

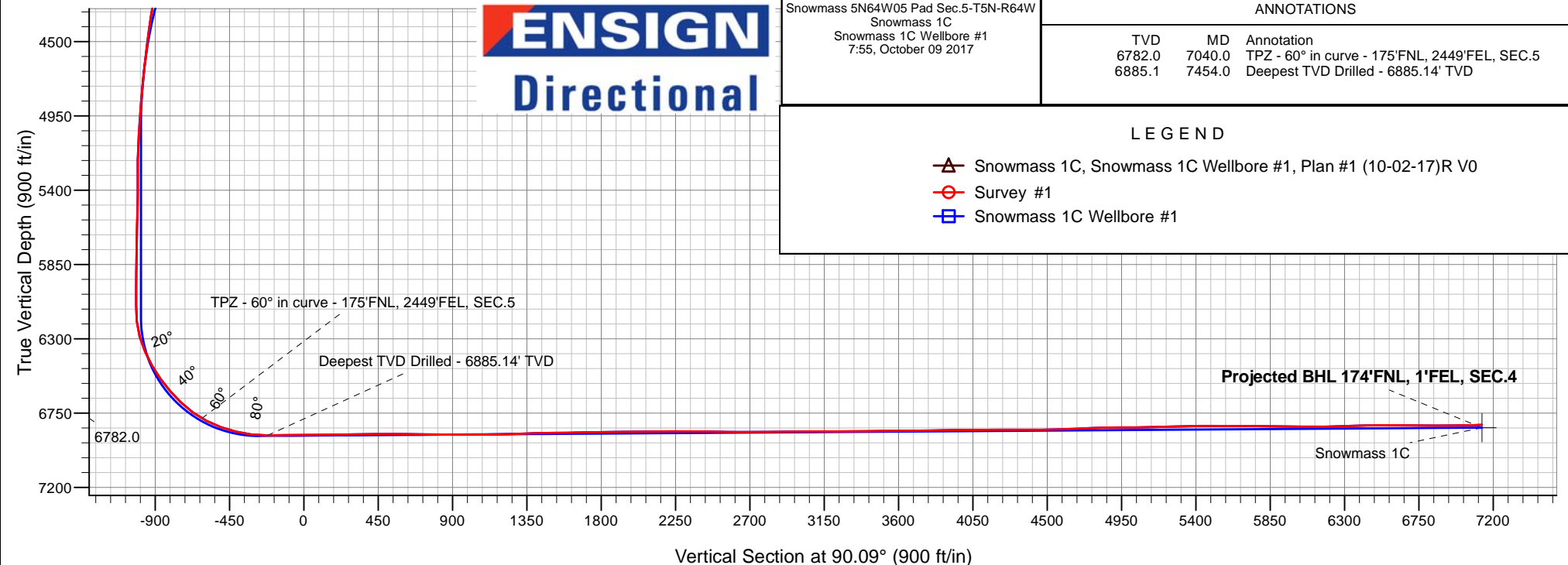
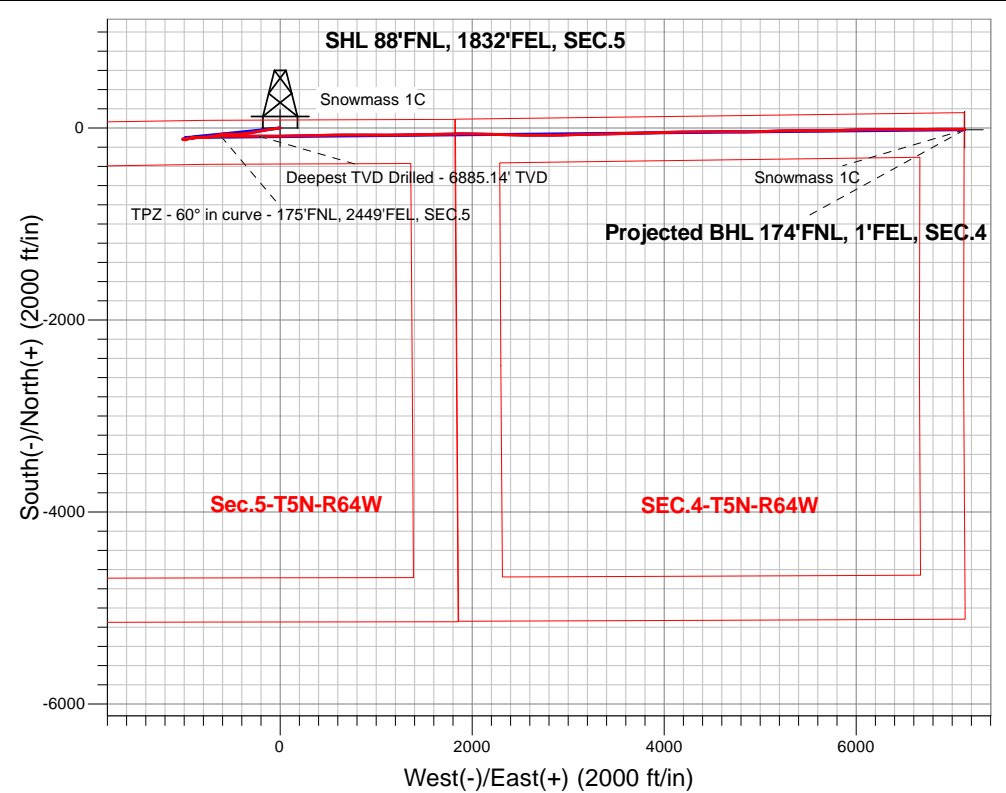
PDC Energy Inc. DJ Basin

Well Name: **Snowmass 1C**

Surface Location: Snowmass 5N64W05 Pad Sec.5-T5N-R64W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4634.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1402678.943258495.78 40.435040 -104.571366
 Ensign Rig #152 - RKB - 23'WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')

FINAL SURVEY

Projected Bottom Hole Location
14,808'MD 6822'TVD 12'S & 7131'E of SHL
91.2 degree Incl @ 89.5 degree AZM





PDC Energy Inc. DJ Basin

SEC.5-T5N-R64W

Snowmass 5N64W05 Pad Sec.5-T5N-R64W

Snowmass 1C

Snowmass 1C Wellbore #1

Survey: Survey #1

Standard Survey Report

09 October, 2017

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Snowmass 1C
Project:	SEC.5-T5N-R64W	TVD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Site:	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	MD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Well:	Snowmass 1C	North Reference:	True
Wellbore:	Snowmass 1C Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Snowmass 1C Wellbore #1	Database:	US_EDM

Project	SEC.5-T5N-R64W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Snowmass 5N64W05 Pad Sec.5-T5N-R64W				
Site Position:		Northing:	1,402,678.95 usft	Latitude:	40.435040
From:	Lat/Long	Easting:	3,258,495.78 usft	Longitude:	-104.571366
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.60 °

Well	Snowmass 1C					
Well Position	+N/-S	0.0 ft	Northing:	1,402,678.94 usft	Latitude:	40.435040
	+E/-W	0.0 ft	Easting:	3,258,495.78 usft	Longitude:	-104.571366
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,634.0 ft

Wellbore	Snowmass 1C Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/2/2017	7.91	66.89	52,507

Design	Snowmass 1C Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	90.09	

Survey Program	Date	10/9/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
159.0	14,808.0	Survey #1 (Snowmass 1C Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	34.50	1.0	0.0	0.0	0.0	0.25	0.25	0.00	
SHL 88'FNL, 1832'FEL, SEC.5										
159.0	0.40	34.50	159.0	0.5	0.3	0.3	0.25	0.25	0.00	
257.0	1.60	261.60	257.0	0.5	-0.8	-0.8	1.93	1.22	-135.61	
350.0	3.60	265.80	349.9	0.1	-5.0	-5.0	2.16	2.15	4.52	
445.0	4.60	263.70	444.6	-0.5	-11.8	-11.8	1.06	1.05	-2.21	
540.0	10.60	261.10	538.8	-2.3	-24.2	-24.2	6.32	6.32	-2.74	
634.0	10.60	260.70	631.2	-5.0	-41.3	-41.3	0.08	0.00	-0.43	
730.0	14.00	262.00	724.9	-8.1	-61.5	-61.5	3.55	3.54	1.35	
825.0	14.50	261.80	817.0	-11.3	-84.7	-84.7	0.53	0.53	-0.21	

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Project:	SEC.5-T5N-R64W	TVD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Site:	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	MD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Well:	Snowmass 1C	North Reference:	True
Wellbore:	Snowmass 1C Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Snowmass 1C Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
921.0	14.20	261.40	910.0	-14.8	-108.2	-108.2	0.33	-0.31	-0.42
1,016.0	14.40	259.80	1,002.1	-18.7	-131.4	-131.3	0.47	0.21	-1.68
1,112.0	14.00	259.50	1,095.1	-22.9	-154.5	-154.5	0.42	-0.42	-0.31
1,207.0	14.70	261.30	1,187.2	-26.8	-177.7	-177.7	0.87	0.74	1.89
1,302.0	14.40	260.40	1,279.1	-30.6	-201.3	-201.3	0.40	-0.32	-0.95
1,397.0	14.50	261.60	1,371.1	-34.3	-224.7	-224.7	0.33	0.11	1.26
1,493.0	13.60	260.40	1,464.3	-37.9	-247.7	-247.7	0.99	-0.94	-1.25
1,589.0	12.20	257.60	1,557.8	-42.0	-268.8	-268.7	1.60	-1.46	-2.92
1,684.0	11.10	254.40	1,650.9	-46.6	-287.4	-287.3	1.34	-1.16	-3.37
1,780.0	11.50	260.00	1,745.0	-50.8	-305.7	-305.6	1.22	0.42	5.83
1,876.0	12.90	265.40	1,838.9	-53.3	-325.8	-325.7	1.88	1.46	5.63
1,971.0	15.10	266.10	1,931.0	-55.0	-348.7	-348.6	2.32	2.32	0.74
2,067.0	14.80	264.40	2,023.8	-57.0	-373.4	-373.3	0.55	-0.31	-1.77
2,162.0	13.60	260.70	2,115.9	-60.0	-396.5	-396.4	1.58	-1.26	-3.89
2,258.0	14.30	266.80	2,209.0	-62.5	-419.5	-419.4	1.70	0.73	6.35
2,354.0	12.80	265.30	2,302.4	-64.0	-441.9	-441.8	1.60	-1.56	-1.56
2,450.0	14.90	270.70	2,395.6	-64.8	-464.9	-464.8	2.57	2.19	5.63
2,545.0	13.10	271.10	2,487.8	-64.4	-487.9	-487.7	1.90	-1.89	0.42
2,641.0	15.60	272.30	2,580.8	-63.7	-511.6	-511.5	2.62	2.60	1.25
2,736.0	14.90	271.60	2,672.4	-62.8	-536.6	-536.5	0.76	-0.74	-0.74
2,831.0	14.80	270.40	2,764.2	-62.4	-560.9	-560.8	0.34	-0.11	-1.26
2,927.0	13.50	266.00	2,857.3	-63.1	-584.4	-584.3	1.76	-1.35	-4.58
3,023.0	14.50	261.60	2,950.5	-65.6	-607.5	-607.3	1.52	1.04	-4.58
3,119.0	15.30	260.70	3,043.2	-69.4	-631.8	-631.7	0.87	0.83	-0.94
3,214.0	14.20	257.70	3,135.1	-73.9	-655.6	-655.5	1.41	-1.16	-3.16
3,310.0	13.20	251.50	3,228.4	-79.9	-677.5	-677.4	1.85	-1.04	-6.46
3,406.0	12.20	253.10	3,322.0	-86.3	-697.6	-697.5	1.10	-1.04	1.67
3,502.0	12.30	254.90	3,415.8	-92.0	-717.2	-717.0	0.41	0.10	1.88
3,597.0	11.30	261.40	3,508.8	-96.0	-736.2	-736.0	1.75	-1.05	6.84
3,693.0	12.90	266.30	3,602.7	-98.1	-756.1	-756.0	1.98	1.67	5.10
3,789.0	14.60	270.90	3,696.0	-98.6	-778.9	-778.8	2.10	1.77	4.79
3,884.0	14.90	270.90	3,787.8	-98.2	-803.1	-803.0	0.32	0.32	0.00
3,980.0	14.90	270.20	3,880.6	-98.0	-827.8	-827.6	0.19	0.00	-0.73
4,076.0	13.70	269.50	3,973.6	-98.0	-851.5	-851.4	1.26	-1.25	-0.73
4,171.0	12.20	267.70	4,066.2	-98.5	-872.8	-872.6	1.63	-1.58	-1.89
4,267.0	12.20	264.40	4,160.0	-99.9	-893.0	-892.9	0.73	0.00	-3.44
4,362.0	9.70	261.40	4,253.3	-102.1	-910.9	-910.8	2.70	-2.63	-3.16
4,458.0	8.90	259.60	4,348.0	-104.7	-926.2	-926.1	0.89	-0.83	-1.88
4,554.0	8.00	256.30	4,443.0	-107.6	-940.0	-939.9	1.06	-0.94	-3.44
4,650.0	7.10	252.10	4,538.2	-111.0	-952.2	-952.0	1.10	-0.94	-4.38
4,746.0	6.30	248.20	4,633.5	-114.8	-962.7	-962.5	0.96	-0.83	-4.06
4,842.0	6.20	249.30	4,728.9	-118.6	-972.4	-972.3	0.16	-0.10	1.15
4,938.0	5.20	264.90	4,824.5	-120.8	-981.6	-981.4	1.91	-1.04	16.25

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Site:	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	MD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Well:	Snowmass 1C	North Reference:	True
Wellbore:	Snowmass 1C Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Snowmass 1C Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,033.0	4.60	262.10	4,919.1	-121.7	-989.7	-989.5	0.68	-0.63	-2.95
5,128.0	3.30	289.20	5,013.9	-121.3	-996.0	-995.8	2.36	-1.37	28.53
5,255.0	3.30	289.20	5,140.7	-118.9	-1,003.0	-1,002.8	0.00	0.00	0.00
5,351.0	0.50	1.20	5,236.6	-117.6	-1,005.6	-1,005.4	3.31	-2.92	75.00
5,447.0	1.00	1.90	5,332.6	-116.3	-1,005.5	-1,005.3	0.52	0.52	0.73
5,542.0	0.70	318.30	5,427.6	-115.1	-1,005.9	-1,005.7	0.73	-0.32	-45.89
5,638.0	1.50	295.70	5,523.6	-114.1	-1,007.4	-1,007.2	0.93	0.83	-23.54
5,733.0	1.20	277.70	5,618.6	-113.4	-1,009.5	-1,009.3	0.54	-0.32	-18.95
5,829.0	1.40	241.50	5,714.5	-113.8	-1,011.5	-1,011.3	0.86	0.21	-37.71
5,925.0	1.10	241.50	5,810.5	-114.8	-1,013.4	-1,013.2	0.31	-0.31	0.00
6,021.0	1.10	229.70	5,906.5	-115.9	-1,014.9	-1,014.7	0.24	0.00	-12.29
6,117.0	0.80	187.00	6,002.5	-117.1	-1,015.7	-1,015.5	0.78	-0.31	-44.48
6,211.0	0.60	177.70	6,096.5	-118.3	-1,015.7	-1,015.5	0.24	-0.21	-9.89
6,307.0	4.90	78.60	6,192.4	-118.0	-1,011.7	-1,011.5	5.24	4.48	-103.23
6,402.0	16.20	76.80	6,285.6	-114.1	-994.8	-994.6	11.90	11.89	-1.89
6,498.0	23.60	83.10	6,375.8	-108.7	-962.6	-962.4	8.01	7.71	6.56
6,594.0	29.40	85.30	6,461.7	-104.5	-920.0	-919.8	6.13	6.04	2.29
6,690.0	35.90	86.10	6,542.5	-100.6	-868.4	-868.2	6.79	6.77	0.83
6,785.0	40.90	84.70	6,616.9	-95.9	-809.6	-809.4	5.34	5.26	-1.47
6,881.0	46.20	85.40	6,686.5	-90.2	-743.7	-743.6	5.54	5.52	0.73
6,977.0	54.30	89.50	6,747.8	-87.1	-670.0	-669.9	9.05	8.44	4.27
7,040.0	60.00	90.18	6,782.0	-86.9	-617.1	-617.0	9.10	9.05	1.08
TPZ - 60° in curve - 175°FNL, 2449°FEL, SEC.5									
7,072.0	62.90	90.50	6,797.3	-87.1	-589.0	-588.9	9.10	9.06	0.99
7,168.0	70.10	90.00	6,835.5	-87.5	-501.1	-500.9	7.52	7.50	-0.52
7,263.0	76.20	89.10	6,863.1	-86.7	-410.2	-410.0	6.48	6.42	-0.95
7,358.0	83.20	89.60	6,880.0	-85.7	-316.8	-316.6	7.39	7.37	0.53
7,409.6	87.23	89.92	6,884.3	-85.5	-265.4	-265.2	7.84	7.81	0.63
LPL 180°FNL, 2098°FEL, SEC.5									
7,454.0	90.70	90.20	6,885.1	-85.5	-221.0	-220.8	7.84	7.81	0.62
Deepest TVD Drilled - 6885.14' TVD									
7,550.0	90.80	89.80	6,883.9	-85.5	-125.0	-124.9	0.43	0.10	-0.42
7,645.0	90.50	89.50	6,882.8	-84.9	-30.0	-29.9	0.45	-0.32	-0.32
7,740.0	90.70	89.10	6,881.8	-83.8	65.0	65.1	0.47	0.21	-0.42
7,836.0	90.60	89.10	6,880.7	-82.3	161.0	161.1	0.10	-0.10	0.00
7,931.0	90.80	88.80	6,879.6	-80.5	255.9	256.1	0.38	0.21	-0.32
8,026.0	90.80	89.10	6,878.2	-78.8	350.9	351.0	0.32	0.00	0.32
8,122.0	90.90	88.10	6,876.8	-76.4	446.9	447.0	1.05	0.10	-1.04
8,218.0	89.40	89.60	6,876.6	-74.5	542.9	543.0	2.21	-1.56	1.56
8,314.0	89.50	89.10	6,877.5	-73.4	638.8	639.0	0.53	0.10	-0.52
8,410.0	89.00	88.90	6,878.7	-71.8	734.8	734.9	0.56	-0.52	-0.21
8,505.0	89.60	90.90	6,879.9	-71.6	829.8	829.9	2.20	0.63	2.11
8,601.0	89.70	90.20	6,880.5	-72.5	925.8	925.9	0.74	0.10	-0.73
8,697.0	89.60	90.00	6,881.1	-72.7	1,021.8	1,021.9	0.23	-0.10	-0.21

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Design:	Snowmass 1C Wellbore #1	Database:	US_EDM

Survey									
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8,793.0	91.40	89.80	6,880.2	-72.5	1,117.8	1,117.9	1.89	1.88	-0.21
8,889.0	91.60	90.40	6,877.7	-72.7	1,213.8	1,213.9	0.66	0.21	0.63
8,984.0	92.10	89.50	6,874.7	-72.6	1,308.7	1,308.8	1.08	0.53	-0.95
9,080.0	91.60	89.10	6,871.6	-71.4	1,404.6	1,404.8	0.67	-0.52	-0.42
9,176.0	90.60	88.40	6,869.7	-69.3	1,500.6	1,500.7	1.27	-1.04	-0.73
9,271.0	90.70	88.40	6,868.6	-66.7	1,595.6	1,595.7	0.11	0.11	0.00
9,367.0	90.90	88.10	6,867.3	-63.7	1,691.5	1,691.6	0.38	0.21	-0.31
9,463.0	91.10	89.80	6,865.6	-62.0	1,787.5	1,787.6	1.78	0.21	1.77
9,559.0	90.70	89.30	6,864.1	-61.2	1,883.5	1,883.6	0.67	-0.42	-0.52
9,655.0	91.00	90.50	6,862.7	-61.1	1,979.4	1,979.5	1.29	0.31	1.25
9,751.0	90.20	91.60	6,861.7	-62.8	2,075.4	2,075.5	1.42	-0.83	1.15
9,847.0	90.60	91.60	6,861.0	-65.5	2,171.4	2,171.5	0.42	0.42	0.00
9,943.0	89.70	91.90	6,860.8	-68.4	2,267.3	2,267.4	0.99	-0.94	0.31
10,039.0	89.60	91.60	6,861.3	-71.4	2,363.3	2,363.4	0.33	-0.10	-0.31
10,135.0	89.30	90.90	6,862.3	-73.5	2,459.3	2,459.4	0.79	-0.31	-0.73
10,231.0	89.10	90.20	6,863.6	-74.4	2,555.2	2,555.4	0.76	-0.21	-0.73
10,326.0	89.00	90.20	6,865.2	-74.7	2,650.2	2,650.4	0.11	-0.11	0.00
10,421.0	91.40	89.80	6,864.9	-74.7	2,745.2	2,745.3	2.56	2.53	-0.42
10,517.0	90.90	89.50	6,862.9	-74.1	2,841.2	2,841.3	0.61	-0.52	-0.31
10,613.0	90.40	88.80	6,861.8	-72.7	2,937.2	2,937.3	0.90	-0.52	-0.73
10,708.0	90.00	88.20	6,861.5	-70.2	3,032.2	3,032.3	0.76	-0.42	-0.63
10,803.0	90.00	87.90	6,861.5	-67.0	3,127.1	3,127.2	0.32	0.00	-0.32
10,898.0	90.40	89.30	6,861.2	-64.7	3,222.1	3,222.2	1.53	0.42	1.47
10,994.0	90.60	89.30	6,860.3	-63.5	3,318.1	3,318.2	0.21	0.21	0.00
11,090.0	90.60	89.10	6,859.3	-62.2	3,414.0	3,414.1	0.21	0.00	-0.21
11,185.0	90.80	88.40	6,858.2	-60.1	3,509.0	3,509.1	0.77	0.21	-0.74
11,281.0	90.40	87.90	6,857.2	-57.0	3,605.0	3,605.0	0.67	-0.42	-0.52
11,377.0	90.10	87.40	6,856.7	-53.0	3,700.9	3,701.0	0.61	-0.31	-0.52
11,472.0	91.10	89.10	6,855.7	-50.1	3,795.8	3,795.9	2.08	1.05	1.79
11,567.0	91.10	89.50	6,853.9	-49.0	3,890.8	3,890.9	0.42	0.00	0.42
11,663.0	90.70	88.80	6,852.4	-47.6	3,986.8	3,986.8	0.84	-0.42	-0.73
11,759.0	90.50	87.90	6,851.4	-44.8	4,082.7	4,082.8	0.96	-0.21	-0.94
11,854.0	89.80	88.80	6,851.2	-42.1	4,177.7	4,177.7	1.20	-0.74	0.95
11,949.0	90.20	88.80	6,851.2	-40.1	4,272.7	4,272.7	0.42	0.42	0.00
12,045.0	90.00	88.60	6,851.0	-37.9	4,368.6	4,368.7	0.29	-0.21	-0.21
12,140.0	90.30	90.90	6,850.7	-37.5	4,463.6	4,463.7	2.44	0.32	2.42
12,236.0	91.50	90.70	6,849.2	-38.8	4,559.6	4,559.7	1.27	1.25	-0.21
12,332.0	93.30	90.50	6,845.2	-39.8	4,655.5	4,655.6	1.89	1.88	-0.21
12,428.0	92.00	90.00	6,840.8	-40.2	4,751.4	4,751.5	1.45	-1.35	-0.52
12,524.0	91.50	90.00	6,837.8	-40.2	4,847.4	4,847.4	0.52	-0.52	0.00
12,620.0	90.20	88.80	6,836.4	-39.2	4,943.3	4,943.4	1.84	-1.35	-1.25
12,715.0	90.00	88.20	6,836.3	-36.7	5,038.3	5,038.4	0.67	-0.21	-0.63
12,810.0	91.60	87.90	6,834.9	-33.5	5,133.2	5,133.3	1.71	1.68	-0.32

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Snowmass 1C
Project:	SEC.5-T5N-R64W	TVD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Site:	Snowmass 5N64W05 Pad Sec.5-T5N-R64W	MD Reference:	WELL @ 4657.0ft (Ensign Rig #152 - RKB - 23')
Well:	Snowmass 1C	North Reference:	True
Wellbore:	Snowmass 1C Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Snowmass 1C Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,906.0	91.40	87.40	6,832.4	-29.6	5,229.1	5,229.2	0.56	-0.21	-0.52	
13,002.0	91.40	90.40	6,830.1	-27.7	5,325.1	5,325.1	3.12	0.00	3.13	
13,097.0	91.00	90.00	6,828.1	-28.1	5,420.0	5,420.1	0.60	-0.42	-0.42	
13,193.0	89.50	90.20	6,827.7	-28.2	5,516.0	5,516.1	1.58	-1.56	0.21	
13,289.0	89.70	90.20	6,828.3	-28.6	5,612.0	5,612.1	0.21	0.21	0.00	
13,385.0	89.90	89.30	6,828.7	-28.2	5,708.0	5,708.1	0.96	0.21	-0.94	
13,480.0	89.60	88.10	6,829.1	-26.0	5,803.0	5,803.0	1.30	-0.32	-1.26	
13,576.0	89.30	88.10	6,830.0	-22.8	5,899.0	5,899.0	0.31	-0.31	0.00	
13,671.0	89.20	88.90	6,831.3	-20.3	5,993.9	5,993.9	0.85	-0.11	0.84	
13,767.0	89.00	89.10	6,832.8	-18.7	6,089.9	6,089.9	0.29	-0.21	0.21	
13,863.0	91.70	89.50	6,832.2	-17.5	6,185.9	6,185.9	2.84	2.81	0.42	
13,959.0	91.90	88.80	6,829.2	-16.1	6,281.8	6,281.8	0.76	0.21	-0.73	
14,054.0	91.30	90.40	6,826.5	-15.4	6,376.8	6,376.8	1.80	-0.63	1.68	
14,150.0	91.50	90.20	6,824.2	-15.9	6,472.7	6,472.8	0.29	0.21	-0.21	
14,246.0	90.20	89.80	6,822.7	-15.9	6,568.7	6,568.7	1.42	-1.35	-0.42	
14,341.0	89.50	89.30	6,823.0	-15.2	6,663.7	6,663.7	0.91	-0.74	-0.53	
14,436.0	88.50	89.10	6,824.6	-13.8	6,758.7	6,758.7	1.07	-1.05	-0.21	
14,532.0	90.20	89.60	6,825.7	-12.7	6,854.7	6,854.7	1.85	1.77	0.52	
14,627.0	90.70	90.20	6,825.0	-12.6	6,949.7	6,949.7	0.82	0.53	0.63	
14,722.0	91.10	89.50	6,823.5	-12.3	7,044.7	7,044.7	0.85	0.42	-0.74	
14,753.0	91.20	89.50	6,822.9	-12.1	7,075.7	7,075.7	0.32	0.32	0.00	
14,808.0	91.20	89.50	6,821.7	-11.6	7,130.6	7,130.6	0.00	0.00	0.00	
BHL 180°FNL, 0°FEL, SEC.4										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
SHL 88°FNL, 1832°FEL, - survey hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,402,678.95	3,258,495.78	40.435040	-104.571366	
BHL 180°FNL, 0°FEL, SE - survey misses target center by 17.5ft at 14808.0ft MD (6821.7 TVD, -11.6 N, 7130.6 E) - Point	0.00	0.00	6,838.0	-17.9	7,131.8	1,402,735.72	3,265,627.06	40.434988	-104.545747	

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,040.0	6,782.0	-86.9	-617.1	TPZ - 60° in curve - 175°FNL, 2449°FEL, SEC.5	
7,454.0	6,885.1	-85.5	-221.0	Deepest TVD Drilled - 6885.14' TVD	

Checked By: _____ Approved By: _____ Date: _____