

WPX Energy, Permian

Eddy County, New Mexico (NAD 83)

Dalmatian/Shepherd 3-2-23-27 Fee Pad

Dalmatian 3-2-23-27 Fee 411H

Wellbore #1

Design: Actual

WPX Final Survey Report

22 April, 2019

RECEIVED

MAY 06 2019

DISTRICT II-ARTESIA O.C.D.

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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	Dalmatian/Shepherd 3-2-23-27 Fee Pad		
Site Position:		Northing:	485,066.30 usft
From:	Map	Easting:	587,845.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.333429
		Longitude:	-104.182755
		Grid Convergence:	0.08 °

Well	Dalmatian 3-2-23-27 Fee 411H					
Well Position	+N/-S	0.00 usft	Northing:	485,066.30 usft	Latitude:	32.333429
	+E/-W	0.00 usft	Easting:	587,845.30 usft	Longitude:	-104.182755
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,112.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/13/2019	7.23	60.03	47,920

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	89.64	

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Midland District

Survey Program		Date 4/22/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
179.00	354.00	SDI MWD - Surface (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
511.00	8,265.00	SDI MWD - Intermediate (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
8,360.00	9,495.00	SDI MWD - Curve (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
9,556.00	19,337.00	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	485,066.30	587,845.30		
179.00	0.54	351.04	179.00	0.83	-0.13	-0.13	0.84	351.04	485,067.13	587,845.17		
240.00	0.77	324.61	239.99	1.45	-0.41	-0.40	1.51	344.10	485,067.75	587,844.89		
331.00	0.55	332.41	330.99	2.34	-0.97	-0.96	2.53	337.46	485,068.64	587,844.33		
354.00	0.58	334.90	353.99	2.54	-1.07	-1.05	2.76	337.15	485,068.84	587,844.23		
511.00	0.27	296.15	510.98	3.42	-1.74	-1.72	3.84	333.06	485,069.72	587,843.56		
607.00	0.34	254.65	606.98	3.45	-2.22	-2.20	4.10	327.25	485,069.75	587,843.08		
699.00	0.34	250.92	698.98	3.29	-2.74	-2.72	4.28	320.19	485,069.59	587,842.56		
792.00	0.35	232.55	791.98	3.02	-3.22	-3.21	4.42	313.15	485,069.32	587,842.08		
884.00	0.48	228.06	883.98	2.59	-3.73	-3.72	4.55	304.79	485,068.89	587,841.57		
977.00	0.33	235.01	976.97	2.18	-4.24	-4.23	4.77	297.19	485,068.48	587,841.06		
1,069.00	0.35	211.66	1,068.97	1.79	-4.61	-4.60	4.94	291.22	485,068.09	587,840.69		
1,161.00	0.57	166.44	1,160.97	1.11	-4.65	-4.64	4.78	283.37	485,067.41	587,840.65		
1,253.00	0.84	159.07	1,252.96	0.03	-4.30	-4.30	4.30	270.41	485,066.33	587,841.00		
1,345.00	1.59	135.92	1,344.94	-1.52	-3.17	-3.18	3.52	244.45	485,064.78	587,842.13		
1,438.00	1.65	139.94	1,437.90	-3.47	-1.41	-1.43	3.74	202.15	485,062.83	587,843.89		
1,532.00	1.95	130.69	1,531.86	-5.55	0.67	0.64	5.59	173.10	485,060.75	587,845.97		
1,626.00	1.74	117.80	1,625.81	-7.25	3.15	3.10	7.91	156.55	485,059.05	587,848.45		
1,720.00	1.10	89.14	1,719.78	-7.91	5.31	5.26	9.53	146.11	485,058.39	587,850.61		
1,815.00	1.74	81.85	1,814.75	-7.69	7.65	7.60	10.85	135.14	485,058.61	587,852.95		

Scientific Drilling, Intl

WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
1,909.00	1.26	89.17	1,908.72	-7.47	10.10	10.05	12.56	126.50	485,058.83	587,855.40	
2,004.00	1.05	86.44	2,003.70	-7.40	12.01	11.96	14.11	121.65	485,058.90	587,857.31	
2,037.00	1.03	90.28	2,036.69	-7.38	12.61	12.56	14.61	120.36	485,058.92	587,857.91	
2,192.00	1.02	88.01	2,191.67	-7.34	15.38	15.33	17.04	115.52	485,058.96	587,860.68	
2,287.00	0.74	80.68	2,286.66	-7.22	16.83	16.79	18.31	113.20	485,059.08	587,862.13	
2,381.00	2.28	255.03	2,380.64	-7.60	15.62	15.58	17.37	115.94	485,058.70	587,860.92	
2,476.00	5.54	256.97	2,475.40	-9.12	9.33	9.27	13.05	134.36	485,057.18	587,854.63	
2,571.00	8.21	251.57	2,569.71	-12.30	-1.58	-1.65	12.40	187.30	485,054.00	587,843.72	
2,665.00	11.35	250.59	2,662.34	-17.50	-16.67	-16.78	24.17	223.61	485,048.80	587,828.63	
2,760.00	14.44	248.73	2,754.93	-24.90	-36.53	-36.69	44.21	235.72	485,041.40	587,808.77	
2,855.00	16.77	246.46	2,846.42	-34.68	-60.14	-60.35	69.42	240.03	485,031.62	587,785.16	
2,949.00	18.94	252.30	2,935.90	-44.73	-87.11	-87.39	97.92	242.82	485,021.57	587,758.19	
3,044.00	20.94	257.76	3,025.20	-53.02	-118.39	-118.72	129.72	245.88	485,013.28	587,726.91	
3,139.00	21.83	258.34	3,113.66	-60.19	-152.28	-152.66	163.74	248.43	485,006.11	587,693.02	
3,233.00	22.64	259.05	3,200.67	-67.16	-187.16	-187.58	198.85	250.26	484,999.14	587,658.14	
3,328.00	23.29	258.80	3,288.14	-74.28	-223.54	-224.00	235.55	251.62	484,992.02	587,621.76	
3,423.00	20.46	256.34	3,376.30	-81.85	-258.10	-258.61	270.77	252.41	484,984.45	587,587.20	
3,518.00	20.61	255.18	3,465.26	-90.05	-290.40	-290.96	304.04	252.77	484,976.25	587,554.90	
3,612.00	18.11	252.82	3,553.94	-98.60	-320.36	-320.97	335.19	252.89	484,967.70	587,524.94	
3,707.00	18.63	253.31	3,644.10	-107.32	-349.00	-349.67	365.13	252.91	484,958.98	587,496.30	
3,802.00	15.59	245.26	3,734.90	-117.02	-375.14	-375.86	392.96	252.68	484,949.28	587,470.16	
3,897.00	14.77	236.23	3,826.59	-129.10	-396.80	-397.60	417.27	251.98	484,937.20	587,448.50	
3,991.00	15.24	236.42	3,917.39	-142.59	-417.05	-417.94	440.76	251.12	484,923.71	587,428.25	
4,086.00	15.88	236.14	4,008.90	-156.74	-438.25	-439.23	465.43	250.32	484,909.56	587,407.05	
4,181.00	15.82	235.48	4,100.29	-171.32	-459.71	-460.78	490.60	249.56	484,894.98	587,385.59	
4,275.00	15.71	235.02	4,190.76	-185.87	-480.70	-481.85	515.38	248.86	484,880.43	587,364.60	
4,370.00	15.37	235.04	4,282.28	-200.46	-501.55	-502.80	540.13	248.21	484,865.84	587,343.75	

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
4,464.00	14.94	234.43	4,373.01	-214.65	-521.62	-522.96	564.06	247.63	484,851.65	587,323.68	
4,559.00	14.22	233.73	4,464.96	-228.67	-540.99	-542.41	587.33	247.09	484,837.63	587,304.31	
4,654.00	16.32	235.51	4,556.60	-243.14	-561.40	-562.91	611.79	246.58	484,823.16	587,283.90	
4,749.00	16.02	235.92	4,647.84	-258.04	-583.26	-584.87	637.79	246.13	484,808.26	587,262.04	
4,843.00	15.83	235.88	4,738.23	-272.50	-604.61	-606.31	663.18	245.74	484,793.80	587,240.69	
4,938.00	15.76	236.07	4,829.64	-286.97	-626.04	-627.84	688.68	245.37	484,779.33	587,219.26	
5,033.00	17.89	237.61	4,920.57	-301.99	-649.07	-650.96	715.89	245.05	484,764.31	587,196.23	
5,127.00	17.48	237.07	5,010.13	-317.40	-673.11	-675.10	744.19	244.75	484,748.90	587,172.19	
5,222.00	17.42	236.83	5,100.76	-332.93	-696.99	-699.07	772.43	244.47	484,733.37	587,148.31	
5,317.00	17.59	237.33	5,191.36	-348.46	-720.98	-723.15	800.77	244.20	484,717.84	587,124.32	
5,411.00	17.64	237.21	5,280.95	-363.84	-744.91	-747.18	829.02	243.97	484,702.46	587,100.39	
5,506.00	17.15	236.54	5,371.61	-379.36	-768.70	-771.06	857.21	243.73	484,686.94	587,076.60	
5,601.00	17.10	235.75	5,462.39	-394.94	-791.93	-794.39	884.94	243.49	484,671.36	587,053.37	
5,695.00	16.57	235.48	5,552.37	-410.32	-814.39	-816.95	911.92	243.26	484,655.98	587,030.91	
5,790.00	15.67	236.55	5,643.63	-425.07	-836.26	-838.91	938.09	243.06	484,641.23	587,009.04	
5,885.00	13.76	234.31	5,735.51	-438.73	-856.14	-858.88	962.01	242.87	484,627.57	586,989.16	
5,979.00	11.79	233.22	5,827.18	-451.00	-872.91	-875.73	982.54	242.68	484,615.30	586,972.39	
6,074.00	12.38	233.72	5,920.07	-462.84	-888.90	-891.79	1,002.18	242.49	484,603.46	586,956.40	
6,169.00	13.91	229.26	6,012.58	-476.32	-905.76	-908.74	1,023.37	242.26	484,589.98	586,939.54	
6,264.00	13.06	228.85	6,104.96	-490.84	-922.50	-925.56	1,044.95	241.98	484,575.46	586,922.80	
6,358.00	15.34	230.72	6,196.09	-505.70	-940.12	-943.28	1,067.50	241.72	484,560.60	586,905.18	
6,453.00	16.22	237.01	6,287.51	-520.88	-960.98	-964.23	1,093.07	241.54	484,545.42	586,884.32	
6,548.00	15.51	236.70	6,378.89	-535.08	-982.72	-986.06	1,118.95	241.43	484,531.22	586,862.58	
6,642.00	14.76	236.03	6,469.63	-548.67	-1,003.16	-1,006.59	1,143.40	241.32	484,517.63	586,842.14	
6,737.00	15.61	235.16	6,561.31	-562.73	-1,023.68	-1,027.20	1,168.16	241.20	484,503.57	586,821.62	
6,832.00	14.15	235.93	6,653.13	-576.54	-1,043.80	-1,047.40	1,192.44	241.09	484,489.76	586,801.50	
6,927.00	12.02	236.55	6,745.65	-588.50	-1,061.67	-1,065.35	1,213.87	241.00	484,477.80	586,783.63	

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
7,021.00	11.13	236.67	6,837.74	-598.88	-1,077.42	-1,081.16	1,232.67	240.93	484,467.42	586,767.88	
7,116.00	10.45	235.90	6,931.06	-608.75	-1,092.21	-1,096.02	1,250.40	240.87	484,457.55	586,753.09	
7,211.00	8.03	246.28	7,024.83	-616.25	-1,105.42	-1,109.27	1,265.59	240.86	484,450.05	586,739.88	
7,305.00	6.75	250.32	7,118.05	-620.75	-1,116.64	-1,120.52	1,277.58	240.93	484,445.55	586,728.66	
7,400.00	5.15	268.89	7,212.54	-622.72	-1,126.16	-1,130.05	1,286.86	241.06	484,443.58	586,719.14	
7,495.00	4.71	263.97	7,307.19	-623.21	-1,134.30	-1,138.19	1,294.23	241.21	484,443.09	586,711.00	
7,590.00	3.70	262.12	7,401.93	-624.04	-1,141.22	-1,145.11	1,300.69	241.33	484,442.26	586,704.08	
7,684.00	3.05	257.73	7,495.77	-624.99	-1,146.66	-1,150.57	1,305.93	241.41	484,441.31	586,698.64	
7,779.00	2.37	252.45	7,590.66	-626.11	-1,151.01	-1,154.92	1,310.28	241.46	484,440.19	586,694.29	
7,874.00	2.28	263.32	7,685.58	-626.93	-1,154.76	-1,158.67	1,313.96	241.50	484,439.37	586,690.54	
7,968.00	1.97	260.11	7,779.52	-627.42	-1,158.20	-1,162.12	1,317.23	241.55	484,438.88	586,687.10	
8,076.00	1.78	221.51	7,887.46	-629.00	-1,161.15	-1,165.07	1,320.57	241.56	484,437.30	586,684.15	
8,170.00	1.76	212.41	7,981.42	-631.31	-1,162.89	-1,166.83	1,323.20	241.50	484,434.99	586,682.41	
8,265.00	2.36	209.71	8,076.36	-634.24	-1,164.64	-1,168.60	1,326.14	241.43	484,432.06	586,680.66	
8,360.00	4.26	208.99	8,171.20	-639.02	-1,167.32	-1,171.31	1,330.78	241.30	484,427.28	586,677.98	
8,454.00	2.85	210.28	8,265.01	-644.10	-1,170.19	-1,174.21	1,335.74	241.17	484,422.20	586,675.11	
8,549.00	0.32	29.99	8,359.98	-645.91	-1,171.25	-1,175.28	1,337.54	241.12	484,420.39	586,674.05	
8,644.00	4.84	50.38	8,454.86	-643.12	-1,168.03	-1,172.04	1,333.37	241.16	484,423.18	586,677.27	
8,739.00	14.42	70.57	8,548.43	-636.61	-1,153.75	-1,157.72	1,317.73	241.11	484,429.69	586,691.55	
8,833.00	24.96	78.70	8,636.82	-628.81	-1,123.17	-1,127.10	1,287.21	240.76	484,437.49	586,722.13	
8,928.00	31.82	85.44	8,720.37	-622.88	-1,078.48	-1,082.37	1,245.43	239.99	484,443.42	586,766.82	
9,022.00	37.29	89.19	8,797.77	-620.51	-1,025.26	-1,029.14	1,198.41	238.82	484,445.79	586,820.04	
9,117.00	46.82	90.11	8,868.22	-620.17	-961.70	-965.58	1,144.32	237.18	484,446.13	586,883.60	
9,212.00	57.16	89.37	8,926.65	-619.79	-886.95	-890.83	1,082.05	235.05	484,446.51	586,958.35	
9,227.95	58.61	89.31	8,935.12	-619.64	-873.45	-877.32	1,070.91	234.65	484,446.66	586,971.85	
FTP Actual 9227.95' MD, 915.90' FNL, 330' FEL											

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)
9,244.56	60.13	89.24	8,943.59	-619.46	-859.16	-863.03	1,059.19	234.21	484,446.84	586,986.14
Dal401H FTP										
9,306.00	65.73	89.02	8,971.54	-618.62	-804.47	-808.35	1,014.83	232.44	484,447.68	587,040.83
9,401.00	73.39	89.39	9,004.69	-617.40	-715.53	-719.40	945.07	229.21	484,448.90	587,129.77
9,495.00	77.97	88.27	9,027.93	-615.53	-624.50	-628.35	876.85	225.41	484,450.77	587,220.80
9,556.00	80.26	90.24	9,039.45	-614.75	-564.61	-568.46	834.69	222.57	484,451.55	587,280.69
9,651.00	87.08	87.32	9,049.92	-612.73	-470.27	-474.11	772.39	217.51	484,453.57	587,375.03
9,745.00	90.24	86.15	9,052.12	-607.38	-376.46	-380.27	714.59	211.79	484,458.92	587,468.84
9,840.00	89.56	85.63	9,052.29	-600.57	-281.71	-285.48	663.36	205.13	484,465.73	587,563.59
9,935.00	90.03	86.30	9,052.63	-593.88	-186.95	-190.67	622.61	197.47	484,472.42	587,658.35
10,029.00	88.63	88.74	9,053.72	-589.82	-93.05	-96.75	597.11	188.97	484,476.48	587,752.25
10,124.00	90.10	89.95	9,054.78	-588.73	1.93	-1.77	588.73	179.81	484,477.57	587,847.23
10,219.00	88.86	92.27	9,055.64	-590.57	96.90	93.19	598.47	170.68	484,475.73	587,942.20
10,313.00	88.63	92.32	9,057.70	-594.33	190.80	187.07	624.21	162.20	484,471.97	588,036.10
10,408.00	87.41	92.92	9,060.98	-598.67	285.65	281.88	663.33	154.49	484,467.63	588,130.95
10,503.00	85.09	91.29	9,067.19	-602.16	380.37	376.58	712.23	147.72	484,464.14	588,225.67
10,598.00	85.43	90.92	9,075.04	-603.98	475.03	471.22	768.40	141.82	484,462.32	588,320.33
10,693.00	86.57	89.90	9,081.67	-604.66	569.79	565.98	830.83	136.70	484,461.64	588,415.09
10,787.00	86.81	88.64	9,087.10	-603.46	663.62	659.82	896.98	132.28	484,462.84	588,508.92
10,882.00	87.82	86.96	9,091.55	-599.82	758.44	754.66	966.97	128.34	484,466.48	588,603.74
10,977.00	89.97	87.69	9,093.38	-595.39	853.32	849.56	1,040.50	124.90	484,470.91	588,698.62
11,072.00	89.46	86.77	9,093.85	-590.80	948.20	944.47	1,117.20	121.93	484,475.50	588,793.50
11,167.00	89.63	86.42	9,094.61	-585.16	1,043.03	1,039.34	1,195.96	119.29	484,481.14	588,888.33
11,262.00	88.46	86.93	9,096.19	-579.65	1,137.86	1,134.19	1,276.99	117.00	484,486.65	588,983.16
11,356.00	90.07	88.56	9,097.40	-575.95	1,231.77	1,228.13	1,359.77	115.06	484,490.35	589,077.07
11,451.00	89.53	87.76	9,097.73	-572.90	1,326.72	1,323.09	1,445.13	113.36	484,493.40	589,172.02
11,546.00	89.40	87.39	9,098.62	-568.88	1,421.63	1,418.03	1,531.23	111.81	484,497.42	589,266.93

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
11,641.00	89.77	87.01	9,099.30	-564.24	1,516.51	1,512.94	1,618.08	110.41	484,502.06	589,361.81	
11,736.00	89.09	89.05	9,100.25	-560.97	1,611.45	1,607.89	1,706.30	109.19	484,505.33	589,456.75	
11,830.00	90.91	88.55	9,100.25	-559.00	1,705.42	1,701.88	1,794.70	108.15	484,507.30	589,550.72	
11,925.00	89.50	88.12	9,099.91	-556.24	1,800.38	1,796.85	1,884.35	107.17	484,510.06	589,645.68	
12,020.00	91.64	90.45	9,098.96	-555.06	1,895.36	1,891.83	1,974.96	106.32	484,511.24	589,740.66	
12,115.00	92.05	93.01	9,095.91	-557.92	1,990.26	1,986.71	2,066.98	105.66	484,508.38	589,835.56	
12,210.00	90.64	90.92	9,093.68	-561.18	2,085.17	2,081.60	2,159.36	105.06	484,505.12	589,930.47	
12,305.00	86.58	90.43	9,095.98	-562.30	2,180.11	2,176.53	2,251.46	104.46	484,504.00	590,025.41	
12,400.00	87.79	90.64	9,100.64	-563.19	2,274.99	2,271.41	2,343.66	103.90	484,503.11	590,120.29	
12,495.00	90.40	90.58	9,102.15	-564.20	2,369.96	2,366.37	2,436.20	103.39	484,502.10	590,215.26	
12,589.00	87.51	89.88	9,103.86	-564.57	2,463.94	2,460.34	2,527.79	102.91	484,501.73	590,309.24	
12,684.00	90.87	91.80	9,105.20	-565.97	2,558.90	2,555.29	2,620.74	102.47	484,500.33	590,404.20	
12,779.00	87.99	92.41	9,106.15	-569.46	2,653.82	2,650.19	2,714.23	102.11	484,496.84	590,499.12	
12,874.00	85.87	91.77	9,111.23	-572.92	2,748.62	2,744.96	2,807.69	101.77	484,493.38	590,593.92	
12,968.00	88.22	91.57	9,116.08	-575.65	2,842.44	2,838.77	2,900.15	101.45	484,490.65	590,687.74	
13,063.00	88.32	91.04	9,118.95	-577.81	2,937.38	2,933.69	2,993.67	101.13	484,488.49	590,782.68	
13,158.00	82.53	91.01	9,126.52	-579.51	3,032.02	3,028.32	3,086.90	100.82	484,486.79	590,877.32	
13,253.00	81.17	90.35	9,139.99	-580.62	3,126.05	3,122.34	3,179.51	100.52	484,485.68	590,971.35	
13,348.00	82.71	88.84	9,153.31	-579.96	3,220.10	3,216.39	3,271.91	100.21	484,486.34	591,065.40	
13,443.00	86.00	87.94	9,162.65	-577.30	3,314.59	3,310.90	3,364.49	99.88	484,489.00	591,159.89	
13,537.00	84.86	87.33	9,170.14	-573.43	3,408.21	3,404.54	3,456.11	99.55	484,492.87	591,253.51	
13,632.00	87.25	87.29	9,176.68	-568.99	3,502.87	3,499.23	3,548.78	99.23	484,497.31	591,348.17	
13,727.00	93.19	88.01	9,176.31	-565.09	3,597.75	3,594.13	3,641.86	98.93	484,501.21	591,443.05	
13,822.00	91.88	87.10	9,172.11	-561.04	3,692.57	3,688.97	3,734.95	98.64	484,505.26	591,537.87	
13,917.00	91.54	86.86	9,169.28	-556.04	3,787.39	3,783.82	3,827.99	98.35	484,510.26	591,632.69	
14,012.00	91.91	86.78	9,166.42	-550.77	3,882.20	3,878.67	3,921.08	98.07	484,515.53	591,727.50	
14,107.00	92.55	87.84	9,162.72	-546.32	3,977.02	3,973.51	4,014.37	97.82	484,519.98	591,822.32	

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
14,202.00	90.80	90.19	9,159.94	-544.69	4,071.96	4,068.46	4,108.23	97.62	484,521.61	591,917.26	
14,297.00	89.36	91.80	9,159.81	-546.34	4,166.94	4,163.42	4,202.60	97.47	484,519.96	592,012.24	
14,391.00	89.70	91.80	9,160.58	-549.29	4,260.89	4,257.35	4,296.15	97.35	484,517.01	592,106.19	
14,486.00	89.36	91.94	9,161.36	-552.39	4,355.84	4,352.28	4,390.72	97.23	484,513.91	592,201.14	
14,581.00	88.12	91.97	9,163.45	-555.63	4,450.76	4,447.18	4,485.30	97.12	484,510.67	592,296.06	
14,676.00	87.05	90.50	9,167.45	-557.67	4,545.65	4,542.05	4,579.73	96.99	484,508.63	592,390.95	
14,771.00	87.28	89.94	9,172.15	-558.04	4,640.53	4,636.93	4,673.96	96.86	484,508.26	592,485.83	
14,866.00	88.59	89.68	9,175.58	-557.72	4,735.46	4,731.87	4,768.19	96.72	484,508.58	592,580.76	
14,961.00	88.96	89.45	9,177.61	-557.00	4,830.44	4,826.84	4,862.45	96.58	484,509.30	592,675.74	
15,055.00	89.70	90.33	9,178.71	-556.82	4,924.43	4,920.84	4,955.81	96.45	484,509.48	592,769.73	
15,150.00	89.16	91.64	9,179.65	-558.45	5,019.41	5,015.80	5,050.38	96.35	484,507.85	592,864.71	
15,245.00	87.95	92.59	9,182.05	-561.96	5,114.31	5,110.68	5,145.09	96.27	484,504.34	592,959.61	
15,340.00	87.15	93.00	9,186.11	-566.59	5,209.11	5,205.45	5,239.83	96.21	484,499.71	593,054.41	
15,435.00	85.90	92.38	9,191.87	-571.04	5,303.83	5,300.14	5,334.48	96.15	484,495.26	593,149.13	
15,530.00	83.27	91.12	9,200.83	-573.93	5,398.35	5,394.64	5,428.77	96.07	484,492.37	593,243.65	
15,624.00	85.57	88.79	9,209.97	-573.85	5,491.89	5,488.18	5,521.79	95.97	484,492.45	593,337.19	
15,706.00	88.76	86.44	9,214.03	-570.44	5,573.71	5,570.01	5,602.82	95.84	484,495.86	593,419.01	
15,819.00	87.92	86.43	9,217.30	-563.42	5,686.44	5,682.79	5,714.28	95.66	484,502.88	593,531.74	
15,913.00	88.96	86.12	9,219.86	-557.31	5,780.20	5,776.59	5,807.01	95.51	484,508.99	593,625.50	
16,008.00	91.18	87.22	9,219.74	-551.80	5,875.04	5,871.45	5,900.89	95.37	484,514.50	593,720.34	
16,103.00	91.01	88.74	9,217.93	-548.45	5,969.96	5,966.39	5,995.10	95.25	484,517.85	593,815.26	
16,198.00	92.86	88.21	9,214.72	-545.92	6,064.86	6,061.31	6,089.39	95.14	484,520.38	593,910.16	
16,293.00	90.10	89.58	9,212.27	-544.09	6,159.80	6,156.26	6,183.79	95.05	484,522.21	594,005.10	
16,388.00	89.60	88.28	9,212.52	-542.32	6,254.78	6,251.25	6,278.25	94.96	484,523.98	594,100.08	
16,483.00	90.07	89.46	9,212.79	-540.44	6,349.76	6,346.24	6,372.72	94.86	484,525.86	594,195.06	
16,577.00	89.73	88.71	9,212.95	-538.94	6,443.75	6,440.24	6,466.25	94.78	484,527.36	594,289.05	
16,672.00	91.21	89.02	9,212.17	-537.06	6,538.73	6,535.22	6,560.74	94.70	484,529.24	594,384.03	

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)
16,767.00	91.21	88.68	9,210.17	-535.15	6,633.69	6,630.19	6,655.24	94.61	484,531.15	594,478.99
16,862.00	90.44	88.24	9,208.80	-532.60	6,728.64	6,725.16	6,749.69	94.53	484,533.70	594,573.94
16,956.00	88.86	88.27	9,209.37	-529.74	6,822.59	6,819.13	6,843.13	94.44	484,536.56	594,667.89
17,051.00	88.32	88.32	9,211.71	-526.91	6,917.52	6,914.07	6,937.56	94.36	484,539.39	594,762.82
17,146.00	88.49	87.59	9,214.36	-523.52	7,012.42	7,009.00	7,031.94	94.27	484,542.78	594,857.72
17,241.00	88.02	88.47	9,217.25	-520.26	7,107.32	7,103.91	7,126.34	94.19	484,546.04	594,952.62
17,335.00	89.06	90.63	9,219.64	-519.52	7,201.28	7,197.88	7,220.00	94.13	484,546.78	595,046.58
17,430.00	89.93	90.58	9,220.48	-520.53	7,296.27	7,292.86	7,314.82	94.08	484,545.77	595,141.57
17,525.00	87.39	88.99	9,222.70	-520.17	7,391.23	7,387.82	7,409.52	94.03	484,546.13	595,236.53
17,620.00	87.95	88.72	9,226.57	-518.27	7,486.14	7,482.73	7,504.05	93.96	484,548.03	595,331.44
17,714.00	89.29	89.23	9,228.83	-516.59	7,580.09	7,576.70	7,597.67	93.90	484,549.71	595,425.39
17,809.00	87.39	88.15	9,231.58	-514.42	7,675.02	7,671.64	7,692.24	93.83	484,551.88	595,520.32
17,904.00	88.59	89.09	9,234.91	-512.14	7,769.93	7,766.56	7,786.79	93.77	484,554.16	595,615.23
17,999.00	87.66	88.74	9,238.02	-510.34	7,864.86	7,861.50	7,881.40	93.71	484,555.96	595,710.16
18,094.00	88.16	89.66	9,241.49	-509.01	7,959.79	7,956.43	7,976.05	93.66	484,557.29	595,805.09
18,189.00	88.89	90.26	9,243.93	-508.95	8,054.76	8,051.40	8,070.82	93.62	484,557.35	595,900.06
18,284.00	89.19	89.95	9,245.52	-509.12	8,149.74	8,146.38	8,165.63	93.57	484,557.18	595,995.04
18,378.00	88.96	90.71	9,247.04	-509.66	8,243.73	8,240.36	8,259.47	93.54	484,556.64	596,089.03
18,473.00	90.00	90.70	9,247.90	-510.83	8,338.72	8,335.34	8,354.35	93.51	484,555.47	596,184.02
18,568.00	87.62	91.08	9,249.88	-512.31	8,433.68	8,430.29	8,449.22	93.48	484,553.99	596,278.98
18,662.00	85.94	90.63	9,255.16	-513.71	8,527.51	8,524.12	8,542.97	93.45	484,552.59	596,372.81
18,757.00	88.32	90.34	9,259.91	-514.51	8,622.39	8,618.98	8,637.72	93.41	484,551.79	596,467.69
18,852.00	89.60	90.00	9,261.64	-514.79	8,717.37	8,713.96	8,732.55	93.38	484,551.51	596,562.67
18,946.00	90.40	89.60	9,261.64	-514.46	8,811.37	8,807.96	8,826.37	93.34	484,551.84	596,656.67
19,041.00	89.06	88.61	9,262.08	-512.98	8,906.35	8,902.95	8,921.11	93.30	484,553.32	596,751.65
19,136.00	88.22	87.44	9,264.34	-509.71	9,001.26	8,997.88	9,015.68	93.24	484,556.59	596,846.56
19,231.00	88.72	86.81	9,266.88	-504.94	9,096.11	9,092.76	9,110.11	93.18	484,561.36	596,941.41

Scientific Drilling, Intl
WPX Final Survey Report

Company:	WPX Energy, Permian	Local Co-ordinate Reference:	Well Dalmatian 3-2-23-27 Fee 411H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Site:	Dalmatian/Shepherd 3-2-23-27 Fee Pad	MD Reference:	GL 3112 + KB 26 = @ 3138.00usft (HP 265)
Well:	Dalmatian 3-2-23-27 Fee 411H	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)	
19,232.60	88.72	86.80	9,266.91	-504.85	9,097.71	9,094.36	9,111.71	93.18	484,561.45	596,943.01	
Dal401H LTP											
19,239.45	88.73	86.74	9,267.06	-504.47	9,104.54	9,101.19	9,118.51	93.17	484,561.83	596,949.84	
LTP Actual 19239.45' MD, 863.45' FNL, 330' FWL											
19,264.00	88.76	86.52	9,267.60	-503.02	9,129.05	9,125.70	9,142.89	93.15	484,563.28	596,974.35	
SDI MWD											
19,332.46	88.76	86.52	9,269.08	-498.87	9,197.37	9,194.05	9,210.89	93.10	484,567.43	597,042.67	
Dal401H BHL											
19,337.00	88.76	86.52	9,269.18	-498.59	9,201.89	9,198.58	9,215.39	93.10	484,567.71	597,047.19	
Bit Projection											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,227.95	8,935.12	-619.64	-873.45	FTP Actual 9227.95' MD, 915.90' FNL, 330' FEL
19,239.45	9,267.06	-504.47	9,104.54	LTP Actual 19239.45' MD, 863.45' FNL, 330' FWL
19,264.00	9,267.60	-503.02	9,129.05	SDI MWD
19,337.00	9,269.18	-498.59	9,201.89	Bit Projection

Checked By: _____ Approved By: _____ Date: _____