

PETROSHARE

Location: COLORADO Slot: SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Field: ADAMS COUNTY (NAD83/ GRID NORTH) Well: WAKEMAN 20-17-3NBH
Facility: SEC.20-T01S-R65W Wellbore: WAKEMAN 20-17-3NBH PWB

Plot reference wellpath is WAKEMAN 20-17-3NBH PWB (REV-A.0)

True vertical depths are referenced to RIG (13KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (13KB) (RKB)	North Reference: Grid north
RIG (13KB) (RKB) to Mean Sea Level: 5203 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingmjmr on 2017-09-22
	Database: WellArchitectDB1

Location Information

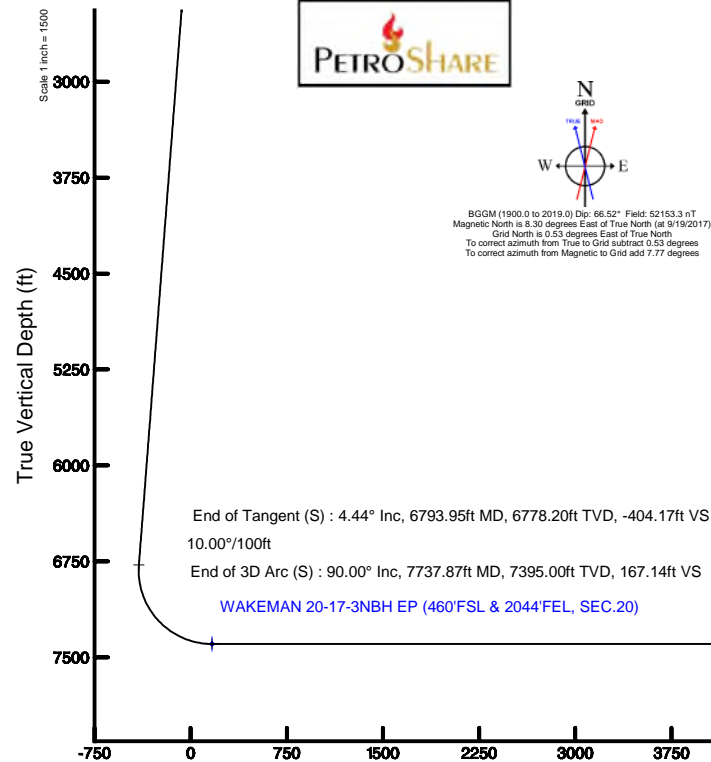
Facility Name				Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SEC.20-T01S-R65W				3228360.558	1223518.730	39°56'38.622"N	104°41'07.909"W
Slot	Local N (ft)	Local E (ft)		Grid East (US Rt)	Grid North (US Rt)	Latitude	Longitude
SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)	-0.21	-89.92		3228270.638	1223518.520	39°56'38.628"N	104°41'09.064"W
RIG (13KB) (RKB) to Ground level (At Slot: SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20))						5203R	
Mean Sea Level to Ground level (At Slot: SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20))						0ft	
RIG (13KB) (RKB) to Mean Sea Level						5203R	

Hole and Casing Sections

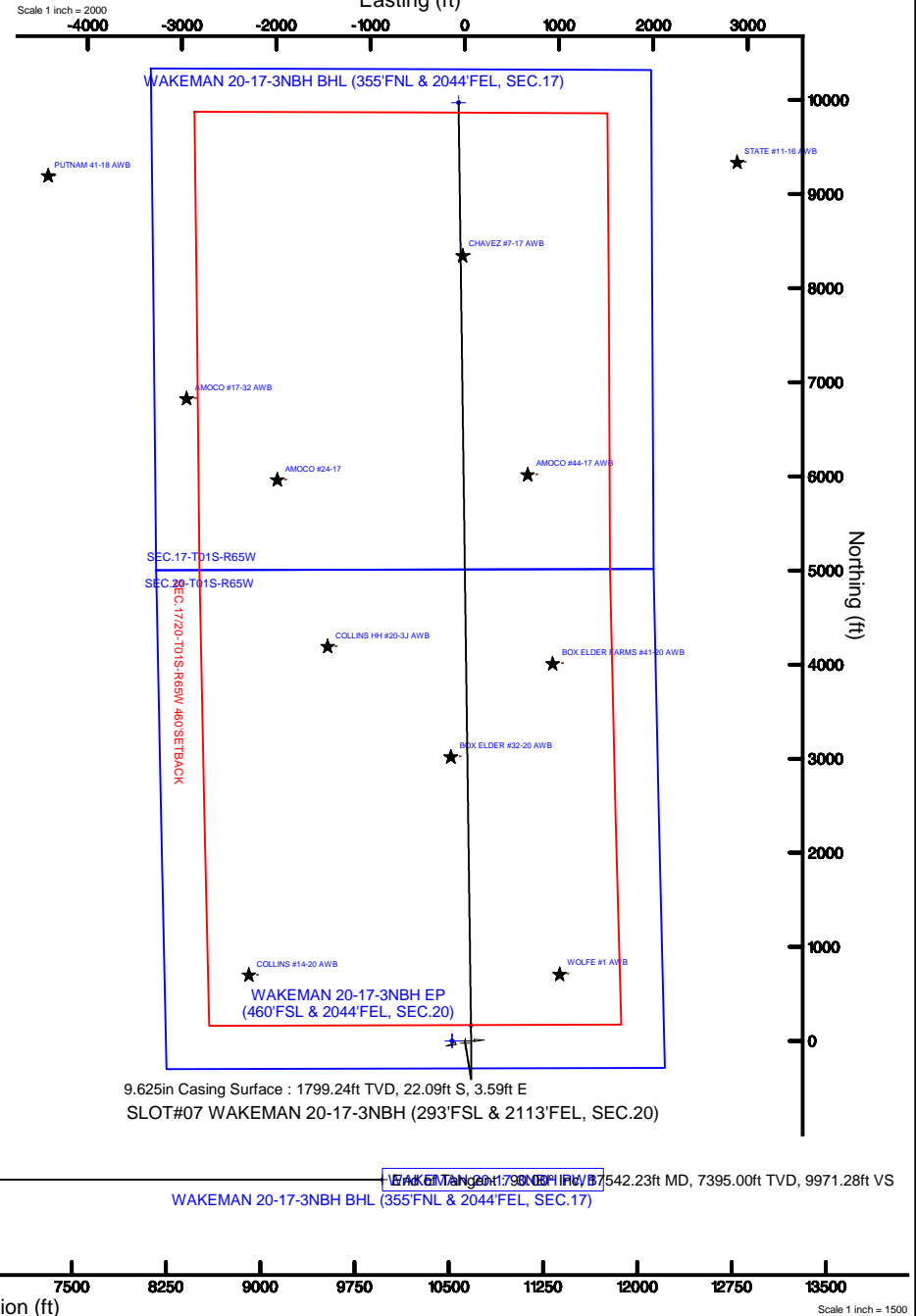
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.24	0.00	0.00	-22.09	3.59	WAKEMAN 20-17-3NBH PWB
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-22.09	3.59	9971.05	-66.86	WAKEMAN 20-17-3NBH PWB

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	17542.23	BHI NavTrak	Custom BHI NavTrak (Standard Rotating+Axial Cor) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NBH PWB



Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	13.00	0.000	170.763	13.00	0.00	0.00	0.00
End of Tangent	1400.00	0.000	170.763	1400.00	0.00	0.00	0.00
End of Build (S)	1622.03	4.441	170.763	1621.81	-8.49	1.38	2.00
End of Tangent (S)	6793.95	4.441	170.763	6778.20	-403.74	65.66	0.00
End of 3D Arc (S)	7737.87	90.000	359.229	7395.00	167.58	65.03	10.00
End of Tangent	17542.23	90.000	359.229	7395.00	9971.05	-66.86	0.00



Azimuth 359.62° with reference 0.00 N, 0.00 E



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 1 of 10

**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 12:42:26 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1/WAKEMAN_20-17-3NBH_PWP_REV-A.0_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.21	-89.92	3228270.64	1223518.52	39°56'38.628"N	104°41'09.064"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.62°



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	170.763	0.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
13.00	0.000	170.763	13.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	Tie On
113.00†	0.000	170.763	113.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
213.00†	0.000	170.763	213.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
313.00†	0.000	170.763	313.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
413.00†	0.000	170.763	413.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
513.00†	0.000	170.763	513.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
613.00†	0.000	170.763	613.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
713.00†	0.000	170.763	713.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
813.00†	0.000	170.763	813.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
913.00†	0.000	170.763	913.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
1013.00†	0.000	170.763	1013.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
1113.00†	0.000	170.763	1113.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
1213.00†	0.000	170.763	1213.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
1313.00†	0.000	170.763	1313.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	
1400.00	0.000	170.763	1400.00	0.00	0.00	0.00	39°56'38.628"N	104°41'09.064"W	0.00	End of Tangent
1413.00†	0.260	170.763	1413.00	-0.03	-0.03	0.00	39°56'38.628"N	104°41'09.064"W	2.00	
1500.02†	2.000	170.763	1500.00	-1.73	-1.72	0.28	39°56'38.611"N	104°41'09.060"W	2.00	FOX HILLS
1513.00†	2.260	170.763	1512.97	-2.20	-2.20	0.36	39°56'38.606"N	104°41'09.059"W	2.00	
1613.00†	4.260	170.763	1612.80	-7.82	-7.81	1.27	39°56'38.551"N	104°41'09.048"W	2.00	
1622.03	4.441	170.763	1621.81	-8.50	-8.49	1.38	39°56'38.544"N	104°41'09.047"W	2.00	End of Build (S)
1713.00†	4.441	170.763	1712.50	-15.46	-15.44	2.51	39°56'38.475"N	104°41'09.033"W	0.00	
1813.00†	4.441	170.763	1812.20	-23.11	-23.08	3.75	39°56'38.399"N	104°41'09.018"W	0.00	
1913.00†	4.441	170.763	1911.90	-30.76	-30.72	5.00	39°56'38.324"N	104°41'09.003"W	0.00	
2013.00†	4.441	170.763	2011.60	-38.41	-38.37	6.24	39°56'38.248"N	104°41'08.988"W	0.00	
2113.00†	4.441	170.763	2111.30	-46.06	-46.01	7.48	39°56'38.173"N	104°41'08.973"W	0.00	
2213.00†	4.441	170.763	2211.00	-53.71	-53.65	8.73	39°56'38.097"N	104°41'08.958"W	0.00	
2313.00†	4.441	170.763	2310.70	-61.36	-61.29	9.97	39°56'38.021"N	104°41'08.943"W	0.00	
2413.00†	4.441	170.763	2410.40	-69.01	-68.94	11.21	39°56'37.946"N	104°41'08.928"W	0.00	
2513.00†	4.441	170.763	2510.10	-76.66	-76.58	12.45	39°56'37.870"N	104°41'08.913"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	4.441	170.763	2609.80	-84.31	-84.22	13.70	39°56'37.794"N	104°41'08.898"W	0.00	
2713.00†	4.441	170.763	2709.50	-91.96	-91.86	14.94	39°56'37.719"N	104°41'08.883"W	0.00	
2813.00†	4.441	170.763	2809.20	-99.61	-99.50	16.18	39°56'37.643"N	104°41'08.868"W	0.00	
2913.00†	4.441	170.763	2908.90	-107.26	-107.15	17.42	39°56'37.567"N	104°41'08.853"W	0.00	
3013.00†	4.441	170.763	3008.60	-114.91	-114.79	18.67	39°56'37.492"N	104°41'08.837"W	0.00	
3113.00†	4.441	170.763	3108.30	-122.56	-122.43	19.91	39°56'37.416"N	104°41'08.822"W	0.00	
3213.00†	4.441	170.763	3208.00	-130.21	-130.07	21.15	39°56'37.341"N	104°41'08.807"W	0.00	
3313.00†	4.441	170.763	3307.70	-137.86	-137.72	22.40	39°56'37.265"N	104°41'08.792"W	0.00	
3413.00†	4.441	170.763	3407.40	-145.51	-145.36	23.64	39°56'37.189"N	104°41'08.777"W	0.00	
3513.00†	4.441	170.763	3507.10	-153.16	-153.00	24.88	39°56'37.114"N	104°41'08.762"W	0.00	
3613.00†	4.441	170.763	3606.80	-160.81	-160.64	26.12	39°56'37.038"N	104°41'08.747"W	0.00	
3713.00†	4.441	170.763	3706.50	-168.46	-168.29	27.37	39°56'36.962"N	104°41'08.732"W	0.00	
3813.00†	4.441	170.763	3806.20	-176.12	-175.93	28.61	39°56'36.887"N	104°41'08.717"W	0.00	
3913.00†	4.441	170.763	3905.90	-183.77	-183.57	29.85	39°56'36.811"N	104°41'08.702"W	0.00	
4013.00†	4.441	170.763	4005.60	-191.42	-191.21	31.10	39°56'36.736"N	104°41'08.687"W	0.00	
4113.00†	4.441	170.763	4105.30	-199.07	-198.85	32.34	39°56'36.660"N	104°41'08.672"W	0.00	
4213.00†	4.441	170.763	4205.00	-206.72	-206.50	33.58	39°56'36.584"N	104°41'08.657"W	0.00	
4313.00†	4.441	170.763	4304.70	-214.37	-214.14	34.82	39°56'36.509"N	104°41'08.642"W	0.00	
4413.00†	4.441	170.763	4404.40	-222.02	-221.78	36.07	39°56'36.433"N	104°41'08.627"W	0.00	
4513.00†	4.441	170.763	4504.10	-229.67	-229.42	37.31	39°56'36.357"N	104°41'08.612"W	0.00	
4613.00†	4.441	170.763	4603.80	-237.32	-237.07	38.55	39°56'36.282"N	104°41'08.597"W	0.00	
4713.00†	4.441	170.763	4703.50	-244.97	-244.71	39.80	39°56'36.206"N	104°41'08.582"W	0.00	
4813.00†	4.441	170.763	4803.20	-252.62	-252.35	41.04	39°56'36.130"N	104°41'08.566"W	0.00	
4859.94†	4.441	170.763	4850.00	-256.21	-255.94	41.62	39°56'36.095"N	104°41'08.559"W	0.00	SUSSEX/SHANNON
4913.00†	4.441	170.763	4902.90	-260.27	-259.99	42.28	39°56'36.055"N	104°41'08.551"W	0.00	
5013.00†	4.441	170.763	5002.60	-267.92	-267.63	43.52	39°56'35.979"N	104°41'08.536"W	0.00	
5113.00†	4.441	170.763	5102.30	-275.57	-275.28	44.77	39°56'35.904"N	104°41'08.521"W	0.00	
5213.00†	4.441	170.763	5202.00	-283.22	-282.92	46.01	39°56'35.828"N	104°41'08.506"W	0.00	
5313.00†	4.441	170.763	5301.70	-290.87	-290.56	47.25	39°56'35.752"N	104°41'08.491"W	0.00	
5413.00†	4.441	170.763	5401.40	-298.52	-298.20	48.50	39°56'35.677"N	104°41'08.476"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	4.441	170.763	5501.10	-306.17	-305.85	49.74	39°56'35.601"N	104°41'08.461"W	0.00	
5613.00†	4.441	170.763	5600.80	-313.82	-313.49	50.98	39°56'35.525"N	104°41'08.446"W	0.00	
5713.00†	4.441	170.763	5700.50	-321.47	-321.13	52.22	39°56'35.450"N	104°41'08.431"W	0.00	
5813.00†	4.441	170.763	5800.20	-329.12	-328.77	53.47	39°56'35.374"N	104°41'08.416"W	0.00	
5913.00†	4.441	170.763	5899.90	-336.77	-336.41	54.71	39°56'35.298"N	104°41'08.401"W	0.00	
6013.00†	4.441	170.763	5999.60	-344.42	-344.06	55.95	39°56'35.223"N	104°41'08.386"W	0.00	
6113.00†	4.441	170.763	6099.30	-352.07	-351.70	57.20	39°56'35.147"N	104°41'08.371"W	0.00	
6213.00†	4.441	170.763	6199.00	-359.72	-359.34	58.44	39°56'35.072"N	104°41'08.356"W	0.00	
6313.00†	4.441	170.763	6298.70	-367.38	-366.98	59.68	39°56'34.996"N	104°41'08.341"W	0.00	
6413.00†	4.441	170.763	6398.40	-375.03	-374.63	60.92	39°56'34.920"N	104°41'08.326"W	0.00	
6513.00†	4.441	170.763	6498.10	-382.68	-382.27	62.17	39°56'34.845"N	104°41'08.311"W	0.00	
6613.00†	4.441	170.763	6597.80	-390.33	-389.91	63.41	39°56'34.769"N	104°41'08.295"W	0.00	
6713.00†	4.441	170.763	6697.50	-397.98	-397.55	64.65	39°56'34.693"N	104°41'08.280"W	0.00	
6793.95	4.441	170.763	6778.20	-404.17	-403.74	65.66	39°56'34.632"N	104°41'08.268"W	0.00	End of Tangent (S)
6813.00†	2.572	164.484	6797.22	-405.31	-404.88	65.89	39°56'34.621"N	104°41'08.265"W	10.00	
6913.00†	7.541	4.184	6896.99	-400.93	-400.49	66.97	39°56'34.664"N	104°41'08.251"W	10.00	
7013.00†	17.525	1.304	6994.48	-379.28	-378.83	67.80	39°56'34.878"N	104°41'08.238"W	10.00	
7113.00†	27.520	0.487	7086.74	-341.03	-340.58	68.34	39°56'35.256"N	104°41'08.226"W	10.00	
7213.00†	37.518	0.082	7170.95	-287.35	-286.89	68.58	39°56'35.787"N	104°41'08.217"W	10.00	
7276.40†	43.856	359.911	7219.00	-246.04	-245.59	68.57	39°56'36.195"N	104°41'08.212"W	10.00	NIOBRARA A CHALK
7300.47†	46.263	359.856	7236.00	-229.01	-228.55	68.54	39°56'36.363"N	104°41'08.211"W	10.00	NIOBRARA A MARL
7313.00†	47.516	359.829	7244.57	-219.85	-219.40	68.51	39°56'36.454"N	104°41'08.210"W	10.00	
7413.00†	57.515	359.646	7305.34	-140.60	-140.15	68.14	39°56'37.237"N	104°41'08.205"W	10.00	
7513.00†	67.514	359.500	7351.44	-52.00	-51.55	67.48	39°56'38.112"N	104°41'08.203"W	10.00	
7613.00†	77.513	359.374	7381.45	43.25	43.70	66.54	39°56'39.054"N	104°41'08.204"W	10.00	
7713.00†	87.513	359.258	7394.46	142.27	142.72	65.35	39°56'40.032"N	104°41'08.208"W	10.00	
7737.87	90.000	359.229	7395.00†	167.14	167.58	65.03	39°56'40.278"N	104°41'08.209"W	10.00	End of 3D Arc (S)
7813.00†	90.000	359.229	7395.00	242.26	242.70	64.02	39°56'41.020"N	104°41'08.213"W	0.00	
7913.00†	90.000	359.229	7395.00	342.26	342.69	62.67	39°56'42.009"N	104°41'08.219"W	0.00	
8013.00†	90.000	359.229	7395.00	442.26	442.68	61.32	39°56'42.997"N	104°41'08.224"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8113.00†	90.000	359.229	7395.00	542.26	542.67	59.98	39°56'43.985"N	104°41'08.230"W	0.00	
8213.00†	90.000	359.229	7395.00	642.26	642.66	58.63	39°56'44.973"N	104°41'08.235"W	0.00	
8313.00†	90.000	359.229	7395.00	742.25	742.65	57.29	39°56'45.962"N	104°41'08.241"W	0.00	
8413.00†	90.000	359.229	7395.00	842.25	842.64	55.94	39°56'46.950"N	104°41'08.246"W	0.00	
8513.00†	90.000	359.229	7395.00	942.25	942.64	54.60	39°56'47.938"N	104°41'08.251"W	0.00	
8613.00†	90.000	359.229	7395.00	1042.25	1042.63	53.25	39°56'48.926"N	104°41'08.257"W	0.00	
8713.00†	90.000	359.229	7395.00	1142.24	1142.62	51.91	39°56'49.915"N	104°41'08.262"W	0.00	
8813.00†	90.000	359.229	7395.00	1242.24	1242.61	50.56	39°56'50.903"N	104°41'08.268"W	0.00	
8913.00†	90.000	359.229	7395.00	1342.24	1342.60	49.22	39°56'51.891"N	104°41'08.273"W	0.00	
9013.00†	90.000	359.229	7395.00	1442.24	1442.59	47.87	39°56'52.879"N	104°41'08.279"W	0.00	
9113.00†	90.000	359.229	7395.00	1542.23	1542.58	46.53	39°56'53.867"N	104°41'08.284"W	0.00	
9213.00†	90.000	359.229	7395.00	1642.23	1642.57	45.18	39°56'54.856"N	104°41'08.290"W	0.00	
9313.00†	90.000	359.229	7395.00	1742.23	1742.56	43.84	39°56'55.844"N	104°41'08.295"W	0.00	
9413.00†	90.000	359.229	7395.00	1842.23	1842.55	42.49	39°56'56.832"N	104°41'08.301"W	0.00	
9513.00†	90.000	359.229	7395.00	1942.23	1942.55	41.15	39°56'57.820"N	104°41'08.306"W	0.00	
9613.00†	90.000	359.229	7395.00	2042.22	2042.54	39.80	39°56'58.809"N	104°41'08.312"W	0.00	
9713.00†	90.000	359.229	7395.00	2142.22	2142.53	38.46	39°56'59.797"N	104°41'08.317"W	0.00	
9813.00†	90.000	359.229	7395.00	2242.22	2242.52	37.11	39°57'00.785"N	104°41'08.323"W	0.00	
9913.00†	90.000	359.229	7395.00	2342.22	2342.51	35.77	39°57'01.773"N	104°41'08.328"W	0.00	
10013.00†	90.000	359.229	7395.00	2442.21	2442.50	34.42	39°57'02.762"N	104°41'08.334"W	0.00	
10113.00†	90.000	359.229	7395.00	2542.21	2542.49	33.08	39°57'03.750"N	104°41'08.339"W	0.00	
10213.00†	90.000	359.229	7395.00	2642.21	2642.48	31.73	39°57'04.738"N	104°41'08.345"W	0.00	
10313.00†	90.000	359.229	7395.00	2742.21	2742.47	30.39	39°57'05.726"N	104°41'08.350"W	0.00	
10413.00†	90.000	359.229	7395.00	2842.21	2842.46	29.04	39°57'06.714"N	104°41'08.356"W	0.00	
10513.00†	90.000	359.229	7395.00	2942.20	2942.45	27.70	39°57'07.703"N	104°41'08.361"W	0.00	
10613.00†	90.000	359.229	7395.00	3042.20	3042.45	26.35	39°57'08.691"N	104°41'08.367"W	0.00	
10713.00†	90.000	359.229	7395.00	3142.20	3142.44	25.01	39°57'09.679"N	104°41'08.372"W	0.00	
10813.00†	90.000	359.229	7395.00	3242.20	3242.43	23.66	39°57'10.667"N	104°41'08.378"W	0.00	
10913.00†	90.000	359.229	7395.00	3342.19	3342.42	22.32	39°57'11.656"N	104°41'08.383"W	0.00	
11013.00†	90.000	359.229	7395.00	3442.19	3442.41	20.97	39°57'12.644"N	104°41'08.388"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11113.00†	90.000	359.229	7395.00	3542.19	3542.40	19.63	39°57'13.632"N	104°41'08.394"W	0.00	
11213.00†	90.000	359.229	7395.00	3642.19	3642.39	18.28	39°57'14.620"N	104°41'08.399"W	0.00	
11313.00†	90.000	359.229	7395.00	3742.18	3742.38	16.94	39°57'15.609"N	104°41'08.405"W	0.00	
11413.00†	90.000	359.229	7395.00	3842.18	3842.37	15.59	39°57'16.597"N	104°41'08.410"W	0.00	
11513.00†	90.000	359.229	7395.00	3942.18	3942.36	14.25	39°57'17.585"N	104°41'08.416"W	0.00	
11613.00†	90.000	359.229	7395.00	4042.18	4042.36	12.90	39°57'18.573"N	104°41'08.421"W	0.00	
11713.00†	90.000	359.229	7395.00	4142.18	4142.35	11.55	39°57'19.561"N	104°41'08.427"W	0.00	
11813.00†	90.000	359.229	7395.00	4242.17	4242.34	10.21	39°57'20.550"N	104°41'08.432"W	0.00	
11913.00†	90.000	359.229	7395.00	4342.17	4342.33	8.86	39°57'21.538"N	104°41'08.438"W	0.00	
12013.00†	90.000	359.229	7395.00	4442.17	4442.32	7.52	39°57'22.526"N	104°41'08.443"W	0.00	
12113.00†	90.000	359.229	7395.00	4542.17	4542.31	6.17	39°57'23.514"N	104°41'08.449"W	0.00	
12213.00†	90.000	359.229	7395.00	4642.16	4642.30	4.83	39°57'24.503"N	104°41'08.454"W	0.00	
12313.00†	90.000	359.229	7395.00	4742.16	4742.29	3.48	39°57'25.491"N	104°41'08.460"W	0.00	
12413.00†	90.000	359.229	7395.00	4842.16	4842.28	2.14	39°57'26.479"N	104°41'08.465"W	0.00	
12513.00†	90.000	359.229	7395.00	4942.16	4942.27	0.79	39°57'27.467"N	104°41'08.471"W	0.00	
12613.00†	90.000	359.229	7395.00	5042.16	5042.26	-0.55	39°57'28.456"N	104°41'08.476"W	0.00	
12713.00†	90.000	359.229	7395.00	5142.15	5142.26	-1.90	39°57'29.444"N	104°41'08.482"W	0.00	
12813.00†	90.000	359.229	7395.00	5242.15	5242.25	-3.24	39°57'30.432"N	104°41'08.487"W	0.00	
12913.00†	90.000	359.229	7395.00	5342.15	5342.24	-4.59	39°57'31.420"N	104°41'08.493"W	0.00	
13013.00†	90.000	359.229	7395.00	5442.15	5442.23	-5.93	39°57'32.408"N	104°41'08.498"W	0.00	
13113.00†	90.000	359.229	7395.00	5542.14	5542.22	-7.28	39°57'33.397"N	104°41'08.504"W	0.00	
13213.00†	90.000	359.229	7395.00	5642.14	5642.21	-8.62	39°57'34.385"N	104°41'08.509"W	0.00	
13313.00†	90.000	359.229	7395.00	5742.14	5742.20	-9.97	39°57'35.373"N	104°41'08.515"W	0.00	
13413.00†	90.000	359.229	7395.00	5842.14	5842.19	-11.31	39°57'36.361"N	104°41'08.520"W	0.00	
13513.00†	90.000	359.229	7395.00	5942.13	5942.18	-12.66	39°57'37.350"N	104°41'08.526"W	0.00	
13613.00†	90.000	359.229	7395.00	6042.13	6042.17	-14.00	39°57'38.338"N	104°41'08.531"W	0.00	
13713.00†	90.000	359.229	7395.00	6142.13	6142.17	-15.35	39°57'39.326"N	104°41'08.536"W	0.00	
13813.00†	90.000	359.229	7395.00	6242.13	6242.16	-16.69	39°57'40.314"N	104°41'08.542"W	0.00	
13913.00†	90.000	359.229	7395.00	6342.13	6342.15	-18.04	39°57'41.303"N	104°41'08.547"W	0.00	
14013.00†	90.000	359.229	7395.00	6442.12	6442.14	-19.38	39°57'42.291"N	104°41'08.553"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 7 of 10

**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14113.00†	90.000	359.229	7395.00	6542.12	6542.13	-20.73	39°57'43.279"N	104°41'08.558"W	0.00	
14213.00†	90.000	359.229	7395.00	6642.12	6642.12	-22.07	39°57'44.267"N	104°41'08.564"W	0.00	
14313.00†	90.000	359.229	7395.00	6742.12	6742.11	-23.42	39°57'45.256"N	104°41'08.569"W	0.00	
14413.00†	90.000	359.229	7395.00	6842.11	6842.10	-24.76	39°57'46.244"N	104°41'08.575"W	0.00	
14513.00†	90.000	359.229	7395.00	6942.11	6942.09	-26.11	39°57'47.232"N	104°41'08.580"W	0.00	
14613.00†	90.000	359.229	7395.00	7042.11	7042.08	-27.45	39°57'48.220"N	104°41'08.586"W	0.00	
14713.00†	90.000	359.229	7395.00	7142.11	7142.07	-28.80	39°57'49.208"N	104°41'08.591"W	0.00	
14813.00†	90.000	359.229	7395.00	7242.11	7242.07	-30.14	39°57'50.197"N	104°41'08.597"W	0.00	
14913.00†	90.000	359.229	7395.00	7342.10	7342.06	-31.49	39°57'51.185"N	104°41'08.602"W	0.00	
15013.00†	90.000	359.229	7395.00	7442.10	7442.05	-32.83	39°57'52.173"N	104°41'08.608"W	0.00	
15113.00†	90.000	359.229	7395.00	7542.10	7542.04	-34.18	39°57'53.161"N	104°41'08.613"W	0.00	
15213.00†	90.000	359.229	7395.00	7642.10	7642.03	-35.52	39°57'54.150"N	104°41'08.619"W	0.00	
15313.00†	90.000	359.229	7395.00	7742.09	7742.02	-36.87	39°57'55.138"N	104°41'08.624"W	0.00	
15413.00†	90.000	359.229	7395.00	7842.09	7842.01	-38.21	39°57'56.126"N	104°41'08.630"W	0.00	
15513.00†	90.000	359.229	7395.00	7942.09	7942.00	-39.56	39°57'57.114"N	104°41'08.635"W	0.00	
15613.00†	90.000	359.229	7395.00	8042.09	8041.99	-40.91	39°57'58.103"N	104°41'08.641"W	0.00	
15713.00†	90.000	359.229	7395.00	8142.08	8141.98	-42.25	39°57'59.091"N	104°41'08.646"W	0.00	
15813.00†	90.000	359.229	7395.00	8242.08	8241.98	-43.60	39°58'00.079"N	104°41'08.652"W	0.00	
15913.00†	90.000	359.229	7395.00	8342.08	8341.97	-44.94	39°58'01.067"N	104°41'08.657"W	0.00	
16013.00†	90.000	359.229	7395.00	8442.08	8441.96	-46.29	39°58'02.055"N	104°41'08.663"W	0.00	
16113.00†	90.000	359.229	7395.00	8542.08	8541.95	-47.63	39°58'03.044"N	104°41'08.668"W	0.00	
16213.00†	90.000	359.229	7395.00	8642.07	8641.94	-48.98	39°58'04.032"N	104°41'08.674"W	0.00	
16313.00†	90.000	359.229	7395.00	8742.07	8741.93	-50.32	39°58'05.020"N	104°41'08.679"W	0.00	
16413.00†	90.000	359.229	7395.00	8842.07	8841.92	-51.67	39°58'06.008"N	104°41'08.685"W	0.00	
16513.00†	90.000	359.229	7395.00	8942.07	8941.91	-53.01	39°58'06.997"N	104°41'08.690"W	0.00	
16613.00†	90.000	359.229	7395.00	9042.06	9041.90	-54.36	39°58'07.985"N	104°41'08.695"W	0.00	
16713.00†	90.000	359.229	7395.00	9142.06	9141.89	-55.70	39°58'08.973"N	104°41'08.701"W	0.00	
16813.00†	90.000	359.229	7395.00	9242.06	9241.88	-57.05	39°58'09.961"N	104°41'08.706"W	0.00	
16913.00†	90.000	359.229	7395.00	9342.06	9341.88	-58.39	39°58'10.950"N	104°41'08.712"W	0.00	
17013.00†	90.000	359.229	7395.00	9442.06	9441.87	-59.74	39°58'11.938"N	104°41'08.717"W	0.00	



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 8 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17113.00†	90.000	359.229	7395.00	9542.05	9541.86	-61.08	39°58'12.926"N	104°41'08.723"W	0.00	
17213.00†	90.000	359.229	7395.00	9642.05	9641.85	-62.43	39°58'13.914"N	104°41'08.728"W	0.00	
17313.00†	90.000	359.229	7395.00	9742.05	9741.84	-63.77	39°58'14.902"N	104°41'08.734"W	0.00	
17413.00†	90.000	359.229	7395.00	9842.05	9841.83	-65.12	39°58'15.891"N	104°41'08.739"W	0.00	
17513.00†	90.000	359.229	7395.00	9942.04	9941.82	-66.46	39°58'16.879"N	104°41'08.745"W	0.00	
17542.23†	90.000	359.229	7395.00	9971.27	9971.05	-66.86	39°58'17.168"N	104°41'08.746"W	0.00	NIOBRARA B CHALK
17542.23	90.000	359.229	7395.00 ²	9971.28	9971.05	-66.86	39°58'17.168"N	104°41'08.746"W	0.00	End of Tangent

HOLE & CASING SECTIONS

- Ref Wellbore: WAKEMAN 20-17-3NBH PWB Ref Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.24	0.00	0.00	-22.09	3.59
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-22.09	3.59	9971.05	-66.86



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T01S-R65W		0.00	1.21	-134.32	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
SEC.20-T01S-R65W		0.00	1.21	-134.32	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon
2) WAKEMAN 20-17-3NBH BHL (355'FNL & 2044'FEL, SEC.17)	17542.23	7395.00	9971.05	-66.86	3228203.78	1233489.27	39°58'17.168"N	104°41'08.746"W	point
1) WAKEMAN 20-17-3NBH EP (460'FSL & 2044'FEL, SEC.20)	7737.87	7395.00	167.58	65.03	3228335.66	1223686.09	39°56'40.278"N	104°41'08.209"W	point
SEC.17/20-T01S-R65W 460'SETBACK		7638.00	1.21	-134.32	3228136.32	1223519.73	39°56'38.652"N	104°41'10.788"W	polygon

SURVEY PROGRAM -

Ref Wellbore: WAKEMAN 20-17-3NBH PWB Ref Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17542.23	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NBH PWB



Planned Wellpath Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)

Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1500.02	2.000	170.763	1500.00	FOX HILLS
4859.94	4.441	170.763	4850.00	SUSSEX/SHANNON
7276.40	43.856	359.911	7219.00	NIOBRARA A CHALK
7300.47	46.263	359.856	7236.00	NIOBRARA A MARL
17542.23	90.000	359.229	7395.00	NIOBRARA B CHALK

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	170.763	13.00	Tie On
1400.00	0.000	170.763	1400.00	End of Tangent
1622.03	4.441	170.763	1621.81	End of Build (S)
6793.95	4.441	170.763	6778.20	End of Tangent (S)
7737.87	90.000	359.229	7395.00	End of 3D Arc (S)
17542.23	90.000	359.229	7395.00	End of Tangent



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 1 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Ingmjmr
Scale	0.999971	Report Generated	9/22/2017 at 12:43:29 PM
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB1\WAKEMAN_20-17-3NBH_PWP_REV-A.0_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.21	-89.92	3228270.64	1223518.52	39°56'38.628"N	104°41'09.064"W
Facility Reference Pt			3228360.56	1223518.73	39°56'38.622"N	104°41'07.909"W
Field Reference Pt			3175478.75	1240632.48	39°59'31.992"N	104°52'25.320"W

WELLPATH DATUM

Calculation method	Minimum Curvature	RIG (13'KB) (RKB) to Facility Vertical Datum	5203.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5203.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20))	5203.00ft
MD Reference Pt	RIG (13'KB) (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	13.00ft	Surface Position Uncertainty	Included
Declination	8.30° East of TN	Dip Angle	66.52°	Mag Field Strength	52153 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft	Vertical	3.000ft

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 2 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

ANTI-COLLISION RULE

Rule Name	Baker Hughes Stop Drilling (offset is HSE risk)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no

HOLE & CASING SECTIONS - Ref Wellbore: WAKEMAN 20-17-3NBH PWB Ref Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.24	0.00	0.00	-22.09	3.59
8.5in Open Hole	1800.00	17542.23	15742.23	1799.24	7395.00	-22.09	3.59	9971.05	-66.86

SURVEY PROGRAM - Ref Wellbore: WAKEMAN 20-17-3NBH PWB Ref Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17542.23	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NBH PWB



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 3 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17542.23ft MD	C-C Cutoff: 1000.00 ft
------------------	-------------------	------------------------

OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.17-T01S-R65W	SLOT#01 EX. CHAVEZ #7-17 (1971°FNL & 1926°FEL, SEC.17, OG, SI, 8190)	CHAVEZ #7-17	CHAVEZ #7-17 AWB	CHAVEZ #7-17 AWP	15929.89	90.07	15929.89	15930.72	0.19	15930.72	FAIL
SEC.20-T01S-R65W	SLOT#02 EX. BOX ELDER #32-20 (1980°FNL & 2080°FEL, SEC.20, OG, PR)	BOX ELDER #32-20	BOX ELDER #32-20 AWB	BOX ELDER #32-20 AWP	10596.41	83.51	10596.41	10596.41	0.28	10596.41	FAIL
SEC.20-T01S-R65W	SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20)	WAKEMAN 20-17-3NAH	WAKEMAN 20-17-3NAH PWB	WAKEMAN 20-17-3NAH PWP (REV-A.0)	13.00	14.94	17513.00	17542.23	0.62	17542.23	FAIL
SEC.20-T01S-R65W	SLOT#08 WAKEMAN 20-17-3NCH (293°FSL & 2128°FEL, SEC.20)	WAKEMAN 20-17-3NCH	WAKEMAN 20-17-3NCH PWB	WAKEMAN 20-17-3NCH PWP (REV-A.0)	13.00	15.06	17542.23	17542.23	0.65	17542.23	FAIL
SEC.20-T01S-R65W	SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)	WAKEMAN 20-17-3CDH	WAKEMAN 20-17-3CDH PWB	WAKEMAN 20-17-3CDH PWP (REV-A.0)	13.00	29.97	17513.00	17542.23	0.83	17542.23	FAIL
SEC.20-T01S-R65W	SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20)	WAKEMAN 20-17-4NCH	WAKEMAN 20-17-4NCH PWB	WAKEMAN 20-17-4NCH PWP (REV-A.0)	13.00	44.98	17513.00	17542.23	1.27	17542.23	PASS
SEC.20-T01S-R65W	SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20)	WAKEMAN 20-17-2NBH	WAKEMAN 20-17-2NBH PWB	WAKEMAN 20-17-2NBH PWP (REV-A.0)	13.00	30.03	1400.00	17542.23	1.30	17542.23	PASS
SEC.20-T01S-R65W	SLOT#03 WAKEMAN 20-17-4NBH (293°FSL & 2053°FEL, SEC.20)	WAKEMAN 20-17-4NBH	WAKEMAN 20-17-4NBH PWB	WAKEMAN 20-17-4NBH PWP (REV-A.0)	13.00	59.98	17513.00	17542.23	1.89	17542.23	PASS
SEC.20-T01S-R65W	SLOT#10 WAKEMAN 20-17-2NCH (293°FSL & 2158°FEL, SEC.20)	WAKEMAN 20-17-2NCH	WAKEMAN 20-17-2NCH PWB	WAKEMAN 20-17-2NCH PWP (REV-A.0)	13.00	45.00	1400.00	17542.23	1.94	17542.23	PASS
SEC.17-T1S-R65W	SLOT#03 EX. AMOCO #44-17 (990°FSL & 1320°FEL, SEC.17, OG, PR, 8130)	AMOCO #44-17	AMOCO #44-17 AWB	AMOCO #44-17 AWP	13585.19	771.63	13585.19	13613.00	1.98	13613.00	PASS
SEC.20-T01S-R65W	SLOT#02 WAKEMAN 20-17-4NAH (293°FSL & 2038°FEL, SEC.20)	WAKEMAN 20-17-4NAH	WAKEMAN 20-17-4NAH PWB	WAKEMAN 20-17-4NAH PWP (REV-A.0)	13.00	74.92	813.00	17542.23	2.39	17542.23	PASS
SEC.20-T01S-R65W	SLOT#11 WAKEMAN 20-17-2NAH (293°FSL & 2173°FEL, SEC.20)	WAKEMAN 20-17-2NAH	WAKEMAN 20-17-2NAH PWB	WAKEMAN 20-17-2NAH PWP (REV-A.0)	13.00	60.06	1400.00	17542.23	2.43	17542.23	PASS
SEC.20-T01S-R65W	SLOT#01 WAKEMAN 20-17-4CDH (293°FSL & 2023°FEL, SEC.20)	WAKEMAN 20-17-4CDH	WAKEMAN 20-17-4CDH PWB	WAKEMAN 20-17-4CDH PWP (REV-A.0)	13.00	89.92	11413.00	17542.23	2.58	17542.23	PASS
SEC.20-T01S-R65W	SLOT#12 WAKEMAN 20-17-2CDH (293°FSL & 2188°FEL, SEC.20)	WAKEMAN 20-17-2CDH	WAKEMAN 20-17-2CDH PWB	WAKEMAN 20-17-2CDH PWP (REV-A.0)	13.00	75.04	1213.00	17542.23	2.62	17542.23	PASS
SEC.20-T01S-R65W	SLOT#01 EX. BOX ELDER FARMS #41-20 (990°FNL & 990°FEL, SEC.20, OG, PA, 8145)	BOX ELDER FARMS #41-20	BOX ELDER FARMS #41-20 AWB	BOX ELDER FARMS #41-20 AWP	11570.46	1016.83	11570.46	11647.72	3.09	11647.72	PASS
SEC.20-T01S-R65W	SLOT#13 WAKEMAN 20-17-1NBH (293°FSL & 2203°FEL, SEC.20)	WAKEMAN 20-17-1NBH	WAKEMAN 20-17-1NBH PWB	WAKEMAN 20-17-1NBH PWP (REV-A.0)	13.00	90.04	1113.00	17542.23	3.19	17542.23	PASS
SEC.20-T01S-R65W	SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)	WAKEMAN 20-17-1NCH	WAKEMAN 20-17-1NCH PWB	WAKEMAN 20-17-1NCH PWP (REV-A.0)	13.00	104.98	913.00	17542.23	3.83	17542.23	PASS
SEC.20-T1S-R65W	SLOT#02 EX. COLLINS HH #20-3J (814°FNL & 1886°FEL, SEC.20, 8163, PR)	COLLINS HH #20-3J	COLLINS HH #20-3J AWB	COLLINS HH #20-3J AWP	11788.00	1380.66	11788.00	11898.51	4.12	11898.51	PASS
SEC.20-T01S-R65W	SLOT#01 EX. WOLFE #1 (990°FSL & 990°FEL, SEC.20, OG, PR, 8200)	WOLFE #1	WOLFE #1 AWB	WOLFE #1 AWP	8275.50	1030.10	8275.50	8360.03	4.25	8360.03	PASS
SEC.20-T01S-R65W	SLOT#15 WAKEMAN 20-17-1NAH (293°FSL & 2233°FEL, SEC.20)	WAKEMAN 20-17-1NAH	WAKEMAN 20-17-1NAH PWB	WAKEMAN 20-17-1NAH PWP (REV-A.0)	13.00	120.04	813.00	17542.23	4.30	17542.23	PASS
SEC.20-T01S-R65W	SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)	WAKEMAN 20-17-1CDH	WAKEMAN 20-17-1CDH PWB	WAKEMAN 20-17-1CDH PWP (REV-A.0)	13.00	134.98	713.00	17542.23	4.48	17542.23	PASS
SEC.17-T1S-R65W	SLOT#02 EX. AMOCO #24-17 (990°FSL & 1360°FEL, SEC.17, OG, PR, 8130)	AMOCO #24-17	AMOCO #24-17 AWB	AMOCO #24-17 AWP	13563.00	1894.37	13563.00	13745.69	4.86	13745.69	PASS
SEC.16-T01S-R65W	SLOT#01 EX. STATE #11-16 (990°FNL & 990°FEL, SEC.16, OG, PR, 8173)	STATE #11-16	STATE #11-16 AWB	STATE #11-16 AWP	16875.50	3024.53	16875.50	17243.99	6.09	17243.99	PASS
SEC.17-T1S-R65W	SLOT#01 EX. AMOCO #17-32 (2013°FSL & 464°FEL, SEC.17, OG, PR, 8140)	AMOCO #17-32	AMOCO #17-32 AWB	AMOCO #17-32 AWP	14438.00	2838.03	14438.00	14813.00	6.76	14813.00	PASS
SEC.18-T01S-R65W	SLOT#01 EX. PUTNAM 41-18 (990°FNL & 990°FEL, SEC.18, SI, 8092)	PUTNAM 41-18	PUTNAM 41-18 AWB	PUTNAM 41-18 AWP	16825.50	4295.73	16825.50	17535.07	8.63	17535.07	PASS



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 4 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CALCULATION RANGE & CUTOFF		
From: 13.00ft MD	To: 17542.23ft MD	C-C Cutoff: 1000.00 ft

OFFSET WELL CLEARANCE SUMMARY (26 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane											
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
SEC.20-T1S-R65W	SLOT#01 EX. COLLINS #14-20 (990°FSL & 990°FWL, SEC.20, OG, PR, 8202)	COLLINS #14-20	COLLINS #14-20 AWB	COLLINS #14-20 AWP	8300.50	2262.10	8300.50	8674.02	9.26	8674.02	PASS



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 5 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W				Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190)				Well: CHAVEZ #7-17		Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]		Angle from Highside [°]		C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	40.00	8360.24	44.89		0.31		8360.40	25.40	339.80	PASS
113.00†	113.00	0.00	0.00	60.00	113.00	8360.24	44.89		0.31		8360.36	51.37	165.19	PASS
213.00†	213.00	0.00	0.00	160.00	213.00	8360.24	44.89		0.31		8360.36	53.71	157.88	PASS
313.00†	313.00	0.00	0.00	260.00	313.00	8360.24	44.89		0.31		8360.36	56.06	151.18	PASS
413.00†	413.00	0.00	0.00	360.00	413.00	8360.24	44.89		0.31		8360.36	58.41	145.02	PASS
513.00†	513.00	0.00	0.00	460.00	513.00	8360.24	44.89		0.31		8360.36	60.76	139.33	PASS
613.00†	613.00	0.00	0.00	560.00	613.00	8360.24	44.89		0.31		8360.36	63.12	134.06	PASS
713.00†	713.00	0.00	0.00	660.00	713.00	8360.24	44.89		0.31		8360.36	65.48	129.17	PASS
813.00†	813.00	0.00	0.00	760.00	813.00	8360.24	44.89		0.31		8360.36	67.84	124.61	PASS
913.00†	913.00	0.00	0.00	860.00	913.00	8360.24	44.89		0.31		8360.36	70.21	120.36	PASS
1013.00†	1013.00	0.00	0.00	960.00	1013.00	8360.24	44.89		0.31		8360.36	72.59	116.38	PASS
1113.00†	1113.00	0.00	0.00	1060.00	1113.00	8360.24	44.89		0.31		8360.36	74.97	112.65	PASS
1213.00†	1213.00	0.00	0.00	1160.00	1213.00	8360.24	44.89		0.31		8360.36	77.35	109.15	PASS
1313.00†	1313.00	0.00	0.00	1260.00	1313.00	8360.24	44.89		0.31		8360.36	79.73	105.85	PASS
1400.00	1400.00	0.00	0.00	1347.00	1400.00	8360.24	44.89		0.31		8360.36	81.81	103.14	PASS
1413.00†	1413.00	-0.03	0.00	1360.00	1413.00	8360.24	44.89		-170.46		8360.39	82.12	102.75	PASS
1513.00†	1512.97	-2.20	0.36	1459.97	1512.97	8360.24	44.89		-170.45		8362.56	84.53	99.82	PASS
1613.00†	1612.80	-7.81	1.27	1559.80	1612.80	8360.24	44.89		-170.44		8368.16	86.81	97.05	PASS
1622.03	1621.81	-8.49	1.38	1568.81	1621.81	8360.24	44.89		-170.44		8368.84	87.03	96.81	PASS
1713.00†	1712.50	-15.44	2.51	1659.50	1712.50	8360.24	44.89		-170.45		8375.78	89.21	94.51	PASS
1813.00†	1812.20	-23.08	3.75	1759.20	1812.20	8360.24	44.89		-170.45		8383.42	91.56	92.10	PASS
1913.00†	1911.90	-30.72	5.00	1858.90	1911.90	8360.24	44.89		-170.46		8391.06	93.96	89.82	PASS
2013.00†	2011.60	-38.37	6.24	1958.60	2011.60	8360.24	44.89		-170.47		8398.69	96.36	87.64	PASS
2113.00†	2111.30	-46.01	7.48	2058.30	2111.30	8360.24	44.89		-170.48		8406.33	98.77	85.57	PASS
2213.00†	2211.00	-53.65	8.73	2158.00	2211.00	8360.24	44.89		-170.49		8413.97	101.19	83.59	PASS
2313.00†	2310.70	-61.29	9.97	2257.70	2310.70	8360.24	44.89		-170.50		8421.60	103.61	81.71	PASS
2413.00†	2410.40	-68.94	11.21	2357.40	2410.40	8360.24	44.89		-170.51		8429.24	106.03	79.90	PASS
2513.00†	2510.10	-76.58	12.45	2457.10	2510.10	8360.24	44.89		-170.52		8436.88	108.45	78.18	PASS
2613.00†	2609.80	-84.22	13.70	2556.80	2609.80	8360.24	44.89		-170.52		8444.52	110.88	76.53	PASS
2713.00†	2709.50	-91.86	14.94	2656.50	2709.50	8360.24	44.89		-170.53		8452.15	113.31	74.95	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 6 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2756.20	2809.20	8360.24	44.89	-170.54	8459.79	115.75	73.43	PASS	
2913.00†	2908.90	-107.15	17.42	2855.90	2908.90	8360.24	44.89	-170.55	8467.43	118.19	71.97	PASS	
3013.00†	3008.60	-114.79	18.67	2955.60	3008.60	8360.24	44.89	-170.56	8475.07	120.63	70.57	PASS	
3113.00†	3108.30	-122.43	19.91	3055.30	3108.30	8360.24	44.89	-170.57	8482.71	123.08	69.22	PASS	
3213.00†	3208.00	-130.07	21.15	3155.00	3208.00	8360.24	44.89	-170.58	8490.34	125.53	67.93	PASS	
3313.00†	3307.70	-137.72	22.40	3254.70	3307.70	8360.24	44.89	-170.58	8497.98	127.98	66.68	PASS	
3413.00†	3407.40	-145.36	23.64	3354.40	3407.40	8360.24	44.89	-170.59	8505.62	130.44	65.48	PASS	
3513.00†	3507.10	-153.00	24.88	3454.10	3507.10	8360.24	44.89	-170.60	8513.26	132.90	64.32	PASS	
3613.00†	3606.80	-160.64	26.12	3553.80	3606.80	8360.24	44.89	-170.61	8520.90	135.36	63.20	PASS	
3713.00†	3706.50	-168.29	27.37	3653.50	3706.50	8360.24	44.89	-170.62	8528.54	137.83	62.12	PASS	
3813.00†	3806.20	-175.93	28.61	3753.20	3806.20	8360.24	44.89	-170.63	8536.18	140.30	61.07	PASS	
3913.00†	3905.90	-183.57	29.85	3852.90	3905.90	8360.24	44.89	-170.64	8543.82	142.77	60.07	PASS	
4013.00†	4005.60	-191.21	31.10	3952.60	4005.60	8360.24	44.89	-170.64	8551.46	145.25	59.09	PASS	
4113.00†	4105.30	-198.85	32.34	4052.30	4105.30	8360.24	44.89	-170.65	8559.10	147.73	58.15	PASS	
4213.00†	4205.00	-206.50	33.58	4152.00	4205.00	8360.24	44.89	-170.66	8566.74	150.21	57.23	PASS	
4313.00†	4304.70	-214.14	34.82	4251.70	4304.70	8360.24	44.89	-170.67	8574.38	152.70	56.35	PASS	
4413.00†	4404.40	-221.78	36.07	4351.40	4404.40	8360.24	44.89	-170.68	8582.02	155.19	55.49	PASS	
4513.00†	4504.10	-229.42	37.31	4451.10	4504.10	8360.24	44.89	-170.69	8589.66	157.68	54.66	PASS	
4613.00†	4603.80	-237.07	38.55	4550.80	4603.80	8360.24	44.89	-170.69	8597.30	160.17	53.85	PASS	
4713.00†	4703.50	-244.71	39.80	4650.50	4703.50	8360.24	44.89	-170.70	8604.95	162.67	53.07	PASS	
4813.00†	4803.20	-252.35	41.04	4750.20	4803.20	8360.24	44.89	-170.71	8612.59	165.17	52.31	PASS	
4913.00†	4902.90	-259.99	42.28	4849.90	4902.90	8360.24	44.89	-170.72	8620.23	167.67	51.58	PASS	
5013.00†	5002.60	-267.63	43.52	4949.60	5002.60	8360.24	44.89	-170.73	8627.87	170.17	50.86	PASS	
5113.00†	5102.30	-275.28	44.77	5049.30	5102.30	8360.24	44.89	-170.74	8635.51	172.68	50.16	PASS	
5213.00†	5202.00	-282.92	46.01	5149.00	5202.00	8360.24	44.89	-170.74	8643.16	175.19	49.49	PASS	
5313.00†	5301.70	-290.56	47.25	5248.70	5301.70	8360.24	44.89	-170.75	8650.80	177.70	48.83	PASS	
5413.00†	5401.40	-298.20	48.50	5348.40	5401.40	8360.24	44.89	-170.76	8658.44	180.22	48.19	PASS	
5513.00†	5501.10	-305.85	49.74	5448.10	5501.10	8360.24	44.89	-170.77	8666.08	182.73	47.56	PASS	
5613.00†	5600.80	-313.49	50.98	5547.80	5600.80	8360.24	44.89	-170.78	8673.73	185.25	46.96	PASS	
5713.00†	5700.50	-321.13	52.22	5647.50	5700.50	8360.24	44.89	-170.78	8681.37	187.77	46.36	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 7 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5747.20	5800.20	8360.24	44.89	-170.79	8689.01	190.30	45.79	PASS	
5913.00†	5899.90	-336.41	54.71	5846.90	5899.90	8360.24	44.89	-170.80	8696.66	192.82	45.23	PASS	
6013.00†	5999.60	-344.06	55.95	5946.60	5999.60	8360.24	44.89	-170.81	8704.30	195.35	44.68	PASS	
6113.00†	6099.30	-351.70	57.20	6046.30	6099.30	8360.24	44.89	-170.82	8711.94	197.88	44.14	PASS	
6213.00†	6199.00	-359.34	58.44	6146.00	6199.00	8360.24	44.89	-170.83	8719.59	200.41	43.62	PASS	
6313.00†	6298.70	-366.98	59.68	6245.70	6298.70	8360.24	44.89	-170.83	8727.23	202.95	43.11	PASS	
6413.00†	6398.40	-374.63	60.92	6345.40	6398.40	8360.24	44.89	-170.84	8734.88	205.48	42.62	PASS	
6513.00†	6498.10	-382.27	62.17	6445.10	6498.10	8360.24	44.89	-170.85	8742.52	208.02	42.13	PASS	
6613.00†	6597.80	-389.91	63.41	6544.80	6597.80	8360.24	44.89	-170.86	8750.17	210.56	41.66	PASS	
6713.00†	6697.50	-397.55	64.65	6644.50	6697.50	8360.24	44.89	-170.87	8757.81	213.11	41.20	PASS	
6793.95	6778.20	-403.74	65.66	6725.20	6778.20	8360.24	44.89	-170.87	8764.00	215.17	40.83	PASS	
6813.00†	6797.22	-404.88	65.89	6744.22	6797.22	8360.24	44.89	-164.61	8765.14	215.65	40.75	PASS	
6913.00†	6896.99	-400.49	66.97	6843.99	6896.99	8360.24	44.89	-4.37	8760.75	218.31	40.23	PASS	
7013.00†	6994.48	-378.83	67.80	6941.48	6994.48	8360.24	44.89	-1.53	8739.10	221.38	39.57	PASS	
7113.00†	7086.74	-340.58	68.34	7033.74	7086.74	8360.24	44.89	-0.72	8700.85	224.64	38.82	PASS	
7213.00†	7170.95	-286.89	68.58	7117.95	7170.95	8360.24	44.89	-0.30	8647.16	227.52	38.09	PASS	
7313.00†	7244.57	-219.40	68.51	7191.57	7244.57	8360.24	44.89	0.02	8579.67	229.93	37.40	PASS	
7413.00†	7305.34	-140.15	68.14	7252.34	7305.34	8360.24	44.89	0.37	8500.42	231.84	36.75	PASS	
7513.00†	7351.44	-51.55	67.48	7298.44	7351.44	8360.24	44.89	0.90	8411.82	233.21	36.15	PASS	
7613.00†	7381.45	43.70	66.54	7328.45	7381.45	8360.24	44.89	2.20	8316.56	234.06	35.61	PASS	
7713.00†	7394.46	142.72	65.35	7341.46	7394.46	8360.24	44.89	13.56	8217.55	234.41	35.13	PASS	
7737.87	7395.00	167.58	65.03	7342.00	7395.00	8360.24	44.89	90.00	8192.68	234.43	35.03	PASS	
7813.00†	7395.00	242.70	64.02	7342.00	7395.00	8360.24	44.89	90.00	8117.56	234.43	34.70	PASS	
7913.00†	7395.00	342.69	62.67	7342.00	7395.00	8360.24	44.89	90.00	8017.57	234.44	34.28	PASS	
8013.00†	7395.00	442.68	61.32	7342.00	7395.00	8360.24	44.89	90.00	7917.57	234.44	33.85	PASS	
8113.00†	7395.00	542.67	59.98	7342.00	7395.00	8360.24	44.89	90.00	7817.58	234.45	33.42	PASS	
8213.00†	7395.00	642.66	58.63	7342.00	7395.00	8360.24	44.89	90.00	7717.59	234.46	32.99	PASS	
8313.00†	7395.00	742.65	57.29	7342.00	7395.00	8360.24	44.89	90.00	7617.59	234.47	32.56	PASS	
8413.00†	7395.00	842.64	55.94	7342.00	7395.00	8360.24	44.89	90.00	7517.60	234.48	32.13	PASS	
8513.00†	7395.00	942.64	54.60	7342.00	7395.00	8360.24	44.89	90.00	7417.61	234.49	31.70	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 8 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971°FNL & 1926°FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station														
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
8613.00†	7395.00	1042.63	53.25	7342.00	7395.00	8360.24	44.89	90.00	7317.62	234.50	31.27	PASS		
8713.00†	7395.00	1142.62	51.91	7342.00	7395.00	8360.24	44.89	90.00	7217.62	234.52	30.85	PASS		
8813.00†	7395.00	1242.61	50.56	7342.00	7395.00	8360.24	44.89	90.00	7117.63	234.54	30.42	PASS		
8913.00†	7395.00	1342.60	49.22	7342.00	7395.00	8360.24	44.89	90.00	7017.64	234.56	29.99	PASS		
9013.00†	7395.00	1442.59	47.87	7342.00	7395.00	8360.24	44.89	90.00	6917.65	234.58	29.56	PASS		
9113.00†	7395.00	1542.58	46.53	7342.00	7395.00	8360.24	44.89	90.00	6817.66	234.60	29.13	PASS		
9213.00†	7395.00	1642.57	45.18	7342.00	7395.00	8360.24	44.89	90.00	6717.66	234.62	28.70	PASS		
9313.00†	7395.00	1742.56	43.84	7342.00	7395.00	8360.24	44.89	90.00	6617.67	234.64	28.27	PASS		
9413.00†	7395.00	1842.55	42.49	7342.00	7395.00	8360.24	44.89	90.00	6517.68	234.67	27.84	PASS		
9513.00†	7395.00	1942.55	41.15	7342.00	7395.00	8360.24	44.89	90.00	6417.69	234.70	27.41	PASS		
9613.00†	7395.00	2042.54	39.80	7342.00	7395.00	8360.24	44.89	90.00	6317.70	234.73	26.98	PASS		
9713.00†	7395.00	2142.53	38.46	7342.00	7395.00	8360.24	44.89	90.00	6217.71	234.76	26.54	PASS		
9813.00†	7395.00	2242.52	37.11	7342.00	7395.00	8360.24	44.89	90.00	6117.72	234.79	26.11	PASS		
9913.00†	7395.00	2342.51	35.77	7342.00	7395.00	8360.24	44.89	90.00	6017.73	234.82	25.68	PASS		
10013.00†	7395.00	2442.50	34.42	7342.00	7395.00	8360.24	44.89	90.00	5917.75	234.86	25.25	PASS		
10113.00†	7395.00	2542.49	33.08	7342.00	7395.00	8360.24	44.89	90.00	5817.76	234.89	24.82	PASS		
10213.00†	7395.00	2642.48	31.73	7342.00	7395.00	8360.24	44.89	90.00	5717.77	234.93	24.39	PASS		
10313.00†	7395.00	2742.47	30.39	7342.00	7395.00	8360.24	44.89	90.00	5617.78	234.97	23.96	PASS		
10413.00†	7395.00	2842.46	29.04	7342.00	7395.00	8360.24	44.89	90.00	5517.80	235.01	23.53	PASS		
10513.00†	7395.00	2942.45	27.70	7342.00	7395.00	8360.24	44.89	90.00	5417.81	235.05	23.10	PASS		
10613.00†	7395.00	3042.45	26.35	7342.00	7395.00	8360.24	44.89	90.00	5317.82	235.10	22.67	PASS		
10713.00†	7395.00	3142.44	25.01	7342.00	7395.00	8360.24	44.89	90.00	5217.84	235.14	22.24	PASS		
10813.00†	7395.00	3242.43	23.66	7342.00	7395.00	8360.24	44.89	90.00	5117.85	235.19	21.81	PASS		
10913.00†	7395.00	3342.42	22.32	7342.00	7395.00	8360.24	44.89	90.00	5017.87	235.24	21.38	PASS		
11013.00†	7395.00	3442.41	20.97	7342.00	7395.00	8360.24	44.89	90.00	4917.89	235.29	20.95	PASS		
11113.00†	7395.00	3542.40	19.63	7342.00	7395.00	8360.24	44.89	90.00	4817.90	235.34	20.52	PASS		
11213.00†	7395.00	3642.39	18.28	7342.00	7395.00	8360.24	44.89	90.00	4717.92	235.39	20.09	PASS		
11313.00†	7395.00	3742.38	16.94	7342.00	7395.00	8360.24	44.89	90.00	4617.94	235.45	19.66	PASS		
11413.00†	7395.00	3842.37	15.59	7342.00	7395.00	8360.24	44.89	90.00	4517.96	235.50	19.23	PASS		
11513.00†	7395.00	3942.36	14.25	7342.00	7395.00	8360.24	44.89	90.00	4417.98	235.56	18.80	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 9 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971°FNL & 1926°FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station														
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
11613.00†	7395.00	4042.36	12.90	7342.00	7395.00	8360.24	44.89	90.00	4318.00	235.62	18.37	PASS		
11713.00†	7395.00	4142.35	11.55	7342.00	7395.00	8360.24	44.89	90.00	4218.02	235.68	17.94	PASS		
11813.00†	7395.00	4242.34	10.21	7342.00	7395.00	8360.24	44.89	90.00	4118.05	235.75	17.51	PASS		
11913.00†	7395.00	4342.33	8.86	7342.00	7395.00	8360.24	44.89	90.00	4018.07	235.81	17.08	PASS		
12013.00†	7395.00	4442.32	7.52	7342.00	7395.00	8360.24	44.89	90.00	3918.10	235.88	16.65	PASS		
12113.00†	7395.00	4542.31	6.17	7342.00	7395.00	8360.24	44.89	90.00	3818.12	235.95	16.22	PASS		
12213.00†	7395.00	4642.30	4.83	7342.00	7395.00	8360.24	44.89	90.00	3718.15	236.02	15.79	PASS		
12313.00†	7395.00	4742.29	3.48	7342.00	7395.00	8360.24	44.89	90.00	3618.18	236.09	15.36	PASS		
12413.00†	7395.00	4842.28	2.14	7342.00	7395.00	8360.24	44.89	90.00	3518.21	236.17	14.93	PASS		
12513.00†	7395.00	4942.27	0.79	7342.00	7395.00	8360.24	44.89	90.00	3418.25	236.25	14.50	PASS		
12613.00†	7395.00	5042.26	-0.55	7342.00	7395.00	8360.24	44.89	90.00	3318.28	236.33	14.07	PASS		
12713.00†	7395.00	5142.26	-1.90	7342.00	7395.00	8360.24	44.89	90.00	3218.32	236.42	13.64	PASS		
12813.00†	7395.00	5242.25	-3.24	7342.00	7395.00	8360.24	44.89	90.00	3118.36	236.50	13.21	PASS		
12913.00†	7395.00	5342.24	-4.59	7342.00	7395.00	8360.24	44.89	90.00	3018.41	236.60	12.78	PASS		
13013.00†	7395.00	5442.23	-5.93	7342.00	7395.00	8360.24	44.89	90.00	2918.45	236.69	12.36	PASS		
13113.00†	7395.00	5542.22	-7.28	7342.00	7395.00	8360.24	44.89	90.00	2818.50	236.79	11.93	PASS		
13213.00†	7395.00	5642.21	-8.62	7342.00	7395.00	8360.24	44.89	90.00	2718.55	236.90	11.50	PASS		
13313.00†	7395.00	5742.20	-9.97	7342.00	7395.00	8360.24	44.89	90.00	2618.61	237.01	11.07	PASS		
13413.00†	7395.00	5842.19	-11.31	7342.00	7395.00	8360.24	44.89	90.00	2518.67	237.12	10.64	PASS		
13513.00†	7395.00	5942.18	-12.66	7342.00	7395.00	8360.24	44.89	90.00	2418.74	237.25	10.22	PASS		
13613.00†	7395.00	6042.17	-14.00	7342.00	7395.00	8360.24	44.89	90.00	2318.81	237.38	9.79	PASS		
13713.00†	7395.00	6142.17	-15.35	7342.00	7395.00	8360.24	44.89	90.00	2218.89	237.52	9.36	PASS		
13813.00†	7395.00	6242.16	-16.69	7342.00	7395.00	8360.24	44.89	90.00	2118.98	237.68	8.93	PASS		
13913.00†	7395.00	6342.15	-18.04	7342.00	7395.00	8360.24	44.89	90.00	2019.07	237.85	8.51	PASS		
14013.00†	7395.00	6442.14	-19.38	7342.00	7395.00	8360.24	44.89	90.00	1919.18	238.03	8.08	PASS		
14113.00†	7395.00	6542.13	-20.73	7342.00	7395.00	8360.24	44.89	90.00	1819.29	238.24	7.65	PASS		
14213.00†	7395.00	6642.12	-22.07	7342.00	7395.00	8360.24	44.89	90.00	1719.42	238.48	7.22	PASS		
14313.00†	7395.00	6742.11	-23.42	7342.00	7395.00	8360.24	44.89	90.00	1619.57	238.75	6.80	PASS		
14413.00†	7395.00	6842.10	-24.76	7342.00	7395.00	8360.24	44.89	90.00	1519.73	239.06	6.37	PASS		
14513.00†	7395.00	6942.09	-26.11	7342.00	7395.00	8360.24	44.89	90.00	1419.92	239.43	5.94	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 10 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP

Facility: SEC.17-T01S-R65W Slot: SLOT#01 EX. CHAVEZ #7-17 (1971°FNL & 1926°FEL, SEC.17, OG, SI, 8190) Well: CHAVEZ #7-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7395.00	7042.08	-27.45	7342.00	7395.00	8360.24	44.89	90.00	1320.14	239.87	5.51	PASS
14713.00†	7395.00	7142.07	-28.80	7342.00	7395.00	8360.24	44.89	90.00	1220.39	240.41	5.09	PASS
14813.00†	7395.00	7242.07	-30.14	7342.00	7395.00	8360.24	44.89	90.00	1120.69	241.08	4.66	PASS
14913.00†	7395.00	7342.06	-31.49	7342.00	7395.00	8360.24	44.89	90.00	1021.04	241.94	4.23	PASS
15013.00†	7395.00	7442.05	-32.83	7342.00	7395.00	8360.24	44.89	90.00	921.47	243.06	3.80	PASS
15113.00†	7395.00	7542.04	-34.18	7342.00	7395.00	8360.24	44.89	90.00	822.01	244.58	3.37	PASS
15213.00†	7395.00	7642.03	-35.52	7342.00	7395.00	8360.24	44.89	90.00	722.70	246.71	2.93	PASS
15313.00†	7395.00	7742.02	-36.87	7342.00	7395.00	8360.24	44.89	90.00	623.60	249.80	2.50	PASS
15413.00†	7395.00	7842.01	-38.21	7342.00	7395.00	8360.24	44.89	90.00	524.85	254.51	2.06	PASS
15513.00†	7395.00	7942.00	-39.56	7342.00	7395.00	8360.24	44.89	90.00	426.68	262.11	1.63	PASS
15613.00†	7395.00	8041.99	-40.91	7342.00	7395.00	8360.24	44.89	90.00	329.61	275.34	1.20	PASS
15713.00†	7395.00	8141.98	-42.25	7342.00	7395.00	8360.24	44.89	90.00	235.01	300.95	0.78	FAIL
15813.00†	7395.00	8241.98	-43.60	7342.00	7395.00	8360.24	44.89	90.00	147.70	357.57	0.41	FAIL
15913.00†	7395.00	8341.97	-44.94	7342.00	7395.00	8360.24	44.89	90.00	91.67	456.04	0.20	FAIL
15929.89†	7395.00	8358.85	-45.17	7342.04	7395.04	8360.24	44.89	90.03	90.07	461.52	0.19	FAIL
15930.72†	7395.00	8359.68	-45.18	7342.00	7395.00	8360.24	44.89	90.00	90.08	461.56	0.19	FAIL
16013.00†	7395.00	8441.96	-46.29	7342.00	7395.00	8360.24	44.89	90.00	122.44	397.17	0.31	FAIL
16113.00†	7395.00	8541.95	-47.63	7342.00	7395.00	8360.24	44.89	90.00	203.91	324.31	0.63	FAIL
16213.00†	7395.00	8641.94	-48.98	7342.00	7395.00	8360.24	44.89	90.00	296.93	291.35	1.02	PASS
16313.00†	7395.00	8741.93	-50.32	7342.00	7395.00	8360.24	44.89	90.00	393.39	274.69	1.43	PASS
16413.00†	7395.00	8841.92	-51.67	7342.00	7395.00	8360.24	44.89	90.00	491.27	265.19	1.85	PASS
16513.00†	7395.00	8941.91	-53.01	7342.00	7395.00	8360.24	44.89	90.00	589.86	259.29	2.28	PASS
16613.00†	7395.00	9041.90	-54.36	7342.00	7395.00	8360.24	44.89	90.00	688.85	255.39	2.70	PASS
16713.00†	7395.00	9141.89	-55.70	7342.00	7395.00	8360.24	44.89	90.00	788.10	252.70	3.12	PASS
16813.00†	7395.00	9241.88	-57.05	7342.00	7395.00	8360.24	44.89	90.00	887.52	250.76	3.54	PASS
16913.00†	7395.00	9341.88	-58.39	7342.00	7395.00	8360.24	44.89	90.00	987.06	249.34	3.97	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 11 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP			
Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical 1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical 3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1472.00	1472.00	40.00	1512.00	5096.41	3.96	5096.41	3.96
8.625in Casing Surface	0.00	1472.00	1472.00	40.00	1512.00	5096.41	3.96	5096.41	3.96
7.875in Open Hole	1472.00	8173.00	6701.00	1512.00	8213.00	5096.41	3.96	5096.41	3.96
4.5in Casing Production	0.00	8173.00	8173.00	40.00	8213.00	5096.41	3.96	5096.41	3.96

WELLPATH COMPOSITION - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
0.00	8190.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8190>
			CHAVEZ #7-17 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAVEZ #7-17 AWB Offset Wellpath: CHAVEZ #7-17 AWP	
MD Reference: Rig on SLOT#04 EX. CHAVEZ #7-17 (1971'FNL & 1926'FEL,SEC.17,OG,SI) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 12 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	18.00	3024.87	-56.93	-1.08	3025.41	25.40	122.94	PASS	
113.00†	113.00	0.00	0.00	82.00	113.00	3024.87	-56.93	-1.08	3025.41	51.88	59.16	PASS	
213.00†	213.00	0.00	0.00	182.00	213.00	3024.87	-56.93	-1.08	3025.41	54.23	56.57	PASS	
313.00†	313.00	0.00	0.00	282.00	313.00	3024.87	-56.93	-1.08	3025.41	56.58	54.19	PASS	
413.00†	413.00	0.00	0.00	382.00	413.00	3024.87	-56.93	-1.08	3025.41	58.93	51.99	PASS	
513.00†	513.00	0.00	0.00	482.00	513.00	3024.87	-56.93	-1.08	3025.41	61.29	49.97	PASS	
613.00†	613.00	0.00	0.00	582.00	613.00	3024.87	-56.93	-1.08	3025.41	63.65	48.09	PASS	
713.00†	713.00	0.00	0.00	682.00	713.00	3024.87	-56.93	-1.08	3025.41	66.02	46.35	PASS	
813.00†	813.00	0.00	0.00	782.00	813.00	3024.87	-56.93	-1.08	3025.41	68.39	44.72	PASS	
913.00†	913.00	0.00	0.00	882.00	913.00	3024.87	-56.93	-1.08	3025.41	70.76	43.21	PASS	
1013.00†	1013.00	0.00	0.00	982.00	1013.00	3024.87	-56.93	-1.08	3025.41	73.14	41.79	PASS	
1113.00†	1113.00	0.00	0.00	1082.00	1113.00	3024.87	-56.93	-1.08	3025.41	75.52	40.46	PASS	
1213.00†	1213.00	0.00	0.00	1182.00	1213.00	3024.87	-56.93	-1.08	3025.41	77.91	39.21	PASS	
1313.00†	1313.00	0.00	0.00	1282.00	1313.00	3024.87	-56.93	-1.08	3025.41	80.30	38.03	PASS	
1400.00	1400.00	0.00	0.00	1369.00	1400.00	3024.87	-56.93	-1.08	3025.41	82.38	37.06	PASS	
1413.00†	1413.00	-0.03	0.00	1382.00	1413.00	3024.87	-56.93	-171.84	3025.43	82.69	36.92	PASS	
1513.00†	1512.97	-2.20	0.36	1481.97	1512.97	3024.87	-56.93	-171.84	3027.61	85.10	35.89	PASS	
1613.00†	1612.80	-7.81	1.27	1581.80	1612.80	3024.87	-56.93	-171.84	3033.24	87.39	34.94	PASS	
1622.03	1621.81	-8.49	1.38	1590.81	1621.81	3024.87	-56.93	-171.84	3033.92	87.61	34.86	PASS	
1713.00†	1712.50	-15.44	2.51	1681.50	1712.50	3024.87	-56.93	-171.86	3040.89	89.79	34.08	PASS	
1813.00†	1812.20	-23.08	3.75	1781.20	1812.20	3024.87	-56.93	-171.88	3048.56	92.14	33.27	PASS	
1913.00†	1911.90	-30.72	5.00	1880.90	1911.90	3024.87	-56.93	-171.90	3056.22	94.55	32.51	PASS	
2013.00†	2011.60	-38.37	6.24	1980.60	2011.60	3024.87	-56.93	-171.92	3063.89	96.96	31.77	PASS	
2113.00†	2111.30	-46.01	7.48	2080.30	2111.30	3024.87	-56.93	-171.94	3071.55	99.37	31.07	PASS	
2213.00†	2211.00	-53.65	8.73	2180.00	2211.00	3024.87	-56.93	-171.96	3079.22	101.79	30.41	PASS	
2313.00†	2310.70	-61.29	9.97	2279.70	2310.70	3024.87	-56.93	-171.98	3086.89	104.21	29.77	PASS	
2413.00†	2410.40	-68.94	11.21	2379.40	2410.40	3024.87	-56.93	-172.00	3094.56	106.63	29.16	PASS	
2513.00†	2510.10	-76.58	12.45	2479.10	2510.10	3024.87	-56.93	-172.02	3102.22	109.06	28.58	PASS	
2613.00†	2609.80	-84.22	13.70	2578.80	2609.80	3024.87	-56.93	-172.04	3109.89	111.50	28.02	PASS	
2713.00†	2709.50	-91.86	14.94	2678.50	2709.50	3024.87	-56.93	-172.06	3117.56	113.93	27.49	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 13 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980°FNL & 2080°FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2778.20	2809.20	3024.87	-56.93	-172.08	3125.23	116.37	26.98	PASS	
2913.00†	2908.90	-107.15	17.42	2877.90	2908.90	3024.87	-56.93	-172.10	3132.90	118.82	26.48	PASS	
3013.00†	3008.60	-114.79	18.67	2977.60	3008.60	3024.87	-56.93	-172.12	3140.57	121.26	26.01	PASS	
3113.00†	3108.30	-122.43	19.91	3077.30	3108.30	3024.87	-56.93	-172.14	3148.24	123.71	25.56	PASS	
3213.00†	3208.00	-130.07	21.15	3177.00	3208.00	3024.87	-56.93	-172.16	3155.91	126.17	25.12	PASS	
3313.00†	3307.70	-137.72	22.40	3276.70	3307.70	3024.87	-56.93	-172.18	3163.58	128.62	24.70	PASS	
3413.00†	3407.40	-145.36	23.64	3376.40	3407.40	3024.87	-56.93	-172.20	3171.25	131.08	24.29	PASS	
3513.00†	3507.10	-153.00	24.88	3476.10	3507.10	3024.87	-56.93	-172.22	3178.92	133.55	23.90	PASS	
3613.00†	3606.80	-160.64	26.12	3575.80	3606.80	3024.87	-56.93	-172.23	3186.60	136.02	23.52	PASS	
3713.00†	3706.50	-168.29	27.37	3675.50	3706.50	3024.87	-56.93	-172.25	3194.27	138.49	23.15	PASS	
3813.00†	3806.20	-175.93	28.61	3775.20	3806.20	3024.87	-56.93	-172.27	3201.94	140.96	22.80	PASS	
3913.00†	3905.90	-183.57	29.85	3874.90	3905.90	3024.87	-56.93	-172.29	3209.61	143.44	22.46	PASS	
4013.00†	4005.60	-191.21	31.10	3974.60	4005.60	3024.87	-56.93	-172.31	3217.29	145.92	22.13	PASS	
4113.00†	4105.30	-198.85	32.34	4074.30	4105.30	3024.87	-56.93	-172.33	3224.96	148.40	21.81	PASS	
4213.00†	4205.00	-206.50	33.58	4174.00	4205.00	3024.87	-56.93	-172.35	3232.63	150.89	21.50	PASS	
4313.00†	4304.70	-214.14	34.82	4273.70	4304.70	3024.87	-56.93	-172.36	3240.31	153.38	21.20	PASS	
4413.00†	4404.40	-221.78	36.07	4373.40	4404.40	3024.87	-56.93	-172.38	3247.98	155.87	20.91	PASS	
4513.00†	4504.10	-229.42	37.31	4473.10	4504.10	3024.87	-56.93	-172.40	3255.66	158.36	20.63	PASS	
4613.00†	4603.80	-237.07	38.55	4572.80	4603.80	3024.87	-56.93	-172.42	3263.33	160.86	20.35	PASS	
4713.00†	4703.50	-244.71	39.80	4672.50	4703.50	3024.87	-56.93	-172.44	3271.01	163.36	20.09	PASS	
4813.00†	4803.20	-252.35	41.04	4772.20	4803.20	3024.87	-56.93	-172.45	3278.68	165.86	19.83	PASS	
4913.00†	4902.90	-259.99	42.28	4871.90	4902.90	3024.87	-56.93	-172.47	3286.36	168.37	19.58	PASS	
5013.00†	5002.60	-267.63	43.52	4971.60	5002.60	3024.87	-56.93	-172.49	3294.04	170.88	19.34	PASS	
5113.00†	5102.30	-275.28	44.77	5071.30	5102.30	3024.87	-56.93	-172.51	3301.71	173.39	19.10	PASS	
5213.00†	5202.00	-282.92	46.01	5171.00	5202.00	3024.87	-56.93	-172.52	3309.39	175.90	18.87	PASS	
5313.00†	5301.70	-290.56	47.25	5270.70	5301.70	3024.87	-56.93	-172.54	3317.07	178.41	18.65	PASS	
5413.00†	5401.40	-298.20	48.50	5370.40	5401.40	3024.87	-56.93	-172.56	3324.74	180.93	18.43	PASS	
5513.00†	5501.10	-305.85	49.74	5470.10	5501.10	3024.87	-56.93	-172.58	3332.42	183.45	18.22	PASS	
5613.00†	5600.80	-313.49	50.98	5569.80	5600.80	3024.87	-56.93	-172.59	3340.10	185.98	18.01	PASS	
5713.00†	5700.50	-321.13	52.22	5669.50	5700.50	3024.87	-56.93	-172.61	3347.78	188.50	17.81	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 14 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980°FNL & 2080°FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5769.20	5800.20	3024.87	-56.93	-172.63	3355.46	191.03	17.61	PASS	
5913.00†	5899.90	-336.41	54.71	5868.90	5899.90	3024.87	-56.93	-172.64	3363.14	193.56	17.42	PASS	
6013.00†	5999.60	-344.06	55.95	5968.60	5999.60	3024.87	-56.93	-172.66	3370.82	196.09	17.24	PASS	
6113.00†	6099.30	-351.70	57.20	6068.30	6099.30	3024.87	-56.93	-172.68	3378.50	198.62	17.05	PASS	
6213.00†	6199.00	-359.34	58.44	6168.00	6199.00	3024.87	-56.93	-172.69	3386.18	201.16	16.88	PASS	
6313.00†	6298.70	-366.98	59.68	6267.70	6298.70	3024.87	-56.93	-172.71	3393.86	203.70	16.70	PASS	
6413.00†	6398.40	-374.63	60.92	6367.40	6398.40	3024.87	-56.93	-172.73	3401.54	206.23	16.53	PASS	
6513.00†	6498.10	-382.27	62.17	6467.10	6498.10	3024.87	-56.93	-172.74	3409.22	208.78	16.37	PASS	
6613.00†	6597.80	-389.91	63.41	6566.80	6597.80	3024.87	-56.93	-172.76	3416.90	211.32	16.21	PASS	
6713.00†	6697.50	-397.55	64.65	6666.50	6697.50	3024.87	-56.93	-172.78	3424.58	213.87	16.05	PASS	
6793.95	6778.20	-403.74	65.66	6747.20	6778.20	3024.87	-56.93	-172.79	3430.80	215.93	15.93	PASS	
6813.00†	6797.22	-404.88	65.89	6766.22	6797.22	3024.87	-56.93	-166.52	3431.95	216.41	15.90	PASS	
6913.00†	6896.99	-400.49	66.97	6865.99	6896.99	3024.87	-56.93	-6.31	3427.60	219.11	15.68	PASS	
7013.00†	6994.48	-378.83	67.80	6963.48	6994.48	3024.87	-56.93	-3.57	3405.99	222.26	15.36	PASS	
7113.00†	7086.74	-340.58	68.34	7055.74	7086.74	3024.87	-56.93	-2.95	3367.78	225.53	14.97	PASS	
7213.00†	7170.95	-286.89	68.58	7139.95	7170.95	3024.87	-56.93	-2.84	3314.14	228.41	14.54	PASS	
7313.00†	7244.57	-219.40	68.51	7213.57	7244.57	3024.87	-56.93	-3.02	3246.69	230.83	14.10	PASS	
7413.00†	7305.34	-140.15	68.14	7274.34	7305.34	3024.87	-56.93	-3.55	3167.49	232.75	13.64	PASS	
7513.00†	7351.44	-51.55	67.48	7320.44	7351.44	3024.87	-56.93	-4.74	3078.94	234.13	13.18	PASS	
7613.00†	7381.45	43.70	66.54	7350.45	7381.45	3024.87	-56.93	-8.03	2983.72	234.99	12.72	PASS	
7713.00†	7394.46	142.72	65.35	7363.46	7394.46	3024.87	-56.93	-34.17	2884.75	235.35	12.28	PASS	
7737.87	7395.00	167.58	65.03	7364.00	7395.00	3024.87	-56.93	-90.00	2859.89	235.37	12.18	PASS	
7813.00†	7395.00	242.70	64.02	7364.00	7395.00	3024.87	-56.93	-90.00	2784.80	235.38	11.86	PASS	
7913.00†	7395.00	342.69	62.67	7364.00	7395.00	3024.87	-56.93	-90.00	2684.84	235.40	11.43	PASS	
8013.00†	7395.00	442.68	61.32	7364.00	7395.00	3024.87	-56.93	-90.00	2584.89	235.42	11.00	PASS	
8113.00†	7395.00	542.67	59.98	7364.00	7395.00	3024.87	-56.93	-90.00	2484.95	235.44	10.58	PASS	
8213.00†	7395.00	642.66	58.63	7364.00	7395.00	3024.87	-56.93	-90.00	2385.01	235.46	10.15	PASS	
8313.00†	7395.00	742.65	57.29	7364.00	7395.00	3024.87	-56.93	-90.00	2285.07	235.49	9.72	PASS	
8413.00†	7395.00	842.64	55.94	7364.00	7395.00	3024.87	-56.93	-90.00	2185.14	235.52	9.30	PASS	
8513.00†	7395.00	942.64	54.60	7364.00	7395.00	3024.87	-56.93	-90.00	2085.22	235.56	8.87	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 15 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = Interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7395.00	1042.63	53.25	7364.00	7395.00	3024.87	-56.93	-90.00	1985.30	235.59	8.44	PASS	
8713.00†	7395.00	1142.62	51.91	7364.00	7395.00	3024.87	-56.93	-90.00	1885.40	235.64	8.02	PASS	
8813.00†	7395.00	1242.61	50.56	7364.00	7395.00	3024.87	-56.93	-90.00	1785.50	235.69	7.59	PASS	
8913.00†	7395.00	1342.60	49.22	7364.00	7395.00	3024.87	-56.93	-90.00	1685.62	235.75	7.16	PASS	
9013.00†	7395.00	1442.59	47.87	7364.00	7395.00	3024.87	-56.93	-90.00	1585.75	235.81	6.74	PASS	
9113.00†	7395.00	1542.58	46.53	7364.00	7395.00	3024.87	-56.93	-90.00	1485.89	235.89	6.31	PASS	
9213.00†	7395.00	1642.57	45.18	7364.00	7395.00	3024.87	-56.93	-90.00	1386.06	235.97	5.89	PASS	
9313.00†	7395.00	1742.56	43.84	7364.00	7395.00	3024.87	-56.93	-90.00	1286.26	236.07	5.46	PASS	
9413.00†	7395.00	1842.55	42.49	7364.00	7395.00	3024.87	-56.93	-90.00	1186.49	236.20	5.03	PASS	
9513.00†	7395.00	1942.55	41.15	7364.00	7395.00	3024.87	-56.93	-90.00	1086.76	236.35	4.61	PASS	
9613.00†	7395.00	2042.54	39.80	7364.00	7395.00	3024.87	-56.93	-90.00	987.08	236.54	4.18	PASS	
9713.00†	7395.00	2142.53	38.46	7364.00	7395.00	3024.87	-56.93	-90.00	887.48	236.78	3.75	PASS	
9813.00†	7395.00	2242.52	37.11	7364.00	7395.00	3024.87	-56.93	-90.00	787.98	237.10	3.33	PASS	
9913.00†	7395.00	2342.51	35.77	7364.00	7395.00	3024.87	-56.93	-90.00	688.63	237.55	2.90	PASS	
10013.00†	7395.00	2442.50	34.42	7364.00	7395.00	3024.87	-56.93	-90.00	589.49	238.22	2.48	PASS	
10113.00†	7395.00	2542.49	33.08	7364.00	7395.00	3024.87	-56.93	-90.00	490.70	239.26	2.05	PASS	
10213.00†	7395.00	2642.48	31.73	7364.00	7395.00	3024.87	-56.93	-90.00	392.53	241.08	1.63	PASS	
10313.00†	7395.00	2742.47	30.39	7364.00	7395.00	3024.87	-56.93	-90.00	295.59	244.63	1.21	PASS	
10413.00†	7395.00	2842.46	29.04	7364.00	7395.00	3024.87	-56.93	-90.00	201.65	252.86	0.80	FAIL	
10513.00†	7395.00	2942.45	27.70	7364.00	7395.00	3024.87	-56.93	-90.00	118.13	275.24	0.43	FAIL	
10596.41†	7395.00	3025.86	26.57	7364.00	7395.00	3024.87	-56.93	-90.00	83.51	299.94	0.28	FAIL	
10596.66†	7395.00	3026.11	26.57	7363.84	7394.84	3024.87	-56.93	-89.89	83.51	299.94	0.28	FAIL	
10613.00†	7395.00	3042.45	26.35	7364.00	7395.00	3024.87	-56.93	-90.00	85.12	298.17	0.28	FAIL	
10713.00†	7395.00	3142.44	25.01	7364.00	7395.00	3024.87	-56.93	-90.00	143.30	264.45	0.54	FAIL	
10813.00†	7395.00	3242.43	23.66	7364.00	7395.00	3024.87	-56.93	-90.00	232.01	248.59	0.93	FAIL	
10913.00†	7395.00	3342.42	22.32	7364.00	7395.00	3024.87	-56.93	-90.00	327.29	242.72	1.35	PASS	
11013.00†	7395.00	3442.41	20.97	7364.00	7395.00	3024.87	-56.93	-90.00	424.75	240.13	1.77	PASS	
11113.00†	7395.00	3542.40	19.63	7364.00	7395.00	3024.87	-56.93	-90.00	523.16	238.82	2.19	PASS	
11213.00†	7395.00	3642.39	18.28	7364.00	7395.00	3024.87	-56.93	-90.00	622.09	238.09	2.62	PASS	
11313.00†	7395.00	3742.38	16.94	7364.00	7395.00	3024.87	-56.93	-90.00	721.31	237.66	3.04	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 16 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: **BOX ELDER #32-20 AWB** Offset Wellpath: **BOX ELDER #32-20 AWP**

Facility: SEC.20-T01S-R65W Slot: SLOT#02 EX. BOX ELDER #32-20 (1980'FNL & 2080'FEL, SEC.20, OG, PR) Well: BOX ELDER #32-20 Threshold Value=1.00 † = Interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11413.00†	7395.00	3842.37	15.59	7364.00	7395.00	3024.87	-56.93	-90.00	820.71	237.39	3.46	PASS	
11513.00†	7395.00	3942.36	14.25	7364.00	7395.00	3024.87	-56.93	-90.00	920.25	237.23	3.89	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: **BOX ELDER #32-20 AWB** Offset Wellpath: **BOX ELDER #32-20 AWP**

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: **BOX ELDER #32-20 AWB** Offset Wellpath: **BOX ELDER #32-20 AWP**

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1561.00	1561.00	18.00	1579.00	1843.76	-43.17	1843.76	-43.17
8.625in Casing Surface	0.00	1561.00	1561.00	18.00	1579.00	1843.76	-43.17	1843.76	-43.17
7.875in Open Hole	1561.00	8292.00	6731.00	1579.00	8310.00	1843.76	-43.17	1843.76	-43.17
4.5in Casing Production	0.00	8292.00	8292.00	18.00	8310.00	1843.76	-43.17	1843.76	-43.17

WELLPATH COMPOSITION - Offset Wellbore: **BOX ELDER #32-20 AWB** Offset Wellpath: **BOX ELDER #32-20 AWP**

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8314.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8314>	BOX ELDER #32-20 AWB



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 17 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER #32-20 AWB Offset Wellpath: BOX ELDER #32-20 AWP

MD Reference: Rig on SLOT#02 EX. BOX ELDER #32-20 (1980°FNL & 2080°FEL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 18 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20)				Well: WAKEMAN 20-17-3NAH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]		C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.10	14.94	89.61		14.94	1.40	23.57	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.10	14.94	89.61		14.94	1.72	15.39	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.10	14.94	89.61		14.94	2.29	9.52	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.10	14.94	89.61		14.94	2.89	6.77	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.10	14.94	89.61		14.94	3.50	5.23	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.10	14.94	89.61		14.94	4.12	4.26	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.10	14.94	89.61		14.94	4.75	3.59	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.10	14.94	89.61		14.94	5.37	3.10	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.10	14.94	89.61		14.94	5.99	2.72	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.10	14.94	89.61		14.94	6.62	2.43	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.10	14.94	89.61		14.94	7.25	2.19	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.10	14.94	89.61		14.94	7.87	2.00	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	0.10	14.94	89.61		14.94	8.50	1.84	PASS
1313.00†	1313.00	0.00	0.00	1312.96	1312.96	0.08	14.96	89.70		14.96	9.13	1.70	PASS
1400.00	1400.00	0.00	0.00	1399.64	1399.62	-1.26	16.01	94.51		16.07	9.71	1.71	PASS
1413.00†	1413.00	-0.03	0.00	1412.58	1412.55	-1.64	16.31	-75.12		16.39	9.80	1.73	PASS
1513.00†	1512.97	-2.20	0.36	1512.05	1511.86	-6.07	19.79	-69.39		19.84	10.62	1.94	PASS
1613.00†	1612.80	-7.81	1.27	1611.52	1610.92	-13.11	25.31	-68.09		24.68	11.39	2.25	PASS
1622.03	1621.81	-8.49	1.38	1620.54	1619.89	-13.81	25.86	-68.24		25.12	11.47	2.28	PASS
1713.00†	1712.50	-15.44	2.51	1711.40	1710.31	-20.88	31.40	-69.85		29.48	12.01	2.56	PASS
1813.00†	1812.20	-23.08	3.75	1811.28	1809.70	-28.65	37.50	-71.14		34.29	12.56	2.83	PASS
1913.00†	1911.90	-30.72	5.00	1911.16	1909.09	-36.42	43.59	-72.11		39.12	13.22	3.07	PASS
2013.00†	2011.60	-38.37	6.24	2011.04	2008.48	-44.19	49.69	-72.87		43.95	13.90	3.28	PASS
2113.00†	2111.30	-46.01	7.48	2110.92	2107.88	-51.97	55.79	-73.48		48.79	14.59	3.46	PASS
2213.00†	2211.00	-53.65	8.73	2210.80	2207.27	-59.74	61.88	-73.98		53.64	15.30	3.63	PASS
2313.00†	2310.70	-61.29	9.97	2310.69	2306.66	-67.51	67.98	-74.40		58.48	16.01	3.78	PASS
2413.00†	2410.40	-68.94	11.21	2410.57	2406.05	-75.28	74.08	-74.75		63.33	16.73	3.91	PASS
2513.00†	2510.10	-76.58	12.45	2510.45	2505.44	-83.05	80.17	-75.05		68.19	17.46	4.03	PASS
2613.00†	2609.80	-84.22	13.70	2610.33	2604.84	-90.82	86.27	-75.31		73.04	18.19	4.14	PASS
2713.00†	2709.50	-91.86	14.94	2710.21	2704.23	-98.60	92.36	-75.54		77.90	18.93	4.24	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 19 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2810.09	2803.62	-106.37	98.46	-75.75	82.75	19.67	4.33	PASS
2913.00†	2908.90	-107.15	17.42	2909.98	2903.01	-114.14	104.56	-75.93	87.61	20.42	4.41	PASS
3013.00†	3008.60	-114.79	18.67	3009.86	3002.40	-121.91	110.65	-76.09	92.47	21.17	4.48	PASS
3113.00†	3108.30	-122.43	19.91	3109.74	3101.80	-129.68	116.75	-76.23	97.33	21.92	4.55	PASS
3213.00†	3208.00	-130.07	21.15	3209.62	3201.19	-137.45	122.85	-76.36	102.19	22.68	4.62	PASS
3313.00†	3307.70	-137.72	22.40	3309.50	3300.58	-145.23	128.94	-76.48	107.05	23.44	4.68	PASS
3413.00†	3407.40	-145.36	23.64	3409.38	3399.97	-153.00	135.04	-76.59	111.91	24.20	4.73	PASS
3513.00†	3507.10	-153.00	24.88	3509.27	3499.36	-160.77	141.13	-76.69	116.77	24.96	4.79	PASS
3613.00†	3606.80	-160.64	26.12	3609.15	3598.76	-168.54	147.23	-76.78	121.63	25.73	4.83	PASS
3713.00†	3706.50	-168.29	27.37	3709.03	3698.15	-176.31	153.33	-76.87	126.49	26.49	4.88	PASS
3813.00†	3806.20	-175.93	28.61	3808.91	3797.54	-184.08	159.42	-76.95	131.35	27.26	4.92	PASS
3913.00†	3905.90	-183.57	29.85	3908.79	3896.93	-191.86	165.52	-77.02	136.21	28.03	4.96	PASS
4013.00†	4005.60	-191.21	31.10	4008.67	3996.32	-199.63	171.62	-77.09	141.08	28.80	5.00	PASS
4113.00†	4105.30	-198.85	32.34	4108.56	4095.72	-207.40	177.71	-77.15	145.94	29.57	5.03	PASS
4213.00†	4205.00	-206.50	33.58	4208.44	4195.11	-215.17	183.81	-77.21	150.80	30.35	5.06	PASS
4313.00†	4304.70	-214.14	34.82	4308.32	4294.50	-222.94	189.90	-77.27	155.66	31.12	5.10	PASS
4413.00†	4404.40	-221.78	36.07	4408.20	4393.89	-230.71	196.00	-77.32	160.53	31.89	5.12	PASS
4513.00†	4504.10	-229.42	37.31	4508.08	4493.28	-238.49	202.10	-77.37	165.39	32.67	5.15	PASS
4613.00†	4603.80	-237.07	38.55	4607.96	4592.68	-246.26	208.19	-77.41	170.25	33.45	5.18	PASS
4713.00†	4703.50	-244.71	39.80	4707.84	4692.07	-254.03	214.29	-77.46	175.12	34.22	5.20	PASS
4813.00†	4803.20	-252.35	41.04	4807.73	4791.46	-261.80	220.39	-77.50	179.98	35.00	5.23	PASS
4913.00†	4902.90	-259.99	42.28	4907.61	4890.85	-269.57	226.48	-77.54	184.84	35.78	5.25	PASS
5013.00†	5002.60	-267.63	43.52	5007.49	4990.24	-277.34	232.58	-77.58	189.71	36.56	5.27	PASS
5113.00†	5102.30	-275.28	44.77	5107.37	5089.64	-285.12	238.67	-77.61	194.57	37.34	5.29	PASS
5213.00†	5202.00	-282.92	46.01	5207.25	5189.03	-292.89	244.77	-77.65	199.43	38.12	5.31	PASS
5313.00†	5301.70	-290.56	47.25	5307.13	5288.42	-300.66	250.87	-77.68	204.30	38.90	5.33	PASS
5413.00†	5401.40	-298.20	48.50	5407.02	5387.81	-308.43	256.96	-77.71	209.16	39.68	5.35	PASS
5513.00†	5501.10	-305.85	49.74	5506.90	5487.20	-316.20	263.06	-77.74	214.02	40.46	5.37	PASS
5613.00†	5600.80	-313.49	50.98	5606.78	5586.60	-323.97	269.16	-77.76	218.89	41.24	5.38	PASS
5713.00†	5700.50	-321.13	52.22	5706.66	5685.99	-331.75	275.25	-77.79	223.75	42.02	5.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 20 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20)		Well: WAKEMAN 20-17-3NAH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5800.20	-328.77	53.47	5806.54	5785.38	-339.52	281.35	-77.82	228.62	42.80	5.41	PASS
5913.00†	5899.90	-336.41	54.71	5906.42	5884.77	-347.29	287.48	-77.84	233.48	43.59	5.43	PASS
6013.00†	5999.60	-344.06	55.95	6006.31	5984.16	-355.06	293.54	-77.86	238.34	44.37	5.44	PASS
6113.00†	6099.30	-351.70	57.20	6106.19	6083.56	-362.83	299.64	-77.89	243.21	45.15	5.46	PASS
6213.00†	6199.00	-359.34	58.44	6206.07	6182.95	-370.60	305.73	-77.91	248.07	45.94	5.47	PASS
6313.00†	6298.70	-366.98	59.68	6305.95	6282.34	-378.38	311.83	-77.93	252.94	46.72	5.48	PASS
6413.00†	6398.40	-374.63	60.92	6405.83	6381.73	-386.15	317.93	-77.95	257.80	47.51	5.49	PASS
6513.00†	6498.10	-382.27	62.17	6505.71	6481.12	-393.92	324.02	-77.97	262.66	48.29	5.51	PASS
6613.00†	6597.80	-389.91	63.41	6605.59	6580.52	-401.69	330.12	-77.99	267.53	49.07	5.52	PASS
6713.00†	6697.50	-397.55	64.65	6707.14	6681.74	-404.18	336.28	-79.15	272.14	50.04	5.50	PASS
6793.95	6778.20	-403.74	65.66	6786.65	6760.39	-393.95	340.86	-82.54	275.95	51.10	5.46	PASS
6813.00†	6797.22	-404.88	65.89	6804.69	6777.99	-390.12	341.87	-77.38	277.04	51.33	5.46	PASS
6913.00†	6896.99	-400.49	66.97	6897.09	6865.74	-361.91	346.78	77.26	284.17	52.94	5.43	PASS
7013.00†	6994.48	-378.83	67.80	6986.10	6944.95	-321.73	351.01	75.00	293.13	55.98	5.29	PASS
7113.00†	7086.74	-340.58	68.34	7072.31	7014.87	-271.57	354.55	71.32	303.06	54.88	5.58	PASS
7213.00†	7170.95	-286.89	68.58	7156.25	7075.00	-213.17	357.39	67.90	313.14	53.80	5.88	PASS
7313.00†	7244.57	-219.40	68.51	7238.40	7125.00	-148.11	359.53	65.01	322.60	52.92	6.17	PASS
7413.00†	7305.34	-140.15	68.14	7319.16	7164.61	-77.83	360.97	62.72	330.82	52.39	6.39	PASS
7513.00†	7351.44	-51.55	67.48	7398.88	7193.68	-3.66	361.73	61.03	337.29	52.40	6.51	PASS
7613.00†	7381.45	43.70	66.54	7477.91	7212.08	73.13	361.80	59.94	341.66	53.06	6.51	PASS
7713.00†	7394.46	142.72	65.35	7556.53	7219.75	151.31	361.21	59.44	343.70	54.21	6.41	PASS
7737.87	7395.00	167.58	65.03	7576.79	7220.00	171.56	360.95	59.40	343.82	54.54	6.37	PASS
7813.00†	7395.00	242.70	64.02	7651.91	7220.00	246.68	359.94	59.40	343.82	55.59	6.25	PASS
7913.00†	7395.00	342.69	62.67	7751.91	7220.00	346.67	358.60	59.40	343.82	57.39	6.05	PASS
8013.00†	7395.00	442.68	61.32	7851.91	7220.00	446.66	357.25	59.40	343.82	59.66	5.82	PASS
8113.00†	7395.00	542.67	59.98	7951.91	7220.00	546.65	355.91	59.40	343.82	62.33	5.57	PASS
8213.00†	7395.00	642.66	58.63	8051.91	7220.00	646.65	354.56	59.40	343.82	65.37	5.31	PASS
8313.00†	7395.00	742.65	57.29	8151.91	7220.00	746.64	353.22	59.40	343.82	68.71	5.05	PASS
8413.00†	7395.00	842.64	55.94	8251.91	7220.00	846.63	351.87	59.40	343.82	72.33	4.79	PASS
8513.00†	7395.00	942.64	54.60	8351.91	7220.00	946.62	350.52	59.40	343.82	76.18	4.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 21 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7395.00	1042.63	53.25	8451.91	7220.00	1046.61	349.18	59.40	343.82	80.23	4.31	PASS	
8713.00†	7395.00	1142.62	51.91	8551.91	7220.00	1146.60	347.83	59.40	343.82	84.44	4.10	PASS	
8813.00†	7395.00	1242.61	50.56	8651.91	7220.00	1246.59	346.49	59.40	343.82	87.94	3.93	PASS	
8913.00†	7395.00	1342.60	49.22	8751.91	7220.00	1346.58	345.14	59.40	343.82	93.27	3.71	PASS	
9013.00†	7395.00	1442.59	47.87	8851.91	7220.00	1446.57	343.80	59.40	343.82	97.85	3.53	PASS	
9113.00†	7395.00	1542.58	46.53	8951.91	7220.00	1546.56	342.45	59.40	343.82	102.53	3.37	PASS	
9213.00†	7395.00	1642.57	45.18	9051.91	7220.00	1646.56	341.10	59.40	343.82	107.28	3.22	PASS	
9313.00†	7395.00	1742.56	43.84	9151.91	7220.00	1746.55	339.76	59.40	343.82	112.10	3.08	PASS	
9413.00†	7395.00	1842.55	42.49	9251.91	7220.00	1846.54	338.41	59.40	343.82	116.99	2.95	PASS	
9513.00†	7395.00	1942.55	41.15	9351.91	7220.00	1946.53	337.07	59.40	343.82	121.92	2.83	PASS	
9613.00†	7395.00	2042.54	39.80	9451.91	7220.00	2046.52	335.72	59.40	343.81	126.91	2.72	PASS	
9713.00†	7395.00	2142.53	38.46	9551.91	7220.00	2146.51	334.38	59.40	343.81	131.93	2.61	PASS	
9813.00†	7395.00	2242.52	37.11	9651.91	7220.00	2246.50	333.03	59.40	343.81	137.00	2.52	PASS	
9913.00†	7395.00	2342.51	35.77	9751.91	7220.00	2346.49	331.68	59.40	343.81	142.09	2.43	PASS	
10013.00†	7395.00	2442.50	34.42	9851.91	7220.00	2446.48	330.34	59.40	343.81	147.22	2.34	PASS	
10113.00†	7395.00	2542.49	33.08	9951.91	7220.00	2546.47	328.99	59.40	343.81	152.37	2.26	PASS	
10213.00†	7395.00	2642.48	31.73	10051.91	7220.00	2646.46	327.65	59.40	343.81	157.55	2.19	PASS	
10313.00†	7395.00	2742.47	30.39	10151.91	7220.00	2746.46	326.30	59.40	343.81	162.75	2.12	PASS	
10413.00†	7395.00	2842.46	29.04	10251.91	7220.00	2846.45	324.96	59.40	343.81	167.97	2.05	PASS	
10513.00†	7395.00	2942.45	27.70	10351.91	7220.00	2946.44	323.61	59.40	343.81	173.21	1.99	PASS	
10613.00†	7395.00	3042.45	26.35	10451.91	7220.00	3046.43	322.26	59.40	343.81	178.46	1.93	PASS	
10713.00†	7395.00	3142.44	25.01	10551.91	7220.00	3146.42	320.92	59.40	343.81	183.73	1.87	PASS	
10813.00†	7395.00	3242.43	23.66	10651.91	7220.00	3246.41	319.57	59.40	343.81	189.01	1.82	PASS	
10913.00†	7395.00	3342.42	22.32	10751.91	7220.00	3346.40	318.23	59.40	343.81	194.31	1.77	PASS	
11013.00†	7395.00	3442.41	20.97	10851.91	7220.00	3446.39	316.88	59.40	343.81	199.62	1.72	PASS	
11113.00†	7395.00	3542.40	19.63	10951.91	7220.00	3546.38	315.54	59.40	343.81	204.93	1.68	PASS	
11213.00†	7395.00	3642.39	18.28	11051.91	7220.00	3646.37	314.19	59.40	343.81	210.26	1.64	PASS	
11313.00†	7395.00	3742.38	16.94	11151.91	7220.00	3746.36	312.84	59.40	343.81	215.61	1.60	PASS	
11413.00†	7395.00	3842.37	15.59	11251.91	7220.00	3846.36	311.50	59.40	343.81	220.94	1.56	PASS	
11513.00†	7395.00	3942.36	14.25	11351.91	7220.00	3946.35	310.15	59.40	343.81	226.30	1.52	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 22 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293°FSL & 2098°FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7395.00	4042.36	12.90	11451.91	7220.00	4046.34	308.81	59.40	343.81	231.66	1.49	PASS
11713.00†	7395.00	4142.35	11.55	11551.91	7220.00	4146.33	307.46	59.40	343.80	237.02	1.45	PASS
11813.00†	7395.00	4242.34	10.21	11651.91	7220.00	4246.32	306.12	59.40	343.80	242.40	1.42	PASS
11913.00†	7395.00	4342.33	8.86	11751.91	7220.00	4346.31	304.77	59.40	343.80	247.78	1.39	PASS
12013.00†	7395.00	4442.32	7.52	11851.91	7220.00	4446.30	303.42	59.40	343.80	253.16	1.36	PASS
12113.00†	7395.00	4542.31	6.17	11951.91	7220.00	4546.29	302.08	59.40	343.80	258.55	1.33	PASS
12213.00†	7395.00	4642.30	4.83	12051.91	7220.00	4646.28	300.73	59.40	343.80	263.95	1.30	PASS
12313.00†	7395.00	4742.29	3.48	12151.91	7220.00	4746.27	299.39	59.40	343.80	269.35	1.28	PASS
12413.00†	7395.00	4842.28	2.14	12251.91	7220.00	4846.27	298.04	59.40	343.80	274.75	1.25	PASS
12513.00†	7395.00	4942.27	0.79	12351.91	7220.00	4946.26	296.70	59.40	343.80	280.16	1.23	PASS
12613.00†	7395.00	5042.26	-0.55	12451.91	7220.00	5046.25	295.35	59.40	343.80	285.57	1.20	PASS
12713.00†	7395.00	5142.26	-1.90	12551.91	7220.00	5146.24	294.01	59.40	343.80	290.99	1.18	PASS
12813.00†	7395.00	5242.25	-3.24	12651.91	7220.00	5246.23	292.66	59.40	343.80	296.41	1.16	PASS
12913.00†	7395.00	5342.24	-4.59	12751.91	7220.00	5346.22	291.31	59.40	343.80	301.83	1.14	PASS
13013.00†	7395.00	5442.23	-5.93	12851.91	7220.00	5446.21	289.97	59.40	343.80	307.26	1.12	PASS
13113.00†	7395.00	5542.22	-7.28	12951.91	7220.00	5546.20	288.62	59.40	343.80	312.69	1.10	PASS
13213.00†	7395.00	5642.21	-8.62	13051.91	7220.00	5646.19	287.28	59.40	343.80	318.12	1.08	PASS
13313.00†	7395.00	5742.20	-9.97	13151.91	7220.00	5746.18	285.93	59.40	343.80	323.55	1.06	PASS
13413.00†	7395.00	5842.19	-11.31	13251.91	7220.00	5846.17	284.59	59.40	343.80	328.99	1.05	PASS
13513.00†	7395.00	5942.18	-12.66	13351.91	7220.00	5946.17	283.24	59.40	343.80	334.43	1.03	PASS
13613.00†	7395.00	6042.17	-14.00	13451.91	7220.00	6046.16	281.89	59.40	343.80	339.87	1.01	PASS
13713.00†	7395.00	6142.17	-15.35	13551.91	7220.00	6146.15	280.55	59.40	343.80	345.31	1.00	FAIL
13813.00†	7395.00	6242.16	-16.69	13651.91	7220.00	6246.14	279.20	59.40	343.79	350.76	0.98	FAIL
13913.00†	7395.00	6342.15	-18.04	13751.91	7220.00	6346.13	277.86	59.40	343.79	356.21	0.97	FAIL
14013.00†	7395.00	6442.14	-19.38	13851.91	7220.00	6446.12	276.51	59.40	343.79	361.66	0.95	FAIL
14113.00†	7395.00	6542.13	-20.73	13951.91	7220.00	6546.11	275.17	59.40	343.79	367.11	0.94	FAIL
14213.00†	7395.00	6642.12	-22.07	14051.91	7220.00	6646.10	273.82	59.40	343.79	372.56	0.92	FAIL
14313.00†	7395.00	6742.11	-23.42	14151.91	7220.00	6746.09	272.47	59.40	343.79	378.02	0.91	FAIL
14413.00†	7395.00	6842.10	-24.76	14251.91	7220.00	6846.08	271.13	59.40	343.79	383.47	0.90	FAIL
14513.00†	7395.00	6942.09	-26.11	14351.91	7220.00	6946.08	269.78	59.40	343.79	388.93	0.88	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 23 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7395.00	7042.08	-27.45	14451.91	7220.00	7046.07	268.44	59.40	343.79	394.39	0.87	FAIL
14713.00†	7395.00	7142.07	-28.80	14551.91	7220.00	7146.06	267.09	59.40	343.79	399.85	0.86	FAIL
14813.00†	7395.00	7242.07	-30.14	14651.91	7220.00	7246.05	265.75	59.40	343.79	405.31	0.85	FAIL
14913.00†	7395.00	7342.06	-31.49	14751.91	7220.00	7346.04	264.40	59.40	343.79	410.77	0.84	FAIL
15013.00†	7395.00	7442.05	-32.83	14851.91	7220.00	7446.03	263.05	59.40	343.79	416.24	0.83	FAIL
15113.00†	7395.00	7542.04	-34.18	14951.91	7220.00	7546.02	261.71	59.40	343.79	421.70	0.81	FAIL
15213.00†	7395.00	7642.03	-35.52	15051.91	7220.00	7646.01	260.36	59.40	343.79	427.17	0.80	FAIL
15313.00†	7395.00	7742.02	-36.87	15151.91	7220.00	7746.00	259.02	59.40	343.79	432.64	0.79	FAIL
15413.00†	7395.00	7842.01	-38.21	15251.91	7220.00	7845.99	257.67	59.40	343.79	438.11	0.78	FAIL
15513.00†	7395.00	7942.00	-39.56	15351.91	7220.00	7945.98	256.33	59.40	343.79	443.58	0.77	FAIL
15613.00†	7395.00	8041.99	-40.91	15451.91	7220.00	8045.98	254.98	59.40	343.79	449.05	0.77	FAIL
15713.00†	7395.00	8141.98	-42.25	15551.91	7220.00	8145.97	253.63	59.40	343.79	454.52	0.76	FAIL
15813.00†	7395.00	8241.98	-43.60	15651.91	7220.00	8245.96	252.29	59.40	343.79	459.99	0.75	FAIL
15913.00†	7395.00	8341.97	-44.94	15751.91	7220.00	8345.95	250.94	59.40	343.78	465.47	0.74	FAIL
16013.00†	7395.00	8441.96	-46.29	15851.91	7220.00	8445.94	249.60	59.40	343.78	470.94	0.73	FAIL
16113.00†	7395.00	8541.95	-47.63	15951.91	7220.00	8545.93	248.25	59.40	343.78	476.42	0.72	FAIL
16213.00†	7395.00	8641.94	-48.98	16051.91	7220.00	8645.92	246.91	59.40	343.78	481.89	0.71	FAIL
16313.00†	7395.00	8741.93	-50.32	16151.91	7220.00	8745.91	245.56	59.40	343.78	487.37	0.70	FAIL
16413.00†	7395.00	8841.92	-51.67	16251.91	7220.00	8845.90	244.21	59.40	343.78	492.84	0.70	FAIL
16513.00†	7395.00	8941.91	-53.01	16351.91	7220.00	8945.89	242.87	59.40	343.78	498.32	0.69	FAIL
16613.00†	7395.00	9041.90	-54.36	16451.91	7220.00	9045.89	241.52	59.40	343.78	503.80	0.68	FAIL
16713.00†	7395.00	9141.89	-55.70	16551.91	7220.00	9145.88	240.18	59.40	343.78	509.28	0.67	FAIL
16813.00†	7395.00	9241.88	-57.05	16651.91	7220.00	9245.87	238.83	59.40	343.78	514.76	0.67	FAIL
16913.00†	7395.00	9341.88	-58.39	16751.91	7220.00	9345.86	237.49	59.40	343.78	520.24	0.66	FAIL
17013.00†	7395.00	9441.87	-59.74	16851.91	7220.00	9445.85	236.14	59.40	343.78	525.72	0.65	FAIL
17113.00†	7395.00	9541.86	-61.08	16951.91	7220.00	9545.84	234.79	59.40	343.78	531.20	0.65	FAIL
17213.00†	7395.00	9641.85	-62.43	17051.91	7220.00	9645.83	233.45	59.40	343.78	536.69	0.64	FAIL
17313.00†	7395.00	9741.84	-63.77	17151.91	7220.00	9745.82	232.10	59.40	343.78	542.17	0.63	FAIL
17413.00†	7395.00	9841.83	-65.12	17251.91	7220.00	9845.81	230.76	59.40	343.78	547.65	0.63	FAIL
17513.00†	7395.00	9941.82	-66.46	17351.91	7220.00	9945.80	229.41	59.40	343.78	553.14	0.62	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 24 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#06 WAKEMAN 20-17-3NAH (293'FSL & 2098'FEL, SEC.20) Well: WAKEMAN 20-17-3NAH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17542.23†	7395.00	9971.05	-66.86	17376.39	7220.00	9970.28	229.08	59.40	343.81	554.76	0.62	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.48	0.06	9.11	-8.43	15.77
8.5in Open Hole	1800.00	17376.39	15576.39	1798.48	N/A	-8.43	15.77	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17376.39	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NAH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3NAH PWB Offset Wellpath: WAKEMAN 20-17-3NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 25 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#08 WAKEMAN 20-17-3NBH (293'FSL & 2128'FEL, SEC.20)				Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	0.01	-15.06	-89.97	15.06	1.40	23.76	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.01	-15.06	-89.97	15.06	1.72	15.52	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.01	-15.06	-89.97	15.06	2.29	9.60	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.01	-15.06	-89.97	15.06	2.89	6.83	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.01	-15.06	-89.97	15.06	3.50	5.28	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.01	-15.06	-89.97	15.06	4.12	4.29	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.01	-15.06	-89.97	15.06	4.74	3.62	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.01	-15.06	-89.97	15.06	5.37	3.12	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.01	-15.06	-89.97	15.06	5.99	2.75	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.01	-15.06	-89.97	15.06	6.62	2.45	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.01	-15.06	-89.97	15.06	7.25	2.21	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.01	-15.06	-89.97	15.06	7.87	2.02	PASS	
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	0.01	-15.06	-89.97	15.06	8.50	1.85	PASS	
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	0.01	-15.06	-89.97	15.06	9.13	1.71	PASS	
1400.00	1400.00	0.00	0.00	1400.00	1400.00	0.01	-15.06	-89.97	15.06	9.67	1.61	PASS	
1413.00†	1413.00	-0.03	0.00	1413.00	1413.00	0.01	-15.06	99.38	15.06	9.75	1.59	PASS	
1513.00†	1512.97	-2.20	0.36	1512.94	1512.94	-0.02	-15.07	107.27	15.59	10.38	1.54	PASS	
1613.00†	1612.80	-7.81	1.27	1612.64	1612.61	-1.82	-16.30	117.95	18.57	11.10	1.73	PASS	
1622.03	1621.81	-8.49	1.38	1621.64	1621.61	-2.13	-16.51	118.70	18.99	11.16	1.76	PASS	
1713.00†	1712.50	-15.44	2.51	1712.33	1712.13	-6.49	-19.49	121.24	23.75	11.77	2.09	PASS	
1813.00†	1812.20	-23.08	3.75	1812.02	1811.44	-13.74	-24.42	117.41	29.69	12.33	2.49	PASS	
1913.00†	1911.90	-30.72	5.00	1911.81	1910.79	-21.44	-29.67	114.04	35.90	13.00	2.86	PASS	
2013.00†	2011.60	-38.37	6.24	2011.60	2010.15	-29.14	-34.91	111.68	42.20	13.70	3.19	PASS	
2113.00†	2111.30	-46.01	7.48	2111.39	2109.50	-36.84	-40.15	109.93	48.54	14.40	3.49	PASS	
2213.00†	2211.00	-53.65	8.73	2211.18	2208.85	-44.53	-45.40	108.58	54.93	15.11	3.76	PASS	
2313.00†	2310.70	-61.29	9.97	2310.97	2308.21	-52.23	-50.64	107.52	61.33	15.84	4.01	PASS	
2413.00†	2410.40	-68.94	11.21	2410.76	2407.56	-59.93	-55.88	106.66	67.76	16.57	4.23	PASS	
2513.00†	2510.10	-76.58	12.45	2510.55	2506.91	-67.63	-61.13	105.94	74.19	17.30	4.43	PASS	
2613.00†	2609.80	-84.22	13.70	2610.33	2606.27	-75.33	-66.37	105.34	80.64	18.04	4.61	PASS	
2713.00†	2709.50	-91.86	14.94	2710.12	2705.62	-83.02	-71.61	104.83	87.09	18.78	4.78	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 26 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#08 WAKEMAN 20-17-3NBH (293'FSL & 2128'FEL, SEC.20)				Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2809.91	2804.97	-90.72	-76.86	104.39	93.55	19.53	4.93	PASS
2913.00†	2908.90	-107.15	17.42	2909.70	2904.33	-98.42	-82.10	104.01	100.01	20.28	5.07	PASS
3013.00†	3008.60	-114.79	18.67	3009.49	3003.68	-106.12	-87.35	103.67	106.48	21.03	5.20	PASS
3113.00†	3108.30	-122.43	19.91	3109.28	3103.03	-113.82	-92.59	103.38	112.95	21.79	5.32	PASS
3213.00†	3208.00	-130.07	21.15	3209.07	3202.39	-121.51	-97.83	103.11	119.43	22.55	5.44	PASS
3313.00†	3307.70	-137.72	22.40	3308.86	3301.74	-129.21	-103.08	102.87	125.90	23.31	5.54	PASS
3413.00†	3407.40	-145.36	23.64	3408.64	3401.09	-136.91	-108.32	102.66	132.38	24.07	5.64	PASS
3513.00†	3507.10	-153.00	24.88	3508.43	3500.44	-144.61	-113.56	102.46	138.86	24.84	5.73	PASS
3613.00†	3606.80	-160.64	26.12	3608.22	3599.80	-152.31	-118.81	102.28	145.34	25.60	5.81	PASS
3713.00†	3706.50	-168.29	27.37	3708.01	3699.15	-160.00	-124.05	102.12	151.82	26.37	5.89	PASS
3813.00†	3806.20	-175.93	28.61	3807.80	3798.50	-167.70	-129.29	101.97	158.30	27.14	5.96	PASS
3913.00†	3905.90	-183.57	29.85	3907.59	3897.86	-175.40	-134.54	101.84	164.79	27.91	6.03	PASS
4013.00†	4005.60	-191.21	31.10	4007.38	3997.21	-183.10	-139.78	101.71	171.27	28.68	6.10	PASS
4113.00†	4105.30	-198.85	32.34	4107.17	4096.56	-190.80	-145.02	101.59	177.76	29.45	6.16	PASS
4213.00†	4205.00	-206.50	33.58	4206.96	4195.92	-198.49	-150.27	101.48	184.25	30.23	6.22	PASS
4313.00†	4304.70	-214.14	34.82	4306.74	4295.27	-206.19	-155.51	101.38	190.73	31.00	6.27	PASS
4413.00†	4404.40	-221.78	36.07	4406.53	4394.62	-213.89	-160.75	101.28	197.22	31.77	6.33	PASS
4513.00†	4504.10	-229.42	37.31	4506.32	4493.98	-221.59	-166.00	101.19	203.71	32.55	6.38	PASS
4613.00†	4603.80	-237.07	38.55	4606.11	4593.33	-229.29	-171.24	101.11	210.20	33.33	6.42	PASS
4713.00†	4703.50	-244.71	39.80	4705.90	4692.68	-236.98	-176.48	101.03	216.69	34.10	6.47	PASS
4813.00†	4803.20	-252.35	41.04	4805.69	4792.04	-244.68	-181.73	100.96	223.18	34.88	6.51	PASS
4913.00†	4902.90	-259.99	42.28	4905.48	4891.39	-252.38	-186.97	100.89	229.67	35.66	6.55	PASS
5013.00†	5002.60	-267.63	43.52	5005.27	4990.74	-260.08	-192.22	100.82	236.16	36.44	6.59	PASS
5113.00†	5102.30	-275.28	44.77	5105.05	5090.10	-267.78	-197.46	100.76	242.65	37.22	6.63	PASS
5213.00†	5202.00	-282.92	46.01	5204.84	5189.45	-275.47	-202.70	100.70	249.14	38.00	6.66	PASS
5313.00†	5301.70	-290.56	47.25	5304.63	5288.80	-283.17	-207.95	100.64	255.63	38.78	6.70	PASS
5413.00†	5401.40	-298.20	48.50	5404.42	5388.16	-290.87	-213.19	100.59	262.12	39.56	6.73	PASS
5513.00†	5501.10	-305.85	49.74	5504.21	5487.51	-298.57	-218.43	100.54	268.61	40.34	6.76	PASS
5613.00†	5600.80	-313.49	50.98	5604.00	5586.86	-306.27	-223.68	100.49	275.11	41.12	6.79	PASS
5713.00†	5700.50	-321.13	52.22	5703.79	5686.21	-313.96	-228.92	100.44	281.60	41.90	6.82	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 27 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#08 WAKEMAN 20-17-3NBH (293'FSL & 2128'FEL, SEC.20)				Well: WAKEMAN 20-17-3NBH		Threshold Value=1.00	† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5800.20	-328.77	53.47	5803.58	5785.57	-321.66	-234.16	100.40	288.09	42.69	6.85	PASS
5913.00†	5899.90	-336.41	54.71	5903.36	5884.92	-329.36	-239.41	100.36	294.58	43.47	6.87	PASS
6013.00†	5999.60	-344.06	55.95	6003.15	5984.27	-337.06	-244.65	100.32	301.07	44.25	6.90	PASS
6113.00†	6099.30	-351.70	57.20	6102.94	6083.63	-344.76	-249.89	100.28	307.57	45.04	6.92	PASS
6213.00†	6199.00	-359.34	58.44	6202.73	6182.98	-352.45	-255.14	100.24	314.06	45.82	6.95	PASS
6313.00†	6298.70	-366.98	59.68	6302.52	6282.33	-360.15	-260.38	100.21	320.55	46.60	6.97	PASS
6413.00†	6398.40	-374.63	60.92	6402.31	6381.69	-367.85	-265.62	100.17	327.05	47.39	6.99	PASS
6513.00†	6498.10	-382.27	62.17	6502.10	6481.04	-375.55	-270.87	100.14	333.54	48.17	7.01	PASS
6613.00†	6597.80	-389.91	63.41	6601.89	6580.39	-383.24	-276.11	100.11	340.03	48.96	7.03	PASS
6713.00†	6697.50	-397.55	64.65	6701.68	6679.75	-390.94	-281.35	100.08	346.53	49.74	7.05	PASS
6793.95	6778.20	-403.74	65.66	6782.46	6760.17	-397.17	-285.60	100.05	351.78	50.38	7.07	PASS
6813.00†	6797.22	-404.88	65.89	6801.46	6779.10	-398.64	-286.60	106.39	353.01	50.52	7.07	PASS
6913.00†	6896.99	-400.49	66.97	6900.42	6877.67	-405.46	-291.81	-94.53	359.34	52.56	6.92	PASS
7013.00†	6994.48	-378.83	67.80	7000.40	6977.18	-399.13	-297.25	-93.46	366.02	57.07	6.48	PASS
7113.00†	7086.74	-340.58	68.34	7103.22	7076.74	-374.68	-302.94	-94.38	372.97	58.04	6.49	PASS
7213.00†	7170.95	-286.89	68.58	7209.06	7172.97	-331.34	-308.70	-95.59	379.89	57.51	6.68	PASS
7313.00†	7244.57	-219.40	68.51	7317.95	7261.92	-269.07	-314.32	-96.79	386.43	56.77	6.88	PASS
7413.00†	7305.34	-140.15	68.14	7429.79	7339.34	-188.78	-319.57	-97.85	392.22	56.15	7.06	PASS
7513.00†	7351.44	-51.55	67.48	7544.25	7400.92	-92.64	-324.18	-98.72	396.90	55.82	7.19	PASS
7613.00†	7381.45	43.70	66.54	7660.80	7442.77	15.87	-327.89	-99.35	400.13	55.96	7.23	PASS
7713.00†	7394.46	142.72	65.35	7778.73	7461.94	131.99	-330.48	-99.70	401.69	56.71	7.16	PASS
7737.87	7395.00	167.58	65.03	7808.17	7462.97	161.41	-330.93	-99.74	401.79	56.97	7.13	PASS
7813.00†	7395.00	242.70	64.02	7884.15	7463.00	237.38	-331.95	-99.74	401.80	58.06	6.99	PASS
7913.00†	7395.00	342.69	62.67	7984.15	7463.00	337.37	-333.30	-99.74	401.80	60.03	6.76	PASS
8013.00†	7395.00	442.68	61.32	8084.15	7463.00	437.36	-334.64	-99.74	401.80	62.58	6.48	PASS
8113.00†	7395.00	542.67	59.98	8184.15	7463.00	537.35	-335.98	-99.74	401.79	65.61	6.18	PASS
8213.00†	7395.00	642.66	58.63	8284.15	7463.00	637.34	-337.33	-99.74	401.79	69.07	5.87	PASS
8313.00†	7395.00	742.65	57.29	8384.15	7463.00	737.33	-338.67	-99.74	401.79	72.89	5.56	PASS
8413.00†	7395.00	842.64	55.94	8484.15	7463.00	837.32	-340.01	-99.74	401.79	77.03	5.26	PASS
8513.00†	7395.00	942.64	54.60	8584.15	7463.00	937.31	-341.36	-99.74	401.79	81.43	4.97	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 28 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NBH (293°FSL & 2128°FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7395.00	1042.63	53.25	8684.15	7463.00	1037.31	-342.70	-99.74	401.79	86.05	4.70	PASS
8713.00†	7395.00	1142.62	51.91	8784.15	7463.00	1137.30	-344.05	-99.74	401.79	90.86	4.45	PASS
8813.00†	7395.00	1242.61	50.56	8884.15	7463.00	1237.29	-345.39	-99.74	401.79	95.83	4.22	PASS
8913.00†	7395.00	1342.60	49.22	8984.15	7463.00	1337.28	-346.73	-99.74	401.78	100.93	4.00	PASS
9013.00†	7395.00	1442.59	47.87	9084.15	7463.00	1437.27	-348.08	-99.74	401.78	106.47	3.79	PASS
9113.00†	7395.00	1542.58	46.53	9184.15	7463.00	1537.26	-349.42	-99.74	401.78	111.47	3.62	PASS
9213.00†	7395.00	1642.57	45.18	9284.15	7463.00	1637.25	-350.76	-99.74	401.78	116.87	3.45	PASS
9313.00†	7395.00	1742.56	43.84	9384.15	7463.00	1737.24	-352.11	-99.74	401.78	122.35	3.30	PASS
9413.00†	7395.00	1842.55	42.49	9484.15	7463.00	1837.23	-353.45	-99.74	401.78	127.89	3.15	PASS
9513.00†	7395.00	1942.55	41.15	9584.15	7463.00	1937.22	-354.80	-99.74	401.78	133.49	3.02	PASS
9613.00†	7395.00	2042.54	39.80	9684.15	7463.00	2037.22	-356.14	-99.74	401.77	139.14	2.90	PASS
9713.00†	7395.00	2142.53	38.46	9784.15	7463.00	2137.21	-357.48	-99.74	401.77	144.84	2.78	PASS
9813.00†	7395.00	2242.52	37.11	9884.15	7463.00	2237.20	-358.83	-99.74	401.77	150.57	2.68	PASS
9913.00†	7395.00	2342.51	35.77	9984.15	7463.00	2337.19	-360.17	-99.74	401.77	156.33	2.58	PASS
10013.00†	7395.00	2442.50	34.42	10084.15	7463.00	2437.18	-361.52	-99.74	401.77	162.13	2.48	PASS
10113.00†	7395.00	2542.49	33.08	10184.15	7463.00	2537.17	-362.86	-99.74	401.77	167.96	2.40	PASS
10213.00†	7395.00	2642.48	31.73	10284.15	7463.00	2637.16	-364.20	-99.74	401.77	173.81	2.32	PASS
10313.00†	7395.00	2742.47	30.39	10384.15	7463.00	2737.15	-365.55	-99.74	401.77	179.68	2.24	PASS
10413.00†	7395.00	2842.46	29.04	10484.15	7463.00	2837.14	-366.89	-99.74	401.76	185.58	2.17	PASS
10513.00†	7395.00	2942.45	27.70	10584.15	7463.00	2937.13	-368.23	-99.74	401.76	191.49	2.10	PASS
10613.00†	7395.00	3042.45	26.35	10684.15	7463.00	3037.12	-369.58	-99.74	401.76	197.42	2.04	PASS
10713.00†	7395.00	3142.44	25.01	10784.15	7463.00	3137.12	-370.92	-99.75	401.76	203.36	1.98	PASS
10813.00†	7395.00	3242.43	23.66	10884.15	7463.00	3237.11	-372.27	-99.75	401.76	209.32	1.92	PASS
10913.00†	7395.00	3342.42	22.32	10984.15	7463.00	3337.10	-373.61	-99.75	401.76	215.29	1.87	PASS
11013.00†	7395.00	3442.41	20.97	11084.15	7463.00	3437.09	-374.95	-99.75	401.76	221.27	1.82	PASS
11113.00†	7395.00	3542.40	19.63	11184.15	7463.00	3537.08	-376.30	-99.75	401.75	227.27	1.77	PASS
11213.00†	7395.00	3642.39	18.28	11284.15	7463.00	3637.07	-377.64	-99.75	401.75	233.27	1.72	PASS
11313.00†	7395.00	3742.38	16.94	11384.15	7463.00	3737.06	-378.98	-99.75	401.75	239.28	1.68	PASS
11413.00†	7395.00	3842.37	15.59	11484.15	7463.00	3837.05	-380.33	-99.75	401.75	245.31	1.64	PASS
11513.00†	7395.00	3942.36	14.25	11584.15	7463.00	3937.04	-381.67	-99.75	401.75	251.34	1.60	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 29 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NBH (293°FSL & 2128°FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7395.00	4042.36	12.90	11684.15	7463.00	4037.03	-383.02	-99.75	401.75	257.37	1.56	PASS	
11713.00†	7395.00	4142.35	11.55	11784.15	7463.00	4137.03	-384.36	-99.75	401.75	263.42	1.53	PASS	
11813.00†	7395.00	4242.34	10.21	11884.15	7463.00	4237.02	-385.70	-99.75	401.75	269.47	1.49	PASS	
11913.00†	7395.00	4342.33	8.86	11984.15	7463.00	4337.01	-387.05	-99.75	401.74	275.52	1.46	PASS	
12013.00†	7395.00	4442.32	7.52	12084.15	7463.00	4437.00	-388.39	-99.75	401.74	281.58	1.43	PASS	
12113.00†	7395.00	4542.31	6.17	12184.15	7463.00	4536.99	-389.73	-99.75	401.74	287.65	1.40	PASS	
12213.00†	7395.00	4642.30	4.83	12284.15	7463.00	4636.98	-391.08	-99.75	401.74	293.72	1.37	PASS	
12313.00†	7395.00	4742.29	3.48	12384.15	7463.00	4736.97	-392.42	-99.75	401.74	299.80	1.34	PASS	
12413.00†	7395.00	4842.28	2.14	12484.15	7463.00	4836.96	-393.77	-99.75	401.74	305.88	1.31	PASS	
12513.00†	7395.00	4942.27	0.79	12584.15	7463.00	4936.95	-395.11	-99.75	401.74	311.97	1.29	PASS	
12613.00†	7395.00	5042.26	-0.55	12684.15	7463.00	5036.94	-396.45	-99.75	401.73	318.06	1.26	PASS	
12713.00†	7395.00	5142.26	-1.90	12784.15	7463.00	5136.94	-397.80	-99.75	401.73	324.15	1.24	PASS	
12813.00†	7395.00	5242.25	-3.24	12884.15	7463.00	5236.93	-399.14	-99.75	401.73	330.25	1.22	PASS	
12913.00†	7395.00	5342.24	-4.59	12984.15	7463.00	5336.92	-400.48	-99.75	401.73	336.35	1.19	PASS	
13013.00†	7395.00	5442.23	-5.93	13084.15	7463.00	5436.91	-401.83	-99.75	401.73	342.45	1.17	PASS	
13113.00†	7395.00	5542.22	-7.28	13184.15	7463.00	5536.90	-403.17	-99.75	401.73	348.55	1.15	PASS	
13213.00†	7395.00	5642.21	-8.62	13284.15	7463.00	5636.89	-404.52	-99.75	401.73	354.66	1.13	PASS	
13313.00†	7395.00	5742.20	-9.97	13384.15	7463.00	5736.88	-405.86	-99.75	401.73	360.77	1.11	PASS	
13413.00†	7395.00	5842.19	-11.31	13484.15	7463.00	5836.87	-407.20	-99.75	401.72	366.89	1.10	PASS	
13513.00†	7395.00	5942.18	-12.66	13584.15	7463.00	5936.86	-408.55	-99.75	401.72	373.00	1.08	PASS	
13613.00†	7395.00	6042.17	-14.00	13684.15	7463.00	6036.85	-409.89	-99.75	401.72	379.12	1.06	PASS	
13713.00†	7395.00	6142.17	-15.35	13784.15	7463.00	6136.85	-411.24	-99.75	401.72	385.24	1.04	PASS	
13813.00†	7395.00	6242.16	-16.69	13884.15	7463.00	6236.84	-412.58	-99.75	401.72	391.36	1.03	PASS	
13913.00†	7395.00	6342.15	-18.04	13984.15	7463.00	6336.83	-413.92	-99.75	401.72	397.49	1.01	PASS	
14013.00†	7395.00	6442.14	-19.38	14084.15	7463.00	6436.82	-415.27	-99.75	401.72	403.61	1.00	FAIL	
14113.00†	7395.00	6542.13	-20.73	14184.15	7463.00	6536.81	-416.61	-99.75	401.71	409.74	0.98	FAIL	
14213.00†	7395.00	6642.12	-22.07	14284.15	7463.00	6636.80	-417.95	-99.75	401.71	415.87	0.97	FAIL	
14313.00†	7395.00	6742.11	-23.42	14384.15	7463.00	6736.79	-419.30	-99.75	401.71	422.00	0.95	FAIL	
14413.00†	7395.00	6842.10	-24.76	14484.15	7463.00	6836.78	-420.64	-99.75	401.71	428.13	0.94	FAIL	
14513.00†	7395.00	6942.09	-26.11	14584.15	7463.00	6936.77	-421.99	-99.75	401.71	434.27	0.92	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 30 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NBH (293°FSL & 2128°FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7395.00	7042.08	-27.45	14684.15	7463.00	7036.76	-423.33	-99.75	401.71	440.40	0.91	FAIL
14713.00†	7395.00	7142.07	-28.80	14784.15	7463.00	7136.75	-424.67	-99.75	401.71	446.54	0.90	FAIL
14813.00†	7395.00	7242.07	-30.14	14884.15	7463.00	7236.75	-426.02	-99.75	401.71	452.68	0.89	FAIL
14913.00†	7395.00	7342.06	-31.49	14984.15	7463.00	7336.74	-427.36	-99.75	401.70	458.82	0.88	FAIL
15013.00†	7395.00	7442.05	-32.83	15084.15	7463.00	7436.73	-428.70	-99.75	401.70	464.96	0.86	FAIL
15113.00†	7395.00	7542.04	-34.18	15184.15	7463.00	7536.72	-430.05	-99.75	401.70	471.10	0.85	FAIL
15213.00†	7395.00	7642.03	-35.52	15284.15	7463.00	7636.71	-431.39	-99.75	401.70	477.25	0.84	FAIL
15313.00†	7395.00	7742.02	-36.87	15384.15	7463.00	7736.70	-432.74	-99.75	401.70	483.39	0.83	FAIL
15413.00†	7395.00	7842.01	-38.21	15484.15	7463.00	7836.69	-434.08	-99.75	401.70	489.54	0.82	FAIL
15513.00†	7395.00	7942.00	-39.56	15584.15	7463.00	7936.68	-435.42	-99.75	401.70	495.68	0.81	FAIL
15613.00†	7395.00	8041.99	-40.91	15684.15	7463.00	8036.67	-436.77	-99.75	401.69	501.83	0.80	FAIL
15713.00†	7395.00	8141.98	-42.25	15784.15	7463.00	8136.66	-438.11	-99.75	401.69	507.98	0.79	FAIL
15813.00†	7395.00	8241.98	-43.60	15884.15	7463.00	8236.66	-439.45	-99.75	401.69	514.13	0.78	FAIL
15913.00†	7395.00	8341.97	-44.94	15984.15	7463.00	8336.65	-440.80	-99.75	401.69	520.28	0.77	FAIL
16013.00†	7395.00	8441.96	-46.29	16084.15	7463.00	8436.64	-442.14	-99.75	401.69	526.43	0.76	FAIL
16113.00†	7395.00	8541.95	-47.63	16184.15	7463.00	8536.63	-443.49	-99.75	401.69	532.58	0.75	FAIL
16213.00†	7395.00	8641.94	-48.98	16284.15	7463.00	8636.62	-444.83	-99.75	401.69	538.73	0.75	FAIL
16313.00†	7395.00	8741.93	-50.32	16384.15	7463.00	8736.61	-446.17	-99.75	401.69	544.88	0.74	FAIL
16413.00†	7395.00	8841.92	-51.67	16484.15	7463.00	8836.60	-447.52	-99.75	401.68	551.04	0.73	FAIL
16513.00†	7395.00	8941.91	-53.01	16584.15	7463.00	8936.59	-448.86	-99.75	401.68	557.19	0.72	FAIL
16613.00†	7395.00	9041.90	-54.36	16684.15	7463.00	9036.58	-450.20	-99.75	401.68	563.35	0.71	FAIL
16713.00†	7395.00	9141.89	-55.70	16784.15	7463.00	9136.57	-451.55	-99.75	401.68	569.50	0.70	FAIL
16813.00†	7395.00	9241.88	-57.05	16884.15	7463.00	9236.57	-452.89	-99.75	401.68	575.66	0.70	FAIL
16913.00†	7395.00	9341.88	-58.39	16984.15	7463.00	9336.56	-454.24	-99.75	401.68	581.82	0.69	FAIL
17013.00†	7395.00	9441.87	-59.74	17084.15	7463.00	9436.55	-455.58	-99.75	401.68	587.97	0.68	FAIL
17113.00†	7395.00	9541.86	-61.08	17184.15	7463.00	9536.54	-456.92	-99.75	401.67	594.13	0.68	FAIL
17213.00†	7395.00	9641.85	-62.43	17284.15	7463.00	9636.53	-458.27	-99.75	401.67	600.29	0.67	FAIL
17313.00†	7395.00	9741.84	-63.77	17384.15	7463.00	9736.52	-459.61	-99.75	401.67	606.45	0.66	FAIL
17413.00†	7395.00	9841.83	-65.12	17484.15	7463.00	9836.51	-460.96	-99.75	401.67	612.61	0.66	FAIL
17513.00†	7395.00	9941.82	-66.46	17584.15	7463.00	9936.50	-462.30	-99.75	401.67	618.77	0.65	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 31 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#08 WAKEMAN 20-17-3NBH (293°FSL & 2128°FEL, SEC.20) Well: WAKEMAN 20-17-3NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17542.23†	7395.00	9971.05	-66.86	17613.38	7463.00	9965.73	-462.69	-99.75	401.67	620.57	0.65	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.47	0.00	-9.18	-3.90	-11.84
8.5in Open Hole	1800.00	17619.74	15819.74	1799.47	N/A	-3.90	-11.84	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17619.74	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3NBH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3NBH PWB Offset Wellpath: WAKEMAN 20-17-3NBH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 32 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)				Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = Interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.06	29.97	89.89	29.97	1.40	48.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.06	29.97	89.89	29.97	1.72	31.72	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.06	29.97	89.89	29.97	2.29	19.61	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.06	29.97	89.89	29.97	2.89	13.96	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.06	29.97	89.89	29.97	3.51	10.79	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.06	29.97	89.89	29.97	4.13	8.78	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.06	29.97	89.89	29.97	4.75	7.39	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.06	29.97	89.89	29.97	5.37	6.38	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.06	29.97	89.89	29.97	6.00	5.62	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.06	29.97	89.89	29.97	6.62	5.01	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.06	29.97	89.89	29.97	7.25	4.52	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	0.06	29.97	89.89	29.97	7.88	4.12	PASS
1213.00†	1213.00	0.00	0.00	1212.91	1212.91	0.04	30.00	89.93	30.00	8.50	3.79	PASS
1313.00†	1313.00	0.00	0.00	1312.12	1312.09	-1.51	31.51	92.74	31.56	9.18	3.67	PASS
1400.00	1400.00	0.00	0.00	1398.23	1398.07	-4.83	34.78	97.91	35.17	9.91	3.77	PASS
1413.00†	1413.00	-0.03	0.00	1411.07	1410.88	-5.49	35.42	-71.99	35.90	10.02	3.81	PASS
1513.00†	1512.97	-2.20	0.36	1509.99	1509.40	-11.82	41.64	-67.49	42.54	10.81	4.17	PASS
1613.00†	1612.80	-7.81	1.27	1609.80	1608.71	-18.88	48.58	-67.32	48.76	11.47	4.50	PASS
1622.03	1621.81	-8.49	1.38	1618.81	1617.68	-19.52	49.21	-67.49	49.26	11.53	4.51	PASS
1713.00†	1712.50	-15.44	2.51	1709.63	1708.05	-25.95	55.52	-69.26	54.23	12.08	4.74	PASS
1813.00†	1812.20	-23.08	3.75	1809.47	1807.39	-33.02	62.47	-70.87	59.74	12.63	4.95	PASS
1913.00†	1911.90	-30.72	5.00	1909.30	1906.74	-40.09	69.41	-72.20	65.30	13.28	5.14	PASS
2013.00†	2011.60	-38.37	6.24	2009.14	2006.08	-47.16	76.35	-73.33	70.88	13.96	5.30	PASS
2113.00†	2111.30	-46.01	7.48	2108.97	2105.42	-54.23	83.30	-74.29	76.49	14.65	5.44	PASS
2213.00†	2211.00	-53.65	8.73	2208.81	2204.76	-61.30	90.24	-75.12	82.11	15.35	5.56	PASS
2313.00†	2310.70	-61.29	9.97	2308.64	2304.10	-68.37	97.18	-75.84	87.75	16.06	5.67	PASS
2413.00†	2410.40	-68.94	11.21	2408.48	2403.45	-75.44	104.13	-76.48	93.40	16.78	5.77	PASS
2513.00†	2510.10	-76.58	12.45	2508.31	2502.79	-82.51	111.07	-77.04	99.07	17.50	5.86	PASS
2613.00†	2609.80	-84.22	13.70	2608.15	2602.13	-89.57	118.01	-77.54	104.74	18.24	5.93	PASS
2713.00†	2709.50	-91.86	14.94	2707.98	2701.47	-96.64	124.96	-77.99	110.41	18.97	6.01	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 33 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20)		Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2807.82	2800.82	-103.71	131.90	-78.40	116.10	19.72	6.07	PASS
2913.00†	2908.90	-107.15	17.42	2907.65	2900.16	-110.78	138.84	-78.77	121.79	20.46	6.13	PASS
3013.00†	3008.60	-114.79	18.67	3007.49	2999.50	-117.85	145.79	-79.10	127.48	21.22	6.18	PASS
3113.00†	3108.30	-122.43	19.91	3107.32	3098.84	-124.92	152.73	-79.41	133.18	21.97	6.23	PASS
3213.00†	3208.00	-130.07	21.15	3207.16	3198.18	-131.99	159.68	-79.69	138.88	22.73	6.28	PASS
3313.00†	3307.70	-137.72	22.40	3306.99	3297.53	-139.06	166.62	-79.95	144.59	23.49	6.32	PASS
3413.00†	3407.40	-145.36	23.64	3406.83	3396.87	-146.13	173.56	-80.19	150.29	24.25	6.35	PASS
3513.00†	3507.10	-153.00	24.88	3506.66	3496.21	-153.20	180.51	-80.41	156.00	25.02	6.39	PASS
3613.00†	3606.80	-160.64	26.12	3606.50	3595.55	-160.26	187.45	-80.62	161.72	25.78	6.42	PASS
3713.00†	3706.50	-168.29	27.37	3706.33	3694.89	-167.33	194.39	-80.81	167.43	26.55	6.45	PASS
3813.00†	3806.20	-175.93	28.61	3806.17	3794.24	-174.40	201.34	-80.99	173.15	27.32	6.48	PASS
3913.00†	3905.90	-183.57	29.85	3906.00	3893.58	-181.47	208.28	-81.16	178.86	28.09	6.51	PASS
4013.00†	4005.60	-191.21	31.10	4005.84	3992.92	-188.54	215.22	-81.32	184.58	28.87	6.53	PASS
4113.00†	4105.30	-198.85	32.34	4105.67	4092.26	-195.61	222.17	-81.47	190.30	29.64	6.55	PASS
4213.00†	4205.00	-206.50	33.58	4205.51	4191.61	-202.68	229.11	-81.61	196.02	30.41	6.57	PASS
4313.00†	4304.70	-214.14	34.82	4305.34	4290.95	-209.75	236.05	-81.74	201.75	31.19	6.60	PASS
4413.00†	4404.40	-221.78	36.07	4405.18	4390.29	-216.82	243.00	-81.86	207.47	31.97	6.61	PASS
4513.00†	4504.10	-229.42	37.31	4505.01	4489.63	-223.88	249.94	-81.98	213.19	32.75	6.63	PASS
4613.00†	4603.80	-237.07	38.55	4604.85	4588.97	-230.95	256.88	-82.09	218.92	33.53	6.65	PASS
4713.00†	4703.50	-244.71	39.80	4704.68	4688.32	-238.02	263.83	-82.20	224.64	34.31	6.67	PASS
4813.00†	4803.20	-252.35	41.04	4804.52	4787.66	-245.09	270.77	-82.30	230.37	35.09	6.68	PASS
4913.00†	4902.90	-259.99	42.28	4904.35	4887.00	-252.16	277.71	-82.39	236.10	35.87	6.69	PASS
5013.00†	5002.60	-267.63	43.52	5004.19	4986.34	-259.23	284.66	-82.48	241.83	36.65	6.71	PASS
5113.00†	5102.30	-275.28	44.77	5104.02	5085.68	-266.30	291.60	-82.57	247.56	37.43	6.72	PASS
5213.00†	5202.00	-282.92	46.01	5203.86	5185.03	-273.37	298.54	-82.66	253.28	38.22	6.73	PASS
5313.00†	5301.70	-290.56	47.25	5303.69	5284.37	-280.44	305.49	-82.73	259.01	39.00	6.75	PASS
5413.00†	5401.40	-298.20	48.50	5403.53	5383.71	-287.51	312.43	-82.81	264.74	39.78	6.76	PASS
5513.00†	5501.10	-305.85	49.74	5503.36	5483.05	-294.57	319.38	-82.88	270.47	40.57	6.77	PASS
5613.00†	5600.80	-313.49	50.98	5603.20	5582.40	-301.64	326.32	-82.95	276.21	41.35	6.78	PASS
5713.00†	5700.50	-321.13	52.22	5703.03	5681.74	-308.71	333.26	-83.02	281.94	42.14	6.79	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 34 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20)		Well: WAKEMAN 20-17-3CDH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5800.20	-328.77	53.47	5802.87	5781.08	-315.78	340.21	-83.08	287.67	42.93	6.80	PASS
5913.00†	5899.90	-336.41	54.71	5902.70	5880.42	-322.85	347.19	-83.15	293.40	43.71	6.81	PASS
6013.00†	5999.60	-344.06	55.95	6002.54	5979.76	-329.92	354.09	-83.21	299.13	44.50	6.81	PASS
6113.00†	6099.30	-351.70	57.20	6102.37	6079.11	-336.99	361.04	-83.26	304.87	45.28	6.82	PASS
6213.00†	6199.00	-359.34	58.44	6202.21	6178.45	-344.06	367.98	-83.32	310.60	46.07	6.83	PASS
6313.00†	6298.70	-366.98	59.68	6302.04	6277.79	-351.13	374.92	-83.37	316.33	46.86	6.84	PASS
6413.00†	6398.40	-374.63	60.92	6401.88	6377.13	-358.20	381.87	-83.42	322.07	47.65	6.85	PASS
6513.00†	6498.10	-382.27	62.17	6501.71	6476.47	-365.26	388.81	-83.47	327.80	48.44	6.85	PASS
6613.00†	6597.80	-389.91	63.41	6601.55	6575.82	-372.33	395.75	-83.52	333.53	49.22	6.86	PASS
6713.00†	6697.50	-397.55	64.65	6701.39	6675.16	-379.40	402.70	-83.56	339.27	50.01	6.87	PASS
6793.95	6778.20	-403.74	65.66	6782.20	6755.58	-385.12	408.32	-83.60	343.91	50.65	6.87	PASS
6813.00†	6797.22	-404.88	65.89	6801.22	6774.50	-386.47	409.64	-77.40	344.99	50.79	6.87	PASS
6913.00†	6896.99	-400.49	66.97	6900.26	6873.05	-393.48	416.53	84.20	350.44	52.74	6.72	PASS
7013.00†	6994.48	-378.83	67.80	6995.80	6968.12	-400.25	423.17	90.77	357.00	57.00	6.33	PASS
7113.00†	7086.74	-340.58	68.34	7090.71	7062.65	-405.01	429.75	96.82	367.90	56.74	6.55	PASS
7213.00†	7170.95	-286.89	68.58	7197.05	7168.01	-393.92	436.87	102.65	383.54	56.89	6.81	PASS
7313.00†	7244.57	-219.40	68.51	7315.38	7280.60	-358.93	444.16	107.95	402.34	57.69	7.05	PASS
7413.00†	7305.34	-140.15	68.14	7448.71	7395.81	-292.80	451.21	112.66	422.17	57.72	7.39	PASS
7513.00†	7351.44	-51.55	67.48	7599.41	7503.72	-188.40	457.24	116.57	440.27	57.48	7.74	PASS
7613.00†	7381.45	43.70	66.54	7767.32	7587.44	-43.60	461.07	119.31	453.55	56.80	8.07	PASS
7713.00†	7394.46	142.72	65.35	7947.23	7626.79	131.20	461.43	120.46	459.33	56.08	8.28	PASS
7737.87	7395.00	167.58	65.03	7988.97	7628.00	172.91	460.95	120.48	459.43	55.99	8.30	PASS
7813.00†	7395.00	242.70	64.02	8064.10	7628.00	248.03	459.94	120.48	459.42	56.89	8.16	PASS
7913.00†	7395.00	342.69	62.67	8164.10	7628.00	348.02	458.59	120.48	459.42	58.48	7.94	PASS
8013.00†	7395.00	442.68	61.32	8264.10	7628.00	448.01	457.24	120.48	459.42	60.54	7.67	PASS
8113.00†	7395.00	542.67	59.98	8364.10	7628.00	548.00	455.90	120.48	459.42	63.03	7.36	PASS
8213.00†	7395.00	642.66	58.63	8464.10	7628.00	647.99	454.55	120.48	459.42	65.88	7.04	PASS
8313.00†	7395.00	742.65	57.29	8564.10	7628.00	747.98	453.21	120.48	459.42	69.06	6.71	PASS
8413.00†	7395.00	842.64	55.94	8664.10	7628.00	847.97	451.86	120.48	459.42	72.53	6.39	PASS
8513.00†	7395.00	942.64	54.60	8764.10	7628.00	947.97	450.51	120.48	459.42	76.24	6.07	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 35 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20) Well: WAKEMAN 20-17-3CDH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
8613.00†	7395.00	1042.63	53.25	8864.10	7628.00	1047.96	449.17	120.48	459.42	80.16	5.77	PASS	
8713.00†	7395.00	1142.62	51.91	8964.10	7628.00	1147.95	447.82	120.48	459.42	84.26	5.49	PASS	
8813.00†	7395.00	1242.61	50.56	9064.10	7628.00	1247.94	446.48	120.48	459.42	89.44	5.17	PASS	
8913.00†	7395.00	1342.60	49.22	9164.10	7628.00	1347.93	445.13	120.48	459.42	92.91	4.97	PASS	
9013.00†	7395.00	1442.59	47.87	9264.10	7628.00	1447.92	443.78	120.48	459.42	97.42	4.74	PASS	
9113.00†	7395.00	1542.58	46.53	9364.10	7628.00	1547.91	442.44	120.48	459.41	102.02	4.53	PASS	
9213.00†	7395.00	1642.57	45.18	9464.10	7628.00	1647.90	441.09	120.48	459.41	106.72	4.33	PASS	
9313.00†	7395.00	1742.56	43.84	9564.10	7628.00	1747.89	439.75	120.48	459.41	111.49	4.14	PASS	
9413.00†	7395.00	1842.55	42.49	9664.10	7628.00	1847.88	438.40	120.48	459.41	116.32	3.97	PASS	
9513.00†	7395.00	1942.55	41.15	9764.10	7628.00	1947.87	437.05	120.48	459.41	121.21	3.81	PASS	
9613.00†	7395.00	2042.54	39.80	9864.10	7628.00	2047.87	435.71	120.48	459.41	126.16	3.66	PASS	
9713.00†	7395.00	2142.53	38.46	9964.10	7628.00	2147.86	434.36	120.48	459.41	131.15	3.52	PASS	
9813.00†	7395.00	2242.52	37.11	10064.10	7628.00	2247.85	433.02	120.48	459.41	136.18	3.39	PASS	
9913.00†	7395.00	2342.51	35.77	10164.10	7628.00	2347.84	431.67	120.48	459.41	141.25	3.26	PASS	
10013.00†	7395.00	2442.50	34.42	10264.10	7628.00	2447.83	430.32	120.48	459.41	146.35	3.15	PASS	
10113.00†	7395.00	2542.49	33.08	10364.10	7628.00	2547.82	428.98	120.48	459.41	151.48	3.04	PASS	
10213.00†	7395.00	2642.48	31.73	10464.10	7628.00	2647.81	427.63	120.48	459.41	156.63	2.94	PASS	
10313.00†	7395.00	2742.47	30.39	10564.10	7628.00	2747.80	426.29	120.48	459.41	161.81	2.85	PASS	
10413.00†	7395.00	2842.46	29.04	10664.10	7628.00	2847.79	424.94	120.48	459.40	167.01	2.76	PASS	
10513.00†	7395.00	2942.45	27.70	10764.10	7628.00	2947.78	423.59	120.48	459.40	172.23	2.67	PASS	
10613.00†	7395.00	3042.45	26.35	10864.10	7628.00	3047.78	422.25	120.48	459.40	177.47	2.59	PASS	
10713.00†	7395.00	3142.44	25.01	10964.10	7628.00	3147.77	420.90	120.48	459.40	182.73	2.52	PASS	
10813.00†	7395.00	3242.43	23.66	11064.10	7628.00	3247.76	419.56	120.48	459.40	188.00	2.45	PASS	
10913.00†	7395.00	3342.42	22.32	11164.10	7628.00	3347.75	418.21	120.48	459.40	193.28	2.38	PASS	
11013.00†	7395.00	3442.41	20.97	11264.10	7628.00	3447.74	416.86	120.48	459.40	198.57	2.32	PASS	
11113.00†	7395.00	3542.40	19.63	11364.10	7628.00	3547.73	415.52	120.48	459.40	203.88	2.26	PASS	
11213.00†	7395.00	3642.39	18.28	11464.10	7628.00	3647.72	414.17	120.48	459.40	209.22	2.20	PASS	
11313.00†	7395.00	3742.38	16.94	11564.10	7628.00	3747.71	412.83	120.48	459.40	214.53	2.15	PASS	
11413.00†	7395.00	3842.37	15.59	11664.10	7628.00	3847.70	411.48	120.48	459.40	219.87	2.09	PASS	
11513.00†	7395.00	3942.36	14.25	11764.10	7628.00	3947.69	410.13	120.48	459.40	225.21	2.04	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 36 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20) Well: WAKEMAN 20-17-3CDH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7395.00	4042.36	12.90	11864.10	7628.00	4047.68	408.79	120.48	459.40	230.57	2.00	PASS
11713.00†	7395.00	4142.35	11.55	11964.10	7628.00	4147.68	407.44	120.48	459.39	235.93	1.95	PASS
11813.00†	7395.00	4242.34	10.21	12064.10	7628.00	4247.67	406.10	120.48	459.39	241.30	1.91	PASS
11913.00†	7395.00	4342.33	8.86	12164.10	7628.00	4347.66	404.75	120.48	459.39	246.67	1.86	PASS
12013.00†	7395.00	4442.32	7.52	12264.10	7628.00	4447.65	403.40	120.48	459.39	252.06	1.82	PASS
12113.00†	7395.00	4542.31	6.17	12364.10	7628.00	4547.64	402.06	120.48	459.39	257.44	1.79	PASS
12213.00†	7395.00	4642.30	4.83	12464.10	7628.00	4647.63	400.71	120.48	459.39	262.83	1.75	PASS
12313.00†	7395.00	4742.29	3.48	12564.10	7628.00	4747.62	399.37	120.48	459.39	268.23	1.71	PASS
12413.00†	7395.00	4842.28	2.14	12664.10	7628.00	4847.61	398.02	120.48	459.39	273.63	1.68	PASS
12513.00†	7395.00	4942.27	0.79	12764.10	7628.00	4947.60	396.67	120.48	459.39	279.04	1.65	PASS
12613.00†	7395.00	5042.26	-0.55	12864.10	7628.00	5047.59	395.33	120.48	459.39	284.45	1.62	PASS
12713.00†	7395.00	5142.26	-1.90	12964.10	7628.00	5147.58	393.98	120.48	459.39	289.87	1.59	PASS
12813.00†	7395.00	5242.25	-3.24	13064.10	7628.00	5247.58	392.64	120.48	459.39	295.28	1.56	PASS
12913.00†	7395.00	5342.24	-4.59	13164.10	7628.00	5347.57	391.29	120.48	459.39	300.71	1.53	PASS
13013.00†	7395.00	5442.23	-5.93	13264.10	7628.00	5447.56	389.94	120.48	459.39	306.13	1.50	PASS
13113.00†	7395.00	5542.22	-7.28	13364.10	7628.00	5547.55	388.60	120.48	459.38	311.56	1.48	PASS
13213.00†	7395.00	5642.21	-8.62	13464.10	7628.00	5647.54	387.25	120.48	459.38	316.99	1.45	PASS
13313.00†	7395.00	5742.20	-9.97	13564.10	7628.00	5747.53	385.91	120.48	459.38	322.42	1.43	PASS
13413.00†	7395.00	5842.19	-11.31	13664.10	7628.00	5847.52	384.56	120.48	459.38	327.86	1.40	PASS
13513.00†	7395.00	5942.18	-12.66	13764.10	7628.00	5947.51	383.21	120.48	459.38	333.30	1.38	PASS
13613.00†	7395.00	6042.17	-14.00	13864.10	7628.00	6047.50	381.87	120.48	459.38	338.74	1.36	PASS
13713.00†	7395.00	6142.17	-15.35	13964.10	7628.00	6147.49	380.52	120.48	459.38	344.19	1.34	PASS
13813.00†	7395.00	6242.16	-16.69	14064.10	7628.00	6247.49	379.18	120.48	459.38	349.63	1.31	PASS
13913.00†	7395.00	6342.15	-18.04	14164.10	7628.00	6347.48	377.83	120.48	459.38	355.08	1.29	PASS
14013.00†	7395.00	6442.14	-19.38	14264.10	7628.00	6447.47	376.48	120.48	459.38	360.53	1.27	PASS
14113.00†	7395.00	6542.13	-20.73	14364.10	7628.00	6547.46	375.14	120.48	459.38	365.99	1.26	PASS
14213.00†	7395.00	6642.12	-22.07	14464.10	7628.00	6647.45	373.79	120.48	459.38	371.44	1.24	PASS
14313.00†	7395.00	6742.11	-23.42	14564.10	7628.00	6747.44	372.45	120.48	459.38	376.90	1.22	PASS
14413.00†	7395.00	6842.10	-24.76	14664.10	7628.00	6847.43	371.10	120.48	459.37	382.35	1.20	PASS
14513.00†	7395.00	6942.09	-26.11	14764.10	7628.00	6947.42	369.75	120.48	459.37	387.81	1.18	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 37 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293°FSL & 2083°FEL, SEC.20) Well: WAKEMAN 20-17-3CDH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7395.00	7042.08	-27.45	14864.10	7628.00	7047.41	368.41	120.48	459.37	393.27	1.17	PASS
14713.00†	7395.00	7142.07	-28.80	14964.10	7628.00	7147.40	367.06	120.48	459.37	398.74	1.15	PASS
14813.00†	7395.00	7242.07	-30.14	15064.10	7628.00	7247.39	365.72	120.48	459.37	404.20	1.14	PASS
14913.00†	7395.00	7342.06	-31.49	15164.10	7628.00	7347.39	364.37	120.48	459.37	409.67	1.12	PASS
15013.00†	7395.00	7442.05	-32.83	15264.10	7628.00	7447.38	363.02	120.48	459.37	415.13	1.11	PASS
15113.00†	7395.00	7542.04	-34.18	15364.10	7628.00	7547.37	361.68	120.48	459.37	420.60	1.09	PASS
15213.00†	7395.00	7642.03	-35.52	15464.10	7628.00	7647.36	360.33	120.48	459.37	426.07	1.08	PASS
15313.00†	7395.00	7742.02	-36.87	15564.10	7628.00	7747.35	358.99	120.48	459.37	431.54	1.06	PASS
15413.00†	7395.00	7842.01	-38.21	15664.10	7628.00	7847.34	357.64	120.48	459.37	437.01	1.05	PASS
15513.00†	7395.00	7942.00	-39.56	15764.10	7628.00	7947.33	356.29	120.48	459.37	442.48	1.04	PASS
15613.00†	7395.00	8041.99	-40.91	15864.10	7628.00	8047.32	354.95	120.48	459.37	447.96	1.03	PASS
15713.00†	7395.00	8141.98	-42.25	15964.10	7628.00	8147.31	353.60	120.48	459.36	453.43	1.01	PASS
15813.00†	7395.00	8241.98	-43.60	16064.10	7628.00	8247.30	352.26	120.48	459.36	458.91	1.00	PASS
15913.00†	7395.00	8341.97	-44.94	16164.10	7628.00	8347.30	350.91	120.48	459.36	464.38	0.99	FAIL
16013.00†	7395.00	8441.96	-46.29	16264.10	7628.00	8447.29	349.56	120.48	459.36	469.86	0.98	FAIL
16113.00†	7395.00	8541.95	-47.63	16364.10	7628.00	8547.28	348.22	120.48	459.36	475.34	0.97	FAIL
16213.00†	7395.00	8641.94	-48.98	16464.10	7628.00	8647.27	346.87	120.48	459.36	480.82	0.96	FAIL
16313.00†	7395.00	8741.93	-50.32	16564.10	7628.00	8747.26	345.53	120.48	459.36	486.30	0.94	FAIL
16413.00†	7395.00	8841.92	-51.67	16664.10	7628.00	8847.25	344.18	120.48	459.36	491.78	0.93	FAIL
16513.00†	7395.00	8941.91	-53.01	16764.10	7628.00	8947.24	342.83	120.48	459.36	497.26	0.92	FAIL
16613.00†	7395.00	9041.90	-54.36	16864.10	7628.00	9047.23	341.49	120.48	459.36	502.74	0.91	FAIL
16713.00†	7395.00	9141.89	-55.70	16964.10	7628.00	9147.22	340.14	120.48	459.36	508.23	0.90	FAIL
16813.00†	7395.00	9241.88	-57.05	17064.10	7628.00	9247.21	338.80	120.48	459.36	513.71	0.89	FAIL
16913.00†	7395.00	9341.88	-58.39	17164.10	7628.00	9347.20	337.45	120.48	459.36	519.19	0.88	FAIL
17013.00†	7395.00	9441.87	-59.74	17264.10	7628.00	9447.20	336.10	120.48	459.35	524.68	0.88	FAIL
17113.00†	7395.00	9541.86	-61.08	17364.10	7628.00	9547.19	334.76	120.48	459.35	530.16	0.87	FAIL
17213.00†	7395.00	9641.85	-62.43	17464.10	7628.00	9647.18	333.41	120.48	459.35	535.65	0.86	FAIL
17313.00†	7395.00	9741.84	-63.77	17564.10	7628.00	9747.17	332.06	120.48	459.35	541.14	0.85	FAIL
17413.00†	7395.00	9841.83	-65.12	17664.10	7628.00	9847.16	330.72	120.48	459.35	546.62	0.84	FAIL
17513.00†	7395.00	9941.82	-66.46	17764.10	7628.00	9947.15	329.37	120.48	459.35	552.11	0.83	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 38 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#05 WAKEMAN 20-17-3CDH (293'FSL & 2083'FEL, SEC.20) Well: WAKEMAN 20-17-3CDH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
17542.23†	7395.00	9971.05	-66.86	17786.94	7628.00	9969.99	329.07	120.48	459.40	553.69	0.83	FAIL	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.97	0.03	18.27	-9.84	27.98
8.5in Open Hole	1800.00	17786.94	15986.94	1797.97	7628.00	-9.84	27.98	3038.87	109.44

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17786.94	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-3CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-3CDH PWB Offset Wellpath: WAKEMAN 20-17-3CDH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 39 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20)				Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	0.16	44.98	89.80	44.98	1.40	73.62	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	0.16	44.98	89.80	44.98	1.72	47.92	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	0.16	44.98	89.80	44.98	2.29	29.62	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	0.16	44.98	89.80	44.98	2.90	21.09	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	0.16	44.98	89.80	44.98	3.51	16.30	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	0.16	44.98	89.80	44.98	4.13	13.27	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	0.16	44.98	89.80	44.98	4.75	11.18	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	0.16	44.98	89.80	44.98	5.38	9.65	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	0.16	44.98	89.80	44.98	6.00	8.49	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	0.16	44.98	89.80	44.98	6.63	7.58	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	0.16	44.98	89.80	44.98	7.26	6.85	PASS	
1113.00†	1113.00	0.00	0.00	1112.82	1112.82	0.14	45.00	89.82	45.00	7.88	6.24	PASS	
1213.00†	1213.00	0.00	0.00	1211.41	1211.38	-0.88	46.88	91.08	46.91	8.58	5.93	PASS	
1313.00†	1313.00	0.00	0.00	1309.73	1309.55	-3.52	51.71	93.89	51.94	9.49	5.89	PASS	
1400.00	1400.00	0.00	0.00	1394.88	1394.36	-7.11	58.28	96.96	58.99	10.28	6.14	PASS	
1413.00†	1413.00	-0.03	0.00	1407.57	1406.98	-7.75	59.45	-73.34	60.25	10.38	6.21	PASS	
1513.00†	1512.97	-2.20	0.36	1504.84	1503.50	-13.53	70.04	-71.25	71.23	11.22	6.76	PASS	
1613.00†	1612.80	-7.81	1.27	1603.41	1600.96	-20.57	82.94	-71.35	83.50	11.88	7.46	PASS	
1622.03	1621.81	-8.49	1.38	1612.38	1609.83	-21.22	84.12	-71.46	84.57	11.94	7.52	PASS	
1713.00†	1712.50	-15.44	2.51	1702.69	1699.11	-27.73	96.05	-72.72	95.29	12.48	8.09	PASS	
1813.00†	1812.20	-23.08	3.75	1801.97	1797.26	-34.89	109.16	-73.81	107.11	13.02	8.64	PASS	
1913.00†	1911.90	-30.72	5.00	1901.25	1895.41	-42.05	122.27	-74.69	118.97	13.67	9.13	PASS	
2013.00†	2011.60	-38.37	6.24	2000.53	1993.56	-49.21	135.38	-75.40	130.84	14.34	9.55	PASS	
2113.00†	2111.30	-46.01	7.48	2099.81	2091.71	-56.37	148.49	-76.00	142.74	15.03	9.92	PASS	
2213.00†	2211.00	-53.65	8.73	2199.09	2189.86	-63.53	161.60	-76.51	154.65	15.72	10.26	PASS	
2313.00†	2310.70	-61.29	9.97	2298.37	2288.01	-70.69	174.71	-76.94	166.56	16.42	10.55	PASS	
2413.00†	2410.40	-68.94	11.21	2397.65	2386.16	-77.85	187.82	-77.31	178.49	17.14	10.82	PASS	
2513.00†	2510.10	-76.58	12.45	2496.93	2484.31	-85.01	200.93	-77.64	190.42	17.87	11.06	PASS	
2613.00†	2609.80	-84.22	13.70	2596.21	2582.46	-92.17	214.04	-77.93	202.36	18.60	11.27	PASS	
2713.00†	2709.50	-91.86	14.94	2695.49	2680.61	-99.33	227.15	-78.19	214.30	19.34	11.46	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 40 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20)				Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2794.77	2778.76	-106.49	240.26	-78.42	226.25	20.09	11.64	PASS	
2913.00†	2908.90	-107.15	17.42	2894.05	2876.91	-113.65	253.37	-78.63	238.20	20.84	11.80	PASS	
3013.00†	3008.60	-114.79	18.67	2993.33	2975.06	-120.81	266.48	-78.81	250.15	21.59	11.94	PASS	
3113.00†	3108.30	-122.43	19.91	3092.61	3073.21	-127.97	279.59	-78.98	262.10	22.35	12.08	PASS	
3213.00†	3208.00	-130.07	21.15	3191.89	3171.36	-135.13	292.70	-79.14	274.06	23.12	12.20	PASS	
3313.00†	3307.70	-137.72	22.40	3291.17	3269.51	-142.29	305.81	-79.28	286.02	23.88	12.31	PASS	
3413.00†	3407.40	-145.36	23.64	3390.45	3367.66	-149.45	318.92	-79.41	297.98	24.65	12.42	PASS	
3513.00†	3507.10	-153.00	24.88	3489.73	3465.81	-156.61	332.04	-79.53	309.94	25.42	12.51	PASS	
3613.00†	3606.80	-160.64	26.12	3589.01	3563.96	-163.77	345.15	-79.64	321.90	26.20	12.60	PASS	
3713.00†	3706.50	-168.29	27.37	3688.29	3662.11	-170.93	358.26	-79.75	333.86	26.97	12.68	PASS	
3813.00†	3806.20	-175.93	28.61	3787.57	3760.26	-178.09	371.37	-79.84	345.83	27.75	12.76	PASS	
3913.00†	3905.90	-183.57	29.85	3886.85	3858.41	-185.25	384.48	-79.93	357.79	28.53	12.83	PASS	
4013.00†	4005.60	-191.21	31.10	3986.13	3956.56	-192.41	397.59	-80.02	369.76	29.32	12.90	PASS	
4113.00†	4105.30	-198.85	32.34	4085.41	4054.71	-199.57	410.70	-80.10	381.73	30.10	12.96	PASS	
4213.00†	4205.00	-206.50	33.58	4184.69	4152.86	-206.73	423.81	-80.17	393.69	30.89	13.02	PASS	
4313.00†	4304.70	-214.14	34.82	4283.97	4251.01	-213.89	436.92	-80.24	405.66	31.67	13.08	PASS	
4413.00†	4404.40	-221.78	36.07	4383.25	4349.16	-221.05	450.03	-80.31	417.63	32.46	13.13	PASS	
4513.00†	4504.10	-229.42	37.31	4482.53	4447.31	-228.21	463.14	-80.37	429.60	33.25	13.18	PASS	
4613.00†	4603.80	-237.07	38.55	4581.81	4545.46	-235.37	476.25	-80.43	441.57	34.04	13.23	PASS	
4713.00†	4703.50	-244.71	39.80	4681.09	4643.61	-242.53	489.36	-80.48	453.54	34.83	13.27	PASS	
4813.00†	4803.20	-252.35	41.04	4780.37	4741.76	-249.69	502.47	-80.54	465.51	35.62	13.31	PASS	
4913.00†	4902.90	-259.99	42.28	4879.65	4839.91	-256.85	515.58	-80.59	477.48	36.42	13.35	PASS	
5013.00†	5002.60	-267.63	43.52	4978.93	4938.06	-264.01	528.69	-80.64	489.45	37.21	13.39	PASS	
5113.00†	5102.30	-275.28	44.77	5078.21	5036.21	-271.17	541.80	-80.68	501.43	38.00	13.43	PASS	
5213.00†	5202.00	-282.92	46.01	5177.49	5134.36	-278.33	554.91	-80.72	513.40	38.80	13.46	PASS	
5313.00†	5301.70	-290.56	47.25	5276.77	5232.51	-285.49	568.02	-80.77	525.37	39.60	13.49	PASS	
5413.00†	5401.40	-298.20	48.50	5376.05	5330.66	-292.65	581.13	-80.80	537.34	40.39	13.52	PASS	
5513.00†	5501.10	-305.85	49.74	5475.33	5428.81	-299.81	594.24	-80.84	549.31	41.19	13.55	PASS	
5613.00†	5600.80	-313.49	50.98	5574.61	5526.96	-306.97	607.35	-80.88	561.29	41.99	13.58	PASS	
5713.00†	5700.50	-321.13	52.22	5673.89	5625.11	-314.13	620.46	-80.91	573.26	42.78	13.61	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 41 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20)				Well: WAKEMAN 20-17-4NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5773.17	5723.25	-321.29	633.57	-80.95	585.23	43.58	13.63	PASS	
5913.00†	5899.90	-336.41	54.71	5872.45	5821.40	-328.45	646.68	-80.98	597.21	44.38	13.66	PASS	
6013.00†	5999.60	-344.06	55.95	5971.73	5919.55	-335.61	659.79	-81.01	609.18	45.18	13.68	PASS	
6113.00†	6099.30	-351.70	57.20	6071.01	6017.70	-342.77	672.90	-81.04	621.16	45.98	13.70	PASS	
6213.00†	6199.00	-359.34	58.44	6170.29	6115.85	-349.93	686.01	-81.07	633.13	46.78	13.73	PASS	
6313.00†	6298.70	-366.98	59.68	6269.57	6214.00	-357.09	699.13	-81.09	645.10	47.58	13.75	PASS	
6413.00†	6398.40	-374.63	60.92	6368.85	6312.15	-364.25	712.24	-81.12	657.08	48.39	13.77	PASS	
6513.00†	6498.10	-382.27	62.17	6468.13	6410.30	-371.41	725.35	-81.15	669.05	49.19	13.79	PASS	
6613.00†	6597.80	-389.91	63.41	6567.41	6508.45	-378.57	738.46	-81.17	681.03	49.99	13.80	PASS	
6713.00†	6697.50	-397.55	64.65	6666.69	6606.60	-385.73	751.57	-81.19	693.00	50.79	13.82	PASS	
6793.95	6778.20	-403.74	65.66	6747.06	6686.06	-391.53	762.18	-81.21	702.70	51.44	13.84	PASS	
6813.00†	6797.22	-404.88	65.89	6765.97	6704.75	-392.89	764.68	-75.15	704.98	51.59	13.84	PASS	
6913.00†	6896.99	-400.49	66.97	6864.43	6802.09	-399.99	777.68	84.81	717.01	53.56	13.55	PASS	
7013.00†	6994.48	-378.83	67.80	6962.65	6899.29	-404.74	790.63	88.44	729.54	65.65	11.22	PASS	
7113.00†	7086.74	-340.58	68.34	7067.02	7002.01	-393.39	804.10	90.17	742.50	58.00	12.95	PASS	
7213.00†	7170.95	-286.89	68.58	7177.77	7106.89	-361.04	817.57	91.45	755.37	57.65	13.25	PASS	
7313.00†	7244.57	-219.40	68.51	7295.59	7209.52	-305.03	830.42	92.52	767.51	57.85	13.42	PASS	
7413.00†	7305.34	-140.15	68.14	7420.80	7303.72	-223.73	841.82	93.41	778.18	57.47	13.70	PASS	
7513.00†	7351.44	-51.55	67.48	7552.93	7381.72	-117.82	850.73	94.09	786.64	57.18	13.92	PASS	
7613.00†	7381.45	43.70	66.54	7690.54	7435.24	8.49	856.13	94.49	792.20	57.13	14.03	PASS	
7713.00†	7394.46	142.72	65.35	7831.13	7457.58	146.93	857.22	94.57	794.39	57.51	13.97	PASS	
7737.87	7395.00	167.58	65.03	7862.45	7458.00	178.24	856.86	94.55	794.41	57.71	13.92	PASS	
7813.00†	7395.00	242.70	64.02	7937.58	7458.00	253.36	855.85	94.55	794.41	58.77	13.67	PASS	
7913.00†	7395.00	342.69	62.67	8037.58	7458.00	353.36	854.50	94.55	794.40	60.73	13.22	PASS	
8013.00†	7395.00	442.68	61.32	8137.58	7458.00	453.35	853.15	94.55	794.40	63.27	12.69	PASS	
8113.00†	7395.00	542.67	59.98	8237.58	7458.00	553.34	851.81	94.55	794.40	66.31	12.10	PASS	
8213.00†	7395.00	642.66	58.63	8337.58	7458.00	653.33	850.46	94.55	794.40	69.78	11.49	PASS	
8313.00†	7395.00	742.65	57.29	8437.58	7458.00	753.32	849.11	94.55	794.40	73.62	10.89	PASS	
8413.00†	7395.00	842.64	55.94	8537.58	7458.00	853.31	847.77	94.55	794.40	77.78	10.30	PASS	
8513.00†	7395.00	942.64	54.60	8637.58	7458.00	953.30	846.42	94.55	794.39	82.20	9.74	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 42 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7395.00	1042.63	53.25	8737.58	7458.00	1053.29	845.07	94.55	794.39	85.90	9.32	PASS
8713.00†	7395.00	1142.62	51.91	8837.58	7458.00	1153.28	843.73	94.55	794.39	91.70	8.72	PASS
8813.00†	7395.00	1242.61	50.56	8937.58	7458.00	1253.27	842.38	94.55	794.39	96.70	8.27	PASS
8913.00†	7395.00	1342.60	49.22	9037.58	7458.00	1353.26	841.03	94.55	794.39	101.84	7.85	PASS
9013.00†	7395.00	1442.59	47.87	9137.58	7458.00	1453.26	839.69	94.55	794.39	107.10	7.46	PASS
9113.00†	7395.00	1542.58	46.53	9237.58	7458.00	1553.25	838.34	94.55	794.38	112.47	7.10	PASS
9213.00†	7395.00	1642.57	45.18	9337.58	7458.00	1653.24	836.99	94.55	794.38	117.92	6.77	PASS
9313.00†	7395.00	1742.56	43.84	9437.58	7458.00	1753.23	835.65	94.55	794.38	123.44	6.47	PASS
9413.00†	7395.00	1842.55	42.49	9537.58	7458.00	1853.22	834.30	94.55	794.38	129.03	6.18	PASS
9513.00†	7395.00	1942.55	41.15	9637.58	7458.00	1953.21	832.95	94.55	794.38	134.68	5.92	PASS
9613.00†	7395.00	2042.54	39.80	9737.58	7458.00	2053.20	831.61	94.55	794.38	140.38	5.68	PASS
9713.00†	7395.00	2142.53	38.46	9837.58	7458.00	2153.19	830.26	94.55	794.37	146.13	5.46	PASS
9813.00†	7395.00	2242.52	37.11	9937.58	7458.00	2253.18	828.91	94.55	794.37	151.91	5.25	PASS
9913.00†	7395.00	2342.51	35.77	10037.58	7458.00	2353.17	827.56	94.55	794.37	157.73	5.05	PASS
10013.00†	7395.00	2442.50	34.42	10137.58	7458.00	2453.16	826.22	94.55	794.37	163.59	4.87	PASS
10113.00†	7395.00	2542.49	33.08	10237.58	7458.00	2553.16	824.87	94.55	794.37	169.47	4.70	PASS
10213.00†	7395.00	2642.48	31.73	10337.58	7458.00	2653.15	823.52	94.55	794.37	175.37	4.54	PASS
10313.00†	7395.00	2742.47	30.39	10437.58	7458.00	2753.14	822.18	94.55	794.36	181.30	4.39	PASS
10413.00†	7395.00	2842.46	29.04	10537.58	7458.00	2853.13	820.83	94.55	794.36	187.25	4.25	PASS
10513.00†	7395.00	2942.45	27.70	10637.58	7458.00	2953.12	819.48	94.55	794.36	193.22	4.12	PASS
10613.00†	7395.00	3042.45	26.35	10737.58	7458.00	3053.11	818.14	94.55	794.36	199.20	4.00	PASS
10713.00†	7395.00	3142.44	25.01	10837.58	7458.00	3153.10	816.79	94.55	794.36	205.21	3.88	PASS
10813.00†	7395.00	3242.43	23.66	10937.58	7458.00	3253.09	815.44	94.55	794.36	211.22	3.77	PASS
10913.00†	7395.00	3342.42	22.32	11037.58	7458.00	3353.08	814.10	94.55	794.35	217.25	3.67	PASS
11013.00†	7395.00	3442.41	20.97	11137.58	7458.00	3453.07	812.75	94.55	794.35	223.29	3.57	PASS
11113.00†	7395.00	3542.40	19.63	11237.58	7458.00	3553.07	811.40	94.55	794.35	229.34	3.47	PASS
11213.00†	7395.00	3642.39	18.28	11337.58	7458.00	3653.06	810.06	94.55	794.35	235.40	3.38	PASS
11313.00†	7395.00	3742.38	16.94	11437.58	7458.00	3753.05	808.71	94.55	794.35	241.48	3.30	PASS
11413.00†	7395.00	3842.37	15.59	11537.58	7458.00	3853.04	807.36	94.55	794.35	247.56	3.22	PASS
11513.00†	7395.00	3942.36	14.25	11637.58	7458.00	3953.03	806.02	94.55	794.34	253.64	3.14	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 43 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7395.00	4042.36	12.90	11737.58	7458.00	4053.02	804.67	94.55	794.34	259.74	3.06	PASS
11713.00†	7395.00	4142.35	11.55	11837.58	7458.00	4153.01	803.32	94.55	794.34	265.84	2.99	PASS
11813.00†	7395.00	4242.34	10.21	11937.58	7458.00	4253.00	801.98	94.55	794.34	271.95	2.93	PASS
11913.00†	7395.00	4342.33	8.86	12037.58	7458.00	4352.99	800.63	94.55	794.34	278.07	2.86	PASS
12013.00†	7395.00	4442.32	7.52	12137.58	7458.00	4452.98	799.28	94.55	794.34	284.19	2.80	PASS
12113.00†	7395.00	4542.31	6.17	12237.58	7458.00	4552.97	797.94	94.55	794.33	290.32	2.74	PASS
12213.00†	7395.00	4642.30	4.83	12337.58	7458.00	4652.97	796.59	94.55	794.33	296.45	2.68	PASS
12313.00†	7395.00	4742.29	3.48	12437.58	7458.00	4752.96	795.24	94.55	794.33	302.59	2.63	PASS
12413.00†	7395.00	4842.28	2.14	12537.58	7458.00	4852.95	793.89	94.55	794.33	308.73	2.58	PASS
12513.00†	7395.00	4942.27	0.79	12637.58	7458.00	4952.94	792.55	94.55	794.33	314.87	2.53	PASS
12613.00†	7395.00	5042.26	-0.55	12737.58	7458.00	5052.93	791.20	94.55	794.33	321.02	2.48	PASS
12713.00†	7395.00	5142.26	-1.90	12837.58	7458.00	5152.92	789.85	94.55	794.33	327.17	2.43	PASS
12813.00†	7395.00	5242.25	-3.24	12937.58	7458.00	5252.91	788.51	94.55	794.32	333.33	2.39	PASS
12913.00†	7395.00	5342.24	-4.59	13037.58	7458.00	5352.90	787.16	94.55	794.32	339.49	2.34	PASS
13013.00†	7395.00	5442.23	-5.93	13137.58	7458.00	5452.89	785.81	94.55	794.32	345.65	2.30	PASS
13113.00†	7395.00	5542.22	-7.28	13237.58	7458.00	5552.88	784.47	94.55	794.32	351.82	2.26	PASS
13213.00†	7395.00	5642.21	-8.62	13337.58	7458.00	5652.87	783.12	94.55	794.32	357.99	2.22	PASS
13313.00†	7395.00	5742.20	-9.97	13437.58	7458.00	5752.87	781.77	94.55	794.32	364.16	2.18	PASS
13413.00†	7395.00	5842.19	-11.31	13537.58	7458.00	5852.86	780.43	94.55	794.31	370.33	2.15	PASS
13513.00†	7395.00	5942.18	-12.66	13637.58	7458.00	5952.85	779.08	94.55	794.31	376.51	2.11	PASS
13613.00†	7395.00	6042.17	-14.00	13737.58	7458.00	6052.84	777.73	94.55	794.31	382.69	2.08	PASS
13713.00†	7395.00	6142.17	-15.35	13837.58	7458.00	6152.83	776.39	94.55	794.31	388.87	2.04	PASS
13813.00†	7395.00	6242.16	-16.69	13937.58	7458.00	6252.82	775.04	94.55	794.31	395.05	2.01	PASS
13913.00†	7395.00	6342.15	-18.04	14037.58	7458.00	6352.81	773.69	94.55	794.31	401.23	1.98	PASS
14013.00†	7395.00	6442.14	-19.38	14137.58	7458.00	6452.80	772.35	94.55	794.30	407.42	1.95	PASS
14113.00†	7395.00	6542.13	-20.73	14237.58	7458.00	6552.79	771.00	94.55	794.30	413.61	1.92	PASS
14213.00†	7395.00	6642.12	-22.07	14337.58	7458.00	6652.78	769.65	94.55	794.30	419.80	1.89	PASS
14313.00†	7395.00	6742.11	-23.42	14437.58	7458.00	6752.77	768.31	94.55	794.30	425.99	1.87	PASS
14413.00†	7395.00	6842.10	-24.76	14537.58	7458.00	6852.77	766.96	94.55	794.30	432.18	1.84	PASS
14513.00†	7395.00	6942.09	-26.11	14637.58	7458.00	6952.76	765.61	94.55	794.30	438.38	1.81	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 44 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293°FSL & 2068°FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7395.00	7042.08	-27.45	14737.58	7458.00	7052.75	764.27	94.55	794.29	444.58	1.79	PASS
14713.00†	7395.00	7142.07	-28.80	14837.58	7458.00	7152.74	762.92	94.55	794.29	450.77	1.76	PASS
14813.00†	7395.00	7242.07	-30.14	14937.58	7458.00	7252.73	761.57	94.55	794.29	456.97	1.74	PASS
14913.00†	7395.00	7342.06	-31.49	15037.58	7458.00	7352.72	760.23	94.55	794.29	463.17	1.72	PASS
15013.00†	7395.00	7442.05	-32.83	15137.58	7458.00	7452.71	758.88	94.55	794.29	469.38	1.69	PASS
15113.00†	7395.00	7542.04	-34.18	15237.58	7458.00	7552.70	757.53	94.55	794.29	475.58	1.67	PASS
15213.00†	7395.00	7642.03	-35.52	15337.58	7458.00	7652.69	756.18	94.55	794.28	481.78	1.65	PASS
15313.00†	7395.00	7742.02	-36.87	15437.58	7458.00	7752.68	754.84	94.55	794.28	487.99	1.63	PASS
15413.00†	7395.00	7842.01	-38.21	15537.58	7458.00	7852.68	753.49	94.55	794.28	494.19	1.61	PASS
15513.00†	7395.00	7942.00	-39.56	15637.58	7458.00	7952.67	752.14	94.55	794.28	500.40	1.59	PASS
15613.00†	7395.00	8041.99	-40.91	15737.58	7458.00	8052.66	750.80	94.55	794.28	506.61	1.57	PASS
15713.00†	7395.00	8141.98	-42.25	15837.58	7458.00	8152.65	749.45	94.55	794.28	512.82	1.55	PASS
15813.00†	7395.00	8241.98	-43.60	15937.58	7458.00	8252.64	748.10	94.55	794.27	519.03	1.53	PASS
15913.00†	7395.00	8341.97	-44.94	16037.58	7458.00	8352.63	746.76	94.55	794.27	525.24	1.51	PASS
16013.00†	7395.00	8441.96	-46.29	16137.58	7458.00	8452.62	745.41	94.55	794.27	531.45	1.50	PASS
16113.00†	7395.00	8541.95	-47.63	16237.58	7458.00	8552.61	744.06	94.55	794.27	537.67	1.48	PASS
16213.00†	7395.00	8641.94	-48.98	16337.58	7458.00	8652.60	742.72	94.55	794.27	543.88	1.46	PASS
16313.00†	7395.00	8741.93	-50.32	16437.58	7458.00	8752.59	741.37	94.55	794.27	550.09	1.44	PASS
16413.00†	7395.00	8841.92	-51.67	16537.58	7458.00	8852.58	740.02	94.55	794.26	556.31	1.43	PASS
16513.00†	7395.00	8941.91	-53.01	16637.58	7458.00	8952.58	738.68	94.55	794.26	562.52	1.41	PASS
16613.00†	7395.00	9041.90	-54.36	16737.58	7458.00	9052.57	737.33	94.55	794.26	568.74	1.40	PASS
16713.00†	7395.00	9141.89	-55.70	16837.58	7458.00	9152.56	735.98	94.55	794.26	574.96	1.38	PASS
16813.00†	7395.00	9241.88	-57.05	16937.58	7458.00	9252.55	734.64	94.55	794.26	581.17	1.37	PASS
16913.00†	7395.00	9341.88	-58.39	17037.58	7458.00	9352.54	733.29	94.55	794.26	587.39	1.35	PASS
17013.00†	7395.00	9441.87	-59.74	17137.58	7458.00	9452.53	731.94	94.55	794.25	593.61	1.34	PASS
17113.00†	7395.00	9541.86	-61.08	17237.58	7458.00	9552.52	730.60	94.55	794.25	599.83	1.32	PASS
17213.00†	7395.00	9641.85	-62.43	17337.58	7458.00	9652.51	729.25	94.55	794.25	606.05	1.31	PASS
17313.00†	7395.00	9741.84	-63.77	17437.58	7458.00	9752.50	727.90	94.55	794.25	612.27	1.30	PASS
17413.00†	7395.00	9841.83	-65.12	17537.58	7458.00	9852.49	726.56	94.55	794.25	618.49	1.28	PASS
17513.00†	7395.00	9941.82	-66.46	17637.58	7458.00	9952.48	725.21	94.55	794.25	624.71	1.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 45 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#04 WAKEMAN 20-17-4NCH (293'FSL & 2068'FEL, SEC.20) Well: WAKEMAN 20-17-4NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17542.23†	7395.00	9971.05	-66.86	17654.03	7458.00	9968.94	724.99	94.55	794.35	626.50	1.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.31	0.10	27.42	-10.54	46.90
8.5in Open Hole	1800.00	17654.03	15854.03	1795.31	7458.00	-10.54	46.90	3038.58	234.68

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17654.03	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NCH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NCH PWB Offset Wellpath: WAKEMAN 20-17-4NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 46 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)		Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.06	-30.03	-90.11	30.03	1.40	48.71	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.06	-30.03	-90.11	30.03	1.72	31.72	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.06	-30.03	-90.11	30.03	2.29	19.61	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.06	-30.03	-90.11	30.03	2.90	13.96	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.06	-30.03	-90.11	30.03	3.51	10.79	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.06	-30.03	-90.11	30.03	4.13	8.78	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.06	-30.03	-90.11	30.03	4.75	7.40	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.06	-30.03	-90.11	30.03	5.38	6.39	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.06	-30.03	-90.11	30.03	6.00	5.62	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.06	-30.03	-90.11	30.03	6.63	5.02	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.06	-30.03	-90.11	30.03	7.25	4.53	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.06	-30.03	-90.11	30.03	7.88	4.13	PASS	
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.06	-30.03	-90.11	30.03	8.51	3.79	PASS	
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.06	-30.03	-90.11	30.03	9.13	3.51	PASS	
1400.00	1400.00	0.00	0.00	1400.00	1400.00	-0.06	-30.03	-90.11	30.03	9.68	3.29	PASS	
1413.00†	1413.00	-0.03	0.00	1413.00	1413.00	-0.06	-30.03	99.18	30.04	9.76	3.26	PASS	
1513.00†	1512.97	-2.20	0.36	1512.97	1512.97	-0.06	-30.03	103.26	30.46	10.39	3.09	PASS	
1613.00†	1612.80	-7.81	1.27	1612.71	1612.71	-0.07	-30.05	113.05	32.27	11.07	3.06	PASS	
1622.03	1621.81	-8.49	1.38	1621.65	1621.65	-0.10	-30.10	114.07	32.58	11.14	3.07	PASS	
1713.00†	1712.50	-15.44	2.51	1711.71	1711.69	-1.25	-31.85	121.52	37.19	11.77	3.32	PASS	
1813.00†	1812.20	-23.08	3.75	1810.67	1810.48	-4.29	-36.51	124.03	44.47	12.40	3.74	PASS	
1913.00†	1911.90	-30.72	5.00	1909.34	1908.74	-9.19	-44.00	122.67	53.61	13.12	4.26	PASS	
2013.00†	2011.60	-38.37	6.24	2007.49	2006.12	-15.89	-54.25	119.22	64.76	13.88	4.86	PASS	
2113.00†	2111.30	-46.01	7.48	2106.38	2103.94	-23.81	-66.36	115.52	77.46	14.60	5.53	PASS	
2213.00†	2211.00	-53.65	8.73	2205.46	2201.95	-31.76	-78.52	112.85	90.41	15.32	6.14	PASS	
2313.00†	2310.70	-61.29	9.97	2304.54	2299.96	-39.71	-90.69	110.85	103.50	16.04	6.70	PASS	
2413.00†	2410.40	-68.94	11.21	2403.63	2397.97	-47.67	-102.85	109.30	116.69	16.77	7.22	PASS	
2513.00†	2510.10	-76.58	12.45	2502.71	2495.98	-55.62	-115.01	108.06	129.95	17.51	7.69	PASS	
2613.00†	2609.80	-84.22	13.70	2601.79	2593.99	-63.57	-127.18	107.06	143.25	18.25	8.12	PASS	
2713.00†	2709.50	-91.86	14.94	2700.87	2692.01	-71.52	-139.34	106.22	156.60	18.99	8.53	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 47 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)		Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2799.95	2790.02	-79.48	-151.50	105.52	169.97	19.74	8.89	PASS
2913.00†	2908.90	-107.15	17.42	2899.04	2888.03	-87.43	-163.67	104.92	183.36	20.49	9.23	PASS
3013.00†	3008.60	-114.79	18.67	2998.12	2986.04	-95.38	-175.83	104.40	196.76	21.25	9.55	PASS
3113.00†	3108.30	-122.43	19.91	3097.20	3084.05	-103.33	-188.00	103.94	210.19	22.01	9.84	PASS
3213.00†	3208.00	-130.07	21.15	3196.28	3182.06	-111.29	-200.16	103.55	223.62	22.77	10.10	PASS
3313.00†	3307.70	-137.72	22.40	3295.37	3280.07	-119.24	-212.32	103.19	237.06	23.53	10.35	PASS
3413.00†	3407.40	-145.36	23.64	3394.45	3378.08	-127.19	-224.49	102.88	250.51	24.30	10.59	PASS
3513.00†	3507.10	-153.00	24.88	3493.53	3476.09	-135.14	-236.65	102.59	263.97	25.07	10.81	PASS
3613.00†	3606.80	-160.64	26.12	3592.61	3574.10	-143.10	-248.82	102.34	277.43	25.85	11.01	PASS
3713.00†	3706.50	-168.29	27.37	3691.70	3672.11	-151.05	-260.98	102.10	290.90	26.62	11.20	PASS
3813.00†	3806.20	-175.93	28.61	3790.78	3770.12	-159.00	-273.14	101.89	304.37	27.40	11.38	PASS
3913.00†	3905.90	-183.57	29.85	3889.86	3868.13	-166.95	-285.31	101.70	317.85	28.17	11.55	PASS
4013.00†	4005.60	-191.21	31.10	3988.94	3966.15	-174.91	-297.47	101.52	331.33	28.95	11.71	PASS
4113.00†	4105.30	-198.85	32.34	4088.03	4064.16	-182.86	-309.64	101.36	344.81	29.74	11.85	PASS
4213.00†	4205.00	-206.50	33.58	4187.11	4162.17	-190.81	-321.80	101.21	358.30	30.52	12.00	PASS
4313.00†	4304.70	-214.14	34.82	4286.19	4260.18	-198.77	-333.96	101.07	371.78	31.30	12.13	PASS
4413.00†	4404.40	-221.78	36.07	4385.27	4358.19	-206.72	-346.13	100.93	385.27	32.09	12.26	PASS
4513.00†	4504.10	-229.42	37.31	4484.35	4456.20	-214.67	-358.29	100.81	398.76	32.87	12.38	PASS
4613.00†	4603.80	-237.07	38.55	4583.44	4554.21	-222.62	-370.46	100.70	412.26	33.66	12.49	PASS
4713.00†	4703.50	-244.71	39.80	4682.52	4652.22	-230.58	-382.62	100.59	425.75	34.45	12.60	PASS
4813.00†	4803.20	-252.35	41.04	4781.60	4750.23	-238.53	-394.78	100.49	439.25	35.24	12.70	PASS
4913.00†	4902.90	-259.99	42.28	4880.68	4848.24	-246.48	-406.95	100.40	452.74	36.03	12.80	PASS
5013.00†	5002.60	-267.63	43.52	4979.77	4946.25	-254.43	-419.11	100.31	466.24	36.82	12.89	PASS
5113.00†	5102.30	-275.28	44.77	5078.85	5044.26	-262.39	-431.28	100.22	479.74	37.61	12.98	PASS
5213.00†	5202.00	-282.92	46.01	5177.93	5142.27	-270.34	-443.44	100.15	493.24	38.40	13.07	PASS
5313.00†	5301.70	-290.56	47.25	5277.01	5240.28	-278.29	-455.60	100.07	506.74	39.19	13.15	PASS
5413.00†	5401.40	-298.20	48.50	5376.10	5338.30	-286.24	-467.77	100.00	520.24	39.99	13.23	PASS
5513.00†	5501.10	-305.85	49.74	5475.18	5436.31	-294.20	-479.93	99.93	533.74	40.78	13.30	PASS
5613.00†	5600.80	-313.49	50.98	5574.26	5534.32	-302.15	-492.09	99.87	547.25	41.57	13.37	PASS
5713.00†	5700.50	-321.13	52.22	5673.34	5632.33	-310.10	-504.26	99.81	560.75	42.37	13.44	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 48 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#09 WAKEMAN 20-17-2NBH (293'FSL & 2143'FEL, SEC.20)				Well: WAKEMAN 20-17-2NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5800.20	-328.77	53.47	5772.42	5730.34	-318.06	-516.42	99.75	574.26	43.17	13.51	PASS
5913.00†	5899.90	-336.41	54.71	5871.51	5828.35	-326.01	-528.59	99.69	587.76	43.96	13.57	PASS
6013.00†	5999.60	-344.06	55.95	5970.59	5926.36	-333.96	-540.75	99.64	601.27	44.76	13.63	PASS
6113.00†	6099.30	-351.70	57.20	6069.67	6024.37	-341.91	-552.91	99.59	614.77	45.55	13.69	PASS
6213.00†	6199.00	-359.34	58.44	6168.75	6122.38	-349.87	-565.08	99.54	628.28	46.35	13.75	PASS
6313.00†	6298.70	-366.98	59.68	6267.84	6220.39	-357.82	-577.24	99.49	641.78	47.15	13.80	PASS
6413.00†	6398.40	-374.63	60.92	6366.92	6318.40	-365.77	-589.41	99.45	655.29	47.95	13.86	PASS
6513.00†	6498.10	-382.27	62.17	6466.00	6416.41	-373.72	-601.57	99.41	668.80	48.75	13.91	PASS
6613.00†	6597.80	-389.91	63.41	6565.08	6514.42	-381.68	-613.73	99.37	682.31	49.54	13.96	PASS
6713.00†	6697.50	-397.55	64.65	6664.17	6612.44	-389.63	-625.90	99.33	695.81	50.34	14.00	PASS
6793.95	6778.20	-403.74	65.66	6744.37	6691.78	-396.07	-635.74	99.30	706.75	50.99	14.04	PASS
6813.00†	6797.22	-404.88	65.89	6763.24	6710.44	-397.58	-638.06	105.79	709.32	51.14	14.05	PASS
6913.00†	6896.99	-400.49	66.97	6861.22	6807.38	-405.07	-650.10	-93.57	722.66	53.25	13.74	PASS
7013.00†	6994.48	-378.83	67.80	6959.14	6904.33	-401.06	-662.32	-90.78	735.99	57.41	12.97	PASS
7113.00†	7086.74	-340.58	68.34	7060.24	7002.17	-379.54	-674.92	-90.08	749.06	63.02	12.01	PASS
7213.00†	7170.95	-286.89	68.58	7164.88	7097.82	-339.40	-687.54	-89.85	761.46	56.94	13.53	PASS
7313.00†	7244.57	-219.40	68.51	7273.30	7187.55	-280.06	-699.71	-89.80	772.72	56.32	13.88	PASS
7413.00†	7305.34	-140.15	68.14	7385.57	7267.02	-201.81	-710.90	-89.87	782.42	55.78	14.19	PASS
7513.00†	7351.44	-51.55	67.48	7501.48	7331.56	-106.25	-720.48	-89.99	790.11	55.55	14.39	PASS
7613.00†	7381.43	43.70	66.54	7620.48	7376.58	3.43	-727.84	-90.15	795.41	55.81	14.42	PASS
7713.00†	7394.46	142.72	65.35	7741.69	7398.34	122.35	-732.43	-90.31	798.05	56.67	14.25	PASS
7737.87	7395.00	167.58	65.03	7772.05	7399.84	152.67	-733.09	-90.35	798.27	56.96	14.18	PASS
7813.00†	7395.00	242.70	64.02	7849.63	7400.00	230.23	-734.32	-90.36	798.45	58.08	13.91	PASS
7913.00†	7395.00	342.69	62.67	7949.63	7400.00	330.22	-735.88	-90.36	798.66	60.11	13.43	PASS
8013.00†	7395.00	442.68	61.32	8049.63	7400.00	430.21	-737.44	-90.36	798.88	62.73	12.87	PASS
8113.00†	7395.00	542.67	59.98	8149.63	7400.00	530.19	-739.00	-90.36	799.10	65.84	12.26	PASS
8213.00†	7395.00	642.66	58.63	8249.63	7400.00	630.18	-740.57	-90.36	799.31	69.39	11.63	PASS
8313.00†	7395.00	742.65	57.29	8349.63	7400.00	730.17	-742.13	-90.36	799.53	73.31	11.00	PASS
8413.00†	7395.00	842.64	55.94	8449.63	7400.00	830.16	-743.69	-90.36	799.75	77.53	10.40	PASS
8513.00†	7395.00	942.64	54.60	8549.63	7400.00	930.14	-745.25	-90.36	799.96	82.03	9.83	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 49 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20) Well: WAKEMAN 20-17-2NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7395.00	1042.63	53.25	8649.63	7400.00	1030.13	-746.81	-90.36	800.18	86.74	9.29	PASS
8713.00†	7395.00	1142.62	51.91	8749.63	7400.00	1130.12	-748.37	-90.36	800.39	89.65	8.99	PASS
8813.00†	7395.00	1242.61	50.56	8849.63	7400.00	1230.11	-749.93	-90.36	800.61	96.70	8.33	PASS
8913.00†	7395.00	1342.60	49.22	8949.62	7400.00	1330.09	-751.50	-90.36	800.83	101.89	7.91	PASS
9013.00†	7395.00	1442.59	47.87	9049.62	7400.00	1430.08	-753.06	-90.36	801.04	107.20	7.52	PASS
9113.00†	7395.00	1542.58	46.53	9149.62	7400.00	1530.07	-754.62	-90.36	801.26	112.61	7.15	PASS
9213.00†	7395.00	1642.57	45.18	9249.62	7400.00	1630.06	-756.18	-90.36	801.48	118.10	6.82	PASS
9313.00†	7395.00	1742.56	43.84	9349.62	7400.00	1730.05	-757.74	-90.36	801.69	123.67	6.51	PASS
9413.00†	7395.00	1842.55	42.49	9449.62	7400.00	1830.03	-759.30	-90.36	801.91	129.30	6.23	PASS
9513.00†	7395.00	1942.55	41.15	9549.62	7400.00	1930.02	-760.86	-90.36	802.13	134.98	5.97	PASS
9613.00†	7395.00	2042.54	39.80	9649.62	7400.00	2030.01	-762.43	-90.36	802.34	140.72	5.73	PASS
9713.00†	7395.00	2142.53	38.46	9749.62	7400.00	2130.00	-763.99	-90.36	802.56	146.50	5.50	PASS
9813.00†	7395.00	2242.52	37.11	9849.62	7400.00	2229.98	-765.55	-90.36	802.78	152.32	5.29	PASS
9913.00†	7395.00	2342.51	35.77	9949.62	7400.00	2329.97	-767.11	-90.36	802.99	158.17	5.10	PASS
10013.00†	7395.00	2442.50	34.42	10049.62	7400.00	2429.96	-768.67	-90.36	803.21	164.05	4.91	PASS
10113.00†	7395.00	2542.49	33.08	10149.62	7400.00	2529.95	-770.23	-90.36	803.42	169.96	4.74	PASS
10213.00†	7395.00	2642.48	31.73	10249.62	7400.00	2629.93	-771.80	-90.36	803.64	175.89	4.58	PASS
10313.00†	7395.00	2742.47	30.39	10349.62	7400.00	2729.92	-773.36	-90.36	803.86	181.85	4.43	PASS
10413.00†	7395.00	2842.46	29.04	10449.62	7400.00	2829.91	-774.92	-90.36	804.07	187.83	4.29	PASS
10513.00†	7395.00	2942.45	27.70	10549.62	7400.00	2929.90	-776.48	-90.36	804.29	193.82	4.16	PASS
10613.00†	7395.00	3042.45	26.35	10649.62	7400.00	3029.88	-778.04	-90.36	804.51	199.84	4.04	PASS
10713.00†	7395.00	3142.44	25.01	10749.62	7400.00	3129.87	-779.60	-90.36	804.72	205.86	3.92	PASS
10813.00†	7395.00	3242.43	23.66	10849.62	7400.00	3229.86	-781.16	-90.36	804.94	211.90	3.81	PASS
10913.00†	7395.00	3342.42	22.32	10949.62	7400.00	3329.85	-782.73	-90.36	805.16	217.96	3.70	PASS
11013.00†	7395.00	3442.41	20.97	11049.62	7400.00	3429.83	-784.29	-90.36	805.37	224.02	3.60	PASS
11113.00†	7395.00	3542.40	19.63	11149.62	7400.00	3529.82	-785.85	-90.36	805.59	230.10	3.51	PASS
11213.00†	7395.00	3642.39	18.28	11249.62	7400.00	3629.81	-787.41	-90.36	805.80	236.18	3.42	PASS
11313.00†	7395.00	3742.38	16.94	11349.62	7400.00	3729.80	-788.97	-90.36	806.02	242.28	3.33	PASS
11413.00†	7395.00	3842.37	15.59	11449.62	7400.00	3829.78	-790.53	-90.36	806.24	248.38	3.25	PASS
11513.00†	7395.00	3942.36	14.25	11549.62	7400.00	3929.77	-792.10	-90.36	806.45	254.49	3.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 50 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20) Well: WAKEMAN 20-17-2NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
11613.00†	7395.00	4042.36	12.90	11649.62	7400.00	4029.76	-793.66	-90.36	806.67	260.61	3.10	PASS	
11713.00†	7395.00	4142.35	11.55	11749.62	7400.00	4129.75	-795.22	-90.36	806.89	266.74	3.03	PASS	
11813.00†	7395.00	4242.34	10.21	11849.62	7400.00	4229.73	-796.78	-90.36	807.10	272.87	2.96	PASS	
11913.00†	7395.00	4342.33	8.86	11949.62	7400.00	4329.72	-798.34	-90.36	807.32	279.01	2.90	PASS	
12013.00†	7395.00	4442.32	7.52	12049.62	7400.00	4429.71	-799.90	-90.36	807.54	285.15	2.84	PASS	
12113.00†	7395.00	4542.31	6.17	12149.62	7400.00	4529.70	-801.46	-90.36	807.75	291.30	2.78	PASS	
12213.00†	7395.00	4642.30	4.83	12249.62	7400.00	4629.68	-803.03	-90.36	807.97	297.46	2.72	PASS	
12313.00†	7395.00	4742.29	3.48	12349.62	7400.00	4729.67	-804.59	-90.35	808.19	303.61	2.67	PASS	
12413.00†	7395.00	4842.28	2.14	12449.62	7400.00	4829.66	-806.15	-90.35	808.40	309.77	2.61	PASS	
12513.00†	7395.00	4942.27	0.79	12549.62	7400.00	4929.65	-807.71	-90.35	808.62	315.94	2.56	PASS	
12613.00†	7395.00	5042.26	-0.55	12649.62	7400.00	5029.64	-809.27	-90.35	808.83	322.11	2.51	PASS	
12713.00†	7395.00	5142.26	-1.90	12749.62	7400.00	5129.62	-810.83	-90.35	809.05	328.28	2.47	PASS	
12813.00†	7395.00	5242.25	-3.24	12849.62	7400.00	5229.61	-812.39	-90.35	809.27	334.46	2.42	PASS	
12913.00†	7395.00	5342.24	-4.59	12949.62	7400.00	5329.60	-813.96	-90.35	809.48	340.64	2.38	PASS	
13013.00†	7395.00	5442.23	-5.93	13049.62	7400.00	5429.59	-815.52	-90.35	809.70	346.82	2.34	PASS	
13113.00†	7395.00	5542.22	-7.28	13149.61	7400.00	5529.57	-817.08	-90.35	809.92	353.01	2.30	PASS	
13213.00†	7395.00	5642.21	-8.62	13249.61	7400.00	5629.56	-818.64	-90.35	810.13	359.19	2.26	PASS	
13313.00†	7395.00	5742.20	-9.97	13349.61	7400.00	5729.55	-820.20	-90.35	810.35	365.39	2.22	PASS	
13413.00†	7395.00	5842.19	-11.31	13449.61	7400.00	5829.54	-821.76	-90.35	810.57	371.58	2.18	PASS	
13513.00†	7395.00	5942.18	-12.66	13549.61	7400.00	5929.52	-823.33	-90.35	810.78	377.78	2.15	PASS	
13613.00†	7395.00	6042.17	-14.00	13649.61	7400.00	6029.51	-824.89	-90.35	811.00	383.97	2.11	PASS	
13713.00†	7395.00	6142.17	-15.35	13749.61	7400.00	6129.50	-826.45	-90.35	811.21	390.18	2.08	PASS	
13813.00†	7395.00	6242.16	-16.69	13849.61	7400.00	6229.49	-828.01	-90.35	811.43	396.38	2.05	PASS	
13913.00†	7395.00	6342.15	-18.04	13949.61	7400.00	6329.47	-829.57	-90.35	811.65	402.58	2.02	PASS	
14013.00†	7395.00	6442.14	-19.38	14049.61	7400.00	6429.46	-831.13	-90.35	811.86	408.79	1.99	PASS	
14113.00†	7395.00	6542.13	-20.73	14149.61	7400.00	6529.45	-832.69	-90.35	812.08	415.00	1.96	PASS	
14213.00†	7395.00	6642.12	-22.07	14249.61	7400.00	6629.44	-834.26	-90.35	812.30	421.21	1.93	PASS	
14313.00†	7395.00	6742.11	-23.42	14349.61	7400.00	6729.42	-835.82	-90.35	812.51	427.42	1.90	PASS	
14413.00†	7395.00	6842.10	-24.76	14449.61	7400.00	6829.41	-837.38	-90.35	812.73	433.63	1.88	PASS	
14513.00†	7395.00	6942.09	-26.11	14549.61	7400.00	6929.40	-838.94	-90.35	812.95	439.85	1.85	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 51 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20) Well: WAKEMAN 20-17-2NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
14613.00†	7395.00	7042.08	-27.45	14649.61	7400.00	7029.39	-840.50	-90.35	813.16	446.06	1.82	PASS	
14713.00†	7395.00	7142.07	-28.80	14749.61	7400.00	7129.37	-842.06	-90.35	813.38	452.28	1.80	PASS	
14813.00†	7395.00	7242.07	-30.14	14849.61	7400.00	7229.36	-843.62	-90.35	813.60	458.50	1.78	PASS	
14913.00†	7395.00	7342.06	-31.49	14949.61	7400.00	7329.35	-845.19	-90.35	813.81	464.72	1.75	PASS	
15013.00†	7395.00	7442.05	-32.83	15049.61	7400.00	7429.34	-846.75	-90.35	814.03	470.94	1.73	PASS	
15113.00†	7395.00	7542.04	-34.18	15149.61	7400.00	7529.32	-848.31	-90.35	814.24	477.16	1.71	PASS	
15213.00†	7395.00	7642.03	-35.52	15249.61	7400.00	7629.31	-849.87	-90.35	814.46	483.38	1.69	PASS	
15313.00†	7395.00	7742.02	-36.87	15349.61	7400.00	7729.30	-851.43	-90.35	814.68	489.61	1.66	PASS	
15413.00†	7395.00	7842.01	-38.21	15449.61	7400.00	7829.29	-852.99	-90.35	814.89	495.83	1.64	PASS	
15513.00†	7395.00	7942.00	-39.56	15549.61	7400.00	7929.27	-854.56	-90.35	815.11	502.06	1.62	PASS	
15613.00†	7395.00	8041.99	-40.91	15649.61	7400.00	8029.26	-856.12	-90.35	815.33	508.29	1.60	PASS	
15713.00†	7395.00	8141.98	-42.25	15749.61	7400.00	8129.25	-857.68	-90.35	815.54	514.52	1.59	PASS	
15813.00†	7395.00	8241.98	-43.60	15849.61	7400.00	8229.24	-859.24	-90.35	815.76	520.74	1.57	PASS	
15913.00†	7395.00	8341.97	-44.94	15949.61	7400.00	8329.23	-860.80	-90.35	815.98	526.97	1.55	PASS	
16013.00†	7395.00	8441.96	-46.29	16049.61	7400.00	8429.21	-862.36	-90.35	816.19	533.20	1.53	PASS	
16113.00†	7395.00	8541.95	-47.63	16149.61	7400.00	8529.20	-863.92	-90.35	816.41	539.44	1.51	PASS	
16213.00†	7395.00	8641.94	-48.98	16249.61	7400.00	8629.19	-865.49	-90.35	816.62	545.67	1.50	PASS	
16313.00†	7395.00	8741.93	-50.32	16349.61	7400.00	8729.18	-867.05	-90.35	816.84	551.90	1.48	PASS	
16413.00†	7395.00	8841.92	-51.67	16449.61	7400.00	8829.16	-868.61	-90.35	817.06	558.14	1.46	PASS	
16513.00†	7395.00	8941.91	-53.01	16549.61	7400.00	8929.15	-870.17	-90.35	817.27	564.37	1.45	PASS	
16613.00†	7395.00	9041.90	-54.36	16649.61	7400.00	9029.14	-871.73	-90.35	817.49	570.60	1.43	PASS	
16713.00†	7395.00	9141.89	-55.70	16749.61	7400.00	9129.13	-873.29	-90.35	817.71	576.84	1.42	PASS	
16813.00†	7395.00	9241.88	-57.05	16849.61	7400.00	9229.11	-874.86	-90.35	817.92	583.08	1.40	PASS	
16913.00†	7395.00	9341.88	-58.39	16949.61	7400.00	9329.10	-876.42	-90.35	818.14	589.31	1.39	PASS	
17013.00†	7395.00	9441.87	-59.74	17049.61	7400.00	9429.09	-877.98	-90.35	818.36	595.55	1.37	PASS	
17113.00†	7395.00	9541.86	-61.08	17149.61	7400.00	9529.08	-879.54	-90.35	818.57	601.79	1.36	PASS	
17213.00†	7395.00	9641.85	-62.43	17249.61	7400.00	9629.06	-881.10	-90.35	818.79	608.03	1.35	PASS	
17313.00†	7395.00	9741.84	-63.77	17349.61	7400.00	9729.05	-882.66	-90.35	819.01	614.27	1.33	PASS	
17413.00†	7395.00	9841.83	-65.12	17449.60	7400.00	9829.04	-884.22	-90.35	819.22	620.51	1.32	PASS	
17513.00†	7395.00	9941.82	-66.46	17549.60	7400.00	9929.03	-885.79	-90.35	819.44	626.75	1.31	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 52 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#09 WAKEMAN 20-17-2NBH (293°FSL & 2143°FEL, SEC.20) Well: WAKEMAN 20-17-2NBH Threshold Value=1.00 † = interpolated/extrapolated station											
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	ACR Status
17542.23†	7395.00	9971.05	-66.86	17578.84	7400.00	9958.25	-886.24	-90.35	819.50	628.57	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.84	-0.03	-18.31	-1.20	-20.09
8.5in Open Hole	1800.00	17593.78	15793.78	1799.84	N/A	-1.20	-20.09	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17593.78	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NBH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NBH PWB Offset Wellpath: WAKEMAN 20-17-2NBH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 53 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#03 WAKEMAN 20-17-4NBH (293°FSL & 2053°FEL, SEC.20)				Well: WAKEMAN 20-17-4NBH		Threshold Value=1.00		† = Interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.22	59.98	89.79	59.98	1.40	98.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.22	59.98	89.79	59.98	1.72	64.13	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.22	59.98	89.79	59.98	2.30	39.63	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.22	59.98	89.79	59.98	2.90	28.22	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.22	59.98	89.79	59.98	3.51	21.82	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.22	59.98	89.79	59.98	4.13	17.76	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.22	59.98	89.79	59.98	4.76	14.96	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.22	59.98	89.79	59.98	5.38	12.92	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.22	59.98	89.79	59.98	6.01	11.37	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.22	59.98	89.79	59.98	6.63	10.15	PASS
1013.00†	1013.00	0.00	0.00	1012.75	1012.75	0.21	60.00	89.80	60.00	7.26	9.17	PASS
1113.00†	1113.00	0.00	0.00	1110.77	1110.75	-0.52	61.98	90.49	62.03	7.97	8.54	PASS
1213.00†	1213.00	0.00	0.00	1208.54	1208.35	-2.43	67.09	92.07	67.29	8.91	8.20	PASS
1313.00†	1313.00	0.00	0.00	1305.82	1305.24	-5.47	75.26	94.16	75.85	9.81	8.33	PASS
1400.00	1400.00	0.00	0.00	1389.89	1388.69	-9.03	84.80	96.08	86.03	10.55	8.74	PASS
1413.00†	1413.00	-0.03	0.00	1402.40	1401.08	-9.63	86.41	-74.39	87.76	10.67	8.81	PASS
1513.00†	1512.97	-2.20	0.36	1498.22	1495.71	-14.87	100.47	-73.19	102.38	11.49	9.50	PASS
1613.00†	1612.80	-7.81	1.27	1593.21	1588.98	-21.15	117.32	-73.42	119.22	12.27	10.33	PASS
1622.03	1621.81	-8.49	1.38	1602.05	1597.63	-21.78	119.03	-73.49	120.84	12.33	10.42	PASS
1713.00†	1712.50	-15.44	2.51	1691.52	1685.18	-28.22	136.29	-74.48	137.14	12.87	11.30	PASS
1813.00†	1812.20	-23.08	3.75	1789.87	1781.43	-35.29	155.27	-75.33	155.09	13.44	12.17	PASS
1913.00†	1911.90	-30.72	5.00	1888.23	1877.67	-42.37	174.25	-76.00	173.07	14.04	12.93	PASS
2013.00†	2011.60	-38.37	6.24	1986.58	1973.92	-49.44	193.23	-76.54	191.07	14.73	13.58	PASS
2113.00†	2111.30	-46.01	7.48	2084.93	2070.16	-56.51	212.21	-76.99	209.09	15.38	14.20	PASS
2213.00†	2211.00	-53.65	8.73	2183.28	2166.40	-63.59	231.19	-77.37	227.11	16.08	14.73	PASS
2313.00†	2310.70	-61.29	9.97	2281.63	2262.65	-70.66	250.17	-77.70	245.14	16.79	15.20	PASS
2413.00†	2410.40	-68.94	11.21	2379.99	2358.89	-77.73	269.15	-77.98	263.18	17.51	15.62	PASS
2513.00†	2510.10	-76.58	12.45	2478.34	2455.14	-84.81	288.13	-78.22	281.22	18.24	16.00	PASS
2613.00†	2609.80	-84.22	13.70	2576.69	2551.38	-91.88	307.11	-78.43	299.27	18.98	16.34	PASS
2713.00†	2709.50	-91.86	14.94	2675.04	2647.62	-98.95	326.09	-78.62	317.32	19.72	16.65	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 54 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#03 WAKEMAN 20-17-4NBH (293°FSL & 2053°FEL, SEC.20)				Well: WAKEMAN 20-17-4NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2773.40	2743.87	-106.03	345.06	-78.79	335.37	20.48	16.93	PASS
2913.00†	2908.90	-107.15	17.42	2871.75	2840.11	-113.10	364.04	-78.94	353.43	21.24	17.18	PASS
3013.00†	3008.60	-114.79	18.67	2970.10	2936.36	-120.17	383.02	-79.08	371.49	22.00	17.41	PASS
3113.00†	3108.30	-122.43	19.91	3068.45	3032.60	-127.25	402.00	-79.21	389.55	22.78	17.62	PASS
3213.00†	3208.00	-130.07	21.15	3166.80	3128.84	-134.32	420.98	-79.32	407.61	23.55	17.81	PASS
3313.00†	3307.70	-137.72	22.40	3265.16	3225.09	-141.39	439.96	-79.42	425.67	24.33	17.99	PASS
3413.00†	3407.40	-145.36	23.64	3363.51	3321.33	-148.47	458.94	-79.52	443.74	25.11	18.15	PASS
3513.00†	3507.10	-153.00	24.88	3461.86	3417.58	-155.54	477.92	-79.61	461.81	25.90	18.30	PASS
3613.00†	3606.80	-160.64	26.12	3560.21	3513.82	-162.61	496.90	-79.69	479.87	26.69	18.44	PASS
3713.00†	3706.50	-168.29	27.37	3658.56	3610.06	-169.69	515.88	-79.77	497.94	27.48	18.57	PASS
3813.00†	3806.20	-175.93	28.61	3756.92	3706.31	-176.76	534.86	-79.83	516.01	28.27	18.69	PASS
3913.00†	3905.90	-183.57	29.85	3855.27	3802.55	-183.83	553.84	-79.90	534.08	29.07	18.81	PASS
4013.00†	4005.60	-191.21	31.10	3953.62	3898.80	-190.91	572.82	-79.96	552.15	29.87	18.91	PASS
4113.00†	4105.30	-198.85	32.34	4051.97	3995.04	-197.98	591.80	-80.02	570.22	30.67	19.01	PASS
4213.00†	4205.00	-206.50	33.58	4150.33	4091.28	-205.05	610.77	-80.07	588.29	31.47	19.10	PASS
4313.00†	4304.70	-214.14	34.82	4248.68	4187.53	-212.13	629.75	-80.12	606.36	32.28	19.19	PASS
4413.00†	4404.40	-221.78	36.07	4347.03	4283.77	-219.20	648.73	-80.17	624.43	33.08	19.27	PASS
4513.00†	4504.10	-229.42	37.31	4445.38	4380.02	-226.27	667.71	-80.22	642.51	33.89	19.34	PASS
4613.00†	4603.80	-237.07	38.55	4543.73	4476.26	-233.35	686.69	-80.26	660.58	34.70	19.41	PASS
4713.00†	4703.50	-244.71	39.80	4642.09	4572.50	-240.42	705.67	-80.30	678.65	35.51	19.48	PASS
4813.00†	4803.20	-252.35	41.04	4740.44	4668.75	-247.49	724.65	-80.34	696.72	36.32	19.55	PASS
4913.00†	4902.90	-259.99	42.28	4838.79	4764.99	-254.57	743.63	-80.37	714.80	37.13	19.61	PASS
5013.00†	5002.60	-267.63	43.52	4937.14	4861.24	-261.64	762.61	-80.41	732.87	37.94	19.66	PASS
5113.00†	5102.30	-275.28	44.77	5035.50	4957.48	-268.71	781.59	-80.44	750.95	38.76	19.72	PASS
5213.00†	5202.00	-282.92	46.01	5133.85	5053.72	-275.79	800.57	-80.47	769.02	39.57	19.77	PASS
5313.00†	5301.70	-290.56	47.25	5232.20	5149.97	-282.86	819.55	-80.50	787.09	40.39	19.82	PASS
5413.00†	5401.40	-298.20	48.50	5330.55	5246.21	-289.93	838.53	-80.53	805.17	41.20	19.87	PASS
5513.00†	5501.10	-305.85	49.74	5428.90	5342.46	-297.01	857.50	-80.56	823.24	42.02	19.91	PASS
5613.00†	5600.80	-313.49	50.98	5527.26	5438.70	-304.08	876.48	-80.58	841.32	42.84	19.95	PASS
5713.00†	5700.50	-321.13	52.22	5625.61	5534.94	-311.15	895.46	-80.61	859.39	43.66	19.99	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 55 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#03 WAKEMAN 20-17-4NBH (293°FSL & 2053°FEL, SEC.20) Well: WAKEMAN 20-17-4NBH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5723.96	5631.19	-318.23	914.44	-80.63	877.47	44.48	20.03	PASS	
5913.00†	5899.90	-336.41	54.71	5822.31	5727.43	-325.30	933.42	-80.65	895.55	45.30	20.07	PASS	
6013.00†	5999.60	-344.06	55.95	5920.67	5823.68	-332.37	952.40	-80.68	913.62	46.12	20.10	PASS	
6113.00†	6099.30	-351.70	57.20	6019.02	5919.92	-339.45	971.38	-80.70	931.70	46.94	20.14	PASS	
6213.00†	6199.00	-359.34	58.44	6117.37	6016.16	-346.52	990.36	-80.72	949.77	47.76	20.17	PASS	
6313.00†	6298.70	-366.98	59.68	6215.72	6112.41	-353.59	1009.34	-80.74	967.85	48.58	20.20	PASS	
6413.00†	6398.40	-374.63	60.92	6314.07	6208.65	-360.67	1028.32	-80.76	985.93	49.41	20.23	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1791.34	0.14	36.56	-10.91	66.20
8.5in Open Hole	1800.00	17645.62	15845.62	1791.34	7390.00	-10.91	66.20	3038.28	359.93

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17645.62	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NBH PWB



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 56 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NBH PWB Offset Wellpath: WAKEMAN 20-17-4NBH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 57 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20)				Well: WAKEMAN 20-17-2NCH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.05	-45.00	-90.06	45.00	1.40	73.67	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.05	-45.00	-90.06	45.00	1.72	47.91	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.05	-45.00	-90.06	45.00	2.29	29.61	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.05	-45.00	-90.06	45.00	2.90	21.09	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.05	-45.00	-90.06	45.00	3.51	16.30	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.05	-45.00	-90.06	45.00	4.13	13.27	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.05	-45.00	-90.06	45.00	4.76	11.18	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.05	-45.00	-90.06	45.00	5.38	9.66	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.05	-45.00	-90.06	45.00	6.01	8.50	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.05	-45.00	-90.06	45.00	6.63	7.58	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.05	-45.00	-90.06	45.00	7.26	6.85	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.05	-45.00	-90.06	45.00	7.88	6.24	PASS	
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.05	-45.00	-90.06	45.00	8.51	5.73	PASS	
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.05	-45.00	-90.06	45.00	9.14	5.30	PASS	
1400.00	1400.00	0.00	0.00	1400.00	1400.00	-0.05	-45.00	-90.06	45.00	9.68	4.98	PASS	
1413.00†	1413.00	-0.03	0.00	1413.00	1413.00	-0.05	-45.00	-90.06	45.00	9.76	4.93	PASS	
1513.00†	1512.97	-2.20	0.36	1512.79	1512.79	-0.06	-45.03	101.92	45.44	10.39	4.65	PASS	
1613.00†	1612.80	-7.81	1.27	1611.21	1611.18	-0.89	-46.99	107.22	48.79	11.10	4.66	PASS	
1622.03	1621.81	-8.49	1.38	1620.08	1620.05	-1.02	-47.32	107.75	49.30	11.16	4.68	PASS	
1713.00†	1712.50	-15.44	2.51	1709.36	1709.18	-3.01	-52.05	111.76	56.06	11.93	4.97	PASS	
1813.00†	1812.20	-23.08	3.75	1807.15	1806.56	-6.43	-60.17	113.43	66.29	12.62	5.51	PASS	
1913.00†	1911.90	-30.72	5.00	1904.34	1903.00	-11.10	-71.26	113.15	79.25	13.40	6.19	PASS	
2013.00†	2011.60	-38.37	6.24	2000.73	1998.18	-16.98	-85.24	111.75	94.90	14.19	6.98	PASS	
2113.00†	2111.30	-46.01	7.48	2096.62	2092.33	-24.04	-102.02	109.82	113.28	14.95	7.91	PASS	
2213.00†	2211.00	-53.65	8.73	2194.65	2188.35	-31.69	-120.20	108.12	132.73	15.65	8.84	PASS	
2313.00†	2310.70	-61.29	9.97	2292.67	2284.37	-39.34	-138.37	106.86	152.25	16.36	9.68	PASS	
2413.00†	2410.40	-68.94	11.21	2390.70	2380.39	-46.99	-156.55	105.89	171.83	17.08	10.45	PASS	
2513.00†	2510.10	-76.58	12.45	2488.73	2476.42	-54.64	-174.73	105.11	191.45	17.83	11.14	PASS	
2613.00†	2609.80	-84.22	13.70	2586.76	2572.44	-62.29	-192.91	104.48	211.10	18.53	11.80	PASS	
2713.00†	2709.50	-91.86	14.94	2684.78	2668.46	-69.94	-211.08	103.96	230.76	19.27	12.39	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 58 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#10 WAKEMAN 20-17-2NCH (293°FSL & 2158°FEL, SEC.20)				Well: WAKEMAN 20-17-2NCH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2782.81	2764.49	-77.59	-229.26	103.52	250.44	20.02	12.93	PASS
2913.00†	2908.90	-107.15	17.42	2880.84	2860.51	-85.24	-247.44	103.14	270.14	20.77	13.43	PASS
3013.00†	3008.60	-114.79	18.67	2978.86	2956.53	-92.89	-265.62	102.81	289.84	21.52	13.89	PASS
3113.00†	3108.30	-122.43	19.91	3076.89	3052.55	-100.54	-283.79	102.53	309.55	22.29	14.31	PASS
3213.00†	3208.00	-130.07	21.15	3174.92	3148.58	-108.18	-301.97	102.28	329.27	23.05	14.70	PASS
3313.00†	3307.70	-137.72	22.40	3272.95	3244.60	-115.83	-320.15	102.06	348.99	23.82	15.07	PASS
3413.00†	3407.40	-145.36	23.64	3370.97	3340.62	-123.48	-338.33	101.86	368.72	24.60	15.41	PASS
3513.00†	3507.10	-153.00	24.88	3469.00	3436.65	-131.13	-356.50	101.68	388.45	25.37	15.72	PASS
3613.00†	3606.80	-160.64	26.12	3567.03	3532.67	-138.78	-374.68	101.52	408.19	26.15	16.01	PASS
3713.00†	3706.50	-168.29	27.37	3665.05	3628.69	-146.43	-392.86	101.37	427.93	26.94	16.29	PASS
3813.00†	3806.20	-175.93	28.61	3763.08	3724.71	-154.08	-411.04	101.24	447.67	27.72	16.54	PASS
3913.00†	3905.90	-183.57	29.85	3861.11	3820.74	-161.73	-429.21	101.12	467.41	28.51	16.79	PASS
4013.00†	4005.60	-191.21	31.10	3959.14	3916.76	-169.38	-447.39	101.01	487.15	29.30	17.01	PASS
4113.00†	4105.30	-198.85	32.34	4057.16	4012.78	-177.03	-465.57	100.90	506.90	30.09	17.23	PASS
4213.00†	4205.00	-206.50	33.58	4155.19	4108.81	-184.68	-483.75	100.81	526.65	30.89	17.43	PASS
4313.00†	4304.70	-214.14	34.82	4253.22	4204.83	-192.33	-501.92	100.72	546.40	31.69	17.62	PASS
4413.00†	4404.40	-221.78	36.07	4351.24	4300.85	-199.98	-520.10	100.64	566.15	32.48	17.80	PASS
4513.00†	4504.10	-229.42	37.31	4449.27	4396.87	-207.63	-538.28	100.56	585.90	33.28	17.96	PASS
4613.00†	4603.80	-237.07	38.55	4547.30	4492.90	-215.28	-556.46	100.49	605.65	34.08	18.13	PASS
4713.00†	4703.50	-244.71	39.80	4645.33	4588.92	-222.93	-574.63	100.42	625.40	34.89	18.28	PASS
4813.00†	4803.20	-252.35	41.04	4743.35	4684.94	-230.58	-592.81	100.36	645.15	35.69	18.42	PASS
4913.00†	4902.90	-259.99	42.28	4841.38	4780.97	-238.22	-610.99	100.30	664.91	36.49	18.56	PASS
5013.00†	5002.60	-267.63	43.52	4939.41	4876.99	-245.87	-629.17	100.24	684.66	37.30	18.69	PASS
5113.00†	5102.30	-275.28	44.77	5037.43	4973.01	-253.52	-647.34	100.19	704.42	38.11	18.82	PASS
5213.00†	5202.00	-282.92	46.01	5135.46	5069.03	-261.17	-665.52	100.14	724.17	38.91	18.94	PASS
5313.00†	5301.70	-290.56	47.25	5233.49	5165.06	-268.82	-683.70	100.09	743.93	39.72	19.05	PASS
5413.00†	5401.40	-298.20	48.50	5331.52	5261.08	-276.47	-701.88	100.05	763.69	40.53	19.16	PASS
5513.00†	5501.10	-305.85	49.74	5429.54	5357.10	-284.12	-720.05	100.01	783.44	41.34	19.26	PASS
5613.00†	5600.80	-313.49	50.98	5527.57	5453.13	-291.77	-738.23	99.96	803.20	42.15	19.36	PASS
5713.00†	5700.50	-321.13	52.22	5625.60	5549.15	-299.42	-756.41	99.93	822.96	42.97	19.46	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 59 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#10 WAKEMAN 20-17-2NCH (293'FSL & 2158'FEL, SEC.20) Well: WAKEMAN 20-17-2NCH Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5723.63	5645.17	-307.07	-774.59	99.89	842.72	43.78	19.55	PASS	
5913.00†	5899.90	-336.41	54.71	5821.65	5741.20	-314.72	-792.76	99.85	862.48	44.59	19.64	PASS	
6013.00†	5999.60	-344.06	55.95	5919.68	5837.22	-322.37	-810.94	99.82	882.24	45.41	19.72	PASS	
6113.00†	6099.30	-351.70	57.20	6017.71	5933.24	-330.02	-829.12	99.79	902.00	46.22	19.80	PASS	
6213.00†	6199.00	-359.34	58.44	6115.73	6029.26	-337.67	-847.30	99.76	921.76	47.04	19.88	PASS	
6313.00†	6298.70	-366.98	59.68	6213.76	6125.29	-345.32	-865.47	99.73	941.52	47.85	19.96	PASS	
6413.00†	6398.40	-374.63	60.92	6311.79	6221.31	-352.97	-883.65	99.70	961.28	48.67	20.03	PASS	
6513.00†	6498.10	-382.27	62.17	6409.82	6317.33	-360.62	-901.83	99.67	981.04	49.48	20.10	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1799.45	-0.03	-27.43	-1.89	-31.84
8.5in Open Hole	1800.00	17719.88	15919.88	1799.45	N/A	-1.89	-31.84	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17719.88	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NCH PWB



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 60 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NCH PWB Offset Wellpath: WAKEMAN 20-17-2NCH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 61 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station														
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
13.00	13.00	0.00	0.00	-13.00	46.00	6023.99	757.95	7.17	6071.57	25.40	246.76	PASS		
113.00†	113.00	0.00	0.00	54.00	113.00	6023.99	757.95	7.17	6071.48	51.27	120.29	PASS		
213.00†	213.00	0.00	0.00	154.00	213.00	6023.99	757.95	7.17	6071.48	53.61	114.96	PASS		
313.00†	313.00	0.00	0.00	254.00	313.00	6023.99	757.95	7.17	6071.48	55.74	110.08	PASS		
413.00†	413.00	0.00	0.00	354.00	413.00	6023.99	757.95	7.17	6071.48	58.09	105.58	PASS		
513.00†	513.00	0.00	0.00	454.00	513.00	6023.99	757.95	7.17	6071.48	60.44	101.44	PASS		
613.00†	613.00	0.00	0.00	554.00	613.00	6023.99	757.95	7.17	6071.48	62.79	97.59	PASS		
713.00†	713.00	0.00	0.00	654.00	713.00	6023.99	757.95	7.17	6071.48	65.15	94.03	PASS		
813.00†	813.00	0.00	0.00	754.00	813.00	6023.99	757.95	7.17	6071.48	67.52	90.71	PASS		
913.00†	913.00	0.00	0.00	854.00	913.00	6023.99	757.95	7.17	6071.48	69.89	87.61	PASS		
1013.00†	1013.00	0.00	0.00	954.00	1013.00	6023.99	757.95	7.17	6071.48	72.26	84.71	PASS		
1113.00†	1113.00	0.00	0.00	1054.00	1113.00	6023.99	757.95	7.17	6071.48	74.63	81.99	PASS		
1213.00†	1213.00	0.00	0.00	1154.00	1213.00	6023.99	757.95	7.17	6071.48	77.01	79.44	PASS		
1313.00†	1313.00	0.00	0.00	1254.00	1313.00	6023.99	757.95	7.17	6071.48	79.40	77.03	PASS		
1400.00	1400.00	0.00	0.00	1341.00	1400.00	6023.99	757.95	7.17	6071.48	81.47	75.06	PASS		
1413.00†	1413.00	-0.03	0.00	1354.00	1413.00	6023.99	757.95	-163.59	6071.51	81.78	74.77	PASS		
1513.00†	1512.97	-2.20	0.36	1453.97	1512.97	6023.99	757.95	-163.59	6073.62	84.19	72.64	PASS		
1613.00†	1612.80	-7.81	1.27	1553.80	1612.80	6023.99	757.95	-163.57	6079.08	86.64	70.64	PASS		
1622.03	1621.81	-8.49	1.38	1562.81	1621.81	6023.99	757.95	-163.57	6079.73	86.85	70.47	PASS		
1713.00†	1712.50	-15.44	2.51	1653.50	1712.50	6023.99	757.95	-163.59	6086.49	89.03	68.81	PASS		
1813.00†	1812.20	-23.08	3.75	1753.20	1812.20	6023.99	757.95	-163.61	6093.92	91.38	67.08	PASS		
1913.00†	1911.90	-30.72	5.00	1852.90	1911.90	6023.99	757.95	-163.63	6101.35	93.78	65.43	PASS		
2013.00†	2011.60	-38.37	6.24	1952.60	2011.60	6023.99	757.95	-163.65	6108.78	96.18	63.87	PASS		
2113.00†	2111.30	-46.01	7.48	2052.30	2111.30	6023.99	757.95	-163.67	6116.21	98.59	62.37	PASS		
2213.00†	2211.00	-53.65	8.73	2152.00	2211.00	6023.99	757.95	-163.69	6123.65	101.00	60.95	PASS		
2313.00†	2310.70	-61.29	9.97	2251.70	2310.70	6023.99	757.95	-163.71	6131.08	103.42	59.59	PASS		
2413.00†	2410.40	-68.94	11.21	2351.40	2410.40	6023.99	757.95	-163.73	6138.51	105.84	58.29	PASS		
2513.00†	2510.10	-76.58	12.45	2451.10	2510.10	6023.99	757.95	-163.75	6145.95	108.26	57.05	PASS		
2613.00†	2609.80	-84.22	13.70	2550.80	2609.80	6023.99	757.95	-163.77	6153.38	110.69	55.86	PASS		
2713.00†	2709.50	-91.86	14.94	2650.50	2709.50	6023.99	757.95	-163.79	6160.82	113.12	54.72	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 62 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2750.20	2809.20	6023.99	757.95	-163.81	6168.26	115.56	53.62	PASS	
2913.00†	2908.90	-107.15	17.42	2849.90	2908.90	6023.99	757.95	-163.83	6175.69	118.00	52.57	PASS	
3013.00†	3008.60	-114.79	18.67	2949.60	3008.60	6023.99	757.95	-163.85	6183.13	120.44	51.57	PASS	
3113.00†	3108.30	-122.43	19.91	3049.30	3108.30	6023.99	757.95	-163.87	6190.57	122.89	50.59	PASS	
3213.00†	3208.00	-130.07	21.15	3149.00	3208.00	6023.99	757.95	-163.89	6198.01	125.34	49.66	PASS	
3313.00†	3307.70	-137.72	22.40	3248.70	3307.70	6023.99	757.95	-163.91	6205.45	127.79	48.76	PASS	
3413.00†	3407.40	-145.36	23.64	3348.40	3407.40	6023.99	757.95	-163.93	6212.89	130.25	47.90	PASS	
3513.00†	3507.10	-153.00	24.88	3448.10	3507.10	6023.99	757.95	-163.95	6220.34	132.71	47.06	PASS	
3613.00†	3606.80	-160.64	26.12	3547.80	3606.80	6023.99	757.95	-163.97	6227.78	135.17	46.26	PASS	
3713.00†	3706.50	-168.29	27.37	3647.50	3706.50	6023.99	757.95	-163.99	6235.22	137.64	45.48	PASS	
3813.00†	3806.20	-175.93	28.61	3747.20	3806.20	6023.99	757.95	-164.01	6242.67	140.11	44.73	PASS	
3913.00†	3905.90	-183.57	29.85	3846.90	3905.90	6023.99	757.95	-164.03	6250.11	142.58	44.00	PASS	
4013.00†	4005.60	-191.21	31.10	3946.60	4005.60	6023.99	757.95	-164.05	6257.56	145.06	43.30	PASS	
4113.00†	4105.30	-198.85	32.34	4046.30	4105.30	6023.99	757.95	-164.07	6265.00	147.54	42.62	PASS	
4213.00†	4205.00	-206.50	33.58	4146.00	4205.00	6023.99	757.95	-164.09	6272.45	150.02	41.96	PASS	
4313.00†	4304.70	-214.14	34.82	4245.70	4304.70	6023.99	757.95	-164.11	6279.90	152.50	41.32	PASS	
4413.00†	4404.40	-221.78	36.07	4345.40	4404.40	6023.99	757.95	-164.13	6287.35	154.99	40.70	PASS	
4513.00†	4504.10	-229.42	37.31	4445.10	4504.10	6023.99	757.95	-164.14	6294.80	157.48	40.11	PASS	
4613.00†	4603.80	-237.07	38.55	4544.80	4603.80	6023.99	757.95	-164.16	6302.25	159.98	39.52	PASS	
4713.00†	4703.50	-244.71	39.80	4644.50	4703.50	6023.99	757.95	-164.18	6309.70	162.47	38.96	PASS	
4813.00†	4803.20	-252.35	41.04	4744.20	4803.20	6023.99	757.95	-164.20	6317.15	164.97	38.41	PASS	
4913.00†	4902.90	-259.99	42.28	4843.90	4902.90	6023.99	757.95	-164.22	6324.60	167.48	37.88	PASS	
5013.00†	5002.60	-267.63	43.52	4943.60	5002.60	6023.99	757.95	-164.24	6332.05	169.98	37.37	PASS	
5113.00†	5102.30	-275.28	44.77	5043.30	5102.30	6023.99	757.95	-164.26	6339.51	172.49	36.87	PASS	
5213.00†	5202.00	-282.92	46.01	5143.00	5202.00	6023.99	757.95	-164.28	6346.96	175.00	36.38	PASS	
5313.00†	5301.70	-290.56	47.25	5242.70	5301.70	6023.99	757.95	-164.30	6354.42	177.51	35.90	PASS	
5413.00†	5401.40	-298.20	48.50	5342.40	5401.40	6023.99	757.95	-164.32	6361.87	180.03	35.44	PASS	
5513.00†	5501.10	-305.85	49.74	5442.10	5501.10	6023.99	757.95	-164.33	6369.33	182.54	34.99	PASS	
5613.00†	5600.80	-313.49	50.98	5541.80	5600.80	6023.99	757.95	-164.35	6376.79	185.06	34.56	PASS	
5713.00†	5700.50	-321.13	52.22	5641.50	5700.50	6023.99	757.95	-164.37	6384.24	187.59	34.13	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 63 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990°FSL & 1320°FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
5813.00†	5800.20	-328.77	53.47	5741.20	5800.20	6023.99	757.95	-164.39	6391.70	190.11	33.71	PASS	
5913.00†	5899.90	-336.41	54.71	5840.90	5899.90	6023.99	757.95	-164.41	6399.16	192.64	33.31	PASS	
6013.00†	5999.60	-344.06	55.95	5940.60	5999.60	6023.99	757.95	-164.43	6406.62	195.17	32.91	PASS	
6113.00†	6099.30	-351.70	57.20	6040.30	6099.30	6023.99	757.95	-164.45	6414.08	197.70	32.53	PASS	
6213.00†	6199.00	-359.34	58.44	6140.00	6199.00	6023.99	757.95	-164.47	6421.54	200.23	32.15	PASS	
6313.00†	6298.70	-366.98	59.68	6239.70	6298.70	6023.99	757.95	-164.48	6429.00	202.77	31.79	PASS	
6413.00†	6398.40	-374.63	60.92	6339.40	6398.40	6023.99	757.95	-164.50	6436.47	205.30	31.43	PASS	
6513.00†	6498.10	-382.27	62.17	6439.10	6498.10	6023.99	757.95	-164.52	6443.93	207.84	31.08	PASS	
6613.00†	6597.80	-389.91	63.41	6538.80	6597.80	6023.99	757.95	-164.54	6451.39	210.38	30.74	PASS	
6713.00†	6697.50	-397.55	64.65	6638.50	6697.50	6023.99	757.95	-164.56	6458.86	212.93	30.41	PASS	
6793.95	6778.20	-403.74	65.66	6719.20	6778.20	6023.99	757.95	-164.57	6464.90	214.99	30.14	PASS	
6813.00†	6797.22	-404.88	65.89	6738.22	6797.22	6023.99	757.95	-158.32	6466.01	215.47	30.08	PASS	
6913.00†	6896.99	-400.49	66.97	6837.99	6896.99	6023.99	757.95	1.97	6461.52	218.06	29.70	PASS	
7013.00†	6994.48	-378.83	67.80	6935.48	6994.48	6023.99	757.95	5.08	6439.91	220.90	29.22	PASS	
7113.00†	7086.74	-340.58	68.34	7027.74	7086.74	6023.99	757.95	6.42	6401.82	224.14	28.63	PASS	
7213.00†	7170.95	-286.89	68.58	7111.95	7170.95	6023.99	757.95	7.74	6348.42	226.99	28.03	PASS	
7313.00†	7244.57	-219.40	68.51	7185.57	7244.57	6023.99	757.95	9.54	6281.34	229.37	27.45	PASS	
7413.00†	7305.34	-140.15	68.14	7246.34	7305.34	6023.99	757.95	12.41	6202.61	231.25	26.88	PASS	
7513.00†	7351.44	-51.55	67.48	7292.44	7351.44	6023.99	757.95	17.76	6114.65	232.60	26.35	PASS	
7613.00†	7381.45	43.70	66.54	7322.45	7381.45	6023.99	757.95	30.37	6020.12	233.43	25.85	PASS	
7713.00†	7394.46	142.72	65.35	7335.46	7394.46	6023.99	757.95	71.66	5921.91	233.75	25.39	PASS	
7737.87	7395.00	167.58	65.03	7336.00	7395.00	6023.99	757.95	90.00	5897.26	233.77	25.28	PASS	
7813.00†	7395.00	242.70	64.02	7336.00	7395.00	6023.99	757.95	90.00	5822.79	233.76	24.97	PASS	
7913.00†	7395.00	342.69	62.67	7336.00	7395.00	6023.99	757.95	90.00	5723.68	233.75	24.54	PASS	
8013.00†	7395.00	442.68	61.32	7336.00	7395.00	6023.99	757.95	90.00	5624.61	233.74	24.12	PASS	
8113.00†	7395.00	542.67	59.98	7336.00	7395.00	6023.99	757.95	90.00	5525.58	233.75	23.69	PASS	
8213.00†	7395.00	642.66	58.63	7336.00	7395.00	6023.99	757.95	90.00	5426.57	233.76	23.27	PASS	
8313.00†	7395.00	742.65	57.29	7336.00	7395.00	6023.99	757.95	90.00	5327.61	233.78	22.84	PASS	
8413.00†	7395.00	842.64	55.94	7336.00	7395.00	6023.99	757.95	90.00	5228.68	233.81	22.41	PASS	
8513.00†	7395.00	942.64	54.60	7336.00	7395.00	6023.99	757.95	90.00	5129.80	233.84	21.99	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 64 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7395.00	1042.63	53.25	7336.00	7395.00	6023.99	757.95	90.00	5030.96	233.89	21.56	PASS
8713.00†	7395.00	1142.62	51.91	7336.00	7395.00	6023.99	757.95	90.00	4932.17	233.96	21.13	PASS
8813.00†	7395.00	1242.61	50.56	7336.00	7395.00	6023.99	757.95	90.00	4833.42	234.03	20.70	PASS
8913.00†	7395.00	1342.60	49.22	7336.00	7395.00	6023.99	757.95	90.00	4734.73	234.12	20.27	PASS
9013.00†	7395.00	1442.59	47.87	7336.00	7395.00	6023.99	757.95	90.00	4636.10	234.22	19.84	PASS
9113.00†	7395.00	1542.58	46.53	7336.00	7395.00	6023.99	757.95	90.00	4537.52	234.34	19.41	PASS
9213.00†	7395.00	1642.57	45.18	7336.00	7395.00	6023.99	757.95	90.00	4439.01	234.48	18.97	PASS
9313.00†	7395.00	1742.56	43.84	7336.00	7395.00	6023.99	757.95	90.00	4340.57	234.65	18.54	PASS
9413.00†	7395.00	1842.55	42.49	7336.00	7395.00	6023.99	757.95	90.00	4242.20	234.83	18.10	PASS
9513.00†	7395.00	1942.55	41.15	7336.00	7395.00	6023.99	757.95	90.00	4143.91	235.04	17.67	PASS
9613.00†	7395.00	2042.54	39.80	7336.00	7395.00	6023.99	757.95	90.00	4045.70	235.28	17.23	PASS
9713.00†	7395.00	2142.53	38.46	7336.00	7395.00	6023.99	757.95	90.00	3947.58	235.55	16.80	PASS
9813.00†	7395.00	2242.52	37.11	7336.00	7395.00	6023.99	757.95	90.00	3849.56	235.85	16.36	PASS
9913.00†	7395.00	2342.51	35.77	7336.00	7395.00	6023.99	757.95	90.00	3751.64	236.19	15.92	PASS
10013.00†	7395.00	2442.50	34.42	7336.00	7395.00	6023.99	757.95	90.00	3653.84	236.58	15.48	PASS
10113.00†	7395.00	2542.49	33.08	7336.00	7395.00	6023.99	757.95	90.00	3556.16	237.01	15.04	PASS
10213.00†	7395.00	2642.48	31.73	7336.00	7395.00	6023.99	757.95	90.00	3458.61	237.49	14.59	PASS
10313.00†	7395.00	2742.47	30.39	7336.00	7395.00	6023.99	757.95	90.00	3361.20	238.03	14.15	PASS
10413.00†	7395.00	2842.46	29.04	7336.00	7395.00	6023.99	757.95	90.00	3263.95	238.64	13.71	PASS
10513.00†	7395.00	2942.45	27.70	7336.00	7395.00	6023.99	757.95	90.00	3166.88	239.31	13.26	PASS
10613.00†	7395.00	3042.45	26.35	7336.00	7395.00	6023.99	757.95	90.00	3069.99	240.07	12.81	PASS
10713.00†	7395.00	3142.44	25.01	7336.00	7395.00	6023.99	757.95	90.00	2973.30	240.91	12.37	PASS
10813.00†	7395.00	3242.43	23.66	7336.00	7395.00	6023.99	757.95	90.00	2876.85	241.86	11.92	PASS
10913.00†	7395.00	3342.42	22.32	7336.00	7395.00	6023.99	757.95	90.00	2780.64	242.91	11.47	PASS
11013.00†	7395.00	3442.41	20.97	7336.00	7395.00	6023.99	757.95	90.00	2684.71	244.09	11.02	PASS
11113.00†	7395.00	3542.40	19.63	7336.00	7395.00	6023.99	757.95	90.00	2589.09	245.40	10.57	PASS
11213.00†	7395.00	3642.39	18.28	7336.00	7395.00	6023.99	757.95	90.00	2493.81	246.87	10.12	PASS
11313.00†	7395.00	3742.38	16.94	7336.00	7395.00	6023.99	757.95	90.00	2398.92	248.51	9.67	PASS
11413.00†	7395.00	3842.37	15.59	7336.00	7395.00	6023.99	757.95	90.00	2304.46	250.34	9.22	PASS
11513.00†	7395.00	3942.36	14.25	7336.00	7395.00	6023.99	757.95	90.00	2210.49	252.39	8.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 65 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Facility: SEC.17-T1S-R65W Slot: SLOT#03 EX. AMOCO #44-17 (990'FSL & 1320'FEL, SEC.17, OG, PR, 8130) Well: AMOCO #44-17 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7395.00	4042.36	12.90	7336.00	7395.00	6023.99	757.95	90.00	2117.06	254.69	8.33	PASS
11713.00†	7395.00	4142.35	11.55	7336.00	7395.00	6023.99	757.95	90.00	2024.27	257.26	7.88	PASS
11813.00†	7395.00	4242.34	10.21	7336.00	7395.00	6023.99	757.95	90.00	1932.20	260.14	7.44	PASS
11913.00†	7395.00	4342.33	8.86	7336.00	7395.00	6023.99	757.95	90.00	1840.95	263.37	7.00	PASS
12013.00†	7395.00	4442.32	7.52	7336.00	7395.00	6023.99	757.95	90.00	1750.66	266.99	6.57	PASS
12113.00†	7395.00	4542.31	6.17	7336.00	7395.00	6023.99	757.95	90.00	1661.48	271.05	6.14	PASS
12213.00†	7395.00	4642.30	4.83	7336.00	7395.00	6023.99	757.95	90.00	1573.61	275.62	5.72	PASS
12313.00†	7395.00	4742.29	3.48	7336.00	7395.00	6023.99	757.95	90.00	1487.26	280.76	5.31	PASS
12413.00†	7395.00	4842.28	2.14	7336.00	7395.00	6023.99	757.95	90.00	1402.74	286.52	4.90	PASS
12513.00†	7395.00	4942.27	0.79	7336.00	7395.00	6023.99	757.95	90.00	1320.37	292.99	4.51	PASS
12613.00†	7395.00	5042.26	-0.55	7336.00	7395.00	6023.99	757.95	90.00	1240.60	300.23	4.14	PASS
12713.00†	7395.00	5142.26	-1.90	7336.00	7395.00	6023.99	757.95	90.00	1163.96	308.29	3.78	PASS
12813.00†	7395.00	5242.25	-3.24	7336.00	7395.00	6023.99	757.95	90.00	1091.11	317.20	3.44	PASS
12913.00†	7395.00	5342.24	-4.59	7336.00	7395.00	6023.99	757.95	90.00	1022.86	326.95	3.13	PASS
13013.00†	7395.00	5442.23	-5.93	7336.00	7395.00	6023.99	757.95	90.00	960.18	337.41	2.85	PASS
13113.00†	7395.00	5542.22	-7.28	7336.00	7395.00	6023.99	757.95	90.00	904.25	348.34	2.60	PASS
13213.00†	7395.00	5642.21	-8.62	7336.00	7395.00	6023.99	757.95	90.00	856.38	359.32	2.39	PASS
13313.00†	7395.00	5742.20	-9.97	7336.00	7395.00	6023.99	757.95	90.00	817.98	369.72	2.21	PASS
13413.00†	7395.00	5842.19	-11.31	7336.00	7395.00	6023.99	757.95	90.00	790.45	378.77	2.09	PASS
13513.00†	7395.00	5942.18	-12.66	7336.00	7395.00	6023.99	757.95	90.00	774.93	385.64	2.01	PASS
13585.19†	7395.00	6014.37	-13.63	7335.06	7394.06	6023.99	757.95	89.93	771.63	388.85	1.99	PASS
13613.00†	7395.00	6042.17	-14.00	7336.00	7395.00	6023.99	757.95	90.00	772.16	389.69	1.98	PASS
13713.00†	7395.00	6142.17	-15.35	7336.00	7395.00	6023.99	757.95	90.00	782.27	390.67	2.00	PASS
13813.00†	7395.00	6242.16	-16.69	7336.00	7395.00	6023.99	757.95	90.00	804.77	388.74	2.07	PASS
13913.00†	7395.00	6342.15	-18.04	7336.00	7395.00	6023.99	757.95	90.00	838.67	384.44	2.18	PASS
14013.00†	7395.00	6442.14	-19.38	7336.00	7395.00	6023.99	757.95	90.00	882.66	378.48	2.33	PASS
14113.00†	7395.00	6542.13	-20.73	7336.00	7395.00	6023.99	757.95	90.00	935.31	371.55	2.52	PASS
14213.00†	7395.00	6642.12	-22.07	7336.00	7395.00	6023.99	757.95	90.00	995.25	364.21	2.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 66 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.75in Open Hole	0.00	224.00	224.00	46.00	270.00	3674.27	445.12	3674.27	445.12
9.625in Casing Surface	0.00	224.00	224.00	46.00	270.00	3674.27	445.12	3674.27	445.12
7.875in Open Hole	224.00	8129.00	7905.00	270.00	8175.00	3674.27	445.12	3674.27	445.12
4.5in Casing Production	0.00	8129.00	8129.00	46.00	8175.00	3674.27	445.12	3674.27	445.12

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8130.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8130>	AMOCO #44-17 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #44-17 AWB Offset Wellpath: AMOCO #44-17 AWP

MD Reference: Rig on SLOT#03 EX. AMOCO #44-17 (990°FSL & 1320°FSL, SEC.17, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 67 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#02 WAKEMAN 20-17-4NAH (293°FSL & 2038°FEL, SEC.20)		Well: WAKEMAN 20-17-4NAH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.14	74.92	89.89	74.92	1.40	123.53	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.14	74.92	89.89	74.92	1.73	80.30	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.14	74.92	89.89	74.92	2.30	49.63	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.14	74.92	89.89	74.92	2.90	35.34	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.14	74.92	89.89	74.92	3.51	27.33	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.14	74.92	89.89	74.92	4.13	22.24	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.14	74.92	89.89	74.92	4.76	18.74	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.14	74.92	89.89	74.92	5.38	16.19	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.14	74.92	89.89	74.92	6.01	14.24	PASS
913.00†	913.00	0.00	0.00	912.68	912.68	0.13	74.95	89.90	74.95	6.63	12.72	PASS
1013.00†	1013.00	0.00	0.00	1010.20	1010.17	-0.50	76.94	90.37	77.00	7.36	11.63	PASS
1113.00†	1113.00	0.00	0.00	1107.46	1107.27	-2.11	82.08	91.48	82.31	8.33	10.83	PASS
1213.00†	1213.00	0.00	0.00	1204.24	1203.67	-4.71	90.32	92.98	90.92	9.24	10.68	PASS
1313.00†	1313.00	0.00	0.00	1300.33	1299.03	-8.25	101.56	94.64	102.85	10.13	10.94	PASS
1400.00	1400.00	0.00	0.00	1383.20	1380.92	-12.07	113.70	96.06	115.92	10.83	11.48	PASS
1413.00†	1413.00	-0.03	0.00	1395.52	1393.06	-12.70	115.70	-74.47	118.08	10.93	11.58	PASS
1513.00†	1512.97	-2.20	0.36	1489.79	1485.63	-18.03	132.63	-73.51	135.99	11.74	12.36	PASS
1613.00†	1612.80	-7.81	1.27	1583.06	1576.61	-24.20	152.23	-73.63	156.10	12.50	13.27	PASS
1622.03	1621.81	-8.49	1.38	1591.44	1584.74	-24.80	154.12	-73.68	158.02	12.57	13.36	PASS
1713.00†	1712.50	-15.44	2.51	1679.69	1670.38	-31.22	174.50	-74.52	177.77	13.12	14.36	PASS
1813.00†	1812.20	-23.08	3.75	1777.27	1765.05	-38.32	197.04	-75.25	199.53	13.70	15.36	PASS
1913.00†	1911.90	-30.72	5.00	1874.84	1859.72	-45.42	219.57	-75.84	221.32	14.33	16.20	PASS
2013.00†	2011.60	-38.37	6.24	1972.42	1954.39	-52.51	242.11	-76.32	243.13	14.95	17.02	PASS
2113.00†	2111.30	-46.01	7.48	2069.99	2049.06	-59.61	264.65	-76.73	264.94	15.63	17.70	PASS
2213.00†	2211.00	-53.65	8.73	2167.57	2143.73	-66.71	287.19	-77.07	286.77	16.33	18.31	PASS
2313.00†	2310.70	-61.29	9.97	2265.14	2238.40	-73.81	309.73	-77.36	308.61	17.05	18.85	PASS
2413.00†	2410.40	-68.94	11.21	2362.72	2333.07	-80.91	332.27	-77.62	330.46	17.77	19.33	PASS
2513.00†	2510.10	-76.58	12.45	2460.29	2427.74	-88.01	354.81	-77.84	352.31	18.51	19.75	PASS
2613.00†	2609.80	-84.22	13.70	2557.87	2522.41	-95.10	377.34	-78.04	374.16	19.25	20.14	PASS
2713.00†	2709.50	-91.86	14.94	2655.44	2617.08	-102.20	399.88	-78.21	396.02	20.01	20.48	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 68 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#02 WAKEMAN 20-17-4NAH (293'FSL & 2038'FEL, SEC.20)		Well: WAKEMAN 20-17-4NAH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2753.02	2711.75	-109.30	422.42	-78.37	417.88	20.77	20.79	PASS
2913.00†	2908.90	-107.15	17.42	2850.59	2806.42	-116.40	444.96	-78.51	439.74	21.54	21.08	PASS
3013.00†	3008.60	-114.79	18.67	2948.17	2901.09	-123.50	467.50	-78.64	461.61	22.31	21.33	PASS
3113.00†	3108.30	-122.43	19.91	3045.74	2995.76	-130.60	490.04	-78.76	483.48	23.09	21.57	PASS
3213.00†	3208.00	-130.07	21.15	3143.32	3090.44	-137.69	512.58	-78.86	505.35	23.88	21.78	PASS
3313.00†	3307.70	-137.72	22.40	3240.90	3185.11	-144.79	535.11	-78.96	527.22	24.67	21.97	PASS
3413.00†	3407.40	-145.36	23.64	3338.47	3279.78	-151.89	557.65	-79.05	549.09	25.46	22.15	PASS
3513.00†	3507.10	-153.00	24.88	3436.05	3374.45	-158.99	580.19	-79.13	570.97	26.26	22.32	PASS
3613.00†	3606.80	-160.64	26.12	3533.62	3469.12	-166.09	602.73	-79.21	592.84	27.06	22.47	PASS
3713.00†	3706.50	-168.29	27.37	3631.20	3563.79	-173.18	625.27	-79.28	614.72	27.87	22.61	PASS
3813.00†	3806.20	-175.93	28.61	3728.77	3658.46	-180.28	647.81	-79.35	636.59	28.67	22.74	PASS
3913.00†	3905.90	-183.57	29.85	3826.35	3753.13	-187.38	670.35	-79.41	658.47	29.48	22.86	PASS
4013.00†	4005.60	-191.21	31.10	3923.92	3847.80	-194.48	692.88	-79.47	680.35	30.29	22.97	PASS
4113.00†	4105.30	-198.85	32.34	4021.50	3942.47	-201.58	715.42	-79.52	702.23	31.11	23.08	PASS
4213.00†	4205.00	-206.50	33.58	4119.07	4037.14	-208.68	737.96	-79.57	724.11	31.92	23.17	PASS
4313.00†	4304.70	-214.14	34.82	4216.65	4131.81	-215.77	760.50	-79.62	745.99	32.74	23.27	PASS
4413.00†	4404.40	-221.78	36.07	4314.22	4226.48	-222.87	783.04	-79.67	767.87	33.56	23.35	PASS
4513.00†	4504.10	-229.42	37.31	4411.80	4321.15	-229.97	805.58	-79.71	789.75	34.38	23.43	PASS
4613.00†	4603.80	-237.07	38.55	4509.37	4415.82	-237.07	828.12	-79.75	811.63	35.20	23.51	PASS
4713.00†	4703.50	-244.71	39.80	4606.95	4510.49	-244.17	850.66	-79.79	833.51	36.03	23.58	PASS
4813.00†	4803.20	-252.35	41.04	4704.52	4605.17	-251.27	873.19	-79.83	855.39	36.85	23.65	PASS
4913.00†	4902.90	-259.99	42.28	4802.10	4699.84	-258.36	895.73	-79.86	877.28	37.68	23.71	PASS
5013.00†	5002.60	-267.63	43.52	4899.67	4794.51	-265.46	918.27	-79.89	899.16	38.51	23.77	PASS
5113.00†	5102.30	-275.28	44.77	4997.25	4889.18	-272.56	940.81	-79.92	921.04	39.34	23.83	PASS
5213.00†	5202.00	-282.92	46.01	5094.82	4983.85	-279.66	963.35	-79.95	942.93	40.17	23.88	PASS
5313.00†	5301.70	-290.56	47.25	5192.40	5078.52	-286.76	985.89	-79.98	964.81	41.00	23.93	PASS
5413.00†	5401.40	-298.20	48.50	5289.97	5173.19	-293.86	1008.43	-80.01	986.69	41.83	23.98	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 69 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1787.10	0.09	45.67	-12.14	84.49
8.5in Open Hole	1800.00	17516.82	15716.82	1787.10	7215.00	-12.14	84.49	3038.02	454.69

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17516.82	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4NAH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4NAH PWB Offset Wellpath: WAKEMAN 20-17-4NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 70 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)		Well: WAKEMAN 20-17-2NAH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	13.00	13.00	-0.08	-60.06	-90.07	60.06	1.40	98.77	PASS	
113.00†	113.00	0.00	0.00	113.00	113.00	-0.08	-60.06	-90.07	60.06	1.72	64.21	PASS	
213.00†	213.00	0.00	0.00	213.00	213.00	-0.08	-60.06	-90.07	60.06	2.30	39.68	PASS	
313.00†	313.00	0.00	0.00	313.00	313.00	-0.08	-60.06	-90.07	60.06	2.90	28.26	PASS	
413.00†	413.00	0.00	0.00	413.00	413.00	-0.08	-60.06	-90.07	60.06	3.51	21.85	PASS	
513.00†	513.00	0.00	0.00	513.00	513.00	-0.08	-60.06	-90.07	60.06	4.13	17.79	PASS	
613.00†	613.00	0.00	0.00	613.00	613.00	-0.08	-60.06	-90.07	60.06	4.76	14.99	PASS	
713.00†	713.00	0.00	0.00	713.00	713.00	-0.08	-60.06	-90.07	60.06	5.38	12.94	PASS	
813.00†	813.00	0.00	0.00	813.00	813.00	-0.08	-60.06	-90.07	60.06	6.01	11.39	PASS	
913.00†	913.00	0.00	0.00	913.00	913.00	-0.08	-60.06	-90.07	60.06	6.63	10.17	PASS	
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.08	-60.06	-90.07	60.06	7.26	9.18	PASS	
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.08	-60.06	-90.07	60.06	7.88	8.37	PASS	
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.08	-60.06	-90.07	60.06	8.51	7.69	PASS	
1313.00†	1313.00	0.00	0.00	1313.00	1313.00	-0.08	-60.06	-90.07	60.06	9.14	7.11	PASS	
1400.00	1400.00	0.00	0.00	1400.00	1400.00	-0.08	-60.06	-90.07	60.06	9.68	6.67	PASS	
1413.00†	1413.00	-0.03	0.00	1412.75	1412.75	-0.09	-60.09	-99.18	60.09	9.76	6.62	PASS	
1513.00†	1512.97	-2.20	0.36	1510.74	1510.71	-0.79	-62.08	100.44	62.49	10.45	6.39	PASS	
1613.00†	1612.80	-7.81	1.27	1608.41	1608.22	-2.59	-67.21	103.28	68.83	11.33	6.46	PASS	
1622.03	1621.81	-8.49	1.38	1617.20	1616.99	-2.81	-67.82	103.59	69.60	11.42	6.48	PASS	
1713.00†	1712.50	-15.44	2.51	1705.57	1704.99	-5.48	-75.42	106.06	78.92	12.14	6.89	PASS	
1813.00†	1812.20	-23.08	3.75	1802.12	1800.80	-9.43	-86.64	107.25	92.13	12.85	7.53	PASS	
1913.00†	1911.90	-30.72	5.00	1897.84	1895.34	-14.40	-100.76	107.30	108.29	13.64	8.32	PASS	
2013.00†	2011.60	-38.37	6.24	1992.55	1988.33	-20.35	-117.66	106.67	127.35	14.44	9.22	PASS	
2113.00†	2111.30	-46.01	7.48	2086.05	2079.51	-27.22	-137.18	105.66	149.30	15.19	10.26	PASS	
2213.00†	2211.00	-53.65	8.73	2182.49	2173.10	-34.95	-159.14	104.59	173.11	15.90	11.35	PASS	
2313.00†	2310.70	-61.29	9.97	2279.57	2267.30	-42.74	-181.28	103.76	196.98	16.60	12.35	PASS	
2413.00†	2410.40	-68.94	11.21	2376.64	2361.49	-50.53	-203.41	103.12	220.89	17.35	13.23	PASS	
2513.00†	2510.10	-76.58	12.45	2473.71	2455.68	-58.33	-225.55	102.60	244.82	18.02	14.10	PASS	
2613.00†	2609.80	-84.22	13.70	2570.79	2549.88	-66.12	-247.68	102.17	268.77	18.75	14.86	PASS	
2713.00†	2709.50	-91.86	14.94	2667.86	2644.07	-73.91	-269.82	101.81	292.73	19.49	15.55	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 71 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#11 WAKEMAN 20-17-2NAH (293'FSL & 2173'FEL, SEC.20)		Well: WAKEMAN 20-17-2NAH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2764.93	2738.26	-81.70	-291.95	101.51	316.70	20.24	16.18	PASS
2913.00†	2908.90	-107.15	17.42	2862.00	2832.46	-89.49	-314.09	101.25	340.67	20.99	16.76	PASS
3013.00†	3008.60	-114.79	18.67	2959.08	2926.65	-97.28	-336.22	101.02	364.65	21.75	17.29	PASS
3113.00†	3108.30	-122.43	19.91	3056.15	3020.85	-105.07	-358.36	100.82	388.64	22.52	17.79	PASS
3213.00†	3208.00	-130.07	21.15	3153.22	3115.04	-112.86	-380.49	100.65	412.62	23.29	18.24	PASS
3313.00†	3307.70	-137.72	22.40	3250.29	3209.23	-120.65	-402.63	100.49	436.62	24.07	18.66	PASS
3413.00†	3407.40	-145.36	23.64	3347.37	3303.43	-128.45	-424.76	100.35	460.61	24.85	19.05	PASS
3513.00†	3507.10	-153.00	24.88	3444.44	3397.62	-136.24	-446.90	100.23	484.61	25.64	19.41	PASS
3613.00†	3606.80	-160.64	26.12	3541.51	3491.81	-144.03	-469.03	100.11	508.61	26.43	19.75	PASS
3713.00†	3706.50	-168.29	27.37	3638.59	3586.01	-151.82	-491.17	100.01	532.61	27.22	20.06	PASS
3813.00†	3806.20	-175.93	28.61	3735.66	3680.20	-159.61	-513.30	99.91	556.61	28.02	20.35	PASS
3913.00†	3905.90	-183.57	29.85	3832.73	3774.40	-167.40	-535.44	99.83	580.61	28.82	20.63	PASS
4013.00†	4005.60	-191.21	31.10	3929.80	3868.59	-175.19	-557.57	99.75	604.62	29.62	20.89	PASS
4113.00†	4105.30	-198.85	32.34	4026.88	3962.78	-182.98	-579.71	99.67	628.62	30.43	21.13	PASS
4213.00†	4205.00	-206.50	33.58	4123.95	4056.98	-190.78	-601.85	99.60	652.63	31.23	21.36	PASS
4313.00†	4304.70	-214.14	34.82	4221.02	4151.17	-198.57	-623.98	99.54	676.64	32.04	21.57	PASS
4413.00†	4404.40	-221.78	36.07	4318.10	4245.36	-206.36	-646.12	99.48	700.64	32.85	21.77	PASS
4513.00†	4504.10	-229.42	37.31	4415.17	4339.56	-214.15	-668.25	99.43	724.65	33.67	21.97	PASS
4613.00†	4603.80	-237.07	38.55	4512.24	4433.75	-221.94	-690.39	99.37	748.66	34.48	22.15	PASS
4713.00†	4703.50	-244.71	39.80	4609.31	4527.95	-229.73	-712.52	99.33	772.67	35.30	22.32	PASS
4813.00†	4803.20	-252.35	41.04	4706.39	4622.14	-237.52	-734.66	99.28	796.68	36.12	22.48	PASS
4913.00†	4902.90	-259.99	42.28	4803.46	4716.33	-245.31	-756.79	99.24	820.69	36.93	22.64	PASS
5013.00†	5002.60	-267.63	43.52	4900.53	4810.53	-253.10	-778.93	99.20	844.71	37.76	22.78	PASS
5113.00†	5102.30	-275.28	44.77	4997.61	4904.72	-260.90	-801.06	99.16	868.72	38.58	22.92	PASS
5213.00†	5202.00	-282.92	46.01	5094.68	4998.91	-268.69	-823.20	99.12	892.73	39.40	23.05	PASS
5313.00†	5301.70	-290.56	47.25	5191.75	5093.11	-276.48	-845.33	99.09	916.74	40.22	23.18	PASS
5413.00†	5401.40	-298.20	48.50	5288.82	5187.30	-284.27	-867.47	99.06	940.75	41.05	23.30	PASS
5513.00†	5501.10	-305.85	49.74	5385.90	5281.50	-292.06	-889.60	99.02	964.77	41.88	23.42	PASS
5613.00†	5600.80	-313.49	50.98	5482.97	5375.69	-299.85	-911.74	98.99	988.78	42.70	23.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 72 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1798.70	-0.05	-36.61	-2.87	-44.63
8.5in Open Hole	1800.00	17526.80	15726.80	1798.70	N/A	-2.87	-44.63	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17526.80	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2NAH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2NAH PWB Offset Wellpath: WAKEMAN 20-17-2NAH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 73 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#01 WAKEMAN 20-17-4CDH (293°FSL & 2023°FEL, SEC.20) Well: WAKEMAN 20-17-4CDH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	0.21	89.92	89.87	89.92	1.40	148.54	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.21	89.92	89.87	89.92	1.73	96.54	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.21	89.92	89.87	89.92	2.30	59.66	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.21	89.92	89.87	89.92	2.90	42.49	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.21	89.92	89.87	89.92	3.51	32.85	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.21	89.92	89.87	89.92	4.13	26.74	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.21	89.92	89.87	89.92	4.76	22.53	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.21	89.92	89.87	89.92	5.38	19.46	PASS
813.00†	813.00	0.00	0.00	812.62	812.62	0.20	89.95	89.87	89.95	6.00	17.14	PASS
913.00†	913.00	0.00	0.00	909.64	909.61	-0.36	91.94	90.23	92.01	6.74	15.36	PASS
1013.00†	1013.00	0.00	0.00	1006.40	1006.22	-1.81	97.08	91.07	97.33	7.74	13.92	PASS
1113.00†	1113.00	0.00	0.00	1102.70	1102.13	-4.14	105.30	92.25	105.94	8.67	13.37	PASS
1213.00†	1213.00	0.00	0.00	1198.31	1197.03	-7.31	116.53	93.59	117.84	9.56	13.36	PASS
1313.00†	1313.00	0.00	0.00	1293.04	1290.61	-11.30	130.65	94.94	133.04	10.37	13.83	PASS
1400.00	1400.00	0.00	0.00	1374.59	1370.74	-15.41	145.19	96.06	148.91	11.11	14.37	PASS
1413.00†	1413.00	-0.03	0.00	1386.70	1382.61	-16.07	147.53	-74.51	151.48	11.20	14.49	PASS
1513.00†	1512.97	-2.20	0.36	1479.28	1472.93	-21.59	167.06	-73.62	172.54	11.96	15.39	PASS
1613.00†	1612.80	-7.81	1.27	1574.57	1565.33	-27.92	189.48	-73.68	195.14	12.62	16.45	PASS
1622.03	1621.81	-8.49	1.38	1583.37	1573.86	-28.51	191.57	-73.73	197.16	12.67	16.55	PASS
1713.00†	1712.50	-15.44	2.51	1672.00	1659.75	-34.46	212.60	-74.56	217.44	13.21	17.46	PASS
1813.00†	1812.20	-23.08	3.75	1769.43	1754.17	-40.99	235.71	-75.32	239.78	13.82	18.29	PASS
1913.00†	1911.90	-30.72	5.00	1866.86	1848.59	-47.52	258.83	-75.94	262.15	14.39	19.11	PASS
2013.00†	2011.60	-38.37	6.24	1964.28	1943.01	-54.05	281.95	-76.47	284.55	15.05	19.79	PASS
2113.00†	2111.30	-46.01	7.48	2061.71	2037.43	-60.59	305.07	-76.92	306.96	15.74	20.38	PASS
2213.00†	2211.00	-53.65	8.73	2159.14	2131.85	-67.12	328.19	-77.31	329.40	16.44	20.89	PASS
2313.00†	2310.70	-61.29	9.97	2256.57	2226.27	-73.65	351.31	-77.65	351.84	17.16	21.35	PASS
2413.00†	2410.40	-68.94	11.21	2354.00	2320.69	-80.18	374.42	-77.95	374.30	17.88	21.75	PASS
2513.00†	2510.10	-76.58	12.45	2451.43	2415.12	-86.72	397.54	-78.22	396.76	18.62	22.11	PASS
2613.00†	2609.80	-84.22	13.70	2548.86	2509.54	-93.25	420.66	-78.45	419.23	19.37	22.43	PASS
2713.00†	2709.50	-91.86	14.94	2646.29	2603.96	-99.78	443.78	-78.67	441.71	20.13	22.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 74 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#01 WAKEMAN 20-17-4CDH (293'FSL & 2023'FEL, SEC.20)		Well: WAKEMAN 20-17-4CDH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2743.71	2698.38	-106.31	466.90	-78.86	464.19	20.89	22.96	PASS	
2913.00†	2908.90	-107.15	17.42	2841.14	2792.80	-112.85	490.01	-79.03	486.68	21.66	23.19	PASS	
3013.00†	3008.60	-114.79	18.67	2938.57	2887.22	-119.38	513.13	-79.19	509.17	22.44	23.40	PASS	
3113.00†	3108.30	-122.43	19.91	3036.00	2981.64	-125.91	536.25	-79.34	531.66	23.22	23.58	PASS	
3213.00†	3208.00	-130.07	21.15	3133.43	3076.06	-132.44	559.37	-79.47	554.16	24.01	23.75	PASS	
3313.00†	3307.70	-137.72	22.40	3230.86	3170.48	-138.98	582.49	-79.59	576.66	24.80	23.90	PASS	
3413.00†	3407.40	-145.36	23.64	3328.29	3264.90	-145.51	605.61	-79.71	599.16	25.60	24.04	PASS	
3513.00†	3507.10	-153.00	24.88	3425.72	3359.32	-152.04	628.72	-79.81	621.66	26.40	24.17	PASS	
3613.00†	3606.80	-160.64	26.12	3523.14	3453.74	-158.57	651.84	-79.91	644.17	27.20	24.29	PASS	
3713.00†	3706.50	-168.29	27.37	3620.57	3548.16	-165.11	674.96	-80.00	666.68	28.01	24.39	PASS	
3813.00†	3806.20	-175.93	28.61	3718.00	3642.58	-171.64	698.08	-80.09	689.19	28.82	24.49	PASS	
3913.00†	3905.90	-183.57	29.85	3815.43	3737.00	-178.17	721.20	-80.17	711.70	29.63	24.58	PASS	
4013.00†	4005.60	-191.21	31.10	3912.86	3831.42	-184.70	744.32	-80.24	734.21	30.44	24.67	PASS	
4113.00†	4105.30	-198.85	32.34	4010.29	3925.84	-191.24	767.43	-80.32	756.72	31.26	24.74	PASS	
4213.00†	4205.00	-206.50	33.58	4107.72	4020.26	-197.77	790.55	-80.38	779.24	32.08	24.82	PASS	
4313.00†	4304.70	-214.14	34.82	4205.15	4114.68	-204.30	813.67	-80.44	801.75	32.90	24.88	PASS	
4413.00†	4404.40	-221.78	36.07	4302.58	4209.11	-210.83	836.79	-80.50	824.27	33.72	24.95	PASS	
4513.00†	4504.10	-229.42	37.31	4400.00	4303.53	-217.37	859.91	-80.56	846.78	34.54	25.01	PASS	
4613.00†	4603.80	-237.07	38.55	4497.43	4397.95	-223.90	883.03	-80.61	869.30	35.37	25.06	PASS	
4713.00†	4703.50	-244.71	39.80	4594.86	4492.37	-230.43	906.14	-80.67	891.82	36.20	25.11	PASS	
4813.00†	4803.20	-252.35	41.04	4692.29	4586.79	-236.96	929.26	-80.71	914.34	37.02	25.16	PASS	
4913.00†	4902.90	-259.99	42.28	4789.72	4681.21	-243.50	952.38	-80.76	936.86	37.85	25.20	PASS	
5013.00†	5002.60	-267.63	43.52	4887.15	4775.63	-250.03	975.50	-80.80	959.38	38.68	25.25	PASS	
5113.00†	5102.30	-275.28	44.77	4984.58	4870.05	-256.56	998.62	-80.85	981.90	39.51	25.28	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 75 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1783.80	0.13	54.82	-13.06	101.47
8.5in Open Hole	13.00	17963.99	17950.99	13.00	7638.00	0.13	54.82	3037.96	489.74

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17963.99	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-4CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-4CDH PWB Offset Wellpath: WAKEMAN 20-17-4CDH PWB (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 76 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#12 WAKEMAN 20-17-2CDH (293°FSL & 2188°FEL, SEC.20)		Well: WAKEMAN 20-17-2CDH		Threshold Value=1.00 † = Interpolated/extrapolated station						
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.11	-75.04	-90.08	75.04	1.40	123.72	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-75.04	-90.08	75.04	1.73	80.42	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-75.04	-90.08	75.04	2.30	49.70	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-75.04	-90.08	75.04	2.90	35.39	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-75.04	-90.08	75.04	3.51	27.37	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-75.04	-90.08	75.04	4.13	22.28	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-75.04	-90.08	75.04	4.76	18.77	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-75.04	-90.08	75.04	5.38	16.21	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-75.04	-90.08	75.04	6.01	14.26	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-75.04	-90.08	75.04	6.63	12.73	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.11	-75.04	-90.08	75.04	7.26	11.50	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.11	-75.04	-90.08	75.04	7.89	10.48	PASS
1213.00†	1213.00	0.00	0.00	1213.00	1213.00	-0.11	-75.04	-90.08	75.04	8.51	9.63	PASS
1313.00†	1313.00	0.00	0.00	1312.68	1312.68	-0.11	-75.06	-90.09	75.06	9.14	8.91	PASS
1400.00	1400.00	0.00	0.00	1397.52	1397.50	-0.60	-76.62	-90.45	76.66	9.74	8.49	PASS
1413.00†	1413.00	-0.03	0.00	1410.19	1410.16	-0.74	-77.06	-98.70	77.12	9.83	8.45	PASS
1513.00†	1512.97	-2.20	0.36	1507.43	1507.25	-2.34	-82.20	-98.98	82.76	10.72	8.27	PASS
1613.00†	1612.80	-7.81	1.27	1604.14	1603.57	-4.91	-90.43	-100.60	92.21	11.56	8.50	PASS
1622.03	1621.81	-8.49	1.38	1612.84	1612.22	-5.19	-91.33	-100.79	93.26	11.64	8.53	PASS
1713.00†	1712.50	-15.44	2.51	1700.12	1698.82	-8.41	-101.67	-102.49	105.31	12.37	9.03	PASS
1813.00†	1812.20	-23.08	3.75	1795.27	1792.81	-12.82	-115.80	-103.40	121.55	13.11	9.77	PASS
1913.00†	1911.90	-30.72	5.00	1889.40	1885.25	-18.09	-132.71	-103.61	140.83	13.87	10.65	PASS
2013.00†	2011.60	-38.37	6.24	1982.33	1975.90	-24.18	-152.24	-103.34	163.07	14.62	11.67	PASS
2113.00†	2111.30	-46.01	7.48	2077.88	2068.57	-31.11	-174.46	-102.86	187.49	15.31	12.79	PASS
2213.00†	2211.00	-53.65	8.73	2174.81	2162.55	-38.18	-197.11	-102.48	212.03	15.99	13.83	PASS
2313.00†	2310.70	-61.29	9.97	2271.75	2256.54	-45.24	-219.77	-102.18	236.58	16.73	14.72	PASS
2413.00†	2410.40	-68.94	11.21	2368.68	2350.52	-52.31	-242.42	-101.93	261.14	17.39	15.61	PASS
2513.00†	2510.10	-76.58	12.45	2465.61	2444.50	-59.37	-265.08	-101.72	285.70	18.11	16.38	PASS
2613.00†	2609.80	-84.22	13.70	2562.54	2538.49	-66.44	-287.73	-101.55	310.26	18.83	17.08	PASS
2713.00†	2709.50	-91.86	14.94	2659.48	2632.47	-73.50	-310.38	-101.40	334.82	19.57	17.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 77 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#12 WAKEMAN 20-17-2CDH (293°FSL & 2188°FEL, SEC.20)		Well: WAKEMAN 20-17-2CDH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2756.41	2726.45	-80.57	-333.04	101.28	359.39	20.32	18.29	PASS
2913.00†	2908.90	-107.15	17.42	2853.34	2820.44	-87.63	-355.69	101.17	383.95	21.07	18.82	PASS
3013.00†	3008.60	-114.79	18.67	2950.27	2914.42	-94.70	-378.34	101.07	408.52	21.83	19.30	PASS
3113.00†	3108.30	-122.43	19.91	3047.21	3008.40	-101.76	-401.00	100.98	433.09	22.60	19.75	PASS
3213.00†	3208.00	-130.07	21.15	3144.14	3102.39	-108.83	-423.65	100.90	457.66	23.37	20.16	PASS
3313.00†	3307.70	-137.72	22.40	3241.07	3196.37	-115.89	-446.30	100.83	482.23	24.15	20.54	PASS
3413.00†	3407.40	-145.36	23.64	3338.01	3290.35	-122.96	-468.96	100.77	506.81	24.93	20.89	PASS
3513.00†	3507.10	-153.00	24.88	3434.94	3384.34	-130.02	-491.61	100.72	531.38	25.72	21.22	PASS
3613.00†	3606.80	-160.64	26.12	3531.87	3478.32	-137.09	-514.26	100.66	555.95	26.51	21.52	PASS
3713.00†	3706.50	-168.29	27.37	3628.80	3572.30	-144.15	-536.92	100.62	580.52	27.30	21.80	PASS
3813.00†	3806.20	-175.93	28.61	3725.74	3666.29	-151.22	-559.57	100.57	605.10	28.10	22.06	PASS
3913.00†	3905.90	-183.57	29.85	3822.67	3760.27	-158.28	-582.22	100.53	629.67	28.90	22.31	PASS
4013.00†	4005.60	-191.21	31.10	3919.60	3854.25	-165.35	-604.88	100.50	654.24	29.70	22.54	PASS
4113.00†	4105.30	-198.85	32.34	4016.54	3948.24	-172.41	-627.53	100.46	678.82	30.51	22.76	PASS
4213.00†	4205.00	-206.50	33.58	4113.47	4042.22	-179.48	-650.18	100.43	703.39	31.32	22.96	PASS
4313.00†	4304.70	-214.14	34.82	4210.40	4136.20	-186.54	-672.84	100.40	727.97	32.13	23.15	PASS
4413.00†	4404.40	-221.78	36.07	4307.33	4230.19	-193.61	-695.49	100.37	752.54	32.94	23.33	PASS
4513.00†	4504.10	-229.42	37.31	4404.27	4324.17	-200.67	-718.14	100.34	777.12	33.75	23.50	PASS
4613.00†	4603.80	-237.07	38.55	4501.20	4418.15	-207.74	-740.80	100.32	801.69	34.57	23.66	PASS
4713.00†	4703.50	-244.71	39.80	4598.13	4512.14	-214.80	-763.45	100.30	826.27	35.38	23.81	PASS
4813.00†	4803.20	-252.35	41.04	4695.06	4606.12	-221.87	-786.10	100.28	850.84	36.20	23.95	PASS
4913.00†	4902.90	-259.99	42.28	4792.00	4700.10	-228.93	-808.76	100.25	875.42	37.02	24.09	PASS
5013.00†	5002.60	-267.63	43.52	4888.93	4794.09	-236.00	-831.41	100.24	899.99	37.84	24.22	PASS
5113.00†	5102.30	-275.28	44.77	4985.86	4888.07	-243.06	-854.06	100.22	924.57	38.66	24.34	PASS
5213.00†	5202.00	-282.92	46.01	5082.80	4982.05	-250.12	-876.72	100.20	949.14	39.49	24.46	PASS
5313.00†	5301.70	-290.56	47.25	5179.73	5076.04	-257.19	-899.37	100.18	973.72	40.31	24.57	PASS
5413.00†	5401.40	-298.20	48.50	5276.66	5170.02	-264.25	-922.02	100.17	998.30	41.14	24.68	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 78 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1797.47	-0.06	-45.74	-4.01	-58.41
8.5in Open Hole	1800.00	17954.40	16154.40	1797.47	N/A	-4.01	-58.41	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17954.40	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-2CDH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-2CDH PWB Offset Wellpath: WAKEMAN 20-17-2CDH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 79 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. BOX ELDER FARMS #41-20 (990°FNL & 990°FEL, SEC.20,OG,PA, 8145)								Well: BOX ELDER FARMS #41-20		Threshold Value=1.00		† = interpolated/extrapolated sz	
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACF Statu	
13.00	13.00	0.00	0.00	-13.00	29.00	4015.57	1030.18	14.39	4145.64	25.40	168.48	PAS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	91.00	91.00	29.00	120.00	2450.73	616.69	2450.73	616.69
8.625in Casing Surface	0.00	91.00	91.00	29.00	120.00	2450.73	616.69	2450.73	616.69
7.875in Open Hole	91.00	8123.00	8032.00	120.00	8152.00	2450.73	616.69	2450.73	616.69
4.5in Casing Production	0.00	8123.00	8123.00	29.00	8152.00	2450.73	616.69	2450.73	616.69

WELLPATH COMPOSITION - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8145.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8145>	BOX ELDER FARMS #41-20 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS #41-20 AWB Offset Wellpath: BOX ELDER FARMS #41-20 AWP

MD Reference: Rig on SLOT#01 EX. BOX ELDER FARMS #41-20 (990°FNL & 990°FEL, SEC.20,OG,PA) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 80 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.14	-90.04	-90.09	90.04	1.40	148.73	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.14	-90.04	-90.09	90.04	1.73	96.65	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.14	-90.04	-90.09	90.04	2.30	59.73	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.14	-90.04	-90.09	90.04	2.90	42.53	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.14	-90.04	-90.09	90.04	3.52	32.89	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.14	-90.04	-90.09	90.04	4.14	26.77	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.14	-90.04	-90.09	90.04	4.76	22.56	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.14	-90.04	-90.09	90.04	5.38	19.48	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.14	-90.04	-90.09	90.04	6.01	17.14	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.14	-90.04	-90.09	90.04	6.63	15.30	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.14	-90.04	-90.09	90.04	7.26	13.82	PASS
1113.00†	1113.00	0.00	0.00	1113.00	1113.00	-0.14	-90.04	-90.09	90.04	7.89	12.60	PASS
1213.00†	1213.00	0.00	0.00	1212.61	1212.61	-0.14	-90.07	-90.09	90.07	8.51	11.58	PASS
1313.00†	1313.00	0.00	0.00	1309.60	1309.57	-0.64	-92.07	-90.40	92.14	9.21	10.86	PASS
1400.00	1400.00	0.00	0.00	1393.78	1393.63	-1.71	-96.40	-91.02	96.62	10.00	10.42	PASS
1413.00†	1413.00	-0.03	0.00	1406.33	1406.16	-1.92	-97.25	-98.11	97.51	10.12	10.38	PASS
1513.00†	1512.97	-2.20	0.36	1502.59	1502.03	-3.97	-105.54	-98.04	106.47	10.99	10.37	PASS
1613.00†	1612.80	-7.81	1.27	1598.08	1596.80	-6.78	-116.85	-99.15	119.20	11.80	10.76	PASS
1622.03	1621.81	-8.49	1.38	1606.66	1605.30	-7.05	-118.01	-99.29	120.54	11.88	10.81	PASS
1713.00†	1712.50	-15.44	2.51	1692.63	1690.20	-10.28	-131.06	-100.69	135.51	12.60	11.42	PASS
1813.00†	1812.20	-23.08	3.75	1786.14	1782.05	-14.48	-148.05	-101.58	155.00	13.36	12.24	PASS
1913.00†	1911.90	-30.72	5.00	1878.44	1872.11	-19.32	-167.66	-101.98	177.55	14.05	13.25	PASS
2013.00†	2011.60	-38.37	6.24	1969.36	1960.15	-24.78	-189.73	-102.03	203.07	14.81	14.35	PASS
2113.00†	2111.30	-46.01	7.48	2058.76	2045.96	-30.79	-214.06	-101.85	231.48	15.56	15.54	PASS
2213.00†	2211.00	-53.65	8.73	2150.26	2133.05	-37.53	-241.29	-101.54	262.38	16.30	16.78	PASS
2313.00†	2310.70	-61.29	9.97	2245.24	2223.34	-44.60	-269.90	-101.26	293.66	16.95	18.03	PASS
2413.00†	2410.40	-68.94	11.21	2340.21	2313.62	-51.67	-298.51	-101.03	324.94	17.64	19.14	PASS
2513.00†	2510.10	-76.58	12.45	2435.18	2403.91	-58.74	-327.11	-100.85	356.23	18.36	20.14	PASS
2613.00†	2609.80	-84.22	13.70	2530.16	2494.20	-65.81	-355.72	-100.69	387.52	19.09	21.05	PASS
2713.00†	2709.50	-91.86	14.94	2625.13	2584.49	-72.89	-384.33	-100.56	418.81	19.83	21.87	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 81 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#13 WAKEMAN 20-17-1NBH (293'FSL & 2203'FEL, SEC.20)				Well: WAKEMAN 20-17-1NBH		Threshold Value=1.00		† = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2720.11	2674.77	-79.96	-412.93	100.45	450.10	20.58	22.61	PASS	
2913.00†	2908.90	-107.15	17.42	2815.08	2765.06	-87.03	-441.54	100.35	481.40	21.34	23.29	PASS	
3013.00†	3008.60	-114.79	18.67	2910.05	2855.35	-94.10	-470.15	100.26	512.69	22.11	23.92	PASS	
3113.00†	3108.30	-122.43	19.91	3005.03	2945.63	-101.17	-498.75	100.18	543.99	22.89	24.49	PASS	
3213.00†	3208.00	-130.07	21.15	3100.00	3035.92	-108.24	-527.36	100.11	575.29	23.68	25.01	PASS	
3313.00†	3307.70	-137.72	22.40	3194.98	3126.21	-115.32	-555.97	100.05	606.58	24.47	25.50	PASS	
3413.00†	3407.40	-145.36	23.64	3289.95	3216.49	-122.39	-584.57	100.00	637.88	25.27	25.94	PASS	
3513.00†	3507.10	-153.00	24.88	3384.93	3306.78	-129.46	-613.18	99.95	669.18	26.07	26.35	PASS	
3613.00†	3606.80	-160.64	26.12	3479.90	3397.07	-136.53	-641.79	99.90	700.48	26.88	26.74	PASS	
3713.00†	3706.50	-168.29	27.37	3574.87	3487.35	-143.60	-670.39	99.86	731.78	27.70	27.09	PASS	
3813.00†	3806.20	-175.93	28.61	3669.85	3577.64	-150.68	-699.00	99.82	763.08	28.51	27.42	PASS	
3913.00†	3905.90	-183.57	29.85	3764.82	3667.93	-157.75	-727.61	99.78	794.38	29.33	27.73	PASS	
4013.00†	4005.60	-191.21	31.10	3859.80	3758.22	-164.82	-756.21	99.75	825.68	30.16	28.01	PASS	
4113.00†	4105.30	-198.85	32.34	3954.77	3848.50	-171.89	-784.82	99.72	856.98	30.98	28.28	PASS	
4213.00†	4205.00	-206.50	33.58	4049.74	3938.79	-178.96	-813.43	99.69	888.28	31.81	28.53	PASS	
4313.00†	4304.70	-214.14	34.82	4144.72	4029.08	-186.03	-842.03	99.67	919.59	32.65	28.77	PASS	
4413.00†	4404.40	-221.78	36.07	4239.69	4119.36	-193.11	-870.64	99.64	950.89	33.48	28.99	PASS	
4513.00†	4504.10	-229.42	37.31	4334.67	4209.65	-200.18	-899.25	99.62	982.19	34.32	29.20	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 82 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1795.62	-0.08	-54.89	-4.66	-73.41
8.5in Open Hole	1800.00	17835.13	16035.13	1795.62	N/A	-4.66	-73.41	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
13.00	17835.13	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	WAKEMAN 20-17-1NBH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NBH PWB Offset Wellpath: WAKEMAN 20-17-1NBH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 83 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#14 WAKEMAN 20-17-1NCH (293°FSL & 2218°FEL, SEC.20)		Well: WAKEMAN 20-17-1NCH		Threshold Value=1.00		† = interpolated/extrapolated station					
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	16.00	13.00	-0.16	-104.98	-90.09	104.98	1.40	173.63	PASS	
113.00†	113.00	0.00	0.00	116.00	113.00	-0.16	-104.98	-90.09	104.98	1.73	112.82	PASS	
213.00†	213.00	0.00	0.00	216.00	213.00	-0.16	-104.98	-90.09	104.98	2.30	69.72	PASS	
313.00†	313.00	0.00	0.00	316.00	313.00	-0.16	-104.98	-90.09	104.98	2.90	49.65	PASS	
413.00†	413.00	0.00	0.00	416.00	413.00	-0.16	-104.98	-90.09	104.98	3.52	38.39	PASS	
513.00†	513.00	0.00	0.00	516.00	513.00	-0.16	-104.98	-90.09	104.98	4.14	31.25	PASS	
613.00†	613.00	0.00	0.00	616.00	613.00	-0.16	-104.98	-90.09	104.98	4.76	26.33	PASS	
713.00†	713.00	0.00	0.00	716.00	713.00	-0.16	-104.98	-90.09	104.98	5.38	22.75	PASS	
813.00†	813.00	0.00	0.00	816.00	813.00	-0.16	-104.98	-90.09	104.98	6.01	20.01	PASS	
913.00†	913.00	0.00	0.00	916.00	913.00	-0.16	-104.98	-90.09	104.98	6.63	17.87	PASS	
1013.00†	1013.00	0.00	0.00	1015.45	1012.44	-0.17	-105.02	-90.09	105.02	7.26	16.15	PASS	
1113.00†	1113.00	0.00	0.00	1111.92	1108.89	-0.60	-107.12	-90.32	107.20	7.97	14.84	PASS	
1213.00†	1213.00	0.00	0.00	1208.14	1204.96	-1.67	-112.39	-90.85	112.69	8.92	13.78	PASS	
1313.00†	1313.00	0.00	0.00	1303.90	1300.33	-3.37	-120.76	-91.60	121.47	9.82	13.38	PASS	
1400.00	1400.00	0.00	0.00	1386.66	1382.49	-5.36	-130.51	-92.35	131.79	10.54	13.45	PASS	
1413.00†	1413.00	-0.03	0.00	1398.98	1394.69	-5.69	-132.16	-96.75	133.55	10.66	13.47	PASS	
1513.00†	1512.97	-2.20	0.36	1493.16	1487.73	-8.60	-146.48	-96.35	149.12	11.47	13.90	PASS	
1613.00†	1612.80	-7.81	1.27	1586.19	1579.11	-12.08	-163.55	-96.87	168.28	12.28	14.59	PASS	
1622.03	1621.81	-8.49	1.38	1594.53	1587.27	-12.42	-165.22	-96.95	170.19	12.35	14.67	PASS	
1713.00†	1712.50	-15.44	2.51	1677.90	1668.59	-16.08	-183.21	-97.97	190.84	13.02	15.55	PASS	
1813.00†	1812.20	-23.08	3.75	1768.22	1756.05	-20.58	-205.31	-98.72	216.49	13.73	16.63	PASS	
1913.00†	1911.90	-30.72	5.00	1857.03	1841.30	-25.53	-229.67	-99.16	245.11	14.42	17.82	PASS	
2013.00†	2011.60	-38.37	6.24	1944.19	1924.19	-30.90	-256.08	-99.38	276.60	15.17	19.08	PASS	
2113.00†	2111.30	-46.01	7.48	2029.59	2004.57	-36.65	-284.34	-99.44	310.87	15.88	20.45	PASS	
2213.00†	2211.00	-53.65	8.73	2122.41	2091.40	-43.19	-316.48	-99.44	346.66	16.54	21.86	PASS	
2313.00†	2310.70	-61.29	9.97	2215.78	2178.75	-49.77	-348.82	-99.44	382.45	17.22	23.11	PASS	
2413.00†	2410.40	-68.94	11.21	2309.16	2266.09	-56.35	-381.15	-99.43	418.25	17.93	24.24	PASS	
2513.00†	2510.10	-76.58	12.45	2402.53	2353.44	-62.93	-413.49	-99.43	454.05	18.66	25.26	PASS	
2613.00†	2609.80	-84.22	13.70	2495.90	2440.79	-69.51	-445.83	-99.43	489.84	19.39	26.18	PASS	
2713.00†	2709.50	-91.86	14.94	2589.28	2528.14	-76.09	-478.16	-99.43	525.64	20.15	27.00	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 84 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#14 WAKEMAN 20-17-1NCH (293'FSL & 2218'FEL, SEC.20) Well: WAKEMAN 20-17-1NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2682.65	2615.49	-82.67	-510.50	99.43	561.43	20.91	27.76	PASS
2913.00†	2908.90	-107.15	17.42	2776.02	2702.84	-89.25	-542.84	99.43	597.23	21.68	28.44	PASS
3013.00†	3008.60	-114.79	18.67	2869.40	2790.18	-95.83	-575.18	99.42	633.02	22.47	29.06	PASS
3113.00†	3108.30	-122.43	19.91	2962.77	2877.53	-102.41	-607.51	99.42	668.82	23.26	29.62	PASS
3213.00†	3208.00	-130.07	21.15	3056.15	2964.88	-108.99	-639.85	99.42	704.61	24.06	30.14	PASS
3313.00†	3307.70	-137.72	22.40	3149.52	3052.23	-115.57	-672.19	99.42	740.41	24.87	30.62	PASS
3413.00†	3407.40	-145.36	23.64	3242.89	3139.58	-122.14	-704.53	99.42	776.20	25.68	31.05	PASS
3513.00†	3507.10	-153.00	24.88	3336.27	3226.92	-128.72	-736.86	99.42	812.00	26.50	31.46	PASS
3613.00†	3606.80	-160.64	26.12	3429.64	3314.27	-135.30	-769.20	99.42	847.79	27.32	31.83	PASS
3713.00†	3706.50	-168.29	27.37	3523.02	3401.62	-141.88	-801.54	99.42	883.59	28.15	32.17	PASS
3813.00†	3806.20	-175.93	28.61	3616.39	3488.97	-148.46	-833.87	99.42	919.39	28.99	32.49	PASS
3913.00†	3905.90	-183.57	29.85	3709.76	3576.32	-155.04	-866.21	99.42	955.18	29.82	32.78	PASS
4013.00†	4005.60	-191.21	31.10	3803.14	3663.67	-161.62	-898.55	99.42	990.98	30.66	33.06	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1789.64	-0.10	-64.00	-6.84	-97.14
8.5in Open Hole	1800.00	18013.26	16213.26	1789.64	N/A	-6.84	-97.14	N/A	N/A



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 85 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	18013.26	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NCH PWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NCH PWB Offset Wellpath: WAKEMAN 20-17-1NCH PWP (REV-A.0)

MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	16.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 86 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Facility: SEC.20-T1S-R65W		Slot: SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, 8163, PR)		Well: COLLINS HH #20-3J		Threshold Value=1.00 † = Interpolated/extrapolated station							
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	49.00	4193.91	-1369.92	-18.09	4412.12	25.40	179.31	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1529.00	1529.00	49.00	1578.00	2552.74	-846.75	2552.74	-846.75
8.625in Casing Surface	0.00	1529.00	1529.00	49.00	1578.00	2552.74	-846.75	2552.74	-846.75
7.875in Open Hole	1529.00	8141.00	6612.00	1578.00	8190.00	2552.74	-846.75	2552.74	-846.75
4.5in Casing Production	0.00	8141.00	8141.00	49.00	8190.00	2552.74	-846.75	2552.74	-846.75

WELLPATH COMPOSITION - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8163.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8163>	COLLINS HH #20-3J AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: COLLINS HH #20-3J AWB Offset Wellpath: COLLINS HH #20-3J AWP

MD Reference: Rig on SLOT#02 EX. COLLINS HH #20-3J (814'FNL & 1886'FWL, SEC.20, OG) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 87 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Facility: SEC.20-T01S-R65W Slot: SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR, 8200) Well: WOLFE #1 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	8.00	13.00	718.46	1087.79	56.56	1303.64	50.15	26.38	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	250.00	250.00	-8.00	242.00	441.02	661.08	441.02	661.08
8.625in Casing Surface	0.00	250.00	250.00	-8.00	242.00	441.02	661.08	441.02	661.08
7.875in Open Hole	250.00	8200.00	7950.00	242.00	8192.00	441.02	661.08	441.02	661.08
4.5in Casing Production	0.00	8200.00	8200.00	-8.00	8192.00	441.02	661.08	441.02	661.08

WELLPATH COMPOSITION - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8200.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8200>	WOLFE #1 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: WOLFE #1 AWB Offset Wellpath: WOLFE #1 AWP

MD Reference: Rig on SLOT#01 EX. WOLFE #1 (990'FSL & 990'FEL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 88 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#15 WAKEMAN 20-17-1NAH (293'FSL & 2233'FEL, SEC.20)				Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00 † = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	16.00	13.00	-0.15	-120.04	-90.07	120.04	1.40	198.73	PASS
113.00†	113.00	0.00	0.00	116.00	113.00	-0.15	-120.04	-90.07	120.04	1.73	129.12	PASS
213.00†	213.00	0.00	0.00	216.00	213.00	-0.15	-120.04	-90.07	120.04	2.30	79.79	PASS
313.00†	313.00	0.00	0.00	316.00	313.00	-0.15	-120.04	-90.07	120.04	2.90	56.82	PASS
413.00†	413.00	0.00	0.00	416.00	413.00	-0.15	-120.04	-90.07	120.04	3.52	43.94	PASS
513.00†	513.00	0.00	0.00	516.00	513.00	-0.15	-120.04	-90.07	120.04	4.14	35.77	PASS
613.00†	613.00	0.00	0.00	616.00	613.00	-0.15	-120.04	-90.07	120.04	4.76	30.14	PASS
713.00†	713.00	0.00	0.00	716.00	713.00	-0.15	-120.04	-90.07	120.04	5.38	26.03	PASS
813.00†	813.00	0.00	0.00	816.00	813.00	-0.15	-120.04	-90.07	120.04	6.01	22.91	PASS
913.00†	913.00	0.00	0.00	915.37	912.37	-0.16	-120.08	-90.08	120.08	6.63	20.47	PASS
1013.00†	1013.00	0.00	0.00	1011.36	1008.33	-0.56	-122.16	-90.27	122.25	7.36	18.53	PASS
1113.00†	1113.00	0.00	0.00	1107.10	1103.92	-1.57	-127.39	-90.71	127.72	8.32	16.87	PASS
1213.00†	1213.00	0.00	0.00	1202.38	1198.82	-3.17	-135.69	-91.34	136.47	9.24	16.09	PASS
1313.00†	1313.00	0.00	0.00	1297.00	1292.73	-5.36	-147.01	-92.09	148.49	10.12	15.85	PASS
1400.00	1400.00	0.00	0.00	1378.61	1373.39	-7.71	-159.21	-92.77	161.60	10.80	16.08	PASS
1413.00†	1413.00	-0.03	0.00	1390.75	1385.35	-8.10	-161.21	-96.33	163.77	10.91	16.12	PASS
1513.00†	1512.97	-2.20	0.36	1483.43	1476.41	-11.37	-178.17	-95.83	182.47	11.71	16.65	PASS
1613.00†	1612.80	-7.81	1.27	1574.80	1565.58	-15.14	-197.72	-96.11	204.64	12.47	17.47	PASS
1622.03	1621.81	-8.49	1.38	1582.98	1573.53	-15.50	-199.60	-96.16	206.82	12.53	17.56	PASS
1713.00†	1712.50	-15.44	2.51	1664.70	1652.65	-19.37	-219.66	-97.01	230.13	13.21	18.48	PASS
1813.00†	1812.20	-23.08	3.75	1753.09	1737.54	-24.03	-243.84	-97.66	258.61	13.90	19.61	PASS
1913.00†	1911.90	-30.72	5.00	1839.85	1820.08	-29.09	-270.06	-98.08	289.99	14.59	20.83	PASS
2013.00†	2011.60	-38.37	6.24	1924.87	1900.15	-34.50	-298.13	-98.33	324.16	15.33	22.12	PASS
2113.00†	2111.30	-46.01	7.48	2008.06	1977.64	-40.24	-327.84	-98.44	361.03	16.01	23.54	PASS
2213.00†	2211.00	-53.65	8.73	2100.48	2063.23	-46.84	-362.07	-98.51	399.22	16.69	24.94	PASS
2313.00†	2310.70	-61.29	9.97	2192.90	2148.82	-53.44	-396.31	-98.57	437.41	17.38	26.19	PASS
2413.00†	2410.40	-68.94	11.21	2285.32	2234.42	-60.04	-430.54	-98.61	475.60	18.09	27.32	PASS
2513.00†	2510.10	-76.58	12.45	2377.74	2320.01	-66.65	-464.77	-98.65	513.79	18.82	28.33	PASS
2613.00†	2609.80	-84.22	13.70	2470.16	2405.60	-73.25	-499.00	-98.69	551.98	19.56	29.24	PASS
2713.00†	2709.50	-91.86	14.94	2562.58	2491.19	-79.85	-533.23	-98.72	590.17	20.32	30.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 89 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W				Slot: SLOT#15 WAKEMAN 20-17-1NAH (293°FSL & 2233°FEL, SEC.20)			Well: WAKEMAN 20-17-1NAH		Threshold Value=1.00		† = interpolated/extrapolated station		
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
2813.00†	2809.20	-99.50	16.18	2655.00	2576.78	-86.45	-567.47	98.74	628.36	21.09	30.79	PASS	
2913.00†	2908.90	-107.15	17.42	2747.42	2662.38	-93.06	-601.70	98.76	666.55	21.87	31.46	PASS	
3013.00†	3008.60	-114.79	18.67	2839.84	2747.97	-99.66	-635.93	98.79	704.74	22.67	32.06	PASS	
3113.00†	3108.30	-122.43	19.91	2932.26	2833.56	-106.26	-670.16	98.80	742.93	23.47	32.62	PASS	
3213.00†	3208.00	-130.07	21.15	3024.68	2919.15	-112.86	-704.39	98.82	781.12	24.27	33.12	PASS	
3313.00†	3307.70	-137.72	22.40	3117.10	3004.75	-119.47	-738.63	98.84	819.31	25.09	33.58	PASS	
3413.00†	3407.40	-145.36	23.64	3209.52	3090.34	-126.07	-772.86	98.85	857.50	25.91	34.00	PASS	
3513.00†	3507.10	-153.00	24.88	3301.94	3175.93	-132.67	-807.09	98.86	895.69	26.74	34.38	PASS	
3613.00†	3606.80	-160.64	26.12	3394.36	3261.52	-139.27	-841.32	98.87	933.88	27.57	34.74	PASS	
3713.00†	3706.50	-168.29	27.37	3486.78	3347.11	-145.88	-875.55	98.88	972.07	28.41	35.07	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1800.00	1784.00	16.00	1785.27	-0.09	-73.18	-8.19	-115.14
8.5in Open Hole	1800.00	17822.97	16022.97	1785.27	7230.00	-8.19	-115.14	3041.30	-879.72

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	17886.70	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1NAH PWB



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 90 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1NAH PWB Offset Wellpath: WAKEMAN 20-17-1NAH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	16.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 91 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W		Slot: SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20)		Well: WAKEMAN 20-17-1CDH		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.26	-134.98	-90.11	134.98	1.40	223.64	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.26	-134.98	-90.11	134.98	1.73	145.29	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.26	-134.98	-90.11	134.98	2.30	89.78	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.26	-134.98	-90.11	134.98	2.90	63.94	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.26	-134.98	-90.11	134.98	3.52	49.45	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.26	-134.98	-90.11	134.98	4.14	40.25	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.26	-134.98	-90.11	134.98	4.76	33.92	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.26	-134.98	-90.11	134.98	5.38	29.29	PASS
813.00†	813.00	0.00	0.00	812.42	812.42	-0.26	-135.01	-90.11	135.01	6.00	25.80	PASS
913.00†	913.00	0.00	0.00	907.93	907.91	-0.60	-136.99	-90.25	137.08	6.74	22.96	PASS
1013.00†	1013.00	0.00	0.00	1003.21	1003.04	-1.49	-142.08	-90.60	142.44	7.73	20.43	PASS
1113.00†	1113.00	0.00	0.00	1098.03	1097.49	-2.90	-150.24	-91.11	151.07	8.66	19.12	PASS
1213.00†	1213.00	0.00	0.00	1192.20	1190.98	-4.84	-161.39	-91.72	162.96	9.55	18.53	PASS
1313.00†	1313.00	0.00	0.00	1285.53	1283.21	-7.27	-175.43	-92.37	178.09	10.34	18.60	PASS
1400.00	1400.00	0.00	0.00	1365.89	1362.22	-9.78	-189.87	-92.95	193.84	11.03	18.87	PASS
1413.00†	1413.00	-0.03	0.00	1377.83	1373.92	-10.18	-192.21	96.16	196.41	11.17	18.86	PASS
1513.00†	1512.97	-2.20	0.36	1468.91	1462.85	-13.54	-211.58	95.64	218.08	11.92	19.55	PASS
1613.00†	1612.80	-7.81	1.27	1558.52	1549.69	-17.32	-233.35	95.76	243.15	12.66	20.43	PASS
1622.03	1621.81	-8.49	1.38	1566.53	1557.42	-17.68	-235.42	95.79	245.58	12.73	20.52	PASS
1713.00†	1712.50	-15.44	2.51	1646.53	1634.26	-21.48	-257.32	96.56	271.42	13.40	21.49	PASS
1813.00†	1812.20	-23.08	3.75	1732.92	1716.52	-25.99	-283.33	97.16	302.63	14.08	22.65	PASS
1913.00†	1911.90	-30.72	5.00	1817.60	1796.34	-30.82	-311.19	97.59	336.65	14.76	23.90	PASS
2013.00†	2011.60	-38.37	6.24	1900.47	1873.60	-35.94	-340.69	97.86	373.38	15.48	25.23	PASS
2113.00†	2111.30	-46.01	7.48	1988.80	1955.22	-41.71	-373.99	98.06	412.19	16.12	26.70	PASS
2213.00†	2211.00	-53.65	8.73	2080.89	2040.23	-47.76	-408.85	98.22	451.18	16.80	28.00	PASS
2313.00†	2310.70	-61.29	9.97	2172.97	2125.25	-53.80	-443.70	98.36	490.17	17.50	29.15	PASS
2413.00†	2410.40	-68.94	11.21	2265.05	2210.26	-59.85	-478.55	98.48	529.16	18.22	30.18	PASS
2513.00†	2510.10	-76.58	12.45	2357.13	2295.28	-65.90	-513.41	98.58	568.15	18.95	31.10	PASS
2613.00†	2609.80	-84.22	13.70	2449.21	2380.29	-71.94	-548.26	98.67	607.14	19.70	31.93	PASS
2713.00†	2709.50	-91.86	14.94	2541.29	2465.31	-77.99	-583.11	98.75	646.13	20.47	32.67	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 92 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Facility: SEC.20-T01S-R65W Slot: SLOT#16 WAKEMAN 20-17-1CDH (293°FSL & 2248°FEL, SEC.20) Well: WAKEMAN 20-17-1CDH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2809.20	-99.50	16.18	2633.37	2550.32	-84.03	-617.97	98.81	685.13	21.24	33.33	PASS
2913.00†	2908.90	-107.15	17.42	2725.45	2635.34	-90.08	-652.82	98.88	724.13	22.03	33.93	PASS
3013.00†	3008.60	-114.79	18.67	2817.53	2720.35	-96.12	-687.67	98.93	763.12	22.82	34.48	PASS
3113.00†	3108.30	-122.43	19.91	2909.61	2805.37	-102.17	-722.53	98.98	802.12	23.63	34.97	PASS
3213.00†	3208.00	-130.07	21.15	3001.69	2890.38	-108.22	-757.38	99.03	841.11	24.44	35.41	PASS
3313.00†	3307.70	-137.72	22.40	3093.77	2975.40	-114.26	-792.23	99.07	880.11	25.26	35.82	PASS
3413.00†	3407.40	-145.36	23.64	3185.85	3060.41	-120.31	-827.09	99.11	919.11	26.08	36.19	PASS
3513.00†	3507.10	-153.00	24.88	3277.93	3145.43	-126.35	-861.94	99.14	958.11	26.92	36.53	PASS
3613.00†	3606.80	-160.64	26.12	3370.02	3230.44	-132.40	-896.79	99.17	997.11	27.75	36.84	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1779.82	-0.16	-82.29	-9.16	-134.17
8.5in Open Hole	1800.00	18287.12	16487.12	1779.82	7638.00	-9.16	-134.17	3041.35	-914.75

SURVEY PROGRAM - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18383.57	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		WAKEMAN 20-17-1CDH PWB



Clearance Report
WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 93 of 98



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: WAKEMAN 20-17-1CDH PWB Offset Wellpath: WAKEMAN 20-17-1CDH PWP (REV-A.0)	
MD Reference: RIG (13'KB) (RKB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	13.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 94 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Facility: SEC.17-T1S-R65W				Slot: SLOT#02 EX. AMOCO #24-17 (990°FSL & 1360°FWL, SEC.17, OG, PR, 8130)				Well: AMOCO #24-17		Threshold Value=1.00 † = interpolated/extrapolated station			
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	73.00	5966.78	-1907.53	-17.73	6264.56	25.40	254.62	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	218.00	218.00	73.00	291.00	3631.98	-1179.37	3631.98	-1179.37
8.625in Casing Surface	0.00	218.00	218.00	73.00	291.00	3631.98	-1179.37	3631.98	-1179.37
7.875in Open Hole	218.00	8129.00	7911.00	291.00	8202.00	3631.98	-1179.37	3631.98	-1179.37
4.5in Casing Production	0.00	8129.00	8129.00	73.00	8202.00	3631.98	-1179.37	3631.98	-1179.37

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8130.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8130>	AMOCO #24-17

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #24-17 Offset Wellpath: AMOCO #24-17 AWP

MD Reference: Rig on SLOT#02 EX. AMOCO #24-17 (990°FSL & 1360°FSL, SEC.17, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 95 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Facility: SEC.16-T01S-R65W Slot: SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR, 8173) Well: STATE #11-16 Threshold Value=1.00 † = interpolated/extrapolated station														
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status		
13.00	13.00	0.00	0.00	-13.00	23.00	9345.36	2966.37	17.61	9804.85	25.40	398.51	PASS		

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	1549.00	1549.00	23.00	1572.00	5705.21	1781.76	5705.21	1781.76
8.625in Casing Surface	0.00	1549.00	1549.00	23.00	1572.00	5705.21	1781.76	5705.21	1781.76
7.875in Open Hole	1549.00	8173.00	6624.00	1572.00	8196.00	5705.21	1781.76	5705.21	1781.76
4.5in Casing Production	0.00	8173.00	8173.00	23.00	8196.00	5705.21	1781.76	5705.21	1781.76

WELLPATH COMPOSITION - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8173.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8173>	STATE #11-16 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: STATE #11-16 AWB Offset Wellpath: STATE #11-16 AWP

MD Reference: Rig on SLOT#01 EX. STATE #11-16 (990'FNL & 990'FWL, SEC.16, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 96 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293'FSL & 2113'FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Facility: SEC.17-T1S-R65W		Slot: SLOT#01 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.17, OG, PR, 8140)		Well: AMOCO #17-32		Threshold Value=1.00		† = interpolated/extrapolated station				
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	-13.00	81.00	6832.42	-2862.91	-22.74	7408.30	25.40	301.11	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
11in Open Hole	0.00	1450.00	1450.00	81.00	1531.00	4157.04	-1764.08	4157.04	-1764.08
8.625in Casing Surface	0.00	1450.00	1450.00	81.00	1531.00	4157.04	-1764.08	4157.04	-1764.08
7.875in Open Hole	1450.00	8150.00	6700.00	1531.00	N/A	4157.04	-1764.08	N/A	N/A
4.5in Casing Production	0.00	8150.00	8150.00	81.00	N/A	4157.04	-1764.08	N/A	N/A

WELLPATH COMPOSITION - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8140.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8140>	AMOCO #17-32 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: AMOCO #17-32 AWB Offset Wellpath: AMOCO #17-32 AWP

MD Reference: Rig on SLOT#03 EX. AMOCO #17-32 (2013'FSL & 464'FWL, SEC.14, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 97 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Facility: SEC.18-T01S-R65W Slot: SLOT#01 EX PUTNAM 41-18 (990°FNL & 990°FEL, SEC.18, SI,8092') Well: PUTNAM 41-18 Threshold Value=1.00 † = interpolated/extrapolated station													
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status	
13.00	13.00	0.00	0.00	-13.00	104.00	9200.38	-4352.60	-25.32	10178.42	25.40	413.71	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

WELLPATH COMPOSITION - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8092.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8092>	PUTNAM 41-18 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: PUTNAM 41-18 AWB Offset Wellpath: PUTNAM 41-18 AWP

MD Reference: Rig on SLOT#01 EX PUTNAM 41-18 (990°FNL & 990°FEL, SEC.18, SI,8092') (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft



Clearance Report

WAKEMAN 20-17-3NBH PWP (REV-A.0)
Closest Approach
Page 98 of 98



REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#07 WAKEMAN 20-17-3NBH (293°FSL & 2113°FEL, SEC.20)
Area	COLORADO	Well	WAKEMAN 20-17-3NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	WAKEMAN 20-17-3NBH PWB
Facility	SEC.20-T01S-R65W		

CLEARANCE DATA - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Facility: SEC.20-T1S-R65W Slot: SLOT#01 EX. COLLINS #14-20 (990°FSL & 990°FEL, SEC.20, OG, PR, 8202) Well: COLLINS #14-20 Threshold Value=1.00 † = interpolated/extrapolated station											
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	ACR Status
13.00	13.00	0.00	0.00	-13.00	17.00	703.61	-2204.48	-72.30	2314.05	25.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

POSITIONAL UNCERTAINTY - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	3.000ft

HOLE & CASING SECTIONS - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	150.00	150.00	17.00	167.00	422.80	-1345.77	422.80	-1345.77
8.625in Casing Surface	0.00	150.00	150.00	17.00	167.00	422.80	-1345.77	422.80	-1345.77
7.875in Open Hole	150.00	8194.00	8044.00	167.00	8211.00	422.80	-1345.77	422.80	-1345.77
4.5in Casing Production	0.00	8194.00	8194.00	17.00	8211.00	422.80	-1345.77	422.80	-1345.77

WELLPATH COMPOSITION - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8202.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL COGCC <8202>	COLLINS #14-20 AWB

OFFSET WELLPATH REFERENCE - Offset Wellbore: COLLINS #14-20 AWB Offset Wellpath: COLLINS #14-20 AWP

MD Reference: Rig on SLOT#01 EX. COLLINS #14-20 (990°FSL & 990°FEL, SEC.20, OG, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft