

REC'D 10/7/2020 - NMOCD



Centennial Resource Development, LLC

Lea County, NM (NAD 83 - UTM Zone 13 - True) Pac-Man 36 Fed Com Pac-Man 36 Fed Com #602H

OH

Design: OH

Standard Survey Report

11 March, 2020





Survey Report



Company:	Centennial Re	esource Developmer	nt, LLC	Local Co-ordin	ate Reference:	Well Pac-	Man 36 Fed Co	m #602H	
Project:	Lea County, N	M (NAD 83 - UTM 2	Zone 13 - True)	TVD Reference):	3381.2' G	E + 26.5' KB @	3407.70usft	
Site:	Pac-Man 36 F	ed Com		MD Reference:		3381.2' G	E + 26.5' KB @	3407.70usft	
Well:	Pac-Man 36 F	ed Com #602H		North Reference	ce:	True			
Wellbore:	ОН			Survey Calcula	ation Method:	Minimum	Curvature		
Design:	ОН			Database:		EDM 500	0.15 Single Use	r Db	
Project	Lea Cour	nty, NM (NAD 83 - L	ITM Zone 13 - True)					
Map System: Geo Datum: Map Zone:	North Ame	Transverse Mercato rican Datum 1983 (108 W to 102 W)	r (US Survey Feet)	System Datu	m:	Mean Se	a Level		
Site	Pac-Man	36 Fed Com							
Site Position:			Northing:	11,743,41	18.02 usft Latitu	ıde:			32.341732
From:	Мар		Easting:	2,125,78		itude:			-103.427979
Position Uncertain	ty:	0.00 usft	Slot Radius:	13	-3/16 " Grid	Convergence:			0.84 °
Well	Pac-Man	36 Fed Com #602H							
Well Position	+N/-S	0.00 usft	Northing:	11	I,743,417.58 usft	Latitude:			32.341732
	+E/-W	0.00 usft	Easting:	2	2,125,754.55 usft	Longitude):		-103.428076
Position Uncertain	ty	0.00 usft	Wellhead Elev	vation:	usft	Ground Lo	evel:		3,381.20 usft
Wellbore	ОН								
Magnetics	Mode	el Name	Sample Date	Declinati (°)	on	Dip Angle (°)		Field Strength (nT)	
		IGRF2015	1/23/2020		6.61		60.16	47,755.0052	0939
Design	OH								
Audit Notes:									
Version:	1.0		Phase:	ACTUAL	Tie On D	epth:			0.00
Vertical Section:		Depth F	rom (TVD)	+N/-S	+E/-W		Direction		
		(1	usft)	(usft)	(usft)		(°)		
			0.00	0.00	0.00			180.48	
Survey Program		Date 3/11/2	2020						
_	-								

From (usft)	To (usft) Survey (Wellbore)	Tool Name	Description
26.50	1,820.50 Survey #1 - Surface (OH)	MWD	OWSG MWD - Standard
1,916.00	21,562.00 Survey #2 - MWD+IFR+MS (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction
21,595.00	21,595.00 Survey #3 - Proj to TD (OH)	BLIND	OWSG BLIND

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (PM 36	Fed Com 602H)								
26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	0.00	0.00
186.50	0.20	111.66	186.50	-0.10	0.26	0.10	0.13	0.13	0.00
272.50	0.00	252.66	272.50	-0.16	0.40	0.16	0.23	-0.23	0.00
359.50	0.20	39.66	359.50	-0.04	0.50	0.04	0.23	0.23	0.00
448.50	0.30	101.66	448.50	0.03	0.82	-0.04	0.30	0.11	69.66
538.50	0.40	138.66	538.50	-0.25	1.26	0.24	0.27	0.11	41.11
627.50	0.40	166.66	627.49	-0.79	1.54	0.78	0.22	0.00	31.46



Survey Report



Centennial Resource Development, LLC	Local Co-ordinate Reference:	Well Pac-Man 36 Fed Com #602H
Lea County, NM (NAD 83 - UTM Zone 13 - True)	TVD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Pac-Man 36 Fed Com	MD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Pac-Man 36 Fed Com #602H	North Reference:	True
ОН	Survey Calculation Method:	Minimum Curvature
ОН	Database:	EDM 5000.15 Single User Db
L F C	Lea County, NM (NAD 83 - UTM Zone 13 - True) Pac-Man 36 Fed Com Pac-Man 36 Fed Com #602H DH	Lea County, NM (NAD 83 - UTM Zone 13 - True) TVD Reference: Pac-Man 36 Fed Com MD Reference: Pac-Man 36 Fed Com #602H North Reference: DH Survey Calculation Method:

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
717.50	0.50	155.66	717.49	-1.45	1.77	1.44	0.15	0.11	-12.22
807.50	0.60	167.66	807.49	-2.27	2.04	2.25	0.17	0.11	13.33
807 50	0.60	161.66	007 40	2.40	2.20	2.16	0.07	0.00	6 67
897.50 987.50	0.60 0.50	161.66 142.66	897.48 987.48	-3.18 -3.94	2.28 2.67	3.16 3.91	0.07 0.23	0.00 -0.11	-6.67 -21.11
1,077.50	0.30	142.00	1,077.48	-3.94 -4.56	2.86	4.54	0.23	-0.11	51.11
1,167.50	0.40	214.66	1,167.47	-4.30	2.68	4.34 5.04	0.40	-0.11	28.89
1,257.50	0.50	214.00	1,107.47	-5.55	2.00	5.53	0.21	0.22	8.89
1,201.00	0.00	222.00	1,201111	0.00	2.20	0.00	0.20	0.22	0.00
1,347.50	0.40	271.66	1,347.47	-5.83	1.70	5.81	0.43	-0.11	54.44
1,437.50	0.30	230.66	1,437.47	-5.97	1.20	5.96	0.29	-0.11	-45.56
1,527.50	0.50	276.66	1,527.47	-6.07	0.63	6.06	0.40	0.22	51.11
1,617.50	0.70	331.66	1,617.46	-5.54	-0.02	5.54	0.65	0.22	61.11
1,707.50	0.40	251.66	1,707.46	-5.16	-0.58	5.16	0.83	-0.33	-88.89
1,820.50	0.50	212.66	1,820.46	-5.70	-1.22	5.71	0.28	0.09	-34.51
1,916.00	0.27	200.14	1,915.95	-6.26	-1.52	6.27	0.26	-0.24	-13.11
2,010.00	0.11	216.80	2,009.95	-6.54	-1.65	6.55	0.18	-0.17	17.72
2,104.00	0.25	191.50	2,103.95	-6.81	-1.75	6.83	0.17	0.15	-26.91
2,198.00	0.23	223.85	2,197.95	-7.15	-1.92	7.16	0.14	-0.02	34.41
2,292.00	0.14	228.47	2,291.95	-7.36	-2.13	7.38	0.10	-0.10	4.91
2,386.00	0.23	183.61	2,385.95	-7.62	-2.23	7.64	0.17	0.10	-47.72
2,480.00	0.15	291.69	2,479.95	-7.77	-2.36	7.79	0.33	-0.09	114.98
2,574.00	0.15	7.37	2,573.95	-7.60	-2.46	7.62	0.20	0.00	80.51
2,668.00	0.23	353.18	2,667.95	-7.29	-2.46	7.31	0.10	0.09	-15.10
2,762.00	0.18	25.73	2,761.95	-6.97	-2.42	6.99	0.13	-0.05	34.63
2,856.00	0.43	18.43	2,855.95	-6.50	-2.25	6.52	0.27	0.27	-7.77
2,950.00	0.34	14.82	2,949.95	-5.90	-2.06	5.92	0.10	-0.10	-3.84
3,044.00	0.84	200.35	3,043.94	-6.27	-2.23	6.29	1.25	0.53	-185.61
3,139.00	2.54	200.43	3,138.90	-8.90	-3.21	8.93	1.79	1.79	0.08
3,233.00	3.66	191.37	3,232.76	-13.79	-4.53	13.83	1.30	1.19	-9.64
3,326.00	4.39	184.45	3,325.53	-20.25	-5.39	20.30	0.94	0.78	-7.44
3,420.00	7.33	186.61	3,419.03	-29.80	-6.36	29.85	3.14	3.13	2.30
3,514.00	8.01	187.88	3,512.19	-42.24	-7.95	42.31	0.75	0.72	1.35
3,609.00	7.09	186.13	3,606.36	-54.63	-9.48	54.71	1.00	-0.97	-1.84
3,703.00	6.52	182.29	3,699.70	-65.73	-10.31	65.81	0.78	-0.61	-4.09
3,797.00	6.05	182.29	3,793.14	-05.73	-10.63	76.10	0.78	-0.01	-4.09
3,891.00	5.42	177.04	3,886.67	-85.40	-10.51	85.49	0.32	-0.50	-4.45
3,985.00	4.54	175.99	3,980.31	-93.54	-10.02	93.63	0.94	-0.94	-1.12
4,079.00	5.49	194.12	4,073.95	-101.62	-10.86	101.71	1.95	1.01	19.29
4,173.00	6.50	204.97	4,167.44	-110.80	-14.20	110.92	1.61	1.07	11.54
4,267.00	8.04	212.30	4,260.69	-121.18	-19.96	121.35	1.91	1.64	7.80
4,361.00	7.21	211.84	4,353.85	-131.75	-26.58	131.97	0.89	-0.88	-0.49
4,455.00	6.47 5.71	211.85	4,447.18	-141.26	-32.49	141.53	0.79	-0.79	0.01
4,549.00	5.71	215.31	4,540.65	-149.58	-37.99	149.89	0.90	-0.81	3.68
4,643.00	5.25	217.31	4,634.22	-156.81	-43.30	157.17	0.53	-0.49	2.13



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Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	ОН	Database:	EDM 5000.15 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,737.00	4.49	219.00	4,727.88	-163.09	-48.22	163.49	0.82	-0.81	1.80
4,832.00	3.83	215.14	4,822.63	-168.58	-52.39	169.01	0.75	-0.69	-4.06
4,926.00	4.11	217.97	4,916.41	-173.80	-56.26	174.27	0.36	0.30	3.01
5,020.00	4.69	215.51	5,010.13	-179.58	-60.57	180.09	0.65	0.62	-2.62
5,114.00	4.24	217.10	5,103.84	-185.48	-64.90	186.02	0.50	-0.48	1.69
5,208.00	4.21	216.69	5,197.59	-191.02	-69.06	191.60	0.05	-0.03	-0.44
5,251.00	4.35	216.62	5,240.47	-193.60	-70.97	194.19	0.33	0.33	-0.16
5,361.00	4.37	220.68	5,350.15	-200.12	-76.19	200.76	0.28	0.02	3.69
5,455.00	4.40	219.70	5,443.88	-205.61	-80.83	206.28	0.09	0.03	-1.04
5,549.00	4.35	220.16	5,537.60	-211.11	-85.43	211.82	0.06	-0.05	0.49
5,643.00	3.72	211.78	5,631.37	-216.43	-89.34	217.17	0.92	-0.67	-8.91
5,737.00	3.52	198.01	5,725.18	-221.76	-91.83	222.53	0.95	-0.21	-14.65
5,831.00	2.97	175.11	5,819.04	-226.94	-92.52	227.71	1.49	-0.59	-24.36
5,925.00	3.07	151.18	5,912.91	-231.57	-91.10	232.33	1.34	0.11	-25.46
6,019.00	3.07	153.71	6,006.77	-236.03	-88.77	236.77	0.14	0.00	2.69
6,113.00	3.00	154.32	6,100.64	-240.50	-86.59	241.22	0.08	-0.07	0.65
6,207.00	2.71	157.88	6,194.53	-244.78	-84.69	245.48	0.36	-0.31	3.79
6,301.00	2.67	161.07	6,288.42	-248.91	-83.14	249.60	0.16	-0.04	3.39
6,395.00	2.47	162.05	6,382.33	-252.91	-81.81	253.59	0.22	-0.21	1.04
6,489.00	2.62	159.30	6,476.24	-256.84	-80.42	257.51	0.21	0.16	-2.93
6,582.00	2.30	161.98	6,569.15	-260.61	-79.09	261.26	0.37	-0.34	2.88
6,677.00	2.38	160.73	6,664.07	-264.28	-77.85	264.93	0.10	0.08	-1.32
6,771.00	2.12	120.84	6,758.00	-267.01	-75.72	267.64	1.65	-0.28	-42.44
6,865.00	2.96	93.02	6,851.91	-268.03	-71.80	268.63	1.56	0.89	-29.60
6,959.00	2.89	100.43	6,945.79	-268.59	-67.04	269.14	0.41	-0.07	7.88
7,053.00	2.85	107.74	7,039.67	-269.73	-62.49	270.25	0.39	-0.04	7.78
7,147.00	1.89	112.14	7,133.59	-271.03	-58.83	271.51	1.04	-1.02	4.68
7,241.00	1.03	131.19	7,227.56	-272.17	-56.75	272.64	1.04	-0.91	20.27
7,335.00	1.45	137.15	7,321.54	-273.60	-55.31	274.05	0.47	0.45	6.34
7,430.00	1.28	149.20	7,416.51	-275.39	-53.95	275.83	0.35	-0.18	12.68
7,524.00	0.64	233.27	7,510.50	-276.60	-53.83	277.05	1.46	-0.68	89.44
7,618.00	1.93	303.39	7,604.48	-276.05	-55.57	276.51	1.93	1.37	74.60
7,711.00	1.83	294.15	7,697.43	-274.58	-58.24	275.06	0.34	-0.11	-9.94
7,805.00	1.37	273.90	7,791.39	-273.89	-60.73	274.39	0.77	-0.49	-21.54
7,899.00	1.43	277.35	7,885.37	-273.66	-63.01	274.18	0.11	0.06	3.67
7,994.00	1.58	290.66	7,980.33	-273.05	-65.41	273.59	0.40	0.16	14.01
8,088.00	2.07	7.05	8,074.30	-270.91	-66.42	271.45	2.44	0.52	81.27
8,182.00	1.78	352.16	8,168.25	-267.77	-66.41	268.32	0.61	-0.31	-15.84
8,276.00	1.78	347.49	8,262.20	-264.90	-66.92	265.46	0.15	0.00	-4.97
8,370.00	2.17	331.47	8,356.14	-261.91	-68.09	262.48	0.72	0.41	-17.04
8,464.00	2.30	317.37	8,450.07	-258.96	-70.22	259.54	0.60	0.14	-15.00
8,558.00	1.48	321.02	8,544.02	-256.63	-72.26	257.23	0.88	-0.87	3.88
8,652.00	1.12	319.57	8,638.00	-254.99	-73.62	255.60	0.38	-0.38	-1.54
8,746.00	1.36	305.55	8,731.98	-253.64	-75.12	254.26	0.41	0.26	-14.91



Survey Report



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Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	ОН	Database:	EDM 5000.15 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Rate (°/100usft)	Turn Rate (°/100usft)
. ,		()	· · ·	()	()	. ,	· · ·	· · /	. ,
8,840.00	1.14	287.38	8,825.95	-252.71	-76.92	253.35	0.48	-0.23	-19.33
8,934.00	0.67	289.19	8,919.94	-252.25	-78.33	252.90	0.50	-0.50	1.93
9,028.00	0.87	297.24	9,013.93	-251.75	-79.49	252.40	0.24	0.21	8.50
9,122.00	1.42	309.63	9,107.91	-250.68	-81.02	251.35	0.64	0.59	13.18
9,311.00	0.94	348.49	9,296.88	-247.66	-83.13	248.35	0.48	-0.25	20.50
9,499.00	1.53	282.14	9,484.84	-245.62	-85.89	246.34	0.77	0.31	-35.29
9,593.00	1.45	286.67	9,578.81	-245.02	-88.26	245.75	0.15	-0.09	4.82
9,687.00	1.12	303.70	9,672.79	-244.17	-90.16	244.92	0.53	-0.35	18.12
9,781.00	1.17	316.02	9,766.77	-242.97	-91.59	243.73	0.27	0.05	13.1
9,969.00	0.79	290.63	9,954.74	-241.13	-94.14	241.91	0.30	-0.20	-13.5
10,063.00	0.54	254.26	10,048.73	-241.02	-95.17	241.81	0.51	-0.27	-38.69
10,157.00	0.71	229.72	10,142.73	-241.52	-96.04	242.32	0.33	0.18	-26.1
10,251.00	0.76	232.59	10,236.72	-242.27	-96.98	243.08	0.07	0.05	3.0
10,345.00	0.91	239.97	10,330.71	-243.03	-98.12	243.84	0.20	0.16	7.8
10,439.00	1.19	230.51	10,424.69	-244.02	-99.52	244.85	0.35	0.30	-10.00
10,533.00	1.52	239.28	10,518.67	-245.28	-101.35	246.12	0.41	0.35	9.3
10,628.00	1.86	241.73	10,613.63	-246.65	-103.79	247.52	0.37	0.36	2.5
10,722.00	1.45	259.46	10,707.59	-247.59	-106.30	248.48	0.69	-0.44	18.8
10,739.00	1.40	259.34	10,724.58	-247.66	-106.68	248.55	1.65	-1.65	-0.7
10,821.00	4.11	172.53	10,806.51	-250.73	-107.12	251.63	5.13	3.59	-105.8
10,838.19	7.32	168.86	10,823.61	-252.42	-106.83	253.31	18.81	18.70	-21.30
	Fed Com 602H)	100.00	10,020.01	202.12	100.00	200.01	10.01	10.10	21.0
10,868.00	12.92	166.82	10,852.94	-257.53	-105.71	258.41	18.81	18.77	-6.8
10,915.00	20.27	164.59	10,897.96	-270.51	-102.34	271.37	15.69	15.64	-0.0
10,913.00	20.27	164.21	10,941.48	-287.58	-102.34 -97.57	288.39	8.03	8.02	-4.7-
10,991.28 S36/1 Cross	27.35 ing	166.74	10,967.86	-299.87	-94.40	300.65	11.90	11.30	8.64
44 000 00		400.04	40,000,45	200.00	00.57	200.05	44.00	44.44	7.4
11,009.00	29.37	168.01	10,983.45	-308.08	-92.57	308.85	11.90	11.41	7.1
11,056.00	33.42	168.68	11,023.56	-332.06	-87.63	332.79	8.65	8.62	1.43
11,103.00	37.33	168.76	11,061.88	-358.74	-82.31	359.42	8.32	8.32	0.1
11,150.00	43.56	171.34	11,097.63	-388.76	-77.09	389.39	13.72	13.26	5.4
11,198.00	47.76	172.51	11,131.17	-422.74	-72.28	423.33	8.92	8.75	2.44
11,245.00	50.36	173.35	11,161.97	-457.97	-67.91	458.53	5.69	5.53	1.79
11,292.00	55.70	173.92	11,190.22	-495.28	-63.76	495.80	11.40	11.36	1.2
11,339.00	62.92	173.82	11,214.20	-535.44	-59.44	535.92	15.36	15.36	-0.2
11,386.00	66.07	174.57	11,234.43	-577.63	-55.16	578.08	6.86	6.70	1.60
11,433.00	68.92	175.91	11,252.42	-620.90	-51.56	621.31	6.61	6.06	2.8
11,480.00	72.19	178.80	11,268.07	-665.16	-49.53	665.55	9.06	6.96	6.15
11,527.00	74.94	179.23	11,281.36	-710.23	-48.75	710.61	5.92	5.85	0.9
11,574.00	79.25	180.86	11,291.86	-756.03	-48.80	756.41	9.77	9.17	3.4
11,588.15	80.36	180.93	11,294.36	-769.95	-49.01	770.34	7.89	7.87	0.4
,	ed Com 602H)	100.00	11,204.00	, 55.55	10.01	110.04	1.00	1.01	0.4
11,621.00	82.95	181.08	11,299.13	-802.45	-49.58	802.84	7.89	7.87	0.47



Survey Report



Company:	Centennial Resource Development, LLC	Local Co-ordinate Reference:	Well Pac-Man 36 Fed Com #602H
Project:	Lea County, NM (NAD 83 - UTM Zone 13 - True)	TVD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Site:	Pac-Man 36 Fed Com	MD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Well:	Pac-Man 36 Fed Com #602H	North Reference:	True
Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	ОН	Database:	EDM 5000.15 Single User Db
Well: Wellbore:	Pac-Man 36 Fed Com #602H OH	North Reference: Survey Calculation Method:	True Minimum Curvature

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,669.00	85.60	181.25	11,303.92	-850.19	-50.55	850.59	5.53	5.52	0.35
11,700.00	89.15	181.42	11,305.34	-881.15	-51.27	881.55	11.46	11.45	0.55
11,747.00	89.73	181.67	11,305.80	-928.13	-52.54	928.54	1.34	1.23	0.53
11,803.00	89.79	181.83	11,306.03	-984.10	-54.25	984.52	0.31	0.11	0.29
11,897.00	89.95	182.69	11,306.24	-1,078.03	-57.96	1,078.48	0.93	0.17	0.91
11,986.00	89.66	182.94	11,306.55	-1,166.92	-62.33	1,167.40	0.43	-0.33	0.28
12,074.00	89.92	182.24	11,306.87	-1,254.83	-66.31	1,255.34	0.85	0.30	-0.80
12,166.00	90.08	180.74	11,306.87	-1,346.79	-68.70	1,347.32	1.64	0.17	-1.63
12,257.00	90.00	180.03	11,306.80	-1,437.79	-69.31	1,438.32	0.79	-0.09	-0.78
12,350.00	89.82	180.15	11,306.95	-1,530.79	-69.46	1,531.32	0.23	-0.19	0.13
12,444.00	89.83	180.18	11,307.24	-1,624.79	-69.73	1,625.32	0.03	0.01	0.03
12,538.00	89.97	180.34	11,307.40	-1,718.79	-70.15	1,719.32	0.23	0.15	0.17
12,632.00	90.03	180.33	11,307.40	-1,812.79	-70.70	1,813.32	0.06	0.06	-0.01
12,727.00	89.96	180.35	11,307.41	-1,907.79	-71.27	1,908.32	0.08	-0.07	0.02
12,820.00	89.86	180.35	11,307.56	-2,000.78	-71.83	2,001.32	0.11	-0.11	0.00
12,914.00	90.00	180.33	11,307.67	-2,094.78	-72.39	2,095.32	0.15	0.15	-0.02
13,008.00	90.15	180.43	11,307.55	-2,188.78	-73.02	2,189.32	0.19	0.16	0.11
13,102.00	89.71	180.14	11,307.66	-2,282.78	-73.48	2,283.32	0.56	-0.47	-0.31
13,196.00	88.99	180.53	11,308.73	-2,376.77	-74.03	2,377.31	0.87	-0.77	0.41
13,290.00	88.98	180.43	11,310.39	-2,470.75	-74.82	2,471.29	0.11	-0.01	-0.11
13,384.00	89.02	180.38	11,312.04	-2,564.74	-75.48	2,565.28	0.07	0.04	-0.05
13,479.00	88.92	180.83	11,313.74	-2,659.71	-76.49	2,660.26	0.49	-0.11	0.47
13,573.00	89.06	180.25	11,315.40	-2,753.70	-77.37	2,754.25	0.63	0.15	-0.62
13,667.00	88.94	181.06	11,317.04	-2,847.67	-78.45	2,848.23	0.87	-0.13	0.86
13,761.00	88.95	180.82	11,318.77	-2,941.65	-79.99	2,942.21	0.26	0.01	-0.26
13,855.00	88.88	180.85	11,320.55	-3,035.62	-81.36	3,036.20	0.08	-0.07	0.03
13,949.00	88.96	180.89	11,322.32	-3,129.59	-82.79	3,130.18	0.10	0.09	0.04
14,044.00	89.05	180.53	11,323.97	-3,224.57	-83.96	3,225.16	0.39	0.09	-0.38
14,138.00	89.61	180.22	11,325.07	-3,318.56	-84.58	3,319.15	0.68	0.60	-0.33
14,232.00	89.93	179.87	11,325.45	-3,412.56	-84.65	3,413.15	0.50	0.34	-0.37
14,326.00	89.94	179.55	11,325.56	-3,506.56	-84.18	3,507.14	0.34	0.01	-0.34
14,421.00	90.00	179.36	11,325.61	-3,601.55	-83.27	3,602.13	0.21	0.06	-0.20
14,514.00	90.07	179.81	11,325.55	-3,694.55	-82.60	3,695.12	0.49	0.08	0.48
14,609.00	90.13	180.22	11,325.38	-3,789.55	-82.62	3,790.11	0.44	0.06	0.43
14,703.00	90.17	180.29	11,325.14	-3,883.55	-83.04	3,884.11	0.09	0.04	0.07
14,797.00	89.96	179.76	11,325.03	-3,977.55	-83.08	3,978.11	0.61	-0.22	-0.56
14,891.00	90.00	180.11	11,325.06	-4,071.55	-82.98	4,072.10	0.37	0.04	0.37
14,985.00	89.73	180.11	11,325.28	-4,165.55	-83.16	4,166.10	0.29	-0.29	0.00
15,080.00	89.08	180.43	11,326.27	-4,260.54	-83.60	4,261.09	0.76	-0.68	0.34
15,174.00	88.95	180.15	11,327.89	-4,354.53	-84.08	4,355.08	0.33	-0.14	-0.30
15,268.00	89.10	178.60	11,329.49	-4,448.50	-83.05	4,449.05	1.66	0.16	-1.65
15,362.00	89.24	177.94	11,330.85	-4,542.45	-80.22	4,542.97	0.72	0.15	-0.70
15,456.00	88.01	178.25	11,333.10	-4,636.37	-77.09	4,636.85	1.35	-1.31	0.33
15,550.00	88.00	178.42	11,336.38	-4,730.27	-74.36	4,730.73	0.18	-0.01	0.18



Survey Report



Company:	Centennial Resource Development, LLC	Local Co-ordinate Reference:	Well Pac-Man 36 Fed Com #602H
Project:	Lea County, NM (NAD 83 - UTM Zone 13 - True)	TVD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Site:	Pac-Man 36 Fed Com	MD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Well:	Pac-Man 36 Fed Com #602H	North Reference:	True
Wellbore:	ОН	Survey Calculation Method:	Minimum Curvature
Design:	ОН	Database:	EDM 5000.15 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,644.00	87.97	178.14	11,339.68	-4,824.17	-71.54	4,824.60	0.30	-0.03	-0.30
15,738.00	87.79	177.80	11,343.16	-4,918.05	-68.22	4,918.45	0.41	-0.19	-0.36
15,832.00	87.79	178.49	11,346.78	-5,011.93	-65.18	5,012.30	0.73	0.00	0.73
15,926.00	88.04	180.40	11,350.20	-5,105.86	-64.27	5,106.22	2.05	0.27	2.03
16,020.00	87.96	180.48	11,353.48	-5,199.80	-64.99	5,200.16	0.12	-0.09	0.09
16,115.00	87.97	180.37	11,356.86	-5,294.74	-65.69	5,295.10	0.12	0.01	-0.12
16,208.00	88.03	180.16	11,360.10	-5,387.68	-66.12	5,388.04	0.23	0.06	-0.23
16,302.00	88.18	180.42	11,363.21	-5,481.63	-66.60	5,481.99	0.32	0.16	0.28
16,396.00	88.54	180.50	11,365.90	-5,575.58	-67.35	5,575.95	0.39	0.38	0.09
16,406.42	88.55	180.49	11,366.17	-5,586.00	-67.44	5,586.37	0.13	0.07	-0.11
S1/12 Crossi	ing								
16,490.00	88.61	180.40	11,368.24	-5,669.55	-68.09	5,669.92	0.13	0.07	-0.11
16,585.00	88.32	179.81	11,370.78	-5,764.52	-68.26	5,764.89	0.69	-0.31	-0.62
16,679.00	88.82	180.35	11,373.13	-5,858.49	-68.40	5,858.86	0.78	0.53	0.57
16,773.00	88.89	180.36	11,375.01	-5,952.47	-68.98	5,952.84	0.08	0.07	0.01
16,867.00	89.43	180.46	11,376.39	-6,046.45	-69.65	6,046.83	0.58	0.57	0.11
16,962.00	89.50	180.50	11,377.27	-6,141.45	-70.45	6,141.82	0.08	0.07	0.04
16,995.00	89.90	180.60	11,377.45	-6,174.44	-70.76	6,174.82	1.25	1.21	0.30
17,055.00	90.10	180.44	11,377.45	-6,234.44	-71.31	6,234.82	0.43	0.33	-0.27
17,150.00	89.92	180.43	11,377.43	-6,329.44	-72.03	6,329.82	0.19	-0.19	-0.01
17,244.00	90.14	180.71	11,377.38	-6,423.43	-72.96	6,423.82	0.38	0.23	0.30
17,338.00	90.35	180.56	11,376.98	-6,517.43	-74.01	6,517.82	0.27	0.22	-0.16
17,432.00	90.64	180.68	11,376.17	-6,611.42	-75.02	6,611.82	0.33	0.31	0.13
17,526.00	90.63	180.59	11,375.12	-6,705.41	-76.06	6,705.81	0.10	-0.01	-0.10
17,620.00	90.67	180.17	11,374.06	-6,799.40	-76.69	6,799.80	0.45	0.04	-0.45
17,714.00	90.55	180.14	11,373.06	-6,893.39	-76.94	6,893.80	0.13	-0.13	-0.03
17,808.00	90.14	179.50	11,372.49	-6,987.39	-76.65	6,987.79	0.81	-0.44	-0.68
17,902.00	90.60	179.67	11,371.88	-7,081.39	-75.97	7,081.77	0.52	0.49	0.18
17,996.00	90.49	179.25	11,370.99	-7,175.38	-75.08	7,175.75	0.46	-0.12	-0.45
18,090.00	89.15	178.92	11,371.29	-7,269.36	-73.58	7,269.72	1.47	-1.43	-0.35
18,184.00	90.32	179.11	11,371.72	-7,363.35	-71.96	7,363.69	1.26	1.24	0.20
18,278.00	90.46	179.27	11,371.08	-7,457.33	-70.63	7,457.66	0.23	0.15	0.17
18,372.00	90.66	179.61	11,370.16	-7,551.32	-69.72	7,551.64	0.42	0.21	0.36
18,466.00	90.81	179.50	11,368.96	-7,645.31	-68.99	7,645.62	0.20	0.16	-0.12
18,560.00	90.64	179.32	11,367.77	-7,739.30	-68.02	7,739.60	0.26	-0.18	-0.19
18,654.00	90.76	179.53	11,366.62	-7,833.29	-67.07	7,833.58	0.26	0.13	0.22
18,748.00	90.64	179.26	11,365.47	-7,927.28	-66.08	7,927.55	0.31	-0.13	-0.29
18,842.00	90.83	178.95	11,364.26	-8,021.26	-64.61	8,021.52	0.39	0.20	-0.33
18,936.00	90.32	178.95	11,363.32	-8,115.24	-62.89	8,115.48	0.54	-0.54	0.00
19,030.00	90.52	178.71	11,362.63	-8,209.21	-60.97	8,209.44	0.33	0.21	-0.26
19,124.00	89.92	178.72	11,362.27	-8,303.19	-58.86	8,303.39	0.64	-0.64	0.01
19,218.00	90.80	178.52	11,361.68	-8,397.16	-56.60	8,397.34	0.96	0.94	-0.21
19,312.00	90.53	178.05	11,360.59	-8,491.11	-53.79	8,491.26	0.58	-0.29	-0.50



Survey Report



Centennial Resource Development, LLC	Local Co-ordinate Reference:	Well Pac-Man 36 Fed Com #602H
Lea County, NM (NAD 83 - UTM Zone 13 - True)	TVD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Pac-Man 36 Fed Com	MD Reference:	3381.2' GE + 26.5' KB @ 3407.70usft
Pac-Man 36 Fed Com #602H	North Reference:	True
ОН	Survey Calculation Method:	Minimum Curvature
ОН	Database:	EDM 5000.15 Single User Db
	Lea County, NM (NAD 83 - UTM Zone 13 - True) Pac-Man 36 Fed Com Pac-Man 36 Fed Com #602H OH	Lea County, NM (NAD 83 - UTM Zone 13 - True)TVD Reference:Pac-Man 36 Fed ComMD Reference:Pac-Man 36 Fed Com #602HNorth Reference:OHSurvey Calculation Method:

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,406.00	90.22	177.78	11,359.97	-8,585.05	-50.37	8,585.17	0.44	-0.33	-0.29
19,500.00	89.86	177.74	11,359.91	-8,678.97	-46.69	8,679.06	0.39	-0.38	-0.04
19,594.00	90.73	178.42	11,359.42	-8,772.92	-43.54	8,772.97	1.17	0.93	0.72
19,689.00	90.03	178.53	11,358.79	-8,867.88	-41.02	8,867.91	0.75	-0.74	0.12
19,783.00	90.78	179.02	11,358.13	-8,961.86	-39.01	8,961.87	0.95	0.80	0.52
19,876.00	90.49	179.10	11,357.10	-9,054.84	-37.48	9,054.83	0.32	-0.31	0.09
19,971.00	90.49	179.84	11,356.29	-9,149.83	-36.60	9,149.82	0.78	0.00	0.78
20,065.00	90.17	180.28	11,355.75	-9,243.83	-36.70	9,243.81	0.58	-0.34	0.47
20,160.00	90.43	181.41	11,355.25	-9,338.82	-38.10	9,338.81	1.22	0.27	1.19
20,254.00	90.13	181.99	11,354.79	-9,432.77	-40.89	9,432.78	0.69	-0.32	0.62
20,348.00	90.52	182.58	11,354.26	-9,526.70	-44.64	9,526.73	0.75	0.41	0.63
20,442.00	89.99	183.08	11,353.84	-9,620.58	-49.28	9,620.65	0.78	-0.56	0.53
20,536.00	90.08	183.96	11,353.78	-9,714.40	-55.05	9,714.52	0.94	0.10	0.94
20,630.00	90.45	184.32	11,353.35	-9,808.16	-61.84	9,808.33	0.55	0.39	0.38
20,724.00	90.36	184.05	11,352.68	-9,901.90	-68.70	9,902.13	0.30	-0.10	-0.29
20,818.00	90.77	183.42	11,351.75	-9,995.70	-74.82	9,995.97	0.80	0.44	-0.67
20,912.00	90.49	182.30	11,350.72	-10,089.57	-79.51	10,089.88	1.23	-0.30	-1.19
21,006.00	90.64	181.71	11,349.79	-10,183.51	-82.80	10,183.85	0.65	0.16	-0.63
21,100.00	89.78	181.08	11,349.45	-10,277.48	-85.09	10,277.83	1.13	-0.91	-0.67
21,194.00	89.79	181.18	11,349.80	-10,371.46	-86.94	10,371.83	0.11	0.01	0.11
21,289.00	90.21	181.24	11,349.80	-10,466.44	-88.95	10,466.82	0.45	0.44	0.06
21,383.00	90.76	180.75	11,349.01	-10,560.42	-90.58	10,560.81	0.78	0.59	-0.52
21,477.00	90.46	179.99	11,348.00	-10,654.41	-91.18	10,654.80	0.87	-0.32	-0.81
21,562.00	88.47	179.59	11,348.80	-10,739.41	-90.87	10,739.79	2.39	-2.34	-0.47
21,585.45	88.47	179.59	11,349.42	-10,762.84	-90.71	10,763.22	0.00	0.00	0.00
PBHL (PM 3	6 Fed Com 602H)							
21,595.00	88.47	179.59	11,349.68	-10,772.39	-90.64	10,772.77	0.00	0.00	0.00

Design Anno	tations				
	Measured Depth (usft)	Vertical Depth (usft)	Local Coo +N/-S (usft)	ordinates +E/-W (usft)	Comment
	(uoli) (uoli)	(4011)	(usit)	(usit)	Comment
	10,991.28	10,967.86	-299.87	-94.40	S36/1 Crossing
	16,406.42	11,366.17	-5,586.00	-67.44	S1/12 Crossing
	21,595.00	11.349.68	-10,772.39	-90.64	BHL

 Checked By:
 Approved By:
 Date:



MWD Survey Certification

Lea County, New Mexico Client: Centennial Resources Development Inc. Well Name: Pac-Mac 36 Fed Com 602H Total Job No: SW-200066 API No: 30-025-46435 Start Depth: 1,865 feet MD End Depth: 21,595 feet MD Start Date: February 27th, 2020 End Date: March 8th, 2020

I, Michael Leek, certify that; I am employed by Total Directional Services, LLC. On 02/27/2020 through 03/08/2020, we conducted or supervised the taking of the MWD surveys from a measured depth of 1865 feet to a measured depth of 21,595 feet. The data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and this/these survey(s) was/were conducted at the request of Centennial Resources Development Inc. for the well Pac-Mac 36 Fed Com 602H, API No: 30-025-46435 in Lea County, NM. I have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Michael Leek 03/08/2020