

PDC Energy Inc. DJ Basin



KODAK SOUTH 15C
 Kodak South PAD
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4743.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 1408325.01 3176987.54 40.452512 -104.864023
 Ensign 769 - RKB 28' Well @ 4771.0ft (Ensign 769 - RKB 28')

Kodak South PAD
 KODAK SOUTH 15C
 Kodak South 15C Final Surveys
 11:18, September 26 2023



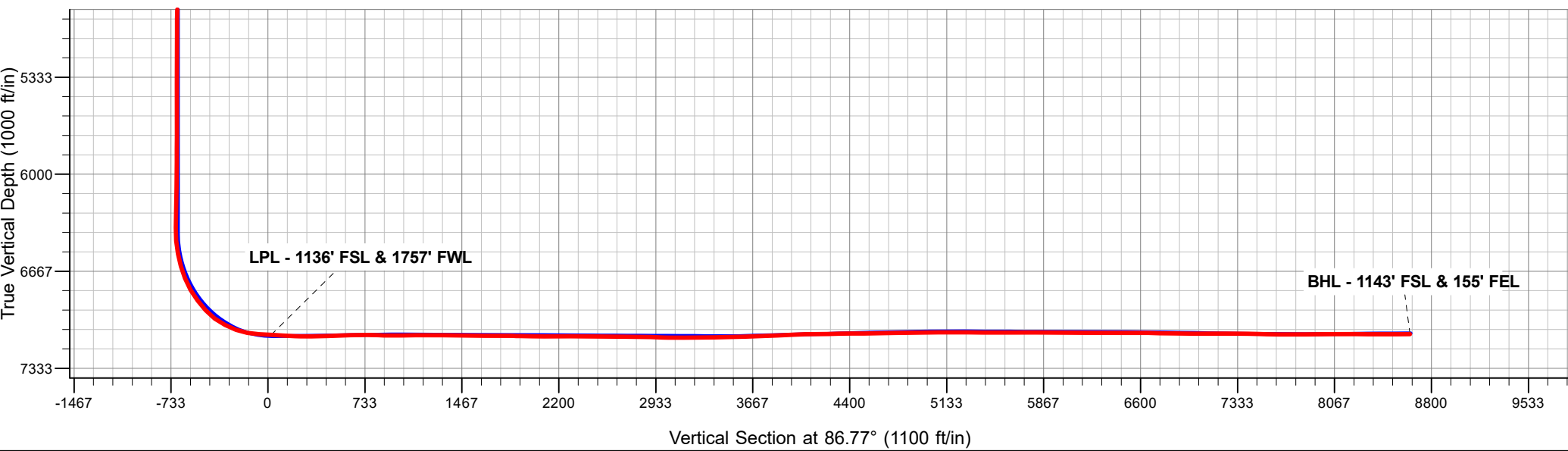
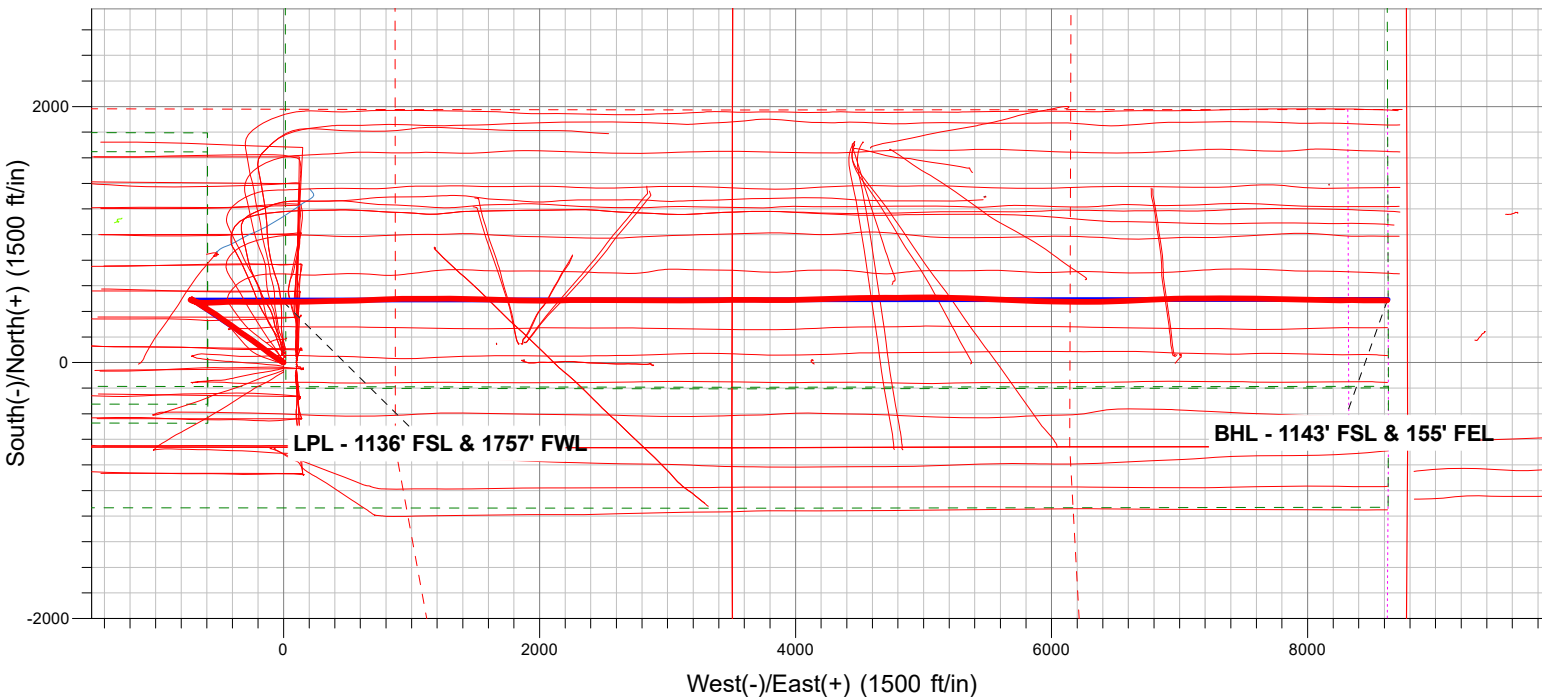
Azimuths to True North
 Magnetic North: 7.82°

Magnetic Field
 Strength: 51788.7nT
 Dip Angle: 66.61°
 Date: 07/16/2023
 Model: HRGM

ANNOTATIONS

MD	TVD	Annotation
7624.0	7103.8	LPL - 1136' FSL & 1757' FWL
16254.0	7098.5	BHL - 1143' FSL & 155' FEL

FINAL SURVEY
Projected Bottom Hole Location
16254' MD / 7098.5' TVD
90.71° INC / 90.16° AZM
1143' FSL / 155' FEL



PDC Energy Inc. DJ Basin

SEC.26-T6N-R67W

Kodak South PAD

KODAK SOUTH 15C

Kodak South 15C

Design: Kodak South 15C Final Surveys

Survey Report - Geographic

26 September, 2023

Ensign

Survey Report - Geographic

Company: PDC Energy Inc. DJ Basin	Local Co-ordinate Reference: Well KODAK SOUTH 15C
Project: SEC.26-T6N-R67W	TVD Reference: Well @ 4771.0ft (Ensign 769 - RKB 28')
Site: Kodak South PAD	MD Reference: Well @ 4771.0ft (Ensign 769 - RKB 28')
Well: KODAK SOUTH 15C	North Reference: True
Wellbore: Kodak South 15C	Survey Calculation Method: Minimum Curvature
Design: Kodak South 15C Final Surveys	Database: US_EDM

Project SEC.26-T6N-R67W	
Map System: US State Plane 1983	System Datum: Mean Sea Level
Geo Datum: North American Datum 1983	
Map Zone: Colorado Northern Zone	

Site Kodak South PAD		
Site Position:	Northing: 1,408,445.37 usft	Latitude: 40.452842
From: Lat/Long	Easting: 3,176,987.71 usft	Longitude: -104.864019
Position Uncertainty: 0.0 ft	Slot Radius: 13-3/16 "	Grid Convergence: 0.41 °

Well KODAK SOUTH 15C		
Well Position +N/-S 0.0 ft	Northing: 1,408,325.01 usft	Latitude: 40.452512
+E/-W 0.0 ft	Easting: 3,176,987.54 usft	Longitude: -104.864023
Position Uncertainty 0.0 ft	Wellhead Elevation: ft	Ground Level: 4,743.0 ft

Wellbore Kodak South 15C					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	07/16/2023	7.82	66.61	51,788.67599941

Design Kodak South 15C Final Surveys					
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	86.77	

Survey Program		Date 09/26/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
161.0	16,254.0	Survey #1 (Kodak South 15C)	MWD	MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,408,325.01	3,176,987.54	40.452512	-104.864023
161.0	0.53	39.47	161.0	0.6	0.5	1,408,325.59	3,176,988.01	40.452513	-104.864021
253.0	2.11	289.61	253.0	1.5	-0.9	1,408,326.48	3,176,986.68	40.452516	-104.864026
344.0	4.31	295.76	343.8	3.5	-5.5	1,408,328.49	3,176,982.01	40.452521	-104.864043
461.0	6.51	301.91	460.3	8.9	-15.1	1,408,333.84	3,176,972.38	40.452536	-104.864077
548.0	7.56	305.60	546.7	14.9	-23.9	1,408,339.72	3,176,963.49	40.452553	-104.864109
633.0	9.76	303.32	630.7	22.1	-34.5	1,408,346.85	3,176,952.87	40.452572	-104.864147
718.0	11.61	302.09	714.2	30.6	-47.8	1,408,355.26	3,176,939.55	40.452596	-104.864195
810.0	12.13	299.49	804.2	40.3	-64.0	1,408,364.82	3,176,923.22	40.452622	-104.864253
895.0	13.28	303.14	887.2	50.0	-80.0	1,408,374.44	3,176,907.20	40.452649	-104.864310
980.0	12.84	307.71	970.0	61.1	-95.6	1,408,385.44	3,176,891.48	40.452679	-104.864367
1,067.0	11.87	308.94	1,054.9	72.7	-110.2	1,408,396.87	3,176,876.79	40.452711	-104.864419

Ensign

Survey Report - Geographic

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well KODAK SOUTH 15C
Project:	SEC.26-T6N-R67W	TVD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Site:	Kodak South PAD	MD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Well:	KODAK SOUTH 15C	North Reference:	True
Wellbore:	Kodak South 15C	Survey Calculation Method:	Minimum Curvature
Design:	Kodak South 15C Final Surveys	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,152.0	11.34	306.83	1,138.2	83.2	-123.7	1,408,407.28	3,176,863.22	40.452740	-104.864468
1,237.0	11.08	308.77	1,221.6	93.3	-136.8	1,408,417.31	3,176,850.09	40.452768	-104.864514
1,324.0	11.52	311.05	1,306.9	104.2	-149.9	1,408,428.16	3,176,836.94	40.452798	-104.864561
1,411.0	11.70	304.72	1,392.1	115.0	-163.7	1,408,438.79	3,176,823.07	40.452827	-104.864611
1,500.0	12.05	303.49	1,479.2	125.2	-178.8	1,408,448.94	3,176,807.83	40.452855	-104.864666
1,586.0	12.57	306.48	1,563.2	135.7	-193.8	1,408,459.35	3,176,792.74	40.452884	-104.864719
1,659.0	12.57	307.36	1,634.5	145.3	-206.5	1,408,468.80	3,176,779.97	40.452911	-104.864765
1,765.0	12.51	307.47	1,738.0	159.3	-224.8	1,408,482.66	3,176,761.59	40.452949	-104.864831
1,855.0	12.97	305.70	1,825.7	171.1	-240.7	1,408,494.36	3,176,745.57	40.452981	-104.864888
1,944.0	12.30	304.70	1,912.6	182.3	-256.7	1,408,505.47	3,176,729.59	40.453012	-104.864945
2,034.0	13.16	303.88	2,000.4	193.5	-273.0	1,408,516.53	3,176,713.12	40.453043	-104.865004
2,124.0	11.79	300.88	2,088.2	203.9	-289.4	1,408,526.84	3,176,696.65	40.453071	-104.865063
2,214.0	12.68	304.90	2,176.2	214.3	-305.4	1,408,537.09	3,176,680.58	40.453100	-104.865121
2,304.0	11.50	303.62	2,264.2	224.9	-321.0	1,408,547.60	3,176,664.93	40.453129	-104.865176
2,393.0	12.69	308.24	2,351.2	235.9	-336.1	1,408,558.46	3,176,649.79	40.453159	-104.865231
2,482.0	13.06	307.29	2,438.0	248.0	-351.7	1,408,570.49	3,176,634.02	40.453192	-104.865287
2,572.0	13.17	307.84	2,525.6	260.5	-367.9	1,408,582.82	3,176,617.75	40.453227	-104.865345
2,662.0	11.61	305.64	2,613.5	272.0	-383.4	1,408,594.28	3,176,602.21	40.453258	-104.865401
2,773.0	12.51	305.68	2,722.1	285.5	-402.2	1,408,607.66	3,176,583.27	40.453296	-104.865468
2,863.0	11.60	306.20	2,810.1	296.6	-417.5	1,408,618.58	3,176,567.97	40.453326	-104.865523
2,953.0	10.75	306.48	2,898.4	306.9	-431.5	1,408,628.82	3,176,553.84	40.453354	-104.865574
3,043.0	12.16	304.04	2,986.6	317.2	-446.1	1,408,639.01	3,176,539.17	40.453382	-104.865626
3,133.0	13.48	303.39	3,074.4	328.3	-462.7	1,408,649.97	3,176,522.47	40.453413	-104.865686
3,223.0	11.64	301.60	3,162.2	338.8	-479.2	1,408,660.38	3,176,505.90	40.453442	-104.865745
3,313.0	11.30	300.90	3,250.4	348.1	-494.5	1,408,669.56	3,176,490.54	40.453467	-104.865800
3,403.0	11.92	308.36	3,338.6	358.4	-509.4	1,408,679.75	3,176,475.61	40.453496	-104.865853
3,492.0	11.83	311.37	3,425.7	370.1	-523.4	1,408,691.38	3,176,461.47	40.453528	-104.865904
3,582.0	12.95	301.50	3,513.6	381.5	-539.0	1,408,702.64	3,176,445.87	40.453559	-104.865960
3,672.0	13.40	302.08	3,601.2	392.3	-556.4	1,408,713.32	3,176,428.36	40.453589	-104.866022
3,762.0	13.44	301.79	3,688.7	403.4	-574.1	1,408,724.24	3,176,410.55	40.453619	-104.866086
3,851.0	13.36	302.23	3,775.3	414.3	-591.6	1,408,735.05	3,176,392.98	40.453649	-104.866149
3,941.0	11.71	302.67	3,863.2	424.8	-608.1	1,408,745.40	3,176,376.42	40.453678	-104.866208
4,031.0	12.61	301.98	3,951.2	434.9	-624.1	1,408,755.42	3,176,360.33	40.453705	-104.866266
4,121.0	11.41	301.59	4,039.2	444.8	-640.0	1,408,765.17	3,176,344.34	40.453733	-104.866323
4,211.0	10.39	302.56	4,127.6	453.8	-654.4	1,408,774.10	3,176,329.85	40.453757	-104.866375
4,301.0	9.61	302.27	4,216.2	462.2	-667.6	1,408,782.39	3,176,316.60	40.453780	-104.866422
4,390.0	9.12	304.07	4,304.0	470.1	-679.8	1,408,790.22	3,176,304.42	40.453802	-104.866466
4,480.0	7.38	302.92	4,393.1	477.2	-690.5	1,408,797.28	3,176,293.61	40.453822	-104.866504
4,570.0	6.15	303.58	4,482.4	483.0	-699.4	1,408,803.02	3,176,284.70	40.453838	-104.866536
4,660.0	4.91	301.88	4,572.0	487.7	-706.7	1,408,807.67	3,176,277.38	40.453851	-104.866562
4,749.0	3.43	299.14	4,660.8	491.0	-712.2	1,408,810.94	3,176,271.80	40.453860	-104.866582
4,839.0	0.61	312.58	4,750.7	492.7	-714.9	1,408,812.55	3,176,269.08	40.453864	-104.866592
4,929.0	0.74	327.65	4,840.7	493.5	-715.6	1,408,813.36	3,176,268.41	40.453866	-104.866594
5,019.0	0.79	188.25	4,930.7	493.4	-716.0	1,408,813.24	3,176,268.01	40.453866	-104.866596
5,109.0	0.62	213.04	5,020.7	492.4	-716.4	1,408,812.21	3,176,267.66	40.453863	-104.866597
5,198.0	0.56	228.26	5,109.7	491.7	-717.0	1,408,811.52	3,176,267.08	40.453861	-104.866599
5,288.0	0.44	258.80	5,199.7	491.3	-717.6	1,408,811.15	3,176,266.42	40.453860	-104.866602
5,378.0	0.46	316.93	5,289.7	491.5	-718.2	1,408,811.34	3,176,265.83	40.453861	-104.866604
5,468.0	0.60	112.20	5,379.7	491.6	-718.0	1,408,811.43	3,176,266.02	40.453861	-104.866603
5,557.0	0.51	136.52	5,468.7	491.1	-717.3	1,408,810.97	3,176,266.73	40.453860	-104.866601
5,647.0	0.22	154.26	5,558.7	490.7	-717.0	1,408,810.53	3,176,267.08	40.453859	-104.866599
5,737.0	0.48	233.83	5,648.7	490.3	-717.2	1,408,810.15	3,176,266.85	40.453858	-104.866600
5,827.0	0.38	244.02	5,738.7	489.9	-717.8	1,408,809.79	3,176,266.28	40.453857	-104.866602
5,917.0	0.45	280.68	5,828.7	489.9	-718.4	1,408,809.72	3,176,265.67	40.453856	-104.866604
6,007.0	0.49	289.12	5,918.7	490.1	-719.1	1,408,809.91	3,176,264.96	40.453857	-104.866607

Ensign

Survey Report - Geographic

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well KODAK SOUTH 15C
Project:	SEC.26-T6N-R67W	TVD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Site:	Kodak South PAD	MD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Well:	KODAK SOUTH 15C	North Reference:	True
Wellbore:	Kodak South 15C	Survey Calculation Method:	Minimum Curvature
Design:	Kodak South 15C Final Surveys	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,097.0	0.56	264.53	6,008.7	490.2	-719.9	1,408,809.99	3,176,264.15	40.453857	-104.866610
6,186.0	0.78	283.76	6,097.7	490.3	-720.9	1,408,810.08	3,176,263.13	40.453857	-104.866614
6,276.0	1.07	272.78	6,187.7	490.4	-722.3	1,408,810.26	3,176,261.70	40.453858	-104.866619
6,366.0	1.11	259.25	6,277.6	490.3	-724.0	1,408,810.12	3,176,260.00	40.453858	-104.866625
6,456.0	1.48	256.63	6,367.6	489.9	-726.0	1,408,809.68	3,176,258.02	40.453856	-104.866632
6,546.0	5.97	120.37	6,457.5	487.2	-723.1	1,408,807.06	3,176,260.95	40.453849	-104.866621
6,636.0	13.00	112.70	6,546.2	481.0	-709.7	1,408,800.88	3,176,274.39	40.453832	-104.866573
6,726.0	18.66	103.83	6,632.8	473.6	-686.4	1,408,793.69	3,176,297.78	40.453812	-104.866489
6,815.0	23.37	93.94	6,715.8	469.0	-654.9	1,408,789.29	3,176,329.27	40.453799	-104.866376
6,905.0	32.86	91.88	6,795.1	467.0	-612.6	1,408,787.57	3,176,371.60	40.453793	-104.866224
6,995.0	39.10	87.10	6,867.9	467.6	-559.8	1,408,788.58	3,176,424.40	40.453795	-104.866035
7,085.0	45.18	86.97	6,934.6	470.7	-499.5	1,408,792.14	3,176,484.65	40.453804	-104.865818
7,175.0	56.23	88.18	6,991.6	473.6	-430.0	1,408,795.52	3,176,554.11	40.453812	-104.865568
7,265.0	64.91	90.44	7,035.7	474.5	-351.7	1,408,796.96	3,176,632.40	40.453814	-104.865287
7,355.0	70.60	91.89	7,069.8	472.8	-268.5	1,408,795.84	3,176,715.66	40.453809	-104.864988
7,444.0	82.10	88.66	7,090.8	472.4	-182.2	1,408,796.11	3,176,801.98	40.453808	-104.864678
7,534.0	87.17	89.45	7,099.2	473.9	-92.6	1,408,798.22	3,176,891.54	40.453813	-104.864356
7,624.0	86.89	90.05	7,103.8	474.3	-2.7	1,408,799.26	3,176,981.41	40.453814	-104.864033
LPL - 1136' FSL & 1757' FWL									
7,714.0	86.86	89.36	7,108.8	474.7	87.1	1,408,800.37	3,177,071.27	40.453815	-104.863710
7,804.0	87.85	88.49	7,112.9	476.4	177.0	1,408,802.70	3,177,161.14	40.453820	-104.863387
7,894.0	90.16	88.91	7,114.5	478.5	267.0	1,408,805.39	3,177,251.08	40.453825	-104.863064
7,983.0	91.73	89.00	7,113.0	480.1	355.9	1,408,807.65	3,177,340.03	40.453830	-104.862744
8,073.0	91.86	89.44	7,110.2	481.3	445.9	1,408,809.52	3,177,429.97	40.453833	-104.862421
8,163.0	91.69	88.33	7,107.4	483.1	535.8	1,408,811.91	3,177,519.89	40.453838	-104.862098
8,253.0	91.19	86.69	7,105.1	487.0	625.7	1,408,816.46	3,177,609.75	40.453848	-104.861775
8,343.0	89.02	88.66	7,105.0	490.6	715.6	1,408,820.76	3,177,699.63	40.453858	-104.861451
8,433.0	88.68	87.18	7,106.8	493.9	805.6	1,408,824.67	3,177,789.53	40.453867	-104.861128
8,523.0	90.18	88.30	7,107.7	497.4	895.5	1,408,828.86	3,177,879.42	40.453877	-104.860805
8,613.0	90.65	90.25	7,107.0	498.6	985.5	1,408,830.65	3,177,969.40	40.453880	-104.860482
8,702.0	91.27	89.79	7,105.5	498.6	1,074.4	1,408,831.26	3,178,058.38	40.453880	-104.860162
8,792.0	89.29	89.90	7,105.1	498.8	1,164.4	1,408,832.14	3,178,148.37	40.453881	-104.859839
8,882.0	89.18	89.59	7,106.3	499.2	1,254.4	1,408,833.19	3,178,238.36	40.453882	-104.859515
8,972.0	89.89	89.72	7,107.0	499.7	1,344.4	1,408,834.38	3,178,328.34	40.453883	-104.859192
9,062.0	89.99	91.66	7,107.1	498.7	1,434.4	1,408,833.94	3,178,418.34	40.453880	-104.858869
9,152.0	88.85	92.45	7,108.0	495.4	1,524.3	1,408,831.36	3,178,508.30	40.453872	-104.858545
9,242.0	89.32	92.63	7,109.5	491.4	1,614.2	1,408,828.01	3,178,598.22	40.453861	-104.858222
9,331.0	89.49	92.38	7,110.4	487.5	1,703.2	1,408,824.76	3,178,687.16	40.453850	-104.857903
9,421.0	90.13	91.02	7,110.7	484.9	1,793.1	1,408,822.74	3,178,777.13	40.453843	-104.857580
9,511.0	88.67	89.56	7,111.6	484.4	1,883.1	1,408,822.93	3,178,867.12	40.453841	-104.857256
9,601.0	89.06	89.37	7,113.4	485.3	1,973.1	1,408,824.41	3,178,957.09	40.453844	-104.856933
9,691.0	89.63	89.74	7,114.4	486.0	2,063.1	1,408,825.76	3,179,047.07	40.453845	-104.856610
9,781.0	90.55	89.23	7,114.3	486.8	2,153.1	1,408,827.21	3,179,137.06	40.453848	-104.856286
9,870.0	90.28	90.40	7,113.7	487.1	2,242.1	1,408,828.14	3,179,226.05	40.453848	-104.855966
9,960.0	89.95	89.62	7,113.5	487.0	2,332.1	1,408,828.77	3,179,316.05	40.453848	-104.855643
10,050.0	89.00	89.07	7,114.3	488.1	2,422.1	1,408,830.44	3,179,406.03	40.453851	-104.855320
10,140.0	89.61	89.36	7,115.4	489.3	2,512.0	1,408,832.32	3,179,496.00	40.453855	-104.854996
10,230.0	90.03	91.07	7,115.7	489.0	2,602.0	1,408,832.63	3,179,586.00	40.453854	-104.854673
10,320.0	89.12	91.16	7,116.3	487.2	2,692.0	1,408,831.52	3,179,675.98	40.453849	-104.854350
10,409.0	89.76	90.10	7,117.2	486.2	2,781.0	1,408,831.18	3,179,764.98	40.453846	-104.854030
10,499.0	88.35	90.91	7,118.7	485.4	2,871.0	1,408,831.03	3,179,854.96	40.453844	-104.853706
10,589.0	88.04	89.96	7,121.5	484.8	2,960.9	1,408,831.00	3,179,944.92	40.453842	-104.853383
10,679.0	89.79	89.58	7,123.2	485.1	3,050.9	1,408,832.00	3,180,034.89	40.453843	-104.853060
10,769.0	90.32	89.93	7,123.1	485.5	3,140.9	1,408,833.03	3,180,124.88	40.453844	-104.852737
10,859.0	90.75	89.52	7,122.3	485.9	3,230.9	1,408,834.11	3,180,214.87	40.453845	-104.852413

Ensign

Survey Report - Geographic

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well KODAK SOUTH 15C
Project:	SEC.26-T6N-R67W	TVD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Site:	Kodak South PAD	MD Reference:	Well @ 4771.0ft (Ensign 769 - RKB 28')
Well:	KODAK SOUTH 15C	North Reference:	True
Wellbore:	Kodak South 15C	Survey Calculation Method:	Minimum Curvature
Design:	Kodak South 15C Final Surveys	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,949.0	90.93	88.92	7,121.0	487.2	3,320.9	1,408,835.98	3,180,304.84	40.453848	-104.852090
11,038.0	90.84	89.40	7,119.6	488.5	3,409.9	1,408,837.92	3,180,393.81	40.453852	-104.851770
11,128.0	91.19	90.30	7,118.0	488.7	3,499.9	1,408,838.80	3,180,483.79	40.453853	-104.851447
11,218.0	91.50	89.88	7,115.9	488.6	3,589.8	1,408,839.31	3,180,573.76	40.453852	-104.851123
11,308.0	91.79	90.20	7,113.3	488.5	3,679.8	1,408,839.89	3,180,663.73	40.453852	-104.850800
11,397.0	92.26	90.29	7,110.2	488.1	3,768.7	1,408,840.15	3,180,752.67	40.453851	-104.850481
11,487.0	92.18	89.96	7,106.7	487.9	3,858.7	1,408,840.60	3,180,842.60	40.453850	-104.850157
11,577.0	92.62	89.70	7,102.9	488.2	3,948.6	1,408,841.51	3,180,932.52	40.453851	-104.849834
11,667.0	91.28	88.23	7,099.9	489.8	4,038.5	1,408,843.78	3,181,022.43	40.453855	-104.849511
11,756.0	90.21	88.36	7,098.7	492.5	4,127.5	1,408,847.06	3,181,111.36	40.453863	-104.849191
11,846.0	90.87	87.45	7,097.9	495.8	4,217.4	1,408,851.00	3,181,201.27	40.453872	-104.848868
11,936.0	91.52	87.48	7,096.0	499.7	4,307.3	1,408,855.62	3,181,291.13	40.453882	-104.848545
12,026.0	90.39	89.49	7,094.5	502.1	4,397.2	1,408,858.65	3,181,381.06	40.453889	-104.848222
12,116.0	90.20	89.29	7,094.0	503.1	4,487.2	1,408,860.25	3,181,471.04	40.453892	-104.847899
12,205.0	90.97	89.52	7,093.1	504.0	4,576.2	1,408,861.81	3,181,560.03	40.453894	-104.847579
12,295.0	90.50	89.15	7,091.9	505.0	4,666.2	1,408,863.50	3,181,650.00	40.453897	-104.847256
12,385.0	91.33	90.03	7,090.5	505.7	4,756.2	1,408,864.79	3,181,739.98	40.453899	-104.846932
12,475.0	91.72	88.71	7,088.1	506.7	4,846.2	1,408,866.43	3,181,829.93	40.453901	-104.846609
12,565.0	90.77	89.54	7,086.2	508.0	4,936.1	1,408,868.45	3,181,919.88	40.453905	-104.846286
12,655.0	89.82	91.27	7,085.7	507.4	5,026.1	1,408,868.45	3,182,009.88	40.453903	-104.845962
12,744.0	89.44	89.26	7,086.3	507.0	5,115.1	1,408,868.68	3,182,098.87	40.453902	-104.845642
12,834.0	89.88	90.47	7,086.8	507.2	5,205.1	1,408,869.54	3,182,188.86	40.453902	-104.845319
12,924.0	89.49	92.68	7,087.3	504.7	5,295.1	1,408,867.71	3,182,278.84	40.453896	-104.844996
13,014.0	90.62	91.37	7,087.2	501.6	5,385.0	1,408,865.18	3,182,368.80	40.453887	-104.844673
13,104.0	89.30	93.04	7,087.3	498.1	5,474.9	1,408,862.36	3,182,458.75	40.453877	-104.844349
13,193.0	89.90	93.00	7,087.9	493.4	5,563.8	1,408,858.31	3,182,547.65	40.453864	-104.844030
13,283.0	90.45	92.96	7,087.6	488.7	5,653.7	1,408,854.27	3,182,637.56	40.453851	-104.843707
13,373.0	89.98	91.69	7,087.3	485.1	5,743.6	1,408,851.27	3,182,727.51	40.453841	-104.843384
13,463.0	90.40	91.83	7,087.0	482.3	5,833.6	1,408,849.15	3,182,817.48	40.453834	-104.843061
13,553.0	88.48	91.87	7,087.9	479.4	5,923.5	1,408,846.89	3,182,907.45	40.453826	-104.842738
13,642.0	89.40	90.87	7,089.5	477.3	6,012.5	1,408,845.40	3,182,996.42	40.453820	-104.842418
13,732.0	90.22	91.97	7,089.8	475.0	6,102.4	1,408,843.81	3,183,086.40	40.453814	-104.842095
13,822.0	89.73	88.96	7,089.8	474.3	6,192.4	1,408,843.73	3,183,176.39	40.453812	-104.841771
13,912.0	90.16	90.25	7,089.9	474.9	6,282.4	1,408,844.99	3,183,266.38	40.453813	-104.841448
14,002.0	89.62	88.49	7,090.1	475.9	6,372.4	1,408,846.63	3,183,356.36	40.453816	-104.841125
14,092.0	90.40	89.27	7,090.1	477.7	6,462.4	1,408,849.03	3,183,446.32	40.453821	-104.840801
14,181.0	89.66	87.53	7,090.0	480.2	6,551.3	1,408,852.16	3,183,535.27	40.453827	-104.840482
14,271.0	89.41	86.90	7,090.8	484.5	6,641.2	1,408,857.17	3,183,625.12	40.453839	-104.840159
14,361.0	88.79	87.06	7,092.2	489.3	6,731.1	1,408,862.56	3,183,714.95	40.453852	-104.839836
14,451.0	89.05	87.90	7,093.9	493.2	6,821.0	1,408,867.16	3,183,804.81	40.453863	-104.839513
14,540.0	89.78	87.66	7,094.8	496.7	6,909.9	1,408,871.25	3,183,893.72	40.453872	-104.839193
14,630.0	89.51	88.03	7,095.4	500.1	6,999.9	1,408,875.27	3,183,983.62	40.453882	-104.838870
14,720.0	90.59	89.81	7,095.3	501.8	7,089.8	1,408,877.62	3,184,073.59	40.453886	-104.838546
14,810.0	89.35	90.10	7,095.3	501.8	7,179.8	1,408,878.33	3,184,163.58	40.453886	-104.838223
14,899.0	90.58	89.77	7,095.4	501.9	7,268.8	1,408,879.07	3,184,252.58	40.453887	-104.837903
14,989.0	88.63	90.55	7,096.0	501.7	7,358.8	1,408,879.47	3,184,342.57	40.453886	-104.837580
15,079.0	89.53	89.23	7,097.4	501.9	7,448.8	1,408,880.28	3,184,432.55	40.453886	-104.837257
15,169.0	88.25	91.05	7,099.2	501.6	7,538.8	1,408,880.71	3,184,522.53	40.453886	-104.836933
15,259.0	89.40	90.25	7,101.0	500.6	7,628.8	1,408,880.33	3,184,612.50	40.453883	-104.836610
15,349.0	91.14	92.51	7,100.6	498.5	7,718.7	1,408,878.81	3,184,702.48	40.453877	-104.836287
15,439.0	89.61	90.49	7,100.0	496.1	7,808.7	1,408,877.10	3,184,792.46	40.453870	-104.835963
15,528.0	90.87	92.65	7,099.6	493.7	7,897.6	1,408,875.30	3,184,881.43	40.453863	-104.835644
15,618.0	90.12	92.60	7,098.9	489.5	7,987.5	1,408,871.83	3,184,971.36	40.453852	-104.835321
15,708.0	89.65	90.28	7,099.0	487.3	8,077.5	1,408,870.21	3,185,061.34	40.453846	-104.834997
15,798.0	90.90	89.97	7,098.6	487.1	8,167.5	1,408,870.66	3,185,151.33	40.453845	-104.834674

Ensign

Survey Report - Geographic

Company: PDC Energy Inc. DJ Basin	Local Co-ordinate Reference: Well KODAK SOUTH 15C
Project: SEC.26-T6N-R67W	TVD Reference: Well @ 4771.0ft (Ensign 769 - RKB 28')
Site: Kodak South PAD	MD Reference: Well @ 4771.0ft (Ensign 769 - RKB 28')
Well: KODAK SOUTH 15C	North Reference: True
Wellbore: Kodak South 15C	Survey Calculation Method: Minimum Curvature
Design: Kodak South 15C Final Surveys	Database: US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,888.0	88.82	90.27	7,098.8	486.9	8,257.5	1,408,871.12	3,185,241.33	40.453844	-104.834351	
15,978.0	90.24	89.59	7,099.6	487.0	8,347.5	1,408,871.87	3,185,331.32	40.453845	-104.834027	
16,067.0	89.47	90.64	7,099.8	486.8	8,436.5	1,408,872.33	3,185,420.31	40.453844	-104.833707	
16,157.0	90.71	90.16	7,099.7	486.2	8,526.5	1,408,872.35	3,185,510.31	40.453842	-104.833384	
16,254.0	90.71	90.16	7,098.5	485.9	8,623.5	1,408,872.77	3,185,607.30	40.453841	-104.833036	
BHL - 1143' FSL & 155' FEL										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
7,624.0	7,103.8	474.3	-2.7	LPL - 1136' FSL & 1757' FWL	
16,254.0	7,098.5	485.9	8,623.5	BHL - 1143' FSL & 155' FEL	

Checked By: _____	Approved By: _____	Date: _____
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