30-015-45044

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DISTRICT II-ARTESIA O.C.D.

WPX Energy

Eddy County, New Mexico (NAD 83)
Cass Draw/Johnson 10-23-27 Fee
Johnson 10-23-27 Fee 401H
Wellbore #1

Design: Actual

WPX Final Survey Report

19 November, 2018

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Johnson 10-23-27 Fee 401H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Site:	Cass Draw/Johnson 10-23-27 Fee	**MD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Well:	Johnson 10-23-27 Fee 401H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Project Eddy County, New Mexico (NAD 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Cass Draw/Johnson 10-23-27 Fee

Site Position:		**Northing:**	480,099.70 usft	**Latitude:**	32.319783
From:	Map	**Easting:**	586,321.90 usft	**Longitude:**	-104.187709
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.08 °

Well Johnson 10-23-27 Fee 401H

Well Position	**+N/-S**	0.00 usft	**Northing:**	480,099.30 usft	**Latitude:**	32.319781
	+E/-W	0.00 usft	**Easting:**	586,296.90 usft	**Longitude:**	-104.187790
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,116.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/14/2018	7.28	60.05	47,942

Design Actual

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	89.76

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Survey Program — **Date** 11/19/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
172.00	287.00	SDI MWD - Surface (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
479.00	8,349.00	SDI MWD - Intermediate (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
8,459.00	9,406.00	SDI MWD - Curve (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
9,501.00	14,042.00	SDI MWD - Lateral (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	480,099.30	586,296.90
172.00	0.78	354.68	171.99	1.17	-0.11	-0.10	1.17	354.68	480,100.47	586,296.79
287.00	0.55	318.71	286.99	2.36	-0.55	-0.54	2.42	346.99	480,101.66	586,296.35
479.00	0.91	297.19	478.97	3.75	-2.51	-2.49	4.51	326.20	480,103.05	586,294.39
603.00	0.65	299.02	602.96	4.54	-4.00	-3.98	6.05	318.61	480,103.84	586,292.90
695.00	0.56	296.07	694.96	4.99	-4.86	-4.84	6.97	315.76	480,104.29	586,292.04
788.00	0.51	256.87	787.95	5.10	-5.67	-5.65	7.63	311.94	480,104.40	586,291.23
880.00	0.61	270.25	879.95	5.01	-6.56	-6.54	8.25	307.34	480,104.31	586,290.34
973.00	0.64	254.66	972.94	4.87	-7.56	-7.54	8.99	302.80	480,104.17	586,289.34
1,065.00	0.61	245.80	1,064.94	4.53	-8.50	-8.48	9.63	298.08	480,103.83	586,288.40
1,158.00	0.36	249.54	1,157.93	4.23	-9.22	-9.21	10.15	294.63	480,103.53	586,287.68
1,250.00	0.73	115.13	1,249.93	3.88	-8.96	-8.95	9.77	293.40	480,103.18	586,287.94
1,345.00	1.75	114.69	1,344.91	3.02	-7.10	-7.09	7.71	293.02	480,102.32	586,289.80
1,439.00	1.95	122.52	1,438.86	1.56	-4.45	-4.44	4.71	289.30	480,100.86	586,292.45
1,533.00	2.56	106.93	1,532.79	0.09	-1.09	-1.09	1.09	274.48	480,099.39	586,295.81
1,628.00	2.22	83.87	1,627.71	-0.34	2.77	2.77	2.79	96.91	480,098.96	586,299.67
1,722.00	1.55	72.11	1,721.65	0.25	5.79	5.79	5.80	87.54	480,099.55	586,302.69
1,816.00	1.10	281.50	1,815.64	0.82	6.12	6.12	6.17	82.37	480,100.12	586,303.02
1,911.00	0.90	279.74	1,910.63	1.13	4.49	4.49	4.63	75.90	480,100.43	586,301.39
2,005.00	0.81	281.87	2,004.62	1.39	3.11	3.12	3.41	65.93	480,100.69	586,300.01

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Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
2,100.00	0.75	284.01	2,099.61	1.68	1.85	1.86	2.50	47.78	480,100.98	586,298.75
2,163.00	0.67	262.69	2,162.61	1.73	1.08	1.09	2.04	32.06	480,101.03	586,297.98
2,295.00	0.87	276.66	2,294.59	1.75	-0.68	-0.67	1.88	338.84	480,101.05	586,296.22
2,389.00	0.82	279.66	2,388.58	1.94	-2.05	-2.04	2.82	313.50	480,101.24	586,294.85
2,483.00	0.85	279.49	2,482.57	2.17	-3.40	-3.39	4.03	302.58	480,101.47	586,293.50
2,578.00	0.87	275.11	2,577.56	2.35	-4.81	-4.80	5.36	296.05	480,101.65	586,292.09
2,673.00	0.81	270.11	2,672.55	2.42	-6.20	-6.19	6.66	291.30	480,101.72	586,290.70
2,768.00	0.99	264.39	2,767.54	2.34	-7.69	-7.68	8.04	286.92	480,101.64	586,289.21
2,862.00	0.85	337.52	2,861.53	2.90	-8.77	-8.75	9.23	288.33	480,102.20	586,288.13
2,957.00	1.02	340.13	2,956.52	4.35	-9.32	-9.30	10.29	295.02	480,103.65	586,287.58
3,052.00	0.80	347.51	3,051.51	5.79	-9.75	-9.73	11.34	300.71	480,105.09	586,287.15
3,147.00	3.10	13.58	3,146.45	8.94	-9.29	-9.26	12.89	313.88	480,108.24	586,287.61
3,242.00	3.90	13.53	3,241.27	14.58	-7.93	-7.87	16.60	331.44	480,113.88	586,288.97
3,336.00	4.11	12.41	3,335.04	20.97	-6.46	-6.38	21.95	342.87	480,120.27	586,290.44
3,431.00	5.06	25.45	3,429.74	28.08	-3.93	-3.81	28.36	352.03	480,127.38	586,292.97
3,526.00	5.35	24.33	3,524.34	35.90	-0.31	-0.16	35.90	359.51	480,135.20	586,296.59
3,621.00	5.20	24.56	3,618.94	43.85	3.31	3.49	43.98	4.31	480,143.15	586,300.21
3,715.00	5.32	22.33	3,712.55	51.76	6.73	6.95	52.19	7.41	480,151.06	586,303.63
3,810.00	5.12	21.37	3,807.15	59.78	9.95	10.20	60.60	9.45	480,159.08	586,306.85
3,905.00	5.48	19.13	3,901.75	68.01	12.98	13.27	69.24	10.81	480,167.31	586,309.88
4,000.00	5.37	21.45	3,996.32	76.43	16.10	16.42	78.11	11.89	480,175.73	586,313.00
4,094.00	4.81	21.59	4,089.95	84.19	19.15	19.51	86.34	12.82	480,183.49	586,316.05
4,189.00	4.78	16.39	4,184.62	91.69	21.74	22.12	94.24	13.34	480,190.99	586,318.64
4,284.00	5.54	15.46	4,279.23	99.91	24.08	24.49	102.77	13.55	480,199.21	586,320.98
4,378.00	5.01	13.70	4,372.83	108.27	26.26	26.71	111.41	13.63	480,207.57	586,323.16
4,473.00	4.80	14.26	4,467.49	116.15	28.22	28.71	119.53	13.66	480,215.45	586,325.12
4,568.00	5.84	21.68	4,562.08	124.50	30.98	31.51	128.30	13.98	480,223.80	586,327.88

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Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
4,663.00	5.45	18.22	4,656.62	133.28	34.18	34.74	137.59	14.38	480,232.58	586,331.08
4,758.00	4.74	19.35	4,751.24	141.26	36.89	37.48	146.00	14.64	480,240.56	586,333.79
4,852.00	4.23	16.68	4,844.95	148.25	39.17	39.79	153.34	14.80	480,247.55	586,336.07
4,947.00	5.73	15.85	4,939.59	156.17	41.47	42.13	161.58	14.87	480,255.47	586,338.37
5,042.00	5.72	17.02	5,034.12	165.26	44.16	44.85	171.05	14.96	480,264.56	586,341.06
5,137.00	7.57	21.89	5,128.48	175.59	47.87	48.61	182.00	15.25	480,274.89	586,344.77
5,232.00	6.75	20.22	5,222.73	186.64	52.14	52.92	193.78	15.61	480,285.94	586,349.04
5,326.00	5.89	20.35	5,316.16	196.34	55.72	56.55	204.10	15.84	480,295.64	586,352.62
5,421.00	5.54	19.40	5,410.69	205.24	58.94	59.80	213.53	16.02	480,304.54	586,355.84
5,516.00	7.35	21.06	5,505.08	215.24	62.65	63.55	224.17	16.23	480,314.54	586,359.55
5,611.00	6.45	17.47	5,599.40	226.00	66.43	67.38	235.56	16.38	480,325.30	586,363.33
5,705.00	5.93	10.42	5,692.85	235.81	68.90	69.88	245.67	16.29	480,335.11	586,365.80
5,800.00	5.08	354.99	5,787.42	244.83	69.42	70.44	254.48	15.83	480,344.13	586,366.32
5,895.00	4.40	333.36	5,882.10	252.27	67.42	68.47	261.13	14.96	480,351.57	586,364.32
5,990.00	5.18	341.47	5,976.77	259.60	64.42	65.51	267.47	13.94	480,358.90	586,361.32
6,085.00	4.47	343.73	6,071.43	267.22	62.02	63.14	274.32	13.07	480,366.52	586,358.92
6,179.00	4.11	353.52	6,165.17	274.08	60.61	61.76	280.70	12.47	480,373.38	586,357.51
6,274.00	5.07	20.91	6,259.87	281.39	61.73	62.91	288.08	12.37	480,380.69	586,358.63
6,369.00	4.37	27.09	6,354.55	288.53	64.87	66.08	295.73	12.67	480,387.83	586,361.77
6,464.00	5.53	46.40	6,449.20	294.91	69.84	71.07	303.06	13.32	480,394.21	586,366.74
6,559.00	4.27	43.30	6,543.85	300.64	75.58	76.84	309.99	14.11	480,399.94	586,372.48
6,653.00	4.53	44.99	6,637.57	305.81	80.60	81.88	316.26	14.77	480,405.11	586,377.50
6,748.00	4.54	45.69	6,732.28	311.09	85.94	87.25	322.74	15.44	480,410.39	586,382.84
6,843.00	5.69	46.68	6,826.90	316.95	92.06	93.39	330.05	16.20	480,416.25	586,388.96
6,938.00	4.80	50.14	6,921.50	322.73	98.54	99.89	337.44	16.98	480,422.03	586,395.44
7,033.00	4.97	38.47	7,016.16	328.50	104.15	105.53	344.61	17.59	480,427.80	586,401.05
7,127.00	6.17	37.35	7,109.71	335.70	109.75	111.15	353.19	18.10	480,435.00	586,406.65

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Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
7,222.00	6.11	35.26	7,204.17	343.89	115.76	117.20	362.85	18.61	480,443.19	586,412.66
7,317.00	5.61	35.72	7,298.67	351.79	121.39	122.87	372.14	19.04	480,451.09	586,418.29
7,412.00	5.60	25.47	7,393.22	359.74	126.10	127.60	381.20	19.32	480,459.04	586,423.00
7,506.00	4.88	15.11	7,486.83	367.74	129.11	130.65	389.75	19.35	480,467.04	586,426.01
7,601.00	5.58	9.57	7,581.43	376.20	130.93	132.51	398.33	19.19	480,475.50	586,427.83
7,696.00	4.87	351.04	7,676.04	384.74	131.07	132.68	406.45	18.81	480,484.04	586,427.97
7,791.00	6.09	344.76	7,770.61	393.58	129.12	130.77	414.22	18.16	480,492.88	586,426.02
7,885.00	6.46	334.00	7,864.05	403.15	125.49	127.18	422.23	17.29	480,502.45	586,422.39
7,980.00	5.04	331.17	7,958.57	411.60	121.14	122.86	429.06	16.40	480,510.90	586,418.04
8,075.00	4.13	1.05	8,053.27	418.68	119.19	120.94	435.32	15.89	480,517.98	586,416.09
8,170.00	2.69	13.20	8,148.10	424.27	119.76	121.54	440.85	15.76	480,523.57	586,416.66
8,265.00	2.35	41.58	8,243.02	427.90	121.56	123.35	444.83	15.86	480,527.20	586,418.46
8,349.00	1.16	46.53	8,326.98	429.77	123.32	125.12	447.12	16.01	480,529.07	586,420.22
8,459.00	2.37	102.14	8,436.93	430.06	126.35	128.15	448.24	16.37	480,529.36	586,423.25
8,554.00	13.29	86.70	8,530.91	430.28	139.21	141.02	452.24	17.93	480,529.58	586,436.11
8,649.00	23.13	77.56	8,621.05	434.94	168.41	170.23	466.41	21.17	480,534.24	586,465.31
8,743.00	30.59	78.03	8,704.85	443.89	209.90	211.76	491.01	25.31	480,543.19	586,506.80
8,838.00	39.71	84.21	8,782.47	451.98	263.87	265.76	523.37	30.28	480,551.28	586,560.77
8,932.00	48.21	84.81	8,850.07	458.19	328.76	330.68	563.94	35.66	480,557.49	586,625.66
9,027.00	55.48	86.22	8,908.73	463.99	403.19	405.13	614.69	40.99	480,563.29	586,700.09
9,122.00	61.20	87.41	8,958.57	468.45	483.89	485.85	673.50	45.93	480,567.75	586,780.79
9,217.00	69.18	89.76	8,998.41	470.52	570.02	571.99	739.13	50.46	480,569.82	586,866.92
9,312.00	76.19	92.73	9,026.67	468.51	660.62	662.58	809.89	54.66	480,567.81	586,957.52
9,342.25	78.42	92.34	9,033.32	467.20	690.10	692.05	833.38	55.90	480,566.50	586,987.00
FTP Actual @ 9342.25' MD - J10-23-27-401H FTP										
9,406.00	83.11	91.53	9,043.55	465.08	752.97	754.91	885.03	58.30	480,564.38	587,049.87
9,501.00	87.69	92.43	9,051.16	461.81	847.58	849.51	965.23	61.42	480,561.11	587,144.48

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9,596.00	89.97	92.26	9,053.10	457.92	942.48	944.39	1,047.84	64.09	480,557.22	587,239.38
9,691.00	88.69	91.72	9,054.22	454.63	1,037.41	1,039.31	1,132.66	66.34	480,553.93	587,334.31
9,786.00	86.62	90.37	9,058.10	452.89	1,132.31	1,134.20	1,219.52	68.20	480,552.19	587,429.21
9,880.00	87.89	90.31	9,062.60	452.34	1,226.20	1,228.08	1,306.97	69.75	480,551.64	587,523.10
9,975.00	89.60	90.36	9,064.68	451.78	1,321.17	1,323.05	1,396.28	71.12	480,551.08	587,618.07
10,070.00	88.62	90.01	9,066.16	451.47	1,416.16	1,418.04	1,486.38	72.32	480,550.77	587,713.06
10,165.00	89.13	91.32	9,068.03	450.37	1,511.13	1,513.00	1,576.82	73.40	480,549.67	587,808.03
10,260.00	88.79	90.06	9,069.75	449.23	1,606.10	1,607.97	1,667.75	74.37	480,548.53	587,903.00
10,354.00	86.23	89.91	9,073.83	449.25	1,700.01	1,701.88	1,758.37	75.20	480,548.55	587,996.91
10,449.00	85.35	89.16	9,080.81	450.02	1,794.75	1,796.62	1,850.31	75.92	480,549.32	588,091.65
10,544.00	86.41	89.47	9,087.63	451.15	1,889.49	1,891.37	1,942.61	76.57	480,550.45	588,186.39
10,639.00	88.90	89.96	9,091.52	451.63	1,984.41	1,986.28	2,035.15	77.18	480,550.93	588,281.31
10,733.00	86.21	89.47	9,095.53	452.09	2,078.31	2,080.18	2,126.91	77.73	480,551.39	588,375.21
10,828.00	86.67	88.58	9,101.43	453.71	2,173.11	2,174.99	2,219.97	78.21	480,553.01	588,470.01
10,923.00	89.70	88.24	9,104.44	456.34	2,268.02	2,269.91	2,313.47	78.62	480,555.64	588,564.92
11,018.00	90.91	89.09	9,103.93	458.55	2,362.99	2,364.89	2,407.07	79.02	480,557.85	588,659.89
11,112.00	93.48	90.59	9,100.33	458.82	2,456.91	2,458.81	2,499.38	79.42	480,558.12	588,753.81
11,207.00	89.02	89.14	9,098.26	459.04	2,551.86	2,553.76	2,592.82	79.80	480,558.34	588,848.76
11,302.00	89.76	89.19	9,099.27	460.43	2,646.84	2,648.75	2,686.59	80.13	480,559.73	588,943.74
11,397.00	89.83	88.28	9,099.61	462.52	2,741.82	2,743.73	2,780.55	80.42	480,561.82	589,038.72
11,492.00	89.80	87.22	9,099.92	466.25	2,836.74	2,838.67	2,874.80	80.67	480,565.55	589,133.64
11,586.00	88.30	86.78	9,101.48	471.17	2,930.60	2,932.54	2,968.23	80.87	480,570.47	589,227.50
11,681.00	90.30	88.35	9,102.64	475.21	3,025.50	3,027.46	3,062.59	81.07	480,574.51	589,322.40
11,776.00	88.18	86.91	9,103.90	479.13	3,120.40	3,122.38	3,156.97	81.27	480,578.43	589,417.30
11,871.00	90.07	89.35	9,105.35	482.23	3,215.32	3,217.32	3,251.29	81.47	480,581.53	589,512.22
11,966.00	90.44	88.97	9,104.92	483.63	3,310.31	3,312.31	3,345.45	81.69	480,582.93	589,607.21
12,060.00	91.04	90.35	9,103.71	484.18	3,404.30	3,406.30	3,438.56	81.91	480,583.48	589,701.20

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Johnson 10-23-27 Fee 401H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Site:	Cass Draw/Johnson 10-23-27 Fee	**MD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Well:	Johnson 10-23-27 Fee 401H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
12,155.00	87.30	89.29	9,105.09	484.48	3,499.27	3,501.27	3,532.65	82.12	480,583.78	589,796.17
12,250.00	88.52	90.28	9,108.55	484.84	3,594.21	3,596.20	3,626.76	82.32	480,584.14	589,891.11
12,345.00	90.10	90.98	9,109.69	483.79	3,689.19	3,691.18	3,720.78	82.53	480,583.09	589,986.09
12,439.00	87.03	89.84	9,112.05	483.12	3,783.14	3,785.14	3,813.87	82.72	480,582.42	590,080.04
12,534.00	91.07	91.63	9,113.62	481.90	3,878.10	3,880.08	3,907.93	82.92	480,581.20	590,175.00
12,629.00	87.92	90.63	9,114.46	480.03	3,973.06	3,975.04	4,001.96	83.11	480,579.33	590,269.96
12,724.00	89.10	90.96	9,116.93	478.71	4,068.02	4,069.99	4,096.09	83.29	480,578.01	590,364.92
12,818.00	87.29	90.06	9,119.89	477.87	4,161.97	4,163.93	4,189.31	83.45	480,577.17	590,458.87
12,908.00	90.94	90.80	9,121.28	477.20	4,251.94	4,253.90	4,278.63	83.60	480,576.50	590,548.84
13,008.00	93.15	90.13	9,117.71	476.39	4,351.86	4,353.82	4,377.86	83.75	480,575.69	590,648.76
13,103.00	92.24	90.06	9,113.25	476.23	4,446.76	4,448.71	4,472.19	83.89	480,575.53	590,743.66
13,198.00	91.79	89.44	9,109.91	476.64	4,541.70	4,543.65	4,566.64	84.01	480,575.94	590,838.60
13,292.00	84.43	88.60	9,113.00	478.25	4,635.57	4,637.53	4,660.17	84.11	480,577.55	590,932.47
13,387.00	85.02	88.52	9,121.74	480.62	4,730.13	4,732.11	4,754.49	84.20	480,579.92	591,027.03
13,482.00	89.56	89.02	9,126.23	482.66	4,824.98	4,826.96	4,849.06	84.29	480,581.96	591,121.88
13,577.00	89.80	88.65	9,126.76	484.59	4,919.96	4,921.95	4,943.77	84.37	480,583.89	591,216.86
13,671.00	89.43	88.18	9,127.39	487.19	5,013.92	5,015.92	5,037.54	84.45	480,586.49	591,310.82
13,766.00	88.83	88.98	9,128.83	489.55	5,108.88	5,110.89	5,132.28	84.53	480,588.85	591,405.78
13,861.00	87.36	88.57	9,131.99	491.58	5,203.80	5,205.82	5,226.97	84.60	480,590.88	591,500.70
13,945.92	86.16	87.99	9,136.79	494.12	5,288.55	5,290.57	5,311.58	84.66	480,593.42	591,585.45
LTP Actual @ 13945.92' MD - J10-23-27-401H LTP										
13,956.00	86.02	87.92	9,137.48	494.48	5,298.60	5,300.62	5,321.62	84.67	480,593.78	591,595.50
13,967.00	85.95	87.99	9,138.25	494.87	5,309.56	5,311.59	5,332.58	84.68	480,594.17	591,606.46
SDI MWD										
14,042.00	85.95	87.99	9,143.54	497.49	5,384.33	5,386.37	5,407.26	84.72	480,596.79	591,681.23
Bit Projection - J10-23-27-401H BHL										

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy	**Local Co-ordinate Reference:**	Well Johnson 10-23-27 Fee 401H
Project:	Eddy County, New Mexico (NAD 83)	**TVD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Site:	Cass Draw/Johnson 10-23-27 Fee	**MD Reference:**	GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
Well:	Johnson 10-23-27 Fee 401H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Actual	**Database:**	Midland District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
9,342.25	9,033.32	467.20	690.10	FTP Actual @ 9342.25' MD
13,945.92	9,136.79	494.12	5,288.55	LTP Actual @ 13945.92' MD
13,967.00	9,138.25	494.87	5,309.56	SDI MWD
14,042.00	9,143.54	497.49	5,384.33	Bit Projection

Checked By: _____ Approved By: _____ Date: _____

11/19/2018

WPX Energy
Johnson 10-23-27 Fee 401H - Actual

Eddy County, New Mexico (NAD 83)
Cass Draw/Johnson 10-23-27 Fee
Your Ref:
11/19/2018

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Grid X	Grid Y	SSTVD
0	0	0	0	0	0	0	0	586296.9	480099.3	-3142
172	0.78	354.68	171.99	1.17	-0.11	-0.1	0.45	586296.8	480100.5	-2970.01
287	0.55	318.71	286.99	2.36	-0.55	-0.54	0.4	586296.4	480101.7	-2855.01
479	0.91	297.19	478.97	3.75	-2.51	-2.49	0.23	586294.4	480103.1	-2663.03
603	0.65	299.02	602.96	4.54	-4	-3.98	0.21	586292.9	480103.8	-2539.04
695	0.56	296.07	694.96	4.99	-4.86	-4.84	0.1	586292	480104.3	-2447.04
788	0.51	256.87	787.95	5.1	-5.67	-5.65	0.39	586291.2	480104.4	-2354.05
880	0.61	270.25	879.95	5.01	-6.56	-6.54	0.18	586290.3	480104.3	-2262.05
973	0.64	254.66	972.94	4.87	-7.56	-7.54	0.19	586289.3	480104.2	-2169.06
1065	0.61	245.8	1064.94	4.53	-8.5	-8.48	0.11	586288.4	480103.8	-2077.06
1158	0.36	249.54	1157.93	4.23	-9.22	-9.21	0.27	586287.7	480103.5	-1984.07
1250	0.73	115.13	1249.93	3.88	-8.96	-8.95	1.1	586287.9	480103.2	-1892.07
1345	1.75	114.69	1344.91	3.02	-7.1	-7.09	1.07	586289.8	480102.3	-1797.09
1439	1.95	122.52	1438.86	1.56	-4.45	-4.44	0.34	586292.5	480100.9	-1703.14
1533	2.56	106.93	1532.79	0.09	-1.09	-1.09	0.91	586295.8	480099.4	-1609.21
1628	2.22	83.87	1627.71	-0.34	2.77	2.77	1.06	586299.7	480099	-1514.29
1722	1.55	72.11	1721.65	0.25	5.79	5.79	0.82	586302.7	480099.6	-1420.35
1816	1.1	281.5	1815.64	0.82	6.12	6.12	2.73	586303	480100.1	-1326.36
1911	0.9	279.74	1910.63	1.13	4.49	4.49	0.21	586301.4	480100.4	-1231.37
2005	0.81	281.87	2004.62	1.39	3.11	3.12	0.1	586300	480100.7	-1137.38
2100	0.75	284.01	2099.61	1.68	1.85	1.86	0.07	586298.8	480101	-1042.39
2163	0.67	262.69	2162.61	1.73	1.08	1.09	0.44	586298	480101	-979.39
2295	0.87	276.66	2294.59	1.75	-0.68	-0.67	0.21	586296.2	480101.1	-847.41
2389	0.82	279.66	2388.58	1.94	-2.05	-2.04	0.07	586294.9	480101.2	-753.42
2483	0.85	279.49	2482.57	2.17	-3.4	-3.39	0.03	586293.5	480101.5	-659.43
2578	0.87	275.11	2577.56	2.35	-4.81	-4.8	0.07	586292.1	480101.7	-564.44
2673	0.81	270.11	2672.55	2.42	-6.2	-6.19	0.1	586290.7	480101.7	-469.45
2768	0.99	264.39	2767.54	2.34	-7.69	-7.68	0.21	586289.2	480101.6	-374.46
2862	0.85	337.52	2861.53	2.9	-8.77	-8.75	1.17	586288.1	480102.2	-280.47
2957	1.02	340.13	2956.52	4.35	-9.32	-9.3	0.18	586287.6	480103.7	-185.48
3052	0.8	347.51	3051.51	5.79	-9.75	-9.73	0.26	586287.2	480105.1	-90.49
3147	3.1	13.58	3146.45	8.94	-9.29	-9.26	2.53	586287.6	480108.2	4.45
3242	3.9	13.53	3241.27	14.58	-7.93	-7.87	0.84	586289	480113.9	99.27
3336	4.11	12.41	3335.04	20.97	-6.46	-6.38	0.24	586290.4	480120.3	193.04
3431	5.06	25.45	3429.74	28.08	-3.93	-3.81	1.48	586293	480127.4	287.74
3526	5.35	24.33	3524.34	35.9	-0.31	-0.16	0.32	586296.6	480135.2	382.34
3621	5.2	24.56	3618.94	43.85	3.31	3.49	0.16	586300.2	480143.2	476.94

3715	5.32	22.33	3712.55	51.76	6.73	6.95	0.25	586303.6	480151.1	570.55
3810	5.12	21.37	3807.15	59.78	9.95	10.2	0.23	586306.9	480159.1	665.15
3905	5.48	19.13	3901.75	68.01	12.98	13.27	0.44	586309.9	480167.3	759.75
4000	5.37	21.45	3996.32	76.43	16.1	16.42	0.26	586313	480175.7	854.32
4094	4.81	21.59	4089.95	84.19	19.15	19.51	0.6	586316.1	480183.5	947.95
4189	4.78	16.39	4184.62	91.69	21.74	22.12	0.46	586318.6	480191	1042.62
4284	5.54	15.46	4279.23	99.91	24.08	24.49	0.8	586321	480199.2	1137.23
4378	5.01	13.7	4372.83	108.27	26.26	26.71	0.59	586323.2	480207.6	1230.83
4473	4.8	14.26	4467.49	116.15	28.22	28.71	0.23	586325.1	480215.5	1325.49
4568	5.84	21.68	4562.08	124.5	30.98	31.51	1.31	586327.9	480223.8	1420.08
4663	5.45	18.22	4656.62	133.28	34.18	34.74	0.54	586331.1	480232.6	1514.62
4758	4.74	19.35	4751.24	141.26	36.89	37.48	0.75	586333.8	480240.6	1609.24
4852	4.23	16.68	4844.95	148.25	39.17	39.79	0.59	586336.1	480247.6	1702.95
4947	5.73	15.85	4939.59	156.17	41.47	42.13	1.58	586338.4	480255.5	1797.59
5042	5.72	17.02	5034.12	165.26	44.16	44.85	0.12	586341.1	480264.6	1892.12
5137	7.57	21.89	5128.48	175.59	47.87	48.61	2.03	586344.8	480274.9	1986.48
5232	6.75	20.22	5222.73	186.64	52.14	52.92	0.89	586349	480285.9	2080.73
5326	5.89	20.35	5316.16	196.34	55.72	56.55	0.92	586352.6	480295.6	2174.16
5421	5.54	19.4	5410.69	205.24	58.94	59.8	0.38	586355.8	480304.5	2268.69
5516	7.35	21.06	5505.08	215.24	62.65	63.55	1.92	586359.6	480314.5	2363.08
5611	6.45	17.47	5599.4	226	66.43	67.38	1.05	586363.3	480325.3	2457.4
5705	5.93	10.42	5692.85	235.81	68.9	69.88	0.98	586365.8	480335.1	2550.85
5800	5.08	354.99	5787.42	244.83	69.42	70.44	1.79	586366.3	480344.1	2645.42
5895	4.4	333.36	5882.1	252.27	67.42	68.47	2	586364.3	480351.6	2740.1
5990	5.18	341.47	5976.77	259.6	64.42	65.51	1.09	586361.3	480358.9	2834.77
6085	4.47	343.73	6071.43	267.22	62.02	63.14	0.77	586358.9	480366.5	2929.43
6179	4.11	353.52	6165.17	274.08	60.61	61.76	0.87	586357.5	480373.4	3023.17
6274	5.07	20.91	6259.87	281.39	61.73	62.91	2.49	586358.6	480380.7	3117.87
6369	4.37	27.09	6354.55	288.53	64.87	66.08	0.91	586361.8	480387.8	3212.55
6464	5.53	46.4	6449.2	294.91	69.84	71.07	2.12	586366.7	480394.2	3307.2
6559	4.27	43.3	6543.85	300.64	75.58	76.84	1.35	586372.5	480399.9	3401.85
6653	4.53	44.99	6637.57	305.81	80.6	81.88	0.31	586377.5	480405.1	3495.57
6748	4.54	45.69	6732.28	311.09	85.94	87.25	0.06	586382.8	480410.4	3590.28
6843	5.69	46.68	6826.9	316.95	92.06	93.39	1.21	586389	480416.3	3684.9
6938	4.8	50.14	6921.5	322.73	98.54	99.89	0.99	586395.4	480422	3779.5
7033	4.97	38.47	7016.16	328.5	104.15	105.53	1.06	586401.1	480427.8	3874.16
7127	6.17	37.35	7109.71	335.7	109.75	111.15	1.28	586406.7	480435	3967.71
7222	6.11	35.26	7204.17	343.89	115.76	117.2	0.24	586412.7	480443.2	4062.17
7317	5.61	35.72	7298.67	351.79	121.39	122.87	0.53	586418.3	480451.1	4156.67
7412	5.6	25.47	7393.22	359.74	126.1	127.6	1.05	586423	480459	4251.22
7506	4.88	15.11	7486.83	367.74	129.11	130.65	1.26	586426	480467	4344.83
7601	5.58	9.57	7581.43	376.2	130.93	132.51	0.91	586427.8	480475.5	4439.43
7696	4.87	351.04	7676.04	384.74	131.07	132.68	1.92	586428	480484	4534.04
7791	6.09	344.76	7770.61	393.58	129.12	130.77	1.43	586426	480492.9	4628.61
7885	6.46	334	7864.05	403.15	125.49	127.18	1.31	586422.4	480502.5	4722.05
7980	5.04	331.17	7958.57	411.6	121.14	122.86	1.52	586418	480510.9	4816.57
8075	4.13	1.05	8053.27	418.68	119.19	120.94	2.65	586416.1	480518	4911.27
8170	2.69	13.2	8148.1	424.27	119.76	121.54	1.69	586416.7	480523.6	5006.1
8265	2.35	41.58	8243.02	427.9	121.56	123.35	1.35	586418.5	480527.2	5101.02
8349	1.16	46.53	8326.98	429.77	123.32	125.12	1.43	586420.2	480529.1	5184.98
8459	2.37	102.14	8436.93	430.06	126.35	128.15	1.79	586423.3	480529.4	5294.93
8554	13.29	86.7	8530.91	430.28	139.21	141.02	11.6	586436.1	480529.6	5388.91
8649	23.13	77.56	8621.05	434.94	168.41	170.23	10.75	586465.3	480534.2	5479.05
8743	30.59	78.03	8704.85	443.89	209.9	211.76	7.94	586506.8	480543.2	5562.85

8838	39.71	84.21	8782.47	451.98	263.87	265.76	10.29	586560.8	480551.3	5640.47
8932	48.21	84.81	8850.07	458.19	328.76	330.68	9.05	586625.7	480557.5	5708.07
9027	55.48	86.22	8908.73	463.99	403.19	405.13	7.74	586700.1	480563.3	5766.73
9122	61.2	87.41	8958.57	468.45	483.89	485.85	6.11	586780.8	480567.8	5816.57
9217	69.18	89.76	8998.41	470.52	570.02	571.99	8.69	586866.9	480569.8	5856.41
9312	76.19	92.73	9026.67	468.51	660.62	662.58	7.96	586957.5	480567.8	5884.67
9406	83.11	91.53	9043.55	465.08	752.97	754.91	7.47	587049.9	480564.4	5901.55
9501	87.69	92.43	9051.16	461.81	847.58	849.51	4.91	587144.5	480561.1	5909.16
9596	89.97	92.26	9053.1	457.92	942.48	944.39	2.41	587239.4	480557.2	5911.1
9691	88.69	91.72	9054.22	454.63	1037.41	1039.31	1.46	587334.3	480553.9	5912.22
9786	86.62	90.37	9058.1	452.89	1132.31	1134.2	2.6	587429.2	480552.2	5916.1
9880	87.89	90.31	9062.6	452.34	1226.2	1228.08	1.35	587523.1	480551.6	5920.6
9975	89.6	90.36	9064.68	451.78	1321.17	1323.05	1.8	587618.1	480551.1	5922.68
10070	88.62	90.01	9066.16	451.47	1416.16	1418.04	1.1	587713.1	480550.8	5924.16
10165	89.13	91.32	9068.03	450.37	1511.13	1513	1.48	587808	480549.7	5926.03
10260	88.79	90.06	9069.75	449.23	1606.1	1607.97	1.37	587903	480548.5	5927.75
10354	86.23	89.91	9073.83	449.25	1700.01	1701.88	2.73	587996.9	480548.6	5931.83
10449	85.35	89.16	9080.81	450.02	1794.75	1796.62	1.22	588091.7	480549.3	5938.81
10544	86.41	89.47	9087.63	451.15	1889.49	1891.37	1.16	588186.4	480550.5	5945.63
10639	88.9	89.96	9091.52	451.63	1984.41	1986.28	2.67	588281.3	480550.9	5949.52
10733	86.21	89.47	9095.53	452.09	2078.31	2080.18	2.91	588375.2	480551.4	5953.53
10828	86.67	88.58	9101.43	453.71	2173.11	2174.99	1.05	588470	480553	5959.43
10923	89.7	88.24	9104.44	456.34	2268.02	2269.91	3.21	588564.9	480555.6	5962.44
11018	90.91	89.09	9103.93	458.55	2362.99	2364.89	1.56	588659.9	480557.9	5961.93
11112	93.48	90.59	9100.33	458.82	2456.91	2458.81	3.17	588753.8	480558.1	5958.33
11207	89.02	89.14	9098.26	459.04	2551.86	2553.76	4.94	588848.8	480558.3	5956.26
11302	89.76	89.19	9099.27	460.43	2646.84	2648.75	0.78	588943.7	480559.7	5957.27
11397	89.83	88.28	9099.61	462.52	2741.82	2743.73	0.96	589038.7	480561.8	5957.61
11492	89.8	87.22	9099.92	466.25	2836.74	2838.67	1.12	589133.6	480565.6	5957.92
11586	88.3	86.78	9101.48	471.17	2930.6	2932.54	1.66	589227.5	480570.5	5959.48
11681	90.3	88.35	9102.64	475.21	3025.5	3027.46	2.68	589322.4	480574.5	5960.64
11776	88.18	86.91	9103.9	479.13	3120.4	3122.38	2.7	589417.3	480578.4	5961.9
11871	90.07	89.35	9105.35	482.23	3215.32	3217.32	3.25	589512.2	480581.5	5963.35
11966	90.44	88.97	9104.92	483.63	3310.31	3312.31	0.56	589607.2	480582.9	5962.92
12060	91.04	90.35	9103.71	484.18	3404.3	3406.3	1.6	589701.2	480583.5	5961.71
12155	87.3	89.29	9105.09	484.48	3499.27	3501.27	4.09	589796.2	480583.8	5963.09
12250	88.52	90.28	9108.55	484.84	3594.21	3596.2	1.65	589891.1	480584.1	5966.55
12345	90.1	90.98	9109.69	483.79	3689.19	3691.18	1.82	589986.1	480583.1	5967.69
12439	87.03	89.84	9112.05	483.12	3783.14	3785.14	3.48	590080	480582.4	5970.05
12534	91.07	91.63	9113.62	481.9	3878.1	3880.08	4.65	590175	480581.2	5971.62
12629	87.92	90.63	9114.46	480.03	3973.06	3975.04	3.48	590270	480579.3	5972.46
12724	89.1	90.96	9116.93	478.71	4068.02	4069.99	1.29	590364.9	480578	5974.93
12818	87.29	90.06	9119.89	477.87	4161.97	4163.93	2.15	590458.9	480577.2	5977.89
12908	90.94	90.8	9121.28	477.2	4251.94	4253.9	4.14	590548.8	480576.5	5979.28
13008	93.15	90.13	9117.71	476.39	4351.86	4353.82	2.31	590648.8	480575.7	5975.71
13103	92.24	90.06	9113.25	476.23	4446.76	4448.71	0.96	590743.7	480575.5	5971.25
13198	91.79	89.44	9109.91	476.64	4541.7	4543.65	0.81	590838.6	480575.9	5967.91
13292	84.43	88.6	9113	478.25	4635.57	4637.53	7.88	590932.5	480577.6	5971
13387	85.02	88.52	9121.74	480.62	4730.13	4732.11	0.63	591027	480579.9	5979.74
13482	89.56	89.02	9126.23	482.66	4824.98	4826.96	4.81	591121.9	480582	5984.23
13577	89.8	88.65	9126.76	484.59	4919.96	4921.95	0.46	591216.9	480583.9	5984.76
13671	89.43	88.18	9127.39	487.19	5013.92	5015.92	0.64	591310.8	480586.5	5985.39
13766	88.83	88.98	9128.83	489.55	5108.88	5110.89	1.05	591405.8	480588.9	5986.83
13861	87.36	88.57	9131.99	491.58	5203.8	5205.82	1.61	591500.7	480590.9	5989.99

13956	86.02	87.92	9137.48	494.48	5298.6	5300.62	1.57	591595.5	480593.8	5995.48
13967	85.95	87.99	9138.25	494.87	5309.56	5311.59	0.9	591606.5	480594.2	5996.25
14042	85.95	87.99	9143.54	497.49	5384.33	5386.37	0	591681.2	480596.8	6001.54

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to GL 3116 + RKB 26 =. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 89.760° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.078°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 14042.00ft.,
the Bottom Hole Displacement is 5407.26ft., in the Direction of 89.760° (Grid).