5	3,299.9	3,291.3	8.5	7.7	141.14	-164.1	66.7	110.6	95.4	15.23	7.264		
3,400.0	3,384.8	3,399.8	3,390.8	8.8	8.0	140.88	-172.6	71.1	114.8	99.0	15.78	7.276		
3,500.0	3,484.1	3,499.7	3,490.2	9.1	8.3	140.65	-181.2	75.4	118.9	102.6	16.32	7.287		
3,600.0	3,583.4	3,599.6	3,589.7	9.4	8.6	140.42	-189.8	79.8	123.1	106.2	16.87	7.296		
3,700.0	3,682.6	3,699.6	3,689.1	9.7	8.9	140.22	-198.3	84.1	127.3	109.8	17.42	7.304		
3,800.0	3,781.9	3,799.5	3,788.6	10.1	9.1	140.02	-206.9	88.5	131.4	113.4	17.98	7.311		
3,900.0	3,881.2	3,899.4	3,888.0	10.4	9.4	139.84	-215.4	92.8	135.6	117.1	18.53	7.317		
4,000.0	3,980.4	3,999.3	3,987.5	10.7	9.7	139.67	-224.0	97.2	139.7	120.7	19.08	7.323		
4,100.0	4,079.7	4,099.2	4,086.9	11.0	10.0	139.51	-232.5	101.5	143.9	124.3	19.64	7.327		
4,200.0	4,179.0	4,199.1	4,186.4	11.3	10.3	139.36	-241.1	105.9	148.1	127.9	20.20	7.332		
4,300.0	4,278.3	4,299.0	4,285.8	11.6	10.6	139.22	-249.7	110.2	152.2	131.5	20.75	7.335		
4,400.0	4,377.5	4,398.9	4,385.3	12.0	10.9	139.08	-258.2	114.6	156.4	135.1	21.31	7.339		
4,500.0	4,476.8	4,498.9	4,484.7	12.3	11.1	138.95	-266.8	119.0	160.6	138.7	21.87	7.342		
4,600.0	4,576.1	4,598.8	4,584.2	12.6	11.4	138.83	-275.3	123.3	164.7	142.3	22.43	7.344		
4,700.0	4,675.4	4,698.7	4,683.6	12.9	11.7	138.71	-283.9	127.7	168.9	145.9	22.99	7.347		
4,800.0	4,774.6	4,798.6	4,783.1	13.2	12.0	138.60	-292.4	132.0	173.1	149.5	23.55	7.349		
4,900.0	4,873.9	4,898.5	4,882.5	13.6	12.3	138.50	-301.0	136.4	177.2	153.1	24.11	7.350		
5,000.0	4,973.2	4,998.4	4,982.0	13.9	12.6	138.39	-309.5	140.7	181.4	156.7	24.68	7.352		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	5,072.5	5,098.3	5,081.4	14.2	12.9	138.30	-318.1	145.1	185.6	160.3	25.24	7.353		
5,200.0	5,171.7	5,198.2	5,180.9	14.5	13.2	138.21	-326.7	149.4	189.7	163.9	25.80	7.354		
5,300.0	5,271.0	5,298.2	5,280.3	14.8	13.4	138.12	-335.2	153.8	193.9	167.6	26.36	7.355		
5,400.0	5,370.3	5,398.1	5,379.8	15.2	13.7	138.03	-343.8	158.1	198.1	171.2	26.93	7.356		
5,500.0	5,469.6	5,498.0	5,479.2	15.5	14.0	137.95	-352.3	162.5	202.3	174.8	27.49	7.357		
5,600.0	5,568.8	5,597.9	5,578.7	15.8	14.3	137.88	-360.9	166.9	206.4	178.4	28.06	7.358		
5,700.0	5,668.1	5,697.8	5,678.1	16.1	14.6	137.80	-369.4	171.2	210.6	182.0	28.62	7.358		
5,800.0	5,767.4	5,797.7	5,777.6	16.5	14.9	137.73	-378.0	175.6	214.8	185.6	29.19	7.359		
5,900.0	5,866.7	5,897.6	5,877.0	16.8	15.2	137.66	-386.6	179.9	219.0	189.2	29.75	7.359		
6,000.0	5,965.9	5,997.5	5,976.5	17.1	15.5	137.59	-395.1	184.3	223.1	192.8	30.32	7.359		
6,100.0	6,065.2	6,097.5	6,075.9	17.4	15.8	137.53	-403.7	188.6	227.3	196.4	30.89	7.360		
6,200.0	6,164.5	6,197.4	6,175.4	17.7	16.0	137.47	-412.2	193.0	231.5	200.0	31.45	7.360		
6,300.0	6,263.7	6,297.3	6,274.8	18.1	16.3	137.41	-420.8	197.3	235.7	203.6	32.02	7.360		
6,400.0	6,363.0	6,397.2	6,374.3	18.4	16.6	137.35	-429.3	201.7	239.8	207.2	32.59	7.360		
6,500.0	6,462.3	6,497.1	6,473.7	18.7	16.9	137.30	-437.9	206.0	244.0	210.8	33.15	7.360		
6,600.0	6,561.6	6,597.0	6,573.2	19.0	17.2	137.24	-446.4	210.4	248.2	214.5	33.72	7.360		
6,700.0	6,660.8	6,696.9	6,672.6	19.4	17.5	137.19	-455.0	214.8	252.4	218.1	34.29	7.360		
6,800.0	6,760.1	6,796.8	6,772.1	19.7	17.8	137.14	-463.6	219.1	256.5	221.7	34.86	7.360		
6,900.0	6,859.4	6,896.8	6,871.5	20.0	18.1	137.09	-472.1	223.5	260.7	225.3	35.42	7.360		
6,950.1	6,909.1	6,946.8	6,921.4	20.2	18.2	137.07	-476.4	225.6	262.8	227.1	35.71	7.360		
7,000.0	6,958.5	6,996.6	6,970.9	20.3	18.4	121.11	-480.7	227.8	264.9	229.0	35.98	7.364		
7,050.0	7,007.4	7,046.3	7,020.4	20.5	18.5	113.99	-484.9	230.0	267.3	231.1	36.19	7.385		
7,100.0	7,055.5	7,097.2	7,070.8	20.8	18.7	110.67	-491.0	232.2	269.8	233.4	36.40	7.412		
7,150.0	7,102.7	7,148.6	7,121.2	21.0	18.9	108.98	-500.9	234.4	272.5	235.8	36.67	7.429		
7,200.0	7,148.6	7,200.5	7,171.3	21.3	19.1	108.16	-514.4	236.6	275.2	238.2	37.01	7.436		
7,250.0	7,193.0	7,253.0	7,220.8	21.6	19.4	107.85	-531.8	238.8	278.0	240.6	37.41	7.431		
7,300.0	7,235.7	7,306.0	7,269.3	22.0	19.7	107.84	-552.9	241.0	280.9	243.0	37.88	7.415		
7,350.0	7,276.6	7,359.5	7,316.6	22.4	20.1	108.02	-577.9	243.1	283.7	245.3	38.42	7.385		
7,400.0	7,315.4	7,413.6	7,362.4	22.8	20.5	108.32	-606.6	245.2	286.6	247.5	39.03	7.342		
7,450.0	7,351.9	7,468.2	7,406.2	23.2	20.9	108.68	-639.0	247.2	289.3	249.6	39.72	7.285		
7,500.0	7,385.9	7,523.3	7,447.9	23.7	21.4	109.07	-675.0	249.2	292.0	251.5	40.49	7.212		
7,550.0	7,417.4	7,578.9	7,486.9	24.2	21.9	109.48	-714.5	251.0	294.6	253.2	41.35	7.124		
7,600.0	7,446.0	7,634.9	7,523.1	24.7	22.5	109.87	-757.3	252.7	297.0	254.7	42.30	7.021		
7,650.0	7,471.8	7,691.4	7,556.1	25.3	23.2	110.24	-803.1	254.2	299.2	255.8	43.35	6.902		
7,700.0	7,494.5	7,748.3	7,585.5	25.9	23.8	110.57	-851.7	255.7	301.2	256.7	44.50	6.768		
7,750.0	7,514.0	7,805.5	7,611.2	26.5	24.6	110.87	-902.8	256.9	302.9	257.2	45.75	6.621		
7,800.0	7,530.4	7,863.0	7,632.8	27.1	25.3	111.12	-956.0	258.0	304.4	257.3	47.11	6.462		
7,850.0	7,543.4	7,920.7	7,650.1	27.8	26.1	111.31	-1,011.1	259.0	305.6	257.0	48.56	6.293		
7,900.0	7,553.0	7,978.6	7,663.0	28.5	26.9	111.46	-1,067.6	259.7	306.5	256.4	50.11	6.117		
7,950.0	7,559.1	8,036.7	7,671.2	29.2	27.8	111.54	-1,125.0	260.2	307.1	255.3	51.74	5.935		
8,000.0	7,561.9	8,094.9	7,674.8	29.9	28.7	111.57	-1,183.0	260.5	307.3	253.9	53.44	5.751		
8,014.1	7,562.0	8,111.1	7,675.0	30.1	28.9	111.57	-1,199.3	260.6	307.3	253.4	53.93	5.699		
8,100.0	7,562.0	8,197.0	7,675.0	31.4	30.2	111.57	-1,285.2	260.9	307.4	250.9	56.44	5.446		
8,200.0	7,562.0	8,297.0	7,675.0	32.9	31.8	111.57	-1,385.2	261.1	307.4	248.0	59.44	5.172		
8,300.0	7,562.0	8,397.0	7,675.0	34.4	33.4	111.56	-1,485.2	261.4	307.5	245.0	62.50	4.920		
8,400.0	7,562.0	8,497.0	7,675.0	36.0	35.1	111.56	-1,585.2	261.7	307.5	241.9	65.62	4.687		
8,500.0	7,562.0	8,597.0	7,675.0	37.7	36.7	111.56	-1,685.2	262.0	307.6	238.8	68.78	4.472		
8,600.0	7,562.0	8,697.0	7,675.0	39.3	38.4	111.55	-1,785.2	262.3	307.6	235.6	71.99	4.273		
8,700.0	7,562.0	8,797.0	7,675.0	41.0	40.1	111.55	-1,885.2	262.6	307.7	232.4	75.23	4.089		
8,800.0	7,562.0	8,897.0	7,675.0	42.7	41.9	111.54	-1,985.2	262.9	307.7	229.2	78.51	3.919		
8,900.0	7,562.0	8,997.0	7,675.0	44.4	43.6	111.54	-2,085.2	263.2	307.8	225.9	81.81	3.762		
9,000.0	7,562.0	9,097.0	7,675.0	46.1	45.4	111.54	-2,185.2	263.5	307.8	222.7	85.14	3.615		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	7,562.0	9,197.0	7,675.0	47.8	47.2	111.53	-2,285.2	263.8	307.8	219.4	88.49	3.479		
9,200.0	7,562.0	9,297.0	7,675.0	49.6	48.9	111.53	-2,385.2	264.1	307.9	216.0	91.86	3.352		
9,300.0	7,562.0	9,397.0	7,675.0	51.3	50.7	111.53	-2,485.2	264.4	307.9	212.7	95.24	3.233		
9,400.0	7,562.0	9,497.0	7,675.0	53.1	52.5	111.52	-2,585.2	264.7	308.0	209.3	98.65	3.122		
9,500.0	7,562.0	9,597.0	7,675.0	54.9	54.3	111.52	-2,685.2	265.0	308.0	206.0	102.06	3.018		
9,600.0	7,562.0	9,697.0	7,675.0	56.7	56.1	111.52	-2,785.2	265.3	308.1	202.6	105.49	2.920		
9,700.0	7,562.0	9,797.0	7,675.0	58.5	58.0	111.51	-2,885.2	265.6	308.1	199.2	108.93	2.829		
9,800.0	7,562.0	9,897.0	7,675.0	60.3	59.8	111.51	-2,985.2	265.9	308.2	195.8	112.38	2.742		
9,900.0	7,562.0	9,997.0	7,675.0	62.1	61.6	111.51	-3,085.2	266.2	308.2	192.4	115.85	2.661		
10,000.0	7,562.0	10,097.0	7,675.0	63.9	63.5	111.50	-3,185.2	266.5	308.3	189.0	119.32	2.584		
10,100.0	7,562.0	10,197.0	7,675.0	65.7	65.3	111.50	-3,285.2	266.8	308.3	185.5	122.79	2.511		
10,200.0	7,562.0	10,297.0	7,675.0	67.6	67.2	111.50	-3,385.2	267.1	308.4	182.1	126.28	2.442		
10,300.0	7,562.0	10,397.0	7,675.0	69.4	69.0	111.49	-3,485.2	267.4	308.4	178.6	129.77	2.377		
10,400.0	7,562.0	10,497.0	7,675.0	71.2	70.9	111.49	-3,585.2	267.7	308.5	175.2	133.27	2.315		
10,500.0	7,562.0	10,597.0	7,675.0	73.1	72.7	111.49	-3,685.2	268.0	308.5	171.7	136.77	2.256		
10,600.0	7,562.0	10,697.0	7,675.0	74.9	74.6	111.48	-3,785.2	268.3	308.6	168.3	140.28	2.199		
10,700.0	7,562.0	10,797.0	7,675.0	76.8	76.4	111.48	-3,885.2	268.6	308.6	164.8	143.80	2.146		
10,800.0	7,562.0	10,897.0	7,675.0	78.6	78.3	111.48	-3,985.2	268.9	308.6	161.3	147.32	2.095		
10,900.0	7,562.0	10,997.0	7,675.0	80.5	80.2	111.47	-4,085.2	269.2	308.7	157.9	150.84	2.046		
11,000.0	7,562.0	11,097.0	7,675.0	82.3	82.0	111.47	-4,185.2	269.5	308.7	154.4	154.37	2.000		
11,100.0	7,562.0	11,197.0	7,675.0	84.2	83.9	111.47	-4,285.2	269.8	308.8	150.9	157.90	1.956		
11,200.0	7,562.0	11,297.0	7,675.0	86.1	85.8	111.46	-4,385.2	270.1	308.8	147.4	161.44	1.913		
11,300.0	7,562.0	11,397.0	7,675.0	87.9	87.7	111.46	-4,485.2	270.4	308.9	143.9	164.98	1.872		
11,400.0	7,562.0	11,497.0	7,675.0	89.8	89.5	111.46	-4,585.2	270.7	308.9	140.4	168.52	1.833		
11,500.0	7,562.0	11,597.0	7,675.0	91.7	91.4	111.45	-4,685.2	271.0	309.0	136.9	172.06	1.796		
11,600.0	7,562.0	11,697.0	7,675.0	93.5	93.3	111.45	-4,785.2	271.3	309.0	133.4	175.61	1.760		
11,700.0	7,562.0	11,797.0	7,675.0	95.4	95.2	111.45	-4,885.2	271.6	309.1	129.9	179.16	1.725		
11,800.0	7,562.0	11,897.0	7,675.0	97.3	97.1	111.44	-4,985.2	271.9	309.1	126.4	182.71	1.692		
11,900.0	7,562.0	11,997.0	7,675.0	99.2	98.9	111.44	-5,085.2	272.2	309.2	122.9	186.27	1.660		
12,000.0	7,562.0	12,097.0	7,675.0	101.0	100.8	111.43	-5,185.2	272.4	309.2	119.4	189.83	1.629		
12,100.0	7,562.0	12,197.0	7,675.0	102.9	102.7	111.43	-5,285.2	272.7	309.3	115.9	193.38	1.599		
12,200.0	7,562.0	12,297.0	7,675.0	104.8	104.6	111.43	-5,385.2	273.0	309.3	112.4	196.95	1.571		
12,300.0	7,562.0	12,397.0	7,675.0	106.7	106.5	111.42	-5,485.2	273.3	309.4	108.8	200.51	1.543		
12,400.0	7,562.0	12,497.0	7,675.0	108.6	108.4	111.42	-5,585.2	273.6	309.4	105.3	204.07	1.516		
12,500.0	7,562.0	12,597.0	7,675.0	110.4	110.3	111.42	-5,685.2	273.9	309.4	101.8	207.64	1.490 Level 3		
12,600.0	7,562.0	12,697.0	7,675.0	112.3	112.2	111.41	-5,785.2	274.2	309.5	98.3	211.21	1.465 Level 3		
12,700.0	7,562.0	12,797.0	7,675.0	114.2	114.1	111.41	-5,885.2	274.5	309.5	94.8	214.78	1.441 Level 3		
12,800.0	7,562.0	12,897.0	7,675.0	116.1	115.9	111.41	-5,985.2	274.8	309.6	91.2	218.35	1.418 Level 3		
12,900.0	7,562.0	12,997.0	7,675.0	118.0	117.8	111.40	-6,085.2	275.1	309.6	87.7	221.92	1.395 Level 3		
13,000.0	7,562.0	13,097.0	7,675.0	119.9	119.7	111.40	-6,185.2	275.4	309.7	84.2	225.50	1.373 Level 3		
13,100.0	7,562.0	13,197.0	7,675.0	121.8	121.6	111.40	-6,285.2	275.7	309.7	80.7	229.07	1.352 Level 3		
13,200.0	7,562.0	13,297.0	7,675.0	123.7	123.5	111.39	-6,385.2	276.0	309.8	77.1	232.65	1.332 Level 3		
13,300.0	7,562.0	13,397.0	7,675.0	125.5	125.4	111.39	-6,485.2	276.3	309.8	73.6	236.23	1.312 Level 3		
13,400.0	7,562.0	13,497.0	7,675.0	127.4	127.3	111.39	-6,585.2	276.6	309.9	70.1	239.81	1.292 Level 3		
13,500.0	7,562.0	13,597.0	7,675.0	129.3	129.2	111.38	-6,685.2	276.9	309.9	66.5	243.39	1.273 Level 3		
13,600.0	7,562.0	13,697.0	7,675.0	131.2	131.1	111.38	-6,785.2	277.2	310.0	63.0	246.97	1.255 Level 3		
13,644.7	7,562.0	13,741.7	7,675.0	132.1	132.0	111.38	-6,829.9	277.3	310.0	61.4	248.57	1.247 Level 2		
13,689.7	7,562.0	13,785.9	7,675.0	132.9	132.8	111.38	-6,874.0	277.5	310.0	59.8	250.17	1.239 Level 2, SF		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	-44.8	44.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-44.8	44.8	44.6	0.22	199.457		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-44.8	44.8	44.2	0.67	66.486		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-44.8	44.8	43.7	1.12	39.891		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-44.8	44.8	43.3	1.57	28.494		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-44.8	44.8	42.8	2.02	22.162		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-44.8	44.8	42.4	2.47	18.132		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-44.8	44.8	41.9	2.92	15.343		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-44.8	44.8	41.5	3.37	13.297		
900.0	900.0	900.0	900.0	1.9	1.9	-89.97	0.0	-44.8	44.8	41.0	3.82	11.733		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.97	0.0	-44.8	44.8	40.6	4.27	10.498 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	136.35	0.0	-44.8	45.8	41.1	4.70	9.746		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	139.51	0.0	-44.8	48.7	43.6	5.10	9.540 SF		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	143.98	0.0	-44.8	53.8	48.3	5.52	9.756		
1,400.0	1,399.3	1,399.3	1,399.3	2.9	3.0	148.94	0.0	-44.8	61.5	55.5	5.94	10.354		
1,460.6	1,459.5	1,459.3	1,459.3	3.1	3.2	151.49	-0.4	-45.0	67.5	61.3	6.18	10.924		
1,500.0	1,498.6	1,498.4	1,498.4	3.2	3.2	152.65	-1.1	-45.4	71.8	65.4	6.33	11.330		
1,600.0	1,597.9	1,597.5	1,597.5	3.4	3.4	153.81	-4.6	-46.9	82.9	76.2	6.72	12.343		
1,700.0	1,697.1	1,696.7	1,696.4	3.7	3.6	153.12	-10.5	-49.6	94.4	87.3	7.12	13.252		
1,800.0	1,796.4	1,795.6	1,794.9	3.9	3.8	151.21	-18.6	-53.3	106.2	98.6	7.55	14.069		
1,900.0	1,895.7	1,894.2	1,892.8	4.2	4.0	148.45	-29.1	-58.0	118.5	110.5	8.00	14.818		
2,000.0	1,995.0	1,992.4	1,990.0	4.5	4.2	145.14	-41.7	-63.7	131.6	123.2	8.48	15.526		
2,100.0	2,094.2	2,090.0	2,086.2	4.8	4.5	141.51	-56.6	-70.5	145.9	136.9	9.00	16.220		
2,200.0	2,193.5	2,186.9	2,181.3	5.1	4.8	137.71	-73.6	-78.1	161.6	152.0	9.55	16.925		
2,300.0	2,292.8	2,283.0	2,275.1	5.4	5.1	133.89	-92.5	-86.7	178.9	168.8	10.13	17.661		
2,400.0	2,392.1	2,378.2	2,367.5	5.7	5.4	130.15	-113.5	-96.2	198.1	187.3	10.74	18.445		
2,500.0	2,491.3	2,472.3	2,458.3	6.0	5.8	126.57	-136.2	-106.5	219.2	207.9	11.37	19.287		
2,600.0	2,590.6	2,565.4	2,547.4	6.3	6.2	123.18	-160.7	-117.6	242.5	230.5	12.01	20.193		
2,700.0	2,689.9	2,657.2	2,634.7	6.6	6.7	120.03	-186.8	-129.4	268.0	255.3	12.66	21.165		
2,800.0	2,789.2	2,747.8	2,720.0	6.9	7.2	117.11	-214.4	-141.9	295.7	282.4	13.32	22.200		
2,900.0	2,888.4	2,838.8	2,805.1	7.2	7.7	114.39	-243.8	-155.2	325.6	311.6	13.98	23.287		
3,000.0	2,987.7	2,933.0	2,892.9	7.5	8.3	111.99	-274.7	-169.2	356.4	341.8	14.66	24.321		
3,100.0	3,087.0	3,027.1	2,980.7	7.8	8.9	109.96	-305.6	-183.2	387.8	372.4	15.32	25.305		
3,200.0	3,186.3	3,121.2	3,068.5	8.2	9.5	108.23	-336.5	-197.1	419.5	403.5	15.99	26.234		
3,300.0	3,285.5	3,215.3	3,156.3	8.5	10.1	106.75	-367.4	-211.1	451.5	434.8	16.65	27.109		
3,400.0	3,384.8	3,309.5	3,244.2	8.8	10.7	105.46	-398.3	-225.1	483.7	466.4	17.32	27.932		
3,500.0	3,484.1	3,403.6	3,332.0	9.1	11.4	104.33	-429.1	-239.1	516.1	498.2	17.98	28.705		
3,600.0	3,583.4	3,497.7	3,419.8	9.4	12.0	103.33	-460.0	-253.0	548.7	530.1	18.64	29.432		
3,700.0	3,682.6	3,591.9	3,507.6	9.7	12.6	102.44	-490.9	-267.0	581.5	562.2	19.31	30.116		
3,800.0	3,781.9	3,686.0	3,595.4	10.1	13.3	101.65	-521.8	-281.0	614.3	594.3	19.97	30.759		
3,900.0	3,881.2	3,780.1	3,683.2	10.4	13.9	100.94	-552.7	-295.0	647.2	626.6	20.64	31.364		
4,000.0	3,980.4	3,874.2	3,771.0	10.7	14.6	100.30	-583.5	-309.0	680.3	659.0	21.30	31.935		
4,100.0	4,079.7	3,968.4	3,858.8	11.0	15.2	99.71	-614.4	-322.9	713.3	691.4	21.97	32.474		
4,200.0	4,179.0	4,062.5	3,946.7	11.3	15.9	99.18	-645.3	-336.9	746.5	723.9	22.63	32.983		
4,300.0	4,278.3	4,156.6	4,034.5	11.6	16.6	98.69	-676.2	-350.9	779.7	756.4	23.30	33.465		
4,400.0	4,377.5	4,250.8	4,122.3	12.0	17.2	98.24	-707.1	-364.9	812.9	789.0	23.97	33.920		
4,500.0	4,476.8	4,344.9	4,210.1	12.3	17.9	97.83	-737.9	-378.8	846.2	821.6	24.63	34.352		
4,600.0	4,576.1	4,439.0	4,297.9	12.6	18.5	97.45	-768.8	-392.8	879.5	854.2	25.30	34.762		
4,700.0	4,675.4	4,533.1	4,385.7	12.9	19.2	97.10	-799.7	-406.8	912.9	886.9	25.97	35.151		
4,800.0	4,774.6	4,627.3	4,473.5	13.2	19.9	96.77	-830.6	-420.8	946.3	919.6	26.64	35.521		
4,900.0	4,873.9	4,721.4	4,561.4	13.6	20.5	96.46	-861.5	-434.8	979.7	952.4	27.31	35.874		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	-30.8	30.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.0	-30.8	30.8	30.6	0.22	137.127		
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.0	-30.8	30.8	30.1	0.67	45.709		
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.0	-30.8	30.8	29.7	1.12	27.425		
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.0	-30.8	30.8	29.2	1.57	19.590		
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.0	-30.8	30.8	28.8	2.02	15.236		
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.0	-30.8	30.8	28.3	2.47	12.466		
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.0	-30.8	30.8	27.9	2.92	10.548		
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.0	-30.8	30.8	27.5	3.37	9.142		
900.0	900.0	900.0	900.0	1.9	1.9	-89.97	0.0	-30.8	30.8	27.0	3.82	8.066		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-89.97	0.0	-30.8	30.8	26.6	4.27	7.217 CC, ES		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.4	136.86	0.0	-30.8	31.8	27.1	4.70	6.764		
1,200.0	1,199.9	1,199.9	1,199.9	2.5	2.6	141.26	0.0	-30.8	34.7	29.6	5.10	6.806		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	147.08	0.0	-30.8	40.0	34.5	5.52	7.258		
1,400.0	1,399.3	1,399.3	1,399.3	2.9	3.0	152.97	0.0	-30.8	48.0	42.1	5.94	8.086		
1,460.6	1,459.5	1,459.8	1,459.8	3.1	3.2	155.76	-0.5	-30.8	54.0	47.8	6.17	8.745		
1,500.0	1,498.6	1,499.2	1,499.2	3.2	3.2	156.93	-1.3	-30.8	58.0	51.7	6.33	9.169		
1,600.0	1,597.9	1,599.3	1,599.2	3.4	3.4	157.86	-5.2	-30.8	67.7	61.0	6.71	10.085		
1,700.0	1,697.1	1,699.7	1,699.4	3.7	3.6	156.74	-11.7	-30.8	76.3	69.2	7.11	10.735		
1,800.0	1,796.4	1,799.5	1,798.9	3.9	3.8	154.60	-20.2	-30.8	84.3	76.8	7.53	11.199		
1,900.0	1,895.7	1,899.2	1,898.1	4.2	4.0	152.77	-28.8	-30.8	92.3	84.4	7.96	11.595		
2,000.0	1,995.0	1,998.8	1,997.4	4.5	4.2	151.24	-37.3	-30.8	100.5	92.1	8.42	11.938		
2,100.0	2,094.2	2,098.4	2,096.7	4.8	4.4	149.93	-45.9	-30.8	108.7	99.8	8.88	12.235		
2,200.0	2,193.5	2,198.1	2,195.9	5.1	4.6	148.81	-54.5	-30.8	116.9	107.5	9.36	12.493		
2,300.0	2,292.8	2,297.7	2,295.2	5.4	4.9	147.84	-63.0	-30.8	125.2	115.3	9.84	12.718		
2,400.0	2,392.1	2,397.3	2,394.5	5.7	5.1	146.99	-71.6	-30.8	133.5	123.1	10.34	12.913		
2,500.0	2,491.3	2,497.0	2,493.7	6.0	5.3	146.24	-80.2	-30.7	141.8	131.0	10.84	13.085		
2,600.0	2,590.6	2,596.6	2,593.0	6.3	5.6	145.57	-88.7	-30.7	150.2	138.8	11.34	13.236		
2,700.0	2,689.9	2,696.2	2,692.3	6.6	5.8	144.97	-97.3	-30.7	158.5	146.7	11.86	13.369		
2,800.0	2,789.2	2,795.9	2,791.5	6.9	6.1	144.43	-105.9	-30.7	166.9	154.5	12.38	13.488		
2,900.0	2,888.4	2,895.5	2,890.8	7.2	6.3	143.95	-114.4	-30.7	175.3	162.4	12.90	13.593		
3,000.0	2,987.7	2,995.2	2,990.1	7.5	6.6	143.50	-123.0	-30.7	183.7	170.3	13.42	13.687		
3,100.0	3,087.0	3,094.8	3,089.3	7.8	6.8	143.10	-131.6	-30.7	192.2	178.2	13.95	13.772		
3,200.0	3,186.3	3,194.4	3,188.6	8.2	7.1	142.73	-140.1	-30.7	200.6	186.1	14.48	13.848		
3,300.0	3,285.5	3,294.1	3,287.9	8.5	7.4	142.39	-148.7	-30.7	209.0	194.0	15.02	13.916		
3,400.0	3,384.8	3,393.7	3,387.1	8.8	7.6	142.08	-157.3	-30.7	217.5	201.9	15.56	13.978		
3,500.0	3,484.1	3,493.3	3,486.4	9.1	7.9	141.79	-165.8	-30.7	225.9	209.8	16.10	14.035		
3,600.0	3,583.4	3,593.0	3,585.7	9.4	8.2	141.52	-174.4	-30.7	234.4	217.7	16.64	14.086		
3,700.0	3,682.6	3,692.6	3,684.9	9.7	8.4	141.27	-183.0	-30.6	242.8	225.6	17.18	14.134		
3,800.0	3,781.9	3,792.2	3,784.2	10.1	8.7	141.04	-191.5	-30.6	251.3	233.6	17.73	14.177		
3,900.0	3,881.2	3,891.9	3,883.5	10.4	8.9	140.82	-200.1	-30.6	259.8	241.5	18.27	14.216		
4,000.0	3,980.4	3,991.5	3,982.7	10.7	9.2	140.61	-208.7	-30.6	268.2	249.4	18.82	14.253		
4,100.0	4,079.7	4,091.2	4,082.0	11.0	9.5	140.42	-217.2	-30.6	276.7	257.3	19.37	14.287		
4,200.0	4,179.0	4,190.8	4,181.3	11.3	9.8	140.24	-225.8	-30.6	285.2	265.3	19.92	14.318		
4,300.0	4,278.3	4,290.4	4,280.5	11.6	10.0	140.07	-234.4	-30.6	293.7	273.2	20.47	14.347		
4,400.0	4,377.5	4,390.1	4,379.8	12.0	10.3	139.91	-242.9	-30.6	302.1	281.1	21.02	14.374		
4,500.0	4,476.8	4,489.7	4,479.1	12.3	10.6	139.76	-251.5	-30.6	310.6	289.1	21.57	14.399		
4,600.0	4,576.1	4,589.3	4,578.3	12.6	10.8	139.62	-260.1	-30.6	319.1	297.0	22.13	14.422		
4,700.0	4,675.4	4,689.0	4,677.6	12.9	11.1	139.48	-268.6	-30.6	327.6	304.9	22.68	14.444		
4,800.0	4,774.6	4,788.6	4,776.9	13.2	11.4	139.35	-277.2	-30.5	336.1	312.9	23.24	14.465		
4,900.0	4,873.9	4,888.2	4,876.1	13.6	11.7	139.23	-285.8	-30.5	344.6	320.8	23.79	14.484		
5,000.0	4,973.2	4,987.9	4,975.4	13.9	11.9	139.11	-294.3	-30.5	353.1	328.7	24.35	14.502		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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		
5,100.0	5,072.5	5,087.5	5,074.7	14.2	12.2	139.00	-302.9	-30.5	361.6	336.7	24.90	14.519		
5,200.0	5,171.7	5,187.1	5,173.9	14.5	12.5	138.89	-311.5	-30.5	370.1	344.6	25.46	14.535		
5,300.0	5,271.0	5,286.8	5,273.2	14.8	12.7	138.79	-320.0	-30.5	378.6	352.6	26.02	14.550		
5,400.0	5,370.3	5,386.4	5,372.5	15.2	13.0	138.69	-328.6	-30.5	387.1	360.5	26.58	14.564		
5,500.0	5,469.6	5,486.1	5,471.7	15.5	13.3	138.60	-337.2	-30.5	395.6	368.4	27.14	14.578		
5,600.0	5,568.8	5,585.7	5,571.0	15.8	13.6	138.51	-345.7	-30.5	404.1	376.4	27.70	14.590		
5,700.0	5,668.1	5,685.3	5,670.3	16.1	13.8	138.43	-354.3	-30.5	412.6	384.3	28.25	14.602		
5,800.0	5,767.4	5,785.0	5,769.5	16.5	14.1	138.35	-362.9	-30.5	421.1	392.3	28.81	14.614		
5,900.0	5,866.7	5,884.6	5,868.8	16.8	14.4	138.27	-371.4	-30.5	429.6	400.2	29.37	14.624		
6,000.0	5,965.9	5,984.2	5,968.1	17.1	14.7	138.19	-380.0	-30.4	438.1	408.2	29.93	14.635		
6,100.0	6,065.2	6,083.9	6,067.3	17.4	14.9	138.12	-388.6	-30.4	446.6	416.1	30.50	14.645		
6,200.0	6,164.5	6,183.5	6,166.6	17.7	15.2	138.05	-397.1	-30.4	455.1	424.0	31.06	14.654		
6,300.0	6,263.7	6,283.1	6,265.9	18.1	15.5	137.98	-405.7	-30.4	463.6	432.0	31.62	14.663		
6,400.0	6,363.0	6,382.8	6,365.1	18.4	15.8	137.92	-414.3	-30.4	472.1	439.9	32.18	14.671		
6,500.0	6,462.3	6,482.4	6,464.4	18.7	16.1	137.85	-422.8	-30.4	480.6	447.9	32.74	14.679		
6,600.0	6,561.6	6,582.1	6,563.7	19.0	16.3	137.79	-431.4	-30.4	489.1	455.8	33.30	14.687		
6,700.0	6,660.8	6,681.7	6,662.9	19.4	16.6	137.73	-440.0	-30.4	497.6	463.8	33.87	14.695		
6,800.0	6,760.1	6,781.3	6,762.2	19.7	16.9	137.68	-448.5	-30.4	506.1	471.7	34.43	14.702		
6,900.0	6,859.4	6,881.0	6,861.5	20.0	17.2	137.62	-457.1	-30.4	514.7	479.7	34.99	14.708		
6,950.1	6,909.1	6,930.9	6,911.2	20.2	17.3	137.60	-461.4	-30.4	518.9	483.7	35.27	14.712		
7,000.0	6,958.5	6,980.6	6,960.7	20.3	17.4	121.27	-465.7	-30.4	523.2	487.7	35.57	14.709		
7,050.0	7,007.4	7,030.1	7,010.1	20.5	17.6	113.43	-469.9	-30.4	527.7	491.9	35.87	14.710		
7,100.0	7,055.5	7,079.2	7,058.9	20.8	17.7	109.36	-474.2	-30.4	532.5	496.3	36.18	14.719		
7,150.0	7,102.7	7,127.5	7,107.1	21.0	17.8	107.25	-478.3	-30.4	537.5	501.1	36.48	14.737		
7,200.0	7,148.6	7,174.9	7,154.3	21.3	18.0	106.30	-482.4	-30.3	543.2	506.4	36.77	14.772		
7,250.0	7,193.0	7,223.5	7,202.7	21.6	18.1	106.17	-486.8	-30.3	549.6	512.5	37.07	14.825		
7,300.0	7,235.7	7,276.8	7,255.4	22.0	18.3	106.56	-494.8	-30.3	556.5	519.1	37.41	14.877		
7,350.0	7,276.6	7,331.9	7,309.1	22.4	18.5	107.16	-507.2	-30.3	563.8	526.0	37.80	14.915		
7,400.0	7,315.4	7,389.0	7,363.5	22.8	18.8	107.89	-524.3	-30.2	571.4	533.1	38.26	14.935		
7,450.0	7,351.9	7,448.1	7,418.3	23.2	19.1	108.72	-546.5	-30.2	579.1	540.3	38.78	14.934		
7,500.0	7,385.9	7,509.5	7,473.1	23.7	19.5	109.59	-574.3	-30.1	586.9	547.5	39.37	14.905		
7,550.0	7,417.4	7,573.3	7,527.2	24.2	20.0	110.48	-608.0	-30.0	594.6	554.5	40.05	14.845		
7,600.0	7,446.0	7,639.5	7,579.9	24.7	20.6	111.37	-647.9	-29.9	602.0	561.2	40.82	14.748		
7,650.0	7,471.8	7,708.2	7,630.6	25.3	21.2	112.22	-694.3	-29.7	609.2	567.5	41.70	14.609		
7,700.0	7,494.5	7,779.4	7,678.1	25.9	21.9	113.03	-747.3	-29.5	615.8	573.1	42.70	14.421		
7,750.0	7,514.0	7,852.9	7,721.4	26.5	22.8	113.76	-806.7	-29.3	621.8	577.9	43.83	14.186		
7,800.0	7,530.4	7,928.7	7,759.4	27.1	23.7	114.39	-872.3	-29.1	626.9	581.8	45.11	13.897		
7,850.0	7,543.4	8,006.5	7,791.0	27.8	24.7	114.92	-943.3	-28.9	631.2	584.6	46.55	13.560		
7,900.0	7,553.0	8,085.9	7,815.1	28.5	25.9	115.31	-1,018.9	-28.6	634.4	586.2	48.14	13.177		
7,950.0	7,559.1	8,166.5	7,830.9	29.2	27.0	115.56	-1,097.8	-28.4	636.4	586.5	49.89	12.757		
8,000.0	7,561.9	8,247.7	7,837.7	29.9	28.3	115.66	-1,178.7	-28.1	637.3	585.5	51.77	12.309		
8,014.1	7,562.0	8,269.4	7,838.0	30.1	28.6	115.66	-1,200.4	-28.0	637.3	585.0	52.31	12.183		
8,100.0	7,562.0	8,355.3	7,838.0	31.4	29.9	115.66	-1,286.3	-27.7	637.3	582.5	54.76	11.639		
8,200.0	7,562.0	8,455.3	7,838.0	32.9	31.5	115.66	-1,386.3	-27.4	637.3	579.6	57.67	11.050		
8,300.0	7,562.0	8,555.3	7,838.0	34.4	33.2	115.66	-1,486.3	-27.0	637.3	576.6	60.65	10.508		
8,400.0	7,562.0	8,655.3	7,838.0	36.0	34.8	115.66	-1,586.3	-26.7	637.3	573.6	63.68	10.007		
8,500.0	7,562.0	8,755.3	7,838.0	37.7	36.5	115.66	-1,686.3	-26.3	637.3	570.5	66.76	9.546		
8,600.0	7,562.0	8,855.3	7,838.0	39.3	38.2	115.66	-1,786.3	-26.0	637.3	567.4	69.88	9.120		
8,700.0	7,562.0	8,955.3	7,838.0	41.0	40.0	115.66	-1,886.3	-25.6	637.3	564.3	73.04	8.725		
8,800.0	7,562.0	9,055.3	7,838.0	42.7	41.7	115.66	-1,986.3	-25.3	637.3	561.1	76.23	8.361		
8,900.0	7,562.0	9,155.3	7,838.0	44.4	43.4	115.66	-2,086.3	-25.0	637.3	557.9	79.44	8.022		
9,000.0	7,562.0	9,255.3	7,838.0	46.1	45.2	115.66	-2,186.3	-24.6	637.3	554.6	82.68	7.708		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
9,100.0	7,562.0	9,355.3	7,838.0	47.8	47.0	115.66	-2,286.3	-24.3	637.3	551.4	85.94	7.416			
9,200.0	7,562.0	9,455.3	7,838.0	49.6	48.8	115.66	-2,386.3	-23.9	637.3	548.1	89.22	7.143			
9,300.0	7,562.0	9,555.3	7,838.0	51.3	50.6	115.66	-2,486.3	-23.6	637.3	544.8	92.52	6.889			
9,400.0	7,562.0	9,655.3	7,838.0	53.1	52.4	115.66	-2,586.3	-23.2	637.3	541.5	95.83	6.651			
9,500.0	7,562.0	9,755.3	7,838.0	54.9	54.2	115.66	-2,686.3	-22.9	637.3	538.2	99.16	6.428			
9,600.0	7,562.0	9,855.3	7,838.0	56.7	56.0	115.66	-2,786.3	-22.5	637.3	534.8	102.49	6.218			
9,700.0	7,562.0	9,955.3	7,838.0	58.5	57.9	115.66	-2,886.3	-22.2	637.3	531.5	105.84	6.021			
9,800.0	7,562.0	10,055.3	7,838.0	60.3	59.7	115.66	-2,986.3	-21.8	637.3	528.1	109.20	5.836			
9,900.0	7,562.0	10,155.3	7,838.0	62.1	61.5	115.66	-3,086.3	-21.5	637.3	524.8	112.57	5.662			
10,000.0	7,562.0	10,255.3	7,838.0	63.9	63.4	115.66	-3,186.3	-21.2	637.3	521.4	115.95	5.497			
10,100.0	7,562.0	10,355.3	7,838.0	65.7	65.2	115.66	-3,286.3	-20.8	637.3	518.0	119.34	5.341			
10,200.0	7,562.0	10,455.3	7,838.0	67.6	67.1	115.66	-3,386.3	-20.5	637.3	514.6	122.73	5.193			
10,300.0	7,562.0	10,555.3	7,838.0	69.4	68.9	115.66	-3,486.3	-20.1	637.3	511.2	126.13	5.053			
10,400.0	7,562.0	10,655.3	7,838.0	71.2	70.8	115.66	-3,586.3	-19.8	637.3	507.8	129.53	4.920			
10,500.0	7,562.0	10,755.3	7,838.0	73.1	72.7	115.66	-3,686.3	-19.4	637.3	504.4	132.94	4.794			
10,600.0	7,562.0	10,855.3	7,838.0	74.9	74.5	115.66	-3,786.3	-19.1	637.4	501.0	136.36	4.674			
10,700.0	7,562.0	10,955.3	7,838.0	76.8	76.4	115.66	-3,886.3	-18.7	637.4	497.6	139.78	4.560			
10,800.0	7,562.0	11,055.3	7,838.0	78.6	78.3	115.66	-3,986.3	-18.4	637.4	494.2	143.20	4.451			
10,900.0	7,562.0	11,155.3	7,838.0	80.5	80.1	115.66	-4,086.3	-18.0	637.4	490.7	146.63	4.347			
11,000.0	7,562.0	11,255.3	7,838.0	82.3	82.0	115.66	-4,186.3	-17.7	637.4	487.3	150.07	4.247			
11,100.0	7,562.0	11,355.3	7,838.0	84.2	83.9	115.66	-4,286.3	-17.4	637.4	483.9	153.50	4.152			
11,200.0	7,562.0	11,455.3	7,838.0	86.1	85.7	115.66	-4,386.3	-17.0	637.4	480.4	156.94	4.061			
11,300.0	7,562.0	11,555.3	7,838.0	87.9	87.6	115.66	-4,486.3	-16.7	637.4	477.0	160.39	3.974			
11,400.0	7,562.0	11,655.3	7,838.0	89.8	89.5	115.66	-4,586.3	-16.3	637.4	473.5	163.83	3.890			
11,500.0	7,562.0	11,755.3	7,838.0	91.7	91.4	115.66	-4,686.3	-16.0	637.4	470.1	167.28	3.810			
11,600.0	7,562.0	11,855.3	7,838.0	93.5	93.3	115.66	-4,786.3	-15.6	637.4	466.6	170.73	3.733			
11,700.0	7,562.0	11,955.3	7,838.0	95.4	95.2	115.66	-4,886.3	-15.3	637.4	463.2	174.19	3.659			
11,800.0	7,562.0	12,055.3	7,838.0	97.3	97.0	115.66	-4,986.3	-14.9	637.4	459.7	177.64	3.588			
11,900.0	7,562.0	12,155.3	7,838.0	99.2	98.9	115.66	-5,086.3	-14.6	637.4	456.3	181.10	3.519			
12,000.0	7,562.0	12,255.3	7,838.0	101.0	100.8	115.66	-5,186.3	-14.2	637.4	452.8	184.56	3.453			
12,100.0	7,562.0	12,355.3	7,838.0	102.9	102.7	115.66	-5,286.3	-13.9	637.4	449.4	188.02	3.390			
12,200.0	7,562.0	12,455.3	7,838.0	104.8	104.6	115.66	-5,386.3	-13.6	637.4	445.9	191.49	3.329			
12,300.0	7,562.0	12,555.3	7,838.0	106.7	106.5	115.66	-5,486.3	-13.2	637.4	442.4	194.95	3.269			
12,400.0	7,562.0	12,655.3	7,838.0	108.6	108.4	115.66	-5,586.3	-12.9	637.4	439.0	198.42	3.212			
12,500.0	7,562.0	12,755.3	7,838.0	110.4	110.3	115.66	-5,686.3	-12.5	637.4	435.5	201.89	3.157			
12,600.0	7,562.0	12,855.3	7,838.0	112.3	112.2	115.66	-5,786.3	-12.2	637.4	432.0	205.36	3.104			
12,700.0	7,562.0	12,955.3	7,838.0	114.2	114.1	115.66	-5,886.3	-11.8	637.4	428.6	208.83	3.052			
12,800.0	7,562.0	13,055.3	7,838.0	116.1	115.9	115.66	-5,986.3	-11.5	637.4	425.1	212.31	3.002			
12,900.0	7,562.0	13,155.3	7,838.0	118.0	117.8	115.66	-6,086.3	-11.1	637.4	421.6	215.78	2.954			
13,000.0	7,562.0	13,255.3	7,838.0	119.9	119.7	115.66	-6,186.3	-10.8	637.4	418.1	219.26	2.907			
13,100.0	7,562.0	13,355.3	7,838.0	121.8	121.6	115.66	-6,286.3	-10.5	637.4	414.7	222.73	2.862			
13,200.0	7,562.0	13,455.3	7,838.0	123.7	123.5	115.66	-6,386.3	-10.1	637.4	411.2	226.21	2.818			
13,300.0	7,562.0	13,555.3	7,838.0	125.5	125.4	115.66	-6,486.3	-9.8	637.4	407.7	229.69	2.775			
13,400.0	7,562.0	13,655.3	7,838.0	127.4	127.3	115.66	-6,586.3	-9.4	637.4	404.2	233.17	2.734			
13,500.0	7,562.0	13,755.3	7,838.0	129.3	129.2	115.66	-6,686.3	-9.1	637.4	400.8	236.65	2.693			
13,600.0	7,562.0	13,855.3	7,838.0	131.2	131.1	115.66	-6,786.3	-8.7	637.4	397.3	240.13	2.654			
13,689.7	7,562.0	13,945.0	7,838.0	132.9	132.8	115.66	-6,876.0	-8.4	637.4	394.2	243.26	2.620 SF			

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	44.8	44.8					
100.0	100.0	100.0	100.0	0.1	0.1	90.04	0.0	44.8	44.8	44.6	0.22	199.457		
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	44.8	44.8	44.2	0.67	66.486		
300.0	300.0	300.0	300.0	0.6	0.6	90.04	0.0	44.8	44.8	43.7	1.12	39.891		
400.0	400.0	400.0	400.0	0.8	0.8	90.04	0.0	44.8	44.8	43.3	1.57	28.494		
500.0	500.0	500.0	500.0	1.0	1.0	90.04	0.0	44.8	44.8	42.8	2.02	22.162		
600.0	600.0	600.0	600.0	1.2	1.2	90.04	0.0	44.8	44.8	42.4	2.47	18.132 CC, ES		
700.0	700.0	698.9	698.9	1.5	1.4	90.62	-0.5	46.0	46.0	43.1	2.90	15.866		
800.0	800.0	797.7	797.6	1.7	1.6	92.20	-1.9	49.6	49.7	46.4	3.32	14.955		
900.0	900.0	896.2	895.9	1.9	1.8	94.36	-4.2	55.5	55.8	52.1	3.75	14.879		
1,000.0	1,000.0	994.3	993.6	2.1	2.1	96.69	-7.5	63.7	64.5	60.3	4.19	15.392		
1,100.0	1,100.0	1,092.0	1,090.6	2.3	2.3	-36.42	-11.6	74.3	74.7	70.1	4.60	16.246		
1,200.0	1,199.9	1,189.4	1,187.1	2.5	2.6	-35.75	-16.7	87.1	85.3	80.3	5.00	17.063		
1,300.0	1,299.7	1,286.6	1,282.9	2.7	2.9	-35.78	-22.6	102.1	96.3	90.9	5.42	17.774		
1,400.0	1,399.3	1,383.4	1,377.9	2.9	3.3	-36.29	-29.4	119.3	107.6	101.8	5.85	18.387		
1,460.6	1,459.5	1,441.9	1,435.1	3.1	3.5	-36.77	-33.9	130.8	114.7	108.5	6.13	18.711		
1,500.0	1,498.6	1,481.0	1,473.3	3.2	3.7	-37.15	-37.0	138.8	119.3	113.0	6.32	18.892		
1,600.0	1,597.9	1,580.3	1,570.1	3.4	4.1	-38.00	-45.0	159.0	131.1	124.3	6.80	19.277		
1,700.0	1,697.1	1,679.6	1,667.0	3.7	4.5	-38.71	-53.0	179.2	143.0	135.7	7.30	19.579		
1,800.0	1,796.4	1,778.9	1,763.9	3.9	4.9	-39.31	-61.0	199.5	154.8	147.0	7.82	19.806		
1,900.0	1,895.7	1,878.1	1,860.8	4.2	5.4	-39.82	-68.9	219.7	166.7	158.3	8.34	19.981		
2,000.0	1,995.0	1,977.4	1,957.6	4.5	5.8	-40.27	-76.9	239.9	178.6	169.7	8.88	20.115		
2,100.0	2,094.2	2,076.7	2,054.5	4.8	6.3	-40.66	-84.9	260.2	190.5	181.0	9.42	20.217		
2,200.0	2,193.5	2,176.0	2,151.4	5.1	6.8	-41.00	-92.8	280.4	202.3	192.4	9.97	20.296		
2,300.0	2,292.8	2,275.3	2,248.2	5.4	7.2	-41.31	-100.8	300.6	214.2	203.7	10.53	20.355		
2,400.0	2,392.1	2,374.6	2,345.1	5.7	7.7	-41.58	-108.8	320.8	226.2	215.1	11.09	20.400		
2,500.0	2,491.3	2,473.8	2,442.0	6.0	8.1	-41.83	-116.7	341.1	238.1	226.4	11.65	20.434		
2,600.0	2,590.6	2,573.1	2,538.9	6.3	8.6	-42.05	-124.7	361.3	250.0	237.8	12.22	20.458		
2,700.0	2,689.9	2,672.4	2,635.7	6.6	9.1	-42.25	-132.7	381.5	261.9	249.1	12.79	20.475		
2,800.0	2,789.2	2,771.7	2,732.6	6.9	9.6	-42.44	-140.6	401.8	273.8	260.5	13.37	20.487		
2,900.0	2,888.4	2,871.0	2,829.5	7.2	10.0	-42.61	-148.6	422.0	285.7	271.8	13.94	20.494		
3,000.0	2,987.7	2,970.3	2,926.4	7.5	10.5	-42.76	-156.6	442.2	297.7	283.2	14.52	20.497		
3,100.0	3,087.0	3,069.5	3,023.2	7.8	11.0	-42.91	-164.6	462.4	309.6	294.5	15.10	20.498		
3,200.0	3,186.3	3,168.8	3,120.1	8.2	11.4	-43.04	-172.5	482.7	321.5	305.8	15.69	20.496		
3,300.0	3,285.5	3,268.1	3,217.0	8.5	11.9	-43.16	-180.5	502.9	333.5	317.2	16.27	20.492		
3,400.0	3,384.8	3,367.4	3,313.9	8.8	12.4	-43.28	-188.5	523.1	345.4	328.5	16.86	20.487		
3,500.0	3,484.1	3,466.7	3,410.7	9.1	12.9	-43.39	-196.4	543.4	357.3	339.9	17.45	20.481		
3,600.0	3,583.4	3,566.0	3,507.6	9.4	13.3	-43.49	-204.4	563.6	369.3	351.2	18.04	20.474		
3,700.0	3,682.6	3,665.2	3,604.5	9.7	13.8	-43.58	-212.4	583.8	381.2	362.6	18.63	20.466		
3,800.0	3,781.9	3,764.5	3,701.3	10.1	14.3	-43.67	-220.3	604.1	393.1	373.9	19.22	20.458		
3,900.0	3,881.2	3,863.8	3,798.2	10.4	14.8	-43.75	-228.3	624.3	405.1	385.3	19.81	20.449		
4,000.0	3,980.4	3,963.1	3,895.1	10.7	15.2	-43.83	-236.3	644.5	417.0	396.6	20.40	20.440		
4,100.0	4,079.7	4,062.4	3,992.0	11.0	15.7	-43.91	-244.3	664.7	429.0	408.0	21.00	20.431		
4,200.0	4,179.0	4,161.7	4,088.8	11.3	16.2	-43.98	-252.2	685.0	440.9	419.3	21.59	20.422		
4,300.0	4,278.3	4,260.9	4,185.7	11.6	16.7	-44.04	-260.2	705.2	452.8	430.7	22.18	20.413		
4,400.0	4,377.5	4,360.2	4,282.6	12.0	17.2	-44.11	-268.2	725.4	464.8	442.0	22.78	20.403		
4,500.0	4,476.8	4,459.5	4,379.5	12.3	17.6	-44.17	-276.1	745.7	476.7	453.4	23.38	20.394		
4,600.0	4,576.1	4,558.8	4,476.3	12.6	18.1	-44.22	-284.1	765.9	488.7	464.7	23.97	20.385		
4,700.0	4,675.4	4,658.1	4,573.2	12.9	18.6	-44.28	-292.1	786.1	500.6	476.0	24.57	20.375		
4,800.0	4,774.6	4,757.4	4,670.1	13.2	19.1	-44.33	-300.0	806.3	512.6	487.4	25.17	20.366		
4,900.0	4,873.9	4,856.6	4,766.9	13.6	19.5	-44.38	-308.0	826.6	524.5	498.7	25.77	20.357		
5,000.0	4,973.2	4,955.9	4,863.8	13.9	20.0	-44.43	-316.0	846.8	536.4	510.1	26.36	20.348		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	5,072.5	5,055.2	4,960.7	14.2	20.5	-44.47	-324.0	867.0	548.4	521.4	26.96	20.340		
5,200.0	5,171.7	5,154.5	5,057.6	14.5	21.0	-44.51	-331.9	887.3	560.3	532.8	27.56	20.331		
5,300.0	5,271.0	5,253.8	5,154.4	14.8	21.5	-44.56	-339.9	907.5	572.3	544.1	28.16	20.322		
5,400.0	5,370.3	5,353.1	5,251.3	15.2	21.9	-44.60	-347.9	927.7	584.2	555.5	28.76	20.314		
5,500.0	5,469.6	5,452.3	5,348.2	15.5	22.4	-44.63	-355.8	948.0	596.2	566.8	29.36	20.306		
5,600.0	5,568.8	5,551.6	5,445.1	15.8	22.9	-44.67	-363.8	968.2	608.1	578.2	29.96	20.298		
5,700.0	5,668.1	5,650.9	5,541.9	16.1	23.4	-44.71	-371.8	988.4	620.1	589.5	30.56	20.290		
5,800.0	5,767.4	5,750.2	5,638.8	16.5	23.8	-44.74	-379.7	1,008.6	632.0	600.9	31.16	20.282		
5,900.0	5,866.7	5,849.5	5,735.7	16.8	24.3	-44.77	-387.7	1,028.9	644.0	612.2	31.76	20.275		
6,000.0	5,965.9	5,948.8	5,832.6	17.1	24.8	-44.80	-395.7	1,049.1	655.9	623.6	32.36	20.267		
6,100.0	6,065.2	6,048.0	5,929.4	17.4	25.3	-44.83	-403.7	1,069.3	667.9	634.9	32.96	20.260		
6,200.0	6,164.5	6,147.3	6,026.3	17.7	25.8	-44.86	-411.6	1,089.6	679.8	646.2	33.57	20.253		
6,300.0	6,263.7	6,246.6	6,123.2	18.1	26.2	-44.89	-419.6	1,109.8	691.8	657.6	34.17	20.246		
6,400.0	6,363.0	6,345.9	6,220.0	18.4	26.7	-44.92	-427.6	1,130.0	703.7	668.9	34.77	20.239		
6,500.0	6,462.3	6,445.2	6,316.9	18.7	27.2	-44.95	-435.5	1,150.3	715.7	680.3	35.37	20.233		
6,600.0	6,561.6	6,544.5	6,413.8	19.0	27.7	-44.97	-443.5	1,170.5	727.6	691.6	35.97	20.226		
6,700.0	6,660.8	6,643.7	6,510.7	19.4	28.2	-45.00	-451.5	1,190.7	739.6	703.0	36.58	20.220		
6,800.0	6,760.1	6,743.0	6,607.5	19.7	28.6	-45.02	-459.4	1,210.9	751.5	714.3	37.18	20.213		
6,900.0	6,859.4	6,842.3	6,704.4	20.0	29.1	-45.04	-467.4	1,231.2	763.4	725.7	37.78	20.207		
6,950.1	6,909.1	6,892.0	6,752.9	20.2	29.4	-45.05	-471.4	1,241.3	769.4	731.4	38.08	20.204		
7,000.0	6,958.5	6,941.5	6,801.2	20.3	29.6	-60.86	-475.4	1,251.4	775.4	737.1	38.31	20.241		
7,050.0	7,007.4	6,990.9	6,849.4	20.5	29.8	-68.78	-479.3	1,261.4	781.4	742.8	38.62	20.231		
7,100.0	7,055.5	7,039.7	6,897.0	20.8	30.1	-73.51	-483.3	1,271.4	787.4	748.4	39.03	20.176		
7,150.0	7,102.7	7,089.4	6,945.5	21.0	30.3	-76.78	-487.8	1,281.5	793.6	754.1	39.52	20.081		
7,200.0	7,148.6	7,140.9	6,995.3	21.3	30.6	-79.17	-495.8	1,291.9	799.8	759.7	40.08	19.957		
7,250.0	7,193.0	7,193.4	7,045.3	21.6	30.8	-81.00	-507.7	1,302.4	806.0	765.3	40.69	19.807		
7,300.0	7,235.7	7,246.9	7,095.2	22.0	31.1	-82.47	-523.7	1,312.9	812.1	770.7	41.37	19.628		
7,350.0	7,276.6	7,301.5	7,144.9	22.4	31.5	-83.68	-543.8	1,323.3	818.1	776.0	42.13	19.421		
7,400.0	7,315.4	7,357.2	7,193.8	22.8	31.8	-84.71	-568.3	1,333.6	824.0	781.1	42.95	19.186		
7,450.0	7,351.9	7,414.0	7,241.7	23.2	32.2	-85.59	-597.2	1,343.6	829.7	785.8	43.84	18.925		
7,500.0	7,385.9	7,472.0	7,288.1	23.7	32.6	-86.36	-630.6	1,353.4	835.1	790.3	44.80	18.640		
7,550.0	7,417.4	7,531.1	7,332.4	24.2	33.1	-87.04	-668.5	1,362.8	840.3	794.4	45.83	18.333		
7,600.0	7,446.0	7,591.4	7,374.4	24.7	33.5	-87.64	-710.9	1,371.6	845.1	798.2	46.94	18.005		
7,650.0	7,471.8	7,652.8	7,413.4	25.3	34.0	-88.16	-757.5	1,379.9	849.5	801.4	48.11	17.659		
7,700.0	7,494.5	7,715.2	7,448.8	25.9	34.6	-88.61	-808.3	1,387.5	853.5	804.1	49.35	17.295		
7,750.0	7,514.0	7,778.5	7,480.3	26.5	35.2	-89.00	-862.9	1,394.2	857.0	806.3	50.65	16.919		
7,800.0	7,530.4	7,842.8	7,507.2	27.1	35.8	-89.33	-920.9	1,400.0	859.9	807.9	52.01	16.534		
7,850.0	7,543.4	7,907.8	7,529.2	27.8	36.4	-89.59	-981.8	1,404.8	862.3	808.9	53.42	16.141		
7,900.0	7,553.0	7,973.4	7,545.8	28.5	37.1	-89.79	-1,045.1	1,408.4	864.1	809.2	54.88	15.745		
7,950.0	7,559.1	8,039.4	7,556.7	29.2	37.8	-89.92	-1,110.2	1,410.9	865.3	808.9	56.38	15.348		
8,000.0	7,561.9	8,105.7	7,561.7	29.9	38.5	-89.99	-1,176.3	1,412.1	865.8	807.9	57.90	14.953		
8,014.1	7,562.0	8,124.4	7,562.0	30.1	38.7	-90.00	-1,195.0	1,412.2	865.8	807.5	58.34	14.842		
8,100.0	7,562.0	8,211.1	7,562.0	31.4	39.6	-90.00	-1,281.7	1,412.5	865.8	804.9	60.92	14.212		
8,200.0	7,562.0	8,311.1	7,562.0	32.9	40.8	-90.00	-1,381.7	1,412.8	865.8	801.7	64.01	13.525		
8,300.0	7,562.0	8,411.1	7,562.0	34.4	42.1	-90.00	-1,481.7	1,413.1	865.7	798.5	67.18	12.887		
8,400.0	7,562.0	8,511.1	7,562.0	36.0	43.4	-90.00	-1,581.7	1,413.4	865.7	795.3	70.41	12.295		
8,500.0	7,562.0	8,611.1	7,562.0	37.7	44.7	-90.00	-1,681.7	1,413.7	865.6	791.9	73.70	11.746		
8,600.0	7,562.0	8,711.1	7,562.0	39.3	46.1	-90.00	-1,781.7	1,414.0	865.6	788.5	77.04	11.236		
8,700.0	7,562.0	8,811.1	7,562.0	41.0	47.5	-90.00	-1,881.7	1,414.3	865.5	785.1	80.42	10.763		
8,800.0	7,562.0	8,911.1	7,562.0	42.7	48.9	-90.00	-1,981.7	1,414.6	865.5	781.6	83.84	10.323		
8,900.0	7,562.0	9,011.1	7,562.0	44.4	50.4	-90.00	-2,081.7	1,414.9	865.4	778.1	87.30	9.914		
9,000.0	7,562.0	9,111.1	7,562.0	46.1	51.9	-90.00	-2,181.7	1,415.2	865.4	774.6	90.78	9.533		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	7,562.0	9,211.1	7,562.0	47.8	53.4	-90.00	-2,281.7	1,415.5	865.3	771.1	94.29	9.177	
9,200.0	7,562.0	9,311.1	7,562.0	49.6	55.0	-90.00	-2,381.7	1,415.8	865.3	767.5	97.83	8.845	
9,300.0	7,562.0	9,411.1	7,562.0	51.3	56.6	-90.00	-2,481.7	1,416.1	865.3	763.9	101.39	8.534	
9,400.0	7,562.0	9,511.1	7,562.0	53.1	58.2	-90.00	-2,581.7	1,416.4	865.2	760.2	104.97	8.243	
9,500.0	7,562.0	9,611.1	7,562.0	54.9	59.8	-90.00	-2,681.7	1,416.7	865.2	756.6	108.56	7.969	
9,600.0	7,562.0	9,711.1	7,562.0	56.7	61.4	-90.00	-2,781.7	1,417.0	865.1	752.9	112.17	7.713	
9,700.0	7,562.0	9,811.1	7,562.0	58.5	63.1	-90.00	-2,881.7	1,417.3	865.1	749.3	115.79	7.471	
9,800.0	7,562.0	9,911.1	7,562.0	60.3	64.8	-90.00	-2,981.7	1,417.6	865.0	745.6	119.43	7.243	
9,900.0	7,562.0	10,011.1	7,562.0	62.1	66.4	-90.00	-3,081.7	1,417.9	865.0	741.9	123.08	7.028	
10,000.0	7,562.0	10,111.1	7,562.0	63.9	68.1	-90.00	-3,181.7	1,418.2	864.9	738.2	126.74	6.825	
10,100.0	7,562.0	10,211.1	7,562.0	65.7	69.8	-90.00	-3,281.7	1,418.5	864.9	734.5	130.41	6.632	
10,200.0	7,562.0	10,311.1	7,562.0	67.6	71.6	-90.00	-3,381.7	1,418.9	864.8	730.8	134.09	6.450	
10,300.0	7,562.0	10,411.1	7,562.0	69.4	73.3	-90.00	-3,481.7	1,419.2	864.8	727.0	137.77	6.277	
10,400.0	7,562.0	10,511.1	7,562.0	71.2	75.0	-90.00	-3,581.7	1,419.5	864.8	723.3	141.47	6.113	
10,500.0	7,562.0	10,611.1	7,562.0	73.1	76.8	-90.00	-3,681.7	1,419.8	864.7	719.5	145.17	5.957	
10,600.0	7,562.0	10,711.1	7,562.0	74.9	78.5	-90.00	-3,781.7	1,420.1	864.7	715.8	148.88	5.808	
10,700.0	7,562.0	10,811.1	7,562.0	76.8	80.3	-90.00	-3,881.7	1,420.4	864.6	712.0	152.59	5.666	
10,800.0	7,562.0	10,911.1	7,562.0	78.6	82.0	-90.00	-3,981.7	1,420.7	864.6	708.3	156.31	5.531	
10,900.0	7,562.0	11,011.1	7,562.0	80.5	83.8	-90.00	-4,081.7	1,421.0	864.5	704.5	160.04	5.402	
11,000.0	7,562.0	11,111.1	7,562.0	82.3	85.6	-90.00	-4,181.7	1,421.3	864.5	700.7	163.77	5.279	
11,100.0	7,562.0	11,211.1	7,562.0	84.2	87.4	-90.00	-4,281.7	1,421.6	864.4	696.9	167.50	5.161	
11,200.0	7,562.0	11,311.1	7,562.0	86.1	89.2	-90.00	-4,381.7	1,421.9	864.4	693.1	171.24	5.048	
11,300.0	7,562.0	11,411.1	7,562.0	87.9	91.0	-90.00	-4,481.7	1,422.2	864.3	689.4	174.98	4.940	
11,400.0	7,562.0	11,511.1	7,562.0	89.8	92.8	-90.00	-4,581.7	1,422.5	864.3	685.6	178.73	4.836	
11,500.0	7,562.0	11,611.1	7,562.0	91.7	94.6	-90.00	-4,681.7	1,422.8	864.2	681.8	182.48	4.736	
11,600.0	7,562.0	11,711.1	7,562.0	93.5	96.4	-90.00	-4,781.7	1,423.1	864.2	678.0	186.23	4.641	
11,700.0	7,562.0	11,811.1	7,562.0	95.4	98.2	-90.00	-4,881.7	1,423.4	864.2	674.2	189.99	4.549	
11,800.0	7,562.0	11,911.1	7,562.0	97.3	100.0	-90.00	-4,981.7	1,423.7	864.1	670.4	193.75	4.460	
11,900.0	7,562.0	12,011.1	7,562.0	99.2	101.8	-90.00	-5,081.7	1,424.0	864.1	666.6	197.51	4.375	
12,000.0	7,562.0	12,111.1	7,562.0	101.0	103.6	-90.00	-5,181.7	1,424.3	864.0	662.7	201.27	4.293	
12,100.0	7,562.0	12,211.1	7,562.0	102.9	105.5	-90.00	-5,281.7	1,424.6	864.0	658.9	205.04	4.214	
12,200.0	7,562.0	12,311.1	7,562.0	104.8	107.3	-90.00	-5,381.7	1,424.9	863.9	655.1	208.81	4.137	
12,300.0	7,562.0	12,411.1	7,562.0	106.7	109.1	-90.00	-5,481.7	1,425.2	863.9	651.3	212.58	4.064	
12,400.0	7,562.0	12,511.1	7,562.0	108.6	111.0	-90.00	-5,581.7	1,425.5	863.8	647.5	216.35	3.993	
12,500.0	7,562.0	12,611.1	7,562.0	110.4	112.8	-90.00	-5,681.7	1,425.8	863.8	643.7	220.13	3.924	
12,600.0	7,562.0	12,711.1	7,562.0	112.3	114.7	-90.00	-5,781.7	1,426.1	863.7	639.8	223.91	3.858	
12,700.0	7,562.0	12,811.1	7,562.0	114.2	116.5	-90.00	-5,881.7	1,426.4	863.7	636.0	227.69	3.793	
12,800.0	7,562.0	12,911.1	7,562.0	116.1	118.3	-90.00	-5,981.7	1,426.7	863.7	632.2	231.47	3.731	
12,900.0	7,562.0	13,011.1	7,562.0	118.0	120.2	-90.00	-6,081.7	1,427.0	863.6	628.4	235.25	3.671	
13,000.0	7,562.0	13,111.1	7,562.0	119.9	122.0	-90.00	-6,181.7	1,427.3	863.6	624.5	239.03	3.613	
13,100.0	7,562.0	13,211.1	7,562.0	121.8	123.9	-90.00	-6,281.7	1,427.6	863.5	620.7	242.82	3.556	
13,200.0	7,562.0	13,311.1	7,562.0	123.7	125.7	-90.00	-6,381.7	1,427.9	863.5	616.9	246.61	3.501	
13,300.0	7,562.0	13,411.1	7,562.0	125.5	127.6	-90.00	-6,481.7	1,428.2	863.4	613.0	250.39	3.448	
13,400.0	7,562.0	13,511.1	7,562.0	127.4	129.5	-90.00	-6,581.7	1,428.5	863.4	609.2	254.18	3.397	
13,500.0	7,562.0	13,611.1	7,562.0	129.3	131.3	-90.00	-6,681.7	1,428.8	863.3	605.4	257.98	3.347	
13,600.0	7,562.0	13,711.1	7,562.0	131.2	133.2	-90.00	-6,781.7	1,429.1	863.3	601.5	261.77	3.298	
13,673.1	7,562.0	13,784.3	7,562.0	132.6	134.5	-90.00	-6,854.8	1,429.3	863.3	598.7	264.54	3.263	
13,689.7	7,562.0	13,799.8	7,562.0	132.9	134.8	-90.00	-6,870.3	1,429.4	863.2	598.1	265.15	3.256 SF	

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	90.02	0.0	14.0	14.0	14.0	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	14.0	14.0	13.8	0.22	62.330		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	14.0	14.0	13.3	0.67	20.777		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	14.0	14.0	12.9	1.12	12.466		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	14.0	14.0	12.4	1.57	8.904		
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	14.0	14.0	12.0	2.02	6.926		
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	14.0	14.0	11.5	2.47	5.666		
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	14.0	14.0	11.1	2.92	4.795		
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	14.0	14.0	10.6	3.37	4.155 CC, ES		
900.0	900.0	899.7	899.7	1.9	1.9	92.72	-0.7	15.1	15.1	11.3	3.80	3.979		
1,000.0	1,000.0	999.2	999.1	2.1	2.1	98.83	-2.9	18.4	18.6	14.4	4.21	4.412		
1,100.0	1,100.0	1,098.6	1,098.3	2.3	2.3	-31.29	-6.4	23.8	23.5	18.9	4.61	5.109		
1,200.0	1,199.9	1,197.8	1,197.1	2.5	2.5	-29.20	-11.3	31.3	28.8	23.8	4.99	5.766		
1,300.0	1,299.7	1,296.8	1,295.4	2.7	2.7	-28.57	-17.7	41.0	34.2	28.8	5.39	6.350		
1,400.0	1,399.3	1,396.2	1,393.9	2.9	3.0	-28.94	-25.3	52.6	39.6	33.8	5.81	6.818		
1,460.6	1,459.5	1,456.8	1,453.8	3.1	3.2	-29.88	-30.1	59.9	41.9	35.9	6.07	6.911		
1,500.0	1,498.6	1,496.2	1,492.8	3.2	3.3	-30.65	-33.2	64.6	43.2	36.9	6.24	6.920		
1,600.0	1,597.9	1,596.1	1,591.7	3.4	3.6	-32.43	-41.0	76.6	46.4	39.7	6.70	6.929		
1,700.0	1,697.1	1,696.0	1,690.6	3.7	3.9	-33.97	-48.9	88.5	49.7	42.5	7.17	6.926		
1,800.0	1,796.4	1,796.0	1,789.5	3.9	4.2	-35.32	-56.7	100.5	53.0	45.3	7.66	6.915		
1,900.0	1,895.7	1,895.9	1,888.4	4.2	4.6	-36.52	-64.6	112.5	56.3	48.2	8.17	6.897		
2,000.0	1,995.0	1,995.9	1,987.3	4.5	4.9	-37.58	-72.4	124.4	59.7	51.0	8.68	6.875		
2,100.0	2,094.2	2,095.8	2,086.2	4.8	5.2	-38.52	-80.3	136.4	63.0	53.8	9.20	6.850		
2,200.0	2,193.5	2,195.7	2,185.1	5.1	5.6	-39.38	-88.1	148.4	66.4	56.7	9.74	6.824		
2,300.0	2,292.8	2,295.7	2,284.0	5.4	5.9	-40.14	-95.9	160.4	69.8	59.6	10.27	6.796		
2,400.0	2,392.1	2,395.6	2,382.9	5.7	6.2	-40.84	-103.8	172.3	73.2	62.4	10.82	6.769		
2,500.0	2,491.3	2,495.5	2,481.8	6.0	6.6	-41.47	-111.6	184.3	76.7	65.3	11.37	6.741		
2,600.0	2,590.6	2,595.5	2,580.7	6.3	6.9	-42.05	-119.5	196.3	80.1	68.2	11.93	6.714		
2,700.0	2,689.9	2,695.4	2,679.6	6.6	7.3	-42.59	-127.3	208.3	83.5	71.0	12.49	6.688		
2,800.0	2,789.2	2,795.4	2,778.5	6.9	7.6	-43.08	-135.2	220.2	87.0	73.9	13.05	6.662		
2,900.0	2,888.4	2,895.3	2,877.5	7.2	8.0	-43.53	-143.0	232.2	90.4	76.8	13.62	6.638		
3,000.0	2,987.7	2,995.2	2,976.4	7.5	8.3	-43.95	-150.9	244.2	93.9	79.7	14.19	6.614		
3,100.0	3,087.0	3,095.2	3,075.3	7.8	8.6	-44.34	-158.7	256.2	97.3	82.6	14.77	6.591		
3,200.0	3,186.3	3,195.1	3,174.2	8.2	9.0	-44.70	-166.6	268.1	100.8	85.4	15.34	6.569		
3,300.0	3,285.5	3,295.0	3,273.1	8.5	9.3	-45.04	-174.4	280.1	104.2	88.3	15.92	6.548		
3,400.0	3,384.8	3,395.0	3,372.0	8.8	9.7	-45.36	-182.3	292.1	107.7	91.2	16.50	6.528		
3,500.0	3,484.1	3,494.9	3,470.9	9.1	10.0	-45.66	-190.1	304.0	111.2	94.1	17.08	6.509		
3,600.0	3,583.4	3,594.9	3,569.8	9.4	10.4	-45.94	-198.0	316.0	114.7	97.0	17.67	6.490		
3,700.0	3,682.6	3,694.8	3,668.7	9.7	10.8	-46.20	-205.8	328.0	118.1	99.9	18.25	6.473		
3,800.0	3,781.9	3,794.7	3,767.6	10.1	11.1	-46.45	-213.7	340.0	121.6	102.8	18.84	6.456		
3,900.0	3,881.2	3,894.7	3,866.5	10.4	11.5	-46.68	-221.5	351.9	125.1	105.7	19.43	6.440		
4,000.0	3,980.4	3,994.6	3,965.4	10.7	11.8	-46.90	-229.4	363.9	128.6	108.6	20.02	6.424		
4,100.0	4,079.7	4,094.6	4,064.3	11.0	12.2	-47.11	-237.2	375.9	132.1	111.5	20.61	6.409		
4,200.0	4,179.0	4,194.5	4,163.3	11.3	12.5	-47.31	-245.1	387.9	135.6	114.4	21.20	6.395		
4,300.0	4,278.3	4,294.4	4,262.2	11.6	12.9	-47.50	-252.9	399.8	139.0	117.3	21.79	6.381		
4,400.0	4,377.5	4,394.4	4,361.1	12.0	13.2	-47.68	-260.8	411.8	142.5	120.2	22.38	6.368		
4,500.0	4,476.8	4,494.3	4,460.0	12.3	13.6	-47.85	-268.6	423.8	146.0	123.1	22.98	6.355		
4,600.0	4,576.1	4,594.2	4,558.9	12.6	13.9	-48.01	-276.5	435.8	149.5	126.0	23.57	6.343		
4,700.0	4,675.4	4,694.2	4,657.8	12.9	14.3	-48.17	-284.3	447.7	153.0	128.9	24.17	6.332		
4,800.0	4,774.6	4,794.1	4,756.7	13.2	14.6	-48.32	-292.2	459.7	156.5	131.8	24.76	6.321		
4,900.0	4,873.9	4,894.1	4,855.6	13.6	15.0	-48.46	-300.0	471.7	160.0	134.7	25.36	6.310		
5,000.0	4,973.2	4,994.0	4,954.5	13.9	15.3	-48.60	-307.9	483.6	163.5	137.6	25.96	6.299		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	5,072.5	5,093.9	5,053.4	14.2	15.7	-48.73	-315.7	495.6	167.0	140.5	26.55	6.289		
5,200.0	5,171.7	5,193.9	5,152.3	14.5	16.0	-48.85	-323.6	507.6	170.5	143.4	27.15	6.280		
5,300.0	5,271.0	5,293.8	5,251.2	14.8	16.4	-48.97	-331.4	519.6	174.0	146.3	27.75	6.270		
5,400.0	5,370.3	5,393.7	5,350.1	15.2	16.8	-49.09	-339.3	531.5	177.5	149.2	28.35	6.261		
5,500.0	5,469.6	5,493.7	5,449.0	15.5	17.1	-49.20	-347.1	543.5	181.0	152.1	28.95	6.253		
5,600.0	5,568.8	5,593.6	5,548.0	15.8	17.5	-49.31	-355.0	555.5	184.5	155.0	29.55	6.244		
5,700.0	5,668.1	5,693.6	5,646.9	16.1	17.8	-49.41	-362.8	567.5	188.0	157.9	30.15	6.236		
5,800.0	5,767.4	5,793.5	5,745.8	16.5	18.2	-49.51	-370.7	579.4	191.5	160.8	30.75	6.229		
5,900.0	5,866.7	5,893.4	5,844.7	16.8	18.5	-49.60	-378.5	591.4	195.0	163.7	31.35	6.221		
6,000.0	5,965.9	5,993.4	5,943.6	17.1	18.9	-49.70	-386.4	603.4	198.5	166.6	31.95	6.214		
6,100.0	6,065.2	6,093.3	6,042.5	17.4	19.2	-49.78	-394.2	615.4	202.0	169.5	32.55	6.207		
6,200.0	6,164.5	6,193.3	6,141.4	17.7	19.6	-49.87	-402.1	627.3	205.5	172.4	33.15	6.200		
6,300.0	6,263.7	6,293.2	6,240.3	18.1	20.0	-49.95	-409.9	639.3	209.0	175.3	33.75	6.193		
6,400.0	6,363.0	6,393.1	6,339.2	18.4	20.3	-50.03	-417.8	651.3	212.5	178.2	34.35	6.187		
6,500.0	6,462.3	6,493.1	6,438.1	18.7	20.7	-50.11	-425.6	663.2	216.0	181.1	34.96	6.180		
6,600.0	6,561.6	6,593.0	6,537.0	19.0	21.0	-50.19	-433.5	675.2	219.6	184.0	35.56	6.174		
6,700.0	6,660.8	6,692.9	6,635.9	19.4	21.4	-50.26	-441.3	687.2	223.1	186.9	36.16	6.168		
6,800.0	6,760.1	6,792.9	6,734.8	19.7	21.7	-50.33	-449.2	699.2	226.6	189.8	36.76	6.163		
6,900.0	6,859.4	6,892.8	6,833.7	20.0	22.1	-50.40	-457.0	711.1	230.1	192.7	37.37	6.157		
6,950.1	6,909.1	6,942.9	6,883.3	20.2	22.3	-50.43	-460.9	717.1	231.8	194.2	37.67	6.154		
7,000.0	6,958.5	6,992.7	6,932.6	20.3	22.4	-50.46	-464.9	723.1	233.8	195.7	38.02	6.148		
7,050.0	7,007.4	7,042.4	6,981.7	20.5	22.6	-75.99	-468.8	729.1	236.1	197.6	38.54	6.126		
7,100.0	7,055.5	7,091.5	7,030.4	20.8	22.8	-82.39	-472.6	734.9	239.1	199.9	39.20	6.100		
7,150.0	7,102.7	7,139.9	7,078.3	21.0	23.0	-87.74	-476.4	740.7	243.1	203.1	39.95	6.085		
7,200.0	7,148.6	7,187.3	7,125.2	21.3	23.1	-92.65	-480.1	746.4	248.5	207.8	40.74	6.100		
7,250.0	7,193.0	7,233.5	7,171.0	21.6	23.3	-97.31	-483.8	752.0	255.8	214.3	41.48	6.167		
7,300.0	7,235.7	7,284.1	7,220.9	22.0	23.5	-102.11	-488.8	758.0	265.2	223.0	42.16	6.290		
7,350.0	7,276.6	7,338.4	7,274.0	22.4	23.7	-106.59	-497.9	764.5	275.8	233.1	42.68	6.462		
7,400.0	7,315.4	7,394.8	7,328.3	22.8	24.0	-110.64	-511.8	771.1	287.4	244.4	43.02	6.680		
7,450.0	7,351.9	7,453.7	7,383.6	23.2	24.3	-114.30	-530.7	777.8	299.6	256.4	43.17	6.941		
7,500.0	7,385.9	7,515.1	7,439.5	23.7	24.6	-117.61	-555.3	784.6	312.3	269.1	43.14	7.238		
7,550.0	7,417.4	7,579.3	7,495.4	24.2	25.0	-120.57	-586.0	791.5	325.0	282.0	42.96	7.565		
7,600.0	7,446.0	7,646.5	7,560.7	24.7	25.5	-123.22	-623.4	798.3	337.6	294.9	42.64	7.916		
7,650.0	7,471.8	7,716.8	7,604.6	25.3	26.0	-125.57	-668.0	805.0	349.7	307.5	42.23	8.281		
7,700.0	7,494.5	7,790.2	7,656.0	25.9	26.7	-127.62	-720.0	811.4	361.1	319.3	41.75	8.648		
7,750.0	7,514.0	7,866.9	7,703.7	26.5	27.4	-129.37	-779.7	817.3	371.4	330.2	41.25	9.003		
7,800.0	7,530.4	7,946.5	7,746.3	27.1	28.2	-130.84	-846.7	822.7	380.4	339.7	40.78	9.330		
7,850.0	7,543.4	8,028.9	7,782.3	27.8	29.1	-132.01	-920.6	827.3	387.9	347.6	40.38	9.608		
7,900.0	7,553.0	8,113.7	7,810.3	28.5	30.1	-132.88	-1,000.5	831.0	393.7	353.6	40.10	9.817		
7,950.0	7,559.1	8,200.2	7,829.0	29.2	31.1	-133.45	-1,084.8	833.5	397.5	357.5	39.99	9.938		
8,000.0	7,561.9	8,287.7	7,837.5	29.9	32.3	-133.70	-1,171.9	834.9	399.2	359.1	40.10	9.955		
8,014.1	7,562.0	8,312.5	7,838.0	30.1	32.6	-133.72	-1,196.7	835.0	399.3	359.2	40.18	9.940		
8,100.0	7,562.0	8,399.1	7,838.0	31.4	33.8	-133.72	-1,283.3	835.3	399.3	357.2	42.14	9.477		
8,200.0	7,562.0	8,499.1	7,838.0	32.9	35.2	-133.72	-1,383.3	835.7	399.3	354.8	44.49	8.975		
8,300.0	7,562.0	8,599.1	7,838.0	34.4	36.6	-133.72	-1,483.3	836.0	399.3	352.4	46.92	8.512		
8,400.0	7,562.0	8,699.1	7,838.0	36.0	38.1	-133.72	-1,583.3	836.4	399.3	349.9	49.40	8.084		
8,500.0	7,562.0	8,799.1	7,838.0	37.7	39.6	-133.72	-1,683.3	836.7	399.3	347.4	51.93	7.691		
8,600.0	7,562.0	8,899.1	7,838.0	39.3	41.2	-133.72	-1,783.3	837.1	399.3	344.8	54.50	7.328		
8,700.0	7,562.0	8,999.1	7,838.0	41.0	42.8	-133.72	-1,883.3	837.4	399.3	342.2	57.11	6.993		
8,800.0	7,562.0	9,099.1	7,838.0	42.7	44.4	-133.72	-1,983.3	837.8	399.3	339.6	59.74	6.684		
8,900.0	7,562.0	9,199.1	7,838.0	44.4	46.0	-133.72	-2,083.3	838.1	399.3	336.9	62.41	6.399		
9,000.0	7,562.0	9,299.1	7,838.0	46.1	47.7	-133.72	-2,183.3	838.5	399.3	334.2	65.10	6.134		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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		
9,100.0	7,562.0	9,399.1	7,838.0	47.8	49.4	-133.72	-2,283.3	838.8	399.4	331.5	67.81	5.889		
9,200.0	7,562.0	9,499.1	7,838.0	49.6	51.1	-133.72	-2,383.3	839.2	399.4	328.8	70.55	5.661		
9,300.0	7,562.0	9,599.1	7,838.0	51.3	52.8	-133.72	-2,483.3	839.5	399.4	326.1	73.29	5.449		
9,400.0	7,562.0	9,699.1	7,838.0	53.1	54.5	-133.72	-2,583.3	839.9	399.4	323.3	76.06	5.251		
9,500.0	7,562.0	9,799.1	7,838.0	54.9	56.2	-133.72	-2,683.3	840.2	399.4	320.5	78.83	5.066		
9,600.0	7,562.0	9,899.1	7,838.0	56.7	58.0	-133.72	-2,783.3	840.6	399.4	317.7	81.62	4.893		
9,700.0	7,562.0	9,999.1	7,838.0	58.5	59.7	-133.72	-2,883.3	840.9	399.4	314.9	84.42	4.731		
9,800.0	7,562.0	10,099.1	7,838.0	60.3	61.5	-133.72	-2,983.3	841.3	399.4	312.1	87.23	4.578		
9,900.0	7,562.0	10,199.1	7,838.0	62.1	63.3	-133.72	-3,083.3	841.6	399.4	309.3	90.05	4.435		
10,000.0	7,562.0	10,299.1	7,838.0	63.9	65.0	-133.72	-3,183.3	842.0	399.4	306.5	92.87	4.300		
10,100.0	7,562.0	10,399.1	7,838.0	65.7	66.8	-133.72	-3,283.3	842.3	399.4	303.7	95.70	4.173		
10,200.0	7,562.0	10,499.1	7,838.0	67.6	68.6	-133.72	-3,383.3	842.6	399.4	300.8	98.54	4.053		
10,300.0	7,562.0	10,599.1	7,838.0	69.4	70.4	-133.72	-3,483.3	843.0	399.4	298.0	101.39	3.939		
10,400.0	7,562.0	10,699.1	7,838.0	71.2	72.2	-133.72	-3,583.3	843.3	399.4	295.1	104.24	3.831		
10,500.0	7,562.0	10,799.1	7,838.0	73.1	74.1	-133.72	-3,683.3	843.7	399.4	292.3	107.10	3.729		
10,600.0	7,562.0	10,899.1	7,838.0	74.9	75.9	-133.72	-3,783.3	844.0	399.4	289.4	109.96	3.632		
10,700.0	7,562.0	10,999.1	7,838.0	76.8	77.7	-133.72	-3,883.3	844.4	399.4	286.5	112.83	3.540		
10,800.0	7,562.0	11,099.1	7,838.0	78.6	79.5	-133.72	-3,983.3	844.7	399.4	283.7	115.70	3.452		
10,900.0	7,562.0	11,199.1	7,838.0	80.5	81.4	-133.72	-4,083.3	845.1	399.4	280.8	118.57	3.368		
11,000.0	7,562.0	11,299.1	7,838.0	82.3	83.2	-133.72	-4,183.3	845.4	399.4	277.9	121.45	3.288		
11,100.0	7,562.0	11,399.1	7,838.0	84.2	85.0	-133.72	-4,283.3	845.8	399.4	275.0	124.33	3.212		
11,200.0	7,562.0	11,499.1	7,838.0	86.1	86.9	-133.72	-4,383.3	846.1	399.4	272.2	127.21	3.139		
11,300.0	7,562.0	11,599.1	7,838.0	87.9	88.7	-133.72	-4,483.3	846.5	399.4	269.3	130.10	3.070		
11,400.0	7,562.0	11,699.1	7,838.0	89.8	90.6	-133.72	-4,583.3	846.8	399.4	266.4	132.99	3.003		
11,500.0	7,562.0	11,799.1	7,838.0	91.7	92.4	-133.72	-4,683.3	847.2	399.4	263.5	135.88	2.939		
11,600.0	7,562.0	11,899.1	7,838.0	93.5	94.3	-133.72	-4,783.3	847.5	399.4	260.6	138.77	2.878		
11,700.0	7,562.0	11,999.1	7,838.0	95.4	96.1	-133.72	-4,883.3	847.9	399.4	257.7	141.67	2.819		
11,800.0	7,562.0	12,099.1	7,838.0	97.3	98.0	-133.72	-4,983.3	848.2	399.4	254.8	144.57	2.763		
11,900.0	7,562.0	12,199.1	7,838.0	99.2	99.8	-133.72	-5,083.3	848.6	399.4	251.9	147.47	2.708		
12,000.0	7,562.0	12,299.1	7,838.0	101.0	101.7	-133.72	-5,183.3	848.9	399.4	249.0	150.37	2.656		
12,100.0	7,562.0	12,399.1	7,838.0	102.9	103.6	-133.72	-5,283.3	849.3	399.4	246.1	153.27	2.606		
12,200.0	7,562.0	12,499.1	7,838.0	104.8	105.4	-133.72	-5,383.3	849.6	399.4	243.2	156.18	2.557		
12,300.0	7,562.0	12,599.1	7,838.0	106.7	107.3	-133.72	-5,483.3	850.0	399.4	240.3	159.09	2.510		
12,400.0	7,562.0	12,699.1	7,838.0	108.6	109.2	-133.72	-5,583.3	850.3	399.4	237.4	162.00	2.465		
12,500.0	7,562.0	12,799.1	7,838.0	110.4	111.0	-133.72	-5,683.3	850.7	399.4	234.5	164.91	2.422		
12,600.0	7,562.0	12,899.1	7,838.0	112.3	112.9	-133.71	-5,783.3	851.0	399.4	231.6	167.82	2.380		
12,700.0	7,562.0	12,999.1	7,838.0	114.2	114.8	-133.71	-5,883.3	851.4	399.4	228.7	170.73	2.339		
12,800.0	7,562.0	13,099.1	7,838.0	116.1	116.7	-133.71	-5,983.3	851.7	399.4	225.7	173.64	2.300		
12,900.0	7,562.0	13,199.1	7,838.0	118.0	118.5	-133.71	-6,083.3	852.1	399.4	222.8	176.56	2.262		
13,000.0	7,562.0	13,299.1	7,838.0	119.9	120.4	-133.71	-6,183.3	852.4	399.4	219.9	179.47	2.225		
13,100.0	7,562.0	13,399.1	7,838.0	121.8	122.3	-133.71	-6,283.3	852.8	399.4	217.0	182.39	2.190		
13,200.0	7,562.0	13,499.1	7,838.0	123.7	124.2	-133.71	-6,383.3	853.1	399.4	214.1	185.31	2.155		
13,300.0	7,562.0	13,599.1	7,838.0	125.5	126.1	-133.71	-6,483.3	853.5	399.4	211.2	188.23	2.122		
13,400.0	7,562.0	13,699.1	7,838.0	127.4	127.9	-133.71	-6,583.3	853.8	399.4	208.2	191.15	2.089		
13,500.0	7,562.0	13,799.1	7,838.0	129.3	129.8	-133.71	-6,683.3	854.2	399.4	205.3	194.07	2.058		
13,600.0	7,562.0	13,899.1	7,838.0	131.2	131.7	-133.71	-6,783.3	854.5	399.4	202.4	196.99	2.027		
13,689.7	7,562.0	13,988.8	7,838.0	132.9	133.4	-133.71	-6,873.0	854.8	399.4	199.8	199.61	2.001 SF		

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	90.03	0.0	58.8	58.8					
100.0	100.0	100.0	100.0	0.1	0.1	90.03	0.0	58.8	58.8	58.6	0.22	261.788		
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	58.8	58.8	58.2	0.67	87.263		
300.0	300.0	300.0	300.0	0.6	0.6	90.03	0.0	58.8	58.8	57.7	1.12	52.358		
400.0	400.0	400.0	400.0	0.8	0.8	90.03	0.0	58.8	58.8	57.3	1.57	37.398 CC, ES		
500.0	500.0	498.2	498.1	1.0	1.0	90.49	-0.5	60.3	60.4	58.4	2.00	30.142		
600.0	600.0	596.1	596.0	1.2	1.2	91.74	-2.0	64.9	65.0	62.6	2.43	26.751		
700.0	700.0	693.7	693.2	1.5	1.4	93.47	-4.4	72.3	72.8	69.9	2.87	25.362		
800.0	800.0	790.6	789.5	1.7	1.7	95.34	-7.7	82.7	83.7	80.4	3.32	25.199		
900.0	900.0	886.7	884.7	1.9	2.0	97.12	-12.0	95.9	97.8	94.0	3.79	25.804		
1,000.0	1,000.0	981.9	978.4	2.1	2.3	98.70	-17.1	111.7	115.1	110.8	4.28	26.886		
1,100.0	1,100.0	1,076.2	1,070.6	2.3	2.7	-34.93	-23.0	130.2	134.4	129.7	4.65	28.878		
1,200.0	1,199.9	1,171.9	1,163.7	2.5	3.1	-34.39	-29.9	151.3	154.2	149.2	5.08	30.369		
1,300.0	1,299.7	1,270.2	1,259.3	2.7	3.5	-34.42	-37.0	173.5	172.4	166.9	5.52	31.245		
1,400.0	1,399.3	1,368.9	1,355.1	2.9	4.0	-34.90	-44.2	195.7	188.5	182.5	5.98	31.534		
1,460.6	1,459.5	1,428.8	1,413.3	3.1	4.3	-35.36	-48.6	209.2	197.2	191.0	6.27	31.477		
1,500.0	1,498.6	1,467.9	1,451.3	3.2	4.5	-35.74	-51.4	218.0	202.7	196.2	6.46	31.377		
1,600.0	1,597.9	1,566.9	1,547.4	3.4	5.0	-36.61	-58.6	240.3	216.5	209.5	6.96	31.101		
1,700.0	1,697.1	1,665.8	1,643.6	3.7	5.5	-37.37	-65.8	262.6	230.3	222.8	7.47	30.814		
1,800.0	1,796.4	1,764.8	1,739.8	3.9	6.0	-38.05	-73.0	284.9	244.2	236.2	8.00	30.524		
1,900.0	1,895.7	1,863.8	1,836.0	4.2	6.5	-38.66	-80.2	307.2	258.1	249.6	8.54	30.238		
2,000.0	1,995.0	1,962.8	1,932.1	4.5	7.0	-39.21	-87.4	329.5	272.1	263.0	9.08	29.960		
2,100.0	2,094.2	2,061.8	2,028.3	4.8	7.5	-39.70	-94.6	351.8	286.1	276.4	9.63	29.694		
2,200.0	2,193.5	2,160.8	2,124.5	5.1	8.0	-40.14	-101.8	374.1	300.0	289.9	10.19	29.439		
2,300.0	2,292.8	2,259.8	2,220.7	5.4	8.5	-40.55	-109.0	396.4	314.1	303.3	10.76	29.198		
2,400.0	2,392.1	2,358.8	2,316.9	5.7	9.0	-40.92	-116.2	418.7	328.1	316.7	11.32	28.970		
2,500.0	2,491.3	2,457.8	2,413.0	6.0	9.5	-41.26	-123.4	441.0	342.1	330.2	11.90	28.754		
2,600.0	2,590.6	2,556.8	2,509.2	6.3	10.0	-41.57	-130.6	463.3	356.1	343.7	12.47	28.550		
2,700.0	2,689.9	2,655.8	2,605.4	6.6	10.5	-41.87	-137.8	485.6	370.2	357.1	13.05	28.358		
2,800.0	2,789.2	2,754.7	2,701.6	6.9	11.0	-42.13	-145.0	507.9	384.3	370.6	13.64	28.176		
2,900.0	2,888.4	2,853.7	2,797.7	7.2	11.5	-42.38	-152.2	530.2	398.3	384.1	14.22	28.005		
3,000.0	2,987.7	2,952.7	2,893.9	7.5	12.0	-42.62	-159.3	552.5	412.4	397.6	14.81	27.844		
3,100.0	3,087.0	3,051.7	2,990.1	7.8	12.5	-42.83	-166.5	574.8	426.5	411.1	15.40	27.691		
3,200.0	3,186.3	3,150.7	3,086.3	8.2	13.0	-43.04	-173.7	597.1	440.6	424.6	15.99	27.547		
3,300.0	3,285.5	3,249.7	3,182.5	8.5	13.5	-43.23	-180.9	619.4	454.7	438.1	16.59	27.411		
3,400.0	3,384.8	3,348.7	3,278.6	8.8	14.0	-43.41	-188.1	641.7	468.8	451.6	17.18	27.281		
3,500.0	3,484.1	3,447.7	3,374.8	9.1	14.5	-43.58	-195.3	664.0	482.9	465.1	17.78	27.159		
3,600.0	3,583.4	3,546.7	3,471.0	9.4	15.1	-43.74	-202.5	686.3	497.0	478.6	18.38	27.043		
3,700.0	3,682.6	3,645.7	3,567.2	9.7	15.6	-43.89	-209.7	708.6	511.1	492.1	18.98	26.932		
3,800.0	3,781.9	3,744.7	3,663.3	10.1	16.1	-44.03	-216.9	730.9	525.2	505.6	19.58	26.827		
3,900.0	3,881.2	3,843.6	3,759.5	10.4	16.6	-44.17	-224.1	753.2	539.3	519.1	20.18	26.727		
4,000.0	3,980.4	3,942.6	3,855.7	10.7	17.1	-44.29	-231.3	775.5	553.4	532.7	20.78	26.632		
4,100.0	4,079.7	4,041.6	3,951.9	11.0	17.6	-44.42	-238.5	797.8	567.6	546.2	21.38	26.541		
4,200.0	4,179.0	4,140.6	4,048.1	11.3	18.1	-44.53	-245.7	820.1	581.7	559.7	21.99	26.454		
4,300.0	4,278.3	4,239.6	4,144.2	11.6	18.6	-44.64	-252.9	842.4	595.8	573.2	22.59	26.372		
4,400.0	4,377.5	4,338.6	4,240.4	12.0	19.1	-44.75	-260.1	864.7	609.9	586.7	23.20	26.292		
4,500.0	4,476.8	4,437.6	4,336.6	12.3	19.6	-44.85	-267.3	887.0	624.1	600.3	23.80	26.217		
4,600.0	4,576.1	4,536.6	4,432.8	12.6	20.1	-44.94	-274.5	909.3	638.2	613.8	24.41	26.144		
4,700.0	4,675.4	4,635.6	4,528.9	12.9	20.7	-45.04	-281.7	931.6	652.3	627.3	25.02	26.075		
4,800.0	4,774.6	4,734.6	4,625.1	13.2	21.2	-45.12	-288.9	953.9	666.5	640.8	25.63	26.008		
4,900.0	4,873.9	4,833.6	4,721.3	13.6	21.7	-45.21	-296.1	976.2	680.6	654.4	26.23	25.944		
5,000.0	4,973.2	4,932.5	4,817.5	13.9	22.2	-45.29	-303.3	998.5	694.7	667.9	26.84	25.882		

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

<b>Company:</b>	PetroShare Corp	<b>Local Co-ordinate Reference:</b>	Well SHOOK 3-10-3NBH
<b>Project:</b>	SEC.3-T1S-R67W	<b>TVD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Reference Site:</b>	SHOOK PAD 3-1S-67W	<b>MD Reference:</b>	KB @ 5109.0ft (EST KB 16')
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SHOOK 3-10-3NBH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	PLAN 1 ( FEB 5 2016)	<b>Offset TVD Reference:</b>	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	5,072.5	5,031.5	4,913.7	14.2	22.7	-45.37	-310.5	1,020.8	708.9	681.4	27.45	25.823		
5,200.0	5,171.7	5,130.5	5,009.8	14.5	23.2	-45.44	-317.7	1,043.1	723.0	695.0	28.06	25.766		
5,300.0	5,271.0	5,229.5	5,106.0	14.8	23.7	-45.51	-324.9	1,065.4	737.2	708.5	28.67	25.712		
5,400.0	5,370.3	5,328.5	5,202.2	15.2	24.2	-45.58	-332.1	1,087.7	751.3	722.0	29.28	25.659		
5,500.0	5,469.6	5,427.5	5,298.4	15.5	24.7	-45.65	-339.3	1,110.0	765.4	735.6	29.89	25.608		
5,600.0	5,568.8	5,526.5	5,394.5	15.8	25.2	-45.71	-346.5	1,132.3	779.6	749.1	30.50	25.559		
5,700.0	5,668.1	5,625.5	5,490.7	16.1	25.8	-45.78	-353.7	1,154.6	793.7	762.6	31.11	25.512		
5,800.0	5,767.4	5,724.5	5,586.9	16.5	26.3	-45.83	-360.9	1,176.9	807.9	776.2	31.72	25.466		
5,900.0	5,866.7	5,823.5	5,683.1	16.8	26.8	-45.89	-368.1	1,199.2	822.0	789.7	32.34	25.422		
6,000.0	5,965.9	5,922.5	5,779.2	17.1	27.3	-45.95	-375.2	1,221.5	836.2	803.2	32.95	25.379		
6,100.0	6,065.2	6,021.4	5,875.4	17.4	27.8	-46.00	-382.4	1,243.8	850.3	816.8	33.56	25.338		
6,200.0	6,164.5	6,120.4	5,971.6	17.7	28.3	-46.05	-389.6	1,266.1	864.5	830.3	34.17	25.298		
6,300.0	6,263.7	6,219.4	6,067.8	18.1	28.8	-46.10	-396.8	1,288.4	878.6	843.8	34.78	25.259		
6,400.0	6,363.0	6,318.4	6,164.0	18.4	29.3	-46.15	-404.0	1,310.7	892.8	857.4	35.40	25.222		
6,500.0	6,462.3	6,417.4	6,260.1	18.7	29.8	-46.20	-411.2	1,333.0	906.9	870.9	36.01	25.185		
6,600.0	6,561.6	6,516.4	6,356.3	19.0	30.4	-46.25	-418.4	1,355.3	921.1	884.5	36.62	25.150		
6,700.0	6,660.8	6,615.4	6,452.5	19.4	30.9	-46.29	-425.6	1,377.6	935.2	898.0	37.24	25.116		
6,800.0	6,760.1	6,714.4	6,548.7	19.7	31.4	-46.33	-432.8	1,399.9	949.4	911.5	37.85	25.083		
6,900.0	6,859.4	6,813.4	6,644.8	20.0	31.9	-46.38	-440.0	1,422.2	963.5	925.1	38.46	25.050		
6,950.1	6,909.1	6,863.0	6,693.0	20.2	32.1	-46.40	-443.6	1,433.4	970.6	931.9	38.77	25.034		
7,000.0	6,958.5	6,912.3	6,741.0	20.3	32.4	-62.09	-447.2	1,444.5	977.7	938.8	38.96	25.098		
7,050.0	7,007.4	6,961.5	6,788.7	20.5	32.6	-69.84	-450.8	1,455.6	984.9	945.7	39.22	25.111		
7,100.0	7,055.5	7,010.1	6,836.0	20.8	32.9	-74.35	-454.3	1,466.5	992.3	952.7	39.57	25.076		
7,150.0	7,102.7	7,058.0	6,882.5	21.0	33.1	-77.36	-457.8	1,477.3	999.7	959.8	39.99	25.001 SF		

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

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

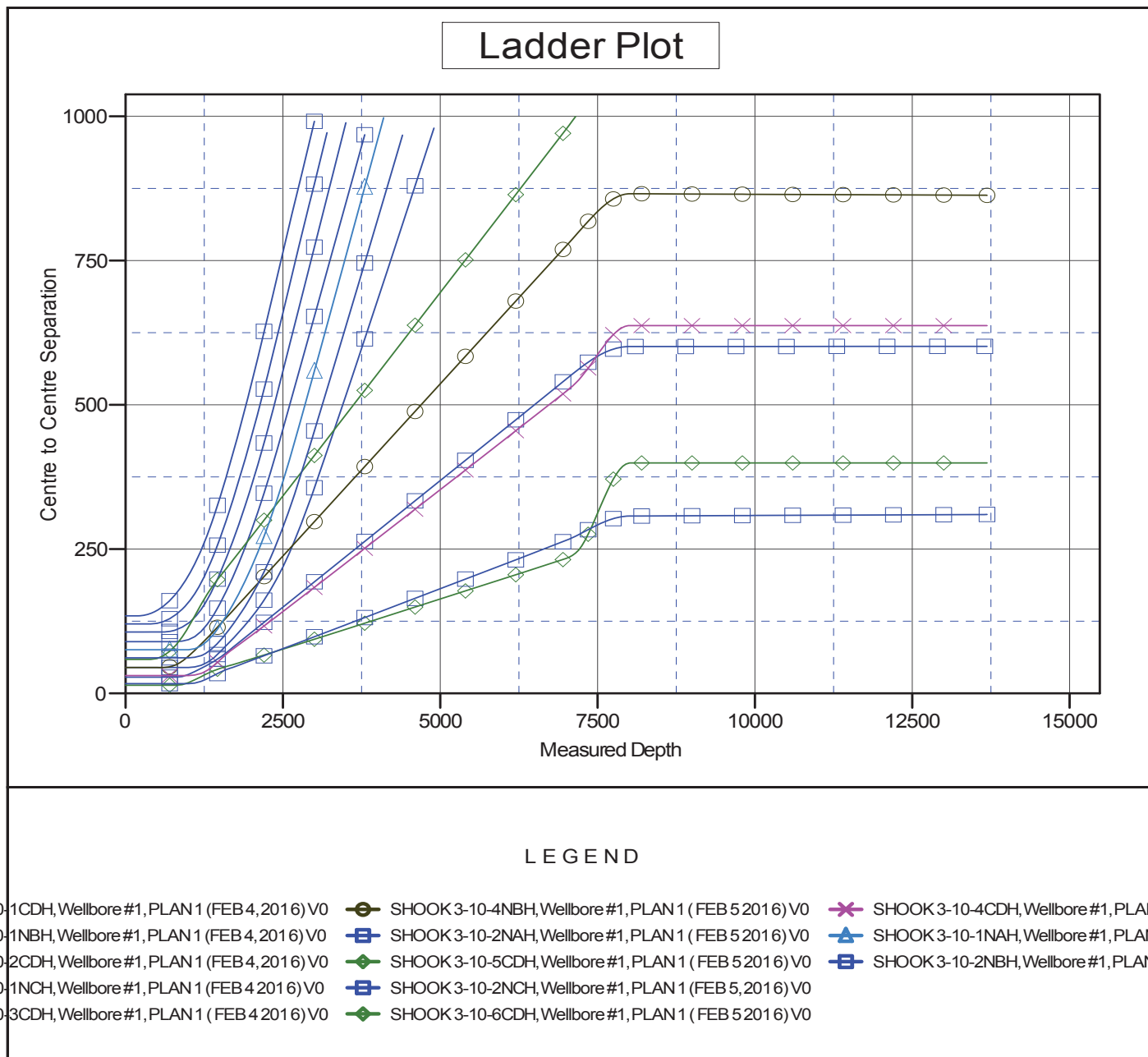
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-3NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.40°



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

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

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-3NBH

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.40°

