

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 02 2017

RECEIVED

WPX Energy

Eddy County, New Mexico NAD 83

C 17 State Pad

C 17 State 3H

API:

30-015-44536

Wellbore #1

Plan: Plan #1

Standard Planning Report

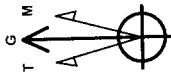
11 October, 2017



www.scientificdrilling.com

C 17 State 3H
Eddy County, New Mexico NAD 83
Northing: 476120.10
Easting: 580998.40
Plan #1

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)



Azimuths to Grid North
 True North: -0.07°
 Magnetic North: 7.31°
 Magnetic Field
 Strength: 4867.8nT
 Dip Angle: 60.10°
 Date: 10/11/2017
 Model: HDGM

To convert Magnetic North to Grid Add 7.31°
 To convert True North to Grid Subtract 0.07°

WELL DETAILS C 17 State 3H			
Ground Level: 3154.00			
+N/-S	+E/-W	Northing	Easting
0.00	0.00	476120.10	580998.40
		Latitude	Longitude
		32.308862	-104.204958

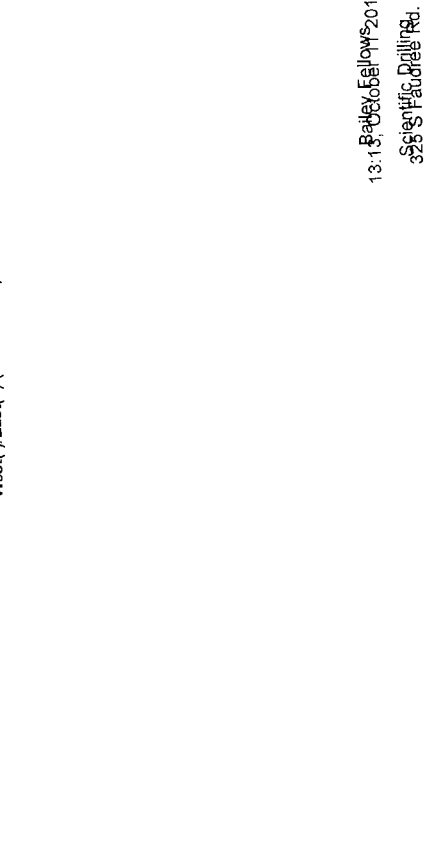
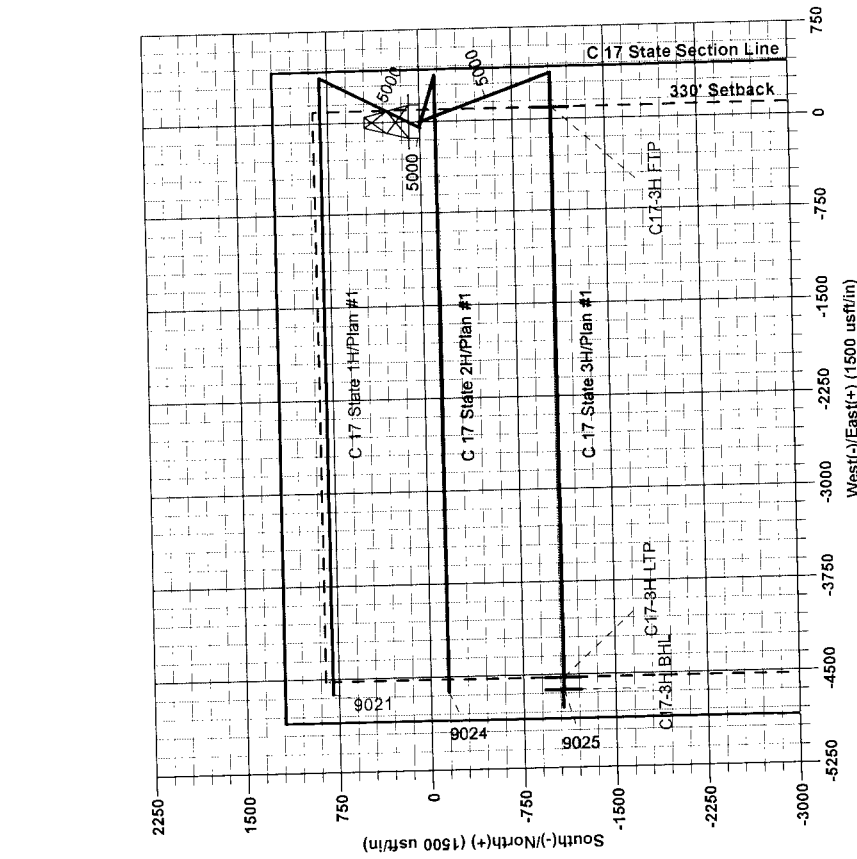
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	
1986.44	9.93	160.42	1983.96	-40.42	14.38	2.00	160.42	-14.25	
8051.25	9.93	160.42	7958.08	-1024.03	364.32	2.00	0.00	-361.10	
8547.69	0.00	0.00	8452.04	-1084.45	378.76	2.00	180.00	-375.35	
9447.69	90.00	269.82	9025.00	-1086.22	+394.25	10.00	269.82	197.60	
13874.65	90.00	269.82	9025.00	-1079.90	-4621.20	0.00	0.00	4624.57	

SITE DETAILS:		PROJECT DETAILS:	
C 17 State Pad		Eddy County, New Mexico NAD 83	
Site Centre Northing: 476120.00		Geodetic System: US State Plane 1983	
Easting: 580948.40		Datum: North American Datum 1983	
Positional Uncertainty: 0.00		Ellipsoid: GRS 1980	
Convergence: 0.07		Zone: New Mexico Eastern Zone	
Local North: Grid		System Datum: Mean Sea Level	

DESIGN TARGET DETAILS			
Name	TVD	+N/-S	+E/-W
C17-3H FTP	8943.00	065.20	98.70
C17-3H BHL	9025.00	-1079.80	-4621.20
C17-3H LTP	9025.00	-1079.80	-4521.20

FORMATION TOP DETAILS			
Formation	TVDPath		
1966.08Bell Canyon (Base of Salt)	1966.00		
Cherry Canyon	2962.00		
Brushy Canyon	3889.00		
Bone Spring	5404.00		
Avalon	5493.00		
1st Bone Spring Sand	6531.00		
2nd Bone Spring Lime	6726.00		
3rd Bone Spring Lime	7023.00		
3rd Bone Spring Sand	7193.00		
Wolfcamp Top	8564.00		
WC_X	8913.00		
WC_Y	8939.00		
Top Target	9001.00		
Landing Point	9011.00		
	9025.00		

CASING DETAILS			
TVD	MD	Size	
1966.00	1968.08	9-5/8	



Scientific Drilling Int.

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well C 17 State 3H
Company:	WPX Energy	TVD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Site:	C 17 State Pad	North Reference:	Grid
Well:	C 17 State 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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	C 17 State Pad			
Site Position:		Northing:	476,120.00 usft	Latitude: 32.308862
From:	Map	Easting:	580,948.40 usft	Longitude: -104.205120
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.07 °

Well	C 17 State 3H			
Well Position	+N/-S	0.10 usft	Northing:	476,120.10 usft
	+E/-W	50.00 usft	Easting:	580,998.40 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	3,154.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/11/2017	7.38	60.10	48,068

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	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	269.82

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,996.44	9.93	160.42	1,993.96	-40.42	14.38	2.00	2.00	0.00	160.42	
8,051.25	9.93	160.42	7,958.08	-1,024.03	364.32	0.00	0.00	0.00	0.00	
8,547.69	0.00	0.00	8,452.04	-1,064.45	378.70	2.00	-2.00	0.00	180.00	
9,447.69	90.00	269.82	9,025.00	-1,066.22	-194.25	10.00	10.00	-10.02	269.82	
13,874.65	90.00	269.82	9,025.00	-1,079.90	-4,621.20	0.00	0.00	0.00	0.00	C17-3H BHL

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Project: Eddy County, New Mexico NAD 83

Site: C 17 State Pad

Well: C 17 State 3H

Wellbore: Wellbore #1

Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well C 17 State 3H

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Grid

Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	2.00	160.42	1,599.98	-1.64	0.58	-0.58	2.00	2.00	0.00
1,700.00	4.00	160.42	1,699.84	-6.57	2.34	-2.32	2.00	2.00	0.00
1,800.00	6.00	160.42	1,799.45	-14.79	5.26	-5.21	2.00	2.00	0.00
1,900.00	8.00	160.42	1,898.70	-26.27	9.35	-9.26	2.00	2.00	0.00
1,968.08	9.36	160.42	1,966.00	-35.95	12.79	-12.68	2.00	2.00	0.00
Bell Canyon (Base of Salt) - 9 5/8"									
1,996.44	9.93	160.42	1,993.96	-40.42	14.38	-14.25	2.00	2.00	0.00
2,000.00	9.93	160.42	1,997.47	-41.00	14.59	-14.46	0.00	0.00	0.00
2,100.00	9.93	160.42	2,095.97	-57.25	20.37	-20.19	0.00	0.00	0.00
2,200.00	9.93	160.42	2,194.47	-73.49	26.15	-25.92	0.00	0.00	0.00
2,300.00	9.93	160.42	2,292.97	-89.74	31.93	-31.64	0.00	0.00	0.00
2,400.00	9.93	160.42	2,391.47	-105.98	37.71	-37.37	0.00	0.00	0.00
2,500.00	9.93	160.42	2,489.98	-122.23	43.48	-43.10	0.00	0.00	0.00
2,600.00	9.93	160.42	2,588.48	-138.47	49.26	-48.83	0.00	0.00	0.00
2,700.00	9.93	160.42	2,686.98	-154.72	55.04	-54.56	0.00	0.00	0.00
2,800.00	9.93	160.42	2,785.48	-170.96	60.82	-60.29	0.00	0.00	0.00
2,900.00	9.93	160.42	2,883.99	-187.21	66.60	-66.01	0.00	0.00	0.00
2,979.20	9.93	160.42	2,962.00	-200.07	71.18	-70.55	0.00	0.00	0.00
Cherry Canyon									
3,000.00	9.93	160.42	2,982.49	-203.45	72.38	-71.74	0.00	0.00	0.00
3,100.00	9.93	160.42	3,080.99	-219.70	78.16	-77.47	0.00	0.00	0.00
3,200.00	9.93	160.42	3,179.49	-235.94	83.94	-83.20	0.00	0.00	0.00
3,300.00	9.93	160.42	3,278.00	-252.19	89.72	-88.93	0.00	0.00	0.00
3,400.00	9.93	160.42	3,376.50	-268.43	95.50	-94.66	0.00	0.00	0.00
3,500.00	9.93	160.42	3,475.00	-284.68	101.28	-100.38	0.00	0.00	0.00
3,600.00	9.93	160.42	3,573.50	-300.92	107.06	-106.11	0.00	0.00	0.00
3,700.00	9.93	160.42	3,672.00	-317.17	112.84	-111.84	0.00	0.00	0.00
3,800.00	9.93	160.42	3,770.51	-333.41	118.62	-117.57	0.00	0.00	0.00
3,900.00	9.93	160.42	3,869.01	-349.66	124.40	-123.30	0.00	0.00	0.00
3,920.30	9.93	160.42	3,889.00	-352.95	125.57	-124.46	0.00	0.00	0.00
Brushy Canyon									
4,000.00	9.93	160.42	3,967.51	-365.90	130.18	-129.03	0.00	0.00	0.00
4,100.00	9.93	160.42	4,066.01	-382.15	135.96	-134.76	0.00	0.00	0.00
4,200.00	9.93	160.42	4,164.52	-398.39	141.74	-140.48	0.00	0.00	0.00
4,300.00	9.93	160.42	4,263.02	-414.64	147.52	-146.21	0.00	0.00	0.00
4,400.00	9.93	160.42	4,361.52	-430.88	153.30	-151.94	0.00	0.00	0.00

Scientific Drilling Int.

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Project: Eddy County, New Mexico NAD 83

Site: C 17 State Pad

Well: C 17 State 3H

Wellbore: Wellbore #1

Design: Plan #1

Local Co-ordinate Reference:

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North Reference:

Survey Calculation Method:

Well C 17 State 3H

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Grid

Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	9.93	160.42	4,460.02	-447.13	159.07	-157.67	0.00	0.00	0.00
4,600.00	9.93	160.42	4,558.53	-463.37	164.85	-163.40	0.00	0.00	0.00
4,700.00	9.93	160.42	4,657.03	-479.62	170.63	-169.13	0.00	0.00	0.00
4,800.00	9.93	160.42	4,755.53	-495.86	176.41	-174.85	0.00	0.00	0.00
4,900.00	9.93	160.42	4,854.03	-512.11	182.19	-180.58	0.00	0.00	0.00
5,000.00	9.93	160.42	4,952.53	-528.35	187.97	-186.31	0.00	0.00	0.00
5,100.00	9.93	160.42	5,051.04	-544.60	193.75	-192.04	0.00	0.00	0.00
5,200.00	9.93	160.42	5,149.54	-560.84	199.53	-197.77	0.00	0.00	0.00
5,300.00	9.93	160.42	5,248.04	-577.09	205.31	-203.50	0.00	0.00	0.00
5,400.00	9.93	160.42	5,346.54	-593.33	211.09	-209.22	0.00	0.00	0.00
5,458.33	9.93	160.42	5,404.00	-602.81	214.46	-212.57	0.00	0.00	0.00
Bone Spring									
5,500.00	9.93	160.42	5,445.05	-609.58	216.87	-214.95	0.00	0.00	0.00
5,548.68	9.93	160.42	5,493.00	-617.49	219.68	-217.74	0.00	0.00	0.00
Avalon									
5,600.00	9.93	160.42	5,543.55	-625.82	222.65	-220.68	0.00	0.00	0.00
5,700.00	9.93	160.42	5,642.05	-642.07	228.43	-226.41	0.00	0.00	0.00
5,800.00	9.93	160.42	5,740.55	-658.31	234.21	-232.14	0.00	0.00	0.00
5,900.00	9.93	160.42	5,839.05	-674.56	239.99	-237.87	0.00	0.00	0.00
6,000.00	9.93	160.42	5,937.56	-690.80	245.77	-243.60	0.00	0.00	0.00
6,100.00	9.93	160.42	6,036.06	-707.05	251.55	-249.32	0.00	0.00	0.00
6,200.00	9.93	160.42	6,134.56	-723.29	257.33	-255.05	0.00	0.00	0.00
6,300.00	9.93	160.42	6,233.06	-739.54	263.11	-260.78	0.00	0.00	0.00
6,400.00	9.93	160.42	6,331.57	-755.78	268.88	-266.51	0.00	0.00	0.00
6,500.00	9.93	160.42	6,430.07	-772.03	274.66	-272.24	0.00	0.00	0.00
6,600.00	9.93	160.42	6,528.57	-788.27	280.44	-277.97	0.00	0.00	0.00
6,602.47	9.93	160.42	6,531.00	-788.67	280.59	-278.11	0.00	0.00	0.00
1st Bone Spring Sand									
6,700.00	9.93	160.42	6,627.07	-804.52	286.22	-283.69	0.00	0.00	0.00
6,800.00	9.93	160.42	6,725.58	-820.76	292.00	-289.42	0.00	0.00	0.00
6,800.43	9.93	160.42	6,726.00	-820.83	292.03	-289.45	0.00	0.00	0.00
2nd Bone Spring Lime									
6,900.00	9.93	160.42	6,824.08	-837.01	297.78	-295.15	0.00	0.00	0.00
7,000.00	9.93	160.42	6,922.58	-853.25	303.56	-300.88	0.00	0.00	0.00
7,100.00	9.93	160.42	7,021.08	-869.50	309.34	-306.61	0.00	0.00	0.00
7,101.95	9.93	160.42	7,023.00	-869.81	309.45	-306.72	0.00	0.00	0.00
2nd Bone Spring Sand									
7,200.00	9.93	160.42	7,119.58	-885.74	315.12	-312.34	0.00	0.00	0.00
7,274.53	9.93	160.42	7,193.00	-897.85	319.43	-316.61	0.00	0.00	0.00
3rd Bone Spring Lime									
7,300.00	9.93	160.42	7,218.09	-901.99	320.90	-318.06	0.00	0.00	0.00
7,400.00	9.93	160.42	7,316.59	-918.23	326.68	-323.79	0.00	0.00	0.00
7,500.00	9.93	160.42	7,415.09	-934.48	332.46	-329.52	0.00	0.00	0.00
7,600.00	9.93	160.42	7,513.59	-950.72	338.24	-335.25	0.00	0.00	0.00
7,700.00	9.93	160.42	7,612.10	-966.97	344.02	-340.98	0.00	0.00	0.00
7,800.00	9.93	160.42	7,710.60	-983.21	349.80	-346.71	0.00	0.00	0.00
7,900.00	9.93	160.42	7,809.10	-999.46	355.58	-352.44	0.00	0.00	0.00
8,000.00	9.93	160.42	7,907.60	-1,015.70	361.36	-358.16	0.00	0.00	0.00
8,051.25	9.93	160.42	7,958.08	-1,024.03	364.32	-361.10	0.00	0.00	0.00
8,100.00	8.95	160.42	8,006.17	-1,031.56	367.00	-363.76	2.00	-2.00	0.00
8,200.00	6.95	160.42	8,105.21	-1,044.60	371.64	-368.35	2.00	-2.00	0.00

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Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.00	4.95	160.42	8,204.66	-1,054.37	375.11	-371.80	2.00	-2.00	0.00
8,400.00	2.95	160.42	8,304.42	-1,060.86	377.42	-374.09	2.00	-2.00	0.00
8,500.00	0.95	160.42	8,404.36	-1,064.08	378.57	-375.22	2.00	-2.00	0.00
8,547.69	0.00	0.00	8,452.04	-1,064.45	378.70	-375.35	2.00	-2.00	0.00
8,550.00	0.23	269.82	8,454.35	-1,064.45	378.70	-375.35	10.00	10.00	0.00
8,600.00	5.23	269.82	8,504.28	-1,064.46	376.31	-372.97	10.00	10.00	0.00
8,650.00	10.23	269.82	8,553.81	-1,064.48	369.59	-366.24	10.00	10.00	0.00
8,660.37	11.27	269.82	8,564.00	-1,064.48	367.65	-364.31	10.00	10.00	0.00
3rd Bone Spring Sand									
8,700.00	15.23	269.82	8,602.57	-1,064.51	358.57	-355.23	10.00	10.00	0.00
8,750.00	20.23	269.82	8,650.18	-1,064.56	343.35	-340.00	10.00	10.00	0.00
8,800.00	25.23	269.82	8,696.28	-1,064.62	324.04	-320.69	10.00	10.00	0.00
8,850.00	30.23	269.82	8,740.52	-1,064.69	300.78	-297.43	10.00	10.00	0.00
8,900.00	35.23	269.82	8,782.57	-1,064.77	273.75	-270.40	10.00	10.00	0.00
8,950.00	40.23	269.82	8,822.10	-1,064.87	243.16	-239.82	10.00	10.00	0.00
9,000.00	45.23	269.82	8,858.82	-1,064.97	209.25	-205.90	10.00	10.00	0.00
9,050.00	50.23	269.82	8,892.44	-1,065.09	172.26	-168.91	10.00	10.00	0.00
9,083.33	53.56	269.82	8,913.00	-1,065.17	146.03	-142.69	10.00	10.00	0.00
Wolfcamp Top									
9,100.00	55.23	269.82	8,922.70	-1,065.21	132.48	-129.13	10.00	10.00	0.00
9,129.70	58.20	269.82	8,939.00	-1,065.29	107.66	-104.31	10.00	10.00	0.00
WC_X									
9,150.00	60.23	269.82	8,949.39	-1,065.34	90.22	-86.87	10.00	10.00	0.00
9,200.00	65.23	269.82	8,972.29	-1,065.48	45.79	-42.44	10.00	10.00	0.00
9,250.00	70.23	269.82	8,991.23	-1,065.62	-0.47	3.82	10.00	10.00	0.00
9,281.27	73.36	269.82	9,001.00	-1,065.71	-30.17	33.52	10.00	10.00	0.00
WC_Y									
9,300.00	75.23	269.82	9,006.07	-1,065.77	-48.20	51.55	10.00	10.00	0.00
9,320.78	77.31	269.82	9,011.00	-1,065.83	-68.38	71.73	10.00	10.00	0.00
Top Target									
9,350.00	80.23	269.82	9,016.69	-1,065.92	-97.04	100.39	10.00	10.00	0.00
9,400.00	85.23	269.82	9,023.01	-1,066.07	-146.62	149.97	10.00	10.00	0.00
9,447.69	90.00	269.82	9,025.00	-1,066.22	-194.25	197.60	10.00	10.00	0.00
Landing Point									
9,500.00	90.00	269.82	9,025.00	-1,066.38	-246.57	249.92	0.00	0.00	0.00
9,600.00	90.00	269.82	9,025.00	-1,066.69	-346.57	349.92	0.00	0.00	0.00
9,700.00	90.00	269.82	9,025.00	-1,067.00	-446.57	449.92	0.00	0.00	0.00
9,800.00	90.00	269.82	9,025.00	-1,067.31	-546.57	549.92	0.00	0.00	0.00
9,900.00	90.00	269.82	9,025.00	-1,067.62	-646.57	649.92	0.00	0.00	0.00
10,000.00	90.00	269.82	9,025.00	-1,067.93	-746.57	749.92	0.00	0.00	0.00
10,100.00	90.00	269.82	9,025.00	-1,068.24	-846.57	849.92	0.00	0.00	0.00
10,200.00	90.00	269.82	9,025.00	-1,068.55	-946.57	949.92	0.00	0.00	0.00
10,300.00	90.00	269.82	9,025.00	-1,068.85	-1,046.57	1,049.92	0.00	0.00	0.00
10,400.00	90.00	269.82	9,025.00	-1,069.16	-1,146.56	1,149.92	0.00	0.00	0.00
10,500.00	90.00	269.82	9,025.00	-1,069.47	-1,246.56	1,249.92	0.00	0.00	0.00
10,600.00	90.00	269.82	9,025.00	-1,069.78	-1,346.56	1,349.92	0.00	0.00	0.00
10,700.00	90.00	269.82	9,025.00	-1,070.09	-1,446.56	1,449.92	0.00	0.00	0.00
10,800.00	90.00	269.82	9,025.00	-1,070.40	-1,546.56	1,549.92	0.00	0.00	0.00
10,900.00	90.00	269.82	9,025.00	-1,070.71	-1,646.56	1,649.92	0.00	0.00	0.00
11,000.00	90.00	269.82	9,025.00	-1,071.02	-1,746.56	1,749.92	0.00	0.00	0.00
11,100.00	90.00	269.82	9,025.00	-1,071.33	-1,846.56	1,849.92	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database: Midland District
Company: WPX Energy

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Project: Eddy County, New Mexico NAD 83

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site: C 17 State Pad

North Reference: Grid

Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Wellbore: Wellbore #1

Design: Plan #1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,200.00	90.00	269.82	9,025.00	-1,071.64	-1,946.56	1,949.92	0.00	0.00	0.00
11,300.00	90.00	269.82	9,025.00	-1,071.94	-2,046.56	2,049.92	0.00	0.00	0.00
11,400.00	90.00	269.82	9,025.00	-1,072.25	-2,146.56	2,149.92	0.00	0.00	0.00
11,500.00	90.00	269.82	9,025.00	-1,072.56	-2,246.56	2,249.92	0.00	0.00	0.00
11,600.00	90.00	269.82	9,025.00	-1,072.87	-2,346.56	2,349.92	0.00	0.00	0.00
11,700.00	90.00	269.82	9,025.00	-1,073.18	-2,446.56	2,449.92	0.00	0.00	0.00
11,800.00	90.00	269.82	9,025.00	-1,073.49	-2,546.56	2,549.92	0.00	0.00	0.00
11,900.00	90.00	269.82	9,025.00	-1,073.80	-2,646.56	2,649.92	0.00	0.00	0.00
12,000.00	90.00	269.82	9,025.00	-1,074.11	-2,746.56	2,749.92	0.00	0.00	0.00
12,100.00	90.00	269.82	9,025.00	-1,074.42	-2,846.56	2,849.92	0.00	0.00	0.00
12,200.00	90.00	269.82	9,025.00	-1,074.73	-2,946.56	2,949.92	0.00	0.00	0.00
12,300.00	90.00	269.82	9,025.00	-1,075.03	-3,046.56	3,049.92	0.00	0.00	0.00
12,400.00	90.00	269.82	9,025.00	-1,075.34	-3,146.56	3,149.92	0.00	0.00	0.00
12,500.00	90.00	269.82	9,025.00	-1,075.65	-3,246.55	3,249.92	0.00	0.00	0.00
12,600.00	90.00	269.82	9,025.00	-1,075.96	-3,346.55	3,349.92	0.00	0.00	0.00
12,700.00	90.00	269.82	9,025.00	-1,076.27	-3,446.55	3,449.92	0.00	0.00	0.00
12,800.00	90.00	269.82	9,025.00	-1,076.58	-3,546.55	3,549.92	0.00	0.00	0.00
12,900.00	90.00	269.82	9,025.00	-1,076.89	-3,646.55	3,649.92	0.00	0.00	0.00
13,000.00	90.00	269.82	9,025.00	-1,077.20	-3,746.55	3,749.92	0.00	0.00	0.00
13,100.00	90.00	269.82	9,025.00	-1,077.51	-3,846.55	3,849.92	0.00	0.00	0.00
13,200.00	90.00	269.82	9,025.00	-1,077.82	-3,946.55	3,949.92	0.00	0.00	0.00
13,300.00	90.00	269.82	9,025.00	-1,078.12	-4,046.55	4,049.92	0.00	0.00	0.00
13,400.00	90.00	269.82	9,025.00	-1,078.43	-4,146.55	4,149.92	0.00	0.00	0.00
13,500.00	90.00	269.82	9,025.00	-1,078.74	-4,246.55	4,249.92	0.00	0.00	0.00
13,600.00	90.00	269.82	9,025.00	-1,079.05	-4,346.55	4,349.92	0.00	0.00	0.00
13,700.00	90.00	269.82	9,025.00	-1,079.36	-4,446.55	4,449.92	0.00	0.00	0.00
13,800.00	90.00	269.82	9,025.00	-1,079.67	-4,546.55	4,549.92	0.00	0.00	0.00
13,874.65	90.00	269.82	9,025.00	-1,079.90	-4,621.20	4,624.57	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
C17-3H FTP	0.00	0.00	8,943.00	-1,065.20	98.70	475,054.90	581,097.10	32.305934	-104.204643
- hit/miss target									
- Shape									
- plan misses target center by 1.24usft at 9139.44usft MD (8944.06 TVD, -1065.31 N, 99.33 E)									
- Point									
C17-3H LTP	0.00	0.00	9,025.00	-1,079.80	-4,521.20	475,040.30	576,477.20	32.305908	-104.219596
- plan misses target center by 0.21usft at 13774.65usft MD (9025.00 TVD, -1079.59 N, -4521.20 E)									
- Point									
C17-3H BHL	0.00	0.00	9,025.00	-1,079.90	-4,621.20	475,040.20	576,377.20	32.305908	-104.219920
- plan hits target center									
- Point									

Scientific Drilling Int.

Planning Report

Database: Midland District
Company: WPX Energy

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Project: Eddy County, New Mexico NAD 83

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site: C 17 State Pad

North Reference: Grid

Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Wellbore: Wellbore #1

Design: Plan #1

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,968.08	1,966.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)
1,968.08	1,966.00	Bell Canyon (Base of Salt)			
2,979.20	2,962.00	Cherry Canyon			
3,920.30	3,889.00	Brushy Canyon			
5,458.33	5,404.00	Bone Spring			
5,548.68	5,493.00	Avalon			
6,602.47	6,531.00	1st Bone Spring Sand			
6,800.43	6,726.00	2nd Bone Spring Lime			
7,101.95	7,023.00	2nd Bone Spring Sand			
7,274.53	7,193.00	3rd Bone Spring Lime			
8,660.37	8,564.00	3rd Bone Spring Sand			
9,083.33	8,913.00	Wolfcamp Top			
9,129.70	8,939.00	WC_X			
9,281.27	9,001.00	WC_Y			
9,320.78	9,011.00	Top Target			
9,447.69	9,025.00	Landing Point			

NM OIL CONSERVATION
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WPX Energy

Eddy County, New Mexico NAD 83

C 17 State Pad

C 17 State 3H

API:

Wellbore #1

Plan #1

Anticollision Report

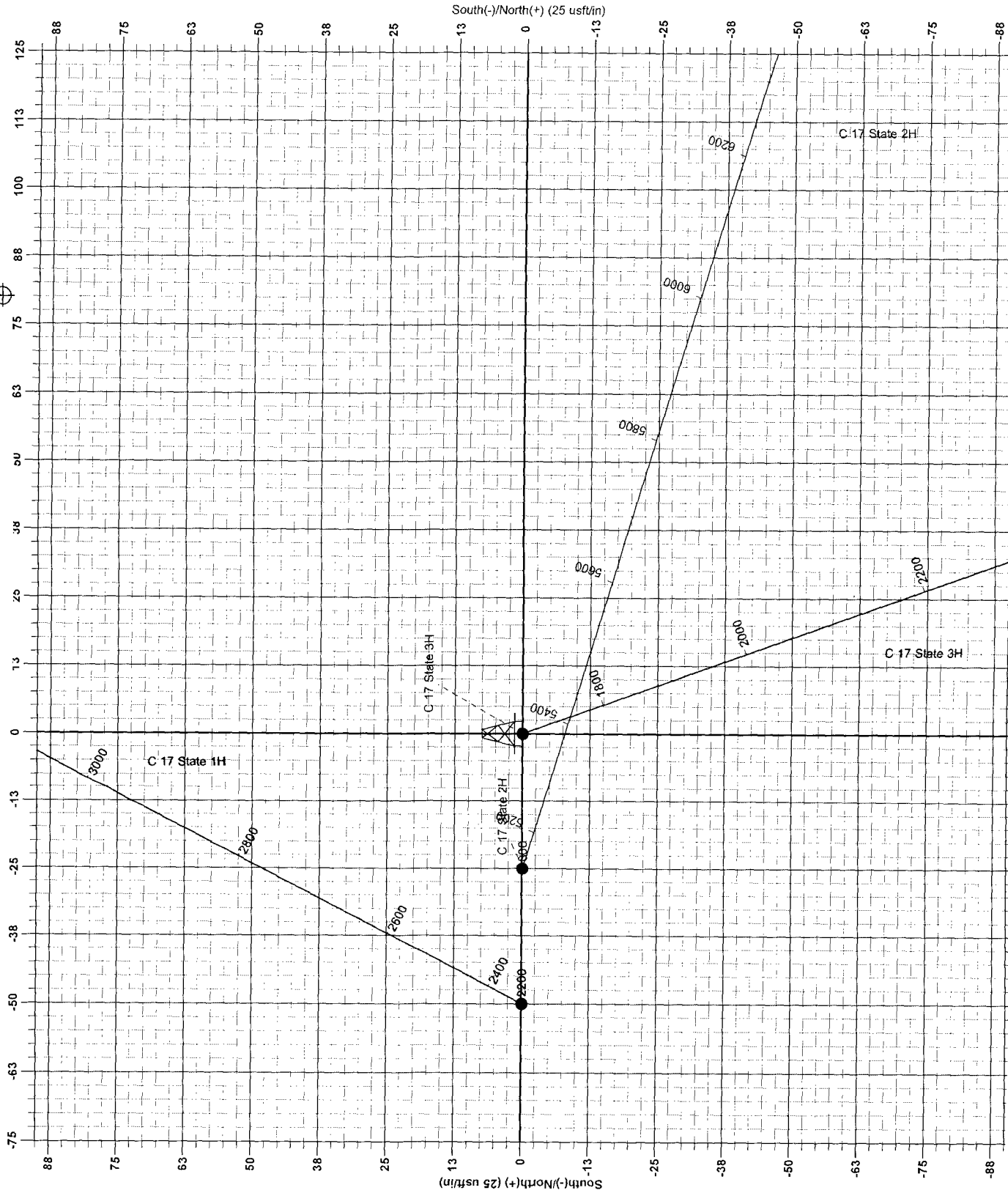
11 October, 2017



www.scientificdrilling.com

Azimuths to Grid North
 True North: -0.07°
 Magnetic North: 7.31°
 Magnetic Field
 Strength: 48067.8nT
 Dip Angle: 60.10°
 Date: 10/11/2017
 Model: HDGM

To convert Magnetic North to Grid, Add 7.31°
 To convert True North to Grid, Subtract 0.07°



Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83
Reference Site: C 17 State Pad
Site Error: 0.00 usft
Reference Well: C 17 State 3H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date 10/11/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,874.65	Plan #1 (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C 17 State Pad						
C 17 State 1H - Wellbore #1 - Plan #1	1,500.00	1,500.00	50.00	39.68	4.846	CC
C 17 State 1H - Wellbore #1 - Plan #1	1,600.00	1,599.98	50.61	39.59	4.594	ES
C 17 State 1H - Wellbore #1 - Plan #1	1,700.00	1,699.84	52.74	41.04	4.509	SF
C 17 State 2H - Wellbore #1 - Plan #1	1,500.00	1,500.00	25.00	14.68	2.423	CC
C 17 State 2H - Wellbore #1 - Plan #1	1,600.00	1,599.98	25.63	14.62	2.327	ES, SF

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.11	-0.10	-50.00	50.00				
100.00	100.00	100.00	100.00	0.14	0.14	-90.11	-0.10	-50.00	50.00	49.72	0.28	178.822	
200.00	200.00	200.00	200.00	0.50	0.50	-90.11	-0.10	-50.00	50.00	49.00	1.00	50.173	
300.00	300.00	300.00	300.00	0.86	0.86	-90.11	-0.10	-50.00	50.00	48.29	1.71	29.180	
400.00	400.00	400.00	400.00	1.22	1.22	-90.11	-0.10	-50.00	50.00	47.57	2.43	20.572	
500.00	500.00	500.00	500.00	1.57	1.57	-90.11	-0.10	-50.00	50.00	46.85	3.15	15.886	
600.00	600.00	600.00	600.00	1.93	1.93	-90.11	-0.10	-50.00	50.00	46.14	3.86	12.939	
700.00	700.00	700.00	700.00	2.29	2.29	-90.11	-0.10	-50.00	50.00	45.42	4.58	10.914	
800.00	800.00	800.00	800.00	2.65	2.65	-90.11	-0.10	-50.00	50.00	44.70	5.30	9.437	
900.00	900.00	900.00	900.00	3.01	3.01	-90.11	-0.10	-50.00	50.00	43.98	6.02	8.312	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	-90.11	-0.10	-50.00	50.00	43.27	6.73	7.427	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	-90.11	-0.10	-50.00	50.00	42.55	7.45	6.712	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	-90.11	-0.10	-50.00	50.00	41.83	8.17	6.123	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.44	-90.11	-0.10	-50.00	50.00	41.12	8.88	5.629	
1,400.00	1,400.00	1,400.00	1,400.00	4.80	4.80	-90.11	-0.10	-50.00	50.00	40.40	9.60	5.208	
1,500.00	1,500.00	1,500.00	1,500.00	5.16	5.16	-90.11	-0.10	-50.00	50.00	39.68	10.32	4.846	CC
1,600.00	1,599.98	1,599.98	1,599.98	5.50	5.52	111.32	-0.10	-50.00	50.61	39.59	11.02	4.594	ES
1,700.00	1,699.84	1,699.84	1,699.84	5.83	5.87	116.58	-0.10	-50.00	52.74	41.04	11.69	4.509	SF
1,800.00	1,799.45	1,799.45	1,799.45	6.16	6.23	124.32	-0.10	-50.00	57.18	44.81	12.37	4.623	
1,900.00	1,898.70	1,898.70	1,898.70	6.49	6.59	133.10	-0.10	-50.00	64.86	51.83	13.03	4.978	
2,000.00	1,997.47	1,997.47	1,997.47	6.84	6.94	141.51	-0.10	-50.00	76.45	62.78	13.67	5.593	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site Error: 0.00 usft

North Reference: Grid

Reference Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Well Error: 0.00 usft

Output errors are at 2.00 sigma

Reference Wellbore Wellbore #1

Database: Midland District

Reference Design: Plan #1

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
2,100.00	2,095.97	2,095.97	2,095.97	7.20	7.29	148.28	-0.10	-50.00	90.65	76.31	14.34	6.321			
2,200.00	2,194.47	2,194.47	2,194.47	7.56	7.65	153.18	-0.10	-50.00	105.76	90.74	15.02	7.040			
2,300.00	2,292.97	2,291.60	2,291.58	7.93	8.00	157.46	1.20	-49.33	121.96	106.26	15.70	7.767			
2,400.00	2,391.47	2,387.68	2,387.54	8.31	8.34	161.92	5.36	-47.18	140.06	123.68	16.38	8.552			
2,500.00	2,489.98	2,482.57	2,482.11	8.69	8.68	166.35	12.27	-43.60	160.42	143.37	17.05	9.407			
2,600.00	2,588.48	2,576.09	2,575.02	9.08	9.01	170.57	21.80	-38.68	183.31	165.58	17.73	10.341			
2,700.00	2,686.98	2,668.95	2,666.87	9.47	9.34	174.52	33.86	-32.44	208.85	190.45	18.40	11.349			
2,800.00	2,785.48	2,764.41	2,761.16	9.86	9.69	177.89	47.09	-25.60	235.81	216.72	19.09	12.353			
2,900.00	2,883.99	2,859.87	2,855.45	10.26	10.04	-179.42	60.32	-18.76	263.38	243.60	19.78	13.315			
3,000.00	2,982.49	2,955.32	2,949.73	10.66	10.39	-177.25	73.55	-11.91	291.39	270.91	20.48	14.230			
3,100.00	3,080.99	3,050.78	3,044.02	11.07	10.75	-175.45	86.78	-5.07	319.72	298.55	21.18	15.099			
3,200.00	3,179.49	3,146.24	3,138.31	11.47	11.11	-173.95	100.01	1.77	348.30	326.42	21.88	15.921			
3,300.00	3,278.00	3,241.70	3,232.60	11.88	11.47	-172.67	113.24	8.61	377.07	354.48	22.58	16.698			
3,400.00	3,376.50	3,337.16	3,326.89	12.29	11.83	-171.57	126.47	15.45	405.98	382.69	23.29	17.433			
3,500.00	3,475.00	3,432.61	3,421.18	12.70	12.19	-170.62	139.71	22.30	435.01	411.02	24.00	18.129			
3,600.00	3,573.50	3,528.07	3,515.47	13.11	12.56	-169.79	152.94	29.14	464.14	439.44	24.71	18.787			
3,700.00	3,672.00	3,623.53	3,609.76	13.53	12.93	-169.05	166.17	35.98	493.35	467.93	25.42	19.410			
3,800.00	3,770.51	3,718.99	3,704.05	13.94	13.30	-168.40	179.40	42.82	522.63	496.50	26.13	20.001			
3,900.00	3,869.01	3,814.45	3,798.33	14.36	13.67	-167.82	192.63	49.66	551.96	525.11	26.84	20.561			
4,000.00	3,967.51	3,909.91	3,892.62	14.77	14.04	-167.29	205.86	56.51	581.33	553.77	27.56	21.093			
4,100.00	4,066.01	4,005.36	3,986.91	15.19	14.41	-166.82	219.09	63.35	610.75	582.48	28.28	21.599			
4,200.00	4,164.52	4,100.82	4,081.20	15.61	14.79	-166.39	232.32	70.19	640.21	611.21	28.99	22.080			
4,300.00	4,263.02	4,196.28	4,175.49	16.03	15.16	-165.99	245.56	77.03	669.69	639.98	29.71	22.538			
4,400.00	4,361.52	4,291.74	4,269.78	16.45	15.54	-165.63	258.79	83.87	699.20	668.77	30.43	22.975			
4,500.00	4,460.02	4,387.20	4,364.07	16.87	15.92	-165.30	272.02	90.72	728.73	697.58	31.15	23.391			
4,600.00	4,558.53	4,482.65	4,458.36	17.30	16.30	-165.00	285.25	97.56	758.28	726.41	31.88	23.789			
4,700.00	4,657.03	4,578.11	4,552.65	17.72	16.67	-164.71	298.48	104.40	787.86	755.26	32.60	24.170			
4,800.00	4,755.53	4,673.57	4,646.93	18.14	17.05	-164.45	311.71	111.24	817.44	784.12	33.32	24.533			
4,900.00	4,854.03	4,769.03	4,741.22	18.56	17.43	-164.21	324.94	118.08	847.05	813.00	34.04	24.882			
5,000.00	4,952.53	4,864.49	4,835.51	18.99	17.81	-163.98	338.17	124.93	876.66	841.89	34.77	25.215			
5,100.00	5,051.04	4,959.95	4,929.80	19.41	18.19	-163.77	351.41	131.77	906.29	870.80	35.49	25.535			
5,200.00	5,149.54	5,055.40	5,024.09	19.84	18.58	-163.57	364.64	138.61	935.93	899.71	36.22	25.842			
5,300.00	5,248.04	5,150.86	5,118.38	20.26	18.96	-163.38	377.87	145.45	965.57	928.63	36.94	26.137			
5,400.00	5,346.54	5,246.32	5,212.67	20.69	19.34	-163.21	391.10	152.29	995.23	957.56	37.67	26.420			
5,500.00	5,445.05	5,341.78	5,306.96	21.12	19.72	-163.04	404.33	159.14	1,024.89	986.50	38.40	26.693			
5,600.00	5,543.55	5,437.24	5,401.25	21.54	20.11	-162.89	417.56	165.98	1,054.57	1,015.44	39.12	26.955			
5,700.00	5,642.05	5,532.70	5,495.53	21.97	20.49	-162.74	430.79	172.82	1,084.24	1,044.39	39.85	27.208			
5,800.00	5,740.55	5,628.15	5,589.82	22.40	20.88	-162.60	444.02	179.66	1,113.93	1,073.35	40.58	27.451			
5,900.00	5,839.05	5,723.61	5,684.11	22.82	21.26	-162.47	457.26	186.51	1,143.62	1,102.31	41.31	27.686			
6,000.00	5,937.56	5,819.07	5,778.40	23.25	21.64	-162.34	470.49	193.35	1,173.32	1,131.28	42.04	27.913			
6,100.00	6,036.06	5,914.53	5,872.69	23.68	22.03	-162.22	483.72	200.19	1,203.02	1,160.25	42.76	28.131			
6,200.00	6,134.56	6,009.99	5,966.98	24.11	22.42	-162.11	496.95	207.03	1,232.72	1,189.23	43.49	28.342			
6,300.00	6,233.06	6,105.44	6,061.27	24.53	22.80	-162.00	510.18	213.87	1,262.43	1,218.21	44.22	28.546			
6,400.00	6,331.57	6,200.90	6,155.56	24.96	23.19	-161.90	523.41	220.72	1,292.14	1,247.19	44.95	28.744			
6,500.00	6,430.07	6,296.36	6,249.85	25.39	23.57	-161.80	536.64	227.56	1,321.86	1,276.18	45.68	28.935			
6,600.00	6,528.57	6,391.82	6,344.13	25.82	23.96	-161.70	549.87	234.40	1,351.58	1,305.17	46.42	29.119			
6,700.00	6,627.07	6,487.28	6,438.42	26.25	24.35	-161.61	563.11	241.24	1,381.30	1,334.16	47.15	29.298			
6,800.00	6,725.58	6,582.74	6,532.71	26.68	24.73	-161.53	576.34	248.08	1,411.03	1,363.15	47.88	29.472			
6,900.00	6,824.08	6,678.19	6,627.00	27.11	25.12	-161.44	589.57	254.93	1,440.76	1,392.15	48.61	29.640			
7,000.00	6,922.58	6,773.65	6,721.29	27.54	25.51	-161.36	602.80	261.77	1,470.49	1,421.15	49.34	29.803			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Reference Site: C 17 State Pad

Site Error: 0.00 usft
Reference Well: C 17 State 3H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.00	7,021.08	6,869.11	6,815.58	27.96	25.90	-161.29	616.03	268.61	1,500.23	1,450.15	50.07	29.961		
7,200.00	7,119.58	6,964.57	6,909.87	28.39	26.28	-161.21	629.26	275.45	1,529.96	1,479.16	50.81	30.114		
7,300.00	7,218.09	7,060.03	7,004.16	28.82	26.67	-161.14	642.49	282.29	1,559.70	1,508.16	51.54	30.263		
7,400.00	7,316.59	7,155.48	7,098.45	29.25	27.06	-161.07	655.72	289.14	1,589.44	1,537.17	52.27	30.408		
7,500.00	7,415.09	7,250.94	7,192.73	29.68	27.45	-161.01	668.96	295.98	1,619.19	1,566.18	53.00	30.548		
7,600.00	7,513.59	7,346.40	7,287.02	30.11	27.84	-160.95	682.19	302.82	1,648.93	1,595.19	53.74	30.685		
7,700.00	7,612.10	7,441.86	7,381.31	30.54	28.23	-160.88	695.42	309.66	1,678.68	1,624.21	54.47	30.818		
7,800.00	7,710.60	7,537.32	7,475.60	30.97	28.61	-160.83	708.65	316.50	1,708.43	1,653.22	55.20	30.947		
7,900.00	7,809.10	7,632.78	7,569.89	31.41	29.00	-160.77	721.88	323.35	1,738.18	1,682.24	55.94	31.073		
8,000.00	7,907.60	7,728.23	7,664.18	31.84	29.39	-160.71	735.11	330.19	1,767.93	1,711.26	56.67	31.195		
8,100.00	8,006.17	7,823.80	7,758.58	32.26	29.78	-160.75	748.36	337.04	1,797.31	1,739.78	57.52	31.245		
8,200.00	8,105.21	7,920.15	7,853.74	32.67	30.17	-160.85	761.71	343.94	1,823.94	1,765.49	58.45	31.204		
8,300.00	8,204.66	8,017.28	7,949.69	33.06	30.57	-160.88	775.18	350.91	1,847.39	1,788.06	59.32	31.141		
8,400.00	8,304.42	8,117.67	8,108.40	33.42	31.21	-160.78	795.60	361.47	1,866.86	1,806.49	60.37	30.926		
8,500.00	8,404.36	8,413.91	8,343.87	33.76	32.08	-160.67	811.87	369.88	1,876.94	1,815.34	61.60	30.471		
8,600.00	8,504.28	8,574.12	8,503.96	34.05	32.61	89.92	813.54	368.01	1,878.02	1,815.57	62.45	30.072		
8,700.00	8,602.57	8,673.50	8,601.54	34.32	32.88	89.90	813.49	349.81	1,878.03	1,815.00	63.02	29.798		
8,800.00	8,696.28	8,772.79	8,694.42	34.55	33.11	89.89	813.40	315.07	1,878.04	1,814.50	63.54	29.557		
8,900.00	8,782.57	8,872.01	8,779.86	34.73	33.29	89.88	813.26	264.88	1,878.06	1,814.04	64.03	29.333		
9,000.00	8,858.82	8,971.18	8,855.35	34.87	33.43	89.87	813.09	200.76	1,878.09	1,813.54	64.55	29.096		
9,100.00	8,922.70	9,070.33	8,918.65	34.96	33.53	89.86	812.89	124.60	1,878.12	1,812.92	65.20	28.805		
9,200.00	8,972.29	9,169.48	8,967.90	35.01	33.64	89.85	812.65	38.69	1,878.15	1,812.06	66.10	28.415		
9,300.00	9,008.07	9,268.66	9,001.62	35.02	33.90	89.87	812.40	-54.45	1,878.19	1,810.86	67.33	27.897		
9,400.00	9,023.01	9,367.89	9,018.80	35.04	34.55	89.87	812.14	-152.06	1,878.23	1,809.31	68.92	27.252		
9,500.00	9,025.00	9,467.53	9,021.00	35.41	35.50	89.88	811.87	-251.63	1,878.27	1,807.39	70.87	26.502		
9,600.00	9,025.00	9,567.53	9,021.00	36.56	36.65	89.88	811.60	-351.63	1,878.31	1,805.10	73.20	25.659		
9,700.00	9,025.00	9,667.53	9,021.00	37.92	37.99	89.88	811.33	-451.63	1,878.34	1,802.46	75.88	24.754		
9,800.00	9,025.00	9,767.53	9,021.00	39.45	39.48	89.88	811.06	-551.63	1,878.38	1,799.50	78.88	23.813		
9,900.00	9,025.00	9,867.53	9,021.00	41.11	41.12	89.88	810.79	-651.63	1,878.42	1,796.26	82.17	22.861		
10,000.00	9,025.00	9,967.53	9,021.00	42.90	42.89	89.88	810.52	-751.63	1,878.46	1,792.76	85.71	21.918		
10,100.00	9,025.00	10,067.53	9,021.00	44.80	44.76	89.88	810.26	-851.63	1,878.50	1,789.04	89.47	20.996		
10,200.00	9,025.00	10,167.53	9,021.00	46.79	46.74	89.88	809.99	-951.63	1,878.54	1,785.12	93.43	20.107		
10,300.00	9,025.00	10,267.53	9,021.00	48.87	48.79	89.88	809.72	-1,051.63	1,878.58	1,781.03	97.55	19.257		
10,400.00	9,025.00	10,367.53	9,021.00	51.02	50.93	89.88	809.45	-1,151.63	1,878.62	1,776.79	101.84	18.448		
10,500.00	9,025.00	10,467.53	9,021.00	53.24	53.13	89.88	809.18	-1,251.63	1,878.66	1,772.41	106.25	17.682		
10,600.00	9,025.00	10,567.53	9,021.00	55.51	55.39	89.88	808.91	-1,351.63	1,878.70	1,767.92	110.78	16.959		
10,700.00	9,025.00	10,667.53	9,021.00	57.84	57.70	89.88	808.64	-1,451.63	1,878.74	1,763.33	115.41	16.278		
10,800.00	9,025.00	10,767.53	9,021.00	60.20	60.06	89.88	808.37	-1,551.63	1,878.78	1,758.64	120.14	15.638		
10,900.00	9,025.00	10,867.53	9,021.00	62.61	62.46	89.88	808.10	-1,651.63	1,878.82	1,753.87	124.95	15.037		
11,000.00	9,025.00	10,967.53	9,021.00	65.06	64.89	89.88	807.83	-1,751.63	1,878.86	1,749.03	129.82	14.472		
11,100.00	9,025.00	11,067.53	9,021.00	67.53	67.36	89.88	807.56	-1,851.63	1,878.90	1,744.13	134.77	13.942		
11,200.00	9,025.00	11,167.53	9,021.00	70.03	69.86	89.88	807.29	-1,951.63	1,878.94	1,739.17	139.77	13.443		
11,300.00	9,025.00	11,267.53	9,021.00	72.56	72.38	89.88	807.02	-2,051.62	1,878.98	1,734.16	144.82	12.975		
11,400.00	9,025.00	11,367.53	9,021.00	75.11	74.92	89.88	806.75	-2,151.62	1,879.02	1,729.10	149.91	12.534		
11,500.00	9,025.00	11,467.53	9,021.00	77.68	77.49	89.88	806.48	-2,251.62	1,879.06	1,724.00	155.05	12.119		
11,600.00	9,025.00	11,567.53	9,021.00	80.27	80.07	89.88	806.21	-2,351.62	1,879.09	1,718.87	160.23	11.728		
11,700.00	9,025.00	11,667.53	9,021.00	82.88	82.68	89.88	805.94	-2,451.62	1,879.13	1,713.69	165.44	11.358		
11,800.00	9,025.00	11,767.53	9,021.00	85.50	85.29	89.88	805.67	-2,551.62	1,879.17	1,708.49	170.68	11.010		
11,900.00	9,025.00	11,867.53	9,021.00	88.14	87.93	89.88	805.40	-2,651.62	1,879.21	1,703.26	175.95	10.680		
12,000.00	9,025.00	11,967.53	9,021.00	90.79	90.57	89.88	805.13	-2,751.62	1,879.25	1,698.01	181.25	10.368		
12,100.00	9,025.00	12,067.53	9,021.00	93.45	93.23	89.88	804.86	-2,851.62	1,879.29	1,692.73	186.57	10.073		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site Error: 0.00 usft

North Reference: Grid

Reference Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Well Error: 0.00 usft

Output errors are at 2.00 sigma

Reference Wellbore Wellbore #1

Database: Midland District

Reference Design: Plan #1

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,200.00	9,025.00	12,167.53	9,021.00	96.12	95.90	89.88	804.60	-2,951.62	1,879.33	1,687.43	191.91	9.793		
12,300.00	9,025.00	12,267.53	9,021.00	98.80	98.57	89.88	804.33	-3,051.62	1,879.37	1,682.10	197.27	9.527		
12,400.00	9,025.00	12,367.53	9,021.00	101.49	101.26	89.88	804.06	-3,151.62	1,879.41	1,676.76	202.65	9.274		
12,500.00	9,025.00	12,467.53	9,021.00	104.19	103.96	89.88	803.79	-3,251.62	1,879.45	1,671.41	208.04	9.034		
12,600.00	9,025.00	12,567.53	9,021.00	106.89	106.66	89.88	803.52	-3,351.62	1,879.49	1,666.04	213.45	8.805		
12,700.00	9,025.00	12,667.53	9,021.00	109.61	109.37	89.88	803.25	-3,451.62	1,879.53	1,660.65	218.88	8.587		
12,800.00	9,025.00	12,767.53	9,021.00	112.33	112.09	89.88	802.98	-3,551.62	1,879.57	1,655.25	224.32	8.379		
12,900.00	9,025.00	12,867.53	9,021.00	115.05	114.81	89.88	802.71	-3,651.62	1,879.61	1,649.84	229.77	8.180		
13,000.00	9,025.00	12,967.53	9,021.00	117.78	117.54	89.88	802.44	-3,751.62	1,879.65	1,644.42	235.23	7.991		
13,100.00	9,025.00	13,067.53	9,021.00	120.52	120.28	89.88	802.17	-3,851.62	1,879.69	1,638.98	240.70	7.809		
13,200.00	9,025.00	13,167.53	9,021.00	123.26	123.02	89.88	801.90	-3,951.62	1,879.73	1,633.54	246.19	7.635		
13,300.00	9,025.00	13,267.53	9,021.00	126.01	125.76	89.88	801.63	-4,051.62	1,879.77	1,628.08	251.68	7.469		
13,400.00	9,025.00	13,367.53	9,021.00	128.76	128.51	89.88	801.36	-4,151.62	1,879.81	1,622.62	257.18	7.309		
13,500.00	9,025.00	13,467.53	9,021.00	131.52	131.27	89.88	801.09	-4,251.62	1,879.84	1,617.15	262.69	7.156		
13,600.00	9,025.00	13,567.53	9,021.00	134.27	134.02	89.88	800.82	-4,351.62	1,879.88	1,611.67	268.21	7.009		
13,700.00	9,025.00	13,667.53	9,021.00	137.04	136.78	89.88	800.55	-4,451.62	1,879.92	1,606.19	273.74	6.868		
13,800.00	9,025.00	13,767.53	9,021.00	139.80	139.55	89.88	800.28	-4,551.62	1,879.96	1,600.70	279.27	6.732		
13,836.46	9,025.00	13,803.99	9,021.00	140.81	140.56	89.88	800.18	-4,588.07	1,879.98	1,598.69	281.29	6.684		
13,874.65	9,025.00	13,835.22	9,021.00	141.87	141.42	89.88	800.10	-4,619.30	1,880.01	1,596.80	283.21	6.638		

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Reference Site: C 17 State Pad

Site Error: 0.00 usft

Reference Well: C 17 State 3H

Well Error: 0.00 usft

Reference Wellbore: Wellbore #1

Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: Midland District

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 2H - Wellbore #1 - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.23	-0.10	-25.00	25.00				
100.00	100.00	100.00	100.00	0.14	0.14	-90.23	-0.10	-25.00	25.00	24.72	0.28	89.412	
200.00	200.00	200.00	200.00	0.50	0.50	-90.23	-0.10	-25.00	25.00	24.00	1.00	25.087	
300.00	300.00	300.00	300.00	0.86	0.86	-90.23	-0.10	-25.00	25.00	23.29	1.71	14.590	
400.00	400.00	400.00	400.00	1.22	1.22	-90.23	-0.10	-25.00	25.00	22.57	2.43	10.286	
500.00	500.00	500.00	500.00	1.57	1.57	-90.23	-0.10	-25.00	25.00	21.85	3.15	7.943	
600.00	600.00	600.00	600.00	1.93	1.93	-90.23	-0.10	-25.00	25.00	21.14	3.86	6.469	
700.00	700.00	700.00	700.00	2.29	2.29	-90.23	-0.10	-25.00	25.00	20.42	4.58	5.457	
800.00	800.00	800.00	800.00	2.65	2.65	-90.23	-0.10	-25.00	25.00	19.70	5.30	4.719	
900.00	900.00	900.00	900.00	3.01	3.01	-90.23	-0.10	-25.00	25.00	18.99	6.02	4.156	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	-90.23	-0.10	-25.00	25.00	18.27	6.73	3.714	
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	-90.23	-0.10	-25.00	25.00	17.55	7.45	3.356	
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	-90.23	-0.10	-25.00	25.00	16.83	8.17	3.062	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.44	-90.23	-0.10	-25.00	25.00	16.12	8.88	2.814	
1,400.00	1,400.00	1,400.00	1,400.00	4.80	4.80	-90.23	-0.10	-25.00	25.00	15.40	9.60	2.604	
1,500.00	1,500.00	1,500.00	1,500.00	5.16	5.16	-90.23	-0.10	-25.00	25.00	14.68	10.32	2.423 CC	
1,600.00	1,599.98	1,599.98	1,599.98	5.50	5.52	113.03	-0.10	-25.00	25.63	14.62	11.01	2.327 ES, SF	
1,700.00	1,699.84	1,699.84	1,699.84	5.83	5.87	122.84	-0.10	-25.00	28.10	16.40	11.69	2.403	
1,800.00	1,799.45	1,799.45	1,799.45	6.16	6.23	135.31	-0.10	-25.00	33.64	21.28	12.36	2.722	
1,900.00	1,898.70	1,898.70	1,898.70	6.49	6.59	146.63	-0.10	-25.00	43.18	30.17	13.00	3.320	
2,000.00	1,997.47	1,997.47	1,997.47	6.84	6.94	155.19	-0.10	-25.00	56.92	43.29	13.63	4.176	
2,100.00	2,095.97	2,095.97	2,095.97	7.20	7.29	160.87	-0.10	-25.00	72.97	58.66	14.31	5.100	
2,200.00	2,194.47	2,194.47	2,194.47	7.56	7.65	164.49	-0.10	-25.00	89.46	74.48	14.99	5.967	
2,300.00	2,292.97	2,292.97	2,292.97	7.93	8.00	166.98	-0.10	-25.00	106.19	90.50	15.68	6.771	
2,400.00	2,391.47	2,391.47	2,391.47	8.31	8.35	168.79	-0.10	-25.00	123.06	106.68	16.38	7.514	
2,500.00	2,489.98	2,489.98	2,489.98	8.69	8.71	170.16	-0.10	-25.00	140.02	122.94	17.08	8.200	
2,600.00	2,588.48	2,588.48	2,588.48	9.08	9.06	171.23	-0.10	-25.00	157.04	139.26	17.78	8.834	
2,700.00	2,686.98	2,686.98	2,686.98	9.47	9.41	172.10	-0.10	-25.00	174.11	155.63	18.48	9.421	
2,800.00	2,785.48	2,785.48	2,785.48	9.86	9.77	172.81	-0.10	-25.00	191.21	172.02	19.19	9.966	
2,900.00	2,883.99	2,883.99	2,883.99	10.26	10.12	173.40	-0.10	-25.00	208.33	188.44	19.89	10.473	
3,000.00	2,982.49	2,982.49	2,982.49	10.66	10.47	173.90	-0.10	-25.00	225.47	204.87	20.60	10.945	
3,100.00	3,080.99	3,080.99	3,080.99	11.07	10.83	174.34	-0.10	-25.00	242.62	221.31	21.31	11.385	
3,200.00	3,179.49	3,179.49	3,179.49	11.47	11.18	174.71	-0.10	-25.00	259.79	237.77	22.02	11.797	
3,300.00	3,278.00	3,278.00	3,278.00	11.88	11.53	175.04	-0.10	-25.00	276.96	254.23	22.73	12.183	
3,400.00	3,376.50	3,376.50	3,376.50	12.29	11.89	175.33	-0.10	-25.00	294.15	270.70	23.45	12.546	
3,500.00	3,475.00	3,475.00	3,475.00	12.70	12.24	175.59	-0.10	-25.00	311.34	287.18	24.16	12.887	
3,600.00	3,573.50	3,573.50	3,573.50	13.11	12.59	175.82	-0.10	-25.00	328.53	303.66	24.87	13.208	
3,700.00	3,672.00	3,672.00	3,672.00	13.53	12.94	176.03	-0.10	-25.00	345.73	320.14	25.59	13.511	
3,800.00	3,770.51	3,770.51	3,770.51	13.94	13.30	176.22	-0.10	-25.00	362.94	336.63	26.31	13.797	
3,900.00	3,869.01	3,869.01	3,869.01	14.36	13.65	176.39	-0.10	-25.00	380.14	353.12	27.02	14.068	
4,000.00	3,967.51	3,967.51	3,967.51	14.77	14.00	176.55	-0.10	-25.00	397.36	369.62	27.74	14.324	
4,100.00	4,066.01	4,066.01	4,066.01	15.19	14.36	176.69	-0.10	-25.00	414.57	386.11	28.46	14.568	
4,200.00	4,164.52	4,164.52	4,164.52	15.61	14.71	176.82	-0.10	-25.00	431.78	402.61	29.18	14.799	
4,300.00	4,263.02	4,263.02	4,263.02	16.03	15.06	176.94	-0.10	-25.00	449.00	419.11	29.89	15.019	
4,400.00	4,361.52	4,361.52	4,361.52	16.45	15.42	177.06	-0.10	-25.00	466.22	435.61	30.61	15.229	
4,500.00	4,460.02	4,460.02	4,460.02	16.87	15.77	177.16	-0.10	-25.00	483.44	452.11	31.33	15.429	
4,600.00	4,558.53	4,558.53	4,558.53	17.30	16.12	177.26	-0.10	-25.00	500.66	468.61	32.05	15.620	
4,700.00	4,657.03	4,657.03	4,657.03	17.72	16.48	177.35	-0.10	-25.00	517.89	485.12	32.77	15.802	
4,800.00	4,755.53	4,755.53	4,755.53	18.14	16.83	177.44	-0.10	-25.00	535.11	501.62	33.49	15.976	
4,900.00	4,854.03	4,854.03	4,854.03	18.56	17.18	177.52	-0.10	-25.00	552.34	518.13	34.22	16.143	
5,000.00	4,952.53	4,952.53	4,952.53	18.99	17.53	177.59	-0.10	-25.00	569.57	534.63	34.94	16.303	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site Error: 0.00 usft

North Reference: Grid

Reference Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Well Error: 0.00 usft

Output errors are at 2.00 sigma

Reference Wellbore Wellbore #1

Database: Midland District

Reference Design: Plan #1

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 2H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,100.00	5,051.04	5,058.59	5,058.58	19.41	17.91	177.71	-0.28	-24.43	586.47	550.79	35.68	16.438			
5,200.00	5,149.54	5,172.19	5,172.09	19.84	18.29	178.13	-1.63	-20.06	601.21	564.78	36.43	16.502			
5,300.00	5,248.04	5,286.19	5,285.72	20.26	18.68	178.86	-4.31	-11.35	613.54	576.36	37.18	16.500			
5,400.00	5,346.54	5,398.73	5,397.45	20.69	19.06	179.87	-8.26	1.46	623.57	585.64	37.94	16.437			
5,500.00	5,445.05	5,497.73	5,495.53	21.12	19.40	-179.15	-12.21	14.25	632.81	594.16	38.65	16.374			
5,600.00	5,543.55	5,596.72	5,593.61	21.54	19.74	-178.20	-16.16	27.05	642.22	602.86	39.36	16.317			
5,700.00	5,642.05	5,695.71	5,691.69	21.97	20.09	-177.28	-20.11	39.85	651.81	611.74	40.08	16.264			
5,800.00	5,740.55	5,794.70	5,789.78	22.40	20.44	-176.38	-24.06	52.65	661.56	620.77	40.80	16.216			
5,900.00	5,839.05	5,893.69	5,887.86	22.82	20.78	-175.51	-28.00	65.45	671.47	629.95	41.52	16.173			
6,000.00	5,937.56	5,992.68	5,985.94	23.25	21.13	-174.67	-31.95	78.25	681.53	639.29	42.24	16.133			
6,100.00	6,036.06	6,091.68	6,084.02	23.68	21.49	-173.85	-35.90	91.04	691.74	648.76	42.97	16.097			
6,200.00	6,134.56	6,190.67	6,182.10	24.11	21.84	-173.05	-39.85	103.84	702.08	658.37	43.70	16.064			
6,300.00	6,233.06	6,289.66	6,280.18	24.53	22.19	-172.28	-43.80	116.64	712.55	668.11	44.44	16.034			
6,400.00	6,331.57	6,388.65	6,378.26	24.96	22.55	-171.53	-47.75	129.44	723.15	677.97	45.18	16.008			
6,500.00	6,430.07	6,487.64	6,476.35	25.39	22.91	-170.80	-51.69	142.24	733.86	687.95	45.91	15.983			
6,600.00	6,528.57	6,586.63	6,574.43	25.82	23.27	-170.09	-55.64	155.03	744.70	698.04	46.66	15.962			
6,700.00	6,627.07	6,685.63	6,672.51	26.25	23.63	-169.40	-59.59	167.83	755.64	708.24	47.40	15.942			
6,800.00	6,725.58	6,784.62	6,770.59	26.68	23.99	-168.73	-63.54	180.63	766.69	718.55	48.15	15.924			
6,900.00	6,824.08	6,883.61	6,868.67	27.11	24.36	-168.08	-67.49	193.43	777.84	728.95	48.89	15.909			
7,000.00	6,922.58	6,982.60	6,966.75	27.54	24.72	-167.45	-71.44	206.23	789.09	739.44	49.64	15.895			
7,100.00	7,021.08	7,081.59	7,064.83	27.96	25.09	-166.84	-75.38	219.03	800.43	750.03	50.40	15.883			
7,200.00	7,119.58	7,180.58	7,162.92	28.39	25.46	-166.24	-79.33	231.82	811.86	760.70	51.15	15.872			
7,300.00	7,218.09	7,279.58	7,261.00	28.82	25.82	-165.66	-83.28	244.62	823.37	771.46	51.91	15.862			
7,400.00	7,316.59	7,378.57	7,359.08	29.25	26.19	-165.10	-87.23	257.42	834.96	782.30	52.67	15.854			
7,500.00	7,415.09	7,477.56	7,457.16	29.68	26.56	-164.55	-91.18	270.22	846.64	793.21	53.42	15.847			
7,600.00	7,513.59	7,576.55	7,555.24	30.11	26.93	-164.01	-95.13	283.02	858.39	804.20	54.19	15.841			
7,700.00	7,612.10	7,675.54	7,653.32	30.54	27.31	-163.49	-99.07	295.81	870.21	815.26	54.95	15.837			
7,800.00	7,710.60	7,774.53	7,751.40	30.97	27.68	-162.99	-103.02	308.61	882.10	826.38	55.71	15.833			
7,900.00	7,809.10	7,873.53	7,849.49	31.41	28.05	-162.50	-106.97	321.41	894.05	837.57	56.48	15.830			
8,000.00	7,907.60	7,972.52	7,947.57	31.84	28.43	-162.02	-110.92	334.21	906.07	848.82	57.25	15.827			
8,100.00	8,006.17	8,071.54	8,045.68	32.26	28.80	-161.58	-114.87	347.01	917.76	859.67	58.09	15.800			
8,200.00	8,105.21	8,163.37	8,136.79	32.67	29.15	-161.21	-118.25	357.98	926.98	868.06	58.92	15.732			
8,300.00	8,204.66	8,253.92	8,226.93	33.06	29.48	-160.94	-120.76	366.11	933.92	874.24	59.68	15.649			
8,400.00	8,304.42	8,344.75	8,317.58	33.42	29.81	-160.77	-122.43	371.53	938.54	878.18	60.36	15.550			
8,500.00	8,404.36	8,435.75	8,408.53	33.76	30.13	-160.68	-123.26	374.20	940.84	879.88	60.96	15.433			
8,600.00	8,504.28	8,531.47	8,504.17	34.05	30.45	89.92	-123.36	372.03	941.11	879.56	61.55	15.290			
8,700.00	8,602.57	8,631.25	8,602.22	34.32	30.75	89.91	-123.42	354.19	941.11	878.97	62.14	15.146			
8,800.00	8,696.28	8,731.01	8,695.68	34.55	31.03	89.90	-123.53	319.65	941.10	878.42	62.67	15.016			
8,900.00	8,782.57	8,830.76	8,781.73	34.73	31.31	89.90	-123.70	269.44	941.09	877.90	63.19	14.893			
9,000.00	8,868.82	8,930.51	8,857.77	34.87	31.61	89.90	-123.91	205.09	941.07	877.32	63.75	14.761			
9,100.00	8,922.70	9,030.25	8,921.52	34.96	31.98	89.91	-124.16	128.54	941.05	876.59	64.46	14.599			
9,200.00	8,972.29	9,130.01	8,971.05	35.01	32.48	89.91	-124.45	42.10	941.04	875.61	65.42	14.384			
9,300.00	9,006.07	9,229.78	9,004.87	35.02	33.16	89.92	-124.76	-51.64	941.01	874.29	66.72	14.103			
9,400.00	9,023.01	9,329.58	9,021.93	35.04	34.02	89.93	-125.09	-149.83	940.99	872.59	68.40	13.757			
9,500.00	9,025.00	9,429.49	9,024.00	35.41	35.06	89.94	-125.42	-249.69	940.97	870.54	70.43	13.360			
9,600.00	9,025.00	9,529.49	9,024.00	36.56	36.28	89.94	-125.75	-349.69	940.95	868.12	72.83	12.920			
9,700.00	9,025.00	9,629.49	9,024.00	37.92	37.68	89.94	-126.08	-449.69	940.92	865.35	75.58	12.450			
9,800.00	9,025.00	9,729.49	9,024.00	39.45	39.23	89.94	-126.41	-549.69	940.90	862.26	78.64	11.964			
9,900.00	9,025.00	9,829.49	9,024.00	41.11	40.92	89.94	-126.74	-649.68	940.88	858.89	81.99	11.475			
10,000.00	9,025.00	9,929.49	9,024.00	42.90	42.74	89.94	-127.07	-749.68	940.86	855.27	85.59	10.993			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site Error: 0.00 usft

North Reference: Grid

Reference Well: C 17 State 3H

Survey Calculation Method: Minimum Curvature

Well Error: 0.00 usft

Output errors are at

Reference Wellbore Wellbore #1

Database: Midland District

Reference Design: Plan #1

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 2H - Wellbore #1 - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	9,025.00	10,029.49	9,024.00	44.80	44.66	89.94	-127.41	-849.68	940.84	851.43	89.40	10.524	
10,200.00	9,025.00	10,129.49	9,024.00	46.79	46.68	89.94	-127.74	-949.68	940.81	847.40	93.41	10.072	
10,300.00	9,025.00	10,229.49	9,024.00	48.87	48.78	89.94	-128.07	-1,049.68	940.79	843.21	97.58	9.641	
10,400.00	9,025.00	10,329.49	9,024.00	51.02	50.95	89.94	-128.40	-1,149.68	940.77	838.86	101.90	9.232	
10,500.00	9,025.00	10,429.49	9,024.00	53.24	53.19	89.94	-128.73	-1,249.68	940.75	834.39	106.36	8.845	
10,600.00	9,025.00	10,529.49	9,024.00	55.51	55.48	89.94	-129.06	-1,349.68	940.72	829.80	110.92	8.481	
10,700.00	9,025.00	10,629.49	9,024.00	57.84	57.82	89.94	-129.39	-1,449.68	940.70	825.12	115.59	8.139	
10,800.00	9,025.00	10,729.49	9,024.00	60.20	60.21	89.94	-129.73	-1,549.68	940.68	820.34	120.34	7.817	
10,900.00	9,025.00	10,829.49	9,024.00	62.61	62.64	89.94	-130.06	-1,649.68	940.66	815.49	125.17	7.515	
11,000.00	9,025.00	10,929.49	9,024.00	65.06	65.09	89.94	-130.39	-1,749.68	940.63	810.56	130.07	7.232	
11,100.00	9,025.00	11,029.49	9,024.00	67.53	67.58	89.94	-130.72	-1,849.68	940.61	805.57	135.04	6.966	
11,200.00	9,025.00	11,129.49	9,024.00	70.03	70.10	89.94	-131.05	-1,949.68	940.59	800.53	140.06	6.716	
11,300.00	9,025.00	11,229.49	9,024.00	72.56	72.64	89.94	-131.38	-2,049.68	940.57	795.44	145.13	6.481	
11,400.00	9,025.00	11,329.49	9,024.00	75.11	75.20	89.94	-131.71	-2,149.68	940.55	790.30	150.24	6.260	
11,500.00	9,025.00	11,429.49	9,024.00	77.68	77.79	89.94	-132.05	-2,249.68	940.52	785.12	155.40	6.052	
11,600.00	9,025.00	11,529.49	9,024.00	80.27	80.39	89.94	-132.38	-2,349.68	940.50	779.91	160.59	5.857	
11,700.00	9,025.00	11,629.49	9,024.00	82.88	83.01	89.94	-132.71	-2,449.67	940.48	774.66	165.82	5.672	
11,800.00	9,025.00	11,729.49	9,024.00	85.50	85.64	89.94	-133.04	-2,549.67	940.46	769.39	171.07	5.497	
11,900.00	9,025.00	11,829.49	9,024.00	88.14	88.28	89.94	-133.37	-2,649.67	940.43	764.08	176.35	5.333	
12,000.00	9,025.00	11,929.49	9,024.00	90.79	90.94	89.94	-133.70	-2,749.67	940.41	758.75	181.66	5.177	
12,100.00	9,025.00	12,029.49	9,024.00	93.45	93.61	89.94	-134.03	-2,849.67	940.39	753.40	186.99	5.029	
12,200.00	9,025.00	12,129.49	9,024.00	96.12	96.29	89.94	-134.36	-2,949.67	940.37	748.03	192.34	4.889	
12,300.00	9,025.00	12,229.49	9,024.00	98.80	98.98	89.94	-134.70	-3,049.67	940.34	742.63	197.71	4.756	
12,400.00	9,025.00	12,329.49	9,024.00	101.49	101.67	89.94	-135.03	-3,149.67	940.32	737.22	203.10	4.630	
12,500.00	9,025.00	12,429.49	9,024.00	104.19	104.38	89.94	-135.36	-3,249.67	940.30	731.80	208.50	4.510	
12,600.00	9,025.00	12,529.49	9,024.00	106.89	107.09	89.94	-135.69	-3,349.67	940.28	726.36	213.92	4.395	
12,700.00	9,025.00	12,629.49	9,024.00	109.61	109.81	89.94	-136.02	-3,449.67	940.25	720.90	219.35	4.286	
12,800.00	9,025.00	12,729.49	9,024.00	112.33	112.53	89.94	-136.35	-3,549.67	940.23	715.43	224.80	4.183	
12,900.00	9,025.00	12,829.49	9,024.00	115.05	115.26	89.94	-136.68	-3,649.67	940.21	709.95	230.26	4.083	
13,000.00	9,025.00	12,929.49	9,024.00	117.78	118.00	89.94	-137.02	-3,749.67	940.19	704.46	235.73	3.988	
13,100.00	9,025.00	13,029.49	9,024.00	120.52	120.74	89.94	-137.35	-3,849.67	940.17	698.96	241.21	3.898	
13,200.00	9,025.00	13,129.49	9,024.00	123.26	123.49	89.94	-137.68	-3,949.67	940.14	693.45	246.70	3.811	
13,300.00	9,025.00	13,229.49	9,024.00	126.01	126.24	89.94	-138.01	-4,049.67	940.12	687.93	252.20	3.728	
13,400.00	9,025.00	13,329.49	9,024.00	128.76	129.00	89.94	-138.34	-4,149.67	940.10	682.40	257.70	3.648	
13,500.00	9,025.00	13,429.49	9,024.00	131.52	131.76	89.94	-138.67	-4,249.66	940.08	676.86	263.22	3.571	
13,600.00	9,025.00	13,529.49	9,024.00	134.27	134.52	89.94	-139.00	-4,349.66	940.05	671.31	268.74	3.498	
13,700.00	9,025.00	13,629.49	9,024.00	137.04	137.29	89.94	-139.33	-4,449.66	940.03	665.76	274.27	3.427	
13,800.00	9,025.00	13,729.49	9,024.00	139.80	140.06	89.94	-139.67	-4,549.66	940.01	660.20	279.81	3.360	
13,855.43	9,025.00	13,784.92	9,024.00	141.34	141.59	89.94	-139.85	-4,605.09	940.00	657.12	282.88	3.323	
13,874.65	9,025.00	13,800.13	9,024.00	141.87	142.01	89.94	-139.90	-4,620.30	940.00	656.17	283.83	3.312	

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

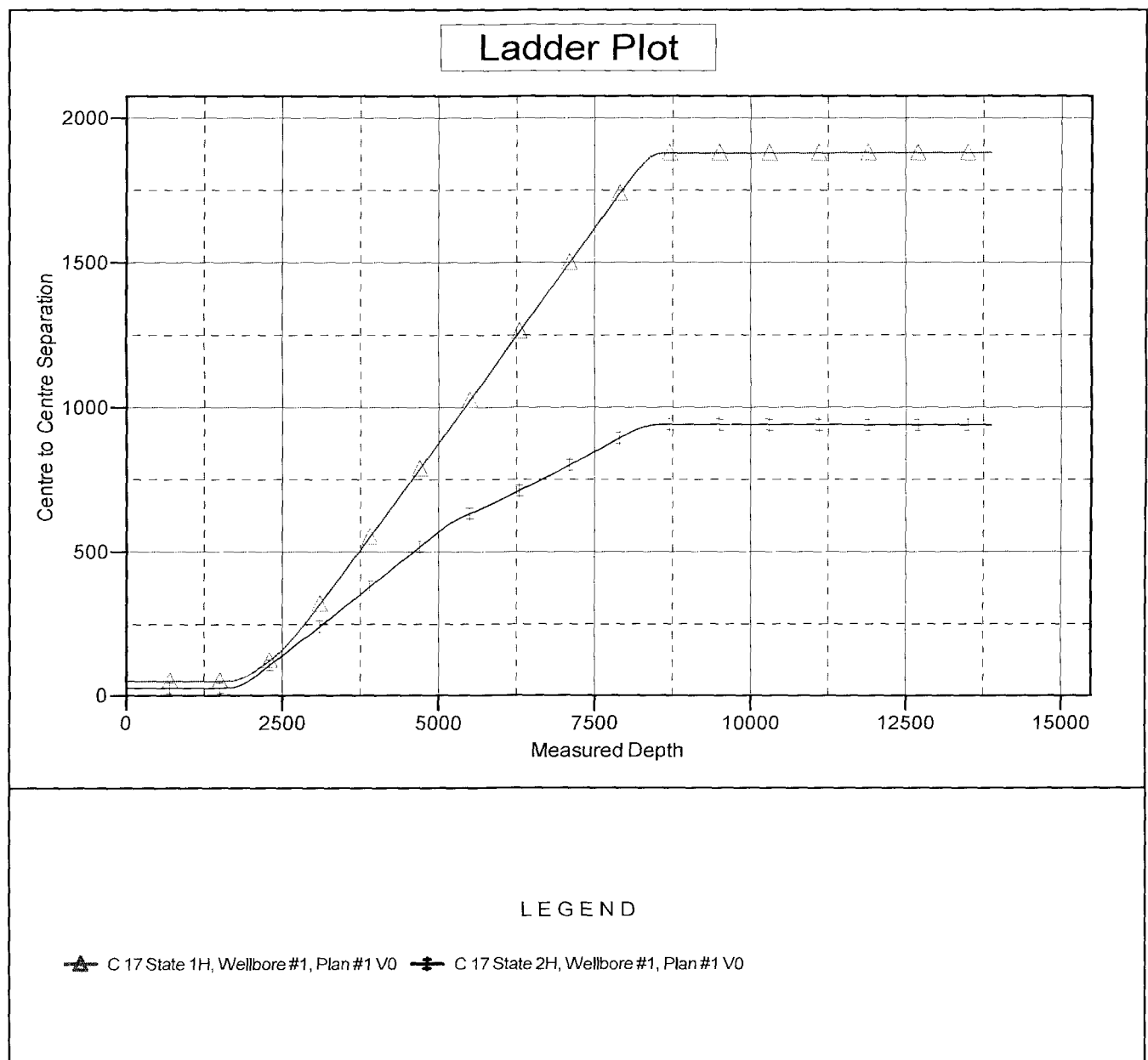
Reference Site: C 17 State Pad

Site Error: 0.00 usft
Reference Well: C 17 State 3H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 3H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Reference Depths are relative to GL 3154 + KB 22 = @ 3176.00usft (O
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: C 17 State 3H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.07°



Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Reference Site: C 17 State Pad

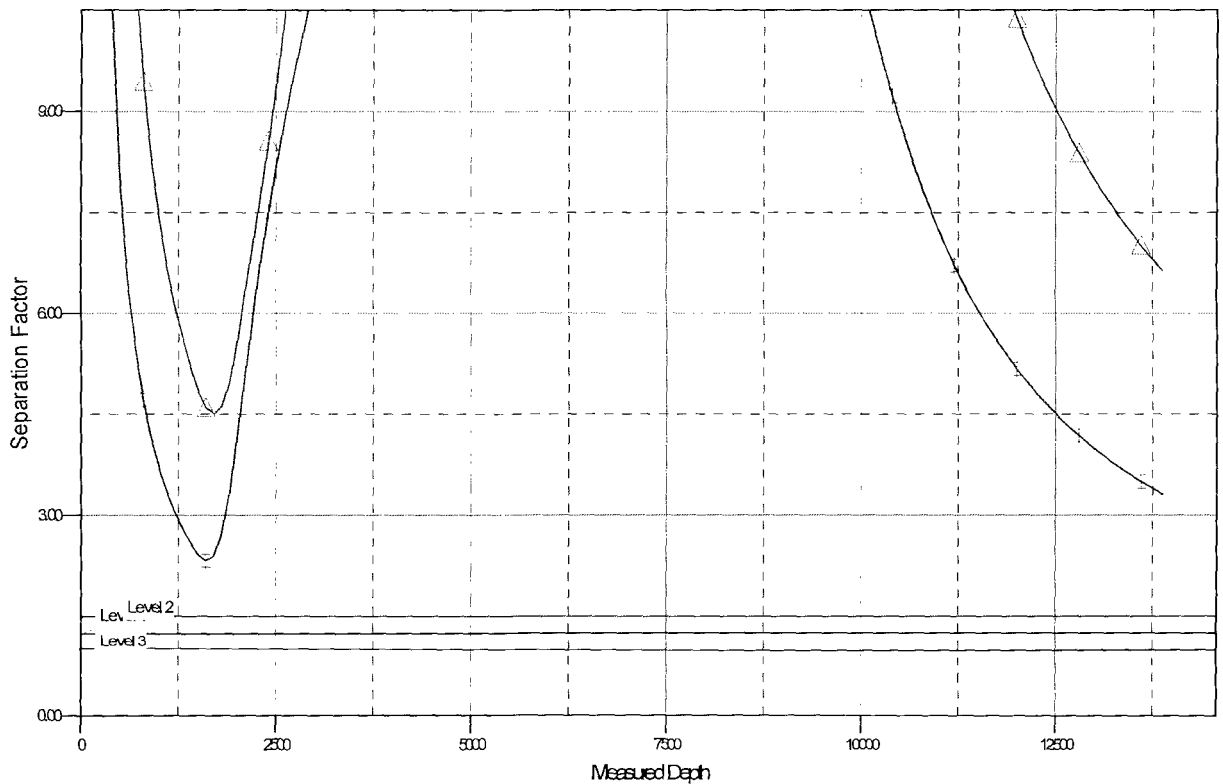
Site Error: 0.00 usft
Reference Well: C 17 State 3H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
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North Reference: Grid
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Output errors are at 2.00 sigma
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Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: C 17 State 3H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.07°

Separation Factor Plot



LEGEND

▲ C 17 State 1H, Wellbore #1, Plan #1 V0 ✕ C 17 State 2H, Wellbore #1, Plan #1 V0