



Scientific Drilling International, Inc.

325 Faudree Road

Odessa, Texas 79765

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www.scientificdrilling.com

**NM OIL CONSERVATION
ARTESIA DISTRICT**

30-015-45044

FEB 26 2019

State of New Mexico
County of Eddy

RECEIVED

I, Zhen Li, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 10/22/2018 through 11/18/2018 conduct or supervise the taking of a MWD survey from a depth of 172 feet to a depth of 13967 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of WPX Energy for the Johnson 10-23-27 Fee 401H Well, API# 30-015-45044 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.

Field Technician

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

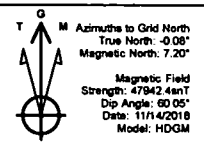
19 November, 2018



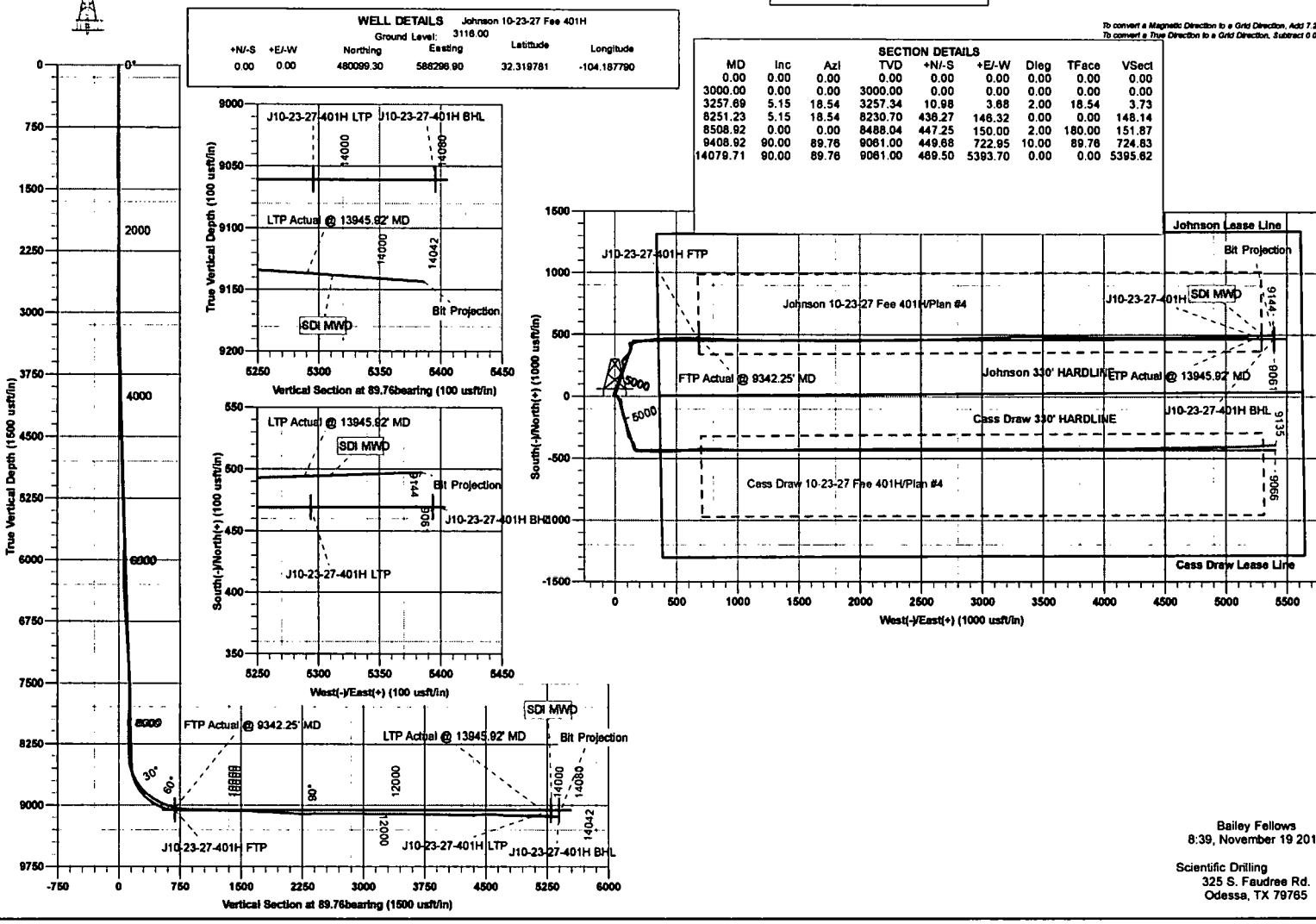
Johnson 10-23-27 Fee 401H
Eddy County, New Mexico (NAD 83)
Northing: 480099.30
Easting: 586296.90
Actual



ANNOTATIONS		
TVD	MD	Annotation
9033.32	9342.25	FTP Actual @ 9342.25' MD
9136.79	13945.92	LTP Actual @ 13945.92' MD
9138.25	13967.00	SDI MWD
9143.54	14042.00	Bit Projection



GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
GL @ 3116.00



Bailey Fellows
8:39, November 19 2018
Scientific Drilling
325 S. Faudree Rd.
Odessa, TX 79765

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 3118 + RKB 28 = @ 3142.00usft (HP 285)
Site:	Cass Draw/Johnson 10-23-27 Fee	MD Reference:	GL 3118 + RKB 28 = @ 3142.00usft (HP 285)
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
From: Map		Easting:	586,321.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.319783
		Longitude:	-104.187709
		Grid Convergence:	0.08 "

Well Johnson 10-23-27 Fee 401H			
Well Position	+N-S	0.00 usft	Northing: 480,099.30 usft
	+E-W	0.00 usft	Easting: 586,296.90 usft
Position Uncertainty		0.00 usft	Wellhead Elevation: 0.00 usft
			Latitude: 32.319781
			Longitude: -104.187790
			Ground Level: 3,118.00 usft

Wellbore Wellbore #1			
Magnetics	Model Name	Sample Date	Declination
	HDGM	11/14/2018	(°) 7.28
			Dip Angle (°) 60.05
			Field Strength (nT) 47,842

Design Actual			
Audit Notes:			
Version: 1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (bearing) 89.78

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Cass Draw/Johnson 10-23-27 Fee
 Well: Johnson 10-23-27 Fee 401H
 Wellbore: Wellbore #1
 Design: Actual

Local Co-ordinate Reference: Well Johnson 10-23-27 Fee 401H
 TVD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
 MD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Midland District

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

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	289.02	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	-4.88	-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
1,818.00	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

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Cass Draw/Johnson 10-23-27 Fee
Well: Johnson 10-23-27 Fee 401H
Wellbore: Wellbore #1
Design: Actual

Local Co-ordinate Reference: Well Johnson 10-23-27 Fee 401H
TVD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
MD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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	282.69	2,162.61	1.73	1.08	1.09	2.04	32.06	480,101.03	586,297.98	
2,295.00	0.87	278.66	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	-8.20	-8.19	6.68	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	20.87	-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	26.36	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	3,998.32	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	

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)	
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	165.28	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	186.84	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	21.08	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	

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)	
7,222.00	6.11	35.26	7,204.17	343.89	115.78	117.20	362.85	18.81	480,443.19	588,412.68	
7,317.00	5.61	35.72	7,298.67	351.79	121.39	122.87	372.14	19.04	480,451.09	588,418.29	
7,412.00	5.60	25.47	7,393.22	359.74	126.10	127.60	381.20	19.32	480,459.04	588,423.00	
7,506.00	4.88	15.11	7,486.83	367.74	129.11	130.65	389.75	19.35	480,467.04	588,426.01	
7,601.00	5.58	9.57	7,581.43	376.20	130.93	132.51	398.33	19.19	480,475.50	588,427.83	
7,696.00	4.87	351.04	7,676.04	384.74	131.07	132.68	406.45	18.81	480,484.04	588,427.97	
7,791.00	6.09	344.76	7,770.61	393.58	129.12	130.77	414.22	18.16	480,482.88	588,426.02	
7,885.00	6.46	334.00	7,864.05	403.15	125.49	127.18	422.23	17.29	480,502.45	588,422.39	
7,980.00	5.04	331.17	7,958.57	411.60	121.14	122.86	429.06	16.40	480,510.90	588,418.04	
8,075.00	4.13	1.05	8,053.27	418.68	119.19	120.94	435.32	15.89	480,517.98	588,416.09	
8,170.00	2.69	13.20	8,148.10	424.27	119.76	121.54	440.85	15.76	480,523.57	588,416.66	
8,265.00	2.35	41.58	8,243.02	427.90	121.56	123.35	444.83	15.86	480,527.20	588,418.46	
8,349.00	1.16	46.53	8,326.98	429.77	123.32	125.12	447.12	16.01	480,529.07	588,420.22	
8,459.00	2.37	102.14	8,436.93	430.06	126.35	128.15	448.24	16.37	480,529.38	588,423.25	
8,554.00	13.29	86.70	8,530.91	430.28	139.21	141.02	452.24	17.93	480,529.58	588,436.11	
8,649.00	23.13	77.56	8,621.05	434.94	168.41	170.23	466.41	21.17	480,534.24	588,465.31	
8,743.00	30.59	78.03	8,704.85	443.89	209.90	211.76	491.01	25.31	480,543.19	588,506.80	
8,838.00	39.71	84.21	8,782.47	451.98	263.87	265.76	523.37	30.28	480,551.28	588,560.77	
8,932.00	48.21	84.81	8,850.07	458.19	328.76	330.68	563.94	35.66	480,557.49	588,625.66	
9,027.00	55.48	86.22	8,908.73	463.99	403.19	405.13	614.69	40.99	480,563.29	588,700.09	
9,122.00	61.20	87.41	8,958.57	468.45	483.89	485.85	673.50	45.93	480,567.75	588,780.79	
9,217.00	69.18	89.78	8,998.41	470.52	570.02	571.99	739.13	50.46	480,569.82	588,866.92	
9,312.00	76.19	92.73	9,026.67	468.51	660.82	662.58	809.89	54.66	480,567.81	588,957.52	
9,342.25	78.42	92.34	9,033.32	467.20	690.10	692.05	833.38	55.90	480,566.50	588,987.00	
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	481.81	847.58	849.51	965.23	61.42	480,561.11	587,144.48	

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

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)
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	68.34	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	1,386.28	71.12	480,551.08	587,618.07
10,070.00	88.62	90.01	9,068.16	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	78.82	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	2,551.88	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	88.91	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
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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	589,798.17	
12,250.00	88.52	90.28	9,108.55	484.84	3,594.21	3,596.20	3,628.76	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	4,448.76	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	591,218.86	
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	5,288.60	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	591,608.46	
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	480,598.79	591,681.23	
BH Projection - J10-23-27-401H BHL											

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Cass Draw/Johnson 10-23-27 Fee
Well: Johnson 10-23-27 Fee 401H
Wellbore: Wellbore #1
Design: Actual

Local Co-ordinate Reference: Well Johnson 10-23-27 Fee 401H
TVD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
MD Reference: GL 3116 + RKB 26 = @ 3142.00usft (HP 265)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
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: _____