

# PDC ENERGY INC

Location: COLORADO Slot: SLOT#02 CAPITOL 02N (296°FSL & 2323°FWL, SEC.36)  
 Field: WELD COUNTY (NAD83/GRID) Well: CAPITOL 02N  
 Facility: SEC.36-T05N-R66W Wellbore: CAPITOL 02N PWB

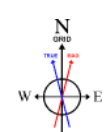
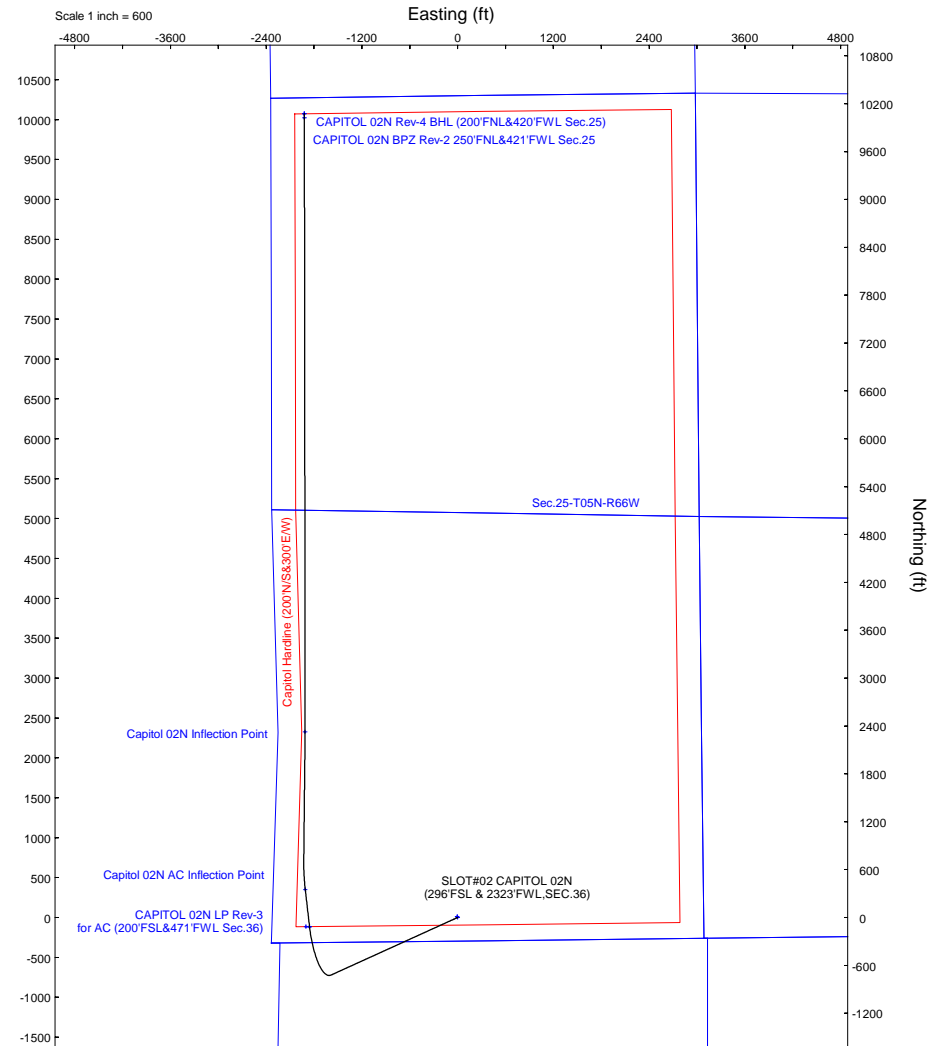
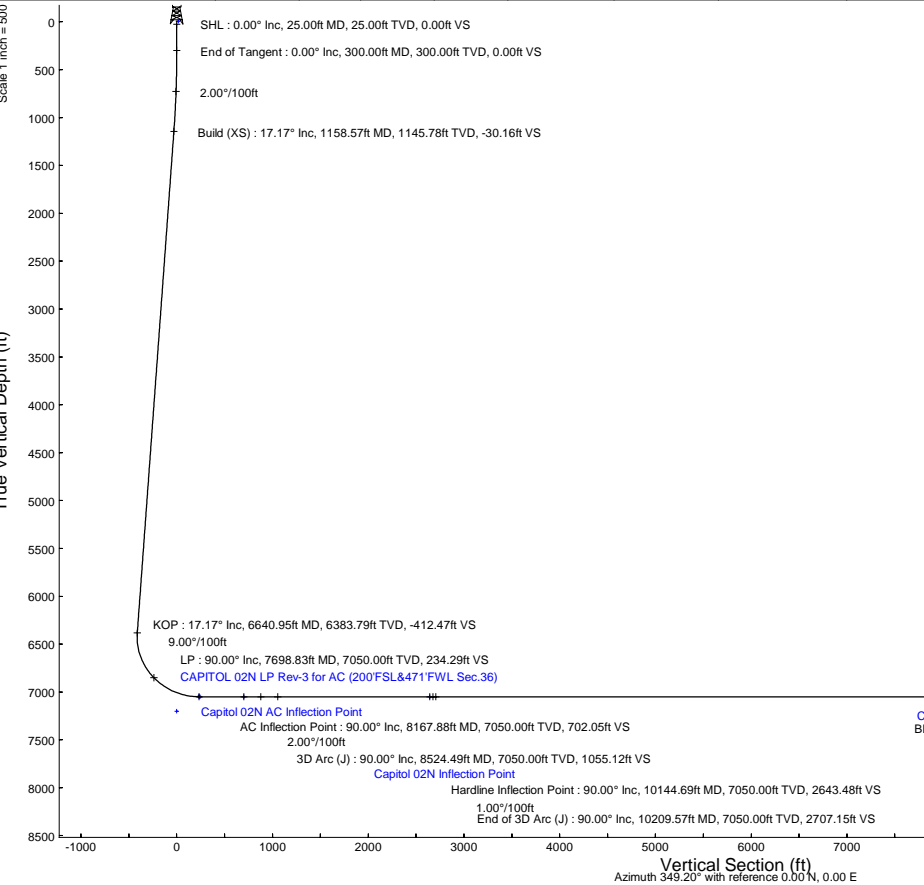
Plot reference wellpath is CAPITOL 02N (REV-F.0) PWP  
 True vertical depths are referenced to Rig (4665°GL+25°KB = 4690°RKB) (RKB)  
 Reference wellpath measured depths are referenced to Rig (4665°GL+25°KB = 4690°RKB) (RKB)  
 Rig (4665°GL+25°KB = 4690°RKB) to Mean Sea Level: 4690 feet  
 Mean Sea Level to Ground level (At Slot: SLOT#02 CAPITOL 02N (296°FSL & 2323°FWL, SEC.36)): 0 feet  
 Offset wellpath MDs are referenced to each path's default MD datum  
 Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
 North Reference: Grid north  
 Scale: True distance  
 Coordinates are in feet referenced to Slot  
 Depths are in feet  
 Created by: gualaner on 2025-06-23; Database: WA\_Denver

## Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.36-T05N-R66W		3215510.944	1371026.935	40°20'57.4472"N	104°43'36.3716"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#02 CAPITOL 02N (296°FSL & 2323°FWL, SEC.36)	-13.75	5.89	3215516.833	1371013.183	40°20'57.3108"N	104°43'36.2971"W
Rig (4665°GL+25°KB = 4690°RKB) to Ground level (At Slot: SLOT#02 CAPITOL 02N (296°FSL & 2323°FWL, SEC.36))		4690ft				
Mean Sea Level to Ground level (At Slot: SLOT#02 CAPITOL 02N (296°FSL & 2323°FWL, SEC.36))		0ft				
Rig (4665°GL+25°KB = 4690°RKB) to Mean Sea Level		4690ft				

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SHL	25.00	0.00	245.539	25.00	0.00	0.00	0.00	0.00
End of Tangent	300.00	0.00	245.539	300.00	0.00	0.00	0.00	0.00
Build (XS)	1158.57	17.17	245.539	1145.78	-52.88	-116.23	2.00	-30.16
KOP	6640.95	17.17	245.539	6383.79	-723.08	-1589.53	0.00	-412.47
LP	7698.83	90.00	353.448	7050.00	-115.58	-1856.48	9.00	234.29
AC Inflection Point	8167.88	90.00	353.448	7050.00	350.41	-1910.00	0.00	702.05
3D Arc (J)	8524.49	90.00	0.580	7050.00	706.30	-1928.56	2.00	1055.12
Hardline Inflection Point	10144.69	90.00	0.580	7050.00	2326.42	-1912.16	0.00	2643.48
End of 3D Arc (J)	10209.57	90.00	359.931	7050.00	2391.30	-1911.87	1.00	2707.15
BPZ	17841.26	90.00	359.931	7050.00	10022.99	-1921.00	0.00	10205.41
End of 3D Arc (J)	17871.66	90.00	359.323	7050.00	10053.38	-1921.20	2.00	10235.31
BHL	17892.27	90.00	359.323	7050.00	10073.99	-1921.44	0.00	10255.59



HDM2024v1.0 (1900.0 to 2025.0) Dip: 66.52° Field: 51811.2 mT  
 Magnetic North is 7.87 degrees East of True North (at 5/22/2024)  
 Grid North is 0.50 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.50 degrees  
 To correct azimuth from Magnetic to Grid add 7.17 degrees

Scale 1 inch = 600



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999958	Report Generated	6/23/2025 at 10:48:15 AM
Convergence at slot	0.50° East	Database	WA_Denver

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-13.75	5.89	3215516.83	1371013.18	40.3492530°	-104.7267492°
Facility Reference Pt			3215510.94	1371026.94	40.3492909°	-104.7267699°
Field Reference Pt			3296400.32	1413291.61	40.4630000°	-104.4347500°

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Facility Vertical Datum	4690.00ft
Horizontal Reference Pt	Slot	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Mean Sea Level	4690.00ft
Vertical Reference Pt	Rig (4665'GL+25'KB = 4690'RKB) (RKB)	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Ground Level at Slot (SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36))	4690.00ft
MD Reference Pt	Rig (4665'GL+25'KB = 4690'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	349.20°



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Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	245.539	0.00	0.00	0.00	0.00	40.3492530	-104.7267492	0.00	
25.00	0.000	245.539	25.00	0.00	0.00	0.00	40.3492530	-104.7267492	0.00	SHL
125.00†	0.000	245.539	125.00	0.00	0.00	0.00	40.3492530	-104.7267492	0.00	
225.00†	0.000	245.539	225.00	0.00	0.00	0.00	40.3492530	-104.7267492	0.00	
300.00	0.000	245.539	300.00	0.00	0.00	0.00	40.3492530	-104.7267492	0.00	End of Tangent
325.00†	0.500	245.539	325.00	-0.03	-0.05	-0.10	40.3492529	-104.7267496	2.00	
425.00†	2.500	245.539	424.96	-0.64	-1.13	-2.48	40.3492500	-104.7267581	2.00	
525.00†	4.500	245.539	524.77	-2.09	-3.66	-8.04	40.3492432	-104.7267781	2.00	
625.00†	6.500	245.539	624.30	-4.35	-7.63	-16.76	40.3492325	-104.7268096	2.00	
725.00†	8.500	245.539	723.44	-7.43	-13.03	-28.64	40.3492179	-104.7268524	2.00	
825.00†	10.500	245.539	822.07	-11.33	-19.86	-43.67	40.3491995	-104.7269065	2.00	
925.00†	12.500	245.539	920.05	-16.04	-28.12	-61.81	40.3491773	-104.7269718	2.00	
1025.00†	14.500	245.539	1017.29	-21.55	-37.78	-83.06	40.3491513	-104.7270484	2.00	
1125.00†	16.500	245.539	1113.64	-27.87	-48.85	-107.38	40.3491215	-104.7271360	2.00	
1158.57	17.171	245.539	1145.78	-30.16	-52.88	-116.23	40.3491106	-104.7271678	2.00	Build (XS)
1225.00†	17.171	245.539	1209.24	-34.79	-61.00	-134.09	40.3490888	-104.7272321	0.00	
1325.00†	17.171	245.539	1304.79	-41.77	-73.22	-160.96	40.3490559	-104.7273289	0.00	
1350.34†	17.171	245.539	1329.00	-43.53	-76.32	-167.77	40.3490475	-104.7273535	0.00	PIERRE_(UPPER)_AQUIFER_BASE
1425.00†	17.171	245.539	1400.33	-48.74	-85.45	-187.83	40.3490230	-104.7274257	0.00	
1525.00†	17.171	245.539	1495.87	-55.71	-97.67	-214.71	40.3489901	-104.7275225	0.00	
1625.00†	17.171	245.539	1591.41	-62.69	-109.89	-241.58	40.3489571	-104.7276193	0.00	
1725.00†	17.171	245.539	1686.96	-69.66	-122.12	-268.45	40.3489242	-104.7277161	0.00	
1825.00†	17.171	245.539	1782.50	-76.63	-134.34	-295.33	40.3488913	-104.7278129	0.00	
1925.00†	17.171	245.539	1878.04	-83.61	-146.57	-322.20	40.3488584	-104.7279097	0.00	
2025.00†	17.171	245.539	1973.58	-90.58	-158.79	-349.07	40.3488255	-104.7280065	0.00	
2125.00†	17.171	245.539	2069.13	-97.55	-171.02	-375.95	40.3487926	-104.7281033	0.00	
2225.00†	17.171	245.539	2164.67	-104.53	-183.24	-402.82	40.3487597	-104.7282000	0.00	
2325.00†	17.171	245.539	2260.21	-111.50	-195.47	-429.69	40.3487268	-104.7282968	0.00	
2354.08†	17.171	245.539	2288.00	-113.53	-199.02	-437.51	40.3487172	-104.7283250	0.00	PIERRE_MBR_A_SD_TOP
2425.00†	17.171	245.539	2355.75	-118.47	-207.69	-456.57	40.3486938	-104.7283936	0.00	



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CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2525.00†	17.171	245.539	2451.30	-125.45	-219.92	-483.44	40.3486609	-104.7284904	0.00	
2625.00†	17.171	245.539	2546.84	-132.42	-232.14	-510.31	40.3486280	-104.7285872	0.00	
2725.00†	17.171	245.539	2642.38	-139.39	-244.37	-537.19	40.3485951	-104.7286840	0.00	
2825.00†	17.171	245.539	2737.93	-146.37	-256.59	-564.06	40.3485622	-104.7287808	0.00	
2904.62†	17.171	245.539	2814.00	-151.92	-266.32	-585.46	40.3485360	-104.7288579	0.00	PIERRE_MBR_A_SD_BASE
2925.00†	17.171	245.539	2833.47	-153.34	-268.82	-590.93	40.3485293	-104.7288776	0.00	
3025.00†	17.171	245.539	2929.01	-160.31	-281.04	-617.80	40.3484964	-104.7289744	0.00	
3125.00†	17.171	245.539	3024.55	-167.29	-293.26	-644.68	40.3484634	-104.7290712	0.00	
3225.00†	17.171	245.539	3120.10	-174.26	-305.49	-671.55	40.3484305	-104.7291679	0.00	
3325.00†	17.171	245.539	3215.64	-181.23	-317.71	-698.42	40.3483976	-104.7292647	0.00	
3425.00†	17.171	245.539	3311.18	-188.21	-329.94	-725.30	40.3483647	-104.7293615	0.00	
3525.00†	17.171	245.539	3406.72	-195.18	-342.16	-752.17	40.3483318	-104.7294583	0.00	
3625.00†	17.171	245.539	3502.27	-202.15	-354.39	-779.04	40.3482989	-104.7295551	0.00	
3725.00†	17.171	245.539	3597.81	-209.13	-366.61	-805.92	40.3482660	-104.7296519	0.00	
3759.74†	17.171	245.539	3631.00	-211.55	-370.86	-815.25	40.3482545	-104.7296855	0.00	PARKMAN
3825.00†	17.171	245.539	3693.35	-216.10	-378.84	-832.79	40.3482331	-104.7297487	0.00	
3925.00†	17.171	245.539	3788.89	-223.07	-391.06	-859.66	40.3482001	-104.7298455	0.00	
4025.00†	17.171	245.539	3884.44	-230.05	-403.29	-886.54	40.3481672	-104.7299423	0.00	
4125.00†	17.171	245.539	3979.98	-237.02	-415.51	-913.41	40.3481343	-104.7300390	0.00	
4225.00†	17.171	245.539	4075.52	-243.99	-427.74	-940.28	40.3481014	-104.7301358	0.00	
4242.25†	17.171	245.539	4092.00	-245.20	-429.84	-944.92	40.3480957	-104.7301525	0.00	SUSSEX
4325.00†	17.171	245.539	4171.06	-250.97	-439.96	-967.16	40.3480685	-104.7302326	0.00	
4425.00†	17.171	245.539	4266.61	-257.94	-452.19	-994.03	40.3480356	-104.7303294	0.00	
4525.00†	17.171	245.539	4362.15	-264.91	-464.41	-1020.90	40.3480027	-104.7304262	0.00	
4625.00†	17.171	245.539	4457.69	-271.89	-476.63	-1047.78	40.3479697	-104.7305230	0.00	
4725.00†	17.171	245.539	4553.23	-278.86	-488.86	-1074.65	40.3479368	-104.7306198	0.00	
4825.00†	17.171	245.539	4648.78	-285.83	-501.08	-1101.52	40.3479039	-104.7307166	0.00	
4925.00†	17.171	245.539	4744.32	-292.81	-513.31	-1128.40	40.3478710	-104.7308134	0.00	
4966.53†	17.171	245.539	4784.00	-295.70	-518.39	-1139.56	40.3478573	-104.7308536	0.00	SHANNON
5025.00†	17.171	245.539	4839.86	-299.78	-525.53	-1155.27	40.3478381	-104.7309101	0.00	



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5125.00†	17.171	245.539	4935.40	-306.75	-537.76	-1182.14	40.3478052	-104.7310069	0.00	
5225.00†	17.171	245.539	5030.95	-313.73	-549.98	-1209.02	40.3477723	-104.7311037	0.00	
5325.00†	17.171	245.539	5126.49	-320.70	-562.21	-1235.89	40.3477393	-104.7312005	0.00	
5425.00†	17.171	245.539	5222.03	-327.67	-574.43	-1262.76	40.3477064	-104.7312973	0.00	
5525.00†	17.171	245.539	5317.58	-334.65	-586.66	-1289.64	40.3476735	-104.7313941	0.00	
5625.00†	17.171	245.539	5413.12	-341.62	-598.88	-1316.51	40.3476406	-104.7314909	0.00	
5725.00†	17.171	245.539	5508.66	-348.59	-611.11	-1343.38	40.3476077	-104.7315877	0.00	
5825.00†	17.171	245.539	5604.20	-355.57	-623.33	-1370.26	40.3475748	-104.7316844	0.00	
5925.00†	17.171	245.539	5699.75	-362.54	-635.55	-1397.13	40.3475418	-104.7317812	0.00	
6025.00†	17.171	245.539	5795.29	-369.51	-647.78	-1424.00	40.3475089	-104.7318780	0.00	
6125.00†	17.171	245.539	5890.83	-376.49	-660.00	-1450.88	40.3474760	-104.7319748	0.00	
6225.00†	17.171	245.539	5986.37	-383.46	-672.23	-1477.75	40.3474431	-104.7320716	0.00	
6299.97†	17.171	245.539	6058.00	-388.69	-681.39	-1497.90	40.3474184	-104.7321441	0.00	TEPEE BUTTES
6325.00†	17.171	245.539	6081.92	-390.43	-684.45	-1504.62	40.3474102	-104.7321684	0.00	
6425.00†	17.171	245.539	6177.46	-397.41	-696.68	-1531.50	40.3473773	-104.7322652	0.00	
6525.00†	17.171	245.539	6273.00	-404.38	-708.90	-1558.37	40.3473444	-104.7323619	0.00	
6625.00†	17.171	245.539	6368.54	-411.35	-721.13	-1585.24	40.3473114	-104.7324587	0.00	
6640.95	17.171	245.539	6383.79	-412.47	-723.08	-1589.53	40.3473062	-104.7324742	0.00	KOP
6725.00†	16.549	271.744	6464.34	-412.80	-727.86	-1612.82	40.3472936	-104.7325579	9.00	
6825.00†	19.846	298.896	6559.49	-398.83	-719.20	-1641.98	40.3473181	-104.7326622	9.00	
6925.00†	25.911	316.201	6651.68	-369.61	-695.18	-1672.02	40.3473847	-104.7327692	9.00	
7025.00†	33.259	326.812	6738.65	-325.84	-656.38	-1702.22	40.3474919	-104.7328764	9.00	
7108.89†	39.901	332.860	6806.00	-278.68	-613.12	-1727.12	40.3476113	-104.7329644	9.00	SHARON SPRINGS
7125.00†	41.207	333.828	6818.24	-268.61	-603.77	-1731.82	40.3476371	-104.7329809	9.00	
7160.02†	44.073	335.768	6844.00	-245.63	-582.30	-1741.91	40.3476962	-104.7330164	9.00	NIO_A_CHALK
7191.34†	46.660	337.339	6866.00	-223.89	-561.85	-1750.77	40.3477525	-104.7330476	9.00	NIO_A_MARL
7225.00†	49.463	338.884	6888.49	-199.32	-538.62	-1760.09	40.3478165	-104.7330803	9.00	
7325.00†	57.890	342.815	6947.69	-119.68	-462.56	-1786.35	40.3480259	-104.7331722	9.00	
7356.90†	60.602	343.912	6964.00	-92.42	-436.29	-1794.19	40.3480982	-104.7331995	9.00	NIO_B_CHALK
7409.50†	65.092	345.601	6988.00	-45.77	-391.15	-1806.48	40.3482224	-104.7332422	9.00	NIO_B_MARL



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Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7425.00†	66.418	346.074	6994.37	-31.66	-377.44	-1809.94	40.3482601	-104.7332542	9.00	
7525.00†	75.006	348.931	7027.37	62.59	-285.38	-1830.28	40.3485133	-104.7333243	9.00	
7567.25†	78.645	350.063	7037.00	103.72	-244.94	-1837.77	40.3486245	-104.7333499	9.00	NIO_C_CHALK
7625.00†	83.626	351.566	7045.90	160.74	-188.62	-1846.88	40.3487793	-104.7333808	9.00	
7698.83	90.000	353.448	7050.00 <sup>1</sup>	234.29	-115.58	-1856.48	40.3489800	-104.7334130	9.00	LP
7725.00†	90.000	353.448	7050.00	260.39	-89.58	-1859.47	40.3490514	-104.7334229	0.00	
7825.00†	90.000	353.448	7050.00	360.11	9.77	-1870.88	40.3493244	-104.7334608	0.00	
7925.00†	90.000	353.448	7050.00	459.84	109.11	-1882.29	40.3495974	-104.7334986	0.00	
8025.00†	90.000	353.448	7050.00	559.56	208.46	-1893.70	40.3498703	-104.7335365	0.00	
8125.00†	90.000	353.448	7050.00	659.29	307.81	-1905.11	40.3501433	-104.7335743	0.00	
8167.88	90.000	353.448	7050.00 <sup>2</sup>	702.05	350.41	-1910.00	40.3502603	-104.7335906	0.00	AC Inflection Point
8225.00†	90.000	354.590	7050.00	758.97	407.22	-1915.95	40.3504164	-104.7336101	2.00	
8325.00†	90.000	356.590	7050.00	858.34	506.91	-1923.64	40.3506902	-104.7336346	2.00	
8425.00†	90.000	358.590	7050.00	957.27	606.82	-1927.84	40.3509646	-104.7336466	2.00	
8524.49	90.000	0.580	7050.00	1055.12	706.30	-1928.56	40.3512376	-104.7336461	2.00	3D Arc (J)
8525.00†	90.000	0.580	7050.00	1055.62	706.81	-1928.56	40.3512390	-104.7336461	0.00	
8625.00†	90.000	0.580	7050.00	1153.66	806.81	-1927.55	40.3515135	-104.7336394	0.00	
8725.00†	90.000	0.580	7050.00	1251.69	906.80	-1926.53	40.3517879	-104.7336326	0.00	
8825.00†	90.000	0.580	7050.00	1349.73	1006.80	-1925.52	40.3520624	-104.7336259	0.00	
8925.00†	90.000	0.580	7050.00	1447.76	1106.79	-1924.51	40.3523368	-104.7336192	0.00	
9025.00†	90.000	0.580	7050.00	1545.80	1206.79	-1923.49	40.3526113	-104.7336124	0.00	
9125.00†	90.000	0.580	7050.00	1643.83	1306.78	-1922.48	40.3528857	-104.7336057	0.00	
9225.00†	90.000	0.580	7050.00	1741.86	1406.78	-1921.47	40.3531601	-104.7335990	0.00	
9325.00†	90.000	0.580	7050.00	1839.90	1506.77	-1920.46	40.3534346	-104.7335922	0.00	
9425.00†	90.000	0.580	7050.00	1937.93	1606.77	-1919.44	40.3537090	-104.7335855	0.00	
9525.00†	90.000	0.580	7050.00	2035.97	1706.76	-1918.43	40.3539835	-104.7335787	0.00	
9625.00†	90.000	0.580	7050.00	2134.00	1806.76	-1917.42	40.3542579	-104.7335720	0.00	
9725.00†	90.000	0.580	7050.00	2232.04	1906.75	-1916.41	40.3545324	-104.7335653	0.00	
9825.00†	90.000	0.580	7050.00	2330.07	2006.75	-1915.39	40.3548068	-104.7335585	0.00	
9925.00†	90.000	0.580	7050.00	2428.11	2106.74	-1914.38	40.3550812	-104.7335518	0.00	



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10025.00†	90.000	0.580	7050.00	2526.14	2206.74	-1913.37	40.3553557	-104.7335451	0.00	
10125.00†	90.000	0.580	7050.00	2624.18	2306.73	-1912.36	40.3556301	-104.7335383	0.00	
10144.69	90.000	0.580	7050.00 <sup>‡</sup>	2643.48	2326.42	-1912.16	40.3556842	-104.7335370	0.00	Hardline Inflection Point
10209.57	90.000	359.931	7050.00	2707.15	2391.30	-1911.87	40.3558622	-104.7335340	1.00	End of 3D Arc (J)
10225.00†	90.000	359.931	7050.00	2722.31	2406.73	-1911.88	40.3559046	-104.7335336	0.00	
10325.00†	90.000	359.931	7050.00	2820.57	2506.73	-1912.00	40.3561791	-104.7335309	0.00	
10425.00†	90.000	359.931	7050.00	2918.82	2606.73	-1912.12	40.3564536	-104.7335282	0.00	
10525.00†	90.000	359.931	7050.00	3017.07	2706.73	-1912.24	40.3567280	-104.7335255	0.00	
10625.00†	90.000	359.931	7050.00	3115.32	2806.73	-1912.36	40.3570025	-104.7335229	0.00	
10725.00†	90.000	359.931	7050.00	3213.57	2906.73	-1912.48	40.3572770	-104.7335202	0.00	
10825.00†	90.000	359.931	7050.00	3311.82	3006.73	-1912.60	40.3575515	-104.7335175	0.00	
10925.00†	90.000	359.931	7050.00	3410.08	3106.73	-1912.72	40.3578260	-104.7335148	0.00	
11025.00†	90.000	359.931	7050.00	3508.33	3206.73	-1912.84	40.3581005	-104.7335122	0.00	
11125.00†	90.000	359.931	7050.00	3606.58	3306.73	-1912.96	40.3583750	-104.7335095	0.00	
11225.00†	90.000	359.931	7050.00	3704.83	3406.73	-1913.08	40.3586494	-104.7335068	0.00	
11325.00†	90.000	359.931	7050.00	3803.08	3506.73	-1913.20	40.3589239	-104.7335042	0.00	
11425.00†	90.000	359.931	7050.00	3901.33	3606.73	-1913.32	40.3591984	-104.7335015	0.00	
11525.00†	90.000	359.931	7050.00	3999.58	3706.73	-1913.44	40.3594729	-104.7334988	0.00	
11625.00†	90.000	359.931	7050.00	4097.84	3806.73	-1913.56	40.3597474	-104.7334961	0.00	
11725.00†	90.000	359.931	7050.00	4196.09	3906.73	-1913.68	40.3600219	-104.7334935	0.00	
11825.00†	90.000	359.931	7050.00	4294.34	4006.73	-1913.80	40.3602963	-104.7334908	0.00	
11925.00†	90.000	359.931	7050.00	4392.59	4106.73	-1913.92	40.3605708	-104.7334881	0.00	
12025.00†	90.000	359.931	7050.00	4490.84	4206.73	-1914.04	40.3608453	-104.7334855	0.00	
12125.00†	90.000	359.931	7050.00	4589.09	4306.73	-1914.16	40.3611198	-104.7334828	0.00	
12225.00†	90.000	359.931	7050.00	4687.35	4406.73	-1914.28	40.3613943	-104.7334801	0.00	
12325.00†	90.000	359.931	7050.00	4785.60	4506.73	-1914.40	40.3616688	-104.7334774	0.00	
12425.00†	90.000	359.931	7050.00	4883.85	4606.73	-1914.52	40.3619432	-104.7334748	0.00	
12525.00†	90.000	359.931	7050.00	4982.10	4706.73	-1914.64	40.3622177	-104.7334721	0.00	
12625.00†	90.000	359.931	7050.00	5080.35	4806.73	-1914.76	40.3624922	-104.7334694	0.00	
12725.00†	90.000	359.931	7050.00	5178.60	4906.73	-1914.88	40.3627667	-104.7334668	0.00	



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12825.00†	90.000	359.931	7050.00	5276.85	5006.73	-1915.00	40.3630412	-104.7334641	0.00	
12925.00†	90.000	359.931	7050.00	5375.11	5106.73	-1915.12	40.3633157	-104.7334614	0.00	
13025.00†	90.000	359.931	7050.00	5473.36	5206.73	-1915.24	40.3635902	-104.7334587	0.00	
13125.00†	90.000	359.931	7050.00	5571.61	5306.73	-1915.36	40.3638646	-104.7334561	0.00	
13225.00†	90.000	359.931	7050.00	5669.86	5406.73	-1915.48	40.3641391	-104.7334534	0.00	
13325.00†	90.000	359.931	7050.00	5768.11	5506.73	-1915.60	40.3644136	-104.7334507	0.00	
13425.00†	90.000	359.931	7050.00	5866.36	5606.73	-1915.72	40.3646881	-104.7334480	0.00	
13525.00†	90.000	359.931	7050.00	5964.62	5706.73	-1915.84	40.3649626	-104.7334454	0.00	
13625.00†	90.000	359.931	7050.00	6062.87	5806.73	-1915.96	40.3652371	-104.7334427	0.00	
13725.00†	90.000	359.931	7050.00	6161.12	5906.73	-1916.07	40.3655115	-104.7334400	0.00	
13825.00†	90.000	359.931	7050.00	6259.37	6006.73	-1916.19	40.3657860	-104.7334374	0.00	
13925.00†	90.000	359.931	7050.00	6357.62	6106.73	-1916.31	40.3660605	-104.7334347	0.00	
14025.00†	90.000	359.931	7050.00	6455.87	6206.73	-1916.43	40.3663350	-104.7334320	0.00	
14125.00†	90.000	359.931	7050.00	6554.13	6306.73	-1916.55	40.3666095	-104.7334293	0.00	
14225.00†	90.000	359.931	7050.00	6652.38	6406.73	-1916.67	40.3668840	-104.7334267	0.00	
14325.00†	90.000	359.931	7050.00	6750.63	6506.73	-1916.79	40.3671584	-104.7334240	0.00	
14425.00†	90.000	359.931	7050.00	6848.88	6606.73	-1916.91	40.3674329	-104.7334213	0.00	
14525.00†	90.000	359.931	7050.00	6947.13	6706.73	-1917.03	40.3677074	-104.7334186	0.00	
14625.00†	90.000	359.931	7050.00	7045.38	6806.73	-1917.15	40.3679819	-104.7334160	0.00	
14725.00†	90.000	359.931	7050.00	7143.63	6906.73	-1917.27	40.3682564	-104.7334133	0.00	
14825.00†	90.000	359.931	7050.00	7241.89	7006.73	-1917.39	40.3685309	-104.7334106	0.00	
14925.00†	90.000	359.931	7050.00	7340.14	7106.73	-1917.51	40.3688053	-104.7334080	0.00	
15025.00†	90.000	359.931	7050.00	7438.39	7206.73	-1917.63	40.3690798	-104.7334053	0.00	
15125.00†	90.000	359.931	7050.00	7536.64	7306.73	-1917.75	40.3693543	-104.7334026	0.00	
15225.00†	90.000	359.931	7050.00	7634.89	7406.73	-1917.87	40.3696288	-104.7333999	0.00	
15325.00†	90.000	359.931	7050.00	7733.14	7506.73	-1917.99	40.3699033	-104.7333973	0.00	
15425.00†	90.000	359.931	7050.00	7831.40	7606.73	-1918.11	40.3701778	-104.7333946	0.00	
15525.00†	90.000	359.931	7050.00	7929.65	7706.73	-1918.23	40.3704522	-104.7333919	0.00	
15625.00†	90.000	359.931	7050.00	8027.90	7806.73	-1918.35	40.3707267	-104.7333892	0.00	
15725.00†	90.000	359.931	7050.00	8126.15	7906.73	-1918.47	40.3710012	-104.7333866	0.00	



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH DATA (204 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15825.00†	90.000	359.931	7050.00	8224.40	8006.73	-1918.59	40.3712757	-104.7333839	0.00	
15925.00†	90.000	359.931	7050.00	8322.65	8106.73	-1918.71	40.3715502	-104.7333812	0.00	
16025.00†	90.000	359.931	7050.00	8420.91	8206.73	-1918.83	40.3718247	-104.7333786	0.00	
16125.00†	90.000	359.931	7050.00	8519.16	8306.73	-1918.95	40.3720991	-104.7333759	0.00	
16225.00†	90.000	359.931	7050.00	8617.41	8406.73	-1919.07	40.3723736	-104.7333732	0.00	
16325.00†	90.000	359.931	7050.00	8715.66	8506.73	-1919.19	40.3726481	-104.7333705	0.00	
16425.00†	90.000	359.931	7050.00	8813.91	8606.73	-1919.31	40.3729226	-104.7333679	0.00	
16525.00†	90.000	359.931	7050.00	8912.16	8706.73	-1919.43	40.3731971	-104.7333652	0.00	
16625.00†	90.000	359.931	7050.00	9010.41	8806.73	-1919.55	40.3734716	-104.7333625	0.00	
16725.00†	90.000	359.931	7050.00	9108.67	8906.72	-1919.67	40.3737460	-104.7333598	0.00	
16825.00†	90.000	359.931	7050.00	9206.92	9006.72	-1919.79	40.3740205	-104.7333572	0.00	
16925.00†	90.000	359.931	7050.00	9305.17	9106.72	-1919.91	40.3742950	-104.7333545	0.00	
17025.00†	90.000	359.931	7050.00	9403.42	9206.72	-1920.03	40.3745695	-104.7333518	0.00	
17125.00†	90.000	359.931	7050.00	9501.67	9306.72	-1920.15	40.3748440	-104.7333491	0.00	
17225.00†	90.000	359.931	7050.00	9599.92	9406.72	-1920.26	40.3751185	-104.7333465	0.00	
17325.00†	90.000	359.931	7050.00	9698.18	9506.72	-1920.38	40.3753929	-104.7333438	0.00	
17425.00†	90.000	359.931	7050.00	9796.43	9606.72	-1920.50	40.3756674	-104.7333411	0.00	
17525.00†	90.000	359.931	7050.00	9894.68	9706.72	-1920.62	40.3759419	-104.7333385	0.00	
17625.00†	90.000	359.931	7050.00	9992.93	9806.72	-1920.74	40.3762164	-104.7333358	0.00	
17725.00†	90.000	359.931	7050.00	10091.18	9906.72	-1920.86	40.3764909	-104.7333331	0.00	
17825.00†	90.000	359.931	7050.00	10189.43	10006.72	-1920.98	40.3767654	-104.7333304	0.00	
17841.26	90.000	359.931	7050.00 <sup>4</sup>	10205.41	10022.99	-1921.00	40.3768100	-104.7333300	0.00	BPZ
17871.66	90.000	359.323	7050.00	10235.31	10053.38	-1921.20	40.3768934	-104.7333298	2.00	End of 3D Arc (J)
17892.27	90.000	359.323	7050.00 <sup>5</sup>	10255.59	10073.99	-1921.44	40.3769500	-104.7333300	0.00	BHL



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Sec.01-T04N-R66W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.06-T04N-R65W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.25-T05N-R66W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.30-T05N-R65W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.31-T05N-R65W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.36-T05N-R66W	N/A	-37.00	-3818.90	2533.53	3218050.25	1367194.45	40.3387098	-104.7177809	polygon
	2D Polygon: dimensions not calculated								
Sec.24-T05N-R66W	N/A	-5.00	13.75	-5.89	3215510.94	1371026.94	40.3492909	-104.7267699	polygon
	2D Polygon: dimensions not calculated								
CAPITOL 02N BHL (150'FNL & 456'FWL,SEC.24)	N/A	7006.00	15421.27	-1954.31	3213562.61	1386433.78	<b>40.3916280</b>	<b>-104.7332820</b>	point



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
CAPITOL 02N BPZ 200'FNL&456'FWLSEC.24	N/A	7006.00	15371.36	-1953.98	3213562.94	1386383.87	40.3914910	-104.7332824	point
CAPITOL 02N Rev-2 BHL (200'FNL & 456'FWL,SEC.25)	N/A	7006.00	10073.99	-1921.44	3213595.47	1381086.73	40.3769500	-104.7333300	point
CAPITOL 02N LP (200'FSL & 471'FWL,SEC.36)	N/A	7043.00	-115.58	-1856.48	3213660.43	1370897.61	40.3489800	-104.7334130	point
4) CAPITOL 02N BPZ Rev-2 250'FNL&421'FWL Sec.25	17841.26	7050.00	10022.99	-1921.00	3213595.91	1381035.73	40.3768100	-104.7333300	point
1) CAPITOL 02N LP Rev-2 (200'FSL&471'FWL Sec.36)	7698.83	7050.00	-115.58	-1856.48	3213660.43	1370897.61	40.3489800	-104.7334130	point
CAPITOL 02N LP Rev-3 for AC (200'FSL&471'FWL Sec.36)	N/A	7050.00	-115.58	-1901.49	3213615.43	1370897.61	40.3489811	-104.7335745	point
CAPITOL 02N Rev-3 BHL (200'FNL & 456'FWL,SEC.25)	N/A	7050.00	10073.99	-1921.44	3213595.47	1381086.73	40.3769500	-104.7333300	point
5) CAPITOL 02N Rev-4 BHL (200'FNL&420'FWL Sec.25)	17892.27	7050.00	10073.99	-1921.44	3213595.47	1381086.73	40.3769500	-104.7333300	point



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
2) Capitol 02N AC Inflection Point	8167.88	7050.00	350.41	-1910.00	3213606.92	1371363.58	40.3502603	-104.7335906	point
3) Capitol 02N Inflection Point	10144.69	7050.00	2326.42	-1912.16	3213604.76	1373339.50	40.3556842	-104.7335370	point
Capitol Hardline (200'N/S&300'E/W)	N/A	7200.00	0.00	0.00	3215516.83	1371013.18	40.3492530	-104.7267492	polygon
2D Polygon: dimensions not calculated									

SURVEY PROGRAM - Ref Wellbore: CAPITOL 02N PWB Ref Wellpath: CAPITOL 02N (REV-F.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1995.00	OWSG MWD rev2 - Standard		CAPITOL 02N PWB
1995.00	23252.40	OWSG MWD rev2 (MS+IFR1)		CAPITOL 02N PWB



# Planned Wellpath Report

CAPITOL 02N (REV-F.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1350.34	17.171	245.539	1329.00	PIERRE_(UPPER)_AQUIFER_BASE
2354.08	17.171	245.539	2288.00	PIERRE_MBR_A_SD_TOP
2904.62	17.171	245.539	2814.00	PIERRE_MBR_A_SD_BASE
3759.74	17.171	245.539	3631.00	PARKMAN
4242.25	17.171	245.539	4092.00	SUSSEX
4966.53	17.171	245.539	4784.00	SHANNON
6299.97	17.171	245.539	6058.00	TEPEE_BUTTES
7108.89	39.901	332.860	6806.00	SHARON SPRINGS
7160.02	44.073	335.768	6844.00	NIO_A_CHALK
7191.34	46.660	337.339	6866.00	NIO_A_MARL
7356.90	60.602	343.912	6964.00	NIO_B_CHALK
7409.50	65.092	345.601	6988.00	NIO_B_MARL
7567.25	78.645	350.063	7037.00	NIO_C_CHALK

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
25.00		0.000	245.539	25.00 SHL
300.00		0.000	245.539	300.00 End of Tangent
1158.57		17.171	245.539	1145.78 Build (XS)
6640.95		17.171	245.539	6383.79 KOP
7698.83		90.000	353.448	7050.00 LP
8167.88		90.000	353.448	7050.00 AC Inflection Point
8524.49		90.000	0.580	7050.00 3D Arc (J)
10144.69		90.000	0.580	7050.00 Hardline Inflection Point

<b>DESIGN COMMENTS</b>				
<b>MD [ft]</b>	<b>Inclination [°]</b>	<b>Azimuth [°]</b>	<b>TVD [ft]</b>	<b>Comment</b>
10209.57	90.000	359.931	7050.00	End of 3D Arc (J)
17841.26	90.000	359.931	7050.00	BPZ
17871.66	90.000	359.323	7050.00	End of 3D Arc (J)
17892.27	90.000	359.323	7050.00	BHL



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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### REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999958	Report Generated	6/23/2025 at 10:57:12 AM
Convergence at slot	0.50° East	Database	WA_Denver

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-13.75	5.89	3215516.83	1371013.18	40°20'57.3108"N	104°43'36.2971"W
Facility Reference Pt			3215510.94	1371026.94	40°20'57.4472"N	104°43'36.3716"W
Field Reference Pt			3296400.32	1413291.61	40°27'46.8000"N	104°26'5.1000"W

### WELLPATH DATUM

Calculation method	Minimum Curvature	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Facility Vertical Datum	4690.00ft
Horizontal Reference Pt	Slot	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Mean Sea Level	4690.00ft
Vertical Reference Pt	Rig (4665'GL+25'KB = 4690'RKB) (RKB)	Rig (4665'GL+25'KB = 4690'RKB) (RKB) to Ground Level at Slot (SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36))	4690.00ft
MD Reference Pt	Rig (4665'GL+25'KB = 4690'RKB) (RKB)		
Field Vertical Reference	Mean Sea Level		

### POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.50 Std Dev	Ellipse Start MD	25.00ft	Surface Position Uncertainty	included
Declination	7.67° East of TN	Dip Angle	66.52°	Mag Field Strength	51611 nT

**POSITIONAL UNCERTAINTY CALCULATION SETTINGS**

Slot Surface Uncertainty @1SD	Horizontal	<b>0.100ft</b>	Vertical	<b>1.000ft</b>
Facility Surface Uncertainty @1SD	Horizontal	<b>8.200ft</b>	Vertical	<b>3.000ft</b>

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



# Closest Approach Clearance Summary Report

CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

PROXIMITY-SCAN RULE			
Rule Name	SPE WPTS Stop Drilling HSE Risk (2017)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no

SURVEY PROGRAM - Ref Wellbore: CAPITOL 02N PWB    Ref Wellpath: CAPITOL 02N (REV-F.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1995.00	OWSG MWD rev2 - Standard		CAPITOL 02N PWB
1995.00	23252.40	OWSG MWD rev2 (MS+IFR1)		CAPITOL 02N PWB



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane													
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio				
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status	
Blackburn Offsets	(PEPLER 3-36) (05-123-13289)	PEPLER 3-36	PEPLER 3-36	OWB\OWB	Suspended	10482.81	110.55	10482.81	10482.81	0.01	10482.81	FAIL	
Blackburn Offsets	(ANDERSON COOMBS 6) (05-123-12852)	ANDERSON COOMBS 6	ANDERSON COOMBS 6	OWB\OWB	Abandoned	17460.64	208.46	17460.64	17460.63	0.02	17460.63	FAIL	
Blackburn Offsets	(HILL STATE 18-36) (05-123-22263)	HILL STATE 18-36	HILL STATE 18-36	OWB\OWB	Abandoned	11473.66	1073.04	11473.66	11473.66	0.12	11473.66	FAIL	
Blackburn Offsets	(STATE-ELK 1) (05-123-12916)	STATE-ELK 1	STATE-ELK 1	OWB\OWB	Abandoned	11002.93	1458.39	11002.93	11002.94	0.17	11002.94	FAIL	
Blackburn Offsets	(ANDERSON-COOMBS 1) (05-123-11649)	ANDERSON-COOMBS 1	ANDERSON-COOMBS 1	OWB\OWB	Abandoned	14876.34	1549.14	14876.34	14876.35	0.18	14876.35	FAIL	
Blackburn Offsets	(CURTIS UNIT 1) (05-123-11914)	CURTIS UNIT 1	CURTIS UNIT 1	OWB\OWB	Abandoned	13442.00	2900.34	13442.00	13442.08	0.34	13442.08	FAIL	
Blackburn Offsets	(ISHIGURO 5) (05-123-12892)	ISHIGURO 5	ISHIGURO 5	OWB\OWB	Abandoned	11033.50	3096.93	11033.50	11033.56	0.36	11033.56	FAIL	
Blackburn Offsets	(REEVE, FREEDA 2-1) (05-123-14918)	REEVE, FREEDA 2-1	REEVE, FREEDA 2-1	OWB\OWB	Abandoned	25.00	1577.05	300.00	7101.23	0.36	7101.23	FAIL	
Blackburn Offsets	(GEMINI K 1-14) (05-123-13870)	GEMINI K 1-14	GEMINI K 1-14	OWB\OWB	Abandoned	6640.95	4465.69	6640.95	7043.31	0.55	7043.31	FAIL	
Blackburn Offsets	(CUNNINGHAM UNIT 1) (05-123-11835)	CUNNINGHAM UNIT 1	CUNNINGHAM UNIT 1	OWB\OWB	Abandoned	14762.56	5518.12	14762.56	14763.03	0.64	14763.03	FAIL	
Blackburn Offsets	(VAUGHAN 12-30) (05-123-12596)	VAUGHAN 12-30	VAUGHAN 12-30	OWB\OWB	Abandoned	15957.95	5750.93	15957.95	15958.55	0.67	15958.55	FAIL	
Blackburn Offsets	(NOE 1-30) (05-123-13288)	NOE 1-30	NOE 1-30	OWB\OWB	Abandoned	13345.93	5829.68	13345.93	13346.36	0.68	13346.36	FAIL	
Blackburn Offsets	(GEMINI K FEDERAL 1-16) (05-123-13872)	GEMINI K FEDERAL 1-16	GEMINI K FEDERAL 1-16	OWB\OWB	Abandoned	25.00	5311.64	300.00	7132.83	0.69	7132.83	FAIL	
Blackburn Offsets	(PEPLER 1-36) (05-123-13270)	PEPLER 1-36	PEPLER 1-36	OWB\OWB	Abandoned	8154.18	44.72	8154.18	8153.81	0.70	8153.81	FAIL	
Blackburn Offsets	(GEMINI G FEDERAL 6-33) (05-123-30688)	GEMINI G FEDERAL 6-33	GEMINI G FEDERAL 6-33	OWB\OWB	Suspended	25.00	5214.76	300.00	7166.03	0.71	7166.03	FAIL	
Blackburn Offsets	(STENZEL 1 - 31) (05-123-13295)	STENZEL 1 - 31	STENZEL 1 - 31	OWB\OWB	Abandoned	25.00	6623.83	12407.94	12407.94	0.78	12407.94	FAIL	
SEC.24-T5N-R66W	SLOT#12 HORII #1 (05-123-11135) PA	HORII #1	HORII #1 AWB	HORII #1 AWP	Abandoned	17892.27	1734.97	17892.27	17892.27	0.79	17892.27	FAIL	
Blackburn Offsets	(SYLVESTER 31-6H5) (05-123-18190)	SYLVESTER 31-6H5	SYLVESTER 31-6H5	OWB\OWB	Abandoned	25.00	5949.74	10970.13	10970.13	0.81	10970.13	FAIL	
Blackburn Offsets	(KFKA J 25-13) (05-123-19224)	KFKA J 25-13	KFKA J 25-13	OWB\OWB	Abandoned	13382.76	111.38	13382.76	13392.45	1.04	13392.45	WARN	
Blackburn Offsets	(ANDERSON COOMBS 5) (05-123-12851)			OWB\OWB	Abandoned	16204.50	156.86	16204.50	16196.00	1.12	16196.00	PASS	

**OFFSET WELL CLEARANCE SUMMARY** (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
		ANDERSON COOMBS 5	ANDERSON COOMBS 5									
Blackburn Offsets	(GOODNER 6-1) (05-123-13912)	GOODNER 6-1	GOODNER 6-1	OWB\OWB	Abandoned	25.00	8478.35	300.00	7475.88	1.17	7475.88	PASS
SEC.24-T5N-R66W	SLOT#13 HORII #2 (05-123-11748) PA	HORII #2	HORII #2 AWB	HORII #2 AWP	Abandoned	17892.27	2658.07	17892.27	17892.27	1.22	17892.27	PASS
SEC.36-T05N-R66W	SLOT#01 CAPITOL 01N (310'FSL & 2317'FWL,SEC.36)	CAPITOL 01N	CAPITOL 01N PWB	CAPITOL 01N (REV-D.0) PWP	Planned	25.00	14.96	17892.27	1255.57	1.34	17892.27	PASS
SEC.24-T5N-R66W	SLOT#10 DUELL #1 (05-123-11750) PA	DUELL #1	DUELL #1 AWB	DUELL #1 AWP	Abandoned	17892.27	3013.32	17892.27	17892.27	1.38	17892.27	PASS
Blackburn Offsets	(PEPLER 2-36) (05-123-14438)	PEPLER 2-36	PEPLER 2-36	OWB\OWB	Abandoned	9453.35	97.39	9453.35	9446.45	1.41	9446.45	PASS



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.36-T05N-R66W	SLOT#03 CAPITOL 03N (282'FSL & 2329'FWL,SEC.36)	CAPITOL 03N	CAPITOL 03N PWB	CAPITOL 03N (REV-D.0) PWP	Planned	25.00	14.98	17841.26	1155.03	1.48	17841.26	PASS
Blackburn Offsets	(ANDERSON COOMBS 4) (05-123-12850)	ANDERSON COOMBS 4	ANDERSON COOMBS 4	OWB\OWB	Abandoned	14796.22	197.00	14796.22	14782.34	1.60	14782.34	PASS
Blackburn Offsets	(LOEFFLER K 01-69-1HN) (05-123-37735)	LOEFFLER K 01-69-1HN	LOEFFLER K 01-69-1HN	OWB\OWB	Producing / injecting	7204.19	127.41	7204.19	7239.41	1.91	7239.41	PASS
Blackburn Offsets	(SYLVESTER 36-16H6) (05-123-18113)	SYLVESTER 36-16H6	SYLVESTER 36-16H6	SYLVESTER 36-16H6 AWP	Producing / injecting	25.00	2360.51	7828.68	7828.68	1.96	7828.68	PASS
Blackburn Offsets	(SYLVESTER 36-9H6) (05-123-12507)	SYLVESTER 36-9H6	SYLVESTER 36-9H6	SYLVESTER 36-9H6 AWP	Producing / injecting	25.00	2751.31	9367.61	9367.61	1.96	9367.61	PASS
SEC.24-T5N-R66W	SLOT#15 RKW #1 (05-123-10763) PA	RKW #1	RKW #1 AWB	RKW #1 AWP	Abandoned	17892.27	4515.57	17892.27	17892.27	2.07	17892.27	PASS
SEC.24-T5N-R66W	SLOT#14 MEYER #1 (05-123-12474) PA	MEYER #1	MEYER #1 AWB	MEYER #1 AWP	Abandoned	17892.27	5157.64	17892.27	17892.27	2.36	17892.27	PASS
Blackburn Offsets	STATE-HUME #90750 (05-123-12899)	STATE-HUME #90750	STATE-HUME #90750	OWB\OWB	Abandoned	12046.62	232.49	12046.62	12030.55	2.55	12030.55	PASS
Blackburn Offsets	(SYLVESTER 31-12H5) (05-123-18191)	SYLVESTER 31-12H5	SYLVESTER 31-12H5	SYLVESTER 31-12H5 AWP	Producing / injecting	25.00	4178.62	9745.98	9745.98	2.63	9745.98	PASS
SEC.36-T05N-R66W	SLOT#04 CAPITOL 04N (268'FSL & 2336'FWL,SEC.36)	CAPITOL 04N	CAPITOL 04N PWB	CAPITOL 04N (REV-D.0) PWP	Planned	301.18	30.02	17545.13	17545.13	2.95	17545.13	PASS
Blackburn Offsets	(ISHIGURO 17-36) (05-123-25592)	ISHIGURO 17-36	ISHIGURO 17-36	ISHIGURO 17-36 AWP	Producing / injecting	11754.30	3503.94	11754.30	11760.39	3.25	11760.39	PASS
Blackburn Offsets	(MCCARTHY FEDERAL 6-33) (05-123-19040)	MCCARTHY FEDERAL 6-33	MCCARTHY FEDERAL 6-33	MCCARTHY FEDERAL 6-33 AWP	Producing / injecting	25.00	6083.63	300.00	7232.24	3.31	7232.24	PASS
Blackburn Offsets	(MCCARTHY FEDERAL 6-35) (05-123-25323)	MCCARTHY FEDERAL 6-35	MCCARTHY FEDERAL 6-35	MCCARTHY FEDERAL 6-35 AWP	Producing / injecting	25.00	6269.50	300.00	7274.59	3.47	7274.59	PASS
		CAPITOL 05N	CAPITOL 05N PWB		Planned	25.00	45.02	17372.30	17372.30	4.54	17372.30	PASS

<b>OFFSET WELL CLEARANCE SUMMARY</b> (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane													
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio				
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status	
SEC.36-T05N-R66W	SLOT#05 CAPITOL 05N (254'FSL & 2342'FWL,SEC.36)			CAPITOL 05N (REV-D.0) PWP									
Blackburn Offsets	(LOEFFLER 1-18) (05-123-11673)	LOEFFLER 1-18	LOEFFLER 1-18	OWB\OWB	Producing / injecting	6709.20	275.73	6709.20	6731.04	4.64	6731.04	PASS	
SEC.36-T05N-R66W	SLOT#06 CAPITOL 06N (241'FSL & 2348'FWL,SEC.36)	CAPITOL 06N	CAPITOL 06N PWB	CAPITOL 06N (REV-D.0) PWP	Planned	301.06	59.96	17281.24	17281.24	6.05	17281.24	PASS	
SEC.36-T05N-R66W	SLOT#07 CAPITOL 07N (227'FSL & 2355'FWL,SEC.36)	CAPITOL 07N	CAPITOL 07N PWB	CAPITOL 07N (REV-D.0) PWP	Planned	301.04	74.97	17273.96	17273.96	7.61	17273.96	PASS	
Blackburn Offsets	(AD FED DOUBLE CLUTCH 20W-25-8) (05-123-45035)	AD FED DOUBLE CLUTC 20W-25-8	AD FED DOUBLE CLUTC 20W-25-8	OWB\OWB	Producing / injecting	17892.27	3861.92	17892.27	17892.27	8.21	17892.27	PASS	
Blackburn Offsets	(AD FED DOUBLE CLUTCH 20W-25-9) (05-123-45039)	AD FED DOUBLE CLUTC 20W-25-9	AD FED DOUBLE CLUTC 20W-25-9	OWB\OWB	Producing / injecting	17892.27	3699.07	17892.27	17892.27	8.25	17892.27	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-10) (05-123-45032)	AD FED DAIRY 20W-25-10	AD FED DAIRY 20W-25-10 AWB	OWB\OWB	Producing / injecting	17892.27	3424.62	17892.27	17526.02	8.39	17526.02	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-11) (05-123-41146)	AD FED DAIRY 20W-25-11	AD FED DAIRY 20W-25-11	OWB\OWB	Producing / injecting	17892.27	3338.86	17892.27	17375.97	8.40	17375.97	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-12) (05-123-40314)	AD FED DAIRY 20W-25-12	AD FED DAIRY 20W-25-12	OWB\OWB	Producing / injecting	17892.27	3168.74	17892.27	17009.07	8.54	17009.07	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-13) (05-123-45034)	AD FED DAIRY 20W-25-13	AD FED DAIRY 20W-25-13	OWB\OWB	Producing / injecting	17892.27	3077.05	17892.27	16793.23	8.61	16793.23	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-14) (05-123-41138)	AD FED DAIRY 20W-25-14	AD FED DAIRY 20W-25-14	OWB\OWB	Producing / injecting	17892.27	2997.43	17892.27	16542.03	8.70	16542.03	PASS	
Blackburn Offsets	(AD FED LIBRARY 20W-25-17) (05-123-45033)	AD FED LIBRARY 20W-25-17	AD FED LIBRARY 20W-25-17	OWB\OWB	Suspended	17892.27	2803.13	17892.27	15833.30	8.88	15833.30	PASS	



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane													
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio				
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status	
Blackburn Offsets	(AD FED DAIRY 20W-25-16) (05-123-45937)	AD FED DAIRY 20W-25-16	AD FED DAIRY 20W-25-16	OWB\OWB	Producing / injecting	17892.27	2880.41	17892.27	16050.10	8.93	16050.10	PASS	
Blackburn Offsets	(AD FED DAIRY 20W-25-15) (05-123-41140)	AD FED DAIRY 20W-25-15	AD FED DAIRY 20W-25-15	OWB\OWB	Producing / injecting	17892.27	2924.88	17892.27	16181.09	8.95	16181.09	PASS	
Blackburn Offsets	(AD FED LIBRARY 20W-25-18) (05-123-45037)	AD FED LIBRARY 20W-25-18	AD FED LIBRARY 20W-25-18	OWB\OWB	Producing / injecting	17892.27	2763.36	17892.27	15507.33	9.02	15507.33	PASS	
SEC.36-T05N-R66W	SLOT#08 CAPITOL 08N (213'FSL & 2361'FWL,SEC.36)	CAPITOL 08N	CAPITOL 08N PWB	CAPITOL 08N (REV-D.0) PWP	Planned	301.03	89.99	17325.00	17345.16	9.04	17345.16	PASS	
Blackburn Offsets	(LOEFFLER K 01-68-1HN) (05-123-35836)	LOEFFLER K 01-68-1HN	LOEFFLER K 01-68-1HN	OWB\OWB	Producing / injecting	6898.56	645.95	6898.56	6958.28	9.32	6958.28	PASS	
Blackburn Offsets	(ANDERSON COOMBS 3) (05-123-12849)	ANDERSON COOMBS 3	ANDERSON COOMBS 3	OWB\OWB	Abandoned	17455.48	1561.15	17455.48	17476.96	10.08	17476.96	PASS	
Blackburn Offsets	(ANDERSON-COOMBS 2) (05-123-12848)	ANDERSON-COOMBS 2	ANDERSON-COOMBS 2	OWB\OWB	Abandoned	16165.03	1508.39	16165.03	16186.38	10.93	16186.38	PASS	
Blackburn Offsets	(REHMER 36-14H6) (05-123-18686)	REHMER 36-14H6	REHMER 36-14H6	OWB\OWB	Abandoned	327.96	460.75	8125.00	360.19	11.18	8225.00	PASS	
Blackburn Offsets	(GREEN 1) (05-123-11874)	GREEN 1	GREEN 1	OWB\OWB	Abandoned	13564.18	1542.24	13564.18	13592.19	14.54	13592.19	PASS	
Blackburn Offsets	(AD FED DOUBLE CLUTCH #20W-25-7) (05-123-45036)	AD FED DOUBLE CLUTCH #20W-25-7	AD FED DOUBLE CLUTCH #20W-25-7 AWB	AD FED DOUBLE CLUTCH #20W-25-7 AWP	Producing / injecting	17892.27	3991.85	17892.27	17892.27	16.18	17892.27	PASS	
Blackburn Offsets	(AD FED DOUBLE CLUTCH #20W-25-6) (05-123-45040)	AD FED DOUBLE CLUTCH #20W-25-6	AD FED DOUBLE CLUTCH #20W-25-6 AWB	AD FED DOUBLE CLUTCH #20W-25-6 AWP	Producing / injecting	17892.27	4178.12	17892.27	17892.27	16.60	17892.27	PASS	
Blackburn Offsets	(AD FED J EVANS #20W-25-5) (05-123-45038)	AD FED J EVANS #20W-25-5	AD FED J EVANS #20W-25-5 AWB	AD FED J EVANS #20W-25-5 AWP	Producing / injecting	17892.27	4360.02	17892.27	17892.27	17.16	17892.27	PASS	
Blackburn Offsets	(AD FED J EVANS #20W-25-4) (05-123-41135)	AD FED J EVANS #20W-25-4	AD FED J EVANS #20W-25-4 AWB	AD FED J EVANS #20W-25-4 AWP	Producing / injecting	17892.27	4441.46	17892.27	17892.27	17.26	17892.27	PASS	
	(ISHIGURO 2) (05-123-12900)	ISHIGURO 2	ISHIGURO 2	OWB\OWB	Abandoned	12424.68	1649.00	12424.68	12482.13	17.44	12482.13	PASS	

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets												
Blackburn Offsets	(AD FED J EVANS #20W-25-3) (05-123-41133)	AD FED J EVANS #20W-25-3	AD FED J EVANS #20W-25-3 AWB	AD FED J EVANS #20W-25-3 AWP	Producing / injecting	17892.27	4654.56	17892.27	17892.27	17.80	17892.27	PASS
Blackburn Offsets	(GEMINI K FEDERAL 01-99HZ) (05-123-30686)	GEMINI K FEDERAL 01-99HZ	GEMINI K FEDERAL 01-99HZ	OBW\OWB	Producing / injecting	6778.49	3702.07	6778.49	7086.53	17.84	7086.53	PASS
Blackburn Offsets	(FREEDA REEVE 4-1) (05-123-15319)	FREEDA REEVE 4-1	FREEDA REEVE 4-1	OWB\OWB	Abandoned	2417.78	819.97	2417.78	2713.71	17.95	2713.71	PASS
Blackburn Offsets	(CURTIS 23-25) (05-123-31134)	CURTIS 23-25	CURTIS 23-25	OWB\OWB	Producing / injecting	14238.26	2193.31	14238.26	14335.41	18.02	14335.41	PASS
Blackburn Offsets	(LOEFFLER K 01-67-1HN) (05-123-35835)	LOEFFLER K 01-67-1HN	LOEFFLER K 01-67-1HN	OWB\OWB	Suspended	6793.79	1249.80	6793.79	6888.16	18.13	6888.16	PASS
Blackburn Offsets	(AD FED J EVANS #20W-25-2) (05-123-45041)	AD FED J EVANS #20W-25-2	AD FED J EVANS #20W-25-2 AWB	AD FED J EVANS #20W-25-2 AWP	Producing / injecting	17892.27	4855.99	17892.27	17892.27	18.37	17892.27	PASS
Blackburn Offsets	(AD FED J EVANS #20W-25-1) (05-123-41137)	AD FED J EVANS #20W-25-1	AD FED J EVANS #20W-25-1 AWB	AD FED J EVANS #20W-25-1 AWP	Producing / injecting	17892.27	4956.21	17892.27	17892.27	18.71	17892.27	PASS
Blackburn Offsets	(WASS 4) (05-123-11757)	WASS 4	WASS 4	OWB\OWB	Abandoned	17402.41	2901.39	17402.41	17627.44	18.74	17627.44	PASS
Blackburn Offsets	(WASS 2) (05-123-11668)	WASS 2	WASS 2	OWB\OWB	Abandoned	16139.55	2908.63	16139.55	16391.11	21.05	16391.11	PASS
Blackburn Offsets	(CURTIS 36-25) (05-123-31207)	CURTIS 36-25	CURTIS 36-25	OWB\OWB	Producing / injecting	12946.13	2302.14	12946.13	13141.03	21.30	13141.03	PASS
Blackburn Offsets	(GP J EVANS FED #20W-20-16) (05-123-41134)	GP J EVANS FED #20W-20-16	GP J EVANS FED #20W-20-16 AWB	GP J EVANS FED #20W-20-16 AWP	Producing / injecting	17892.27	5584.11	17892.27	17892.27	23.01	17892.27	PASS



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets	(GP HILLSIDE FED #20W-20-15) (05-123-41145)	GP HILLSIDE FED #20W-20-15	GP HILLSIDE FED #20W-20-15 AWB	GP HILLSIDE FED #20W-20-15 AWP	Producing / injecting	17892.27	5742.15	17892.27	17892.27	23.39	17892.27	PASS
Blackburn Offsets	(BROWN 1) (05-123-12689)	BROWN 1	BROWN 1	OWB\OWB	Abandoned	9464.81	1613.31	9464.81	9516.75	23.98	9516.75	PASS
Blackburn Offsets	(GP HILLSIDE FED #20W-20-14) (05-123-44430)	GP HILLSIDE FED #20W-20-14	GP HILLSIDE FED #20W-20-14 AWB	GP HILLSIDE FED #20W-20-14 AWP	Producing / injecting	17892.27	5939.83	17892.27	17892.27	24.00	17892.27	PASS
Blackburn Offsets	(GP HILLSIDE FED #20W-20-13) (05-123-41143)	GP HILLSIDE FED #20W-20-13	GP HILLSIDE FED #20W-20-13 AWB	GP HILLSIDE FED #20W-20-13 AWP	Producing / injecting	17892.27	6166.79	17892.27	17892.27	24.74	17892.27	PASS
Blackburn Offsets	(ISHIGURO 21-36) (05-123-28121)	ISHIGURO 21-36	ISHIGURO 21-36	OWB\OWB	Abandoned	11605.33	2333.05	11605.33	11836.65	24.75	11836.65	PASS
SEC.24-T5N-R66W	SLOT#11 DUELL #2 (05-123-12788) PA	DUELL #2	DUELL #2 AWB	DUELL #2 AWP	Abandoned	17892.27	3662.08	17892.27	17892.27	24.84	17892.27	PASS
Blackburn Offsets	(WASS 3X) (05-123-13279)	WASS 3X	WASS 3X	OWB\OWB	Abandoned	14840.15	3045.20	14840.15	15166.76	24.93	15166.76	PASS
Blackburn Offsets	(ISHIGURO 25-36) (05-123-28120)	ISHIGURO 25-36	ISHIGURO 25-36	OWb\OWb	Producing / injecting	10315.45	2414.18	10315.45	10725.00	25.23	10725.00	PASS
Blackburn Offsets	(WASS 5) (05-123-13781)	WASS 5	WASS 5	OWB\OWB	Abandoned	17273.12	3911.73	17273.12	17764.06	25.33	17764.06	PASS
Blackburn Offsets	(CURTIS 15-25) (05-123-31132)	CURTIS 15-25	CURTIS 15-25	OWB\OWB	Abandoned	13674.67	2815.06	13674.67	13974.53	26.04	13974.53	PASS
Blackburn Offsets	(LOEFFLER K 01-66-1HN ST) (05-123-35834)	LOEFFLER K 01-66-1HN ST	LOEFFLER K 01-66-1HN ST	OWB\OWB	Producing / injecting	6825.00	1908.77	6825.00	6925.00	26.51	6925.00	PASS
Blackburn Offsets	(LOEFFLER #2-24) (05-123-11888)	LOEFFLER #2-24	LOEFFLER #2-24	OWB\OWB	Producing / injecting	6725.00	1572.80	6725.00	6805.80	26.64	6805.80	PASS
Blackburn Offsets	(LOEFFLER K 01-66-1HN) (05-123-35834)	LOEFFLER K 01-66-1HN	LOEFFLER K 01-66-1HN	OWB\OWB	Abandoned	6725.00	1915.60	6725.00	6813.58	26.98	6813.58	PASS
		FREEDA REEVE 3-1	FREEDA REEVE 3-1	OWB\OWB	Abandoned	5629.81	1790.07	5629.81	6728.24	28.69	6728.24	PASS

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets	(FREEDA REEVE 3-1) (05-123-15083)											
SEC.24-T5N-R66W	Slot #4 SEGL #22-24 (05-123-23842) SI	SEGL 22-24	SEGL 22-24 AWB	SEGL 22-24 AWP	Drilling	17892.27	2865.33	17892.27	17892.27	28.75	17892.27	PASS
Blackburn Offsets	(REHMER 1) (05-123-12607)	REHMER 1	REHMER 1	Wellbore #1OWB\OWB	Abandoned	25.00	1183.64	7925.00	332.97	28.79	10425.00	PASS
Blackburn Offsets	(LOEFFLER K 01-65HN) (05-123-37739)	LOEFFLER K 01-65HN	LOEFFLER K 01-65HN	OWB\OWB	Producing / injecting	6689.43	1969.80	6689.43	6783.18	29.15	6783.18	PASS
Blackburn Offsets	(WASS 6) (05-123-13265)	WASS 6	WASS 6	OWB\OWB	Abandoned	15973.71	4213.09	15973.71	16634.37	30.42	16634.37	PASS
Blackburn Offsets	(ISHIGURO 1) (05-123-11904)	ISHIGURO 1	ISHIGURO 1	OWB\OWB	Abandoned	12294.32	2929.12	12294.32	12661.53	31.01	12661.53	PASS
Blackburn Offsets	(GP-DAIRY 1-20-19) (05-123-40328)	GP-DAIRY 1-20-19	GP-DAIRY 1-20-19 ST01	GP-DAIRY 1-20-19 ST01	Producing / injecting	17892.27	5861.85	17892.27	17892.27	31.23	17892.27	PASS
SEC.24-T5N-R66W	Slot #6 SEGL #7-24 (05-123-23840) PA	SEGL 7-24	SEGL 7-24 AWB	SEGL 7-24 AWP	Drilling	17892.27	4688.83	17892.27	17892.27	34.02	17892.27	PASS
Blackburn Offsets	(WASS 1) (05-123-10976)	WASS 1	WASS 1	OWB\OWB	Abandoned	14778.58	4303.17	14778.58	15553.56	34.78	15553.56	PASS
Blackburn Offsets	(CURTIS 37-25) (05-123-31136)	CURTIS 37-25	CURTIS 37-25	OWB\OWB	Abandoned	12937.23	3564.29	12937.23	13539.12	34.88	13539.12	PASS
SEC.24-T5N-R66W	SLOT#16 S.E.G.L. #1 (05-123-11776) PA	S.E.G.L. #1	S.E.G.L. #1 AWB	S.E.G.L. #1 AWP	Abandoned	17892.27	3762.92	17892.27	17892.27	35.41	17892.27	PASS
Blackburn Offsets	(ISHIGURO 24-36) (05-123-28119)	ISHIGURO 24-36	ISHIGURO 24-36	OWB\OWB	Abandoned	10286.16	3682.51	10286.16	10725.00	39.23	10725.00	PASS



# Closest Approach Clearance Summary Report

## CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets	(CAVANAGH 36-10H6) (05-123-18232)	CAVANAGH 36-10H6	CAVANAGH 36-10H6	OWB\OWB	Abandoned	301.40	1880.96	9525.00	9881.05	39.63	9881.05	PASS
SEC.24-T5N-R66W	SLOT#17 S.E.G.L. #2 (05-123-12475) PA	S.E.G.L. #2	S.E.G.L. #2 AWB	S.E.G.L. #2 AWP	Abandoned	17892.27	3261.44	17892.27	17892.27	39.69	17892.27	PASS
SEC.24-T5N-R66W	Slot #8 SEGL #21-24X (05-123-23843) PA	SEGL 21-24X	SEGL 21-24X ST AWB	SEGL 21-24X ST AWP	Drilling	17892.27	4932.29	17892.27	17892.27	40.06	17892.27	PASS
SEC.24-T5N-R66W	Slot #8 SEGL #21-24X (05-123-23843) PA	SEGL 21-24X	SEGL 21-24X AWB	SEGL 21-24X AWP	Drilling	17892.27	4838.03	17892.27	17892.27	40.46	17892.27	PASS
SEC.24-T5N-R66W	Slot #9 SEGL #17-24 (05-123-23839) PA	SEGL 17-24	SEGL 17-24 AWB	SEGL 17-24 AWP	Drilling	17892.27	5455.90	17892.27	17892.27	40.87	17892.27	PASS
Blackburn Offsets	(ISHIGURO 30-31) (05-123-28189)	ISHIGURO 30-31	ISHIGURO 30-31	OWB\OWB	Producing / injecting	313.18	4200.13	12725.00	14191.49	42.92	14191.49	PASS
Blackburn Offsets	(JOHNSON X1 1-1-06) (05-123-26716)	JOHNSON X1 1-1-06	JOHNSON X1 1-1-06	OWB\OWB	Producing / injecting	1678.32	4942.95	1678.32	7265.74	43.16	7265.74	PASS
Blackburn Offsets	(GEMINI K1-12) (05-123-15197)	GEMINI K1-12	GEMINI K1-12	OWB\OWB	Suspended	6691.83	2716.51	6691.83	6825.00	43.37	6825.00	PASS
Blackburn Offsets	(GEMINI K1-11) (05-123-15177)	GEMINI K1-11	GEMINI K1-11	OWB\OWB	Suspended	6640.95	2788.87	6640.95	6825.00	44.02	6825.00	PASS
Blackburn Offsets	(COMMONS Z2 2-2-06) (05-123-26712)	COMMONS Z2 2-2-06	COMMONS Z2 2-2-06	OWB\OWB	Producing / injecting	1078.01	5246.46	1078.01	6694.64	44.44	7125.00	PASS
Blackburn Offsets	(ISHIGURO 3) (05-123-12891)	ISHIGURO 3	ISHIGURO 3	OWB\OWB	Abandoned	12173.97	4213.74	12173.97	13109.67	44.68	13109.67	PASS
SEC.24-T5N-R66W	Slot #2 SEGL #18-24 (05-123-23051) SI	SEGL 18-24	SEGL 18-24 (AWB)	SEGL 18-24 (AWP#1)	Other	17892.27	4268.19	17892.27	17892.27	45.82	17892.27	PASS
Blackburn Offsets	(HAMBLLEN 1-30) (05-123-13151) - Could not confirm gyro from ECMC	HAMBLLEN 1-30	HAMBLLEN 1-30	OWB\OWB	Abandoned	15941.27	6676.68	15941.27	17777.08	46.34	17777.08	PASS
	Slot #5 SEGL #2-24 (05-123-23841) PA	SEGL 2-24	SEGL 2-24 AWB	SEGL 2-24 AWP	Drilling	17892.27	5730.35	17892.27	17892.27	48.28	17892.27	PASS

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.24-T5N-R66W												
Blackburn Offsets	(REEVE, FRED A 1-1) (05-123-11780)	REEVE, FRED A 1-1	REEVE, FRED A 1-1	OWB\OWB	Abandoned	406.39	2356.77	406.39	6725.00	48.66	6725.00	PASS
SEC.24-T5N-R66W	Slot #1 SEGL #3-24 (05-123-20620) PA	SEGL 3-24	SEGL 3-24 (AWB)	SEGL 3-24 (AWP#1)	Other	17892.27	5173.41	17892.27	17892.27	49.56	17892.27	PASS
SEC.24-T5N-R66W	Slot #3 SEGL #4-24 (05-123-23050) SI	SEGL 4-24	SEGL 4-24 (AWB)	SEGL 4-24 (AWP#1)	Other	17892.27	4951.13	17892.27	17892.27	51.57	17892.27	PASS
Blackburn Offsets	(ISHIGURO 6) (05-123-12893)	ISHIGURO 6	ISHIGURO 6	OWB\OWB	Abandoned	308.52	3984.40	10925.00	12043.49	52.54	12043.49	PASS
Blackburn Offsets	(CITY OF GREELEY 1-30) (05-123-13152) - Could not confirm gyro from ECMC	CITY OF GREELEY 1-30	CITY OF GREELEY 1-30	OWB\OWB	Abandoned	14410.84	7075.94	14410.84	16764.92	55.36	16764.92	PASS
Blackburn Offsets	(SYLVESTER F 31-32D) (05-123-33215)	SYLVESTER F 31-32D	SYLVESTER F 31-32D	OWB\OWB	Producing / injecting	141.60	4224.97	10144.69	11374.96	55.72	11374.96	PASS
Blackburn Offsets	(ISHIGURO 4) (05-123-12924)	ISHIGURO 4	ISHIGURO 4	OWB\OWB	Abandoned	12225.31	5612.04	12225.31	14015.69	57.08	14015.69	PASS
Blackburn Offsets	(SYLVESTER G 06-30D) (05-123-33120)	SYLVESTER G 06-30D	SYLVESTER G 06-30D	OWB\OWB	Producing / injecting	325.00	2372.69	325.00	405.25	57.67	7325.00	PASS
Blackburn Offsets	(SYLVESTER 1-116) (05-123-18157)	SYLVESTER 1-116	SYLVESTER 1-116	OWB\OWB	Abandoned	319.00	2379.96	319.00	458.01	57.84	7525.00	PASS
Blackburn Offsets	(CITY OF GREELEY 2-30) (05-123-13160) - Could not confirm gyro from ECMC	CITY OF GREELEY 2-30	CITY OF GREELEY 2-30	OWB\OWB	Abandoned	13570.81	6808.91	13570.81	15912.69	58.13	15912.69	PASS
Blackburn Offsets	(SYLVESTER 31-5H5) (05-123-18189) - Could not verify surveys	SYLVESTER 31-5H5	SYLVESTER 31-5H5	OWB\OWB	Abandoned	10840.15	5611.58	10840.15	12862.96	58.76	12862.96	PASS



# Closest Approach Clearance Summary Report

CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets	(SANDAU X4 3-1-06) (05-123-26717)	SANDAU X4 3-1-06	SANDAU X4 3-1-06	OWB\OWB	Abandoned	682.37	5241.66	682.37	7150.17	60.13	7150.17	PASS
Blackburn Offsets	(EVANS INDUSTRIAL PARK 2) (05-123-16656)	EVANS INDUSTRIAL PARK 2	EVANS INDUSTRIAL PARK 2	OWB\OWB\	Abandoned	14813.17	8386.31	14813.17	17892.27	60.85	17892.27	PASS
Blackburn Offsets	(GEMINI K 1-10) (05-123-13869)	GEMINI K 1-10	GEMINI K 1-10	OWB\OWB	Abandoned	2796.88	3826.94	2796.88	6799.48	64.28	6799.48	PASS
Blackburn Offsets	(GEMINI K 1-13) (05-123-17669)	GEMINI K 1-13	GEMINI K 1-13	OWB\OWB	Abandoned	6725.00	4262.59	6725.00	6964.62	64.87	6964.62	PASS
Blackburn Offsets	(EVANS INDUSTRIAL PARK 1) (05-123-16337) - Could not confirm gyro from ECMC	EVANS INDUSTRIAL PARK 1	EVANS INDUSTRIAL PARK 1	OWB\OWB	Abandoned	13663.07	8256.00	13663.07	17061.34	66.40	17061.34	PASS
Blackburn Offsets	(BRANTNER 30-9) (05-123-13310)	BRANTNER 30-9	BRANTNER 30-9	OWB\OWB	Abandoned	14725.52	9437.59	14725.52	17892.27	66.71	17892.27	PASS
Blackburn Offsets	(GP-DAIRY 1-20-19) (05-123-40328)	GP-DAIRY 1-20-19	GP-DAIRY 1-20-19	OWB\OWB	Producing / injecting	17892.27	12314.24	17892.27	17892.27	67.99	17892.27	PASS
Blackburn Offsets	(SYLVESTER F 31-20D) (05-123-33217)	SYLVESTER F 31-20D	SYLVESTER F 31-20D	OWB\OWB	Abandoned	156.98	4248.11	10325.00	12683.82	68.76	12683.82	PASS
Blackburn Offsets	(DOVE HILL Z1 2-6-31) (05-123-26713)	DOVE HILL Z1 2-6-31	DOVE HILL Z1 2-6-31	OWB\OWB	Producing / injecting	25.00	5564.24	8925.00	10925.00	70.19	10925.00	PASS
Blackburn Offsets	(ELLIS Y1 5-1-06) (05-123-25901)	ELLIS Y1 5-1-06	ELLIS Y1 5-1-06	OWB\OWB	Abandoned	25.00	5578.38	25.00	7127.39	70.49	17225.00	PASS
Blackburn Offsets	(CONNELL X3 3-7-31) (05-123-26715)	CONNELL X3 3-7-31	CONNELL X3 3-7-31	CONNELL X3 3-7-31	Abandoned	322.87	5271.52	322.87	7774.66	70.80	17425.00	PASS
Blackburn Offsets	(UNION PACIFIC 1-1) (05-123-14011)	UNION PACIFIC 1-1	UNION PACIFIC 1-1	OWB\OWB	Abandoned	25.00	3210.78	25.00	6865.21	72.09	6865.21	PASS
Blackburn Offsets	(BRANTNER 30-16) (05-123-13282)	BRANTNER 30-16	BRANTNER 30-16	OWB\OWB	Abandoned	13735.61	9617.58	13735.61	17892.27	73.11	17892.27	PASS
				OWB\OWB		4765.09	6586.01	4765.09	6817.04	73.18	6817.04	PASS

<b>OFFSET WELL CLEARANCE SUMMARY</b> (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane													
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio				
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status	
Blackburn Offsets	(SHAMROCK FEDERAL PC G 07-30D) (05-123-34885)	SHAMROCK FEDERAL PC G 07-30D	SHAMROCK FEDERAL PC G 07-30D		Producing / injecting								
Blackburn Offsets	(SYLVESTER F 31-33) (05-123-33216)	SYLVESTER F 31-33	SYLVESTER F 31-33	OWB\OWB	Producing / injecting	326.00	3402.95	9025.00	10825.00	75.77	10825.00	PASS	
Blackburn Offsets	(COLE X6 4-8-31) (05-123-31836)	COLE X6 4-8-31	COLE X6 4-8-31	OWB\OWB	Abandoned	204.41	5317.89	204.41	6677.15	76.12	17871.66	PASS	
Blackburn Offsets	(HAYS 31-2H5) (05-123-18211)	HAYS 31-2H5	HAYS 31-2H5	OWB\OWB	Abandoned	25.00	7559.92	11825.00	15846.29	77.61	15846.29	PASS	
Blackburn Offsets	(GEMINI K FEDERAL 1-15) (05-123-13871)	GEMINI K FEDERAL 1-15	GEMINI K FEDERAL 1-15	OWB\OWB	Abandoned	4326.48	4843.74	4326.48	6839.78	77.95	6839.78	PASS	
Blackburn Offsets	(GEMINI K1-9) (05-123-13879)	GEMINI K1-9	GEMINI K1-9	OWB\OWB	Abandoned	183.30	4352.27	325.00	6845.47	79.18	6845.47	PASS	
Blackburn Offsets	(VALLEY PACK X5 3-5-31) (05-123-26714)	VALLEY PACK X5 3-5-31	VALLEY PACK X5 3-5-31	OWB\OWB	Abandoned	300.74	5302.25	9625.00	12503.63	79.80	12503.63	PASS	
Blackburn Offsets	(RE-1 X7 4-6-31) (05-123-31863)	RE-1 X7 4-6-31	RE-1 X7 4-6-31	OWB\OWB	Abandoned	25.00	5336.39	8925.00	11374.96	82.12	17225.00	PASS	
Blackburn Offsets	(STEWARTS Z4 6-2-06) (05-123-26711) - Need actual survey data	STEWARTS Z4 6-2-06	STEWARTS Z4 6-2-06	OWB\OWB	Abandoned	25.00	5594.09	25.00	6681.59	82.26	17125.00	PASS	
Blackburn Offsets	(HAYS 31-1H5) (05-123-11327)	HAYS 31-1H5	HAYS 31-1H5	OWB\OWB	Abandoned	25.00	8795.82	12225.00	17211.86	82.67	17211.86	PASS	
Blackburn Offsets	(SYLVESTER 1) (05-123-12010)	SYLVESTER 1	SYLVESTER 1	OWB\OWB	Abandoned	310.03	3687.79	310.03	10325.00	85.94	10325.00	PASS	
Blackburn Offsets	(LASALLE PARK Y5 5-5-31) (05-123-25898)	LASALLE PARK Y5 5-5-31	LASALLE PARK Y5 5-5-31	OWB\OWB	Producing / injecting	425.00	5620.26	9525.00	12225.00	91.78	15625.00	PASS	



# Closest Approach Clearance Summary Report

CAPITOL 02N (REV-F.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	CAPITOL 02N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.36-T05N-R66W	Wellbore	CAPITOL 02N PWB
Slot	SLOT#02 CAPITOL 02N (296'FSL & 2323'FWL,SEC.36)		

CALCULATION RANGE & CUTOFF		
From: 25.00ft MD	To: 17892.27ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane													
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio				
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status	
Blackburn Offsets	(HAYS FEDERAL 31-8H5)(05-123-18213)	HAYS FEDERAL 31-8H5	HAYS FEDERAL 31-8H5	OWB\OWB	Abandoned	325.25	8021.00	10825.00	16319.44	92.51	16319.44	PASS	
Blackburn Offsets	(MAIN Y3 6-8-31) (05-123-31835)	MAIN Y3 6-8-31	MAIN Y3 6-8-31	OWB\OWB	Suspended	310.08	5849.11	8825.00	6799.91	92.91	16825.00	PASS	
Blackburn Offsets	(DABCO 1) (05-123-10955)	DABCO 1	DABCO 1	OWB\OWB	Abandoned	325.38	4357.94	325.38	6925.00	93.18	6925.00	PASS	
Blackburn Offsets	(DABCO 2) (05-123-11528)	DABCO 2	DABCO 2	OWB\OWB	Abandoned	25.00	5452.85	300.00	7125.00	96.05	7125.00	PASS	
Blackburn Offsets	(HUMAN BEAN Y2 5-7-31) (05-123-25900)	HUMAN BEAN Y2 5-7-31	HUMAN BEAN Y2 5-7-31	OWB\OWB	Abandoned	325.00	5641.17	9025.00	6908.72	96.18	15825.00	PASS	
Blackburn Offsets	(H&S 1) (05-123-11529)	H&S 1	H&S 1	OWB\OWB	Abandoned	100.01	5103.14	100.01	6925.00	97.58	7225.00	PASS	
Blackburn Offsets	(SHAMROCK FEDERAL G 07-29D) (05-123-34884)	SHAMROCK FEDERAL G 07-29D	SHAMROCK FEDERAL G 07-29D	OWB\OWB	Producing / injecting	360.68	6948.08	360.68	6977.03	99.01	6977.03	PASS	
Blackburn Offsets	(FARMERS Y7 6-6-31) (05-123-25896)	FARMERS Y7 6-6-31	FARMERS Y7 6-6-31	OWB\OWB	Abandoned	301.15	5881.01	9725.00	7774.84	99.01	16725.00	PASS	
Blackburn Offsets	(GOODNER Y4 7-1-06) (05-123-25899)	GOODNER Y4 7-1-06	GOODNER Y4 7-1-06	OWB\OWB	Abandoned	25.00	5610.75	8825.00	6825.00	100.89	17125.00	PASS	
Blackburn Offsets	(MCCOUTCHEONS Y8 7-5-31) (05-123-25895)	MCCOUTCHEONS Y8 7-5-31	MCCOUTCHEONS Y8 7-5-31	OWB\OWB	Abandoned	270.21	5893.52	10144.69	16776.54	102.46	16776.54	PASS	
Blackburn Offsets	(BALLFIELD Y6 7-7-31) (05-123-25897)	BALLFIELD Y6 7-7-31	BALLFIELD Y6 7-7-31	OWB\OWB	Abandoned	365.62	5858.72	9425.00	17370.80	104.12	17370.80	PASS	
Blackburn Offsets	(AMBER FEDERAL G06-21D) (05-123-34902)	AMBER FEDERAL G06-21D	AMBER FEDERAL G06-21D	OWB\OWB	Suspended	3533.05	7313.74	3533.05	6825.00	105.43	6825.00	PASS	
Blackburn Offsets	(GOODNER G FEDERAL 6-11) (05-123-12314)	GOODNER G FEDERAL 6-11	GOODNER G FEDERAL 6-11	OWB\OWB	Producing / injecting	325.00	6147.25	325.00	7025.00	118.60	7025.00	PASS	
	(CURTIS G 6-8) (05-123-21981)	CURTIS G 6-8	CURTIS G 6-8	OWB\OWB	Abandoned	305.66	6964.17	305.66	11374.95	120.34	12525.00	PASS	

**OFFSET WELL CLEARANCE SUMMARY** (171 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Blackburn Offsets												
Blackburn Offsets	(AMBER FEDERAL G06-22D) (05-123-34904)	AMBER FEDERAL G06-22D	AMBER FEDERAL G06-22D	OWB\OWB	Suspended	876.07	8087.04	876.07	7125.00	120.63	7125.00	PASS
Blackburn Offsets	(MCCARTHY 1) (05-123-10630)	MCCARTHY 1	MCCARTHY 1	OWB\OWB	Abandoned	352.79	6982.43	352.79	7009.83	126.54	7009.83	PASS
Blackburn Offsets	(AMBER G 05-32D) (05-123-34903)	AMBER G 05-32D	AMBER G 05-32D	OWB\OWB	Suspended	25.00	8171.21	25.00	11374.96	126.62	11825.00	PASS
Blackburn Offsets	(CURTIS G 6-7) (05-123-19429)	CURTIS G 6-7	CURTIS G 6-7	OWB\OWB	Suspended	319.42	6815.05	319.42	7773.86	134.51	7773.86	PASS
Blackburn Offsets	(DEVOTIE #1-6) (05-123-11773)	DEVOTIE #1-6	DEVOTIE #1-6	OWB\OWB	Abandoned	319.23	7291.46	319.23	7089.82	140.21	7089.82	PASS
Blackburn Offsets	(DEVOTIE 2-6) (05-123-14919)	DEVOTIE 2-6	DEVOTIE 2-6	OWB\OWB	Abandoned	300.90	8002.20	300.90	7015.79	142.40	7015.79	PASS
Blackburn Offsets	(MERCURE 6-1) (05-123-13626)	MERCURE 6-1	MERCURE 6-1	OWB\OWB	Abandoned	305.94	9097.63	305.94	7025.00	165.11	13025.00	PASS