PDC ENERGY

WELD COUNTY, COLORADO
SE SW SEC. 21 T4N R67W 6th P.M.
WALTERS 21P-304

ORIGINAL WELLBORE
PROPOSAL #1

Anticollision Report

26 March, 2016

total

Anticollision Report

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Reference	PROPOSAL #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.0usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 26/03/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	11,783.3	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SE SW SEC. 21 T4N R67W 6th P.M.						
EXIST DD RYLAND 20XD - Wellbore #1 - Wellbore #1	9,903.9	7,462.1	148.1	34.5	1.304	Level 3, CC, ES, SF
EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1	192.5	195.0	710.1	709.6	1,413.958	CC
EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1	200.0	201.7	710.1	709.5	1,332.359	ES
EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1	10,100.0	7,597.7	1,087.4	969.2	9.199	SF
EXIST DD RYLAND 33-20D - Wellbore #1 - Wellbore #1	11,705.9	7,232.3	856.1	713.2	5.991	CC, ES
EXIST DD RYLAND 33-20D - Wellbore #1 - Wellbore #1	11,783.3	7,231.9	859.6	714.6	5.926	SF
EXIST DD RYLAND 34-20D - Wellbore #1 - Wellbore #1	11,715.5	7,148.4	463.0	320.7	3.255	CC, ES
EXIST DD RYLAND 34-20D - Wellbore #1 - Wellbore #1	11,783.3	7,149.9	467.9	323.8	3.246	SF
EXIST DD RYLAND 43-20D - Wellbore #1 - Wellbore #1	10,441.2	7,358.6	855.6	736.9	7.207	CC, ES
EXIST DD RYLAND 43-20D - Wellbore #1 - Wellbore #1	10,600.0	7,360.0	870.2	747.1	7.070	SF
EXIST DD RYLAND 44-20D - Wellbore #1 - Wellbore #1	10,446.5	7,302.1	453.4	334.7	3.821	CC, ES
EXIST DD RYLAND 44-20D - Wellbore #1 - Wellbore #1	10,500.0	7,301.8	456.5	336.4	3.800	SF
EXIST DD WALTERS #21ODU - Wellbore #1 - Wellbore	539.9	548.8	750.7	749.1	454.127	CC, ES
EXIST DD WALTERS #21ODU - Wellbore #1 - Wellbore	8,800.0	7,377.9	2,065.1	1,993.9	29.017	SF
EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #	0.0	0.0	699.6			
EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #	200.0	199.5	700.0	699.5	1,319.096	ES
EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #	9,000.0	7,386.6	1,210.8	1,139.9	17.080	SF
EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #	1,974.5	2,145.1	535.3	521.8	39.589	CC
EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #	2,000.0	2,169.2	535.4	521.6	38.805	ES
EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #	3,700.0	3,798.0	797.4	764.1	23.957	SF
EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore	0.0	0.0	737.6			
EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore	300.0	299.8	738.1	737.3	860.212	ES
EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore	8,200.0	7,260.2	1,040.2	989.6	20.568	SF
EXIST DD WALTERS 24-21DU - Wellbore #1 - Wellbore	7,815.8	7,289.8	526.2	483.9	12.421	CC, ES
EXIST DD WALTERS 24-21DU - Wellbore #1 - Wellbore	8,000.0	7,289.8	557.5	511.5	12.125	SF
EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore	0.0	2.5	744.8			
EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore	9,200.0	7,343.2	785.0	702.5	9.515	ES
EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore	9,400.0	7,344.2	813.9	726.1	9.267	SF
EXIST DD WEDCO 14-21DU - Wellbore #1 - Wellbore #	9,161.9	7,357.9	470.2	389.3	5.813	CC, ES
EXIST DD WEDCO 14-21DU - Wellbore #1 - Wellbore #	9,200.0	7,357.7	471.7	389.8	5.760	SF
EXIST VERT BUNYAN #1 - Wellbore #1 - Wellbore #1	8,240.5	7,164.0	574.1	537.6	15.725	CC, ES
EXIST VERT BUNYAN #1 - Wellbore #1 - Wellbore #1	8,500.0	7,163.4	630.0	587.3	14.743	SF
EXIST VERT EVANS-STROH 20-1 - Wellbore #1 - Desig	11,385.2	7,141.9	83.7	-177.8	0.320	Level 1, CC, ES, SF
WALTERS 21P-204 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	14.9	13.4	9.680	CC, ES
WALTERS 21P-204 - ORIGINAL WELLBORE - PROPOS	11,783.3	11,684.9	267.6	28.5	1.119	Level 2, SF
WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOS	500.0	501.0	29.9	27.9	14.976	CC
WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOS	600.0	601.0	30.2	27.8	12.408	ES

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SE SW SEC. 21 T4N R67W 6th P.M.						
WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOS	11,783.3	11,688.2	415.0	164.4	1.656	SF
WALTERS 21P-314 - ORIGINAL WELLBORE - PROPOS	300.0	299.0	29.9	28.8	27.376	CC, ES
WALTERS 21P-314 - ORIGINAL WELLBORE - PROPOS	11,783.3	11,798.9	515.1	257.1	1.996	SF
WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOS	500.0	500.0	14.9	12.9	7.497	CC
WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOS	600.0	600.0	15.3	12.9	6.304	ES
WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOS	11,783.3	11,886.1	240.5	20.7	1.094	Level 2, SF
WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPO	366.3	367.3	60.1	58.7	43.125	CC
WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPO	400.0	401.0	60.1	58.6	38.907	ES
WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPO	11,783.3	11,711.5	807.8	551.1	3.147	SF
WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPO	266.3	267.3	75.0	74.1	79.460	CC
WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPO	300.0	301.0	75.0	73.9	68.500	ES
WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPO	11,783.3	11,828.8	1,000.4	741.7	3.867	SF
WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPO	466.3	467.3	44.8	43.0	24.308	CC
WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPO	500.0	501.0	44.8	42.8	22.466	ES
WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPO	11,783.3	11,800.2	600.4	341.5	2.319	SF

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20XD - Wellbore #1 - Wellbore #1

Survey Program: 152-MWD

Offset Site Error: 0.0 usft

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-50.95	460.1	-567.1	730.3				
100.0	100.0	101.7	101.6	0.1	0.1	-51.02	459.5	-567.7	730.4	730.2	0.18	4,028.344	
200.0	200.0	194.2	194.1	0.3	0.2	-51.19	457.9	-569.4	730.8	730.2	0.53	1,368.560	
300.0	300.0	275.9	275.8	0.5	0.4	-51.39	457.1	-572.4	733.0	732.1	0.94	782.058	
400.0	400.0	354.4	354.2	0.8	0.6	-51.57	457.8	-577.0	738.2	736.8	1.34	551.431	
500.0	500.0	436.6	436.1	1.0	0.8	-51.74	460.0	-583.3	745.9	744.1	1.76	423.163	
600.0	600.0	518.0	517.0	1.2	1.0	-133.13	463.1	-591.5	757.3	755.1	2.21	342.380	
700.0	699.8	611.0	609.2	1.4	1.3	-133.57	465.8	-603.5	772.8	770.2	2.67	289.619	
800.0	799.5	706.8	703.9	1.7	1.6	-134.34	466.5	-617.8	791.3	788.1	3.14	251.999	
900.0	898.7	808.6	804.6	1.9	2.0	-135.35	466.3	-633.2	812.1	808.4	3.64	223.270	
1,000.0	997.5	910.6	905.4	2.2	2.3	-136.58	463.8	-648.5	834.4	830.2	4.16	200.511	
1,099.8	1,095.4	984.0	977.6	2.6	2.6	-137.50	461.3	-661.4	861.2	856.6	4.65	185.047	
1,100.0	1,095.6	984.0	977.6	2.6	2.6	-137.50	461.3	-661.4	861.3	856.6	4.65	185.035	
1,200.0	1,193.4	1,056.0	1,048.0	3.0	2.9	-138.87	458.5	-676.2	892.3	887.1	5.18	172.132	
1,300.0	1,291.3	1,125.1	1,115.2	3.4	3.2	-140.19	455.5	-691.9	925.8	920.0	5.72	161.852	
1,400.0	1,389.1	1,189.3	1,177.3	3.8	3.5	-141.36	453.4	-708.0	962.3	956.0	6.24	154.140	
1,500.0	1,486.9	1,263.0	1,248.0	4.2	3.9	-142.67	451.4	-728.7	1,002.1	995.3	6.80	147.327	
1,600.0	1,584.7	1,316.5	1,298.9	4.7	4.3	-143.60	450.0	-745.1	1,044.5	1,037.2	7.30	143.036	
1,700.0	1,682.5	1,389.2	1,367.8	5.1	4.7	-144.82	448.0	-768.5	1,089.1	1,081.2	7.86	138.550	
1,800.0	1,780.3	1,464.5	1,438.6	5.5	5.2	-146.08	445.1	-793.6	1,134.9	1,126.5	8.42	134.765	
1,900.0	1,878.2	1,527.2	1,497.3	6.0	5.7	-147.10	442.4	-815.6	1,182.6	1,173.6	8.94	132.221	
2,000.0	1,976.0	1,584.5	1,550.5	6.4	6.1	-147.99	440.0	-836.7	1,232.4	1,223.0	9.45	130.368	
2,100.0	2,073.8	1,639.5	1,601.1	6.9	6.5	-148.83	437.8	-858.2	1,284.6	1,274.6	9.95	129.079	
2,200.0	2,171.6	1,718.6	1,673.4	7.3	7.2	-149.98	434.5	-890.0	1,338.1	1,327.5	10.52	127.188	
2,300.0	2,269.4	1,820.3	1,766.6	7.8	8.0	-151.37	429.3	-930.6	1,391.5	1,380.4	11.11	125.215	
2,400.0	2,367.2	1,919.8	1,858.2	8.2	8.7	-152.61	424.3	-968.9	1,444.2	1,432.5	11.66	123.870	
2,500.0	2,465.0	2,032.8	1,963.2	8.7	9.4	-153.92	417.3	-1,010.2	1,495.1	1,482.9	12.24	122.189	
2,600.0	2,562.9	2,103.0	2,028.3	9.1	9.9	-154.65	413.6	-1,036.2	1,547.0	1,534.3	12.72	121.610	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20XD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 152-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,700.0	2,660.7	2,202.9	2,121.2	9.6	10.7	-155.55	410.3	-1,072.7	1,599.3	1,586.0	13.26	120.592	
2,800.0	2,758.5	2,326.2	2,237.3	10.0	11.5	-156.57	405.6	-1,114.1	1,648.6	1,634.8	13.83	119.224	
2,900.0	2,856.3	2,382.0	2,289.8	10.5	11.8	-156.98	404.0	-1,132.9	1,698.7	1,684.5	14.25	119.182	
3,000.0	2,954.1	2,456.3	2,359.4	11.0	12.4	-157.50	402.1	-1,158.7	1,750.0	1,735.3	14.74	118.756	
3,100.0	3,051.9	2,537.7	2,435.5	11.4	12.9	-158.08	399.0	-1,187.7	1,801.9	1,786.7	15.24	118.255	
3,200.0	3,149.8	2,618.7	2,511.0	11.9	13.5	-158.67	395.0	-1,216.7	1,854.0	1,838.3	15.73	117.866	
3,300.0	3,247.6	2,697.8	2,584.7	12.3	14.1	-159.19	391.6	-1,245.1	1,906.4	1,890.2	16.21	117.597	
3,400.0	3,345.4	2,800.3	2,680.4	12.8	14.8	-159.78	388.7	-1,281.7	1,959.0	1,942.2	16.74	117.040	
3,500.0	3,443.2	2,924.8	2,797.5	13.2	15.6	-160.45	385.1	-1,323.7	2,009.8	1,992.5	17.30	116.163	
3,600.0	3,541.0	2,982.0	2,851.4	13.7	16.0	-160.74	383.1	-1,342.9	2,060.6	2,042.8	17.72	116.271	
3,700.0	3,638.8	3,034.0	2,900.1	14.1	16.4	-160.99	382.0	-1,361.1	2,112.9	2,094.8	18.14	116.505	
3,800.0	3,736.7	3,096.3	2,958.1	14.6	16.9	-161.26	381.2	-1,383.7	2,166.4	2,147.8	18.58	116.613	
3,836.5	3,772.4	3,127.0	2,986.7	14.8	17.1	-161.39	380.8	-1,395.0	2,186.1	2,167.3	18.76	116.538	
3,900.0	3,834.6	3,220.0	3,073.5	15.0	17.8	-162.04	378.0	-1,428.1	2,219.0	2,199.9	19.17	115.758	
4,000.0	3,933.2	3,280.0	3,129.5	15.3	18.2	-162.64	375.3	-1,449.3	2,268.5	2,248.9	19.59	115.820	
4,100.0	4,032.3	3,368.1	3,211.5	15.6	18.8	-163.27	372.1	-1,481.7	2,316.2	2,296.1	20.07	115.413	
4,200.0	4,131.8	3,491.1	3,326.4	15.8	19.7	-163.94	366.5	-1,525.3	2,359.7	2,339.1	20.63	114.382	
4,300.0	4,231.5	3,640.3	3,466.7	16.0	20.7	-164.57	359.7	-1,575.5	2,398.6	2,377.4	21.25	112.870	
4,400.0	4,331.5	3,761.8	3,581.5	16.1	21.5	-165.08	352.3	-1,614.5	2,432.8	2,411.0	21.78	111.675	
4,436.3	4,367.8	3,798.2	3,616.0	16.2	21.7	-83.95	350.3	-1,626.0	2,444.2	2,406.9	37.23	65.648	
4,500.0	4,431.5	3,854.8	3,669.6	16.2	22.1	-84.08	347.0	-1,643.9	2,463.9	2,426.2	37.67	65.406	
4,600.0	4,531.5	3,904.8	3,716.8	16.4	22.4	-84.19	343.8	-1,660.0	2,495.6	2,457.5	38.14	65.431	
4,700.0	4,631.5	3,965.0	3,773.0	16.5	22.8	-84.34	340.0	-1,681.0	2,529.6	2,490.9	38.70	65.368	
4,800.0	4,731.5	4,012.9	3,817.5	16.6	23.2	-84.46	336.7	-1,698.5	2,564.9	2,525.7	39.19	65.446	
4,900.0	4,831.5	4,087.1	3,886.4	16.8	23.8	-84.65	331.3	-1,725.6	2,600.8	2,560.9	39.89	65.195	
5,000.0	4,931.5	4,151.0	3,945.4	16.9	24.3	-84.81	326.7	-1,749.8	2,638.0	2,597.4	40.53	65.094	
5,100.0	5,031.5	4,383.3	4,163.1	17.0	25.9	-85.20	316.7	-1,830.0	2,670.7	2,628.4	42.29	63.159	
5,200.0	5,131.5	4,431.0	4,208.0	17.2	26.2	-85.25	315.7	-1,845.9	2,704.1	2,661.3	42.74	63.262	
5,300.0	5,231.5	4,498.7	4,271.4	17.3	26.7	-85.34	313.8	-1,869.5	2,738.6	2,695.3	43.38	63.136	
5,400.0	5,331.5	4,635.3	4,399.2	17.5	27.6	-85.54	308.2	-1,917.4	2,773.4	2,728.9	44.49	62.335	
5,500.0	5,431.5	4,748.4	4,505.6	17.6	28.4	-85.68	304.8	-1,955.7	2,807.0	2,761.6	45.40	61.826	
5,600.0	5,531.5	4,839.4	4,591.5	17.7	29.0	-85.79	301.7	-1,985.7	2,839.7	2,793.6	46.16	61.513	
5,700.0	5,631.5	4,896.0	4,644.6	17.9	29.4	-85.86	300.0	-2,005.0	2,873.6	2,826.9	46.70	61.530	
5,800.0	5,731.5	4,989.0	4,731.8	18.0	30.0	-85.97	297.3	-2,037.3	2,908.1	2,860.6	47.51	61.211	
5,900.0	5,831.5	5,038.6	4,778.2	18.2	30.4	-86.03	295.7	-2,054.9	2,943.2	2,895.2	48.03	61.283	
6,000.0	5,931.5	5,953.6	5,666.7	18.4	34.5	-86.93	263.1	-2,255.4	2,957.7	2,905.4	52.33	56.519	
6,100.0	6,031.5	6,302.4	6,014.9	18.5	35.1	-87.04	258.5	-2,273.3	2,963.3	2,910.2	53.03	55.875	
6,200.0	6,131.5	6,402.7	6,115.2	18.7	35.2	-87.04	258.3	-2,274.0	2,963.9	2,910.6	53.28	55.631	
6,300.0	6,231.5	6,503.2	6,215.7	18.8	35.2	-87.05	258.0	-2,274.6	2,964.5	2,911.0	53.52	55.388	
6,400.0	6,331.5	6,604.6	6,317.1	19.0	35.3	-87.05	257.7	-2,275.3	2,965.1	2,911.4	53.77	55.142	
6,500.0	6,431.5	6,707.3	6,419.8	19.1	35.4	-87.06	257.2	-2,275.8	2,965.7	2,911.6	54.02	54.896	
6,531.3	6,462.8	6,740.1	6,452.6	19.2	35.4	-87.07	257.1	-2,276.0	2,965.8	2,911.7	54.10	54.818	
6,550.0	6,481.5	6,759.6	6,472.1	19.2	35.5	2.93	257.0	-2,276.1	2,965.6	2,932.4	33.28	89.102	
6,600.0	6,531.4	6,811.9	6,524.4	19.3	35.5	2.94	256.8	-2,276.3	2,962.8	2,929.2	33.54	88.328	
6,650.0	6,580.9	6,863.2	6,575.7	19.3	35.6	2.97	256.6	-2,276.4	2,956.4	2,922.7	33.66	87.823	
6,700.0	6,629.9	6,911.4	6,623.9	19.3	35.6	3.02	256.4	-2,276.6	2,946.6	2,913.0	33.64	87.591	
6,750.0	6,678.1	6,958.9	6,671.3	19.2	35.6	3.09	256.2	-2,276.7	2,933.4	2,899.9	33.48	87.613	
6,800.0	6,725.2	7,005.3	6,717.8	19.2	35.7	3.18	256.0	-2,276.9	2,916.9	2,883.7	33.19	87.888	
6,850.0	6,771.1	7,050.7	6,763.2	19.1	35.7	3.29	255.8	-2,277.1	2,897.2	2,864.4	32.77	88.414	
6,900.0	6,815.4	7,095.5	6,808.0	19.0	35.8	3.44	255.6	-2,277.2	2,874.3	2,842.0	32.23	89.184	
6,950.0	6,858.0	7,138.5	6,851.0	18.9	35.8	3.61	255.4	-2,277.4	2,848.3	2,816.8	31.58	90.205	
7,000.0	6,898.7	7,179.6	6,892.1	18.9	35.8	3.83	255.2	-2,277.5	2,819.5	2,788.7	30.82	91.472	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20XD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 152-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,937.3	7,218.6	6,931.0	18.8	35.9	4.10	255.0	-2,277.7	2,787.9	2,757.9	29.98	92.976	
7,100.0	6,973.6	7,257.2	6,969.7	18.8	35.9	4.42	254.8	-2,277.8	2,753.6	2,724.5	29.08	94.680	
7,150.0	7,007.4	7,293.6	7,006.1	18.8	35.9	4.83	254.5	-2,277.9	2,716.9	2,688.7	28.14	96.552	
7,200.0	7,038.5	7,327.1	7,039.5	18.9	36.0	5.35	254.3	-2,277.9	2,677.8	2,650.7	27.18	98.518	
7,250.0	7,066.8	7,357.5	7,069.9	19.0	36.0	6.01	254.1	-2,277.9	2,636.7	2,610.5	26.25	100.448	
7,300.0	7,092.2	7,384.6	7,097.1	19.2	36.0	6.87	254.0	-2,277.9	2,593.7	2,568.3	25.40	102.118	
7,350.0	7,114.5	7,408.5	7,121.0	19.5	36.0	8.04	253.8	-2,277.9	2,549.0	2,524.3	24.71	103.155	
7,400.0	7,133.6	7,428.1	7,140.6	19.9	36.0	9.67	253.7	-2,277.9	2,502.9	2,478.6	24.32	102.935	
7,450.0	7,149.5	7,444.2	7,156.7	20.3	36.1	12.09	253.5	-2,277.9	2,455.5	2,431.1	24.47	100.357	
7,500.0	7,162.0	7,456.9	7,169.4	20.8	36.1	16.03	253.4	-2,277.8	2,407.2	2,381.4	25.74	93.511	
7,550.0	7,171.1	7,466.1	7,178.6	21.4	36.1	23.34	253.4	-2,277.8	2,358.1	2,328.5	29.66	79.511	
7,600.0	7,176.8	7,471.8	7,184.3	22.1	36.1	40.06	253.3	-2,277.8	2,308.5	2,268.0	40.53	56.960	
7,650.0	7,179.0	7,473.9	7,186.4	22.8	36.1	84.23	253.3	-2,277.8	2,258.7	2,200.3	58.42	38.660	
7,658.9	7,179.0	7,474.0	7,186.4	22.9	36.1	95.07	253.3	-2,277.8	2,249.8	2,191.2	58.57	38.411	
7,700.0	7,178.9	7,473.7	7,186.2	23.5	36.1	94.98	253.3	-2,277.8	2,208.8	2,149.6	59.21	37.305	
7,800.0	7,178.5	7,473.2	7,185.7	25.2	36.1	94.78	253.3	-2,277.8	2,109.0	2,048.1	60.92	34.621	
7,900.0	7,178.1	7,472.7	7,185.1	27.1	36.1	94.57	253.3	-2,277.8	2,009.3	1,946.5	62.81	31.990	
8,000.0	7,177.8	7,472.1	7,184.6	29.2	36.1	94.36	253.3	-2,277.8	1,909.6	1,844.7	64.85	29.445	
8,100.0	7,177.4	7,471.6	7,184.1	31.3	36.1	94.16	253.3	-2,277.8	1,809.9	1,742.9	67.02	27.007	
8,200.0	7,177.0	7,471.1	7,183.5	33.6	36.1	93.95	253.3	-2,277.8	1,710.3	1,641.0	69.28	24.687	
8,300.0	7,176.7	7,470.5	7,183.0	35.9	36.1	93.75	253.3	-2,277.8	1,610.7	1,539.0	71.62	22.490	
8,400.0	7,176.3	7,470.0	7,182.5	38.3	36.1	93.54	253.3	-2,277.8	1,511.1	1,437.1	74.02	20.415	
8,500.0	7,175.9	7,469.5	7,181.9	40.7	36.1	93.33	253.3	-2,277.8	1,411.6	1,335.2	76.48	18.458	
8,600.0	7,175.6	7,468.9	7,181.4	43.2	36.1	93.13	253.3	-2,277.8	1,312.2	1,233.3	78.98	16.615	
8,700.0	7,175.2	7,468.4	7,180.9	45.7	36.1	92.92	253.3	-2,277.8	1,212.9	1,131.4	81.52	14.880	
8,800.0	7,174.8	7,467.9	7,180.3	48.3	36.1	92.72	253.3	-2,277.8	1,113.7	1,029.7	84.08	13.245	
8,900.0	7,174.5	7,467.3	7,179.8	50.9	36.1	92.51	253.3	-2,277.8	1,014.7	928.0	86.68	11.706	
9,000.0	7,174.1	7,466.8	7,179.3	53.5	36.1	92.31	253.3	-2,277.8	915.9	826.6	89.30	10.257	
9,100.0	7,173.7	7,466.3	7,178.8	56.1	36.1	92.11	253.4	-2,277.8	817.4	725.4	91.93	8.891	
9,200.0	7,173.4	7,465.8	7,178.2	58.8	36.1	91.90	253.4	-2,277.8	719.3	624.7	94.59	7.604	
9,300.0	7,173.0	7,465.2	7,177.7	61.4	36.1	91.70	253.4	-2,277.8	621.7	524.5	97.25	6.393	
9,400.0	7,172.6	7,464.7	7,177.2	64.1	36.1	91.49	253.4	-2,277.8	525.2	425.2	99.93	5.255	
9,500.0	7,172.3	7,464.2	7,176.7	66.8	36.1	91.29	253.4	-2,277.8	430.2	327.5	102.62	4.192	
9,600.0	7,171.9	7,463.6	7,176.1	69.5	36.1	91.09	253.4	-2,277.8	338.0	232.7	105.32	3.209	
9,700.0	7,171.6	7,463.1	7,175.6	72.2	36.1	90.89	253.4	-2,277.8	252.0	143.9	108.03	2.332	
9,800.0	7,171.2	7,462.6	7,175.1	74.9	36.1	90.68	253.4	-2,277.8	180.9	70.1	110.74	1.633	
9,900.0	7,170.8	7,462.1	7,174.6	77.6	36.1	90.48	253.4	-2,277.8	148.1	34.7	113.46	1.306	Level 3
9,903.9	7,170.8	7,462.1	7,174.5	77.7	36.1	90.47	253.4	-2,277.8	148.1	34.5	113.57	1.304	Level 3, CC, ES, SF
10,000.0	7,170.5	7,461.6	7,174.0	80.3	36.1	90.28	253.4	-2,277.8	176.6	60.4	116.19	1.520	
10,100.0	7,170.1	7,461.0	7,173.5	83.0	36.1	90.08	253.4	-2,277.8	245.8	126.8	118.92	2.067	
10,200.0	7,169.7	7,460.5	7,173.0	85.8	36.1	89.88	253.4	-2,277.8	331.1	209.4	121.65	2.722	
10,300.0	7,169.4	7,460.0	7,172.5	88.5	36.1	89.67	253.4	-2,277.8	422.9	298.5	124.39	3.400	
10,400.0	7,169.0	7,459.5	7,171.9	91.3	36.1	89.47	253.4	-2,277.8	517.8	390.6	127.13	4.073	
10,500.0	7,168.6	7,459.0	7,171.4	94.0	36.1	89.27	253.4	-2,277.8	614.2	484.4	129.87	4.730	
10,600.0	7,168.3	7,458.4	7,170.9	96.8	36.1	89.07	253.4	-2,277.8	711.7	579.1	132.61	5.367	
10,700.0	7,167.9	7,457.9	7,170.4	99.5	36.1	88.87	253.4	-2,277.8	809.8	674.4	135.36	5.983	
10,800.0	7,167.5	7,457.4	7,169.9	102.3	36.1	88.67	253.4	-2,277.8	908.3	770.2	138.10	6.577	
10,900.0	7,167.2	7,456.9	7,169.4	105.0	36.1	88.47	253.4	-2,277.8	1,007.1	866.2	140.85	7.150	
11,000.0	7,166.8	7,456.4	7,168.8	107.8	36.1	88.27	253.4	-2,277.8	1,106.1	962.5	143.60	7.703	
11,100.0	7,166.4	7,455.9	7,168.3	110.5	36.1	88.07	253.4	-2,277.8	1,205.3	1,058.9	146.35	8.236	
11,200.0	7,166.1	7,455.3	7,167.8	113.3	36.1	87.87	253.4	-2,277.8	1,304.6	1,155.5	149.10	8.750	
11,300.0	7,165.7	7,454.8	7,167.3	116.1	36.1	87.68	253.4	-2,277.8	1,403.9	1,252.1	151.84	9.246	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20XD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 152-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,400.0	7,165.4	7,454.3	7,166.8	118.8	36.1	87.48	253.5	-2,277.8	1,503.4	1,348.8	154.59	9.725	
11,500.0	7,165.0	7,453.8	7,166.3	121.6	36.1	87.28	253.5	-2,277.8	1,603.0	1,445.6	157.34	10.188	
11,600.0	7,164.6	7,453.3	7,165.8	124.4	36.1	87.08	253.5	-2,277.8	1,702.6	1,542.5	160.08	10.635	
11,700.0	7,164.3	7,452.8	7,165.3	127.2	36.1	86.89	253.5	-2,277.8	1,802.2	1,639.4	162.83	11.068	
11,783.3	7,164.0	7,452.4	7,164.9	129.5	36.1	86.72	253.5	-2,277.9	1,885.3	1,720.2	165.12	11.418	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 156-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.6	2.6	0.0	0.0	-55.75	400.0	-587.5	710.7				
100.0	100.0	105.8	105.8	0.1	0.1	-55.75	399.8	-587.3	710.5	710.3	0.18	4,055.855	
192.5	192.5	195.0	195.0	0.3	0.2	-55.77	399.4	-587.1	710.1	709.6	0.50	1,413.958	CC
200.0	200.0	201.7	201.7	0.3	0.2	-55.78	399.3	-587.1	710.1	709.5	0.53	1,332.359	ES
300.0	300.0	286.2	286.2	0.5	0.4	-55.90	398.6	-588.7	711.1	710.2	0.94	756.845	
400.0	400.0	368.2	368.1	0.8	0.6	-56.17	397.5	-593.0	714.8	713.4	1.35	528.877	
500.0	500.0	455.7	455.3	1.0	0.8	-56.60	395.8	-600.3	720.6	718.8	1.79	403.062	
600.0	600.0	550.0	548.8	1.2	1.1	-138.57	391.8	-610.7	728.9	726.6	2.28	319.398	
700.0	699.8	650.3	648.1	1.4	1.4	-139.68	385.0	-623.8	740.4	737.6	2.80	264.602	
800.0	799.5	753.0	749.5	1.7	1.8	-141.07	375.9	-637.1	753.8	750.4	3.34	226.009	
900.0	898.7	828.0	823.0	1.9	2.0	-142.30	367.2	-649.3	772.0	768.2	3.83	201.353	
1,000.0	997.5	913.7	905.9	2.2	2.5	-144.05	354.3	-666.4	795.6	791.2	4.46	178.503	
1,099.8	1,095.4	996.1	984.9	2.6	2.9	-145.91	339.4	-684.5	823.8	818.7	5.11	161.235	
1,100.0	1,095.6	996.2	985.0	2.6	2.9	-145.91	339.4	-684.6	823.9	818.7	5.11	161.206	
1,200.0	1,193.4	1,073.9	1,058.9	3.0	3.4	-148.05	324.0	-703.0	855.9	850.1	5.77	148.299	
1,300.0	1,291.3	1,151.5	1,132.2	3.4	3.9	-150.16	307.8	-722.7	890.5	884.1	6.45	138.125	
1,400.0	1,389.1	1,231.4	1,207.1	3.8	4.4	-152.29	289.7	-744.0	927.4	920.2	7.14	129.918	
1,500.0	1,486.9	1,312.5	1,282.6	4.2	5.0	-154.40	270.3	-766.2	965.9	958.1	7.84	123.170	
1,600.0	1,584.7	1,387.0	1,351.6	4.7	5.6	-156.27	251.7	-787.4	1,006.5	998.0	8.51	118.341	
1,700.0	1,682.5	1,461.5	1,420.3	5.1	6.1	-158.04	233.1	-809.2	1,049.1	1,040.0	9.13	114.964	
1,800.0	1,780.3	1,535.9	1,488.7	5.5	6.6	-159.72	214.2	-831.6	1,093.5	1,083.8	9.75	112.212	
1,900.0	1,878.2	1,606.6	1,552.9	6.0	7.2	-161.34	194.3	-853.6	1,139.7	1,129.4	10.36	110.010	
2,000.0	1,976.0	1,676.5	1,615.9	6.4	7.8	-162.88	174.1	-876.1	1,187.8	1,176.8	10.98	108.171	
2,100.0	2,073.8	1,759.0	1,690.3	6.9	8.4	-164.55	150.7	-902.9	1,237.0	1,225.4	11.61	106.577	
2,200.0	2,171.6	1,831.9	1,756.2	7.3	9.0	-165.92	130.5	-926.6	1,287.3	1,275.1	12.17	105.740	
2,300.0	2,269.4	1,925.8	1,841.2	7.8	9.7	-167.51	105.2	-957.4	1,338.4	1,325.5	12.81	104.500	
2,400.0	2,367.2	2,016.5	1,924.2	8.2	10.4	-168.88	82.2	-986.3	1,389.0	1,375.6	13.39	103.721	
2,500.0	2,465.0	2,083.9	1,985.5	8.7	10.9	-169.84	64.7	-1,007.7	1,440.3	1,426.4	13.91	103.512	
2,600.0	2,562.9	2,149.2	2,044.4	9.1	11.4	-170.78	46.6	-1,029.3	1,493.2	1,478.8	14.44	103.436	
2,700.0	2,660.7	2,247.5	2,133.1	9.6	12.2	-172.13	18.8	-1,061.5	1,546.4	1,531.3	15.08	102.575	
2,800.0	2,758.5	2,345.2	2,221.7	10.0	13.0	-173.36	-8.5	-1,092.3	1,598.8	1,583.2	15.68	101.970	
2,900.0	2,856.3	2,417.1	2,287.1	10.5	13.5	-174.17	-27.5	-1,115.1	1,651.7	1,635.5	16.20	101.986	
3,000.0	2,954.1	2,489.0	2,352.6	11.0	14.1	-174.93	-46.4	-1,138.4	1,705.4	1,688.6	16.72	101.975	
3,100.0	3,051.9	2,589.8	2,444.1	11.4	14.9	-175.94	-73.3	-1,170.7	1,759.2	1,741.9	17.35	101.385	
3,200.0	3,149.8	2,677.3	2,523.6	11.9	15.6	-176.81	-97.7	-1,197.9	1,812.6	1,794.6	17.93	101.088	
3,300.0	3,247.6	2,753.9	2,593.0	12.3	16.2	-177.57	-120.1	-1,221.5	1,866.2	1,847.7	18.47	101.011	
3,400.0	3,345.4	2,836.3	2,667.6	12.8	16.9	-178.33	-143.9	-1,247.0	1,920.2	1,901.2	19.04	100.851	
3,500.0	3,443.2	2,933.7	2,755.9	13.2	17.6	-179.20	-172.3	-1,276.8	1,974.2	1,954.5	19.65	100.450	
3,600.0	3,541.0	3,006.4	2,822.0	13.7	18.2	-179.81	-193.6	-1,298.6	2,027.9	2,007.7	20.18	100.481	
3,700.0	3,638.8	3,063.0	2,873.1	14.1	18.7	179.74	-210.2	-1,316.2	2,082.7	2,062.1	20.66	100.835	
3,800.0	3,736.7	3,125.8	2,929.8	14.6	19.2	179.27	-227.9	-1,336.5	2,138.6	2,117.5	21.14	101.145	
3,836.5	3,772.4	3,156.0	2,957.2	14.8	19.4	179.08	-235.8	-1,346.6	2,159.2	2,137.9	21.35	101.128	
3,900.0	3,834.6	3,276.1	3,066.6	15.0	20.4	178.34	-267.5	-1,384.6	2,193.5	2,171.5	22.00	99.693	
4,000.0	3,933.2	3,342.0	3,127.0	15.3	20.9	177.98	-285.1	-1,404.2	2,243.8	2,221.3	22.58	99.367	
4,100.0	4,032.3	3,407.8	3,187.3	15.6	21.4	177.65	-302.4	-1,424.3	2,292.0	2,268.8	23.14	99.053	
4,200.0	4,131.8	3,521.5	3,290.9	15.8	22.3	177.12	-331.1	-1,460.9	2,338.3	2,314.5	23.83	98.107	
4,300.0	4,231.5	3,588.9	3,352.7	16.0	22.8	176.86	-347.7	-1,482.1	2,380.8	2,356.4	24.34	97.823	
4,400.0	4,331.5	3,673.1	3,429.6	16.1	23.5	176.52	-368.8	-1,509.4	2,420.9	2,396.1	24.87	97.355	
4,436.3	4,367.8	3,712.8	3,465.8	16.2	23.8	-102.36	-378.4	-1,522.2	2,434.7	2,396.9	37.75	64.500	
4,500.0	4,431.5	3,750.2	3,500.0	16.2	24.1	-102.51	-387.4	-1,534.4	2,458.6	2,420.5	38.12	64.497	
4,600.0	4,531.5	3,810.2	3,554.7	16.4	24.5	-102.76	-402.1	-1,554.6	2,497.3	2,458.5	38.73	64.484	
4,700.0	4,631.5	3,933.6	3,667.2	16.5	25.5	-103.28	-432.9	-1,594.7	2,534.9	2,495.0	39.85	63.613	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 156-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	3,993.0	3,720.9	16.6	26.0	-103.54	-448.5	-1,614.6	2,574.0	2,533.5	40.47	63.610	
4,900.0	4,831.5	4,044.5	3,767.2	16.8	26.5	-103.77	-462.6	-1,632.4	2,614.4	2,573.3	41.04	63.695	
5,000.0	4,931.5	4,086.0	3,804.3	16.9	26.8	-103.95	-474.3	-1,646.6	2,655.7	2,614.2	41.54	63.930	
5,100.0	5,031.5	4,154.5	3,865.3	17.0	27.5	-104.27	-494.0	-1,671.0	2,698.1	2,655.8	42.30	63.790	
5,200.0	5,131.5	4,243.5	3,943.9	17.2	28.3	-104.65	-519.6	-1,703.8	2,741.9	2,698.6	43.24	63.410	
5,300.0	5,231.5	4,438.2	4,118.6	17.3	29.9	-105.41	-572.3	-1,771.7	2,782.7	2,737.7	45.02	61.806	
5,400.0	5,331.5	4,498.1	4,172.7	17.5	30.4	-105.63	-588.1	-1,792.2	2,823.2	2,777.5	45.67	61.816	
5,500.0	5,431.5	4,552.0	4,220.9	17.6	30.9	-105.83	-602.8	-1,811.1	2,865.0	2,818.7	46.28	61.910	
5,600.0	5,531.5	4,718.6	4,371.1	17.7	32.3	-106.44	-648.2	-1,867.2	2,904.9	2,857.0	47.83	60.739	
5,700.0	5,631.5	4,791.8	4,437.0	17.9	32.9	-106.72	-669.0	-1,891.3	2,945.2	2,896.6	48.59	60.614	
5,800.0	5,731.5	4,955.5	4,585.1	18.0	34.2	-107.31	-714.4	-1,943.9	2,984.6	2,934.5	50.08	59.593	
5,900.0	5,831.5	5,018.0	4,641.9	18.2	34.7	-107.51	-730.9	-1,964.2	3,023.8	2,973.1	50.74	59.598	
6,000.0	5,931.5	5,304.4	4,903.7	18.4	36.9	-108.46	-808.2	-2,050.5	3,063.3	3,010.2	53.10	57.691	
6,100.0	6,031.5	6,190.1	5,762.6	18.5	40.9	-109.74	-934.0	-2,211.0	3,089.6	3,032.3	57.30	53.916	
6,200.0	6,131.5	6,441.4	6,013.4	18.7	41.4	-109.83	-943.8	-2,223.4	3,095.0	3,037.1	57.89	53.467	
6,300.0	6,231.5	6,575.0	6,146.8	18.8	41.5	-109.86	-946.8	-2,226.9	3,098.2	3,040.0	58.21	53.226	
6,400.0	6,331.5	6,692.0	6,263.9	19.0	41.6	-109.88	-948.8	-2,229.4	3,100.8	3,042.3	58.50	53.005	
6,500.0	6,431.5	6,816.0	6,387.8	19.1	41.8	-109.89	-950.1	-2,231.3	3,102.6	3,043.8	58.78	52.780	
6,531.3	6,462.8	6,847.5	6,419.3	19.2	41.8	-109.89	-950.5	-2,231.6	3,103.0	3,044.2	58.86	52.716	
6,550.0	6,481.5	6,866.3	6,438.1	19.2	41.8	-19.90	-950.7	-2,231.8	3,103.1	3,065.2	37.91	81.854	
6,600.0	6,531.4	6,917.5	6,489.3	19.3	41.9	-19.98	-951.4	-2,232.4	3,100.9	3,062.8	38.14	81.314	
6,650.0	6,580.9	6,968.8	6,540.6	19.3	41.9	-20.18	-952.0	-2,232.9	3,095.5	3,057.4	38.16	81.117	
6,700.0	6,629.9	7,023.5	6,595.3	19.3	42.0	-20.51	-952.7	-2,233.5	3,086.8	3,048.8	38.00	81.236	
6,750.0	6,678.1	7,076.5	6,648.3	19.2	42.0	-20.96	-953.2	-2,233.9	3,074.8	3,037.1	37.65	81.658	
6,800.0	6,725.2	7,119.4	6,691.2	19.2	42.0	-21.53	-953.6	-2,234.3	3,059.7	3,022.5	37.14	82.373	
6,850.0	6,771.1	7,163.0	6,734.8	19.1	42.1	-22.24	-954.0	-2,234.7	3,041.5	3,005.0	36.50	83.326	
6,900.0	6,815.4	7,214.1	6,785.9	19.0	42.1	-23.16	-954.4	-2,235.2	3,020.5	2,984.7	35.77	84.444	
6,950.0	6,858.0	7,263.0	6,834.8	18.9	42.2	-24.27	-954.7	-2,235.6	2,996.4	2,961.4	34.99	85.642	
7,000.0	6,898.7	7,299.8	6,871.6	18.9	42.2	-25.54	-954.9	-2,235.9	2,969.7	2,935.4	34.21	86.798	
7,050.0	6,937.3	7,334.8	6,906.6	18.8	42.2	-27.06	-955.1	-2,236.2	2,940.4	2,906.9	33.54	87.675	
7,100.0	6,973.6	7,374.0	6,945.8	18.8	42.3	-28.92	-955.4	-2,236.6	2,908.7	2,875.7	33.08	87.922	
7,150.0	7,007.4	7,415.4	6,987.1	18.8	42.3	-31.19	-955.6	-2,236.9	2,874.8	2,841.8	33.00	87.126	
7,200.0	7,038.5	7,451.5	7,023.2	18.9	42.3	-33.88	-955.8	-2,237.1	2,838.7	2,805.3	33.41	84.959	
7,250.0	7,066.8	7,479.7	7,051.5	19.0	42.4	-37.01	-955.9	-2,237.2	2,800.7	2,766.2	34.45	81.290	
7,300.0	7,092.2	7,505.2	7,076.9	19.2	42.4	-40.74	-956.0	-2,237.4	2,761.0	2,724.8	36.25	76.168	
7,350.0	7,114.5	7,527.6	7,099.4	19.5	42.4	-45.18	-956.0	-2,237.5	2,719.9	2,681.1	38.84	70.028	
7,400.0	7,133.6	7,548.6	7,120.4	19.9	42.4	-50.47	-956.0	-2,237.6	2,677.6	2,635.4	42.19	63.470	
7,450.0	7,149.5	7,567.0	7,138.8	20.3	42.4	-56.68	-956.0	-2,237.7	2,634.2	2,588.2	46.07	57.175	
7,500.0	7,162.0	7,581.5	7,153.3	20.8	42.4	-63.79	-956.1	-2,237.8	2,590.1	2,540.0	50.10	51.694	
7,550.0	7,171.1	7,592.0	7,163.8	21.4	42.4	-71.66	-956.1	-2,237.8	2,545.3	2,491.6	53.77	47.341	
7,600.0	7,176.8	7,598.6	7,170.3	22.1	42.5	-80.02	-956.1	-2,237.9	2,500.3	2,443.8	56.52	44.239	
7,650.0	7,179.0	7,601.1	7,172.9	22.8	42.5	-88.48	-956.1	-2,237.9	2,455.2	2,397.2	57.96	42.358	
7,658.9	7,179.0	7,601.2	7,172.9	22.9	42.5	-89.97	-956.1	-2,237.9	2,447.1	2,389.1	58.07	42.141	
7,700.0	7,178.9	7,601.1	7,172.9	23.5	42.5	-89.97	-956.1	-2,237.9	2,410.2	2,351.5	58.70	41.057	
7,800.0	7,178.5	7,600.9	7,172.7	25.2	42.5	-89.96	-956.1	-2,237.9	2,320.8	2,260.4	60.40	38.423	
7,900.0	7,178.1	7,600.8	7,172.5	27.1	42.5	-89.95	-956.1	-2,237.9	2,232.4	2,170.1	62.28	35.842	
8,000.0	7,177.8	7,600.6	7,172.4	29.2	42.5	-89.94	-956.1	-2,237.9	2,144.9	2,080.6	64.32	33.349	
8,100.0	7,177.4	7,600.4	7,172.2	31.3	42.5	-89.93	-956.1	-2,237.9	2,058.6	1,992.2	66.47	30.971	
8,200.0	7,177.0	7,600.3	7,172.0	33.6	42.5	-89.92	-956.1	-2,237.9	1,973.6	1,904.9	68.72	28.720	
8,300.0	7,176.7	7,600.1	7,171.9	35.9	42.5	-89.91	-956.1	-2,237.9	1,890.1	1,819.0	71.05	26.603	
8,400.0	7,176.3	7,600.0	7,171.7	38.3	42.5	-89.91	-956.1	-2,237.9	1,808.2	1,734.8	73.44	24.621	
8,500.0	7,175.9	7,599.8	7,171.6	40.7	42.5	-89.90	-956.1	-2,237.9	1,728.3	1,652.4	75.89	22.774	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 20YD - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 156-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	7,599.7	7,171.4	43.2	42.5	-89.89	-956.1	-2,237.9	1,650.5	1,572.1	78.38	21.058	
8,700.0	7,175.2	7,599.5	7,171.3	45.7	42.5	-89.88	-956.1	-2,237.9	1,575.2	1,494.3	80.90	19.470	
8,800.0	7,174.8	7,599.4	7,171.1	48.3	42.5	-89.87	-956.1	-2,237.9	1,502.8	1,419.4	83.46	18.006	
8,900.0	7,174.5	7,599.2	7,171.0	50.9	42.5	-89.87	-956.1	-2,237.9	1,433.8	1,347.7	86.05	16.663	
9,000.0	7,174.1	7,599.1	7,170.8	53.5	42.5	-89.86	-956.1	-2,237.9	1,368.6	1,279.9	88.65	15.437	
9,100.0	7,173.7	7,598.9	7,170.7	56.1	42.5	-89.85	-956.1	-2,237.9	1,307.7	1,216.5	91.28	14.327	
9,200.0	7,173.4	7,598.8	7,170.6	58.8	42.5	-89.84	-956.1	-2,237.9	1,252.0	1,158.0	93.92	13.329	
9,300.0	7,173.0	7,598.7	7,170.4	61.4	42.5	-89.84	-956.1	-2,237.9	1,201.9	1,105.3	96.58	12.445	
9,400.0	7,172.6	7,598.5	7,170.3	64.1	42.5	-89.83	-956.1	-2,237.8	1,158.4	1,059.1	99.25	11.671	
9,500.0	7,172.3	7,598.4	7,170.2	66.8	42.5	-89.82	-956.1	-2,237.8	1,122.1	1,020.1	101.94	11.008	
9,600.0	7,171.9	7,598.3	7,170.0	69.5	42.5	-89.81	-956.1	-2,237.8	1,093.7	989.1	104.63	10.454	
9,700.0	7,171.6	7,598.1	7,169.9	72.2	42.5	-89.81	-956.1	-2,237.8	1,074.0	966.7	107.33	10.007	
9,800.0	7,171.2	7,598.0	7,169.8	74.9	42.5	-89.80	-956.1	-2,237.8	1,063.4	953.3	110.04	9.664	
9,863.9	7,171.0	7,597.9	7,169.7	76.6	42.5	-89.80	-956.1	-2,237.8	1,061.4	949.7	111.77	9.496	
9,900.0	7,170.8	7,597.9	7,169.7	77.6	42.5	-89.79	-956.1	-2,237.8	1,062.1	949.3	112.75	9.419	
10,000.0	7,170.5	7,597.8	7,169.5	80.3	42.5	-89.79	-956.1	-2,237.8	1,070.1	954.7	115.48	9.267	
10,100.0	7,170.1	7,597.7	7,169.4	83.0	42.5	-89.78	-956.1	-2,237.8	1,087.4	969.2	118.21	9.199	SF
10,200.0	7,169.7	7,597.5	7,169.3	85.8	42.5	-89.77	-956.1	-2,237.8	1,113.4	992.4	120.94	9.206	
10,300.0	7,169.4	7,597.4	7,169.2	88.5	42.5	-89.77	-956.1	-2,237.8	1,147.5	1,023.9	123.68	9.278	
10,400.0	7,169.0	7,597.3	7,169.1	91.3	42.5	-89.76	-956.1	-2,237.8	1,189.1	1,062.7	126.42	9.406	
10,500.0	7,168.6	7,597.2	7,168.9	94.0	42.5	-89.76	-956.1	-2,237.8	1,237.4	1,108.3	129.17	9.580	
10,600.0	7,168.3	7,597.1	7,168.8	96.8	42.5	-89.75	-956.1	-2,237.8	1,291.7	1,159.8	131.92	9.792	
10,700.0	7,167.9	7,597.0	7,168.7	99.5	42.5	-89.74	-956.1	-2,237.8	1,351.2	1,216.5	134.67	10.033	
10,800.0	7,167.5	7,596.9	7,168.6	102.3	42.5	-89.74	-956.1	-2,237.8	1,415.3	1,277.8	137.42	10.298	
10,900.0	7,167.2	7,596.7	7,168.5	105.0	42.5	-89.73	-956.1	-2,237.8	1,483.3	1,343.1	140.18	10.581	
11,000.0	7,166.8	7,596.6	7,168.4	107.8	42.5	-89.73	-956.1	-2,237.8	1,554.8	1,411.8	142.94	10.877	
11,100.0	7,166.4	7,596.5	7,168.3	110.5	42.5	-89.72	-956.1	-2,237.8	1,629.3	1,483.6	145.71	11.182	
11,200.0	7,166.1	7,596.4	7,168.2	113.3	42.4	-89.72	-956.1	-2,237.8	1,706.4	1,557.9	148.47	11.493	
11,300.0	7,165.7	7,596.3	7,168.1	116.1	42.4	-89.71	-956.1	-2,237.8	1,785.8	1,634.5	151.24	11.807	
11,400.0	7,165.4	7,596.2	7,168.0	118.8	42.4	-89.70	-956.1	-2,237.8	1,867.2	1,713.1	154.01	12.123	
11,500.0	7,165.0	7,596.1	7,167.9	121.6	42.4	-89.70	-956.1	-2,237.8	1,950.3	1,793.5	156.78	12.439	
11,600.0	7,164.6	7,596.0	7,167.8	124.4	42.4	-89.69	-956.1	-2,237.8	2,034.9	1,875.3	159.56	12.753	
11,700.0	7,164.3	7,595.9	7,167.7	127.2	42.4	-89.69	-956.1	-2,237.8	2,120.8	1,958.5	162.33	13.065	
11,783.3	7,164.0	7,595.9	7,167.6	129.5	42.4	-89.68	-956.1	-2,237.8	2,193.4	2,028.7	164.65	13.322	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 33-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 568-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-88.80	83.7	-3,981.5	3,982.6				
100.0	100.0	56.5	56.5	0.1	0.1	-88.80	83.7	-3,981.6	3,982.4	3,982.3	0.16	N/A	
200.0	200.0	153.2	153.2	0.3	0.2	-88.80	83.7	-3,981.6	3,982.5	3,982.0	0.49	8,106.694	
300.0	300.0	249.9	249.9	0.5	0.3	-88.80	83.7	-3,981.8	3,982.7	3,981.9	0.82	4,840.218	
400.0	400.0	346.5	346.5	0.8	0.4	-88.80	83.6	-3,982.1	3,983.0	3,981.8	1.15	3,450.225	
500.0	500.0	443.2	443.2	1.0	0.5	-88.80	83.5	-3,982.4	3,983.3	3,981.8	1.49	2,680.597	
600.0	600.0	539.8	539.8	1.2	0.6	-170.07	83.3	-3,982.8	3,985.5	3,983.6	1.81	2,198.938	
700.0	699.8	640.6	640.6	1.4	0.8	-170.06	83.3	-3,983.3	3,991.1	3,988.9	2.21	1,805.165	
800.0	799.5	752.3	752.3	1.7	1.0	-170.05	83.5	-3,983.6	4,000.0	3,997.3	2.65	1,510.679	
900.0	898.7	833.5	833.5	1.9	1.2	-170.04	83.5	-3,983.9	4,012.3	4,009.3	3.04	1,318.765	
1,000.0	997.5	928.7	928.7	2.2	1.4	-170.02	83.5	-3,984.6	4,028.4	4,024.9	3.47	1,159.971	
1,099.8	1,095.4	1,033.2	1,033.2	2.6	1.6	-170.00	83.6	-3,985.2	4,047.8	4,043.8	3.92	1,033.477	
1,100.0	1,095.6	1,033.4	1,033.4	2.6	1.6	-170.00	83.6	-3,985.2	4,047.8	4,043.9	3.92	1,033.261	
1,200.0	1,193.4	1,118.2	1,118.2	3.0	1.8	-170.04	83.5	-3,985.8	4,068.9	4,064.6	4.33	939.288	
1,300.0	1,291.3	1,207.4	1,207.4	3.4	1.9	-170.09	83.7	-3,986.6	4,090.3	4,085.6	4.76	858.522	
1,400.0	1,389.1	1,311.6	1,311.6	3.8	2.2	-170.14	84.1	-3,987.6	4,111.8	4,106.6	5.23	786.843	
1,500.0	1,486.9	1,420.2	1,420.2	4.2	2.4	-170.19	84.4	-3,988.4	4,133.0	4,127.3	5.69	725.823	
1,600.0	1,584.7	1,507.2	1,507.2	4.7	2.6	-170.22	84.8	-3,989.0	4,154.2	4,148.1	6.13	677.765	
1,700.0	1,682.5	1,604.3	1,604.3	5.1	2.8	-170.26	85.6	-3,989.9	4,175.6	4,169.0	6.59	633.541	
1,800.0	1,780.3	1,690.0	1,690.0	5.5	3.0	-170.30	86.0	-3,990.8	4,197.1	4,190.0	7.03	597.139	
1,900.0	1,878.2	1,939.2	1,939.0	6.0	3.5	-170.34	91.5	-3,989.5	4,217.4	4,209.6	7.79	541.411	
2,000.0	1,976.0	2,027.0	2,026.5	6.4	3.7	-170.28	98.7	-3,987.3	4,235.5	4,227.2	8.24	513.805	
2,100.0	2,073.8	2,065.0	2,064.3	6.9	3.8	-170.25	102.7	-3,986.4	4,254.3	4,245.7	8.59	495.024	
2,200.0	2,171.6	2,120.4	2,119.3	7.3	3.9	-170.18	109.4	-3,985.9	4,274.3	4,265.3	8.99	475.183	
2,300.0	2,269.4	2,158.0	2,156.5	7.8	4.0	-170.13	114.4	-3,986.2	4,295.7	4,286.4	9.35	459.274	
2,400.0	2,367.2	2,243.5	2,241.0	8.2	4.2	-170.00	127.2	-3,987.5	4,318.0	4,308.1	9.84	438.774	
2,500.0	2,465.0	2,376.6	2,371.8	8.7	4.6	-169.73	152.0	-3,988.5	4,339.4	4,328.9	10.48	413.920	
2,600.0	2,562.9	2,439.0	2,432.6	9.1	4.8	-169.57	165.8	-3,989.4	4,361.7	4,350.8	10.95	398.421	
2,700.0	2,660.7	2,468.2	2,461.0	9.6	4.9	-169.49	172.9	-3,990.1	4,385.0	4,373.7	11.32	387.207	
2,800.0	2,758.5	2,532.0	2,522.4	10.0	5.1	-169.30	189.8	-3,992.4	4,409.7	4,397.8	11.83	372.822	
2,900.0	2,856.3	2,577.6	2,566.0	10.5	5.3	-169.14	203.1	-3,994.4	4,435.2	4,422.9	12.29	360.905	
3,000.0	2,954.1	2,652.2	2,637.0	11.0	5.6	-168.88	225.8	-3,997.8	4,461.3	4,448.4	12.87	346.560	
3,100.0	3,051.9	2,726.1	2,707.4	11.4	5.9	-168.62	248.1	-4,001.6	4,488.0	4,474.6	13.46	333.517	
3,200.0	3,149.8	2,929.0	2,901.7	11.9	6.8	-167.98	305.8	-4,010.4	4,514.3	4,499.7	14.56	309.960	
3,300.0	3,247.6	3,090.5	3,057.4	12.3	7.5	-167.52	348.2	-4,014.3	4,538.6	4,523.0	15.52	292.438	
3,400.0	3,345.4	3,184.2	3,148.0	12.8	7.9	-167.27	372.0	-4,015.8	4,562.1	4,545.9	16.20	281.568	
3,500.0	3,443.2	3,261.8	3,223.1	13.2	8.2	-167.06	391.7	-4,017.3	4,586.0	4,569.1	16.82	272.658	
3,600.0	3,541.0	3,356.6	3,315.0	13.7	8.7	-166.82	415.0	-4,019.4	4,610.1	4,592.6	17.51	263.355	
3,700.0	3,638.8	3,514.0	3,467.5	14.1	9.4	-166.42	453.6	-4,021.6	4,633.6	4,615.1	18.47	250.808	
3,800.0	3,736.7	3,596.9	3,547.7	14.6	9.7	-166.21	474.7	-4,022.2	4,656.6	4,637.5	19.13	243.420	
3,836.5	3,772.4	3,619.5	3,569.5	14.8	9.9	-166.15	480.4	-4,022.4	4,665.2	4,645.8	19.34	241.276	
3,900.0	3,834.6	3,656.0	3,604.8	15.0	10.0	-166.13	489.8	-4,022.9	4,679.6	4,659.9	19.71	237.484	
4,000.0	3,933.2	3,722.0	3,668.5	15.3	10.3	-166.05	507.2	-4,024.2	4,700.3	4,680.0	20.29	231.628	
4,100.0	4,032.3	3,788.6	3,732.5	15.6	10.7	-165.94	525.4	-4,025.9	4,718.4	4,697.6	20.86	226.174	
4,200.0	4,131.8	3,858.3	3,799.5	15.8	11.0	-165.80	544.9	-4,028.0	4,733.9	4,712.5	21.42	220.963	
4,300.0	4,231.5	3,936.0	3,873.9	16.0	11.4	-165.61	566.9	-4,030.8	4,746.6	4,724.6	22.00	215.757	
4,400.0	4,331.5	4,021.1	3,955.5	16.1	11.9	-165.38	590.9	-4,034.1	4,756.5	4,733.9	22.57	210.701	
4,436.3	4,367.8	4,078.1	4,010.2	16.2	12.1	-83.94	606.6	-4,036.2	4,759.2	4,734.5	24.69	192.785	
4,500.0	4,431.5	4,266.6	4,191.3	16.2	13.1	-83.32	658.8	-4,039.4	4,761.8	4,736.5	25.27	188.438	
4,600.0	4,531.5	4,354.1	4,275.1	16.4	13.6	-83.02	684.1	-4,040.3	4,766.3	4,740.7	25.64	185.884	
4,700.0	4,631.5	4,442.4	4,359.3	16.5	14.0	-82.71	710.4	-4,040.7	4,770.7	4,744.7	26.02	183.328	
4,800.0	4,731.5	4,497.0	4,411.2	16.6	14.3	-82.50	727.5	-4,041.3	4,776.1	4,749.8	26.31	181.500	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 33-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 568-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,571.2	4,481.6	16.8	14.8	-82.22	750.9	-4,042.5	4,782.3	4,755.6	26.67	179.331	
5,000.0	4,931.5	4,643.1	4,549.9	16.9	15.2	-81.96	773.2	-4,044.1	4,789.0	4,762.0	27.02	177.256	
5,100.0	5,031.5	4,714.8	4,617.9	17.0	15.6	-81.70	795.9	-4,046.0	4,796.5	4,769.1	27.37	175.233	
5,200.0	5,131.5	4,781.0	4,680.9	17.2	15.9	-81.46	816.2	-4,048.1	4,804.5	4,776.8	27.71	173.361	
5,300.0	5,231.5	4,862.1	4,758.3	17.3	16.4	-81.18	840.2	-4,051.2	4,813.2	4,785.1	28.10	171.282	
5,400.0	5,331.5	5,127.6	5,016.4	17.5	17.6	-80.48	900.7	-4,059.7	4,819.6	4,790.6	28.98	166.332	
5,500.0	5,431.5	5,447.7	5,333.9	17.6	18.5	-80.03	940.6	-4,065.8	4,824.9	4,795.0	29.87	161.515	
5,600.0	5,531.5	5,562.4	5,448.3	17.7	18.8	-79.92	949.6	-4,065.3	4,825.8	4,795.6	30.26	159.495	
5,700.0	5,631.5	5,653.7	5,539.4	17.9	19.0	-79.86	955.3	-4,065.2	4,826.8	4,796.2	30.59	157.780	
5,800.0	5,731.5	5,744.0	5,629.5	18.0	19.2	-79.80	960.1	-4,065.4	4,827.9	4,797.0	30.92	156.121	
5,900.0	5,831.5	5,831.1	5,716.6	18.2	19.3	-79.77	963.0	-4,066.0	4,829.3	4,798.0	31.25	154.544	
6,000.0	5,931.5	5,981.3	5,866.8	18.4	19.5	-79.75	965.2	-4,067.9	4,831.0	4,799.3	31.69	152.462	
6,100.0	6,031.5	6,088.3	5,973.8	18.5	19.7	-79.76	964.2	-4,068.4	4,831.3	4,799.3	32.03	150.826	
6,200.0	6,131.5	6,194.7	6,080.2	18.7	19.8	-79.77	963.7	-4,068.8	4,831.5	4,799.2	32.38	149.222	
6,300.0	6,231.5	6,275.0	6,160.5	18.8	19.9	-79.77	963.4	-4,069.2	4,832.0	4,799.3	32.68	147.850	
6,400.0	6,331.5	6,344.1	6,229.6	19.0	20.0	-79.78	963.1	-4,069.9	4,832.9	4,800.0	32.97	146.584	
6,500.0	6,431.5	6,424.1	6,309.5	19.1	20.1	-79.78	962.6	-4,071.2	4,834.4	4,801.1	33.28	145.258	
6,531.3	6,462.8	6,450.4	6,335.9	19.2	20.1	-79.79	962.5	-4,071.7	4,834.9	4,801.6	33.38	144.837	
6,550.0	6,481.5	6,470.4	6,355.9	19.2	20.1	10.21	962.4	-4,072.1	4,835.0	4,800.3	34.78	139.007	
6,600.0	6,531.4	6,555.0	6,440.4	19.3	20.2	10.25	962.1	-4,073.3	4,832.7	4,797.9	34.78	138.939	
6,650.0	6,580.9	6,600.3	6,485.7	19.3	20.3	10.34	961.9	-4,073.8	4,826.8	4,792.2	34.59	139.545	
6,700.0	6,629.9	6,649.0	6,534.4	19.3	20.4	10.50	961.9	-4,074.4	4,817.6	4,783.3	34.26	140.621	
6,750.0	6,678.1	6,684.1	6,569.5	19.2	20.4	10.71	961.9	-4,074.9	4,805.1	4,771.3	33.78	142.265	
6,800.0	6,725.2	6,722.3	6,607.7	19.2	20.5	10.99	961.8	-4,075.5	4,789.4	4,756.2	33.17	144.400	
6,850.0	6,771.1	6,778.4	6,663.8	19.1	20.5	11.35	961.5	-4,076.4	4,770.5	4,738.0	32.46	146.943	
6,900.0	6,815.4	6,846.7	6,732.1	19.0	20.6	11.83	961.2	-4,077.2	4,748.3	4,716.6	31.67	149.907	
6,950.0	6,858.0	6,887.9	6,773.3	18.9	20.7	12.38	961.0	-4,077.6	4,723.0	4,692.2	30.76	153.534	
7,000.0	6,898.7	6,927.3	6,812.7	18.9	20.7	13.05	960.8	-4,078.1	4,694.8	4,665.0	29.78	157.648	
7,050.0	6,937.3	6,979.1	6,864.4	18.8	20.8	13.90	960.5	-4,078.5	4,663.9	4,635.1	28.78	162.052	
7,100.0	6,973.6	7,023.0	6,908.4	18.8	20.9	14.93	960.4	-4,078.8	4,630.2	4,602.5	27.77	166.755	
7,150.0	7,007.4	7,053.8	6,939.2	18.8	20.9	16.15	960.4	-4,079.0	4,594.2	4,567.4	26.78	171.576	
7,200.0	7,038.5	7,079.1	6,964.5	18.9	20.9	17.65	960.4	-4,079.1	4,556.0	4,530.1	25.88	176.063	
7,250.0	7,066.8	7,102.3	6,987.7	19.0	21.0	19.50	960.5	-4,079.3	4,515.7	4,490.6	25.15	179.544	
7,300.0	7,092.2	7,127.8	7,013.1	19.2	21.0	21.89	960.7	-4,079.5	4,473.7	4,449.0	24.72	181.003	
7,350.0	7,114.5	7,159.8	7,045.2	19.5	21.1	25.08	960.9	-4,079.7	4,429.9	4,405.2	24.74	179.071	
7,400.0	7,133.6	7,187.1	7,072.5	19.9	21.1	29.30	961.1	-4,079.8	4,384.7	4,359.4	25.37	172.815	
7,450.0	7,149.5	7,209.6	7,094.9	20.3	21.1	35.03	961.2	-4,079.9	4,338.3	4,311.5	26.84	161.646	
7,500.0	7,162.0	7,270.3	7,155.7	20.8	21.2	44.35	961.6	-4,079.6	4,290.9	4,261.0	29.81	143.925	
7,550.0	7,171.1	7,305.8	7,191.2	21.4	21.3	57.12	961.7	-4,079.2	4,242.6	4,208.9	33.67	125.992	
7,600.0	7,176.8	7,311.8	7,197.2	22.1	21.3	73.07	961.7	-4,079.1	4,193.9	4,156.8	37.12	112.993	
7,650.0	7,179.0	7,313.6	7,198.9	22.8	21.3	91.72	961.7	-4,079.1	4,145.0	4,106.6	38.40	107.933	
7,658.9	7,179.0	7,313.4	7,198.8	22.9	21.3	95.07	961.7	-4,079.1	4,136.2	4,097.9	38.30	108.009	
7,700.0	7,178.9	7,312.4	7,197.8	23.5	21.3	95.01	961.7	-4,079.1	4,096.1	4,057.2	38.93	105.216	
7,800.0	7,178.5	7,310.1	7,195.5	25.2	21.3	94.85	961.7	-4,079.1	3,998.4	3,957.7	40.63	98.406	
7,900.0	7,178.1	7,307.8	7,193.1	27.1	21.3	94.70	961.7	-4,079.1	3,900.8	3,858.2	42.52	91.745	
8,000.0	7,177.8	7,305.4	7,190.8	29.2	21.3	94.54	961.7	-4,079.2	3,803.3	3,758.7	44.55	85.366	
8,100.0	7,177.4	7,301.8	7,187.1	31.3	21.3	94.30	961.7	-4,079.2	3,705.9	3,659.2	46.71	79.332	
8,200.0	7,177.0	7,296.1	7,181.5	33.6	21.3	93.92	961.7	-4,079.3	3,608.7	3,559.7	48.98	73.675	
8,300.0	7,176.7	7,291.1	7,176.4	35.9	21.3	93.59	961.7	-4,079.4	3,511.7	3,460.4	51.33	68.420	
8,400.0	7,176.3	7,286.5	7,171.9	38.3	21.2	93.29	961.6	-4,079.4	3,414.8	3,361.1	53.73	63.553	
8,500.0	7,175.9	7,282.4	7,167.8	40.7	21.2	93.01	961.6	-4,079.5	3,318.1	3,261.9	56.19	59.052	
8,600.0	7,175.6	7,278.7	7,164.0	43.2	21.2	92.76	961.6	-4,079.5	3,221.6	3,162.9	58.69	54.891	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 33-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 568-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	7,175.2	7,275.2	7,160.6	45.7	21.2	92.53	961.6	-4,079.6	3,125.3	3,064.1	61.23	51.045	
8,800.0	7,174.8	7,272.1	7,157.5	48.3	21.2	92.32	961.6	-4,079.6	3,029.3	2,965.5	63.79	47.485	
8,900.0	7,174.5	7,269.2	7,154.6	50.9	21.2	92.13	961.6	-4,079.6	2,933.5	2,867.1	66.39	44.188	
9,000.0	7,174.1	7,266.5	7,151.9	53.5	21.2	91.95	961.6	-4,079.7	2,838.0	2,769.0	69.00	41.130	
9,100.0	7,173.7	7,264.0	7,149.4	56.1	21.2	91.78	961.5	-4,079.7	2,742.8	2,671.2	71.63	38.290	
9,200.0	7,173.4	7,261.7	7,147.1	58.8	21.2	91.63	961.5	-4,079.7	2,648.0	2,573.7	74.28	35.648	
9,300.0	7,173.0	7,259.6	7,145.0	61.4	21.2	91.49	961.5	-4,079.7	2,553.6	2,476.7	76.95	33.187	
9,400.0	7,172.6	7,257.6	7,143.0	64.1	21.2	91.35	961.5	-4,079.7	2,459.6	2,380.0	79.62	30.892	
9,500.0	7,172.3	7,255.7	7,141.1	66.8	21.2	91.23	961.5	-4,079.7	2,366.1	2,283.8	82.31	28.748	
9,600.0	7,171.9	7,254.0	7,139.3	69.5	21.2	91.11	961.5	-4,079.7	2,273.2	2,188.2	85.00	26.742	
9,700.0	7,171.6	7,252.3	7,137.7	72.2	21.2	91.00	961.5	-4,079.8	2,180.9	2,093.2	87.71	24.865	
9,800.0	7,171.2	7,250.8	7,136.1	74.9	21.2	90.90	961.5	-4,079.8	2,089.3	1,998.9	90.42	23.106	
9,900.0	7,170.8	7,249.3	7,134.7	77.6	21.2	90.80	961.5	-4,079.8	1,998.5	1,905.4	93.14	21.457	
10,000.0	7,170.5	7,247.9	7,133.3	80.3	21.2	90.71	961.5	-4,079.8	1,908.6	1,812.8	95.86	19.910	
10,100.0	7,170.1	7,246.6	7,132.0	83.0	21.2	90.62	961.5	-4,079.8	1,819.8	1,721.2	98.59	18.457	
10,200.0	7,169.7	7,245.4	7,130.7	85.8	21.2	90.54	961.5	-4,079.8	1,732.2	1,630.9	101.33	17.095	
10,300.0	7,169.4	7,244.2	7,129.6	88.5	21.2	90.46	961.4	-4,079.8	1,646.0	1,541.9	104.07	15.816	
10,400.0	7,169.0	7,243.1	7,128.4	91.3	21.2	90.38	961.4	-4,079.8	1,561.5	1,454.7	106.81	14.619	
10,500.0	7,168.6	7,242.0	7,127.4	94.0	21.2	90.31	961.4	-4,079.8	1,478.9	1,369.3	109.56	13.498	
10,600.0	7,168.3	7,241.0	7,126.4	96.8	21.2	90.24	961.4	-4,079.8	1,398.5	1,286.2	112.31	12.452	
10,700.0	7,167.9	7,240.0	7,125.4	99.5	21.2	90.18	961.4	-4,079.8	1,320.9	1,205.8	115.07	11.479	
10,800.0	7,167.5	7,239.1	7,124.5	102.3	21.2	90.12	961.4	-4,079.8	1,246.4	1,128.6	117.82	10.578	
10,900.0	7,167.2	7,238.2	7,123.6	105.0	21.2	90.06	961.4	-4,079.8	1,175.7	1,055.2	120.58	9.750	
11,000.0	7,166.8	7,237.4	7,122.7	107.8	21.2	90.00	961.4	-4,079.8	1,109.6	986.2	123.35	8.996	
11,100.0	7,166.4	7,236.6	7,121.9	110.5	21.2	89.95	961.4	-4,079.8	1,048.8	922.7	126.11	8.317	
11,200.0	7,166.1	7,235.8	7,121.2	113.3	21.2	89.89	961.4	-4,079.8	994.4	865.5	128.88	7.716	
11,300.0	7,165.7	7,235.0	7,120.4	116.1	21.2	89.84	961.4	-4,079.8	947.4	815.8	131.65	7.197	
11,400.0	7,165.4	7,234.3	7,119.7	118.8	21.2	89.80	961.4	-4,079.8	909.1	774.7	134.42	6.763	
11,500.0	7,165.0	7,233.6	7,119.0	121.6	21.2	89.75	961.4	-4,079.8	880.5	743.3	137.19	6.418	
11,600.0	7,164.6	7,233.0	7,118.3	124.4	21.2	89.71	961.4	-4,079.8	862.6	722.7	139.96	6.163	
11,700.0	7,164.3	7,232.3	7,117.7	127.2	21.2	89.66	961.4	-4,079.8	856.1	713.4	142.74	5.998	
11,705.9	7,164.2	7,232.3	7,117.7	127.3	21.2	89.66	961.4	-4,079.8	856.1	713.2	142.90	5.991	CC, ES
11,783.3	7,164.0	7,231.9	7,117.2	129.5	21.2	89.63	961.4	-4,079.8	859.6	714.6	145.05	5.926	SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 34-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 561-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.73	18.5	-3,977.4	3,977.6				
100.0	100.0	58.5	58.5	0.1	0.1	-89.73	18.5	-3,977.4	3,977.4	3,977.3	0.16	N/A	
200.0	200.0	158.5	158.5	0.3	0.2	-89.73	18.5	-3,977.4	3,977.4	3,976.9	0.50	8,003.988	
300.0	300.0	258.5	258.5	0.5	0.3	-89.73	18.5	-3,977.4	3,977.4	3,976.6	0.83	4,780.117	
400.0	400.0	358.5	358.5	0.8	0.4	-89.73	18.5	-3,977.4	3,977.4	3,976.2	1.17	3,407.595	
500.0	500.0	458.5	458.5	1.0	0.5	-89.73	18.5	-3,977.4	3,977.4	3,975.9	1.50	2,647.434	
600.0	600.0	558.5	558.5	1.2	0.6	-171.00	18.5	-3,977.4	3,979.1	3,977.3	1.83	2,172.756	
700.0	699.8	655.8	655.8	1.4	0.8	-171.00	18.5	-3,977.4	3,984.3	3,982.1	2.25	1,772.258	
800.0	799.5	749.9	749.9	1.7	1.0	-170.99	18.5	-3,977.5	3,993.1	3,990.4	2.66	1,500.212	
900.0	898.7	852.8	852.8	1.9	1.2	-170.98	18.7	-3,977.7	4,005.3	4,002.2	3.10	1,290.589	
1,000.0	997.5	952.8	952.8	2.2	1.4	-170.96	18.8	-3,977.8	4,020.8	4,017.3	3.53	1,138.119	
1,099.8	1,095.4	1,053.4	1,053.4	2.6	1.6	-170.95	18.5	-3,977.8	4,039.7	4,035.7	3.96	1,019.840	
1,100.0	1,095.6	1,053.6	1,053.6	2.6	1.6	-170.95	18.5	-3,977.8	4,039.7	4,035.8	3.96	1,019.634	
1,200.0	1,193.4	1,148.4	1,148.4	3.0	1.8	-171.00	18.2	-3,977.9	4,060.3	4,055.9	4.39	925.390	
1,300.0	1,291.3	1,254.0	1,254.0	3.4	2.0	-171.05	17.8	-3,977.9	4,080.8	4,076.0	4.85	842.134	
1,400.0	1,389.1	1,337.0	1,337.0	3.8	2.2	-171.09	17.7	-3,977.9	4,101.4	4,096.2	5.27	778.360	
1,500.0	1,486.9	1,429.9	1,429.9	4.2	2.4	-171.14	17.3	-3,978.2	4,122.3	4,116.6	5.71	721.485	
1,600.0	1,584.7	1,508.3	1,508.3	4.7	2.6	-171.18	17.0	-3,978.7	4,143.4	4,137.3	6.13	675.590	
1,700.0	1,682.5	1,586.3	1,586.2	5.1	2.7	-171.22	16.9	-3,979.5	4,165.1	4,158.5	6.56	635.204	
1,800.0	1,780.3	1,701.6	1,701.6	5.5	3.0	-171.27	17.2	-3,981.0	4,186.9	4,179.9	7.06	593.346	
1,900.0	1,878.2	1,791.3	1,791.3	6.0	3.2	-171.30	17.7	-3,981.8	4,208.3	4,200.8	7.50	560.983	
2,000.0	1,976.0	1,888.8	1,888.8	6.4	3.4	-171.33	18.1	-3,982.9	4,230.0	4,222.0	7.96	531.120	
2,100.0	2,073.8	2,002.0	2,002.0	6.9	3.6	-171.38	18.0	-3,983.9	4,251.4	4,243.0	8.45	502.992	
2,200.0	2,171.6	2,078.2	2,078.2	7.3	3.8	-171.42	18.0	-3,984.7	4,272.9	4,264.0	8.87	481.541	
2,300.0	2,269.4	2,163.6	2,163.5	7.8	3.9	-171.45	18.2	-3,985.8	4,294.8	4,285.5	9.32	461.019	
2,400.0	2,367.2	2,279.9	2,279.8	8.2	4.2	-171.50	18.0	-3,987.4	4,316.7	4,306.9	9.82	439.693	
2,500.0	2,465.0	2,362.7	2,362.6	8.7	4.4	-171.54	17.8	-3,988.4	4,338.5	4,328.3	10.25	423.167	
2,600.0	2,562.9	2,437.4	2,437.4	9.1	4.5	-171.58	17.0	-3,989.7	4,360.7	4,350.0	10.67	408.538	
2,700.0	2,660.7	2,672.6	2,672.2	9.6	5.0	-171.82	6.4	-3,990.9	4,382.1	4,370.7	11.42	383.842	
2,800.0	2,758.5	2,751.0	2,750.3	10.0	5.2	-171.94	-0.4	-3,990.1	4,401.8	4,390.0	11.85	371.460	
2,900.0	2,856.3	2,811.1	2,810.1	10.5	5.3	-172.05	-6.9	-3,989.9	4,422.2	4,410.0	12.25	360.886	
3,000.0	2,954.1	2,874.2	2,872.6	11.0	5.5	-172.18	-15.2	-3,990.1	4,443.3	4,430.6	12.67	350.732	
3,100.0	3,051.9	2,938.0	2,935.7	11.4	5.6	-172.33	-25.0	-3,990.8	4,465.2	4,452.1	13.09	341.118	
3,200.0	3,149.8	2,999.1	2,995.9	11.9	5.8	-172.49	-35.2	-3,991.9	4,487.9	4,474.4	13.52	332.065	
3,300.0	3,247.6	3,065.8	3,061.5	12.3	6.0	-172.66	-46.8	-3,993.4	4,511.3	4,497.4	13.96	323.151	
3,400.0	3,345.4	3,132.6	3,127.2	12.8	6.2	-172.85	-59.2	-3,995.4	4,535.5	4,521.0	14.41	314.726	
3,500.0	3,443.2	3,242.7	3,235.4	13.2	6.5	-173.14	-79.1	-3,998.7	4,559.6	4,544.7	14.97	304.645	
3,600.0	3,541.0	3,313.0	3,304.7	13.7	6.7	-173.31	-90.8	-4,001.0	4,584.1	4,568.7	15.41	297.402	
3,700.0	3,638.8	3,425.2	3,415.3	14.1	7.0	-173.58	-109.2	-4,004.8	4,608.8	4,592.8	15.98	288.382	
3,800.0	3,736.7	3,530.2	3,518.7	14.6	7.3	-173.83	-127.0	-4,007.9	4,633.1	4,616.6	16.55	279.983	
3,836.5	3,772.4	3,556.2	3,544.3	14.8	7.4	-173.90	-131.5	-4,008.7	4,642.1	4,625.3	16.72	277.576	
3,900.0	3,834.6	3,611.4	3,598.6	15.0	7.6	-174.07	-141.2	-4,010.5	4,657.1	4,640.0	17.07	272.760	
4,000.0	3,933.2	3,715.6	3,701.1	15.3	7.9	-174.37	-160.2	-4,013.4	4,677.7	4,660.1	17.65	265.070	
4,100.0	4,032.3	3,780.0	3,764.1	15.6	8.1	-174.57	-172.9	-4,015.6	4,695.6	4,677.5	18.08	259.737	
4,200.0	4,131.8	3,881.1	3,863.0	15.8	8.5	-174.86	-194.1	-4,019.3	4,710.5	4,691.8	18.62	252.940	
4,300.0	4,231.5	3,968.0	3,947.9	16.0	8.8	-175.11	-212.2	-4,022.1	4,721.7	4,702.6	19.08	247.510	
4,400.0	4,331.5	4,044.2	4,022.5	16.1	9.0	-175.31	-227.5	-4,024.9	4,729.9	4,710.5	19.46	243.107	
4,436.3	4,367.8	4,061.0	4,038.9	16.2	9.1	-94.08	-230.8	-4,025.7	4,732.3	4,708.0	24.29	194.834	
4,500.0	4,431.5	4,116.1	4,092.9	16.2	9.3	-94.21	-241.4	-4,028.2	4,736.1	4,711.6	24.50	193.336	
4,600.0	4,531.5	4,195.6	4,170.8	16.4	9.6	-94.39	-256.6	-4,032.2	4,742.7	4,717.8	24.82	191.073	
4,700.0	4,631.5	4,288.5	4,261.8	16.5	9.9	-94.60	-275.0	-4,037.0	4,749.5	4,724.4	25.18	188.586	
4,800.0	4,731.5	4,388.9	4,360.1	16.6	10.3	-94.83	-294.5	-4,042.2	4,756.4	4,730.9	25.57	186.024	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 34-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 561-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,540.8	4,509.3	16.8	10.8	-95.16	-322.3	-4,049.6	4,763.1	4,737.0	26.08	182.637	
5,000.0	4,931.5	4,642.2	4,609.6	16.9	11.1	-95.32	-336.3	-4,054.3	4,769.0	4,742.5	26.46	180.259	
5,100.0	5,031.5	4,957.2	4,923.9	17.0	11.8	-95.47	-350.0	-4,065.2	4,773.3	4,746.0	27.28	175.002	
5,200.0	5,131.5	5,065.3	5,031.9	17.2	12.0	-95.46	-349.4	-4,066.5	4,774.5	4,746.8	27.63	172.793	
5,300.0	5,231.5	5,175.5	5,142.1	17.3	12.2	-95.46	-348.7	-4,067.9	4,775.6	4,747.6	27.99	170.598	
5,400.0	5,331.5	5,266.6	5,233.3	17.5	12.3	-95.45	-348.3	-4,068.9	4,776.7	4,748.4	28.32	168.668	
5,500.0	5,431.5	5,389.5	5,356.1	17.6	12.5	-95.44	-347.6	-4,070.2	4,777.7	4,749.0	28.71	166.405	
5,600.0	5,531.5	5,494.3	5,460.9	17.7	12.7	-95.43	-346.9	-4,070.8	4,778.3	4,749.2	29.07	164.395	
5,700.0	5,631.5	5,584.9	5,551.6	17.9	12.9	-95.43	-346.7	-4,071.6	4,779.0	4,749.6	29.40	162.575	
5,800.0	5,731.5	5,685.0	5,651.6	18.0	13.1	-95.43	-346.6	-4,072.3	4,779.8	4,750.0	29.75	160.677	
5,900.0	5,831.5	5,777.3	5,743.9	18.2	13.2	-95.43	-346.7	-4,073.2	4,780.7	4,750.6	30.09	158.900	
6,000.0	5,931.5	5,882.6	5,849.2	18.4	13.4	-95.42	-346.6	-4,074.1	4,781.6	4,751.1	30.45	157.013	
6,100.0	6,031.5	5,980.8	5,947.4	18.5	13.6	-95.43	-347.3	-4,074.9	4,782.5	4,751.7	30.81	155.232	
6,200.0	6,131.5	6,073.4	6,040.0	18.7	13.8	-95.44	-348.4	-4,075.7	4,783.4	4,752.2	31.16	153.533	
6,300.0	6,231.5	6,162.3	6,128.9	18.8	14.0	-95.45	-349.4	-4,076.6	4,784.6	4,753.1	31.50	151.905	
6,400.0	6,331.5	6,256.1	6,222.6	19.0	14.2	-95.47	-350.5	-4,077.8	4,785.9	4,754.1	31.85	150.258	
6,500.0	6,431.5	6,370.6	6,337.1	19.1	14.4	-95.48	-351.8	-4,079.2	4,787.3	4,755.0	32.25	148.448	
6,531.3	6,462.8	6,400.0	6,366.5	19.2	14.4	-95.48	-352.2	-4,079.5	4,787.6	4,755.3	32.36	147.948	
6,550.0	6,481.5	6,422.5	6,389.1	19.2	14.5	-5.49	-352.5	-4,079.7	4,787.6	4,758.7	28.88	165.751	
6,600.0	6,531.4	6,461.8	6,428.3	19.3	14.6	-5.51	-353.0	-4,080.1	4,785.1	4,756.2	28.86	165.807	
6,650.0	6,580.9	6,504.0	6,470.5	19.3	14.6	-5.57	-353.4	-4,080.6	4,779.3	4,750.6	28.72	166.396	
6,700.0	6,629.9	6,557.9	6,524.4	19.3	14.7	-5.66	-353.9	-4,081.4	4,770.1	4,741.6	28.49	167.422	
6,750.0	6,678.1	6,607.8	6,574.3	19.2	14.8	-5.79	-354.3	-4,082.0	4,757.4	4,729.3	28.14	169.059	
6,800.0	6,725.2	6,652.7	6,619.2	19.2	14.9	-5.95	-354.6	-4,082.5	4,741.4	4,713.8	27.67	171.331	
6,850.0	6,771.1	6,697.4	6,663.9	19.1	15.0	-6.15	-355.0	-4,083.1	4,722.2	4,695.1	27.11	174.202	
6,900.0	6,815.4	6,741.9	6,708.4	19.0	15.1	-6.40	-355.3	-4,083.7	4,699.9	4,673.4	26.45	177.683	
6,950.0	6,858.0	6,786.0	6,752.5	18.9	15.2	-6.71	-355.4	-4,084.3	4,674.5	4,648.8	25.71	181.786	
7,000.0	6,898.7	6,831.3	6,797.8	18.9	15.3	-7.09	-355.5	-4,084.9	4,646.2	4,621.2	24.91	186.481	
7,050.0	6,937.3	6,874.9	6,841.4	18.8	15.4	-7.56	-355.6	-4,085.5	4,615.0	4,590.9	24.07	191.762	
7,100.0	6,973.6	6,919.1	6,885.6	18.8	15.4	-8.13	-355.7	-4,085.9	4,581.2	4,558.0	23.19	197.508	
7,150.0	7,007.4	6,960.2	6,926.7	18.8	15.5	-8.84	-355.8	-4,086.3	4,544.8	4,522.5	22.32	203.603	
7,200.0	7,038.5	6,982.2	6,948.7	18.9	15.6	-9.68	-355.9	-4,086.5	4,506.2	4,484.7	21.45	210.046	
7,250.0	7,066.8	7,002.1	6,968.6	19.0	15.6	-10.73	-356.0	-4,086.7	4,465.6	4,444.9	20.67	216.092	
7,300.0	7,092.2	7,020.1	6,986.6	19.2	15.6	-12.08	-356.1	-4,087.0	4,423.1	4,403.1	20.02	220.956	
7,350.0	7,114.5	7,036.1	7,002.6	19.5	15.7	-13.86	-356.2	-4,087.2	4,378.9	4,359.3	19.60	223.464	
7,400.0	7,133.6	7,054.0	7,020.5	19.9	15.7	-16.33	-356.4	-4,087.5	4,333.3	4,313.8	19.54	221.804	
7,450.0	7,149.5	7,054.0	7,020.5	20.3	15.7	-19.63	-356.4	-4,087.5	4,286.5	4,266.5	19.95	214.815	
7,500.0	7,162.0	7,071.7	7,038.1	20.8	15.7	-24.95	-356.5	-4,087.8	4,238.6	4,217.3	21.37	198.382	
7,550.0	7,171.1	7,079.0	7,045.5	21.4	15.8	-33.46	-356.6	-4,087.9	4,190.0	4,165.7	24.27	172.604	
7,600.0	7,176.8	7,083.9	7,050.3	22.1	15.8	-48.56	-356.7	-4,088.0	4,140.7	4,111.1	29.66	139.603	
7,650.0	7,179.0	7,086.2	7,052.7	22.8	15.8	-75.36	-356.7	-4,088.1	4,091.2	4,054.8	36.38	112.469	
7,658.9	7,179.0	7,086.3	7,052.8	22.9	15.8	-81.40	-356.7	-4,088.1	4,082.3	4,045.2	37.11	109.992	
7,700.0	7,178.9	7,086.8	7,053.3	23.5	15.8	-81.46	-356.7	-4,088.1	4,041.5	4,003.7	37.75	107.069	
7,800.0	7,178.5	7,088.0	7,054.5	25.2	15.8	-81.60	-356.7	-4,088.1	3,942.2	3,902.7	39.44	99.953	
7,900.0	7,178.1	7,089.2	7,055.7	27.1	15.8	-81.74	-356.7	-4,088.1	3,842.9	3,801.6	41.32	93.007	
8,000.0	7,177.8	7,090.4	7,056.9	29.2	15.8	-81.89	-356.7	-4,088.2	3,743.7	3,700.3	43.35	86.367	
8,100.0	7,177.4	7,091.7	7,058.1	31.3	15.8	-82.04	-356.8	-4,088.2	3,644.5	3,599.0	45.49	80.108	
8,200.0	7,177.0	7,092.9	7,059.4	33.6	15.8	-82.19	-356.8	-4,088.2	3,545.3	3,497.6	47.74	74.263	
8,300.0	7,176.7	7,094.2	7,060.6	35.9	15.8	-82.35	-356.8	-4,088.2	3,446.2	3,396.1	50.07	68.834	
8,400.0	7,176.3	7,095.4	7,061.9	38.3	15.8	-82.50	-356.8	-4,088.3	3,347.1	3,294.7	52.46	63.808	
8,500.0	7,175.9	7,096.7	7,063.2	40.7	15.8	-82.66	-356.8	-4,088.3	3,248.1	3,193.2	54.90	59.163	
8,600.0	7,175.6	7,098.0	7,064.5	43.2	15.8	-82.82	-356.8	-4,088.3	3,149.2	3,091.8	57.39	54.872	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 34-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 561-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	7,175.2	7,099.3	7,065.8	45.7	15.8	-82.98	-356.9	-4,088.3	3,050.3	2,990.4	59.92	50.906	
8,800.0	7,174.8	7,100.7	7,067.1	48.3	15.8	-83.14	-356.9	-4,088.4	2,951.6	2,889.1	62.48	47.239	
8,900.0	7,174.5	7,102.0	7,068.5	50.9	15.8	-83.31	-356.9	-4,088.4	2,852.9	2,787.8	65.07	43.843	
9,000.0	7,174.1	7,103.4	7,069.8	53.5	15.8	-83.48	-356.9	-4,088.4	2,754.2	2,686.6	67.68	40.693	
9,100.0	7,173.7	7,104.8	7,071.2	56.1	15.8	-83.65	-356.9	-4,088.5	2,655.7	2,585.4	70.32	37.769	
9,200.0	7,173.4	7,106.2	7,072.6	58.8	15.8	-83.82	-356.9	-4,088.5	2,557.3	2,484.4	72.97	35.048	
9,300.0	7,173.0	7,107.6	7,074.1	61.4	15.8	-83.99	-357.0	-4,088.5	2,459.1	2,383.4	75.63	32.513	
9,400.0	7,172.6	7,109.0	7,075.5	64.1	15.8	-84.17	-357.0	-4,088.5	2,360.9	2,282.6	78.32	30.147	
9,500.0	7,172.3	7,110.5	7,077.0	66.8	15.8	-84.35	-357.0	-4,088.6	2,263.0	2,182.0	81.01	27.935	
9,600.0	7,171.9	7,112.0	7,078.4	69.5	15.8	-84.53	-357.0	-4,088.6	2,165.2	2,081.5	83.71	25.864	
9,700.0	7,171.6	7,113.5	7,079.9	72.2	15.8	-84.71	-357.0	-4,088.6	2,067.7	1,981.2	86.43	23.923	
9,800.0	7,171.2	7,115.0	7,081.4	74.9	15.8	-84.90	-357.1	-4,088.7	1,970.3	1,881.2	89.15	22.101	
9,900.0	7,170.8	7,116.5	7,083.0	77.6	15.8	-85.09	-357.1	-4,088.7	1,873.3	1,781.4	91.88	20.387	
10,000.0	7,170.5	7,118.1	7,084.5	80.3	15.8	-85.28	-357.1	-4,088.7	1,776.6	1,682.0	94.62	18.775	
10,100.0	7,170.1	7,119.7	7,086.1	83.0	15.8	-85.47	-357.1	-4,088.8	1,680.3	1,582.9	97.37	17.257	
10,200.0	7,169.7	7,121.3	7,087.7	85.8	15.8	-85.67	-357.2	-4,088.8	1,584.4	1,484.3	100.12	15.825	
10,300.0	7,169.4	7,122.9	7,089.3	88.5	15.8	-85.87	-357.2	-4,088.9	1,489.1	1,386.2	102.88	14.474	
10,400.0	7,169.0	7,124.5	7,091.0	91.3	15.8	-86.07	-357.2	-4,088.9	1,394.4	1,288.7	105.64	13.199	
10,500.0	7,168.6	7,126.2	7,092.6	94.0	15.8	-86.28	-357.2	-4,088.9	1,300.5	1,192.1	108.41	11.996	
10,600.0	7,168.3	7,127.9	7,094.3	96.8	15.9	-86.49	-357.3	-4,089.0	1,207.6	1,096.4	111.18	10.862	
10,700.0	7,167.9	7,129.6	7,096.0	99.5	15.9	-86.70	-357.3	-4,089.0	1,115.9	1,001.9	113.95	9.793	
10,800.0	7,167.5	7,131.3	7,097.8	102.3	15.9	-86.91	-357.3	-4,089.0	1,025.8	909.0	116.73	8.788	
10,900.0	7,167.2	7,133.1	7,099.5	105.0	15.9	-87.13	-357.3	-4,089.1	937.6	818.1	119.50	7.846	
11,000.0	7,166.8	7,134.9	7,101.3	107.8	15.9	-87.35	-357.4	-4,089.1	852.1	729.8	122.29	6.968	
11,100.0	7,166.4	7,136.7	7,103.1	110.5	15.9	-87.58	-357.4	-4,089.2	770.1	645.0	125.07	6.157	
11,200.0	7,166.1	7,138.5	7,104.9	113.3	15.9	-87.80	-357.4	-4,089.2	692.8	565.0	127.86	5.419	
11,300.0	7,165.7	7,140.4	7,106.8	116.1	15.9	-88.03	-357.5	-4,089.3	622.0	491.4	130.64	4.761	
11,400.0	7,165.4	7,142.3	7,108.7	118.8	15.9	-88.27	-357.5	-4,089.3	560.2	426.8	133.43	4.199	
11,500.0	7,165.0	7,144.2	7,110.6	121.6	15.9	-88.50	-357.5	-4,089.3	510.6	374.4	136.22	3.749	
11,600.0	7,164.6	7,148.0	7,114.4	124.4	15.9	-88.98	-357.6	-4,089.4	477.1	338.1	139.02	3.432	
11,700.0	7,164.3	7,148.1	7,114.5	127.2	15.9	-88.99	-357.6	-4,089.4	463.2	321.4	141.80	3.267	
11,715.5	7,164.2	7,148.4	7,114.9	127.6	15.9	-89.03	-357.6	-4,089.4	463.0	320.7	142.23	3.255	CC, ES
11,783.3	7,164.0	7,149.9	7,116.3	129.5	15.9	-89.21	-357.6	-4,089.5	467.9	323.8	144.12	3.246	SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 43-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.11	61.9	-3,979.3	3,980.0				
100.0	100.0	59.0	59.0	0.1	0.1	-89.11	61.9	-3,979.3	3,979.8	3,979.6	0.16	N/A	
200.0	200.0	159.8	159.8	0.3	0.2	-89.11	61.9	-3,979.3	3,979.8	3,979.3	0.50	7,982.628	
300.0	300.0	260.6	260.6	0.5	0.3	-89.11	62.0	-3,979.2	3,979.7	3,978.9	0.83	4,767.714	
400.0	400.0	361.4	361.4	0.8	0.4	-89.11	62.0	-3,979.2	3,979.7	3,978.5	1.17	3,398.823	
500.0	500.0	462.2	462.2	1.0	0.5	-89.11	62.1	-3,979.1	3,979.6	3,978.1	1.51	2,640.617	
502.7	502.7	464.9	464.9	1.0	0.5	-170.38	62.1	-3,979.1	3,979.6	3,978.1	1.52	2,625.536	
600.0	600.0	563.0	563.0	1.2	0.6	-170.38	62.2	-3,979.0	3,981.2	3,979.4	1.84	2,168.433	
700.0	699.8	1,313.7	1,309.1	1.4	2.5	-170.09	88.4	-3,920.8	3,982.2	3,978.5	3.74	1,064.539	
800.0	799.5	1,767.8	1,747.0	1.7	4.7	-169.19	157.2	-3,823.8	3,967.7	3,962.2	5.50	721.810	
900.0	898.7	1,861.9	1,836.1	1.9	5.3	-168.99	175.9	-3,800.0	3,954.5	3,948.4	6.10	647.910	
1,000.0	997.5	1,968.2	1,936.7	2.2	5.9	-168.74	197.7	-3,773.4	3,945.1	3,938.3	6.78	581.939	
1,099.8	1,095.4	2,042.9	2,007.2	2.6	6.3	-168.56	213.5	-3,754.5	3,938.9	3,931.6	7.33	537.691	
1,100.0	1,095.6	2,043.0	2,007.3	2.6	6.3	-168.56	213.5	-3,754.5	3,938.9	3,931.6	7.33	537.622	
1,200.0	1,193.4	2,096.0	2,057.5	3.0	6.6	-168.42	224.6	-3,741.7	3,935.6	3,927.8	7.81	504.020	
1,300.0	1,291.3	2,181.8	2,139.1	3.4	7.1	-168.20	242.1	-3,721.5	3,933.0	3,924.6	8.42	467.317	
1,400.0	1,389.1	2,395.7	2,342.0	3.8	8.3	-167.70	282.5	-3,667.5	3,928.1	3,918.5	9.61	408.742	
1,500.0	1,486.9	2,470.0	2,412.3	4.2	8.8	-167.51	297.2	-3,648.3	3,923.3	3,913.1	10.22	384.027	
1,600.0	1,584.7	2,634.2	2,566.9	4.7	9.8	-167.08	330.9	-3,604.6	3,917.7	3,906.4	11.29	347.020	
1,700.0	1,682.5	2,701.8	2,630.4	5.1	10.3	-166.90	345.4	-3,586.3	3,911.9	3,900.0	11.90	328.704	
1,800.0	1,780.3	2,751.0	2,676.7	5.5	10.6	-166.76	356.1	-3,573.5	3,907.3	3,894.9	12.42	314.589	
1,900.0	1,878.2	2,801.4	2,724.3	6.0	10.9	-166.62	366.8	-3,561.0	3,904.0	3,891.1	12.93	301.912	
2,000.0	1,976.0	2,855.4	2,775.6	6.4	11.2	-166.48	377.8	-3,548.5	3,902.2	3,888.7	13.46	289.866	
2,100.0	2,073.8	2,996.1	2,909.1	6.9	12.0	-166.11	407.6	-3,515.0	3,899.8	3,885.4	14.44	270.139	
2,200.0	2,171.6	3,070.1	2,979.2	7.3	12.5	-165.91	423.2	-3,497.3	3,897.7	3,882.7	15.08	258.511	
2,300.0	2,269.4	3,138.5	3,044.3	7.8	12.9	-165.73	437.4	-3,481.6	3,896.5	3,880.8	15.69	248.408	
2,400.0	2,367.2	3,223.0	3,124.7	8.2	13.3	-165.51	454.7	-3,462.7	3,895.9	3,879.6	16.37	237.975	
2,500.0	2,465.0	3,364.1	3,259.5	8.7	14.1	-165.18	481.1	-3,430.4	3,894.8	3,877.5	17.31	225.044	
2,600.0	2,562.9	3,462.2	3,353.3	9.1	14.7	-164.96	498.7	-3,407.7	3,893.4	3,875.4	18.05	215.751	
2,700.0	2,660.7	3,606.0	3,490.3	9.6	15.5	-164.61	526.4	-3,373.5	3,891.6	3,872.6	19.04	204.368	
2,800.0	2,758.5	3,687.0	3,567.3	10.0	16.0	-164.42	542.0	-3,354.0	3,889.5	3,869.8	19.73	197.161	
2,900.0	2,856.3	3,822.5	3,696.2	10.5	16.8	-164.10	567.5	-3,321.1	3,887.3	3,866.6	20.68	187.946	
3,000.0	2,954.1	3,922.7	3,791.4	11.0	17.4	-163.85	586.4	-3,296.0	3,884.4	3,862.9	21.48	180.867	
3,100.0	3,051.9	3,993.4	3,858.5	11.4	17.8	-163.68	600.1	-3,278.6	3,882.0	3,859.9	22.12	175.477	
3,200.0	3,149.8	4,061.0	3,922.9	11.9	18.2	-163.51	613.2	-3,262.5	3,880.5	3,857.8	22.75	170.555	
3,300.0	3,247.6	4,167.3	4,024.3	12.3	18.8	-163.27	632.8	-3,237.7	3,879.5	3,855.9	23.56	164.636	
3,400.0	3,345.4	4,364.9	4,212.1	12.8	20.0	-162.79	670.0	-3,188.6	3,877.0	3,852.1	24.88	155.835	
3,500.0	3,443.2	4,435.0	4,278.6	13.2	20.5	-162.62	683.2	-3,170.7	3,873.9	3,848.3	25.54	151.704	
3,600.0	3,541.0	4,543.9	4,381.8	13.7	21.1	-162.35	704.4	-3,143.1	3,871.2	3,844.7	26.41	146.573	
3,700.0	3,638.8	4,646.9	4,479.0	14.1	21.8	-162.08	725.1	-3,116.5	3,868.0	3,840.7	27.27	141.817	
3,800.0	3,736.7	4,726.9	4,554.8	14.6	22.3	-161.87	741.0	-3,096.0	3,865.2	3,837.2	28.00	138.021	
3,836.5	3,772.4	4,765.4	4,591.2	14.8	22.5	-161.77	748.6	-3,086.2	3,864.2	3,835.9	28.32	136.435	
3,900.0	3,834.6	4,812.0	4,635.3	15.0	22.8	-161.64	757.8	-3,074.3	3,862.0	3,833.2	28.78	134.167	
4,000.0	3,933.2	4,905.0	4,723.4	15.3	23.4	-161.34	776.7	-3,051.1	3,856.2	3,826.7	29.59	130.340	
4,100.0	4,032.3	4,953.2	4,769.1	15.6	23.7	-161.14	786.5	-3,039.5	3,848.1	3,818.0	30.09	127.872	
4,200.0	4,131.8	5,024.1	4,836.6	15.8	24.1	-160.85	800.8	-3,023.0	3,837.7	3,807.0	30.69	125.030	
4,300.0	4,231.5	5,122.2	4,930.2	16.0	24.7	-160.45	819.7	-3,000.7	3,824.4	3,793.0	31.40	121.784	
4,400.0	4,331.5	5,254.9	5,057.0	16.1	25.4	-159.90	843.6	-2,970.0	3,807.5	3,775.3	32.27	117.999	
4,436.3	4,367.8	5,298.5	5,098.6	16.2	25.7	-78.43	851.8	-2,959.5	3,800.4	3,765.1	35.26	107.782	
4,500.0	4,431.5	5,360.6	5,157.7	16.2	26.1	-78.20	863.6	-2,944.6	3,787.4	3,751.9	35.56	106.517	
4,600.0	4,531.5	5,414.0	5,208.5	16.4	26.4	-78.01	873.8	-2,931.9	3,767.7	3,731.8	35.87	105.052	
4,700.0	4,631.5	5,466.0	5,258.4	16.5	26.7	-77.83	883.0	-2,920.4	3,749.3	3,713.1	36.17	103.659	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 43-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	5,511.8	5,302.6	16.6	26.9	-77.68	890.6	-2,911.0	3,732.2	3,695.8	36.44	102.433	
4,900.0	4,831.5	5,560.0	5,349.3	16.8	27.1	-77.54	898.1	-2,901.7	3,716.5	3,679.8	36.71	101.230	
5,000.0	4,931.5	5,611.8	5,399.7	16.9	27.4	-77.39	905.5	-2,892.5	3,702.0	3,665.0	36.99	100.093	
5,100.0	5,031.5	5,667.8	5,454.5	17.0	27.6	-77.25	912.8	-2,883.5	3,688.9	3,651.7	37.27	98.976	
5,200.0	5,131.5	5,746.0	5,531.3	17.2	27.9	-77.08	921.4	-2,871.6	3,676.5	3,638.9	37.61	97.761	
5,300.0	5,231.5	5,814.4	5,598.7	17.3	28.1	-76.95	927.8	-2,862.0	3,664.8	3,626.9	37.91	96.659	
5,400.0	5,331.5	5,875.0	5,658.6	17.5	28.3	-76.83	933.4	-2,854.1	3,654.2	3,616.0	38.20	95.662	
5,500.0	5,431.5	5,933.0	5,715.9	17.6	28.5	-76.73	938.6	-2,847.2	3,644.6	3,606.2	38.47	94.729	
5,600.0	5,531.5	6,008.3	5,790.5	17.7	28.8	-76.59	945.4	-2,838.9	3,636.0	3,597.2	38.78	93.768	
5,700.0	5,631.5	6,071.1	5,852.7	17.9	28.9	-76.48	951.0	-2,832.6	3,628.2	3,589.2	39.05	92.921	
5,800.0	5,731.5	6,119.0	5,900.2	18.0	29.1	-76.41	954.9	-2,828.3	3,621.6	3,582.3	39.29	92.175	
5,900.0	5,831.5	6,212.0	5,992.7	18.2	29.3	-76.29	961.2	-2,821.3	3,615.8	3,576.2	39.60	91.302	
6,000.0	5,931.5	6,265.3	6,045.9	18.4	29.4	-76.23	964.0	-2,818.0	3,610.9	3,571.1	39.84	90.632	
6,100.0	6,031.5	6,331.6	6,112.0	18.5	29.5	-76.18	966.6	-2,814.8	3,607.1	3,567.0	40.10	89.949	
6,200.0	6,131.5	6,399.0	6,179.4	18.7	29.6	-76.15	967.7	-2,812.4	3,604.1	3,563.8	40.36	89.294	
6,300.0	6,231.5	6,476.6	6,257.0	18.8	29.7	-76.14	968.2	-2,810.5	3,601.9	3,561.3	40.63	88.647	
6,400.0	6,331.5	6,557.6	6,337.9	19.0	29.8	-76.13	968.5	-2,809.1	3,600.3	3,559.4	40.90	88.022	
6,500.0	6,431.5	6,636.1	6,416.5	19.1	29.9	-76.12	968.4	-2,808.2	3,599.3	3,558.1	41.17	87.430	
6,531.3	6,462.8	6,660.0	6,440.3	19.2	29.9	-76.13	968.3	-2,808.1	3,599.1	3,557.8	41.25	87.252	
6,550.0	6,481.5	6,680.0	6,460.3	19.2	29.9	13.88	968.1	-2,808.1	3,598.8	3,558.0	40.77	88.264	
6,600.0	6,531.4	6,717.6	6,498.0	19.3	30.0	13.94	967.8	-2,808.0	3,595.6	3,555.0	40.59	88.580	
6,650.0	6,580.9	6,761.8	6,542.1	19.3	30.0	14.09	967.5	-2,808.0	3,589.2	3,548.9	40.29	89.092	
6,700.0	6,629.9	6,806.1	6,586.4	19.3	30.1	14.31	967.2	-2,808.1	3,579.6	3,539.7	39.86	89.805	
6,750.0	6,678.1	6,849.9	6,630.2	19.2	30.1	14.62	966.9	-2,808.2	3,566.7	3,527.3	39.32	90.713	
6,800.0	6,725.2	6,894.5	6,674.8	19.2	30.1	15.03	966.6	-2,808.4	3,550.6	3,511.9	38.68	91.801	
6,850.0	6,771.1	6,938.9	6,719.2	19.1	30.2	15.54	966.2	-2,808.6	3,531.4	3,493.4	37.95	93.049	
6,900.0	6,815.4	6,976.4	6,756.7	19.0	30.2	16.16	965.8	-2,808.9	3,509.1	3,472.0	37.15	94.452	
6,950.0	6,858.0	7,007.0	6,787.3	18.9	30.2	16.90	965.4	-2,809.2	3,484.1	3,447.8	36.30	95.969	
7,000.0	6,898.7	7,036.3	6,816.7	18.9	30.2	17.78	965.2	-2,809.6	3,456.4	3,421.0	35.45	97.509	
7,050.0	6,937.3	7,066.0	6,846.3	18.8	30.3	18.86	965.0	-2,810.0	3,426.1	3,391.5	34.62	98.954	
7,100.0	6,973.6	7,096.7	6,877.0	18.8	30.3	20.17	964.7	-2,810.6	3,393.4	3,359.5	33.89	100.143	
7,150.0	7,007.4	7,125.6	6,905.9	18.8	30.3	21.74	964.4	-2,811.2	3,358.3	3,325.1	33.29	100.885	
7,200.0	7,038.5	7,155.2	6,935.4	18.9	30.3	23.69	964.1	-2,811.8	3,321.1	3,288.2	32.92	100.888	
7,250.0	7,066.8	7,195.4	6,975.7	19.0	30.3	26.20	963.5	-2,812.7	3,281.8	3,248.9	32.93	99.671	
7,300.0	7,092.2	7,231.3	7,011.6	19.2	30.4	29.34	962.8	-2,813.4	3,240.6	3,207.2	33.37	97.097	
7,350.0	7,114.5	7,259.0	7,039.2	19.5	30.4	33.22	962.3	-2,813.8	3,197.8	3,163.4	34.35	93.086	
7,400.0	7,133.6	7,281.2	7,061.5	19.9	30.4	38.12	961.9	-2,814.2	3,153.5	3,117.5	35.98	87.648	
7,450.0	7,149.5	7,299.7	7,080.0	20.3	30.4	44.36	961.6	-2,814.4	3,108.0	3,069.7	38.33	81.091	
7,500.0	7,162.0	7,314.4	7,094.7	20.8	30.4	52.30	961.4	-2,814.6	3,061.6	3,020.3	41.33	74.077	
7,550.0	7,171.1	7,325.3	7,105.5	21.4	30.4	62.20	961.2	-2,814.8	3,014.6	2,969.9	44.65	67.520	
7,600.0	7,176.8	7,332.2	7,112.4	22.1	30.4	73.97	961.1	-2,814.9	2,967.0	2,919.5	47.56	62.389	
7,650.0	7,179.0	7,335.0	7,115.2	22.8	30.4	86.87	961.1	-2,814.9	2,919.3	2,870.1	49.17	59.370	
7,658.9	7,179.0	7,335.0	7,115.2	22.9	30.4	89.19	961.1	-2,814.9	2,910.7	2,861.4	49.28	59.068	
7,700.0	7,178.9	7,335.0	7,115.2	23.5	30.4	89.19	961.1	-2,814.9	2,871.5	2,821.6	49.91	57.533	
7,800.0	7,178.5	7,335.0	7,115.2	25.2	30.4	89.19	961.1	-2,814.9	2,776.2	2,724.6	51.61	53.794	
7,900.0	7,178.1	7,335.0	7,115.2	27.1	30.4	89.19	961.1	-2,814.9	2,681.2	2,627.8	53.49	50.126	
8,000.0	7,177.8	7,338.0	7,118.3	29.2	30.4	89.39	961.1	-2,814.9	2,586.7	2,531.2	55.52	46.589	
8,100.0	7,177.4	7,338.8	7,119.0	31.3	30.4	89.44	961.1	-2,814.9	2,492.5	2,434.9	57.67	43.219	
8,200.0	7,177.0	7,339.6	7,119.8	33.6	30.4	89.50	961.1	-2,814.9	2,398.8	2,338.9	59.92	40.034	
8,300.0	7,176.7	7,340.4	7,120.6	35.9	30.4	89.55	961.0	-2,815.0	2,305.7	2,243.5	62.25	37.040	
8,400.0	7,176.3	7,341.2	7,121.4	38.3	30.4	89.60	961.0	-2,815.0	2,213.2	2,148.5	64.64	34.238	
8,500.0	7,175.9	7,342.0	7,122.2	40.7	30.4	89.66	961.0	-2,815.0	2,121.3	2,054.2	67.09	31.620	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 43-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	7,342.8	7,123.1	43.2	30.4	89.71	961.0	-2,815.0	2,030.2	1,960.6	69.58	29.180	
8,700.0	7,175.2	7,343.6	7,123.9	45.7	30.4	89.77	961.0	-2,815.0	1,940.0	1,867.9	72.10	26.906	
8,800.0	7,174.8	7,344.5	7,124.7	48.3	30.4	89.82	961.0	-2,815.0	1,850.7	1,776.1	74.66	24.789	
8,900.0	7,174.5	7,345.3	7,125.5	50.9	30.4	89.88	961.0	-2,815.0	1,762.7	1,685.4	77.24	22.820	
9,000.0	7,174.1	7,346.1	7,126.3	53.5	30.4	89.93	961.0	-2,815.0	1,676.0	1,596.1	79.85	20.989	
9,100.0	7,173.7	7,346.9	7,127.2	56.1	30.4	89.99	961.0	-2,815.0	1,590.8	1,508.3	82.47	19.288	
9,200.0	7,173.4	7,347.8	7,128.0	58.8	30.4	90.04	960.9	-2,815.0	1,507.4	1,422.3	85.12	17.710	
9,300.0	7,173.0	7,348.6	7,128.9	61.4	30.4	90.10	960.9	-2,815.1	1,426.2	1,338.5	87.77	16.249	
9,400.0	7,172.6	7,349.5	7,129.7	64.1	30.4	90.16	960.9	-2,815.1	1,347.6	1,257.1	90.44	14.900	
9,500.0	7,172.3	7,350.3	7,130.6	66.8	30.4	90.21	960.9	-2,815.1	1,271.9	1,178.8	93.12	13.658	
9,600.0	7,171.9	7,351.2	7,131.4	69.5	30.4	90.27	960.9	-2,815.1	1,199.8	1,104.0	95.82	12.522	
9,700.0	7,171.6	7,352.0	7,132.3	72.2	30.4	90.33	960.9	-2,815.1	1,131.9	1,033.4	98.51	11.490	
9,800.0	7,171.2	7,352.9	7,133.1	74.9	30.4	90.39	960.9	-2,815.1	1,069.1	967.9	101.22	10.562	
9,900.0	7,170.8	7,353.8	7,134.0	77.6	30.4	90.45	960.9	-2,815.1	1,012.4	908.4	103.94	9.740	
10,000.0	7,170.5	7,354.7	7,134.9	80.3	30.4	90.51	960.9	-2,815.1	962.6	856.0	106.66	9.025	
10,100.0	7,170.1	7,355.5	7,135.8	83.0	30.4	90.56	960.8	-2,815.1	921.1	811.7	109.38	8.421	
10,200.0	7,169.7	7,356.4	7,136.7	85.8	30.4	90.62	960.8	-2,815.1	888.9	776.8	112.11	7.929	
10,300.0	7,169.4	7,357.3	7,137.6	88.5	30.4	90.68	960.8	-2,815.2	867.1	752.3	114.85	7.550	
10,400.0	7,169.0	7,358.2	7,138.5	91.3	30.4	90.74	960.8	-2,815.2	856.6	739.0	117.59	7.284	
10,441.2	7,168.9	7,358.6	7,138.8	92.4	30.4	90.77	960.8	-2,815.2	855.6	736.9	118.72	7.207	CC, ES
10,500.0	7,168.6	7,359.1	7,139.4	94.0	30.4	90.80	960.8	-2,815.2	857.6	737.3	120.33	7.127	
10,600.0	7,168.3	7,360.0	7,140.3	96.8	30.4	90.87	960.8	-2,815.2	870.2	747.1	123.08	7.070	SF
10,700.0	7,167.9	7,361.0	7,141.2	99.5	30.4	90.93	960.8	-2,815.2	893.9	768.0	125.83	7.104	
10,800.0	7,167.5	7,361.9	7,142.1	102.3	30.4	90.99	960.8	-2,815.2	927.8	799.2	128.58	7.216	
10,900.0	7,167.2	7,362.8	7,143.0	105.0	30.4	91.05	960.7	-2,815.2	970.8	839.5	131.33	7.392	
11,000.0	7,166.8	7,363.7	7,144.0	107.8	30.4	91.11	960.7	-2,815.2	1,021.9	887.8	134.09	7.621	
11,100.0	7,166.4	7,364.7	7,144.9	110.5	30.4	91.18	960.7	-2,815.2	1,079.8	943.0	136.85	7.891	
11,200.0	7,166.1	7,365.6	7,145.8	113.3	30.4	91.24	960.7	-2,815.3	1,143.6	1,004.0	139.61	8.191	
11,300.0	7,165.7	7,366.6	7,146.8	116.1	30.4	91.30	960.7	-2,815.3	1,212.2	1,069.9	142.38	8.514	
11,400.0	7,165.4	7,367.5	7,147.8	118.8	30.4	91.37	960.7	-2,815.3	1,285.0	1,139.9	145.14	8.854	
11,500.0	7,165.0	7,368.5	7,148.7	121.6	30.4	91.43	960.7	-2,815.3	1,361.3	1,213.4	147.91	9.204	
11,600.0	7,164.6	7,369.4	7,149.7	124.4	30.4	91.50	960.7	-2,815.3	1,440.4	1,289.7	150.67	9.560	
11,700.0	7,164.3	7,370.4	7,150.6	127.2	30.4	91.56	960.6	-2,815.3	1,522.0	1,368.6	153.44	9.919	
11,783.3	7,164.0	7,371.3	7,151.5	129.5	30.4	91.61	960.6	-2,815.3	1,591.6	1,435.9	155.75	10.219	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 44-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.41	40.8	-3,976.8	3,977.2				
100.0	100.0	49.8	49.8	0.1	0.1	-89.41	40.8	-3,976.9	3,977.1	3,976.9	0.15	N/A	
200.0	200.0	135.0	135.0	0.3	0.2	-89.41	41.1	-3,977.2	3,977.5	3,977.0	0.48	8,352.221	
300.0	300.0	220.2	220.2	0.5	0.3	-89.40	41.7	-3,977.9	3,978.3	3,977.5	0.80	4,983.479	
400.0	400.0	305.4	305.4	0.8	0.3	-89.39	42.6	-3,978.8	3,979.4	3,978.3	1.12	3,551.935	
500.0	500.0	390.5	390.5	1.0	0.4	-89.37	43.7	-3,980.1	3,980.9	3,979.5	1.44	2,759.948	
600.0	600.0	475.6	475.6	1.2	0.5	-170.61	45.2	-3,981.7	3,984.6	3,982.8	1.75	2,271.246	
700.0	699.8	599.0	598.9	1.4	0.7	-170.57	47.8	-3,984.6	3,992.2	3,990.1	2.12	1,881.509	
800.0	799.5	765.8	765.7	1.7	1.0	-170.54	50.2	-3,985.5	4,001.3	3,998.7	2.65	1,508.095	
900.0	898.7	2,035.5	2,013.1	1.9	5.1	-171.74	-9.3	-3,798.5	3,996.9	3,991.1	5.85	683.179	
1,000.0	997.5	2,107.8	2,082.1	2.2	5.5	-171.90	-15.8	-3,777.9	3,983.5	3,977.2	6.28	634.674	
1,099.8	1,095.4	2,189.0	2,159.8	2.6	5.9	-172.05	-22.3	-3,755.2	3,974.1	3,967.4	6.72	591.363	
1,100.0	1,095.6	2,189.0	2,159.8	2.6	5.9	-172.05	-22.3	-3,755.2	3,974.1	3,967.4	6.72	591.319	
1,200.0	1,193.4	2,301.0	2,266.9	3.0	6.5	-172.24	-31.3	-3,723.9	3,966.5	3,959.2	7.30	543.159	
1,300.0	1,291.3	2,448.3	2,407.3	3.4	7.4	-172.53	-46.5	-3,682.2	3,958.7	3,950.6	8.04	492.550	
1,400.0	1,389.1	2,575.0	2,527.4	3.8	8.2	-172.80	-61.3	-3,644.5	3,949.2	3,940.5	8.74	451.713	
1,500.0	1,486.9	2,657.0	2,605.1	4.2	8.7	-172.99	-71.1	-3,620.0	3,939.8	3,930.5	9.29	424.275	
1,600.0	1,584.7	2,720.4	2,665.3	4.7	9.0	-173.13	-78.6	-3,601.5	3,931.1	3,921.3	9.76	402.908	
1,700.0	1,682.5	2,788.0	2,729.6	5.1	9.4	-173.27	-86.3	-3,582.5	3,923.4	3,913.2	10.24	383.023	
1,800.0	1,780.3	2,899.2	2,835.9	5.5	10.0	-173.50	-98.2	-3,551.5	3,916.3	3,905.4	10.88	359.937	
1,900.0	1,878.2	2,990.6	2,923.0	6.0	10.5	-173.67	-106.7	-3,525.6	3,908.5	3,897.1	11.45	341.304	
2,000.0	1,976.0	3,061.8	2,991.1	6.4	10.9	-173.81	-113.3	-3,506.0	3,901.6	3,889.6	11.95	326.393	
2,100.0	2,073.8	3,177.9	3,102.4	6.9	11.6	-174.02	-124.0	-3,474.3	3,895.2	3,882.5	12.61	308.827	
2,200.0	2,171.6	3,264.1	3,184.6	7.3	12.1	-174.20	-132.8	-3,450.2	3,888.0	3,874.8	13.18	294.935	
2,300.0	2,269.4	3,312.0	3,230.5	7.8	12.4	-174.29	-137.8	-3,437.3	3,882.0	3,868.3	13.62	285.036	
2,400.0	2,367.2	3,388.5	3,304.0	8.2	12.8	-174.44	-144.7	-3,417.4	3,876.9	3,862.7	14.14	274.186	
2,500.0	2,465.0	3,548.8	3,458.1	8.7	13.7	-174.73	-158.8	-3,375.5	3,871.8	3,856.8	14.96	258.854	
2,600.0	2,562.9	3,671.2	3,575.2	9.1	14.4	-174.95	-169.8	-3,341.7	3,865.1	3,849.4	15.66	246.836	
2,700.0	2,660.7	3,883.2	3,776.9	9.6	15.7	-175.39	-191.3	-3,280.0	3,857.1	3,840.3	16.73	230.550	
2,800.0	2,758.5	3,967.0	3,856.1	10.0	16.2	-175.58	-201.0	-3,254.5	3,847.7	3,830.3	17.33	221.997	
2,900.0	2,856.3	4,019.4	3,905.8	10.5	16.5	-175.70	-206.9	-3,239.0	3,839.1	3,821.3	17.80	215.674	
3,000.0	2,954.1	4,097.4	3,980.2	11.0	17.0	-175.87	-215.3	-3,216.8	3,831.7	3,813.4	18.37	208.585	
3,100.0	3,051.9	4,226.5	4,102.9	11.4	17.8	-176.15	-229.0	-3,179.2	3,823.8	3,804.6	19.14	199.754	
3,200.0	3,149.8	4,341.0	4,211.7	11.9	18.5	-176.39	-240.6	-3,145.4	3,815.5	3,795.6	19.86	192.113	
3,300.0	3,247.6	4,403.9	4,271.4	12.3	18.9	-176.53	-247.3	-3,127.0	3,807.5	3,787.1	20.38	186.866	
3,400.0	3,345.4	4,552.0	4,412.3	12.8	19.8	-176.84	-262.3	-3,083.7	3,799.7	3,778.5	21.23	178.960	
3,500.0	3,443.2	4,655.4	4,510.4	13.2	20.5	-177.06	-272.6	-3,052.8	3,791.2	3,769.3	21.92	172.972	
3,600.0	3,541.0	4,760.6	4,610.1	13.7	21.1	-177.28	-282.8	-3,020.7	3,782.0	3,759.4	22.61	167.275	
3,700.0	3,638.8	4,839.8	4,685.3	14.1	21.6	-177.44	-290.1	-2,997.1	3,773.6	3,750.4	23.19	162.690	
3,800.0	3,736.7	4,905.0	4,747.2	14.6	22.1	-177.57	-296.2	-2,977.6	3,765.3	3,741.6	23.72	158.711	
3,836.5	3,772.4	4,942.7	4,783.0	14.8	22.3	-177.65	-299.8	-2,966.4	3,762.3	3,738.4	23.97	156.950	
3,900.0	3,834.6	4,969.8	4,808.9	15.0	22.4	-177.70	-302.4	-2,958.7	3,757.2	3,733.0	24.25	154.937	
4,000.0	3,933.2	4,999.0	4,836.8	15.3	22.6	-177.75	-305.1	-2,950.7	3,747.6	3,723.1	24.58	152.454	
4,100.0	4,032.3	5,051.9	4,887.7	15.6	22.9	-177.84	-309.8	-2,936.9	3,736.1	3,711.1	24.95	149.717	
4,200.0	4,131.8	5,092.0	4,926.5	15.8	23.1	-177.90	-313.0	-2,927.2	3,722.6	3,697.4	25.24	147.492	
4,300.0	4,231.5	5,129.0	4,962.4	16.0	23.3	-177.95	-315.8	-2,918.8	3,707.4	3,681.9	25.46	145.605	
4,400.0	4,331.5	5,186.0	5,018.1	16.1	23.5	-178.02	-319.7	-2,907.2	3,690.4	3,664.7	25.71	143.551	
4,436.3	4,367.8	5,186.0	5,018.1	16.2	23.5	-96.75	-319.7	-2,907.2	3,683.7	3,645.6	38.05	96.812	
4,500.0	4,431.5	5,231.7	5,062.8	16.2	23.7	-96.81	-322.5	-2,898.5	3,672.0	3,633.7	38.30	95.885	
4,600.0	4,531.5	5,279.0	5,109.2	16.4	23.9	-96.87	-325.5	-2,889.4	3,654.0	3,615.4	38.60	94.663	
4,700.0	4,631.5	5,346.6	5,175.5	16.5	24.2	-96.96	-329.5	-2,877.2	3,637.0	3,598.0	38.97	93.340	
4,800.0	4,731.5	5,373.0	5,201.5	16.6	24.3	-96.99	-331.1	-2,872.9	3,621.8	3,582.6	39.19	92.418	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 44-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	5,430.7	5,258.5	16.8	24.5	-97.06	-334.3	-2,864.3	3,607.9	3,568.4	39.49	91.358	
5,000.0	4,931.5	5,466.0	5,293.4	16.9	24.6	-97.10	-336.0	-2,859.7	3,595.7	3,556.0	39.73	90.501	
5,100.0	5,031.5	5,519.0	5,346.1	17.0	24.7	-97.15	-338.4	-2,853.7	3,585.0	3,545.0	40.00	89.632	
5,200.0	5,131.5	5,560.0	5,386.8	17.2	24.8	-97.18	-340.0	-2,849.7	3,575.8	3,535.6	40.24	88.870	
5,300.0	5,231.5	5,613.1	5,439.8	17.3	25.0	-97.21	-341.7	-2,845.3	3,568.1	3,527.6	40.48	88.136	
5,400.0	5,331.5	5,653.0	5,479.5	17.5	25.0	-97.24	-342.7	-2,842.6	3,561.8	3,521.1	40.71	87.499	
5,500.0	5,431.5	5,746.0	5,572.3	17.6	25.2	-97.28	-344.9	-2,837.3	3,556.5	3,515.5	41.01	86.718	
5,600.0	5,531.5	5,814.0	5,640.2	17.7	25.3	-97.31	-346.1	-2,834.1	3,552.0	3,510.7	41.27	86.068	
5,700.0	5,631.5	5,886.4	5,712.5	17.9	25.4	-97.33	-347.0	-2,831.1	3,548.1	3,506.6	41.53	85.437	
5,800.0	5,731.5	5,955.6	5,781.7	18.0	25.5	-97.34	-347.6	-2,828.9	3,545.1	3,503.3	41.78	84.854	
5,900.0	5,831.5	6,025.0	5,851.1	18.2	25.6	-97.35	-348.0	-2,827.4	3,543.0	3,500.9	42.02	84.311	
6,000.0	5,931.5	6,117.0	5,943.1	18.4	25.7	-97.36	-348.6	-2,825.9	3,541.4	3,499.1	42.29	83.743	
6,100.0	6,031.5	6,225.7	6,051.8	18.5	25.9	-97.37	-348.9	-2,824.0	3,539.7	3,497.1	42.58	83.129	
6,200.0	6,131.5	6,306.0	6,132.1	18.7	26.0	-97.37	-348.8	-2,822.9	3,538.3	3,495.5	42.84	82.601	
6,300.0	6,231.5	6,389.1	6,215.2	18.8	26.1	-97.37	-348.7	-2,822.3	3,537.5	3,494.4	43.09	82.094	
6,400.0	6,331.5	6,477.7	6,303.7	19.0	26.2	-97.37	-348.5	-2,821.8	3,537.0	3,493.6	43.35	81.586	
6,500.0	6,431.5	6,571.1	6,397.1	19.1	26.3	-97.37	-348.1	-2,821.6	3,536.7	3,493.1	43.62	81.082	
6,531.3	6,462.8	6,605.0	6,431.1	19.2	26.3	-97.36	-348.0	-2,821.5	3,536.6	3,492.9	43.71	80.916	
6,550.0	6,481.5	6,627.9	6,454.0	19.2	26.3	-7.37	-347.9	-2,821.5	3,536.3	3,503.8	32.52	108.747	
6,600.0	6,531.4	6,680.0	6,506.1	19.3	26.4	-7.40	-347.7	-2,821.2	3,533.0	3,500.7	32.32	109.313	
6,650.0	6,580.9	6,725.4	6,551.5	19.3	26.4	-7.49	-347.6	-2,821.0	3,526.3	3,494.3	31.99	110.216	
6,700.0	6,629.9	6,773.0	6,599.1	19.3	26.5	-7.61	-347.6	-2,820.9	3,516.4	3,484.8	31.56	111.419	
6,750.0	6,678.1	6,807.7	6,633.8	19.2	26.5	-7.78	-347.6	-2,820.9	3,503.1	3,472.1	31.00	113.001	
6,800.0	6,725.2	6,851.3	6,677.4	19.2	26.5	-8.01	-347.8	-2,821.0	3,486.6	3,456.3	30.36	114.844	
6,850.0	6,771.1	6,899.6	6,725.6	19.1	26.6	-8.31	-348.0	-2,821.0	3,467.0	3,437.3	29.64	116.954	
6,900.0	6,815.4	6,949.5	6,775.6	19.0	26.7	-8.68	-348.1	-2,821.0	3,444.1	3,415.2	28.86	119.325	
6,950.0	6,858.0	6,992.4	6,818.5	18.9	26.7	-9.12	-348.2	-2,821.0	3,418.2	3,390.1	28.02	121.990	
7,000.0	6,898.7	7,031.9	6,857.9	18.9	26.7	-9.66	-348.2	-2,821.0	3,389.4	3,362.2	27.14	124.865	
7,050.0	6,937.3	7,070.6	6,896.6	18.8	26.8	-10.32	-348.2	-2,821.0	3,357.9	3,331.6	26.27	127.816	
7,100.0	6,973.6	7,108.7	6,934.8	18.8	26.8	-11.13	-348.3	-2,820.9	3,323.8	3,298.3	25.44	130.653	
7,150.0	7,007.4	7,144.2	6,970.2	18.8	26.9	-12.13	-348.3	-2,820.9	3,287.2	3,262.5	24.69	133.117	
7,200.0	7,038.5	7,177.7	7,003.8	18.9	26.9	-13.38	-348.4	-2,820.8	3,248.4	3,224.3	24.10	134.781	
7,250.0	7,066.8	7,208.3	7,034.4	19.0	26.9	-14.95	-348.4	-2,820.7	3,207.6	3,183.8	23.74	135.092	
7,300.0	7,092.2	7,235.7	7,061.8	19.2	27.0	-16.99	-348.3	-2,820.7	3,164.9	3,141.1	23.74	133.336	
7,350.0	7,114.5	7,257.2	7,083.3	19.5	27.0	-19.63	-348.2	-2,820.6	3,120.5	3,096.3	24.22	128.827	
7,400.0	7,133.6	7,275.1	7,101.2	19.9	27.0	-23.22	-348.2	-2,820.6	3,074.8	3,049.3	25.44	120.887	
7,450.0	7,149.5	7,290.0	7,116.0	20.3	27.0	-28.28	-348.1	-2,820.5	3,027.9	3,000.2	27.70	109.294	
7,500.0	7,162.0	7,301.6	7,127.7	20.8	27.0	-35.71	-348.1	-2,820.5	2,980.0	2,948.5	31.48	94.650	
7,550.0	7,171.1	7,310.1	7,136.2	21.4	27.1	-47.06	-348.1	-2,820.5	2,931.4	2,894.2	37.22	78.764	
7,600.0	7,176.8	7,315.4	7,141.5	22.1	27.1	-64.38	-348.1	-2,820.5	2,882.3	2,838.0	44.32	65.041	
7,650.0	7,179.0	7,317.4	7,143.4	22.8	27.1	-87.63	-348.1	-2,820.5	2,833.0	2,784.1	48.90	57.939	
7,658.9	7,179.0	7,317.4	7,143.4	22.9	27.1	-92.03	-348.1	-2,820.5	2,824.2	2,775.2	49.03	57.599	
7,700.0	7,178.9	7,317.2	7,143.2	23.5	27.1	-92.01	-348.1	-2,820.5	2,783.7	2,734.0	49.67	56.048	
7,800.0	7,178.5	7,316.6	7,142.7	25.2	27.1	-91.94	-348.1	-2,820.5	2,685.0	2,633.7	51.36	52.276	
7,900.0	7,178.1	7,316.1	7,142.2	27.1	27.1	-91.87	-348.1	-2,820.5	2,586.5	2,533.3	53.25	48.577	
8,000.0	7,177.8	7,315.6	7,141.6	29.2	27.1	-91.81	-348.1	-2,820.5	2,488.2	2,432.9	55.28	45.011	
8,100.0	7,177.4	7,315.0	7,141.1	31.3	27.1	-91.74	-348.1	-2,820.5	2,389.9	2,332.5	57.43	41.613	
8,200.0	7,177.0	7,314.5	7,140.6	33.6	27.1	-91.67	-348.1	-2,820.5	2,291.8	2,232.1	59.68	38.401	
8,300.0	7,176.7	7,314.0	7,140.0	35.9	27.1	-91.60	-348.1	-2,820.5	2,193.9	2,131.9	62.01	35.380	
8,400.0	7,176.3	7,313.4	7,139.5	38.3	27.1	-91.54	-348.1	-2,820.5	2,096.1	2,031.7	64.40	32.547	
8,500.0	7,175.9	7,312.9	7,138.9	40.7	27.1	-91.47	-348.1	-2,820.5	1,998.6	1,931.8	66.85	29.897	
8,600.0	7,175.6	7,312.3	7,138.4	43.2	27.1	-91.40	-348.1	-2,820.5	1,901.4	1,832.0	69.34	27.421	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD RYLAND 44-20D - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 599-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	7,175.2	7,311.8	7,137.9	45.7	27.1	-91.33	-348.1	-2,820.5	1,804.4	1,732.5	71.87	25.107	
8,800.0	7,174.8	7,311.3	7,137.3	48.3	27.1	-91.26	-348.1	-2,820.5	1,707.8	1,633.4	74.43	22.946	
8,900.0	7,174.5	7,310.7	7,136.8	50.9	27.1	-91.19	-348.1	-2,820.5	1,611.6	1,534.6	77.01	20.927	
9,000.0	7,174.1	7,310.2	7,136.2	53.5	27.1	-91.12	-348.1	-2,820.5	1,515.9	1,436.3	79.62	19.039	
9,100.0	7,173.7	7,309.6	7,135.7	56.1	27.1	-91.05	-348.1	-2,820.5	1,420.8	1,338.6	82.25	17.275	
9,200.0	7,173.4	7,309.1	7,135.1	58.8	27.1	-90.99	-348.1	-2,820.5	1,326.4	1,241.5	84.89	15.625	
9,300.0	7,173.0	7,308.5	7,134.6	61.4	27.1	-90.92	-348.1	-2,820.5	1,232.9	1,145.4	87.55	14.083	
9,400.0	7,172.6	7,308.0	7,134.0	64.1	27.1	-90.85	-348.1	-2,820.5	1,140.5	1,050.3	90.22	12.641	
9,500.0	7,172.3	7,307.4	7,133.5	66.8	27.1	-90.78	-348.1	-2,820.5	1,049.5	956.6	92.90	11.297	
9,600.0	7,171.9	7,306.9	7,132.9	69.5	27.1	-90.71	-348.1	-2,820.5	960.3	864.7	95.60	10.045	
9,700.0	7,171.6	7,306.3	7,132.4	72.2	27.0	-90.64	-348.1	-2,820.5	873.4	775.1	98.30	8.885	
9,800.0	7,171.2	7,305.7	7,131.8	74.9	27.0	-90.56	-348.1	-2,820.5	789.7	688.7	101.01	7.818	
9,900.0	7,170.8	7,305.2	7,131.2	77.6	27.0	-90.49	-348.1	-2,820.5	710.1	606.4	103.72	6.846	
10,000.0	7,170.5	7,304.6	7,130.7	80.3	27.0	-90.42	-348.1	-2,820.5	636.4	529.9	106.45	5.978	
10,100.0	7,170.1	7,304.0	7,130.1	83.0	27.0	-90.35	-348.1	-2,820.5	570.7	461.5	109.17	5.227	
10,200.0	7,169.7	7,303.5	7,129.5	85.8	27.0	-90.28	-348.1	-2,820.5	516.1	404.2	111.91	4.612	
10,300.0	7,169.4	7,302.9	7,129.0	88.5	27.0	-90.21	-348.1	-2,820.5	476.5	361.8	114.65	4.156	
10,400.0	7,169.0	7,302.3	7,128.4	91.3	27.0	-90.14	-348.1	-2,820.5	455.8	338.4	117.39	3.883	
10,446.5	7,168.8	7,302.1	7,128.1	92.5	27.0	-90.10	-348.1	-2,820.5	453.4	334.7	118.67	3.821	CC, ES
10,500.0	7,168.6	7,301.8	7,127.8	94.0	27.0	-90.06	-348.1	-2,820.5	456.5	336.4	120.13	3.800	SF
10,600.0	7,168.3	7,301.2	7,127.3	96.8	27.0	-89.99	-348.1	-2,820.5	478.7	355.8	122.88	3.895	
10,700.0	7,167.9	7,300.6	7,126.7	99.5	27.0	-89.92	-348.1	-2,820.5	519.4	393.8	125.64	4.134	
10,800.0	7,167.5	7,300.1	7,126.1	102.3	27.0	-89.85	-348.1	-2,820.5	574.9	446.5	128.39	4.478	
10,900.0	7,167.2	7,299.5	7,125.5	105.0	27.0	-89.77	-348.1	-2,820.5	641.3	510.1	131.15	4.889	
11,000.0	7,166.8	7,298.9	7,125.0	107.8	27.0	-89.70	-348.1	-2,820.5	715.5	581.6	133.91	5.343	
11,100.0	7,166.4	7,298.3	7,124.4	110.5	27.0	-89.63	-348.1	-2,820.5	795.4	658.7	136.67	5.819	
11,200.0	7,166.1	7,297.7	7,123.8	113.3	27.0	-89.55	-348.1	-2,820.5	879.4	739.9	139.44	6.307	
11,300.0	7,165.7	7,297.2	7,123.2	116.1	27.0	-89.48	-348.1	-2,820.5	966.4	824.2	142.20	6.796	
11,400.0	7,165.4	7,296.6	7,122.6	118.8	27.0	-89.41	-348.1	-2,820.5	1,055.8	910.8	144.97	7.283	
11,500.0	7,165.0	7,296.0	7,122.0	121.6	27.0	-89.33	-348.1	-2,820.5	1,146.9	999.1	147.74	7.763	
11,600.0	7,164.6	7,295.4	7,121.5	124.4	27.0	-89.26	-348.1	-2,820.5	1,239.4	1,088.9	150.51	8.235	
11,700.0	7,164.3	7,294.8	7,120.9	127.2	27.0	-89.18	-348.1	-2,820.5	1,332.9	1,179.7	153.28	8.696	
11,783.3	7,164.0	7,294.4	7,120.4	129.5	27.0	-89.12	-348.1	-2,820.5	1,411.6	1,256.0	155.59	9.072	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS #21ODU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-46.45	518.8	-545.6	752.9				
100.0	100.0	103.7	103.7	0.1	0.1	-46.45	518.7	-545.6	752.8	752.6	0.21	3,661.266	
200.0	200.0	204.9	204.9	0.3	0.2	-46.46	518.4	-545.5	752.6	752.0	0.54	1,403.681	
300.0	300.0	306.1	306.1	0.5	0.3	-46.47	518.0	-545.3	752.2	751.3	0.87	867.893	
400.0	400.0	407.3	407.3	0.8	0.4	-46.49	517.4	-545.1	751.6	750.4	1.20	627.819	
500.0	500.0	508.5	508.4	1.0	0.5	-46.52	516.7	-544.9	750.9	749.4	1.53	491.524	
539.9	539.9	548.8	548.8	1.1	0.6	-127.83	516.3	-544.7	750.7	749.1	1.65	454.127	CC, ES
600.0	600.0	609.6	609.6	1.2	0.6	-127.93	515.7	-544.5	751.1	749.3	1.85	407.077	
700.0	699.8	710.4	710.4	1.4	0.8	-128.25	514.7	-544.1	753.3	751.1	2.17	346.886	
800.0	799.5	809.0	809.0	1.7	1.0	-128.58	515.2	-542.4	757.8	755.2	2.60	291.553	
900.0	898.7	916.7	916.5	1.9	1.2	-128.82	518.3	-537.4	764.0	761.0	3.06	249.399	
1,000.0	997.5	1,017.7	1,017.0	2.2	1.4	-128.91	523.8	-529.2	771.5	767.9	3.57	216.346	
1,099.8	1,095.4	1,105.4	1,104.0	2.6	1.6	-128.89	531.2	-520.8	782.1	778.0	4.09	191.071	
1,100.0	1,095.6	1,105.6	1,104.1	2.6	1.6	-128.89	531.2	-520.8	782.1	778.0	4.09	191.025	
1,200.0	1,193.4	1,195.4	1,192.7	3.0	1.9	-128.84	542.4	-510.6	795.2	790.5	4.70	169.297	
1,300.0	1,291.3	1,290.5	1,286.0	3.4	2.2	-128.63	556.6	-499.0	809.2	803.9	5.37	150.644	
1,400.0	1,389.1	1,390.5	1,383.9	3.8	2.6	-128.32	572.3	-485.7	823.1	817.0	6.11	134.752	
1,500.0	1,486.9	1,485.0	1,475.9	4.2	3.0	-127.92	588.8	-472.4	837.5	830.6	6.87	121.894	
1,600.0	1,584.7	1,587.2	1,574.8	4.7	3.5	-127.27	609.0	-455.8	851.9	844.2	7.73	110.165	
1,700.0	1,682.5	1,698.6	1,681.3	5.1	4.1	-126.29	633.4	-434.0	865.7	857.0	8.72	99.318	
1,800.0	1,780.3	1,797.7	1,775.4	5.5	4.7	-125.31	655.7	-412.4	878.4	868.7	9.68	90.701	
1,900.0	1,878.2	1,895.2	1,867.7	6.0	5.2	-124.33	678.3	-390.9	891.7	881.0	10.64	83.803	
2,000.0	1,976.0	1,995.3	1,962.7	6.4	5.8	-123.40	700.9	-369.1	905.1	893.4	11.61	77.943	
2,100.0	2,073.8	2,098.0	2,060.1	6.9	6.4	-122.44	724.2	-346.1	918.3	905.7	12.64	72.668	
2,200.0	2,171.6	2,194.0	2,151.3	7.3	6.9	-121.61	745.3	-325.1	931.6	918.0	13.58	68.579	
2,300.0	2,269.4	2,288.0	2,241.0	7.8	7.4	-120.89	765.8	-305.6	945.6	931.1	14.51	65.186	
2,400.0	2,367.2	2,399.0	2,346.6	8.2	8.1	-120.00	790.1	-281.4	959.2	943.6	15.57	61.603	
2,500.0	2,465.0	2,495.3	2,438.5	8.7	8.6	-119.32	810.0	-260.9	972.3	955.8	16.53	58.804	
2,600.0	2,562.9	2,582.8	2,521.9	9.1	9.1	-118.68	828.8	-242.2	986.3	968.8	17.46	56.503	
2,700.0	2,660.7	2,670.3	2,605.0	9.6	9.6	-118.03	848.8	-223.7	1,001.5	983.1	18.39	54.444	
2,800.0	2,758.5	2,760.1	2,690.4	10.0	10.1	-117.40	869.7	-205.5	1,017.7	998.4	19.33	52.654	
2,900.0	2,856.3	2,846.0	2,772.5	10.5	10.6	-116.90	889.6	-189.8	1,035.2	1,015.0	20.21	51.210	
3,000.0	2,954.1	2,953.9	2,875.7	11.0	11.2	-116.30	914.8	-170.5	1,053.1	1,031.9	21.23	49.608	
3,100.0	3,051.9	3,076.3	2,992.4	11.4	11.9	-115.56	941.7	-145.3	1,068.3	1,046.0	22.36	47.783	
3,200.0	3,149.8	3,165.2	3,076.9	11.9	12.4	-114.99	961.7	-126.5	1,083.9	1,060.6	23.31	46.508	
3,300.0	3,247.6	3,267.4	3,174.0	12.3	13.0	-114.36	985.1	-105.0	1,100.0	1,075.7	24.33	45.206	
3,400.0	3,345.4	3,378.3	3,279.2	12.8	13.7	-113.64	1,009.9	-80.2	1,115.1	1,089.7	25.42	43.861	
3,500.0	3,443.2	3,469.6	3,365.7	13.2	14.3	-113.03	1,030.4	-59.2	1,130.0	1,103.6	26.41	42.782	
3,600.0	3,541.0	3,574.0	3,464.3	13.7	14.9	-112.32	1,054.6	-34.7	1,145.5	1,118.0	27.50	41.658	
3,700.0	3,638.8	3,684.0	3,567.9	14.1	15.6	-111.53	1,079.5	-7.3	1,160.0	1,131.3	28.63	40.512	
3,800.0	3,736.7	3,767.6	3,646.5	14.6	16.2	-110.94	1,098.6	13.6	1,174.7	1,145.1	29.59	39.693	
3,836.5	3,772.4	3,796.7	3,673.9	14.8	16.4	-110.74	1,105.4	20.7	1,180.5	1,150.5	29.94	39.423	
3,900.0	3,834.6	3,846.7	3,720.5	15.0	16.7	-110.52	1,118.0	33.6	1,190.9	1,160.3	30.53	39.003	
4,000.0	3,933.2	3,923.5	3,791.5	15.3	17.3	-110.04	1,138.9	54.0	1,207.7	1,176.4	31.37	38.494	
4,100.0	4,032.3	4,000.7	3,863.1	15.6	17.8	-109.52	1,160.7	73.2	1,225.4	1,193.2	32.17	38.089	
4,200.0	4,131.8	4,095.7	3,951.0	15.8	18.5	-108.68	1,188.4	96.2	1,243.5	1,210.5	33.02	37.662	
4,300.0	4,231.5	4,245.0	4,091.0	16.0	19.4	-107.13	1,227.1	131.0	1,258.7	1,224.6	34.08	36.933	
4,400.0	4,331.5	4,355.3	4,194.8	16.1	20.1	-105.90	1,252.6	157.8	1,270.5	1,235.7	34.86	36.446	
4,436.3	4,367.8	4,387.7	4,225.3	16.2	20.4	-24.23	1,260.1	166.1	1,274.7	1,251.1	23.56	54.112	
4,500.0	4,431.5	4,445.2	4,279.1	16.2	20.7	-23.37	1,273.6	181.0	1,282.1	1,258.2	23.94	53.553	
4,600.0	4,531.5	4,537.5	4,366.2	16.4	21.3	-22.09	1,294.7	203.2	1,294.5	1,270.0	24.57	52.688	
4,700.0	4,631.5	4,618.0	4,442.3	16.5	21.8	-21.04	1,313.6	221.1	1,308.8	1,283.6	25.16	52.019	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS #21ODU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	4,733.9	4,552.7	16.6	22.5	-19.66	1,340.1	244.7	1,323.7	1,297.8	25.93	51.044	
4,900.0	4,831.5	4,898.0	4,710.7	16.8	23.3	-17.92	1,370.0	277.0	1,334.9	1,308.0	26.89	49.642	
5,000.0	4,931.5	4,991.0	4,800.9	16.9	23.8	-17.00	1,384.6	294.8	1,344.4	1,316.9	27.50	48.891	
5,100.0	5,031.5	5,101.2	4,908.0	17.0	24.3	-15.98	1,401.4	314.8	1,354.1	1,325.9	28.18	48.053	
5,200.0	5,131.5	5,220.7	5,025.0	17.2	24.8	-15.06	1,417.0	333.0	1,362.7	1,333.8	28.85	47.231	
5,300.0	5,231.5	5,335.4	5,138.1	17.3	25.2	-14.36	1,429.4	346.8	1,370.2	1,340.7	29.45	46.523	
5,400.0	5,331.5	5,452.6	5,254.3	17.5	25.5	-13.79	1,440.0	358.3	1,376.6	1,346.6	30.02	45.857	
5,500.0	5,431.5	5,574.5	5,375.5	17.6	25.8	-13.32	1,448.6	367.9	1,381.6	1,351.1	30.55	45.222	
5,600.0	5,531.5	5,689.7	5,490.4	17.7	26.1	-13.00	1,454.3	374.6	1,385.1	1,354.1	31.02	44.653	
5,700.0	5,631.5	5,788.1	5,588.6	17.9	26.2	-12.78	1,458.5	379.0	1,388.3	1,356.8	31.43	44.171	
5,800.0	5,731.5	5,882.0	5,682.4	18.0	26.4	-12.63	1,462.4	381.8	1,391.7	1,359.9	31.82	43.740	
5,900.0	5,831.5	5,993.2	5,793.5	18.2	26.5	-12.56	1,466.7	382.7	1,395.3	1,363.1	32.22	43.309	
6,000.0	5,931.5	6,104.5	5,904.7	18.4	26.7	-12.54	1,469.4	382.5	1,397.7	1,365.1	32.59	42.884	
6,100.0	6,031.5	6,220.8	6,021.1	18.5	26.8	-12.54	1,471.0	382.0	1,399.2	1,366.2	32.96	42.452	
6,200.0	6,131.5	6,323.4	6,123.7	18.7	26.9	-12.56	1,471.7	381.5	1,400.0	1,366.7	33.30	42.047	
6,300.0	6,231.5	6,426.7	6,227.0	18.8	27.0	-12.57	1,472.3	381.0	1,400.6	1,367.0	33.64	41.641	
6,400.0	6,331.5	6,528.2	6,328.5	19.0	27.1	-12.58	1,472.7	380.8	1,401.0	1,367.0	33.97	41.239	
6,500.0	6,431.5	6,629.7	6,429.9	19.1	27.2	-12.59	1,473.0	380.4	1,401.4	1,367.1	34.31	40.846	
6,531.3	6,462.8	6,662.4	6,462.7	19.2	27.2	-12.60	1,473.0	380.2	1,401.5	1,367.1	34.42	40.722	
6,550.0	6,481.5	6,681.7	6,482.0	19.2	27.2	77.41	1,473.0	380.0	1,401.5	1,357.9	43.54	32.187	
6,600.0	6,531.4	6,733.2	6,533.4	19.3	27.3	77.57	1,473.0	379.7	1,400.9	1,357.2	43.61	32.119	
6,650.0	6,580.9	6,784.4	6,584.7	19.3	27.3	77.93	1,472.9	379.3	1,399.4	1,355.8	43.61	32.090	
6,700.0	6,629.9	6,835.4	6,635.6	19.3	27.4	78.49	1,472.8	378.9	1,397.3	1,353.8	43.54	32.095	
6,750.0	6,678.1	6,884.0	6,684.2	19.2	27.4	79.21	1,472.5	378.5	1,394.5	1,351.1	43.40	32.131	
6,800.0	6,725.2	6,930.8	6,731.0	19.2	27.5	80.09	1,472.3	378.0	1,391.2	1,348.0	43.21	32.194	
6,850.0	6,771.1	6,976.6	6,776.8	19.1	27.5	81.10	1,472.1	377.6	1,387.5	1,344.5	42.99	32.277	
6,900.0	6,815.4	7,021.1	6,821.3	19.0	27.5	82.24	1,472.0	377.2	1,383.6	1,340.9	42.74	32.376	
6,950.0	6,858.0	7,064.9	6,865.1	18.9	27.6	83.48	1,471.8	376.7	1,379.7	1,337.2	42.47	32.483	
7,000.0	6,898.7	7,107.4	6,907.6	18.9	27.6	84.80	1,471.6	376.4	1,375.8	1,333.6	42.21	32.590	
7,050.0	6,937.3	7,146.6	6,946.8	18.8	27.7	86.12	1,471.3	376.1	1,372.2	1,330.2	41.98	32.687	
7,100.0	6,973.6	7,182.1	6,982.2	18.8	27.7	87.37	1,471.1	375.9	1,369.2	1,327.4	41.79	32.762	
7,150.0	7,007.4	7,215.1	7,015.3	18.8	27.7	88.56	1,471.0	375.7	1,367.0	1,325.3	41.66	32.812	
7,200.0	7,038.5	7,246.0	7,046.2	18.9	27.7	89.67	1,470.9	375.6	1,365.7	1,324.1	41.60	32.827	
7,229.1	7,055.3	7,262.7	7,062.9	19.0	27.8	90.26	1,470.8	375.5	1,365.5	1,323.9	41.62	32.811	
7,250.0	7,066.8	7,274.2	7,074.4	19.0	27.8	90.65	1,470.8	375.5	1,365.6	1,324.0	41.63	32.800	
7,300.0	7,092.2	7,299.3	7,099.5	19.2	27.8	91.46	1,470.7	375.4	1,366.9	1,325.1	41.77	32.725	
7,350.0	7,114.5	7,321.3	7,121.5	19.5	27.8	92.06	1,470.6	375.4	1,369.6	1,327.6	42.01	32.599	
7,400.0	7,133.6	7,340.1	7,140.2	19.9	27.8	92.44	1,470.5	375.5	1,374.0	1,331.6	42.38	32.424	
7,450.0	7,149.5	7,355.6	7,155.8	20.3	27.9	92.56	1,470.5	375.5	1,380.1	1,337.2	42.85	32.206	
7,500.0	7,162.0	7,367.8	7,168.0	20.8	27.9	92.42	1,470.5	375.5	1,388.0	1,344.6	43.44	31.955	
7,550.0	7,171.1	7,376.6	7,176.8	21.4	27.9	91.99	1,470.4	375.5	1,397.7	1,353.6	44.11	31.687	
7,600.0	7,176.8	7,382.1	7,182.3	22.1	27.9	91.28	1,470.4	375.5	1,409.2	1,364.3	44.85	31.419	
7,650.0	7,179.0	7,384.1	7,184.3	22.8	27.9	90.27	1,470.4	375.5	1,422.4	1,376.7	45.63	31.170	
7,658.9	7,179.0	7,384.1	7,184.3	22.9	27.9	90.06	1,470.4	375.5	1,424.9	1,379.1	45.77	31.129	
7,700.0	7,178.9	7,383.9	7,184.1	23.5	27.9	90.05	1,470.4	375.5	1,437.2	1,390.8	46.41	30.969	
7,800.0	7,178.5	7,383.3	7,183.5	25.2	27.9	90.02	1,470.4	375.5	1,471.6	1,423.5	48.11	30.590	
7,900.0	7,178.1	7,382.8	7,183.0	27.1	27.9	90.00	1,470.4	375.5	1,511.8	1,461.8	49.99	30.242	
8,000.0	7,177.8	7,382.2	7,182.4	29.2	27.9	89.98	1,470.4	375.5	1,557.3	1,505.3	52.02	29.937	
8,100.0	7,177.4	7,381.7	7,181.9	31.3	27.9	89.95	1,470.4	375.5	1,607.9	1,553.7	54.17	29.680	
8,200.0	7,177.0	7,381.1	7,181.3	33.6	27.9	89.93	1,470.4	375.5	1,662.9	1,606.4	56.42	29.471	
8,300.0	7,176.7	7,380.6	7,180.8	35.9	27.9	89.91	1,470.4	375.5	1,721.9	1,663.2	58.75	29.308	
8,400.0	7,176.3	7,380.0	7,180.2	38.3	27.9	89.88	1,470.4	375.5	1,784.6	1,723.5	61.14	29.187	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS #21ODU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	7,379.5	7,179.7	40.7	27.9	89.86	1,470.4	375.5	1,850.6	1,787.0	63.59	29.102	
8,600.0	7,175.6	7,379.0	7,179.2	43.2	27.9	89.84	1,470.4	375.5	1,919.6	1,853.5	66.08	29.049	
8,700.0	7,175.2	7,378.4	7,178.6	45.7	27.9	89.82	1,470.4	375.5	1,991.1	1,922.5	68.61	29.022	
8,800.0	7,174.8	7,377.9	7,178.1	48.3	27.9	89.79	1,470.4	375.5	2,065.1	1,993.9	71.17	29.017	SF
8,900.0	7,174.5	7,377.4	7,177.5	50.9	27.9	89.77	1,470.4	375.5	2,141.1	2,067.4	73.75	29.032	
9,000.0	7,174.1	7,376.8	7,177.0	53.5	27.9	89.75	1,470.4	375.5	2,219.1	2,142.7	76.36	29.061	
9,100.0	7,173.7	7,376.3	7,176.5	56.1	27.9	89.73	1,470.4	375.5	2,298.7	2,219.8	78.98	29.104	
9,200.0	7,173.4	7,375.8	7,176.0	58.8	27.9	89.70	1,470.4	375.5	2,379.9	2,298.3	81.63	29.156	
9,300.0	7,173.0	7,375.2	7,175.4	61.4	27.9	89.68	1,470.4	375.5	2,462.5	2,378.2	84.29	29.216	
9,400.0	7,172.6	7,374.7	7,174.9	64.1	27.9	89.66	1,470.4	375.5	2,546.4	2,459.4	86.96	29.283	
9,500.0	7,172.3	7,374.2	7,174.4	66.8	27.9	89.64	1,470.4	375.5	2,631.3	2,541.7	89.64	29.354	
9,600.0	7,171.9	7,373.7	7,173.9	69.5	27.9	89.62	1,470.4	375.5	2,717.3	2,625.0	92.33	29.430	
9,700.0	7,171.6	7,373.2	7,173.3	72.2	27.9	89.60	1,470.4	375.5	2,804.2	2,709.2	95.03	29.508	
9,800.0	7,171.2	7,372.6	7,172.8	74.9	27.9	89.57	1,470.4	375.5	2,892.0	2,794.2	97.74	29.588	
9,900.0	7,170.8	7,372.1	7,172.3	77.6	27.9	89.55	1,470.4	375.5	2,980.5	2,880.0	100.46	29.669	
10,000.0	7,170.5	7,371.6	7,171.8	80.3	27.9	89.53	1,470.4	375.5	3,069.7	2,966.6	103.18	29.751	
10,100.0	7,170.1	7,371.1	7,171.3	83.0	27.9	89.51	1,470.4	375.5	3,159.6	3,053.7	105.91	29.834	
10,200.0	7,169.7	7,370.6	7,170.8	85.8	27.9	89.49	1,470.4	375.5	3,250.1	3,141.4	108.64	29.916	
10,300.0	7,169.4	7,370.1	7,170.3	88.5	27.9	89.47	1,470.4	375.5	3,341.1	3,229.7	111.38	29.998	
10,400.0	7,169.0	7,369.6	7,169.8	91.3	27.9	89.44	1,470.4	375.5	3,432.6	3,318.5	114.12	30.079	
10,500.0	7,168.6	7,369.1	7,169.3	94.0	27.9	89.42	1,470.4	375.5	3,524.6	3,407.7	116.87	30.159	
10,600.0	7,168.3	7,368.6	7,168.8	96.8	27.9	89.40	1,470.4	375.5	3,617.0	3,497.4	119.62	30.238	
10,700.0	7,167.9	7,368.1	7,168.3	99.5	27.9	89.38	1,470.5	375.5	3,709.8	3,587.4	122.37	30.317	
10,800.0	7,167.5	7,367.6	7,167.8	102.3	27.9	89.36	1,470.5	375.5	3,802.9	3,677.8	125.12	30.393	
10,900.0	7,167.2	7,367.1	7,167.3	105.0	27.9	89.34	1,470.5	375.5	3,896.4	3,768.6	127.88	30.469	
11,000.0	7,166.8	7,366.6	7,166.8	107.8	27.9	89.32	1,470.5	375.5	3,990.3	3,859.6	130.64	30.543	
11,100.0	7,166.4	7,366.1	7,166.3	110.5	27.9	89.30	1,470.5	375.5	4,084.4	3,951.0	133.41	30.616	
11,200.0	7,166.1	7,365.6	7,165.8	113.3	27.9	89.28	1,470.5	375.5	4,178.7	4,042.6	136.17	30.687	
11,300.0	7,165.7	7,365.1	7,165.3	116.1	27.9	89.26	1,470.5	375.5	4,273.4	4,134.4	138.94	30.757	
11,400.0	7,165.4	7,364.6	7,164.8	118.8	27.9	89.24	1,470.5	375.5	4,368.3	4,226.6	141.71	30.826	
11,500.0	7,165.0	7,364.1	7,164.3	121.6	27.9	89.22	1,470.5	375.5	4,463.4	4,318.9	144.48	30.893	
11,600.0	7,164.6	7,363.6	7,163.8	124.4	27.9	89.20	1,470.5	375.5	4,558.7	4,411.4	147.25	30.958	
11,700.0	7,164.3	7,363.1	7,163.3	127.2	27.9	89.18	1,470.5	375.5	4,654.2	4,504.1	150.03	31.022	
11,783.3	7,164.0	7,362.8	7,163.0	129.5	27.9	89.16	1,470.5	375.5	4,733.9	4,581.6	152.34	31.075	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-58.93	361.0	-599.2	699.6				
100.0	100.0	101.0	101.0	0.1	0.1	-58.94	361.0	-599.4	699.7	699.5	0.20	3,449.344	
200.0	200.0	199.5	199.5	0.3	0.2	-58.98	360.7	-599.9	700.0	699.5	0.53	1,319.096	ES
300.0	300.0	298.0	298.0	0.5	0.3	-59.04	360.4	-600.7	700.5	699.7	0.86	816.012	
400.0	400.0	396.5	396.5	0.8	0.4	-59.13	359.9	-601.9	701.3	700.1	1.19	591.150	
500.0	500.0	495.0	495.0	1.0	0.5	-59.23	359.2	-603.4	702.2	700.7	1.51	463.800	
600.0	600.0	593.4	593.4	1.2	0.6	-140.69	358.4	-605.2	704.8	702.9	1.84	381.991	
700.0	699.8	691.6	691.5	1.4	0.7	-141.04	357.5	-607.3	710.2	708.1	2.17	327.472	
800.0	799.5	810.4	810.2	1.7	1.0	-141.85	353.5	-609.8	717.2	714.6	2.64	271.311	
900.0	898.7	916.5	915.9	1.9	1.3	-143.10	344.8	-613.1	725.7	722.6	3.14	231.110	
1,000.0	997.5	1,040.4	1,038.6	2.2	1.6	-145.16	328.1	-616.2	734.4	730.7	3.74	196.460	
1,099.8	1,095.4	1,138.8	1,135.3	2.6	2.0	-147.20	310.0	-618.8	744.9	740.6	4.34	171.787	
1,100.0	1,095.6	1,139.0	1,135.4	2.6	2.0	-147.20	310.0	-618.8	745.0	740.6	4.34	171.746	
1,200.0	1,193.4	1,241.2	1,235.1	3.0	2.4	-149.75	287.4	-622.9	757.9	752.9	5.03	150.731	
1,300.0	1,291.3	1,338.3	1,328.7	3.4	2.9	-152.36	262.1	-627.1	771.3	765.5	5.76	133.962	
1,400.0	1,389.1	1,449.0	1,434.8	3.8	3.5	-155.39	230.8	-631.2	785.1	778.5	6.58	119.365	
1,500.0	1,486.9	1,528.5	1,510.5	4.2	3.9	-157.61	206.6	-634.1	800.0	792.8	7.27	110.057	
1,600.0	1,584.7	1,612.9	1,590.4	4.7	4.4	-159.99	179.8	-638.7	818.0	810.0	8.02	102.056	
1,700.0	1,682.5	1,722.8	1,694.3	5.1	5.1	-163.01	144.3	-644.2	837.4	828.5	8.87	94.405	
1,800.0	1,780.3	1,801.1	1,768.2	5.5	5.5	-165.07	118.8	-647.4	857.6	848.1	9.54	89.852	
1,900.0	1,878.2	1,906.4	1,867.5	6.0	6.1	-167.75	84.3	-652.1	879.8	869.5	10.35	84.993	
2,000.0	1,976.0	1,989.2	1,945.8	6.4	6.6	-169.74	57.3	-655.0	902.6	891.6	11.03	81.825	
2,100.0	2,073.8	2,093.3	2,044.1	6.9	7.2	-172.14	23.3	-658.8	926.9	915.0	11.83	78.364	
2,200.0	2,171.6	2,171.9	2,118.3	7.3	7.6	-173.88	-2.5	-661.3	952.0	939.5	12.49	76.226	
2,300.0	2,269.4	2,260.5	2,202.1	7.8	8.1	-175.73	-31.1	-665.1	979.2	966.0	13.19	74.216	
2,400.0	2,367.2	2,349.1	2,285.8	8.2	8.7	-177.50	-60.1	-668.8	1,007.3	993.4	13.92	72.369	
2,500.0	2,465.0	2,423.4	2,355.6	8.7	9.2	-178.96	-85.1	-672.3	1,037.2	1,022.6	14.59	71.107	
2,600.0	2,562.9	2,496.3	2,424.0	9.1	9.6	179.67	-109.8	-677.2	1,069.8	1,054.5	15.25	70.142	
2,700.0	2,660.7	2,588.9	2,510.5	9.6	10.2	177.97	-142.2	-683.6	1,103.6	1,087.6	16.02	68.871	
2,800.0	2,758.5	2,685.4	2,600.5	10.0	10.9	176.25	-176.5	-689.6	1,137.9	1,121.1	16.82	67.654	
2,900.0	2,856.3	2,786.3	2,694.6	10.5	11.5	174.55	-212.5	-694.9	1,172.2	1,154.5	17.62	66.542	
3,000.0	2,954.1	2,877.9	2,780.7	11.0	12.1	173.17	-243.5	-699.5	1,206.4	1,188.0	18.34	65.785	
3,100.0	3,051.9	2,955.7	2,853.8	11.4	12.6	172.06	-269.8	-704.0	1,241.9	1,222.9	19.00	65.368	
3,200.0	3,149.8	3,045.2	2,937.6	11.9	13.2	170.83	-300.7	-709.3	1,278.3	1,258.5	19.74	64.740	
3,300.0	3,247.6	3,141.2	3,027.7	12.3	13.8	169.59	-333.4	-715.0	1,315.1	1,294.6	20.49	64.186	
3,400.0	3,345.4	3,252.1	3,132.7	12.8	14.4	168.33	-368.8	-720.8	1,350.9	1,329.7	21.27	63.529	
3,500.0	3,443.2	3,335.3	3,211.4	13.2	14.9	167.45	-395.1	-725.2	1,387.2	1,365.2	21.93	63.259	
3,600.0	3,541.0	3,436.4	3,307.6	13.7	15.5	166.49	-425.9	-731.1	1,423.8	1,401.1	22.66	62.833	
3,700.0	3,638.8	3,546.9	3,413.1	14.1	16.0	165.53	-458.2	-736.2	1,459.2	1,435.8	23.41	62.328	
3,800.0	3,736.7	3,632.4	3,494.8	14.6	16.5	164.83	-483.1	-740.1	1,494.7	1,470.6	24.06	62.112	
3,836.5	3,772.4	3,662.0	3,523.1	14.8	16.7	164.60	-491.6	-741.6	1,507.8	1,483.5	24.30	62.059	
3,900.0	3,834.6	3,714.4	3,573.2	15.0	17.0	164.32	-506.8	-744.4	1,530.3	1,505.5	24.77	61.781	
4,000.0	3,933.2	3,794.5	3,649.7	15.3	17.4	163.91	-529.7	-749.3	1,563.8	1,538.3	25.45	61.451	
4,100.0	4,032.3	3,872.0	3,723.5	15.6	17.9	163.49	-553.0	-754.7	1,595.6	1,569.5	26.09	61.163	
4,200.0	4,131.8	3,958.1	3,805.1	15.8	18.4	162.96	-579.6	-761.0	1,625.2	1,598.4	26.73	60.800	
4,300.0	4,231.5	4,067.1	3,908.6	16.0	19.0	162.21	-613.3	-768.0	1,651.2	1,623.7	27.43	60.205	
4,400.0	4,331.5	4,162.5	3,999.1	16.1	19.5	161.55	-642.7	-773.8	1,673.8	1,645.8	28.02	59.747	
4,436.3	4,367.8	4,198.8	4,033.6	16.2	19.8	-117.44	-653.7	-776.1	1,681.3	1,651.1	30.17	55.730	
4,500.0	4,431.5	4,261.7	4,093.5	16.2	20.1	-117.96	-672.7	-779.9	1,694.1	1,663.5	30.57	55.425	
4,600.0	4,531.5	4,355.9	4,183.4	16.4	20.6	-118.68	-700.1	-786.3	1,714.3	1,683.2	31.17	54.996	
4,700.0	4,631.5	4,446.1	4,269.5	16.5	21.1	-119.35	-726.2	-792.8	1,735.1	1,703.3	31.77	54.608	
4,800.0	4,731.5	4,543.6	4,362.4	16.6	21.7	-120.08	-754.9	-799.3	1,756.0	1,723.6	32.43	54.148	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,619.0	4,434.0	16.8	22.1	-120.66	-778.1	-804.3	1,777.9	1,744.9	32.98	53.904	
5,000.0	4,931.5	4,803.3	4,610.0	16.9	23.2	-121.99	-831.7	-814.2	1,798.2	1,764.1	34.06	52.787	
5,100.0	5,031.5	4,951.1	4,752.7	17.0	23.9	-122.97	-869.8	-817.4	1,813.8	1,779.0	34.87	52.016	
5,200.0	5,131.5	5,067.0	4,865.0	17.2	24.4	-123.70	-898.6	-819.6	1,829.4	1,793.8	35.52	51.497	
5,300.0	5,231.5	5,251.3	5,045.7	17.3	25.1	-124.59	-934.9	-822.7	1,842.1	1,805.8	36.35	50.679	
5,400.0	5,331.5	5,382.0	5,174.9	17.5	25.6	-125.05	-954.0	-824.1	1,851.3	1,814.4	36.89	50.183	
5,500.0	5,431.5	5,510.5	5,302.6	17.6	25.9	-125.39	-968.8	-826.1	1,859.3	1,821.9	37.38	49.738	
5,600.0	5,531.5	5,663.6	5,455.2	17.7	26.2	-125.61	-979.8	-829.0	1,865.1	1,827.2	37.86	49.265	
5,700.0	5,631.5	5,804.6	5,596.2	17.9	26.4	-125.63	-982.4	-831.7	1,867.5	1,829.3	38.22	48.866	
5,800.0	5,731.5	5,912.0	5,703.6	18.0	26.5	-125.59	-982.4	-834.2	1,869.4	1,830.9	38.51	48.548	
5,900.0	5,831.5	6,018.8	5,810.3	18.2	26.6	-125.55	-982.4	-836.0	1,870.8	1,832.0	38.79	48.228	
6,000.0	5,931.5	6,122.1	5,913.6	18.4	26.7	-125.53	-982.5	-837.4	1,872.0	1,832.9	39.08	47.908	
6,100.0	6,031.5	6,224.6	6,016.1	18.5	26.8	-125.52	-982.7	-838.6	1,873.0	1,833.6	39.36	47.586	
6,200.0	6,131.5	6,323.9	6,115.4	18.7	26.9	-125.51	-983.1	-839.5	1,874.0	1,834.4	39.65	47.269	
6,300.0	6,231.5	6,428.0	6,219.5	18.8	27.0	-125.51	-983.6	-840.3	1,874.9	1,835.0	39.94	46.945	
6,400.0	6,331.5	6,532.8	6,324.3	19.0	27.1	-125.50	-983.8	-841.0	1,875.5	1,835.3	40.23	46.620	
6,500.0	6,431.5	6,631.3	6,422.8	19.1	27.2	-125.49	-983.8	-841.6	1,876.0	1,835.5	40.52	46.304	
6,531.3	6,462.8	6,660.7	6,452.2	19.2	27.2	-125.48	-983.8	-841.8	1,876.2	1,835.6	40.60	46.208	
6,550.0	6,481.5	6,678.2	6,469.7	19.2	27.2	-35.49	-983.8	-842.0	1,876.2	1,838.3	37.86	49.560	
6,600.0	6,531.4	6,724.5	6,516.0	19.3	27.3	-35.63	-983.8	-842.4	1,874.1	1,836.2	37.89	49.467	
6,650.0	6,580.9	6,771.6	6,563.0	19.3	27.3	-35.96	-983.9	-843.0	1,869.3	1,831.6	37.76	49.499	
6,700.0	6,629.9	6,823.4	6,614.8	19.3	27.4	-36.51	-984.2	-843.5	1,861.7	1,824.2	37.51	49.634	
6,750.0	6,678.1	6,872.9	6,664.4	19.2	27.4	-37.27	-984.4	-843.8	1,851.4	1,814.2	37.13	49.868	
6,800.0	6,725.2	6,919.1	6,710.6	19.2	27.5	-38.23	-984.7	-844.2	1,838.3	1,801.7	36.63	50.180	
6,850.0	6,771.1	6,964.8	6,756.3	19.1	27.5	-39.42	-984.8	-844.6	1,822.8	1,786.7	36.07	50.541	
6,900.0	6,815.4	7,010.3	6,801.7	19.0	27.6	-40.88	-984.9	-845.0	1,804.7	1,769.3	35.45	50.907	
6,950.0	6,858.0	7,054.4	6,845.9	18.9	27.6	-42.60	-985.1	-845.4	1,784.3	1,749.5	34.83	51.226	
7,000.0	6,898.7	7,097.9	6,889.3	18.9	27.7	-44.62	-985.2	-845.7	1,761.8	1,727.5	34.26	51.423	
7,050.0	6,937.3	7,138.8	6,930.3	18.8	27.7	-46.94	-985.2	-846.0	1,737.1	1,703.4	33.79	51.417	
7,100.0	6,973.6	7,174.8	6,966.2	18.8	27.8	-49.51	-985.1	-846.3	1,710.7	1,677.2	33.45	51.135	
7,150.0	7,007.4	7,208.2	6,999.7	18.8	27.8	-52.39	-985.2	-846.6	1,682.7	1,649.3	33.32	50.496	
7,200.0	7,038.5	7,240.3	7,031.8	18.9	27.8	-55.60	-985.2	-846.8	1,653.3	1,619.8	33.43	49.450	
7,250.0	7,066.8	7,271.3	7,062.7	19.0	27.9	-59.16	-985.2	-847.0	1,622.7	1,588.8	33.80	48.003	
7,300.0	7,092.2	7,299.0	7,090.5	19.2	27.9	-62.96	-985.2	-847.1	1,591.1	1,556.7	34.41	46.240	
7,350.0	7,114.5	7,323.2	7,114.7	19.5	27.9	-66.94	-985.1	-847.3	1,558.9	1,523.7	35.20	44.283	
7,400.0	7,133.6	7,343.0	7,134.5	19.9	27.9	-70.99	-985.1	-847.3	1,526.2	1,490.1	36.10	42.272	
7,450.0	7,149.5	7,359.4	7,150.8	20.3	28.0	-75.05	-985.1	-847.4	1,493.5	1,456.4	37.05	40.312	
7,500.0	7,162.0	7,372.3	7,163.7	20.8	28.0	-79.03	-985.0	-847.4	1,460.8	1,422.9	37.96	38.480	
7,550.0	7,171.1	7,381.7	7,173.1	21.4	28.0	-82.84	-985.0	-847.4	1,428.6	1,389.8	38.80	36.816	
7,600.0	7,176.8	7,387.5	7,178.9	22.1	28.0	-86.38	-985.0	-847.4	1,397.0	1,357.5	39.55	35.324	
7,650.0	7,179.0	7,389.8	7,181.2	22.8	28.0	-89.60	-985.0	-847.4	1,366.3	1,326.2	40.20	33.990	
7,658.9	7,179.0	7,389.8	7,181.2	22.9	28.0	-90.14	-985.0	-847.4	1,361.0	1,320.7	40.31	33.766	
7,700.0	7,178.9	7,389.7	7,181.1	23.5	28.0	-90.14	-985.0	-847.4	1,336.8	1,295.9	40.94	32.652	
7,800.0	7,178.5	7,389.4	7,180.9	25.2	28.0	-90.12	-985.0	-847.4	1,281.6	1,238.9	42.64	30.056	
7,900.0	7,178.1	7,389.2	7,180.6	27.1	28.0	-90.11	-985.0	-847.4	1,231.9	1,187.4	44.52	27.671	
8,000.0	7,177.8	7,388.9	7,180.4	29.2	28.0	-90.10	-985.0	-847.4	1,188.7	1,142.1	46.55	25.534	
8,100.0	7,177.4	7,388.7	7,180.2	31.3	28.0	-90.09	-985.0	-847.4	1,152.5	1,103.8	48.71	23.663	
8,200.0	7,177.0	7,388.5	7,179.9	33.6	28.0	-90.07	-985.0	-847.4	1,124.1	1,073.1	50.96	22.060	
8,300.0	7,176.7	7,388.2	7,179.7	35.9	28.0	-90.06	-985.0	-847.4	1,104.0	1,050.8	53.28	20.720	
8,400.0	7,176.3	7,388.0	7,179.4	38.3	28.0	-90.05	-985.0	-847.4	1,092.8	1,037.1	55.68	19.627	
8,473.5	7,176.0	7,387.8	7,179.3	40.1	28.0	-90.04	-985.0	-847.4	1,090.3	1,032.9	57.47	18.971	
8,500.0	7,175.9	7,387.7	7,179.2	40.7	28.0	-90.04	-985.0	-847.4	1,090.7	1,032.5	58.12	18.764	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21LDU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 703-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	7,387.5	7,179.0	43.2	28.0	-90.02	-985.0	-847.4	1,097.7	1,037.0	60.61	18.109	
8,700.0	7,175.2	7,387.3	7,178.7	45.7	28.0	-90.01	-985.0	-847.4	1,113.6	1,050.5	63.14	17.637	
8,800.0	7,174.8	7,387.1	7,178.5	48.3	28.0	-90.00	-985.0	-847.4	1,138.2	1,072.5	65.70	17.324	
8,900.0	7,174.5	7,386.8	7,178.3	50.9	28.0	-89.99	-985.0	-847.4	1,170.8	1,102.5	68.28	17.146	
9,000.0	7,174.1	7,386.6	7,178.1	53.5	28.0	-89.98	-985.0	-847.4	1,210.8	1,139.9	70.89	17.080 SF	
9,100.0	7,173.7	7,386.4	7,177.8	56.1	28.0	-89.96	-985.0	-847.4	1,257.5	1,184.0	73.52	17.105	
9,200.0	7,173.4	7,386.2	7,177.6	58.8	28.0	-89.95	-985.0	-847.4	1,310.2	1,234.1	76.16	17.203	
9,300.0	7,173.0	7,386.0	7,177.4	61.4	28.0	-89.94	-985.0	-847.4	1,368.2	1,289.4	78.82	17.358	
9,400.0	7,172.6	7,385.7	7,177.2	64.1	28.0	-89.93	-985.0	-847.4	1,430.8	1,349.3	81.49	17.558	
9,500.0	7,172.3	7,385.5	7,177.0	66.8	28.0	-89.92	-985.0	-847.4	1,497.5	1,413.4	84.17	17.791	
9,600.0	7,171.9	7,385.3	7,176.8	69.5	28.0	-89.91	-985.0	-847.4	1,567.8	1,480.9	86.87	18.048	
9,700.0	7,171.6	7,385.1	7,176.6	72.2	28.0	-89.90	-985.0	-847.4	1,641.1	1,551.5	89.57	18.322	
9,800.0	7,171.2	7,384.9	7,176.4	74.9	28.0	-89.89	-985.0	-847.4	1,717.1	1,624.8	92.28	18.608	
9,900.0	7,170.8	7,384.7	7,176.2	77.6	28.0	-89.88	-985.0	-847.4	1,795.5	1,700.5	94.99	18.901	
10,000.0	7,170.5	7,384.5	7,175.9	80.3	28.0	-89.86	-985.0	-847.4	1,875.9	1,778.2	97.72	19.198	
10,100.0	7,170.1	7,384.3	7,175.7	83.0	28.0	-89.85	-985.0	-847.4	1,958.2	1,857.7	100.44	19.495	
10,200.0	7,169.7	7,384.1	7,175.5	85.8	28.0	-89.84	-985.0	-847.4	2,042.0	1,938.8	103.18	19.791	
10,300.0	7,169.4	7,383.9	7,175.4	88.5	28.0	-89.83	-985.0	-847.4	2,127.2	2,021.3	105.92	20.084	
10,400.0	7,169.0	7,383.7	7,175.2	91.3	28.0	-89.82	-985.0	-847.4	2,213.7	2,105.0	108.66	20.373	
10,500.0	7,168.6	7,383.5	7,175.0	94.0	28.0	-89.81	-985.0	-847.4	2,301.2	2,189.8	111.40	20.657	
10,600.0	7,168.3	7,383.3	7,174.8	96.8	28.0	-89.80	-985.0	-847.4	2,389.8	2,275.6	114.15	20.934	
10,700.0	7,167.9	7,383.1	7,174.6	99.5	28.0	-89.79	-985.0	-847.4	2,479.2	2,362.3	116.91	21.206	
10,800.0	7,167.5	7,382.9	7,174.4	102.3	28.0	-89.78	-985.0	-847.4	2,569.4	2,449.7	119.66	21.471	
10,900.0	7,167.2	7,382.7	7,174.2	105.0	28.0	-89.77	-985.0	-847.4	2,660.2	2,537.8	122.42	21.730	
11,000.0	7,166.8	7,382.6	7,174.0	107.8	28.0	-89.76	-985.0	-847.4	2,751.8	2,626.6	125.18	21.982	
11,100.0	7,166.4	7,382.4	7,173.8	110.5	28.0	-89.75	-985.0	-847.4	2,843.9	2,715.9	127.95	22.227	
11,200.0	7,166.1	7,382.2	7,173.6	113.3	28.0	-89.74	-985.0	-847.4	2,936.5	2,805.7	130.71	22.465	
11,300.0	7,165.7	7,382.0	7,173.5	116.1	28.0	-89.73	-985.0	-847.4	3,029.5	2,896.1	133.48	22.696	
11,400.0	7,165.4	7,381.8	7,173.3	118.8	28.0	-89.72	-985.0	-847.4	3,123.0	2,986.8	136.25	22.921	
11,500.0	7,165.0	7,381.6	7,173.1	121.6	28.0	-89.71	-985.0	-847.4	3,216.9	3,077.9	139.02	23.139	
11,600.0	7,164.6	7,381.5	7,172.9	124.4	28.0	-89.71	-985.0	-847.4	3,311.2	3,169.4	141.80	23.352	
11,700.0	7,164.3	7,381.3	7,172.8	127.2	28.0	-89.70	-985.0	-847.4	3,405.8	3,261.2	144.57	23.558	
11,783.3	7,164.0	7,381.2	7,172.6	129.5	28.0	-89.69	-985.0	-847.4	3,484.8	3,337.9	146.89	23.725	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 148-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-54.17	419.3	-580.8	716.3				
100.0	100.0	103.6	103.6	0.1	0.1	-54.21	418.9	-581.0	716.3	716.1	0.17	4,126.025	
200.0	200.0	204.9	204.8	0.3	0.2	-54.30	417.8	-581.5	716.0	715.5	0.56	1,284.232	
300.0	300.0	323.7	323.7	0.5	0.5	-54.43	415.7	-581.1	714.8	713.7	1.04	686.916	
400.0	400.0	470.0	469.7	0.8	0.8	-54.51	409.4	-574.3	708.5	706.9	1.61	440.113	
500.0	500.0	605.8	604.4	1.0	1.2	-54.57	399.3	-561.3	696.3	694.1	2.23	312.815	
600.0	600.0	722.7	719.8	1.2	1.6	-136.37	386.5	-547.3	681.4	678.8	2.67	255.642	
700.0	699.8	834.0	829.1	1.4	2.1	-137.48	369.9	-535.0	667.6	664.5	3.15	211.672	
800.0	799.5	969.4	960.7	1.7	2.7	-139.45	343.7	-517.2	652.3	648.5	3.78	172.784	
900.0	898.7	1,103.8	1,089.2	1.9	3.5	-142.03	311.6	-494.4	634.3	629.8	4.49	141.273	
1,000.0	997.5	1,214.2	1,193.0	2.2	4.2	-144.81	280.5	-473.2	615.4	610.2	5.21	118.227	
1,099.8	1,095.4	1,312.6	1,285.2	2.6	4.8	-147.60	252.1	-453.5	599.6	593.7	5.91	101.397	
1,100.0	1,095.6	1,312.8	1,285.4	2.6	4.8	-147.61	252.1	-453.5	599.6	593.6	5.91	101.368	
1,200.0	1,193.4	1,403.2	1,370.1	3.0	5.4	-150.05	227.1	-434.4	586.1	579.5	6.60	88.736	
1,300.0	1,291.3	1,491.9	1,453.9	3.4	5.9	-152.47	203.8	-416.8	575.4	568.1	7.30	78.826	
1,400.0	1,389.1	1,590.5	1,546.9	3.8	6.5	-155.31	177.3	-397.5	566.3	558.2	8.11	69.826	
1,500.0	1,486.9	1,686.7	1,637.0	4.2	7.2	-158.36	149.5	-378.8	558.0	549.1	8.97	62.234	
1,600.0	1,584.7	1,788.7	1,732.5	4.7	7.8	-161.70	119.6	-358.8	551.3	541.4	9.89	55.736	
1,700.0	1,682.5	1,894.6	1,830.9	5.1	8.6	-165.27	88.2	-335.9	544.3	533.4	10.90	49.934	
1,800.0	1,780.3	1,983.6	1,913.7	5.5	9.2	-168.25	62.4	-315.8	538.6	526.8	11.80	45.650	
1,900.0	1,878.2	2,075.2	1,999.2	6.0	9.8	-171.38	35.7	-296.4	535.9	523.1	12.75	42.039	
1,974.5	1,951.0	2,145.1	2,064.1	6.3	10.3	-173.91	14.2	-281.7	535.3	521.8	13.52	39.589	CC
2,000.0	1,976.0	2,169.2	2,086.4	6.4	10.5	-174.78	6.8	-276.7	535.4	521.6	13.80	38.805	ES
2,100.0	2,073.8	2,263.6	2,174.1	6.9	11.1	-178.15	-21.9	-256.9	536.9	522.1	14.86	36.136	
2,200.0	2,171.6	2,357.5	2,261.8	7.3	11.8	178.62	-49.5	-237.2	540.5	524.6	15.90	33.987	
2,300.0	2,269.4	2,457.6	2,354.8	7.8	12.5	175.18	-79.5	-216.0	545.8	528.7	17.06	31.990	
2,400.0	2,367.2	2,540.3	2,431.3	8.2	13.1	172.26	-105.4	-198.2	553.1	535.0	18.11	30.537	
2,500.0	2,465.0	2,632.5	2,515.9	8.7	13.8	168.88	-136.9	-179.4	564.3	545.0	19.32	29.207	
2,600.0	2,562.9	2,725.7	2,600.0	9.1	14.6	165.26	-171.5	-159.0	577.2	556.6	20.63	27.985	
2,700.0	2,660.7	2,816.9	2,682.0	9.6	15.4	161.82	-205.8	-138.9	592.7	570.8	21.89	27.071	
2,800.0	2,758.5	2,905.4	2,762.3	10.0	16.0	158.77	-238.0	-120.1	610.6	587.6	23.05	26.492	
2,900.0	2,856.3	3,002.7	2,851.6	10.5	16.8	155.82	-271.4	-100.8	630.6	606.3	24.25	26.003	
3,000.0	2,954.1	3,100.2	2,940.4	11.0	17.6	152.89	-305.7	-79.6	651.0	625.5	25.50	25.527	
3,100.0	3,051.9	3,219.0	3,048.6	11.4	18.5	149.52	-346.3	-52.0	671.5	644.5	26.92	24.939	
3,200.0	3,149.8	3,303.6	3,126.6	11.9	19.1	147.45	-372.8	-32.5	691.6	663.6	27.93	24.759	
3,300.0	3,247.6	3,399.3	3,215.4	12.3	19.8	145.36	-402.0	-11.9	713.3	684.3	29.02	24.581	
3,400.0	3,345.4	3,513.7	3,321.6	12.8	20.6	143.03	-435.4	13.9	734.4	704.1	30.23	24.293	
3,500.0	3,443.2	3,609.4	3,410.7	13.2	21.3	141.21	-462.4	36.2	755.1	723.8	31.29	24.132	
3,600.0	3,541.0	3,710.1	3,504.7	13.7	22.0	139.46	-489.7	59.5	775.8	743.5	32.35	23.980	
3,700.0	3,638.8	3,798.0	3,587.2	14.1	22.5	138.09	-513.1	79.0	797.4	764.1	33.28	23.957	SF
3,800.0	3,736.7	3,872.0	3,657.0	14.6	23.0	137.07	-532.9	93.9	820.8	786.7	34.11	24.066	
3,836.5	3,772.4	3,903.3	3,686.4	14.8	23.2	136.65	-541.6	99.8	830.0	795.6	34.44	24.097	
3,900.0	3,834.6	3,947.3	3,727.5	15.0	23.5	136.24	-554.8	108.2	846.6	811.6	35.00	24.189	
4,000.0	3,933.2	4,038.6	3,812.4	15.3	24.1	135.15	-583.8	125.7	872.5	836.6	35.93	24.282	
4,100.0	4,032.3	4,156.9	3,922.0	15.6	25.0	133.42	-620.7	150.5	895.3	858.3	37.01	24.194	
4,200.0	4,131.8	4,245.1	4,003.5	15.8	25.7	132.06	-647.9	170.4	915.5	877.7	37.83	24.198	
4,300.0	4,231.5	4,350.0	4,101.4	16.0	26.4	130.45	-678.7	192.1	933.9	895.2	38.64	24.169	
4,400.0	4,331.5	4,432.0	4,178.0	16.1	26.9	129.18	-702.7	208.8	951.1	911.9	39.25	24.231	
4,436.3	4,367.8	4,467.0	4,210.5	16.2	27.2	-150.14	-713.3	216.0	957.3	928.1	29.19	32.796	
4,500.0	4,431.5	4,529.3	4,268.5	16.2	27.6	-151.40	-732.1	229.3	968.0	938.3	29.73	32.562	
4,600.0	4,531.5	4,629.0	4,361.4	16.4	28.3	-153.32	-761.4	250.4	985.2	954.6	30.60	32.191	
4,700.0	4,631.5	4,711.0	4,437.3	16.5	28.9	-154.91	-786.6	268.3	1,004.3	972.9	31.40	31.986	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 148-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	4,789.6	4,509.8	16.6	29.5	-156.41	-811.8	285.5	1,025.5	993.3	32.21	31.844	
4,900.0	4,831.5	4,888.3	4,601.3	16.8	30.2	-158.15	-842.8	305.7	1,047.6	1,014.5	33.17	31.586	
5,000.0	4,931.5	5,000.5	4,706.8	16.9	30.9	-159.81	-875.4	325.4	1,069.3	1,035.1	34.19	31.279	
5,100.0	5,031.5	5,084.0	4,785.9	17.0	31.4	-160.90	-898.9	338.2	1,091.3	1,056.3	34.97	31.207	
5,200.0	5,131.5	5,217.7	4,913.1	17.2	32.2	-162.52	-934.8	358.3	1,112.6	1,076.5	36.09	30.831	
5,300.0	5,231.5	5,370.2	5,060.4	17.3	33.0	-163.99	-968.5	377.9	1,130.5	1,093.3	37.19	30.397	
5,400.0	5,331.5	5,512.7	5,200.4	17.5	33.5	-164.96	-992.0	391.2	1,144.0	1,106.0	38.04	30.075	
5,500.0	5,431.5	5,668.2	5,354.6	17.6	33.9	-165.67	-1,009.6	401.1	1,153.5	1,114.7	38.77	29.754	
5,600.0	5,531.5	5,827.9	5,513.8	17.7	34.2	-166.08	-1,018.1	407.6	1,157.5	1,118.2	39.31	29.448	
5,700.0	5,631.5	5,944.5	5,630.4	17.9	34.3	-166.24	-1,019.8	410.3	1,158.3	1,118.7	39.66	29.208	
5,800.0	5,731.5	6,038.7	5,724.6	18.0	34.4	-166.23	-1,020.3	410.1	1,158.9	1,119.0	39.94	29.019	
5,900.0	5,831.5	6,135.9	5,821.8	18.2	34.5	-166.17	-1,020.9	408.7	1,159.9	1,119.7	40.21	28.844	
6,000.0	5,931.5	6,234.2	5,920.1	18.4	34.6	-166.12	-1,021.7	407.4	1,161.0	1,120.5	40.49	28.670	
6,100.0	6,031.5	6,334.8	6,020.6	18.5	34.6	-166.05	-1,022.6	405.8	1,162.2	1,121.5	40.78	28.501	
6,200.0	6,131.5	6,438.8	6,124.6	18.7	34.7	-166.01	-1,023.3	404.7	1,163.2	1,122.1	41.07	28.321	
6,300.0	6,231.5	6,537.2	6,223.1	18.8	34.8	-165.98	-1,024.0	404.0	1,164.0	1,122.6	41.36	28.140	
6,400.0	6,331.5	6,637.2	6,323.1	19.0	34.9	-165.96	-1,024.8	403.3	1,165.0	1,123.3	41.66	27.962	
6,500.0	6,431.5	6,739.7	6,425.5	19.1	35.0	-165.95	-1,025.6	402.9	1,165.8	1,123.9	41.97	27.778	
6,531.3	6,462.8	6,771.5	6,457.3	19.2	35.0	-165.95	-1,025.8	402.8	1,166.0	1,124.0	42.06	27.720	
6,550.0	6,481.5	6,790.2	6,476.0	19.2	35.0	-75.96	-1,026.0	402.8	1,166.1	1,118.8	47.28	24.666	
6,600.0	6,531.4	6,840.1	6,525.9	19.3	35.0	-76.13	-1,026.3	402.6	1,165.7	1,118.4	47.33	24.629	
6,650.0	6,580.9	6,888.7	6,574.5	19.3	35.1	-76.52	-1,026.6	402.5	1,164.5	1,117.2	47.28	24.629	
6,700.0	6,629.9	6,936.3	6,622.1	19.3	35.1	-77.11	-1,026.9	402.2	1,162.6	1,115.5	47.14	24.663	
6,750.0	6,678.1	6,984.2	6,670.0	19.2	35.2	-77.92	-1,027.3	401.9	1,160.1	1,113.2	46.91	24.729	
6,800.0	6,725.2	7,031.4	6,717.3	19.2	35.2	-78.91	-1,027.7	401.5	1,157.0	1,110.4	46.61	24.822	
6,850.0	6,771.1	7,076.4	6,762.2	19.1	35.2	-80.05	-1,028.0	401.2	1,153.6	1,107.3	46.27	24.934	
6,900.0	6,815.4	7,119.5	6,805.3	19.0	35.3	-81.30	-1,028.4	400.9	1,150.0	1,104.1	45.88	25.062	
6,950.0	6,858.0	7,163.5	6,849.3	18.9	35.3	-82.72	-1,028.9	400.6	1,146.4	1,100.9	45.48	25.207	
7,000.0	6,898.7	7,207.2	6,893.0	18.9	35.4	-84.25	-1,029.2	400.3	1,142.8	1,097.8	45.07	25.359	
7,050.0	6,937.3	7,246.8	6,932.6	18.8	35.4	-85.75	-1,029.4	399.8	1,139.7	1,095.0	44.69	25.500	
7,100.0	6,973.6	7,281.9	6,967.7	18.8	35.4	-87.14	-1,029.6	399.5	1,137.2	1,092.9	44.38	25.622	
7,150.0	7,007.4	7,314.4	7,000.2	18.8	35.4	-88.46	-1,029.9	399.3	1,135.8	1,091.6	44.15	25.727	
7,187.5	7,031.0	7,339.1	7,024.9	18.9	35.5	-89.45	-1,030.1	399.1	1,135.4	1,091.4	44.02	25.793	
7,200.0	7,038.5	7,347.2	7,033.0	18.9	35.5	-89.78	-1,030.1	399.1	1,135.5	1,091.5	43.98	25.816	
7,250.0	7,066.8	7,378.0	7,063.8	19.0	35.5	-90.97	-1,030.3	398.9	1,136.5	1,092.6	43.92	25.875	
7,300.0	7,092.2	7,405.5	7,091.3	19.2	35.5	-91.95	-1,030.4	398.8	1,139.1	1,095.1	43.99	25.894	
7,350.0	7,114.5	7,428.2	7,114.0	19.5	35.6	-92.62	-1,030.5	398.7	1,143.4	1,099.2	44.21	25.865	
7,400.0	7,133.6	7,446.8	7,132.6	19.9	35.6	-92.98	-1,030.6	398.6	1,149.7	1,105.2	44.57	25.794	
7,450.0	7,149.5	7,462.1	7,147.9	20.3	35.6	-93.03	-1,030.6	398.6	1,158.1	1,113.0	45.08	25.691	
7,500.0	7,162.0	7,474.2	7,160.0	20.8	35.6	-92.77	-1,030.7	398.6	1,168.5	1,122.8	45.70	25.568	
7,550.0	7,171.1	7,483.0	7,168.8	21.4	35.6	-92.17	-1,030.7	398.6	1,181.0	1,134.6	46.43	25.439	
7,600.0	7,176.8	7,488.5	7,174.3	22.1	35.6	-91.22	-1,030.7	398.5	1,195.6	1,148.4	47.21	25.323	
7,650.0	7,179.0	7,490.6	7,176.4	22.8	35.6	-89.93	-1,030.7	398.5	1,212.1	1,164.1	48.02	25.240	
7,658.9	7,179.0	7,490.6	7,176.4	22.9	35.6	-89.66	-1,030.7	398.5	1,215.2	1,167.1	48.16	25.230	
7,700.0	7,178.9	7,490.5	7,176.3	23.5	35.6	-89.66	-1,030.7	398.5	1,230.4	1,181.6	48.80	25.214	
7,800.0	7,178.5	7,490.2	7,176.0	25.2	35.6	-89.64	-1,030.7	398.5	1,272.2	1,221.7	50.50	25.193	
7,900.0	7,178.1	7,489.9	7,175.7	27.1	35.6	-89.63	-1,030.7	398.5	1,320.2	1,267.8	52.38	25.204	
8,000.0	7,177.8	7,489.7	7,175.5	29.2	35.6	-89.62	-1,030.7	398.5	1,373.8	1,319.4	54.41	25.249	
8,100.0	7,177.4	7,489.4	7,175.2	31.3	35.6	-89.60	-1,030.7	398.5	1,432.4	1,375.9	56.56	25.324	
8,200.0	7,177.0	7,489.1	7,174.9	33.6	35.6	-89.59	-1,030.7	398.5	1,495.5	1,436.6	58.81	25.427	
8,300.0	7,176.7	7,488.9	7,174.7	35.9	35.6	-89.58	-1,030.7	398.5	1,562.3	1,501.2	61.14	25.552	
8,400.0	7,176.3	7,488.6	7,174.4	38.3	35.6	-89.56	-1,030.7	398.5	1,632.6	1,569.1	63.54	25.696	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 21QDU - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 usft

Survey Program: 148-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	7,488.4	7,174.2	40.7	35.6	-89.55	-1,030.7	398.5	1,705.8	1,639.9	65.98	25.853	
8,600.0	7,175.6	7,488.1	7,173.9	43.2	35.6	-89.54	-1,030.7	398.5	1,781.7	1,713.2	68.47	26.021	
8,700.0	7,175.2	7,487.8	7,173.6	45.7	35.6	-89.52	-1,030.7	398.5	1,859.8	1,788.8	71.00	26.195	
8,800.0	7,174.8	7,487.6	7,173.4	48.3	35.6	-89.51	-1,030.7	398.5	1,939.9	1,866.4	73.56	26.373	
8,900.0	7,174.5	7,487.3	7,173.1	50.9	35.6	-89.50	-1,030.7	398.5	2,021.8	1,945.7	76.14	26.554	
9,000.0	7,174.1	7,487.1	7,172.9	53.5	35.6	-89.49	-1,030.7	398.5	2,105.3	2,026.6	78.75	26.735	
9,100.0	7,173.7	7,486.9	7,172.7	56.1	35.6	-89.47	-1,030.7	398.5	2,190.2	2,108.8	81.38	26.915	
9,200.0	7,173.4	7,486.6	7,172.4	58.8	35.6	-89.46	-1,030.7	398.5	2,276.3	2,192.2	84.02	27.092	
9,300.0	7,173.0	7,486.4	7,172.2	61.4	35.6	-89.45	-1,030.7	398.5	2,363.4	2,276.8	86.68	27.267	
9,400.0	7,172.6	7,486.1	7,171.9	64.1	35.6	-89.44	-1,030.7	398.5	2,451.6	2,362.3	89.35	27.439	
9,500.0	7,172.3	7,485.9	7,171.7	66.8	35.6	-89.43	-1,030.7	398.5	2,540.6	2,448.6	92.03	27.607	
9,600.0	7,171.9	7,485.7	7,171.5	69.5	35.6	-89.41	-1,030.7	398.5	2,630.5	2,535.7	94.72	27.770	
9,700.0	7,171.6	7,485.4	7,171.2	72.2	35.6	-89.40	-1,030.7	398.5	2,721.0	2,623.6	97.42	27.930	
9,800.0	7,171.2	7,485.2	7,171.0	74.9	35.6	-89.39	-1,030.7	398.5	2,812.2	2,712.0	100.13	28.085	
9,900.0	7,170.8	7,485.0	7,170.8	77.6	35.6	-89.38	-1,030.7	398.5	2,903.9	2,801.1	102.85	28.235	
10,000.0	7,170.5	7,484.7	7,170.5	80.3	35.6	-89.37	-1,030.7	398.5	2,996.2	2,890.7	105.57	28.381	
10,100.0	7,170.1	7,484.5	7,170.3	83.0	35.6	-89.36	-1,030.7	398.5	3,089.0	2,980.7	108.30	28.523	
10,200.0	7,169.7	7,484.3	7,170.1	85.8	35.6	-89.35	-1,030.7	398.5	3,182.2	3,071.2	111.03	28.660	
10,300.0	7,169.4	7,484.1	7,169.9	88.5	35.6	-89.33	-1,030.7	398.5	3,275.8	3,162.0	113.77	28.793	
10,400.0	7,169.0	7,483.9	7,169.7	91.3	35.6	-89.32	-1,030.7	398.5	3,369.8	3,253.3	116.51	28.922	
10,500.0	7,168.6	7,483.6	7,169.4	94.0	35.6	-89.31	-1,030.7	398.5	3,464.1	3,344.8	119.26	29.047	
10,600.0	7,168.3	7,483.4	7,169.2	96.8	35.6	-89.30	-1,030.7	398.5	3,558.7	3,436.7	122.01	29.168	
10,700.0	7,167.9	7,483.2	7,169.0	99.5	35.6	-89.29	-1,030.7	398.6	3,653.6	3,528.8	124.76	29.285	
10,800.0	7,167.5	7,483.0	7,168.8	102.3	35.6	-89.28	-1,030.7	398.6	3,748.8	3,621.3	127.52	29.399	
10,900.0	7,167.2	7,482.8	7,168.6	105.0	35.6	-89.27	-1,030.7	398.6	3,844.2	3,713.9	130.27	29.509	
11,000.0	7,166.8	7,482.6	7,168.4	107.8	35.6	-89.26	-1,030.7	398.6	3,939.8	3,806.8	133.03	29.615	
11,100.0	7,166.4	7,482.4	7,168.2	110.5	35.6	-89.25	-1,030.7	398.6	4,035.7	3,899.9	135.80	29.718	
11,200.0	7,166.1	7,482.2	7,168.0	113.3	35.6	-89.24	-1,030.7	398.6	4,131.7	3,993.2	138.56	29.818	
11,300.0	7,165.7	7,482.0	7,167.8	116.1	35.6	-89.23	-1,030.7	398.6	4,228.0	4,086.6	141.33	29.915	
11,400.0	7,165.4	7,481.8	7,167.6	118.8	35.6	-89.22	-1,030.7	398.6	4,324.4	4,180.3	144.10	30.009	
11,500.0	7,165.0	7,481.6	7,167.4	121.6	35.6	-89.21	-1,030.7	398.6	4,421.0	4,274.1	146.87	30.101	
11,600.0	7,164.6	7,481.4	7,167.2	124.4	35.6	-89.20	-1,030.7	398.6	4,517.7	4,368.0	149.65	30.189	
11,700.0	7,164.3	7,481.2	7,167.0	127.2	35.6	-89.19	-1,030.7	398.6	4,614.5	4,462.1	152.42	30.275	
11,783.3	7,164.0	7,481.0	7,166.8	129.5	35.6	-89.18	-1,030.7	398.6	4,695.3	4,540.6	154.73	30.345	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-49.38	480.2	-559.9	737.6				
100.0	100.0	101.6	101.6	0.1	0.1	-49.38	480.2	-559.9	737.6	737.4	0.20	3,638.972	
200.0	200.0	200.7	200.7	0.3	0.2	-49.38	480.3	-560.1	737.8	737.3	0.53	1,391.087	
300.0	300.0	299.8	299.8	0.5	0.3	-49.39	480.5	-560.3	738.1	737.3	0.86	860.212	ES
400.0	400.0	398.9	398.9	0.8	0.4	-49.39	480.7	-560.7	738.5	737.4	1.19	622.856	
500.0	500.0	498.0	498.0	1.0	0.5	-49.39	481.0	-561.1	739.1	737.6	1.51	488.364	
600.0	600.0	597.0	597.0	1.2	0.6	-130.75	481.4	-561.7	740.9	739.1	1.83	404.202	
700.0	699.8	695.9	695.9	1.4	0.7	-130.99	481.9	-562.3	745.1	743.0	2.15	346.078	
800.0	799.5	792.9	792.9	1.7	0.9	-131.38	482.5	-563.1	751.9	749.3	2.59	290.398	
900.0	898.7	891.9	891.9	1.9	1.1	-131.93	483.2	-564.1	761.3	758.2	3.04	250.183	
1,000.0	997.5	988.4	988.4	2.2	1.3	-132.61	483.8	-565.3	773.2	769.7	3.51	220.185	
1,099.8	1,095.4	1,088.9	1,088.9	2.6	1.6	-133.49	484.1	-566.8	787.7	783.7	4.01	196.532	
1,100.0	1,095.6	1,089.1	1,089.1	2.6	1.6	-133.49	484.1	-566.8	787.8	783.8	4.01	196.491	
1,200.0	1,193.4	1,197.7	1,197.6	3.0	1.8	-134.55	485.8	-566.2	802.9	798.4	4.52	177.440	
1,300.0	1,291.3	1,306.0	1,305.7	3.4	2.0	-135.20	490.8	-561.4	816.8	811.7	5.06	161.501	
1,400.0	1,389.1	1,400.5	1,399.7	3.8	2.2	-135.51	497.6	-554.7	830.2	824.6	5.60	148.383	
1,500.0	1,486.9	1,492.0	1,490.5	4.2	2.4	-135.62	507.0	-547.8	844.9	838.7	6.16	137.058	
1,600.0	1,584.7	1,593.0	1,590.0	4.7	2.7	-135.48	520.7	-538.0	859.7	852.9	6.80	126.444	
1,700.0	1,682.5	1,702.3	1,697.2	5.1	3.1	-135.11	537.7	-524.9	873.9	866.4	7.50	116.448	
1,800.0	1,780.3	1,796.1	1,788.8	5.5	3.4	-134.68	553.4	-512.1	887.4	879.2	8.21	108.133	
1,900.0	1,878.2	1,899.7	1,889.5	6.0	3.8	-134.10	572.5	-497.4	901.6	892.6	8.97	100.525	
2,000.0	1,976.0	2,009.0	1,996.0	6.4	4.2	-133.57	591.0	-480.9	914.2	904.4	9.76	93.668	
2,100.0	2,073.8	2,103.0	2,087.2	6.9	4.6	-133.04	608.0	-466.0	927.0	916.4	10.54	87.954	
2,200.0	2,171.6	2,197.8	2,179.1	7.3	5.0	-132.48	626.1	-451.4	940.8	929.5	11.33	83.042	
2,300.0	2,269.4	2,301.6	2,279.9	7.8	5.5	-131.91	645.3	-435.2	954.2	942.1	12.17	78.436	
2,400.0	2,367.2	2,403.8	2,379.0	8.2	5.9	-131.35	664.2	-418.6	967.3	954.3	13.03	74.248	
2,500.0	2,465.0	2,510.5	2,482.2	8.7	6.4	-130.75	684.0	-400.9	980.1	966.1	13.92	70.386	
2,600.0	2,562.9	2,615.2	2,583.1	9.1	6.9	-130.08	703.8	-381.3	991.7	976.9	14.84	66.819	
2,700.0	2,660.7	2,704.7	2,669.4	9.6	7.4	-129.50	721.3	-364.8	1,003.9	988.3	15.68	64.023	
2,800.0	2,758.5	2,795.5	2,757.2	10.0	7.8	-129.02	738.4	-349.5	1,017.2	1,000.7	16.50	61.641	
2,900.0	2,856.3	2,893.8	2,852.7	10.5	8.2	-128.60	756.2	-334.5	1,031.0	1,013.7	17.35	59.423	
3,000.0	2,954.1	2,994.8	2,950.7	11.0	8.7	-128.13	774.7	-318.4	1,044.6	1,026.4	18.23	57.316	
3,100.0	3,051.9	3,089.3	3,042.6	11.4	9.1	-127.77	791.3	-304.0	1,058.3	1,039.3	19.05	55.553	
3,200.0	3,149.8	3,181.5	3,132.6	11.9	9.5	-127.51	806.8	-291.4	1,072.7	1,052.9	19.85	54.043	
3,300.0	3,247.6	3,302.3	3,250.7	12.3	10.0	-127.21	826.5	-275.1	1,086.9	1,066.2	20.76	52.351	
3,400.0	3,345.4	3,416.0	3,362.4	12.8	10.5	-127.07	841.3	-259.8	1,098.8	1,077.2	21.60	50.868	
3,500.0	3,443.2	3,527.6	3,472.1	13.2	10.9	-126.98	854.8	-244.5	1,110.0	1,087.5	22.43	49.488	
3,600.0	3,541.0	3,646.4	3,588.6	13.7	11.4	-126.82	868.2	-225.5	1,118.8	1,095.5	23.30	48.014	
3,700.0	3,638.8	3,730.9	3,671.6	14.1	11.7	-126.73	877.4	-212.4	1,127.9	1,103.8	24.03	46.935	
3,800.0	3,736.7	3,808.6	3,747.9	14.6	12.0	-126.67	886.7	-201.5	1,138.7	1,114.0	24.73	46.052	
3,836.5	3,772.4	3,837.4	3,776.2	14.8	12.1	-126.63	890.5	-197.7	1,143.2	1,118.2	24.99	45.754	
3,900.0	3,834.6	3,889.7	3,827.5	15.0	12.3	-126.67	897.9	-190.8	1,151.0	1,125.6	25.43	45.262	
4,000.0	3,933.2	3,980.9	3,916.8	15.3	12.7	-126.51	912.4	-178.4	1,162.5	1,136.3	26.13	44.491	
4,100.0	4,032.3	4,082.3	4,016.0	15.6	13.1	-126.19	928.3	-165.1	1,172.2	1,145.3	26.84	43.674	
4,200.0	4,131.8	4,185.3	4,117.0	15.8	13.5	-125.75	943.2	-152.1	1,179.4	1,151.9	27.51	42.878	
4,300.0	4,231.5	4,286.1	4,216.0	16.0	13.9	-125.15	957.9	-139.4	1,184.9	1,156.7	28.14	42.107	
4,400.0	4,331.5	4,387.8	4,315.7	16.1	14.3	-124.35	972.7	-125.8	1,187.9	1,159.2	28.75	41.313	
4,436.3	4,367.8	4,421.6	4,348.8	16.2	14.5	-42.79	977.5	-121.4	1,188.7	1,166.5	22.23	53.470	
4,500.0	4,431.5	4,488.5	4,414.6	16.2	14.7	-42.19	986.7	-113.1	1,189.8	1,167.4	22.44	53.014	
4,600.0	4,531.5	4,584.6	4,509.3	16.4	15.1	-41.44	998.4	-102.4	1,191.5	1,168.7	22.77	52.317	
4,700.0	4,631.5	4,688.3	4,612.2	16.5	15.4	-40.82	1,008.4	-94.3	1,193.6	1,170.5	23.13	51.606	
4,800.0	4,731.5	4,789.2	4,712.6	16.6	15.6	-40.35	1,016.2	-87.9	1,195.4	1,171.9	23.48	50.902	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,902.7	4,825.9	16.8	15.9	-39.96	1,022.6	-82.6	1,196.7	1,172.8	23.86	50.146	
5,000.0	4,931.5	5,009.8	4,932.8	16.9	16.1	-39.73	1,025.8	-79.2	1,197.0	1,172.8	24.23	49.400	
5,100.0	5,031.5	5,108.3	5,031.3	17.0	16.2	-39.64	1,027.2	-77.9	1,197.2	1,172.6	24.58	48.699	
5,200.0	5,131.5	5,208.2	5,131.2	17.2	16.4	-39.60	1,027.9	-77.3	1,197.4	1,172.4	24.94	48.009	
5,300.0	5,231.5	5,307.5	5,230.5	17.3	16.5	-39.57	1,028.5	-77.0	1,197.7	1,172.4	25.30	47.338	
5,400.0	5,331.5	5,406.5	5,329.5	17.5	16.7	-39.55	1,029.1	-76.9	1,198.0	1,172.3	25.66	46.684	
5,500.0	5,431.5	5,505.3	5,428.3	17.6	16.8	-39.53	1,029.5	-76.9	1,198.4	1,172.4	26.02	46.049	
5,600.0	5,531.5	5,607.5	5,530.5	17.7	16.9	-39.53	1,029.9	-77.2	1,198.8	1,172.5	26.40	45.419	
5,700.0	5,631.5	5,712.3	5,635.3	17.9	17.1	-39.54	1,029.8	-77.4	1,198.9	1,172.2	26.77	44.783	
5,800.0	5,731.5	5,814.8	5,737.8	18.0	17.2	-39.57	1,029.3	-77.7	1,198.7	1,171.6	27.15	44.159	
5,900.0	5,831.5	5,916.8	5,839.7	18.2	17.4	-39.60	1,028.6	-77.9	1,198.3	1,170.8	27.52	43.546	
6,000.0	5,931.5	6,016.5	5,939.5	18.4	17.5	-39.63	1,027.8	-78.2	1,197.8	1,169.9	27.88	42.956	
6,100.0	6,031.5	6,115.9	6,038.9	18.5	17.6	-39.66	1,027.1	-78.3	1,197.4	1,169.1	28.25	42.383	
6,200.0	6,131.5	6,212.7	6,135.7	18.7	17.7	-39.69	1,026.5	-78.6	1,197.1	1,168.5	28.62	41.833	
6,253.3	6,184.8	6,264.3	6,187.3	18.7	17.8	-39.71	1,026.3	-78.8	1,197.1	1,168.3	28.81	41.550	
6,300.0	6,231.5	6,309.9	6,232.9	18.8	17.9	-39.72	1,026.1	-79.1	1,197.1	1,168.1	28.98	41.304	
6,400.0	6,331.5	6,409.1	6,332.1	19.0	18.0	-39.75	1,025.8	-79.6	1,197.2	1,167.9	29.36	40.782	
6,500.0	6,431.5	6,508.6	6,431.6	19.1	18.1	-39.76	1,025.7	-80.0	1,197.4	1,167.7	29.73	40.273	
6,531.3	6,462.8	6,540.1	6,463.0	19.2	18.2	-39.77	1,025.7	-80.1	1,197.5	1,167.6	29.85	40.115	
6,550.0	6,481.5	6,558.8	6,481.8	19.2	18.2	50.24	1,025.7	-80.2	1,197.4	1,161.2	36.13	33.142	
6,600.0	6,531.4	6,609.0	6,531.9	19.3	18.3	50.46	1,025.6	-80.4	1,195.5	1,159.3	36.20	33.025	
6,650.0	6,580.9	6,658.8	6,581.7	19.3	18.4	50.94	1,025.5	-80.7	1,191.4	1,155.2	36.21	32.904	
6,700.0	6,629.9	6,708.2	6,631.2	19.3	18.4	51.69	1,025.3	-81.0	1,185.2	1,149.0	36.17	32.769	
6,750.0	6,678.1	6,756.9	6,679.8	19.2	18.5	52.71	1,025.1	-81.3	1,176.8	1,140.8	36.08	32.614	
6,800.0	6,725.2	6,804.5	6,727.5	19.2	18.6	54.01	1,024.9	-81.7	1,166.5	1,130.5	35.97	32.429	
6,850.0	6,771.1	6,850.9	6,773.9	19.1	18.6	55.58	1,024.6	-82.0	1,154.4	1,118.5	35.85	32.203	
6,900.0	6,815.4	6,895.6	6,818.6	19.0	18.7	57.41	1,024.4	-82.3	1,140.5	1,104.8	35.72	31.928	
6,950.0	6,858.0	6,938.6	6,861.5	18.9	18.8	59.51	1,024.2	-82.5	1,125.2	1,089.6	35.62	31.592	
7,000.0	6,898.7	6,979.6	6,902.5	18.9	18.8	61.84	1,024.0	-82.8	1,108.7	1,073.1	35.55	31.189	
7,050.0	6,937.3	7,018.4	6,941.4	18.8	18.9	64.39	1,023.8	-83.0	1,091.2	1,055.6	35.52	30.716	
7,100.0	6,973.6	7,055.3	6,978.2	18.8	18.9	67.12	1,023.6	-83.1	1,072.9	1,037.3	35.55	30.176	
7,150.0	7,007.4	7,089.8	7,012.8	18.8	19.0	69.99	1,023.4	-83.3	1,054.2	1,018.6	35.65	29.575	
7,200.0	7,038.5	7,121.6	7,044.5	18.9	19.0	72.91	1,023.2	-83.4	1,035.5	999.7	35.80	28.927	
7,250.0	7,066.8	7,150.4	7,073.4	19.0	19.1	75.82	1,023.1	-83.4	1,017.0	980.9	36.00	28.247	
7,300.0	7,092.2	7,176.2	7,099.2	19.2	19.1	78.63	1,023.0	-83.4	999.0	962.8	36.26	27.550	
7,350.0	7,114.5	7,198.8	7,121.8	19.5	19.1	81.27	1,022.8	-83.4	982.1	945.5	36.58	26.849	
7,400.0	7,133.6	7,218.1	7,141.1	19.9	19.2	83.67	1,022.8	-83.4	966.5	929.6	36.95	26.157	
7,450.0	7,149.5	7,234.0	7,157.0	20.3	19.2	85.75	1,022.7	-83.4	952.6	915.2	37.38	25.481	
7,500.0	7,162.0	7,246.5	7,169.5	20.8	19.2	87.49	1,022.6	-83.4	940.6	902.8	37.88	24.830	
7,550.0	7,171.1	7,255.6	7,178.5	21.4	19.2	88.83	1,022.6	-83.4	931.0	892.5	38.45	24.210	
7,600.0	7,176.8	7,261.1	7,184.1	22.1	19.2	89.76	1,022.5	-83.4	923.7	884.6	39.09	23.630	
7,650.0	7,179.0	7,263.2	7,186.2	22.8	19.2	90.26	1,022.5	-83.4	919.2	879.4	39.79	23.098	
7,658.9	7,179.0	7,263.2	7,186.2	22.9	19.2	90.30	1,022.5	-83.4	918.6	878.7	39.93	23.008	
7,700.0	7,178.9	7,263.0	7,186.0	23.5	19.2	90.29	1,022.5	-83.4	917.3	876.7	40.56	22.616	
7,709.4	7,178.8	7,262.9	7,185.9	23.7	19.2	90.29	1,022.5	-83.4	917.2	876.5	40.72	22.526	
7,800.0	7,178.5	7,262.4	7,185.4	25.2	19.2	90.25	1,022.5	-83.4	921.7	879.4	42.26	21.812	
7,900.0	7,178.1	7,261.9	7,184.8	27.1	19.2	90.22	1,022.5	-83.4	936.8	892.7	44.14	21.224	
8,000.0	7,177.8	7,261.3	7,184.3	29.2	19.2	90.19	1,022.5	-83.4	962.2	916.0	46.17	20.839	
8,100.0	7,177.4	7,260.8	7,183.7	31.3	19.2	90.15	1,022.5	-83.4	997.0	948.6	48.32	20.631	
8,200.0	7,177.0	7,260.2	7,183.2	33.6	19.2	90.12	1,022.5	-83.4	1,040.2	989.6	50.57	20.568	SF
8,300.0	7,176.7	7,259.7	7,182.7	35.9	19.2	90.08	1,022.5	-83.4	1,090.9	1,038.0	52.90	20.622	
8,400.0	7,176.3	7,259.2	7,182.1	38.3	19.2	90.05	1,022.5	-83.4	1,148.2	1,092.9	55.29	20.765	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 23-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	7,258.6	7,181.6	40.7	19.2	90.02	1,022.5	-83.4	1,211.0	1,153.2	57.74	20.972	
8,600.0	7,175.6	7,258.1	7,181.0	43.2	19.2	89.98	1,022.5	-83.4	1,278.5	1,218.3	60.23	21.227	
8,700.0	7,175.2	7,257.5	7,180.5	45.7	19.2	89.95	1,022.6	-83.4	1,350.1	1,287.3	62.76	21.512	
8,800.0	7,174.8	7,257.0	7,180.0	48.3	19.2	89.92	1,022.6	-83.4	1,425.1	1,359.7	65.32	21.818	
8,900.0	7,174.5	7,256.5	7,179.4	50.9	19.2	89.88	1,022.6	-83.4	1,503.0	1,435.1	67.90	22.135	
9,000.0	7,174.1	7,256.0	7,178.9	53.5	19.2	89.85	1,022.6	-83.4	1,583.4	1,512.9	70.51	22.457	
9,100.0	7,173.7	7,255.4	7,178.4	56.1	19.2	89.82	1,022.6	-83.4	1,665.9	1,592.7	73.13	22.779	
9,200.0	7,173.4	7,254.9	7,177.9	58.8	19.2	89.79	1,022.6	-83.4	1,750.2	1,674.4	75.78	23.097	
9,300.0	7,173.0	7,254.4	7,177.4	61.4	19.2	89.75	1,022.6	-83.4	1,836.1	1,757.7	78.43	23.410	
9,400.0	7,172.6	7,253.9	7,176.8	64.1	19.2	89.72	1,022.6	-83.4	1,923.4	1,842.3	81.10	23.715	
9,500.0	7,172.3	7,253.4	7,176.3	66.8	19.2	89.69	1,022.6	-83.4	2,011.9	1,928.1	83.79	24.012	
9,600.0	7,171.9	7,252.9	7,175.8	69.5	19.2	89.66	1,022.6	-83.4	2,101.4	2,014.9	86.48	24.299	
9,700.0	7,171.6	7,252.3	7,175.3	72.2	19.2	89.62	1,022.6	-83.4	2,191.8	2,102.6	89.18	24.577	
9,800.0	7,171.2	7,251.8	7,174.8	74.9	19.2	89.59	1,022.6	-83.4	2,283.0	2,191.1	91.89	24.845	
9,900.0	7,170.8	7,251.3	7,174.3	77.6	19.2	89.56	1,022.6	-83.4	2,374.9	2,280.3	94.60	25.104	
10,000.0	7,170.5	7,250.8	7,173.8	80.3	19.2	89.53	1,022.6	-83.4	2,467.4	2,370.1	97.33	25.352	
10,100.0	7,170.1	7,250.3	7,173.3	83.0	19.2	89.50	1,022.6	-83.4	2,560.5	2,460.5	100.05	25.592	
10,200.0	7,169.7	7,249.8	7,172.8	85.8	19.2	89.47	1,022.6	-83.4	2,654.1	2,551.3	102.79	25.822	
10,300.0	7,169.4	7,249.3	7,172.3	88.5	19.2	89.44	1,022.6	-83.4	2,748.2	2,642.7	105.52	26.044	
10,400.0	7,169.0	7,248.8	7,171.8	91.3	19.2	89.41	1,022.6	-83.4	2,842.6	2,734.4	108.26	26.257	
10,500.0	7,168.6	7,248.3	7,171.3	94.0	19.2	89.37	1,022.6	-83.4	2,937.5	2,826.5	111.01	26.461	
10,600.0	7,168.3	7,247.9	7,170.8	96.8	19.2	89.34	1,022.6	-83.4	3,032.6	2,918.9	113.76	26.658	
10,700.0	7,167.9	7,247.4	7,170.3	99.5	19.2	89.31	1,022.6	-83.4	3,128.1	3,011.6	116.51	26.848	
10,800.0	7,167.5	7,246.9	7,169.8	102.3	19.2	89.28	1,022.6	-83.4	3,223.8	3,104.6	119.27	27.031	
10,900.0	7,167.2	7,246.4	7,169.4	105.0	19.2	89.25	1,022.6	-83.4	3,319.8	3,197.8	122.02	27.206	
11,000.0	7,166.8	7,245.9	7,168.9	107.8	19.2	89.22	1,022.6	-83.4	3,416.0	3,291.3	124.78	27.375	
11,100.0	7,166.4	7,245.4	7,168.4	110.5	19.2	89.19	1,022.6	-83.4	3,512.5	3,384.9	127.55	27.538	
11,200.0	7,166.1	7,245.0	7,167.9	113.3	19.2	89.16	1,022.6	-83.4	3,609.1	3,478.8	130.31	27.696	
11,300.0	7,165.7	7,244.5	7,167.4	116.1	19.2	89.13	1,022.6	-83.4	3,705.9	3,572.8	133.08	27.847	
11,400.0	7,165.4	7,244.0	7,167.0	118.8	19.2	89.10	1,022.6	-83.4	3,802.9	3,667.0	135.85	27.993	
11,500.0	7,165.0	7,243.5	7,166.5	121.6	19.2	89.07	1,022.6	-83.4	3,900.0	3,761.4	138.62	28.135	
11,600.0	7,164.6	7,243.1	7,166.0	124.4	19.2	89.05	1,022.6	-83.4	3,997.2	3,855.9	141.39	28.271	
11,700.0	7,164.3	7,242.6	7,165.6	127.2	19.2	89.02	1,022.6	-83.4	4,094.6	3,950.5	144.16	28.403	
11,783.3	7,164.0	7,242.3	7,165.2	129.5	19.2	88.99	1,022.6	-83.4	4,175.9	4,029.4	146.48	28.509	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 24-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 735-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-57.33	380.7	-593.6	705.2				
100.0	100.0	103.3	103.3	0.1	0.1	-57.33	380.7	-593.6	705.1	704.9	0.21	3,435.322	
200.0	200.0	204.2	204.2	0.3	0.2	-57.33	380.5	-593.4	705.0	704.4	0.54	1,316.600	
300.0	300.0	305.0	305.0	0.5	0.3	-57.34	380.3	-593.2	704.7	703.8	0.87	814.061	
400.0	400.0	405.8	405.8	0.8	0.4	-57.34	380.0	-592.9	704.3	703.1	1.20	588.943	
500.0	500.0	506.6	506.6	1.0	0.5	-57.36	379.6	-592.6	703.7	702.2	1.53	461.168	
523.4	523.4	530.2	530.2	1.0	0.6	-138.64	379.5	-592.5	703.7	702.1	1.60	440.036	
600.0	600.0	607.4	607.4	1.2	0.6	-138.73	379.1	-592.1	704.4	702.6	1.84	381.942	
700.0	699.8	708.1	708.1	1.4	0.7	-138.98	378.6	-591.5	707.6	705.4	2.16	327.006	
800.0	799.5	808.1	808.1	1.7	0.9	-139.38	378.0	-590.9	713.3	710.8	2.57	277.351	
900.0	898.7	915.6	915.6	1.9	1.2	-140.01	376.7	-590.0	721.4	718.3	3.03	237.745	
1,000.0	997.5	1,034.9	1,034.8	2.2	1.4	-141.10	371.8	-588.3	730.1	726.6	3.55	205.939	
1,099.8	1,095.4	1,156.1	1,155.5	2.6	1.7	-142.62	362.3	-585.0	739.0	734.9	4.09	180.685	
1,100.0	1,095.6	1,156.3	1,155.7	2.6	1.7	-142.63	362.3	-585.0	739.1	735.0	4.09	180.640	
1,200.0	1,193.4	1,278.5	1,277.0	3.0	2.1	-144.53	348.5	-579.3	746.5	741.8	4.68	159.671	
1,300.0	1,291.3	1,389.4	1,386.7	3.4	2.4	-146.30	333.8	-572.1	752.0	746.7	5.26	143.003	
1,400.0	1,389.1	1,495.2	1,491.0	3.8	2.8	-148.07	317.8	-564.5	756.7	750.9	5.85	129.347	
1,500.0	1,486.9	1,599.4	1,593.3	4.2	3.2	-149.98	299.5	-557.5	761.5	755.1	6.45	117.983	
1,600.0	1,584.7	1,716.2	1,707.5	4.7	3.6	-152.18	276.9	-547.5	764.8	757.7	7.13	107.303	
1,700.0	1,682.5	1,826.7	1,814.8	5.1	4.2	-154.39	252.9	-536.8	767.1	759.3	7.82	98.046	
1,800.0	1,780.3	1,947.7	1,931.8	5.5	4.7	-156.84	225.5	-522.4	768.0	759.5	8.57	89.651	
1,852.9	1,832.0	2,000.2	1,982.4	5.8	5.0	-157.87	213.6	-515.1	768.0	759.0	8.92	86.107	
1,900.0	1,878.2	2,046.1	2,026.5	6.0	5.2	-158.82	202.6	-508.9	768.0	758.8	9.23	83.200	
2,000.0	1,976.0	2,139.2	2,116.0	6.4	5.6	-160.74	180.5	-496.4	769.1	759.3	9.87	77.932	
2,100.0	2,073.8	2,231.0	2,204.7	6.9	6.0	-162.53	159.8	-484.2	771.6	761.1	10.47	73.676	
2,200.0	2,171.6	2,317.0	2,287.9	7.3	6.4	-164.19	140.9	-473.7	776.1	765.0	11.07	70.087	
2,300.0	2,269.4	2,419.5	2,387.0	7.8	6.9	-166.18	117.7	-461.6	781.7	769.9	11.80	66.260	
2,400.0	2,367.2	2,522.4	2,486.0	8.2	7.4	-168.26	92.9	-448.5	787.2	774.6	12.59	62.553	
2,500.0	2,465.0	2,618.8	2,578.3	8.7	8.0	-170.31	67.8	-436.0	793.3	780.0	13.38	59.301	
2,600.0	2,562.9	2,713.2	2,668.2	9.1	8.5	-172.39	41.9	-423.8	800.6	786.4	14.18	56.461	
2,700.0	2,660.7	2,807.6	2,758.3	9.6	9.0	-174.39	16.5	-411.6	809.0	794.1	14.95	54.119	
2,800.0	2,758.5	2,898.2	2,845.2	10.0	9.5	-176.18	-6.6	-400.3	818.8	803.1	15.67	52.254	
2,900.0	2,856.3	2,987.7	2,931.1	10.5	9.9	-177.88	-29.0	-389.9	830.2	813.8	16.40	50.619	
3,000.0	2,954.1	3,079.8	3,019.7	11.0	10.4	-179.59	-52.2	-379.6	843.0	825.9	17.17	49.110	
3,100.0	3,051.9	3,175.9	3,112.6	11.4	10.8	178.79	-74.8	-369.3	856.8	838.9	17.93	47.783	
3,200.0	3,149.8	3,271.2	3,204.9	11.9	11.3	177.31	-96.0	-359.2	871.2	852.6	18.67	46.665	
3,300.0	3,247.6	3,368.6	3,299.6	12.3	11.7	175.91	-116.9	-349.2	886.4	867.0	19.42	45.649	
3,400.0	3,345.4	3,468.0	3,396.3	12.8	12.1	174.58	-137.1	-338.7	901.5	881.3	20.17	44.693	
3,500.0	3,443.2	3,565.3	3,491.2	13.2	12.6	173.38	-156.2	-329.0	917.4	896.5	20.91	43.869	
3,600.0	3,541.0	3,668.5	3,591.7	13.7	13.0	172.12	-176.5	-317.5	932.7	911.0	21.70	42.978	
3,700.0	3,638.8	3,762.7	3,683.3	14.1	13.5	170.96	-195.9	-307.1	948.7	926.2	22.48	42.205	
3,800.0	3,736.7	3,864.0	3,781.1	14.6	14.0	169.59	-219.3	-294.9	964.9	941.5	23.34	41.332	
3,836.5	3,772.4	3,901.0	3,816.8	14.8	14.2	169.09	-228.0	-290.2	970.8	947.1	23.67	41.014	
3,900.0	3,834.6	3,954.0	3,867.7	15.0	14.5	168.39	-240.8	-283.5	980.7	956.5	24.21	40.515	
4,000.0	3,933.2	4,046.4	3,956.6	15.3	15.0	167.16	-263.7	-272.6	994.9	969.8	25.05	39.720	
4,100.0	4,032.3	4,152.6	4,059.2	15.6	15.5	165.82	-288.1	-260.2	1,005.8	979.9	25.90	38.840	
4,200.0	4,131.8	4,254.2	4,158.0	15.8	16.0	164.65	-308.9	-248.5	1,013.0	986.3	26.66	37.995	
4,300.0	4,231.5	4,344.7	4,245.9	16.0	16.4	163.55	-327.8	-238.1	1,017.4	990.1	27.34	37.218	
4,400.0	4,331.5	4,447.6	4,346.2	16.1	16.8	162.33	-347.9	-227.2	1,019.3	991.3	28.01	36.393	
4,436.3	4,367.8	4,484.3	4,382.1	16.2	17.0	-116.82	-354.4	-223.5	1,019.0	993.3	25.79	39.515	
4,500.0	4,431.5	4,547.5	4,444.1	16.2	17.2	-117.51	-365.0	-217.3	1,018.4	992.4	25.98	39.194	
4,600.0	4,531.5	4,659.6	4,554.5	16.4	17.6	-118.60	-381.4	-206.8	1,017.0	990.7	26.32	38.640	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 24-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 735-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,700.0	4,631.5	4,775.3	4,669.2	16.5	18.0	-119.43	-392.5	-196.5	1,013.8	987.1	26.66	38.021	
4,800.0	4,731.5	4,862.6	4,756.0	16.6	18.2	-119.91	-398.7	-190.1	1,010.8	983.9	26.95	37.502	
4,900.0	4,831.5	4,947.3	4,840.6	16.8	18.4	-120.25	-403.3	-186.1	1,009.5	982.3	27.24	37.055	
5,000.0	4,931.5	5,042.5	4,935.6	16.9	18.5	-120.49	-406.8	-183.8	1,009.2	981.7	27.55	36.633	
5,100.0	5,031.5	5,145.7	5,038.8	17.0	18.7	-120.62	-408.5	-182.2	1,008.8	980.9	27.87	36.193	
5,200.0	5,131.5	5,241.2	5,134.2	17.2	18.8	-120.69	-409.4	-181.4	1,008.6	980.4	28.18	35.786	
5,207.9	5,139.4	5,248.8	5,141.9	17.2	18.8	-120.69	-409.5	-181.4	1,008.6	980.3	28.21	35.755	
5,300.0	5,231.5	5,338.4	5,231.5	17.3	18.9	-120.75	-410.5	-180.9	1,008.7	980.2	28.50	35.392	
5,400.0	5,331.5	5,435.4	5,328.5	17.5	19.0	-120.81	-411.5	-180.8	1,009.1	980.2	28.82	35.012	
5,500.0	5,431.5	5,528.4	5,421.5	17.6	19.2	-120.83	-412.3	-181.2	1,009.9	980.7	29.14	34.661	
5,600.0	5,531.5	5,622.8	5,515.9	17.7	19.3	-120.87	-413.6	-182.2	1,011.5	982.1	29.46	34.338	
5,700.0	5,631.5	5,727.9	5,621.0	17.9	19.4	-120.92	-415.2	-183.2	1,013.2	983.4	29.80	33.997	
5,800.0	5,731.5	5,834.6	5,727.7	18.0	19.6	-121.00	-416.9	-183.3	1,014.1	983.9	30.15	33.635	
5,900.0	5,831.5	5,937.0	5,830.0	18.2	19.7	-121.06	-418.1	-183.2	1,014.6	984.1	30.49	33.275	
6,000.0	5,931.5	6,039.1	5,932.1	18.4	19.8	-121.09	-418.7	-183.2	1,014.8	984.0	30.83	32.916	
6,100.0	6,031.5	6,135.9	6,028.9	18.5	20.0	-121.10	-419.1	-183.3	1,015.2	984.0	31.17	32.573	
6,200.0	6,131.5	6,234.1	6,127.1	18.7	20.1	-121.11	-419.5	-183.8	1,015.8	984.3	31.51	32.239	
6,300.0	6,231.5	6,336.7	6,229.7	18.8	20.2	-121.12	-420.0	-184.1	1,016.3	984.5	31.86	31.902	
6,400.0	6,331.5	6,437.8	6,330.8	19.0	20.3	-121.13	-420.4	-184.3	1,016.6	984.4	32.21	31.568	
6,500.0	6,431.5	6,535.7	6,428.7	19.1	20.5	-121.14	-420.6	-184.7	1,017.1	984.5	32.55	31.246	
6,531.3	6,462.8	6,567.0	6,460.0	19.2	20.5	-121.13	-420.7	-184.8	1,017.3	984.6	32.66	31.146	
6,550.0	6,481.5	6,585.7	6,478.7	19.2	20.5	-31.15	-420.7	-184.9	1,017.1	981.2	35.93	28.312	
6,600.0	6,531.4	6,635.3	6,528.3	19.3	20.6	-31.33	-420.8	-185.1	1,014.8	978.9	35.91	28.261	
6,650.0	6,580.9	6,684.5	6,577.5	19.3	20.7	-31.74	-420.9	-185.4	1,009.5	973.7	35.79	28.204	
6,700.0	6,629.9	6,733.1	6,626.1	19.3	20.7	-32.38	-420.9	-185.8	1,001.3	965.7	35.59	28.136	
6,750.0	6,678.1	6,780.8	6,673.9	19.2	20.8	-33.27	-421.0	-186.1	990.3	955.0	35.31	28.047	
6,800.0	6,725.2	6,827.0	6,720.0	19.2	20.9	-34.42	-421.1	-186.4	976.6	941.6	34.97	27.924	
6,850.0	6,771.1	6,871.9	6,764.9	19.1	20.9	-35.85	-421.1	-186.9	960.2	925.6	34.60	27.752	
6,900.0	6,815.4	6,917.3	6,810.3	19.0	21.0	-37.62	-421.0	-187.4	941.4	907.2	34.23	27.502	
6,950.0	6,858.0	6,961.5	6,854.5	18.9	21.0	-39.75	-421.0	-187.8	920.2	886.3	33.89	27.149	
7,000.0	6,898.7	7,002.8	6,895.8	18.9	21.1	-42.26	-421.1	-188.1	896.8	863.1	33.63	26.669	
7,050.0	6,937.3	7,041.5	6,934.4	18.8	21.1	-45.15	-421.1	-188.3	871.5	838.0	33.47	26.040	
7,100.0	6,973.6	7,077.9	6,970.9	18.8	21.2	-48.45	-421.2	-188.6	844.5	811.1	33.45	25.248	
7,150.0	7,007.4	7,112.3	7,005.3	18.8	21.2	-52.18	-421.2	-188.8	816.2	782.6	33.60	24.292	
7,200.0	7,038.5	7,143.9	7,036.9	18.9	21.3	-56.30	-421.2	-189.0	786.9	753.0	33.93	23.195	
7,250.0	7,066.8	7,173.0	7,066.0	19.0	21.3	-60.74	-421.2	-189.2	756.9	722.5	34.41	21.999	
7,300.0	7,092.2	7,199.5	7,092.5	19.2	21.3	-65.40	-421.2	-189.4	726.7	691.7	35.01	20.758	
7,350.0	7,114.5	7,222.7	7,115.7	19.5	21.4	-70.11	-421.1	-189.5	696.7	661.0	35.67	19.531	
7,400.0	7,133.6	7,242.6	7,135.6	19.9	21.4	-74.68	-421.1	-189.6	667.3	631.0	36.34	18.361	
7,450.0	7,149.5	7,259.1	7,152.1	20.3	21.4	-78.93	-421.0	-189.7	639.3	602.3	37.00	17.276	
7,500.0	7,162.0	7,272.0	7,165.0	20.8	21.4	-82.67	-421.0	-189.8	613.1	575.5	37.64	16.288	
7,550.0	7,171.1	7,281.4	7,174.4	21.4	21.4	-85.81	-420.9	-189.8	589.4	551.1	38.27	15.401	
7,600.0	7,176.8	7,287.3	7,180.3	22.1	21.5	-88.26	-420.9	-189.8	568.8	529.8	38.92	14.614	
7,650.0	7,179.0	7,289.7	7,182.7	22.8	21.5	-89.97	-420.9	-189.8	551.7	512.1	39.61	13.931	
7,658.9	7,179.0	7,289.8	7,182.8	22.9	21.5	-90.20	-420.9	-189.8	549.1	509.4	39.73	13.820	
7,700.0	7,178.9	7,289.8	7,182.8	23.5	21.5	-90.20	-420.9	-189.8	538.8	498.5	40.37	13.348	
7,800.0	7,178.5	7,289.8	7,182.8	25.2	21.5	-90.20	-420.9	-189.8	526.5	484.4	42.07	12.515	
7,815.8	7,178.4	7,289.8	7,182.8	25.5	21.5	-90.20	-420.9	-189.8	526.2	483.9	42.36	12.421	CC, ES
7,900.0	7,178.1	7,289.8	7,182.8	27.1	21.5	-90.20	-420.9	-189.8	532.9	489.0	43.95	12.126	
8,000.0	7,177.8	7,289.8	7,182.8	29.2	21.5	-90.20	-420.9	-189.8	557.5	511.5	45.98	12.125	SF
8,100.0	7,177.4	7,289.8	7,182.8	31.3	21.5	-90.21	-420.9	-189.8	598.0	549.9	48.13	12.425	
8,200.0	7,177.0	7,289.8	7,182.8	33.6	21.5	-90.21	-420.9	-189.8	651.5	601.1	50.38	12.932	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WALTERS 24-21DU - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0 usft

Survey Program: 735-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,300.0	7,176.7	7,289.9	7,182.8	35.9	21.5	-90.21	-420.9	-189.8	715.1	662.4	52.71	13.566	
8,400.0	7,176.3	7,289.9	7,182.9	38.3	21.5	-90.21	-420.9	-189.8	786.2	731.1	55.10	14.268	
8,500.0	7,175.9	7,289.9	7,182.9	40.7	21.5	-90.21	-420.9	-189.8	863.1	805.6	57.55	14.998	
8,600.0	7,175.6	7,289.9	7,182.9	43.2	21.5	-90.21	-420.9	-189.8	944.4	884.3	60.04	15.729	
8,700.0	7,175.2	7,289.9	7,182.9	45.7	21.5	-90.21	-420.9	-189.8	1,028.9	966.3	62.57	16.445	
8,800.0	7,174.8	7,289.9	7,182.9	48.3	21.5	-90.22	-420.9	-189.8	1,116.0	1,050.9	65.12	17.136	
8,900.0	7,174.5	7,289.9	7,182.9	50.9	21.5	-90.22	-420.9	-189.8	1,205.1	1,137.4	67.71	17.798	
9,000.0	7,174.1	7,289.9	7,182.9	53.5	21.5	-90.22	-420.9	-189.8	1,295.8	1,225.5	70.32	18.428	
9,100.0	7,173.7	7,290.0	7,182.9	56.1	21.5	-90.22	-420.9	-189.8	1,387.8	1,314.9	72.94	19.026	
9,200.0	7,173.4	7,290.0	7,183.0	58.8	21.5	-90.22	-420.9	-189.8	1,480.8	1,405.2	75.59	19.591	
9,300.0	7,173.0	7,290.0	7,183.0	61.4	21.5	-90.22	-420.9	-189.8	1,574.7	1,496.4	78.24	20.125	
9,400.0	7,172.6	7,290.0	7,183.0	64.1	21.5	-90.22	-420.9	-189.8	1,669.3	1,588.4	80.92	20.630	
9,500.0	7,172.3	7,290.0	7,183.0	66.8	21.5	-90.22	-420.9	-189.8	1,764.5	1,680.9	83.60	21.107	
9,600.0	7,171.9	7,290.0	7,183.0	69.5	21.5	-90.23	-420.9	-189.8	1,860.1	1,773.9	86.29	21.557	
9,700.0	7,171.6	7,290.0	7,183.0	72.2	21.5	-90.23	-420.9	-189.8	1,956.3	1,867.3	88.99	21.983	
9,800.0	7,171.2	7,290.0	7,183.0	74.9	21.5	-90.23	-420.9	-189.8	2,052.8	1,961.1	91.70	22.386	
9,900.0	7,170.8	7,290.1	7,183.0	77.6	21.5	-90.23	-420.9	-189.8	2,149.6	2,055.2	94.42	22.767	
10,000.0	7,170.5	7,290.1	7,183.0	80.3	21.5	-90.23	-420.9	-189.8	2,246.7	2,149.5	97.14	23.128	
10,100.0	7,170.1	7,290.1	7,183.1	83.0	21.5	-90.23	-420.9	-189.8	2,344.0	2,244.1	99.87	23.471	
10,200.0	7,169.7	7,290.1	7,183.1	85.8	21.5	-90.23	-420.9	-189.8	2,441.5	2,338.9	102.60	23.797	
10,300.0	7,169.4	7,290.1	7,183.1	88.5	21.5	-90.23	-420.9	-189.8	2,539.3	2,433.9	105.34	24.106	
10,400.0	7,169.0	7,290.1	7,183.1	91.3	21.5	-90.24	-420.9	-189.8	2,637.2	2,529.1	108.08	24.400	
10,500.0	7,168.6	7,290.1	7,183.1	94.0	21.5	-90.24	-420.9	-189.8	2,735.3	2,624.4	110.83	24.681	
10,600.0	7,168.3	7,290.1	7,183.1	96.8	21.5	-90.24	-420.9	-189.8	2,833.5	2,719.9	113.58	24.948	
10,700.0	7,167.9	7,290.1	7,183.1	99.5	21.5	-90.24	-420.9	-189.8	2,931.8	2,815.4	116.33	25.202	
10,800.0	7,167.5	7,290.2	7,183.1	102.3	21.5	-90.24	-420.9	-189.8	3,030.2	2,911.1	119.09	25.446	
10,900.0	7,167.2	7,290.2	7,183.2	105.0	21.5	-90.24	-420.9	-189.8	3,128.7	3,006.9	121.84	25.678	
11,000.0	7,166.8	7,290.2	7,183.2	107.8	21.5	-90.24	-420.9	-189.8	3,227.3	3,102.7	124.61	25.900	
11,100.0	7,166.4	7,290.2	7,183.2	110.5	21.5	-90.25	-420.9	-189.8	3,326.1	3,198.7	127.37	26.113	
11,200.0	7,166.1	7,290.2	7,183.2	113.3	21.5	-90.25	-420.9	-189.8	3,424.8	3,294.7	130.14	26.317	
11,300.0	7,165.7	7,290.2	7,183.2	116.1	21.5	-90.25	-420.9	-189.8	3,523.7	3,390.8	132.90	26.513	
11,400.0	7,165.4	7,290.2	7,183.2	118.8	21.5	-90.25	-420.9	-189.8	3,622.6	3,486.9	135.67	26.701	
11,500.0	7,165.0	7,290.2	7,183.2	121.6	21.5	-90.25	-420.9	-189.8	3,721.6	3,583.1	138.45	26.881	
11,600.0	7,164.6	7,290.3	7,183.2	124.4	21.5	-90.25	-420.9	-189.8	3,820.6	3,679.4	141.22	27.054	
11,700.0	7,164.3	7,290.3	7,183.2	127.2	21.5	-90.25	-420.9	-189.8	3,919.6	3,775.7	143.99	27.221	
11,783.3	7,164.0	7,290.3	7,183.3	129.5	21.5	-90.25	-420.9	-189.8	4,002.2	3,855.9	146.31	27.355	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 705-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-47.93	499.1	-552.9	744.8				
100.0	100.0	102.2	102.2	0.1	0.1	-47.93	499.0	-553.0	744.9	744.7	0.20	3,660.708	
200.0	200.0	201.9	201.9	0.3	0.2	-47.96	498.9	-553.2	744.9	744.4	0.53	1,400.454	
300.0	300.0	301.7	301.7	0.5	0.3	-47.99	498.6	-553.6	745.0	744.1	0.86	865.944	
400.0	400.0	401.4	401.4	0.8	0.4	-48.05	498.1	-554.2	745.1	744.0	1.19	626.815	
500.0	500.0	501.1	501.1	1.0	0.5	-48.11	497.6	-554.9	745.3	743.8	1.52	491.241	
600.0	600.0	600.8	600.8	1.2	0.6	-129.55	496.9	-555.7	746.6	744.8	1.84	405.358	
700.0	699.8	700.3	700.2	1.4	0.7	-129.90	496.2	-556.8	750.2	748.1	2.16	346.943	
800.0	799.5	798.9	798.8	1.7	0.9	-130.41	495.4	-557.9	756.2	753.6	2.59	291.465	
900.0	898.7	897.4	897.4	1.9	1.1	-131.07	494.6	-559.1	764.6	761.6	3.05	250.790	
1,000.0	997.5	986.0	985.9	2.2	1.3	-131.70	495.1	-560.1	776.2	772.7	3.50	221.790	
1,099.8	1,095.4	1,061.6	1,061.5	2.6	1.5	-132.18	497.4	-561.4	792.4	788.4	3.96	200.309	
1,100.0	1,095.6	1,061.7	1,061.6	2.6	1.5	-132.18	497.4	-561.4	792.4	788.4	3.96	200.271	
1,200.0	1,193.4	1,133.3	1,133.1	3.0	1.6	-132.90	500.9	-564.2	812.7	808.3	4.44	183.212	
1,300.0	1,291.3	1,202.7	1,202.1	3.4	1.8	-133.65	504.9	-569.4	836.4	831.5	4.93	169.817	
1,400.0	1,389.1	1,266.0	1,265.0	3.8	2.0	-134.34	509.2	-575.9	863.5	858.1	5.41	159.514	
1,500.0	1,486.9	1,344.4	1,342.5	4.2	2.2	-135.21	515.1	-586.3	893.3	887.4	5.93	150.521	
1,600.0	1,584.7	1,424.3	1,421.1	4.7	2.4	-136.12	521.0	-599.0	925.4	918.9	6.45	143.395	
1,700.0	1,682.5	1,492.3	1,487.8	5.1	2.7	-136.95	525.5	-611.4	959.4	952.4	6.95	138.075	
1,800.0	1,780.3	1,545.0	1,539.2	5.5	2.9	-137.57	529.7	-622.4	996.6	989.1	7.41	134.485	
1,900.0	1,878.2	1,621.1	1,612.8	6.0	3.2	-138.43	536.5	-640.1	1,036.3	1,028.4	7.93	130.652	
2,000.0	1,976.0	1,686.9	1,676.2	6.4	3.5	-139.16	542.8	-656.8	1,078.3	1,069.9	8.43	127.951	
2,100.0	2,073.8	1,754.0	1,740.3	6.9	3.9	-139.88	549.4	-675.4	1,122.6	1,113.6	8.92	125.813	
2,200.0	2,171.6	1,827.2	1,810.0	7.3	4.3	-140.64	557.1	-696.7	1,168.3	1,158.9	9.43	123.925	
2,300.0	2,269.4	1,912.3	1,890.7	7.8	4.8	-141.45	566.3	-721.8	1,214.9	1,205.0	9.95	122.112	
2,400.0	2,367.2	2,011.0	1,984.5	8.2	5.4	-142.38	575.7	-751.1	1,261.3	1,250.8	10.48	120.338	
2,500.0	2,465.0	2,089.5	2,059.2	8.7	5.8	-143.08	582.8	-774.4	1,307.7	1,296.7	10.97	119.179	
2,600.0	2,562.9	2,177.8	2,143.0	9.1	6.3	-143.80	591.5	-800.8	1,354.7	1,343.3	11.49	117.935	
2,700.0	2,660.7	2,267.5	2,228.1	9.6	6.8	-144.52	599.5	-827.8	1,401.7	1,389.7	12.00	116.857	
2,800.0	2,758.5	2,356.4	2,312.5	10.0	7.3	-145.18	607.5	-854.4	1,448.8	1,436.3	12.50	115.922	
2,900.0	2,856.3	2,450.2	2,401.8	10.5	7.9	-145.79	616.6	-881.9	1,495.7	1,482.7	13.01	114.946	
3,000.0	2,954.1	2,520.4	2,468.5	11.0	8.3	-146.17	624.7	-901.9	1,542.8	1,529.3	13.49	114.356	
3,100.0	3,051.9	2,581.0	2,525.8	11.4	8.7	-146.47	632.3	-920.1	1,591.4	1,577.5	13.96	114.035	
3,200.0	3,149.8	2,648.9	2,589.8	11.9	9.2	-146.77	641.6	-941.1	1,641.3	1,626.9	14.45	113.623	
3,300.0	3,247.6	2,729.8	2,665.7	12.3	9.7	-147.09	653.4	-966.4	1,691.9	1,677.0	14.96	113.098	
3,400.0	3,345.4	2,866.3	2,794.4	12.8	10.6	-147.56	673.5	-1,007.2	1,741.4	1,725.9	15.58	111.760	
3,500.0	3,443.2	2,942.0	2,866.1	13.2	11.1	-147.81	684.1	-1,029.2	1,790.0	1,773.9	16.07	111.353	
3,600.0	3,541.0	3,045.6	2,964.2	13.7	11.7	-148.14	698.4	-1,059.2	1,838.4	1,821.8	16.63	110.521	
3,700.0	3,638.8	3,156.3	3,069.4	14.1	12.3	-148.48	713.2	-1,090.2	1,886.0	1,868.8	17.20	109.655	
3,800.0	3,736.7	3,250.8	3,159.6	14.6	12.9	-148.77	724.8	-1,116.1	1,932.6	1,914.9	17.73	108.993	
3,836.5	3,772.4	3,277.4	3,184.9	14.8	13.1	-148.86	728.1	-1,123.4	1,949.7	1,931.8	17.91	108.858	
3,900.0	3,834.6	3,326.0	3,231.1	15.0	13.4	-149.33	734.3	-1,136.9	1,979.2	1,960.9	18.22	108.601	
4,000.0	3,933.2	3,408.0	3,309.2	15.3	13.9	-150.01	744.2	-1,160.0	2,023.5	2,004.8	18.70	108.228	
4,100.0	4,032.3	3,482.9	3,380.4	15.6	14.3	-150.60	753.2	-1,181.5	2,065.6	2,046.4	19.14	107.938	
4,200.0	4,131.8	3,573.9	3,466.6	15.8	14.9	-151.09	765.1	-1,208.0	2,105.6	2,086.0	19.60	107.404	
4,300.0	4,231.5	3,781.0	3,664.3	16.0	16.1	-151.45	791.7	-1,263.7	2,141.2	2,120.9	20.36	105.177	
4,400.0	4,331.5	3,857.1	3,737.6	16.1	16.5	-151.70	800.9	-1,282.1	2,170.6	2,149.9	20.74	104.647	
4,436.3	4,367.8	3,884.1	3,763.5	16.2	16.7	-70.50	804.4	-1,288.7	2,180.9	2,149.1	31.81	68.553	
4,500.0	4,431.5	3,940.6	3,817.7	16.2	17.0	-70.43	812.1	-1,302.7	2,198.7	2,166.4	32.21	68.261	
4,600.0	4,531.5	4,021.9	3,895.5	16.4	17.5	-70.32	823.7	-1,323.0	2,227.0	2,194.2	32.81	67.882	
4,700.0	4,631.5	4,138.5	4,007.2	16.5	18.1	-70.17	840.2	-1,352.4	2,255.6	2,222.0	33.60	67.138	
4,800.0	4,731.5	4,260.1	4,124.2	16.6	18.8	-70.09	854.5	-1,382.3	2,282.7	2,248.3	34.39	66.387	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 705-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,369.9	4,230.0	16.8	19.4	-70.07	865.3	-1,409.5	2,309.4	2,274.3	35.11	65.779	
5,000.0	4,931.5	4,561.4	4,415.8	16.9	20.3	-70.05	881.8	-1,453.0	2,333.7	2,297.5	36.18	64.502	
5,100.0	5,031.5	4,851.2	4,700.6	17.0	21.4	-70.07	898.9	-1,502.7	2,351.7	2,314.3	37.42	62.839	
5,200.0	5,131.5	5,122.2	4,970.0	17.2	22.1	-70.09	908.0	-1,529.9	2,362.4	2,324.2	38.26	61.739	
5,300.0	5,231.5	5,324.7	5,172.4	17.3	22.4	-70.11	910.0	-1,538.4	2,366.2	2,327.4	38.74	61.082	
5,400.0	5,331.5	5,431.3	5,279.0	17.5	22.5	-70.13	910.1	-1,541.1	2,368.6	2,329.6	39.03	60.687	
5,500.0	5,431.5	5,532.5	5,380.0	17.6	22.7	-70.16	909.9	-1,543.6	2,370.9	2,331.6	39.32	60.304	
5,600.0	5,531.5	5,642.5	5,490.0	17.7	22.8	-70.19	909.2	-1,546.3	2,373.0	2,333.4	39.61	59.904	
5,700.0	5,631.5	5,751.8	5,599.4	17.9	22.9	-70.23	908.4	-1,548.5	2,374.6	2,334.7	39.91	59.505	
5,800.0	5,731.5	5,857.0	5,704.5	18.0	23.1	-70.26	907.7	-1,550.4	2,376.1	2,335.9	40.19	59.119	
5,900.0	5,831.5	5,975.9	5,823.4	18.2	23.2	-70.29	906.9	-1,551.7	2,376.8	2,336.4	40.49	58.706	
6,000.0	5,931.5	6,083.7	5,931.2	18.4	23.3	-70.32	905.9	-1,552.3	2,377.1	2,336.3	40.77	58.311	
6,100.0	6,031.5	6,185.0	6,032.5	18.5	23.4	-70.34	905.1	-1,552.7	2,377.2	2,336.1	41.04	57.928	
6,200.0	6,131.5	6,284.8	6,132.3	18.7	23.5	-70.36	904.2	-1,553.1	2,377.2	2,335.9	41.31	57.549	
6,300.0	6,231.5	6,384.5	6,232.0	18.8	23.6	-70.39	903.3	-1,553.5	2,377.3	2,335.7	41.58	57.172	
6,400.0	6,331.5	6,489.8	6,337.3	19.0	23.8	-70.42	902.0	-1,553.9	2,377.3	2,335.4	41.86	56.785	
6,500.0	6,431.5	6,591.1	6,438.6	19.1	23.9	-70.45	900.8	-1,554.1	2,377.1	2,335.0	42.14	56.405	
6,531.3	6,462.8	6,622.5	6,469.9	19.2	23.9	-70.46	900.5	-1,554.2	2,377.0	2,334.8	42.23	56.286	
6,550.0	6,481.5	6,641.1	6,488.6	19.2	23.9	19.55	900.2	-1,554.2	2,376.8	2,346.4	30.42	78.121	
6,600.0	6,531.4	6,690.6	6,538.0	19.3	24.0	19.64	899.6	-1,554.3	2,373.8	2,343.2	30.59	77.592	
6,650.0	6,580.9	6,739.2	6,586.7	19.3	24.0	19.85	899.2	-1,554.4	2,367.6	2,336.9	30.66	77.232	
6,700.0	6,629.9	6,787.3	6,634.7	19.3	24.1	20.18	898.8	-1,554.5	2,358.1	2,327.5	30.62	77.019	
6,750.0	6,678.1	6,834.5	6,682.0	19.2	24.1	20.64	898.3	-1,554.6	2,345.5	2,315.0	30.49	76.934	
6,800.0	6,725.2	6,880.8	6,728.2	19.2	24.2	21.24	897.7	-1,554.8	2,329.8	2,299.5	30.28	76.946	
6,850.0	6,771.1	6,925.8	6,773.2	19.1	24.2	22.00	897.1	-1,555.0	2,311.1	2,281.1	30.01	77.014	
6,900.0	6,815.4	6,970.8	6,818.2	19.0	24.3	22.94	896.5	-1,555.3	2,289.4	2,259.7	29.71	77.071	
6,950.0	6,858.0	7,015.4	6,862.8	18.9	24.3	24.08	895.8	-1,555.5	2,264.9	2,235.5	29.40	77.035	
7,000.0	6,898.7	7,055.3	6,902.7	18.9	24.4	25.44	895.1	-1,555.7	2,237.7	2,208.6	29.12	76.831	
7,050.0	6,937.3	7,089.6	6,937.1	18.8	24.4	27.04	894.5	-1,556.0	2,208.0	2,179.1	28.92	76.340	
7,100.0	6,973.6	7,122.1	6,969.5	18.8	24.5	28.94	893.9	-1,556.3	2,176.0	2,147.1	28.87	75.382	
7,150.0	7,007.4	7,155.6	7,003.0	18.8	24.5	31.25	893.3	-1,556.6	2,141.8	2,112.7	29.04	73.742	
7,200.0	7,038.5	7,188.0	7,035.4	18.9	24.6	34.03	892.7	-1,557.0	2,105.5	2,076.0	29.54	71.281	
7,250.0	7,066.8	7,217.5	7,064.9	19.0	24.6	37.35	892.2	-1,557.2	2,067.4	2,037.0	30.42	67.953	
7,300.0	7,092.2	7,243.9	7,091.3	19.2	24.6	41.31	891.8	-1,557.5	2,027.7	1,996.0	31.77	63.829	
7,350.0	7,114.5	7,267.0	7,114.4	19.5	24.7	46.00	891.4	-1,557.7	1,986.6	1,953.0	33.60	59.125	
7,400.0	7,133.6	7,287.0	7,134.3	19.9	24.7	51.51	891.0	-1,557.9	1,944.3	1,908.4	35.88	54.184	
7,450.0	7,149.5	7,303.5	7,150.9	20.3	24.7	57.89	890.7	-1,558.0	1,901.0	1,862.5	38.49	49.395	
7,500.0	7,162.0	7,316.7	7,164.1	20.8	24.7	65.08	890.5	-1,558.1	1,857.1	1,815.9	41.17	45.111	
7,550.0	7,171.1	7,326.5	7,173.8	21.4	24.7	72.90	890.3	-1,558.2	1,812.6	1,769.1	43.60	41.576	
7,600.0	7,176.8	7,332.7	7,180.1	22.1	24.7	81.04	890.2	-1,558.3	1,768.0	1,722.5	45.46	38.891	
7,650.0	7,179.0	7,335.4	7,182.7	22.8	24.7	89.10	890.1	-1,558.3	1,723.4	1,676.8	46.55	37.022	
7,658.9	7,179.0	7,335.5	7,182.8	22.9	24.7	90.50	890.1	-1,558.3	1,715.4	1,668.8	46.66	36.765	
7,700.0	7,178.9	7,335.7	7,183.0	23.5	24.7	90.52	890.1	-1,558.3	1,679.0	1,631.7	47.29	35.503	
7,800.0	7,178.5	7,336.2	7,183.6	25.2	24.7	90.56	890.1	-1,558.3	1,591.3	1,542.3	48.99	32.482	
7,900.0	7,178.1	7,336.7	7,184.1	27.1	24.7	90.59	890.1	-1,558.3	1,505.1	1,454.3	50.87	29.586	
8,000.0	7,177.8	7,337.2	7,184.6	29.2	24.7	90.63	890.1	-1,558.3	1,420.8	1,367.9	52.90	26.855	
8,100.0	7,177.4	7,337.7	7,185.1	31.3	24.7	90.67	890.1	-1,558.3	1,338.6	1,283.5	55.06	24.312	
8,200.0	7,177.0	7,338.2	7,185.6	33.6	24.7	90.71	890.1	-1,558.3	1,258.9	1,201.6	57.31	21.968	
8,300.0	7,176.7	7,338.7	7,186.1	35.9	24.7	90.74	890.1	-1,558.3	1,182.4	1,122.7	59.63	19.827	
8,400.0	7,176.3	7,339.3	7,186.6	38.3	24.7	90.78	890.1	-1,558.3	1,109.6	1,047.5	62.03	17.889	
8,500.0	7,175.9	7,339.8	7,187.1	40.7	24.7	90.82	890.0	-1,558.3	1,041.3	976.8	64.47	16.151	
8,600.0	7,175.6	7,340.3	7,187.6	43.2	24.7	90.85	890.0	-1,558.3	978.5	911.5	66.96	14.613	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO #13-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 705-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	7,175.2	7,340.8	7,188.1	45.7	24.7	90.89	890.0	-1,558.4	922.2	852.8	69.49	13.272	
8,800.0	7,174.8	7,341.3	7,188.6	48.3	24.7	90.93	890.0	-1,558.4	873.9	801.8	72.04	12.130	
8,900.0	7,174.5	7,341.8	7,189.1	50.9	24.7	90.96	890.0	-1,558.4	834.7	760.1	74.63	11.185	
9,000.0	7,174.1	7,342.3	7,189.6	53.5	24.7	91.00	890.0	-1,558.4	806.2	728.9	77.23	10.438	
9,100.0	7,173.7	7,342.8	7,190.1	56.1	24.7	91.04	890.0	-1,558.4	789.3	709.5	79.86	9.884	
9,184.3	7,173.4	7,343.2	7,190.5	58.3	24.7	91.07	890.0	-1,558.4	784.8	702.7	82.09	9.561	
9,200.0	7,173.4	7,343.2	7,190.6	58.8	24.7	91.07	890.0	-1,558.4	785.0	702.5	82.50	9.515	ES
9,300.0	7,173.0	7,343.7	7,191.1	61.4	24.7	91.11	890.0	-1,558.4	793.3	708.1	85.16	9.316	
9,400.0	7,172.6	7,344.2	7,191.6	64.1	24.7	91.14	890.0	-1,558.4	813.9	726.1	87.83	9.267	SF
9,500.0	7,172.3	7,344.7	7,192.1	66.8	24.7	91.18	890.0	-1,558.4	845.9	755.4	90.51	9.346	
9,600.0	7,171.9	7,345.2	7,192.6	69.5	24.7	91.21	889.9	-1,558.4	888.1	794.9	93.20	9.529	
9,700.0	7,171.6	7,345.7	7,193.1	72.2	24.7	91.25	889.9	-1,558.4	939.1	843.2	95.90	9.792	
9,800.0	7,171.2	7,346.2	7,193.5	74.9	24.7	91.29	889.9	-1,558.4	997.5	898.9	98.60	10.116	
9,900.0	7,170.8	7,346.7	7,194.0	77.6	24.7	91.32	889.9	-1,558.4	1,062.1	960.8	101.32	10.483	
10,000.0	7,170.5	7,347.1	7,194.5	80.3	24.7	91.36	889.9	-1,558.4	1,131.9	1,027.9	104.04	10.880	
10,100.0	7,170.1	7,347.6	7,195.0	83.0	24.8	91.39	889.9	-1,558.4	1,206.0	1,099.2	106.76	11.295	
10,200.0	7,169.7	7,348.1	7,195.5	85.8	24.8	91.43	889.9	-1,558.4	1,283.5	1,174.0	109.50	11.722	
10,300.0	7,169.4	7,348.6	7,195.9	88.5	24.8	91.46	889.9	-1,558.4	1,364.0	1,251.8	112.23	12.154	
10,400.0	7,169.0	7,349.0	7,196.4	91.3	24.8	91.49	889.9	-1,558.4	1,447.0	1,332.0	114.97	12.585	
10,500.0	7,168.6	7,349.5	7,196.9	94.0	24.8	91.53	889.9	-1,558.4	1,531.9	1,414.2	117.71	13.014	
10,600.0	7,168.3	7,350.0	7,197.3	96.8	24.8	91.56	889.9	-1,558.4	1,618.6	1,498.2	120.46	13.437	
10,700.0	7,167.9	7,350.5	7,197.8	99.5	24.8	91.60	889.8	-1,558.4	1,706.8	1,583.6	123.21	13.852	
10,800.0	7,167.5	7,350.9	7,198.3	102.3	24.8	91.63	889.8	-1,558.4	1,796.2	1,670.2	125.96	14.259	
10,900.0	7,167.2	7,351.4	7,198.8	105.0	24.8	91.67	889.8	-1,558.4	1,886.6	1,757.9	128.72	14.657	
11,000.0	7,166.8	7,351.9	7,199.2	107.8	24.8	91.70	889.8	-1,558.4	1,978.0	1,846.5	131.48	15.044	
11,100.0	7,166.4	7,352.3	7,199.7	110.5	24.8	91.73	889.8	-1,558.5	2,070.2	1,935.9	134.24	15.421	
11,200.0	7,166.1	7,352.8	7,200.1	113.3	24.8	91.77	889.8	-1,558.5	2,163.0	2,026.0	137.00	15.788	
11,300.0	7,165.7	7,353.2	7,200.6	116.1	24.8	91.80	889.8	-1,558.5	2,256.5	2,116.7	139.77	16.145	
11,400.0	7,165.4	7,353.7	7,201.1	118.8	24.8	91.83	889.8	-1,558.5	2,350.5	2,208.0	142.53	16.491	
11,500.0	7,165.0	7,354.2	7,201.5	121.6	24.8	91.87	889.8	-1,558.5	2,445.0	2,299.7	145.30	16.827	
11,600.0	7,164.6	7,354.6	7,202.0	124.4	24.8	91.90	889.8	-1,558.5	2,539.9	2,391.8	148.07	17.154	
11,700.0	7,164.3	7,355.1	7,202.4	127.2	24.8	91.93	889.8	-1,558.5	2,635.2	2,484.4	150.84	17.470	
11,783.3	7,164.0	7,355.5	7,202.8	129.5	24.8	91.96	889.8	-1,558.5	2,714.9	2,561.7	153.15	17.727	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO 14-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.5	2.5	0.0	0.0	-52.55	439.7	-574.1	723.1				
100.0	100.0	101.9	101.9	0.1	0.1	-52.55	439.7	-574.1	723.2	723.0	0.20	3,562.572	
200.0	200.0	201.3	201.3	0.3	0.2	-52.56	439.7	-574.3	723.3	722.8	0.53	1,362.250	
300.0	300.0	300.7	300.7	0.5	0.3	-52.58	439.6	-574.6	723.5	722.6	0.86	842.334	
400.0	400.0	400.2	400.2	0.8	0.4	-52.61	439.5	-575.1	723.8	722.6	1.19	609.816	
500.0	500.0	499.6	499.6	1.0	0.5	-52.64	439.4	-575.6	724.2	722.6	1.51	478.032	
600.0	600.0	599.0	599.0	1.2	0.6	-134.03	439.3	-576.3	725.8	724.0	1.84	395.213	
700.0	699.8	698.2	698.2	1.4	0.7	-134.31	439.1	-577.0	730.0	727.8	2.16	338.422	
800.0	799.5	788.8	788.7	1.7	0.9	-134.77	438.4	-578.8	737.3	734.7	2.59	285.127	
900.0	898.7	890.0	889.9	1.9	1.2	-135.64	435.8	-582.8	747.6	744.6	3.06	244.302	
1,000.0	997.5	983.0	982.6	2.2	1.4	-136.73	431.5	-588.2	761.1	757.5	3.55	214.608	
1,099.8	1,095.4	1,067.3	1,066.4	2.6	1.6	-137.96	425.8	-595.3	778.6	774.5	4.06	191.843	
1,100.0	1,095.6	1,067.5	1,066.6	2.6	1.6	-137.97	425.8	-595.3	778.6	774.5	4.06	191.804	
1,200.0	1,193.4	1,148.1	1,146.3	3.0	1.9	-139.56	418.8	-604.3	799.4	794.8	4.59	173.990	
1,300.0	1,291.3	1,234.3	1,231.3	3.4	2.2	-141.35	410.1	-616.2	822.5	817.4	5.17	159.067	
1,400.0	1,389.1	1,314.8	1,310.2	3.8	2.5	-143.10	400.3	-628.9	847.5	841.7	5.75	147.319	
1,500.0	1,486.9	1,409.3	1,402.2	4.2	2.9	-145.18	387.4	-645.8	874.6	868.2	6.38	136.983	
1,600.0	1,584.7	1,499.8	1,490.0	4.7	3.3	-147.21	372.4	-661.9	901.7	894.7	7.01	128.570	
1,700.0	1,682.5	1,585.6	1,572.6	5.1	3.7	-149.19	356.3	-678.9	931.0	923.3	7.65	121.652	
1,800.0	1,780.3	1,674.5	1,657.5	5.5	4.2	-151.28	337.2	-696.9	961.1	952.8	8.31	115.681	
1,900.0	1,878.2	1,752.2	1,731.7	6.0	4.6	-153.01	320.6	-713.2	993.3	984.3	8.91	111.463	
2,000.0	1,976.0	1,833.0	1,808.8	6.4	5.0	-154.71	304.0	-730.9	1,027.4	1,017.9	9.50	108.123	
2,100.0	2,073.8	1,926.1	1,897.7	6.9	5.5	-156.52	285.1	-751.1	1,062.4	1,052.3	10.11	105.134	
2,200.0	2,171.6	1,996.9	1,965.2	7.3	5.8	-157.82	271.1	-766.9	1,099.0	1,088.3	10.64	103.295	
2,300.0	2,269.4	2,080.9	2,045.2	7.8	6.3	-159.28	254.6	-786.6	1,137.2	1,126.0	11.24	101.183	
2,400.0	2,367.2	2,189.5	2,148.7	8.2	7.0	-161.06	232.8	-811.3	1,175.7	1,163.8	11.90	98.805	
2,500.0	2,465.0	2,274.5	2,229.8	8.7	7.4	-162.38	215.5	-829.9	1,213.9	1,201.5	12.45	97.477	
2,600.0	2,562.9	2,353.9	2,305.6	9.1	7.8	-163.52	199.8	-847.6	1,253.2	1,240.2	13.00	96.424	
2,700.0	2,660.7	2,445.0	2,392.4	9.6	8.4	-164.75	181.9	-868.3	1,293.4	1,279.8	13.58	95.248	
2,800.0	2,758.5	2,517.9	2,461.8	10.0	8.8	-165.71	167.0	-884.8	1,334.0	1,319.9	14.10	94.612	
2,900.0	2,856.3	2,583.9	2,524.6	10.5	9.2	-166.52	154.1	-901.0	1,376.7	1,362.1	14.60	94.308	
3,000.0	2,954.1	2,679.3	2,615.0	11.0	9.8	-167.64	135.3	-924.6	1,420.1	1,404.9	15.18	93.529	
3,100.0	3,051.9	2,771.5	2,702.5	11.4	10.3	-168.67	116.8	-947.1	1,463.5	1,447.8	15.75	92.930	
3,200.0	3,149.8	2,876.9	2,803.0	11.9	10.9	-169.73	96.5	-971.6	1,506.1	1,489.8	16.34	92.175	
3,300.0	3,247.6	2,953.9	2,876.3	12.3	11.4	-170.48	81.6	-989.7	1,549.3	1,532.5	16.85	91.955	
3,400.0	3,345.4	3,055.5	2,972.9	12.8	12.0	-171.48	60.0	-1,013.1	1,592.5	1,575.0	17.45	91.242	
3,500.0	3,443.2	3,139.0	3,052.1	13.2	12.5	-172.27	42.0	-1,032.2	1,635.8	1,617.8	17.99	90.931	
3,600.0	3,541.0	3,229.6	3,138.4	13.7	13.0	-173.02	24.1	-1,053.0	1,679.3	1,660.8	18.53	90.623	
3,700.0	3,638.8	3,304.9	3,210.3	14.1	13.4	-173.58	10.3	-1,070.6	1,723.4	1,704.4	19.02	90.601	
3,800.0	3,736.7	3,406.0	3,306.7	14.6	14.0	-174.32	-9.1	-1,094.0	1,767.5	1,747.9	19.60	90.184	
3,836.5	3,772.4	3,438.0	3,337.2	14.8	14.2	-174.57	-15.8	-1,101.2	1,783.4	1,763.6	19.80	90.076	
3,900.0	3,834.6	3,480.8	3,377.9	15.0	14.4	-174.94	-24.7	-1,111.2	1,811.0	1,790.9	20.15	89.880	
4,000.0	3,933.2	3,545.5	3,439.2	15.3	14.8	-175.48	-38.1	-1,126.7	1,853.0	1,832.3	20.66	89.711	
4,100.0	4,032.3	3,609.6	3,499.9	15.6	15.3	-175.94	-50.9	-1,143.1	1,893.2	1,872.0	21.13	89.584	
4,200.0	4,131.8	3,685.0	3,571.1	15.8	15.7	-176.39	-64.4	-1,163.7	1,931.5	1,909.9	21.61	89.371	
4,300.0	4,231.5	3,753.8	3,636.1	16.0	16.2	-176.75	-76.0	-1,183.2	1,967.7	1,945.6	22.04	89.290	
4,400.0	4,331.5	3,838.9	3,716.1	16.1	16.7	-177.19	-91.2	-1,207.6	2,001.2	1,978.7	22.50	88.944	
4,436.3	4,367.8	3,872.0	3,747.2	16.2	17.0	-96.10	-98.0	-1,217.0	2,012.6	1,981.5	31.12	64.677	
4,500.0	4,431.5	3,959.2	3,828.8	16.2	17.5	-96.56	-116.4	-1,241.2	2,032.0	2,000.3	31.75	64.001	
4,600.0	4,531.5	4,072.1	3,935.0	16.4	18.2	-97.16	-140.4	-1,271.2	2,061.4	2,028.9	32.57	63.295	
4,700.0	4,631.5	4,171.8	4,029.1	16.5	18.8	-97.66	-161.3	-1,297.0	2,090.2	2,056.8	33.30	62.759	
4,800.0	4,731.5	4,245.0	4,098.1	16.6	19.3	-97.98	-175.3	-1,316.9	2,119.9	2,086.0	33.89	62.555	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO 14-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,338.8	4,186.3	16.8	19.9	-98.39	-193.9	-1,342.7	2,150.4	2,115.7	34.63	62.092	
5,000.0	4,931.5	4,517.6	4,355.3	16.9	21.0	-99.18	-229.9	-1,388.8	2,179.8	2,144.0	35.86	60.794	
5,100.0	5,031.5	4,711.2	4,540.5	17.0	22.1	-99.98	-267.3	-1,431.0	2,205.3	2,168.3	37.05	59.529	
5,200.0	5,131.5	4,896.4	4,720.0	17.2	23.0	-100.64	-298.7	-1,463.6	2,226.0	2,187.9	38.04	58.517	
5,300.0	5,231.5	5,008.2	4,829.1	17.3	23.4	-101.00	-315.8	-1,481.2	2,244.5	2,205.8	38.66	58.059	
5,400.0	5,331.5	5,317.4	5,134.0	17.5	24.5	-101.72	-351.5	-1,516.2	2,257.9	2,218.0	39.84	56.680	
5,500.0	5,431.5	5,624.0	5,440.1	17.6	25.0	-101.90	-360.9	-1,527.1	2,261.6	2,221.1	40.49	55.857	
5,600.0	5,531.5	5,721.3	5,537.4	17.7	25.1	-101.88	-360.0	-1,527.0	2,261.3	2,220.6	40.72	55.529	
5,628.2	5,559.7	5,746.1	5,562.2	17.8	25.1	-101.87	-359.9	-1,527.0	2,261.3	2,220.5	40.79	55.440	
5,700.0	5,631.5	5,804.7	5,620.8	17.9	25.1	-101.86	-359.6	-1,527.3	2,261.5	2,220.5	40.95	55.220	
5,800.0	5,731.5	5,904.7	5,720.8	18.0	25.2	-101.86	-359.6	-1,528.0	2,262.2	2,221.0	41.21	54.892	
5,900.0	5,831.5	5,997.5	5,813.5	18.2	25.3	-101.86	-359.8	-1,528.6	2,262.9	2,221.4	41.47	54.570	
6,000.0	5,931.5	6,093.1	5,909.1	18.4	25.4	-101.87	-360.3	-1,529.5	2,263.9	2,222.2	41.73	54.245	
6,100.0	6,031.5	6,197.3	6,013.4	18.5	25.5	-101.88	-361.1	-1,530.4	2,265.0	2,222.9	42.02	53.908	
6,200.0	6,131.5	6,301.2	6,117.2	18.7	25.7	-101.90	-361.7	-1,531.2	2,265.8	2,223.5	42.29	53.573	
6,300.0	6,231.5	6,405.0	6,221.0	18.8	25.8	-101.91	-362.3	-1,531.7	2,266.4	2,223.9	42.57	53.239	
6,400.0	6,331.5	6,506.8	6,322.8	19.0	25.9	-101.91	-362.6	-1,532.2	2,266.9	2,224.1	42.85	52.908	
6,500.0	6,431.5	6,604.0	6,420.1	19.1	26.0	-101.91	-362.7	-1,532.7	2,267.5	2,224.3	43.12	52.585	
6,531.3	6,462.8	6,632.8	6,448.8	19.2	26.0	-101.91	-362.7	-1,532.9	2,267.7	2,224.5	43.20	52.487	
6,550.0	6,481.5	6,650.0	6,466.0	19.2	26.0	-11.91	-362.8	-1,533.0	2,267.6	2,234.7	32.90	68.929	
6,600.0	6,531.4	6,698.2	6,514.3	19.3	26.1	-11.97	-362.9	-1,533.4	2,265.0	2,232.0	32.98	68.683	
6,650.0	6,580.9	6,747.8	6,563.9	19.3	26.2	-12.11	-363.0	-1,533.8	2,259.1	2,226.2	32.91	68.648	
6,700.0	6,629.9	6,798.5	6,614.5	19.3	26.2	-12.33	-363.2	-1,534.2	2,249.7	2,217.0	32.69	68.821	
6,750.0	6,678.1	6,848.9	6,664.9	19.2	26.3	-12.63	-363.2	-1,534.6	2,237.0	2,204.7	32.33	69.199	
6,800.0	6,725.2	6,900.6	6,716.6	19.2	26.3	-13.03	-363.3	-1,534.9	2,221.0	2,189.2	31.83	69.773	
6,850.0	6,771.1	6,950.8	6,766.9	19.1	26.4	-13.55	-363.3	-1,535.1	2,201.7	2,170.5	31.21	70.542	
6,900.0	6,815.4	6,996.7	6,812.7	19.0	26.4	-14.18	-363.4	-1,535.2	2,179.3	2,148.8	30.48	71.500	
6,950.0	6,858.0	7,040.0	6,856.0	18.9	26.5	-14.95	-363.5	-1,535.3	2,153.9	2,124.2	29.66	72.619	
7,000.0	6,898.7	7,079.2	6,895.2	18.9	26.5	-15.87	-363.5	-1,535.4	2,125.7	2,096.9	28.78	73.856	
7,050.0	6,937.3	7,115.7	6,931.7	18.8	26.6	-16.99	-363.7	-1,535.5	2,094.8	2,066.9	27.88	75.129	
7,100.0	6,973.6	7,151.3	6,967.4	18.8	26.6	-18.36	-363.9	-1,535.6	2,061.4	2,034.4	27.02	76.286	
7,150.0	7,007.4	7,185.7	7,001.8	18.8	26.7	-20.05	-364.1	-1,535.7	2,025.7	1,999.4	26.28	77.093	
7,200.0	7,038.5	7,217.5	7,033.5	18.9	26.7	-22.12	-364.2	-1,535.8	1,987.8	1,962.0	25.74	77.212	
7,250.0	7,066.8	7,247.6	7,063.6	19.0	26.7	-24.71	-364.4	-1,535.8	1,947.9	1,922.3	25.57	76.171	
7,300.0	7,092.2	7,274.9	7,091.0	19.2	26.8	-27.96	-364.5	-1,535.9	1,906.2	1,880.2	25.94	73.496	
7,350.0	7,114.5	7,298.9	7,114.9	19.5	26.8	-32.08	-364.6	-1,535.9	1,862.9	1,835.8	27.04	68.905	
7,400.0	7,133.6	7,319.3	7,135.4	19.9	26.8	-37.34	-364.7	-1,535.9	1,818.2	1,789.2	29.06	62.564	
7,450.0	7,149.5	7,335.1	7,151.2	20.3	26.8	-44.03	-364.8	-1,535.8	1,772.5	1,740.4	32.09	55.239	
7,500.0	7,162.0	7,347.6	7,163.6	20.8	26.8	-52.52	-364.8	-1,535.8	1,725.9	1,689.9	36.01	47.925	
7,550.0	7,171.1	7,356.6	7,172.7	21.4	26.8	-63.03	-364.9	-1,535.8	1,678.7	1,638.3	40.31	41.640	
7,600.0	7,176.8	7,362.2	7,178.3	22.1	26.9	-75.26	-364.9	-1,535.8	1,631.0	1,587.1	43.99	37.081	
7,650.0	7,179.0	7,364.4	7,180.4	22.8	26.9	-88.25	-364.9	-1,535.8	1,583.3	1,537.4	45.92	34.476	
7,658.9	7,179.0	7,364.4	7,180.4	22.9	26.9	-90.54	-364.9	-1,535.8	1,574.8	1,528.7	46.04	34.203	
7,700.0	7,178.9	7,364.2	7,180.3	23.5	26.9	-90.52	-364.9	-1,535.8	1,535.6	1,488.9	46.67	32.900	
7,800.0	7,178.5	7,363.8	7,179.8	25.2	26.9	-90.46	-364.9	-1,535.8	1,440.7	1,392.4	48.37	29.784	
7,900.0	7,178.1	7,363.4	7,179.4	27.1	26.9	-90.41	-364.9	-1,535.8	1,346.6	1,296.4	50.26	26.795	
8,000.0	7,177.8	7,362.9	7,179.0	29.2	26.9	-90.36	-364.9	-1,535.8	1,253.4	1,201.1	52.29	23.971	
8,100.0	7,177.4	7,362.5	7,178.5	31.3	26.9	-90.31	-364.9	-1,535.8	1,161.3	1,106.9	54.44	21.331	
8,200.0	7,177.0	7,362.1	7,178.1	33.6	26.9	-90.25	-364.9	-1,535.8	1,070.6	1,013.9	56.69	18.885	
8,300.0	7,176.7	7,361.6	7,177.7	35.9	26.9	-90.20	-364.9	-1,535.8	981.8	922.8	59.02	16.635	
8,400.0	7,176.3	7,361.2	7,177.2	38.3	26.9	-90.15	-364.9	-1,535.8	895.3	833.9	61.41	14.578	
8,500.0	7,175.9	7,360.8	7,176.8	40.7	26.9	-90.10	-364.9	-1,535.8	811.9	748.0	63.86	12.713	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST DD WEDCO 14-21DU - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 704-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	7,360.3	7,176.4	43.2	26.9	-90.04	-364.9	-1,535.8	732.7	666.3	66.35	11.042	
8,700.0	7,175.2	7,359.9	7,175.9	45.7	26.9	-89.99	-364.9	-1,535.8	659.1	590.2	68.88	9.569	
8,800.0	7,174.8	7,359.5	7,175.5	48.3	26.9	-89.94	-364.9	-1,535.8	593.3	521.9	71.44	8.306	
8,900.0	7,174.5	7,359.0	7,175.1	50.9	26.9	-89.88	-364.9	-1,535.8	538.2	464.2	74.02	7.271	
9,000.0	7,174.1	7,358.6	7,174.6	53.5	26.8	-89.83	-364.9	-1,535.8	497.3	420.7	76.63	6.490	
9,100.0	7,173.7	7,358.2	7,174.2	56.1	26.8	-89.78	-364.9	-1,535.8	474.3	395.0	79.26	5.984	
9,161.9	7,173.5	7,357.9	7,173.9	57.8	26.8	-89.75	-364.9	-1,535.8	470.2	389.3	80.89	5.813	CC, ES
9,200.0	7,173.4	7,357.7	7,173.8	58.8	26.8	-89.72	-364.9	-1,535.8	471.7	389.8	81.90	5.760	SF
9,300.0	7,173.0	7,357.3	7,173.3	61.4	26.8	-89.67	-364.9	-1,535.8	490.1	405.5	84.56	5.796	
9,400.0	7,172.6	7,356.8	7,172.9	64.1	26.8	-89.62	-364.9	-1,535.8	527.1	439.8	87.23	6.042	
9,500.0	7,172.3	7,356.4	7,172.4	66.8	26.8	-89.56	-364.9	-1,535.8	579.2	489.2	89.91	6.442	
9,600.0	7,171.9	7,356.0	7,172.0	69.5	26.8	-89.51	-364.9	-1,535.8	642.7	550.1	92.60	6.940	
9,700.0	7,171.6	7,355.5	7,171.6	72.2	26.8	-89.46	-364.9	-1,535.8	714.6	619.3	95.30	7.498	
9,800.0	7,171.2	7,355.1	7,171.1	74.9	26.8	-89.40	-364.9	-1,535.8	792.7	694.6	98.01	8.087	
9,900.0	7,170.8	7,354.6	7,170.7	77.6	26.8	-89.35	-364.9	-1,535.8	875.2	774.4	100.73	8.689	
10,000.0	7,170.5	7,354.2	7,170.2	80.3	26.8	-89.30	-364.9	-1,535.8	961.0	857.6	103.45	9.290	
10,100.0	7,170.1	7,353.8	7,169.8	83.0	26.8	-89.24	-364.9	-1,535.8	1,049.4	943.2	106.17	9.883	
10,200.0	7,169.7	7,353.3	7,169.4	85.8	26.8	-89.19	-364.9	-1,535.8	1,139.6	1,030.7	108.91	10.464	
10,300.0	7,169.4	7,352.9	7,168.9	88.5	26.8	-89.13	-364.9	-1,535.8	1,231.4	1,119.8	111.64	11.030	
10,400.0	7,169.0	7,352.4	7,168.5	91.3	26.8	-89.08	-364.9	-1,535.8	1,324.4	1,210.0	114.38	11.579	
10,500.0	7,168.6	7,352.0	7,168.0	94.0	26.8	-89.02	-364.9	-1,535.8	1,418.3	1,301.2	117.13	12.109	
10,600.0	7,168.3	7,351.5	7,167.6	96.8	26.8	-88.97	-364.9	-1,535.8	1,513.0	1,393.2	119.88	12.622	
10,700.0	7,167.9	7,351.1	7,167.1	99.5	26.8	-88.92	-364.9	-1,535.8	1,608.4	1,485.8	122.63	13.116	
10,800.0	7,167.5	7,350.6	7,166.7	102.3	26.8	-88.86	-364.9	-1,535.8	1,704.3	1,578.9	125.38	13.593	
10,900.0	7,167.2	7,350.2	7,166.2	105.0	26.8	-88.81	-364.9	-1,535.8	1,800.6	1,672.5	128.14	14.052	
11,000.0	7,166.8	7,349.7	7,165.8	107.8	26.8	-88.75	-364.9	-1,535.8	1,897.3	1,766.4	130.90	14.495	
11,100.0	7,166.4	7,349.3	7,165.3	110.5	26.8	-88.70	-364.9	-1,535.8	1,994.3	1,860.7	133.66	14.921	
11,200.0	7,166.1	7,348.8	7,164.9	113.3	26.8	-88.64	-364.9	-1,535.8	2,091.6	1,955.2	136.42	15.332	
11,300.0	7,165.7	7,348.4	7,164.4	116.1	26.8	-88.59	-364.9	-1,535.8	2,189.2	2,050.0	139.18	15.729	
11,400.0	7,165.4	7,347.9	7,164.0	118.8	26.8	-88.53	-364.9	-1,535.8	2,287.0	2,145.0	141.95	16.111	
11,500.0	7,165.0	7,347.5	7,163.5	121.6	26.8	-88.48	-364.8	-1,535.8	2,384.9	2,240.2	144.72	16.480	
11,600.0	7,164.6	7,347.0	7,163.1	124.4	26.8	-88.42	-364.8	-1,535.8	2,483.0	2,335.5	147.49	16.836	
11,700.0	7,164.3	7,346.6	7,162.6	127.2	26.8	-88.37	-364.8	-1,535.8	2,581.3	2,431.0	150.26	17.179	
11,783.3	7,164.0	7,346.3	7,162.3	129.5	26.8	-88.32	-364.8	-1,535.8	2,663.3	2,510.7	152.57	17.456	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT BUNYAN #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_CT — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-38.25	678.3	-534.7	863.9				
100.0	100.0	86.2	86.2	0.1	0.1	-38.25	678.4	-534.8	863.8	863.7	0.15	5,672.156	
200.0	200.0	186.4	186.4	0.3	0.1	-38.26	678.4	-535.1	864.0	863.5	0.47	1,841.980	
300.0	300.0	288.3	288.2	0.5	0.2	-38.30	678.1	-535.5	864.0	863.2	0.78	1,109.334	
349.8	349.8	337.3	337.3	0.7	0.3	-38.30	678.0	-535.5	864.0	863.1	0.92	935.497	
400.0	400.0	386.2	386.2	0.8	0.3	-38.33	677.8	-535.8	864.0	863.0	1.07	809.683	
500.0	500.0	488.5	488.5	1.0	0.4	-38.40	677.2	-536.7	864.1	862.7	1.36	633.965	
508.0	508.0	496.7	496.7	1.0	0.4	-119.67	677.1	-536.7	864.1	862.7	1.37	629.258	
600.0	600.0	583.8	583.8	1.2	0.4	-119.81	676.7	-537.5	865.1	863.4	1.62	534.449	
700.0	699.8	681.2	681.2	1.4	0.5	-120.13	676.4	-538.8	868.3	866.4	1.89	460.299	
800.0	799.5	788.2	788.1	1.7	0.5	-120.64	676.1	-539.8	873.1	870.9	2.16	404.061	
900.0	898.7	885.1	885.0	1.9	0.6	-121.26	675.3	-540.6	879.3	876.8	2.46	357.999	
1,000.0	997.5	986.8	986.7	2.2	0.6	-122.11	674.3	-541.8	887.6	884.8	2.78	318.839	
1,099.8	1,095.4	1,084.2	1,084.2	2.6	0.7	-123.04	673.2	-542.8	897.8	894.7	3.14	285.605	
1,100.0	1,095.6	1,084.4	1,084.4	2.6	0.7	-123.04	673.2	-542.8	897.8	894.7	3.14	285.546	
1,200.0	1,193.4	1,176.1	1,176.0	3.0	0.7	-124.13	672.5	-543.8	909.7	906.2	3.52	258.697	
1,300.0	1,291.3	1,275.4	1,275.3	3.4	0.7	-125.28	672.0	-545.0	922.3	918.4	3.90	236.587	
1,400.0	1,389.1	1,370.7	1,370.6	3.8	0.8	-126.36	671.3	-546.3	935.0	930.7	4.28	218.394	
1,500.0	1,486.9	1,472.5	1,472.4	4.2	0.8	-127.47	670.9	-547.5	948.3	943.6	4.66	203.324	
1,600.0	1,584.7	1,567.9	1,567.8	4.7	0.9	-128.50	670.0	-548.6	961.4	956.4	5.04	190.586	
1,700.0	1,682.5	1,663.9	1,663.8	5.1	0.9	-129.52	669.2	-550.1	975.3	969.9	5.43	179.731	
1,800.0	1,780.3	1,759.0	1,758.8	5.5	0.9	-130.49	668.6	-551.5	989.6	983.7	5.81	170.435	
1,900.0	1,878.2	1,855.9	1,855.8	6.0	1.0	-131.42	668.7	-552.8	1,004.4	998.2	6.18	162.405	
2,000.0	1,976.0	1,954.6	1,954.5	6.4	1.0	-132.34	668.5	-554.0	1,019.3	1,012.8	6.56	155.426	
2,100.0	2,073.8	2,053.8	2,053.6	6.9	1.1	-133.28	667.8	-555.6	1,034.5	1,027.5	6.94	149.163	
2,200.0	2,171.6	2,154.4	2,154.2	7.3	1.1	-134.19	667.2	-556.9	1,049.6	1,042.3	7.32	143.421	
2,300.0	2,269.4	2,251.0	2,250.8	7.8	1.2	-135.03	666.6	-557.8	1,064.8	1,057.1	7.70	138.344	
2,400.0	2,367.2	2,343.9	2,343.7	8.2	1.2	-135.82	666.2	-559.0	1,080.6	1,072.5	8.07	133.898	
2,500.0	2,465.0	2,439.8	2,439.6	8.7	1.3	-136.62	665.8	-560.6	1,096.9	1,088.5	8.44	129.971	
2,600.0	2,562.9	2,540.5	2,540.3	9.1	1.3	-137.43	665.3	-562.2	1,113.3	1,104.5	8.81	126.430	
2,700.0	2,660.7	2,638.7	2,638.5	9.6	1.4	-138.20	664.8	-563.5	1,129.7	1,120.5	9.17	123.225	
2,800.0	2,758.5	2,733.1	2,732.8	10.0	1.4	-138.92	664.3	-564.9	1,146.4	1,136.9	9.52	120.361	
2,900.0	2,856.3	2,827.4	2,827.2	10.5	1.5	-139.62	664.0	-566.5	1,163.6	1,153.7	9.88	117.775	
3,000.0	2,954.1	2,921.8	2,921.6	11.0	1.5	-140.30	664.0	-568.3	1,181.2	1,171.0	10.23	115.420	
3,100.0	3,051.9	3,017.3	3,017.0	11.4	1.6	-140.95	664.2	-570.1	1,199.2	1,188.6	10.59	113.290	
3,200.0	3,149.8	3,117.9	3,117.6	11.9	1.6	-141.62	664.3	-572.1	1,217.3	1,206.4	10.93	111.350	
3,300.0	3,247.6	3,216.9	3,216.6	12.3	1.6	-142.27	664.2	-573.9	1,235.3	1,224.0	11.28	109.553	
3,400.0	3,345.4	3,308.5	3,308.1	12.8	1.7	-142.84	664.3	-575.6	1,253.7	1,242.1	11.62	107.920	
3,500.0	3,443.2	3,400.0	3,399.6	13.2	1.7	-143.37	665.1	-577.4	1,272.6	1,260.7	11.96	106.428	
3,600.0	3,541.0	3,493.2	3,492.8	13.7	1.7	-143.89	666.3	-579.6	1,292.1	1,279.8	12.30	105.030	
3,700.0	3,638.8	3,586.2	3,585.8	14.1	1.8	-144.40	667.6	-582.0	1,311.9	1,299.3	12.64	103.756	
3,800.0	3,736.7	3,682.2	3,681.7	14.6	1.8	-144.90	669.1	-584.6	1,332.1	1,319.2	12.98	102.597	
3,836.5	3,772.4	3,717.4	3,716.9	14.8	1.8	-145.08	669.7	-585.6	1,339.6	1,326.4	13.11	102.194	
3,900.0	3,834.6	3,778.9	3,778.4	15.0	1.9	-145.50	670.9	-587.2	1,351.9	1,338.6	13.28	101.833	
4,000.0	3,933.2	3,876.2	3,875.6	15.3	1.9	-146.07	672.9	-589.8	1,369.2	1,355.7	13.50	101.442	
4,100.0	4,032.3	3,973.9	3,973.3	15.6	1.9	-146.53	674.5	-592.6	1,383.7	1,370.0	13.70	101.011	
4,200.0	4,131.8	4,082.7	4,082.0	15.8	2.0	-146.90	675.8	-595.7	1,395.2	1,381.3	13.88	100.495	
4,300.0	4,231.5	4,195.9	4,195.1	16.0	2.0	-147.14	677.1	-597.8	1,402.8	1,388.8	14.06	99.806	
4,400.0	4,331.5	4,295.3	4,294.5	16.1	2.0	-147.23	678.3	-599.2	1,407.1	1,392.8	14.21	99.010	
4,436.3	4,367.8	4,331.2	4,330.4	16.2	2.1	-65.96	678.7	-599.7	1,407.9	1,391.3	16.60	84.796	
4,500.0	4,431.5	4,394.2	4,393.4	16.2	2.1	-65.95	679.5	-600.6	1,409.0	1,392.3	16.70	84.386	
4,600.0	4,531.5	4,500.7	4,499.9	16.4	2.1	-65.93	680.6	-601.9	1,410.6	1,393.8	16.86	83.691	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT BUNYAN #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_CT — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,700.0	4,631.5	4,606.7	4,605.9	16.5	2.1	-65.91	681.5	-602.8	1,411.7	1,394.7	17.02	82.968	
4,800.0	4,731.5	4,700.6	4,699.8	16.6	2.2	-65.90	682.1	-603.7	1,412.9	1,395.7	17.18	82.261	
4,900.0	4,831.5	4,800.0	4,799.2	16.8	2.2	-65.91	682.5	-605.3	1,414.5	1,397.1	17.34	81.571	
5,000.0	4,931.5	4,899.9	4,899.1	16.9	2.2	-65.92	683.0	-606.8	1,416.1	1,398.6	17.51	80.892	
5,100.0	5,031.5	5,005.6	5,004.8	17.0	2.3	-65.91	683.8	-607.8	1,417.3	1,399.6	17.67	80.192	
5,200.0	5,131.5	5,103.3	5,102.4	17.2	2.3	-65.90	684.4	-608.7	1,418.3	1,400.5	17.84	79.503	
5,300.0	5,231.5	5,201.0	5,200.2	17.3	2.3	-65.90	684.8	-609.9	1,419.6	1,401.6	18.01	78.820	
5,400.0	5,331.5	5,313.1	5,312.3	17.5	2.3	-65.92	684.9	-610.9	1,420.5	1,402.3	18.17	78.172	
5,500.0	5,431.5	5,422.1	5,421.3	17.6	2.3	-65.92	684.8	-611.1	1,420.6	1,402.2	18.33	77.489	
5,600.0	5,531.5	5,520.3	5,519.4	17.7	2.3	-65.92	684.9	-610.9	1,420.5	1,402.0	18.49	76.822	
5,624.2	5,555.7	5,544.0	5,543.2	17.8	2.3	-65.92	684.9	-610.9	1,420.5	1,401.9	18.53	76.663	
5,700.0	5,631.5	5,618.3	5,617.5	17.9	2.3	-65.91	685.2	-610.8	1,420.5	1,401.8	18.65	76.170	
5,800.0	5,731.5	5,715.9	5,715.1	18.0	2.3	-65.91	685.2	-611.0	1,420.7	1,401.9	18.81	75.528	
5,900.0	5,831.5	5,813.5	5,812.6	18.2	2.4	-65.94	684.6	-611.7	1,421.0	1,402.1	18.98	74.881	
6,000.0	5,931.5	5,910.4	5,909.6	18.4	2.4	-65.97	684.1	-612.5	1,421.6	1,402.4	19.16	74.185	
6,100.0	6,031.5	6,008.6	6,007.8	18.5	2.4	-65.99	684.1	-613.3	1,422.4	1,403.0	19.35	73.516	
6,200.0	6,131.5	6,122.5	6,121.6	18.7	2.4	-65.99	684.1	-613.7	1,422.7	1,403.1	19.52	72.893	
6,300.0	6,231.5	6,229.6	6,228.7	18.8	2.4	-66.00	683.6	-613.2	1,422.1	1,402.4	19.69	72.235	
6,400.0	6,331.5	6,322.3	6,321.4	19.0	2.4	-66.00	683.4	-612.9	1,421.6	1,401.8	19.85	71.605	
6,431.8	6,363.3	6,351.7	6,350.9	19.0	2.4	-66.00	683.4	-612.8	1,421.6	1,401.7	19.91	71.412	
6,500.0	6,431.5	6,417.0	6,416.1	19.1	2.4	-66.00	683.6	-612.9	1,421.7	1,401.7	20.02	71.009	
6,531.3	6,462.8	6,450.0	6,449.1	19.2	2.4	-65.99	683.7	-612.9	1,421.8	1,401.7	20.07	70.823	
6,550.0	6,481.5	6,469.7	6,468.8	19.2	2.4	24.02	683.7	-612.9	1,421.5	1,403.3	18.29	77.715	
6,600.0	6,531.4	6,522.2	6,521.4	19.3	2.4	24.16	683.6	-612.9	1,418.7	1,400.4	18.32	77.456	
6,650.0	6,580.9	6,574.4	6,573.6	19.3	2.4	24.47	683.4	-612.8	1,412.6	1,394.3	18.37	76.915	
6,700.0	6,629.9	6,624.8	6,623.9	19.3	2.4	24.95	683.1	-612.7	1,403.3	1,384.9	18.44	76.105	
6,750.0	6,678.1	6,673.0	6,672.2	19.2	2.4	25.61	682.7	-612.6	1,391.0	1,372.4	18.53	75.070	
6,800.0	6,725.2	6,720.2	6,719.4	19.2	2.4	26.46	682.4	-612.6	1,375.6	1,356.9	18.63	73.851	
6,850.0	6,771.1	6,766.2	6,765.3	19.1	2.4	27.53	681.9	-612.5	1,357.3	1,338.5	18.73	72.468	
6,900.0	6,815.4	6,809.9	6,809.0	19.0	2.4	28.84	681.5	-612.5	1,336.2	1,317.4	18.84	70.930	
6,950.0	6,858.0	6,849.5	6,848.6	18.9	2.5	30.39	681.1	-612.5	1,312.5	1,293.6	18.96	69.239	
7,000.0	6,898.7	6,887.5	6,886.6	18.9	2.5	32.23	680.7	-612.6	1,286.5	1,267.4	19.10	67.369	
7,050.0	6,937.3	6,923.6	6,922.7	18.8	2.5	34.41	680.4	-612.8	1,258.1	1,238.9	19.27	65.292	
7,100.0	6,973.6	6,957.7	6,956.8	18.8	2.5	36.98	680.1	-613.1	1,227.7	1,208.2	19.49	62.985	
7,150.0	7,007.4	6,989.6	6,988.7	18.8	2.5	39.97	679.9	-613.4	1,195.4	1,175.6	19.78	60.437	
7,200.0	7,038.5	7,020.9	7,020.0	18.9	2.5	43.50	679.7	-613.7	1,161.4	1,141.3	20.15	57.642	
7,250.0	7,066.8	7,050.2	7,049.4	19.0	2.5	47.58	679.5	-614.0	1,126.0	1,105.4	20.60	54.663	
7,300.0	7,092.2	7,076.4	7,075.6	19.2	2.5	52.20	679.4	-614.1	1,089.2	1,068.1	21.11	51.601	
7,350.0	7,114.5	7,099.4	7,098.5	19.5	2.5	57.30	679.3	-614.3	1,051.6	1,029.9	21.65	48.565	
7,400.0	7,133.6	7,119.0	7,118.2	19.9	2.5	62.78	679.3	-614.4	1,013.2	991.0	22.19	45.656	
7,450.0	7,149.5	7,135.3	7,134.4	20.3	2.5	68.49	679.3	-614.4	974.6	951.9	22.70	42.933	
7,500.0	7,162.0	7,148.0	7,147.2	20.8	2.5	74.21	679.3	-614.4	935.9	912.8	23.17	40.396	
7,550.0	7,171.1	7,157.3	7,156.4	21.4	2.5	79.71	679.4	-614.5	897.6	874.0	23.63	37.984	
7,600.0	7,176.8	7,163.1	7,162.2	22.1	2.5	84.78	679.4	-614.5	860.1	835.9	24.15	35.607	
7,650.0	7,179.0	7,165.3	7,164.5	22.8	2.5	89.28	679.4	-614.5	823.6	798.8	24.79	33.223	
7,658.9	7,179.0	7,165.4	7,164.5	22.9	2.5	90.01	679.4	-614.5	817.2	792.3	24.91	32.799	
7,700.0	7,178.9	7,165.3	7,164.4	23.5	2.5	90.00	679.4	-614.5	788.5	762.9	25.55	30.862	
7,800.0	7,178.5	7,165.0	7,164.2	25.2	2.5	89.98	679.4	-614.5	723.6	696.3	27.25	26.558	
7,900.0	7,178.1	7,164.8	7,163.9	27.1	2.5	89.95	679.4	-614.5	667.5	638.3	29.13	22.914	
8,000.0	7,177.8	7,164.6	7,163.7	29.2	2.5	89.93	679.4	-614.5	622.4	591.2	31.16	19.974	
8,100.0	7,177.4	7,164.3	7,163.5	31.3	2.5	89.91	679.4	-614.5	591.0	557.7	33.31	17.741	
8,200.0	7,177.0	7,164.1	7,163.2	33.6	2.5	89.88	679.4	-614.5	575.5	539.9	35.56	16.182	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT BUNYAN #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_CT — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,240.5	7,176.9	7,164.0	7,163.1	34.5	2.5	89.88	679.4	-614.5	574.1	537.6	36.51	15.725	CC, ES
8,300.0	7,176.7	7,163.9	7,163.0	35.9	2.5	89.86	679.4	-614.5	577.1	539.2	37.89	15.231	
8,400.0	7,176.3	7,163.7	7,162.8	38.3	2.5	89.84	679.4	-614.5	595.8	555.5	40.29	14.790	
8,500.0	7,175.9	7,163.4	7,162.6	40.7	2.5	89.82	679.4	-614.5	630.0	587.3	42.73	14.743	SF
8,600.0	7,175.6	7,163.2	7,162.3	43.2	2.5	89.80	679.4	-614.5	677.3	632.1	45.22	14.978	
8,700.0	7,175.2	7,163.0	7,162.1	45.7	2.5	89.78	679.4	-614.5	735.3	687.6	47.75	15.400	
8,800.0	7,174.8	7,162.8	7,161.9	48.3	2.5	89.75	679.4	-614.5	801.6	751.3	50.31	15.935	
8,900.0	7,174.5	7,162.6	7,161.7	50.9	2.5	89.73	679.4	-614.5	874.4	821.5	52.89	16.531	
9,000.0	7,174.1	7,162.4	7,161.5	53.5	2.5	89.71	679.4	-614.5	952.0	896.5	55.50	17.154	
9,100.0	7,173.7	7,162.2	7,161.3	56.1	2.5	89.69	679.4	-614.5	1,033.6	975.5	58.13	17.782	
9,200.0	7,173.4	7,162.0	7,161.1	58.8	2.5	89.67	679.4	-614.5	1,118.1	1,057.3	60.77	18.399	
9,300.0	7,173.0	7,161.8	7,160.9	61.4	2.5	89.65	679.4	-614.5	1,205.0	1,141.6	63.43	18.999	
9,400.0	7,172.6	7,161.6	7,160.7	64.1	2.5	89.63	679.4	-614.5	1,293.8	1,227.7	66.10	19.574	
9,500.0	7,172.3	7,161.4	7,160.5	66.8	2.5	89.61	679.4	-614.5	1,384.2	1,315.4	68.78	20.124	
9,600.0	7,171.9	7,161.2	7,160.3	69.5	2.5	89.59	679.4	-614.5	1,475.7	1,404.3	71.47	20.647	
9,700.0	7,171.6	7,161.0	7,160.1	72.2	2.5	89.57	679.4	-614.5	1,568.3	1,494.2	74.17	21.144	
9,800.0	7,171.2	7,160.8	7,159.9	74.9	2.5	89.55	679.4	-614.5	1,661.8	1,584.9	76.88	21.615	
9,900.0	7,170.8	7,160.6	7,159.7	77.6	2.5	89.53	679.4	-614.5	1,756.0	1,676.4	79.60	22.060	
10,000.0	7,170.5	7,160.4	7,159.5	80.3	2.5	89.52	679.4	-614.5	1,850.8	1,768.5	82.32	22.482	
10,100.0	7,170.1	7,160.2	7,159.3	83.0	2.5	89.50	679.4	-614.5	1,946.1	1,861.0	85.05	22.882	
10,200.0	7,169.7	7,160.0	7,159.2	85.8	2.5	89.48	679.4	-614.5	2,041.9	1,954.1	87.78	23.260	
10,300.0	7,169.4	7,159.9	7,159.0	88.5	2.5	89.46	679.4	-614.5	2,138.0	2,047.5	90.52	23.619	
10,400.0	7,169.0	7,159.7	7,158.8	91.3	2.5	89.44	679.4	-614.5	2,234.5	2,141.2	93.26	23.959	
10,500.0	7,168.6	7,159.5	7,158.6	94.0	2.5	89.42	679.4	-614.5	2,331.3	2,235.3	96.01	24.282	
10,600.0	7,168.3	7,159.3	7,158.4	96.8	2.5	89.41	679.4	-614.5	2,428.3	2,329.6	98.76	24.588	
10,700.0	7,167.9	7,159.1	7,158.3	99.5	2.5	89.39	679.4	-614.5	2,525.6	2,424.1	101.51	24.880	
10,800.0	7,167.5	7,159.0	7,158.1	102.3	2.5	89.37	679.4	-614.5	2,623.1	2,518.8	104.27	25.157	
10,900.0	7,167.2	7,158.8	7,157.9	105.0	2.5	89.35	679.4	-614.5	2,720.7	2,613.7	107.03	25.421	
11,000.0	7,166.8	7,158.6	7,157.7	107.8	2.5	89.34	679.4	-614.5	2,818.6	2,708.8	109.79	25.673	
11,100.0	7,166.4	7,158.5	7,157.6	110.5	2.5	89.32	679.4	-614.5	2,916.5	2,804.0	112.55	25.913	
11,200.0	7,166.1	7,158.3	7,157.4	113.3	2.5	89.30	679.4	-614.5	3,014.7	2,899.3	115.32	26.142	
11,300.0	7,165.7	7,158.1	7,157.2	116.1	2.5	89.29	679.4	-614.5	3,112.9	2,994.8	118.08	26.361	
11,400.0	7,165.4	7,158.0	7,157.1	118.8	2.5	89.27	679.4	-614.5	3,211.2	3,090.4	120.85	26.571	
11,500.0	7,165.0	7,157.8	7,156.9	121.6	2.5	89.26	679.4	-614.5	3,309.7	3,186.0	123.63	26.772	
11,600.0	7,164.6	7,157.6	7,156.8	124.4	2.5	89.24	679.4	-614.5	3,408.2	3,281.8	126.40	26.964	
11,700.0	7,164.3	7,157.5	7,156.6	127.2	2.5	89.22	679.4	-614.5	3,506.8	3,377.6	129.17	27.148	
11,783.3	7,164.0	7,157.4	7,156.5	129.5	2.5	89.21	679.4	-614.5	3,589.0	3,457.5	131.49	27.296	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT EVANS-STROH 20-1 - Wellbore #1 - Design #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-INC — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-87.12	189.0	-3,759.2	3,764.0				
100.0	100.0	76.5	76.5	0.1	0.7	-87.12	189.0	-3,759.2	3,764.0	3,763.1	0.83	4,532.022	
200.0	200.0	176.5	176.5	0.3	2.8	-87.12	189.0	-3,759.2	3,764.0	3,760.9	3.08	1,223.939	
300.0	300.0	276.5	276.5	0.5	4.9	-87.12	189.0	-3,759.2	3,764.0	3,758.5	5.44	691.435	
400.0	400.0	376.5	376.5	0.8	6.9	-87.12	189.0	-3,759.2	3,764.0	3,756.2	7.72	487.542	
500.0	500.0	476.5	476.5	1.0	9.0	-87.12	189.0	-3,759.2	3,764.0	3,754.0	9.98	377.250	
600.0	600.0	576.5	576.5	1.2	11.0	-168.39	189.0	-3,759.2	3,765.7	3,753.5	12.21	308.436	
700.0	699.8	676.3	676.3	1.4	13.0	-168.39	189.0	-3,759.2	3,770.8	3,756.4	14.41	261.674	
800.0	799.5	776.0	776.0	1.7	15.0	-168.38	189.0	-3,759.2	3,779.3	3,762.7	16.58	227.883	
900.0	898.7	875.2	875.2	1.9	17.0	-168.37	189.0	-3,759.2	3,791.3	3,772.5	18.72	202.486	
1,000.0	997.5	974.0	974.0	2.2	19.0	-168.35	189.0	-3,759.2	3,806.6	3,785.8	20.82	182.835	
1,099.8	1,095.4	1,071.9	1,071.9	2.6	21.0	-168.33	189.0	-3,759.2	3,825.3	3,802.4	22.86	167.317	
1,100.0	1,095.6	1,072.1	1,072.1	2.6	21.0	-168.33	189.0	-3,759.2	3,825.3	3,802.4	22.87	167.288	
1,200.0	1,193.4	1,169.9	1,169.9	3.0	23.0	-168.40	189.0	-3,759.2	3,845.7	3,820.6	25.04	153.569	
1,300.0	1,291.3	1,267.8	1,267.8	3.4	24.9	-168.46	189.0	-3,759.2	3,866.0	3,838.8	27.22	142.018	
1,400.0	1,389.1	1,365.6	1,365.6	3.8	26.9	-168.52	189.0	-3,759.2	3,886.4	3,857.0	29.41	132.164	
1,500.0	1,486.9	1,463.4	1,463.4	4.2	28.9	-168.58	189.0	-3,759.2	3,906.8	3,875.2	31.59	123.661	
1,600.0	1,584.7	1,561.2	1,561.2	4.7	30.8	-168.64	189.0	-3,759.2	3,927.2	3,893.4	33.78	116.252	
1,700.0	1,682.5	1,659.0	1,659.0	5.1	32.8	-168.70	189.0	-3,759.2	3,947.6	3,911.6	35.97	109.740	
1,800.0	1,780.3	1,756.8	1,756.8	5.5	34.8	-168.76	189.0	-3,759.2	3,968.0	3,929.8	38.16	103.972	
1,900.0	1,878.2	1,854.7	1,854.7	6.0	36.7	-168.82	189.0	-3,759.2	3,988.4	3,948.1	40.36	98.828	
2,000.0	1,976.0	1,952.5	1,952.5	6.4	38.7	-168.87	189.0	-3,759.2	4,008.8	3,966.3	42.55	94.213	
2,100.0	2,073.8	2,050.3	2,050.3	6.9	40.7	-168.93	189.0	-3,759.2	4,029.2	3,984.5	44.74	90.049	
2,200.0	2,171.6	2,148.1	2,148.1	7.3	42.7	-168.99	189.0	-3,759.2	4,049.7	4,002.7	46.94	86.274	
2,300.0	2,269.4	2,245.9	2,245.9	7.8	44.6	-169.04	189.0	-3,759.2	4,070.1	4,020.9	49.13	82.835	
2,400.0	2,367.2	2,343.7	2,343.7	8.2	46.6	-169.10	189.0	-3,759.2	4,090.5	4,039.2	51.33	79.690	
2,500.0	2,465.0	2,441.5	2,441.5	8.7	48.6	-169.15	189.0	-3,759.2	4,110.9	4,057.4	53.53	76.802	
2,600.0	2,562.9	2,539.4	2,539.4	9.1	50.5	-169.21	189.0	-3,759.2	4,131.4	4,075.6	55.72	74.142	
2,700.0	2,660.7	2,637.2	2,637.2	9.6	52.5	-169.26	189.0	-3,759.2	4,151.8	4,093.9	57.92	71.683	
2,800.0	2,758.5	2,735.0	2,735.0	10.0	54.5	-169.31	189.0	-3,759.2	4,172.2	4,112.1	60.11	69.404	
2,900.0	2,856.3	2,832.8	2,832.8	10.5	56.4	-169.37	189.0	-3,759.2	4,192.7	4,130.4	62.31	67.286	
3,000.0	2,954.1	2,930.6	2,930.6	11.0	58.4	-169.42	189.0	-3,759.2	4,213.1	4,148.6	64.51	65.312	
3,100.0	3,051.9	3,028.4	3,028.4	11.4	60.4	-169.47	189.0	-3,759.2	4,233.6	4,166.9	66.70	63.467	
3,200.0	3,149.8	3,126.3	3,126.3	11.9	62.3	-169.52	189.0	-3,759.2	4,254.0	4,185.1	68.90	61.741	
3,300.0	3,247.6	3,224.1	3,224.1	12.3	64.3	-169.57	189.0	-3,759.2	4,274.5	4,203.4	71.10	60.121	
3,400.0	3,345.4	3,321.9	3,321.9	12.8	66.3	-169.62	189.0	-3,759.2	4,294.9	4,221.6	73.29	58.598	
3,500.0	3,443.2	3,419.7	3,419.7	13.2	68.2	-169.67	189.0	-3,759.2	4,315.4	4,239.9	75.49	57.164	
3,600.0	3,541.0	3,517.5	3,517.5	13.7	70.2	-169.72	189.0	-3,759.2	4,335.8	4,258.2	77.69	55.811	
3,700.0	3,638.8	3,615.3	3,615.3	14.1	72.2	-169.77	189.0	-3,759.2	4,356.3	4,276.4	79.88	54.532	
3,800.0	3,736.7	3,713.2	3,713.2	14.6	74.1	-169.82	189.0	-3,759.2	4,376.8	4,294.7	82.08	53.322	
3,836.5	3,772.4	3,748.9	3,748.9	14.8	74.8	-169.84	189.0	-3,759.2	4,384.3	4,301.4	82.88	52.897	
3,900.0	3,834.6	3,811.1	3,811.1	15.0	76.1	-169.91	189.0	-3,759.2	4,396.6	4,312.0	84.59	51.976	
4,000.0	3,933.2	3,909.7	3,909.7	15.3	78.1	-170.01	189.0	-3,759.2	4,413.2	4,326.0	87.19	50.614	
4,100.0	4,032.3	4,008.8	4,008.8	15.6	80.1	-170.08	189.0	-3,759.2	4,426.5	4,336.7	89.72	49.337	
4,200.0	4,131.8	4,108.3	4,108.3	15.8	82.1	-170.14	189.0	-3,759.2	4,436.3	4,344.1	92.15	48.141	
4,300.0	4,231.5	4,208.0	4,208.0	16.0	84.1	-170.18	189.0	-3,759.2	4,442.7	4,348.2	94.48	47.021	
4,400.0	4,331.5	4,308.0	4,308.0	16.1	86.1	-170.19	189.0	-3,759.2	4,445.7	4,349.0	96.70	45.972	
4,436.3	4,367.8	4,344.3	4,344.3	16.2	86.8	-88.92	189.0	-3,759.2	4,445.9	4,343.0	102.88	43.215	
4,500.0	4,431.5	4,408.0	4,408.0	16.2	88.1	-88.92	189.0	-3,759.2	4,445.9	4,341.7	104.24	42.652	
4,600.0	4,531.5	4,508.0	4,508.0	16.4	90.1	-88.92	189.0	-3,759.2	4,445.9	4,339.5	106.38	41.794	
4,700.0	4,631.5	4,608.0	4,608.0	16.5	92.1	-88.92	189.0	-3,759.2	4,445.9	4,337.4	108.52	40.969	
4,800.0	4,731.5	4,708.0	4,708.0	16.6	94.1	-88.92	189.0	-3,759.2	4,445.9	4,335.2	110.66	40.176	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT EVANS-STROH 20-1 - Wellbore #1 - Design #1

Offset Site Error: 0.0 usft

Survey Program: 0-INC

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,808.0	4,808.0	16.8	96.1	-88.92	189.0	-3,759.2	4,445.9	4,333.1	112.81	39.411	
5,000.0	4,931.5	4,908.0	4,908.0	16.9	98.2	-88.92	189.0	-3,759.2	4,445.9	4,330.9	114.96	38.675	
5,100.0	5,031.5	5,008.0	5,008.0	17.0	100.2	-88.92	189.0	-3,759.2	4,445.9	4,328.8	117.10	37.965	
5,200.0	5,131.5	5,108.0	5,108.0	17.2	102.2	-88.92	189.0	-3,759.2	4,445.9	4,326.6	119.26	37.280	
5,300.0	5,231.5	5,208.0	5,208.0	17.3	104.2	-88.92	189.0	-3,759.2	4,445.9	4,324.5	121.41	36.619	
5,400.0	5,331.5	5,308.0	5,308.0	17.5	106.2	-88.92	189.0	-3,759.2	4,445.9	4,322.3	123.56	35.980	
5,500.0	5,431.5	5,408.0	5,408.0	17.6	108.2	-88.92	189.0	-3,759.2	4,445.9	4,320.2	125.72	35.363	
5,600.0	5,531.5	5,508.0	5,508.0	17.7	110.2	-88.92	189.0	-3,759.2	4,445.9	4,318.0	127.88	34.766	
5,700.0	5,631.5	5,608.0	5,608.0	17.9	112.2	-88.92	189.0	-3,759.2	4,445.9	4,315.9	130.04	34.189	
5,800.0	5,731.5	5,708.0	5,708.0	18.0	114.2	-88.92	189.0	-3,759.2	4,445.9	4,313.7	132.20	33.630	
5,900.0	5,831.5	5,808.0	5,808.0	18.2	116.3	-88.92	189.0	-3,759.2	4,445.9	4,311.5	134.36	33.088	
6,000.0	5,931.5	5,908.0	5,908.0	18.4	118.3	-88.92	189.0	-3,759.2	4,445.9	4,309.4	136.53	32.564	
6,100.0	6,031.5	6,008.0	6,008.0	18.5	120.3	-88.92	189.0	-3,759.2	4,445.9	4,307.2	138.70	32.055	
6,200.0	6,131.5	6,108.0	6,108.0	18.7	122.3	-88.92	189.0	-3,759.2	4,445.9	4,305.0	140.86	31.562	
6,300.0	6,231.5	6,208.0	6,208.0	18.8	124.3	-88.92	189.0	-3,759.2	4,445.9	4,302.9	143.03	31.083	
6,400.0	6,331.5	6,308.0	6,308.0	19.0	126.3	-88.92	189.0	-3,759.2	4,445.9	4,300.7	145.20	30.619	
6,500.0	6,431.5	6,408.0	6,408.0	19.1	128.3	-88.92	189.0	-3,759.2	4,445.9	4,298.5	147.37	30.168	
6,531.3	6,462.8	6,439.3	6,439.3	19.2	129.0	-88.92	189.0	-3,759.2	4,445.9	4,297.8	148.05	30.029	
6,550.0	6,481.5	6,458.0	6,458.0	19.2	129.3	1.08	189.0	-3,759.2	4,445.6	4,301.7	143.97	30.878	
6,600.0	6,531.4	6,507.9	6,507.9	19.3	130.3	1.08	189.0	-3,759.2	4,442.6	4,298.2	144.36	30.775	
6,650.0	6,580.9	6,557.4	6,557.4	19.3	131.3	1.10	189.0	-3,759.2	4,436.1	4,292.1	144.03	30.801	
6,700.0	6,629.9	6,606.4	6,606.4	19.3	132.3	1.11	189.0	-3,759.2	4,426.1	4,283.2	142.97	30.958	
6,750.0	6,678.1	6,654.6	6,654.6	19.2	133.3	1.14	189.0	-3,759.2	4,412.8	4,271.6	141.18	31.256	
6,800.0	6,725.2	6,701.7	6,701.7	19.2	134.2	1.17	189.0	-3,759.2	4,396.1	4,257.4	138.66	31.704	
6,850.0	6,771.1	6,747.6	6,747.6	19.1	135.2	1.21	189.0	-3,759.2	4,376.2	4,240.7	135.41	32.317	
6,900.0	6,815.4	6,791.9	6,791.9	19.0	136.0	1.27	189.0	-3,759.2	4,353.1	4,221.6	131.45	33.116	
6,950.0	6,858.0	6,834.5	6,834.5	18.9	136.9	1.33	189.0	-3,759.2	4,327.0	4,200.2	126.78	34.129	
7,000.0	6,898.7	6,875.2	6,875.2	18.9	137.7	1.41	189.0	-3,759.2	4,298.0	4,176.5	121.44	35.392	
7,050.0	6,937.3	6,913.8	6,913.8	18.8	138.5	1.50	189.0	-3,759.2	4,266.2	4,150.7	115.45	36.954	
7,100.0	6,973.6	6,950.1	6,950.1	18.8	139.2	1.62	189.0	-3,759.2	4,231.8	4,122.9	108.84	38.879	
7,150.0	7,007.4	6,983.9	6,983.9	18.8	139.9	1.76	189.0	-3,759.2	4,194.9	4,093.2	101.68	41.257	
7,200.0	7,038.5	7,015.0	7,015.0	18.9	140.5	1.94	189.0	-3,759.2	4,155.8	4,061.8	94.00	44.210	
7,250.0	7,066.8	7,043.3	7,043.3	19.0	141.1	2.17	189.0	-3,759.2	4,114.6	4,028.7	85.89	47.909	
7,300.0	7,092.2	7,068.7	7,068.7	19.2	141.6	2.47	189.0	-3,759.2	4,071.6	3,994.2	77.41	52.600	
7,350.0	7,114.5	7,091.0	7,091.0	19.5	142.1	2.87	189.0	-3,759.2	4,026.8	3,958.2	68.67	58.637	
7,400.0	7,133.6	7,110.1	7,110.1	19.9	142.4	3.44	189.0	-3,759.2	3,980.7	3,920.8	59.85	66.514	
7,450.0	7,149.5	7,126.0	7,126.0	20.3	142.8	4.28	189.0	-3,759.2	3,933.3	3,882.0	51.23	76.776	
7,500.0	7,162.0	7,138.5	7,138.5	20.8	143.0	5.68	189.0	-3,759.2	3,884.9	3,841.3	43.63	89.049	
7,550.0	7,171.1	7,147.6	7,147.6	21.4	143.2	8.39	189.0	-3,759.2	3,835.7	3,795.9	39.88	96.188	
7,600.0	7,176.8	7,153.3	7,153.3	22.1	143.3	15.72	189.0	-3,759.2	3,786.1	3,734.4	51.73	73.190	
7,650.0	7,179.0	7,155.5	7,155.5	22.8	143.4	68.50	189.0	-3,759.2	3,736.2	3,581.1	155.04	24.097	
7,658.9	7,179.0	7,155.5	7,155.5	22.9	143.4	99.22	189.0	-3,759.2	3,727.2	3,563.1	164.09	22.714	
7,700.0	7,178.9	7,155.4	7,155.4	23.5	143.4	99.12	189.0	-3,759.2	3,686.2	3,521.4	164.76	22.373	
7,800.0	7,178.5	7,155.0	7,155.0	25.2	143.3	98.88	189.0	-3,759.2	3,586.2	3,419.7	166.54	21.533	
7,900.0	7,178.1	7,154.6	7,154.6	27.1	143.3	98.64	189.0	-3,759.2	3,486.2	3,317.7	168.51	20.689	
8,000.0	7,177.8	7,154.3	7,154.3	29.2	143.3	98.39	189.0	-3,759.2	3,386.3	3,215.6	170.62	19.847	
8,100.0	7,177.4	7,153.9	7,153.9	31.3	143.3	98.15	189.0	-3,759.2	3,286.3	3,113.4	172.85	19.012	
8,200.0	7,177.0	7,153.5	7,153.5	33.6	143.3	97.90	189.0	-3,759.2	3,186.3	3,011.1	175.18	18.189	
8,300.0	7,176.7	7,153.2	7,153.2	35.9	143.3	97.66	189.0	-3,759.2	3,086.4	2,908.8	177.58	17.380	
8,400.0	7,176.3	7,152.8	7,152.8	38.3	143.3	97.41	189.0	-3,759.2	2,986.4	2,806.4	180.05	16.587	
8,500.0	7,175.9	7,152.4	7,152.4	40.7	143.3	97.17	189.0	-3,759.2	2,886.4	2,703.9	182.56	15.811	
8,600.0	7,175.6	7,152.1	7,152.1	43.2	143.3	96.92	189.0	-3,759.2	2,786.5	2,601.4	185.13	15.052	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - EXIST VERT EVANS-STROH 20-1 - Wellbore #1 - Design #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-INC — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,700.0	7,175.2	7,151.7	7,151.7	45.7	143.3	96.67	189.0	-3,759.2	2,686.5	2,498.8	187.72	14.311	
8,800.0	7,174.8	7,151.3	7,151.3	48.3	143.3	96.43	189.0	-3,759.2	2,586.6	2,396.2	190.35	13.588	
8,900.0	7,174.5	7,151.0	7,151.0	50.9	143.3	96.18	189.0	-3,759.2	2,486.6	2,293.6	193.01	12.884	
9,000.0	7,174.1	7,150.6	7,150.6	53.5	143.3	95.93	189.0	-3,759.2	2,386.7	2,191.0	195.68	12.197	
9,100.0	7,173.7	7,150.2	7,150.2	56.1	143.3	95.69	189.0	-3,759.2	2,286.8	2,088.4	198.37	11.528	
9,200.0	7,173.4	7,149.9	7,149.9	58.8	143.2	95.44	189.0	-3,759.2	2,186.8	1,985.8	201.08	10.875	
9,300.0	7,173.0	7,149.5	7,149.5	61.4	143.2	95.19	189.0	-3,759.2	2,086.9	1,883.1	203.80	10.240	
9,400.0	7,172.6	7,149.1	7,149.1	64.1	143.2	94.94	189.0	-3,759.2	1,987.0	1,780.5	206.53	9.621	
9,500.0	7,172.3	7,148.8	7,148.8	66.8	143.2	94.70	189.0	-3,759.2	1,887.1	1,677.8	209.27	9.017	
9,600.0	7,171.9	7,148.4	7,148.4	69.5	143.2	94.45	189.0	-3,759.2	1,787.2	1,575.2	212.02	8.429	
9,700.0	7,171.6	7,148.1	7,148.1	72.2	143.2	94.20	189.0	-3,759.2	1,687.3	1,472.5	214.78	7.856	
9,800.0	7,171.2	7,147.7	7,147.7	74.9	143.2	93.95	189.0	-3,759.2	1,587.4	1,369.9	217.54	7.297	
9,900.0	7,170.8	7,147.3	7,147.3	77.6	143.2	93.70	189.0	-3,759.2	1,487.6	1,267.3	220.31	6.752	
10,000.0	7,170.5	7,147.0	7,147.0	80.3	143.2	93.45	189.0	-3,759.2	1,387.8	1,164.7	223.08	6.221	
10,100.0	7,170.1	7,146.6	7,146.6	83.0	143.2	93.21	189.0	-3,759.2	1,288.0	1,062.1	225.85	5.703	
10,200.0	7,169.7	7,146.2	7,146.2	85.8	143.2	92.96	189.0	-3,759.2	1,188.2	959.6	228.63	5.197	
10,300.0	7,169.4	7,145.9	7,145.9	88.5	143.2	92.71	189.0	-3,759.2	1,088.5	857.1	231.40	4.704	
10,400.0	7,169.0	7,145.5	7,145.5	91.3	143.2	92.46	189.0	-3,759.2	988.8	754.6	234.18	4.222	
10,500.0	7,168.6	7,145.1	7,145.1	94.0	143.2	92.21	189.0	-3,759.2	889.2	652.2	236.96	3.752	
10,600.0	7,168.3	7,144.8	7,144.8	96.8	143.1	91.96	189.0	-3,759.2	789.7	549.9	239.74	3.294	
10,700.0	7,167.9	7,144.4	7,144.4	99.5	143.1	91.71	189.0	-3,759.2	690.3	447.8	242.52	2.847	
10,800.0	7,167.5	7,144.0	7,144.0	102.3	143.1	91.46	189.0	-3,759.2	591.2	345.9	245.30	2.410	
10,900.0	7,167.2	7,143.7	7,143.7	105.0	143.1	91.21	189.0	-3,759.2	492.4	244.3	248.07	1.985	
11,000.0	7,166.8	7,143.3	7,143.3	107.8	143.1	90.96	189.0	-3,759.2	394.2	143.4	250.85	1.572	
11,100.0	7,166.4	7,142.9	7,142.9	110.5	143.1	90.71	189.0	-3,759.2	297.3	43.6	253.62	1.172	Level 2
11,200.0	7,166.1	7,142.6	7,142.6	113.3	143.1	90.46	189.0	-3,759.2	203.3	-53.1	256.40	0.793	Level 1
11,300.0	7,165.7	7,142.2	7,142.2	116.1	143.1	90.21	189.0	-3,759.2	119.5	-139.7	259.17	0.461	Level 1
11,385.2	7,165.4	7,141.9	7,141.9	118.4	143.1	90.00	189.0	-3,759.2	83.7	-177.8	261.52	0.320	Level 1, CC, ES, SF
11,400.0	7,165.4	7,141.9	7,141.9	118.8	143.1	89.96	189.0	-3,759.2	85.0	-176.9	261.93	0.324	Level 1
11,500.0	7,165.0	7,141.5	7,141.5	121.6	143.1	89.71	189.0	-3,759.2	142.0	-122.7	264.70	0.537	Level 1
11,600.0	7,164.6	7,141.1	7,141.1	124.4	143.1	89.46	189.0	-3,759.2	230.5	-37.0	267.46	0.862	Level 1
11,700.0	7,164.3	7,140.8	7,140.8	127.2	143.1	89.21	189.0	-3,759.2	325.7	55.5	270.21	1.205	Level 2
11,783.3	7,164.0	7,140.5	7,140.5	129.5	143.1	89.01	189.0	-3,759.2	406.8	134.3	272.51	1.493	Level 3

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-204 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	14.9	0.0	14.9				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	14.9	0.0	14.9	14.7	0.19	76.825	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	14.9	0.0	14.9	14.3	0.64	23.195	
300.0	300.0	300.0	300.0	0.5	0.5	0.00	14.9	0.0	14.9	13.8	1.09	13.660	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	14.9	0.0	14.9	13.4	1.54	9.680	CC, ES
500.0	500.0	499.7	499.7	1.0	1.0	5.67	15.7	1.6	15.8	13.8	1.99	7.948	
600.0	600.0	599.3	599.2	1.2	1.2	-66.96	18.0	6.2	18.3	15.9	2.42	7.558	
700.0	699.8	698.8	698.2	1.4	1.4	-62.22	21.8	14.0	22.0	19.1	2.87	7.659	
800.0	799.5	798.0	796.8	1.7	1.7	-60.30	27.1	24.8	26.5	23.2	3.35	7.928	
900.0	898.7	897.2	894.7	1.9	2.0	-60.14	33.9	38.6	31.9	28.0	3.87	8.241	
1,000.0	997.5	996.1	991.8	2.2	2.4	-60.99	42.1	55.5	38.1	33.6	4.46	8.532	
1,099.8	1,095.4	1,095.7	1,089.2	2.6	2.8	-63.88	51.3	74.1	44.0	38.8	5.15	8.541	
1,100.0	1,095.6	1,095.9	1,089.4	2.6	2.8	-63.89	51.3	74.1	44.0	38.8	5.15	8.540	
1,200.0	1,193.4	1,195.7	1,187.0	3.0	3.2	-68.03	60.4	92.7	49.3	43.4	5.92	8.321	
1,300.0	1,291.3	1,295.5	1,284.6	3.4	3.6	-71.35	69.5	111.4	54.8	48.1	6.74	8.135	
1,400.0	1,389.1	1,395.3	1,382.2	3.8	4.0	-74.06	78.7	130.0	60.5	52.9	7.58	7.980	
1,500.0	1,486.9	1,495.1	1,479.9	4.2	4.5	-76.30	87.8	148.7	66.2	57.8	8.43	7.853	
1,600.0	1,584.7	1,594.9	1,577.5	4.7	4.9	-78.18	97.0	167.3	72.1	62.8	9.30	7.749	
1,700.0	1,682.5	1,694.7	1,675.1	5.1	5.3	-79.77	106.1	185.9	78.0	67.8	10.18	7.662	
1,800.0	1,780.3	1,794.5	1,772.7	5.5	5.8	-81.14	115.2	204.6	84.0	72.9	11.07	7.589	
1,900.0	1,878.2	1,894.3	1,870.3	6.0	6.2	-82.33	124.4	223.2	90.0	78.1	11.96	7.528	
2,000.0	1,976.0	1,994.1	1,968.0	6.4	6.7	-83.37	133.5	241.8	96.1	83.2	12.85	7.476	
2,100.0	2,073.8	2,093.9	2,065.6	6.9	7.1	-84.28	142.6	260.5	102.2	88.4	13.75	7.431	
2,200.0	2,171.6	2,193.7	2,163.2	7.3	7.6	-85.09	151.8	279.1	108.3	93.6	14.64	7.392	
2,300.0	2,269.4	2,293.5	2,260.8	7.8	8.0	-85.82	160.9	297.7	114.4	98.8	15.54	7.359	
2,400.0	2,367.2	2,393.3	2,358.4	8.2	8.5	-86.47	170.0	316.4	120.5	104.1	16.44	7.329	
2,500.0	2,465.0	2,493.1	2,456.1	8.7	8.9	-87.05	179.2	335.0	126.7	109.3	17.35	7.303	
2,600.0	2,562.9	2,592.9	2,553.7	9.1	9.4	-87.59	188.3	353.6	132.8	114.6	18.25	7.280	
2,700.0	2,660.7	2,692.7	2,651.3	9.6	9.8	-88.07	197.5	372.3	139.0	119.9	19.15	7.260	
2,800.0	2,758.5	2,792.5	2,748.9	10.0	10.3	-88.52	206.6	390.9	145.2	125.2	20.05	7.241	
2,900.0	2,856.3	2,892.3	2,846.5	10.5	10.7	-88.93	215.7	409.6	151.4	130.4	20.96	7.224	
3,000.0	2,954.1	2,992.1	2,944.2	11.0	11.2	-89.30	224.9	428.2	157.6	135.7	21.86	7.209	
3,100.0	3,051.9	3,091.9	3,041.8	11.4	11.6	-89.65	234.0	446.8	163.8	141.0	22.77	7.196	
3,200.0	3,149.8	3,191.7	3,139.4	11.9	12.1	-89.97	243.1	465.5	170.0	146.4	23.67	7.183	
3,300.0	3,247.6	3,291.5	3,237.0	12.3	12.5	-90.27	252.3	484.1	176.2	151.7	24.57	7.172	
3,400.0	3,345.4	3,391.3	3,334.6	12.8	13.0	-90.55	261.4	502.7	182.5	157.0	25.48	7.161	
3,500.0	3,443.2	3,491.1	3,432.3	13.2	13.4	-90.81	270.5	521.4	188.7	162.3	26.38	7.152	
3,600.0	3,541.0	3,590.9	3,529.9	13.7	13.9	-91.05	279.7	540.0	194.9	167.6	27.29	7.143	
3,700.0	3,638.8	3,690.7	3,627.5	14.1	14.3	-91.28	288.8	558.6	201.1	173.0	28.19	7.134	
3,800.0	3,736.7	3,790.5	3,725.1	14.6	14.8	-91.50	298.0	577.3	207.4	178.3	29.10	7.127	
3,836.5	3,772.4	3,826.9	3,760.8	14.8	15.0	-91.57	301.3	584.1	209.7	180.2	29.43	7.124	
3,900.0	3,834.6	3,890.3	3,822.8	15.0	15.2	-91.59	307.1	595.9	213.6	183.6	29.96	7.130	
4,000.0	3,933.2	3,990.1	3,920.3	15.3	15.7	-90.88	316.2	614.5	219.8	189.1	30.68	7.162	
4,100.0	4,032.3	4,090.4	4,018.5	15.6	16.1	-89.35	325.3	633.1	225.9	194.6	31.31	7.216	
4,200.0	4,131.8	4,192.7	4,119.1	15.8	16.5	-87.64	333.4	649.6	231.5	199.7	31.76	7.289	
4,300.0	4,231.5	4,295.2	4,220.6	16.0	16.8	-85.95	340.0	662.9	236.2	204.1	32.11	7.358	
4,400.0	4,331.5	4,398.2	4,322.9	16.1	17.0	-84.27	344.9	673.0	240.1	207.8	32.35	7.422	
4,436.3	4,367.8	4,435.6	4,360.2	16.2	17.1	-2.39	346.3	675.9	241.3	218.8	22.49	10.732	
4,500.0	4,431.5	4,501.5	4,425.9	16.2	17.2	-1.44	348.2	679.8	243.1	220.2	22.83	10.648	
4,600.0	4,531.5	4,605.1	4,529.5	16.4	17.3	-0.62	349.9	683.2	244.6	221.4	23.28	10.509	
4,700.0	4,631.5	4,707.1	4,631.5	16.5	17.5	-0.51	350.1	683.7	244.8	221.2	23.63	10.359	
4,800.0	4,731.5	4,807.1	4,731.5	16.6	17.6	-0.51	350.1	683.7	244.8	220.9	23.99	10.208	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-204 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,907.1	4,831.5	16.8	17.7	-0.51	350.1	683.7	244.8	220.5	24.34	10.059	
5,000.0	4,931.5	5,007.1	4,931.5	16.9	17.8	-0.51	350.1	683.7	244.8	220.1	24.70	9.914	
5,100.0	5,031.5	5,107.1	5,031.5	17.0	18.0	-0.51	350.1	683.7	244.8	219.8	25.06	9.771	
5,200.0	5,131.5	5,207.1	5,131.5	17.2	18.1	-0.51	350.1	683.7	244.8	219.4	25.42	9.632	
5,300.0	5,231.5	5,307.1	5,231.5	17.3	18.2	-0.51	350.1	683.7	244.8	219.1	25.79	9.495	
5,400.0	5,331.5	5,407.1	5,331.5	17.5	18.4	-0.51	350.1	683.7	244.8	218.7	26.15	9.361	
5,500.0	5,431.5	5,507.1	5,431.5	17.6	18.5	-0.51	350.1	683.7	244.8	218.3	26.53	9.231	
5,600.0	5,531.5	5,607.1	5,531.5	17.7	18.7	-0.51	350.1	683.7	244.8	217.9	26.90	9.102	
5,700.0	5,631.5	5,707.1	5,631.5	17.9	18.8	-0.51	350.1	683.7	244.8	217.6	27.27	8.977	
5,800.0	5,731.5	5,807.1	5,731.5	18.0	18.9	-0.51	350.1	683.7	244.8	217.2	27.65	8.855	
5,900.0	5,831.5	5,907.1	5,831.5	18.2	19.1	-0.51	350.1	683.7	244.8	216.8	28.03	8.735	
6,000.0	5,931.5	6,007.1	5,931.5	18.4	19.2	-0.51	350.1	683.7	244.8	216.4	28.41	8.617	
6,100.0	6,031.5	6,107.1	6,031.5	18.5	19.4	-0.51	350.1	683.7	244.8	216.0	28.80	8.502	
6,200.0	6,131.5	6,207.1	6,131.5	18.7	19.5	-0.51	350.1	683.7	244.8	215.7	29.18	8.390	
6,300.0	6,231.5	6,307.1	6,231.5	18.8	19.7	-0.51	350.1	683.7	244.8	215.3	29.57	8.280	
6,400.0	6,331.5	6,407.1	6,331.5	19.0	19.8	-0.51	350.1	683.7	244.8	214.9	29.96	8.173	
6,428.3	6,359.8	6,435.4	6,359.8	19.0	19.9	-0.51	350.1	683.7	244.8	214.8	30.07	8.143	
6,500.0	6,431.5	6,506.7	6,430.9	19.1	19.9	-1.34	350.1	680.2	244.9	214.7	30.25	8.096	
6,531.3	6,462.8	6,537.4	6,461.4	19.2	19.9	-2.21	350.1	676.5	245.0	214.7	30.28	8.092	
6,550.0	6,481.5	6,555.7	6,479.5	19.2	19.9	87.18	350.1	673.6	245.1	206.6	38.49	6.368	
6,600.0	6,531.4	6,604.1	6,526.9	19.3	19.9	85.56	350.1	663.9	245.6	207.0	38.62	6.359	
6,650.0	6,580.9	6,652.1	6,573.2	19.3	19.9	83.97	350.1	651.2	246.2	207.5	38.68	6.366	
6,700.0	6,629.9	6,700.0	6,618.4	19.3	19.8	82.42	350.1	635.4	247.0	208.4	38.67	6.388	
6,750.0	6,678.1	6,746.9	6,661.5	19.2	19.8	80.94	350.1	617.0	248.0	209.4	38.60	6.424	
6,800.0	6,725.2	6,793.7	6,703.3	19.2	19.7	79.50	350.1	596.0	249.1	210.6	38.48	6.474	
6,850.0	6,771.1	6,840.1	6,743.3	19.1	19.6	78.13	350.1	572.4	250.3	212.0	38.31	6.533	
6,900.0	6,815.4	6,886.3	6,781.4	19.0	19.5	76.82	350.1	546.4	251.5	213.4	38.10	6.602	
6,950.0	6,858.0	6,932.1	6,817.6	18.9	19.4	75.59	350.1	518.3	252.9	215.0	37.88	6.676	
7,000.0	6,898.7	6,977.6	6,851.7	18.9	19.4	74.43	350.1	488.1	254.3	216.6	37.66	6.751	
7,050.0	6,937.3	7,022.9	6,883.6	18.8	19.3	73.36	350.1	456.0	255.6	218.2	37.45	6.825	
7,100.0	6,973.6	7,067.9	6,913.2	18.8	19.3	72.36	350.1	422.1	257.0	219.7	37.29	6.893	
7,150.0	7,007.4	7,112.7	6,940.5	18.8	19.3	71.45	350.1	386.7	258.3	221.2	37.18	6.949	
7,200.0	7,038.5	7,157.3	6,965.5	18.9	19.3	70.63	350.1	349.7	259.6	222.5	37.15	6.988	
7,250.0	7,066.8	7,200.0	6,987.2	19.0	19.4	69.92	350.1	312.9	260.8	223.6	37.22	7.007	
7,300.0	7,092.2	7,246.0	7,008.1	19.2	19.6	69.25	350.1	272.0	261.9	224.5	37.42	6.998	
7,350.0	7,114.5	7,290.1	7,025.6	19.5	19.8	68.68	350.1	231.5	262.9	225.1	37.76	6.961	
7,400.0	7,133.6	7,334.1	7,040.5	19.9	20.1	68.21	350.1	190.1	263.7	225.5	38.25	6.895	
7,450.0	7,149.5	7,378.0	7,052.9	20.3	20.5	67.83	350.1	148.0	264.4	225.5	38.89	6.800	
7,500.0	7,162.0	7,421.8	7,062.6	20.8	20.9	67.53	350.1	105.3	265.0	225.3	39.68	6.678	
7,550.0	7,171.1	7,465.6	7,069.7	21.4	21.4	67.33	350.1	62.1	265.3	224.7	40.62	6.532	
7,600.0	7,176.8	7,509.3	7,074.2	22.1	21.9	67.21	350.1	18.6	265.6	223.9	41.71	6.367	
7,650.0	7,179.0	7,553.0	7,076.0	22.8	22.5	67.18	350.1	-25.1	265.6	222.7	42.93	6.188	
7,658.9	7,179.0	7,560.8	7,076.0	22.9	22.6	67.19	350.1	-32.9	265.6	222.5	43.16	6.155	
7,663.0	7,179.0	7,564.4	7,076.0	23.0	22.7	67.19	350.1	-36.4	265.6	222.4	43.26	6.140	
7,700.0	7,178.9	7,601.4	7,075.8	23.5	23.2	67.18	350.1	-73.5	265.6	221.3	44.32	5.994	
7,800.0	7,178.5	7,701.4	7,075.3	25.2	24.9	67.15	350.1	-173.5	265.7	218.2	47.45	5.599	
7,900.0	7,178.1	7,801.4	7,074.8	27.1	26.8	67.13	350.1	-273.5	265.7	214.8	50.92	5.219	
8,000.0	7,177.8	7,901.4	7,074.4	29.2	28.8	67.11	350.1	-373.5	265.8	211.1	54.66	4.862	
8,100.0	7,177.4	8,001.4	7,073.9	31.3	31.0	67.08	350.1	-473.5	265.8	207.2	58.63	4.534	
8,200.0	7,177.0	8,101.4	7,073.4	33.6	33.2	67.06	350.1	-573.5	265.9	203.1	62.77	4.235	
8,300.0	7,176.7	8,201.4	7,072.9	35.9	35.5	67.03	350.1	-673.5	265.9	198.8	67.07	3.965	
8,400.0	7,176.3	8,301.4	7,072.4	38.3	37.9	67.01	350.1	-773.5	266.0	194.5	71.48	3.721	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-204 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	8,401.4	7,071.9	40.7	40.4	66.99	350.1	-873.5	266.0	190.0	75.99	3.501	
8,600.0	7,175.6	8,501.4	7,071.4	43.2	42.9	66.96	350.1	-973.5	266.1	185.5	80.58	3.302	
8,700.0	7,175.2	8,601.4	7,071.0	45.7	45.4	66.94	350.1	-1,073.5	266.1	180.9	85.24	3.122	
8,800.0	7,174.8	8,701.4	7,070.5	48.3	48.0	66.91	350.1	-1,173.5	266.2	176.2	89.95	2.959	
8,900.0	7,174.5	8,801.4	7,070.0	50.9	50.6	66.89	350.1	-1,273.5	266.2	171.5	94.72	2.810	
9,000.0	7,174.1	8,901.4	7,069.5	53.5	53.2	66.87	350.1	-1,373.5	266.2	166.7	99.52	2.675	
9,100.0	7,173.7	9,001.4	7,069.0	56.1	55.8	66.84	350.1	-1,473.5	266.3	161.9	104.36	2.552	
9,200.0	7,173.4	9,101.4	7,068.5	58.8	58.4	66.82	350.1	-1,573.5	266.3	157.1	109.23	2.438	
9,300.0	7,173.0	9,201.4	7,068.1	61.4	61.1	66.79	350.1	-1,673.5	266.4	152.3	114.13	2.334	
9,400.0	7,172.6	9,301.4	7,067.6	64.1	63.8	66.77	350.1	-1,773.5	266.4	147.4	119.05	2.238	
9,500.0	7,172.3	9,401.4	7,067.1	66.8	66.5	66.75	350.1	-1,873.5	266.5	142.5	123.99	2.149	
9,600.0	7,171.9	9,501.4	7,066.6	69.5	69.1	66.72	350.1	-1,973.5	266.5	137.6	128.94	2.067	
9,700.0	7,171.6	9,601.4	7,066.1	72.2	71.8	66.70	350.1	-2,073.5	266.6	132.7	133.91	1.991	
9,800.0	7,171.2	9,701.4	7,065.6	74.9	74.6	66.68	350.1	-2,173.5	266.6	127.7	138.90	1.920	
9,900.0	7,170.8	9,801.4	7,065.1	77.6	77.3	66.65	350.1	-2,273.5	266.7	122.8	143.89	1.853	
10,000.0	7,170.5	9,901.4	7,064.7	80.3	80.0	66.63	350.1	-2,373.5	266.7	117.8	148.90	1.791	
10,100.0	7,170.1	10,001.4	7,064.2	83.0	82.7	66.60	350.1	-2,473.5	266.8	112.9	153.92	1.733	
10,200.0	7,169.7	10,101.4	7,063.7	85.8	85.5	66.58	350.1	-2,573.5	266.8	107.9	158.94	1.679	
10,300.0	7,169.4	10,201.4	7,063.2	88.5	88.2	66.56	350.1	-2,673.4	266.9	102.9	163.97	1.628	
10,400.0	7,169.0	10,301.4	7,062.7	91.3	90.9	66.53	350.1	-2,773.4	266.9	97.9	169.01	1.579	
10,500.0	7,168.6	10,401.4	7,062.2	94.0	93.7	66.51	350.1	-2,873.4	267.0	92.9	174.05	1.534	
10,600.0	7,168.3	10,501.4	7,061.7	96.8	96.4	66.49	350.1	-2,973.4	267.0	87.9	179.10	1.491	Level 3
10,700.0	7,167.9	10,601.4	7,061.3	99.5	99.2	66.46	350.1	-3,073.4	267.1	82.9	184.15	1.450	Level 3
10,800.0	7,167.5	10,701.4	7,060.8	102.3	101.9	66.44	350.1	-3,173.4	267.1	77.9	189.21	1.412	Level 3
10,900.0	7,167.2	10,801.4	7,060.3	105.0	104.7	66.41	350.1	-3,273.4	267.2	72.9	194.27	1.375	Level 3
11,000.0	7,166.8	10,901.4	7,059.8	107.8	107.5	66.39	350.1	-3,373.4	267.2	67.9	199.34	1.340	Level 3
11,100.0	7,166.4	11,001.4	7,059.3	110.5	110.2	66.37	350.1	-3,473.4	267.3	62.8	204.40	1.307	Level 3
11,200.0	7,166.1	11,101.4	7,058.8	113.3	113.0	66.34	350.1	-3,573.4	267.3	57.8	209.47	1.276	Level 3
11,300.0	7,165.7	11,201.4	7,058.3	116.1	115.8	66.32	350.1	-3,673.4	267.3	52.8	214.54	1.246	Level 2
11,400.0	7,165.4	11,301.4	7,057.9	118.8	118.5	66.30	350.1	-3,773.4	267.4	47.8	219.62	1.218	Level 2
11,500.0	7,165.0	11,401.4	7,057.4	121.6	121.3	66.27	350.1	-3,873.4	267.4	42.8	224.69	1.190	Level 2
11,600.0	7,164.6	11,501.4	7,056.9	124.4	124.1	66.25	350.1	-3,973.4	267.5	37.7	229.77	1.164	Level 2
11,700.0	7,164.3	11,601.6	7,056.4	127.2	126.9	66.22	350.1	-4,073.6	267.5	32.7	234.85	1.139	Level 2
11,706.9	7,164.2	11,608.5	7,056.4	127.4	127.1	66.22	350.1	-4,080.5	267.5	32.3	235.20	1.138	Level 2
11,783.3	7,164.0	11,684.9	7,056.0	129.5	129.2	66.20	350.1	-4,156.9	267.6	28.5	239.07	1.119	Level 2, SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-179.46	-29.9	-0.3	29.9				
100.0	100.0	101.0	101.0	0.1	0.1	-179.46	-29.9	-0.3	29.9	29.7	0.20	151.900	
200.0	200.0	201.0	201.0	0.3	0.3	-179.46	-29.9	-0.3	29.9	29.2	0.65	46.231	
300.0	300.0	301.0	301.0	0.5	0.5	-179.46	-29.9	-0.3	29.9	28.8	1.10	27.264	
400.0	400.0	401.0	401.0	0.8	0.8	-179.46	-29.9	-0.3	29.9	28.3	1.55	19.333	
500.0	500.0	501.0	501.0	1.0	1.0	-179.46	-29.9	-0.3	29.9	27.9	1.99	14.976	CC
600.0	600.0	601.0	601.0	1.2	1.2	102.52	-29.9	-0.3	30.2	27.8	2.43	12.408	ES
700.0	699.8	700.6	700.6	1.4	1.4	108.59	-30.5	1.4	32.0	29.2	2.86	11.220	
800.0	799.5	800.3	800.2	1.7	1.6	113.48	-32.4	6.3	36.0	32.7	3.29	10.931	
900.0	898.7	900.0	899.5	1.9	1.9	116.82	-35.5	14.4	41.9	38.1	3.77	11.102	
1,000.0	997.5	999.7	998.4	2.2	2.1	118.78	-39.8	25.7	49.6	45.3	4.31	11.504	
1,099.8	1,095.4	1,099.1	1,096.5	2.6	2.4	119.71	-45.4	40.2	59.0	54.1	4.92	11.984	
1,100.0	1,095.6	1,099.2	1,096.7	2.6	2.4	119.71	-45.4	40.2	59.0	54.1	4.92	11.985	
1,200.0	1,193.4	1,198.7	1,194.4	3.0	2.7	118.87	-52.2	57.9	69.3	63.7	5.63	12.312	
1,300.0	1,291.3	1,298.1	1,291.6	3.4	3.1	116.97	-59.6	77.2	79.7	73.3	6.40	12.446	
1,400.0	1,389.1	1,397.6	1,388.9	3.8	3.5	115.51	-67.0	96.5	90.1	82.9	7.20	12.506	
1,500.0	1,486.9	1,497.0	1,486.1	4.2	3.9	114.35	-74.4	115.8	100.6	92.5	8.03	12.527	
1,600.0	1,584.7	1,596.4	1,583.4	4.7	4.4	113.41	-81.8	135.1	111.1	102.2	8.87	12.525	
1,700.0	1,682.5	1,695.9	1,680.7	5.1	4.8	112.63	-89.2	154.5	121.6	111.9	9.72	12.512	
1,800.0	1,780.3	1,795.3	1,777.9	5.5	5.2	111.98	-96.6	173.8	132.2	121.6	10.58	12.493	
1,900.0	1,878.2	1,894.7	1,875.2	6.0	5.7	111.42	-104.0	193.1	142.7	131.3	11.44	12.471	
2,000.0	1,976.0	1,994.2	1,972.4	6.4	6.1	110.94	-111.4	212.4	153.3	141.0	12.31	12.448	
2,100.0	2,073.8	2,093.6	2,069.7	6.9	6.6	110.52	-118.8	231.7	163.9	150.7	13.19	12.425	
2,200.0	2,171.6	2,193.0	2,166.9	7.3	7.0	110.15	-126.2	251.0	174.5	160.4	14.07	12.402	
2,300.0	2,269.4	2,292.5	2,264.2	7.8	7.5	109.83	-133.6	270.3	185.1	170.1	14.95	12.380	
2,400.0	2,367.2	2,391.9	2,361.5	8.2	7.9	109.54	-141.0	289.6	195.7	179.8	15.83	12.360	
2,500.0	2,465.0	2,491.3	2,458.7	8.7	8.4	109.28	-148.5	308.9	206.3	189.6	16.72	12.340	
2,600.0	2,562.9	2,590.8	2,556.0	9.1	8.8	109.04	-155.9	328.2	216.9	199.3	17.60	12.322	
2,700.0	2,660.7	2,690.2	2,653.2	9.6	9.3	108.83	-163.3	347.5	227.5	209.0	18.49	12.304	
2,800.0	2,758.5	2,789.6	2,750.5	10.0	9.7	108.63	-170.7	366.8	238.1	218.7	19.38	12.288	
2,900.0	2,856.3	2,889.1	2,847.8	10.5	10.2	108.46	-178.1	386.1	248.7	228.5	20.27	12.272	
3,000.0	2,954.1	2,988.5	2,945.0	11.0	10.6	108.29	-185.5	405.4	259.3	238.2	21.16	12.258	
3,100.0	3,051.9	3,087.9	3,042.3	11.4	11.1	108.14	-192.9	424.7	270.0	247.9	22.05	12.244	
3,200.0	3,149.8	3,187.4	3,139.5	11.9	11.6	108.01	-200.3	444.1	280.6	257.7	22.94	12.231	
3,300.0	3,247.6	3,286.8	3,236.8	12.3	12.0	107.88	-207.7	463.4	291.2	267.4	23.83	12.219	
3,400.0	3,345.4	3,386.2	3,334.0	12.8	12.5	107.76	-215.1	482.7	301.9	277.1	24.73	12.208	
3,500.0	3,443.2	3,485.6	3,431.3	13.2	12.9	107.65	-222.5	502.0	312.5	286.9	25.62	12.197	
3,600.0	3,541.0	3,585.1	3,528.6	13.7	13.4	107.54	-229.9	521.3	323.1	296.6	26.51	12.187	
3,700.0	3,638.8	3,684.5	3,625.8	14.1	13.8	107.44	-237.3	540.6	333.7	306.3	27.41	12.177	
3,800.0	3,736.7	3,783.9	3,723.1	14.6	14.3	107.35	-244.7	559.9	344.4	316.1	28.30	12.168	
3,836.5	3,772.4	3,820.2	3,758.6	14.8	14.5	107.32	-247.4	566.9	348.3	319.6	28.63	12.164	
3,900.0	3,834.6	3,883.4	3,820.3	15.0	14.8	107.28	-252.1	579.2	354.8	325.6	29.16	12.166	
4,000.0	3,933.2	3,982.8	3,917.6	15.3	15.2	106.79	-259.5	598.5	364.3	334.4	29.92	12.176	
4,100.0	4,032.3	4,082.2	4,014.8	15.6	15.7	105.80	-266.9	617.8	372.9	342.2	30.63	12.174	
4,200.0	4,131.8	4,182.1	4,112.6	15.8	16.1	104.35	-274.3	637.1	380.7	349.4	31.28	12.172	
4,300.0	4,231.5	4,285.1	4,213.8	16.0	16.5	102.74	-281.1	654.7	387.3	355.6	31.76	12.195	
4,400.0	4,331.5	4,388.7	4,316.3	16.1	16.7	101.15	-286.5	668.9	392.5	360.3	32.14	12.210	
4,436.3	4,367.8	4,426.4	4,353.7	16.2	16.8	-178.15	-288.2	673.2	394.0	371.7	22.22	17.730	
4,500.0	4,431.5	4,492.9	4,419.8	16.2	17.0	-179.10	-290.6	679.7	396.2	373.7	22.50	17.607	
4,600.0	4,531.5	4,597.7	4,524.4	16.4	17.2	179.85	-293.4	687.0	398.8	375.9	22.93	17.394	
4,700.0	4,631.5	4,703.0	4,629.6	16.5	17.3	179.31	-294.9	690.7	400.2	376.9	23.32	17.165	
4,800.0	4,731.5	4,805.9	4,732.5	16.6	17.5	179.24	-295.1	691.2	400.4	376.7	23.67	16.916	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,905.9	4,832.5	16.8	17.6	179.24	-295.1	691.2	400.4	376.4	24.02	16.671	
5,000.0	4,931.5	5,005.9	4,932.5	16.9	17.7	179.24	-295.1	691.2	400.4	376.0	24.37	16.430	
5,100.0	5,031.5	5,105.9	5,032.5	17.0	17.8	179.24	-295.1	691.2	400.4	375.7	24.72	16.195	
5,200.0	5,131.5	5,205.9	5,132.5	17.2	18.0	179.24	-295.1	691.2	400.4	375.3	25.08	15.964	
5,300.0	5,231.5	5,305.9	5,232.5	17.3	18.1	179.24	-295.1	691.2	400.4	375.0	25.44	15.738	
5,400.0	5,331.5	5,405.9	5,332.5	17.5	18.2	179.24	-295.1	691.2	400.4	374.6	25.80	15.517	
5,500.0	5,431.5	5,505.9	5,432.5	17.6	18.4	179.24	-295.1	691.2	400.4	374.2	26.17	15.300	
5,600.0	5,531.5	5,605.9	5,532.5	17.7	18.5	179.24	-295.1	691.2	400.4	373.9	26.54	15.088	
5,700.0	5,631.5	5,705.9	5,632.5	17.9	18.6	179.24	-295.1	691.2	400.4	373.5	26.91	14.880	
5,800.0	5,731.5	5,805.9	5,732.5	18.0	18.8	179.24	-295.1	691.2	400.4	373.1	27.28	14.677	
5,900.0	5,831.5	5,905.9	5,832.5	18.2	18.9	179.24	-295.1	691.2	400.4	372.8	27.66	14.478	
6,000.0	5,931.5	6,005.9	5,932.5	18.4	19.0	179.24	-295.1	691.2	400.4	372.4	28.03	14.283	
6,100.0	6,031.5	6,105.9	6,032.5	18.5	19.2	179.24	-295.1	691.2	400.4	372.0	28.41	14.093	
6,200.0	6,131.5	6,205.9	6,132.5	18.7	19.3	179.24	-295.1	691.2	400.4	371.6	28.79	13.906	
6,300.0	6,231.5	6,305.9	6,232.5	18.8	19.5	179.24	-295.1	691.2	400.4	371.2	29.18	13.723	
6,400.0	6,331.5	6,405.9	6,332.5	19.0	19.6	179.24	-295.1	691.2	400.4	370.8	29.56	13.544	
6,500.0	6,431.5	6,506.2	6,432.7	19.1	19.7	179.77	-295.1	687.5	400.4	370.5	29.90	13.389	
6,514.4	6,445.9	6,520.6	6,446.9	19.2	19.7	180.00	-295.1	685.9	400.4	370.4	29.94	13.372	
6,531.3	6,462.8	6,537.3	6,463.5	19.2	19.7	-179.68	-295.1	683.7	400.4	370.4	29.98	13.353	
6,550.0	6,481.5	6,555.7	6,481.6	19.2	19.7	-89.30	-295.1	680.8	400.4	362.1	38.27	10.462	
6,600.0	6,531.4	6,604.6	6,529.5	19.3	19.7	-88.28	-295.1	670.8	400.6	362.2	38.33	10.451	
6,650.0	6,580.9	6,653.0	6,576.1	19.3	19.7	-87.28	-295.1	657.8	400.8	362.5	38.32	10.459	
6,700.0	6,629.9	6,701.0	6,621.4	19.3	19.6	-86.29	-295.1	641.7	401.2	363.0	38.27	10.484	
6,750.0	6,678.1	6,748.6	6,665.0	19.2	19.6	-85.33	-295.1	622.9	401.7	363.6	38.17	10.524	
6,800.0	6,725.2	6,795.7	6,707.0	19.2	19.5	-84.40	-295.1	601.4	402.3	364.3	38.04	10.576	
6,850.0	6,771.1	6,842.5	6,747.2	19.1	19.4	-83.49	-295.1	577.4	403.0	365.1	37.89	10.637	
6,900.0	6,815.4	6,889.0	6,785.4	19.0	19.3	-82.62	-295.1	551.1	403.8	366.0	37.73	10.703	
6,950.0	6,858.0	6,935.1	6,821.5	18.9	19.3	-81.79	-295.1	522.5	404.6	367.0	37.57	10.770	
7,000.0	6,898.7	6,980.8	6,855.6	18.9	19.2	-81.00	-295.1	491.9	405.4	368.0	37.43	10.832	
7,050.0	6,937.3	7,026.3	6,887.4	18.8	19.2	-80.25	-295.1	459.4	406.3	369.0	37.33	10.885	
7,100.0	6,973.6	7,071.5	6,916.9	18.8	19.2	-79.55	-295.1	425.1	407.2	369.9	37.28	10.922	
7,150.0	7,007.4	7,116.5	6,944.0	18.8	19.3	-78.90	-295.1	389.3	408.1	370.8	37.31	10.937	
7,200.0	7,038.5	7,161.3	6,968.8	18.9	19.4	-78.30	-295.1	352.0	408.9	371.5	37.43	10.925	
7,250.0	7,066.8	7,205.8	6,991.0	19.0	19.5	-77.76	-295.1	313.4	409.7	372.1	37.66	10.881	
7,300.0	7,092.2	7,250.0	7,010.7	19.2	19.7	-77.27	-295.1	273.9	410.5	372.5	38.01	10.801	
7,350.0	7,114.5	7,294.4	7,027.9	19.5	20.0	-76.83	-295.1	233.0	411.2	372.7	38.50	10.681	
7,400.0	7,133.6	7,338.5	7,042.5	19.9	20.3	-76.45	-295.1	191.4	411.9	372.7	39.13	10.525	
7,450.0	7,149.5	7,382.4	7,054.5	20.3	20.7	-76.13	-295.1	149.1	412.4	372.5	39.90	10.335	
7,500.0	7,162.0	7,426.2	7,063.9	20.8	21.1	-75.87	-295.1	106.3	412.9	372.1	40.82	10.115	
7,550.0	7,171.1	7,470.0	7,070.6	21.4	21.6	-75.67	-295.1	63.0	413.2	371.4	41.86	9.871	
7,600.0	7,176.8	7,513.7	7,074.6	22.1	22.2	-75.53	-295.1	19.5	413.5	370.5	43.03	9.610	
7,650.0	7,179.0	7,557.4	7,076.0	22.8	22.8	-75.44	-295.1	-24.1	413.7	369.3	44.30	9.337	
7,658.9	7,179.0	7,565.7	7,076.0	22.9	22.9	-75.44	-295.1	-32.4	413.7	369.1	44.55	9.285	
7,700.0	7,178.9	7,606.8	7,075.8	23.5	23.5	-75.43	-295.1	-73.5	413.7	367.9	45.79	9.034	
7,800.0	7,178.5	7,706.8	7,075.3	25.2	25.2	-75.41	-295.1	-173.5	413.7	364.6	49.09	8.427	
7,900.0	7,178.1	7,806.8	7,074.8	27.1	27.1	-75.40	-295.1	-273.5	413.7	361.0	52.75	7.844	
8,000.0	7,177.8	7,906.8	7,074.3	29.2	29.1	-75.38	-295.1	-373.5	413.8	357.1	56.69	7.299	
8,100.0	7,177.4	8,006.8	7,073.8	31.3	31.3	-75.37	-295.1	-473.5	413.8	352.9	60.87	6.799	
8,200.0	7,177.0	8,106.8	7,073.4	33.6	33.5	-75.35	-295.1	-573.5	413.8	348.6	65.23	6.344	
8,300.0	7,176.7	8,206.8	7,072.9	35.9	35.9	-75.33	-295.1	-673.5	413.9	344.1	69.74	5.934	
8,400.0	7,176.3	8,306.8	7,072.4	38.3	38.3	-75.32	-295.1	-773.5	413.9	339.5	74.38	5.565	
8,500.0	7,175.9	8,406.8	7,071.9	40.7	40.7	-75.30	-295.1	-873.5	413.9	334.8	79.11	5.232	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-234 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	8,506.8	7,071.4	43.2	43.2	-75.29	-295.1	-973.5	413.9	330.0	83.94	4.932	
8,700.0	7,175.2	8,606.8	7,070.9	45.7	45.8	-75.27	-295.1	-1,073.5	414.0	325.1	88.83	4.660	
8,800.0	7,174.8	8,706.8	7,070.5	48.3	48.3	-75.25	-295.1	-1,173.5	414.0	320.2	93.78	4.415	
8,900.0	7,174.5	8,806.8	7,070.0	50.9	50.9	-75.24	-295.1	-1,273.5	414.0	315.3	98.78	4.191	
9,000.0	7,174.1	8,906.8	7,069.5	53.5	53.5	-75.22	-295.1	-1,373.5	414.1	310.2	103.83	3.988	
9,100.0	7,173.7	9,006.8	7,069.0	56.1	56.2	-75.21	-295.1	-1,473.5	414.1	305.2	108.91	3.802	
9,200.0	7,173.4	9,106.8	7,068.5	58.8	58.8	-75.19	-295.1	-1,573.5	414.1	300.1	114.03	3.632	
9,300.0	7,173.0	9,206.8	7,068.0	61.4	61.5	-75.17	-295.1	-1,673.5	414.2	295.0	119.17	3.475	
9,400.0	7,172.6	9,306.8	7,067.6	64.1	64.1	-75.16	-295.1	-1,773.5	414.2	289.9	124.33	3.331	
9,500.0	7,172.3	9,406.8	7,067.1	66.8	66.8	-75.14	-295.1	-1,873.5	414.2	284.7	129.52	3.198	
9,600.0	7,171.9	9,506.8	7,066.6	69.5	69.5	-75.13	-295.1	-1,973.5	414.3	279.5	134.73	3.075	
9,700.0	7,171.6	9,606.8	7,066.1	72.2	72.2	-75.11	-295.1	-2,073.5	414.3	274.3	139.95	2.960	
9,800.0	7,171.2	9,706.8	7,065.6	74.9	74.9	-75.09	-295.1	-2,173.5	414.3	269.1	145.18	2.854	
9,900.0	7,170.8	9,806.8	7,065.1	77.6	77.6	-75.08	-295.1	-2,273.5	414.3	263.9	150.43	2.754	
10,000.0	7,170.5	9,906.8	7,064.6	80.3	80.4	-75.06	-295.1	-2,373.4	414.4	258.7	155.69	2.661	
10,100.0	7,170.1	10,006.8	7,064.2	83.0	83.1	-75.05	-295.1	-2,473.4	414.4	253.4	160.97	2.575	
10,200.0	7,169.7	10,106.8	7,063.7	85.8	85.8	-75.03	-295.1	-2,573.4	414.4	248.2	166.25	2.493	
10,300.0	7,169.4	10,206.8	7,063.2	88.5	88.6	-75.01	-295.1	-2,673.4	414.5	242.9	171.54	2.416	
10,400.0	7,169.0	10,306.8	7,062.7	91.3	91.3	-75.00	-295.1	-2,773.4	414.5	237.7	176.83	2.344	
10,500.0	7,168.6	10,406.8	7,062.2	94.0	94.1	-74.98	-295.1	-2,873.4	414.5	232.4	182.13	2.276	
10,600.0	7,168.3	10,506.8	7,061.7	96.8	96.8	-74.97	-295.1	-2,973.4	414.6	227.1	187.44	2.212	
10,700.0	7,167.9	10,606.8	7,061.3	99.5	99.6	-74.95	-295.1	-3,073.4	414.6	221.8	192.76	2.151	
10,800.0	7,167.5	10,706.8	7,060.8	102.3	102.3	-74.93	-295.1	-3,173.4	414.6	216.5	198.08	2.093	
10,900.0	7,167.2	10,806.8	7,060.3	105.0	105.1	-74.92	-295.1	-3,273.4	414.7	211.3	203.40	2.039	
11,000.0	7,166.8	10,906.8	7,059.8	107.8	107.8	-74.90	-295.1	-3,373.4	414.7	206.0	208.73	1.987	
11,100.0	7,166.4	11,006.8	7,059.3	110.5	110.6	-74.89	-295.1	-3,473.4	414.7	200.7	214.07	1.937	
11,200.0	7,166.1	11,106.8	7,058.8	113.3	113.4	-74.87	-295.1	-3,573.4	414.7	195.3	219.40	1.890	
11,300.0	7,165.7	11,206.8	7,058.4	116.1	116.1	-74.86	-295.1	-3,673.4	414.8	190.0	224.74	1.846	
11,400.0	7,165.4	11,306.8	7,057.9	118.8	118.9	-74.84	-295.1	-3,773.4	414.8	184.7	230.08	1.803	
11,500.0	7,165.0	11,406.8	7,057.4	121.6	121.7	-74.82	-295.1	-3,873.4	414.8	179.4	235.43	1.762	
11,600.0	7,164.6	11,506.8	7,056.9	124.4	124.5	-74.81	-295.1	-3,973.4	414.9	174.1	240.77	1.723	
11,700.0	7,164.3	11,606.6	7,056.4	127.2	127.2	-74.79	-295.1	-4,073.3	414.9	168.8	246.12	1.686	
11,744.6	7,164.1	11,651.2	7,056.2	128.4	128.5	-74.78	-295.1	-4,117.9	414.9	166.4	248.51	1.670	
11,783.3	7,164.0	11,688.2	7,056.0	129.5	129.5	-74.77	-295.1	-4,154.8	415.0	164.4	250.52	1.656 SF	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.54	29.9	0.3	29.9				
100.0	100.0	99.0	99.0	0.1	0.1	0.54	29.9	0.3	29.9	29.7	0.19	154.428	
200.0	200.0	199.0	199.0	0.3	0.3	0.54	29.9	0.3	29.9	29.2	0.64	46.554	
300.0	300.0	299.0	299.0	0.5	0.5	0.54	29.9	0.3	29.9	28.8	1.09	27.376	CC, ES
400.0	400.0	398.3	398.3	0.8	0.8	2.87	31.0	1.6	31.0	29.5	1.54	20.207	
500.0	500.0	497.3	497.2	1.0	1.0	8.95	34.3	5.4	34.8	32.8	1.98	17.549	
600.0	600.0	596.0	595.5	1.2	1.2	-66.85	39.9	11.8	41.0	38.6	2.44	16.842	
700.0	699.8	694.4	693.2	1.4	1.5	-64.36	47.7	20.7	48.9	46.0	2.89	16.908	
800.0	799.5	792.4	790.0	1.7	1.8	-63.83	57.6	32.1	58.3	54.9	3.38	17.213	
900.0	898.7	890.0	885.8	1.9	2.2	-64.48	69.6	46.0	68.9	65.0	3.92	17.573	
1,000.0	997.5	989.2	982.8	2.2	2.6	-66.39	83.1	61.5	79.9	75.3	4.53	17.640	
1,099.8	1,095.4	1,088.3	1,079.8	2.6	3.0	-69.87	96.6	77.1	89.7	84.4	5.22	17.182	
1,100.0	1,095.6	1,088.5	1,080.0	2.6	3.0	-69.88	96.7	77.1	89.7	84.5	5.22	17.181	
1,200.0	1,193.4	1,187.9	1,177.2	3.0	3.4	-73.78	110.2	92.7	99.3	93.3	5.99	16.577	
1,300.0	1,291.3	1,287.2	1,274.3	3.4	3.8	-76.98	123.7	108.3	109.2	102.4	6.79	16.081	
1,400.0	1,389.1	1,386.5	1,371.5	3.8	4.3	-79.64	137.3	123.9	119.5	111.9	7.62	15.680	
1,500.0	1,486.9	1,485.9	1,468.7	4.2	4.7	-81.87	150.8	139.5	130.0	121.5	8.46	15.353	
1,600.0	1,584.7	1,585.2	1,565.8	4.7	5.1	-83.77	164.4	155.1	140.6	131.3	9.32	15.085	
1,700.0	1,682.5	1,684.5	1,663.0	5.1	5.6	-85.41	177.9	170.7	151.4	141.2	10.18	14.865	
1,800.0	1,780.3	1,783.9	1,760.2	5.5	6.0	-86.82	191.5	186.3	162.2	151.2	11.05	14.681	
1,900.0	1,878.2	1,883.2	1,857.3	6.0	6.5	-88.06	205.0	201.9	173.2	161.3	11.92	14.527	
2,000.0	1,976.0	1,982.5	1,954.5	6.4	6.9	-89.15	218.6	217.4	184.2	171.4	12.80	14.396	
2,100.0	2,073.8	2,081.8	2,051.6	6.9	7.3	-90.11	232.1	233.0	195.3	181.6	13.67	14.284	
2,200.0	2,171.6	2,181.2	2,148.8	7.3	7.8	-90.98	245.7	248.6	206.4	191.9	14.55	14.187	
2,300.0	2,269.4	2,280.5	2,246.0	7.8	8.2	-91.75	259.2	264.2	217.6	202.2	15.43	14.103	
2,400.0	2,367.2	2,379.8	2,343.1	8.2	8.7	-92.45	272.8	279.8	228.8	212.5	16.31	14.029	
2,500.0	2,465.0	2,479.2	2,440.3	8.7	9.1	-93.08	286.3	295.4	240.1	222.9	17.19	13.964	
2,600.0	2,562.9	2,578.5	2,537.4	9.1	9.6	-93.66	299.9	311.0	251.3	233.3	18.07	13.907	
2,700.0	2,660.7	2,677.8	2,634.6	9.6	10.0	-94.18	313.4	326.6	262.6	243.7	18.95	13.856	
2,800.0	2,758.5	2,777.2	2,731.8	10.0	10.5	-94.67	327.0	342.2	273.9	254.1	19.84	13.810	
2,900.0	2,856.3	2,876.5	2,828.9	10.5	10.9	-95.11	340.5	357.8	285.3	264.6	20.72	13.769	
3,000.0	2,954.1	2,975.8	2,926.1	11.0	11.3	-95.52	354.1	373.4	296.6	275.0	21.60	13.731	
3,100.0	3,051.9	3,075.2	3,023.2	11.4	11.8	-95.90	367.6	388.9	308.0	285.5	22.48	13.698	
3,200.0	3,149.8	3,174.5	3,120.4	11.9	12.2	-96.26	381.2	404.5	319.3	296.0	23.37	13.667	
3,300.0	3,247.6	3,273.8	3,217.6	12.3	12.7	-96.59	394.7	420.1	330.7	306.5	24.25	13.639	
3,400.0	3,345.4	3,373.2	3,314.7	12.8	13.1	-96.90	408.3	435.7	342.1	317.0	25.13	13.613	
3,500.0	3,443.2	3,472.5	3,411.9	13.2	13.6	-97.18	421.8	451.3	353.5	327.5	26.01	13.589	
3,600.0	3,541.0	3,571.8	3,509.1	13.7	14.0	-97.45	435.4	466.9	364.9	338.0	26.90	13.568	
3,700.0	3,638.8	3,671.2	3,606.2	14.1	14.5	-97.71	448.9	482.5	376.4	348.6	27.78	13.547	
3,800.0	3,736.7	3,770.5	3,703.4	14.6	14.9	-97.94	462.5	498.1	387.8	359.1	28.66	13.529	
3,836.5	3,772.4	3,806.8	3,738.8	14.8	15.1	-98.03	467.4	503.8	392.0	363.0	28.99	13.522	
3,900.0	3,834.6	3,869.9	3,800.6	15.0	15.4	-98.21	476.0	513.7	399.1	369.6	29.51	13.524	
4,000.0	3,933.2	3,969.2	3,897.8	15.3	15.8	-98.09	489.6	529.3	410.0	379.7	30.24	13.557	
4,100.0	4,032.3	4,068.5	3,994.9	15.6	16.3	-97.51	503.1	544.9	420.4	389.5	30.91	13.601	
4,200.0	4,131.8	4,167.6	4,091.8	15.8	16.7	-96.50	516.6	560.4	430.5	399.0	31.51	13.662	
4,300.0	4,231.5	4,266.3	4,188.4	16.0	17.2	-95.10	530.1	575.9	440.5	408.5	32.04	13.749	
4,400.0	4,331.5	4,364.6	4,284.5	16.1	17.6	-93.34	543.5	591.3	450.6	418.2	32.48	13.874	
4,436.3	4,367.8	4,400.2	4,319.3	16.2	17.8	-11.36	548.4	596.9	454.4	431.0	23.41	19.413	
4,500.0	4,431.5	4,462.5	4,380.2	16.2	18.0	-9.95	556.9	606.7	461.2	437.3	23.86	19.331	
4,600.0	4,531.5	4,560.3	4,475.9	16.4	18.5	-7.82	570.2	622.1	472.4	447.8	24.60	19.207	
4,700.0	4,631.5	4,661.5	4,575.0	16.5	18.9	-5.74	583.9	637.8	484.2	458.8	25.37	19.089	
4,800.0	4,731.5	4,771.1	4,682.8	16.6	19.3	-3.89	596.6	652.5	494.8	468.7	26.10	18.959	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,882.1	4,792.7	16.8	19.6	-2.49	606.8	664.1	503.4	476.6	26.75	18.819	
5,000.0	4,931.5	4,994.1	4,904.1	16.9	19.8	-1.49	614.2	672.6	509.7	482.4	27.32	18.660	
5,100.0	5,031.5	5,106.8	5,016.6	17.0	20.0	-0.90	618.7	677.9	513.7	485.9	27.79	18.481	
5,200.0	5,131.5	5,219.9	5,129.7	17.2	20.2	-0.68	620.4	679.8	515.1	486.9	28.18	18.279	
5,300.0	5,231.5	5,320.7	5,230.5	17.3	20.3	-0.68	620.4	679.8	515.1	486.6	28.51	18.066	
5,400.0	5,331.5	5,420.7	5,330.5	17.5	20.4	-0.68	620.4	679.8	515.1	486.3	28.85	17.854	
5,500.0	5,431.5	5,520.7	5,430.5	17.6	20.5	-0.68	620.4	679.8	515.1	485.9	29.19	17.645	
5,600.0	5,531.5	5,620.7	5,530.5	17.7	20.7	-0.68	620.4	679.8	515.1	485.6	29.54	17.439	
5,700.0	5,631.5	5,720.7	5,630.5	17.9	20.8	-0.68	620.4	679.8	515.1	485.2	29.88	17.237	
5,800.0	5,731.5	5,820.7	5,730.5	18.0	20.9	-0.68	620.4	679.8	515.1	484.9	30.23	17.037	
5,900.0	5,831.5	5,920.7	5,830.5	18.2	21.0	-0.68	620.4	679.8	515.1	484.5	30.59	16.841	
6,000.0	5,931.5	6,020.7	5,930.5	18.4	21.2	-0.68	620.4	679.8	515.1	484.2	30.94	16.648	
6,100.0	6,031.5	6,120.7	6,030.5	18.5	21.3	-0.68	620.4	679.8	515.1	483.8	31.30	16.458	
6,200.0	6,131.5	6,220.7	6,130.5	18.7	21.4	-0.68	620.4	679.8	515.1	483.5	31.66	16.272	
6,300.0	6,231.5	6,320.7	6,230.5	18.8	21.6	-0.68	620.4	679.8	515.1	483.1	32.02	16.088	
6,400.0	6,331.5	6,420.7	6,330.5	19.0	21.7	-0.68	620.4	679.8	515.1	482.7	32.38	15.908	
6,500.0	6,431.5	6,520.7	6,430.5	19.1	21.9	-0.68	620.4	679.8	515.1	482.4	32.75	15.730	
6,531.3	6,462.8	6,552.0	6,461.8	19.2	21.9	-0.68	620.4	679.8	515.1	482.2	32.86	15.675	
6,550.0	6,481.5	6,570.6	6,480.3	19.2	21.9	89.32	620.4	679.6	515.1	476.4	38.72	13.302	
6,600.0	6,531.4	6,620.1	6,529.8	19.3	22.0	89.33	620.4	676.6	515.1	476.3	38.81	13.273	
6,650.0	6,580.9	6,669.7	6,579.0	19.3	22.0	89.35	620.4	670.3	515.1	476.3	38.83	13.265	
6,700.0	6,629.9	6,719.3	6,627.6	19.3	22.0	89.36	620.4	660.6	515.1	476.3	38.80	13.276	
6,750.0	6,678.1	6,768.9	6,675.5	19.2	21.9	89.38	620.4	647.5	515.1	476.4	38.72	13.304	
6,800.0	6,725.2	6,818.6	6,722.3	19.2	21.9	89.41	620.4	631.1	515.1	476.5	38.60	13.345	
6,850.0	6,771.1	6,868.2	6,767.9	19.1	21.8	89.43	620.4	611.5	515.1	476.6	38.45	13.397	
6,900.0	6,815.4	6,917.9	6,812.1	19.0	21.7	89.46	620.4	588.8	515.1	476.8	38.28	13.455	
6,950.0	6,858.0	6,967.5	6,854.5	18.9	21.6	89.49	620.4	563.1	515.1	477.0	38.11	13.515	
7,000.0	6,898.7	7,017.2	6,895.2	18.9	21.5	89.53	620.4	534.5	515.1	477.1	37.96	13.570	
7,050.0	6,937.3	7,066.9	6,933.7	18.8	21.4	89.56	620.4	503.2	515.1	477.2	37.84	13.613	
7,100.0	6,973.6	7,116.7	6,970.0	18.8	21.2	89.60	620.4	469.2	515.1	477.3	37.77	13.636	
7,150.0	7,007.4	7,166.4	7,003.9	18.8	21.1	89.64	620.4	432.8	515.1	477.3	37.78	13.632	
7,200.0	7,038.5	7,216.2	7,035.2	18.9	21.0	89.68	620.4	394.0	515.1	477.2	37.89	13.593	
7,250.0	7,066.8	7,266.0	7,063.7	19.0	21.0	89.73	620.4	353.2	515.1	477.0	38.12	13.513	
7,300.0	7,092.2	7,315.9	7,089.4	19.2	20.9	89.77	620.4	310.5	515.1	476.6	38.48	13.385	
7,350.0	7,114.5	7,365.7	7,112.0	19.5	20.9	89.82	620.4	266.1	515.1	476.1	38.99	13.210	
7,400.0	7,133.6	7,415.6	7,131.5	19.9	21.0	89.86	620.4	220.1	515.1	475.4	39.66	12.987	
7,450.0	7,149.5	7,465.6	7,147.7	20.3	21.1	89.91	620.4	172.9	515.1	474.6	40.49	12.721	
7,500.0	7,162.0	7,515.5	7,160.6	20.8	21.3	89.96	620.4	124.7	515.1	473.6	41.48	12.418	
7,543.5	7,170.1	7,559.0	7,169.1	21.3	21.6	90.00	620.4	82.0	515.1	472.6	42.46	12.131	
7,550.0	7,171.1	7,565.5	7,170.2	21.4	21.6	90.01	620.4	75.6	515.1	472.5	42.61	12.087	
7,600.0	7,176.8	7,615.5	7,176.3	22.1	22.1	90.05	620.4	26.0	515.1	471.2	43.88	11.737	
7,650.0	7,179.0	7,665.6	7,178.9	22.8	22.6	90.10	620.4	-24.0	515.1	469.8	45.27	11.378	
7,658.9	7,179.0	7,674.5	7,179.0	22.9	22.7	90.11	620.4	-32.9	515.1	469.5	45.53	11.313	
7,700.0	7,178.9	7,715.6	7,178.9	23.5	23.3	90.11	620.4	-74.0	515.1	468.3	46.78	11.011	
7,800.0	7,178.5	7,815.6	7,178.5	25.2	24.9	90.11	620.4	-174.0	515.1	465.0	50.10	10.281	
7,900.0	7,178.1	7,915.6	7,178.1	27.1	26.7	90.11	620.4	-274.0	515.1	461.3	53.79	9.576	
8,000.0	7,177.8	8,015.6	7,177.8	29.2	28.7	90.11	620.4	-374.0	515.1	457.3	57.79	8.913	
8,100.0	7,177.4	8,115.6	7,177.4	31.3	30.8	90.11	620.4	-474.0	515.1	453.0	62.04	8.302	
8,200.0	7,177.0	8,215.6	7,177.0	33.6	33.0	90.11	620.4	-574.0	515.1	448.6	66.50	7.746	
8,300.0	7,176.7	8,315.6	7,176.7	35.9	35.3	90.11	620.4	-674.0	515.1	444.0	71.12	7.242	
8,400.0	7,176.3	8,415.6	7,176.3	38.3	37.7	90.11	620.4	-774.0	515.1	439.2	75.88	6.788	
8,500.0	7,175.9	8,515.6	7,175.9	40.7	40.1	90.11	620.4	-874.0	515.1	434.3	80.74	6.379	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	8,615.6	7,175.6	43.2	42.6	90.11	620.4	-974.0	515.1	429.4	85.70	6.010	
8,700.0	7,175.2	8,715.6	7,175.2	45.7	45.1	90.11	620.4	-1,074.0	515.1	424.3	90.74	5.677	
8,800.0	7,174.8	8,815.6	7,174.8	48.3	47.6	90.11	620.4	-1,174.0	515.1	419.2	95.84	5.375	
8,900.0	7,174.5	8,915.6	7,174.5	50.9	50.2	90.11	620.4	-1,274.0	515.1	414.1	100.99	5.100	
9,000.0	7,174.1	9,015.6	7,174.1	53.5	52.8	90.11	620.4	-1,374.0	515.1	408.9	106.19	4.850	
9,100.0	7,173.7	9,115.6	7,173.8	56.1	55.4	90.11	620.4	-1,474.0	515.1	403.6	111.43	4.622	
9,200.0	7,173.4	9,215.6	7,173.4	58.8	58.1	90.11	620.4	-1,574.0	515.1	398.4	116.71	4.413	
9,300.0	7,173.0	9,315.6	7,173.0	61.4	60.7	90.11	620.4	-1,674.0	515.1	393.1	122.02	4.221	
9,400.0	7,172.6	9,415.6	7,172.7	64.1	63.4	90.11	620.4	-1,774.0	515.1	387.7	127.35	4.045	
9,500.0	7,172.3	9,515.6	7,172.3	66.8	66.1	90.11	620.4	-1,874.0	515.1	382.4	132.71	3.881	
9,600.0	7,171.9	9,615.6	7,171.9	69.5	68.7	90.11	620.4	-1,974.0	515.1	377.0	138.09	3.730	
9,700.0	7,171.6	9,715.6	7,171.6	72.2	71.4	90.11	620.4	-2,074.0	515.1	371.6	143.48	3.590	
9,800.0	7,171.2	9,815.6	7,171.2	74.9	74.1	90.11	620.4	-2,174.0	515.1	366.2	148.90	3.459	
9,900.0	7,170.8	9,915.6	7,170.8	77.6	76.8	90.11	620.4	-2,274.0	515.1	360.8	154.32	3.338	
10,000.0	7,170.5	10,015.6	7,170.5	80.3	79.6	90.11	620.4	-2,374.0	515.1	355.3	159.77	3.224	
10,100.0	7,170.1	10,115.6	7,170.1	83.0	82.3	90.11	620.4	-2,474.0	515.1	349.9	165.22	3.118	
10,200.0	7,169.7	10,215.6	7,169.7	85.8	85.0	90.11	620.4	-2,574.0	515.1	344.4	170.68	3.018	
10,300.0	7,169.4	10,315.6	7,169.4	88.5	87.7	90.11	620.4	-2,674.0	515.1	338.9	176.15	2.924	
10,400.0	7,169.0	10,415.6	7,169.0	91.3	90.5	90.11	620.4	-2,774.0	515.1	333.5	181.63	2.836	
10,500.0	7,168.6	10,515.6	7,168.7	94.0	93.2	90.11	620.4	-2,874.0	515.1	328.0	187.12	2.753	
10,600.0	7,168.3	10,615.6	7,168.3	96.8	96.0	90.11	620.4	-2,974.0	515.1	322.5	192.62	2.674	
10,700.0	7,167.9	10,715.6	7,167.9	99.5	98.7	90.11	620.4	-3,074.0	515.1	317.0	198.12	2.600	
10,800.0	7,167.5	10,815.6	7,167.6	102.3	101.5	90.11	620.4	-3,174.0	515.1	311.5	203.63	2.529	
10,900.0	7,167.2	10,915.6	7,167.2	105.0	104.2	90.11	620.4	-3,274.0	515.1	305.9	209.15	2.463	
11,000.0	7,166.8	11,015.6	7,166.8	107.8	107.0	90.11	620.4	-3,374.0	515.1	300.4	214.67	2.399	
11,100.0	7,166.4	11,115.6	7,166.5	110.5	109.7	90.11	620.4	-3,474.0	515.1	294.9	220.20	2.339	
11,200.0	7,166.1	11,215.6	7,166.1	113.3	112.5	90.12	620.4	-3,574.0	515.1	289.4	225.73	2.282	
11,300.0	7,165.7	11,315.6	7,165.8	116.1	115.3	90.12	620.4	-3,674.0	515.1	283.8	231.26	2.227	
11,400.0	7,165.4	11,415.6	7,165.4	118.8	118.0	90.12	620.4	-3,774.0	515.1	278.3	236.80	2.175	
11,500.0	7,165.0	11,515.6	7,165.0	121.6	120.8	90.12	620.4	-3,874.0	515.1	272.8	242.34	2.126	
11,600.0	7,164.6	11,615.6	7,164.7	124.4	123.6	90.12	620.4	-3,974.0	515.1	267.2	247.89	2.078	
11,700.0	7,164.3	11,715.6	7,164.3	127.2	126.4	90.12	620.4	-4,074.0	515.1	261.7	253.43	2.032	
11,783.3	7,164.0	11,798.9	7,164.0	129.5	128.7	90.11	620.4	-4,157.3	515.1	257.1	258.06	1.996 SF	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-178.93	-14.9	-0.3	14.9				
100.0	100.0	100.0	100.0	0.1	0.1	-178.93	-14.9	-0.3	14.9	14.7	0.19	76.838	
200.0	200.0	200.0	200.0	0.3	0.3	-178.93	-14.9	-0.3	14.9	14.3	0.64	23.199	
300.0	300.0	300.0	300.0	0.5	0.5	-178.93	-14.9	-0.3	14.9	13.8	1.09	13.662	
400.0	400.0	400.0	400.0	0.8	0.8	-178.93	-14.9	-0.3	14.9	13.4	1.54	9.682	
500.0	500.0	500.0	500.0	1.0	1.0	-178.93	-14.9	-0.3	14.9	12.9	1.99	7.497	CC
600.0	600.0	600.0	600.0	1.2	1.2	106.23	-14.9	-0.3	15.3	12.9	2.43	6.304	ES
700.0	699.8	699.8	699.8	1.4	1.4	122.83	-14.9	-0.3	17.5	14.7	2.87	6.105	
800.0	799.5	799.9	799.9	1.7	1.7	137.40	-15.1	1.5	22.5	19.2	3.31	6.797	
900.0	898.7	900.2	900.0	1.9	1.9	144.95	-15.8	6.7	28.9	25.2	3.74	7.742	
1,000.0	997.5	1,000.6	1,000.1	2.2	2.1	148.50	-16.8	15.4	36.3	32.1	4.19	8.658	
1,099.8	1,095.4	1,101.1	1,099.8	2.6	2.3	149.84	-18.2	27.6	44.3	39.6	4.68	9.463	
1,100.0	1,095.6	1,101.3	1,100.0	2.6	2.3	149.84	-18.2	27.6	44.3	39.6	4.68	9.464	
1,200.0	1,193.4	1,202.2	1,199.6	3.0	2.6	149.01	-20.1	43.3	51.3	46.1	5.23	9.811	
1,300.0	1,291.3	1,303.3	1,298.8	3.4	3.0	145.72	-22.3	62.6	56.0	50.2	5.87	9.545	
1,400.0	1,389.1	1,403.1	1,396.5	3.8	3.3	141.75	-24.7	83.2	59.9	53.3	6.59	9.091	
1,500.0	1,486.9	1,503.0	1,494.2	4.2	3.7	138.26	-27.1	103.8	64.0	56.7	7.36	8.701	
1,600.0	1,584.7	1,602.8	1,591.8	4.7	4.1	135.21	-29.6	124.4	68.3	60.2	8.16	8.371	
1,700.0	1,682.5	1,702.7	1,689.5	5.1	4.6	132.53	-32.0	145.0	72.8	63.8	9.00	8.092	
1,800.0	1,780.3	1,802.5	1,787.2	5.5	5.0	130.16	-34.4	165.7	77.5	67.6	9.86	7.858	
1,900.0	1,878.2	1,902.4	1,884.8	6.0	5.4	128.06	-36.8	186.3	82.2	71.5	10.73	7.661	
2,000.0	1,976.0	2,002.2	1,982.5	6.4	5.9	126.20	-39.2	206.9	87.1	75.4	11.62	7.494	
2,100.0	2,073.8	2,102.0	2,080.1	6.9	6.3	124.53	-41.6	227.5	92.0	79.5	12.51	7.352	
2,200.0	2,171.6	2,201.9	2,177.8	7.3	6.7	123.03	-44.1	248.1	97.0	83.6	13.41	7.231	
2,300.0	2,269.4	2,301.7	2,275.5	7.8	7.2	121.68	-46.5	268.7	102.0	87.7	14.32	7.127	
2,400.0	2,367.2	2,401.6	2,373.1	8.2	7.6	120.46	-48.9	289.4	107.2	91.9	15.23	7.037	
2,500.0	2,465.0	2,501.4	2,470.8	8.7	8.1	119.35	-51.3	310.0	112.3	96.2	16.14	6.958	
2,600.0	2,562.9	2,601.3	2,568.5	9.1	8.5	118.34	-53.7	330.6	117.5	100.4	17.06	6.890	
2,700.0	2,660.7	2,701.1	2,666.1	9.6	9.0	117.41	-56.2	351.2	122.7	104.8	17.97	6.829	
2,800.0	2,758.5	2,801.0	2,763.8	10.0	9.4	116.56	-58.6	371.8	128.0	109.1	18.89	6.776	
2,900.0	2,856.3	2,900.8	2,861.4	10.5	9.9	115.78	-61.0	392.5	133.3	113.5	19.81	6.728	
3,000.0	2,954.1	3,000.6	2,959.1	11.0	10.3	115.05	-63.4	413.1	138.6	117.8	20.73	6.686	
3,100.0	3,051.9	3,100.5	3,056.8	11.4	10.8	114.38	-65.8	433.7	143.9	122.3	21.64	6.648	
3,200.0	3,149.8	3,200.3	3,154.4	11.9	11.3	113.76	-68.2	454.3	149.2	126.7	22.56	6.614	
3,300.0	3,247.6	3,300.2	3,252.1	12.3	11.7	113.18	-70.7	474.9	154.6	131.1	23.48	6.583	
3,400.0	3,345.4	3,400.0	3,349.8	12.8	12.2	112.64	-73.1	495.5	160.0	135.6	24.40	6.555	
3,500.0	3,443.2	3,499.9	3,447.4	13.2	12.6	112.14	-75.5	516.2	165.4	140.0	25.32	6.530	
3,600.0	3,541.0	3,599.7	3,545.1	13.7	13.1	111.66	-77.9	536.8	170.8	144.5	26.24	6.507	
3,700.0	3,638.8	3,699.6	3,642.7	14.1	13.5	111.22	-80.3	557.4	176.2	149.0	27.16	6.486	
3,800.0	3,736.7	3,799.4	3,740.4	14.6	14.0	110.80	-82.8	578.0	181.6	153.5	28.08	6.466	
3,836.5	3,772.4	3,835.8	3,776.1	14.8	14.2	110.65	-83.6	585.5	183.6	155.1	28.42	6.460	
3,900.0	3,834.6	3,899.2	3,838.1	15.0	14.5	110.26	-85.2	598.6	186.8	157.8	28.97	6.447	
4,000.0	3,933.2	3,999.0	3,935.7	15.3	14.9	108.86	-87.6	619.2	190.9	161.1	29.80	6.406	
4,100.0	4,032.3	4,098.5	4,033.2	15.6	15.3	106.94	-89.8	638.4	194.2	163.6	30.54	6.358	
4,200.0	4,131.8	4,198.2	4,131.6	15.8	15.6	105.09	-91.7	654.3	196.8	165.6	31.12	6.323	
4,300.0	4,231.5	4,298.1	4,230.7	16.0	15.8	103.29	-93.2	666.8	198.6	167.0	31.60	6.286	
4,400.0	4,331.5	4,398.3	4,330.5	16.1	16.1	101.54	-94.2	675.9	199.7	167.8	31.98	6.245	
4,436.3	4,367.8	4,434.7	4,366.8	16.2	16.1	-177.82	-94.5	678.3	200.0	178.7	21.24	9.415	
4,500.0	4,431.5	4,498.7	4,430.8	16.2	16.2	-178.74	-94.9	681.5	200.2	178.8	21.45	9.335	
4,600.0	4,531.5	4,599.4	4,531.4	16.4	16.4	-179.34	-95.1	683.6	200.4	178.6	21.80	9.193	
4,700.0	4,631.5	4,699.5	4,631.5	16.5	16.5	-179.35	-95.1	683.6	200.4	178.3	22.17	9.043	
4,800.0	4,731.5	4,799.5	4,731.5	16.6	16.6	-179.35	-95.1	683.6	200.4	177.9	22.53	8.896	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,831.5	4,899.5	4,831.5	16.8	16.7	-179.35	-95.1	683.6	200.4	177.5	22.90	8.753	
5,000.0	4,931.5	4,999.5	4,931.5	16.9	16.9	-179.35	-95.1	683.6	200.4	177.2	23.27	8.613	
5,100.0	5,031.5	5,099.5	5,031.5	17.0	17.0	-179.35	-95.1	683.6	200.4	176.8	23.65	8.476	
5,200.0	5,131.5	5,199.5	5,131.5	17.2	17.1	-179.35	-95.1	683.6	200.4	176.4	24.03	8.343	
5,300.0	5,231.5	5,299.5	5,231.5	17.3	17.3	-179.35	-95.1	683.6	200.4	176.0	24.41	8.213	
5,400.0	5,331.5	5,399.5	5,331.5	17.5	17.4	-179.35	-95.1	683.6	200.4	175.7	24.79	8.086	
5,500.0	5,431.5	5,499.5	5,431.5	17.6	17.6	-179.35	-95.1	683.6	200.4	175.3	25.17	7.963	
5,600.0	5,531.5	5,599.5	5,531.5	17.7	17.7	-179.35	-95.1	683.6	200.4	174.9	25.56	7.842	
5,700.0	5,631.5	5,699.5	5,631.5	17.9	17.9	-179.35	-95.1	683.6	200.4	174.5	25.95	7.725	
5,800.0	5,731.5	5,799.5	5,731.5	18.0	18.0	-179.35	-95.1	683.6	200.4	174.1	26.34	7.610	
5,900.0	5,831.5	5,899.5	5,831.5	18.2	18.2	-179.35	-95.1	683.6	200.4	173.7	26.73	7.499	
6,000.0	5,931.5	5,999.5	5,931.5	18.4	18.3	-179.35	-95.1	683.6	200.4	173.3	27.13	7.390	
6,100.0	6,031.5	6,099.5	6,031.5	18.5	18.5	-179.35	-95.1	683.6	200.4	172.9	27.52	7.283	
6,200.0	6,131.5	6,199.5	6,131.5	18.7	18.6	-179.35	-95.1	683.6	200.4	172.5	27.92	7.180	
6,300.0	6,231.5	6,299.5	6,231.5	18.8	18.8	-179.35	-95.1	683.6	200.4	172.1	28.32	7.078	
6,400.0	6,331.5	6,399.5	6,331.5	19.0	18.9	-179.35	-95.1	683.6	200.4	171.7	28.72	6.980	
6,500.0	6,431.5	6,499.5	6,431.5	19.1	19.1	-179.35	-95.1	683.6	200.4	171.3	29.12	6.883	
6,531.3	6,462.8	6,530.8	6,462.8	19.2	19.1	-179.35	-95.1	683.6	200.4	171.2	29.25	6.854	
6,550.0	6,481.5	6,549.5	6,481.5	19.2	19.2	-89.42	-95.1	683.6	200.4	162.2	38.23	5.243	
6,588.5	6,519.9	6,587.9	6,519.9	19.2	19.2	-90.00	-95.1	683.6	200.4	162.1	38.33	5.230	
6,600.0	6,531.4	6,599.4	6,531.4	19.3	19.2	-90.29	-95.1	683.6	200.4	162.1	38.35	5.226	
6,650.0	6,580.9	6,649.0	6,581.1	19.3	19.3	-92.10	-95.1	683.5	200.6	162.1	38.43	5.219	
6,700.0	6,629.9	6,699.3	6,631.2	19.3	19.4	-94.21	-95.1	681.0	201.0	162.6	38.43	5.230	
6,750.0	6,678.1	6,750.0	6,681.6	19.2	19.4	-96.29	-95.1	674.8	201.7	163.3	38.35	5.259	
6,800.0	6,725.2	6,801.3	6,732.0	19.2	19.4	-98.34	-95.1	665.0	202.6	164.4	38.20	5.305	
6,850.0	6,771.1	6,853.2	6,782.0	19.1	19.3	-100.34	-95.1	651.5	203.8	165.8	37.98	5.367	
6,900.0	6,815.4	6,905.7	6,831.5	19.0	19.3	-102.28	-95.1	634.1	205.2	167.5	37.70	5.443	
6,950.0	6,858.0	6,958.7	6,880.1	18.9	19.2	-104.14	-95.1	612.9	206.8	169.4	37.38	5.532	
7,000.0	6,898.7	7,012.4	6,927.5	18.9	19.1	-105.91	-95.1	587.9	208.6	171.5	37.04	5.631	
7,050.0	6,937.3	7,066.5	6,973.4	18.8	19.1	-107.59	-95.1	559.1	210.4	173.7	36.69	5.735	
7,100.0	6,973.6	7,121.3	7,017.4	18.8	19.0	-109.16	-95.1	526.5	212.4	176.0	36.37	5.840	
7,150.0	7,007.4	7,176.6	7,059.2	18.8	19.0	-110.62	-95.1	490.3	214.3	178.2	36.09	5.939	
7,200.0	7,038.5	7,232.5	7,098.5	18.9	19.0	-111.96	-95.1	450.6	216.3	180.4	35.89	6.027	
7,250.0	7,066.8	7,288.8	7,134.8	19.0	19.1	-113.18	-95.1	407.5	218.2	182.4	35.80	6.095	
7,300.0	7,092.2	7,345.6	7,167.9	19.2	19.2	-114.27	-95.1	361.4	220.0	184.2	35.84	6.138	
7,350.0	7,114.5	7,402.9	7,197.5	19.5	19.4	-115.22	-95.1	312.4	221.7	185.6	36.06	6.148	
7,400.0	7,133.6	7,460.5	7,223.2	19.9	19.7	-116.04	-95.1	260.8	223.2	186.7	36.46	6.121	
7,450.0	7,149.5	7,518.5	7,244.7	20.3	20.2	-116.73	-95.1	207.0	224.5	187.4	37.07	6.056	
7,500.0	7,162.0	7,576.8	7,262.0	20.8	20.7	-117.28	-95.1	151.3	225.6	187.7	37.87	5.956	
7,550.0	7,171.1	7,635.3	7,274.7	21.4	21.4	-117.69	-95.1	94.3	226.4	187.5	38.88	5.822	
7,600.0	7,176.8	7,693.9	7,282.7	22.1	22.1	-117.96	-95.1	36.2	226.9	186.8	40.08	5.662	
7,650.0	7,179.0	7,752.7	7,285.9	22.8	22.9	-118.09	-95.1	-22.5	227.2	185.7	41.45	5.482	
7,658.9	7,179.0	7,762.8	7,286.0	22.9	23.1	-118.10	-95.1	-32.6	227.2	185.5	41.70	5.448	
7,700.0	7,178.9	7,803.9	7,286.1	23.5	23.7	-118.15	-95.1	-73.7	227.3	184.5	42.81	5.310	
7,800.0	7,178.5	7,903.9	7,286.4	25.2	25.4	-118.29	-95.1	-173.7	227.6	181.9	45.77	4.974	
7,900.0	7,178.1	8,003.9	7,286.6	27.1	27.3	-118.43	-95.1	-273.7	227.9	178.9	49.04	4.648	
8,000.0	7,177.8	8,103.9	7,286.9	29.2	29.3	-118.57	-95.1	-373.7	228.2	175.7	52.57	4.341	
8,100.0	7,177.4	8,203.9	7,287.2	31.3	31.4	-118.71	-95.1	-473.7	228.5	172.2	56.31	4.059	
8,200.0	7,177.0	8,303.9	7,287.4	33.6	33.7	-118.85	-95.1	-573.7	228.8	168.6	60.21	3.801	
8,300.0	7,176.7	8,403.9	7,287.7	35.9	36.0	-118.99	-95.1	-673.7	229.1	164.9	64.24	3.567	
8,400.0	7,176.3	8,503.9	7,288.0	38.3	38.4	-119.12	-95.1	-773.7	229.4	161.1	68.37	3.356	
8,500.0	7,175.9	8,603.9	7,288.2	40.7	40.8	-119.26	-95.1	-873.7	229.8	157.2	72.59	3.165	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21P-434 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,600.0	7,175.6	8,703.9	7,288.5	43.2	43.3	-119.40	-95.1	-973.7	230.1	153.2	76.88	2.992	
8,700.0	7,175.2	8,803.9	7,288.8	45.7	45.8	-119.53	-95.1	-1,073.7	230.4	149.1	81.23	2.836	
8,800.0	7,174.8	8,903.9	7,289.0	48.3	48.4	-119.67	-95.1	-1,173.7	230.7	145.1	85.62	2.694	
8,900.0	7,174.5	9,003.9	7,289.3	50.9	51.0	-119.81	-95.1	-1,273.7	231.0	140.9	90.04	2.565	
9,000.0	7,174.1	9,103.9	7,289.6	53.5	53.6	-119.94	-95.1	-1,373.7	231.3	136.8	94.50	2.448	
9,100.0	7,173.7	9,203.9	7,289.8	56.1	56.2	-120.08	-95.1	-1,473.7	231.6	132.6	98.98	2.340	
9,200.0	7,173.4	9,303.9	7,290.1	58.8	58.8	-120.21	-95.1	-1,573.7	231.9	128.5	103.47	2.241	
9,300.0	7,173.0	9,403.9	7,290.4	61.4	61.5	-120.35	-95.1	-1,673.7	232.3	124.3	107.99	2.151	
9,400.0	7,172.6	9,503.9	7,290.6	64.1	64.2	-120.48	-95.1	-1,773.7	232.6	120.1	112.51	2.067	
9,500.0	7,172.3	9,603.9	7,290.9	66.8	66.8	-120.62	-95.1	-1,873.7	232.9	115.9	117.04	1.990	
9,600.0	7,171.9	9,703.9	7,291.2	69.5	69.5	-120.75	-95.1	-1,973.7	233.2	111.6	121.58	1.918	
9,700.0	7,171.6	9,803.9	7,291.4	72.2	72.2	-120.88	-95.1	-2,073.7	233.5	107.4	126.12	1.852	
9,800.0	7,171.2	9,903.8	7,291.7	74.9	74.9	-121.02	-95.1	-2,173.6	233.9	103.2	130.66	1.790	
9,900.0	7,170.8	10,003.8	7,292.0	77.6	77.6	-121.15	-95.1	-2,273.6	234.2	99.0	135.21	1.732	
10,000.0	7,170.5	10,103.8	7,292.2	80.3	80.4	-121.28	-95.1	-2,373.6	234.5	94.8	139.75	1.678	
10,100.0	7,170.1	10,203.8	7,292.5	83.0	83.1	-121.41	-95.1	-2,473.6	234.8	90.5	144.29	1.627	
10,200.0	7,169.7	10,303.8	7,292.8	85.8	85.8	-121.54	-95.1	-2,573.6	235.2	86.3	148.83	1.580	
10,300.0	7,169.4	10,403.8	7,293.0	88.5	88.6	-121.68	-95.1	-2,673.6	235.5	82.1	153.37	1.535	
10,400.0	7,169.0	10,503.8	7,293.3	91.3	91.3	-121.81	-95.1	-2,773.6	235.8	77.9	157.90	1.494	Level 3
10,500.0	7,168.6	10,603.8	7,293.6	94.0	94.0	-121.94	-95.1	-2,873.6	236.2	73.7	162.43	1.454	Level 3
10,600.0	7,168.3	10,703.8	7,293.8	96.8	96.8	-122.07	-95.1	-2,973.6	236.5	69.6	166.94	1.417	Level 3
10,700.0	7,167.9	10,803.8	7,294.1	99.5	99.5	-122.20	-95.1	-3,073.6	236.8	65.4	171.46	1.381	Level 3
10,800.0	7,167.5	10,903.8	7,294.4	102.3	102.3	-122.33	-95.1	-3,173.6	237.2	61.2	175.96	1.348	Level 3
10,900.0	7,167.2	11,003.8	7,294.6	105.0	105.1	-122.46	-95.1	-3,273.6	237.5	57.0	180.46	1.316	Level 3
11,000.0	7,166.8	11,103.8	7,294.9	107.8	107.8	-122.58	-95.1	-3,373.6	237.8	52.9	184.95	1.286	Level 3
11,100.0	7,166.4	11,203.8	7,295.2	110.5	110.6	-122.71	-95.1	-3,473.6	238.2	48.7	189.44	1.257	Level 3
11,200.0	7,166.1	11,303.8	7,295.4	113.3	113.4	-122.84	-95.1	-3,573.6	238.5	44.6	193.91	1.230	Level 2
11,300.0	7,165.7	11,403.8	7,295.7	116.1	116.1	-122.97	-95.1	-3,673.6	238.9	40.5	198.38	1.204	Level 2
11,400.0	7,165.4	11,503.8	7,296.0	118.8	118.9	-123.10	-95.1	-3,773.6	239.2	36.4	202.83	1.179	Level 2
11,500.0	7,165.0	11,603.8	7,296.2	121.6	121.7	-123.22	-95.1	-3,873.6	239.6	32.3	207.28	1.156	Level 2
11,600.0	7,164.6	11,703.8	7,296.5	124.4	124.4	-123.35	-95.1	-3,973.6	239.9	28.2	211.72	1.133	Level 2
11,700.0	7,164.3	11,803.8	7,296.8	127.2	127.2	-123.48	-95.1	-4,073.6	240.2	24.1	216.14	1.112	Level 2
11,783.3	7,164.0	11,886.1	7,297.0	129.5	129.5	-123.57	-95.1	-4,155.9	240.5	20.7	219.82	1.094	Level 2, SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-179.47	-60.1	-0.6	60.1				
100.0	100.0	101.0	101.0	0.1	0.1	-179.47	-60.1	-0.6	60.1	59.9	0.20	305.653	
200.0	200.0	201.0	201.0	0.3	0.3	-179.47	-60.1	-0.6	60.1	59.5	0.65	93.025	
300.0	300.0	301.0	301.0	0.5	0.5	-179.47	-60.1	-0.6	60.1	59.0	1.10	54.861	
366.3	366.3	367.3	367.3	0.7	0.7	-179.47	-60.1	-0.6	60.1	58.7	1.39	43.125	CC
400.0	400.0	401.0	401.0	0.8	0.8	-179.47	-60.1	-0.6	60.1	58.6	1.55	38.907	ES
500.0	500.0	500.0	500.0	1.0	1.0	179.32	-61.3	0.7	61.3	59.3	1.97	31.097	
600.0	600.0	598.0	597.8	1.2	1.2	96.19	-64.7	4.5	65.1	62.7	2.38	27.313	
700.0	699.8	696.1	695.5	1.4	1.4	95.35	-70.4	10.7	71.8	69.0	2.82	25.479	
800.0	799.5	793.8	792.5	1.7	1.7	95.35	-78.3	19.4	81.2	77.9	3.29	24.673	
900.0	898.7	890.9	888.5	1.9	2.0	95.92	-88.4	30.4	93.3	89.5	3.82	24.440	
1,000.0	997.5	987.4	983.3	2.2	2.3	96.80	-100.6	43.8	108.2	103.8	4.42	24.498	
1,099.8	1,095.4	1,085.4	1,079.2	2.6	2.7	98.26	-114.3	58.8	125.0	119.9	5.10	24.525	
1,100.0	1,095.6	1,085.6	1,079.4	2.6	2.7	98.27	-114.3	58.9	125.0	119.9	5.10	24.525	
1,200.0	1,193.4	1,184.0	1,175.6	3.0	3.1	100.34	-128.1	74.0	142.2	136.4	5.84	24.368	
1,300.0	1,291.3	1,282.4	1,271.8	3.4	3.5	101.96	-141.9	89.1	159.6	153.0	6.61	24.161	
1,400.0	1,389.1	1,380.8	1,368.1	3.8	4.0	103.27	-155.7	104.2	177.0	169.7	7.39	23.945	
1,500.0	1,486.9	1,479.2	1,464.3	4.2	4.4	104.34	-169.4	119.3	194.6	186.4	8.20	23.736	
1,600.0	1,584.7	1,577.6	1,560.6	4.7	4.9	105.23	-183.2	134.4	212.2	203.2	9.01	23.546	
1,700.0	1,682.5	1,676.0	1,656.8	5.1	5.3	105.99	-197.0	149.6	229.8	220.0	9.83	23.372	
1,800.0	1,780.3	1,774.4	1,753.1	5.5	5.7	106.64	-210.8	164.7	247.4	236.8	10.66	23.216	
1,900.0	1,878.2	1,872.8	1,849.3	6.0	6.2	107.20	-224.6	179.8	265.1	253.6	11.49	23.076	
2,000.0	1,976.0	1,971.1	1,945.5	6.4	6.6	107.69	-238.4	194.9	282.8	270.5	12.32	22.949	
2,100.0	2,073.8	2,069.5	2,041.8	6.9	7.1	108.13	-252.2	210.0	300.6	287.4	13.16	22.836	
2,200.0	2,171.6	2,167.9	2,138.0	7.3	7.5	108.51	-266.0	225.2	318.3	304.3	14.00	22.733	
2,300.0	2,269.4	2,266.3	2,234.3	7.8	8.0	108.86	-279.7	240.3	336.1	321.2	14.84	22.639	
2,400.0	2,367.2	2,364.7	2,330.5	8.2	8.5	109.17	-293.5	255.4	353.8	338.1	15.69	22.554	
2,500.0	2,465.0	2,463.1	2,426.7	8.7	8.9	109.45	-307.3	270.5	371.6	355.1	16.53	22.477	
2,600.0	2,562.9	2,561.5	2,523.0	9.1	9.4	109.71	-321.1	285.6	389.4	372.0	17.38	22.406	
2,700.0	2,660.7	2,659.9	2,619.2	9.6	9.8	109.94	-334.9	300.8	407.2	388.9	18.23	22.341	
2,800.0	2,758.5	2,758.3	2,715.5	10.0	10.3	110.15	-348.7	315.9	425.0	405.9	19.07	22.280	
2,900.0	2,856.3	2,856.7	2,811.7	10.5	10.7	110.35	-362.5	331.0	442.8	422.8	19.92	22.225	
3,000.0	2,954.1	2,955.1	2,907.9	11.0	11.2	110.53	-376.3	346.1	460.6	439.8	20.77	22.174	
3,100.0	3,051.9	3,053.5	3,004.2	11.4	11.6	110.70	-390.0	361.2	478.4	456.7	21.62	22.126	
3,200.0	3,149.8	3,151.9	3,100.4	11.9	12.1	110.85	-403.8	376.3	496.2	473.7	22.47	22.081	
3,300.0	3,247.6	3,250.2	3,196.7	12.3	12.6	111.00	-417.6	391.5	514.0	490.7	23.32	22.040	
3,400.0	3,345.4	3,348.6	3,292.9	12.8	13.0	111.13	-431.4	406.6	531.8	507.6	24.17	22.001	
3,500.0	3,443.2	3,447.0	3,389.2	13.2	13.5	111.26	-445.2	421.7	549.6	524.6	25.02	21.965	
3,600.0	3,541.0	3,545.4	3,485.4	13.7	13.9	111.38	-459.0	436.8	567.5	541.6	25.88	21.930	
3,700.0	3,638.8	3,643.8	3,581.6	14.1	14.4	111.49	-472.8	451.9	585.3	558.6	26.73	21.898	
3,800.0	3,736.7	3,742.2	3,677.9	14.6	14.8	111.59	-486.6	467.1	603.1	575.5	27.58	21.868	
3,836.5	3,772.4	3,778.1	3,713.0	14.8	15.0	111.63	-491.6	472.6	609.6	581.7	27.89	21.857	
3,900.0	3,834.6	3,840.6	3,774.2	15.0	15.3	111.84	-500.4	482.2	620.7	592.3	28.41	21.846	
4,000.0	3,933.2	3,939.3	3,870.6	15.3	15.8	111.91	-514.2	497.3	637.1	607.9	29.14	21.863	
4,100.0	4,032.3	4,037.9	3,967.1	15.6	16.2	111.67	-528.0	512.5	652.2	622.4	29.82	21.872	
4,200.0	4,131.8	4,136.6	4,063.6	15.8	16.7	111.16	-541.8	527.7	666.1	635.7	30.45	21.879	
4,300.0	4,231.5	4,235.0	4,159.9	16.0	17.1	110.39	-555.6	542.8	679.0	648.0	31.02	21.890	
4,400.0	4,331.5	4,333.2	4,255.9	16.1	17.6	109.38	-569.4	557.9	690.9	659.4	31.53	21.914	
4,436.3	4,367.8	4,368.7	4,290.7	16.2	17.8	-169.78	-574.3	563.3	695.0	670.6	24.40	28.484	
4,500.0	4,431.5	4,431.0	4,351.6	16.2	18.0	-170.68	-583.1	572.9	702.3	677.5	24.77	28.354	
4,600.0	4,531.5	4,528.8	4,447.3	16.4	18.5	-172.06	-596.8	587.9	714.0	688.6	25.36	28.150	
4,700.0	4,631.5	4,626.6	4,543.0	16.5	19.0	-173.39	-610.5	603.0	726.1	700.1	25.98	27.952	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	4,724.5	4,638.6	16.6	19.4	-174.68	-624.2	618.0	738.6	712.0	26.61	27.762	
4,900.0	4,831.5	4,822.3	4,734.3	16.8	19.9	-175.93	-637.9	633.0	751.5	724.3	27.25	27.580	
5,000.0	4,931.5	4,920.1	4,830.0	16.9	20.3	-177.14	-651.6	648.0	764.8	736.9	27.90	27.406	
5,100.0	5,031.5	5,037.2	4,944.9	17.0	20.7	-178.42	-666.7	664.6	777.2	748.7	28.56	27.209	
5,200.0	5,131.5	5,158.0	5,064.3	17.2	21.1	-179.42	-678.9	678.0	787.2	758.1	29.14	27.016	
5,300.0	5,231.5	5,280.1	5,185.7	17.3	21.3	179.87	-687.8	687.7	794.5	764.8	29.65	26.795	
5,400.0	5,331.5	5,403.1	5,308.5	17.5	21.5	179.44	-693.2	693.7	798.9	768.8	30.09	26.547	
5,500.0	5,431.5	5,526.6	5,431.9	17.6	21.7	179.30	-695.1	695.7	800.5	770.0	30.47	26.271	
5,600.0	5,531.5	5,627.2	5,532.5	17.7	21.8	179.30	-695.1	695.7	800.5	769.7	30.79	25.994	
5,700.0	5,631.5	5,727.2	5,632.5	17.9	21.9	179.30	-695.1	695.7	800.5	769.4	31.11	25.728	
5,800.0	5,731.5	5,827.2	5,732.5	18.0	22.0	179.30	-695.1	695.7	800.5	769.0	31.43	25.465	
5,900.0	5,831.5	5,927.2	5,832.5	18.2	22.1	179.30	-695.1	695.7	800.5	768.7	31.76	25.205	
6,000.0	5,931.5	6,027.2	5,932.5	18.4	22.2	179.30	-695.1	695.7	800.5	768.4	32.08	24.949	
6,100.0	6,031.5	6,127.2	6,032.5	18.5	22.4	179.30	-695.1	695.7	800.5	768.1	32.41	24.695	
6,200.0	6,131.5	6,227.2	6,132.5	18.7	22.5	179.30	-695.1	695.7	800.5	767.7	32.75	24.445	
6,300.0	6,231.5	6,327.2	6,232.5	18.8	22.6	179.30	-695.1	695.7	800.5	767.4	33.08	24.198	
6,400.0	6,331.5	6,427.2	6,332.5	19.0	22.7	179.30	-695.1	695.7	800.5	767.1	33.42	23.954	
6,500.0	6,431.5	6,527.9	6,433.1	19.1	22.8	179.56	-695.1	692.0	800.4	766.7	33.72	23.741	
6,531.3	6,462.8	6,559.2	6,464.1	19.2	22.8	179.84	-695.1	688.1	800.4	766.6	33.78	23.693	
6,546.6	6,478.1	6,574.3	6,479.1	19.2	22.8	-90.00	-695.1	685.7	800.4	761.7	38.71	20.679	
6,550.0	6,481.5	6,577.7	6,482.4	19.2	22.8	-89.97	-695.1	685.2	800.4	761.7	38.71	20.675	
6,600.0	6,531.4	6,626.9	6,530.5	19.3	22.8	-89.45	-695.1	675.1	800.4	761.7	38.79	20.638	
6,650.0	6,580.9	6,675.6	6,577.4	19.3	22.7	-88.94	-695.1	661.9	800.5	761.7	38.80	20.631	
6,700.0	6,629.9	6,723.8	6,622.9	19.3	22.7	-88.44	-695.1	645.7	800.7	761.9	38.77	20.652	
6,750.0	6,678.1	6,771.6	6,666.7	19.2	22.6	-87.95	-695.1	626.6	800.9	762.2	38.70	20.697	
6,800.0	6,725.2	6,819.0	6,708.8	19.2	22.5	-87.47	-695.1	604.9	801.2	762.6	38.59	20.760	
6,850.0	6,771.1	6,866.1	6,749.1	19.1	22.4	-87.00	-695.1	580.7	801.5	763.1	38.47	20.836	
6,900.0	6,815.4	6,912.7	6,787.4	19.0	22.3	-86.55	-695.1	554.1	801.9	763.6	38.33	20.918	
6,950.0	6,858.0	6,959.0	6,823.6	18.9	22.2	-86.12	-695.1	525.3	802.3	764.1	38.21	20.999	
7,000.0	6,898.7	7,004.9	6,857.7	18.9	22.1	-85.70	-695.1	494.4	802.7	764.6	38.10	21.069	
7,050.0	6,937.3	7,050.0	6,889.0	18.8	22.1	-85.31	-695.1	462.1	803.1	765.1	38.03	21.120	
7,100.0	6,973.6	7,096.0	6,918.9	18.8	22.0	-84.93	-695.1	427.2	803.6	765.6	38.02	21.137	
7,150.0	7,007.4	7,141.1	6,946.0	18.8	21.9	-84.58	-695.1	391.1	804.0	765.9	38.09	21.111	
7,200.0	7,038.5	7,185.9	6,970.6	18.9	21.9	-84.26	-695.1	353.6	804.5	766.2	38.25	21.034	
7,250.0	7,066.8	7,230.6	6,992.7	19.0	21.8	-83.96	-695.1	314.8	804.9	766.4	38.52	20.899	
7,300.0	7,092.2	7,275.0	7,012.3	19.2	21.8	-83.69	-695.1	274.9	805.3	766.4	38.91	20.699	
7,350.0	7,114.5	7,319.3	7,029.3	19.5	21.9	-83.44	-695.1	234.0	805.7	766.3	39.43	20.434	
7,400.0	7,133.6	7,363.5	7,043.7	19.9	21.9	-83.22	-695.1	192.3	806.1	766.0	40.09	20.106	
7,450.0	7,149.5	7,407.5	7,055.5	20.3	22.0	-83.04	-695.1	149.9	806.4	765.5	40.89	19.721	
7,500.0	7,162.0	7,450.0	7,064.3	20.8	22.2	-82.89	-695.1	108.3	806.6	764.8	41.81	19.293	
7,550.0	7,171.1	7,495.1	7,071.0	21.4	22.5	-82.76	-695.1	63.7	806.9	764.0	42.90	18.809	
7,600.0	7,176.8	7,538.9	7,074.9	22.1	22.8	-82.66	-695.1	20.1	807.0	762.9	44.09	18.306	
7,650.0	7,179.0	7,583.0	7,076.0	22.8	23.2	-82.60	-695.1	-24.0	807.1	761.8	45.38	17.787	
7,658.9	7,179.0	7,591.4	7,076.0	22.9	23.3	-82.59	-695.1	-32.4	807.1	761.5	45.63	17.689	
7,700.0	7,178.9	7,632.5	7,075.8	23.5	23.8	-82.59	-695.1	-73.5	807.2	760.2	46.90	17.209	
7,800.0	7,178.5	7,732.5	7,075.3	25.2	25.3	-82.58	-695.1	-173.5	807.2	756.9	50.26	16.061	
7,900.0	7,178.1	7,832.5	7,074.8	27.1	27.1	-82.57	-695.1	-273.5	807.2	753.2	53.98	14.952	
8,000.0	7,177.8	7,932.5	7,074.3	29.2	29.1	-82.56	-695.1	-373.5	807.2	749.2	58.01	13.915	
8,100.0	7,177.4	8,032.5	7,073.8	31.3	31.3	-82.55	-695.1	-473.5	807.2	744.9	62.27	12.963	
8,200.0	7,177.0	8,132.5	7,073.3	33.6	33.5	-82.55	-695.1	-573.5	807.2	740.5	66.73	12.098	
8,300.0	7,176.7	8,232.5	7,072.8	35.9	35.9	-82.54	-695.1	-673.5	807.2	735.9	71.34	11.316	
8,400.0	7,176.3	8,332.5	7,072.3	38.3	38.3	-82.53	-695.1	-773.5	807.3	731.2	76.08	10.611	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-214 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	8,432.5	7,071.8	40.7	40.7	-82.52	-695.1	-873.5	807.3	726.4	80.93	9.975	
8,600.0	7,175.6	8,532.5	7,071.3	43.2	43.2	-82.51	-695.1	-973.5	807.3	721.4	85.86	9.402	
8,700.0	7,175.2	8,632.5	7,070.9	45.7	45.7	-82.50	-695.1	-1,073.5	807.3	716.4	90.87	8.884	
8,800.0	7,174.8	8,732.5	7,070.4	48.3	48.3	-82.49	-695.1	-1,173.5	807.3	711.4	95.94	8.415	
8,900.0	7,174.5	8,832.5	7,069.9	50.9	50.9	-82.48	-695.1	-1,273.5	807.3	706.3	101.06	7.989	
9,000.0	7,174.1	8,932.5	7,069.4	53.5	53.5	-82.48	-695.1	-1,373.5	807.4	701.1	106.23	7.600	
9,100.0	7,173.7	9,032.5	7,068.9	56.1	56.1	-82.47	-695.1	-1,473.5	807.4	695.9	111.43	7.245	
9,200.0	7,173.4	9,132.5	7,068.4	58.8	58.8	-82.46	-695.1	-1,573.5	807.4	690.7	116.67	6.920	
9,300.0	7,173.0	9,232.5	7,067.9	61.4	61.4	-82.45	-695.1	-1,673.5	807.4	685.5	121.94	6.621	
9,400.0	7,172.6	9,332.5	7,067.4	64.1	64.1	-82.44	-695.1	-1,773.5	807.4	680.2	127.23	6.346	
9,500.0	7,172.3	9,432.5	7,067.0	66.8	66.8	-82.43	-695.1	-1,873.5	807.4	674.9	132.55	6.092	
9,600.0	7,171.9	9,532.5	7,066.5	69.5	69.5	-82.42	-695.1	-1,973.5	807.5	669.6	137.89	5.856	
9,700.0	7,171.6	9,632.5	7,066.0	72.2	72.2	-82.42	-695.1	-2,073.5	807.5	664.2	143.24	5.637	
9,800.0	7,171.2	9,732.5	7,065.5	74.9	74.9	-82.41	-695.1	-2,173.5	807.5	658.9	148.61	5.434	
9,900.0	7,170.8	9,832.5	7,065.0	77.6	77.6	-82.40	-695.1	-2,273.5	807.5	653.5	153.99	5.244	
10,000.0	7,170.5	9,932.5	7,064.5	80.3	80.3	-82.39	-695.1	-2,373.5	807.5	648.1	159.39	5.066	
10,100.0	7,170.1	10,032.5	7,064.1	83.0	83.1	-82.38	-695.1	-2,473.5	807.5	642.7	164.79	4.900	
10,200.0	7,169.7	10,132.5	7,063.6	85.8	85.8	-82.37	-695.1	-2,573.5	807.5	637.3	170.21	4.744	
10,300.0	7,169.4	10,232.5	7,063.1	88.5	88.5	-82.37	-695.1	-2,673.5	807.6	631.9	175.63	4.598	
10,400.0	7,169.0	10,332.5	7,062.6	91.3	91.3	-82.36	-695.1	-2,773.4	807.6	626.5	181.07	4.460	
10,500.0	7,168.6	10,432.5	7,062.1	94.0	94.0	-82.35	-695.1	-2,873.4	807.6	621.1	186.51	4.330	
10,600.0	7,168.3	10,532.5	7,061.6	96.8	96.8	-82.34	-695.1	-2,973.4	807.6	615.7	191.96	4.207	
10,700.0	7,167.9	10,632.5	7,061.2	99.5	99.5	-82.33	-695.1	-3,073.4	807.6	610.2	197.41	4.091	
10,800.0	7,167.5	10,732.5	7,060.7	102.3	102.3	-82.33	-695.1	-3,173.4	807.6	604.8	202.87	3.981	
10,900.0	7,167.2	10,832.5	7,060.2	105.0	105.0	-82.32	-695.1	-3,273.4	807.7	599.3	208.34	3.877	
11,000.0	7,166.8	10,932.5	7,059.7	107.8	107.8	-82.31	-695.1	-3,373.4	807.7	593.9	213.81	3.778	
11,100.0	7,166.4	11,032.5	7,059.2	110.5	110.6	-82.30	-695.1	-3,473.4	807.7	588.4	219.29	3.683	
11,200.0	7,166.1	11,132.5	7,058.8	113.3	113.3	-82.29	-695.1	-3,573.4	807.7	582.9	224.77	3.594	
11,300.0	7,165.7	11,232.5	7,058.3	116.1	116.1	-82.28	-695.1	-3,673.4	807.7	577.5	230.25	3.508	
11,400.0	7,165.4	11,332.5	7,057.8	118.8	118.9	-82.28	-695.1	-3,773.4	807.7	572.0	235.74	3.426	
11,500.0	7,165.0	11,432.5	7,057.3	121.6	121.6	-82.27	-695.1	-3,873.4	807.7	566.5	241.23	3.348	
11,600.0	7,164.6	11,532.5	7,056.9	124.4	124.4	-82.26	-695.1	-3,973.4	807.8	561.0	246.72	3.274	
11,700.0	7,164.3	11,632.5	7,056.4	127.2	127.2	-82.25	-695.1	-4,073.4	807.8	555.6	252.22	3.203	
11,749.5	7,164.1	11,682.0	7,056.1	128.5	128.5	-82.25	-695.1	-4,122.9	807.8	552.8	254.94	3.169	
11,783.3	7,164.0	11,711.5	7,056.0	129.5	129.4	-82.24	-695.1	-4,152.4	807.8	551.1	256.68	3.147 SF	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-179.57	-75.0	-0.6	75.0				
100.0	100.0	101.0	101.0	0.1	0.1	-179.57	-75.0	-0.6	75.0	74.8	0.20	381.555	
200.0	200.0	201.0	201.0	0.3	0.3	-179.57	-75.0	-0.6	75.0	74.4	0.65	116.125	
266.3	266.3	267.3	267.3	0.5	0.5	-179.57	-75.0	-0.6	75.0	74.1	0.94	79.460	CC
300.0	300.0	301.0	301.0	0.5	0.5	-179.57	-75.0	-0.6	75.0	73.9	1.10	68.500	ES
400.0	400.0	399.0	399.0	0.8	0.7	179.59	-76.3	0.6	76.4	74.9	1.52	50.261	
500.0	500.0	496.8	496.6	1.0	0.9	177.27	-80.2	3.8	80.4	78.5	1.94	41.372	
600.0	600.0	594.2	593.7	1.2	1.2	93.62	-86.5	9.2	87.4	85.0	2.38	36.738	
700.0	699.8	691.1	689.9	1.4	1.4	92.45	-95.3	16.7	97.5	94.7	2.83	34.455	
800.0	799.5	787.4	785.0	1.7	1.7	92.24	-106.5	26.2	110.5	107.2	3.32	33.305	
900.0	898.7	882.8	878.8	1.9	2.1	92.67	-120.0	37.7	126.4	122.6	3.86	32.764	
1,000.0	997.5	980.5	974.4	2.2	2.5	93.80	-135.5	50.9	144.3	139.8	4.46	32.325	
1,099.8	1,095.4	1,078.4	1,070.1	2.6	2.9	95.82	-151.0	64.1	162.6	157.5	5.14	31.646	
1,100.0	1,095.6	1,078.6	1,070.3	2.6	2.9	95.83	-151.0	64.1	162.7	157.5	5.14	31.644	
1,200.0	1,193.4	1,176.6	1,166.1	3.0	3.4	98.29	-166.5	77.3	181.5	175.6	5.88	30.885	
1,300.0	1,291.3	1,274.5	1,261.9	3.4	3.8	100.28	-182.0	90.5	200.5	193.9	6.64	30.211	
1,400.0	1,389.1	1,372.5	1,357.8	3.8	4.2	101.93	-197.5	103.7	219.8	212.4	7.42	29.627	
1,500.0	1,486.9	1,470.4	1,453.6	4.2	4.7	103.32	-213.0	116.9	239.2	231.0	8.21	29.129	
1,600.0	1,584.7	1,568.4	1,549.4	4.7	5.1	104.49	-228.6	130.1	258.7	249.7	9.01	28.702	
1,700.0	1,682.5	1,666.3	1,645.2	5.1	5.6	105.50	-244.1	143.3	278.3	268.5	9.82	28.335	
1,800.0	1,780.3	1,764.2	1,741.0	5.5	6.0	106.38	-259.6	156.5	298.0	287.4	10.64	28.017	
1,900.0	1,878.2	1,862.2	1,836.8	6.0	6.5	107.15	-275.1	169.7	317.8	306.3	11.45	27.741	
2,000.0	1,976.0	1,960.1	1,932.6	6.4	6.9	107.83	-290.6	182.9	337.6	325.3	12.28	27.499	
2,100.0	2,073.8	2,058.1	2,028.4	6.9	7.4	108.43	-306.1	196.1	357.4	344.3	13.10	27.285	
2,200.0	2,171.6	2,156.0	2,124.2	7.3	7.8	108.97	-321.6	209.3	377.3	363.4	13.92	27.096	
2,300.0	2,269.4	2,254.0	2,220.0	7.8	8.3	109.46	-337.1	222.5	397.2	382.4	14.75	26.927	
2,400.0	2,367.2	2,351.9	2,315.8	8.2	8.7	109.90	-352.6	235.7	417.1	401.5	15.58	26.775	
2,500.0	2,465.0	2,449.9	2,411.6	8.7	9.2	110.30	-368.2	248.9	437.0	420.6	16.41	26.639	
2,600.0	2,562.9	2,547.8	2,507.4	9.1	9.6	110.66	-383.7	262.1	457.0	439.8	17.24	26.515	
2,700.0	2,660.7	2,645.8	2,603.2	9.6	10.1	111.00	-399.2	275.3	477.0	458.9	18.07	26.403	
2,800.0	2,758.5	2,743.7	2,699.0	10.0	10.5	111.31	-414.7	288.5	497.0	478.1	18.90	26.300	
2,900.0	2,856.3	2,841.7	2,794.8	10.5	11.0	111.59	-430.2	301.7	517.0	497.3	19.73	26.206	
3,000.0	2,954.1	2,939.6	2,890.7	11.0	11.5	111.85	-445.7	314.9	537.0	516.4	20.56	26.119	
3,100.0	3,051.9	3,037.6	2,986.5	11.4	11.9	112.10	-461.2	328.1	557.0	535.6	21.39	26.040	
3,200.0	3,149.8	3,135.5	3,082.3	11.9	12.4	112.32	-476.7	341.3	577.1	554.9	22.22	25.966	
3,300.0	3,247.6	3,233.5	3,178.1	12.3	12.8	112.53	-492.2	354.5	597.1	574.1	23.06	25.897	
3,400.0	3,345.4	3,331.4	3,273.9	12.8	13.3	112.73	-507.8	367.7	617.2	593.3	23.89	25.834	
3,500.0	3,443.2	3,429.3	3,369.7	13.2	13.7	112.92	-523.3	380.9	637.2	612.5	24.72	25.774	
3,600.0	3,541.0	3,527.3	3,465.5	13.7	14.2	113.09	-538.8	394.1	657.3	631.7	25.56	25.719	
3,700.0	3,638.8	3,625.2	3,561.3	14.1	14.6	113.26	-554.3	407.3	677.4	651.0	26.39	25.667	
3,800.0	3,736.7	3,723.2	3,657.1	14.6	15.1	113.41	-569.8	420.5	697.4	670.2	27.22	25.618	
3,836.5	3,772.4	3,758.9	3,692.1	14.8	15.3	113.46	-575.5	425.3	704.8	677.2	27.53	25.601	
3,900.0	3,834.6	3,821.2	3,753.0	15.0	15.6	113.74	-585.3	433.7	717.3	689.2	28.04	25.575	
4,000.0	3,933.2	3,919.4	3,849.1	15.3	16.0	113.93	-600.9	446.9	735.8	707.0	28.76	25.579	
4,100.0	4,032.3	4,017.8	3,945.3	15.6	16.5	113.86	-616.5	460.2	752.9	723.5	29.44	25.578	
4,200.0	4,131.8	4,116.2	4,041.6	15.8	16.9	113.55	-632.0	473.4	768.7	738.7	30.06	25.576	
4,300.0	4,231.5	4,214.6	4,137.7	16.0	17.4	113.00	-647.6	486.7	783.3	752.7	30.62	25.580	
4,400.0	4,331.5	4,312.7	4,233.7	16.1	17.8	112.23	-663.1	499.9	796.7	765.6	31.13	25.595	
4,436.3	4,367.8	4,348.2	4,268.4	16.2	18.0	-166.83	-668.8	504.7	801.3	776.0	25.27	31.708	
4,500.0	4,431.5	4,410.5	4,329.4	16.2	18.3	-167.57	-678.6	513.1	809.3	783.7	25.63	31.573	
4,600.0	4,531.5	4,508.3	4,425.1	16.4	18.8	-168.71	-694.1	526.3	822.3	796.0	26.22	31.360	
4,700.0	4,631.5	4,606.1	4,520.7	16.5	19.2	-169.81	-709.6	539.5	835.5	808.7	26.82	31.153	

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

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	4,703.9	4,616.4	16.6	19.7	-170.88	-725.1	552.6	849.0	821.6	27.43	30.952	
4,900.0	4,831.5	4,801.7	4,712.1	16.8	20.1	-171.92	-740.6	565.8	862.8	834.8	28.05	30.759	
5,000.0	4,931.5	4,899.6	4,807.8	16.9	20.6	-172.93	-756.1	579.0	876.9	848.2	28.68	30.573	
5,100.0	5,031.5	4,997.4	4,903.4	17.0	21.0	-173.90	-771.6	592.2	891.3	861.9	29.32	30.395	
5,200.0	5,131.5	5,095.2	4,999.1	17.2	21.5	-174.84	-787.1	605.4	905.9	875.9	29.97	30.224	
5,300.0	5,231.5	5,193.0	5,094.8	17.3	21.9	-175.76	-802.6	618.6	920.7	890.1	30.63	30.061	
5,400.0	5,331.5	5,290.8	5,190.5	17.5	22.4	-176.64	-818.0	631.7	935.8	904.5	31.29	29.906	
5,500.0	5,431.5	5,388.6	5,286.1	17.6	22.8	-177.50	-833.5	644.9	951.1	919.1	31.96	29.759	
5,600.0	5,531.5	5,489.8	5,385.1	17.7	23.3	-178.36	-849.5	658.5	966.5	933.9	32.64	29.610	
5,700.0	5,631.5	5,622.0	5,515.1	17.9	23.7	-179.30	-867.7	674.0	980.2	946.9	33.30	29.435	
5,800.0	5,731.5	5,756.2	5,648.1	18.0	24.0	-179.99	-881.5	685.7	990.4	956.5	33.88	29.236	
5,900.0	5,831.5	5,891.9	5,783.2	18.2	24.3	179.56	-890.6	693.5	997.2	962.8	34.38	29.006	
6,000.0	5,931.5	6,028.3	5,919.5	18.4	24.5	179.36	-894.8	697.1	1,000.3	965.5	34.79	28.748	
6,100.0	6,031.5	6,141.3	6,032.5	18.5	24.6	179.34	-895.1	697.3	1,000.5	965.4	35.13	28.478	
6,200.0	6,131.5	6,241.3	6,132.5	18.7	24.7	179.34	-895.1	697.3	1,000.5	965.1	35.44	28.229	
6,300.0	6,231.5	6,341.3	6,232.5	18.8	24.8	179.34	-895.1	697.3	1,000.5	964.7	35.75	27.983	
6,400.0	6,331.5	6,441.3	6,332.5	19.0	24.9	179.34	-895.1	697.3	1,000.5	964.4	36.07	27.739	
6,500.0	6,431.5	6,541.3	6,432.5	19.1	25.0	179.34	-895.1	697.3	1,000.5	964.1	36.39	27.497	
6,531.3	6,462.8	6,572.6	6,463.8	19.2	25.1	179.34	-895.1	697.3	1,000.5	964.0	36.49	27.422	
6,550.0	6,481.5	6,591.6	6,482.8	19.2	25.1	-90.65	-895.1	697.1	1,000.5	961.4	39.13	25.570	
6,600.0	6,531.4	6,642.4	6,533.5	19.3	25.1	-90.65	-895.1	693.8	1,000.5	961.3	39.20	25.521	
6,650.0	6,580.9	6,693.2	6,583.8	19.3	25.1	-90.64	-895.1	687.0	1,000.5	961.3	39.22	25.511	
6,700.0	6,629.9	6,744.0	6,633.5	19.3	25.1	-90.62	-895.1	676.7	1,000.5	961.3	39.18	25.536	
6,750.0	6,678.1	6,794.7	6,682.4	19.2	25.0	-90.61	-895.1	662.9	1,000.5	961.4	39.09	25.593	
6,800.0	6,725.2	6,845.5	6,730.1	19.2	25.0	-90.59	-895.1	645.6	1,000.5	961.5	38.97	25.676	
6,850.0	6,771.1	6,896.2	6,776.4	19.1	24.9	-90.57	-895.1	625.0	1,000.5	961.7	38.81	25.779	
6,900.0	6,815.4	6,946.9	6,821.1	19.0	24.8	-90.54	-895.1	601.3	1,000.5	961.8	38.64	25.892	
6,950.0	6,858.0	6,997.5	6,864.1	18.9	24.7	-90.51	-895.1	574.4	1,000.5	962.0	38.47	26.006	
7,000.0	6,898.7	7,048.1	6,904.9	18.9	24.6	-90.48	-895.1	544.6	1,000.5	962.2	38.32	26.110	
7,050.0	6,937.3	7,098.7	6,943.6	18.8	24.5	-90.45	-895.1	512.0	1,000.5	962.3	38.20	26.188	
7,100.0	6,973.6	7,149.2	6,979.8	18.8	24.4	-90.42	-895.1	476.8	1,000.5	962.3	38.15	26.228	
7,150.0	7,007.4	7,199.7	7,013.4	18.8	24.3	-90.38	-895.1	439.1	1,000.5	962.3	38.17	26.213	
7,200.0	7,038.5	7,250.2	7,044.3	18.9	24.2	-90.34	-895.1	399.2	1,000.5	962.2	38.29	26.128	
7,250.0	7,066.8	7,300.5	7,072.3	19.0	24.1	-90.30	-895.1	357.3	1,000.5	961.9	38.53	25.962	
7,300.0	7,092.2	7,350.9	7,097.2	19.2	24.0	-90.26	-895.1	313.6	1,000.4	961.5	38.92	25.707	
7,350.0	7,114.5	7,401.2	7,118.9	19.5	23.9	-90.21	-895.1	268.3	1,000.4	961.0	39.45	25.360	
7,400.0	7,133.6	7,451.4	7,137.4	19.9	23.8	-90.17	-895.1	221.6	1,000.4	960.3	40.14	24.925	
7,450.0	7,149.5	7,501.6	7,152.6	20.3	23.8	-90.13	-895.1	173.8	1,000.4	959.5	40.99	24.409	
7,500.0	7,162.0	7,551.7	7,164.4	20.8	23.8	-90.08	-895.1	125.1	1,000.4	958.4	41.99	23.825	
7,550.0	7,171.1	7,601.8	7,172.7	21.4	23.8	-90.04	-895.1	75.7	1,000.4	957.3	43.14	23.191	
7,588.2	7,175.8	7,640.0	7,176.8	21.9	23.9	-90.00	-895.1	37.7	1,000.4	956.3	44.12	22.678	
7,600.0	7,176.8	7,651.8	7,177.6	22.1	23.9	-89.99	-895.1	25.9	1,000.4	956.0	44.42	22.523	
7,650.0	7,179.0	7,701.7	7,179.0	22.8	24.1	-89.94	-895.1	-24.0	1,000.4	954.6	45.81	21.838	
7,658.9	7,179.0	7,710.7	7,179.0	22.9	24.1	-89.94	-895.1	-32.9	1,000.4	954.4	46.08	21.710	
7,700.0	7,178.9	7,751.7	7,178.8	23.5	24.4	-89.94	-895.1	-74.0	1,000.4	953.1	47.35	21.130	
7,800.0	7,178.5	7,851.7	7,178.4	25.2	25.6	-89.94	-895.1	-174.0	1,000.4	949.7	50.70	19.734	
7,900.0	7,178.1	7,951.7	7,178.1	27.1	27.3	-89.94	-895.1	-274.0	1,000.4	946.0	54.42	18.382	
8,000.0	7,177.8	8,051.7	7,177.7	29.2	29.3	-89.94	-895.1	-374.0	1,000.4	942.0	58.46	17.114	
8,100.0	7,177.4	8,151.7	7,177.3	31.3	31.4	-89.94	-895.1	-474.0	1,000.4	937.7	62.73	15.948	
8,200.0	7,177.0	8,251.7	7,177.0	33.6	33.7	-89.94	-895.1	-574.0	1,000.4	933.2	67.21	14.886	
8,300.0	7,176.7	8,351.7	7,176.6	35.9	36.0	-89.94	-895.1	-674.0	1,000.4	928.6	71.84	13.925	
8,400.0	7,176.3	8,451.7	7,176.3	38.3	38.4	-89.94	-895.1	-774.0	1,000.4	923.8	76.61	13.059	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-304 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	8,551.7	7,175.9	40.7	40.9	-89.94	-895.1	-874.0	1,000.4	919.0	81.49	12.277	
8,600.0	7,175.6	8,651.7	7,175.5	43.2	43.3	-89.94	-895.1	-974.0	1,000.4	914.0	86.45	11.572	
8,700.0	7,175.2	8,751.7	7,175.2	45.7	45.9	-89.94	-895.1	-1,074.0	1,000.4	908.9	91.49	10.935	
8,800.0	7,174.8	8,851.7	7,174.8	48.3	48.4	-89.94	-895.1	-1,174.0	1,000.4	903.8	96.60	10.357	
8,900.0	7,174.5	8,951.7	7,174.4	50.9	51.0	-89.94	-895.1	-1,274.0	1,000.4	898.7	101.76	9.832	
9,000.0	7,174.1	9,051.7	7,174.1	53.5	53.6	-89.94	-895.1	-1,374.0	1,000.4	893.5	106.96	9.353	
9,100.0	7,173.7	9,151.7	7,173.7	56.1	56.2	-89.94	-895.1	-1,474.0	1,000.4	888.2	112.21	8.916	
9,200.0	7,173.4	9,251.7	7,173.3	58.8	58.9	-89.94	-895.1	-1,574.0	1,000.4	882.9	117.49	8.515	
9,300.0	7,173.0	9,351.7	7,173.0	61.4	61.5	-89.94	-895.1	-1,674.0	1,000.4	877.6	122.79	8.147	
9,400.0	7,172.6	9,451.7	7,172.6	64.1	64.2	-89.94	-895.1	-1,774.0	1,000.4	872.3	128.13	7.808	
9,500.0	7,172.3	9,551.7	7,172.2	66.8	66.9	-89.94	-895.1	-1,874.0	1,000.4	866.9	133.49	7.494	
9,600.0	7,171.9	9,651.7	7,171.9	69.5	69.6	-89.94	-895.1	-1,974.0	1,000.4	861.6	138.87	7.204	
9,700.0	7,171.6	9,751.7	7,171.5	72.2	72.2	-89.94	-895.1	-2,074.0	1,000.4	856.2	144.27	6.935	
9,800.0	7,171.2	9,851.7	7,171.2	74.9	75.0	-89.94	-895.1	-2,174.0	1,000.4	850.8	149.68	6.684	
9,900.0	7,170.8	9,951.7	7,170.8	77.6	77.7	-89.94	-895.1	-2,274.0	1,000.4	845.3	155.11	6.450	
10,000.0	7,170.5	10,051.7	7,170.4	80.3	80.4	-89.94	-895.1	-2,374.0	1,000.4	839.9	160.55	6.231	
10,100.0	7,170.1	10,151.7	7,170.1	83.0	83.1	-89.94	-895.1	-2,474.0	1,000.4	834.4	166.00	6.027	
10,200.0	7,169.7	10,251.7	7,169.7	85.8	85.8	-89.94	-895.1	-2,574.0	1,000.4	829.0	171.46	5.835	
10,300.0	7,169.4	10,351.7	7,169.3	88.5	88.6	-89.94	-895.1	-2,674.0	1,000.4	823.5	176.94	5.654	
10,400.0	7,169.0	10,451.7	7,169.0	91.3	91.3	-89.94	-895.1	-2,774.0	1,000.4	818.0	182.42	5.484	
10,500.0	7,168.6	10,551.7	7,168.6	94.0	94.0	-89.94	-895.1	-2,874.0	1,000.4	812.5	187.91	5.324	
10,600.0	7,168.3	10,651.7	7,168.3	96.8	96.8	-89.94	-895.1	-2,974.0	1,000.4	807.0	193.41	5.173	
10,700.0	7,167.9	10,751.7	7,167.9	99.5	99.5	-89.94	-895.1	-3,074.0	1,000.4	801.5	198.91	5.030	
10,800.0	7,167.5	10,851.7	7,167.5	102.3	102.3	-89.94	-895.1	-3,174.0	1,000.4	796.0	204.42	4.894	
10,900.0	7,167.2	10,951.7	7,167.2	105.0	105.1	-89.94	-895.1	-3,274.0	1,000.4	790.5	209.93	4.765	
11,000.0	7,166.8	11,051.7	7,166.8	107.8	107.8	-89.94	-895.1	-3,374.0	1,000.4	785.0	215.46	4.643	
11,100.0	7,166.4	11,151.7	7,166.4	110.5	110.6	-89.94	-895.1	-3,474.0	1,000.4	779.4	220.98	4.527	
11,200.0	7,166.1	11,251.7	7,166.1	113.3	113.3	-89.94	-895.1	-3,574.0	1,000.4	773.9	226.51	4.417	
11,300.0	7,165.7	11,351.7	7,165.7	116.1	116.1	-89.94	-895.1	-3,674.0	1,000.4	768.4	232.05	4.311	
11,400.0	7,165.4	11,451.7	7,165.4	118.8	118.9	-89.94	-895.1	-3,774.0	1,000.4	762.8	237.58	4.211	
11,500.0	7,165.0	11,551.7	7,165.0	121.6	121.6	-89.94	-895.1	-3,874.0	1,000.4	757.3	243.13	4.115	
11,600.0	7,164.6	11,651.7	7,164.6	124.4	124.4	-89.94	-895.1	-3,974.0	1,000.4	751.7	248.67	4.023	
11,700.0	7,164.3	11,751.7	7,164.3	127.2	127.2	-89.94	-895.1	-4,074.0	1,000.4	746.2	254.22	3.935	
11,756.0	7,164.1	11,807.7	7,164.1	128.7	128.7	-89.94	-895.1	-4,129.9	1,000.4	743.1	257.33	3.888	
11,783.3	7,164.0	11,828.8	7,164.0	129.5	129.3	-89.94	-895.1	-4,151.0	1,000.4	741.7	258.67	3.867	SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-179.64	-44.8	-0.3	44.8				
100.0	100.0	101.0	101.0	0.1	0.1	-179.64	-44.8	-0.3	44.8	44.6	0.20	227.845	
200.0	200.0	201.0	201.0	0.3	0.3	-179.64	-44.8	-0.3	44.8	44.2	0.65	69.344	
300.0	300.0	301.0	301.0	0.5	0.5	-179.64	-44.8	-0.3	44.8	43.7	1.10	40.895	
400.0	400.0	401.0	401.0	0.8	0.8	-179.64	-44.8	-0.3	44.8	43.3	1.55	28.998	
466.3	466.3	467.3	467.3	0.9	0.9	-179.64	-44.8	-0.3	44.8	43.0	1.84	24.308	CC
500.0	500.0	501.0	501.0	1.0	1.0	-179.64	-44.8	-0.3	44.8	42.8	1.99	22.466	ES
600.0	600.0	600.0	600.0	1.2	1.2	99.35	-45.8	1.2	46.0	43.6	2.41	19.081	
700.0	699.8	699.2	699.0	1.4	1.4	100.14	-48.6	5.5	49.7	46.9	2.83	17.577	
800.0	799.5	798.1	797.5	1.7	1.6	101.24	-53.3	12.7	55.8	52.5	3.28	16.997	
900.0	898.7	896.7	895.4	1.9	1.9	102.41	-59.8	22.7	64.3	60.5	3.79	16.961	
1,000.0	997.5	994.9	992.5	2.2	2.2	103.51	-68.0	35.5	75.3	70.9	4.37	17.213	
1,099.8	1,095.4	1,092.6	1,088.3	2.6	2.5	104.44	-78.1	50.9	88.6	83.6	5.04	17.585	
1,100.0	1,095.6	1,092.7	1,088.5	2.6	2.5	104.45	-78.1	51.0	88.7	83.6	5.04	17.586	
1,200.0	1,193.4	1,191.6	1,185.2	3.0	2.9	105.31	-89.3	68.2	103.4	97.6	5.78	17.877	
1,300.0	1,291.3	1,290.5	1,281.9	3.4	3.3	105.95	-100.5	85.4	118.1	111.5	6.55	18.014	
1,400.0	1,389.1	1,389.4	1,378.7	3.8	3.7	106.45	-111.7	102.6	132.8	125.5	7.35	18.065	
1,500.0	1,486.9	1,488.3	1,475.4	4.2	4.2	106.85	-122.9	119.9	147.5	139.4	8.16	18.071	
1,600.0	1,584.7	1,587.2	1,572.1	4.7	4.6	107.18	-134.1	137.1	162.3	153.3	8.99	18.051	
1,700.0	1,682.5	1,686.1	1,668.9	5.1	5.0	107.45	-145.3	154.4	177.0	167.2	9.82	18.020	
1,800.0	1,780.3	1,785.0	1,765.6	5.5	5.5	107.68	-156.5	171.6	191.8	181.1	10.67	17.981	
1,900.0	1,878.2	1,883.9	1,862.4	6.0	5.9	107.88	-167.7	188.8	206.5	195.0	11.51	17.940	
2,000.0	1,976.0	1,982.8	1,959.1	6.4	6.4	108.05	-178.9	206.1	221.3	208.9	12.36	17.899	
2,100.0	2,073.8	2,081.7	2,055.9	6.9	6.8	108.20	-190.1	223.3	236.1	222.8	13.22	17.858	
2,200.0	2,171.6	2,180.6	2,152.6	7.3	7.3	108.33	-201.3	240.5	250.8	236.7	14.08	17.819	
2,300.0	2,269.4	2,279.5	2,249.3	7.8	7.7	108.45	-212.5	257.8	265.6	250.7	14.94	17.781	
2,400.0	2,367.2	2,378.4	2,346.1	8.2	8.2	108.56	-223.7	275.0	280.3	264.6	15.80	17.746	
2,500.0	2,465.0	2,477.3	2,442.8	8.7	8.6	108.65	-234.9	292.3	295.1	278.5	16.66	17.712	
2,600.0	2,562.9	2,576.2	2,539.6	9.1	9.1	108.74	-246.1	309.5	309.9	292.4	17.53	17.680	
2,700.0	2,660.7	2,675.1	2,636.3	9.6	9.5	108.81	-257.3	326.7	324.6	306.2	18.39	17.651	
2,800.0	2,758.5	2,774.0	2,733.1	10.0	10.0	108.89	-268.5	344.0	339.4	320.1	19.26	17.623	
2,900.0	2,856.3	2,872.9	2,829.8	10.5	10.5	108.95	-279.7	361.2	354.2	334.0	20.13	17.596	
3,000.0	2,954.1	2,971.8	2,926.5	11.0	10.9	109.01	-290.9	378.4	368.9	347.9	21.00	17.571	
3,100.0	3,051.9	3,070.7	3,023.3	11.4	11.4	109.07	-302.1	395.7	383.7	361.8	21.87	17.548	
3,200.0	3,149.8	3,169.6	3,120.0	11.9	11.8	109.12	-313.3	412.9	398.5	375.7	22.74	17.526	
3,300.0	3,247.6	3,268.5	3,216.8	12.3	12.3	109.17	-324.5	430.2	413.2	389.6	23.61	17.505	
3,400.0	3,345.4	3,367.4	3,313.5	12.8	12.7	109.21	-335.7	447.4	428.0	403.5	24.48	17.485	
3,500.0	3,443.2	3,466.3	3,410.3	13.2	13.2	109.25	-346.9	464.6	442.8	417.4	25.35	17.466	
3,600.0	3,541.0	3,565.2	3,507.0	13.7	13.7	109.29	-358.1	481.9	457.5	431.3	26.22	17.449	
3,700.0	3,638.8	3,664.1	3,603.7	14.1	14.1	109.33	-369.4	499.1	472.3	445.2	27.09	17.432	
3,800.0	3,736.7	3,763.0	3,700.5	14.6	14.6	109.36	-380.6	516.3	487.1	459.1	27.97	17.416	
3,836.5	3,772.4	3,799.1	3,735.8	14.8	14.7	109.37	-384.6	522.6	492.5	464.2	28.29	17.410	
3,900.0	3,834.6	3,862.0	3,797.3	15.0	15.0	109.49	-391.8	533.6	501.6	472.8	28.81	17.410	
4,000.0	3,933.2	3,961.0	3,894.1	15.3	15.5	109.36	-403.0	550.9	515.1	485.5	29.55	17.431	
4,100.0	4,032.3	4,060.0	3,991.0	15.6	16.0	108.87	-414.2	568.1	527.5	497.2	30.24	17.442	
4,200.0	4,131.8	4,158.9	4,087.7	15.8	16.4	108.04	-425.4	585.3	538.9	508.0	30.88	17.451	
4,300.0	4,231.5	4,257.5	4,184.1	16.0	16.9	106.90	-436.6	602.5	549.4	517.9	31.46	17.465	
4,400.0	4,331.5	4,355.7	4,280.2	16.1	17.3	105.47	-447.7	619.6	559.3	527.4	31.97	17.496	
4,436.3	4,367.8	4,391.3	4,315.0	16.2	17.5	-173.85	-451.7	625.8	562.8	539.4	23.43	24.017	
4,500.0	4,431.5	4,453.6	4,375.9	16.2	17.8	-175.02	-458.8	636.7	569.0	545.2	23.81	23.896	
4,600.0	4,531.5	4,560.2	4,480.5	16.4	18.2	-176.85	-470.1	654.2	578.7	554.3	24.40	23.718	
4,700.0	4,631.5	4,670.5	4,589.4	16.5	18.5	-178.34	-479.7	668.9	586.8	561.9	24.94	23.527	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,731.5	4,782.0	4,700.0	16.6	18.7	-179.45	-487.0	680.2	593.3	567.8	25.45	23.312	
4,900.0	4,831.5	4,894.3	4,812.0	16.8	19.0	179.80	-492.1	687.9	597.7	571.8	25.90	23.074	
5,000.0	4,931.5	5,007.3	4,924.8	16.9	19.1	179.42	-494.7	692.0	600.1	573.8	26.30	22.813	
5,100.0	5,031.5	5,114.9	5,032.5	17.0	19.3	179.36	-495.1	692.6	600.4	573.8	26.66	22.525	
5,200.0	5,131.5	5,214.9	5,132.5	17.2	19.4	179.36	-495.1	692.6	600.4	573.5	26.99	22.250	
5,300.0	5,231.5	5,314.9	5,232.5	17.3	19.5	179.36	-495.1	692.6	600.4	573.1	27.32	21.979	
5,400.0	5,331.5	5,414.9	5,332.5	17.5	19.6	179.36	-495.1	692.6	600.4	572.8	27.65	21.712	
5,500.0	5,431.5	5,514.9	5,432.5	17.6	19.7	179.36	-495.1	692.6	600.4	572.5	27.99	21.449	
5,600.0	5,531.5	5,614.9	5,532.5	17.7	19.8	179.36	-495.1	692.6	600.4	572.1	28.34	21.190	
5,700.0	5,631.5	5,714.9	5,632.5	17.9	20.0	179.36	-495.1	692.6	600.4	571.8	28.68	20.936	
5,800.0	5,731.5	5,814.9	5,732.5	18.0	20.1	179.36	-495.1	692.6	600.4	571.4	29.03	20.685	
5,900.0	5,831.5	5,914.9	5,832.5	18.2	20.2	179.36	-495.1	692.6	600.4	571.1	29.38	20.439	
6,000.0	5,931.5	6,014.9	5,932.5	18.4	20.3	179.36	-495.1	692.6	600.4	570.7	29.73	20.196	
6,100.0	6,031.5	6,114.9	6,032.5	18.5	20.5	179.36	-495.1	692.6	600.4	570.4	30.09	19.958	
6,200.0	6,131.5	6,214.9	6,132.5	18.7	20.6	179.36	-495.1	692.6	600.4	570.0	30.44	19.724	
6,300.0	6,231.5	6,314.9	6,232.5	18.8	20.7	179.36	-495.1	692.6	600.4	569.6	30.80	19.494	
6,400.0	6,331.5	6,414.9	6,332.5	19.0	20.9	179.36	-495.1	692.6	600.4	569.3	31.16	19.267	
6,500.0	6,431.5	6,514.9	6,432.5	19.1	21.0	179.36	-495.1	692.6	600.4	568.9	31.53	19.045	
6,531.3	6,462.8	6,546.2	6,463.8	19.2	21.0	179.36	-495.1	692.6	600.4	568.8	31.64	18.976	
6,550.0	6,481.5	6,565.1	6,482.7	19.2	21.1	-90.64	-495.1	692.3	600.4	562.0	38.46	15.613	
6,600.0	6,531.4	6,615.6	6,533.0	19.3	21.1	-90.63	-495.1	689.2	600.4	561.9	38.54	15.581	
6,650.0	6,580.9	6,666.0	6,583.0	19.3	21.1	-90.62	-495.1	682.5	600.4	561.9	38.56	15.572	
6,700.0	6,629.9	6,716.5	6,632.4	19.3	21.1	-90.60	-495.1	672.2	600.4	561.9	38.53	15.586	
6,750.0	6,678.1	6,766.9	6,681.0	19.2	21.0	-90.58	-495.1	658.6	600.4	562.0	38.45	15.618	
6,800.0	6,725.2	6,817.3	6,728.4	19.2	21.0	-90.56	-495.1	641.5	600.4	562.1	38.33	15.665	
6,850.0	6,771.1	6,867.7	6,774.5	19.1	20.9	-90.54	-495.1	621.2	600.4	562.2	38.19	15.723	
6,900.0	6,815.4	6,918.1	6,819.1	19.0	20.8	-90.51	-495.1	597.7	600.4	562.4	38.03	15.787	
6,950.0	6,858.0	6,968.5	6,861.9	18.9	20.7	-90.48	-495.1	571.1	600.4	562.6	37.88	15.851	
7,000.0	6,898.7	7,018.8	6,902.6	18.9	20.7	-90.45	-495.1	541.7	600.4	562.7	37.75	15.907	
7,050.0	6,937.3	7,069.2	6,941.2	18.8	20.6	-90.42	-495.1	509.4	600.4	562.8	37.65	15.946	
7,100.0	6,973.6	7,119.4	6,977.4	18.8	20.5	-90.38	-495.1	474.5	600.4	562.8	37.62	15.959	
7,150.0	7,007.4	7,169.7	7,011.1	18.8	20.4	-90.34	-495.1	437.2	600.4	562.7	37.67	15.938	
7,200.0	7,038.5	7,219.9	7,042.0	18.9	20.4	-90.30	-495.1	397.6	600.4	562.6	37.82	15.874	
7,250.0	7,066.8	7,270.1	7,070.1	19.0	20.4	-90.26	-495.1	356.0	600.4	562.3	38.10	15.759	
7,300.0	7,092.2	7,320.3	7,095.2	19.2	20.5	-90.22	-495.1	312.6	600.4	561.9	38.51	15.590	
7,350.0	7,114.5	7,370.5	7,117.2	19.5	20.6	-90.18	-495.1	267.5	600.4	561.3	39.08	15.365	
7,400.0	7,133.6	7,420.6	7,135.9	19.9	20.8	-90.13	-495.1	221.1	600.4	560.6	39.80	15.086	
7,450.0	7,149.5	7,470.7	7,151.4	20.3	21.1	-90.09	-495.1	173.4	600.4	559.7	40.68	14.760	
7,500.0	7,162.0	7,520.7	7,163.4	20.8	21.4	-90.04	-495.1	124.9	600.4	558.7	41.71	14.394	
7,547.2	7,170.7	7,567.9	7,171.7	21.4	21.8	-90.00	-495.1	78.4	600.4	557.6	42.82	14.021	
7,550.0	7,171.1	7,570.7	7,172.1	21.4	21.9	-90.00	-495.1	75.6	600.4	557.5	42.89	13.999	
7,600.0	7,176.8	7,620.7	7,177.3	22.1	22.4	-89.95	-495.1	25.9	600.4	556.2	44.20	13.585	
7,650.0	7,179.0	7,670.6	7,179.0	22.8	23.0	-89.91	-495.1	-24.0	600.4	554.8	45.61	13.164	
7,658.9	7,179.0	7,679.6	7,179.0	22.9	23.1	-89.90	-495.1	-32.9	600.4	554.5	45.87	13.088	
7,700.0	7,178.9	7,720.6	7,178.8	23.5	23.7	-89.90	-495.1	-74.0	600.4	553.3	47.15	12.733	
7,800.0	7,178.5	7,820.6	7,178.5	25.2	25.4	-89.90	-495.1	-174.0	600.4	549.9	50.54	11.879	
7,900.0	7,178.1	7,920.6	7,178.1	27.1	27.2	-89.90	-495.1	-274.0	600.4	546.1	54.31	11.056	
8,000.0	7,177.8	8,020.6	7,177.7	29.2	29.2	-89.90	-495.1	-374.0	600.4	542.0	58.37	10.286	
8,100.0	7,177.4	8,120.6	7,177.4	31.3	31.4	-89.90	-495.1	-474.0	600.4	537.7	62.67	9.580	
8,200.0	7,177.0	8,220.6	7,177.0	33.6	33.6	-89.90	-495.1	-574.0	600.4	533.2	67.17	8.939	
8,300.0	7,176.7	8,320.6	7,176.6	35.9	35.9	-89.90	-495.1	-674.0	600.4	528.6	71.83	8.359	
8,400.0	7,176.3	8,420.6	7,176.3	38.3	38.3	-89.90	-495.1	-774.0	600.4	523.8	76.61	7.837	

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Offset Design SE SW SEC. 21 T4N R67W 6th P.M. - WALTERS 21Q-314 - ORIGINAL WELLBORE - PROPOSAL #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

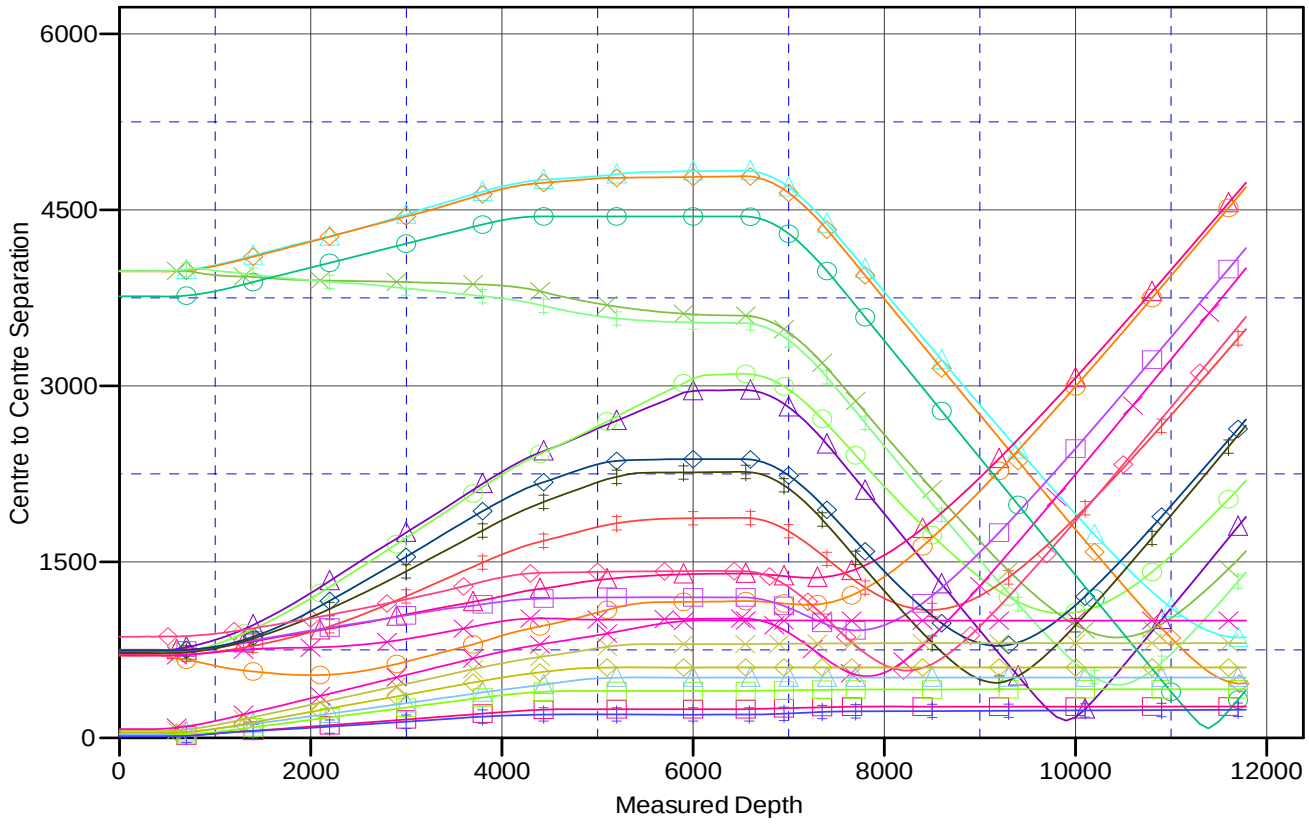
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,500.0	7,175.9	8,520.6	7,175.9	40.7	40.8	-89.90	-495.1	-874.0	600.4	518.9	81.50	7.367	
8,600.0	7,175.6	8,620.6	7,175.5	43.2	43.3	-89.90	-495.1	-974.0	600.4	513.9	86.48	6.943	
8,700.0	7,175.2	8,720.6	7,175.2	45.7	45.8	-89.90	-495.1	-1,074.0	600.4	508.9	91.54	6.559	
8,800.0	7,174.8	8,820.6	7,174.8	48.3	48.4	-89.90	-495.1	-1,174.0	600.4	503.8	96.65	6.212	
8,900.0	7,174.5	8,920.6	7,174.4	50.9	51.0	-89.90	-495.1	-1,274.0	600.4	498.6	101.82	5.897	
9,000.0	7,174.1	9,020.6	7,174.1	53.5	53.6	-89.90	-495.1	-1,374.0	600.4	493.4	107.03	5.609	
9,100.0	7,173.7	9,120.6	7,173.7	56.1	56.2	-89.90	-495.1	-1,474.0	600.4	488.1	112.29	5.347	
9,200.0	7,173.4	9,220.6	7,173.3	58.8	58.8	-89.90	-495.1	-1,574.0	600.4	482.8	117.57	5.107	
9,300.0	7,173.0	9,320.6	7,173.0	61.4	61.5	-89.90	-495.1	-1,674.0	600.4	477.5	122.89	4.886	
9,400.0	7,172.6	9,420.6	7,172.6	64.1	64.2	-89.90	-495.1	-1,774.0	600.4	472.2	128.23	4.682	
9,500.0	7,172.3	9,520.6	7,172.2	66.8	66.9	-89.90	-495.1	-1,874.0	600.4	466.8	133.60	4.494	
9,600.0	7,171.9	9,620.6	7,171.9	69.5	69.6	-89.90	-495.1	-1,974.0	600.4	461.4	138.98	4.320	
9,700.0	7,171.6	9,720.6	7,171.5	72.2	72.3	-89.90	-495.1	-2,074.0	600.4	456.0	144.38	4.158	
9,800.0	7,171.2	9,820.6	7,171.1	74.9	75.0	-89.90	-495.1	-2,174.0	600.4	450.6	149.80	4.008	
9,900.0	7,170.8	9,920.6	7,170.8	77.6	77.7	-89.90	-495.1	-2,274.0	600.4	445.2	155.23	3.868	
10,000.0	7,170.5	10,020.6	7,170.4	80.3	80.4	-89.90	-495.1	-2,374.0	600.4	439.7	160.68	3.737	
10,100.0	7,170.1	10,120.6	7,170.1	83.0	83.1	-89.90	-495.1	-2,474.0	600.4	434.3	166.13	3.614	
10,200.0	7,169.7	10,220.6	7,169.7	85.8	85.9	-89.90	-495.1	-2,574.0	600.4	428.8	171.60	3.499	
10,300.0	7,169.4	10,320.6	7,169.3	88.5	88.6	-89.90	-495.1	-2,674.0	600.4	423.3	177.07	3.391	
10,400.0	7,169.0	10,420.6	7,169.0	91.3	91.3	-89.90	-495.1	-2,774.0	600.4	417.8	182.56	3.289	
10,500.0	7,168.6	10,520.6	7,168.6	94.0	94.1	-89.90	-495.1	-2,874.0	600.4	412.4	188.05	3.193	
10,600.0	7,168.3	10,620.6	7,168.2	96.8	96.8	-89.90	-495.1	-2,974.0	600.4	406.9	193.55	3.102	
10,700.0	7,167.9	10,720.6	7,167.9	99.5	99.6	-89.90	-495.1	-3,074.0	600.4	401.3	199.06	3.016	
10,800.0	7,167.5	10,820.6	7,167.5	102.3	102.3	-89.90	-495.1	-3,174.0	600.4	395.8	204.57	2.935	
10,900.0	7,167.2	10,920.6	7,167.2	105.0	105.1	-89.90	-495.1	-3,274.0	600.4	390.3	210.09	2.858	
11,000.0	7,166.8	11,020.6	7,166.8	107.8	107.9	-89.90	-495.1	-3,374.0	600.4	384.8	215.61	2.785	
11,100.0	7,166.4	11,120.6	7,166.4	110.5	110.6	-89.90	-495.1	-3,474.0	600.4	379.3	221.14	2.715	
11,200.0	7,166.1	11,220.6	7,166.1	113.3	113.4	-89.90	-495.1	-3,574.0	600.4	373.7	226.67	2.649	
11,300.0	7,165.7	11,320.6	7,165.7	116.1	116.2	-89.90	-495.1	-3,674.0	600.4	368.2	232.20	2.586	
11,400.0	7,165.4	11,420.6	7,165.4	118.8	118.9	-89.91	-495.1	-3,774.0	600.4	362.7	237.74	2.525	
11,500.0	7,165.0	11,520.6	7,165.0	121.6	121.7	-89.91	-495.1	-3,874.0	600.4	357.1	243.29	2.468	
11,600.0	7,164.6	11,620.6	7,164.6	124.4	124.5	-89.91	-495.1	-3,974.0	600.4	351.6	248.83	2.413	
11,700.0	7,164.3	11,720.6	7,164.3	127.2	127.2	-89.91	-495.1	-4,074.0	600.4	346.0	254.38	2.360	
11,756.7	7,164.1	11,777.3	7,164.1	128.7	128.8	-89.91	-495.1	-4,130.6	600.4	342.9	257.53	2.331	
11,783.3	7,164.0	11,800.2	7,164.0	129.5	129.5	-89.90	-495.1	-4,153.5	600.4	341.5	258.91	2.319	SF

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB-EST @ 4951.5usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: WALTERS 21P-304
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°

Ladder Plot



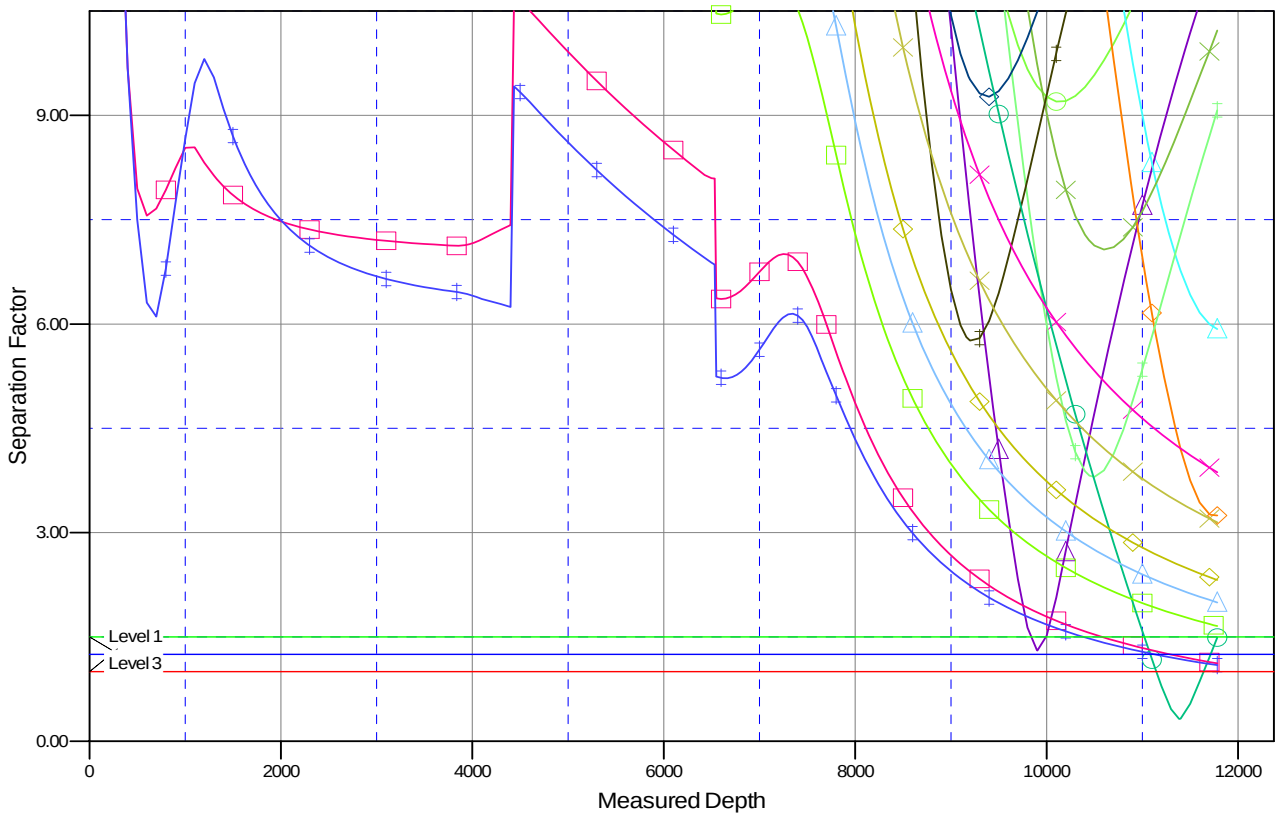
L E G E N D

)XD, Wellbore #1, Wellbore #1 V0
)YD, Wellbore #1, Wellbore #1 V0
3-20D, Wellbore #1, Wellbore #1 V0
1-20D, Wellbore #1, Wellbore #1 V0
3-20D, Wellbore #1, Wellbore #1 V0
1-20D, Wellbore #1, Wellbore #1 V0
¥21ODU, Wellbore #1, Wellbore #1 V0
21LDU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 21QDU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 23-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 24-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WEDCO #13-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WEDCO 14-21DU, Wellbore #1, Wellbore #1 V0
EXIST VERT BUNYAN #1, Wellbore #1, Wellbore #1 V0
EXIST VERT EVANS-STROH 20-1, Wellbore #1, Design #1 V0
WALTERS 21P-204, ORIGINAL WELLBORE, PROPOSAL #1 V0
WALTERS 21P-234, ORIGINAL WEI
WALTERS 21P-314, ORIGINAL WEI
WALTERS 21P-434, ORIGINAL WEI
WALTERS 21Q-214, ORIGINAL WE
WALTERS 21Q-304, ORIGINAL WE
WALTERS 21Q-314, ORIGINAL WE

Company:	PDC ENERGY	**Local Co-ordinate Reference:**	Well WALTERS 21P-304
Project:	WELD COUNTY, COLORADO	**TVD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Reference Site:	SE SW SEC. 21 T4N R67W 6th P.M.	**MD Reference:**	KB-EST @ 4951.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	WALTERS 21P-304	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB-EST @ 4951.5usft (Original Well E Coordinates are relative to: WALTERS 21P-304
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

)XD, Wellbore #1, Wellbore #1 V0
)YD, Wellbore #1, Wellbore #1 V0
3-20D, Wellbore #1, Wellbore #1 V0
1-20D, Wellbore #1, Wellbore #1 V0
3-20D, Wellbore #1, Wellbore #1 V0
1-20D, Wellbore #1, Wellbore #1 V0
#21ODU, Wellbore #1, Wellbore #1 V0
21LDU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 21QDU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 23-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WALTERS 24-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WEDCO #13-21DU, Wellbore #1, Wellbore #1 V0
EXIST DD WEDCO 14-21DU, Wellbore #1, Wellbore #1 V0
EXIST VERT BUNYAN #1, Wellbore #1, Wellbore #1 V0
EXIST VERT EVANS-STROH 20-1, Wellbore #1, Design #1 V0
WALTERS 21P-204, ORIGINAL WELLBORE, PROPOSAL #1 V0
WALTERS 21P-234, ORIGINAL WEI
WALTERS 21P-314, ORIGINAL WEI
WALTERS 21P-434, ORIGINAL WEI
WALTERS 21Q-214, ORIGINAL WE
WALTERS 21Q-304, ORIGINAL WE
WALTERS 21Q-314, ORIGINAL WE