ENSIGN

Directional

PetroShare Corp

SEC.3-T1S-R67W
SHOOK PAD 3-1S-67W
SHOOK 3-10-5CDH

Wellbore #1
PLAN 1 (FEB 5 2016)

Anticollision Report

22 February, 2016

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

Reference PLAN 1 (FEB 5 2016)

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

Survey Tool Program **Date** 2/22/2016

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	13,989.8	PLAN 1 (FEB 5 2016) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
SHOOK PAD 3-1S-67W						
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	200.0	200.0	148.5	147.8	220.234	CC, ES
SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,057.4	244.9	240.1	51.784	SF
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	89.7	86.3	26.594	CC, ES
SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,098.3	100.4	95.8	21.777	SF
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	600.0	600.0	120.5	118.0	48.731	CC, ES
SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,085.8	153.7	149.2	33.922	SF
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	400.0	400.0	134.5	132.9	85.482	CC, ES
SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,074.0	194.0	189.4	42.196	SF
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	800.0	800.0	103.7	100.3	30.750	CC, ES
SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 201	1,100.0	1,093.8	121.1	116.6	26.682	SF
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	14.0	10.6	4.155	CC
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	1,000.0	999.3	14.3	10.2	3.442	ES
SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 201	1,349.1	1,347.3	16.8	11.1	2.956	SF
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	800.0	800.0	75.7	72.3	22.439	CC, ES
SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016	1,100.0	1,099.7	85.7	81.1	18.486	SF
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	800.0	800.0	30.8	27.5	9.142	CC, ES
SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,989.8	13,785.9	599.9	344.2	2.346	SF
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	800.0	800.0	58.8	55.5	17.453	CC, ES
SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 201	1,100.0	1,099.7	69.0	64.4	14.875	SF
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	800.0	800.0	14.0	10.6	4.155	CC, ES
SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,989.8	13,689.7	399.4	199.8	2.001	SF
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	800.0	800.0	44.8	41.5	13.297	CC, ES
SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 201	13,989.8	13,946.0	863.2	597.8	3.252	SF
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	600.0	600.0	30.8	28.3	12.466	CC, ES
SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 201	13,989.8	13,799.8	637.4	392.2	2.599	SF
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	400.0	400.0	44.8	43.3	28.494	CC, ES
SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 201	13,989.8	14,124.0	863.2	597.8	3.252	SF

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance 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	-148.5	148.5				

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-148.5	148.5	148.3	0.22	660.703	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-148.5	148.5	147.8	0.67	220.234	CC, ES
300.0	300.0	297.0	297.0	0.6	0.5	-90.26	-0.7	-149.5	149.5	148.4	1.10	136.039	
400.0	400.0	393.9	393.8	0.8	0.7	-91.11	-2.9	-152.4	152.5	151.0	1.53	99.940	
500.0	500.0	490.5	490.2	1.0	1.0	-92.44	-6.7	-157.2	157.7	155.7	1.97	79.849	
600.0	600.0	586.8	586.1	1.2	1.2	-94.16	-11.9	-164.0	165.0	162.5	2.45	67.424	
700.0	700.0	682.5	681.2	1.5	1.5	-96.15	-18.6	-172.5	174.6	171.6	2.95	59.271	
800.0	800.0	777.7	775.5	1.7	1.8	-98.29	-26.7	-182.9	186.5	183.0	3.47	53.714	
900.0	900.0	872.0	868.6	1.9	2.1	136.36	-36.1	-195.1	201.8	198.0	3.81	52.898	
1,000.0	999.9	965.3	960.2	2.1	2.5	134.69	-46.8	-208.9	221.3	217.0	4.26	51.891	
1,100.0	1,099.7	1,057.4	1,050.2	2.3	2.9	133.41	-58.7	-224.2	244.9	240.1	4.73	51.784	SF
1,200.0	1,199.3	1,147.9	1,138.2	2.5	3.3	132.46	-71.7	-240.9	272.3	267.1	5.21	52.295	
1,300.0	1,298.6	1,236.8	1,224.1	2.8	3.8	131.77	-85.7	-259.0	303.5	297.8	5.70	53.221	
1,349.1	1,347.2	1,279.7	1,265.4	2.9	4.0	131.51	-92.9	-268.2	320.1	314.2	5.95	53.783	
1,400.0	1,397.6	1,323.9	1,307.7	3.0	4.2	131.45	-100.6	-278.2	338.1	331.9	6.22	54.342	
1,500.0	1,496.6	1,409.5	1,389.4	3.3	4.8	131.26	-116.4	-298.5	374.9	368.1	6.76	55.438	
1,600.0	1,595.5	1,493.7	1,469.2	3.6	5.3	130.99	-133.0	-319.9	413.5	406.2	7.32	56.525	
1,700.0	1,694.5	1,576.5	1,546.9	3.9	5.9	130.67	-150.4	-342.3	454.1	446.2	7.88	57.605	
1,800.0	1,793.5	1,657.7	1,622.6	4.2	6.4	130.32	-168.4	-365.6	496.4	487.9	8.46	58.701	
1,900.0	1,892.4	1,737.4	1,696.2	4.6	7.1	129.95	-187.1	-389.6	540.5	531.5	9.04	59.816	
2,000.0	1,991.4	1,815.5	1,767.8	4.9	7.7	129.57	-206.3	-414.4	586.3	576.7	9.62	60.952	
2,100.0	2,090.4	1,892.8	1,838.0	5.2	8.3	129.18	-226.2	-440.0	633.9	623.7	10.21	62.083	
2,200.0	2,189.3	1,979.3	1,916.1	5.6	9.1	128.77	-248.9	-469.3	682.3	671.4	10.84	62.941	
2,300.0	2,288.3	2,066.7	1,995.0	5.9	9.8	128.41	-271.9	-498.9	730.7	719.2	11.47	63.690	
2,400.0	2,387.3	2,154.1	2,074.0	6.2	10.6	128.10	-294.9	-528.5	779.1	767.0	12.11	64.342	
2,500.0	2,486.2	2,241.5	2,153.0	6.6	11.4	127.82	-317.9	-558.1	827.5	814.8	12.75	64.911	
2,600.0	2,585.2	2,329.0	2,231.9	6.9	12.1	127.57	-340.9	-587.7	876.0	862.6	13.39	65.413	
2,700.0	2,684.2	2,416.4	2,310.9	7.3	12.9	127.35	-363.9	-617.3	924.5	910.4	14.04	65.857	
2,800.0	2,783.1	2,503.8	2,389.9	7.6	13.7	127.15	-386.9	-646.9	973.0	958.3	14.69	66.253	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NAH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-89.7	89.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-89.7	89.7	89.4	0.22	398.915	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-89.7	89.7	89.0	0.67	132.972	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-89.7	89.7	88.5	1.12	79.783	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-89.7	89.7	88.1	1.57	56.988	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-89.7	89.7	87.6	2.02	44.324	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-89.7	89.7	87.2	2.47	36.265	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-89.7	89.7	86.7	2.92	30.686	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-89.7	89.7	86.3	3.37	26.594	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	147.22	0.0	-89.7	90.8	87.0	3.80	23.882	
1,000.0	999.9	999.9	999.9	2.1	2.1	148.49	0.0	-89.7	94.1	89.9	4.22	22.319	
1,100.0	1,099.7	1,098.3	1,098.3	2.3	2.3	149.77	-1.0	-90.4	100.4	95.8	4.61	21.777	SF
1,200.0	1,199.3	1,196.3	1,196.3	2.5	2.5	150.39	-4.1	-92.6	110.4	105.4	5.00	22.095	
1,300.0	1,298.6	1,293.8	1,293.5	2.8	2.7	150.46	-9.1	-96.3	124.0	118.6	5.40	22.965	
1,349.1	1,347.2	1,341.4	1,341.0	2.9	2.8	150.34	-12.3	-98.6	132.0	126.4	5.61	23.544	
1,400.0	1,397.6	1,390.6	1,389.9	3.0	2.9	150.13	-16.1	-101.4	140.9	135.1	5.82	24.195	
1,500.0	1,496.6	1,486.8	1,485.5	3.3	3.1	149.22	-25.1	-107.8	159.4	153.2	6.27	25.420	
1,600.0	1,595.5	1,582.4	1,580.1	3.6	3.4	147.85	-35.9	-115.6	179.4	172.6	6.75	26.587	
1,700.0	1,694.5	1,677.2	1,673.6	3.9	3.6	146.19	-48.5	-124.7	200.8	193.6	7.25	27.705	
1,800.0	1,793.5	1,771.1	1,765.9	4.2	3.9	144.38	-62.8	-135.1	223.9	216.1	7.78	28.787	
1,900.0	1,892.4	1,864.1	1,856.7	4.6	4.3	142.48	-78.8	-146.7	248.6	240.3	8.33	29.845	
2,000.0	1,991.4	1,956.0	1,946.0	4.9	4.6	140.58	-96.4	-159.4	275.1	266.2	8.91	30.887	
2,100.0	2,090.4	2,046.7	2,033.7	5.2	5.0	138.70	-115.5	-173.2	303.5	294.0	9.50	31.932	
2,200.0	2,189.3	2,136.2	2,119.6	5.6	5.4	136.88	-135.9	-187.9	333.7	323.6	10.12	32.983	
2,300.0	2,288.3	2,224.5	2,203.6	5.9	5.9	135.14	-157.7	-203.7	365.8	355.1	10.74	34.048	
2,400.0	2,387.3	2,311.3	2,285.7	6.2	6.4	133.48	-180.6	-220.2	399.8	388.5	11.38	35.131	
2,500.0	2,486.2	2,400.0	2,368.9	6.6	6.9	131.85	-205.6	-238.3	435.8	423.7	12.04	36.194	
2,600.0	2,585.2	2,480.8	2,444.0	6.9	7.5	130.43	-229.7	-255.7	473.6	460.9	12.68	37.340	
2,700.0	2,684.2	2,563.3	2,520.0	7.3	8.1	129.05	-255.6	-274.5	513.3	500.0	13.34	38.473	
2,800.0	2,783.1	2,649.7	2,599.0	7.6	8.7	127.69	-284.0	-294.9	554.7	540.6	14.02	39.551	
2,900.0	2,882.1	2,739.9	2,681.4	8.0	9.4	126.45	-313.6	-316.4	596.4	581.6	14.72	40.520	
3,000.0	2,981.1	2,830.0	2,763.8	8.3	10.1	125.37	-343.3	-337.8	638.3	622.9	15.41	41.414	
3,100.0	3,080.1	2,920.2	2,846.2	8.7	10.8	124.42	-373.0	-359.3	680.3	664.2	16.11	42.241	
3,200.0	3,179.0	3,010.4	2,928.6	9.0	11.5	123.58	-402.7	-380.8	722.5	705.7	16.80	43.007	
3,300.0	3,278.0	3,100.6	3,011.0	9.4	12.2	122.83	-432.4	-402.2	764.9	747.4	17.50	43.718	
3,400.0	3,377.0	3,190.7	3,093.4	9.7	12.9	122.17	-462.1	-423.7	807.3	789.1	18.19	44.377	
3,500.0	3,475.9	3,280.9	3,175.8	10.1	13.6	121.56	-491.8	-445.1	849.8	830.9	18.89	44.991	
3,600.0	3,574.9	3,371.1	3,258.2	10.4	14.3	121.02	-521.4	-466.6	892.4	872.8	19.58	45.564	
3,700.0	3,673.9	3,461.2	3,340.6	10.8	15.0	120.52	-551.1	-488.0	935.0	914.7	20.28	46.100	
3,800.0	3,772.8	3,551.4	3,423.0	11.1	15.8	120.07	-580.8	-509.5	977.7	956.7	20.98	46.602	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NBH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance 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	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-120.5	120.5	118.5	2.02	59.560	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-120.5	120.5	118.0	2.47	48.731	CC, ES
700.0	700.0	697.8	697.8	1.5	1.4	-90.39	-0.8	-121.4	121.4	118.5	2.89	41.942	
800.0	800.0	795.5	795.4	1.7	1.6	-91.60	-3.5	-124.0	124.2	120.9	3.30	37.572	
900.0	900.0	892.8	892.6	1.9	1.8	143.53	-7.9	-128.4	129.9	126.2	3.71	35.057	
1,000.0	999.9	989.7	989.0	2.1	2.0	142.00	-14.0	-134.6	139.8	135.7	4.11	34.029	
1,100.0	1,099.7	1,085.8	1,084.5	2.3	2.3	140.65	-21.7	-142.3	153.7	149.2	4.53	33.922	SF
1,200.0	1,199.3	1,181.0	1,178.8	2.5	2.5	139.52	-31.1	-151.7	171.6	166.6	4.98	34.487	
1,300.0	1,298.6	1,275.0	1,271.5	2.8	2.8	138.60	-41.9	-162.6	193.4	187.9	5.44	35.529	
1,349.1	1,347.2	1,320.7	1,316.4	2.9	3.0	138.21	-47.8	-168.5	205.5	199.8	5.68	36.169	
1,400.0	1,397.6	1,367.7	1,362.6	3.0	3.2	137.94	-54.2	-174.9	218.7	212.8	5.93	36.857	
1,500.0	1,496.6	1,459.4	1,452.1	3.3	3.5	137.25	-67.9	-188.7	246.2	239.7	6.45	38.173	
1,600.0	1,595.5	1,549.9	1,540.1	3.6	3.9	136.43	-82.9	-203.7	275.6	268.6	6.99	39.450	
1,700.0	1,694.5	1,639.1	1,626.4	3.9	4.3	135.53	-99.1	-220.0	306.8	299.3	7.54	40.696	
1,800.0	1,793.5	1,727.2	1,710.9	4.2	4.8	134.59	-116.5	-237.4	340.0	331.9	8.11	41.930	
1,900.0	1,892.4	1,813.8	1,793.5	4.6	5.3	133.65	-135.0	-255.9	375.0	366.3	8.69	43.160	
2,000.0	1,991.4	1,900.0	1,875.0	4.9	5.8	132.71	-154.6	-275.7	411.9	402.7	9.28	44.371	
2,100.0	2,090.4	1,982.9	1,952.9	5.2	6.3	131.81	-174.7	-295.8	450.7	440.8	9.88	45.599	
2,200.0	2,189.3	2,065.2	2,029.5	5.6	6.9	130.94	-195.9	-317.1	491.3	480.8	10.49	46.818	
2,300.0	2,288.3	2,146.0	2,104.1	5.9	7.5	130.09	-217.8	-339.0	533.7	522.6	11.11	48.048	
2,400.0	2,387.3	2,225.2	2,176.6	6.2	8.1	129.29	-240.4	-361.7	577.8	566.1	11.72	49.291	
2,500.0	2,486.2	2,310.9	2,254.4	6.6	8.8	128.47	-265.6	-387.0	623.3	610.9	12.37	50.386	
2,600.0	2,585.2	2,399.5	2,335.0	6.9	9.5	127.74	-291.8	-413.3	668.9	655.9	13.03	51.346	
2,700.0	2,684.2	2,488.2	2,415.5	7.3	10.3	127.10	-318.0	-439.5	714.7	701.0	13.69	52.204	
2,800.0	2,783.1	2,576.9	2,496.1	7.6	11.0	126.53	-344.2	-465.8	760.4	746.1	14.35	52.980	
2,900.0	2,882.1	2,665.5	2,576.6	8.0	11.7	126.03	-370.3	-492.0	806.3	791.2	15.02	53.683	
3,000.0	2,981.1	2,754.2	2,657.2	8.3	12.5	125.58	-396.5	-518.3	852.1	836.4	15.69	54.324	
3,100.0	3,080.1	2,842.9	2,737.7	8.7	13.2	125.18	-422.7	-544.6	898.0	881.7	16.36	54.909	
3,200.0	3,179.0	2,931.6	2,818.3	9.0	14.0	124.81	-448.9	-570.8	944.0	926.9	17.03	55.445	
3,300.0	3,278.0	3,020.2	2,898.8	9.4	14.7	124.48	-475.0	-597.1	989.9	972.2	17.70	55.938	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-1NCH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance 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	-134.5	134.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-134.5	134.5	134.3	0.22	598.372	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-134.5	134.5	133.8	0.67	199.457	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-134.5	134.5	133.4	1.12	119.674	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-134.5	134.5	132.9	1.57	85.482	CC, ES
500.0	500.0	497.4	497.4	1.0	1.0	-90.32	-0.8	-135.4	135.5	133.5	2.00	67.864	
600.0	600.0	594.7	594.6	1.2	1.2	-91.33	-3.2	-138.2	138.4	136.0	2.41	57.365	
700.0	700.0	691.7	691.4	1.5	1.4	-92.91	-7.3	-142.9	143.3	140.5	2.85	50.359	
800.0	800.0	788.3	787.7	1.7	1.6	-94.94	-12.9	-149.3	150.4	147.1	3.30	45.556	
900.0	900.0	884.4	883.1	1.9	1.9	139.67	-20.1	-157.6	160.8	157.0	3.72	43.244	
1,000.0	999.9	979.7	977.5	2.1	2.2	137.87	-28.8	-167.6	175.3	171.2	4.15	42.262	
1,100.0	1,099.7	1,074.0	1,070.5	2.3	2.5	136.43	-39.0	-179.2	194.0	189.4	4.60	42.196	SF
1,200.0	1,199.3	1,167.0	1,161.9	2.5	2.8	135.33	-50.4	-192.3	216.6	211.6	5.06	42.776	
1,300.0	1,298.6	1,258.6	1,251.4	2.8	3.2	134.51	-63.2	-206.9	243.1	237.6	5.55	43.795	
1,349.1	1,347.2	1,303.0	1,294.7	2.9	3.4	134.19	-69.8	-214.5	257.5	251.7	5.80	44.426	
1,400.0	1,397.6	1,348.7	1,339.0	3.0	3.6	134.03	-77.1	-222.8	273.2	267.1	6.06	45.060	
1,500.0	1,496.6	1,437.5	1,424.8	3.3	4.0	133.62	-92.1	-240.0	305.4	298.8	6.59	46.315	
1,600.0	1,595.5	1,525.0	1,508.8	3.6	4.5	133.12	-108.1	-258.4	339.5	332.4	7.14	47.524	
1,700.0	1,694.5	1,611.1	1,590.9	3.9	5.0	132.55	-125.2	-277.9	375.5	367.8	7.71	48.738	
1,800.0	1,793.5	1,700.0	1,675.0	4.2	5.6	131.93	-144.1	-299.5	413.5	405.2	8.29	49.858	
1,900.0	1,892.4	1,779.0	1,749.2	4.6	6.1	131.35	-161.9	-319.9	453.2	444.3	8.86	51.131	
2,000.0	1,991.4	1,860.7	1,825.3	4.9	6.7	130.74	-181.5	-342.3	494.8	485.3	9.45	52.330	
2,100.0	2,090.4	1,940.9	1,899.4	5.2	7.3	130.14	-201.6	-365.4	538.1	528.1	10.05	53.539	
2,200.0	2,189.3	2,019.5	1,971.4	5.6	7.9	129.55	-222.4	-389.2	583.2	572.6	10.65	54.763	
2,300.0	2,288.3	2,099.7	2,044.2	5.9	8.5	128.96	-244.6	-414.6	629.9	618.7	11.27	55.917	
2,400.0	2,387.3	2,187.6	2,123.8	6.2	9.3	128.39	-269.2	-442.7	677.1	665.2	11.91	56.862	
2,500.0	2,486.2	2,275.6	2,203.4	6.6	10.0	127.88	-293.8	-470.8	724.4	711.8	12.56	57.698	
2,600.0	2,585.2	2,363.6	2,283.1	6.9	10.8	127.44	-318.3	-499.0	771.7	758.5	13.20	58.441	
2,700.0	2,684.2	2,451.5	2,362.7	7.3	11.5	127.05	-342.9	-527.1	819.0	805.2	13.86	59.105	
2,800.0	2,783.1	2,539.5	2,442.4	7.6	12.3	126.70	-367.5	-555.2	866.4	851.9	14.51	59.701	
2,900.0	2,882.1	2,627.5	2,522.0	8.0	13.1	126.39	-392.1	-583.4	913.8	898.6	15.17	60.239	
3,000.0	2,981.1	2,715.4	2,601.6	8.3	13.8	126.11	-416.6	-611.5	961.1	945.3	15.83	60.726	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2CDH - Wellbore #1 - PLAN 1 (FEB 4, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance 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	-103.7	103.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.97	0.1	-103.7	103.7	103.4	0.22	461.245	
200.0	200.0	200.0	200.0	0.3	0.3	-89.97	0.1	-103.7	103.7	103.0	0.67	153.748	
300.0	300.0	300.0	300.0	0.6	0.6	-89.97	0.1	-103.7	103.7	102.5	1.12	92.249	
400.0	400.0	400.0	400.0	0.8	0.8	-89.97	0.1	-103.7	103.7	102.1	1.57	65.892	
500.0	500.0	500.0	500.0	1.0	1.0	-89.97	0.1	-103.7	103.7	101.6	2.02	51.249	
600.0	600.0	600.0	600.0	1.2	1.2	-89.97	0.1	-103.7	103.7	101.2	2.47	41.931	
700.0	700.0	700.0	700.0	1.5	1.5	-89.97	0.1	-103.7	103.7	100.8	2.92	35.480	
800.0	800.0	800.0	800.0	1.7	1.7	-89.97	0.1	-103.7	103.7	100.3	3.37	30.750	CC, ES
900.0	900.0	898.2	898.2	1.9	1.9	146.63	-0.9	-104.5	105.6	101.8	3.77	27.995	
1,000.0	999.9	996.2	996.1	2.1	2.1	146.20	-3.8	-107.0	111.4	107.3	4.15	26.876	
1,100.0	1,099.7	1,093.8	1,093.5	2.3	2.3	145.58	-8.5	-111.1	121.1	116.6	4.54	26.682	SF
1,200.0	1,199.3	1,190.6	1,190.0	2.5	2.5	144.85	-15.0	-116.7	134.6	129.7	4.95	27.185	
1,300.0	1,298.6	1,286.7	1,285.4	2.8	2.7	144.08	-23.3	-124.0	152.0	146.6	5.39	28.201	
1,349.1	1,347.2	1,333.4	1,331.7	2.9	2.8	143.71	-28.0	-128.0	161.9	156.2	5.61	28.838	
1,400.0	1,397.6	1,381.7	1,379.4	3.0	2.9	143.37	-33.3	-132.6	172.8	167.0	5.85	29.544	
1,500.0	1,496.6	1,475.8	1,472.3	3.3	3.2	142.43	-45.0	-142.7	195.6	189.3	6.34	30.875	
1,600.0	1,595.5	1,569.1	1,563.9	3.6	3.5	141.25	-58.2	-154.2	220.2	213.3	6.85	32.155	
1,700.0	1,694.5	1,661.3	1,654.0	3.9	3.9	139.95	-73.0	-167.0	246.5	239.1	7.38	33.396	
1,800.0	1,793.5	1,752.4	1,742.6	4.2	4.3	138.58	-89.2	-181.0	274.7	266.8	7.94	34.613	
1,900.0	1,892.4	1,842.3	1,829.5	4.6	4.7	137.20	-106.7	-196.3	304.7	296.2	8.51	35.804	
2,000.0	1,991.4	1,931.0	1,914.6	4.9	5.1	135.84	-125.5	-212.6	336.7	327.6	9.10	36.995	
2,100.0	2,090.4	2,018.4	1,997.8	5.2	5.6	134.51	-145.5	-229.9	370.5	360.8	9.70	38.186	
2,200.0	2,189.3	2,104.4	2,079.2	5.6	6.1	133.23	-166.6	-248.2	406.2	395.9	10.31	39.382	
2,300.0	2,288.3	2,188.9	2,158.5	5.9	6.6	132.01	-188.6	-267.3	443.7	432.8	10.94	40.574	
2,400.0	2,387.3	2,272.0	2,235.8	6.2	7.2	130.85	-211.6	-287.2	483.2	471.6	11.57	41.772	
2,500.0	2,486.2	2,357.3	2,314.6	6.6	7.8	129.72	-236.4	-308.7	524.3	512.1	12.21	42.927	
2,600.0	2,585.2	2,447.8	2,398.0	6.9	8.5	128.66	-262.9	-331.6	565.8	553.0	12.88	43.932	
2,700.0	2,684.2	2,538.3	2,481.4	7.3	9.1	127.75	-289.4	-354.6	607.5	594.0	13.55	44.844	
2,800.0	2,783.1	2,628.8	2,564.9	7.6	9.8	126.96	-315.9	-377.6	649.4	635.1	14.22	45.670	
2,900.0	2,882.1	2,719.3	2,648.3	8.0	10.5	126.26	-342.4	-400.6	691.3	676.4	14.89	46.423	
3,000.0	2,981.1	2,809.8	2,731.7	8.3	11.2	125.64	-368.9	-423.6	733.3	717.7	15.56	47.110	
3,100.0	3,080.1	2,900.3	2,815.1	8.7	11.9	125.09	-395.4	-446.5	775.3	759.1	16.24	47.740	
3,200.0	3,179.0	2,990.8	2,898.5	9.0	12.6	124.59	-421.9	-469.5	817.4	800.5	16.92	48.317	
3,300.0	3,278.0	3,081.2	2,981.9	9.4	13.3	124.15	-448.4	-492.5	859.6	842.0	17.60	48.849	
3,400.0	3,377.0	3,171.7	3,065.3	9.7	14.0	123.74	-474.9	-515.5	901.8	883.5	18.28	49.342	
3,500.0	3,475.9	3,262.2	3,148.7	10.1	14.7	123.37	-501.4	-538.5	944.0	925.0	18.96	49.798	
3,600.0	3,574.9	3,352.7	3,232.2	10.4	15.4	123.03	-527.9	-561.4	986.2	966.6	19.64	50.222	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	14.0	14.0	13.8	0.22	62.330	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	14.0	14.0	13.3	0.67	20.777	
300.0	300.0	300.0	300.0	0.6	0.6	90.05	0.0	14.0	14.0	12.9	1.12	12.466	
400.0	400.0	400.0	400.0	0.8	0.8	90.05	0.0	14.0	14.0	12.4	1.57	8.904	
500.0	500.0	500.0	500.0	1.0	1.0	90.05	0.0	14.0	14.0	12.0	2.02	6.926	
600.0	600.0	600.0	600.0	1.2	1.2	90.05	0.0	14.0	14.0	11.5	2.47	5.666	
700.0	700.0	700.0	700.0	1.5	1.5	90.05	0.0	14.0	14.0	11.1	2.92	4.795	
800.0	800.0	800.0	800.0	1.7	1.7	90.05	0.0	14.0	14.0	10.6	3.37	4.155	CC
900.0	900.0	899.7	899.7	1.9	1.9	-33.76	-0.6	15.2	14.1	10.3	3.78	3.727	
1,000.0	999.9	999.3	999.3	2.1	2.1	-35.41	-2.3	18.7	14.3	10.2	4.16	3.442	ES
1,100.0	1,099.7	1,099.0	1,098.7	2.3	2.3	-38.04	-5.2	24.5	14.7	10.2	4.56	3.233	
1,200.0	1,199.3	1,198.7	1,198.0	2.5	2.5	-41.46	-9.2	32.6	15.4	10.4	4.98	3.085	
1,300.0	1,298.6	1,298.3	1,296.9	2.8	2.8	-45.46	-14.4	43.1	16.2	10.8	5.43	2.989	
1,349.1	1,347.2	1,347.3	1,345.4	2.9	2.9	-47.55	-17.4	49.1	16.8	11.1	5.67	2.956	SF
1,400.0	1,397.6	1,398.0	1,395.5	3.0	3.0	-48.93	-20.7	55.9	17.6	11.7	5.93	2.972	
1,500.0	1,496.6	1,497.6	1,493.7	3.3	3.3	-47.49	-28.2	70.9	20.8	14.3	6.44	3.225	
1,600.0	1,595.5	1,597.2	1,591.6	3.6	3.7	-43.35	-36.6	87.9	25.7	18.7	6.95	3.691	
1,700.0	1,694.5	1,697.1	1,689.5	3.9	4.0	-40.29	-45.1	105.1	30.8	23.3	7.46	4.130	
1,800.0	1,793.5	1,797.0	1,787.5	4.2	4.4	-38.11	-53.7	122.3	36.0	28.0	7.98	4.517	
1,900.0	1,892.4	1,896.8	1,885.5	4.6	4.8	-36.49	-62.2	139.6	41.3	32.8	8.50	4.858	
2,000.0	1,991.4	1,996.7	1,983.5	4.9	5.2	-35.24	-70.7	156.8	46.6	37.5	9.02	5.160	
2,100.0	2,090.4	2,096.5	2,081.5	5.2	5.6	-34.24	-79.2	174.0	51.9	42.3	9.55	5.428	
2,200.0	2,189.3	2,196.4	2,179.5	5.6	6.0	-33.42	-87.7	191.2	57.2	47.1	10.09	5.668	
2,300.0	2,288.3	2,296.2	2,277.5	5.9	6.4	-32.75	-96.3	208.4	62.5	51.9	10.62	5.882	
2,400.0	2,387.3	2,396.1	2,375.5	6.2	6.8	-32.18	-104.8	225.6	67.8	56.7	11.16	6.076	
2,500.0	2,486.2	2,495.9	2,473.5	6.6	7.2	-31.69	-113.3	242.9	73.2	61.5	11.70	6.250	
2,600.0	2,585.2	2,595.8	2,571.5	6.9	7.7	-31.27	-121.8	260.1	78.5	66.2	12.25	6.409	
2,700.0	2,684.2	2,695.7	2,669.5	7.3	8.1	-30.90	-130.4	277.3	83.8	71.0	12.79	6.554	
2,800.0	2,783.1	2,795.5	2,767.4	7.6	8.5	-30.58	-138.9	294.5	89.2	75.8	13.34	6.686	
2,900.0	2,882.1	2,895.4	2,865.4	8.0	8.9	-30.29	-147.4	311.7	94.5	80.6	13.88	6.808	
3,000.0	2,981.1	2,995.2	2,963.4	8.3	9.4	-30.04	-155.9	328.9	99.9	85.4	14.43	6.920	
3,100.0	3,080.1	3,095.1	3,061.4	8.7	9.8	-29.81	-164.5	346.1	105.2	90.2	14.98	7.023	
3,200.0	3,179.0	3,194.9	3,159.4	9.0	10.2	-29.60	-173.0	363.4	110.6	95.0	15.53	7.119	
3,300.0	3,278.0	3,294.8	3,257.4	9.4	10.6	-29.41	-181.5	380.6	115.9	99.9	16.08	7.208	
3,400.0	3,377.0	3,394.7	3,355.4	9.7	11.1	-29.24	-190.0	397.8	121.3	104.7	16.64	7.291	
3,500.0	3,475.9	3,494.5	3,453.4	10.1	11.5	-29.08	-198.6	415.0	126.6	109.5	17.19	7.368	
3,600.0	3,574.9	3,594.4	3,551.4	10.4	11.9	-28.94	-207.1	432.2	132.0	114.3	17.74	7.440	
3,700.0	3,673.9	3,694.2	3,649.4	10.8	12.3	-28.80	-215.6	449.4	137.4	119.1	18.30	7.508	
3,800.0	3,772.8	3,794.1	3,747.3	11.1	12.8	-28.68	-224.1	466.7	142.7	123.9	18.85	7.572	
3,900.0	3,871.8	3,893.9	3,845.3	11.5	13.2	-28.57	-232.7	483.9	148.1	128.7	19.40	7.631	
4,000.0	3,970.8	3,993.8	3,943.3	11.8	13.6	-28.46	-241.2	501.1	153.4	133.5	19.96	7.688	
4,100.0	4,069.7	4,093.6	4,041.3	12.2	14.1	-28.36	-249.7	518.3	158.8	138.3	20.51	7.741	
4,200.0	4,168.7	4,193.5	4,139.3	12.5	14.5	-28.27	-258.2	535.5	164.2	143.1	21.07	7.791	
4,300.0	4,267.7	4,293.4	4,237.3	12.9	14.9	-28.18	-266.8	552.7	169.5	147.9	21.63	7.839	
4,400.0	4,366.6	4,393.2	4,335.3	13.2	15.4	-28.10	-275.3	570.0	174.9	152.7	22.18	7.884	
4,500.0	4,465.6	4,493.1	4,433.3	13.6	15.8	-28.02	-283.8	587.2	180.3	157.5	22.74	7.927	
4,600.0	4,564.6	4,592.9	4,531.3	13.9	16.2	-27.95	-292.3	604.4	185.6	162.3	23.30	7.967	
4,700.0	4,663.5	4,692.8	4,629.3	14.3	16.7	-27.88	-300.8	621.6	191.0	167.1	23.85	8.006	
4,800.0	4,762.5	4,792.6	4,727.3	14.7	17.1	-27.82	-309.4	638.8	196.3	171.9	24.41	8.043	
4,900.0	4,861.5	4,892.5	4,825.2	15.0	17.5	-27.76	-317.9	656.0	201.7	176.7	24.97	8.078	
5,000.0	4,960.5	4,992.3	4,923.2	15.4	18.0	-27.70	-326.4	673.2	207.1	181.5	25.53	8.112	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,092.2	5,021.2	15.7	18.4	-27.65	-334.9	690.5	212.4	186.3	26.09	8.144	
5,200.0	5,158.4	5,192.1	5,119.2	16.1	18.8	-27.59	-343.5	707.7	217.8	191.1	26.64	8.174	
5,300.0	5,257.4	5,291.9	5,217.2	16.4	19.3	-27.54	-352.0	724.9	223.2	196.0	27.20	8.204	
5,400.0	5,356.3	5,391.8	5,315.2	16.8	19.7	-27.50	-360.5	742.1	228.5	200.8	27.76	8.232	
5,500.0	5,455.3	5,491.6	5,413.2	17.1	20.1	-27.45	-369.0	759.3	233.9	205.6	28.32	8.259	
5,600.0	5,554.3	5,591.5	5,511.2	17.5	20.6	-27.41	-377.6	776.5	239.2	210.4	28.88	8.285	
5,700.0	5,653.2	5,691.3	5,609.2	17.8	21.0	-27.37	-386.1	793.8	244.6	215.2	29.44	8.310	
5,800.0	5,752.2	5,791.2	5,707.2	18.2	21.4	-27.33	-394.6	811.0	250.0	220.0	30.00	8.334	
5,900.0	5,851.2	5,891.0	5,805.2	18.6	21.9	-27.29	-403.1	828.2	255.3	224.8	30.56	8.357	
6,000.0	5,950.1	5,990.9	5,903.1	18.9	22.3	-27.25	-411.7	845.4	260.7	229.6	31.11	8.379	
6,100.0	6,049.1	6,090.8	6,001.1	19.3	22.7	-27.22	-420.2	862.6	266.1	234.4	31.67	8.400	
6,200.0	6,148.1	6,190.6	6,099.1	19.6	23.2	-27.19	-428.7	879.8	271.4	239.2	32.23	8.421	
6,300.0	6,247.0	6,290.5	6,197.1	20.0	23.6	-27.15	-437.2	897.0	276.8	244.0	32.79	8.441	
6,400.0	6,346.0	6,390.3	6,295.1	20.3	24.0	-27.12	-445.8	914.3	282.2	248.8	33.35	8.460	
6,500.0	6,445.0	6,490.2	6,393.1	20.7	24.5	-27.09	-454.3	931.5	287.5	253.6	33.91	8.479	
6,600.0	6,544.0	6,590.0	6,491.1	21.0	24.9	-27.06	-462.8	948.7	292.9	258.4	34.47	8.497	
6,700.0	6,642.9	6,689.9	6,589.1	21.4	25.3	-27.04	-471.3	965.9	298.3	263.2	35.03	8.514	
6,800.0	6,741.9	6,789.8	6,687.1	21.8	25.8	-27.01	-479.9	983.1	303.6	268.0	35.59	8.531	
6,900.0	6,840.9	6,888.0	6,783.4	22.1	26.2	-26.83	-489.1	1,000.1	309.1	273.0	36.12	8.558	
7,000.0	6,939.8	6,982.1	6,874.2	22.5	26.6	-24.86	-507.8	1,016.0	315.9	279.6	36.29	8.705	
7,100.0	7,038.8	7,071.7	6,957.7	22.8	27.1	-21.09	-536.6	1,030.8	325.5	289.4	36.14	9.008	
7,200.0	7,137.8	7,154.7	7,031.2	23.2	27.7	-16.20	-572.6	1,043.8	340.2	304.3	35.87	9.485	
7,245.8	7,183.1	7,190.1	7,061.3	23.3	27.9	-13.79	-590.6	1,049.1	349.2	313.5	35.76	9.766	
7,250.0	7,187.2	7,193.3	7,063.9	23.4	27.9	-15.39	-592.2	1,049.6	350.1	314.4	35.74	9.797	
7,300.0	7,236.5	7,230.6	7,094.5	23.5	28.2	-28.88	-612.9	1,055.1	361.4	325.8	35.58	10.155	
7,350.0	7,285.3	7,267.3	7,123.6	23.7	28.5	-35.38	-634.8	1,060.2	373.2	337.7	35.52	10.508	
7,400.0	7,333.2	7,300.0	7,148.4	24.0	28.7	-38.56	-655.5	1,064.7	385.5	350.0	35.49	10.862	
7,450.0	7,380.2	7,339.2	7,177.0	24.2	29.0	-39.61	-681.8	1,069.8	398.0	362.5	35.47	11.221	
7,500.0	7,425.9	7,374.4	7,201.5	24.5	29.3	-39.91	-706.8	1,074.1	410.5	375.1	35.40	11.594	
7,550.0	7,470.2	7,409.3	7,224.4	24.8	29.6	-39.69	-732.7	1,078.3	422.8	387.5	35.28	11.985	
7,600.0	7,512.8	7,450.0	7,249.6	25.2	30.0	-39.00	-764.3	1,082.8	434.9	399.9	35.08	12.399	
7,650.0	7,553.5	7,478.0	7,265.9	25.5	30.2	-38.58	-786.9	1,085.7	446.6	411.8	34.80	12.833	
7,700.0	7,592.2	7,511.9	7,284.4	25.9	30.6	-37.89	-815.1	1,089.1	457.7	423.3	34.45	13.287	
7,750.0	7,628.5	7,550.0	7,303.7	26.3	30.9	-37.10	-847.8	1,092.6	468.3	434.3	34.05	13.755	
7,800.0	7,662.5	7,579.1	7,317.2	26.7	31.2	-36.53	-873.4	1,095.0	478.2	444.6	33.63	14.221	
7,850.0	7,693.8	7,612.3	7,331.4	27.2	31.6	-35.90	-903.4	1,097.6	487.4	454.2	33.21	14.675	
7,900.0	7,722.4	7,650.0	7,345.7	27.7	32.0	-35.25	-938.1	1,100.3	495.8	462.9	32.85	15.091	
7,950.0	7,748.0	7,678.4	7,355.4	28.2	32.3	-34.80	-964.7	1,102.0	503.3	470.7	32.59	15.445	
8,000.0	7,770.7	7,711.2	7,365.2	28.8	32.7	-34.34	-996.0	1,103.9	509.9	477.5	32.47	15.706	
8,050.0	7,790.2	7,750.0	7,375.0	29.3	33.1	-33.90	-1,033.5	1,105.7	515.7	483.1	32.55	15.841	
8,100.0	7,806.4	7,776.6	7,380.6	29.9	33.4	-33.63	-1,059.4	1,106.8	520.4	487.6	32.85	15.843	
8,150.0	7,819.4	7,809.1	7,386.1	30.5	33.8	-33.38	-1,091.5	1,107.9	524.2	490.8	33.42	15.683	
8,200.0	7,829.0	7,850.0	7,391.0	31.1	34.3	-33.16	-1,132.1	1,108.9	527.1	492.7	34.35	15.346	
8,250.0	7,835.1	7,874.1	7,392.8	31.8	34.5	-33.08	-1,156.1	1,109.3	528.8	493.3	35.46	14.910	
8,300.0	7,837.9	7,906.6	7,393.9	32.4	34.9	-33.03	-1,188.5	1,109.6	529.5	492.6	36.93	14.338	
8,314.2	7,838.0	7,916.4	7,394.0	32.6	35.0	-33.03	-1,198.4	1,109.6	529.6	492.2	37.41	14.157	
8,337.4	7,838.0	7,938.6	7,394.0	32.9	35.3	-33.03	-1,220.6	1,109.7	529.6	491.7	37.84	13.993	
8,400.0	7,838.0	8,001.2	7,394.0	33.8	36.1	-33.03	-1,283.2	1,109.9	529.6	490.5	39.05	13.560	
8,500.0	7,838.0	8,101.2	7,394.0	35.2	37.4	-33.03	-1,383.2	1,110.3	529.6	488.5	41.04	12.904	
8,600.0	7,838.0	8,201.2	7,394.0	36.6	38.8	-33.03	-1,483.2	1,110.6	529.6	486.5	43.07	12.295	
8,700.0	7,838.0	8,301.2	7,394.0	38.1	40.2	-33.03	-1,583.2	1,111.0	529.6	484.4	45.14	11.731	
8,800.0	7,838.0	8,401.2	7,394.0	39.6	41.6	-33.03	-1,683.2	1,111.3	529.6	482.3	47.25	11.208	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,900.0	7,838.0	8,501.2	7,394.0	41.2	43.1	-33.03	-1,783.2	1,111.7	529.6	480.2	49.38	10.724	
9,000.0	7,838.0	8,601.2	7,394.0	42.8	44.6	-33.03	-1,883.2	1,112.0	529.6	478.0	51.54	10.275	
9,100.0	7,838.0	8,701.2	7,394.0	44.4	46.2	-33.03	-1,983.2	1,112.4	529.6	475.8	53.72	9.857	
9,200.0	7,838.0	8,801.2	7,394.0	46.0	47.7	-33.03	-2,083.2	1,112.7	529.6	473.6	55.93	9.469	
9,300.0	7,838.0	8,901.2	7,394.0	47.7	49.3	-33.03	-2,183.2	1,113.1	529.6	471.4	58.15	9.108	
9,400.0	7,838.0	9,001.2	7,394.0	49.4	50.9	-33.03	-2,283.2	1,113.4	529.6	469.2	60.38	8.770	
9,500.0	7,838.0	9,101.2	7,394.0	51.1	52.6	-33.03	-2,383.2	1,113.8	529.6	466.9	62.63	8.455	
9,600.0	7,838.0	9,201.2	7,394.0	52.8	54.2	-33.03	-2,483.2	1,114.1	529.6	464.7	64.89	8.161	
9,700.0	7,838.0	9,301.2	7,394.0	54.5	55.9	-33.03	-2,583.2	1,114.5	529.6	462.4	67.17	7.884	
9,800.0	7,838.0	9,401.2	7,394.0	56.2	57.6	-33.03	-2,683.2	1,114.8	529.6	460.1	69.45	7.625	
9,900.0	7,838.0	9,501.2	7,394.0	58.0	59.3	-33.03	-2,783.2	1,115.2	529.6	457.8	71.75	7.381	
10,000.0	7,838.0	9,601.2	7,394.0	59.7	61.0	-33.03	-2,883.2	1,115.5	529.6	455.5	74.05	7.152	
10,100.0	7,838.0	9,701.2	7,394.0	61.5	62.7	-33.03	-2,983.2	1,115.9	529.6	453.2	76.36	6.935	
10,200.0	7,838.0	9,801.2	7,394.0	63.3	64.5	-33.03	-3,083.2	1,116.2	529.6	450.9	78.67	6.731	
10,300.0	7,838.0	9,901.2	7,394.0	65.1	66.2	-33.03	-3,183.2	1,116.6	529.6	448.6	81.00	6.538	
10,400.0	7,838.0	10,001.2	7,394.0	66.8	68.0	-33.03	-3,283.2	1,116.9	529.6	446.2	83.33	6.355	
10,500.0	7,838.0	10,101.2	7,394.0	68.6	69.7	-33.03	-3,383.2	1,117.3	529.6	443.9	85.66	6.182	
10,600.0	7,838.0	10,201.2	7,394.0	70.4	71.5	-33.03	-3,483.2	1,117.6	529.6	441.6	88.00	6.018	
10,700.0	7,838.0	10,301.2	7,394.0	72.3	73.3	-33.03	-3,583.2	1,118.0	529.6	439.2	90.34	5.862	
10,800.0	7,838.0	10,401.2	7,394.0	74.1	75.1	-33.03	-3,683.2	1,118.3	529.6	436.9	92.69	5.713	
10,900.0	7,838.0	10,501.2	7,394.0	75.9	76.9	-33.03	-3,783.2	1,118.7	529.6	434.5	95.04	5.572	
11,000.0	7,838.0	10,601.2	7,394.0	77.7	78.7	-33.03	-3,883.2	1,119.0	529.6	432.2	97.40	5.437	
11,100.0	7,838.0	10,701.2	7,394.0	79.5	80.5	-33.03	-3,983.2	1,119.4	529.6	429.8	99.76	5.309	
11,200.0	7,838.0	10,801.2	7,394.0	81.4	82.3	-33.03	-4,083.2	1,119.7	529.6	427.5	102.12	5.186	
11,300.0	7,838.0	10,901.2	7,394.0	83.2	84.1	-33.03	-4,183.2	1,120.1	529.6	425.1	104.48	5.069	
11,400.0	7,838.0	11,001.2	7,394.0	85.0	85.9	-33.03	-4,283.2	1,120.4	529.6	422.7	106.85	4.956	
11,500.0	7,838.0	11,101.2	7,394.0	86.9	87.7	-33.03	-4,383.2	1,120.8	529.6	420.4	109.22	4.849	
11,600.0	7,838.0	11,201.2	7,394.0	88.7	89.6	-33.03	-4,483.2	1,121.1	529.6	418.0	111.59	4.746	
11,700.0	7,838.0	11,301.2	7,394.0	90.6	91.4	-33.03	-4,583.2	1,121.5	529.6	415.6	113.97	4.647	
11,800.0	7,838.0	11,401.2	7,394.0	92.4	93.2	-33.03	-4,683.2	1,121.8	529.6	413.2	116.34	4.552	
11,900.0	7,838.0	11,501.2	7,394.0	94.3	95.1	-33.03	-4,783.2	1,122.2	529.6	410.9	118.72	4.461	
12,000.0	7,838.0	11,601.2	7,394.0	96.1	96.9	-33.03	-4,883.2	1,122.5	529.6	408.5	121.10	4.373	
12,100.0	7,838.0	11,701.2	7,394.0	98.0	98.7	-33.03	-4,983.2	1,122.9	529.6	406.1	123.49	4.289	
12,200.0	7,838.0	11,801.2	7,394.0	99.9	100.6	-33.03	-5,083.2	1,123.2	529.6	403.7	125.87	4.207	
12,300.0	7,838.0	11,901.2	7,394.0	101.7	102.4	-33.03	-5,183.2	1,123.6	529.6	401.3	128.26	4.129	
12,400.0	7,838.0	12,001.2	7,394.0	103.6	104.3	-33.03	-5,283.2	1,123.9	529.6	398.9	130.64	4.054	
12,500.0	7,838.0	12,101.2	7,394.0	105.4	106.1	-33.03	-5,383.2	1,124.3	529.6	396.6	133.03	3.981	
12,600.0	7,838.0	12,201.2	7,394.0	107.3	108.0	-33.03	-5,483.2	1,124.6	529.6	394.2	135.42	3.911	
12,700.0	7,838.0	12,301.2	7,394.0	109.2	109.8	-33.03	-5,583.2	1,125.0	529.6	391.8	137.81	3.843	
12,800.0	7,838.0	12,401.2	7,394.0	111.1	111.7	-33.03	-5,683.2	1,125.3	529.6	389.4	140.20	3.777	
12,900.0	7,838.0	12,501.2	7,394.0	112.9	113.6	-33.03	-5,783.2	1,125.7	529.6	387.0	142.60	3.714	
13,000.0	7,838.0	12,601.2	7,394.0	114.8	115.4	-33.03	-5,883.2	1,126.0	529.6	384.6	144.99	3.653	
13,100.0	7,838.0	12,701.2	7,394.0	116.7	117.3	-33.03	-5,983.2	1,126.4	529.6	382.2	147.39	3.593	
13,200.0	7,838.0	12,801.2	7,394.0	118.6	119.2	-33.03	-6,083.2	1,126.7	529.6	379.8	149.78	3.536	
13,300.0	7,838.0	12,901.2	7,394.0	120.4	121.0	-33.03	-6,183.2	1,127.1	529.6	377.4	152.18	3.480	
13,400.0	7,838.0	13,001.2	7,394.0	122.3	122.9	-33.03	-6,283.2	1,127.4	529.6	375.0	154.58	3.426	
13,500.0	7,838.0	13,101.2	7,394.0	124.2	124.8	-33.03	-6,383.2	1,127.8	529.6	372.6	156.98	3.374	
13,600.0	7,838.0	13,201.2	7,394.0	126.1	126.6	-33.03	-6,483.2	1,128.1	529.6	370.2	159.38	3.323	
13,700.0	7,838.0	13,301.2	7,394.0	128.0	128.5	-33.03	-6,583.2	1,128.5	529.6	367.8	161.78	3.274	
13,800.0	7,838.0	13,401.2	7,394.0	129.8	130.4	-33.03	-6,683.2	1,128.8	529.6	365.4	164.18	3.226	
13,900.0	7,838.0	13,501.2	7,394.0	131.7	132.3	-33.03	-6,783.2	1,129.2	529.6	363.0	166.58	3.179	
13,953.3	7,838.0	13,554.6	7,394.0	132.7	133.3	-33.03	-6,836.5	1,129.4	529.6	361.7	167.87	3.155	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NAH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
13,989.8	7,838.0	13,588.4	7,394.0	133.4	133.9	-33.03	-6,870.3	1,129.5	529.6	360.9	168.71	3.139	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NBH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-75.7	75.7				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-75.7	75.7	75.4	0.22	336.584	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-75.7	75.7	75.0	0.67	112.195	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-75.7	75.7	74.5	1.12	67.317	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-75.7	75.7	74.1	1.57	48.083	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-75.7	75.7	73.6	2.02	37.398	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-75.7	75.7	73.2	2.47	30.599	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-75.7	75.7	72.7	2.92	25.891	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-75.7	75.7	72.3	3.37	22.439	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	147.30	0.0	-75.7	76.8	73.0	3.80	20.196	
1,000.0	999.9	999.9	999.9	2.1	2.1	148.79	0.0	-75.7	80.1	75.9	4.22	18.998	
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	151.02	0.0	-75.7	85.7	81.1	4.64	18.486	SF
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	153.67	0.0	-75.7	93.9	88.8	5.07	18.522	
1,300.0	1,298.6	1,297.6	1,297.6	2.8	2.8	155.79	-1.0	-76.3	105.0	99.5	5.47	19.177	
1,349.1	1,347.2	1,345.7	1,345.7	2.9	2.9	156.41	-2.4	-77.1	111.7	106.0	5.67	19.709	
1,400.0	1,397.6	1,395.6	1,395.5	3.0	3.0	156.78	-4.3	-78.2	119.2	113.3	5.87	20.308	
1,500.0	1,496.6	1,493.3	1,493.0	3.3	3.1	156.63	-9.7	-81.4	134.5	128.3	6.28	21.428	
1,600.0	1,595.5	1,590.6	1,589.9	3.6	3.3	155.62	-17.2	-85.8	150.8	144.1	6.71	22.476	
1,700.0	1,694.5	1,687.5	1,686.2	3.9	3.5	154.01	-26.8	-91.4	168.1	160.9	7.17	23.455	
1,800.0	1,793.5	1,783.8	1,781.5	4.2	3.8	152.01	-38.4	-98.2	186.5	178.8	7.65	24.379	
1,900.0	1,892.4	1,879.3	1,875.8	4.6	4.0	149.77	-51.9	-106.2	206.2	198.0	8.16	25.260	
2,000.0	1,991.4	1,974.1	1,968.8	4.9	4.3	147.40	-67.4	-115.2	227.4	218.7	8.71	26.113	
2,100.0	2,090.4	2,067.9	2,060.5	5.2	4.6	144.97	-84.6	-125.4	250.1	240.8	9.28	26.954	
2,200.0	2,189.3	2,160.7	2,150.6	5.6	5.0	142.55	-103.6	-136.5	274.6	264.7	9.88	27.793	
2,300.0	2,288.3	2,252.5	2,239.2	5.9	5.4	140.19	-124.2	-148.6	300.8	290.3	10.50	28.647	
2,400.0	2,387.3	2,343.0	2,326.0	6.2	5.8	137.91	-146.3	-161.6	329.0	317.8	11.14	29.523	
2,500.0	2,486.2	2,432.2	2,410.9	6.6	6.3	135.73	-169.9	-175.4	359.1	347.3	11.80	30.427	
2,600.0	2,585.2	2,520.1	2,494.0	6.9	6.7	133.67	-194.7	-190.0	391.1	378.6	12.47	31.364	
2,700.0	2,684.2	2,606.6	2,575.0	7.3	7.3	131.73	-220.8	-205.3	425.1	411.9	13.15	32.336	
2,800.0	2,783.1	2,691.6	2,654.0	7.6	7.8	129.90	-247.9	-221.3	461.0	447.2	13.83	33.332	
2,900.0	2,882.1	2,781.7	2,737.1	8.0	8.4	128.12	-277.8	-238.8	498.5	483.9	14.54	34.279	
3,000.0	2,981.1	2,873.3	2,821.7	8.3	9.0	126.56	-308.2	-256.7	536.3	521.0	15.26	35.153	
3,100.0	3,080.1	2,964.9	2,906.2	8.7	9.7	125.19	-338.6	-274.5	574.4	558.5	15.97	35.973	
3,200.0	3,179.0	3,056.5	2,990.8	9.0	10.3	124.00	-369.0	-292.4	612.8	596.2	16.68	36.740	
3,300.0	3,278.0	3,148.1	3,075.3	9.4	11.0	122.94	-399.4	-310.3	651.4	634.1	17.39	37.458	
3,400.0	3,377.0	3,239.7	3,159.9	9.7	11.7	122.00	-429.8	-328.1	690.2	672.1	18.10	38.131	
3,500.0	3,475.9	3,331.4	3,244.5	10.1	12.3	121.16	-460.2	-346.0	729.1	710.3	18.81	38.762	
3,600.0	3,574.9	3,423.0	3,329.0	10.4	13.0	120.40	-490.6	-363.8	768.2	748.6	19.52	39.353	
3,700.0	3,673.9	3,514.6	3,413.6	10.8	13.7	119.72	-521.0	-381.7	807.3	787.1	20.23	39.909	
3,800.0	3,772.8	3,606.2	3,498.1	11.1	14.4	119.10	-551.5	-399.6	846.5	825.6	20.94	40.431	
3,900.0	3,871.8	3,697.8	3,582.7	11.5	15.1	118.53	-581.9	-417.4	885.8	864.2	21.65	40.923	
4,000.0	3,970.8	3,789.4	3,667.2	11.8	15.7	118.02	-612.3	-435.3	925.2	902.8	22.35	41.386	
4,100.0	4,069.7	3,881.0	3,751.8	12.2	16.4	117.54	-642.7	-453.2	964.6	941.5	23.06	41.824	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
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	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	148.06	0.0	-30.8	31.9	28.1	3.80	8.400	
1,000.0	999.9	999.9	999.9	2.1	2.1	151.41	0.0	-30.8	35.3	31.1	4.22	8.378	
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	155.73	0.0	-30.8	41.2	36.5	4.64	8.879	
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	160.03	0.0	-30.8	49.7	44.6	5.07	9.805	
1,300.0	1,298.6	1,299.7	1,299.6	2.8	2.8	162.90	-1.1	-30.2	60.0	54.5	5.47	10.962	
1,349.1	1,347.2	1,349.0	1,349.0	2.9	2.9	163.60	-2.6	-29.5	65.3	59.7	5.66	11.541	
1,400.0	1,397.6	1,400.3	1,400.2	3.0	3.0	163.91	-4.7	-28.4	70.7	64.9	5.86	12.072	
1,500.0	1,496.6	1,501.2	1,500.9	3.3	3.2	163.38	-10.6	-25.4	79.9	73.7	6.26	12.762	
1,600.0	1,595.5	1,601.9	1,601.2	3.6	3.4	161.77	-18.7	-21.3	87.5	80.8	6.69	13.075	
1,700.0	1,694.5	1,701.6	1,700.4	3.9	3.6	160.16	-27.2	-17.0	94.7	87.6	7.14	13.270	
1,800.0	1,793.5	1,801.3	1,799.7	4.2	3.8	158.79	-35.7	-12.6	102.0	94.4	7.60	13.423	
1,900.0	1,892.4	1,901.0	1,898.9	4.6	4.0	157.60	-44.3	-8.3	109.4	101.3	8.08	13.542	
2,000.0	1,991.4	2,000.7	1,998.1	4.9	4.3	156.55	-52.8	-3.9	116.8	108.2	8.56	13.634	
2,100.0	2,090.4	2,100.4	2,097.4	5.2	4.5	155.64	-61.4	0.4	124.2	115.1	9.06	13.704	
2,200.0	2,189.3	2,200.1	2,196.6	5.6	4.8	154.82	-69.9	4.8	131.6	122.1	9.57	13.758	
2,300.0	2,288.3	2,299.8	2,295.9	5.9	5.0	154.10	-78.4	9.1	139.1	129.0	10.08	13.797	
2,400.0	2,387.3	2,399.5	2,395.1	6.2	5.3	153.44	-87.0	13.5	146.6	136.0	10.60	13.826	
2,500.0	2,486.2	2,499.2	2,494.4	6.6	5.5	152.85	-95.5	17.8	154.1	143.0	11.13	13.847	
2,600.0	2,585.2	2,598.9	2,593.6	6.9	5.8	152.32	-104.1	22.1	161.7	150.0	11.66	13.861	
2,700.0	2,684.2	2,698.6	2,692.8	7.3	6.1	151.83	-112.6	26.5	169.2	157.0	12.20	13.870	
2,800.0	2,783.1	2,798.4	2,792.1	7.6	6.4	151.39	-121.1	30.8	176.8	164.0	12.74	13.875	
2,900.0	2,882.1	2,898.1	2,891.3	8.0	6.6	150.98	-129.7	35.2	184.3	171.0	13.28	13.876	
3,000.0	2,981.1	2,997.8	2,990.6	8.3	6.9	150.60	-138.2	39.5	191.9	178.1	13.83	13.875	
3,100.0	3,080.1	3,097.5	3,089.8	8.7	7.2	150.26	-146.7	43.9	199.5	185.1	14.38	13.872	
3,200.0	3,179.0	3,197.2	3,189.1	9.0	7.5	149.93	-155.3	48.2	207.1	192.1	14.93	13.867	
3,300.0	3,278.0	3,296.9	3,288.3	9.4	7.7	149.64	-163.8	52.6	214.7	199.2	15.49	13.861	
3,400.0	3,377.0	3,396.6	3,387.6	9.7	8.0	149.36	-172.4	56.9	222.3	206.2	16.04	13.854	
3,500.0	3,475.9	3,496.3	3,486.8	10.1	8.3	149.10	-180.9	61.3	229.9	213.3	16.60	13.846	
3,600.0	3,574.9	3,596.0	3,586.0	10.4	8.6	148.85	-189.4	65.6	237.5	220.3	17.16	13.838	
3,700.0	3,673.9	3,695.7	3,685.3	10.8	8.9	148.62	-198.0	69.9	245.1	227.3	17.72	13.829	
3,800.0	3,772.8	3,795.4	3,784.5	11.1	9.1	148.41	-206.5	74.3	252.7	234.4	18.28	13.820	
3,900.0	3,871.8	3,895.1	3,883.8	11.5	9.4	148.21	-215.1	78.6	260.3	241.5	18.85	13.811	
4,000.0	3,970.8	3,994.8	3,983.0	11.8	9.7	148.02	-223.6	83.0	267.9	248.5	19.41	13.802	
4,100.0	4,069.7	4,094.5	4,082.3	12.2	10.0	147.84	-232.1	87.3	275.5	255.6	19.98	13.793	
4,200.0	4,168.7	4,194.2	4,181.5	12.5	10.3	147.66	-240.7	91.7	283.2	262.6	20.54	13.783	
4,300.0	4,267.7	4,293.9	4,280.7	12.9	10.6	147.50	-249.2	96.0	290.8	269.7	21.11	13.774	
4,400.0	4,366.6	4,393.6	4,380.0	13.2	10.8	147.35	-257.7	100.4	298.4	276.8	21.68	13.765	
4,500.0	4,465.6	4,493.3	4,479.2	13.6	11.1	147.20	-266.3	104.7	306.1	283.8	22.25	13.756	
4,600.0	4,564.6	4,593.0	4,578.5	13.9	11.4	147.07	-274.8	109.1	313.7	290.9	22.82	13.747	
4,700.0	4,663.5	4,692.8	4,677.7	14.3	11.7	146.93	-283.4	113.4	321.3	297.9	23.39	13.738	
4,800.0	4,762.5	4,792.5	4,777.0	14.7	12.0	146.81	-291.9	117.7	329.0	305.0	23.96	13.729	
4,900.0	4,861.5	4,892.2	4,876.2	15.0	12.3	146.69	-300.4	122.1	336.6	312.1	24.53	13.721	
5,000.0	4,960.5	4,991.9	4,975.5	15.4	12.6	146.57	-309.0	126.4	344.3	319.1	25.11	13.712	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,091.6	5,074.7	15.7	12.8	146.46	-317.5	130.8	351.9	326.2	25.68	13.704	
5,200.0	5,158.4	5,191.3	5,173.9	16.1	13.1	146.36	-326.1	135.1	359.5	333.3	26.25	13.696	
5,300.0	5,257.4	5,291.0	5,273.2	16.4	13.4	146.26	-334.6	139.5	367.2	340.4	26.82	13.688	
5,400.0	5,356.3	5,390.7	5,372.4	16.8	13.7	146.16	-343.1	143.8	374.8	347.4	27.40	13.680	
5,500.0	5,455.3	5,490.4	5,471.7	17.1	14.0	146.07	-351.7	148.2	382.5	354.5	27.97	13.673	
5,600.0	5,554.3	5,590.1	5,570.9	17.5	14.3	145.98	-360.2	152.5	390.1	361.6	28.55	13.665	
5,700.0	5,653.2	5,689.8	5,670.2	17.8	14.6	145.89	-368.8	156.8	397.8	368.6	29.12	13.658	
5,800.0	5,752.2	5,789.5	5,769.4	18.2	14.9	145.81	-377.3	161.2	405.4	375.7	29.70	13.651	
5,900.0	5,851.2	5,889.2	5,868.7	18.6	15.2	145.73	-385.8	165.5	413.1	382.8	30.27	13.644	
6,000.0	5,950.1	5,988.9	5,967.9	18.9	15.4	145.65	-394.4	169.9	420.7	389.9	30.85	13.638	
6,100.0	6,049.1	6,088.6	6,067.1	19.3	15.7	145.58	-402.9	174.2	428.4	396.9	31.43	13.631	
6,200.0	6,148.1	6,188.3	6,166.4	19.6	16.0	145.51	-411.4	178.6	436.0	404.0	32.00	13.625	
6,300.0	6,247.0	6,288.0	6,265.6	20.0	16.3	145.44	-420.0	182.9	443.7	411.1	32.58	13.618	
6,400.0	6,346.0	6,387.7	6,364.9	20.3	16.6	145.37	-428.5	187.3	451.3	418.2	33.16	13.612	
6,500.0	6,445.0	6,487.4	6,464.1	20.7	16.9	145.31	-437.1	191.6	459.0	425.3	33.73	13.606	
6,600.0	6,544.0	6,587.2	6,563.4	21.0	17.2	145.25	-445.6	196.0	466.6	432.3	34.31	13.600	
6,700.0	6,642.9	6,686.9	6,662.6	21.4	17.5	145.19	-454.1	200.3	474.3	439.4	34.89	13.595	
6,800.0	6,741.9	6,786.6	6,761.8	21.8	17.8	145.13	-462.7	204.6	482.0	446.5	35.47	13.589	
6,900.0	6,840.9	6,886.3	6,861.1	22.1	18.0	145.07	-471.2	209.0	489.6	453.6	36.04	13.583	
7,000.0	6,939.8	6,986.0	6,960.3	22.5	18.3	145.02	-479.8	213.3	497.3	460.6	36.62	13.578	
7,100.0	7,038.8	7,084.9	7,058.7	22.8	18.6	144.85	-489.2	217.6	504.9	467.7	37.23	13.564	
7,200.0	7,137.8	7,181.1	7,152.7	23.2	19.0	143.51	-508.9	221.8	513.1	475.0	38.09	13.471	
7,245.8	7,183.1	7,223.7	7,193.3	23.3	19.2	142.47	-521.6	223.6	517.2	478.7	38.58	13.406	
7,250.0	7,187.2	7,227.5	7,196.9	23.4	19.2	140.45	-522.9	223.8	517.6	479.0	38.63	13.398	
7,300.0	7,236.5	7,273.0	7,239.3	23.5	19.5	122.01	-539.3	225.7	522.5	483.2	39.28	13.300	
7,350.0	7,285.3	7,317.9	7,279.9	23.7	19.8	110.85	-558.1	227.5	527.5	487.5	39.98	13.194	
7,400.0	7,333.2	7,362.1	7,318.8	24.0	20.1	103.50	-579.2	229.2	532.7	492.0	40.71	13.084	
7,450.0	7,380.2	7,405.8	7,355.9	24.2	20.4	98.21	-602.2	230.9	538.0	496.5	41.48	12.971	
7,500.0	7,425.9	7,450.0	7,391.9	24.5	20.7	94.14	-627.8	232.6	543.3	501.0	42.27	12.853	
7,550.0	7,470.2	7,491.8	7,424.4	24.8	21.1	90.91	-654.0	234.1	548.6	505.5	43.06	12.740	
7,600.0	7,512.8	7,534.1	7,455.7	25.2	21.5	88.21	-682.5	235.5	553.8	509.9	43.86	12.626	
7,650.0	7,553.5	7,576.1	7,485.0	25.5	21.9	85.92	-712.4	236.9	558.8	514.2	44.66	12.515	
7,700.0	7,592.2	7,617.7	7,512.3	25.9	22.3	83.96	-743.8	238.2	563.8	518.3	45.45	12.405	
7,750.0	7,628.5	7,658.9	7,537.6	26.3	22.8	82.25	-776.4	239.3	568.5	522.3	46.22	12.298	
7,800.0	7,662.5	7,700.0	7,560.8	26.7	23.2	80.76	-810.2	240.5	572.9	525.9	46.99	12.192	
7,850.0	7,693.8	7,740.7	7,581.8	27.2	23.7	79.46	-845.1	241.5	577.1	529.4	47.75	12.085	
7,900.0	7,722.4	7,781.2	7,600.8	27.7	24.2	78.33	-880.8	242.4	581.0	532.5	48.50	11.978	
7,950.0	7,748.0	7,821.5	7,617.6	28.2	24.8	77.36	-917.5	243.3	584.4	535.2	49.24	11.869	
8,000.0	7,770.7	7,861.7	7,632.3	28.8	25.3	76.53	-954.8	244.0	587.6	537.6	49.98	11.756	
8,050.0	7,790.2	7,900.0	7,644.4	29.3	25.8	75.84	-991.2	244.6	590.3	539.6	50.69	11.644	
8,100.0	7,806.4	7,941.6	7,655.2	29.9	26.4	75.26	-1,031.3	245.2	592.5	541.1	51.46	11.514	
8,150.0	7,819.4	7,981.4	7,663.4	30.5	27.0	74.81	-1,070.2	245.7	594.4	542.1	52.22	11.382	
8,200.0	7,829.0	8,021.1	7,669.5	31.1	27.6	74.48	-1,109.5	246.1	595.7	542.7	52.99	11.242	
8,250.0	7,835.1	8,060.7	7,673.3	31.8	28.2	74.27	-1,148.9	246.4	596.6	542.9	53.79	11.093	
8,300.0	7,837.9	8,100.0	7,674.9	32.4	28.8	74.17	-1,188.2	246.6	597.1	542.5	54.60	10.935	
8,314.2	7,838.0	8,112.0	7,675.0	32.6	28.9	74.16	-1,200.1	246.6	597.1	542.3	54.85	10.886	
8,400.0	7,838.0	8,197.7	7,675.0	33.8	30.3	74.16	-1,285.9	246.8	597.1	539.8	57.37	10.409	
8,500.0	7,838.0	8,297.7	7,675.0	35.2	31.8	74.16	-1,385.9	247.1	597.2	536.8	60.39	9.888	
8,600.0	7,838.0	8,397.7	7,675.0	36.6	33.4	74.16	-1,485.9	247.4	597.2	533.8	63.49	9.407	
8,700.0	7,838.0	8,497.7	7,675.0	38.1	35.1	74.16	-1,585.9	247.7	597.3	530.6	66.65	8.962	
8,800.0	7,838.0	8,597.7	7,675.0	39.6	36.8	74.16	-1,685.9	248.0	597.3	527.5	69.86	8.550	
8,900.0	7,838.0	8,697.7	7,675.0	41.2	38.4	74.17	-1,785.9	248.3	597.4	524.3	73.12	8.170	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-2NCH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,838.0	8,797.7	7,675.0	42.8	40.2	74.17	-1,885.9	248.6	597.4	521.0	76.42	7.818	
9,100.0	7,838.0	8,897.7	7,675.0	44.4	41.9	74.17	-1,985.9	248.9	597.5	517.7	79.76	7.491	
9,200.0	7,838.0	8,997.7	7,675.0	46.0	43.6	74.17	-2,085.9	249.2	597.5	514.4	83.12	7.189	
9,300.0	7,838.0	9,097.7	7,675.0	47.7	45.4	74.17	-2,185.9	249.5	597.6	511.1	86.52	6.907	
9,400.0	7,838.0	9,197.7	7,675.0	49.4	47.2	74.17	-2,285.9	249.8	597.6	507.7	89.94	6.645	
9,500.0	7,838.0	9,297.7	7,675.0	51.1	48.9	74.17	-2,385.9	250.1	597.7	504.3	93.38	6.401	
9,600.0	7,838.0	9,397.7	7,675.0	52.8	50.7	74.18	-2,485.9	250.4	597.7	500.9	96.84	6.172	
9,700.0	7,838.0	9,497.7	7,675.0	54.5	52.5	74.18	-2,585.9	250.7	597.8	497.5	100.32	5.959	
9,800.0	7,838.0	9,597.7	7,675.0	56.2	54.3	74.18	-2,685.9	251.0	597.8	494.0	103.82	5.759	
9,900.0	7,838.0	9,697.7	7,675.0	58.0	56.2	74.18	-2,785.9	251.3	597.9	490.6	107.33	5.571	
10,000.0	7,838.0	9,797.7	7,675.0	59.7	58.0	74.18	-2,885.9	251.6	597.9	487.1	110.85	5.394	
10,100.0	7,838.0	9,897.7	7,675.0	61.5	59.8	74.18	-2,985.9	251.9	598.0	483.6	114.38	5.228	
10,200.0	7,838.0	9,997.7	7,675.0	63.3	61.6	74.18	-3,085.9	252.2	598.0	480.1	117.93	5.071	
10,300.0	7,838.0	10,097.7	7,675.0	65.1	63.5	74.18	-3,185.9	252.5	598.1	476.6	121.48	4.923	
10,400.0	7,838.0	10,197.7	7,675.0	66.8	65.3	74.19	-3,285.9	252.8	598.1	473.1	125.04	4.783	
10,500.0	7,838.0	10,297.7	7,675.0	68.6	67.2	74.19	-3,385.9	253.1	598.2	469.6	128.62	4.651	
10,600.0	7,838.0	10,397.7	7,675.0	70.4	69.0	74.19	-3,485.9	253.4	598.2	466.0	132.19	4.525	
10,700.0	7,838.0	10,497.7	7,675.0	72.3	70.9	74.19	-3,585.9	253.7	598.3	462.5	135.78	4.406	
10,800.0	7,838.0	10,597.7	7,675.0	74.1	72.7	74.19	-3,685.9	254.0	598.3	459.0	139.37	4.293	
10,900.0	7,838.0	10,697.7	7,675.0	75.9	74.6	74.19	-3,785.9	254.3	598.4	455.4	142.97	4.185	
11,000.0	7,838.0	10,797.7	7,675.0	77.7	76.5	74.19	-3,885.9	254.6	598.4	451.9	146.58	4.083	
11,100.0	7,838.0	10,897.7	7,675.0	79.5	78.3	74.20	-3,985.9	254.9	598.5	448.3	150.18	3.985	
11,200.0	7,838.0	10,997.7	7,675.0	81.4	80.2	74.20	-4,085.9	255.2	598.5	444.7	153.80	3.892	
11,300.0	7,838.0	11,097.7	7,675.0	83.2	82.1	74.20	-4,185.9	255.5	598.6	441.2	157.42	3.803	
11,400.0	7,838.0	11,197.7	7,675.0	85.0	83.9	74.20	-4,285.9	255.8	598.6	437.6	161.04	3.717	
11,500.0	7,838.0	11,297.7	7,675.0	86.9	85.8	74.20	-4,385.9	256.1	598.7	434.0	164.66	3.636	
11,600.0	7,838.0	11,397.7	7,675.0	88.7	87.7	74.20	-4,485.9	256.4	598.7	430.4	168.29	3.558	
11,700.0	7,838.0	11,497.7	7,675.0	90.6	89.5	74.20	-4,585.9	256.7	598.8	426.9	171.93	3.483	
11,800.0	7,838.0	11,597.7	7,675.0	92.4	91.4	74.21	-4,685.9	257.0	598.8	423.3	175.56	3.411	
11,900.0	7,838.0	11,697.7	7,675.0	94.3	93.3	74.21	-4,785.9	257.2	598.9	419.7	179.20	3.342	
12,000.0	7,838.0	11,797.7	7,675.0	96.1	95.2	74.21	-4,885.9	257.5	598.9	416.1	182.85	3.276	
12,100.0	7,838.0	11,897.7	7,675.0	98.0	97.1	74.21	-4,985.9	257.8	599.0	412.5	186.49	3.212	
12,200.0	7,838.0	11,997.7	7,675.0	99.9	99.0	74.21	-5,085.9	258.1	599.0	408.9	190.14	3.151	
12,300.0	7,838.0	12,097.7	7,675.0	101.7	100.8	74.21	-5,185.9	258.4	599.1	405.3	193.79	3.091	
12,400.0	7,838.0	12,197.7	7,675.0	103.6	102.7	74.21	-5,285.9	258.7	599.1	401.7	197.44	3.035	
12,500.0	7,838.0	12,297.7	7,675.0	105.4	104.6	74.21	-5,385.9	259.0	599.2	398.1	201.09	2.980	
12,600.0	7,838.0	12,397.7	7,675.0	107.3	106.5	74.22	-5,485.9	259.3	599.2	394.5	204.75	2.927	
12,700.0	7,838.0	12,497.7	7,675.0	109.2	108.4	74.22	-5,585.9	259.6	599.3	390.9	208.41	2.876	
12,800.0	7,838.0	12,597.7	7,675.0	111.1	110.3	74.22	-5,685.9	259.9	599.3	387.3	212.07	2.826	
12,900.0	7,838.0	12,697.7	7,675.0	112.9	112.2	74.22	-5,785.9	260.2	599.4	383.7	215.73	2.778	
13,000.0	7,838.0	12,797.7	7,675.0	114.8	114.1	74.22	-5,885.9	260.5	599.4	380.0	219.39	2.732	
13,100.0	7,838.0	12,897.7	7,675.0	116.7	116.0	74.22	-5,985.9	260.8	599.5	376.4	223.06	2.688	
13,200.0	7,838.0	12,997.7	7,675.0	118.6	117.9	74.22	-6,085.9	261.1	599.5	372.8	226.72	2.644	
13,300.0	7,838.0	13,097.7	7,675.0	120.4	119.7	74.23	-6,185.9	261.4	599.6	369.2	230.39	2.602	
13,400.0	7,838.0	13,197.7	7,675.0	122.3	121.6	74.23	-6,285.9	261.7	599.6	365.6	234.06	2.562	
13,500.0	7,838.0	13,297.7	7,675.0	124.2	123.5	74.23	-6,385.9	262.0	599.7	362.0	237.73	2.523	
13,600.0	7,838.0	13,397.7	7,675.0	126.1	125.4	74.23	-6,485.9	262.3	599.7	358.3	241.40	2.484	
13,700.0	7,838.0	13,497.7	7,675.0	128.0	127.3	74.23	-6,585.9	262.6	599.8	354.7	245.07	2.447	
13,800.0	7,838.0	13,597.7	7,675.0	129.8	129.2	74.23	-6,685.9	262.9	599.8	351.1	248.75	2.411	
13,900.0	7,838.0	13,697.7	7,675.0	131.7	131.1	74.23	-6,785.9	263.2	599.9	347.5	252.42	2.377	
13,944.0	7,838.0	13,741.8	7,675.0	132.5	132.0	74.23	-6,829.9	263.3	599.9	345.9	254.04	2.361	
13,989.8	7,838.0	13,785.9	7,675.0	133.4	132.8	74.23	-6,874.0	263.5	599.9	344.2	255.69	2.346 SF	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3CDH - Wellbore #1 - PLAN 1 (FEB 4 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-58.8	58.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-58.8	58.8	58.6	0.22	261.788	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-58.8	58.8	58.2	0.67	87.263	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-58.8	58.8	57.7	1.12	52.358	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-58.8	58.8	57.3	1.57	37.398	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-58.8	58.8	56.8	2.02	29.088	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-58.8	58.8	56.4	2.47	23.799	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-58.8	58.8	55.9	2.92	20.138	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-58.8	58.8	55.5	3.37	17.453	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	147.45	0.0	-58.8	59.9	56.1	3.80	15.772	
1,000.0	999.9	999.9	999.9	2.1	2.1	149.34	0.0	-58.8	63.3	59.1	4.22	15.013	
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	152.07	0.0	-58.8	69.0	64.4	4.64	14.875	SF
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	155.20	0.0	-58.8	77.2	72.1	5.07	15.236	
1,300.0	1,298.6	1,298.6	1,298.6	2.8	2.8	158.35	0.0	-58.8	88.0	82.5	5.50	16.005	
1,349.1	1,347.2	1,347.2	1,347.2	2.9	2.9	159.82	0.0	-58.8	94.3	88.6	5.71	16.508	
1,400.0	1,397.6	1,397.6	1,397.6	3.0	3.0	161.24	0.0	-58.8	101.2	95.3	5.94	17.049	
1,500.0	1,496.6	1,496.2	1,496.2	3.3	3.2	162.93	-1.1	-59.3	115.0	108.7	6.35	18.115	
1,600.0	1,595.5	1,594.7	1,594.6	3.6	3.4	163.12	-4.5	-60.9	129.3	122.5	6.75	19.151	
1,700.0	1,694.5	1,693.1	1,692.8	3.9	3.6	162.26	-10.2	-63.5	143.8	136.7	7.16	20.080	
1,800.0	1,793.5	1,791.2	1,790.6	4.2	3.8	160.65	-18.2	-67.1	158.9	151.3	7.60	20.912	
1,900.0	1,892.4	1,889.0	1,887.6	4.6	4.0	158.51	-28.4	-71.7	174.6	166.5	8.06	21.663	
2,000.0	1,991.4	1,986.2	1,983.9	4.9	4.2	156.00	-40.9	-77.4	191.1	182.6	8.55	22.352	
2,100.0	2,090.4	2,082.7	2,079.1	5.2	4.5	153.25	-55.4	-83.9	208.7	199.6	9.07	22.997	
2,200.0	2,189.3	2,178.5	2,173.1	5.6	4.7	150.36	-72.0	-91.4	227.5	217.9	9.63	23.617	
2,300.0	2,288.3	2,273.4	2,265.8	5.9	5.0	147.41	-90.6	-99.8	247.8	237.6	10.23	24.230	
2,400.0	2,387.3	2,367.4	2,357.1	6.2	5.4	144.47	-111.0	-109.1	269.7	258.9	10.85	24.853	
2,500.0	2,486.2	2,460.2	2,446.7	6.6	5.8	141.59	-133.2	-119.1	293.4	281.9	11.51	25.501	
2,600.0	2,585.2	2,551.9	2,534.6	6.9	6.2	138.81	-157.0	-129.9	319.0	306.8	12.18	26.185	
2,700.0	2,684.2	2,642.4	2,620.6	7.3	6.6	136.14	-182.4	-141.4	346.5	333.7	12.88	26.912	
2,800.0	2,783.1	2,731.5	2,704.7	7.6	7.1	133.62	-209.3	-153.6	376.1	362.5	13.58	27.687	
2,900.0	2,882.1	2,820.1	2,787.6	8.0	7.6	131.22	-237.7	-166.4	407.7	393.4	14.30	28.510	
3,000.0	2,981.1	2,913.2	2,874.5	8.3	8.2	128.97	-268.3	-180.3	440.4	425.4	15.04	29.281	
3,100.0	3,080.1	3,006.4	2,961.4	8.7	8.8	127.03	-298.8	-194.1	473.7	457.9	15.78	30.024	
3,200.0	3,179.0	3,099.5	3,048.3	9.0	9.4	125.33	-329.4	-207.9	507.4	490.9	16.51	30.734	
3,300.0	3,278.0	3,192.6	3,135.2	9.4	10.0	123.85	-359.9	-221.8	541.5	524.3	17.24	31.407	
3,400.0	3,377.0	3,285.8	3,222.0	9.7	10.6	122.53	-390.5	-235.6	575.9	557.9	17.97	32.046	
3,500.0	3,475.9	3,378.9	3,308.9	10.1	11.2	121.37	-421.0	-249.4	610.5	591.8	18.70	32.653	
3,600.0	3,574.9	3,472.0	3,395.8	10.4	11.8	120.33	-451.6	-263.2	645.3	625.9	19.42	33.227	
3,700.0	3,673.9	3,565.1	3,482.7	10.8	12.5	119.39	-482.1	-277.1	680.3	660.1	20.14	33.771	
3,800.0	3,772.8	3,658.3	3,569.5	11.1	13.1	118.54	-512.7	-290.9	715.4	694.5	20.87	34.286	
3,900.0	3,871.8	3,751.4	3,656.4	11.5	13.7	117.77	-543.2	-304.7	750.6	729.0	21.59	34.774	
4,000.0	3,970.8	3,844.5	3,743.3	11.8	14.4	117.08	-573.8	-318.6	786.0	763.7	22.31	35.236	
4,100.0	4,069.7	3,937.6	3,830.2	12.2	15.0	116.44	-604.3	-332.4	821.4	798.4	23.03	35.675	
4,200.0	4,168.7	4,030.8	3,917.1	12.5	15.7	115.85	-634.9	-346.2	857.0	833.2	23.74	36.091	
4,300.0	4,267.7	4,123.9	4,003.9	12.9	16.3	115.31	-665.4	-360.0	892.6	868.1	24.46	36.486	
4,400.0	4,366.6	4,217.0	4,090.8	13.2	17.0	114.81	-696.0	-373.9	928.2	903.1	25.18	36.862	
4,500.0	4,465.6	4,310.1	4,177.7	13.6	17.6	114.35	-726.5	-387.7	964.0	938.1	25.90	37.219	
4,600.0	4,564.6	4,403.3	4,264.6	13.9	18.3	113.92	-757.1	-401.5	999.7	973.1	26.62	37.559	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-14.0	14.0	14.0	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-14.0	14.0	13.8	0.22	62.330	
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-14.0	14.0	13.3	0.67	20.777	
300.0	300.0	300.0	300.0	0.6	0.6	-89.98	0.0	-14.0	14.0	12.9	1.12	12.466	
400.0	400.0	400.0	400.0	0.8	0.8	-89.98	0.0	-14.0	14.0	12.4	1.57	8.904	
500.0	500.0	500.0	500.0	1.0	1.0	-89.98	0.0	-14.0	14.0	12.0	2.02	6.926	
600.0	600.0	600.0	600.0	1.2	1.2	-89.98	0.0	-14.0	14.0	11.5	2.47	5.666	
700.0	700.0	700.0	700.0	1.5	1.5	-89.98	0.0	-14.0	14.0	11.1	2.92	4.795	
800.0	800.0	800.0	800.0	1.7	1.7	-89.98	0.0	-14.0	14.0	10.6	3.37	4.155	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	149.48	0.0	-14.0	15.1	11.3	3.80	3.979	
1,000.0	999.9	999.9	999.9	2.1	2.1	155.61	0.0	-14.0	18.6	14.4	4.22	4.415	
1,100.0	1,099.7	1,100.2	1,100.2	2.3	2.3	160.30	-0.9	-13.1	23.6	19.0	4.61	5.113	
1,200.0	1,199.3	1,200.7	1,200.6	2.5	2.5	162.36	-3.7	-10.3	28.9	23.9	5.00	5.776	
1,300.0	1,298.6	1,301.3	1,301.0	2.8	2.7	162.95	-8.4	-5.6	34.4	29.0	5.39	6.369	
1,349.1	1,347.2	1,350.7	1,350.2	2.9	2.8	162.89	-11.3	-2.6	37.1	31.5	5.60	6.633	
1,400.0	1,397.6	1,402.0	1,401.2	3.0	2.9	162.52	-14.9	1.0	39.7	33.9	5.81	6.837	
1,500.0	1,496.6	1,502.4	1,501.0	3.3	3.2	160.77	-23.1	9.2	43.3	37.0	6.25	6.929	
1,600.0	1,595.5	1,602.4	1,600.2	3.6	3.4	159.00	-31.6	17.8	46.5	39.8	6.71	6.938	
1,700.0	1,694.5	1,702.3	1,699.5	3.9	3.7	157.46	-40.0	26.3	49.8	42.6	7.18	6.935	
1,800.0	1,793.5	1,802.3	1,798.7	4.2	4.0	156.11	-48.5	34.8	53.1	45.4	7.67	6.923	
1,900.0	1,892.4	1,902.2	1,897.9	4.6	4.2	154.92	-57.0	43.3	56.4	48.3	8.17	6.905	
2,000.0	1,991.4	2,002.1	1,997.1	4.9	4.5	153.87	-65.5	51.9	59.8	51.1	8.69	6.882	
2,100.0	2,090.4	2,102.1	2,096.3	5.2	4.8	152.92	-73.9	60.4	63.2	53.9	9.21	6.857	
2,200.0	2,189.3	2,202.0	2,195.5	5.6	5.1	152.08	-82.4	68.9	66.5	56.8	9.74	6.830	
2,300.0	2,288.3	2,302.0	2,294.7	5.9	5.4	151.31	-90.9	77.4	69.9	59.7	10.28	6.802	
2,400.0	2,387.3	2,401.9	2,393.9	6.2	5.7	150.62	-99.4	86.0	73.3	62.5	10.83	6.774	
2,500.0	2,486.2	2,501.8	2,493.2	6.6	6.0	149.98	-107.8	94.5	76.8	65.4	11.38	6.747	
2,600.0	2,585.2	2,601.8	2,592.4	6.9	6.3	149.41	-116.3	103.0	80.2	68.3	11.93	6.720	
2,700.0	2,684.2	2,701.7	2,691.6	7.3	6.6	148.87	-124.8	111.5	83.6	71.1	12.50	6.693	
2,800.0	2,783.1	2,801.6	2,790.8	7.6	6.9	148.39	-133.3	120.1	87.1	74.0	13.06	6.667	
2,900.0	2,882.1	2,901.6	2,890.0	8.0	7.2	147.93	-141.7	128.6	90.5	76.9	13.63	6.642	
3,000.0	2,981.1	3,001.5	2,989.2	8.3	7.5	147.51	-150.2	137.1	94.0	79.8	14.20	6.618	
3,100.0	3,080.1	3,101.5	3,088.4	8.7	7.8	147.13	-158.7	145.7	97.4	82.7	14.77	6.595	
3,200.0	3,179.0	3,201.4	3,187.6	9.0	8.2	146.76	-167.2	154.2	100.9	85.5	15.35	6.573	
3,300.0	3,278.0	3,301.3	3,286.9	9.4	8.5	146.42	-175.6	162.7	104.4	88.4	15.93	6.552	
3,400.0	3,377.0	3,401.3	3,386.1	9.7	8.8	146.11	-184.1	171.2	107.8	91.3	16.51	6.532	
3,500.0	3,475.9	3,501.2	3,485.3	10.1	9.1	145.81	-192.6	179.8	111.3	94.2	17.09	6.512	
3,600.0	3,574.9	3,601.1	3,584.5	10.4	9.4	145.53	-201.1	188.3	114.8	97.1	17.67	6.494	
3,700.0	3,673.9	3,701.1	3,683.7	10.8	9.7	145.27	-209.5	196.8	118.3	100.0	18.26	6.476	
3,800.0	3,772.8	3,801.0	3,782.9	11.1	10.1	145.02	-218.0	205.3	121.7	102.9	18.85	6.459	
3,900.0	3,871.8	3,901.0	3,882.1	11.5	10.4	144.79	-226.5	213.9	125.2	105.8	19.44	6.443	
4,000.0	3,970.8	4,000.9	3,981.3	11.8	10.7	144.57	-234.9	222.4	128.7	108.7	20.02	6.427	
4,100.0	4,069.7	4,100.8	4,080.6	12.2	11.0	144.36	-243.4	230.9	132.2	111.6	20.61	6.412	
4,200.0	4,168.7	4,200.8	4,179.8	12.5	11.3	144.16	-251.9	239.4	135.7	114.5	21.21	6.398	
4,300.0	4,267.7	4,300.7	4,279.0	12.9	11.6	143.97	-260.4	248.0	139.2	117.4	21.80	6.384	
4,400.0	4,366.6	4,400.7	4,378.2	13.2	12.0	143.79	-268.8	256.5	142.7	120.3	22.39	6.371	
4,500.0	4,465.6	4,500.6	4,477.4	13.6	12.3	143.62	-277.3	265.0	146.1	123.2	22.99	6.358	
4,600.0	4,564.6	4,600.5	4,576.6	13.9	12.6	143.46	-285.8	273.5	149.6	126.1	23.58	6.346	
4,700.0	4,663.5	4,700.5	4,675.8	14.3	12.9	143.30	-294.3	282.1	153.1	129.0	24.18	6.334	
4,800.0	4,762.5	4,800.4	4,775.0	14.7	13.2	143.15	-302.7	290.6	156.6	131.9	24.77	6.323	
4,900.0	4,861.5	4,900.3	4,874.3	15.0	13.6	143.01	-311.2	299.1	160.1	134.8	25.37	6.312	
5,000.0	4,960.5	5,000.3	4,973.5	15.4	13.9	142.88	-319.7	307.7	163.6	137.7	25.96	6.302	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,100.2	5,072.7	15.7	14.2	142.75	-328.2	316.2	167.1	140.6	26.56	6.292	
5,200.0	5,158.4	5,200.2	5,171.9	16.1	14.5	142.62	-336.6	324.7	170.6	143.5	27.16	6.282	
5,300.0	5,257.4	5,300.1	5,271.1	16.4	14.8	142.50	-345.1	333.2	174.1	146.4	27.76	6.273	
5,400.0	5,356.3	5,400.0	5,370.3	16.8	15.2	142.39	-353.6	341.8	177.6	149.3	28.36	6.264	
5,500.0	5,455.3	5,500.0	5,469.5	17.1	15.5	142.27	-362.1	350.3	181.1	152.2	28.96	6.255	
5,600.0	5,554.3	5,599.9	5,568.7	17.5	15.8	142.17	-370.5	358.8	184.6	155.1	29.56	6.246	
5,700.0	5,653.2	5,699.8	5,668.0	17.8	16.1	142.07	-379.0	367.3	188.1	158.0	30.16	6.238	
5,800.0	5,752.2	5,799.8	5,767.2	18.2	16.5	141.97	-387.5	375.9	191.6	160.9	30.76	6.230	
5,900.0	5,851.2	5,899.7	5,866.4	18.6	16.8	141.87	-396.0	384.4	195.1	163.8	31.36	6.223	
6,000.0	5,950.1	5,999.7	5,965.6	18.9	17.1	141.78	-404.4	392.9	198.6	166.7	31.96	6.216	
6,100.0	6,049.1	6,099.6	6,064.8	19.3	17.4	141.69	-412.9	401.4	202.1	169.6	32.56	6.208	
6,200.0	6,148.1	6,199.5	6,164.0	19.6	17.7	141.61	-421.4	410.0	205.6	172.5	33.16	6.202	
6,300.0	6,247.0	6,299.5	6,263.2	20.0	18.1	141.52	-429.9	418.5	209.1	175.4	33.76	6.195	
6,400.0	6,346.0	6,399.4	6,362.4	20.3	18.4	141.44	-438.3	427.0	212.7	178.3	34.36	6.188	
6,500.0	6,445.0	6,499.4	6,461.7	20.7	18.7	141.36	-446.8	435.5	216.2	181.2	34.96	6.182	
6,600.0	6,544.0	6,599.3	6,560.9	21.0	19.0	141.29	-455.3	444.1	219.7	184.1	35.57	6.176	
6,700.0	6,642.9	6,699.2	6,660.1	21.4	19.4	141.22	-463.7	452.6	223.2	187.0	36.17	6.170	
6,800.0	6,741.9	6,799.2	6,759.3	21.8	19.7	141.15	-472.2	461.1	226.7	189.9	36.77	6.164	
6,900.0	6,840.9	6,899.1	6,858.5	22.1	20.0	141.08	-480.7	469.7	230.2	192.8	37.38	6.159	
7,000.0	6,939.8	6,997.5	6,956.0	22.5	20.3	140.63	-490.6	478.0	233.9	195.8	38.05	6.146	
7,100.0	7,038.8	7,092.3	7,048.2	22.8	20.7	137.59	-511.0	486.0	239.1	199.8	39.29	6.087	
7,200.0	7,137.8	7,182.3	7,132.4	23.2	21.2	132.23	-541.5	493.3	248.1	207.1	41.02	6.049	
7,245.8	7,183.1	7,221.2	7,167.6	23.3	21.4	129.30	-558.0	496.4	254.3	212.4	41.90	6.069	
7,250.0	7,187.2	7,224.7	7,170.7	23.4	21.5	127.08	-559.5	496.7	254.9	213.0	41.99	6.072	
7,300.0	7,236.5	7,265.9	7,206.7	23.5	21.7	106.51	-579.2	499.8	263.1	220.1	43.02	6.115	
7,350.0	7,285.3	7,306.3	7,241.0	23.7	22.0	93.45	-600.5	502.8	272.0	228.0	43.96	6.186	
7,400.0	7,333.2	7,350.0	7,276.6	24.0	22.4	84.19	-625.6	506.0	281.4	236.6	44.83	6.276	
7,450.0	7,380.2	7,385.5	7,304.3	24.2	22.6	77.66	-647.5	508.4	291.1	245.6	45.46	6.403	
7,500.0	7,425.9	7,424.2	7,333.3	24.5	23.0	72.34	-673.1	511.0	301.0	255.0	45.99	6.545	
7,550.0	7,470.2	7,462.5	7,360.6	24.8	23.3	68.00	-699.8	513.4	310.8	264.5	46.35	6.706	
7,600.0	7,512.8	7,500.0	7,385.9	25.2	23.7	64.38	-727.4	515.7	320.6	274.0	46.56	6.886	
7,650.0	7,553.5	7,537.8	7,409.9	25.5	24.1	61.30	-756.5	517.8	330.1	283.5	46.62	7.081	
7,700.0	7,592.2	7,574.9	7,432.0	25.9	24.5	58.68	-786.3	519.8	339.2	292.7	46.53	7.292	
7,750.0	7,628.5	7,611.8	7,452.3	26.3	24.9	56.42	-817.0	521.7	348.0	301.7	46.30	7.515	
7,800.0	7,662.5	7,650.0	7,471.8	26.7	25.3	54.44	-849.8	523.5	356.2	310.2	45.96	7.748	
7,850.0	7,693.8	7,684.6	7,487.8	27.2	25.7	52.81	-880.5	524.9	363.8	318.3	45.51	7.993	
7,900.0	7,722.4	7,720.7	7,503.0	27.7	26.1	51.37	-913.2	526.3	370.7	325.8	44.98	8.243	
7,950.0	7,748.0	7,750.0	7,514.0	28.2	26.5	50.24	-940.3	527.4	377.1	332.8	44.34	8.506	
8,000.0	7,770.7	7,792.4	7,528.1	28.8	27.1	49.12	-980.2	528.7	382.6	338.9	43.74	8.747	
8,050.0	7,790.2	7,828.0	7,538.0	29.3	27.5	48.27	-1,014.4	529.7	387.4	344.3	43.08	8.993	
8,100.0	7,806.4	7,863.5	7,546.3	29.9	28.0	47.58	-1,048.9	530.5	391.4	349.0	42.42	9.228	
8,150.0	7,819.4	7,900.0	7,553.0	30.5	28.5	47.03	-1,084.8	531.2	394.7	352.9	41.80	9.442	
8,200.0	7,829.0	7,934.2	7,557.6	31.1	29.0	46.65	-1,118.7	531.7	397.0	355.8	41.21	9.635	
8,250.0	7,835.1	7,969.5	7,560.6	31.8	29.5	46.40	-1,153.9	532.1	398.6	357.9	40.70	9.793	
8,300.0	7,837.9	8,004.8	7,561.9	32.4	30.0	46.29	-1,189.1	532.4	399.3	359.0	40.30	9.909	
8,314.2	7,838.0	8,015.1	7,562.0	32.6	30.1	46.28	-1,199.4	532.4	399.3	359.1	40.21	9.932	
8,400.0	7,838.0	8,100.9	7,562.0	33.8	31.4	46.28	-1,285.2	532.7	399.3	357.2	42.16	9.473	
8,500.0	7,838.0	8,200.9	7,562.0	35.2	32.9	46.28	-1,385.2	533.0	399.3	354.8	44.51	8.971	
8,600.0	7,838.0	8,300.9	7,562.0	36.6	34.5	46.28	-1,485.2	533.4	399.3	352.4	46.94	8.508	
8,700.0	7,838.0	8,400.9	7,562.0	38.1	36.0	46.28	-1,585.2	533.7	399.3	349.9	49.42	8.081	
8,800.0	7,838.0	8,500.9	7,562.0	39.6	37.7	46.28	-1,685.2	534.1	399.3	347.4	51.95	7.687	
8,900.0	7,838.0	8,600.9	7,562.0	41.2	39.3	46.28	-1,785.2	534.4	399.3	344.8	54.52	7.325	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-3NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,838.0	8,700.9	7,562.0	42.8	41.0	46.28	-1,885.2	534.8	399.3	342.2	57.13	6.990	
9,100.0	7,838.0	8,800.9	7,562.0	44.4	42.7	46.28	-1,985.2	535.1	399.3	339.6	59.77	6.682	
9,200.0	7,838.0	8,900.9	7,562.0	46.0	44.4	46.28	-2,085.2	535.5	399.3	336.9	62.43	6.396	
9,300.0	7,838.0	9,000.9	7,562.0	47.7	46.1	46.28	-2,185.2	535.8	399.3	334.2	65.13	6.132	
9,400.0	7,838.0	9,100.9	7,562.0	49.4	47.8	46.28	-2,285.2	536.2	399.4	331.5	67.84	5.887	
9,500.0	7,838.0	9,200.9	7,562.0	51.1	49.6	46.28	-2,385.2	536.5	399.4	328.8	70.57	5.659	
9,600.0	7,838.0	9,300.9	7,562.0	52.8	51.3	46.28	-2,485.2	536.9	399.4	326.0	73.32	5.447	
9,700.0	7,838.0	9,400.9	7,562.0	54.5	53.1	46.28	-2,585.2	537.2	399.4	323.3	76.08	5.249	
9,800.0	7,838.0	9,500.9	7,562.0	56.2	54.9	46.28	-2,685.2	537.6	399.4	320.5	78.86	5.064	
9,900.0	7,838.0	9,600.9	7,562.0	58.0	56.7	46.28	-2,785.2	537.9	399.4	317.7	81.64	4.891	
10,000.0	7,838.0	9,700.9	7,562.0	59.7	58.5	46.28	-2,885.2	538.3	399.4	314.9	84.44	4.729	
10,100.0	7,838.0	9,800.9	7,562.0	61.5	60.3	46.28	-2,985.2	538.6	399.4	312.1	87.25	4.577	
10,200.0	7,838.0	9,900.9	7,562.0	63.3	62.1	46.28	-3,085.2	539.0	399.4	309.3	90.07	4.434	
10,300.0	7,838.0	10,000.9	7,562.0	65.1	63.9	46.28	-3,185.2	539.3	399.4	306.5	92.90	4.299	
10,400.0	7,838.0	10,100.9	7,562.0	66.8	65.8	46.28	-3,285.2	539.7	399.4	303.6	95.73	4.172	
10,500.0	7,838.0	10,200.9	7,562.0	68.6	67.6	46.28	-3,385.2	540.0	399.4	300.8	98.57	4.052	
10,600.0	7,838.0	10,300.9	7,562.0	70.4	69.4	46.28	-3,485.2	540.4	399.4	297.9	101.42	3.938	
10,700.0	7,838.0	10,400.9	7,562.0	72.3	71.3	46.28	-3,585.2	540.7	399.4	295.1	104.27	3.830	
10,800.0	7,838.0	10,500.9	7,562.0	74.1	73.1	46.28	-3,685.2	541.0	399.4	292.2	107.12	3.728	
10,900.0	7,838.0	10,600.9	7,562.0	75.9	74.9	46.28	-3,785.2	541.4	399.4	289.4	109.98	3.631	
11,000.0	7,838.0	10,700.9	7,562.0	77.7	76.8	46.28	-3,885.2	541.7	399.4	286.5	112.85	3.539	
11,100.0	7,838.0	10,800.9	7,562.0	79.5	78.6	46.28	-3,985.2	542.1	399.4	283.6	115.72	3.451	
11,200.0	7,838.0	10,900.9	7,562.0	81.4	80.5	46.28	-4,085.2	542.4	399.4	280.8	118.59	3.367	
11,300.0	7,838.0	11,000.9	7,562.0	83.2	82.4	46.28	-4,185.2	542.8	399.4	277.9	121.47	3.288	
11,400.0	7,838.0	11,100.9	7,562.0	85.0	84.2	46.28	-4,285.2	543.1	399.4	275.0	124.35	3.212	
11,500.0	7,838.0	11,200.9	7,562.0	86.9	86.1	46.28	-4,385.2	543.5	399.4	272.1	127.24	3.139	
11,600.0	7,838.0	11,300.9	7,562.0	88.7	87.9	46.28	-4,485.2	543.8	399.4	269.2	130.12	3.069	
11,700.0	7,838.0	11,400.9	7,562.0	90.6	89.8	46.28	-4,585.2	544.2	399.4	266.4	133.01	3.003	
11,800.0	7,838.0	11,500.9	7,562.0	92.4	91.7	46.28	-4,685.2	544.5	399.4	263.5	135.90	2.939	
11,900.0	7,838.0	11,600.9	7,562.0	94.3	93.6	46.28	-4,785.2	544.9	399.4	260.6	138.80	2.877	
12,000.0	7,838.0	11,700.9	7,562.0	96.1	95.4	46.28	-4,885.2	545.2	399.4	257.7	141.69	2.819	
12,100.0	7,838.0	11,800.9	7,562.0	98.0	97.3	46.28	-4,985.2	545.6	399.4	254.8	144.59	2.762	
12,200.0	7,838.0	11,900.9	7,562.0	99.9	99.2	46.28	-5,085.2	545.9	399.4	251.9	147.49	2.708	
12,300.0	7,838.0	12,000.9	7,562.0	101.7	101.1	46.28	-5,185.2	546.3	399.4	249.0	150.40	2.655	
12,400.0	7,838.0	12,100.9	7,562.0	103.6	102.9	46.28	-5,285.2	546.6	399.4	246.1	153.30	2.605	
12,500.0	7,838.0	12,200.9	7,562.0	105.4	104.8	46.28	-5,385.2	547.0	399.4	243.2	156.21	2.557	
12,600.0	7,838.0	12,300.9	7,562.0	107.3	106.7	46.28	-5,485.2	547.3	399.4	240.3	159.11	2.510	
12,700.0	7,838.0	12,400.9	7,562.0	109.2	108.6	46.28	-5,585.2	547.7	399.4	237.4	162.02	2.465	
12,800.0	7,838.0	12,500.9	7,562.0	111.1	110.5	46.28	-5,685.2	548.0	399.4	234.4	164.93	2.421	
12,900.0	7,838.0	12,600.9	7,562.0	112.9	112.3	46.29	-5,785.2	548.4	399.4	231.5	167.84	2.379	
13,000.0	7,838.0	12,700.9	7,562.0	114.8	114.2	46.29	-5,885.2	548.7	399.4	228.6	170.75	2.339	
13,100.0	7,838.0	12,800.9	7,562.0	116.7	116.1	46.29	-5,985.2	549.0	399.4	225.7	173.67	2.300	
13,200.0	7,838.0	12,900.9	7,562.0	118.6	118.0	46.29	-6,085.2	549.4	399.4	222.8	176.58	2.262	
13,300.0	7,838.0	13,000.9	7,562.0	120.4	119.9	46.29	-6,185.2	549.7	399.4	219.9	179.50	2.225	
13,400.0	7,838.0	13,100.9	7,562.0	122.3	121.8	46.29	-6,285.2	550.1	399.4	217.0	182.42	2.189	
13,500.0	7,838.0	13,200.9	7,562.0	124.2	123.7	46.29	-6,385.2	550.4	399.4	214.1	185.33	2.155	
13,600.0	7,838.0	13,300.9	7,562.0	126.1	125.6	46.29	-6,485.2	550.8	399.4	211.1	188.25	2.122	
13,700.0	7,838.0	13,400.9	7,562.0	128.0	127.5	46.29	-6,585.2	551.1	399.4	208.2	191.17	2.089	
13,800.0	7,838.0	13,500.9	7,562.0	129.8	129.4	46.29	-6,685.2	551.5	399.4	205.3	194.09	2.058	
13,900.0	7,838.0	13,600.9	7,562.0	131.7	131.2	46.29	-6,785.2	551.8	399.4	202.4	197.01	2.027	
13,953.8	7,838.0	13,654.7	7,562.0	132.7	132.3	46.29	-6,839.0	552.0	399.4	200.8	198.59	2.011	
13,989.8	7,838.0	13,689.7	7,562.0	133.4	132.9	46.29	-6,874.0	552.1	399.4	199.8	199.62	2.001	SF

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
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	CC, ES
900.0	900.0	900.0	900.0	1.9	1.9	147.67	0.0	-44.8	45.9	42.1	3.80	12.086	
1,000.0	999.9	999.9	999.9	2.1	2.1	150.08	0.0	-44.8	49.3	45.1	4.22	11.694	
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.4	153.44	0.0	-44.8	55.1	50.4	4.64	11.871	
1,200.0	1,199.3	1,199.3	1,199.3	2.5	2.6	157.09	0.0	-44.8	63.4	58.3	5.07	12.510	
1,300.0	1,298.6	1,298.6	1,298.6	2.8	2.8	160.56	0.0	-44.8	74.4	68.9	5.50	13.524	
1,349.1	1,347.2	1,347.2	1,347.2	2.9	2.9	162.11	0.0	-44.8	80.7	75.0	5.71	14.138	
1,400.0	1,397.6	1,397.6	1,397.6	3.0	3.0	163.58	0.0	-44.8	87.7	81.8	5.93	14.785	
1,500.0	1,496.6	1,497.4	1,497.4	3.3	3.2	165.21	-1.2	-44.8	101.1	94.8	6.34	15.940	
1,600.0	1,595.5	1,597.5	1,597.4	3.6	3.4	165.21	-5.1	-44.8	113.8	107.0	6.74	16.878	
1,700.0	1,694.5	1,697.7	1,697.4	3.9	3.6	164.07	-11.6	-44.8	125.6	118.4	7.15	17.557	
1,800.0	1,793.5	1,797.3	1,796.7	4.2	3.8	162.32	-20.0	-44.8	136.9	129.3	7.59	18.047	
1,900.0	1,892.4	1,896.6	1,895.6	4.6	4.0	160.81	-28.5	-44.8	148.3	140.3	8.04	18.455	
2,000.0	1,991.4	1,995.9	1,994.5	4.9	4.2	159.50	-37.1	-44.8	159.8	151.3	8.50	18.799	
2,100.0	2,090.4	2,095.2	2,093.4	5.2	4.4	158.38	-45.6	-44.8	171.3	162.4	8.97	19.091	
2,200.0	2,189.3	2,194.4	2,192.3	5.6	4.6	157.39	-54.2	-44.8	182.9	173.5	9.46	19.338	
2,300.0	2,288.3	2,293.7	2,291.2	5.9	4.9	156.53	-62.7	-44.8	194.6	184.6	9.95	19.548	
2,400.0	2,387.3	2,393.0	2,390.1	6.2	5.1	155.76	-71.2	-44.8	206.3	195.8	10.46	19.727	
2,500.0	2,486.2	2,492.3	2,489.0	6.6	5.3	155.07	-79.8	-44.8	218.0	207.0	10.97	19.881	
2,600.0	2,585.2	2,591.6	2,588.0	6.9	5.6	154.46	-88.3	-44.7	229.8	218.3	11.48	20.014	
2,700.0	2,684.2	2,690.8	2,686.9	7.3	5.8	153.90	-96.8	-44.7	241.5	229.5	12.00	20.128	
2,800.0	2,783.1	2,790.1	2,785.8	7.6	6.1	153.40	-105.4	-44.7	253.3	240.8	12.52	20.227	
2,900.0	2,882.1	2,889.4	2,884.7	8.0	6.3	152.94	-113.9	-44.7	265.1	252.1	13.05	20.314	
3,000.0	2,981.1	2,988.7	2,983.6	8.3	6.6	152.52	-122.4	-44.7	277.0	263.4	13.58	20.389	
3,100.0	3,080.1	3,087.9	3,082.5	8.7	6.8	152.13	-131.0	-44.7	288.8	274.7	14.12	20.455	
3,200.0	3,179.0	3,187.2	3,181.4	9.0	7.1	151.78	-139.5	-44.7	300.7	286.0	14.66	20.514	
3,300.0	3,278.0	3,286.5	3,280.3	9.4	7.3	151.45	-148.1	-44.7	312.5	297.3	15.20	20.565	
3,400.0	3,377.0	3,385.8	3,379.2	9.7	7.6	151.14	-156.6	-44.7	324.4	308.7	15.74	20.611	
3,500.0	3,475.9	3,485.1	3,478.1	10.1	7.9	150.86	-165.1	-44.7	336.3	320.0	16.28	20.651	
3,600.0	3,574.9	3,584.3	3,577.1	10.4	8.1	150.60	-173.7	-44.7	348.2	331.3	16.83	20.688	
3,700.0	3,673.9	3,683.6	3,676.0	10.8	8.4	150.35	-182.2	-44.7	360.1	342.7	17.38	20.720	
3,800.0	3,772.8	3,782.9	3,774.9	11.1	8.7	150.12	-190.7	-44.6	372.0	354.0	17.93	20.749	
3,900.0	3,871.8	3,882.2	3,873.8	11.5	8.9	149.90	-199.3	-44.6	383.9	365.4	18.48	20.775	
4,000.0	3,970.8	3,981.4	3,972.7	11.8	9.2	149.70	-207.8	-44.6	395.8	376.8	19.03	20.798	
4,100.0	4,069.7	4,080.7	4,071.6	12.2	9.5	149.51	-216.3	-44.6	407.7	388.1	19.58	20.819	
4,200.0	4,168.7	4,180.0	4,170.5	12.5	9.7	149.33	-224.9	-44.6	419.6	399.5	20.14	20.838	
4,300.0	4,267.7	4,279.3	4,269.4	12.9	10.0	149.16	-233.4	-44.6	431.6	410.9	20.69	20.855	
4,400.0	4,366.6	4,378.6	4,368.3	13.2	10.3	149.00	-241.9	-44.6	443.5	422.2	21.25	20.871	
4,500.0	4,465.6	4,477.8	4,467.3	13.6	10.5	148.85	-250.5	-44.6	455.4	433.6	21.81	20.885	
4,600.0	4,564.6	4,577.1	4,566.2	13.9	10.8	148.70	-259.0	-44.6	467.4	445.0	22.36	20.898	
4,700.0	4,663.5	4,676.4	4,665.1	14.3	11.1	148.56	-267.6	-44.6	479.3	456.4	22.92	20.910	
4,800.0	4,762.5	4,775.7	4,764.0	14.7	11.3	148.43	-276.1	-44.6	491.2	467.8	23.48	20.921	
4,900.0	4,861.5	4,875.0	4,862.9	15.0	11.6	148.31	-284.6	-44.6	503.2	479.1	24.04	20.930	
5,000.0	4,960.5	4,974.2	4,961.8	15.4	11.9	148.19	-293.2	-44.5	515.1	490.5	24.60	20.939	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,073.5	5,060.7	15.7	12.2	148.07	-301.7	-44.5	527.1	501.9	25.16	20.948	
5,200.0	5,158.4	5,172.8	5,159.6	16.1	12.4	147.97	-310.2	-44.5	539.0	513.3	25.72	20.955	
5,300.0	5,257.4	5,272.1	5,258.5	16.4	12.7	147.86	-318.8	-44.5	551.0	524.7	26.28	20.962	
5,400.0	5,356.3	5,371.3	5,357.5	16.8	13.0	147.76	-327.3	-44.5	562.9	536.1	26.85	20.968	
5,500.0	5,455.3	5,470.6	5,456.4	17.1	13.3	147.67	-335.8	-44.5	574.9	547.5	27.41	20.974	
5,600.0	5,554.3	5,569.9	5,555.3	17.5	13.5	147.57	-344.4	-44.5	586.8	558.9	27.97	20.979	
5,700.0	5,653.2	5,669.2	5,654.2	17.8	13.8	147.49	-352.9	-44.5	598.8	570.3	28.54	20.984	
5,800.0	5,752.2	5,768.5	5,753.1	18.2	14.1	147.40	-361.5	-44.5	610.8	581.7	29.10	20.989	
5,900.0	5,851.2	5,867.7	5,852.0	18.6	14.3	147.32	-370.0	-44.5	622.7	593.1	29.66	20.993	
6,000.0	5,950.1	5,967.0	5,950.9	18.9	14.6	147.24	-378.5	-44.5	634.7	604.5	30.23	20.997	
6,100.0	6,049.1	6,066.3	6,049.8	19.3	14.9	147.17	-387.1	-44.5	646.6	615.9	30.79	21.000	
6,200.0	6,148.1	6,165.6	6,148.7	19.6	15.2	147.10	-395.6	-44.4	658.6	627.3	31.36	21.004	
6,300.0	6,247.0	6,264.9	6,247.6	20.0	15.4	147.03	-404.1	-44.4	670.6	638.7	31.92	21.007	
6,400.0	6,346.0	6,364.1	6,346.6	20.3	15.7	146.96	-412.7	-44.4	682.5	650.1	32.49	21.009	
6,500.0	6,445.0	6,463.4	6,445.5	20.7	16.0	146.89	-421.2	-44.4	694.5	661.5	33.05	21.012	
6,600.0	6,544.0	6,562.7	6,544.4	21.0	16.3	146.83	-429.7	-44.4	706.5	672.9	33.62	21.014	
6,700.0	6,642.9	6,662.0	6,643.3	21.4	16.5	146.77	-438.3	-44.4	718.4	684.3	34.18	21.016	
6,800.0	6,741.9	6,761.2	6,742.2	21.8	16.8	146.71	-446.8	-44.4	730.4	695.7	34.75	21.018	
6,900.0	6,840.9	6,860.5	6,841.1	22.1	17.1	146.65	-455.3	-44.4	742.4	707.1	35.32	21.020	
7,000.0	6,939.8	6,959.8	6,940.0	22.5	17.4	146.60	-463.9	-44.4	754.4	718.5	35.88	21.022	
7,100.0	7,038.8	7,059.1	7,038.9	22.8	17.7	146.55	-472.4	-44.4	766.3	729.9	36.45	21.023	
7,200.0	7,137.8	7,158.4	7,137.8	23.2	17.9	146.49	-481.0	-44.4	778.3	741.3	37.02	21.025	
7,245.8	7,183.1	7,203.8	7,183.2	23.3	18.1	146.47	-484.9	-44.4	783.8	746.5	37.28	21.026	
7,250.0	7,187.2	7,208.0	7,187.3	23.4	18.1	144.54	-485.2	-44.4	784.3	747.0	37.31	21.023	
7,300.0	7,236.5	7,257.8	7,236.7	23.5	18.2	127.19	-491.5	-44.3	790.2	752.6	37.67	20.976	
7,350.0	7,285.3	7,307.6	7,285.6	23.7	18.4	117.09	-501.2	-44.3	796.1	758.0	38.10	20.894	
7,400.0	7,333.2	7,357.4	7,333.6	24.0	18.6	110.73	-514.3	-44.3	801.9	763.3	38.60	20.776	
7,450.0	7,380.2	7,407.2	7,380.6	24.2	18.9	106.39	-530.6	-44.2	807.6	768.5	39.16	20.623	
7,500.0	7,425.9	7,457.0	7,426.4	24.5	19.2	103.22	-550.2	-44.2	813.2	773.4	39.79	20.439	
7,550.0	7,470.2	7,506.8	7,470.7	24.8	19.5	100.80	-573.0	-44.1	818.5	778.0	40.47	20.223	
7,600.0	7,512.8	7,556.6	7,513.3	25.2	19.9	98.88	-598.7	-44.0	823.7	782.4	41.23	19.980	
7,650.0	7,553.5	7,606.5	7,554.1	25.5	20.3	97.32	-627.4	-43.9	828.6	786.6	42.04	19.710	
7,700.0	7,592.2	7,656.4	7,592.8	25.9	20.7	96.02	-658.9	-43.8	833.3	790.4	42.92	19.416	
7,750.0	7,628.5	7,706.2	7,629.2	26.3	21.2	94.92	-693.0	-43.7	837.7	793.8	43.85	19.101	
7,800.0	7,662.5	7,756.2	7,663.1	26.7	21.7	93.98	-729.5	-43.6	841.8	796.9	44.85	18.768	
7,850.0	7,693.8	7,806.1	7,694.5	27.2	22.2	93.18	-768.4	-43.5	845.6	799.7	45.91	18.420	
7,900.0	7,722.4	7,856.0	7,723.1	27.7	22.8	92.50	-809.3	-43.4	849.0	802.0	47.02	18.058	
7,950.0	7,748.0	7,906.0	7,748.7	28.2	23.4	91.91	-852.2	-43.2	852.1	804.0	48.18	17.688	
8,000.0	7,770.7	7,956.0	7,771.4	28.8	24.1	91.41	-896.8	-43.1	854.9	805.5	49.39	17.310	
8,050.0	7,790.2	8,006.0	7,790.8	29.3	24.7	91.00	-942.8	-42.9	857.2	806.6	50.64	16.927	
8,100.0	7,806.4	8,056.0	7,807.0	29.9	25.4	90.66	-990.1	-42.7	859.2	807.3	51.94	16.543	
8,150.0	7,819.4	8,106.1	7,819.9	30.5	26.1	90.40	-1,038.5	-42.6	860.8	807.5	53.27	16.160	
8,200.0	7,829.0	8,156.1	7,829.4	31.1	26.9	90.20	-1,087.6	-42.4	861.9	807.3	54.63	15.779	
8,250.0	7,835.1	8,206.1	7,835.4	31.8	27.6	90.07	-1,137.2	-42.2	862.7	806.7	56.01	15.403	
8,300.0	7,837.9	8,256.2	7,837.9	32.4	28.4	90.01	-1,187.2	-42.1	863.0	805.6	57.41	15.033	
8,314.2	7,838.0	8,270.4	7,838.0	32.6	28.6	90.00	-1,201.4	-42.0	863.0	805.2	57.81	14.929	
8,400.0	7,838.0	8,356.2	7,838.0	33.8	30.0	90.00	-1,287.2	-41.7	863.0	802.6	60.43	14.281	
8,500.0	7,838.0	8,456.2	7,838.0	35.2	31.6	90.00	-1,387.2	-41.4	863.0	799.5	63.57	13.576	
8,600.0	7,838.0	8,556.2	7,838.0	36.6	33.2	90.00	-1,487.2	-41.0	863.0	796.3	66.78	12.923	
8,700.0	7,838.0	8,656.2	7,838.0	38.1	34.8	90.00	-1,587.2	-40.7	863.1	793.0	70.06	12.319	
8,800.0	7,838.0	8,756.2	7,838.0	39.6	36.5	90.00	-1,687.2	-40.3	863.1	789.7	73.39	11.760	
8,900.0	7,838.0	8,856.2	7,838.0	41.2	38.2	90.00	-1,787.2	-40.0	863.1	786.3	76.76	11.243	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4CDH - Wellbore #1 - PLAN 1 (FEB 5, 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,838.0	8,956.2	7,838.0	42.8	40.0	90.00	-1,887.2	-39.7	863.1	782.9	80.18	10.764	
9,100.0	7,838.0	9,056.2	7,838.0	44.4	41.7	90.00	-1,987.2	-39.3	863.1	779.4	83.63	10.320	
9,200.0	7,838.0	9,156.2	7,838.0	46.0	43.5	90.00	-2,087.2	-39.0	863.1	776.0	87.11	9.907	
9,300.0	7,838.0	9,256.2	7,838.0	47.7	45.2	90.00	-2,187.2	-38.6	863.1	772.4	90.63	9.524	
9,400.0	7,838.0	9,356.2	7,838.0	49.4	47.0	90.00	-2,287.2	-38.3	863.1	768.9	94.16	9.166	
9,500.0	7,838.0	9,456.2	7,838.0	51.1	48.8	90.00	-2,387.2	-37.9	863.1	765.4	97.72	8.832	
9,600.0	7,838.0	9,556.2	7,838.0	52.8	50.6	90.00	-2,487.2	-37.6	863.1	761.8	101.30	8.520	
9,700.0	7,838.0	9,656.2	7,838.0	54.5	52.4	90.00	-2,587.2	-37.2	863.1	758.2	104.90	8.228	
9,800.0	7,838.0	9,756.2	7,838.0	56.2	54.2	90.00	-2,687.2	-36.9	863.1	754.6	108.51	7.954	
9,900.0	7,838.0	9,856.2	7,838.0	58.0	56.1	90.00	-2,787.2	-36.5	863.1	751.0	112.14	7.697	
10,000.0	7,838.0	9,956.2	7,838.0	59.7	57.9	90.00	-2,887.2	-36.2	863.1	747.3	115.78	7.455	
10,100.0	7,838.0	10,056.2	7,838.0	61.5	59.7	90.00	-2,987.2	-35.9	863.1	743.7	119.43	7.227	
10,200.0	7,838.0	10,156.2	7,838.0	63.3	61.6	90.00	-3,087.2	-35.5	863.1	740.0	123.09	7.012	
10,300.0	7,838.0	10,256.2	7,838.0	65.1	63.4	90.00	-3,187.2	-35.2	863.1	736.3	126.76	6.809	
10,400.0	7,838.0	10,356.2	7,838.0	66.8	65.2	90.00	-3,287.2	-34.8	863.1	732.7	130.45	6.617	
10,500.0	7,838.0	10,456.2	7,838.0	68.6	67.1	90.00	-3,387.2	-34.5	863.1	729.0	134.14	6.435	
10,600.0	7,838.0	10,556.2	7,838.0	70.4	69.0	90.00	-3,487.2	-34.1	863.1	725.3	137.83	6.262	
10,700.0	7,838.0	10,656.2	7,838.0	72.3	70.8	90.00	-3,587.2	-33.8	863.1	721.6	141.54	6.098	
10,800.0	7,838.0	10,756.2	7,838.0	74.1	72.7	90.00	-3,687.2	-33.4	863.1	717.9	145.25	5.942	
10,900.0	7,838.0	10,856.2	7,838.0	75.9	74.5	90.00	-3,787.2	-33.1	863.1	714.2	148.97	5.794	
11,000.0	7,838.0	10,956.2	7,838.0	77.7	76.4	90.00	-3,887.2	-32.7	863.1	710.4	152.69	5.653	
11,100.0	7,838.0	11,056.2	7,838.0	79.5	78.3	90.00	-3,987.2	-32.4	863.1	706.7	156.42	5.518	
11,200.0	7,838.0	11,156.2	7,838.0	81.4	80.1	90.00	-4,087.2	-32.1	863.1	703.0	160.15	5.389	
11,300.0	7,838.0	11,256.2	7,838.0	83.2	82.0	90.00	-4,187.2	-31.7	863.1	699.3	163.89	5.267	
11,400.0	7,838.0	11,356.2	7,838.0	85.0	83.9	90.00	-4,287.2	-31.4	863.2	695.5	167.63	5.149	
11,500.0	7,838.0	11,456.2	7,838.0	86.9	85.8	90.00	-4,387.2	-31.0	863.2	691.8	171.38	5.036	
11,600.0	7,838.0	11,556.2	7,838.0	88.7	87.6	90.00	-4,487.2	-30.7	863.2	688.0	175.13	4.929	
11,700.0	7,838.0	11,656.2	7,838.0	90.6	89.5	90.00	-4,587.2	-30.3	863.2	684.3	178.88	4.825	
11,800.0	7,838.0	11,756.2	7,838.0	92.4	91.4	90.00	-4,687.2	-30.0	863.2	680.5	182.64	4.726	
11,900.0	7,838.0	11,856.2	7,838.0	94.3	93.3	90.00	-4,787.2	-29.6	863.2	676.8	186.40	4.631	
12,000.0	7,838.0	11,956.2	7,838.0	96.1	95.2	90.00	-4,887.2	-29.3	863.2	673.0	190.16	4.539	
12,100.0	7,838.0	12,056.2	7,838.0	98.0	97.1	90.00	-4,987.2	-28.9	863.2	669.3	193.93	4.451	
12,200.0	7,838.0	12,156.2	7,838.0	99.9	98.9	90.00	-5,087.2	-28.6	863.2	665.5	197.69	4.366	
12,300.0	7,838.0	12,256.2	7,838.0	101.7	100.8	90.00	-5,187.2	-28.3	863.2	661.7	201.46	4.285	
12,400.0	7,838.0	12,356.2	7,838.0	103.6	102.7	90.00	-5,287.2	-27.9	863.2	658.0	205.24	4.206	
12,500.0	7,838.0	12,456.2	7,838.0	105.4	104.6	90.00	-5,387.2	-27.6	863.2	654.2	209.01	4.130	
12,600.0	7,838.0	12,556.2	7,838.0	107.3	106.5	90.00	-5,487.2	-27.2	863.2	650.4	212.79	4.057	
12,700.0	7,838.0	12,656.2	7,838.0	109.2	108.4	90.00	-5,587.2	-26.9	863.2	646.6	216.57	3.986	
12,800.0	7,838.0	12,756.2	7,838.0	111.1	110.3	90.00	-5,687.2	-26.5	863.2	642.9	220.35	3.918	
12,900.0	7,838.0	12,856.2	7,838.0	112.9	112.2	90.00	-5,787.2	-26.2	863.2	639.1	224.13	3.851	
13,000.0	7,838.0	12,956.2	7,838.0	114.8	114.1	90.00	-5,887.2	-25.8	863.2	635.3	227.91	3.788	
13,100.0	7,838.0	13,056.2	7,838.0	116.7	116.0	90.00	-5,987.2	-25.5	863.2	631.5	231.70	3.726	
13,200.0	7,838.0	13,156.2	7,838.0	118.6	117.9	90.00	-6,087.2	-25.2	863.2	627.7	235.48	3.666	
13,300.0	7,838.0	13,256.2	7,838.0	120.4	119.8	90.00	-6,187.2	-24.8	863.2	624.0	239.27	3.608	
13,400.0	7,838.0	13,356.2	7,838.0	122.3	121.7	90.00	-6,287.2	-24.5	863.2	620.2	243.06	3.552	
13,500.0	7,838.0	13,456.2	7,838.0	124.2	123.5	90.00	-6,387.2	-24.1	863.2	616.4	246.85	3.497	
13,600.0	7,838.0	13,556.2	7,838.0	126.1	125.4	90.00	-6,487.2	-23.8	863.2	612.6	250.64	3.444	
13,700.0	7,838.0	13,656.2	7,838.0	128.0	127.3	90.00	-6,587.1	-23.4	863.2	608.8	254.43	3.393	
13,800.0	7,838.0	13,756.2	7,838.0	129.8	129.2	90.00	-6,687.1	-23.1	863.2	605.0	258.23	3.343	
13,900.0	7,838.0	13,856.2	7,838.0	131.7	131.1	90.00	-6,787.1	-22.7	863.2	601.2	262.02	3.295	
13,989.8	7,838.0	13,946.0	7,838.0	133.4	132.8	90.00	-6,877.0	-22.4	863.2	597.8	265.43	3.252	SF

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	30.8	30.8				
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	30.8	30.8	30.6	0.22	137.127	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	30.8	30.8	30.1	0.67	45.709	
300.0	300.0	300.0	300.0	0.6	0.6	90.05	0.0	30.8	30.8	29.7	1.12	27.425	
400.0	400.0	400.0	400.0	0.8	0.8	90.05	0.0	30.8	30.8	29.2	1.57	19.590	
500.0	500.0	500.0	500.0	1.0	1.0	90.05	0.0	30.8	30.8	28.8	2.02	15.236	
600.0	600.0	600.0	600.0	1.2	1.2	90.05	0.0	30.8	30.8	28.3	2.47	12.466	CC, ES
700.0	700.0	699.2	699.2	1.5	1.4	90.89	-0.5	32.0	32.0	29.1	2.90	11.037	
800.0	800.0	798.3	798.2	1.7	1.6	93.07	-1.9	35.6	35.7	32.4	3.32	10.742	
900.0	900.0	897.3	897.0	1.9	1.9	-28.20	-4.3	41.6	40.8	37.0	3.73	10.930	
1,000.0	999.9	996.0	995.3	2.1	2.1	-27.28	-7.5	49.9	46.0	41.9	4.13	11.146	
1,100.0	1,099.7	1,094.7	1,093.3	2.3	2.3	-27.10	-11.7	60.6	51.4	46.9	4.54	11.323	
1,200.0	1,199.3	1,193.2	1,190.8	2.5	2.6	-27.46	-16.9	73.6	57.0	52.0	4.97	11.463	
1,300.0	1,298.6	1,291.5	1,287.8	2.8	2.9	-28.20	-22.9	88.9	62.7	57.3	5.42	11.569	
1,349.1	1,347.2	1,339.8	1,335.1	2.9	3.1	-28.67	-26.2	97.3	65.6	59.9	5.65	11.606	
1,400.0	1,397.6	1,389.7	1,384.1	3.0	3.3	-29.10	-29.8	106.5	68.9	63.0	5.90	11.688	
1,500.0	1,496.6	1,488.4	1,480.5	3.3	3.7	-29.46	-37.6	126.3	77.1	70.7	6.40	12.048	
1,600.0	1,595.5	1,588.1	1,577.7	3.6	4.1	-29.67	-45.6	146.6	85.6	78.6	6.91	12.384	
1,700.0	1,694.5	1,687.7	1,674.9	3.9	4.5	-29.85	-53.6	166.9	94.1	86.6	7.43	12.656	
1,800.0	1,793.5	1,787.3	1,772.2	4.2	5.0	-30.00	-61.6	187.2	102.6	94.6	7.96	12.876	
1,900.0	1,892.4	1,887.0	1,869.4	4.6	5.4	-30.12	-69.6	207.5	111.1	102.5	8.51	13.056	
2,000.0	1,991.4	1,986.6	1,966.6	4.9	5.9	-30.22	-77.6	227.8	119.6	110.5	9.05	13.206	
2,100.0	2,090.4	2,086.3	2,063.8	5.2	6.3	-30.32	-85.6	248.1	128.1	118.5	9.61	13.332	
2,200.0	2,189.3	2,185.9	2,161.0	5.6	6.8	-30.40	-93.6	268.4	136.6	126.4	10.16	13.438	
2,300.0	2,288.3	2,285.5	2,258.2	5.9	7.3	-30.47	-101.6	288.7	145.1	134.3	10.72	13.528	
2,400.0	2,387.3	2,385.2	2,355.5	6.2	7.7	-30.53	-109.6	309.0	153.6	142.3	11.29	13.606	
2,500.0	2,486.2	2,484.8	2,452.7	6.6	8.2	-30.59	-117.6	329.3	162.1	150.2	11.85	13.673	
2,600.0	2,585.2	2,584.4	2,549.9	6.9	8.7	-30.64	-125.6	349.6	170.6	158.1	12.42	13.731	
2,700.0	2,684.2	2,684.1	2,647.1	7.3	9.1	-30.69	-133.6	369.9	179.1	166.1	12.99	13.782	
2,800.0	2,783.1	2,783.7	2,744.3	7.6	9.6	-30.73	-141.6	390.2	187.6	174.0	13.57	13.827	
2,900.0	2,882.1	2,883.4	2,841.6	8.0	10.1	-30.77	-149.6	410.5	196.1	181.9	14.14	13.867	
3,000.0	2,981.1	2,983.0	2,938.8	8.3	10.6	-30.80	-157.6	430.8	204.6	189.9	14.72	13.902	
3,100.0	3,080.1	3,082.6	3,036.0	8.7	11.0	-30.83	-165.6	451.1	213.1	197.8	15.29	13.933	
3,200.0	3,179.0	3,182.3	3,133.2	9.0	11.5	-30.86	-173.6	471.4	221.6	205.7	15.87	13.962	
3,300.0	3,278.0	3,281.9	3,230.4	9.4	12.0	-30.89	-181.6	491.7	230.1	213.6	16.45	13.987	
3,400.0	3,377.0	3,381.5	3,327.7	9.7	12.5	-30.92	-189.6	512.0	238.6	221.6	17.03	14.010	
3,500.0	3,475.9	3,481.2	3,424.9	10.1	12.9	-30.94	-197.6	532.3	247.1	229.5	17.61	14.031	
3,600.0	3,574.9	3,580.8	3,522.1	10.4	13.4	-30.96	-205.6	552.6	255.6	237.4	18.19	14.050	
3,700.0	3,673.9	3,680.5	3,619.3	10.8	13.9	-30.98	-213.6	572.9	264.1	245.3	18.77	14.067	
3,800.0	3,772.8	3,780.1	3,716.5	11.1	14.4	-31.00	-221.6	593.2	272.6	253.3	19.36	14.083	
3,900.0	3,871.8	3,879.7	3,813.8	11.5	14.8	-31.02	-229.6	613.5	281.1	261.2	19.94	14.097	
4,000.0	3,970.8	3,979.4	3,911.0	11.8	15.3	-31.04	-237.6	633.8	289.6	269.1	20.52	14.111	
4,100.0	4,069.7	4,079.0	4,008.2	12.2	15.8	-31.06	-245.6	654.1	298.1	277.0	21.11	14.123	
4,200.0	4,168.7	4,178.6	4,105.4	12.5	16.3	-31.07	-253.6	674.4	306.6	284.9	21.69	14.134	
4,300.0	4,267.7	4,278.3	4,202.6	12.9	16.8	-31.09	-261.6	694.7	315.1	292.9	22.28	14.145	
4,400.0	4,366.6	4,377.9	4,299.8	13.2	17.2	-31.10	-269.6	715.0	323.6	300.8	22.86	14.154	
4,500.0	4,465.6	4,477.6	4,397.1	13.6	17.7	-31.11	-277.6	735.3	332.1	308.7	23.45	14.163	
4,600.0	4,564.6	4,577.2	4,494.3	13.9	18.2	-31.12	-285.6	755.6	340.6	316.6	24.04	14.172	
4,700.0	4,663.5	4,676.8	4,591.5	14.3	18.7	-31.14	-293.6	775.9	349.1	324.5	24.62	14.180	
4,800.0	4,762.5	4,776.5	4,688.7	14.7	19.2	-31.15	-301.6	796.2	357.6	332.4	25.21	14.187	
4,900.0	4,861.5	4,876.1	4,785.9	15.0	19.6	-31.16	-309.6	816.5	366.2	340.4	25.80	14.194	
5,000.0	4,960.5	4,975.7	4,883.2	15.4	20.1	-31.17	-317.6	836.8	374.7	348.3	26.38	14.200	

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

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,075.4	4,980.4	15.7	20.6	-31.18	-325.6	857.1	383.2	356.2	26.97	14.206	
5,200.0	5,158.4	5,175.0	5,077.6	16.1	21.1	-31.19	-333.6	877.4	391.7	364.1	27.56	14.212	
5,300.0	5,257.4	5,274.7	5,174.8	16.4	21.6	-31.20	-341.6	897.7	400.2	372.0	28.15	14.217	
5,400.0	5,356.3	5,374.3	5,272.0	16.8	22.0	-31.21	-349.6	918.0	408.7	379.9	28.74	14.222	
5,500.0	5,455.3	5,473.9	5,369.3	17.1	22.5	-31.21	-357.6	938.3	417.2	387.9	29.32	14.227	
5,600.0	5,554.3	5,573.6	5,466.5	17.5	23.0	-31.22	-365.6	958.6	425.7	395.8	29.91	14.231	
5,700.0	5,653.2	5,673.2	5,563.7	17.8	23.5	-31.23	-373.6	979.0	434.2	403.7	30.50	14.235	
5,800.0	5,752.2	5,772.8	5,660.9	18.2	24.0	-31.24	-381.6	999.3	442.7	411.6	31.09	14.239	
5,900.0	5,851.2	5,872.5	5,758.1	18.6	24.4	-31.24	-389.6	1,019.6	451.2	419.5	31.68	14.243	
6,000.0	5,950.1	5,972.1	5,855.4	18.9	24.9	-31.25	-397.6	1,039.9	459.7	427.4	32.27	14.247	
6,100.0	6,049.1	6,071.8	5,952.6	19.3	25.4	-31.26	-405.6	1,060.2	468.2	435.3	32.86	14.250	
6,200.0	6,148.1	6,171.4	6,049.8	19.6	25.9	-31.26	-413.6	1,080.5	476.7	443.3	33.44	14.253	
6,300.0	6,247.0	6,271.0	6,147.0	20.0	26.4	-31.27	-421.6	1,100.8	485.2	451.2	34.03	14.257	
6,400.0	6,346.0	6,370.7	6,244.2	20.3	26.8	-31.28	-429.5	1,121.1	493.7	459.1	34.62	14.259	
6,500.0	6,445.0	6,470.3	6,341.4	20.7	27.3	-31.28	-437.5	1,141.4	502.2	467.0	35.21	14.262	
6,600.0	6,544.0	6,570.0	6,438.7	21.0	27.8	-31.29	-445.5	1,161.7	510.7	474.9	35.80	14.265	
6,700.0	6,642.9	6,669.6	6,535.9	21.4	28.3	-31.29	-453.5	1,182.0	519.2	482.8	36.39	14.267	
6,800.0	6,741.9	6,769.2	6,633.1	21.8	28.8	-31.30	-461.5	1,202.3	527.7	490.7	36.98	14.270	
6,900.0	6,840.9	6,868.9	6,730.3	22.1	29.2	-31.30	-469.5	1,222.6	536.2	498.7	37.57	14.272	
7,000.0	6,939.8	6,968.5	6,827.5	22.5	29.7	-31.31	-477.5	1,242.9	544.7	506.6	38.16	14.274	
7,100.0	7,038.8	7,068.0	6,924.6	22.8	30.2	-31.31	-485.6	1,263.1	553.2	514.5	38.75	14.277	
7,200.0	7,137.8	7,165.0	7,018.3	23.2	30.7	-30.54	-500.8	1,282.7	562.0	522.8	39.16	14.352	
7,245.8	7,183.1	7,208.3	7,059.4	23.3	30.9	-29.78	-511.8	1,291.3	566.3	527.0	39.25	14.425	
7,250.0	7,187.2	7,212.3	7,063.0	23.4	30.9	-31.56	-512.9	1,292.1	566.7	527.4	39.25	14.436	
7,300.0	7,236.5	7,258.7	7,106.1	23.5	31.2	-47.08	-527.7	1,301.1	571.5	532.3	39.26	14.557	
7,350.0	7,285.3	7,304.6	7,147.7	23.7	31.5	-55.42	-545.1	1,309.8	576.5	537.1	39.33	14.656	
7,400.0	7,333.2	7,350.0	7,187.6	24.0	31.8	-60.07	-565.0	1,318.2	581.5	542.0	39.47	14.733	
7,450.0	7,380.2	7,394.9	7,225.8	24.2	32.1	-62.76	-587.1	1,326.3	586.5	546.9	39.67	14.785	
7,500.0	7,425.9	7,439.4	7,262.3	24.5	32.4	-64.35	-611.4	1,334.0	591.5	551.6	39.93	14.814	
7,550.0	7,470.2	7,483.4	7,296.8	24.8	32.7	-65.27	-637.7	1,341.2	596.5	556.2	40.25	14.819	
7,600.0	7,512.8	7,527.1	7,329.5	25.2	33.0	-65.76	-665.8	1,348.1	601.3	560.6	40.63	14.799	
7,650.0	7,553.5	7,570.4	7,360.2	25.5	33.4	-65.99	-695.7	1,354.6	606.0	564.9	41.07	14.753	
7,700.0	7,592.2	7,613.4	7,388.8	25.9	33.7	-66.04	-727.2	1,360.7	610.4	568.9	41.59	14.679	
7,750.0	7,628.5	7,656.2	7,415.4	26.3	34.1	-65.97	-760.2	1,366.3	614.7	572.5	42.18	14.575	
7,800.0	7,662.5	7,700.0	7,440.6	26.7	34.4	-65.82	-795.7	1,371.7	618.7	575.9	42.86	14.437	
7,850.0	7,693.8	7,740.9	7,462.1	27.2	34.8	-65.66	-830.1	1,376.3	622.5	578.9	43.62	14.270	
7,900.0	7,722.4	7,782.9	7,482.3	27.7	35.2	-65.46	-866.7	1,380.6	625.9	581.4	44.49	14.067	
7,950.0	7,748.0	7,824.8	7,500.2	28.2	35.6	-65.26	-904.4	1,384.5	629.0	583.5	45.47	13.832	
8,000.0	7,770.7	7,866.5	7,515.8	28.8	36.0	-65.06	-942.8	1,387.8	631.7	585.2	46.57	13.567	
8,050.0	7,790.2	7,908.0	7,529.3	29.3	36.4	-64.89	-982.1	1,390.8	634.1	586.3	47.78	13.272	
8,100.0	7,806.4	7,950.0	7,540.5	29.9	36.8	-64.73	-1,022.4	1,393.2	636.1	587.0	49.11	12.952	
8,150.0	7,819.4	7,990.9	7,549.2	30.5	37.3	-64.61	-1,062.3	1,395.2	637.6	587.1	50.55	12.613	
8,200.0	7,829.0	8,032.2	7,555.8	31.1	37.7	-64.52	-1,103.0	1,396.7	638.8	586.7	52.11	12.258	
8,250.0	7,835.1	8,073.4	7,560.0	31.8	38.1	-64.46	-1,144.1	1,397.7	639.5	585.7	53.77	11.894	
8,300.0	7,837.9	8,114.7	7,561.9	32.4	38.6	-64.44	-1,185.3	1,398.2	639.8	584.3	55.52	11.524	
8,314.2	7,838.0	8,127.8	7,562.0	32.6	38.7	-64.45	-1,198.4	1,398.2	639.8	583.8	56.05	11.415	
8,351.5	7,838.0	8,163.4	7,562.0	33.1	39.1	-64.44	-1,234.0	1,398.3	639.8	582.8	57.05	11.215	
8,400.0	7,838.0	8,211.9	7,562.0	33.8	39.7	-64.44	-1,282.5	1,398.5	639.8	581.4	58.38	10.959	
8,500.0	7,838.0	8,311.9	7,562.0	35.2	40.8	-64.44	-1,382.5	1,398.8	639.7	578.5	61.21	10.452	
8,600.0	7,838.0	8,411.9	7,562.0	36.6	42.1	-64.44	-1,482.5	1,399.1	639.7	575.6	64.11	9.979	
8,700.0	7,838.0	8,511.9	7,562.0	38.1	43.4	-64.44	-1,582.5	1,399.4	639.7	572.6	67.06	9.538	
8,800.0	7,838.0	8,611.9	7,562.0	39.6	44.7	-64.44	-1,682.5	1,399.7	639.6	569.5	70.07	9.128	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,900.0	7,838.0	8,711.9	7,562.0	41.2	46.1	-64.43	-1,782.5	1,400.0	639.6	566.4	73.12	8.747	
9,000.0	7,838.0	8,811.9	7,562.0	42.8	47.5	-64.43	-1,882.5	1,400.3	639.5	563.3	76.21	8.391	
9,100.0	7,838.0	8,911.9	7,562.0	44.4	48.9	-64.43	-1,982.5	1,400.6	639.5	560.1	79.34	8.060	
9,200.0	7,838.0	9,011.9	7,562.0	46.0	50.4	-64.43	-2,082.5	1,400.9	639.4	556.9	82.50	7.751	
9,300.0	7,838.0	9,111.9	7,562.0	47.7	51.9	-64.43	-2,182.5	1,401.2	639.4	553.7	85.68	7.462	
9,400.0	7,838.0	9,211.9	7,562.0	49.4	53.5	-64.43	-2,282.5	1,401.5	639.4	550.5	88.89	7.192	
9,500.0	7,838.0	9,311.9	7,562.0	51.1	55.0	-64.42	-2,382.5	1,401.8	639.3	547.2	92.13	6.940	
9,600.0	7,838.0	9,411.9	7,562.0	52.8	56.6	-64.42	-2,482.5	1,402.1	639.3	543.9	95.38	6.703	
9,700.0	7,838.0	9,511.9	7,562.0	54.5	58.2	-64.42	-2,582.5	1,402.4	639.2	540.6	98.65	6.480	
9,800.0	7,838.0	9,611.9	7,562.0	56.2	59.8	-64.42	-2,682.5	1,402.7	639.2	537.3	101.93	6.271	
9,900.0	7,838.0	9,711.9	7,562.0	58.0	61.5	-64.42	-2,782.5	1,403.0	639.1	533.9	105.23	6.074	
10,000.0	7,838.0	9,811.9	7,562.0	59.7	63.1	-64.41	-2,882.4	1,403.3	639.1	530.6	108.55	5.888	
10,100.0	7,838.0	9,911.9	7,562.0	61.5	64.8	-64.41	-2,982.4	1,403.6	639.1	527.2	111.87	5.712	
10,200.0	7,838.0	10,011.9	7,562.0	63.3	66.5	-64.41	-3,082.4	1,403.9	639.0	523.8	115.21	5.547	
10,300.0	7,838.0	10,111.9	7,562.0	65.1	68.2	-64.41	-3,182.4	1,404.2	639.0	520.4	118.56	5.390	
10,400.0	7,838.0	10,211.9	7,562.0	66.8	69.9	-64.41	-3,282.4	1,404.5	638.9	517.0	121.91	5.241	
10,500.0	7,838.0	10,311.9	7,562.0	68.6	71.6	-64.41	-3,382.4	1,404.8	638.9	513.6	125.28	5.100	
10,600.0	7,838.0	10,411.9	7,562.0	70.4	73.3	-64.40	-3,482.4	1,405.1	638.9	510.2	128.65	4.966	
10,700.0	7,838.0	10,511.9	7,562.0	72.3	75.0	-64.40	-3,582.4	1,405.4	638.8	506.8	132.03	4.838	
10,800.0	7,838.0	10,611.9	7,562.0	74.1	76.8	-64.40	-3,682.4	1,405.7	638.8	503.4	135.42	4.717	
10,900.0	7,838.0	10,711.9	7,562.0	75.9	78.5	-64.40	-3,782.4	1,406.0	638.7	499.9	138.81	4.601	
11,000.0	7,838.0	10,811.9	7,562.0	77.7	80.3	-64.40	-3,882.4	1,406.4	638.7	496.5	142.21	4.491	
11,100.0	7,838.0	10,911.9	7,562.0	79.5	82.1	-64.39	-3,982.4	1,406.7	638.6	493.0	145.61	4.386	
11,200.0	7,838.0	11,011.9	7,562.0	81.4	83.8	-64.39	-4,082.4	1,407.0	638.6	489.6	149.02	4.285	
11,300.0	7,838.0	11,111.9	7,562.0	83.2	85.6	-64.39	-4,182.4	1,407.3	638.6	486.1	152.43	4.189	
11,400.0	7,838.0	11,211.9	7,562.0	85.0	87.4	-64.39	-4,282.4	1,407.6	638.5	482.7	155.85	4.097	
11,500.0	7,838.0	11,311.9	7,562.0	86.9	89.2	-64.39	-4,382.4	1,407.9	638.5	479.2	159.27	4.009	
11,600.0	7,838.0	11,411.9	7,562.0	88.7	91.0	-64.39	-4,482.4	1,408.2	638.4	475.7	162.69	3.924	
11,700.0	7,838.0	11,511.9	7,562.0	90.6	92.8	-64.38	-4,582.4	1,408.5	638.4	472.3	166.12	3.843	
11,800.0	7,838.0	11,611.9	7,562.0	92.4	94.6	-64.38	-4,682.4	1,408.8	638.3	468.8	169.56	3.765	
11,900.0	7,838.0	11,711.9	7,562.0	94.3	96.4	-64.38	-4,782.4	1,409.1	638.3	465.3	172.99	3.690	
12,000.0	7,838.0	11,811.9	7,562.0	96.1	98.2	-64.38	-4,882.4	1,409.4	638.3	461.8	176.43	3.618	
12,100.0	7,838.0	11,911.9	7,562.0	98.0	100.0	-64.38	-4,982.4	1,409.7	638.2	458.3	179.87	3.548	
12,200.0	7,838.0	12,011.9	7,562.0	99.9	101.8	-64.37	-5,082.4	1,410.0	638.2	454.9	183.31	3.481	
12,300.0	7,838.0	12,111.9	7,562.0	101.7	103.7	-64.37	-5,182.4	1,410.3	638.1	451.4	186.76	3.417	
12,400.0	7,838.0	12,211.9	7,562.0	103.6	105.5	-64.37	-5,282.4	1,410.6	638.1	447.9	190.21	3.355	
12,500.0	7,838.0	12,311.9	7,562.0	105.4	107.3	-64.37	-5,382.4	1,410.9	638.0	444.4	193.66	3.295	
12,600.0	7,838.0	12,411.9	7,562.0	107.3	109.2	-64.37	-5,482.4	1,411.2	638.0	440.9	197.11	3.237	
12,700.0	7,838.0	12,511.9	7,562.0	109.2	111.0	-64.37	-5,582.4	1,411.5	638.0	437.4	200.56	3.181	
12,800.0	7,838.0	12,611.9	7,562.0	111.1	112.8	-64.36	-5,682.4	1,411.8	637.9	433.9	204.02	3.127	
12,900.0	7,838.0	12,711.9	7,562.0	112.9	114.7	-64.36	-5,782.4	1,412.1	637.9	430.4	207.48	3.074	
13,000.0	7,838.0	12,811.9	7,562.0	114.8	116.5	-64.36	-5,882.4	1,412.4	637.8	426.9	210.93	3.024	
13,100.0	7,838.0	12,911.9	7,562.0	116.7	118.4	-64.36	-5,982.4	1,412.7	637.8	423.4	214.40	2.975	
13,200.0	7,838.0	13,011.9	7,562.0	118.6	120.2	-64.36	-6,082.4	1,413.0	637.8	419.9	217.86	2.927	
13,300.0	7,838.0	13,111.9	7,562.0	120.4	122.1	-64.35	-6,182.4	1,413.3	637.7	416.4	221.32	2.881	
13,400.0	7,838.0	13,211.9	7,562.0	122.3	123.9	-64.35	-6,282.4	1,413.6	637.7	412.9	224.79	2.837	
13,500.0	7,838.0	13,311.9	7,562.0	124.2	125.8	-64.35	-6,382.4	1,413.9	637.6	409.4	228.25	2.794	
13,600.0	7,838.0	13,411.9	7,562.0	126.1	127.6	-64.35	-6,482.4	1,414.2	637.6	405.9	231.72	2.752	
13,700.0	7,838.0	13,511.9	7,562.0	128.0	129.5	-64.35	-6,582.4	1,414.5	637.5	402.4	235.19	2.711	
13,800.0	7,838.0	13,611.9	7,562.0	129.8	131.3	-64.35	-6,682.4	1,414.8	637.5	398.8	238.66	2.671	
13,900.0	7,838.0	13,711.9	7,562.0	131.7	133.2	-64.34	-6,782.4	1,415.1	637.5	395.3	242.13	2.633	
13,965.1	7,838.0	13,777.0	7,562.0	132.9	134.4	-64.34	-6,847.5	1,415.3	637.4	393.0	244.39	2.608	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-4NBH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
13,989.8	7,838.0	13,799.8	7,562.0	133.4	134.8	-64.34	-6,870.3	1,415.4	637.4	392.2	245.21	2.599 SF	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.03	0.0	44.8	44.8				
100.0	100.0	100.0	100.0	0.1	0.1	90.03	0.0	44.8	44.8	44.6	0.22	199.457	
200.0	200.0	200.0	200.0	0.3	0.3	90.03	0.0	44.8	44.8	44.2	0.67	66.486	
300.0	300.0	300.0	300.0	0.6	0.6	90.03	0.0	44.8	44.8	43.7	1.12	39.891	
400.0	400.0	400.0	400.0	0.8	0.8	90.03	0.0	44.8	44.8	43.3	1.57	28.494	CC, ES
500.0	500.0	498.6	498.6	1.0	1.0	90.64	-0.5	46.4	46.4	44.4	2.00	23.141	
600.0	600.0	597.0	596.8	1.2	1.2	92.23	-2.0	50.9	51.0	48.6	2.43	20.985	
700.0	700.0	694.9	694.5	1.5	1.4	94.32	-4.4	58.4	58.9	56.0	2.88	20.475	
800.0	800.0	792.3	791.2	1.7	1.7	96.45	-7.8	68.9	69.9	66.6	3.34	20.951	
900.0	900.0	889.0	886.9	1.9	2.0	-25.17	-12.1	82.2	82.9	79.2	3.74	22.165	
1,000.0	999.9	985.2	981.6	2.1	2.3	-24.32	-17.3	98.3	96.8	92.6	4.16	23.259	
1,100.0	1,099.7	1,080.9	1,075.2	2.3	2.7	-23.95	-23.4	117.1	111.3	106.7	4.60	24.224	
1,200.0	1,199.3	1,178.1	1,169.8	2.5	3.1	-23.94	-30.3	138.7	126.2	121.1	5.05	24.974	
1,300.0	1,298.6	1,277.3	1,266.1	2.8	3.6	-24.34	-37.5	161.1	139.0	133.5	5.53	25.158	
1,349.1	1,347.2	1,326.1	1,313.5	2.9	3.8	-24.67	-41.1	172.1	144.5	138.7	5.77	25.045	
1,400.0	1,397.6	1,376.7	1,362.7	3.0	4.0	-25.08	-44.8	183.5	149.8	143.8	6.02	24.884	
1,500.0	1,496.6	1,476.1	1,459.3	3.3	4.5	-25.80	-52.0	205.9	160.3	153.8	6.53	24.548	
1,600.0	1,595.5	1,575.5	1,555.9	3.6	5.0	-26.42	-59.2	228.3	170.9	163.8	7.06	24.217	
1,700.0	1,694.5	1,675.0	1,652.5	3.9	5.5	-26.98	-66.4	250.6	181.4	173.8	7.59	23.902	
1,800.0	1,793.5	1,774.4	1,749.1	4.2	6.0	-27.47	-73.7	273.0	192.0	183.9	8.13	23.604	
1,900.0	1,892.4	1,873.8	1,845.7	4.6	6.5	-27.91	-80.9	295.4	202.6	193.9	8.69	23.326	
2,000.0	1,991.4	1,973.2	1,942.3	4.9	7.0	-28.31	-88.1	317.8	213.2	204.0	9.24	23.066	
2,100.0	2,090.4	2,072.7	2,038.9	5.2	7.5	-28.67	-95.4	340.2	223.8	214.0	9.81	22.824	
2,200.0	2,189.3	2,172.1	2,135.5	5.6	8.0	-29.00	-102.6	362.6	234.5	224.1	10.37	22.599	
2,300.0	2,288.3	2,271.5	2,232.1	5.9	8.5	-29.30	-109.8	385.0	245.1	234.1	10.95	22.389	
2,400.0	2,387.3	2,370.9	2,328.7	6.2	9.0	-29.57	-117.0	407.4	255.7	244.2	11.52	22.193	
2,500.0	2,486.2	2,470.4	2,425.3	6.6	9.5	-29.83	-124.3	429.8	266.4	254.3	12.10	22.011	
2,600.0	2,585.2	2,569.8	2,521.9	6.9	10.0	-30.06	-131.5	452.2	277.0	264.3	12.68	21.841	
2,700.0	2,684.2	2,669.2	2,618.5	7.3	10.6	-30.27	-138.7	474.6	287.7	274.4	13.27	21.683	
2,800.0	2,783.1	2,768.6	2,715.1	7.6	11.1	-30.47	-146.0	497.0	298.3	284.5	13.85	21.534	
2,900.0	2,882.1	2,868.1	2,811.7	8.0	11.6	-30.66	-153.2	519.4	309.0	294.5	14.44	21.395	
3,000.0	2,981.1	2,967.5	2,908.3	8.3	12.1	-30.84	-160.4	541.8	319.6	304.6	15.03	21.264	
3,100.0	3,080.1	3,066.9	3,004.9	8.7	12.6	-31.00	-167.6	564.2	330.3	314.7	15.62	21.142	
3,200.0	3,179.0	3,166.3	3,101.5	9.0	13.1	-31.15	-174.9	586.6	340.9	324.7	16.22	21.026	
3,300.0	3,278.0	3,265.8	3,198.1	9.4	13.6	-31.29	-182.1	609.0	351.6	334.8	16.81	20.918	
3,400.0	3,377.0	3,365.2	3,294.7	9.7	14.1	-31.43	-189.3	631.4	362.3	344.9	17.40	20.815	
3,500.0	3,475.9	3,464.6	3,391.3	10.1	14.6	-31.56	-196.6	653.8	373.0	354.9	18.00	20.718	
3,600.0	3,574.9	3,564.0	3,487.9	10.4	15.1	-31.68	-203.8	676.2	383.6	365.0	18.60	20.626	
3,700.0	3,673.9	3,663.5	3,584.5	10.8	15.7	-31.79	-211.0	698.6	394.3	375.1	19.20	20.539	
3,800.0	3,772.8	3,762.9	3,681.1	11.1	16.2	-31.90	-218.2	721.0	405.0	385.2	19.80	20.457	
3,900.0	3,871.8	3,862.3	3,777.7	11.5	16.7	-32.00	-225.5	743.4	415.6	395.3	20.40	20.378	
4,000.0	3,970.8	3,961.8	3,874.3	11.8	17.2	-32.10	-232.7	765.8	426.3	405.3	21.00	20.304	
4,100.0	4,069.7	4,061.2	3,970.9	12.2	17.7	-32.19	-239.9	788.2	437.0	415.4	21.60	20.233	
4,200.0	4,168.7	4,160.6	4,067.5	12.5	18.2	-32.28	-247.2	810.6	447.7	425.5	22.20	20.165	
4,300.0	4,267.7	4,260.0	4,164.1	12.9	18.7	-32.36	-254.4	833.0	458.4	435.6	22.80	20.101	
4,400.0	4,366.6	4,359.5	4,260.7	13.2	19.2	-32.44	-261.6	855.4	469.0	445.6	23.41	20.040	
4,500.0	4,465.6	4,458.9	4,357.3	13.6	19.7	-32.52	-268.8	877.8	479.7	455.7	24.01	19.981	
4,600.0	4,564.6	4,558.3	4,453.9	13.9	20.3	-32.59	-276.1	900.2	490.4	465.8	24.61	19.924	
4,700.0	4,663.5	4,657.7	4,550.5	14.3	20.8	-32.66	-283.3	922.6	501.1	475.9	25.22	19.871	
4,800.0	4,762.5	4,757.2	4,647.1	14.7	21.3	-32.73	-290.5	945.0	511.8	486.0	25.82	19.819	
4,900.0	4,861.5	4,856.6	4,743.7	15.0	21.8	-32.79	-297.8	967.4	522.5	496.0	26.43	19.769	
5,000.0	4,960.5	4,956.0	4,840.3	15.4	22.3	-32.85	-305.0	989.8	533.2	506.1	27.03	19.722	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,059.4	5,055.4	4,936.9	15.7	22.8	-32.91	-312.2	1,012.2	543.8	516.2	27.64	19.676	
5,200.0	5,158.4	5,154.9	5,033.5	16.1	23.3	-32.97	-319.4	1,034.6	554.5	526.3	28.25	19.632	
5,300.0	5,257.4	5,254.3	5,130.1	16.4	23.8	-33.03	-326.7	1,057.0	565.2	536.4	28.85	19.590	
5,400.0	5,356.3	5,353.7	5,226.7	16.8	24.4	-33.08	-333.9	1,079.4	575.9	546.4	29.46	19.549	
5,500.0	5,455.3	5,453.1	5,323.3	17.1	24.9	-33.13	-341.1	1,101.8	586.6	556.5	30.07	19.510	
5,600.0	5,554.3	5,552.6	5,419.9	17.5	25.4	-33.18	-348.4	1,124.2	597.3	566.6	30.67	19.473	
5,700.0	5,653.2	5,652.0	5,516.5	17.8	25.9	-33.23	-355.6	1,146.6	608.0	576.7	31.28	19.436	
5,800.0	5,752.2	5,751.4	5,613.1	18.2	26.4	-33.27	-362.8	1,169.0	618.7	586.8	31.89	19.401	
5,900.0	5,851.2	5,850.8	5,709.7	18.6	26.9	-33.32	-370.0	1,191.4	629.4	596.9	32.50	19.367	
6,000.0	5,950.1	5,950.3	5,806.3	18.9	27.4	-33.36	-377.3	1,213.8	640.0	606.9	33.10	19.334	
6,100.0	6,049.1	6,049.7	5,902.9	19.3	27.9	-33.40	-384.5	1,236.2	650.7	617.0	33.71	19.302	
6,200.0	6,148.1	6,149.1	5,999.5	19.6	28.5	-33.44	-391.7	1,258.6	661.4	627.1	34.32	19.272	
6,300.0	6,247.0	6,248.5	6,096.1	20.0	29.0	-33.48	-399.0	1,281.0	672.1	637.2	34.93	19.242	
6,400.0	6,346.0	6,348.0	6,192.7	20.3	29.5	-33.52	-406.2	1,303.4	682.8	647.3	35.54	19.213	
6,500.0	6,445.0	6,447.4	6,289.3	20.7	30.0	-33.55	-413.4	1,325.7	693.5	657.4	36.15	19.185	
6,600.0	6,544.0	6,546.8	6,385.9	21.0	30.5	-33.59	-420.6	1,348.1	704.2	667.4	36.76	19.158	
6,700.0	6,642.9	6,646.2	6,482.5	21.4	31.0	-33.62	-427.9	1,370.5	714.9	677.5	37.37	19.132	
6,800.0	6,741.9	6,745.7	6,579.1	21.8	31.5	-33.65	-435.1	1,392.9	725.6	687.6	37.98	19.107	
6,900.0	6,840.9	6,845.1	6,675.7	22.1	32.0	-33.69	-442.3	1,415.3	736.3	697.7	38.59	19.082	
7,000.0	6,939.8	6,944.5	6,772.3	22.5	32.6	-33.72	-449.6	1,437.7	747.0	707.8	39.20	19.058	
7,100.0	7,038.8	7,044.0	6,868.9	22.8	33.1	-33.75	-456.8	1,460.1	757.7	717.9	39.80	19.035	
7,200.0	7,137.8	7,143.4	6,965.5	23.2	33.6	-33.78	-464.0	1,482.5	768.4	727.9	40.41	19.012	
7,245.8	7,183.1	7,188.9	7,009.7	23.3	33.8	-33.79	-467.3	1,492.8	773.3	732.6	40.69	19.002	
7,250.0	7,187.2	7,193.1	7,013.8	23.4	33.8	-35.65	-467.6	1,493.7	773.7	733.0	40.71	19.006	
7,300.0	7,236.5	7,242.7	7,062.0	23.5	34.1	-52.22	-471.2	1,504.9	779.1	738.1	40.93	19.034	
7,350.0	7,285.3	7,292.1	7,110.0	23.7	34.4	-61.81	-474.8	1,516.0	784.5	743.2	41.26	19.013	
7,400.0	7,333.2	7,341.0	7,157.4	24.0	34.6	-67.90	-478.4	1,527.0	790.0	748.3	41.69	18.950	
7,450.0	7,380.2	7,389.9	7,205.0	24.2	34.9	-72.20	-482.1	1,538.1	795.7	753.4	42.21	18.850	
7,500.0	7,425.9	7,441.6	7,254.9	24.5	35.1	-75.42	-488.7	1,549.7	801.4	758.6	42.81	18.723	
7,550.0	7,470.2	7,494.4	7,305.3	24.8	35.4	-77.90	-499.2	1,561.4	807.3	763.8	43.46	18.577	
7,600.0	7,512.8	7,548.3	7,355.8	25.2	35.7	-79.90	-513.9	1,573.1	813.1	768.9	44.16	18.411	
7,650.0	7,553.5	7,603.5	7,406.3	25.5	36.0	-81.56	-532.9	1,584.8	818.9	774.0	44.93	18.226	
7,700.0	7,592.2	7,660.0	7,456.2	25.9	36.4	-82.96	-556.4	1,596.5	824.6	778.8	45.76	18.021	
7,750.0	7,628.5	7,717.7	7,505.3	26.3	36.8	-84.17	-584.6	1,607.9	830.1	783.5	46.64	17.798	
7,800.0	7,662.5	7,776.8	7,553.1	26.7	37.2	-85.22	-617.5	1,619.1	835.4	787.9	47.58	17.558	
7,850.0	7,693.8	7,837.2	7,599.0	27.2	37.6	-86.14	-655.3	1,629.9	840.5	791.9	48.58	17.303	
7,900.0	7,722.4	7,899.0	7,642.6	27.7	38.1	-86.94	-697.8	1,640.1	845.3	795.7	49.63	17.033	
7,950.0	7,748.0	7,962.0	7,683.2	28.2	38.5	-87.65	-745.0	1,649.6	849.7	799.0	50.73	16.748	
8,000.0	7,770.7	8,026.2	7,720.3	28.8	39.1	-88.25	-796.7	1,658.4	853.6	801.8	51.89	16.452	
8,050.0	7,790.2	8,091.6	7,753.2	29.3	39.6	-88.77	-852.6	1,666.2	857.1	804.0	53.09	16.145	
8,100.0	7,806.4	8,158.0	7,781.4	29.9	40.2	-89.19	-912.3	1,672.9	860.1	805.7	54.34	15.828	
8,150.0	7,819.4	8,225.3	7,804.4	30.5	40.8	-89.53	-975.2	1,678.4	862.5	806.8	55.63	15.504	
8,200.0	7,829.0	8,293.2	7,821.7	31.1	41.4	-89.78	-1,040.8	1,682.6	864.2	807.3	56.96	15.174	
8,250.0	7,835.1	8,361.6	7,832.9	31.8	42.0	-89.93	-1,108.2	1,685.4	865.4	807.0	58.31	14.840	
8,300.0	7,837.9	8,430.3	7,837.8	32.4	42.7	-90.00	-1,176.6	1,686.8	865.8	806.1	59.70	14.504	
8,314.2	7,838.0	8,449.5	7,838.0	32.6	42.9	-90.00	-1,195.8	1,686.9	865.9	805.8	60.09	14.409	
8,400.0	7,838.0	8,535.2	7,838.0	33.8	43.7	-90.00	-1,281.6	1,687.1	865.8	803.2	62.58	13.834	
8,500.0	7,838.0	8,635.2	7,838.0	35.2	44.8	-90.00	-1,381.6	1,687.4	865.8	800.2	65.59	13.200	
8,600.0	7,838.0	8,735.2	7,838.0	36.6	45.9	-90.00	-1,481.6	1,687.7	865.7	797.0	68.67	12.606	
8,700.0	7,838.0	8,835.2	7,838.0	38.1	47.1	-90.00	-1,581.6	1,688.0	865.7	793.8	71.83	12.051	
8,800.0	7,838.0	8,935.2	7,838.0	39.6	48.3	-90.00	-1,681.6	1,688.3	865.6	790.6	75.05	11.534	
8,900.0	7,838.0	9,035.2	7,838.0	41.2	49.6	-90.00	-1,781.6	1,688.6	865.6	787.3	78.33	11.051	

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

Offset Design SHOOK PAD 3-1S-67W - SHOOK 3-10-6CDH - Wellbore #1 - PLAN 1 (FEB 5 2016)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

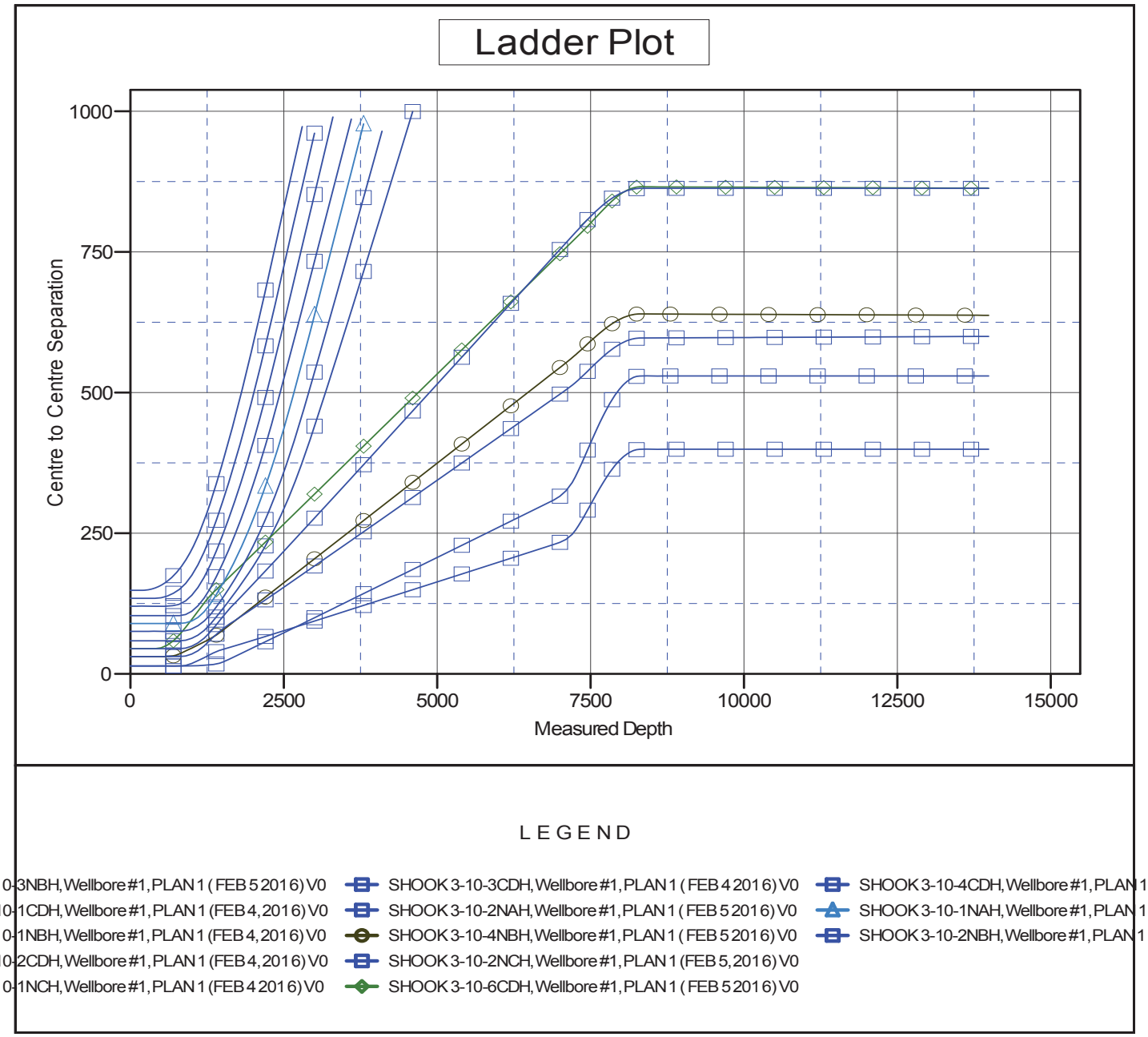
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
9,000.0	7,838.0	9,135.2	7,838.0	42.8	50.9	-90.00	-1,881.6	1,688.9	865.5	783.9	81.65	10.601	
9,100.0	7,838.0	9,235.2	7,838.0	44.4	52.3	-90.00	-1,981.6	1,689.2	865.5	780.5	85.02	10.180	
9,200.0	7,838.0	9,335.2	7,838.0	46.0	53.6	-90.00	-2,081.6	1,689.5	865.4	777.0	88.42	9.788	
9,300.0	7,838.0	9,435.2	7,838.0	47.7	55.0	-90.00	-2,181.6	1,689.8	865.4	773.5	91.86	9.421	
9,400.0	7,838.0	9,535.2	7,838.0	49.4	56.5	-90.00	-2,281.6	1,690.2	865.4	770.0	95.32	9.078	
9,500.0	7,838.0	9,635.2	7,838.0	51.1	58.0	-90.00	-2,381.6	1,690.5	865.3	766.5	98.82	8.756	
9,600.0	7,838.0	9,735.2	7,838.0	52.8	59.5	-90.00	-2,481.6	1,690.8	865.3	762.9	102.34	8.455	
9,700.0	7,838.0	9,835.2	7,838.0	54.5	61.0	-90.00	-2,581.6	1,691.1	865.2	759.3	105.88	8.172	
9,800.0	7,838.0	9,935.2	7,838.0	56.2	62.5	-90.00	-2,681.6	1,691.4	865.2	755.7	109.44	7.906	
9,900.0	7,838.0	10,035.2	7,838.0	58.0	64.1	-90.00	-2,781.6	1,691.7	865.1	752.1	113.01	7.655	
10,000.0	7,838.0	10,135.2	7,838.0	59.7	65.7	-90.00	-2,881.6	1,692.0	865.1	748.5	116.61	7.419	
10,100.0	7,838.0	10,235.2	7,838.0	61.5	67.3	-90.00	-2,981.6	1,692.3	865.0	744.8	120.22	7.196	
10,200.0	7,838.0	10,335.2	7,838.0	63.3	68.9	-90.00	-3,081.6	1,692.6	865.0	741.1	123.84	6.985	
10,300.0	7,838.0	10,435.2	7,838.0	65.1	70.5	-90.00	-3,181.6	1,692.9	864.9	737.5	127.47	6.785	
10,400.0	7,838.0	10,535.2	7,838.0	66.8	72.2	-90.00	-3,281.6	1,693.2	864.9	733.8	131.12	6.596	
10,500.0	7,838.0	10,635.2	7,838.0	68.6	73.8	-90.00	-3,381.6	1,693.5	864.8	730.1	134.77	6.417	
10,600.0	7,838.0	10,735.2	7,838.0	70.4	75.5	-90.00	-3,481.6	1,693.8	864.8	726.4	138.44	6.247	
10,700.0	7,838.0	10,835.2	7,838.0	72.3	77.2	-90.00	-3,581.6	1,694.1	864.8	722.6	142.11	6.085	
10,800.0	7,838.0	10,935.2	7,838.0	74.1	78.9	-90.00	-3,681.6	1,694.4	864.7	718.9	145.79	5.931	
10,900.0	7,838.0	11,035.2	7,838.0	75.9	80.6	-90.00	-3,781.6	1,694.7	864.7	715.2	149.48	5.785	
11,000.0	7,838.0	11,135.2	7,838.0	77.7	82.3	-90.00	-3,881.6	1,695.0	864.6	711.4	153.18	5.645	
11,100.0	7,838.0	11,235.2	7,838.0	79.5	84.0	-90.00	-3,981.6	1,695.3	864.6	707.7	156.88	5.511	
11,200.0	7,838.0	11,335.2	7,838.0	81.4	85.7	-90.00	-4,081.6	1,695.6	864.5	703.9	160.59	5.384	
11,300.0	7,838.0	11,435.2	7,838.0	83.2	87.5	-90.00	-4,181.6	1,695.9	864.5	700.2	164.30	5.262	
11,400.0	7,838.0	11,535.2	7,838.0	85.0	89.2	-90.00	-4,281.6	1,696.2	864.4	696.4	168.02	5.145	
11,500.0	7,838.0	11,635.2	7,838.0	86.9	91.0	-90.00	-4,381.6	1,696.5	864.4	692.6	171.74	5.033	
11,600.0	7,838.0	11,735.2	7,838.0	88.7	92.7	-90.00	-4,481.6	1,696.8	864.3	688.9	175.47	4.926	
11,700.0	7,838.0	11,835.2	7,838.0	90.6	94.5	-90.00	-4,581.6	1,697.1	864.3	685.1	179.21	4.823	
11,800.0	7,838.0	11,935.2	7,838.0	92.4	96.3	-90.00	-4,681.6	1,697.4	864.3	681.3	182.94	4.724	
11,900.0	7,838.0	12,035.2	7,838.0	94.3	98.1	-90.00	-4,781.6	1,697.7	864.2	677.5	186.68	4.629	
12,000.0	7,838.0	12,135.2	7,838.0	96.1	99.8	-90.00	-4,881.6	1,698.0	864.2	673.7	190.43	4.538	
12,100.0	7,838.0	12,235.2	7,838.0	98.0	101.6	-90.00	-4,981.6	1,698.3	864.1	669.9	194.18	4.450	
12,200.0	7,838.0	12,335.2	7,838.0	99.9	103.4	-90.00	-5,081.6	1,698.6	864.1	666.1	197.93	4.366	
12,300.0	7,838.0	12,435.2	7,838.0	101.7	105.2	-90.00	-5,181.6	1,698.9	864.0	662.3	201.68	4.284	
12,400.0	7,838.0	12,535.2	7,838.0	103.6	107.0	-90.00	-5,281.6	1,699.2	864.0	658.5	205.44	4.206	
12,500.0	7,838.0	12,635.2	7,838.0	105.4	108.8	-90.00	-5,381.6	1,699.5	863.9	654.7	209.20	4.130	
12,600.0	7,838.0	12,735.2	7,838.0	107.3	110.6	-90.00	-5,481.6	1,699.8	863.9	650.9	212.96	4.057	
12,700.0	7,838.0	12,835.2	7,838.0	109.2	112.4	-90.00	-5,581.6	1,700.2	863.8	647.1	216.73	3.986	
12,800.0	7,838.0	12,935.2	7,838.0	111.1	114.2	-90.00	-5,681.6	1,700.5	863.8	643.3	220.49	3.918	
12,900.0	7,838.0	13,035.2	7,838.0	112.9	116.1	-90.00	-5,781.6	1,700.8	863.7	639.5	224.26	3.852	
13,000.0	7,838.0	13,135.2	7,838.0	114.8	117.9	-90.00	-5,881.6	1,701.1	863.7	635.7	228.03	3.788	
13,100.0	7,838.0	13,235.2	7,838.0	116.7	119.7	-90.00	-5,981.6	1,701.4	863.7	631.9	231.81	3.726	
13,200.0	7,838.0	13,335.2	7,838.0	118.6	121.5	-90.00	-6,081.6	1,701.7	863.6	628.0	235.58	3.666	
13,300.0	7,838.0	13,435.2	7,838.0	120.4	123.4	-90.00	-6,181.6	1,702.0	863.6	624.2	239.36	3.608	
13,400.0	7,838.0	13,535.2	7,838.0	122.3	125.2	-90.00	-6,281.6	1,702.3	863.5	620.4	243.14	3.552	
13,500.0	7,838.0	13,635.2	7,838.0	124.2	127.0	-90.00	-6,381.6	1,702.6	863.5	616.6	246.92	3.497	
13,600.0	7,838.0	13,735.2	7,838.0	126.1	128.9	-90.00	-6,481.6	1,702.9	863.4	612.7	250.70	3.444	
13,700.0	7,838.0	13,835.2	7,838.0	128.0	130.7	-90.00	-6,581.6	1,703.2	863.4	608.9	254.48	3.393	
13,800.0	7,838.0	13,935.2	7,838.0	129.8	132.5	-90.00	-6,681.6	1,703.5	863.3	605.1	258.27	3.343	
13,900.0	7,838.0	14,035.2	7,838.0	131.7	134.4	-90.00	-6,781.6	1,703.8	863.3	601.2	262.05	3.294	
13,973.3	7,838.0	14,108.5	7,838.0	133.1	135.7	-90.00	-6,854.8	1,704.0	863.3	598.4	264.83	3.260	
13,989.8	7,838.0	14,124.0	7,838.0	133.4	136.0	-90.00	-6,870.3	1,704.1	863.2	597.8	265.43	3.252	SF

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

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-5CDH
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



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

Reference Depths are relative to RKB @ 5109.0ft (EST KB 16')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: SHOOK 3-10-5CDH
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°