

PETROSHARE

Location:

COLORADO

Slot:

SLOT#15 ACKARD NORTH 2-35-4NAH (600°FSL & 2145FWL, SEC.02)

Field:

ADAMS COUNTY (NAD83/ GRID NORTH)

Well:

ACKARD NORTH 2-35-4NAH

Facility:

SEC.02-T03S-R66W

Wellbore:

ACKARD NORTH 2-35-4NAH PWB

Plot reference wellpath is ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet

True vertical depths are referenced to RIG (13°KB) (RKB)

\* = Wellpath was transformed from a different geodetic datum

Measured depths are referenced to RIG (13°KB) (RKB)

North Reference: Grid north

RIG (13°KB) (RKB) to Mean Sea Level: 5213 feet

Scale: True distance

Mean Sea Level to Ground level (At Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600°FSL & 2145FWL, SEC.02)): 0 feet

Depths are in feet

Coordinates are in feet referenced to Slot

Created by: cantrayt on 2017-10-24

Database: WellArchitectIDB

Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.02-T03S-R66W		3211634.960	1207893.832	39°54'05.673"N	104°44'44.357"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#15 ACKARD NORTH 2-35-4NAH (600°FSL & 2145FWL, SEC.02)	0.55	209.95	3211844.906	1207894.385	39°54'05.661"N	104°44'41.663"W

RIG (13°KB) (RKB) to Ground level (At Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600°FSL & 2145FWL, SEC.02))

5213ft

Mean Sea Level to Ground level (At Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600°FSL & 2145FWL, SEC.02))

0ft

RIG (13°KB) (RKB) to Mean Sea Level

5213ft

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	1789.64	0.00	0.00	-34.28	105.55	ACKARD NORTH 2-35-4NAH PWB
8.5in Open Hole	1800.00	17994.78	16194.78	1789.64	7436.00	-34.28	105.55	9600.71	2566.42	ACKARD NORTH 2-35-4NAH PWB

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	17994.78	BHI NavTrak	Custom BHI NavITrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NAH PWB

Scale 1 inch = 1500'

3000'

3750'

4500'

5250'

6000'

6750'

7500'

True Vertical Depth (ft)

N  
GRID

TRUE MAG

W E

BGGM (1900.0 to 2019.0) Dip: 66.48° Field: 52123.1 nT  
Magnetic North is 8.33 degrees East of True North (at 9/18/2017)  
Grid North is 0.49 degrees East of True North  
To correct azimuth from True to Grid subtract 0.49 degrees  
To correct azimuth from Magnetic to Grid add 7.84 degrees

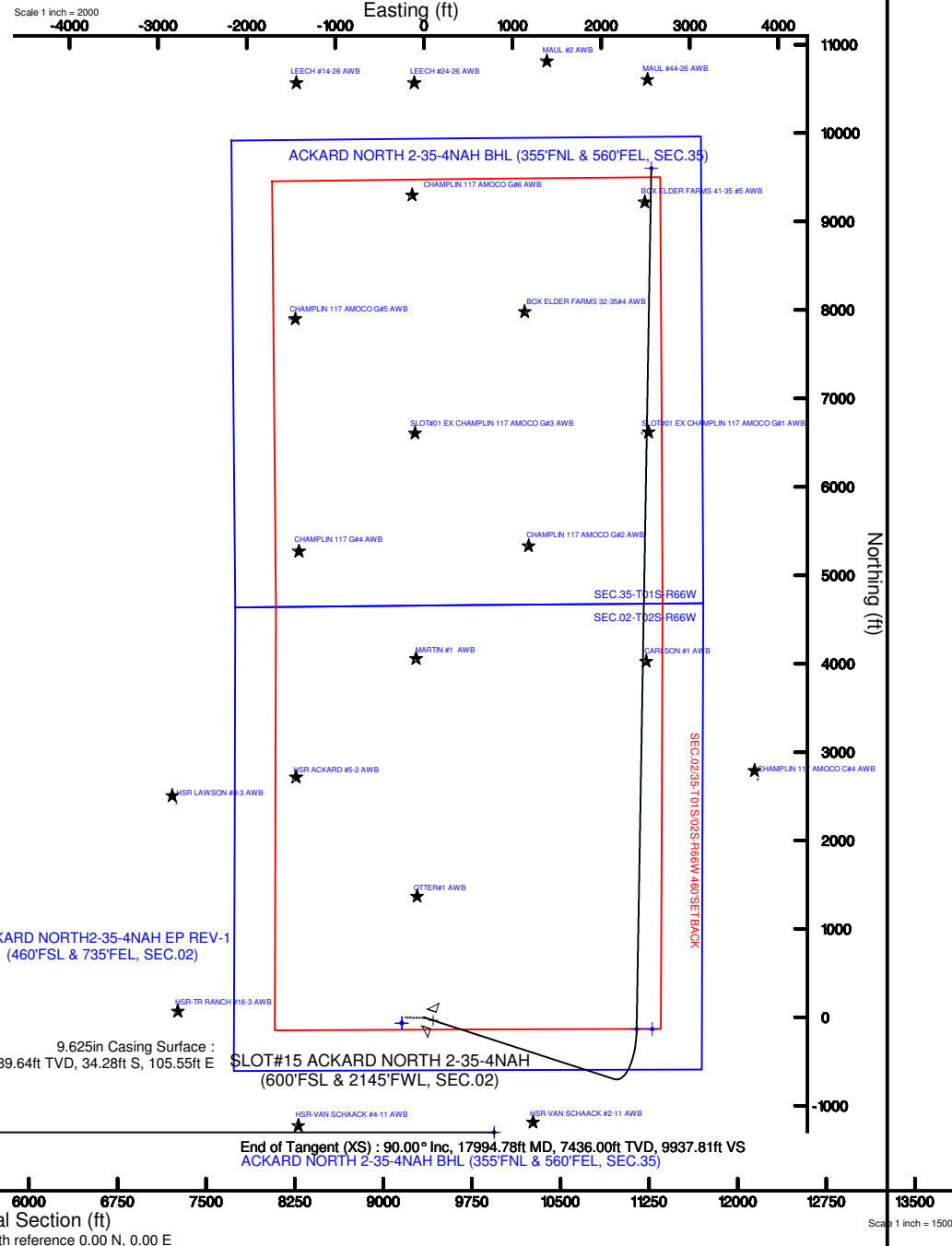
PETROSHARE

End of Tangent (XS) : 23.26° Inc, 7293.44ft MD, 6844.80ft TVD, -119.30ft VS  
10.00°/100ft  
End of 3D Arc (XS) : 90.00° Inc, 8259.81ft MD, 7436.00ft TVD, 491.68ft VS  
**ACKARD NORTH2-35-4NAH EP REV-1 (460°FSL & 735°FEL, SEC.02)**

Azim



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	13.00	0.00	107.994	13.00	0.00	0.00	0.00	0.00
End of Tangent	1000.00	0.00	107.994	1000.00	0.00	0.00	0.00	0.00
End of Build (XS)	2162.94	23.259	107.994	2131.27	-71.92	221.43	2.00	-12.30
End of Tangent (XS)	7293.44	23.259	107.994	6844.80	-697.76	2148.31	0.00	-119.30
End of 3D Arc (XS)	8259.81	90.00	0.974	7436.00	-132.86	2400.93	10.00	491.68
End of Tangent (XS)	17994.78	90.00	0.974	7436.00	9600.71	2566.42	0.00	9937.81





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 1 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Ingmjiamr
Scale	0.999975	Report Generated	10/20/2017 at 10:21:49 AM
Convergence at slot	0.49° East	Database/Source file	Jamie/ACKARD_NORTH_2-35-4NAH_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	0.55	209.95	3211844.91	1207894.39	39°54'05.661"N	104°44'41.663"W
Facility Reference Pt			3211634.96	1207893.83	39°54'05.673"N	104°44'44.357"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	5213.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5213.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02))	5213.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	14.97°



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 2 of 10



### REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 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	107.994	0.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
13.00	0.000	107.994	13.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	Tie On
113.00†	0.000	107.994	113.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
213.00†	0.000	107.994	213.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
313.00†	0.000	107.994	313.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
413.00†	0.000	107.994	413.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
513.00†	0.000	107.994	513.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
613.00†	0.000	107.994	613.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
713.00†	0.000	107.994	713.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
813.00†	0.000	107.994	813.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
913.00†	0.000	107.994	913.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	
1000.00	0.000	107.994	1000.00	0.00	0.00	0.00	39°54'05.661"N	104°44'41.663"W	0.00	End of Tangent
1013.00†	0.260	107.994	1013.00	0.00	-0.01	0.03	39°54'05.661"N	104°44'41.663"W	2.00	
1113.00†	2.260	107.994	1112.97	-0.12	-0.69	2.12	39°54'05.654"N	104°44'41.636"W	2.00	
1213.00†	4.260	107.994	1212.80	-0.42	-2.44	7.53	39°54'05.636"N	104°44'41.567"W	2.00	
1313.00†	6.260	107.994	1312.38	-0.90	-5.28	16.25	39°54'05.607"N	104°44'41.456"W	2.00	
1413.00†	8.260	107.994	1411.57	-1.57	-9.18	28.26	39°54'05.568"N	104°44'41.302"W	2.00	
1513.00†	10.260	107.994	1510.26	-2.42	-14.15	43.57	39°54'05.517"N	104°44'41.106"W	2.00	
1613.00†	12.260	107.994	1608.33	-3.45	-20.18	62.14	39°54'05.456"N	104°44'40.868"W	2.00	
1655.71†	13.114	107.994	1650.00	-3.95	-23.08	71.06	39°54'05.427"N	104°44'40.754"W	2.00	Fox Hills
1713.00†	14.260	107.994	1705.66	-4.66	-27.27	83.95	39°54'05.384"N	104°44'40.589"W	2.00	
1813.00†	16.260	107.994	1802.13	-6.05	-35.40	108.98	39°54'05.302"N	104°44'40.269"W	2.00	
1913.00†	18.260	107.994	1897.62	-7.62	-44.56	137.20	39°54'05.209"N	104°44'39.908"W	2.00	
2013.00†	20.260	107.994	1992.02	-9.36	-54.75	168.57	39°54'05.106"N	104°44'39.506"W	2.00	
2113.00†	22.260	107.994	2085.21	-11.28	-65.95	203.06	39°54'04.992"N	104°44'39.065"W	2.00	
2162.94	23.259	107.994	2131.27	-12.30	-71.92	221.43	39°54'04.932"N	104°44'38.830"W	2.00	End of Build (XS)
2213.00†	23.259	107.994	2177.25	-13.34	-78.03	240.23	39°54'04.870"N	104°44'38.590"W	0.00	
2313.00†	23.259	107.994	2269.13	-15.43	-90.23	277.79	39°54'04.746"N	104°44'38.109"W	0.00	
2413.00†	23.259	107.994	2361.00	-17.51	-102.42	315.35	39°54'04.622"N	104°44'37.628"W	0.00	
2513.00†	23.259	107.994	2452.87	-19.60	-114.62	352.91	39°54'04.499"N	104°44'37.148"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 3 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	23.259	107.994	2544.75	-21.68	-126.82	390.46	39°54'04.375"N	104°44'36.667"W	0.00	
2713.00†	23.259	107.994	2636.62	-23.77	-139.02	428.02	39°54'04.251"N	104°44'36.187"W	0.00	
2813.00†	23.259	107.994	2728.49	-25.85	-151.22	465.58	39°54'04.127"N	104°44'35.706"W	0.00	
2913.00†	23.259	107.994	2820.36	-27.94	-163.42	503.14	39°54'04.004"N	104°44'35.226"W	0.00	
3013.00†	23.259	107.994	2912.24	-30.03	-175.61	540.69	39°54'03.880"N	104°44'34.745"W	0.00	
3113.00†	23.259	107.994	3004.11	-32.11	-187.81	578.25	39°54'03.756"N	104°44'34.265"W	0.00	
3213.00†	23.259	107.994	3095.98	-34.20	-200.01	615.81	39°54'03.633"N	104°44'33.784"W	0.00	
3313.00†	23.259	107.994	3187.86	-36.28	-212.21	653.36	39°54'03.509"N	104°44'33.303"W	0.00	
3413.00†	23.259	107.994	3279.73	-38.37	-224.41	690.92	39°54'03.385"N	104°44'32.823"W	0.00	
3513.00†	23.259	107.994	3371.60	-40.45	-236.61	728.48	39°54'03.261"N	104°44'32.342"W	0.00	
3613.00†	23.259	107.994	3463.48	-42.54	-248.81	766.04	39°54'03.138"N	104°44'31.862"W	0.00	
3713.00†	23.259	107.994	3555.35	-44.62	-261.00	803.59	39°54'03.014"N	104°44'31.381"W	0.00	
3813.00†	23.259	107.994	3647.22	-46.71	-273.20	841.15	39°54'02.890"N	104°44'30.901"W	0.00	
3913.00†	23.259	107.994	3739.09	-48.80	-285.40	878.71	39°54'02.767"N	104°44'30.420"W	0.00	
4013.00†	23.259	107.994	3830.97	-50.88	-297.60	916.27	39°54'02.643"N	104°44'29.940"W	0.00	
4113.00†	23.259	107.994	3922.84	-52.97	-309.80	953.82	39°54'02.519"N	104°44'29.459"W	0.00	
4213.00†	23.259	107.994	4014.71	-55.05	-322.00	991.38	39°54'02.395"N	104°44'28.979"W	0.00	
4313.00†	23.259	107.994	4106.59	-57.14	-334.19	1028.94	39°54'02.272"N	104°44'28.498"W	0.00	
4413.00†	23.259	107.994	4198.46	-59.22	-346.39	1066.49	39°54'02.148"N	104°44'28.017"W	0.00	
4513.00†	23.259	107.994	4290.33	-61.31	-358.59	1104.05	39°54'02.024"N	104°44'27.537"W	0.00	
4613.00†	23.259	107.994	4382.21	-63.39	-370.79	1141.61	39°54'01.900"N	104°44'27.056"W	0.00	
4713.00†	23.259	107.994	4474.08	-65.48	-382.99	1179.17	39°54'01.777"N	104°44'26.576"W	0.00	
4813.00†	23.259	107.994	4565.95	-67.57	-395.19	1216.72	39°54'01.653"N	104°44'26.095"W	0.00	
4913.00†	23.259	107.994	4657.82	-69.65	-407.39	1254.28	39°54'01.529"N	104°44'25.615"W	0.00	
5013.00†	23.259	107.994	4749.70	-71.74	-419.58	1291.84	39°54'01.406"N	104°44'25.134"W	0.00	
5113.00†	23.259	107.994	4841.57	-73.82	-431.78	1329.40	39°54'01.282"N	104°44'24.654"W	0.00	
5213.00†	23.259	107.994	4933.44	-75.91	-443.98	1366.95	39°54'01.158"N	104°44'24.173"W	0.00	
5313.00†	23.259	107.994	5025.32	-77.99	-456.18	1404.51	39°54'01.034"N	104°44'23.693"W	0.00	
5394.29†	23.259	107.994	5100.00	-79.69	-466.10	1435.04	39°54'00.934"N	104°44'23.302"W	0.00	Sussex / Shannon
5413.00†	23.259	107.994	5117.19	-80.08	-468.38	1442.07	39°54'00.911"N	104°44'23.212"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 4 of 10



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Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	23.259	107.994	5209.06	-82.16	-480.58	1479.62	39°54'00.787"N	104°44'22.732"W	0.00	
5613.00†	23.259	107.994	5300.94	-84.25	-492.77	1517.18	39°54'00.663"N	104°44'22.251"W	0.00	
5713.00†	23.259	107.994	5392.81	-86.34	-504.97	1554.74	39°54'00.539"N	104°44'21.770"W	0.00	
5813.00†	23.259	107.994	5484.68	-88.42	-517.17	1592.30	39°54'00.416"N	104°44'21.290"W	0.00	
5913.00†	23.259	107.994	5576.55	-90.51	-529.37	1629.85	39°54'00.292"N	104°44'20.809"W	0.00	
6013.00†	23.259	107.994	5668.43	-92.59	-541.57	1667.41	39°54'00.168"N	104°44'20.329"W	0.00	
6113.00†	23.259	107.994	5760.30	-94.68	-553.77	1704.97	39°54'00.045"N	104°44'19.848"W	0.00	
6213.00†	23.259	107.994	5852.17	-96.76	-565.97	1742.53	39°53'59.921"N	104°44'19.368"W	0.00	
6313.00†	23.259	107.994	5944.05	-98.85	-578.16	1780.08	39°53'59.797"N	104°44'18.887"W	0.00	
6413.00†	23.259	107.994	6035.92	-100.93	-590.36	1817.64	39°53'59.673"N	104°44'18.407"W	0.00	
6513.00†	23.259	107.994	6127.79	-103.02	-602.56	1855.20	39°53'59.550"N	104°44'17.926"W	0.00	
6613.00†	23.259	107.994	6219.67	-105.11	-614.76	1892.76	39°53'59.426"N	104°44'17.446"W	0.00	
6713.00†	23.259	107.994	6311.54	-107.19	-626.96	1930.31	39°53'59.302"N	104°44'16.965"W	0.00	
6813.00†	23.259	107.994	6403.41	-109.28	-639.16	1967.87	39°53'59.178"N	104°44'16.485"W	0.00	
6913.00†	23.259	107.994	6495.28	-111.36	-651.36	2005.43	39°53'59.055"N	104°44'16.004"W	0.00	
7013.00†	23.259	107.994	6587.16	-113.45	-663.55	2042.98	39°53'58.931"N	104°44'15.524"W	0.00	
7113.00†	23.259	107.994	6679.03	-115.53	-675.75	2080.54	39°53'58.807"N	104°44'15.043"W	0.00	
7213.00†	23.259	107.994	6770.90	-117.62	-687.95	2118.10	39°53'58.683"N	104°44'14.563"W	0.00	
7293.44	23.259	107.994	6844.80	-119.30	-697.76	2148.31	39°53'58.564"N	104°44'14.176"W	0.00	End of Tangent (XS)
7313.00†	22.803	103.129	6862.81	-119.38	-699.82	2155.68	39°53'58.563"N	104°44'14.082"W	10.00	
7413.00†	22.935	77.212	6955.18	-109.67	-699.91	2193.64	39°53'58.559"N	104°44'13.595"W	10.00	
7513.00†	26.866	55.198	7046.06	-83.27	-682.65	2231.29	39°53'58.726"N	104°44'13.110"W	10.00	
7613.00†	33.272	39.756	7132.69	-41.01	-648.58	2267.48	39°53'59.060"N	104°44'12.642"W	10.00	
7713.00†	41.002	29.188	7212.43	15.84	-598.73	2301.11	39°53'59.550"N	104°44'12.205"W	10.00	
7813.00†	49.430	21.577	7282.86	85.54	-534.61	2331.15	39°54'00.181"N	104°44'11.812"W	10.00	
7913.00†	58.245	15.711	7341.85	165.98	-458.17	2356.69	39°54'00.934"N	104°44'11.476"W	10.00	
8013.00†	67.281	10.883	7387.59	254.73	-371.73	2376.97	39°54'01.786"N	104°44'11.206"W	10.00	
8113.00†	76.443	6.662	7418.70	349.07	-277.92	2391.35	39°54'02.712"N	104°44'11.011"W	10.00	
8213.00†	85.671	2.757	7434.23	446.14	-179.59	2399.41	39°54'03.683"N	104°44'10.897"W	10.00	
8259.81	90.000	0.974	7436.00†	491.68	-132.86	2400.93	39°54'04.145"N	104°44'10.872"W	10.00	End of 3D Arc (XS)



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 5 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8313.00†	90.000	0.974	7436.00	543.30	-79.67	2401.83	39°54'04.670"N	104°44'10.855"W	0.00	
8413.00†	90.000	0.974	7436.00	640.33	20.31	2403.53	39°54'05.658"N	104°44'10.822"W	0.00	
8513.00†	90.000	0.974	7436.00	737.36	120.30	2405.23	39°54'06.646"N	104°44'10.789"W	0.00	
8613.00†	90.000	0.974	7436.00	834.40	220.28	2406.93	39°54'07.634"N	104°44'10.756"W	0.00	
8713.00†	90.000	0.974	7436.00	931.43	320.27	2408.63	39°54'08.622"N	104°44'10.723"W	0.00	
8813.00†	90.000	0.974	7436.00	1028.46	420.25	2410.33	39°54'09.610"N	104°44'10.691"W	0.00	
8913.00†	90.000	0.974	7436.00	1125.49	520.24	2412.03	39°54'10.598"N	104°44'10.658"W	0.00	
9013.00†	90.000	0.974	7436.00	1222.53	620.23	2413.73	39°54'11.586"N	104°44'10.625"W	0.00	
9113.00†	90.000	0.974	7436.00	1319.56	720.21	2415.43	39°54'12.574"N	104°44'10.592"W	0.00	
9213.00†	90.000	0.974	7436.00	1416.59	820.20	2417.13	39°54'13.562"N	104°44'10.559"W	0.00	
9313.00†	90.000	0.974	7436.00	1513.63	920.18	2418.83	39°54'14.550"N	104°44'10.526"W	0.00	
9413.00†	90.000	0.974	7436.00	1610.66	1020.17	2420.53	39°54'15.538"N	104°44'10.493"W	0.00	
9513.00†	90.000	0.974	7436.00	1707.69	1120.15	2422.23	39°54'16.525"N	104°44'10.461"W	0.00	
9613.00†	90.000	0.974	7436.00	1804.72	1220.14	2423.93	39°54'17.513"N	104°44'10.428"W	0.00	
9713.00†	90.000	0.974	7436.00	1901.76	1320.12	2425.63	39°54'18.501"N	104°44'10.395"W	0.00	
9813.00†	90.000	0.974	7436.00	1998.79	1420.11	2427.33	39°54'19.489"N	104°44'10.362"W	0.00	
9913.00†	90.000	0.974	7436.00	2095.82	1520.10	2429.03	39°54'20.477"N	104°44'10.329"W	0.00	
10013.00†	90.000	0.974	7436.00	2192.86	1620.08	2430.73	39°54'21.465"N	104°44'10.296"W	0.00	
10113.00†	90.000	0.974	7436.00	2289.89	1720.07	2432.43	39°54'22.453"N	104°44'10.263"W	0.00	
10213.00†	90.000	0.974	7436.00	2386.92	1820.05	2434.13	39°54'23.441"N	104°44'10.231"W	0.00	
10313.00†	90.000	0.974	7436.00	2483.96	1920.04	2435.83	39°54'24.429"N	104°44'10.198"W	0.00	
10413.00†	90.000	0.974	7436.00	2580.99	2020.02	2437.53	39°54'25.417"N	104°44'10.165"W	0.00	
10513.00†	90.000	0.974	7436.00	2678.02	2120.01	2439.23	39°54'26.405"N	104°44'10.132"W	0.00	
10613.00†	90.000	0.974	7436.00	2775.05	2219.99	2440.93	39°54'27.393"N	104°44'10.099"W	0.00	
10713.00†	90.000	0.974	7436.00	2872.09	2319.98	2442.63	39°54'28.381"N	104°44'10.066"W	0.00	
10813.00†	90.000	0.974	7436.00	2969.12	2419.97	2444.33	39°54'29.369"N	104°44'10.033"W	0.00	
10913.00†	90.000	0.974	7436.00	3066.15	2519.95	2446.03	39°54'30.356"N	104°44'10.000"W	0.00	
11013.00†	90.000	0.974	7436.00	3163.19	2619.94	2447.73	39°54'31.344"N	104°44'09.968"W	0.00	
11113.00†	90.000	0.974	7436.00	3260.22	2719.92	2449.43	39°54'32.332"N	104°44'09.935"W	0.00	
11213.00†	90.000	0.974	7436.00	3357.25	2819.91	2451.13	39°54'33.320"N	104°44'09.902"W	0.00	





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 6 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11313.00†	90.000	0.974	7436.00	3454.28	2919.89	2452.83	39°54'34.308"N	104°44'09.869"W	0.00	
11413.00†	90.000	0.974	7436.00	3551.32	3019.88	2454.53	39°54'35.296"N	104°44'09.836"W	0.00	
11513.00†	90.000	0.974	7436.00	3648.35	3119.86	2456.23	39°54'36.284"N	104°44'09.803"W	0.00	
11613.00†	90.000	0.974	7436.00	3745.38	3219.85	2457.93	39°54'37.272"N	104°44'09.770"W	0.00	
11713.00†	90.000	0.974	7436.00	3842.42	3319.84	2459.63	39°54'38.260"N	104°44'09.737"W	0.00	
11813.00†	90.000	0.974	7436.00	3939.45	3419.82	2461.33	39°54'39.248"N	104°44'09.705"W	0.00	
11913.00†	90.000	0.974	7436.00	4036.48	3519.81	2463.03	39°54'40.236"N	104°44'09.672"W	0.00	
12013.00†	90.000	0.974	7436.00	4133.52	3619.79	2464.73	39°54'41.224"N	104°44'09.639"W	0.00	
12113.00†	90.000	0.974	7436.00	4230.55	3719.78	2466.43	39°54'42.212"N	104°44'09.606"W	0.00	
12213.00†	90.000	0.974	7436.00	4327.58	3819.76	2468.13	39°54'43.199"N	104°44'09.573"W	0.00	
12313.00†	90.000	0.974	7436.00	4424.61	3919.75	2469.83	39°54'44.187"N	104°44'09.540"W	0.00	
12413.00†	90.000	0.974	7436.00	4521.65	4019.73	2471.53	39°54'45.175"N	104°44'09.507"W	0.00	
12513.00†	90.000	0.974	7436.00	4618.68	4119.72	2473.23	39°54'46.163"N	104°44'09.475"W	0.00	
12613.00†	90.000	0.974	7436.00	4715.71	4219.71	2474.93	39°54'47.151"N	104°44'09.442"W	0.00	
12713.00†	90.000	0.974	7436.00	4812.75	4319.69	2476.63	39°54'48.139"N	104°44'09.409"W	0.00	
12813.00†	90.000	0.974	7436.00	4909.78	4419.68	2478.33	39°54'49.127"N	104°44'09.376"W	0.00	
12913.00†	90.000	0.974	7436.00	5006.81	4519.66	2480.03	39°54'50.115"N	104°44'09.343"W	0.00	
13013.00†	90.000	0.974	7436.00	5103.84	4619.65	2481.73	39°54'51.103"N	104°44'09.310"W	0.00	
13113.00†	90.000	0.974	7436.00	5200.88	4719.63	2483.43	39°54'52.091"N	104°44'09.277"W	0.00	
13213.00†	90.000	0.974	7436.00	5297.91	4819.62	2485.13	39°54'53.079"N	104°44'09.244"W	0.00	
13313.00†	90.000	0.974	7436.00	5394.94	4919.60	2486.83	39°54'54.067"N	104°44'09.212"W	0.00	
13413.00†	90.000	0.974	7436.00	5491.98	5019.59	2488.53	39°54'55.055"N	104°44'09.179"W	0.00	
13513.00†	90.000	0.974	7436.00	5589.01	5119.57	2490.23	39°54'56.042"N	104°44'09.146"W	0.00	
13613.00†	90.000	0.974	7436.00	5686.04	5219.56	2491.93	39°54'57.030"N	104°44'09.113"W	0.00	
13713.00†	90.000	0.974	7436.00	5783.07	5319.55	2493.63	39°54'58.018"N	104°44'09.080"W	0.00	
13813.00†	90.000	0.974	7436.00	5880.11	5419.53	2495.33	39°54'59.006"N	104°44'09.047"W	0.00	
13913.00†	90.000	0.974	7436.00	5977.14	5519.52	2497.03	39°54'59.994"N	104°44'09.014"W	0.00	
14013.00†	90.000	0.974	7436.00	6074.17	5619.50	2498.73	39°55'00.982"N	104°44'09.981"W	0.00	
14113.00†	90.000	0.974	7436.00	6171.21	5719.49	2500.43	39°55'01.970"N	104°44'09.949"W	0.00	
14213.00†	90.000	0.974	7436.00	6268.24	5819.47	2502.13	39°55'02.958"N	104°44'09.916"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 7 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14313.00†	90.000	0.974	7436.00	6365.27	5919.46	2503.83	39°55'03.946"N	104°44'08.883"W	0.00	
14413.00†	90.000	0.974	7436.00	6462.31	6019.44	2505.53	39°55'04.934"N	104°44'08.850"W	0.00	
14513.00†	90.000	0.974	7436.00	6559.34	6119.43	2507.23	39°55'05.922"N	104°44'08.817"W	0.00	
14613.00†	90.000	0.974	7436.00	6656.37	6219.42	2508.93	39°55'06.910"N	104°44'08.784"W	0.00	
14713.00†	90.000	0.974	7436.00	6753.40	6319.40	2510.63	39°55'07.898"N	104°44'08.751"W	0.00	
14813.00†	90.000	0.974	7436.00	6850.44	6419.39	2512.33	39°55'08.885"N	104°44'08.718"W	0.00	
14913.00†	90.000	0.974	7436.00	6947.47	6519.37	2514.03	39°55'09.873"N	104°44'08.686"W	0.00	
15013.00†	90.000	0.974	7436.00	7044.50	6619.36	2515.73	39°55'10.861"N	104°44'08.653"W	0.00	
15113.00†	90.000	0.974	7436.00	7141.54	6719.34	2517.43	39°55'11.849"N	104°44'08.620"W	0.00	
15213.00†	90.000	0.974	7436.00	7238.57	6819.33	2519.13	39°55'12.837"N	104°44'08.587"W	0.00	
15313.00†	90.000	0.974	7436.00	7335.60	6919.31	2520.83	39°55'13.825"N	104°44'08.554"W	0.00	
15413.00†	90.000	0.974	7436.00	7432.63	7019.30	2522.53	39°55'14.813"N	104°44'08.521"W	0.00	
15513.00†	90.000	0.974	7436.00	7529.67	7119.29	2524.23	39°55'15.801"N	104°44'08.488"W	0.00	
15613.00†	90.000	0.974	7436.00	7626.70	7219.27	2525.93	39°55'16.789"N	104°44'08.455"W	0.00	
15713.00†	90.000	0.974	7436.00	7723.73	7319.26	2527.63	39°55'17.777"N	104°44'08.423"W	0.00	
15813.00†	90.000	0.974	7436.00	7820.77	7419.24	2529.33	39°55'18.765"N	104°44'08.390"W	0.00	
15913.00†	90.000	0.974	7436.00	7917.80	7519.23	2531.03	39°55'19.753"N	104°44'08.357"W	0.00	
16013.00†	90.000	0.974	7436.00	8014.83	7619.21	2532.73	39°55'20.741"N	104°44'08.324"W	0.00	
16113.00†	90.000	0.974	7436.00	8111.87	7719.20	2534.43	39°55'21.728"N	104°44'08.291"W	0.00	
16213.00†	90.000	0.974	7436.00	8208.90	7819.18	2536.13	39°55'22.716"N	104°44'08.258"W	0.00	
16313.00†	90.000	0.974	7436.00	8305.93	7919.17	2537.83	39°55'23.704"N	104°44'08.225"W	0.00	
16413.00†	90.000	0.974	7436.00	8402.96	8019.16	2539.53	39°55'24.692"N	104°44'08.192"W	0.00	
16513.00†	90.000	0.974	7436.00	8500.00	8119.14	2541.23	39°55'25.680"N	104°44'08.159"W	0.00	
16613.00†	90.000	0.974	7436.00	8597.03	8219.13	2542.93	39°55'26.668"N	104°44'08.127"W	0.00	
16713.00†	90.000	0.974	7436.00	8694.06	8319.11	2544.63	39°55'27.656"N	104°44'08.094"W	0.00	
16813.00†	90.000	0.974	7436.00	8791.10	8419.10	2546.33	39°55'28.644"N	104°44'08.061"W	0.00	
16913.00†	90.000	0.974	7436.00	8888.13	8519.08	2548.03	39°55'29.632"N	104°44'08.028"W	0.00	
17013.00†	90.000	0.974	7436.00	8985.16	8619.07	2549.73	39°55'30.620"N	104°44'07.995"W	0.00	
17113.00†	90.000	0.974	7436.00	9082.19	8719.05	2551.43	39°55'31.608"N	104°44'07.962"W	0.00	
17213.00†	90.000	0.974	7436.00	9179.23	8819.04	2553.13	39°55'32.596"N	104°44'07.929"W	0.00	





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 8 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17313.00†	90.000	0.974	7436.00	9276.26	8919.03	2554.83	39°55'33.584"N	104°44'07.896"W	0.00	
17413.00†	90.000	0.974	7436.00	9373.29	9019.01	2556.53	39°55'34.571"N	104°44'07.864"W	0.00	
17513.00†	90.000	0.974	7436.00	9470.33	9119.00	2558.23	39°55'35.559"N	104°44'07.831"W	0.00	
17613.00†	90.000	0.974	7436.00	9567.36	9218.98	2559.93	39°55'36.547"N	104°44'07.798"W	0.00	
17713.00†	90.000	0.974	7436.00	9664.39	9318.97	2561.63	39°55'37.535"N	104°44'07.765"W	0.00	
17813.00†	90.000	0.974	7436.00	9761.42	9418.95	2563.33	39°55'38.523"N	104°44'07.732"W	0.00	
17913.00†	90.000	0.974	7436.00	9858.46	9518.94	2565.03	39°55'39.511"N	104°44'07.699"W	0.00	
17994.78†	90.000	0.974	7436.00	9937.81	9600.71	2566.42	39°55'40.319"N	104°44'07.672"W	0.00	Niobrara A Chalk
17994.78	90.000	0.974	7436.00 <sup>2</sup>	9937.81	9600.71	2566.42	39°55'40.319"N	104°44'07.672"W	0.00	End of Tangent (XS)

### HOLE & CASING SECTIONS - Ref Wellbore: ACKARD NORTH 2-35-4NAH PWB Ref Wellpath: ACKARD NORTH 2-35-4NAH 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 EW [ft]	End N/S [ft]	End EW [ft]
9.625in Casing Surface	13.00	1800.00	1787.00	13.00	1789.64	0.00	0.00	-34.28	105.55
8.5in Open Hole	1800.00	17994.78	16194.78	1789.64	7436.00	-34.28	105.55	9600.71	2566.42



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION					
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)		
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH		
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB		
Facility	SEC.02-T03S-R66W				

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T02S-R66W		0.00	-64.97	-250.14	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon
SEC.35-T01S-R66W		0.00	-64.97	-250.14	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon
2) ACKARD NORTH 2-35-4NAH BHL (355'FNL & 560'FEL, SEC.35)		7436.00	9600.71	2566.44	3214411.27	1217494.83	39°55'40.319"N	104°44'07.672"W	point
ACKARD NORTH 2-35-4NAH EP (460'FSL & 560'FEL, SEC.02)		7436.00	-132.86	2575.93	3214420.76	1207761.53	39°54'04.130"N	104°44'08.627"W	point
1) ACKARD NORTH2-35-4NAH EP REV-1 (460'FSL & 735'FEL, SEC.02)	8259.81	7436.00	-132.86	2400.93	3214245.77	1207761.53	39°54'04.145"N	104°44'10.872"W	point
SEC.02/35-T01S/02S-R66W 460'SETBACK		7855.00	-64.97	-250.14	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon

SURVEY PROGRAM - Ref Wellbore: ACKARD NORTH 2-35-4NAH PWB Ref Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment	Wellbore
13.00	17994.78	Custom BHI Navitrak (Standard Rotating) (Rockies 0.03Gt model)			ACKARD NORTH 2-35-4NAH PWB



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Page 10 of 10

### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

### WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1655.71	13.114	107.994	1650.00	Fox Hills
5394.29	23.259	107.994	5100.00	Sussex / Shannon
17994.78	90.000	0.974	7436.00	Niobrara A Chalk

### DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	107.994	13.00	Tie On
1000.00	0.000	107.994	1000.00	End of Tangent
2162.94	23.259	107.994	2131.27	End of Build (XS)
7293.44	23.259	107.994	6844.80	End of Tangent (XS)
8259.81	90.000	0.974	7436.00	End of 3D Arc (XS)
17994.78	90.000	0.974	7436.00	End of Tangent (XS)



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 1 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Ingmjmr
Scale	0.999975	Report Generated	10/20/2017 at 10:21:41 AM
Convergence at slot	0.49° East	Database/Source file	Jamie/ACKARD_NORTH_2-35-4NAH_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	0.55	209.95	3211844.91	1207894.39	39°54'05.661"N	104°44'41.663"W
Facility Reference Pt			3211634.96	1207893.83	39°54'05.673"N	104°44'44.357"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	5213.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5213.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02))	5213.00ft
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	8.33° East of TN	Dip Angle	66.48°	Mag Field Strength	52123 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 2 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## 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: ACKARD NORTH 2-35-4NAH PWB Ref Wellpath: ACKARD NORTH 2-35-4NAH 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	1789.64	0.00	0.00	-34.28	105.55
8.5in Open Hole	1800.00	17994.78	16194.78	1789.64	7436.00	-34.28	105.55	9600.71	2566.42

## SURVEY PROGRAM - Ref Wellbore: ACKARD NORTH 2-35-4NAH PWB Ref Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17994.78	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NAH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 3 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17994.78ft MD	C-C Cutoff: 1000.00 ft
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## OFFSET WELL CLEARANCE SUMMARY (36 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.35-T1S-R66W	SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315)	BOX ELDER FARMS 41-35 #5	BOX ELDER FARMS 41-35 #5 AWB	BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP	17629.27	106.35	17629.27	17629.49	0.01	17629.49	FAIL
SEC.02-T02S-R66W	SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR)	CARLSON #1	CARLSON #1 AWB	CARLSON #1 AWP	12424.86	17.73	12424.86	12427.41	0.05	12427.41	FAIL
SEC.35-T01S-R66W	SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360)	SLOT#01 EX CHAMPLIN 117 AMOCO G#1	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP	15002.93	55.90	15002.93	14996.82	0.13	14996.82	FAIL
SEC.02-T03S-R66W	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)	ACKARD NORTH 2-35-4NBH	ACKARD NORTH 2-35-4NBH	ACKARD NORTH 2-35-4NBH PWP (REV. A.0)	13.00	15.01	1000.00	17992.75	0.60	17992.75	FAIL
SEC.02-T03S-R66W	SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02)	ACKARD NORTH 2-35-4CDH	ACKARD NORTH 2-35-4CDH PWB	ACKARD NORTH 2-35-4CDH PWP (REV. A.0)	13.00	15.01	17994.78	7313.00	1.02	17994.78	PASS
SEC.02-T03S-R66W	SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02)	ACKARD NORTH 2-35-4NCH	ACKARD NORTH 2-35-4NCH PWB	ACKARD NORTH 2-35-4NCH PWP (REV. A.0)	13.00	29.96	1000.00	17989.95	1.27	17989.95	PASS
SEC.02-T03S-R66W	SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02)	ACKARD NORTH 2-35-3NAH	ACKARD NORTH 2-35-3NAH PWB	ACKARD NORTH 2-35-3NAH PWP (REV. A.0)	13.00	60.01	1000.00	17976.64	2.01	17976.64	PASS
SEC.02-T03S-R66W	SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02)	ACKARD NORTH 2-35-3CDH	ACKARD NORTH 2-35-3CDH PWB	ACKARD NORTH 2-35-3CDH PWP (REV. A.0)	13.00	45.00	1000.00	17987.17	2.03	17987.17	PASS
SEC.02-T03S-R66W	SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02)	ACKARD NORTH 2-35-3NBH	ACKARD NORTH 2-35-3NBH PWB	ACKARD NORTH 2-35-3NBH PWP (REV. A.0)	13.00	74.97	1000.00	17984.37	2.53	17984.37	PASS
SEC.35-T01S-R66W	SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 PR)	BOX ELDER FARMS 32-35#4	BOX ELDER FARMS 32-35#4 AWB	BOX ELDER FARMS 32-35#4 AWP	16346.15	1380.37	16346.15	16290.48	3.05	16290.48	PASS
SEC.02-T03S-R66W	SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02)	ACKARD NORTH 2-35-3NCH	ACKARD NORTH 2-35-3NCH PWB	ACKARD NORTH 2-35-3NCH PWP (REV. A.0)	13.00	89.98	1000.00	17981.61	3.22	17981.61	PASS
SEC.26-T01S-R66W	SLOT#01 EX MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, PR)	MAUL #44-26	MAUL #44-26 AWB	MAUL #44-26 AWP	17994.78	1025.13	17994.78	17994.78	3.25	17994.78	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360)	CHAMPLIN 117 AMOCO G#2	CHAMPLIN 117 AMOCO G#2 AWB	CHAMPLIN 117 AMOCO G#2 AWP	13713.00	1334.08	13713.00	13640.55	3.57	13640.55	PASS
SEC.11-T02S-R66W	SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR)	HSR-VAN SCHAACK #2-11	HSR-VAN SCHAACK #2-11 AWB	HSR-VAN SCHAACK #2-11 AWP	5400.50	768.48	5400.50	5913.00	3.66	5913.00	PASS
SEC.26-T01S-R66W	SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, PR)	MAUL #2	MAUL #2 AWB	MAUL #2 AWP	17994.78	1736.57	17994.78	17994.78	3.71	17994.78	PASS
SEC.02-T03S-R66W	SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02)	ACKARD NORTH 2-35-2NBH	ACKARD NORTH 2-35-2NBH	ACKARD NORTH 2-35-2NBH PWP (REV. A.0)	13.00	104.96	1000.00	17982.96	3.73	17982.96	PASS
SEC.01-T02S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410)	CHAMPLIN 117 AMOCO C#4	CHAMPLIN 117 AMOCO C#4 AWB	CHAMPLIN 117 AMOCO C#4 AWP	11110.19	1319.86	11110.19	11450.96	4.25	11450.96	PASS
SEC.02-T03S-R66W	SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02)	ACKARD NORTH 2-35-2NCH	ACKARD NORTH 2-35-2NCH PWB	ACKARD NORTH 2-35-2NCH PWP (REV. A.0)	13.00	119.94	1000.00	17980.52	4.41	17980.52	PASS
SEC.02-T03S-R66W	SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02)	ACKARD NORTH 2-35-2NAH	ACKARD NORTH 2-35-2NAH PWB	ACKARD NORTH 2-35-2NAH PWP (REV. A.0)	13.00	134.98	1000.00	17994.78	4.90	17994.78	PASS
SEC.02-T03S-R66W	SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02)	ACKARD NORTH 2-35-2CDH	ACKARD NORTH 2-35-2CDH PWB	ACKARD NORTH 2-35-2CDH PWP (REV. A.0)	13.00	149.96	1000.00	17994.78	5.14	17994.78	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,PR)	CHAMPLIN 117 AMOCO G#6	CHAMPLIN 117 AMOCO G#6 AWB	CHAMPLIN 117 AMOCO G#6 AWP	17632.92	2714.73	17632.92	17632.92	5.53	17632.92	PASS
SEC.26-T01S-R66W	SLOT#03 EX LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, PR)	LEECH #24-26	LEECH #24-26 AWB	LEECH #24-26 AWP	17994.78	2896.79	17994.78	17994.78	5.69	17994.78	PASS
SEC.02-T03S-R66W	SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02)	ACKARD NORTH 2-35-1NBH	ACKARD NORTH 2-35-1NBH PWB	ACKARD NORTH 2-35-1NBH PWP (REV. A.0)	13.00	164.98	1000.00	17994.78	5.75	17994.78	PASS
SEC.02-T03S-R66W	SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02)	ACKARD NORTH 2-35-1NCH	ACKARD NORTH 2-35-1NCH PWB	ACKARD NORTH 2-35-1NCH PWP (REV.A.0)	13.00	179.93	1000.00	17994.78	6.43	17994.78	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360)	SLOT#01 EX CHAMPLIN 117 AMOCO G#3	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP	14963.00	2666.99	14963.00	15013.00	6.51	15013.00	PASS





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 4 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 17994.78ft MD	C-C Cutoff: 1000.00 ft
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## OFFSET WELL CLEARANCE SUMMARY (36 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.02-T03S-R66W	SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02)	ACKARD NORTH 2-35-1NAH	ACKARD NORTH 2-35-1NAH PWB	ACKARD NORTH 2-35-1NAH PWP (REV-A.0)	13.00	194.94	813.00	17994.78	6.91	17994.78	PASS
SEC.02-T03S-R66W	SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02)	ACKARD NORTH 2-35-1CDH	ACKARD NORTH 2-35-1CDH PWB	ACKARD NORTH 2-35-1CDH PWP (REV-A.0)	13.00	209.95	713.00	17994.78	7.13	17994.78	PASS
SEC.02-T02S-R66W	SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, SI)	MARTIN #1	MARTIN #1 AWB	MARTIN #1 AWP	12388.00	2568.66	12388.00	12438.17	7.70	12438.17	PASS
SEC.26-T01S-R66W	SLOT#04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, PR)	LEECH #14-26	LEECH #14-26 AWB	LEECH #14-26 AWP	17994.78	4188.89	17994.78	17994.78	8.21	17994.78	PASS
SEC.35-T01S-R66W	SLOT#02 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,PR)	CHAMPLIN 117 AMOCO G#5	CHAMPLIN 117 AMOCO G#5 AWB	CHAMPLIN 117 AMOCO G#5 AWP	16225.50	4050.88	16225.50	16544.65	9.00	16544.65	PASS
SEC.02-T02S-R66W	SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390)	OTTER#1	OTTER#1 AWB	OTTER#1 AWP	13.00	1353.86	9713.00	8763.55	9.42	9713.00	PASS
SEC.35-T01S-R66W	SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, PR)	CHAMPLIN 117 G#4	CHAMPLIN 117 G#4 AWB	CHAMPLIN 117 G#4 AWP	13625.50	3951.99	13625.50	14013.00	10.65	14013.00	PASS
SEC.02-T02S-R66W	SLOT#02 EX HSR ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, PR)	HSR ACKARD #5-2	HSR ACKARD #5-2 AWB	HSR ACKARD #5-2 AWP	13.00	3064.76	11013.00	11513.00	13.23	11513.00	PASS
SEC.11-T02S-R66W	SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, PR)	HSR-VAN SCHAACK #4-11	HSR-VAN SCHAACK #4-11 AWB	HSR-VAN SCHAACK #4-11 AWP	113.00	1883.86	1000.00	8762.76	14.55	8762.76	PASS
SEC.03-T02S-R66W	SLOT#01 EX HSR LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, PR)	HSR LAWSON #8-3	HSR LAWSON #8-3 AWB	HSR LAWSON #8-3 AWP	113.00	3700.40	10713.00	11913.00	17.80	11913.00	PASS
SEC.03-T02S-R66W	SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR)	HSR-TR RANCH #16-3	HSR-TR RANCH #16-3 AWB	HSR-TR RANCH #16-3 AWP	113.00	2807.21	8313.00	8763.09	18.26	8763.09	PASS



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 5 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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	24.00	9236.76	2453.86	14.88	9557.16	25.40	388.44	PASS
113.00†	113.00	0.00	0.00	76.00	113.00	9236.76	2453.86	14.88	9557.15	66.45	145.58	PASS
213.00†	213.00	0.00	0.00	176.00	213.00	9236.76	2453.86	14.88	9557.15	97.16	99.17	PASS
313.00†	313.00	0.00	0.00	276.00	313.00	9236.76	2453.86	14.88	9557.15	129.99	73.97	PASS
413.00†	413.00	0.00	0.00	376.00	413.00	9236.76	2453.86	14.88	9557.15	163.43	58.76	PASS
513.00†	513.00	0.00	0.00	476.00	513.00	9236.76	2453.86	14.88	9557.15	197.14	48.67	PASS
613.00†	613.00	0.00	0.00	576.00	613.00	9236.76	2453.86	14.88	9557.15	230.97	41.52	PASS
713.00†	713.00	0.00	0.00	676.00	713.00	9236.76	2453.86	14.88	9557.15	264.89	36.19	PASS
813.00†	813.00	0.00	0.00	776.00	813.00	9236.76	2453.86	14.88	9557.15	298.86	32.06	PASS
913.00†	913.00	0.00	0.00	876.00	913.00	9236.76	2453.86	14.88	9557.15	332.86	28.78	PASS
1000.00	1000.00	0.00	0.00	963.00	1000.00	9236.76	2453.86	14.88	9557.15	362.46	26.42	PASS
1013.00†	1013.00	-0.01	0.03	976.00	1013.00	9236.76	2453.86	-93.12	9557.15	366.88	26.10	PASS
1113.00†	1112.97	-0.69	2.12	1075.97	1112.97	9236.76	2453.86	-93.13	9557.27	400.60	23.90	PASS
1213.00†	1212.80	-2.44	7.53	1175.80	1212.80	9236.76	2453.86	-93.16	9557.58	433.68	22.08	PASS
1313.00†	1312.38	-5.28	16.25	1275.38	1312.38	9236.76	2453.86	-93.20	9558.09	465.94	20.55	PASS
1413.00†	1411.57	-9.18	28.26	1374.57	1411.57	9236.76	2453.86	-93.26	9558.81	497.20	19.25	PASS
1513.00†	1510.26	-14.15	43.57	1473.26	1510.26	9236.76	2453.86	-93.34	9559.75	527.30	18.16	PASS
1613.00†	1608.33	-20.18	62.14	1571.33	1608.33	9236.76	2453.86	-93.43	9560.92	556.06	17.22	PASS
1713.00†	1705.66	-27.27	83.95	1668.66	1705.66	9236.76	2453.86	-93.53	9562.35	583.34	16.41	PASS
1813.00†	1802.13	-35.40	108.98	1765.13	1802.13	9236.76	2453.86	-93.65	9564.06	608.89	15.72	PASS
1913.00†	1897.62	-44.56	137.20	1860.62	1897.62	9236.76	2453.86	-93.78	9566.08	632.75	15.13	PASS
2013.00†	1992.02	-54.75	168.57	1955.02	1992.02	9236.76	2453.86	-93.92	9568.42	654.69	14.63	PASS
2113.00†	2085.21	-65.95	203.06	2048.21	2085.21	9236.76	2453.86	-94.07	9571.13	674.60	14.20	PASS
2162.94	2131.27	-71.92	221.43	2094.27	2131.27	9236.76	2453.86	-94.14	9572.63	683.74	14.01	PASS
2213.00†	2177.25	-78.03	240.23	2140.25	2177.25	9236.76	2453.86	-94.25	9574.20	692.51	13.84	PASS
2313.00†	2269.13	-90.23	277.79	2232.13	2269.13	9236.76	2453.86	-94.47	9577.47	709.35	13.51	PASS
2413.00†	2361.00	-102.42	315.35	2324.00	2361.00	9236.76	2453.86	-94.68	9580.89	725.27	13.22	PASS
2513.00†	2452.87	-114.62	352.91	2415.87	2452.87	9236.76	2453.86	-94.90	9584.48	740.28	12.96	PASS
2613.00†	2544.75	-126.82	390.46	2507.75	2544.75	9236.76	2453.86	-95.12	9588.23	754.36	12.72	PASS
2713.00†	2636.62	-139.02	428.02	2599.62	2636.62	9236.76	2453.86	-95.33	9592.14	767.52	12.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 6 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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†	2728.49	-151.22	465.58	2691.49	2728.49	9236.76	2453.86	-95.55	9596.22	779.76	12.32	PASS
2913.00†	2820.36	-163.42	503.14	2783.36	2820.36	9236.76	2453.86	-95.76	9600.45	791.06	12.15	PASS
3013.00†	2912.24	-175.61	540.69	2875.24	2912.24	9236.76	2453.86	-95.98	9604.84	801.44	11.99	PASS
3113.00†	3004.11	-187.81	578.25	2967.11	3004.11	9236.76	2453.86	-96.20	9609.39	810.88	11.86	PASS
3213.00†	3095.98	-200.01	615.81	3058.98	3095.98	9236.76	2453.86	-96.41	9614.11	819.39	11.74	PASS
3313.00†	3187.86	-212.21	653.36	3150.86	3187.86	9236.76	2453.86	-96.63	9618.98	826.96	11.64	PASS
3413.00†	3279.73	-224.41	690.92	3242.73	3279.73	9236.76	2453.86	-96.84	9624.01	833.61	11.55	PASS
3513.00†	3371.60	-236.61	728.48	3334.60	3371.60	9236.76	2453.86	-97.06	9629.20	839.31	11.48	PASS
3613.00†	3463.48	-248.81	766.04	3426.48	3463.48	9236.76	2453.86	-97.27	9634.56	844.09	11.42	PASS
3713.00†	3555.35	-261.00	803.59	3518.35	3555.35	9236.76	2453.86	-97.48	9640.06	847.92	11.38	PASS
3813.00†	3647.22	-273.20	841.15	3610.22	3647.22	9236.76	2453.86	-97.70	9645.73	850.83	11.35	PASS
3913.00†	3739.09	-285.40	878.71	3702.09	3739.09	9236.76	2453.86	-97.91	9651.56	852.80	11.33	PASS
4013.00†	3830.97	-297.60	916.27	3793.97	3830.97	9236.76	2453.86	-98.13	9657.54	853.84	11.32	PASS
4113.00†	3922.84	-309.80	953.82	3885.84	3922.84	9236.76	2453.86	-98.34	9663.69	853.96	11.32	PASS
4213.00†	4014.71	-322.00	991.38	3977.71	4014.71	9236.76	2453.86	-98.55	9669.99	853.14	11.34	PASS
4313.00†	4106.59	-334.19	1028.94	4069.59	4106.59	9236.76	2453.86	-98.76	9676.44	851.40	11.37	PASS
4413.00†	4198.46	-346.39	1066.49	4161.46	4198.46	9236.76	2453.86	-98.98	9683.06	848.74	11.42	PASS
4513.00†	4290.33	-358.59	1104.05	4253.33	4290.33	9236.76	2453.86	-99.19	9689.82	845.15	11.47	PASS
4613.00†	4382.21	-370.79	1141.61	4345.21	4382.21	9236.76	2453.86	-99.40	9696.75	840.65	11.54	PASS
4713.00†	4474.08	-382.99	1179.17	4437.08	4474.08	9236.76	2453.86	-99.61	9703.83	835.24	11.63	PASS
4813.00†	4565.95	-395.19	1216.72	4528.95	4565.95	9236.76	2453.86	-99.83	9711.07	828.92	11.72	PASS
4913.00†	4657.82	-407.39	1254.28	4620.82	4657.82	9236.76	2453.86	-100.04	9718.46	821.69	11.84	PASS
5013.00†	4749.70	-419.58	1291.84	4712.70	4749.70	9236.76	2453.86	-100.25	9726.01	813.56	11.96	PASS
5113.00†	4841.57	-431.78	1329.40	4804.57	4841.57	9236.76	2453.86	-100.46	9733.71	804.54	12.11	PASS
5213.00†	4933.44	-443.98	1366.95	4896.44	4933.44	9236.76	2453.86	-100.67	9741.56	794.62	12.27	PASS
5313.00†	5025.32	-456.18	1404.51	4988.32	5025.32	9236.76	2453.86	-100.88	9749.57	783.83	12.45	PASS
5413.00†	5117.19	-468.38	1442.07	5080.19	5117.19	9236.76	2453.86	-101.09	9757.73	772.16	12.65	PASS
5513.00†	5209.06	-480.58	1479.62	5172.06	5209.06	9236.76	2453.86	-101.30	9766.05	759.62	12.87	PASS
5613.00†	5300.94	-492.77	1517.18	5263.94	5300.94	9236.76	2453.86	-101.51	9774.52	746.22	13.11	PASS
5713.00†	5392.81	-504.97	1554.74	5355.81	5392.81	9236.76	2453.86	-101.72	9783.14	731.97	13.38	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 7 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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†	5484.68	-517.17	1592.30	5447.68	5484.68	9236.76	2453.86	-101.93	9791.91	716.88	13.67	PASS
5913.00†	5576.55	-529.37	1629.85	5539.55	5576.55	9236.76	2453.86	-102.13	9800.83	700.97	13.99	PASS
6013.00†	5668.43	-541.57	1667.41	5631.43	5668.43	9236.76	2453.86	-102.34	9809.90	684.24	14.35	PASS
6113.00†	5760.30	-553.77	1704.97	5723.30	5760.30	9236.76	2453.86	-102.55	9819.12	666.72	14.74	PASS
6213.00†	5852.17	-565.97	1742.53	5815.17	5852.17	9236.76	2453.86	-102.76	9828.50	648.43	15.17	PASS
6313.00†	5944.05	-578.16	1780.08	5907.05	5944.05	9236.76	2453.86	-102.96	9838.02	629.38	15.65	PASS
6413.00†	6035.92	-590.36	1817.64	5998.92	6035.92	9236.76	2453.86	-103.17	9847.69	609.61	16.17	PASS
6513.00†	6127.79	-602.56	1855.20	6090.79	6127.79	9236.76	2453.86	-103.38	9857.51	589.14	16.75	PASS
6613.00†	6219.67	-614.76	1892.76	6182.67	6219.67	9236.76	2453.86	-103.58	9867.48	568.01	17.39	PASS
6713.00†	6311.54	-626.96	1930.31	6274.54	6311.54	9236.76	2453.86	-103.79	9877.60	546.28	18.10	PASS
6813.00†	6403.41	-639.16	1967.87	6366.41	6403.41	9236.76	2453.86	-103.99	9887.86	524.00	18.89	PASS
6913.00†	6495.28	-651.36	2005.43	6458.28	6495.28	9236.76	2453.86	-104.20	9898.28	501.24	19.77	PASS
7013.00†	6587.16	-663.55	2042.98	6550.16	6587.16	9236.76	2453.86	-104.40	9908.83	478.11	20.75	PASS
7113.00†	6679.03	-675.75	2080.54	6642.03	6679.03	9236.76	2453.86	-104.61	9919.54	454.71	21.85	PASS
7213.00†	6770.90	-687.95	2118.10	6733.90	6770.90	9236.76	2453.86	-104.81	9930.39	431.23	23.06	PASS
7293.44	6844.80	-697.76	2148.31	6807.80	6844.80	9236.76	2453.86	-104.97	9939.22	412.41	24.14	PASS
7313.00†	6862.81	-699.82	2155.68	6825.81	6862.81	9236.76	2453.86	-100.54	9941.05	407.86	24.41	PASS
7413.00†	6955.18	-699.91	2193.64	6918.18	6955.18	9236.76	2453.86	-76.80	9940.07	384.97	25.87	PASS
7513.00†	7046.06	-682.65	2231.29	7009.06	7046.06	9236.76	2453.86	-56.97	9921.91	363.56	27.34	PASS
7613.00†	7132.69	-648.58	2267.48	7095.69	7132.69	9236.76	2453.86	-43.75	9887.10	344.25	28.78	PASS
7713.00†	7212.43	-598.73	2301.11	7175.43	7212.43	9236.76	2453.86	-35.51	9836.67	327.80	30.07	PASS
7813.00†	7282.86	-534.61	2331.15	7245.86	7282.86	9236.76	2453.86	-30.36	9772.14	314.79	31.11	PASS
7913.00†	7341.85	-458.17	2356.69	7304.85	7341.85	9236.76	2453.86	-27.20	9695.41	305.36	31.82	PASS
8013.00†	7387.59	-371.73	2376.97	7350.59	7387.59	9236.76	2453.86	-25.47	9608.80	299.19	32.19	PASS
8113.00†	7418.70	-277.92	2391.35	7381.70	7418.70	9236.76	2453.86	-25.17	9514.89	295.64	32.26	PASS
8213.00†	7434.23	-179.59	2399.41	7397.23	7434.23	9236.76	2453.86	-29.30	9416.51	293.97	32.11	PASS
8259.81	7436.00	-132.86	2400.93	7399.00	7436.00	9236.76	2453.86	-90.00	9369.76	293.69	31.98	PASS
8313.00†	7436.00	-79.67	2401.83	7399.00	7436.00	9236.76	2453.86	-90.00	9316.58	293.54	31.81	PASS
8413.00†	7436.00	20.31	2403.53	7399.00	7436.00	9236.76	2453.86	-90.00	9216.58	293.25	31.50	PASS
8513.00†	7436.00	120.30	2405.23	7399.00	7436.00	9236.76	2453.86	-90.00	9116.59	292.96	31.19	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 8 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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†	7436.00	220.28	2406.93	7399.00	7436.00	9236.76	2453.86	-90.00	9016.60	292.67	30.88	PASS
8713.00†	7436.00	320.27	2408.63	7399.00	7436.00	9236.76	2453.86	-90.00	8916.60	292.38	30.57	PASS
8813.00†	7436.00	420.25	2410.33	7399.00	7436.00	9236.76	2453.86	-90.00	8816.61	292.09	30.26	PASS
8913.00†	7436.00	520.24	2412.03	7399.00	7436.00	9236.76	2453.86	-90.00	8716.62	291.81	29.94	PASS
9013.00†	7436.00	620.23	2413.73	7399.00	7436.00	9236.76	2453.86	-90.00	8616.62	291.53	29.63	PASS
9113.00†	7436.00	720.21	2415.43	7399.00	7436.00	9236.76	2453.86	-90.00	8516.63	291.26	29.31	PASS
9213.00†	7436.00	820.20	2417.13	7399.00	7436.00	9236.76	2453.86	-90.00	8416.64	290.98	28.99	PASS
9313.00†	7436.00	920.18	2418.83	7399.00	7436.00	9236.76	2453.86	-90.00	8316.65	290.71	28.68	PASS
9413.00†	7436.00	1020.17	2420.53	7399.00	7436.00	9236.76	2453.86	-90.00	8216.66	290.45	28.36	PASS
9513.00†	7436.00	1120.15	2422.23	7399.00	7436.00	9236.76	2453.86	-90.00	8116.67	290.19	28.04	PASS
9613.00†	7436.00	1220.14	2423.93	7399.00	7436.00	9236.76	2453.86	-90.00	8016.67	289.94	27.71	PASS
9713.00†	7436.00	1320.12	2425.63	7399.00	7436.00	9236.76	2453.86	-90.00	7916.68	289.70	27.39	PASS
9813.00†	7436.00	1420.11	2427.33	7399.00	7436.00	9236.76	2453.86	-90.00	7816.69	289.46	27.07	PASS
9913.00†	7436.00	1520.10	2429.03	7399.00	7436.00	9236.76	2453.86	-90.00	7716.70	289.23	26.74	PASS
10013.00†	7436.00	1620.08	2430.73	7399.00	7436.00	9236.76	2453.86	-90.00	7616.71	289.01	26.42	PASS
10113.00†	7436.00	1720.07	2432.43	7399.00	7436.00	9236.76	2453.86	-90.00	7516.72	288.80	26.09	PASS
10213.00†	7436.00	1820.05	2434.13	7399.00	7436.00	9236.76	2453.86	-90.00	7416.73	288.61	25.76	PASS
10313.00†	7436.00	1920.04	2435.83	7399.00	7436.00	9236.76	2453.86	-90.00	7316.74	288.42	25.43	PASS
10413.00†	7436.00	2020.02	2437.53	7399.00	7436.00	9236.76	2453.86	-90.00	7216.75	288.25	25.10	PASS
10513.00†	7436.00	2120.01	2439.23	7399.00	7436.00	9236.76	2453.86	-90.00	7116.76	288.10	24.76	PASS
10613.00†	7436.00	2219.99	2440.93	7399.00	7436.00	9236.76	2453.86	-90.00	7016.77	287.96	24.42	PASS
10713.00†	7436.00	2319.98	2442.63	7399.00	7436.00	9236.76	2453.86	-90.00	6916.79	287.85	24.09	PASS
10813.00†	7436.00	2419.97	2444.33	7399.00	7436.00	9236.76	2453.86	-90.00	6816.80	287.75	23.75	PASS
10913.00†	7436.00	2519.95	2446.03	7399.00	7436.00	9236.76	2453.86	-90.00	6716.81	287.68	23.40	PASS
11013.00†	7436.00	2619.94	2447.73	7399.00	7436.00	9236.76	2453.86	-90.00	6616.82	287.63	23.06	PASS
11113.00†	7436.00	2719.92	2449.43	7399.00	7436.00	9236.76	2453.86	-90.00	6516.84	287.61	22.71	PASS
11213.00†	7436.00	2819.91	2451.13	7399.00	7436.00	9236.76	2453.86	-90.00	6416.85	287.62	22.36	PASS
11313.00†	7436.00	2919.89	2452.83	7399.00	7436.00	9236.76	2453.86	-90.00	6316.86	287.66	22.01	PASS
11413.00†	7436.00	3019.88	2454.53	7399.00	7436.00	9236.76	2453.86	-90.00	6216.88	287.74	21.66	PASS
11513.00†	7436.00	3119.86	2456.23	7399.00	7436.00	9236.76	2453.86	-90.00	6116.89	287.86	21.30	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 9 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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†	7436.00	3219.85	2457.93	7399.00	7436.00	9236.76	2453.86	-90.00	6016.91	288.03	20.94	PASS
11713.00†	7436.00	3319.84	2459.63	7399.00	7436.00	9236.76	2453.86	-90.00	5916.92	288.24	20.58	PASS
11813.00†	7436.00	3419.82	2461.33	7399.00	7436.00	9236.76	2453.86	-90.00	5816.94	288.51	20.21	PASS
11913.00†	7436.00	3519.81	2463.03	7399.00	7436.00	9236.76	2453.86	-90.00	5716.96	288.83	19.84	PASS
12013.00†	7436.00	3619.79	2464.73	7399.00	7436.00	9236.76	2453.86	-90.00	5616.98	289.22	19.47	PASS
12113.00†	7436.00	3719.78	2466.43	7399.00	7436.00	9236.76	2453.86	-90.00	5516.99	289.67	19.09	PASS
12213.00†	7436.00	3819.76	2468.13	7399.00	7436.00	9236.76	2453.86	-90.00	5417.01	290.21	18.71	PASS
12313.00†	7436.00	3919.75	2469.83	7399.00	7436.00	9236.76	2453.86	-90.00	5317.03	290.82	18.32	PASS
12413.00†	7436.00	4019.73	2471.53	7399.00	7436.00	9236.76	2453.86	-90.00	5217.05	291.53	17.94	PASS
12513.00†	7436.00	4119.72	2473.23	7399.00	7436.00	9236.76	2453.86	-90.00	5117.07	292.34	17.54	PASS
12613.00†	7436.00	4219.71	2474.93	7399.00	7436.00	9236.76	2453.86	-90.00	5017.10	293.25	17.15	PASS
12713.00†	7436.00	4319.69	2476.63	7399.00	7436.00	9236.76	2453.86	-90.00	4917.12	294.29	16.75	PASS
12813.00†	7436.00	4419.68	2478.33	7399.00	7436.00	9236.76	2453.86	-90.00	4817.14	295.46	16.34	PASS
12913.00†	7436.00	4519.66	2480.03	7399.00	7436.00	9236.76	2453.86	-90.00	4717.17	296.77	15.93	PASS
13013.00†	7436.00	4619.65	2481.73	7399.00	7436.00	9236.76	2453.86	-90.00	4617.19	298.25	15.52	PASS
13113.00†	7436.00	4719.63	2483.43	7399.00	7436.00	9236.76	2453.86	-90.00	4517.22	299.89	15.10	PASS
13213.00†	7436.00	4819.62	2485.13	7399.00	7436.00	9236.76	2453.86	-90.00	4417.25	301.73	14.67	PASS
13313.00†	7436.00	4919.60	2486.83	7399.00	7436.00	9236.76	2453.86	-90.00	4317.28	303.77	14.24	PASS
13413.00†	7436.00	5019.59	2488.53	7399.00	7436.00	9236.76	2453.86	-90.00	4217.31	306.04	13.81	PASS
13513.00†	7436.00	5119.57	2490.23	7399.00	7436.00	9236.76	2453.86	-90.00	4117.34	308.57	13.37	PASS
13613.00†	7436.00	5219.56	2491.93	7399.00	7436.00	9236.76	2453.86	-90.00	4017.38	311.37	12.93	PASS
13713.00†	7436.00	5319.55	2493.63	7399.00	7436.00	9236.76	2453.86	-90.00	3917.41	314.47	12.48	PASS
13813.00†	7436.00	5419.53	2495.33	7399.00	7436.00	9236.76	2453.86	-90.00	3817.45	317.91	12.03	PASS
13913.00†	7436.00	5519.52	2497.03	7399.00	7436.00	9236.76	2453.86	-90.00	3717.49	321.71	11.58	PASS
14013.00†	7436.00	5619.50	2498.73	7399.00	7436.00	9236.76	2453.86	-90.00	3617.53	325.91	11.12	PASS
14113.00†	7436.00	5719.49	2500.43	7399.00	7436.00	9236.76	2453.86	-90.00	3517.58	330.55	10.66	PASS
14213.00†	7436.00	5819.47	2502.13	7399.00	7436.00	9236.76	2453.86	-90.00	3417.62	335.69	10.20	PASS
14313.00†	7436.00	5919.46	2503.83	7399.00	7436.00	9236.76	2453.86	-90.00	3317.67	341.35	9.74	PASS
14413.00†	7436.00	6019.44	2505.53	7399.00	7436.00	9236.76	2453.86	-90.00	3217.73	347.61	9.27	PASS
14513.00†	7436.00	6119.43	2507.23	7399.00	7436.00	9236.76	2453.86	-90.00	3117.78	354.52	8.81	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 10 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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†	7436.00	6219.42	2508.93	7399.00	7436.00	9236.76	2453.86	-90.00	3017.84	362.15	8.35	PASS
14713.00†	7436.00	6319.40	2510.63	7399.00	7436.00	9236.76	2453.86	-90.00	2917.91	370.59	7.89	PASS
14813.00†	7436.00	6419.39	2512.33	7399.00	7436.00	9236.76	2453.86	-90.00	2817.98	379.91	7.43	PASS
14913.00†	7436.00	6519.37	2514.03	7399.00	7436.00	9236.76	2453.86	-90.00	2718.05	390.22	6.98	PASS
15013.00†	7436.00	6619.36	2515.73	7399.00	7436.00	9236.76	2453.86	-90.00	2618.13	401.64	6.53	PASS
15113.00†	7436.00	6719.34	2517.43	7399.00	7436.00	9236.76	2453.86	-90.00	2518.22	414.29	6.09	PASS
15213.00†	7436.00	6819.33	2519.13	7399.00	7436.00	9236.76	2453.86	-90.00	2418.31	428.33	5.65	PASS
15313.00†	7436.00	6919.31	2520.83	7399.00	7436.00	9236.76	2453.86	-90.00	2318.41	443.93	5.23	PASS
15413.00†	7436.00	7019.30	2522.53	7399.00	7436.00	9236.76	2453.86	-90.00	2218.52	461.31	4.82	PASS
15513.00†	7436.00	7119.29	2524.23	7399.00	7436.00	9236.76	2453.86	-90.00	2118.64	480.71	4.41	PASS
15613.00†	7436.00	7219.27	2525.93	7399.00	7436.00	9236.76	2453.86	-90.00	2018.77	502.42	4.02	PASS
15713.00†	7436.00	7319.26	2527.63	7399.00	7436.00	9236.76	2453.86	-90.00	1918.92	526.81	3.65	PASS
15813.00†	7436.00	7419.24	2529.33	7399.00	7436.00	9236.76	2453.86	-90.00	1819.08	554.29	3.28	PASS
15913.00†	7436.00	7519.23	2531.03	7399.00	7436.00	9236.76	2453.86	-90.00	1719.26	585.39	2.94	PASS
16013.00†	7436.00	7619.21	2532.73	7399.00	7436.00	9236.76	2453.86	-90.00	1619.46	620.78	2.61	PASS
16113.00†	7436.00	7719.20	2534.43	7399.00	7436.00	9236.76	2453.86	-90.00	1519.69	661.28	2.30	PASS
16213.00†	7436.00	7819.18	2536.13	7399.00	7436.00	9236.76	2453.86	-90.00	1419.96	707.95	2.01	PASS
16313.00†	7436.00	7919.17	2537.83	7399.00	7436.00	9236.76	2453.86	-90.00	1320.26	762.17	1.73	PASS
16413.00†	7436.00	8019.16	2539.53	7399.00	7436.00	9236.76	2453.86	-90.00	1220.61	825.75	1.48	PASS
16513.00†	7436.00	8119.14	2541.23	7399.00	7436.00	9236.76	2453.86	-90.00	1121.02	901.15	1.24	PASS
16613.00†	7436.00	8219.13	2542.93	7399.00	7436.00	9236.76	2453.86	-90.00	1021.52	991.78	1.03	PASS
16713.00†	7436.00	8319.11	2544.63	7399.00	7436.00	9236.76	2453.86	-90.00	922.12	1102.50	0.84	FAIL
16813.00†	7436.00	8419.10	2546.33	7399.00	7436.00	9236.76	2453.86	-90.00	822.87	1240.46	0.66	FAIL
16913.00†	7436.00	8519.08	2548.03	7399.00	7436.00	9236.76	2453.86	-90.00	723.82	1416.64	0.51	FAIL
17013.00†	7436.00	8619.07	2549.73	7399.00	7436.00	9236.76	2453.86	-90.00	625.08	1648.76	0.38	FAIL
17113.00†	7436.00	8719.05	2551.43	7399.00	7436.00	9236.76	2453.86	-90.00	526.82	1967.24	0.27	FAIL
17213.00†	7436.00	8819.04	2553.13	7399.00	7436.00	9236.76	2453.86	-90.00	429.35	2428.52	0.18	FAIL
17313.00†	7436.00	8919.03	2554.83	7399.00	7436.00	9236.76	2453.86	-90.00	333.39	3148.17	0.11	FAIL
17413.00†	7436.00	9019.01	2556.53	7399.00	7436.00	9236.76	2453.86	-90.00	240.74	4390.92	0.05	FAIL
17513.00†	7436.00	9119.00	2558.23	7399.00	7436.00	9236.76	2453.86	-90.00	157.35	6769.82	0.02	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 11 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 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
17613.00†	7436.00	9218.98	2559.93	7399.00	7436.00	9236.76	2453.86	-90.00	107.55	9989.91	0.01	FAIL
17629.27†	7436.00	9235.25	2560.21	7398.65	7435.65	9236.76	2453.86	-89.81	106.35	10116.34	0.01	FAIL
17629.49†	7436.00	9235.47	2560.21	7399.00	7436.00	9236.76	2453.86	-90.00	106.35	10117.01	0.01	FAIL
17713.00†	7436.00	9318.97	2561.63	7399.00	7436.00	9236.76	2453.86	-90.00	135.54	8003.81	0.02	FAIL
17813.00†	7436.00	9418.95	2563.33	7399.00	7436.00	9236.76	2453.86	-90.00	212.55	5163.83	0.04	FAIL
17913.00†	7436.00	9518.94	2565.03	7399.00	7436.00	9236.76	2453.86	-90.00	303.29	3672.23	0.08	FAIL
17994.78	7436.00	9600.71	2566.42	7399.00	7436.00	9236.76	2453.86	-90.00	380.96	2965.48	0.13	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 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: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8315.00	BHI Drift Indicator - Estimated Azimuth (Standard)	ASSUMED VERTICAL TO TD <8315>	BOX ELDER FARMS 41-35 #5 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

MD Reference: Rig on SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 12 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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	40.00	13.00	4031.29	2489.46	31.70	4738.01	50.94	94.48	PASS
113.00†	113.00	0.00	0.00	140.00	113.00	4031.29	2489.46	31.70	4738.01	53.29	90.26	PASS
213.00†	213.00	0.00	0.00	240.00	213.00	4031.29	2489.46	31.70	4738.01	55.63	86.39	PASS
313.00†	313.00	0.00	0.00	340.00	313.00	4031.29	2489.46	31.70	4738.01	57.99	82.84	PASS
413.00†	413.00	0.00	0.00	440.00	413.00	4031.29	2489.46	31.70	4738.01	60.34	79.56	PASS
513.00†	513.00	0.00	0.00	540.00	513.00	4031.29	2489.46	31.70	4738.01	62.70	76.53	PASS
613.00†	613.00	0.00	0.00	640.00	613.00	4031.29	2489.46	31.70	4738.01	65.07	73.71	PASS
713.00†	713.00	0.00	0.00	740.00	713.00	4031.29	2489.46	31.70	4738.01	67.44	71.09	PASS
813.00†	813.00	0.00	0.00	840.00	813.00	4031.29	2489.46	31.70	4738.01	69.81	68.65	PASS
913.00†	913.00	0.00	0.00	940.00	913.00	4031.29	2489.46	31.70	4738.01	72.18	66.36	PASS
1000.00	1000.00	0.00	0.00	1027.00	1000.00	4031.29	2489.46	31.70	4738.01	74.25	64.49	PASS
1013.00†	1013.00	-0.01	0.03	1040.00	1013.00	4031.29	2489.46	-76.30	4738.00	74.56	64.22	PASS
1113.00†	1112.97	-0.69	2.12	1139.97	1112.97	4031.29	2489.46	-76.33	4737.48	76.95	62.21	PASS
1213.00†	1212.80	-2.44	7.53	1239.80	1212.80	4031.29	2489.46	-76.43	4736.14	79.34	60.30	PASS
1313.00†	1312.38	-5.28	16.25	1339.38	1312.38	4031.29	2489.46	-76.58	4733.99	81.73	58.49	PASS
1413.00†	1411.57	-9.18	28.26	1438.57	1411.57	4031.29	2489.46	-76.78	4731.06	84.12	56.78	PASS
1513.00†	1510.26	-14.15	43.57	1537.26	1510.26	4031.29	2489.46	-77.04	4727.37	86.51	55.15	PASS
1613.00†	1608.33	-20.18	62.14	1635.33	1608.33	4031.29	2489.46	-77.35	4722.96	88.91	53.59	PASS
1713.00†	1705.66	-27.27	83.95	1732.66	1705.66	4031.29	2489.46	-77.72	4717.88	91.33	52.11	PASS
1813.00†	1802.13	-35.40	108.98	1829.13	1802.13	4031.29	2489.46	-78.13	4712.18	93.66	50.69	PASS
1913.00†	1897.62	-44.56	137.20	1924.62	1897.62	4031.29	2489.46	-78.59	4705.93	96.12	49.32	PASS
2013.00†	1992.02	-54.75	168.57	2019.02	1992.02	4031.29	2489.46	-79.10	4699.18	98.61	47.99	PASS
2113.00†	2085.21	-65.95	203.06	2112.21	2085.21	4031.29	2489.46	-79.64	4692.02	101.14	46.71	PASS
2162.94	2131.27	-71.92	221.43	2158.27	2131.27	4031.29	2489.46	-79.93	4688.32	102.42	46.09	PASS
2213.00†	2177.25	-78.03	240.23	2204.25	2177.25	4031.29	2489.46	-80.15	4684.61	103.72	45.47	PASS
2313.00†	2269.13	-90.23	277.79	2296.13	2269.13	4031.29	2489.46	-80.59	4677.44	106.36	44.27	PASS
2413.00†	2361.00	-102.42	315.35	2388.00	2361.00	4031.29	2489.46	-81.03	4670.59	109.05	43.10	PASS
2513.00†	2452.87	-114.62	352.91	2479.87	2452.87	4031.29	2489.46	-81.47	4664.06	111.80	41.98	PASS
2613.00†	2544.75	-126.82	390.46	2571.75	2544.75	4031.29	2489.46	-81.91	4657.87	114.60	40.89	PASS
2713.00†	2636.62	-139.02	428.02	2663.62	2636.62	4031.29	2489.46	-82.36	4651.99	117.45	39.84	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 13 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
2813.00†	2728.49	-151.22	465.58	2755.49	2728.49	4031.29	2489.46	-82.80	4646.45	120.34	38.83	PASS
2913.00†	2820.36	-163.42	503.14	2847.36	2820.36	4031.29	2489.46	-83.25	4641.24	123.27	37.86	PASS
3013.00†	2912.24	-175.61	540.69	2939.24	2912.24	4031.29	2489.46	-83.69	4636.35	126.23	36.93	PASS
3113.00†	3004.11	-187.81	578.25	3031.11	3004.11	4031.29	2489.46	-84.14	4631.80	129.24	36.03	PASS
3213.00†	3095.98	-200.01	615.81	3122.98	3095.98	4031.29	2489.46	-84.59	4627.58	132.27	35.17	PASS
3313.00†	3187.86	-212.21	653.36	3214.86	3187.86	4031.29	2489.46	-85.03	4623.70	135.34	34.34	PASS
3413.00†	3279.73	-224.41	690.92	3306.73	3279.73	4031.29	2489.46	-85.48	4620.15	138.43	33.54	PASS
3513.00†	3371.60	-236.61	728.48	3398.60	3371.60	4031.29	2489.46	-85.93	4616.93	141.55	32.78	PASS
3613.00†	3463.48	-248.81	766.04	3490.48	3463.48	4031.29	2489.46	-86.38	4614.05	144.69	32.04	PASS
3713.00†	3555.35	-261.00	803.59	3582.35	3555.35	4031.29	2489.46	-86.83	4611.50	147.85	31.34	PASS
3813.00†	3647.22	-273.20	841.15	3674.22	3647.22	4031.29	2489.46	-87.28	4609.30	151.03	30.66	PASS
3913.00†	3739.09	-285.40	878.71	3766.09	3739.09	4031.29	2489.46	-87.73	4607.43	154.22	30.01	PASS
4013.00†	3830.97	-297.60	916.27	3857.97	3830.97	4031.29	2489.46	-88.18	4605.89	157.44	29.38	PASS
4113.00†	3922.84	-309.80	953.82	3949.84	3922.84	4031.29	2489.46	-88.63	4604.70	160.67	28.78	PASS
4213.00†	4014.71	-322.00	991.38	4041.71	4014.71	4031.29	2489.46	-89.09	4603.84	163.91	28.21	PASS
4313.00†	4106.59	-334.19	1028.94	4133.59	4106.59	4031.29	2489.46	-89.54	4603.33	167.16	27.65	PASS
4413.00†	4198.46	-346.39	1066.49	4225.46	4198.46	4031.29	2489.46	-89.99	4603.15	170.42	27.12	PASS
4513.00†	4290.33	-358.59	1104.05	4317.33	4290.33	4031.29	2489.46	-90.44	4603.31	173.69	26.61	PASS
4613.00†	4382.21	-370.79	1141.61	4409.21	4382.21	4031.29	2489.46	-90.89	4603.81	176.97	26.11	PASS
4713.00†	4474.08	-382.99	1179.17	4501.08	4474.08	4031.29	2489.46	-91.34	4604.65	180.26	25.64	PASS
4813.00†	4565.95	-395.19	1216.72	4592.95	4565.95	4031.29	2489.46	-91.79	4605.82	183.55	25.19	PASS
4913.00†	4657.82	-407.39	1254.28	4684.82	4657.82	4031.29	2489.46	-92.25	4607.34	186.85	24.75	PASS
5013.00†	4749.70	-419.58	1291.84	4776.70	4749.70	4031.29	2489.46	-92.70	4609.19	190.16	24.33	PASS
5113.00†	4841.57	-431.78	1329.40	4868.57	4841.57	4031.29	2489.46	-93.15	4611.38	193.46	23.92	PASS
5213.00†	4933.44	-443.98	1366.95	4960.44	4933.44	4031.29	2489.46	-93.60	4613.90	196.78	23.53	PASS
5313.00†	5025.32	-456.18	1404.51	5052.32	5025.32	4031.29	2489.46	-94.05	4616.77	200.09	23.15	PASS
5413.00†	5117.19	-468.38	1442.07	5144.19	5117.19	4031.29	2489.46	-94.49	4619.97	203.40	22.79	PASS
5513.00†	5209.06	-480.58	1479.62	5236.06	5209.06	4031.29	2489.46	-94.94	4623.50	206.72	22.44	PASS
5613.00†	5300.94	-492.77	1517.18	5327.94	5300.94	4031.29	2489.46	-95.39	4627.37	210.03	22.10	PASS
5713.00†	5392.81	-504.97	1554.74	5419.81	5392.81	4031.29	2489.46	-95.84	4631.57	213.35	21.78	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 14 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
5813.00†	5484.68	-517.17	1592.30	5511.68	5484.68	4031.29	2489.46	-96.29	4636.10	216.67	21.46	PASS
5913.00†	5576.55	-529.37	1629.85	5603.55	5576.55	4031.29	2489.46	-96.73	4640.97	219.98	21.16	PASS
6013.00†	5668.43	-541.57	1667.41	5695.43	5668.43	4031.29	2489.46	-97.18	4646.16	223.29	20.87	PASS
6113.00†	5760.30	-553.77	1704.97	5787.30	5760.30	4031.29	2489.46	-97.62	4651.69	226.61	20.59	PASS
6213.00†	5852.17	-565.97	1742.53	5879.17	5852.17	4031.29	2489.46	-98.06	4657.54	229.91	20.32	PASS
6313.00†	5944.05	-578.16	1780.08	5971.05	5944.05	4031.29	2489.46	-98.51	4663.72	233.22	20.05	PASS
6413.00†	6035.92	-590.36	1817.64	6062.92	6035.92	4031.29	2489.46	-98.95	4670.23	236.52	19.80	PASS
6513.00†	6127.79	-602.56	1855.20	6154.79	6127.79	4031.29	2489.46	-99.39	4677.06	239.82	19.56	PASS
6613.00†	6219.67	-614.76	1892.76	6246.67	6219.67	4031.29	2489.46	-99.83	4684.21	243.12	19.32	PASS
6713.00†	6311.54	-626.96	1930.31	6338.54	6311.54	4031.29	2489.46	-100.26	4691.69	246.41	19.09	PASS
6813.00†	6403.41	-639.16	1967.87	6430.41	6403.41	4031.29	2489.46	-100.70	4699.49	249.70	18.87	PASS
6913.00†	6495.28	-651.36	2005.43	6522.28	6495.28	4031.29	2489.46	-101.14	4707.60	252.98	18.66	PASS
7013.00†	6587.16	-663.55	2042.98	6614.16	6587.16	4031.29	2489.46	-101.57	4716.03	256.26	18.45	PASS
7113.00†	6679.03	-675.75	2080.54	6706.03	6679.03	4031.29	2489.46	-102.00	4724.77	259.53	18.25	PASS
7213.00†	6770.90	-687.95	2118.10	6797.90	6770.90	4031.29	2489.46	-102.43	4733.83	262.80	18.06	PASS
7293.44	6844.80	-697.76	2148.31	6871.80	6844.80	4031.29	2489.46	-102.78	4741.35	265.42	17.91	PASS
7313.00†	6862.81	-699.82	2155.68	6889.81	6862.81	4031.29	2489.46	-98.39	4742.87	266.06	17.87	PASS
7413.00†	6955.18	-699.91	2193.64	6982.18	6955.18	4031.29	2489.46	-74.87	4740.44	269.42	17.64	PASS
7513.00†	7046.06	-682.65	2231.29	7073.06	7046.06	4031.29	2489.46	-55.19	4721.01	273.03	17.33	PASS
7613.00†	7132.69	-648.58	2267.48	7159.69	7132.69	4031.29	2489.46	-42.07	4685.14	276.46	16.99	PASS
7713.00†	7212.43	-598.73	2301.11	7239.43	7212.43	4031.29	2489.46	-33.86	4633.85	279.56	16.62	PASS
7813.00†	7282.86	-534.61	2331.15	7309.86	7282.86	4031.29	2489.46	-28.69	4568.65	282.23	16.23	PASS
7913.00†	7341.85	-458.17	2356.69	7368.85	7341.85	4031.29	2489.46	-25.38	4491.42	284.42	15.83	PASS
8013.00†	7387.59	-371.73	2376.97	7414.59	7387.59	4031.29	2489.46	-23.25	4404.46	286.09	15.43	PASS
8113.00†	7418.70	-277.92	2391.35	7445.70	7418.70	4031.29	2489.46	-21.80	4310.33	287.19	15.04	PASS
8213.00†	7434.23	-179.59	2399.41	7461.23	7434.23	4031.29	2489.46	-19.51	4211.85	287.72	14.67	PASS
8259.81	7436.00	-132.86	2400.93	7463.00	7436.00	4031.29	2489.46	90.00	4165.09	287.78	14.51	PASS
8313.00†	7436.00	-79.67	2401.83	7463.00	7436.00	4031.29	2489.46	90.00	4111.90	287.78	14.32	PASS
8413.00†	7436.00	20.31	2403.53	7463.00	7436.00	4031.29	2489.46	90.00	4011.90	287.77	13.97	PASS
8513.00†	7436.00	120.30	2405.23	7463.00	7436.00	4031.29	2489.46	90.00	3911.90	287.75	13.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 15 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
8613.00†	7436.00	220.28	2406.93	7463.00	7436.00	4031.29	2489.46	90.00	3811.90	287.74	13.28	PASS
8713.00†	7436.00	320.27	2408.63	7463.00	7436.00	4031.29	2489.46	90.00	3711.90	287.73	12.93	PASS
8813.00†	7436.00	420.25	2410.33	7463.00	7436.00	4031.29	2489.46	90.00	3611.91	287.72	12.58	PASS
8913.00†	7436.00	520.24	2412.03	7463.00	7436.00	4031.29	2489.46	90.00	3511.91	287.71	12.23	PASS
9013.00†	7436.00	620.23	2413.73	7463.00	7436.00	4031.29	2489.46	90.00	3411.91	287.70	11.89	PASS
9113.00†	7436.00	720.21	2415.43	7463.00	7436.00	4031.29	2489.46	90.00	3311.91	287.69	11.54	PASS
9213.00†	7436.00	820.20	2417.13	7463.00	7436.00	4031.29	2489.46	90.00	3211.91	287.68	11.19	PASS
9313.00†	7436.00	920.18	2418.83	7463.00	7436.00	4031.29	2489.46	90.00	3111.91	287.67	10.84	PASS
9413.00†	7436.00	1020.17	2420.53	7463.00	7436.00	4031.29	2489.46	90.00	3011.91	287.65	10.49	PASS
9513.00†	7436.00	1120.15	2422.23	7463.00	7436.00	4031.29	2489.46	90.00	2911.92	287.64	10.15	PASS
9613.00†	7436.00	1220.14	2423.93	7463.00	7436.00	4031.29	2489.46	90.00	2811.92	287.63	9.80	PASS
9713.00†	7436.00	1320.12	2425.63	7463.00	7436.00	4031.29	2489.46	90.00	2711.92	287.61	9.45	PASS
9813.00†	7436.00	1420.11	2427.33	7463.00	7436.00	4031.29	2489.46	90.00	2611.92	287.60	9.10	PASS
9913.00†	7436.00	1520.10	2429.03	7463.00	7436.00	4031.29	2489.46	90.00	2511.93	287.58	8.75	PASS
10013.00†	7436.00	1620.08	2430.73	7463.00	7436.00	4031.29	2489.46	90.00	2411.93	287.56	8.41	PASS
10113.00†	7436.00	1720.07	2432.43	7463.00	7436.00	4031.29	2489.46	90.00	2311.93	287.54	8.06	PASS
10213.00†	7436.00	1820.05	2434.13	7463.00	7436.00	4031.29	2489.46	90.00	2211.93	287.51	7.71	PASS
10313.00†	7436.00	1920.04	2435.83	7463.00	7436.00	4031.29	2489.46	90.00	2111.94	287.49	7.36	PASS
10413.00†	7436.00	2020.02	2437.53	7463.00	7436.00	4031.29	2489.46	90.00	2011.94	287.46	7.01	PASS
10513.00†	7436.00	2120.01	2439.23	7463.00	7436.00	4031.29	2489.46	90.00	1911.94	287.42	6.67	PASS
10613.00†	7436.00	2219.99	2440.93	7463.00	7436.00	4031.29	2489.46	90.00	1811.95	287.38	6.32	PASS
10713.00†	7436.00	2319.98	2442.63	7463.00	7436.00	4031.29	2489.46	90.00	1711.95	287.34	5.97	PASS
10813.00†	7436.00	2419.97	2444.33	7463.00	7436.00	4031.29	2489.46	90.00	1611.96	287.29	5.62	PASS
10913.00†	7436.00	2519.95	2446.03	7463.00	7436.00	4031.29	2489.46	90.00	1511.97	287.23	5.27	PASS
11013.00†	7436.00	2619.94	2447.73	7463.00	7436.00	4031.29	2489.46	90.00	1411.97	287.16	4.93	PASS
11113.00†	7436.00	2719.92	2449.43	7463.00	7436.00	4031.29	2489.46	90.00	1311.98	287.08	4.58	PASS
11213.00†	7436.00	2819.91	2451.13	7463.00	7436.00	4031.29	2489.46	90.00	1211.99	286.98	4.23	PASS
11313.00†	7436.00	2919.89	2452.83	7463.00	7436.00	4031.29	2489.46	90.00	1112.00	286.86	3.88	PASS
11413.00†	7436.00	3019.88	2454.53	7463.00	7436.00	4031.29	2489.46	90.00	1012.02	286.72	3.54	PASS
11513.00†	7436.00	3119.86	2456.23	7463.00	7436.00	4031.29	2489.46	90.00	912.03	286.54	3.19	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 16 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
11613.00†	7436.00	3219.85	2457.93	7463.00	7436.00	4031.29	2489.46	90.00	812.06	286.31	2.84	PASS
11713.00†	7436.00	3319.84	2459.63	7463.00	7436.00	4031.29	2489.46	90.00	712.08	286.01	2.49	PASS
11813.00†	7436.00	3419.82	2461.33	7463.00	7436.00	4031.29	2489.46	90.00	612.12	285.61	2.15	PASS
11913.00†	7436.00	3519.81	2463.03	7463.00	7436.00	4031.29	2489.46	90.00	512.17	285.05	1.80	PASS
12013.00†	7436.00	3619.79	2464.73	7463.00	7436.00	4031.29	2489.46	90.00	412.24	284.20	1.45	PASS
12113.00†	7436.00	3719.78	2466.43	7463.00	7436.00	4031.29	2489.46	90.00	312.37	282.79	1.10	PASS
12213.00†	7436.00	3819.76	2468.13	7463.00	7436.00	4031.29	2489.46	90.00	212.60	280.05	0.76	FAIL
12313.00†	7436.00	3919.75	2469.83	7463.00	7436.00	4031.29	2489.46	90.00	113.26	272.62	0.41	FAIL
12413.00†	7436.00	4019.73	2471.53	7463.00	7436.00	4031.29	2489.46	90.00	21.34	281.10	0.07	FAIL
12424.86†	7436.00	4031.59	2471.73	7462.98	7435.98	4031.29	2489.46	89.95	17.73	335.53	0.05	FAIL
12427.41†	7436.00	4034.14	2471.78	7463.00	7436.00	4031.29	2489.46	90.00	17.92	344.08	0.05	FAIL
12513.00†	7436.00	4119.72	2473.23	7463.00	7436.00	4031.29	2489.46	90.00	89.90	308.96	0.29	FAIL
12613.00†	7436.00	4219.71	2474.93	7463.00	7436.00	4031.29	2489.46	90.00	188.97	298.56	0.63	FAIL
12713.00†	7436.00	4319.69	2476.63	7463.00	7436.00	4031.29	2489.46	90.00	288.68	295.25	0.98	FAIL
12813.00†	7436.00	4419.68	2478.33	7463.00	7436.00	4031.29	2489.46	90.00	388.54	293.64	1.32	PASS
12913.00†	7436.00	4519.66	2480.03	7463.00	7436.00	4031.29	2489.46	90.00	488.46	292.70	1.67	PASS
13013.00†	7436.00	4619.65	2481.73	7463.00	7436.00	4031.29	2489.46	90.00	588.40	292.09	2.02	PASS
13113.00†	7436.00	4719.63	2483.43	7463.00	7436.00	4031.29	2489.46	90.00	688.37	291.66	2.36	PASS
13213.00†	7436.00	4819.62	2485.13	7463.00	7436.00	4031.29	2489.46	90.00	788.34	291.36	2.71	PASS
13313.00†	7436.00	4919.60	2486.83	7463.00	7436.00	4031.29	2489.46	90.00	888.31	291.13	3.06	PASS
13413.00†	7436.00	5019.59	2488.53	7463.00	7436.00	4031.29	2489.46	90.00	988.30	290.95	3.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 17 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	CARLSON #1 AWB

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

MD Reference: Rig on SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 18 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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	3.00	13.00	6610.24	2459.67	20.41	7053.03	50.08	143.12	PASS
113.00†	113.00	0.00	0.00	103.00	113.00	6610.24	2459.67	20.41	7053.03	52.42	136.63	PASS
213.00†	213.00	0.00	0.00	203.00	213.00	6610.24	2459.67	20.41	7053.03	54.77	130.69	PASS
313.00†	313.00	0.00	0.00	303.00	313.00	6610.24	2459.67	20.41	7053.03	57.12	125.23	PASS
413.00†	413.00	0.00	0.00	403.00	413.00	6610.24	2459.67	20.41	7053.03	59.47	120.20	PASS
513.00†	513.00	0.00	0.00	503.00	513.00	6610.24	2459.67	20.41	7053.03	61.83	115.56	PASS
613.00†	613.00	0.00	0.00	603.00	613.00	6610.24	2459.67	20.41	7053.03	64.19	111.25	PASS
713.00†	713.00	0.00	0.00	703.00	713.00	6610.24	2459.67	20.41	7053.03	66.56	107.24	PASS
813.00†	813.00	0.00	0.00	803.00	813.00	6610.24	2459.67	20.41	7053.03	68.93	103.51	PASS
913.00†	913.00	0.00	0.00	903.00	913.00	6610.24	2459.67	20.41	7053.03	71.31	100.02	PASS
1000.00	1000.00	0.00	0.00	990.00	1000.00	6610.24	2459.67	20.41	7053.03	73.38	97.17	PASS
1013.00†	1013.00	-0.01	0.03	1003.00	1013.00	6610.24	2459.67	-87.58	7053.03	73.69	96.76	PASS
1113.00†	1112.97	-0.69	2.12	1102.97	1112.97	6610.24	2459.67	-87.60	7052.94	76.07	93.70	PASS
1213.00†	1212.80	-2.44	7.53	1202.80	1212.80	6610.24	2459.67	-87.65	7052.70	78.45	90.82	PASS
1313.00†	1312.38	-5.28	16.25	1302.38	1312.38	6610.24	2459.67	-87.74	7052.33	80.84	88.11	PASS
1413.00†	1411.57	-9.18	28.26	1401.57	1411.57	6610.24	2459.67	-87.85	7051.84	83.22	85.55	PASS
1513.00†	1510.26	-14.15	43.57	1500.26	1510.26	6610.24	2459.67	-87.99	7051.25	85.62	83.13	PASS
1613.00†	1608.33	-20.18	62.14	1598.33	1608.33	6610.24	2459.67	-88.16	7050.58	88.01	80.83	PASS
1713.00†	1705.66	-27.27	83.95	1695.66	1705.66	6610.24	2459.67	-88.35	7049.86	90.43	78.65	PASS
1813.00†	1802.13	-35.40	108.98	1792.13	1802.13	6610.24	2459.67	-88.57	7049.13	92.76	76.57	PASS
1913.00†	1897.62	-44.56	137.20	1887.62	1897.62	6610.24	2459.67	-88.82	7048.42	95.22	74.57	PASS
2013.00†	1992.02	-54.75	168.57	1982.02	1992.02	6610.24	2459.67	-89.08	7047.78	97.71	72.65	PASS
2113.00†	2085.21	-65.95	203.06	2075.21	2085.21	6610.24	2459.67	-89.37	7047.26	100.25	70.79	PASS
2162.94	2131.27	-71.92	221.43	2121.27	2131.27	6610.24	2459.67	-89.52	7047.05	101.54	69.88	PASS
2213.00†	2177.25	-78.03	240.23	2167.25	2177.25	6610.24	2459.67	-89.67	7046.90	102.84	68.99	PASS
2313.00†	2269.13	-90.23	277.79	2259.13	2269.13	6610.24	2459.67	-89.96	7046.76	105.49	67.25	PASS
2413.00†	2361.00	-102.42	315.35	2351.00	2361.00	6610.24	2459.67	-90.26	7046.84	108.19	65.56	PASS
2513.00†	2452.87	-114.62	352.91	2442.87	2452.87	6610.24	2459.67	-90.55	7047.14	110.94	63.92	PASS
2613.00†	2544.75	-126.82	390.46	2534.75	2544.75	6610.24	2459.67	-90.85	7047.67	113.74	62.34	PASS
2713.00†	2636.62	-139.02	428.02	2626.62	2636.62	6610.24	2459.67	-91.14	7048.41	116.59	60.82	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 19 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
2813.00†	2728.49	-151.22	465.58	2718.49	2728.49	6610.24	2459.67	-91.44	7049.38	119.48	59.35	PASS
2913.00†	2820.36	-163.42	503.14	2810.36	2820.36	6610.24	2459.67	-91.73	7050.56	122.41	57.93	PASS
3013.00†	2912.24	-175.61	540.69	2902.24	2912.24	6610.24	2459.67	-92.02	7051.97	125.37	56.56	PASS
3113.00†	3004.11	-187.81	578.25	2994.11	3004.11	6610.24	2459.67	-92.32	7053.60	128.37	55.25	PASS
3213.00†	3095.98	-200.01	615.81	3085.98	3095.98	6610.24	2459.67	-92.61	7055.45	131.39	53.98	PASS
3313.00†	3187.86	-212.21	653.36	3177.86	3187.86	6610.24	2459.67	-92.91	7057.52	134.44	52.77	PASS
3413.00†	3279.73	-224.41	690.92	3269.73	3279.73	6610.24	2459.67	-93.20	7059.81	137.52	51.60	PASS
3513.00†	3371.60	-236.61	728.48	3361.60	3371.60	6610.24	2459.67	-93.50	7062.32	140.62	50.47	PASS
3613.00†	3463.48	-248.81	766.04	3453.48	3463.48	6610.24	2459.67	-93.79	7065.05	143.75	49.39	PASS
3713.00†	3555.35	-261.00	803.59	3545.35	3555.35	6610.24	2459.67	-94.08	7068.00	146.89	48.35	PASS
3813.00†	3647.22	-273.20	841.15	3637.22	3647.22	6610.24	2459.67	-94.38	7071.17	150.05	47.34	PASS
3913.00†	3739.09	-285.40	878.71	3729.09	3739.09	6610.24	2459.67	-94.67	7074.55	153.23	46.38	PASS
4013.00†	3830.97	-297.60	916.27	3820.97	3830.97	6610.24	2459.67	-94.96	7078.16	156.42	45.45	PASS
4113.00†	3922.84	-309.80	953.82	3912.84	3922.84	6610.24	2459.67	-95.26	7081.99	159.62	44.56	PASS
4213.00†	4014.71	-322.00	991.38	4004.71	4014.71	6610.24	2459.67	-95.55	7086.03	162.83	43.70	PASS
4313.00†	4106.59	-334.19	1028.94	4096.59	4106.59	6610.24	2459.67	-95.84	7090.29	166.06	42.88	PASS
4413.00†	4198.46	-346.39	1066.49	4188.46	4198.46	6610.24	2459.67	-96.13	7094.77	169.30	42.08	PASS
4513.00†	4290.33	-358.59	1104.05	4280.33	4290.33	6610.24	2459.67	-96.42	7099.46	172.54	41.31	PASS
4613.00†	4382.21	-370.79	1141.61	4372.21	4382.21	6610.24	2459.67	-96.71	7104.37	175.80	40.57	PASS
4713.00†	4474.08	-382.99	1179.17	4464.08	4474.08	6610.24	2459.67	-97.01	7109.50	179.06	39.86	PASS
4813.00†	4565.95	-395.19	1216.72	4555.95	4565.95	6610.24	2459.67	-97.30	7114.84	182.32	39.17	PASS
4913.00†	4657.82	-407.39	1254.28	4647.82	4657.82	6610.24	2459.67	-97.59	7120.40	185.60	38.51	PASS
5013.00†	4749.70	-419.58	1291.84	4739.70	4749.70	6610.24	2459.67	-97.88	7126.17	188.87	37.87	PASS
5113.00†	4841.57	-431.78	1329.40	4831.57	4841.57	6610.24	2459.67	-98.16	7132.15	192.15	37.25	PASS
5213.00†	4933.44	-443.98	1366.95	4923.44	4933.44	6610.24	2459.67	-98.45	7138.35	195.44	36.65	PASS
5313.00†	5025.32	-456.18	1404.51	5015.32	5025.32	6610.24	2459.67	-98.74	7144.76	198.73	36.08	PASS
5413.00†	5117.19	-468.38	1442.07	5107.19	5117.19	6610.24	2459.67	-99.03	7151.39	202.02	35.52	PASS
5513.00†	5209.06	-480.58	1479.62	5199.06	5209.06	6610.24	2459.67	-99.32	7158.23	205.32	34.98	PASS
5613.00†	5300.94	-492.77	1517.18	5290.94	5300.94	6610.24	2459.67	-99.60	7165.27	208.61	34.46	PASS
5713.00†	5392.81	-504.97	1554.74	5382.81	5392.81	6610.24	2459.67	-99.89	7172.53	211.91	33.96	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 20 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
5813.00†	5484.68	-517.17	1592.30	5474.68	5484.68	6610.24	2459.67	-100.18	7180.00	215.21	33.47	PASS
5913.00†	5576.55	-529.37	1629.85	5566.55	5576.55	6610.24	2459.67	-100.46	7187.67	218.51	33.00	PASS
6013.00†	5668.43	-541.57	1667.41	5658.43	5668.43	6610.24	2459.67	-100.75	7195.56	221.81	32.54	PASS
6113.00†	5760.30	-553.77	1704.97	5750.30	5760.30	6610.24	2459.67	-101.03	7203.65	225.11	32.10	PASS
6213.00†	5852.17	-565.97	1742.53	5842.17	5852.17	6610.24	2459.67	-101.32	7211.95	228.41	31.67	PASS
6313.00†	5944.05	-578.16	1780.08	5934.05	5944.05	6610.24	2459.67	-101.60	7220.46	231.71	31.25	PASS
6413.00†	6035.92	-590.36	1817.64	6025.92	6035.92	6610.24	2459.67	-101.88	7229.17	235.01	30.85	PASS
6513.00†	6127.79	-602.56	1855.20	6117.79	6127.79	6610.24	2459.67	-102.16	7238.09	238.31	30.46	PASS
6613.00†	6219.67	-614.76	1892.76	6209.67	6219.67	6610.24	2459.67	-102.45	7247.21	241.61	30.08	PASS
6713.00†	6311.54	-626.96	1930.31	6301.54	6311.54	6610.24	2459.67	-102.73	7256.53	244.90	29.71	PASS
6813.00†	6403.41	-639.16	1967.87	6393.41	6403.41	6610.24	2459.67	-103.01	7266.06	248.20	29.36	PASS
6913.00†	6495.28	-651.36	2005.43	6485.28	6495.28	6610.24	2459.67	-103.29	7275.79	251.49	29.01	PASS
7013.00†	6587.16	-663.55	2042.98	6577.16	6587.16	6610.24	2459.67	-103.57	7285.72	254.78	28.67	PASS
7113.00†	6679.03	-675.75	2080.54	6669.03	6679.03	6610.24	2459.67	-103.84	7295.85	258.07	28.35	PASS
7213.00†	6770.90	-687.95	2118.10	6760.90	6770.90	6610.24	2459.67	-104.12	7306.18	261.36	28.03	PASS
7293.44	6844.80	-697.76	2148.31	6834.80	6844.80	6610.24	2459.67	-104.34	7314.63	264.00	27.78	PASS
7313.00†	6862.81	-699.82	2155.68	6852.81	6862.81	6610.24	2459.67	-99.93	7316.38	264.64	27.72	PASS
7413.00†	6955.18	-699.91	2193.64	6945.18	6955.18	6610.24	2459.67	-76.26	7314.99	268.04	27.36	PASS
7513.00†	7046.06	-682.65	2231.29	7036.06	7046.06	6610.24	2459.67	-56.48	7296.47	271.71	26.92	PASS
7613.00†	7132.69	-648.58	2267.48	7122.69	7132.69	6610.24	2459.67	-43.31	7261.37	275.19	26.45	PASS
7713.00†	7212.43	-598.73	2301.11	7202.43	7212.43	6610.24	2459.67	-35.09	7210.71	278.35	25.97	PASS
7813.00†	7282.86	-534.61	2331.15	7272.86	7282.86	6610.24	2459.67	-29.96	7146.01	281.08	25.49	PASS
7913.00†	7341.85	-458.17	2356.69	7331.85	7341.85	6610.24	2459.67	-26.78	7069.16	283.31	25.01	PASS
8013.00†	7387.59	-371.73	2376.97	7377.59	7387.59	6610.24	2459.67	-24.99	6982.46	285.02	24.56	PASS
8113.00†	7418.70	-277.92	2391.35	7408.70	7418.70	6610.24	2459.67	-24.49	6888.50	286.16	24.13	PASS
8213.00†	7434.23	-179.59	2399.41	7424.23	7434.23	6610.24	2459.67	-27.48	6790.10	286.73	23.74	PASS
8259.81	7436.00	-132.86	2400.93	7426.00	7436.00	6610.24	2459.67	-90.00	6743.36	286.80	23.57	PASS
8313.00†	7436.00	-79.67	2401.83	7426.00	7436.00	6610.24	2459.67	-90.00	6690.17	286.81	23.38	PASS
8413.00†	7436.00	20.31	2403.53	7426.00	7436.00	6610.24	2459.67	-90.00	6590.17	286.83	23.03	PASS
8513.00†	7436.00	120.30	2405.23	7426.00	7436.00	6610.24	2459.67	-90.00	6490.17	286.86	22.68	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 21 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
8613.00†	7436.00	220.28	2406.93	7426.00	7436.00	6610.24	2459.67	-90.00	6390.18	286.88	22.33	PASS
8713.00†	7436.00	320.27	2408.63	7426.00	7436.00	6610.24	2459.67	-90.00	6290.18	286.91	21.98	PASS
8813.00†	7436.00	420.25	2410.33	7426.00	7436.00	6610.24	2459.67	-90.00	6190.18	286.93	21.62	PASS
8913.00†	7436.00	520.24	2412.03	7426.00	7436.00	6610.24	2459.67	-90.00	6090.19	286.96	21.27	PASS
9013.00†	7436.00	620.23	2413.73	7426.00	7436.00	6610.24	2459.67	-90.00	5990.19	286.99	20.92	PASS
9113.00†	7436.00	720.21	2415.43	7426.00	7436.00	6610.24	2459.67	-90.00	5890.20	287.03	20.57	PASS
9213.00†	7436.00	820.20	2417.13	7426.00	7436.00	6610.24	2459.67	-90.00	5790.20	287.06	20.22	PASS
9313.00†	7436.00	920.18	2418.83	7426.00	7436.00	6610.24	2459.67	-90.00	5690.21	287.10	19.87	PASS
9413.00†	7436.00	1020.17	2420.53	7426.00	7436.00	6610.24	2459.67	-90.00	5590.21	287.13	19.51	PASS
9513.00†	7436.00	1120.15	2422.23	7426.00	7436.00	6610.24	2459.67	-90.00	5490.22	287.17	19.16	PASS
9613.00†	7436.00	1220.14	2423.93	7426.00	7436.00	6610.24	2459.67	-90.00	5390.22	287.21	18.81	PASS
9713.00†	7436.00	1320.12	2425.63	7426.00	7436.00	6610.24	2459.67	-90.00	5290.23	287.25	18.46	PASS
9813.00†	7436.00	1420.11	2427.33	7426.00	7436.00	6610.24	2459.67	-90.00	5190.23	287.30	18.11	PASS
9913.00†	7436.00	1520.10	2429.03	7426.00	7436.00	6610.24	2459.67	-90.00	5090.24	287.34	17.76	PASS
10013.00†	7436.00	1620.08	2430.73	7426.00	7436.00	6610.24	2459.67	-90.00	4990.24	287.39	17.40	PASS
10113.00†	7436.00	1720.07	2432.43	7426.00	7436.00	6610.24	2459.67	-90.00	4890.25	287.44	17.05	PASS
10213.00†	7436.00	1820.05	2434.13	7426.00	7436.00	6610.24	2459.67	-90.00	4790.26	287.50	16.70	PASS
10313.00†	7436.00	1920.04	2435.83	7426.00	7436.00	6610.24	2459.67	-90.00	4690.26	287.55	16.35	PASS
10413.00†	7436.00	2020.02	2437.53	7426.00	7436.00	6610.24	2459.67	-90.00	4590.27	287.61	16.00	PASS
10513.00†	7436.00	2120.01	2439.23	7426.00	7436.00	6610.24	2459.67	-90.00	4490.28	287.67	15.65	PASS
10613.00†	7436.00	2219.99	2440.93	7426.00	7436.00	6610.24	2459.67	-90.00	4390.29	287.73	15.29	PASS
10713.00†	7436.00	2319.98	2442.63	7426.00	7436.00	6610.24	2459.67	-90.00	4290.30	287.80	14.94	PASS
10813.00†	7436.00	2419.97	2444.33	7426.00	7436.00	6610.24	2459.67	-90.00	4190.30	287.87	14.59	PASS
10913.00†	7436.00	2519.95	2446.03	7426.00	7436.00	6610.24	2459.67	-90.00	4090.31	287.94	14.24	PASS
11013.00†	7436.00	2619.94	2447.73	7426.00	7436.00	6610.24	2459.67	-90.00	3990.32	288.02	13.89	PASS
11113.00†	7436.00	2719.92	2449.43	7426.00	7436.00	6610.24	2459.67	-90.00	3890.33	288.09	13.53	PASS
11213.00†	7436.00	2819.91	2451.13	7426.00	7436.00	6610.24	2459.67	-90.00	3790.34	288.18	13.18	PASS
11313.00†	7436.00	2919.89	2452.83	7426.00	7436.00	6610.24	2459.67	-90.00	3690.36	288.27	12.83	PASS
11413.00†	7436.00	3019.88	2454.53	7426.00	7436.00	6610.24	2459.67	-90.00	3590.37	288.36	12.48	PASS
11513.00†	7436.00	3119.86	2456.23	7426.00	7436.00	6610.24	2459.67	-90.00	3490.38	288.45	12.13	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 22 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
11613.00†	7436.00	3219.85	2457.93	7426.00	7436.00	6610.24	2459.67	-90.00	3390.39	288.55	11.78	PASS
11713.00†	7436.00	3319.84	2459.63	7426.00	7436.00	6610.24	2459.67	-90.00	3290.41	288.66	11.42	PASS
11813.00†	7436.00	3419.82	2461.33	7426.00	7436.00	6610.24	2459.67	-90.00	3190.42	288.77	11.07	PASS
11913.00†	7436.00	3519.81	2463.03	7426.00	7436.00	6610.24	2459.67	-90.00	3090.44	288.89	10.72	PASS
12013.00†	7436.00	3619.79	2464.73	7426.00	7436.00	6610.24	2459.67	-90.00	2990.45	289.02	10.37	PASS
12113.00†	7436.00	3719.78	2466.43	7426.00	7436.00	6610.24	2459.67	-90.00	2890.47	289.15	10.02	PASS
12213.00†	7436.00	3819.76	2468.13	7426.00	7436.00	6610.24	2459.67	-90.00	2790.49	289.30	9.67	PASS
12313.00†	7436.00	3919.75	2469.83	7426.00	7436.00	6610.24	2459.67	-90.00	2690.51	289.45	9.32	PASS
12413.00†	7436.00	4019.73	2471.53	7426.00	7436.00	6610.24	2459.67	-90.00	2590.54	289.61	8.96	PASS
12513.00†	7436.00	4119.72	2473.23	7426.00	7436.00	6610.24	2459.67	-90.00	2490.56	289.78	8.61	PASS
12613.00†	7436.00	4219.71	2474.93	7426.00	7436.00	6610.24	2459.67	-90.00	2390.59	289.97	8.26	PASS
12713.00†	7436.00	4319.69	2476.63	7426.00	7436.00	6610.24	2459.67	-90.00	2290.61	290.17	7.91	PASS
12813.00†	7436.00	4419.68	2478.33	7426.00	7436.00	6610.24	2459.67	-90.00	2190.65	290.39	7.56	PASS
12913.00†	7436.00	4519.66	2480.03	7426.00	7436.00	6610.24	2459.67	-90.00	2090.68	290.63	7.21	PASS
13013.00†	7436.00	4619.65	2481.73	7426.00	7436.00	6610.24	2459.67	-90.00	1990.72	290.89	6.86	PASS
13113.00†	7436.00	4719.63	2483.43	7426.00	7436.00	6610.24	2459.67	-90.00	1890.76	291.17	6.51	PASS
13213.00†	7436.00	4819.62	2485.13	7426.00	7436.00	6610.24	2459.67	-90.00	1790.80	291.48	6.16	PASS
13313.00†	7436.00	4919.60	2486.83	7426.00	7436.00	6610.24	2459.67	-90.00	1690.86	291.83	5.81	PASS
13413.00†	7436.00	5019.59	2488.53	7426.00	7436.00	6610.24	2459.67	-90.00	1590.91	292.21	5.46	PASS
13513.00†	7436.00	5119.57	2490.23	7426.00	7436.00	6610.24	2459.67	-90.00	1490.98	292.65	5.10	PASS
13613.00†	7436.00	5219.56	2491.93	7426.00	7436.00	6610.24	2459.67	-90.00	1391.06	293.14	4.75	PASS
13713.00†	7436.00	5319.55	2493.63	7426.00	7436.00	6610.24	2459.67	-90.00	1291.14	293.70	4.40	PASS
13813.00†	7436.00	5419.53	2495.33	7426.00	7436.00	6610.24	2459.67	-90.00	1191.24	294.36	4.05	PASS
13913.00†	7436.00	5519.52	2497.03	7426.00	7436.00	6610.24	2459.67	-90.00	1091.36	295.13	3.70	PASS
14013.00†	7436.00	5619.50	2498.73	7426.00	7436.00	6610.24	2459.67	-90.00	991.51	296.05	3.35	PASS
14113.00†	7436.00	5719.49	2500.43	7426.00	7436.00	6610.24	2459.67	-90.00	891.69	297.16	3.01	PASS
14213.00†	7436.00	5819.47	2502.13	7426.00	7436.00	6610.24	2459.67	-90.00	791.91	298.56	2.66	PASS
14313.00†	7436.00	5919.46	2503.83	7426.00	7436.00	6610.24	2459.67	-90.00	692.19	300.35	2.31	PASS
14413.00†	7436.00	6019.44	2505.53	7426.00	7436.00	6610.24	2459.67	-90.00	592.57	302.73	1.96	PASS
14513.00†	7436.00	6119.43	2507.23	7426.00	7436.00	6610.24	2459.67	-90.00	493.11	306.07	1.61	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 23 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
14613.00†	7436.00	6219.42	2508.93	7426.00	7436.00	6610.24	2459.67	-90.00	393.92	311.07	1.27	PASS
14713.00†	7436.00	6319.40	2510.63	7426.00	7436.00	6610.24	2459.67	-90.00	295.27	319.36	0.92	FAIL
14813.00†	7436.00	6419.39	2512.33	7426.00	7436.00	6610.24	2459.67	-90.00	197.99	335.51	0.59	FAIL
14913.00†	7436.00	6519.37	2514.03	7426.00	7436.00	6610.24	2459.67	-90.00	105.89	376.06	0.28	FAIL
14996.82†	7436.00	6603.18	2515.45	7426.00	7436.00	6610.24	2459.67	-90.00	56.23	418.66	0.13	FAIL
15002.93†	7436.00	6609.29	2515.56	7426.03	7436.03	6610.24	2459.67	-90.03	55.90	412.41	0.13	FAIL
15013.00†	7436.00	6619.36	2515.73	7426.00	7436.00	6610.24	2459.67	-90.00	56.80	397.15	0.14	FAIL
15113.00†	7436.00	6719.34	2517.43	7426.00	7436.00	6610.24	2459.67	-90.00	123.45	259.79	0.47	FAIL
15213.00†	7436.00	6819.33	2519.13	7426.00	7436.00	6610.24	2459.67	-90.00	217.38	253.60	0.86	FAIL
15313.00†	7436.00	6919.31	2520.83	7426.00	7436.00	6610.24	2459.67	-90.00	315.07	260.95	1.21	PASS
15413.00†	7436.00	7019.30	2522.53	7426.00	7436.00	6610.24	2459.67	-90.00	413.86	266.35	1.56	PASS
15513.00†	7436.00	7119.29	2524.23	7426.00	7436.00	6610.24	2459.67	-90.00	513.12	270.06	1.90	PASS
15613.00†	7436.00	7219.27	2525.93	7426.00	7436.00	6610.24	2459.67	-90.00	612.62	272.71	2.25	PASS
15713.00†	7436.00	7319.26	2527.63	7426.00	7436.00	6610.24	2459.67	-90.00	712.27	274.69	2.60	PASS
15813.00†	7436.00	7419.24	2529.33	7426.00	7436.00	6610.24	2459.67	-90.00	811.99	276.22	2.94	PASS
15913.00†	7436.00	7519.23	2531.03	7426.00	7436.00	6610.24	2459.67	-90.00	911.78	277.44	3.29	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 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: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 24 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

MD Reference: Rig on SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 25 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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	-0.02	-15.01	-90.07	15.01	1.40	23.68	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.02	-15.01	-90.07	15.01	1.72	15.52	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.02	-15.01	-90.07	15.01	2.28	9.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.02	-15.01	-90.07	15.01	2.88	6.83	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.02	-15.01	-90.07	15.01	3.50	5.27	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.02	-15.01	-90.07	15.01	4.12	4.29	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.02	-15.01	-90.07	15.01	4.74	3.61	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.02	-15.01	-90.07	15.01	5.36	3.12	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.02	-15.01	-90.07	15.01	5.99	2.74	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.02	-15.01	-90.07	15.01	6.61	2.45	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.02	-15.01	-90.07	15.01	7.16	2.24	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.02	-15.01	161.97	15.04	7.24	2.21	PASS
1113.00†	1112.97	-0.69	2.12	1113.05	1113.05	-0.03	-14.98	164.21	17.11	7.96	2.28	PASS
1213.00†	1212.80	-2.44	7.53	1213.62	1213.59	-0.75	-12.88	166.76	20.49	9.04	2.39	PASS
1313.00†	1312.38	-5.28	16.25	1314.32	1314.12	-2.61	-7.43	168.45	23.89	10.28	2.44	PASS
1413.00†	1411.57	-9.18	28.26	1415.14	1414.51	-5.62	1.37	169.60	27.28	11.42	2.49	PASS
1513.00†	1510.26	-14.15	43.57	1516.09	1514.63	-9.78	13.53	170.38	30.67	12.50	2.55	PASS
1613.00†	1608.33	-20.18	62.14	1617.15	1614.35	-15.08	29.04	170.90	34.03	13.52	2.61	PASS
1713.00†	1705.66	-27.27	83.95	1718.34	1713.55	-21.53	47.89	171.24	37.36	14.50	2.67	PASS
1813.00†	1802.13	-35.40	108.98	1819.65	1812.10	-29.12	70.07	171.44	40.66	15.37	2.73	PASS
1913.00†	1897.62	-44.56	137.20	1921.07	1909.88	-37.84	95.56	171.53	43.93	16.31	2.77	PASS
2013.00†	1992.02	-54.75	168.57	2022.61	2006.75	-47.69	124.35	171.53	47.14	17.26	2.81	PASS
2113.00†	2085.21	-65.95	203.06	2124.27	2102.59	-58.65	156.40	171.46	50.32	18.23	2.83	PASS
2162.94	2131.27	-71.92	221.43	2175.08	2150.03	-64.54	173.63	171.41	51.88	18.69	2.85	PASS
2213.00†	2177.25	-78.03	240.23	2225.74	2197.01	-70.67	191.55	171.28	53.05	19.05	2.85	PASS
2313.00†	2269.13	-90.23	277.79	2325.72	2289.59	-82.89	227.27	170.97	55.00	19.80	2.84	PASS
2413.00†	2361.00	-102.42	315.35	2425.70	2382.17	-95.11	262.98	170.69	56.95	20.60	2.83	PASS
2513.00†	2452.87	-114.62	352.91	2525.68	2474.75	-107.32	298.70	170.42	58.91	21.44	2.81	PASS
2613.00†	2544.75	-126.82	390.46	2625.66	2567.33	-119.54	334.42	170.17	60.86	22.31	2.78	PASS
2713.00†	2636.62	-139.02	428.02	2725.64	2659.91	-131.76	370.14	169.94	62.81	23.21	2.76	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 26 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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†	2728.49	-151.22	465.58	2825.62	2752.49	-143.98	405.86	169.72	64.77	24.15	2.73	PASS
2913.00†	2820.36	-163.42	503.14	2925.60	2845.07	-156.19	441.57	169.51	66.72	25.11	2.71	PASS
3013.00†	2912.24	-175.61	540.69	3025.58	2937.65	-168.41	477.29	169.32	68.68	26.09	2.68	PASS
3113.00†	3004.11	-187.81	578.25	3125.56	3030.23	-180.63	513.01	169.13	70.64	27.10	2.65	PASS
3213.00†	3095.98	-200.01	615.81	3225.54	3122.81	-192.84	548.73	168.96	72.60	28.12	2.62	PASS
3313.00†	3187.86	-212.21	653.36	3325.53	3215.39	-205.06	584.45	168.79	74.56	29.17	2.60	PASS
3413.00†	3279.73	-224.41	690.92	3425.51	3307.97	-217.28	620.16	168.63	76.52	30.23	2.57	PASS
3513.00†	3371.60	-236.61	728.48	3525.49	3400.55	-229.50	655.88	168.49	78.48	31.30	2.54	PASS
3613.00†	3463.48	-248.81	766.04	3625.47	3493.13	-241.71	691.60	168.34	80.44	32.39	2.52	PASS
3713.00†	3555.35	-261.00	803.59	3725.45	3585.71	-253.93	727.32	168.21	82.40	33.49	2.49	PASS
3813.00†	3647.22	-273.20	841.15	3825.43	3678.29	-266.15	763.04	168.08	84.36	34.60	2.47	PASS
3913.00†	3739.09	-285.40	878.71	3925.41	3770.87	-278.37	798.76	167.96	86.32	35.72	2.45	PASS
4013.00†	3830.97	-297.60	916.27	4025.39	3863.45	-290.58	834.47	167.84	88.29	36.85	2.42	PASS
4113.00†	3922.84	-309.80	953.82	4125.37	3956.03	-302.80	870.19	167.73	90.25	37.99	2.40	PASS
4213.00†	4014.71	-322.00	991.38	4225.35	4048.61	-315.02	905.91	167.62	92.21	39.14	2.38	PASS
4313.00†	4106.59	-334.19	1028.94	4325.33	4141.19	-327.23	941.63	167.52	94.17	40.29	2.36	PASS
4413.00†	4198.46	-346.39	1066.49	4425.31	4233.77	-339.45	977.35	167.42	96.14	41.45	2.34	PASS
4513.00†	4290.33	-358.59	1104.05	4525.29	4326.35	-351.67	1013.06	167.32	98.10	42.62	2.32	PASS
4613.00†	4382.21	-370.79	1141.61	4625.27	4418.93	-363.89	1048.78	167.23	100.07	43.80	2.31	PASS
4713.00†	4474.08	-382.99	1179.17	4725.25	4511.51	-376.10	1084.50	167.15	102.03	44.98	2.29	PASS
4813.00†	4565.95	-395.19	1216.72	4825.23	4604.09	-388.32	1120.22	167.06	104.00	46.16	2.27	PASS
4913.00†	4657.82	-407.39	1254.28	4925.21	4696.67	-400.54	1155.94	166.98	105.96	47.35	2.26	PASS
5013.00†	4749.70	-419.58	1291.84	5025.20	4789.25	-412.76	1191.65	166.90	107.93	48.55	2.24	PASS
5113.00†	4841.57	-431.78	1329.40	5125.18	4881.83	-424.97	1227.37	166.83	109.89	49.75	2.23	PASS
5213.00†	4933.44	-443.98	1366.95	5225.16	4974.41	-437.19	1263.09	166.75	111.86	50.95	2.21	PASS
5313.00†	5025.32	-456.18	1404.51	5325.14	5066.99	-449.41	1298.81	166.68	113.82	52.16	2.20	PASS
5413.00†	5117.19	-468.38	1442.07	5425.12	5159.57	-461.62	1334.53	166.62	115.79	53.37	2.19	PASS
5513.00†	5209.06	-480.58	1479.62	5525.10	5252.15	-473.84	1370.24	166.55	117.75	54.58	2.17	PASS
5613.00†	5300.94	-492.77	1517.18	5625.08	5344.73	-486.06	1405.96	166.49	119.72	55.80	2.16	PASS
5713.00†	5392.81	-504.97	1554.74	5725.06	5437.31	-498.28	1441.68	166.43	121.69	57.02	2.15	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 27 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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†	5484.68	-517.17	1592.30	5825.04	5529.89	-510.49	1477.40	166.37	123.65	58.24	2.14	PASS
5913.00†	5576.55	-529.37	1629.85	5925.02	5622.47	-522.71	1513.12	166.31	125.62	59.47	2.13	PASS
6013.00†	5668.43	-541.57	1667.41	6025.00	5715.05	-534.93	1548.84	166.25	127.59	60.70	2.12	PASS
6113.00†	5760.30	-553.77	1704.97	6124.98	5807.63	-547.15	1584.55	166.20	129.55	61.93	2.10	PASS
6213.00†	5852.17	-565.97	1742.53	6224.96	5900.21	-559.36	1620.27	166.15	131.52	63.16	2.09	PASS
6313.00†	5944.05	-578.16	1780.08	6324.94	5992.79	-571.58	1655.99	166.10	133.49	64.39	2.08	PASS
6413.00†	6035.92	-590.36	1817.64	6424.92	6085.37	-583.80	1691.71	166.05	135.45	65.63	2.08	PASS
6513.00†	6127.79	-602.56	1855.20	6524.90	6177.95	-596.01	1727.43	166.00	137.42	66.87	2.07	PASS
6613.00†	6219.67	-614.76	1892.76	6624.88	6270.53	-608.23	1763.14	165.95	139.39	68.11	2.06	PASS
6713.00†	6311.54	-626.96	1930.31	6724.86	6363.11	-620.45	1798.86	165.91	141.36	69.35	2.05	PASS
6813.00†	6403.41	-639.16	1967.87	6824.85	6455.69	-632.67	1834.58	165.86	143.32	70.60	2.04	PASS
6913.00†	6495.28	-651.36	2005.43	6924.83	6548.27	-644.88	1870.30	165.82	145.29	71.84	2.03	PASS
7013.00†	6587.16	-663.55	2042.98	7024.81	6640.85	-657.10	1906.02	165.78	147.26	73.09	2.02	PASS
7113.00†	6679.03	-675.75	2080.54	7124.79	6733.43	-669.32	1941.73	165.74	149.23	74.34	2.02	PASS
7213.00†	6770.90	-687.95	2118.10	7224.77	6826.01	-681.54	1977.45	165.70	151.19	75.59	2.01	PASS
7293.44	6844.80	-697.76	2148.31	7305.19	6900.48	-691.36	2006.18	165.67	152.78	76.60	2.00	PASS
7313.00†	6862.81	-699.82	2155.68	7324.74	6918.59	-693.75	2013.17	170.05	153.15	76.97	2.00	PASS
7413.00†	6955.18	-699.91	2193.64	7424.11	7010.66	-705.28	2048.69	-170.04	155.30	83.04	1.88	PASS
7513.00†	7046.06	-682.65	2231.29	7525.13	7104.78	-704.05	2084.99	-155.49	159.09	91.13	1.75	PASS
7613.00†	7132.69	-648.58	2267.48	7629.18	7199.97	-684.31	2121.68	-147.08	164.50	97.34	1.69	PASS
7713.00†	7212.43	-598.73	2301.11	7736.38	7292.90	-645.05	2157.49	-142.95	171.02	100.14	1.71	PASS
7813.00†	7282.86	-534.61	2331.15	7846.75	7379.74	-586.02	2190.92	-141.11	178.02	98.87	1.81	PASS
7913.00†	7341.85	-458.17	2356.69	7960.08	7456.24	-508.02	2220.35	-140.33	184.83	93.91	1.98	PASS
8013.00†	7387.59	-371.73	2376.97	8076.00	7518.14	-413.18	2244.13	-139.94	190.81	86.62	2.21	PASS
8113.00†	7418.70	-277.92	2391.35	8193.88	7561.55	-305.08	2260.76	-139.61	195.44	79.35	2.48	PASS
8213.00†	7434.23	-179.59	2399.41	8312.92	7583.55	-188.61	2269.13	-139.16	198.36	74.97	2.66	PASS
8259.81	7436.00	-132.86	2400.93	8368.63	7586.00	-132.99	2270.03	-138.89	199.09	74.50	2.69	PASS
8313.00†	7436.00	-79.67	2401.83	8421.81	7586.00	-79.80	2269.97	-138.69	199.72	75.12	2.67	PASS
8413.00†	7436.00	20.31	2403.53	8521.79	7586.00	20.18	2269.88	-138.30	200.91	76.44	2.64	PASS
8513.00†	7436.00	120.30	2405.23	8621.78	7586.00	120.17	2269.78	-137.92	202.11	78.00	2.61	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 28 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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
8613.00†	7436.00	220.28	2406.93	8721.76	7586.00	220.15	2269.68	-137.55	203.32	79.78	2.56	PASS
8713.00†	7436.00	320.27	2408.63	8821.75	7586.00	320.13	2269.58	-137.18	204.53	81.70	2.52	PASS
8813.00†	7436.00	420.25	2410.33	8921.73	7586.00	420.12	2269.49	-136.81	205.76	83.97	2.46	PASS
8913.00†	7436.00	520.24	2412.03	9021.71	7586.00	520.10	2269.39	-136.45	207.00	86.37	2.41	PASS
9013.00†	7436.00	620.23	2413.73	9121.70	7586.00	620.08	2269.29	-136.09	208.24	88.96	2.35	PASS
9113.00†	7436.00	720.21	2415.43	9221.68	7586.00	720.07	2269.19	-135.73	209.49	91.73	2.29	PASS
9213.00†	7436.00	820.20	2417.13	9321.66	7586.00	820.05	2269.09	-135.38	210.75	94.68	2.24	PASS
9313.00†	7436.00	920.18	2418.83	9421.65	7586.00	920.04	2269.00	-135.04	212.01	97.78	2.18	PASS
9413.00†	7436.00	1020.17	2420.53	9521.63	7586.00	1020.02	2268.90	-134.70	213.29	101.03	2.12	PASS
9513.00†	7436.00	1120.15	2422.23	9621.62	7586.00	1120.00	2268.80	-134.36	214.57	104.43	2.06	PASS
9613.00†	7436.00	1220.14	2423.93	9721.60	7586.00	1219.99	2268.70	-134.02	215.86	107.96	2.01	PASS
9713.00†	7436.00	1320.12	2425.63	9821.58	7586.00	1319.97	2268.61	-133.69	217.16	111.62	1.95	PASS
9813.00†	7436.00	1420.11	2427.33	9921.57	7586.00	1419.95	2268.51	-133.37	218.46	115.39	1.90	PASS
9913.00†	7436.00	1520.10	2429.03	10021.55	7586.00	1519.94	2268.41	-133.05	219.77	119.28	1.85	PASS
10013.00†	7436.00	1620.08	2430.73	10121.54	7586.00	1619.92	2268.31	-132.73	221.09	123.27	1.80	PASS
10113.00†	7436.00	1720.07	2432.43	10221.52	7586.00	1719.91	2268.22	-132.41	222.41	127.35	1.75	PASS
10213.00†	7436.00	1820.05	2434.13	10321.50	7586.00	1819.89	2268.12	-132.10	223.74	131.53	1.70	PASS
10313.00†	7436.00	1920.04	2435.83	10421.49	7586.00	1919.87	2268.02	-131.80	225.08	135.79	1.66	PASS
10413.00†	7436.00	2020.02	2437.53	10521.47	7586.00	2019.86	2267.92	-131.49	226.42	140.14	1.62	PASS
10513.00†	7436.00	2120.01	2439.23	10621.45	7586.00	2119.84	2267.82	-131.19	227.77	144.56	1.58	PASS
10613.00†	7436.00	2219.99	2440.93	10721.44	7586.00	2219.82	2267.73	-130.90	229.13	149.06	1.54	PASS
10713.00†	7436.00	2319.98	2442.63	10821.42	7586.00	2319.81	2267.63	-130.61	230.49	153.63	1.50	PASS
10813.00†	7436.00	2419.97	2444.33	10921.41	7586.00	2419.79	2267.53	-130.32	231.86	158.26	1.47	PASS
10913.00†	7436.00	2519.95	2446.03	11021.39	7586.00	2519.78	2267.43	-130.03	233.23	162.95	1.43	PASS
11013.00†	7436.00	2619.94	2447.73	11121.37	7586.00	2619.76	2267.34	-129.75	234.61	167.70	1.40	PASS
11113.00†	7436.00	2719.92	2449.43	11221.36	7586.00	2719.74	2267.24	-129.47	236.00	172.51	1.37	PASS
11213.00†	7436.00	2819.91	2451.13	11321.34	7586.00	2819.73	2267.14	-129.19	237.39	177.37	1.34	PASS
11313.00†	7436.00	2919.89	2452.83	11421.33	7586.00	2919.71	2267.04	-128.92	238.78	182.28	1.31	PASS
11413.00†	7436.00	3019.88	2454.53	11521.31	7586.00	3019.70	2266.94	-128.65	240.18	187.24	1.28	PASS
11513.00†	7436.00	3119.86	2456.23	11621.29	7586.00	3119.68	2266.85	-128.39	241.59	192.24	1.26	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 29 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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
11613.00†	7436.00	3219.85	2457.93	11721.28	7586.00	3219.66	2266.75	-128.12	243.00	197.29	1.23	PASS
11713.00†	7436.00	3319.84	2459.63	11821.26	7586.00	3319.65	2266.65	-127.86	244.42	202.38	1.21	PASS
11813.00†	7436.00	3419.82	2461.33	11921.24	7586.00	3419.63	2266.55	-127.61	245.84	207.51	1.19	PASS
11913.00†	7436.00	3519.81	2463.03	12021.23	7586.00	3519.61	2266.46	-127.35	247.27	212.68	1.16	PASS
12013.00†	7436.00	3619.79	2464.73	12121.21	7586.00	3619.60	2266.36	-127.10	248.70	217.89	1.14	PASS
12113.00†	7436.00	3719.78	2466.43	12221.20	7586.00	3719.58	2266.26	-126.85	250.14	223.13	1.12	PASS
12213.00†	7436.00	3819.76	2468.13	12321.18	7586.00	3819.57	2266.16	-126.61	251.58	228.41	1.10	PASS
12313.00†	7436.00	3919.75	2469.83	12421.16	7586.00	3919.55	2266.06	-126.36	253.02	233.72	1.08	PASS
12413.00†	7436.00	4019.73	2471.53	12521.15	7586.00	4019.53	2265.97	-126.12	254.47	239.06	1.06	PASS
12513.00†	7436.00	4119.72	2473.23	12621.13	7586.00	4119.52	2265.87	-125.89	255.93	244.43	1.05	PASS
12613.00†	7436.00	4219.71	2474.93	12721.12	7586.00	4219.50	2265.77	-125.65	257.39	249.83	1.03	PASS
12713.00†	7436.00	4319.69	2476.63	12821.10	7586.00	4319.48	2265.67	-125.42	258.85	255.26	1.01	PASS
12813.00†	7436.00	4419.68	2478.33	12921.08	7586.00	4419.47	2265.58	-125.19	260.32	260.71	1.00	FAIL
12913.00†	7436.00	4519.66	2480.03	13021.07	7586.00	4519.45	2265.48	-124.96	261.79	266.19	0.98	FAIL
13013.00†	7436.00	4619.65	2481.73	13121.05	7586.00	4619.44	2265.38	-124.74	263.26	271.69	0.97	FAIL
13113.00†	7436.00	4719.63	2483.43	13221.03	7586.00	4719.42	2265.28	-124.52	264.74	277.22	0.95	FAIL
13213.00†	7436.00	4819.62	2485.13	13321.02	7586.00	4819.40	2265.18	-124.30	266.23	282.78	0.94	FAIL
13313.00†	7436.00	4919.60	2486.83	13421.00	7586.00	4919.39	2265.09	-124.08	267.71	288.35	0.93	FAIL
13413.00†	7436.00	5019.59	2488.53	13520.99	7586.00	5019.37	2264.99	-123.87	269.20	293.95	0.92	FAIL
13513.00†	7436.00	5119.57	2490.23	13620.97	7586.00	5119.35	2264.89	-123.66	270.70	299.56	0.90	FAIL
13613.00†	7436.00	5219.56	2491.93	13720.95	7586.00	5219.34	2264.79	-123.45	272.20	305.20	0.89	FAIL
13713.00†	7436.00	5319.55	2493.63	13820.94	7586.00	5319.32	2264.70	-123.24	273.70	310.86	0.88	FAIL
13813.00†	7436.00	5419.53	2495.33	13920.92	7586.00	5419.31	2264.60	-123.03	275.20	316.54	0.87	FAIL
13913.00†	7436.00	5519.52	2497.03	14020.91	7586.00	5519.29	2264.50	-122.83	276.71	322.23	0.86	FAIL
14013.00†	7436.00	5619.50	2498.73	14120.89	7586.00	5619.27	2264.40	-122.63	278.23	327.94	0.85	FAIL
14113.00†	7436.00	5719.49	2500.43	14220.87	7586.00	5719.26	2264.30	-122.43	279.74	333.67	0.84	FAIL
14213.00†	7436.00	5819.47	2502.13	14320.86	7586.00	5819.24	2264.21	-122.23	281.26	339.42	0.83	FAIL
14313.00†	7436.00	5919.46	2503.83	14420.84	7586.00	5919.22	2264.11	-122.04	282.78	345.18	0.82	FAIL
14413.00†	7436.00	6019.44	2505.53	14520.82	7586.00	6019.21	2264.01	-121.85	284.31	350.96	0.81	FAIL
14513.00†	7436.00	6119.43	2507.23	14620.81	7586.00	6119.19	2263.91	-121.66	285.84	356.75	0.80	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 30 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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
14613.00†	7436.00	6219.42	2508.93	14720.79	7586.00	6219.18	2263.82	-121.47	287.37	362.56	0.79	FAIL
14713.00†	7436.00	6319.40	2510.63	14820.78	7586.00	6319.16	2263.72	-121.28	288.90	368.38	0.78	FAIL
14813.00†	7436.00	6419.39	2512.33	14920.76	7586.00	6419.14	2263.62	-121.10	290.44	374.21	0.78	FAIL
14913.00†	7436.00	6519.37	2514.03	15020.74	7586.00	6519.13	2263.52	-120.92	291.98	380.06	0.77	FAIL
15013.00†	7436.00	6619.36	2515.73	15120.73	7586.00	6619.11	2263.42	-120.74	293.53	385.92	0.76	FAIL
15113.00†	7436.00	6719.34	2517.43	15220.71	7586.00	6719.10	2263.33	-120.56	295.07	391.80	0.75	FAIL
15213.00†	7436.00	6819.33	2519.13	15320.70	7586.00	6819.08	2263.23	-120.38	296.62	397.68	0.75	FAIL
15313.00†	7436.00	6919.31	2520.83	15420.68	7586.00	6919.06	2263.13	-120.21	298.18	403.58	0.74	FAIL
15413.00†	7436.00	7019.30	2522.53	15520.66	7586.00	7019.05	2263.03	-120.03	299.73	409.49	0.73	FAIL
15513.00†	7436.00	7119.29	2524.23	15620.65	7586.00	7119.03	2262.94	-119.86	301.29	415.41	0.72	FAIL
15613.00†	7436.00	7219.27	2525.93	15720.63	7586.00	7219.01	2262.84	-119.69	302.85	421.34	0.72	FAIL
15713.00†	7436.00	7319.26	2527.63	15820.61	7586.00	7319.00	2262.74	-119.53	304.41	427.28	0.71	FAIL
15813.00†	7436.00	7419.24	2529.33	15920.60	7586.00	7418.98	2262.64	-119.36	305.98	433.23	0.71	FAIL
15913.00†	7436.00	7519.23	2531.03	16020.58	7586.00	7518.97	2262.55	-119.20	307.55	439.19	0.70	FAIL
16013.00†	7436.00	7619.21	2532.73	16120.57	7586.00	7618.95	2262.45	-119.03	309.12	445.16	0.69	FAIL
16113.00†	7436.00	7719.20	2534.43	16220.55	7586.00	7718.93	2262.35	-118.87	310.69	451.14	0.69	FAIL
16213.00†	7436.00	7819.18	2536.13	16320.53	7586.00	7818.92	2262.25	-118.71	312.26	457.13	0.68	FAIL
16313.00†	7436.00	7919.17	2537.83	16420.52	7586.00	7918.90	2262.15	-118.56	313.84	463.13	0.68	FAIL
16413.00†	7436.00	8019.16	2539.53	16520.50	7586.00	8018.88	2262.06	-118.40	315.42	469.14	0.67	FAIL
16513.00†	7436.00	8119.14	2541.23	16620.48	7586.00	8118.87	2261.96	-118.25	317.01	475.15	0.67	FAIL
16613.00†	7436.00	8219.13	2542.93	16720.47	7586.00	8218.85	2261.86	-118.09	318.59	481.18	0.66	FAIL
16713.00†	7436.00	8319.11	2544.63	16820.45	7586.00	8318.84	2261.76	-117.94	320.18	487.21	0.66	FAIL
16813.00†	7436.00	8419.10	2546.33	16920.44	7586.00	8418.82	2261.67	-117.79	321.77	493.25	0.65	FAIL
16913.00†	7436.00	8519.08	2548.03	17020.42	7586.00	8518.80	2261.57	-117.64	323.36	499.29	0.65	FAIL
17013.00†	7436.00	8619.07	2549.73	17120.40	7586.00	8618.79	2261.47	-117.50	324.95	505.34	0.64	FAIL
17113.00†	7436.00	8719.05	2551.43	17220.39	7586.00	8718.77	2261.37	-117.35	326.55	511.40	0.64	FAIL
17213.00†	7436.00	8819.04	2553.13	17320.37	7586.00	8818.75	2261.27	-117.21	328.15	517.47	0.63	FAIL
17313.00†	7436.00	8919.03	2554.83	17420.36	7586.00	8918.74	2261.18	-117.06	329.75	523.55	0.63	FAIL
17413.00†	7436.00	9019.01	2556.53	17520.34	7586.00	9018.72	2261.08	-116.92	331.35	529.63	0.63	FAIL
17513.00†	7436.00	9119.00	2558.23	17620.32	7586.00	9118.71	2260.98	-116.78	332.95	535.71	0.62	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 31 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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
17613.00†	7436.00	9218.98	2559.93	17720.31	7586.00	9218.69	2260.88	-116.64	334.56	541.80	0.62	FAIL
17713.00†	7436.00	9318.97	2561.63	17820.29	7586.00	9318.67	2260.79	-116.50	336.17	547.90	0.61	FAIL
17813.00†	7436.00	9418.95	2563.33	17920.27	7586.00	9418.66	2260.69	-116.37	337.78	554.01	0.61	FAIL
17913.00†	7436.00	9518.94	2565.03	18020.26	7586.00	9518.64	2260.59	-116.23	339.39	560.12	0.61	FAIL
17992.75†	7436.00	9598.67	2566.39	18099.99	7586.00	9598.37	2260.51	-116.13	340.67	564.99	0.60	FAIL
17994.78	7436.00	9600.71	2566.42	18099.99	7586.00	9598.37	2260.51	-116.13	340.71	563.85	0.60	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH 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: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH 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	1793.06	-0.01	-9.15	-8.41	15.39
8.5in Open Hole	1800.00	18099.99	16299.99	1793.06	7586.00	-8.41	15.39	2925.58	684.43

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18099.99	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NBH



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 32 of 105



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4NBH Offset Wellpath: ACKARD NORTH 2-35-4NBH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 33 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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	0.05	15.01	89.79	15.01	1.40	23.68	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.05	15.01	89.79	15.01	1.72	15.52	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.05	15.01	89.79	15.01	2.28	9.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.05	15.01	89.79	15.01	2.88	6.83	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.05	15.01	89.79	15.01	3.50	5.27	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.05	15.01	89.79	15.01	4.12	4.29	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.05	15.01	89.79	15.01	4.74	3.61	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.05	15.01	89.79	15.01	5.36	3.12	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.05	15.01	89.79	15.01	5.99	2.74	PASS
913.00†	913.00	0.00	0.00	912.93	912.93	0.05	15.04	89.82	15.04	6.61	2.45	PASS
1000.00	1000.00	0.00	0.00	999.46	999.44	-0.43	16.67	91.47	16.68	7.25	2.46	PASS
1013.00†	1013.00	-0.01	0.03	1012.38	1012.35	-0.56	17.13	-16.14	17.12	7.35	2.49	PASS
1113.00†	1112.97	-0.69	2.12	1111.68	1111.49	-2.13	22.52	-13.93	20.50	8.45	2.58	PASS
1213.00†	1212.80	-2.44	7.53	1210.87	1210.26	-4.65	31.19	-12.60	23.90	9.72	2.59	PASS
1313.00†	1312.38	-5.28	16.25	1309.94	1308.54	-8.12	43.13	-11.83	27.30	10.88	2.63	PASS
1413.00†	1411.57	-9.18	28.26	1408.90	1406.23	-12.54	58.30	-11.44	30.69	11.94	2.68	PASS
1513.00†	1510.26	-14.15	43.57	1507.74	1503.19	-17.88	76.68	-11.31	34.06	12.95	2.74	PASS
1613.00†	1608.33	-20.18	62.14	1606.47	1599.33	-24.15	98.23	-11.37	37.41	13.92	2.79	PASS
1713.00†	1705.66	-27.27	83.95	1705.09	1694.53	-31.34	122.92	-11.57	40.73	14.87	2.84	PASS
1813.00†	1802.13	-35.40	108.98	1803.60	1788.69	-39.42	150.71	-11.89	44.02	15.71	2.89	PASS
1913.00†	1897.62	-44.56	137.20	1902.00	1881.70	-48.40	181.56	-12.29	47.29	16.64	2.92	PASS
2013.00†	1992.02	-54.75	168.57	2000.30	1973.45	-58.25	215.42	-12.76	50.51	17.62	2.94	PASS
2113.00†	2085.21	-65.95	203.06	2098.77	2064.11	-68.98	252.31	-13.29	53.67	18.55	2.97	PASS
2162.94	2131.27	-71.92	221.43	2148.70	2109.84	-74.58	271.56	-13.73	54.58	19.00	2.94	PASS
2213.00†	2177.25	-78.03	240.23	2198.75	2155.68	-80.19	290.86	-14.28	55.07	19.43	2.90	PASS
2313.00†	2269.13	-90.23	277.79	2298.74	2247.25	-91.41	329.41	-15.33	56.07	20.33	2.82	PASS
2413.00†	2361.00	-102.42	315.35	2398.73	2338.83	-102.62	367.96	-16.34	57.09	21.32	2.74	PASS
2513.00†	2452.87	-114.62	352.91	2498.72	2430.41	-113.83	406.51	-17.32	58.12	22.38	2.65	PASS
2613.00†	2544.75	-126.82	390.46	2598.71	2521.98	-125.05	445.06	-18.27	59.17	23.51	2.56	PASS
2713.00†	2636.62	-139.02	428.02	2698.70	2613.56	-136.26	483.60	-19.18	60.24	24.72	2.48	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 34 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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†	2728.49	-151.22	465.58	2798.69	2705.13	-147.48	522.15	-20.06	61.32	26.00	2.40	PASS
2913.00†	2820.36	-163.42	503.14	2898.68	2796.71	-158.69	560.70	-20.91	62.42	27.34	2.32	PASS
3013.00†	2912.24	-175.61	540.69	2998.67	2888.29	-169.91	599.25	-21.73	63.53	28.74	2.24	PASS
3113.00†	3004.11	-187.81	578.25	3098.66	2979.86	-181.12	637.80	-22.52	64.65	30.20	2.17	PASS
3213.00†	3095.98	-200.01	615.81	3198.65	3071.44	-192.34	676.35	-23.29	65.78	31.72	2.10	PASS
3313.00†	3187.86	-212.21	653.36	3298.64	3163.01	-203.55	714.90	-24.03	66.93	33.28	2.03	PASS
3413.00†	3279.73	-224.41	690.92	3398.63	3254.59	-214.76	753.45	-24.74	68.08	34.89	1.97	PASS
3513.00†	3371.60	-236.61	728.48	3498.62	3346.16	-225.98	792.00	-25.43	69.25	36.55	1.91	PASS
3613.00†	3463.48	-248.81	766.04	3598.61	3437.74	-237.19	830.55	-26.10	70.42	38.25	1.86	PASS
3713.00†	3555.35	-261.00	803.59	3698.60	3529.32	-248.41	869.10	-26.74	71.61	39.99	1.80	PASS
3813.00†	3647.22	-273.20	841.15	3798.59	3620.89	-259.62	907.65	-27.36	72.80	41.76	1.76	PASS
3913.00†	3739.09	-285.40	878.71	3898.58	3712.47	-270.84	946.20	-27.97	74.00	43.57	1.71	PASS
4013.00†	3830.97	-297.60	916.27	3998.57	3804.04	-282.05	984.75	-28.55	75.21	45.41	1.67	PASS
4113.00†	3922.84	-309.80	953.82	4098.56	3895.62	-293.27	1023.30	-29.12	76.43	47.28	1.63	PASS
4213.00†	4014.71	-322.00	991.38	4198.55	3987.20	-304.48	1061.85	-29.67	77.65	49.18	1.59	PASS
4313.00†	4106.59	-334.19	1028.94	4298.54	4078.77	-315.69	1100.39	-30.20	78.88	51.10	1.55	PASS
4413.00†	4198.46	-346.39	1066.49	4398.53	4170.35	-326.91	1138.94	-30.71	80.12	53.05	1.52	PASS
4513.00†	4290.33	-358.59	1104.05	4498.52	4261.92	-338.12	1177.49	-31.21	81.36	55.02	1.49	PASS
4613.00†	4382.21	-370.79	1141.61	4598.51	4353.50	-349.34	1216.04	-31.69	82.61	57.01	1.45	PASS
4713.00†	4474.08	-382.99	1179.17	4698.50	4445.08	-360.55	1254.59	-32.16	83.87	59.02	1.43	PASS
4813.00†	4565.95	-395.19	1216.72	4798.49	4536.65	-371.77	1293.14	-32.62	85.13	61.05	1.40	PASS
4913.00†	4657.82	-407.39	1254.28	4898.48	4628.23	-382.98	1331.69	-33.06	86.39	63.10	1.37	PASS
5013.00†	4749.70	-419.58	1291.84	4998.47	4719.80	-394.19	1370.24	-33.49	87.67	65.16	1.35	PASS
5113.00†	4841.57	-431.78	1329.40	5098.46	4811.38	-405.41	1408.79	-33.91	88.94	67.24	1.33	PASS
5213.00†	4933.44	-443.98	1366.95	5198.45	4902.95	-416.62	1447.34	-34.31	90.22	69.33	1.30	PASS
5313.00†	5025.32	-456.18	1404.51	5298.44	4994.53	-427.84	1485.89	-34.70	91.51	71.44	1.28	PASS
5413.00†	5117.19	-468.38	1442.07	5398.43	5086.11	-439.05	1524.44	-35.09	92.80	73.56	1.26	PASS
5513.00†	5209.06	-480.58	1479.62	5498.42	5177.68	-450.27	1562.99	-35.46	94.09	75.70	1.25	PASS
5613.00†	5300.94	-492.77	1517.18	5598.41	5269.26	-461.48	1601.54	-35.82	95.39	77.84	1.23	PASS
5713.00†	5392.81	-504.97	1554.74	5698.40	5360.83	-472.70	1640.09	-36.17	96.69	80.00	1.21	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 35 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
5813.00†	5484.68	-517.17	1592.30	5798.39	5452.41	-483.91	1678.64	-36.52	97.99	82.17	1.19	PASS
5913.00†	5576.55	-529.37	1629.85	5898.38	5543.99	-495.12	1717.19	-36.85	99.30	84.34	1.18	PASS
6013.00†	5668.43	-541.57	1667.41	5998.37	5635.56	-506.34	1755.73	-37.18	100.61	86.53	1.16	PASS
6113.00†	5760.30	-553.77	1704.97	6098.36	5727.14	-517.55	1794.28	-37.49	101.92	88.72	1.15	PASS
6213.00†	5852.17	-565.97	1742.53	6198.35	5818.71	-528.77	1832.83	-37.80	103.24	90.92	1.14	PASS
6313.00†	5944.05	-578.16	1780.08	6298.34	5910.29	-539.98	1871.38	-38.10	104.56	93.13	1.12	PASS
6413.00†	6035.92	-590.36	1817.64	6398.33	6001.87	-551.20	1909.93	-38.40	105.88	95.35	1.11	PASS
6513.00†	6127.79	-602.56	1855.20	6498.32	6093.44	-562.41	1948.48	-38.68	107.21	97.58	1.10	PASS
6613.00†	6219.67	-614.76	1892.76	6598.31	6185.02	-573.63	1987.03	-38.96	108.54	99.81	1.09	PASS
6713.00†	6311.54	-626.96	1930.31	6698.30	6276.59	-584.84	2025.58	-39.24	109.87	102.05	1.08	PASS
6813.00†	6403.41	-639.16	1967.87	6798.29	6368.17	-596.05	2064.13	-39.50	111.20	104.29	1.07	PASS
6913.00†	6495.28	-651.36	2005.43	6898.28	6459.74	-607.27	2102.68	-39.76	112.54	106.54	1.06	PASS
7013.00†	6587.16	-663.55	2042.98	6998.26	6551.32	-618.48	2141.23	-40.02	113.88	108.79	1.05	PASS
7113.00†	6679.03	-675.75	2080.54	7098.25	6642.90	-629.70	2179.78	-40.26	115.22	111.05	1.04	PASS
7213.00†	6770.90	-687.95	2118.10	7198.24	6734.47	-640.91	2218.33	-40.51	116.56	113.32	1.03	PASS
7293.44	6844.80	-697.76	2148.31	7278.67	6808.13	-649.93	2249.33	-40.70	117.64	115.15	1.02	PASS
7313.00†	6862.81	-699.82	2155.68	7298.23	6826.05	-652.13	2256.88	-36.13	117.76	115.36	1.02	PASS
7413.00†	6955.18	-699.91	2193.64	7397.48	6916.95	-663.26	2295.14	-6.67	114.48	108.81	1.05	PASS
7513.00†	7046.06	-682.65	2231.29	7493.30	7004.70	-674.00	2332.08	27.48	109.29	87.93	1.24	PASS
7613.00†	7132.69	-648.58	2267.48	7582.77	7086.64	-684.04	2366.57	60.71	114.88	73.10	1.58	PASS
7713.00†	7212.43	-598.73	2301.11	7663.17	7160.27	-693.06	2397.57	86.67	144.65	100.01	1.45	PASS
7813.00†	7282.86	-534.61	2331.15	7732.06	7223.37	-700.78	2424.13	102.63	199.50	128.36	1.56	PASS
7913.00†	7341.85	-458.17	2356.69	7819.63	7303.88	-705.79	2458.02	115.56	270.23	144.35	1.88	PASS
8013.00†	7387.59	-371.73	2376.97	7940.96	7414.65	-690.90	2504.62	126.37	344.82	148.63	2.33	PASS
8113.00†	7418.70	-277.92	2391.35	8127.91	7573.20	-619.75	2571.27	135.84	416.04	135.83	3.07	PASS
8213.00†	7434.23	-179.59	2399.41	8475.15	7779.30	-360.94	2657.75	143.22	467.65	79.65	5.91	PASS
8259.81	7436.00	-132.86	2400.93	8710.01	7823.00	-132.59	2675.92	144.61	474.75	55.93	8.58	PASS
8313.00†	7436.00	-79.67	2401.83	8763.19	7823.00	-79.41	2675.87	144.70	474.20	55.84	8.59	PASS
8413.00†	7436.00	20.31	2403.53	8863.17	7823.00	20.58	2675.77	144.88	473.16	55.76	8.58	PASS
8513.00†	7436.00	120.30	2405.23	8963.16	7823.00	120.56	2675.67	145.06	472.13	56.00	8.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 36 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
8613.00†	7436.00	220.28	2406.93	9063.14	7823.00	220.55	2675.57	145.24	471.10	56.53	8.43	PASS
8713.00†	7436.00	320.27	2408.63	9163.12	7823.00	320.53	2675.48	145.42	470.08	57.34	8.29	PASS
8813.00†	7436.00	420.25	2410.33	9263.11	7823.00	420.51	2675.38	145.60	469.06	80.56	5.86	PASS
8913.00†	7436.00	520.24	2412.03	9363.09	7823.00	520.50	2675.28	145.78	468.05	59.75	7.92	PASS
9013.00†	7436.00	620.23	2413.73	9463.08	7823.00	620.48	2675.18	145.96	467.04	61.30	7.70	PASS
9113.00†	7436.00	720.21	2415.43	9563.06	7823.00	720.47	2675.08	146.15	466.04	63.05	7.46	PASS
9213.00†	7436.00	820.20	2417.13	9663.04	7823.00	820.45	2674.99	146.33	465.04	64.99	7.22	PASS
9313.00†	7436.00	920.18	2418.83	9763.03	7823.00	920.43	2674.89	146.51	464.04	67.08	6.98	PASS
9413.00†	7436.00	1020.17	2420.53	9863.01	7823.00	1020.42	2674.79	146.70	463.05	69.32	6.74	PASS
9513.00†	7436.00	1120.15	2422.23	9962.99	7823.00	1120.40	2674.69	146.89	462.07	71.69	6.50	PASS
9613.00†	7436.00	1220.14	2423.93	10062.98	7823.00	1220.38	2674.60	147.07	461.09	74.16	6.27	PASS
9713.00†	7436.00	1320.12	2425.63	10162.96	7823.00	1320.37	2674.50	147.26	460.11	76.73	6.04	PASS
9813.00†	7436.00	1420.11	2427.33	10262.95	7823.00	1420.35	2674.40	147.45	459.14	79.38	5.83	PASS
9913.00†	7436.00	1520.10	2429.03	10362.93	7823.00	1520.34	2674.30	147.64	458.18	82.10	5.62	PASS
10013.00†	7436.00	1620.08	2430.73	10462.91	7823.00	1620.32	2674.20	147.83	457.22	84.88	5.42	PASS
10113.00†	7436.00	1720.07	2432.43	10562.90	7823.00	1720.30	2674.11	148.02	456.26	87.71	5.24	PASS
10213.00†	7436.00	1820.05	2434.13	10662.88	7823.00	1820.29	2674.01	148.21	455.31	90.58	5.06	PASS
10313.00†	7436.00	1920.04	2435.83	10762.87	7823.00	1920.27	2673.91	148.41	454.37	93.48	4.89	PASS
10413.00†	7436.00	2020.02	2437.53	10862.85	7823.00	2020.25	2673.81	148.60	453.43	96.42	4.73	PASS
10513.00†	7436.00	2120.01	2439.23	10962.83	7823.00	2120.24	2673.71	148.79	452.49	99.38	4.58	PASS
10613.00†	7436.00	2219.99	2440.93	11062.82	7823.00	2220.22	2673.62	148.99	451.57	102.35	4.44	PASS
10713.00†	7436.00	2319.98	2442.63	11162.80	7823.00	2320.21	2673.52	149.18	450.64	105.34	4.30	PASS
10813.00†	7436.00	2419.97	2444.33	11262.78	7823.00	2420.19	2673.42	149.38	449.72	108.34	4.17	PASS
10913.00†	7436.00	2519.95	2446.03	11362.77	7823.00	2520.17	2673.32	149.58	448.81	111.34	4.05	PASS
11013.00†	7436.00	2619.94	2447.73	11462.75	7823.00	2620.16	2673.22	149.78	447.90	114.35	3.94	PASS
11113.00†	7436.00	2719.92	2449.43	11562.74	7823.00	2720.14	2673.13	149.98	447.00	117.36	3.83	PASS
11213.00†	7436.00	2819.91	2451.13	11662.72	7823.00	2820.12	2673.03	150.18	446.10	120.36	3.72	PASS
11313.00†	7436.00	2919.89	2452.83	11762.70	7823.00	2920.11	2672.93	150.38	445.21	123.37	3.62	PASS
11413.00†	7436.00	3019.88	2454.53	11862.69	7823.00	3020.09	2672.83	150.58	444.32	126.36	3.53	PASS
11513.00†	7436.00	3119.86	2456.23	11962.67	7823.00	3120.08	2672.73	150.78	443.44	129.35	3.44	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 37 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
11613.00†	7436.00	3219.85	2457.93	12062.65	7823.00	3220.06	2672.64	150.98	442.57	132.33	3.36	PASS
11713.00†	7436.00	3319.84	2459.63	12162.64	7823.00	3320.04	2672.54	151.19	441.70	135.29	3.28	PASS
11813.00†	7436.00	3419.82	2461.33	12262.62	7823.00	3420.03	2672.44	151.39	440.84	138.25	3.20	PASS
11913.00†	7436.00	3519.81	2463.03	12362.61	7823.00	3520.01	2672.34	151.60	439.98	141.19	3.13	PASS
12013.00†	7436.00	3619.79	2464.73	12462.59	7823.00	3620.00	2672.24	151.80	439.13	144.11	3.06	PASS
12113.00†	7436.00	3719.78	2466.43	12562.57	7823.00	3719.98	2672.15	152.01	438.28	147.02	2.99	PASS
12213.00†	7436.00	3819.76	2468.13	12662.56	7823.00	3819.96	2672.05	152.22	437.44	149.91	2.93	PASS
12313.00†	7436.00	3919.75	2469.83	12762.54	7823.00	3919.95	2671.95	152.43	436.60	152.78	2.87	PASS
12413.00†	7436.00	4019.73	2471.53	12862.53	7823.00	4019.93	2671.85	152.64	435.77	155.64	2.81	PASS
12513.00†	7436.00	4119.72	2473.23	12962.51	7823.00	4119.91	2671.75	152.85	434.95	158.47	2.75	PASS
12613.00†	7436.00	4219.71	2474.93	13062.49	7823.00	4219.90	2671.66	153.06	434.13	161.29	2.70	PASS
12713.00†	7436.00	4319.69	2476.63	13162.48	7823.00	4319.88	2671.56	153.27	433.32	164.08	2.65	PASS
12813.00†	7436.00	4419.68	2478.33	13262.46	7823.00	4419.87	2671.46	153.48	432.51	166.86	2.60	PASS
12913.00†	7436.00	4519.66	2480.03	13362.44	7823.00	4519.85	2671.36	153.70	431.71	169.61	2.55	PASS
13013.00†	7436.00	4619.65	2481.73	13462.43	7823.00	4619.83	2671.26	153.91	430.92	172.34	2.51	PASS
13113.00†	7436.00	4719.63	2483.43	13562.41	7823.00	4719.82	2671.17	154.13	430.13	175.05	2.46	PASS
13213.00†	7436.00	4819.62	2485.13	13662.40	7823.00	4819.80	2671.07	154.34	429.35	177.73	2.42	PASS
13313.00†	7436.00	4919.60	2486.83	13762.38	7823.00	4919.78	2670.97	154.56	428.58	180.39	2.38	PASS
13413.00†	7436.00	5019.59	2488.53	13862.36	7823.00	5019.77	2670.87	154.78	427.81	183.03	2.34	PASS
13513.00†	7436.00	5119.57	2490.23	13962.35	7823.00	5119.75	2670.77	154.99	427.04	185.65	2.31	PASS
13613.00†	7436.00	5219.56	2491.93	14062.33	7823.00	5219.74	2670.68	155.21	426.29	188.24	2.27	PASS
13713.00†	7436.00	5319.55	2493.63	14162.32	7823.00	5319.72	2670.58	155.43	425.53	190.81	2.23	PASS
13813.00†	7436.00	5419.53	2495.33	14262.30	7823.00	5419.70	2670.48	155.65	424.79	193.35	2.20	PASS
13913.00†	7436.00	5519.52	2497.03	14362.28	7823.00	5519.69	2670.38	155.87	424.05	195.87	2.17	PASS
14013.00†	7436.00	5619.50	2498.73	14462.27	7823.00	5619.67	2670.29	156.10	423.32	198.36	2.14	PASS
14113.00†	7436.00	5719.49	2500.43	14562.25	7823.00	5719.65	2670.19	156.32	422.59	200.83	2.11	PASS
14213.00†	7436.00	5819.47	2502.13	14662.23	7823.00	5819.64	2670.09	156.54	421.88	203.27	2.08	PASS
14313.00†	7436.00	5919.46	2503.83	14762.22	7823.00	5919.62	2669.99	156.77	421.16	205.69	2.05	PASS
14413.00†	7436.00	6019.44	2505.53	14862.20	7823.00	6019.61	2669.89	156.99	420.46	208.08	2.02	PASS
14513.00†	7436.00	6119.43	2507.23	14962.19	7823.00	6119.59	2669.80	157.22	419.76	210.45	2.00	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 38 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
14613.00†	7436.00	6219.42	2508.93	15062.17	7823.00	6219.57	2669.70	157.44	419.06	212.80	1.97	PASS
14713.00†	7436.00	6319.40	2510.63	15162.15	7823.00	6319.56	2669.60	157.67	418.38	215.12	1.95	PASS
14813.00†	7436.00	6419.39	2512.33	15262.14	7823.00	6419.54	2669.50	157.90	417.70	217.41	1.92	PASS
14913.00†	7436.00	6519.37	2514.03	15362.12	7823.00	6519.52	2669.40	158.13	417.03	219.68	1.90	PASS
15013.00†	7436.00	6619.36	2515.73	15462.11	7823.00	6619.51	2669.31	158.36	416.36	221.92	1.88	PASS
15113.00†	7436.00	6719.34	2517.43	15562.09	7823.00	6719.49	2669.21	158.59	415.70	224.14	1.86	PASS
15213.00†	7436.00	6819.33	2519.13	15662.07	7823.00	6819.48	2669.11	158.82	415.05	226.34	1.84	PASS
15313.00†	7436.00	6919.31	2520.83	15762.06	7823.00	6919.46	2669.01	159.05	414.40	228.51	1.82	PASS
15413.00†	7436.00	7019.30	2522.53	15862.04	7823.00	7019.44	2668.91	159.28	413.76	230.66	1.80	PASS
15513.00†	7436.00	7119.29	2524.23	15962.02	7823.00	7119.43	2668.82	159.52	413.13	232.78	1.78	PASS
15613.00†	7436.00	7219.27	2525.93	16062.01	7823.00	7219.41	2668.72	159.75	412.50	234.88	1.76	PASS
15713.00†	7436.00	7319.26	2527.63	16161.99	7823.00	7319.40	2668.62	159.99	411.88	236.95	1.74	PASS
15813.00†	7436.00	7419.24	2529.33	16261.98	7823.00	7419.38	2668.52	160.22	411.27	239.01	1.72	PASS
15913.00†	7436.00	7519.23	2531.03	16361.96	7823.00	7519.36	2668.42	160.46	410.67	241.03	1.71	PASS
16013.00†	7436.00	7619.21	2532.73	16461.94	7823.00	7619.35	2668.33	160.69	410.07	243.04	1.69	PASS
16113.00†	7436.00	7719.20	2534.43	16561.93	7823.00	7719.33	2668.23	160.93	409.48	245.02	1.67	PASS
16213.00†	7436.00	7819.18	2536.13	16661.91	7823.00	7819.31	2668.13	161.17	408.89	246.98	1.66	PASS
16313.00†	7436.00	7919.17	2537.83	16761.90	7823.00	7919.30	2668.03	161.41	408.32	248.92	1.64	PASS
16413.00†	7436.00	8019.16	2539.53	16861.88	7823.00	8019.28	2667.93	161.65	407.75	250.84	1.63	PASS
16513.00†	7436.00	8119.14	2541.23	16961.86	7823.00	8119.27	2667.84	161.89	407.18	252.73	1.61	PASS
16613.00†	7436.00	8219.13	2542.93	17061.85	7823.00	8219.25	2667.74	162.13	406.63	254.61	1.60	PASS
16713.00†	7436.00	8319.11	2544.63	17161.83	7823.00	8319.23	2667.64	162.37	406.08	256.46	1.58	PASS
16813.00†	7436.00	8419.10	2546.33	17261.81	7823.00	8419.22	2667.54	162.61	405.54	258.30	1.57	PASS
16913.00†	7436.00	8519.08	2548.03	17361.80	7823.00	8519.20	2667.44	162.85	405.00	260.11	1.56	PASS
17013.00†	7436.00	8619.07	2549.73	17461.78	7823.00	8619.18	2667.35	163.10	404.48	261.91	1.55	PASS
17113.00†	7436.00	8719.05	2551.43	17561.77	7823.00	8719.17	2667.25	163.34	403.96	263.68	1.53	PASS
17213.00†	7436.00	8819.04	2553.13	17661.75	7823.00	8819.15	2667.15	163.59	403.45	265.44	1.52	PASS
17313.00†	7436.00	8919.03	2554.83	17761.73	7823.00	8919.14	2667.05	163.83	402.94	267.18	1.51	PASS
17413.00†	7436.00	9019.01	2556.53	17861.72	7823.00	9019.12	2666.95	164.08	402.45	268.91	1.50	PASS
17513.00†	7436.00	9119.00	2558.23	17961.70	7823.00	9119.10	2666.86	164.32	401.96	270.62	1.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 39 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
17613.00†	7436.00	9218.98	2559.93	18061.69	7823.00	9219.09	2666.76	164.57	401.47	272.31	1.48	PASS
17713.00†	7436.00	9318.97	2561.63	18161.67	7823.00	9319.07	2666.66	164.82	401.00	273.98	1.46	PASS
17813.00†	7436.00	9418.95	2563.33	18261.65	7823.00	9419.05	2666.56	165.07	400.53	275.65	1.45	PASS
17913.00†	7436.00	9518.94	2565.03	18361.64	7823.00	9519.04	2666.47	165.32	400.07	277.29	1.44	PASS
17994.78	7436.00	9600.71	2566.42	18443.41	7823.00	9600.81	2666.39	165.52	399.70	278.28	1.44	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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	1785.27	0.03	9.15	-11.90	50.19
8.5in Open Hole	1800.00	18444.07	16644.07	1785.27	7823.00	-11.90	50.19	2926.54	817.29

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18444.07	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4CDH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 40 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 41 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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	-0.11	-29.96	-90.21	29.96	1.40	48.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-29.96	-90.21	29.96	1.72	31.86	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-29.96	-90.21	29.96	2.28	19.71	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-29.96	-90.21	29.96	2.88	14.02	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-29.96	-90.21	29.96	3.50	10.82	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-29.96	-90.21	29.96	4.12	8.80	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-29.96	-90.21	29.96	4.74	7.41	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-29.96	-90.21	29.96	5.36	6.40	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-29.96	-90.21	29.96	5.99	5.63	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-29.96	-90.21	29.96	6.61	5.02	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.11	-29.96	-90.21	29.96	7.16	4.59	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.11	-29.96	161.82	29.99	7.24	4.54	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.11	-29.96	163.03	32.09	7.96	4.37	PASS
1213.00†	1212.80	-2.44	7.53	1212.96	1212.96	-0.12	-29.94	165.52	37.54	8.94	4.52	PASS
1313.00†	1312.38	-5.28	16.25	1314.10	1314.07	-0.98	-27.87	167.55	44.35	9.94	4.76	PASS
1413.00†	1411.57	-9.18	28.26	1415.48	1415.28	-3.21	-22.48	168.72	51.23	11.11	4.89	PASS
1513.00†	1510.26	-14.15	43.57	1517.11	1516.46	-6.81	-13.76	169.34	58.13	12.21	5.02	PASS
1613.00†	1608.33	-20.18	62.14	1618.99	1617.49	-11.80	-1.70	169.57	65.04	13.26	5.16	PASS
1713.00†	1705.66	-27.27	83.95	1721.11	1718.24	-18.18	13.71	169.52	71.94	14.25	5.29	PASS
1813.00†	1802.13	-35.40	108.98	1823.47	1818.56	-25.95	32.48	169.27	78.82	15.14	5.41	PASS
1913.00†	1897.62	-44.56	137.20	1926.08	1918.33	-35.10	54.60	168.86	85.68	16.10	5.52	PASS
2013.00†	1992.02	-54.75	168.57	2028.92	2017.40	-45.64	80.08	168.33	92.51	17.07	5.61	PASS
2113.00†	2085.21	-65.95	203.06	2132.00	2115.64	-57.56	108.89	167.70	99.32	18.04	5.69	PASS
2162.94	2131.27	-71.92	221.43	2182.28	2163.22	-63.78	123.93	167.40	102.93	18.49	5.75	PASS
2213.00†	2177.25	-78.03	240.23	2232.18	2210.42	-69.97	138.88	167.18	106.95	18.87	5.85	PASS
2313.00†	2269.13	-90.23	277.79	2331.85	2304.71	-82.33	168.75	166.80	114.97	19.66	6.03	PASS
2413.00†	2361.00	-102.42	315.35	2431.53	2398.99	-94.69	198.62	166.46	123.00	20.51	6.18	PASS
2513.00†	2452.87	-114.62	352.91	2531.20	2493.28	-107.05	228.49	166.17	131.03	21.39	6.30	PASS
2613.00†	2544.75	-126.82	390.46	2630.87	2587.57	-119.41	258.36	165.91	139.07	22.32	6.40	PASS
2713.00†	2636.62	-139.02	428.02	2730.55	2681.85	-131.77	288.23	165.67	147.10	23.28	6.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 42 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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†	2728.49	-151.22	465.58	2830.22	2776.14	-144.12	318.10	165.47	155.14	24.27	6.56	PASS
2913.00†	2820.36	-163.42	503.14	2929.90	2870.43	-156.48	347.97	165.28	163.19	25.28	6.61	PASS
3013.00†	2912.24	-175.61	540.69	3029.57	2964.72	-168.84	377.84	165.11	171.23	26.31	6.66	PASS
3113.00†	3004.11	-187.81	578.25	3129.25	3059.00	-181.20	407.71	164.95	179.28	27.37	6.70	PASS
3213.00†	3095.98	-200.01	615.81	3228.92	3153.29	-193.56	437.58	164.81	187.32	28.44	6.73	PASS
3313.00†	3187.86	-212.21	653.36	3328.60	3247.58	-205.92	467.45	164.68	195.37	29.53	6.75	PASS
3413.00†	3279.73	-224.41	690.92	3428.27	3341.87	-218.28	497.32	164.56	203.42	30.64	6.77	PASS
3513.00†	3371.60	-236.61	728.48	3527.95	3436.15	-230.64	527.19	164.45	211.47	31.75	6.79	PASS
3613.00†	3463.48	-248.81	766.04	3627.62	3530.44	-243.00	557.07	164.35	219.51	32.88	6.80	PASS
3713.00†	3555.35	-261.00	803.59	3727.30	3624.73	-255.36	586.94	164.25	227.57	34.02	6.81	PASS
3813.00†	3647.22	-273.20	841.15	3826.97	3719.01	-267.72	616.81	164.17	235.62	35.17	6.82	PASS
3913.00†	3739.09	-285.40	878.71	3926.65	3813.30	-280.07	646.68	164.08	243.67	36.32	6.82	PASS
4013.00†	3830.97	-297.60	916.27	4026.32	3907.59	-292.43	676.55	164.01	251.72	37.49	6.82	PASS
4113.00†	3922.84	-309.80	953.82	4126.00	4001.88	-304.79	706.42	163.93	259.77	38.66	6.83	PASS
4213.00†	4014.71	-322.00	991.38	4225.67	4096.16	-317.15	736.29	163.86	267.82	39.84	6.83	PASS
4313.00†	4106.59	-334.19	1028.94	4325.35	4190.45	-329.51	766.16	163.80	275.88	41.02	6.83	PASS
4413.00†	4198.46	-346.39	1066.49	4425.02	4284.74	-341.87	796.03	163.74	283.93	42.21	6.82	PASS
4513.00†	4290.33	-358.59	1104.05	4524.70	4379.02	-354.23	825.90	163.68	291.98	43.40	6.82	PASS
4613.00†	4382.21	-370.79	1141.61	4624.37	4473.31	-366.59	855.77	163.63	300.04	44.60	6.82	PASS
4713.00†	4474.08	-382.99	1179.17	4724.04	4567.60	-378.95	885.64	163.58	308.09	45.80	6.82	PASS
4813.00†	4565.95	-395.19	1216.72	4823.72	4661.89	-391.31	915.51	163.53	316.15	47.01	6.81	PASS
4913.00†	4657.82	-407.39	1254.28	4923.39	4756.17	-403.67	945.38	163.48	324.20	48.22	6.81	PASS
5013.00†	4749.70	-419.58	1291.84	5023.07	4850.46	-416.02	975.25	163.44	332.26	49.43	6.80	PASS
5113.00†	4841.57	-431.78	1329.40	5122.74	4944.75	-428.38	1005.12	163.39	340.31	50.65	6.80	PASS
5213.00†	4933.44	-443.98	1366.95	5222.42	5039.03	-440.74	1034.99	163.35	348.37	51.87	6.80	PASS
5313.00†	5025.32	-456.18	1404.51	5322.09	5133.32	-453.10	1064.86	163.32	356.42	53.09	6.79	PASS
5413.00†	5117.19	-468.38	1442.07	5421.77	5227.61	-465.46	1094.73	163.28	364.48	54.32	6.79	PASS
5513.00†	5209.06	-480.58	1479.62	5521.44	5321.90	-477.82	1124.60	163.24	372.53	55.54	6.78	PASS
5613.00†	5300.94	-492.77	1517.18	5621.12	5416.18	-490.18	1154.47	163.21	380.59	56.77	6.78	PASS
5713.00†	5392.81	-504.97	1554.74	5720.79	5510.47	-502.54	1184.34	163.18	388.64	58.00	6.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 43 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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†	5484.68	-517.17	1592.30	5820.47	5604.76	-514.90	1214.21	163.15	396.70	59.24	6.77	PASS
5913.00†	5576.55	-529.37	1629.85	5920.14	5699.04	-527.26	1244.08	163.12	404.76	60.47	6.76	PASS
6013.00†	5668.43	-541.57	1667.41	6019.82	5793.33	-539.62	1273.95	163.09	412.81	61.71	6.76	PASS
6113.00†	5760.30	-553.77	1704.97	6119.49	5887.62	-551.97	1303.82	163.06	420.87	62.95	6.75	PASS
6213.00†	5852.17	-565.97	1742.53	6219.17	5981.91	-564.33	1333.69	163.04	428.92	64.19	6.75	PASS
6313.00†	5944.05	-578.16	1780.08	6318.84	6076.19	-576.69	1363.57	163.01	436.98	65.43	6.74	PASS
6413.00†	6035.92	-590.36	1817.64	6418.52	6170.48	-589.05	1393.44	162.99	445.04	66.67	6.74	PASS
6513.00†	6127.79	-602.56	1855.20	6518.19	6264.77	-601.41	1423.31	162.96	453.09	67.91	6.73	PASS
6613.00†	6219.67	-614.76	1892.76	6617.87	6359.05	-613.77	1453.18	162.94	461.15	69.16	6.73	PASS
6713.00†	6311.54	-626.96	1930.31	6717.54	6453.34	-626.13	1483.05	162.92	469.21	70.40	6.72	PASS
6813.00†	6403.41	-639.16	1967.87	6817.21	6547.63	-638.49	1512.92	162.90	477.26	71.65	6.72	PASS
6913.00†	6495.28	-651.36	2005.43	6916.89	6641.92	-650.85	1542.79	162.88	485.32	72.90	6.71	PASS
7013.00†	6587.16	-663.55	2042.98	7016.56	6736.20	-663.21	1572.66	162.86	493.38	74.15	6.71	PASS
7113.00†	6679.03	-675.75	2080.54	7116.24	6830.49	-675.57	1602.53	162.84	501.43	75.40	6.70	PASS
7213.00†	6770.90	-687.95	2118.10	7215.91	6924.78	-687.92	1632.40	162.82	509.49	76.65	6.70	PASS
7293.44	6844.80	-697.76	2148.31	7296.09	7000.62	-697.87	1656.43	162.80	515.97	77.66	6.70	PASS
7313.00†	6862.81	-699.82	2155.68	7315.58	7019.06	-700.28	1662.27	167.40	517.56	77.94	6.69	PASS
7413.00†	6955.18	-699.91	2193.64	7415.53	7113.97	-707.95	1692.33	-168.65	525.92	79.81	6.64	PASS
7513.00†	7046.06	-682.65	2231.29	7516.90	7210.07	-698.58	1722.75	-148.64	534.57	81.12	6.64	PASS
7613.00†	7132.69	-648.58	2267.48	7619.76	7304.44	-671.08	1752.61	-135.19	543.23	81.62	6.71	PASS
7713.00†	7212.43	-598.73	2301.11	7724.13	7393.84	-625.57	1780.88	-126.65	551.60	81.23	6.84	PASS
7813.00†	7282.86	-534.61	2331.15	7829.93	7474.93	-562.88	1806.50	-121.14	559.42	80.09	7.04	PASS
7913.00†	7341.85	-458.17	2356.69	7937.04	7544.43	-484.60	1828.43	-117.50	566.39	78.44	7.28	PASS
8013.00†	7387.59	-371.73	2376.97	8045.22	7599.32	-393.19	1845.73	-115.07	572.28	76.65	7.53	PASS
8113.00†	7418.70	-277.92	2391.35	8154.18	7637.09	-291.85	1857.59	-113.52	576.88	75.14	7.74	PASS
8213.00†	7434.23	-179.59	2399.41	8263.58	7655.95	-184.42	1863.46	-112.66	580.02	74.25	7.88	PASS
8259.81	7436.00	-132.86	2400.93	8314.68	7658.00	-133.38	1864.06	-112.47	580.96	74.10	7.91	PASS
8313.00†	7436.00	-79.67	2401.83	8367.87	7658.00	-80.19	1864.00	-112.43	581.84	74.23	7.90	PASS
8413.00†	7436.00	20.31	2403.53	8467.85	7658.00	19.79	1863.91	-112.37	583.51	74.80	7.87	PASS
8513.00†	7436.00	120.30	2405.23	8567.83	7658.00	119.77	1863.81	-112.30	585.17	75.83	7.78	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 44 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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†	7436.00	220.28	2406.93	8667.82	7658.00	219.76	1863.71	-112.23	586.83	77.30	7.65	PASS
8713.00†	7436.00	320.27	2408.63	8767.80	7658.00	319.74	1863.62	-112.17	588.49	79.18	7.49	PASS
8813.00†	7436.00	420.25	2410.33	8867.79	7658.00	419.72	1863.52	-112.10	590.16	87.85	6.76	PASS
8913.00†	7436.00	520.24	2412.03	8967.77	7658.00	519.71	1863.42	-112.03	591.82	84.05	7.09	PASS
9013.00†	7436.00	620.23	2413.73	9067.75	7658.00	619.69	1863.33	-111.97	593.49	86.98	6.87	PASS
9113.00†	7436.00	720.21	2415.43	9167.74	7658.00	719.68	1863.23	-111.91	595.16	90.20	6.64	PASS
9213.00†	7436.00	820.20	2417.13	9267.72	7658.00	819.66	1863.13	-111.84	596.82	93.68	6.41	PASS
9313.00†	7436.00	920.18	2418.83	9367.70	7658.00	919.64	1863.04	-111.78	598.49	97.39	6.18	PASS
9413.00†	7436.00	1020.17	2420.53	9467.69	7658.00	1019.63	1862.94	-111.71	600.16	101.32	5.96	PASS
9513.00†	7436.00	1120.15	2422.23	9567.67	7658.00	1119.61	1862.84	-111.65	601.83	105.42	5.74	PASS
9613.00†	7436.00	1220.14	2423.93	9667.66	7658.00	1219.60	1862.75	-111.59	603.50	109.69	5.53	PASS
9713.00†	7436.00	1320.12	2425.63	9767.64	7658.00	1319.58	1862.65	-111.52	605.17	114.11	5.33	PASS
9813.00†	7436.00	1420.11	2427.33	9867.62	7658.00	1419.56	1862.55	-111.46	606.84	118.66	5.14	PASS
9913.00†	7436.00	1520.10	2429.03	9967.61	7658.00	1519.55	1862.46	-111.40	608.52	123.33	4.96	PASS
10013.00†	7436.00	1620.08	2430.73	10067.59	7658.00	1619.53	1862.36	-111.34	610.19	128.10	4.78	PASS
10113.00†	7436.00	1720.07	2432.43	10167.58	7658.00	1719.51	1862.26	-111.28	611.86	132.97	4.62	PASS
10213.00†	7436.00	1820.05	2434.13	10267.56	7658.00	1819.50	1862.17	-111.22	613.54	137.92	4.47	PASS
10313.00†	7436.00	1920.04	2435.83	10367.54	7658.00	1919.48	1862.07	-111.16	615.21	142.94	4.32	PASS
10413.00†	7436.00	2020.02	2437.53	10467.53	7658.00	2019.47	1861.97	-111.10	616.89	148.04	4.18	PASS
10513.00†	7436.00	2120.01	2439.23	10567.51	7658.00	2119.45	1861.88	-111.04	618.57	153.19	4.05	PASS
10613.00†	7436.00	2219.99	2440.93	10667.49	7658.00	2219.43	1861.78	-110.98	620.24	158.40	3.93	PASS
10713.00†	7436.00	2319.98	2442.63	10767.48	7658.00	2319.42	1861.68	-110.92	621.92	163.67	3.81	PASS
10813.00†	7436.00	2419.97	2444.33	10867.46	7658.00	2419.40	1861.58	-110.86	623.60	168.98	3.70	PASS
10913.00†	7436.00	2519.95	2446.03	10967.45	7658.00	2519.39	1861.49	-110.80	625.28	174.33	3.60	PASS
11013.00†	7436.00	2619.94	2447.73	11067.43	7658.00	2619.37	1861.39	-110.74	626.96	179.73	3.50	PASS
11113.00†	7436.00	2719.92	2449.43	11167.41	7658.00	2719.35	1861.29	-110.68	628.64	185.16	3.40	PASS
11213.00†	7436.00	2819.91	2451.13	11267.40	7658.00	2819.34	1861.20	-110.63	630.32	190.62	3.32	PASS
11313.00†	7436.00	2919.89	2452.83	11367.38	7658.00	2919.32	1861.10	-110.57	632.00	196.12	3.23	PASS
11413.00†	7436.00	3019.88	2454.53	11467.37	7658.00	3019.30	1861.00	-110.51	633.69	201.64	3.15	PASS
11513.00†	7436.00	3119.86	2456.23	11567.35	7658.00	3119.29	1860.91	-110.45	635.37	207.19	3.07	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 45 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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†	7436.00	3219.85	2457.93	11667.33	7658.00	3219.27	1860.81	-110.40	637.05	212.76	3.00	PASS
11713.00†	7436.00	3319.84	2459.63	11767.32	7658.00	3319.26	1860.71	-110.34	638.74	218.36	2.93	PASS
11813.00†	7436.00	3419.82	2461.33	11867.30	7658.00	3419.24	1860.62	-110.29	640.42	223.98	2.87	PASS
11913.00†	7436.00	3519.81	2463.03	11967.28	7658.00	3519.22	1860.52	-110.23	642.11	229.62	2.80	PASS
12013.00†	7436.00	3619.79	2464.73	12067.27	7658.00	3619.21	1860.42	-110.17	643.79	235.28	2.74	PASS
12113.00†	7436.00	3719.78	2466.43	12167.25	7658.00	3719.19	1860.33	-110.12	645.48	240.96	2.68	PASS
12213.00†	7436.00	3819.76	2468.13	12267.24	7658.00	3819.17	1860.23	-110.07	647.17	246.65	2.63	PASS
12313.00†	7436.00	3919.75	2469.83	12367.22	7658.00	3919.16	1860.13	-110.01	648.86	252.36	2.58	PASS
12413.00†	7436.00	4019.73	2471.53	12467.20	7658.00	4019.14	1860.04	-109.96	650.55	258.08	2.52	PASS
12513.00†	7436.00	4119.72	2473.23	12567.19	7658.00	4119.13	1859.94	-109.90	652.23	263.82	2.48	PASS
12613.00†	7436.00	4219.71	2474.93	12667.17	7658.00	4219.11	1859.84	-109.85	653.92	269.57	2.43	PASS
12713.00†	7436.00	4319.69	2476.63	12767.16	7658.00	4319.09	1859.75	-109.80	655.61	275.34	2.38	PASS
12813.00†	7436.00	4419.68	2478.33	12867.14	7658.00	4419.08	1859.65	-109.74	657.31	281.12	2.34	PASS
12913.00†	7436.00	4519.66	2480.03	12967.12	7658.00	4519.06	1859.55	-109.69	659.00	286.90	2.30	PASS
13013.00†	7436.00	4619.65	2481.73	13067.11	7658.00	4619.05	1859.46	-109.64	660.69	292.70	2.26	PASS
13113.00†	7436.00	4719.63	2483.43	13167.09	7658.00	4719.03	1859.36	-109.59	662.38	298.51	2.22	PASS
13213.00†	7436.00	4819.62	2485.13	13267.07	7658.00	4819.01	1859.26	-109.53	664.07	304.33	2.18	PASS
13313.00†	7436.00	4919.60	2486.83	13367.06	7658.00	4919.00	1859.17	-109.48	665.77	310.16	2.15	PASS
13413.00†	7436.00	5019.59	2488.53	13467.04	7658.00	5018.98	1859.07	-109.43	667.46	316.00	2.11	PASS
13513.00†	7436.00	5119.57	2490.23	13567.03	7658.00	5118.96	1858.97	-109.38	669.16	321.85	2.08	PASS
13613.00†	7436.00	5219.56	2491.93	13667.01	7658.00	5218.95	1858.88	-109.33	670.85	327.71	2.05	PASS
13713.00†	7436.00	5319.55	2493.63	13766.99	7658.00	5318.93	1858.78	-109.28	672.55	333.57	2.02	PASS
13813.00†	7436.00	5419.53	2495.33	13866.98	7658.00	5418.92	1858.68	-109.23	674.24	339.45	1.99	PASS
13913.00†	7436.00	5519.52	2497.03	13966.96	7658.00	5518.90	1858.59	-109.18	675.94	345.33	1.96	PASS
14013.00†	7436.00	5619.50	2498.73	14066.95	7658.00	5618.88	1858.49	-109.13	677.64	351.21	1.93	PASS
14113.00†	7436.00	5719.49	2500.43	14166.93	7658.00	5718.87	1858.39	-109.08	679.34	357.11	1.90	PASS
14213.00†	7436.00	5819.47	2502.13	14266.91	7658.00	5818.85	1858.29	-109.03	681.03	363.01	1.88	PASS
14313.00†	7436.00	5919.46	2503.83	14366.90	7658.00	5918.83	1858.20	-108.98	682.73	368.92	1.85	PASS
14413.00†	7436.00	6019.44	2505.53	14466.88	7658.00	6018.82	1858.10	-108.93	684.43	374.83	1.83	PASS
14513.00†	7436.00	6119.43	2507.23	14566.86	7658.00	6118.80	1858.00	-108.88	686.13	380.75	1.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 46 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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†	7436.00	6219.42	2508.93	14666.85	7658.00	6218.79	1857.91	-108.83	687.83	386.68	1.78	PASS
14713.00†	7436.00	6319.40	2510.63	14766.83	7658.00	6318.77	1857.81	-108.78	689.53	392.61	1.76	PASS
14813.00†	7436.00	6419.39	2512.33	14866.82	7658.00	6418.75	1857.71	-108.74	691.24	398.55	1.74	PASS
14913.00†	7436.00	6519.37	2514.03	14966.80	7658.00	6518.74	1857.62	-108.69	692.94	404.49	1.71	PASS
15013.00†	7436.00	6619.36	2515.73	15066.78	7658.00	6618.72	1857.52	-108.64	694.64	410.37	1.69	PASS
15113.00†	7436.00	6719.34	2517.43	15166.77	7658.00	6718.71	1857.42	-108.59	696.34	416.39	1.67	PASS
15213.00†	7436.00	6819.33	2519.13	15266.75	7658.00	6818.69	1857.33	-108.55	698.05	422.35	1.65	PASS
15313.00†	7436.00	6919.31	2520.83	15366.74	7658.00	6918.67	1857.23	-108.50	699.75	428.31	1.63	PASS
15413.00†	7436.00	7019.30	2522.53	15466.72	7658.00	7018.66	1857.13	-108.45	701.45	434.28	1.62	PASS
15513.00†	7436.00	7119.29	2524.23	15566.70	7658.00	7118.64	1857.04	-108.41	703.16	440.25	1.60	PASS
15613.00†	7436.00	7219.27	2525.93	15666.69	7658.00	7218.62	1856.94	-108.36	704.86	446.23	1.58	PASS
15713.00†	7436.00	7319.26	2527.63	15766.67	7658.00	7318.61	1856.84	-108.32	706.57	452.21	1.56	PASS
15813.00†	7436.00	7419.24	2529.33	15866.66	7658.00	7418.59	1856.75	-108.27	708.27	458.19	1.55	PASS
15913.00†	7436.00	7519.23	2531.03	15966.64	7658.00	7518.58	1856.65	-108.22	709.98	464.18	1.53	PASS
16013.00†	7436.00	7619.21	2532.73	16066.62	7658.00	7618.56	1856.55	-108.18	711.69	470.18	1.51	PASS
16113.00†	7436.00	7719.20	2534.43	16166.61	7658.00	7718.54	1856.46	-108.13	713.40	476.17	1.50	PASS
16213.00†	7436.00	7819.18	2536.13	16266.59	7658.00	7818.53	1856.36	-108.09	715.10	482.17	1.48	PASS
16313.00†	7436.00	7919.17	2537.83	16366.57	7658.00	7918.51	1856.26	-108.04	716.81	488.18	1.47	PASS
16413.00†	7436.00	8019.16	2539.53	16466.56	7658.00	8018.49	1856.17	-108.00	718.52	494.19	1.45	PASS
16513.00†	7436.00	8119.14	2541.23	16566.54	7658.00	8118.48	1856.07	-107.96	720.23	500.20	1.44	PASS
16613.00†	7436.00	8219.13	2542.93	16666.53	7658.00	8218.46	1855.97	-107.91	721.94	506.21	1.43	PASS
16713.00†	7436.00	8319.11	2544.63	16766.51	7658.00	8318.45	1855.88	-107.87	723.65	512.23	1.41	PASS
16813.00†	7436.00	8419.10	2546.33	16866.49	7658.00	8418.43	1855.78	-107.82	725.36	518.26	1.40	PASS
16913.00†	7436.00	8519.08	2548.03	16966.48	7658.00	8518.41	1855.68	-107.78	727.07	524.28	1.39	PASS
17013.00†	7436.00	8619.07	2549.73	17066.46	7658.00	8618.40	1855.59	-107.74	728.78	530.31	1.37	PASS
17113.00†	7436.00	8719.05	2551.43	17166.45	7658.00	8718.38	1855.49	-107.70	730.49	536.34	1.36	PASS
17213.00†	7436.00	8819.04	2553.13	17266.43	7658.00	8818.37	1855.39	-107.65	732.20	542.38	1.35	PASS
17313.00†	7436.00	8919.03	2554.83	17366.41	7658.00	8918.35	1855.30	-107.61	733.92	548.41	1.34	PASS
17413.00†	7436.00	9019.01	2556.53	17466.40	7658.00	9018.33	1855.20	-107.57	735.63	554.45	1.33	PASS
17513.00†	7436.00	9119.00	2558.23	17566.38	7658.00	9118.32	1855.10	-107.53	737.34	560.50	1.32	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 47 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NCH 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
17613.00†	7436.00	9218.98	2559.93	17666.36	7658.00	9218.30	1855.00	-107.48	739.06	566.54	1.30	PASS
17713.00†	7436.00	9318.97	2561.63	17766.35	7658.00	9318.28	1854.91	-107.44	740.77	572.59	1.29	PASS
17813.00†	7436.00	9418.95	2563.33	17866.33	7658.00	9418.27	1854.81	-107.40	742.48	578.65	1.28	PASS
17913.00†	7436.00	9518.94	2565.03	17966.32	7658.00	9518.25	1854.71	-107.36	744.20	584.70	1.27	PASS
17989.95†	7436.00	9595.87	2566.34	18043.25	7658.00	9595.19	1854.64	-107.33	745.52	589.36	1.27	PASS
17994.78	7436.00	9600.71	2566.42	18043.25	7658.00	9595.19	1854.64	-107.33	745.62	588.29	1.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH 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: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH 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	1795.62	-0.07	-18.27	-7.36	-0.63
8.5in Open Hole	1800.00	18043.25	16243.25	1795.62	7658.00	-7.36	-0.63	2924.58	556.16

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-4NCH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18043.28	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NCH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 48 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 49 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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	-0.18	-60.01	-90.18	60.01	1.40	98.69	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.18	-60.01	-90.18	60.01	1.72	64.68	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.18	-60.01	-90.18	60.01	2.28	40.02	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.18	-60.01	-90.18	60.01	2.88	28.46	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.18	-60.01	-90.18	60.01	3.50	21.98	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.18	-60.01	-90.18	60.01	4.12	17.87	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.18	-60.01	-90.18	60.01	4.74	15.05	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.18	-60.01	-90.18	60.01	5.36	12.99	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.18	-60.01	-90.18	60.01	5.99	11.42	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.18	-60.01	-90.18	60.01	6.61	10.19	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.18	-60.01	-90.18	60.01	7.16	9.32	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.18	-60.01	161.84	60.04	7.24	9.21	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.18	-60.01	162.46	62.13	7.96	8.57	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.18	-60.01	163.88	67.58	8.93	8.22	PASS
1313.00†	1312.38	-5.28	16.25	1312.38	1312.38	-0.18	-60.01	165.75	76.43	9.84	8.36	PASS
1413.00†	1411.57	-9.18	28.26	1411.91	1411.91	-0.20	-59.99	167.70	88.71	10.72	8.86	PASS
1513.00†	1510.26	-14.15	43.57	1514.04	1514.01	-1.34	-58.06	169.09	102.50	11.64	9.38	PASS
1613.00†	1608.33	-20.18	62.14	1616.65	1616.45	-4.36	-52.97	169.76	116.47	12.71	9.71	PASS
1713.00†	1705.66	-27.27	83.95	1719.76	1719.09	-9.27	-44.68	169.92	130.58	13.76	10.02	PASS
1813.00†	1802.13	-35.40	108.98	1823.34	1821.80	-16.10	-33.15	169.73	144.78	14.66	10.32	PASS
1913.00†	1897.62	-44.56	137.20	1927.39	1924.42	-24.86	-18.37	169.27	159.08	15.64	10.61	PASS
2013.00†	1992.02	-54.75	168.57	2031.90	2026.79	-35.56	-0.30	168.61	173.48	16.63	10.85	PASS
2113.00†	2085.21	-65.95	203.06	2136.87	2128.77	-48.22	21.07	167.78	187.97	17.61	11.08	PASS
2162.94	2131.27	-71.92	221.43	2188.12	2178.23	-55.06	32.61	167.34	195.31	18.05	11.22	PASS
2213.00†	2177.25	-78.03	240.23	2237.57	2225.92	-61.73	43.87	166.99	202.96	18.44	11.40	PASS
2313.00†	2269.13	-90.23	277.79	2336.37	2321.19	-75.06	66.38	166.35	218.26	19.28	11.71	PASS
2413.00†	2361.00	-102.42	315.35	2435.16	2416.46	-88.39	88.88	165.80	233.58	20.07	12.03	PASS
2513.00†	2452.87	-114.62	352.91	2533.96	2511.73	-101.73	111.39	165.32	248.92	20.95	12.26	PASS
2613.00†	2544.75	-126.82	390.46	2632.75	2607.00	-115.06	133.89	164.89	264.28	21.88	12.45	PASS
2713.00†	2636.62	-139.02	428.02	2731.55	2702.27	-128.39	156.40	164.51	279.64	22.85	12.60	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 50 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	2728.49	-151.22	465.58	2830.34	2797.54	-141.73	178.90	164.17	295.02	23.84	12.72	PASS
2913.00†	2820.36	-163.42	503.14	2929.14	2892.81	-155.06	201.41	163.86	310.41	24.87	12.82	PASS
3013.00†	2912.24	-175.61	540.69	3027.94	2988.08	-168.39	223.92	163.58	325.81	25.92	12.90	PASS
3113.00†	3004.11	-187.81	578.25	3126.73	3083.35	-181.73	246.42	163.33	341.21	26.99	12.95	PASS
3213.00†	3095.98	-200.01	615.81	3225.53	3178.62	-195.06	268.93	163.10	356.62	28.09	13.00	PASS
3313.00†	3187.86	-212.21	653.36	3324.32	3273.89	-208.39	291.43	162.89	372.04	29.20	13.03	PASS
3413.00†	3279.73	-224.41	690.92	3423.12	3369.16	-221.72	313.94	162.69	387.46	30.33	13.06	PASS
3513.00†	3371.60	-236.61	728.48	3521.92	3464.43	-235.06	336.44	162.51	402.88	31.47	13.07	PASS
3613.00†	3463.48	-248.81	766.04	3620.71	3559.70	-248.39	358.95	162.34	418.31	32.63	13.08	PASS
3713.00†	3555.35	-261.00	803.59	3719.51	3654.97	-261.72	381.45	162.19	433.74	33.79	13.09	PASS
3813.00†	3647.22	-273.20	841.15	3818.30	3750.24	-275.06	403.96	162.04	449.17	34.97	13.09	PASS
3913.00†	3739.09	-285.40	878.71	3917.10	3845.51	-288.39	426.46	161.91	464.61	36.16	13.09	PASS
4013.00†	3830.97	-297.60	916.27	4015.89	3940.78	-301.72	448.97	161.78	480.04	37.36	13.08	PASS
4113.00†	3922.84	-309.80	953.82	4114.69	4036.05	-315.05	471.47	161.66	495.48	38.56	13.07	PASS
4213.00†	4014.71	-322.00	991.38	4213.49	4131.32	-328.39	493.98	161.55	510.93	39.77	13.06	PASS
4313.00†	4106.59	-334.19	1028.94	4312.28	4226.59	-341.72	516.48	161.45	526.37	40.99	13.05	PASS
4413.00†	4198.46	-346.39	1066.49	4411.08	4321.86	-355.05	538.99	161.35	541.81	42.21	13.04	PASS
4513.00†	4290.33	-358.59	1104.05	4509.87	4417.13	-368.39	561.50	161.26	557.26	43.44	13.02	PASS
4613.00†	4382.21	-370.79	1141.61	4608.67	4512.40	-381.72	584.00	161.17	572.71	44.67	13.01	PASS
4713.00†	4474.08	-382.99	1179.17	4707.46	4607.67	-395.05	606.51	161.09	588.16	45.91	13.00	PASS
4813.00†	4565.95	-395.19	1216.72	4806.26	4702.94	-408.39	629.01	161.01	603.61	47.15	12.98	PASS
4913.00†	4657.82	-407.39	1254.28	4905.06	4798.21	-421.72	651.52	160.93	619.06	48.40	12.97	PASS
5013.00†	4749.70	-419.58	1291.84	5003.85	4893.48	-435.05	674.02	160.86	634.51	49.65	12.95	PASS
5113.00†	4841.57	-431.78	1329.40	5102.65	4988.75	-448.38	696.53	160.79	649.97	50.90	12.94	PASS
5213.00†	4933.44	-443.98	1366.95	5201.44	5084.02	-461.72	719.03	160.73	665.42	52.16	12.92	PASS
5313.00†	5025.32	-456.18	1404.51	5300.24	5179.29	-475.05	741.54	160.66	680.88	53.42	12.90	PASS
5413.00†	5117.19	-468.38	1442.07	5399.04	5274.56	-488.38	764.04	160.60	696.33	54.68	12.89	PASS
5513.00†	5209.06	-480.58	1479.62	5497.83	5369.83	-501.72	786.55	160.55	711.79	55.94	12.87	PASS
5613.00†	5300.94	-492.77	1517.18	5596.63	5465.10	-515.05	809.05	160.49	727.25	57.21	12.86	PASS
5713.00†	5392.81	-504.97	1554.74	5695.42	5560.37	-528.38	831.56	160.44	742.71	58.48	12.84	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 51 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	5484.68	-517.17	1592.30	5794.22	5655.64	-541.71	854.06	160.39	758.17	59.75	12.83	PASS
5913.00†	5576.55	-529.37	1629.85	5893.01	5750.91	-555.05	876.57	160.34	773.62	61.03	12.81	PASS
6013.00†	5668.43	-541.57	1667.41	5991.81	5846.18	-568.38	899.08	160.30	789.08	62.30	12.80	PASS
6113.00†	5760.30	-553.77	1704.97	6090.61	5941.45	-581.71	921.58	160.25	804.54	63.58	12.79	PASS
6213.00†	5852.17	-565.97	1742.53	6189.40	6036.72	-595.05	944.09	160.21	820.01	64.86	12.77	PASS
6313.00†	5944.05	-578.16	1780.08	6288.20	6131.99	-608.38	966.59	160.17	835.47	66.14	12.76	PASS
6413.00†	6035.92	-590.36	1817.64	6386.99	6227.26	-621.71	989.10	160.13	850.93	67.42	12.75	PASS
6513.00†	6127.79	-602.56	1855.20	6485.79	6322.53	-635.05	1011.60	160.09	866.39	68.70	12.73	PASS
6613.00†	6219.67	-614.76	1892.76	6584.59	6417.80	-648.38	1034.11	160.05	881.85	69.98	12.72	PASS
6713.00†	6311.54	-626.96	1930.31	6683.38	6513.07	-661.71	1056.61	160.02	897.31	71.27	12.71	PASS
6813.00†	6403.41	-639.16	1967.87	6782.18	6608.34	-675.04	1079.12	159.98	912.78	72.56	12.69	PASS
6913.00†	6495.28	-651.36	2005.43	6880.97	6703.61	-688.38	1101.62	159.95	928.24	73.84	12.68	PASS
7013.00†	6587.16	-663.55	2042.98	6979.77	6798.88	-701.71	1124.13	159.92	943.70	75.13	12.67	PASS
7113.00†	6679.03	-675.75	2080.54	7085.49	6901.43	-707.95	1148.41	160.37	958.83	75.82	12.76	PASS
7213.00†	6770.90	-687.95	2118.10	7186.24	6998.61	-695.88	1171.55	161.85	973.59	75.17	13.07	PASS
7293.44	6844.80	-697.76	2148.31	7259.60	7067.28	-676.18	1187.98	163.52	986.00	73.98	13.45	PASS
7313.00†	6862.81	-699.82	2155.68	7276.36	7082.59	-670.42	1191.65	168.75	989.20	73.66	13.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

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



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 52 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH 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	1798.70	-0.11	-36.58	-4.44	-29.27
8.5in Open Hole	1800.00	17693.67	15893.67	1798.70	7440.00	-4.44	-29.27	2923.33	392.80

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17693.71	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NAH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 53 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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	-0.13	-45.00	-90.16	45.00	1.40	73.67	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.13	-45.00	-90.16	45.00	1.72	48.28	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.13	-45.00	-90.16	45.00	2.28	29.88	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.13	-45.00	-90.16	45.00	2.88	21.24	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.13	-45.00	-90.16	45.00	3.50	16.41	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.13	-45.00	-90.16	45.00	4.12	13.34	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.13	-45.00	-90.16	45.00	4.74	11.23	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.13	-45.00	-90.16	45.00	5.36	9.69	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.13	-45.00	-90.16	45.00	5.99	8.53	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.13	-45.00	-90.16	45.00	6.61	7.61	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.13	-45.00	-90.16	45.00	7.16	6.96	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.13	-45.00	161.86	45.03	7.24	6.87	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.13	-45.00	162.68	47.13	7.96	6.47	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.13	-45.00	164.49	52.58	8.93	6.37	PASS
1313.00†	1312.38	-5.28	16.25	1312.63	1312.63	-0.14	-44.98	166.73	61.44	9.85	6.70	PASS
1413.00†	1411.57	-9.18	28.26	1414.27	1414.24	-1.18	-42.98	168.36	71.74	10.81	7.09	PASS
1513.00†	1510.26	-14.15	43.57	1516.28	1516.08	-3.90	-37.77	169.16	82.19	11.92	7.32	PASS
1613.00†	1608.33	-20.18	62.14	1618.66	1618.00	-8.32	-29.31	169.40	92.72	12.99	7.54	PASS
1713.00†	1705.66	-27.27	83.95	1721.40	1719.88	-14.44	-17.57	169.25	103.32	14.00	7.77	PASS
1813.00†	1802.13	-35.40	108.98	1824.49	1821.57	-22.27	-2.55	168.82	113.98	14.88	7.99	PASS
1913.00†	1897.62	-44.56	137.20	1927.94	1922.92	-31.83	15.77	168.18	124.69	15.86	8.18	PASS
2013.00†	1992.02	-54.75	168.57	2031.73	2023.80	-43.11	37.40	167.37	135.47	16.83	8.36	PASS
2113.00†	2085.21	-65.95	203.06	2132.85	2121.34	-55.44	61.03	166.56	146.93	17.74	8.58	PASS
2162.94	2131.27	-71.92	221.43	2182.31	2169.02	-61.53	72.71	166.29	153.79	18.17	8.77	PASS
2213.00†	2177.25	-78.03	240.23	2231.83	2216.75	-67.63	84.40	166.11	161.10	18.60	8.97	PASS
2313.00†	2269.13	-90.23	277.79	2330.76	2312.10	-79.82	107.76	165.80	175.69	19.35	9.39	PASS
2413.00†	2361.00	-102.42	315.35	2429.68	2407.46	-92.00	131.11	165.54	190.29	20.19	9.73	PASS
2513.00†	2452.87	-114.62	352.91	2528.61	2502.81	-104.18	154.47	165.32	204.89	21.06	10.03	PASS
2613.00†	2544.75	-126.82	390.46	2627.53	2598.17	-116.37	177.82	165.13	219.50	21.97	10.29	PASS
2713.00†	2636.62	-139.02	428.02	2726.46	2693.52	-128.55	201.18	164.96	234.10	22.91	10.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 54 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	2728.49	-151.22	465.58	2825.38	2788.87	-140.73	224.53	164.81	248.71	23.87	10.71	PASS
2913.00†	2820.36	-163.42	503.14	2924.31	2884.23	-152.92	247.89	164.67	263.32	24.85	10.88	PASS
3013.00†	2912.24	-175.61	540.69	3023.23	2979.58	-165.10	271.24	164.55	277.93	25.86	11.02	PASS
3113.00†	3004.11	-187.81	578.25	3122.16	3074.93	-177.29	294.60	164.45	292.55	26.88	11.15	PASS
3213.00†	3095.98	-200.01	615.81	3221.08	3170.29	-189.47	317.96	164.35	307.16	27.91	11.26	PASS
3313.00†	3187.86	-212.21	653.36	3320.01	3265.64	-201.65	341.31	164.26	321.77	28.96	11.36	PASS
3413.00†	3279.73	-224.41	690.92	3418.93	3360.99	-213.84	364.67	164.18	336.39	30.03	11.45	PASS
3513.00†	3371.60	-236.61	728.48	3517.86	3456.35	-226.02	388.02	164.11	351.01	31.10	11.53	PASS
3613.00†	3463.48	-248.81	766.04	3616.78	3551.70	-238.20	411.38	164.04	365.62	32.18	11.59	PASS
3713.00†	3555.35	-261.00	803.59	3715.71	3647.05	-250.39	434.73	163.97	380.24	33.27	11.65	PASS
3813.00†	3647.22	-273.20	841.15	3814.64	3742.41	-262.57	458.09	163.92	394.85	34.37	11.71	PASS
3913.00†	3739.09	-285.40	878.71	3913.56	3837.76	-274.75	481.44	163.86	409.47	35.48	11.76	PASS
4013.00†	3830.97	-297.60	916.27	4012.49	3933.11	-286.94	504.80	163.81	424.09	36.59	11.80	PASS
4113.00†	3922.84	-309.80	953.82	4111.41	4028.47	-299.12	528.15	163.76	438.71	37.71	11.84	PASS
4213.00†	4014.71	-322.00	991.38	4210.34	4123.82	-311.31	551.51	163.72	453.33	38.84	11.87	PASS
4313.00†	4106.59	-334.19	1028.94	4309.26	4219.17	-323.49	574.87	163.68	467.94	39.97	11.90	PASS
4413.00†	4198.46	-346.39	1066.49	4408.19	4314.53	-335.67	598.22	163.64	482.56	41.10	11.93	PASS
4513.00†	4290.33	-358.59	1104.05	4507.11	4409.88	-347.86	621.58	163.60	497.18	42.24	11.95	PASS
4613.00†	4382.21	-370.79	1141.61	4606.04	4505.23	-360.04	644.93	163.57	511.80	43.38	11.98	PASS
4713.00†	4474.08	-382.99	1179.17	4704.96	4600.59	-372.22	668.29	163.54	526.42	44.53	12.00	PASS
4813.00†	4565.95	-395.19	1216.72	4803.89	4695.94	-384.41	691.64	163.51	541.04	45.68	12.01	PASS
4913.00†	4657.82	-407.39	1254.28	4902.81	4791.29	-396.59	715.00	163.48	555.66	46.83	12.03	PASS
5013.00†	4749.70	-419.58	1291.84	5001.74	4886.65	-408.77	738.35	163.45	570.28	47.99	12.05	PASS
5113.00†	4841.57	-431.78	1329.40	5100.66	4982.00	-420.96	761.71	163.42	584.90	49.15	12.06	PASS
5213.00†	4933.44	-443.98	1366.95	5199.59	5077.35	-433.14	785.07	163.40	599.52	50.31	12.07	PASS
5313.00†	5025.32	-456.18	1404.51	5298.51	5172.71	-445.33	808.42	163.38	614.14	51.47	12.08	PASS
5413.00†	5117.19	-468.38	1442.07	5397.44	5268.06	-457.51	831.78	163.35	628.76	52.63	12.10	PASS
5513.00†	5209.06	-480.58	1479.62	5496.36	5363.41	-469.69	855.13	163.33	643.38	53.80	12.10	PASS
5613.00†	5300.94	-492.77	1517.18	5595.29	5458.77	-481.88	878.49	163.31	658.00	54.97	12.11	PASS
5713.00†	5392.81	-504.97	1554.74	5694.21	5554.12	-494.06	901.84	163.29	672.62	56.14	12.12	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 55 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	5484.68	-517.17	1592.30	5793.14	5649.47	-506.24	925.20	163.27	687.24	57.31	12.13	PASS
5913.00†	5576.55	-529.37	1629.85	5892.06	5744.83	-518.43	948.55	163.25	701.86	58.49	12.14	PASS
6013.00†	5668.43	-541.57	1667.41	5990.99	5840.18	-530.61	971.91	163.24	716.48	59.66	12.14	PASS
6113.00†	5760.30	-553.77	1704.97	6089.92	5935.53	-542.79	995.27	163.22	731.10	60.84	12.15	PASS
6213.00†	5852.17	-565.97	1742.53	6188.84	6030.89	-554.98	1018.62	163.20	745.72	62.02	12.15	PASS
6313.00†	5944.05	-578.16	1780.08	6287.77	6126.24	-567.16	1041.98	163.19	760.34	63.20	12.16	PASS
6413.00†	6035.92	-590.36	1817.64	6386.69	6221.59	-579.35	1065.33	163.17	774.96	64.38	12.16	PASS
6513.00†	6127.79	-602.56	1855.20	6485.62	6316.95	-591.53	1088.69	163.16	789.58	65.56	12.16	PASS
6613.00†	6219.67	-614.76	1892.76	6584.54	6412.30	-603.71	1112.04	163.15	804.20	66.74	12.17	PASS
6713.00†	6311.54	-626.96	1930.31	6683.47	6507.66	-615.90	1135.40	163.13	818.82	67.92	12.17	PASS
6813.00†	6403.41	-639.16	1967.87	6782.39	6603.01	-628.08	1158.75	163.12	833.44	69.11	12.17	PASS
6913.00†	6495.28	-651.36	2005.43	6881.32	6698.36	-640.26	1182.11	163.11	848.07	70.29	12.18	PASS
7013.00†	6587.16	-663.55	2042.98	6980.24	6793.72	-652.45	1205.47	163.10	862.69	71.48	12.18	PASS
7113.00†	6679.03	-675.75	2080.54	7079.17	6889.07	-664.63	1228.82	163.08	877.31	72.67	12.18	PASS
7213.00†	6770.90	-687.95	2118.10	7178.09	6984.42	-676.81	1252.18	163.07	891.93	73.85	12.18	PASS
7293.44	6844.80	-697.76	2148.31	7257.66	7061.12	-686.61	1270.96	163.06	903.69	74.81	12.19	PASS
7313.00†	6862.81	-699.82	2155.68	7277.01	7079.77	-689.00	1275.53	167.81	906.56	75.06	12.18	PASS
7413.00†	6955.18	-699.91	2193.64	7375.03	7174.25	-701.07	1298.67	-167.51	921.39	76.81	12.10	PASS
7513.00†	7046.06	-682.65	2231.29	7472.57	7268.59	-709.07	1321.78	-147.48	936.72	79.02	11.95	PASS
7613.00†	7132.69	-648.58	2267.48	7574.88	7367.49	-700.47	1345.98	-134.12	952.36	80.66	11.90	PASS
7713.00†	7212.43	-598.73	2301.11	7682.77	7468.41	-671.96	1370.66	-125.73	967.79	81.30	12.00	PASS
7813.00†	7282.86	-534.61	2331.15	7796.91	7567.52	-621.22	1394.87	-120.42	982.42	80.73	12.27	PASS
7913.00†	7341.85	-458.17	2356.69	7917.70	7659.58	-546.68	1417.34	-117.02	995.58	78.96	12.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

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



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 56 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH 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	1797.47	-0.08	-27.43	-6.21	-15.67
8.5in Open Hole	1800.00	18103.54	16303.54	1797.47	7828.00	-6.21	-15.67	2923.60	427.84

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18103.54	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3CDH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 57 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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	-0.24	-74.97	-90.18	74.97	1.40	123.61	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.24	-74.97	-90.18	74.97	1.72	81.02	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.24	-74.97	-90.18	74.97	2.28	50.13	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.24	-74.97	-90.18	74.97	2.88	35.64	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.24	-74.97	-90.18	74.97	3.50	27.53	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.24	-74.97	-90.18	74.97	4.12	22.38	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.24	-74.97	-90.18	74.97	4.74	18.85	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.24	-74.97	-90.18	74.97	5.36	16.27	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.24	-74.97	-90.18	74.97	5.99	14.31	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.24	-74.97	-90.18	74.97	6.61	12.77	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.24	-74.97	-90.18	74.97	7.16	11.67	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.24	-74.97	161.83	75.00	7.24	11.53	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.24	-74.97	162.33	77.09	7.96	10.66	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.24	-74.97	163.50	82.52	8.93	10.06	PASS
1313.00†	1312.38	-5.28	16.25	1312.38	1312.38	-0.24	-74.97	165.08	91.35	9.84	10.02	PASS
1413.00†	1411.57	-9.18	28.26	1411.57	1411.57	-0.24	-74.97	166.83	103.62	10.72	10.37	PASS
1513.00†	1510.26	-14.15	43.57	1510.65	1510.65	-0.25	-74.95	168.52	119.33	11.56	11.01	PASS
1613.00†	1608.33	-20.18	62.14	1613.16	1613.13	-1.52	-73.14	169.71	136.64	12.46	11.65	PASS
1713.00†	1705.66	-27.27	83.95	1716.26	1716.05	-4.93	-68.29	170.22	154.23	13.50	12.08	PASS
1813.00†	1802.13	-35.40	108.98	1819.94	1819.28	-10.50	-60.37	170.26	172.03	14.42	12.50	PASS
1913.00†	1897.62	-44.56	137.20	1924.19	1922.64	-18.26	-49.32	169.95	190.02	15.40	12.88	PASS
2013.00†	1992.02	-54.75	168.57	2029.00	2026.00	-28.24	-35.12	169.38	208.20	16.39	13.23	PASS
2113.00†	2085.21	-65.95	203.06	2134.35	2129.18	-40.46	-17.74	168.62	226.57	17.37	13.56	PASS
2162.94	2131.27	-71.92	221.43	2186.20	2179.66	-47.25	-8.07	168.18	235.85	17.82	13.75	PASS
2213.00†	2177.25	-78.03	240.23	2235.32	2227.44	-53.83	1.29	167.83	245.35	18.19	13.99	PASS
2313.00†	2269.13	-90.23	277.79	2333.46	2322.87	-66.99	20.01	167.19	264.35	18.96	14.45	PASS
2413.00†	2361.00	-102.42	315.35	2431.60	2418.31	-80.14	38.72	166.65	283.38	19.80	14.81	PASS
2513.00†	2452.87	-114.62	352.91	2529.74	2513.75	-93.29	57.43	166.17	302.43	20.62	15.16	PASS
2613.00†	2544.75	-126.82	390.46	2627.88	2609.18	-106.44	76.14	165.75	321.50	21.51	15.42	PASS
2713.00†	2636.62	-139.02	428.02	2726.02	2704.62	-119.59	94.85	165.37	340.59	22.43	15.64	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 58 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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†	2728.49	-151.22	465.58	2824.16	2800.06	-132.74	113.57	165.04	359.69	23.39	15.83	PASS
2913.00†	2820.36	-163.42	503.14	2922.30	2895.49	-145.89	132.28	164.74	378.80	24.37	15.98	PASS
3013.00†	2912.24	-175.61	540.69	3020.44	2990.93	-159.04	150.99	164.46	397.91	25.38	16.10	PASS
3113.00†	3004.11	-187.81	578.25	3118.57	3086.37	-172.19	169.70	164.22	417.04	26.41	16.20	PASS
3213.00†	3095.98	-200.01	615.81	3216.71	3181.80	-185.34	188.41	163.99	436.17	27.46	16.28	PASS
3313.00†	3187.86	-212.21	653.36	3314.85	3277.24	-198.49	207.13	163.78	455.31	28.53	16.34	PASS
3413.00†	3279.73	-224.41	690.92	3412.99	3372.68	-211.64	225.84	163.59	474.45	29.61	16.39	PASS
3513.00†	3371.60	-236.61	728.48	3511.13	3468.11	-224.79	244.55	163.42	493.60	30.70	16.43	PASS
3613.00†	3463.48	-248.81	766.04	3609.27	3563.55	-237.95	263.26	163.26	512.75	31.81	16.47	PASS
3713.00†	3555.35	-261.00	803.59	3707.41	3658.99	-251.10	281.97	163.11	531.91	32.92	16.49	PASS
3813.00†	3647.22	-273.20	841.15	3805.55	3754.42	-264.25	300.69	162.97	551.07	34.05	16.51	PASS
3913.00†	3739.09	-285.40	878.71	3903.69	3849.86	-277.40	319.40	162.84	570.23	35.19	16.52	PASS
4013.00†	3830.97	-297.60	916.27	4001.82	3945.30	-290.55	338.11	162.71	589.39	36.33	16.52	PASS
4113.00†	3922.84	-309.80	953.82	4099.96	4040.73	-303.70	356.82	162.60	608.56	37.48	16.53	PASS
4213.00†	4014.71	-322.00	991.38	4198.10	4136.17	-316.85	375.53	162.49	627.73	38.64	16.53	PASS
4313.00†	4106.59	-334.19	1028.94	4296.24	4231.61	-330.00	394.25	162.39	646.90	39.81	16.53	PASS
4413.00†	4198.46	-346.39	1066.49	4394.38	4327.04	-343.15	412.96	162.30	666.07	40.98	16.52	PASS
4513.00†	4290.33	-358.59	1104.05	4492.52	4422.48	-356.30	431.67	162.21	685.25	42.16	16.52	PASS
4613.00†	4382.21	-370.79	1141.61	4590.66	4517.92	-369.45	450.38	162.12	704.43	43.34	16.51	PASS
4713.00†	4474.08	-382.99	1179.17	4688.80	4613.35	-382.60	469.09	162.04	723.60	44.52	16.50	PASS
4813.00†	4565.95	-395.19	1216.72	4786.94	4708.79	-395.75	487.80	161.96	742.78	45.71	16.49	PASS
4913.00†	4657.82	-407.39	1254.28	4885.08	4804.23	-408.91	506.52	161.89	761.96	46.90	16.48	PASS
5013.00†	4749.70	-419.58	1291.84	4983.21	4899.66	-422.06	525.23	161.82	781.14	48.10	16.47	PASS
5113.00†	4841.57	-431.78	1329.40	5081.35	4995.10	-435.21	543.94	161.76	800.33	49.30	16.46	PASS
5213.00†	4933.44	-443.98	1366.95	5179.49	5090.54	-448.36	562.65	161.69	819.51	50.50	16.44	PASS
5313.00†	5025.32	-456.18	1404.51	5277.63	5185.97	-461.51	581.36	161.63	838.69	51.71	16.43	PASS
5413.00†	5117.19	-468.38	1442.07	5375.77	5281.41	-474.66	600.08	161.58	857.88	52.92	16.42	PASS
5513.00†	5209.06	-480.58	1479.62	5473.91	5376.85	-487.81	618.79	161.52	877.07	54.13	16.40	PASS
5613.00†	5300.94	-492.77	1517.18	5572.05	5472.28	-500.96	637.50	161.47	896.25	55.34	16.39	PASS
5713.00†	5392.81	-504.97	1554.74	5670.19	5567.72	-514.11	656.21	161.42	915.44	56.56	16.38	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH (REV. A.0)  
Closest Approach  
Page 59 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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†	5484.68	-517.17	1592.30	5768.33	5663.16	-527.26	674.92	161.37	934.63	57.77	16.37	PASS
5913.00†	5576.55	-529.37	1629.85	5866.46	5758.59	-540.41	693.64	161.33	953.82	58.99	16.35	PASS
6013.00†	5668.43	-541.57	1667.41	5964.60	5854.03	-553.56	712.35	161.28	973.00	60.21	16.34	PASS
6113.00†	5760.30	-553.77	1704.97	6062.74	5949.47	-566.71	731.06	161.24	992.19	61.44	16.33	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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	1799.45	-0.14	-45.70	-2.90	-41.79
8.5in Open Hole	1800.00	17798.06	15998.06	1799.45	7591.00	-2.90	-41.79	2922.60	295.00

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17798.06	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NBH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 60 of 105



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 61 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 PR) Well: BOX ELDER FARMS 32-35#4 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	7975.73	1158.23	8.26	8059.40	25.40	327.56	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 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: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8312.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8312>	BOX ELDER FARMS 32-35#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

MD Reference: Rig on SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 62 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NCH 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	-89.98	-90.16	89.98	1.40	148.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.26	-89.98	-90.16	89.98	1.72	97.41	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.26	-89.98	-90.16	89.98	2.28	60.27	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.26	-89.98	-90.16	89.98	2.88	42.86	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.26	-89.98	-90.16	89.98	3.50	33.10	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.26	-89.98	-90.16	89.98	4.12	26.91	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.26	-89.98	-90.16	89.98	4.74	22.66	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.26	-89.98	-90.16	89.98	5.36	19.56	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.26	-89.98	-90.16	89.98	5.99	17.20	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.26	-89.98	-90.16	89.98	6.61	15.35	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.26	-89.98	-90.16	89.98	7.16	14.03	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.26	-89.98	161.85	90.01	7.24	13.86	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.26	-89.98	162.26	92.10	7.96	12.75	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.26	-89.98	163.25	97.53	8.93	11.90	PASS
1313.00†	1312.38	-5.28	16.25	1312.38	1312.38	-0.26	-89.98	164.63	106.34	9.84	11.68	PASS
1413.00†	1411.57	-9.18	28.26	1411.57	1411.57	-0.26	-89.98	166.19	118.58	10.71	11.88	PASS
1513.00†	1510.26	-14.15	43.57	1510.26	1510.26	-0.26	-89.98	167.76	134.27	11.56	12.41	PASS
1613.00†	1608.33	-20.18	62.14	1608.69	1608.69	-0.27	-89.97	169.23	153.41	12.38	13.18	PASS
1713.00†	1705.66	-27.27	83.95	1710.96	1710.93	-1.83	-88.52	170.17	174.42	13.25	13.95	PASS
1813.00†	1802.13	-35.40	108.98	1813.78	1813.58	-6.10	-84.56	170.39	196.08	14.13	14.56	PASS
1913.00†	1897.62	-44.56	137.20	1917.11	1916.46	-13.11	-78.05	170.10	218.36	15.09	15.13	PASS
2013.00†	1992.02	-54.75	168.57	2020.91	2019.39	-22.88	-68.98	169.42	241.24	16.05	15.68	PASS
2113.00†	2085.21	-65.95	203.06	2125.13	2122.19	-35.44	-57.33	168.47	264.77	17.01	16.20	PASS
2162.94	2131.27	-71.92	221.43	2173.79	2170.03	-41.99	-51.25	167.99	277.05	17.47	16.49	PASS
2213.00†	2177.25	-78.03	240.23	2222.17	2217.58	-48.50	-45.21	167.62	289.78	17.78	16.93	PASS
2313.00†	2269.13	-90.23	277.79	2318.82	2312.58	-61.52	-33.13	166.97	315.25	18.54	17.64	PASS
2413.00†	2361.00	-102.42	315.35	2415.46	2407.58	-74.53	-21.05	166.42	340.76	19.34	18.25	PASS
2513.00†	2452.87	-114.62	352.91	2512.11	2502.59	-87.54	-8.98	165.94	366.28	20.18	18.78	PASS
2613.00†	2544.75	-126.82	390.46	2608.75	2597.59	-100.56	3.10	165.53	391.83	21.06	19.22	PASS
2713.00†	2636.62	-139.02	428.02	2705.40	2692.59	-113.57	15.18	165.16	417.40	21.96	19.60	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 63 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NCH 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†	2728.49	-151.22	465.58	2802.04	2787.59	-126.58	27.25	164.84	442.98	22.90	19.93	PASS
2913.00†	2820.36	-163.42	503.14	2898.69	2882.59	-139.60	39.33	164.56	468.57	23.86	20.21	PASS
3013.00†	2912.24	-175.61	540.69	2995.33	2977.59	-152.61	51.40	164.30	494.17	24.84	20.45	PASS
3113.00†	3004.11	-187.81	578.25	3091.98	3072.59	-165.63	63.48	164.07	519.78	25.84	20.65	PASS
3213.00†	3095.98	-200.01	615.81	3188.62	3167.59	-178.64	75.56	163.86	545.39	26.86	20.83	PASS
3313.00†	3187.86	-212.21	653.36	3285.27	3262.59	-191.65	87.63	163.67	571.01	27.89	20.98	PASS
3413.00†	3279.73	-224.41	690.92	3381.91	3357.59	-204.67	99.71	163.49	596.64	28.93	21.11	PASS
3513.00†	3371.60	-236.61	728.48	3478.56	3452.59	-217.68	111.79	163.33	622.27	29.99	21.23	PASS
3613.00†	3463.48	-248.81	766.04	3575.20	3547.59	-230.69	123.86	163.19	647.91	31.06	21.32	PASS
3713.00†	3555.35	-261.00	803.59	3671.85	3642.59	-243.71	135.94	163.05	673.55	32.14	21.41	PASS
3813.00†	3647.22	-273.20	841.15	3768.49	3737.59	-256.72	148.02	162.92	699.19	33.22	21.48	PASS
3913.00†	3739.09	-285.40	878.71	3865.14	3832.59	-269.73	160.09	162.81	724.84	34.32	21.54	PASS
4013.00†	3830.97	-297.60	916.27	3961.78	3927.59	-282.75	172.17	162.70	750.49	35.42	21.60	PASS
4113.00†	3922.84	-309.80	953.82	4058.43	4022.59	-295.76	184.25	162.60	776.14	36.53	21.65	PASS
4213.00†	4014.71	-322.00	991.38	4155.07	4117.59	-308.78	196.32	162.50	801.79	37.64	21.69	PASS
4313.00†	4106.59	-334.19	1028.94	4251.72	4212.59	-321.79	208.40	162.41	827.45	38.76	21.72	PASS
4413.00†	4198.46	-346.39	1066.49	4348.36	4307.59	-334.80	220.48	162.33	853.11	39.89	21.76	PASS
4513.00†	4290.33	-358.59	1104.05	4445.01	4402.59	-347.82	232.55	162.25	878.77	41.02	21.78	PASS
4613.00†	4382.21	-370.79	1141.61	4541.65	4497.59	-360.83	244.63	162.17	904.43	42.15	21.81	PASS
4713.00†	4474.08	-382.99	1179.17	4638.30	4592.59	-373.84	256.71	162.10	930.09	43.29	21.83	PASS
4813.00†	4565.95	-395.19	1216.72	4734.94	4687.60	-386.86	268.78	162.04	955.75	44.43	21.84	PASS
4913.00†	4657.82	-407.39	1254.28	4831.59	4782.60	-399.87	280.86	161.97	981.42	45.58	21.86	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 64 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH 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	-0.16	-54.85	-1.72	-53.40
8.5in Open Hole	1800.00	17807.10	16007.10	1799.84	7663.00	-1.72	-53.40	2921.63	166.72

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17807.10	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NCH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 65 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

Facility: SEC.26-T01S-R66W   Slot: SLOT#01 EX MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, PR)   Well: MAUL #44-26   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	57.00	10621.21	2469.14	13.09	10904.52	25.40	443.21	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 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: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8289.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8289>	MAUL #44-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

MD Reference: Rig on SLOT#01 MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 66 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360) Well: CHAMPLIN 117 AMOCO G#2 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	5342.26	1159.74	12.25	5466.69	50.38	110.25	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 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: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	CHAMPLIN 117 AMOCO G#2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 67 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAAK #2-11 AWB Offset Wellpath: HSR-VAN SCHAAK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAAK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAAK #2-11 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	15.00	-1197.22	1198.35	134.97	1693.92	25.40	68.82	PASS
113.00†	113.00	0.00	0.00	85.00	113.00	-1197.22	1198.35	134.97	1693.92	52.00	33.07	PASS
213.00†	213.00	0.00	0.00	185.00	213.00	-1197.22	1198.35	134.97	1693.92	54.35	31.62	PASS
313.00†	313.00	0.00	0.00	285.00	313.00	-1197.22	1198.35	134.97	1693.92	56.70	30.29	PASS
413.00†	413.00	0.00	0.00	385.00	413.00	-1197.22	1198.35	134.97	1693.92	59.05	29.07	PASS
513.00†	513.00	0.00	0.00	485.00	513.00	-1197.22	1198.35	134.97	1693.92	61.41	27.93	PASS
613.00†	613.00	0.00	0.00	585.00	613.00	-1197.22	1198.35	134.97	1693.92	63.78	26.89	PASS
713.00†	713.00	0.00	0.00	685.00	713.00	-1197.22	1198.35	134.97	1693.92	66.14	25.91	PASS
813.00†	813.00	0.00	0.00	785.00	813.00	-1197.22	1198.35	134.97	1693.92	68.52	25.00	PASS
913.00†	913.00	0.00	0.00	885.00	913.00	-1197.22	1198.35	134.97	1693.92	70.89	24.16	PASS
1000.00	1000.00	0.00	0.00	972.00	1000.00	-1197.22	1198.35	134.97	1693.92	72.96	23.46	PASS
1013.00†	1013.00	-0.01	0.03	985.00	1013.00	-1197.22	1198.35	26.98	1693.90	73.27	23.36	PASS
1113.00†	1112.97	-0.69	2.12	1084.97	1112.97	-1197.22	1198.35	27.03	1691.94	75.67	22.59	PASS
1213.00†	1212.80	-2.44	7.53	1184.80	1212.80	-1197.22	1198.35	27.17	1686.87	78.10	21.81	PASS
1313.00†	1312.38	-5.28	16.25	1284.38	1312.38	-1197.22	1198.35	27.38	1678.72	80.53	21.05	PASS
1413.00†	1411.57	-9.18	28.26	1383.57	1411.57	-1197.22	1198.35	27.69	1667.49	82.96	20.29	PASS
1513.00†	1510.26	-14.15	43.57	1482.26	1510.26	-1197.22	1198.35	28.08	1653.23	85.38	19.54	PASS
1613.00†	1608.33	-20.18	62.14	1580.33	1608.33	-1197.22	1198.35	28.57	1635.97	87.79	18.80	PASS
1713.00†	1705.66	-27.27	83.95	1677.66	1705.66	-1197.22	1198.35	29.16	1615.76	90.20	18.06	PASS
1813.00†	1802.13	-35.40	108.98	1774.13	1802.13	-1197.22	1198.35	29.85	1592.65	92.51	17.34	PASS
1913.00†	1897.62	-44.56	137.20	1869.62	1897.62	-1197.22	1198.35	30.66	1566.73	94.90	16.63	PASS
2013.00†	1992.02	-54.75	168.57	1964.02	1992.02	-1197.22	1198.35	31.59	1538.07	97.29	15.92	PASS
2113.00†	2085.21	-65.95	203.06	2057.21	2085.21	-1197.22	1198.35	32.65	1506.77	99.68	15.22	PASS
2162.94	2131.27	-71.92	221.43	2103.27	2131.27	-1197.22	1198.35	33.23	1490.19	100.87	14.87	PASS
2213.00†	2177.25	-78.03	240.23	2149.25	2177.25	-1197.22	1198.35	33.64	1473.29	102.05	14.53	PASS
2313.00†	2269.13	-90.23	277.79	2241.13	2269.13	-1197.22	1198.35	34.49	1439.74	104.43	13.87	PASS
2413.00†	2361.00	-102.42	315.35	2333.00	2361.00	-1197.22	1198.35	35.38	1406.51	106.85	13.24	PASS
2513.00†	2452.87	-114.62	352.91	2424.87	2452.87	-1197.22	1198.35	36.30	1373.60	109.30	12.64	PASS
2613.00†	2544.75	-126.82	390.46	2516.75	2544.75	-1197.22	1198.35	37.27	1341.06	111.79	12.07	PASS
2713.00†	2636.62	-139.02	428.02	2608.62	2636.62	-1197.22	1198.35	38.29	1308.89	114.33	11.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 68 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAAK #2-11 AWB Offset Wellpath: HSR-VAN SCHAAK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAAK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAAK #2-11 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†	2728.49	-151.22	465.58	2700.49	2728.49	-1197.22	1198.35	39.35	1277.13	116.91	10.98	PASS
2913.00†	2820.36	-163.42	503.14	2792.36	2820.36	-1197.22	1198.35	40.47	1245.82	119.53	10.48	PASS
3013.00†	2912.24	-175.61	540.69	2884.24	2912.24	-1197.22	1198.35	41.63	1214.98	122.21	9.99	PASS
3113.00†	3004.11	-187.81	578.25	2976.11	3004.11	-1197.22	1198.35	42.85	1184.66	124.95	9.53	PASS
3213.00†	3095.98	-200.01	615.81	3067.98	3095.98	-1197.22	1198.35	44.14	1154.89	127.73	9.09	PASS
3313.00†	3187.86	-212.21	653.36	3159.86	3187.86	-1197.22	1198.35	45.48	1125.72	130.58	8.66	PASS
3413.00†	3279.73	-224.41	690.92	3251.73	3279.73	-1197.22	1198.35	46.89	1097.20	133.49	8.26	PASS
3513.00†	3371.60	-236.61	728.48	3343.60	3371.60	-1197.22	1198.35	48.36	1069.37	136.47	7.87	PASS
3613.00†	3463.48	-248.81	766.04	3435.48	3463.48	-1197.22	1198.35	49.91	1042.30	139.51	7.50	PASS
3713.00†	3555.35	-261.00	803.59	3527.35	3555.35	-1197.22	1198.35	51.53	1016.04	142.62	7.15	PASS
3813.00†	3647.22	-273.20	841.15	3619.22	3647.22	-1197.22	1198.35	53.23	990.66	145.81	6.82	PASS
3913.00†	3739.09	-285.40	878.71	3711.09	3739.09	-1197.22	1198.35	55.00	966.22	149.06	6.51	PASS
4013.00†	3830.97	-297.60	916.27	3802.97	3830.97	-1197.22	1198.35	56.86	942.81	152.38	6.21	PASS
4113.00†	3922.84	-309.80	953.82	3894.84	3922.84	-1197.22	1198.35	58.79	920.49	155.77	5.93	PASS
4213.00†	4014.71	-322.00	991.38	3986.71	4014.71	-1197.22	1198.35	60.81	899.36	159.22	5.67	PASS
4313.00†	4106.59	-334.19	1028.94	4078.59	4106.59	-1197.22	1198.35	62.92	879.49	162.74	5.42	PASS
4413.00†	4198.46	-346.39	1066.49	4170.46	4198.46	-1197.22	1198.35	65.10	860.98	166.30	5.20	PASS
4513.00†	4290.33	-358.59	1104.05	4262.33	4290.33	-1197.22	1198.35	67.37	843.91	169.91	4.98	PASS
4613.00†	4382.21	-370.79	1141.61	4354.21	4382.21	-1197.22	1198.35	69.71	828.37	173.56	4.79	PASS
4713.00†	4474.08	-382.99	1179.17	4446.08	4474.08	-1197.22	1198.35	72.13	814.46	177.22	4.61	PASS
4813.00†	4565.95	-395.19	1216.72	4537.95	4565.95	-1197.22	1198.35	74.61	802.24	180.90	4.45	PASS
4913.00†	4657.82	-407.39	1254.28	4629.82	4657.82	-1197.22	1198.35	77.15	791.81	184.57	4.30	PASS
5013.00†	4749.70	-419.58	1291.84	4721.70	4749.70	-1197.22	1198.35	79.75	783.23	188.22	4.17	PASS
5113.00†	4841.57	-431.78	1329.40	4813.57	4841.57	-1197.22	1198.35	82.39	776.57	191.83	4.06	PASS
5213.00†	4933.44	-443.98	1366.95	4905.44	4933.44	-1197.22	1198.35	85.06	771.88	195.38	3.96	PASS
5313.00†	5025.32	-456.18	1404.51	4997.32	5025.32	-1197.22	1198.35	87.75	769.18	198.86	3.88	PASS
5400.50†	5105.71	-466.85	1437.37	5076.25	5104.25	-1197.22	1198.35	90.08	768.48	201.81	3.82	PASS
5413.00†	5117.19	-468.38	1442.07	5089.19	5117.19	-1197.22	1198.35	90.46	768.51	202.26	3.81	PASS
5513.00†	5209.06	-480.58	1479.62	5181.06	5209.06	-1197.22	1198.35	93.16	769.86	205.57	3.75	PASS
5613.00†	5300.94	-492.77	1517.18	5272.94	5300.94	-1197.22	1198.35	95.85	773.24	208.77	3.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 69 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAACK #2-11 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
5713.00†	5392.81	-504.97	1554.74	5364.81	5392.81	-1197.22	1198.35	98.51	778.60	211.87	3.68	PASS
5813.00†	5484.68	-517.17	1592.30	5456.68	5484.68	-1197.22	1198.35	101.13	785.91	214.85	3.67	PASS
5913.00†	5576.55	-529.37	1629.85	5548.55	5576.55	-1197.22	1198.35	103.71	795.12	217.73	3.66	PASS
6013.00†	5668.43	-541.57	1667.41	5640.43	5668.43	-1197.22	1198.35	106.24	806.16	220.50	3.66	PASS
6113.00†	5760.30	-553.77	1704.97	5732.30	5760.30	-1197.22	1198.35	108.70	818.96	223.16	3.68	PASS
6213.00†	5852.17	-565.97	1742.53	5824.17	5852.17	-1197.22	1198.35	111.09	833.43	225.74	3.70	PASS
6313.00†	5944.05	-578.16	1780.08	5916.05	5944.05	-1197.22	1198.35	113.41	849.50	228.23	3.73	PASS
6413.00†	6035.92	-590.36	1817.64	6007.92	6035.92	-1197.22	1198.35	115.64	867.06	230.64	3.77	PASS
6513.00†	6127.79	-602.56	1855.20	6099.79	6127.79	-1197.22	1198.35	117.80	886.04	232.98	3.81	PASS
6613.00†	6219.67	-614.76	1892.76	6191.67	6219.67	-1197.22	1198.35	119.88	906.34	235.27	3.86	PASS
6713.00†	6311.54	-626.96	1930.31	6283.54	6311.54	-1197.22	1198.35	121.87	927.88	237.51	3.92	PASS
6813.00†	6403.41	-639.16	1967.87	6375.41	6403.41	-1197.22	1198.35	123.78	950.58	239.70	3.97	PASS
6913.00†	6495.28	-651.36	2005.43	6467.28	6495.28	-1197.22	1198.35	125.61	974.34	241.87	4.04	PASS
7013.00†	6587.16	-663.55	2042.98	6559.16	6587.16	-1197.22	1198.35	127.35	999.10	244.01	4.10	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 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: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8384.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8384>	HSR-VAN SCHAACK #2-11 AWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 70 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

MD Reference: Rig on SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 71 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, PR) Well: MAUL #2 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	69.00	10830.08	1339.91	7.05	10912.80	25.40	443.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 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: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8280.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8280>	MAUL #2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

MD Reference: Rig on SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 72 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NBH 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	-0.27	-104.96	-90.15	104.96	1.40	173.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.27	-104.96	-90.15	104.96	1.72	113.78	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.27	-104.96	-90.15	104.96	2.28	70.40	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.27	-104.96	-90.15	104.96	2.88	50.06	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.27	-104.96	-90.15	104.96	3.50	38.66	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.27	-104.96	-90.15	104.96	4.12	31.44	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.27	-104.96	-90.15	104.96	4.74	26.47	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.27	-104.96	-90.15	104.96	5.36	22.85	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.27	-104.96	-90.15	104.96	5.99	20.09	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.27	-104.96	-90.15	104.96	6.61	17.93	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.27	-104.96	-90.15	104.96	7.16	16.39	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.27	-104.96	161.86	104.99	7.24	16.19	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.27	-104.96	162.22	107.08	7.96	14.85	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.27	-104.96	163.07	112.51	8.93	13.75	PASS
1313.00†	1312.38	-5.28	16.25	1312.38	1312.38	-0.27	-104.96	164.28	121.31	9.84	13.34	PASS
1413.00†	1411.57	-9.18	28.26	1411.57	1411.57	-0.27	-104.96	165.69	133.52	10.71	13.40	PASS
1513.00†	1510.26	-14.15	43.57	1510.58	1510.58	-0.29	-104.95	167.14	149.17	11.55	13.80	PASS
1613.00†	1608.33	-20.18	62.14	1612.19	1612.16	-2.18	-103.88	167.99	167.03	12.41	14.32	PASS
1713.00†	1705.66	-27.27	83.95	1714.01	1713.81	-7.22	-101.01	167.96	186.23	13.33	14.81	PASS
1813.00†	1802.13	-35.40	108.98	1815.94	1815.30	-15.40	-96.36	167.30	206.73	14.14	15.34	PASS
1913.00†	1897.62	-44.56	137.20	1917.88	1916.40	-26.72	-89.92	166.18	228.60	15.04	15.90	PASS
2013.00†	1992.02	-54.75	168.57	2015.95	2013.32	-39.72	-82.53	164.98	252.45	15.90	16.57	PASS
2113.00†	2085.21	-65.95	203.06	2112.14	2108.38	-52.54	-75.24	164.13	279.58	16.78	17.35	PASS
2162.94	2131.27	-71.92	221.43	2159.84	2155.51	-58.90	-71.62	163.82	294.34	17.14	17.87	PASS
2213.00†	2177.25	-78.03	240.23	2207.53	2202.63	-65.26	-68.00	163.64	309.54	17.62	18.26	PASS
2313.00†	2269.13	-90.23	277.79	2302.79	2296.76	-77.96	-60.78	163.33	339.92	18.43	19.14	PASS
2413.00†	2361.00	-102.42	315.35	2398.05	2390.90	-90.67	-53.55	163.06	370.30	19.29	19.89	PASS
2513.00†	2452.87	-114.62	352.91	2493.31	2485.03	-103.37	-46.33	162.84	400.69	20.19	20.53	PASS
2613.00†	2544.75	-126.82	390.46	2588.57	2579.16	-116.07	-39.11	162.65	431.08	21.08	21.13	PASS
2713.00†	2636.62	-139.02	428.02	2683.83	2673.30	-128.77	-31.88	162.48	461.48	22.01	21.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 73 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NBH 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†	2728.49	-151.22	465.58	2779.09	2767.43	-141.48	-24.66	162.34	491.88	22.97	22.06	PASS
2913.00†	2820.36	-163.42	503.14	2874.35	2861.56	-154.18	-17.43	162.21	522.28	23.95	22.45	PASS
3013.00†	2912.24	-175.61	540.69	2969.61	2955.69	-166.88	-10.21	162.10	552.68	24.94	22.78	PASS
3113.00†	3004.11	-187.81	578.25	3064.87	3049.83	-179.58	-2.99	161.99	583.09	25.94	23.08	PASS
3213.00†	3095.98	-200.01	615.81	3160.13	3143.96	-192.29	4.24	161.90	613.50	26.96	23.34	PASS
3313.00†	3187.86	-212.21	653.36	3255.39	3238.09	-204.99	11.46	161.82	643.91	27.99	23.57	PASS
3413.00†	3279.73	-224.41	690.92	3350.65	3332.22	-217.69	18.68	161.74	674.32	29.03	23.78	PASS
3513.00†	3371.60	-236.61	728.48	3445.91	3426.36	-230.39	25.91	161.67	704.73	30.08	23.97	PASS
3613.00†	3463.48	-248.81	766.04	3541.17	3520.49	-243.10	33.13	161.61	735.14	31.14	24.13	PASS
3713.00†	3555.35	-261.00	803.59	3636.43	3614.62	-255.80	40.36	161.55	765.55	32.21	24.28	PASS
3813.00†	3647.22	-273.20	841.15	3731.69	3708.76	-268.50	47.58	161.49	795.97	33.28	24.41	PASS
3913.00†	3739.09	-285.40	878.71	3826.95	3802.89	-281.20	54.80	161.44	826.38	34.36	24.54	PASS
4013.00†	3830.97	-297.60	916.27	3922.21	3897.02	-293.91	62.03	161.40	856.79	35.44	24.65	PASS
4113.00†	3922.84	-309.80	953.82	4017.47	3991.15	-306.61	69.25	161.35	887.21	36.53	24.75	PASS
4213.00†	4014.71	-322.00	991.38	4112.73	4085.29	-319.31	76.48	161.31	917.63	37.63	24.84	PASS
4313.00†	4106.59	-334.19	1028.94	4207.99	4179.42	-332.01	83.70	161.28	948.04	38.72	24.92	PASS
4413.00†	4198.46	-346.39	1066.49	4303.25	4273.55	-344.72	90.92	161.24	978.46	39.82	25.00	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

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



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 74 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH 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	1799.45	-0.17	-63.98	-4.33	-61.62
8.5in Open Hole	1800.00	17719.12	15919.12	1799.45	N/A	-4.33	-61.62	N/A	N/A

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17719.12	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NBH

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 75 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

Facility: SEC.01-T02S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410) Well: CHAMPLIN 117 AMOCO C#4 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	39.00	13.00	2694.46	3769.05	54.44	4633.13	50.92	92.43	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 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: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8410.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8410>	CHAMPLIN 117 AMOCO C#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLINE 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 76 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NCH 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	-0.33	-119.94	-90.16	119.94	1.40	198.57	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.33	-119.94	-90.16	119.94	1.72	130.15	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.33	-119.94	-90.16	119.94	2.28	80.53	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.33	-119.94	-90.16	119.94	2.88	57.26	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.33	-119.94	-90.16	119.94	3.50	44.22	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.33	-119.94	-90.16	119.94	4.12	35.96	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.33	-119.94	-90.16	119.94	4.74	30.27	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.33	-119.94	-90.16	119.94	5.36	26.13	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.33	-119.94	-90.16	119.94	5.99	22.98	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.33	-119.94	-90.16	119.94	6.61	20.51	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.33	-119.94	-90.16	119.94	7.16	18.75	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.33	-119.94	161.85	119.97	7.24	18.52	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.33	-119.94	162.16	122.06	7.96	16.94	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.33	-119.94	162.91	127.49	8.93	15.59	PASS
1313.00†	1312.38	-5.28	16.25	1312.38	1312.38	-0.33	-119.94	164.00	136.28	9.83	15.00	PASS
1413.00†	1411.57	-9.18	28.26	1411.65	1411.65	-0.35	-119.94	165.27	148.47	10.71	14.91	PASS
1513.00†	1510.26	-14.15	43.57	1511.23	1511.20	-2.48	-119.78	165.89	163.77	11.55	15.16	PASS
1613.00†	1608.33	-20.18	62.14	1610.43	1610.24	-8.03	-119.35	165.55	181.91	12.38	15.65	PASS
1713.00†	1705.66	-27.27	83.95	1709.05	1708.45	-16.93	-118.67	164.52	202.91	13.21	16.29	PASS
1813.00†	1802.13	-35.40	108.98	1806.58	1805.24	-28.84	-117.76	163.09	226.86	13.94	17.09	PASS
1913.00†	1897.62	-44.56	137.20	1902.73	1900.59	-41.23	-116.81	161.97	254.05	14.80	17.97	PASS
2013.00†	1992.02	-54.75	168.57	1997.96	1995.02	-53.51	-115.87	161.24	284.46	15.70	18.93	PASS
2113.00†	2085.21	-65.95	203.06	2092.15	2088.42	-65.66	-114.94	160.80	318.01	16.62	19.95	PASS
2162.94	2131.27	-71.92	221.43	2138.77	2134.65	-71.67	-114.48	160.66	335.93	17.07	20.49	PASS
2213.00†	2177.25	-78.03	240.23	2185.34	2180.83	-77.67	-114.02	160.67	354.27	17.48	21.08	PASS
2313.00†	2269.13	-90.23	277.79	2278.39	2273.09	-89.67	-113.10	160.70	390.91	18.31	22.17	PASS
2413.00†	2361.00	-102.42	315.35	2371.44	2365.36	-101.66	-112.18	160.72	427.55	19.17	23.12	PASS
2513.00†	2452.87	-114.62	352.91	2464.48	2457.62	-113.66	-111.26	160.74	464.19	20.06	23.95	PASS
2613.00†	2544.75	-126.82	390.46	2557.53	2549.89	-125.66	-110.34	160.76	500.83	20.97	24.68	PASS
2713.00†	2636.62	-139.02	428.02	2650.57	2642.15	-137.65	-109.42	160.77	537.47	21.90	25.33	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 77 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NCH 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†	2728.49	-151.22	465.58	2743.62	2734.42	-149.65	-108.50	160.78	574.11	22.84	25.91	PASS
2913.00†	2820.36	-163.42	503.14	2836.66	2826.68	-161.65	-107.58	160.79	610.75	23.80	26.42	PASS
3013.00†	2912.24	-175.61	540.69	2929.71	2918.94	-173.64	-106.66	160.80	647.39	24.77	26.88	PASS
3113.00†	3004.11	-187.81	578.25	3022.75	3011.21	-185.64	-105.74	160.81	684.03	25.75	27.29	PASS
3213.00†	3095.98	-200.01	615.81	3115.80	3103.47	-197.64	-104.82	160.82	720.67	26.74	27.65	PASS
3313.00†	3187.86	-212.21	653.36	3208.84	3195.74	-209.63	-103.91	160.82	757.31	27.74	27.99	PASS
3413.00†	3279.73	-224.41	690.92	3301.89	3288.00	-221.63	-102.99	160.83	793.96	28.75	28.28	PASS
3513.00†	3371.60	-236.61	728.48	3394.94	3380.26	-233.63	-102.07	160.83	830.60	29.77	28.56	PASS
3613.00†	3463.48	-248.81	766.04	3487.98	3472.53	-245.62	-101.15	160.84	867.24	30.79	28.80	PASS
3713.00†	3555.35	-261.00	803.59	3581.03	3564.79	-257.62	-100.23	160.84	903.88	31.82	29.03	PASS
3813.00†	3647.22	-273.20	841.15	3674.07	3657.06	-269.62	-99.31	160.85	940.52	32.86	29.23	PASS
3913.00†	3739.09	-285.40	878.71	3767.12	3749.32	-281.62	-98.39	160.85	977.16	33.90	29.42	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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	1798.72	-0.20	-73.12	-8.63	-72.47
8.5in Open Hole	1800.00	17770.56	15970.56	1798.72	7678.00	-8.63	-72.47	2919.73	-62.89





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 78 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	20586.05	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NCH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 79 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NAH 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	-0.38	-134.98	-90.16	134.98	1.40	223.63	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.38	-134.98	-90.16	134.98	1.72	146.57	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.38	-134.98	-90.16	134.98	2.28	90.69	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.38	-134.98	-90.16	134.98	2.88	64.49	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.38	-134.98	-90.16	134.98	3.50	49.80	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.38	-134.98	-90.16	134.98	4.12	40.50	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.38	-134.98	-90.16	134.98	4.74	34.09	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.38	-134.98	-90.16	134.98	5.36	29.43	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.38	-134.98	-90.16	134.98	5.99	25.88	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.38	-134.98	-90.16	134.98	6.61	23.10	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.38	-134.98	-90.16	134.98	7.16	21.12	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.38	-134.98	161.85	135.01	7.24	20.86	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.38	-134.98	162.12	137.10	7.96	19.04	PASS
1213.00†	1212.80	-2.44	7.53	1212.80	1212.80	-0.38	-134.98	162.79	142.52	8.93	17.45	PASS
1313.00†	1312.38	-5.28	16.25	1312.22	1312.22	-0.41	-134.99	163.76	151.31	9.83	16.67	PASS
1413.00†	1411.57	-9.18	28.26	1410.10	1410.07	-2.42	-135.57	164.19	163.98	10.70	16.49	PASS
1513.00†	1510.26	-14.15	43.57	1507.26	1507.08	-7.58	-137.07	163.79	180.78	11.55	16.75	PASS
1613.00†	1608.33	-20.18	62.14	1603.39	1602.82	-15.80	-139.45	162.78	201.71	12.38	17.35	PASS
1713.00†	1705.66	-27.27	83.95	1698.23	1696.95	-26.93	-142.67	161.38	226.79	13.23	18.19	PASS
1813.00†	1802.13	-35.40	108.98	1793.90	1791.71	-39.57	-146.33	160.11	255.56	14.04	19.18	PASS
1913.00†	1897.62	-44.56	137.20	1888.62	1885.52	-52.09	-149.95	159.28	287.51	14.87	20.25	PASS
2013.00†	1992.02	-54.75	168.57	1982.26	1978.28	-64.46	-153.54	158.76	322.55	15.78	21.36	PASS
2113.00†	2085.21	-65.95	203.06	2074.73	2069.87	-76.68	-157.08	158.49	360.62	16.70	22.50	PASS
2162.94	2131.27	-71.92	221.43	2120.43	2115.13	-82.72	-158.82	158.41	380.75	17.15	23.11	PASS
2213.00†	2177.25	-78.03	240.23	2166.07	2160.34	-88.75	-160.57	158.52	401.31	17.57	23.75	PASS
2313.00†	2269.13	-90.23	277.79	2257.24	2250.64	-100.80	-164.06	158.70	442.36	18.42	24.93	PASS
2413.00†	2361.00	-102.42	315.35	2348.42	2340.95	-112.85	-167.55	158.84	483.43	19.29	25.98	PASS
2513.00†	2452.87	-114.62	352.91	2439.59	2431.26	-124.90	-171.04	158.97	524.49	20.18	26.90	PASS
2613.00†	2544.75	-126.82	390.46	2530.76	2521.57	-136.95	-174.53	159.08	565.56	21.09	27.71	PASS
2713.00†	2636.62	-139.02	428.02	2621.94	2611.87	-149.00	-178.02	159.17	606.62	22.02	28.43	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 80 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NAH 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†	2728.49	-151.22	465.58	2713.11	2702.18	-161.05	-181.51	159.25	647.69	22.97	29.06	PASS
2913.00†	2820.36	-163.42	503.14	2804.29	2792.49	-173.10	-185.00	159.32	688.76	23.93	29.63	PASS
3013.00†	2912.24	-175.61	540.69	2895.46	2882.79	-185.15	-188.48	159.38	729.83	24.90	30.14	PASS
3113.00†	3004.11	-187.81	578.25	2986.63	2973.10	-197.19	-191.97	159.44	770.90	25.88	30.59	PASS
3213.00†	3095.98	-200.01	615.81	3077.81	3063.41	-209.24	-195.46	159.49	811.98	26.88	31.00	PASS
3313.00†	3187.86	-212.21	653.36	3168.98	3153.71	-221.29	-198.95	159.54	853.05	27.88	31.37	PASS
3413.00†	3279.73	-224.41	690.92	3260.16	3244.02	-233.34	-202.44	159.58	894.12	28.88	31.71	PASS
3513.00†	3371.60	-236.61	728.48	3351.33	3334.33	-245.39	-205.93	159.62	935.19	29.90	32.01	PASS
3613.00†	3463.48	-248.81	766.04	3442.50	3424.64	-257.44	-209.42	159.65	976.27	30.92	32.29	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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	1797.75	-0.23	-82.28	-12.42	-85.81
8.5in Open Hole	1800.00	17752.02	15952.02	1797.75	N/A	-12.42	-85.81	N/A	N/A

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17552.02	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NAH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 81 of 105



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 82 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02) Well: ACKARD NORTH 2-35-2CDH 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	-0.44	-149.96	-90.17	149.96	1.40	248.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.44	-149.96	-90.17	149.96	1.72	162.74	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.44	-149.96	-90.17	149.96	2.28	100.67	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.44	-149.96	-90.17	149.96	2.89	71.60	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.44	-149.96	-90.17	149.96	3.50	55.31	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.44	-149.96	-90.17	149.96	4.12	44.98	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.44	-149.96	-90.17	149.96	4.74	37.87	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.44	-149.96	-90.17	149.96	5.36	32.69	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.44	-149.96	-90.17	149.96	5.99	28.76	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.44	-149.96	-90.17	149.96	6.61	25.66	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.44	-149.96	-90.17	149.96	7.16	23.46	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.44	-149.96	161.84	149.99	7.24	23.17	PASS
1113.00†	1112.97	-0.69	2.12	1112.97	1112.97	-0.44	-149.96	162.09	152.08	7.96	21.12	PASS
1213.00†	1212.80	-2.44	7.53	1212.56	1212.56	-0.46	-149.97	162.68	157.51	8.93	19.29	PASS
1313.00†	1312.38	-5.28	16.25	1310.12	1310.09	-2.40	-150.75	162.87	167.04	9.83	18.41	PASS
1413.00†	1411.57	-9.18	28.26	1407.00	1406.82	-7.38	-152.74	162.34	181.08	10.73	18.16	PASS
1513.00†	1510.26	-14.15	43.57	1502.85	1502.29	-15.29	-155.91	161.27	199.64	11.61	18.40	PASS
1613.00†	1608.33	-20.18	62.14	1598.04	1596.77	-25.98	-160.18	159.87	222.70	12.46	19.03	PASS
1713.00†	1705.66	-27.27	83.95	1694.34	1692.25	-37.63	-164.85	158.75	249.38	13.34	19.83	PASS
1813.00†	1802.13	-35.40	108.98	1789.76	1786.85	-49.18	-169.46	158.04	279.21	14.13	20.82	PASS
1913.00†	1897.62	-44.56	137.20	1884.18	1880.47	-60.60	-174.04	157.66	312.12	14.97	21.84	PASS
2013.00†	1992.02	-54.75	168.57	1977.48	1972.98	-71.89	-178.55	157.50	348.07	15.87	22.91	PASS
2113.00†	2085.21	-65.95	203.06	2069.56	2064.28	-83.03	-183.01	157.49	387.01	16.79	24.02	PASS
2162.94	2131.27	-71.92	221.43	2115.06	2109.38	-88.53	-185.21	157.53	407.57	17.24	24.61	PASS
2213.00†	2177.25	-78.03	240.23	2160.48	2154.42	-94.03	-187.41	157.75	428.55	17.67	25.22	PASS
2313.00†	2269.13	-90.23	277.79	2251.23	2244.39	-105.01	-191.80	158.13	470.48	18.49	26.42	PASS
2413.00†	2361.00	-102.42	315.35	2341.98	2334.37	-115.99	-196.20	158.44	512.42	19.34	27.46	PASS
2513.00†	2452.87	-114.62	352.91	2432.73	2424.34	-126.97	-200.59	158.71	554.37	20.21	28.38	PASS
2613.00†	2544.75	-126.82	390.46	2523.47	2514.31	-137.94	-204.98	158.94	596.33	21.11	29.20	PASS
2713.00†	2636.62	-139.02	428.02	2614.22	2604.29	-148.92	-209.38	159.14	638.29	22.01	29.93	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 83 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02) Well: ACKARD NORTH 2-35-2CDH 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†	2728.49	-151.22	465.58	2704.97	2694.26	-159.90	-213.77	159.31	680.27	22.93	30.58	PASS
2913.00†	2820.36	-163.42	503.14	2795.71	2784.24	-170.88	-218.16	159.47	722.24	23.87	31.16	PASS
3013.00†	2912.24	-175.61	540.69	2886.46	2874.21	-181.86	-222.56	159.61	764.22	24.81	31.68	PASS
3113.00†	3004.11	-187.81	578.25	2977.21	2964.18	-192.84	-226.95	159.73	806.20	25.76	32.15	PASS
3213.00†	3095.98	-200.01	615.81	3067.96	3054.16	-203.82	-231.34	159.84	848.19	26.72	32.58	PASS
3313.00†	3187.86	-212.21	653.36	3158.70	3144.13	-214.80	-235.74	159.94	890.18	27.69	32.97	PASS
3413.00†	3279.73	-224.41	690.92	3249.45	3234.10	-225.78	-240.13	160.03	932.17	28.66	33.32	PASS
3513.00†	3371.60	-236.61	728.48	3340.20	3324.08	-236.76	-244.52	160.12	974.16	29.64	33.64	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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	1797.01	-0.27	-91.42	-15.50	-97.51
8.5in Open Hole	1800.00	17937.78	16137.78	1797.01	7843.00	-15.50	-97.51	2918.65	-195.76

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	19125.24	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2CDH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 84 of 105



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 85 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,PR) Well: CHAMPLIN 117 AMOCO G#6 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	65.00	9284.00	-154.08	-0.95	9285.42	25.40	377.40	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 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: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8308.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8308>	CHAMPLIN 117 AMOCO G#6 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AOMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 86 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#03 EX LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, PR) Well: LEECH #24-26 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	64.00	10591.44	-155.68	-0.84	10592.71	25.40	430.54	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 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: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8296.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8296>	LEECH #24-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

MD Reference: Rig on SLOT#03 ES LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 87 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NBH 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	-0.46	-164.97	-90.16	164.98	1.40	273.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.46	-164.97	-90.16	164.98	1.72	179.34	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.46	-164.97	-90.16	164.98	2.28	110.96	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.46	-164.97	-90.16	164.98	2.88	78.90	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.46	-164.97	-90.16	164.98	3.50	60.93	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.46	-164.97	-90.16	164.98	4.12	49.55	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.46	-164.97	-90.16	164.98	4.74	41.72	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.46	-164.97	-90.16	164.98	5.36	36.01	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.46	-164.97	-90.16	164.98	5.99	31.67	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.46	-164.97	-90.16	164.98	6.61	28.26	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.46	-164.97	-90.16	164.98	7.16	25.84	PASS
1013.00†	1013.00	-0.01	0.03	1013.00	1013.00	-0.46	-164.97	161.85	165.00	7.24	25.52	PASS
1113.00†	1112.97	-0.69	2.12	1112.49	1112.49	-0.48	-164.99	162.06	167.11	7.96	23.24	PASS
1213.00†	1212.80	-2.44	7.53	1208.46	1208.43	-1.99	-166.34	162.08	173.92	8.95	21.24	PASS
1313.00†	1312.38	-5.28	16.25	1303.69	1303.52	-5.86	-169.80	161.63	186.25	9.99	20.19	PASS
1413.00†	1411.57	-9.18	28.26	1397.75	1397.21	-11.99	-175.27	160.84	204.06	10.98	19.97	PASS
1513.00†	1510.26	-14.15	43.57	1490.20	1488.99	-20.25	-182.65	159.83	227.29	11.90	20.41	PASS
1613.00†	1608.33	-20.18	62.14	1580.73	1578.48	-30.47	-191.78	158.72	255.87	12.80	21.26	PASS
1713.00†	1705.66	-27.27	83.95	1675.16	1671.59	-42.20	-202.25	157.76	288.61	13.64	22.42	PASS
1813.00†	1802.13	-35.40	108.98	1768.52	1763.64	-53.80	-212.60	157.16	324.40	14.46	23.62	PASS
1913.00†	1897.62	-44.56	137.20	1860.69	1854.52	-65.25	-222.82	156.82	363.19	15.23	24.96	PASS
2013.00†	1992.02	-54.75	168.57	1951.55	1944.12	-76.53	-232.90	156.65	404.91	16.11	26.25	PASS
2113.00†	2085.21	-65.95	203.06	2041.01	2032.33	-87.64	-242.82	156.62	449.53	17.02	27.51	PASS
2162.94	2131.27	-71.92	221.43	2085.12	2075.83	-93.12	-247.71	156.63	472.89	17.48	28.16	PASS
2213.00†	2177.25	-78.03	240.23	2129.14	2119.23	-98.59	-252.60	156.85	496.66	17.84	28.95	PASS
2313.00†	2269.13	-90.23	277.79	2217.08	2205.95	-109.51	-262.35	157.25	544.16	18.65	30.29	PASS
2413.00†	2361.00	-102.42	315.35	2305.02	2292.66	-120.44	-272.10	157.57	591.69	19.49	31.47	PASS
2513.00†	2452.87	-114.62	352.91	2392.96	2379.37	-131.36	-281.85	157.85	639.22	20.35	32.52	PASS
2613.00†	2544.75	-126.82	390.46	2480.90	2466.08	-142.28	-291.61	158.09	686.76	21.22	33.44	PASS
2713.00†	2636.62	-139.02	428.02	2568.84	2552.80	-153.21	-301.36	158.30	734.32	22.12	34.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH (REV. A.0)  
Closest Approach  
Page 88 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NBH 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†	2728.49	-151.22	465.58	2656.78	2639.51	-164.13	-311.11	158.49	781.88	23.02	35.01	PASS
2913.00†	2820.36	-163.42	503.14	2744.73	2726.22	-175.05	-320.86	158.65	829.44	23.94	35.67	PASS
3013.00†	2912.24	-175.61	540.69	2832.67	2812.93	-185.98	-330.62	158.80	877.01	24.87	36.26	PASS
3113.00†	3004.11	-187.81	578.25	2920.61	2899.65	-196.90	-340.37	158.93	924.59	25.81	36.80	PASS
3213.00†	3095.98	-200.01	615.81	3008.55	2986.36	-207.82	-350.12	159.04	972.16	26.76	37.28	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

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

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH 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	1794.69	-0.28	-100.57	-17.73	-116.15
8.5in Open Hole	1800.00	17742.92	15942.92	1794.69	7618.00	-17.73	-116.15	2917.59	-324.05

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17742.92	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NBH PWB



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 89 of 105



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 90 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV.A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NCH 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	13.00	13.00	-0.51	-179.93	-90.16	179.93	1.40	298.55	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.51	-179.93	-90.16	179.93	1.72	194.53	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.51	-179.93	-90.16	179.93	2.29	120.26	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.51	-179.93	-90.16	179.93	2.89	85.60	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.51	-179.93	-90.16	179.93	3.51	66.17	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.51	-179.93	-90.16	179.93	4.13	53.84	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.51	-179.93	-90.16	179.93	4.75	45.36	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.51	-179.93	-90.16	179.93	5.38	39.17	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.51	-179.93	-90.16	179.93	6.00	34.46	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.51	-179.93	-90.16	179.93	6.63	30.76	PASS
1000.00	1000.00	0.00	0.00	1000.00	1000.00	-0.51	-179.93	-90.16	179.93	7.17	28.13	PASS
1013.00†	1013.00	-0.01	0.03	1012.37	1012.37	-0.53	-179.95	161.84	179.98	7.25	27.79	PASS
1113.00†	1112.97	-0.69	2.12	1107.38	1107.36	-1.69	-181.56	161.66	183.77	8.03	25.33	PASS
1213.00†	1212.80	-2.44	7.53	1201.81	1201.65	-4.66	-185.70	161.22	193.56	9.20	22.95	PASS
1313.00†	1312.38	-5.28	16.25	1295.15	1294.63	-9.39	-192.26	160.59	209.30	10.28	21.99	PASS
1413.00†	1411.57	-9.18	28.26	1386.93	1385.75	-15.75	-201.10	159.85	230.91	11.28	21.96	PASS
1513.00†	1510.26	-14.15	43.57	1476.69	1474.49	-23.62	-212.04	159.07	258.28	12.25	22.49	PASS
1613.00†	1608.33	-20.18	62.14	1564.03	1560.39	-32.84	-224.85	158.28	291.24	13.16	23.50	PASS
1713.00†	1705.66	-27.27	83.95	1653.61	1648.08	-43.56	-239.74	157.54	329.18	13.99	24.91	PASS
1813.00†	1802.13	-35.40	108.98	1744.77	1737.26	-54.58	-255.06	157.04	370.27	14.74	26.43	PASS
1913.00†	1897.62	-44.56	137.20	1834.57	1825.11	-65.43	-270.14	156.75	414.27	15.51	27.94	PASS
2013.00†	1992.02	-54.75	168.57	1922.89	1911.52	-76.11	-284.97	156.60	461.13	16.36	29.41	PASS
2113.00†	2085.21	-65.95	203.06	2009.62	1996.38	-86.59	-299.54	156.53	510.80	17.21	30.92	PASS
2162.94	2131.27	-71.92	221.43	2052.31	2038.15	-91.75	-306.71	156.53	536.66	17.62	31.68	PASS
2213.00†	2177.25	-78.03	240.23	2094.89	2079.80	-96.90	-313.86	156.76	562.92	18.01	32.49	PASS
2313.00†	2269.13	-90.23	277.79	2179.94	2163.01	-107.18	-328.15	157.16	615.39	18.79	33.99	PASS
2413.00†	2361.00	-102.42	315.35	2264.99	2246.22	-117.46	-342.43	157.50	667.89	19.60	35.32	PASS
2513.00†	2452.87	-114.62	352.91	2350.04	2329.43	-127.74	-356.72	157.80	720.40	20.42	36.51	PASS
2613.00†	2544.75	-126.82	390.46	2435.09	2412.64	-138.02	-371.00	158.05	772.92	21.27	37.56	PASS
2713.00†	2636.62	-139.02	428.02	2520.14	2495.85	-148.30	-385.29	158.27	825.45	22.13	38.50	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH (REV. A.0)  
Closest Approach  
Page 91 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NCH 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†	2728.49	-151.22	465.58	2605.19	2579.06	-158.58	-399.57	158.46	877.99	23.01	39.34	PASS
2913.00†	2820.36	-163.42	503.14	2690.24	2662.27	-168.87	-413.86	158.63	930.54	23.90	40.09	PASS
3013.00†	2912.24	-175.61	540.69	2775.29	2745.48	-179.15	-428.14	158.79	983.09	24.80	40.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH 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: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH 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	13.00	1800.00	1787.00	13.00	1791.29	-0.31	-109.68	-18.83	-135.41
8.5in Open Hole	1800.00	17864.18	16064.18	1791.29	7690.00	-18.83	-135.41	2916.49	-452.32

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17864.18	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NCH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH 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	13.00ft





# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 92 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 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	21.00	6609.73	-151.80	-1.32	6611.48	25.40	268.71	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 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: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 93 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH PWP (REV.A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NAH 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	13.00	13.00	-0.49	-194.94	-90.15	194.94	1.40	323.56	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.49	-194.94	-90.15	194.94	1.72	210.69	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.49	-194.94	-90.15	194.94	2.29	130.24	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.49	-194.94	-90.15	194.94	2.90	92.72	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.49	-194.94	-90.15	194.94	3.51	71.68	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.49	-194.94	-90.15	194.94	4.13	58.33	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.49	-194.94	-90.15	194.94	4.75	49.14	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.49	-194.94	-90.15	194.94	5.38	42.44	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.49	-194.94	-90.15	194.94	6.00	37.33	PASS
913.00†	913.00	0.00	0.00	912.28	912.28	-0.51	-194.96	-90.15	194.96	6.62	33.35	PASS
1000.00	1000.00	0.00	0.00	994.45	994.44	-1.30	-196.27	-90.38	196.36	7.23	30.44	PASS
1013.00†	1013.00	-0.01	0.03	1006.72	1006.70	-1.52	-196.64	161.56	196.78	7.32	30.08	PASS
1113.00†	1112.97	-0.69	2.12	1100.81	1100.64	-4.13	-200.96	160.98	203.48	8.30	27.04	PASS
1213.00†	1212.80	-2.44	7.53	1194.02	1193.51	-8.29	-207.84	160.27	216.31	9.48	24.84	PASS
1313.00†	1312.38	-5.28	16.25	1285.87	1284.70	-13.91	-217.15	159.52	235.19	10.57	23.99	PASS
1413.00†	1411.57	-9.18	28.26	1375.87	1373.68	-20.89	-228.69	158.76	260.00	11.55	24.12	PASS
1513.00†	1510.26	-14.15	43.57	1463.60	1459.97	-29.07	-242.24	158.03	290.58	12.14	25.56	PASS
1613.00†	1608.33	-20.18	62.14	1548.67	1543.14	-38.31	-257.53	157.34	326.75	13.39	25.89	PASS
1713.00†	1705.66	-27.27	83.95	1635.35	1627.39	-48.86	-274.98	156.70	368.01	14.21	27.38	PASS
1813.00†	1802.13	-35.40	108.98	1724.92	1714.37	-59.92	-293.29	156.25	412.46	14.95	29.00	PASS
1913.00†	1897.62	-44.56	137.20	1813.02	1799.91	-70.79	-311.29	155.98	459.76	15.71	30.60	PASS
2013.00†	1992.02	-54.75	168.57	1899.53	1883.93	-81.47	-328.97	155.81	509.85	16.56	32.13	PASS
2113.00†	2085.21	-65.95	203.06	1984.36	1966.31	-91.95	-346.30	155.72	562.68	17.38	33.70	PASS
2162.94	2131.27	-71.92	221.43	2026.07	2006.81	-97.10	-354.82	155.70	590.08	17.80	34.49	PASS
2213.00†	2177.25	-78.03	240.23	2067.64	2047.17	-102.23	-363.32	155.94	617.89	18.18	35.32	PASS
2313.00†	2269.13	-90.23	277.79	2150.69	2127.82	-112.48	-380.29	156.37	673.45	18.96	36.86	PASS
2413.00†	2361.00	-102.42	315.35	2233.73	2208.47	-122.74	-397.26	156.73	729.03	19.76	38.23	PASS
2513.00†	2452.87	-114.62	352.91	2316.78	2289.11	-132.99	-414.23	157.04	784.63	20.58	39.45	PASS
2613.00†	2544.75	-126.82	390.46	2399.83	2369.76	-143.24	-431.20	157.30	840.25	21.42	40.53	PASS
2713.00†	2636.62	-139.02	428.02	2482.88	2450.41	-153.50	-448.17	157.54	895.88	22.28	41.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH (REV. A.0)  
Closest Approach  
Page 94 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NAH 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†	2728.49	-151.22	465.58	2565.92	2531.05	-163.75	-465.14	157.75	951.51	23.16	42.35	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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	13.00	1800.00	1787.00	13.00	1787.28	-0.30	-118.84	-21.24	-153.49
8.5in Open Hole	1800.00	17683.47	15883.47	1787.28	7468.00	-21.24	-153.49	2915.71	-550.14

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17683.47	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NAH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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	13.00ft



# Clearance Report

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 95 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02) Well: ACKARD NORTH 2-35-1CDH 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	-0.55	-209.95	-90.15	209.95	1.40	348.58	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.55	-209.95	-90.15	209.95	1.72	226.89	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.55	-209.95	-90.15	209.95	2.29	140.25	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.55	-209.95	-90.15	209.95	2.90	99.85	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.55	-209.95	-90.15	209.95	3.51	77.19	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.55	-209.95	-90.15	209.95	4.13	62.82	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.55	-209.95	-90.15	209.95	4.75	52.93	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.55	-209.95	-90.15	209.95	5.38	45.71	PASS
813.00†	813.00	0.00	0.00	812.21	812.21	-0.56	-209.97	-90.15	209.98	6.00	40.25	PASS
913.00†	913.00	0.00	0.00	906.08	906.06	-1.47	-211.68	-90.40	211.80	6.70	35.76	PASS
1000.00	1000.00	0.00	0.00	987.57	987.44	-3.44	-215.37	-90.92	215.76	7.50	32.11	PASS
1013.00†	1013.00	-0.01	0.03	999.72	999.56	-3.82	-216.09	160.99	216.57	7.62	31.65	PASS
1113.00†	1112.97	-0.69	2.12	1092.77	1092.26	-7.58	-223.14	160.17	226.31	8.60	28.93	PASS
1213.00†	1212.80	-2.44	7.53	1184.68	1183.52	-12.69	-232.70	159.33	242.22	9.78	26.90	PASS
1313.00†	1312.38	-5.28	16.25	1274.96	1272.78	-19.04	-244.61	158.52	264.20	10.79	26.37	PASS
1413.00†	1411.57	-9.18	28.26	1363.16	1359.54	-26.52	-258.63	157.78	292.09	11.30	27.75	PASS
1513.00†	1510.26	-14.15	43.57	1448.86	1443.33	-34.99	-274.51	157.09	325.71	12.74	27.22	PASS
1613.00†	1608.33	-20.18	62.14	1535.52	1527.52	-44.65	-292.60	156.47	364.65	13.56	28.52	PASS
1713.00†	1705.66	-27.27	83.95	1626.11	1615.43	-54.95	-311.92	156.04	406.97	14.33	30.03	PASS
1813.00†	1802.13	-35.40	108.98	1715.31	1701.98	-65.10	-330.94	155.78	452.15	15.07	31.53	PASS
1913.00†	1897.62	-44.56	137.20	1803.00	1787.07	-75.08	-349.63	155.63	500.16	15.83	33.02	PASS
2013.00†	1992.02	-54.75	168.57	1889.07	1870.59	-84.87	-367.98	155.57	550.95	16.64	34.53	PASS
2113.00†	2085.21	-65.95	203.06	1973.42	1952.44	-94.46	-385.97	155.56	604.48	17.48	35.99	PASS
2162.94	2131.27	-71.92	221.43	2014.87	1992.66	-99.18	-394.81	155.56	632.22	17.89	36.74	PASS
2213.00†	2177.25	-78.03	240.23	2056.18	2032.75	-103.88	-403.62	155.84	660.37	18.28	37.54	PASS
2313.00†	2269.13	-90.23	277.79	2138.71	2112.83	-113.27	-421.21	156.33	716.63	19.05	39.04	PASS
2413.00†	2361.00	-102.42	315.35	2221.24	2192.92	-122.66	-438.81	156.74	772.93	19.84	40.37	PASS
2513.00†	2452.87	-114.62	352.91	2303.77	2273.00	-132.05	-456.41	157.10	829.24	20.65	41.55	PASS
2613.00†	2544.75	-126.82	390.46	2386.30	2353.08	-141.43	-474.00	157.42	885.58	21.48	42.61	PASS
2713.00†	2636.62	-139.02	428.02	2468.83	2433.17	-150.82	-491.60	157.70	941.93	22.32	43.55	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NAH (REV. A.0)  
Closest Approach  
Page 96 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02) Well: ACKARD NORTH 2-35-1CDH 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†	2728.49	-151.22	465.58	2551.36	2513.25	-160.21	-509.20	157.94	998.30	23.18	44.39	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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	1784.16	-0.33	-127.99	-22.95	-170.37
8.5in Open Hole	1800.00	18089.51	16289.51	1784.16	7855.00	-22.95	-170.37	2915.43	-585.18

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18089.51	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1CDH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 97 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W   Slot: SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, SI)   Well: MARTIN #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	27.00	13.00	4041.93	-97.12	-1.38	4043.09	50.64	81.11	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	MARTIN #1 AWB

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

MD Reference: Rig on SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 98 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, PR) Well: LEECH #14-26 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	79.00	10587.28	-1504.64	-8.09	10693.87	25.40	434.65	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 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: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8313.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8313>	LEECH #14-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

MD Reference: Rig on SLOT#04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 99 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,PR) Well: CHAMPLIN 117 AMOCO G#5 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	47.00	7903.08	-1513.91	-10.84	8046.85	25.40	327.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 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: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8340.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8340>	CHAMPLIN 117 AMOCO G#5 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 100 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390) Well: OTTER#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	9.00	13.00	1348.91	-115.71	-4.90	1353.86	50.22	27.38	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8390.00	Drift Indicator - Inclination Only (Actual Survey)	ASUMED VERTICAL <8390>	OTTER#1 AWB

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

MD Reference: Rig on SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390) (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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 101 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, PR) Well: CHAMPLIN 117 G#4 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	5296.29	-1459.32	-15.41	5493.73	25.40	223.28	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 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: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8350.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8350>	CHAMPLIN 117 G#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

MD Reference: Rig on SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 102 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

Facility: SEC.02-T02S-R66W Slot: SLOT#02 EX HSR ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, PR) Well: HSR ACKARD #5-2 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	4.00	13.00	2689.31	-1469.81	-28.66	3064.76	50.10	62.15	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 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: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	HSR ACKARD #5-2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

MD Reference: Rig on SLOT#02 EX HSE ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 103 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, PR) Well: HSR-VAN SCHAACK #4-11 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	47.00	-1207.34	-1446.12	-129.86	1884.16	25.40	76.56	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 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: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8374.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8374>	HSR-VAN SCHAACK #4-11 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

MD Reference: Rig on SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 104 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

Facility: SEC.03-T02S-R66W Slot: SLOT#01 EX HSR LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, PR) Well: HSR LAWSON #8-3 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	2427.16	-2793.18	-49.01	3700.50	25.40	150.39	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 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: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8598.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8598>	HSR LAWSON #8-3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

MD Reference: Rig on SLOT#01 EX HSE LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, 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

ACKARD NORTH 2-35-4NAH PWP (REV. A.0)  
Closest Approach  
Page 105 of 105



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NAH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NAH PWB
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

Facility: SEC.03-T02S-R66W Slot: SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR) Well: HSR-TR RANCH #16-3 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	53.00	56.22	-2806.65	-88.85	2807.49	25.40	114.09	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 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: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8362.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8362>	HSR-TR RANCH #16-3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

MD Reference: Rig on SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft