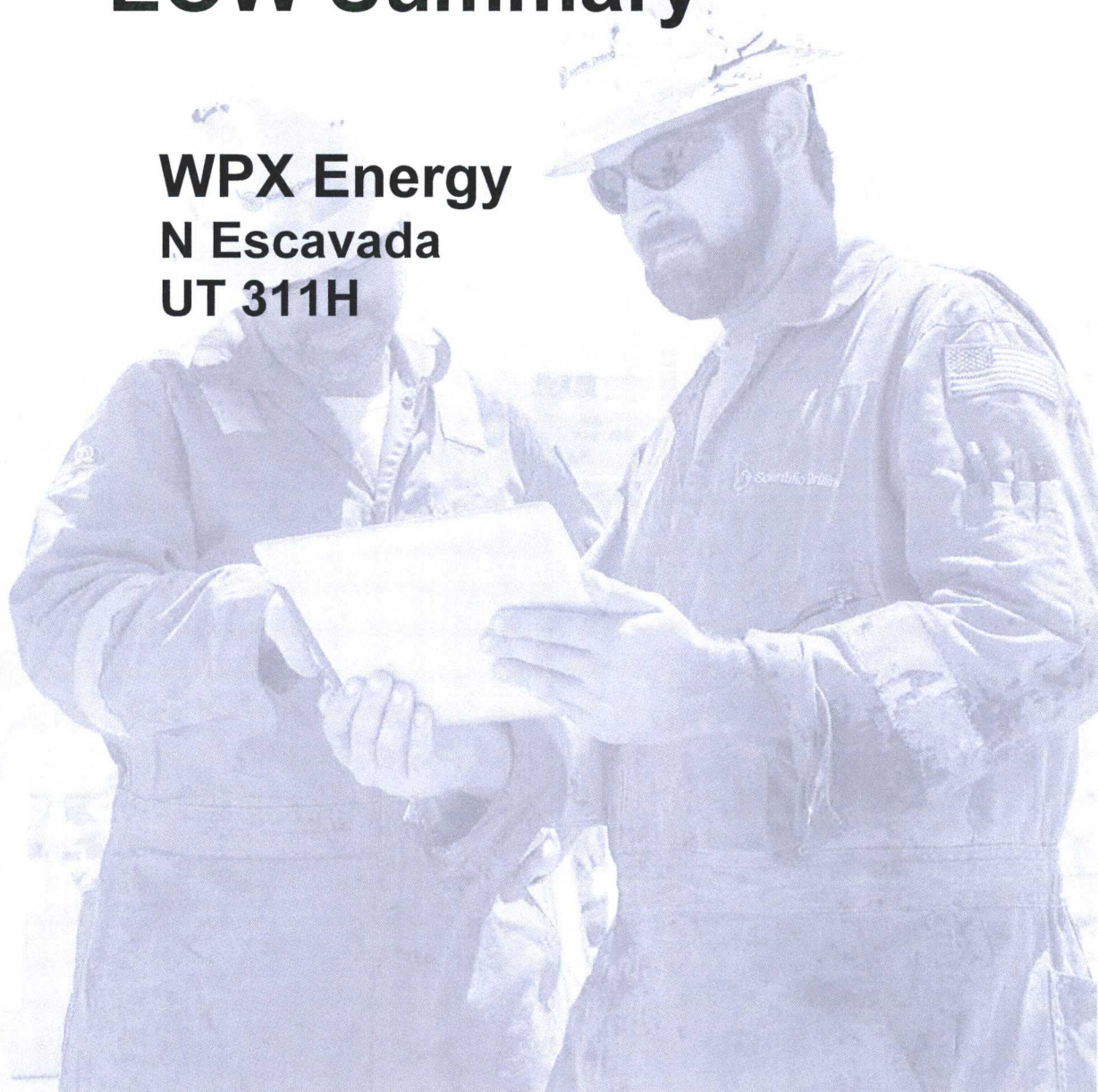


JASON C. EDWARDS
Certificate Number 15269



EOW Summary

WPX Energy
N Escavada
UT 311H





N Escavada UT 311H
Sandoval County, NM 3003 West
Northing: 1873205.88
Easting: 585684.50
Actual

SL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
GL @ 6961.00



WELL DETAILS

Ground Level: 6961.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1873205.88	585684.50	36.147904	-107.543115

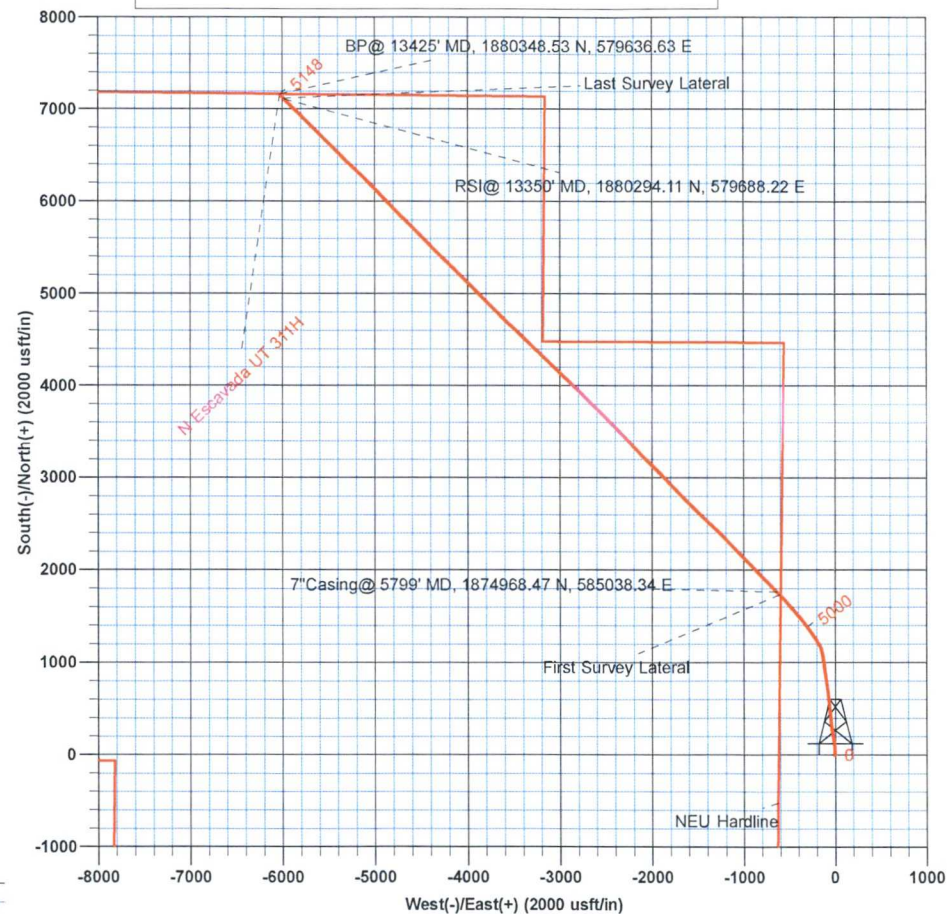
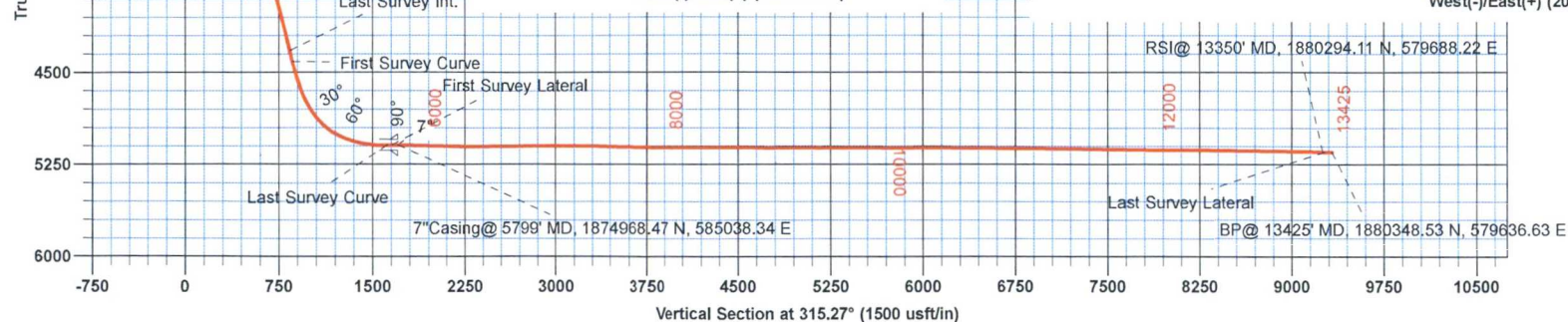
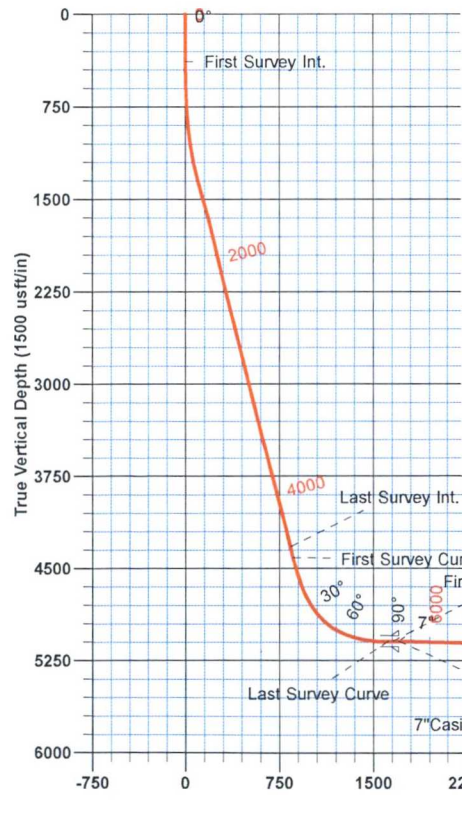
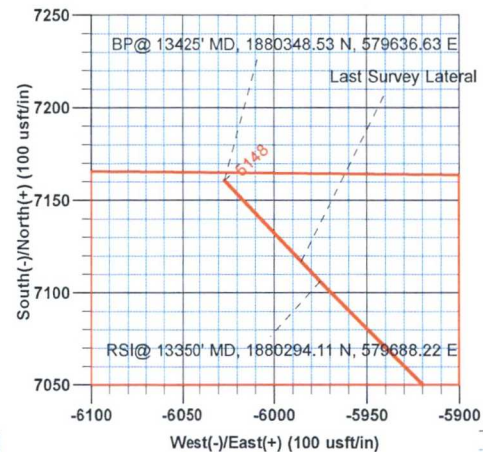
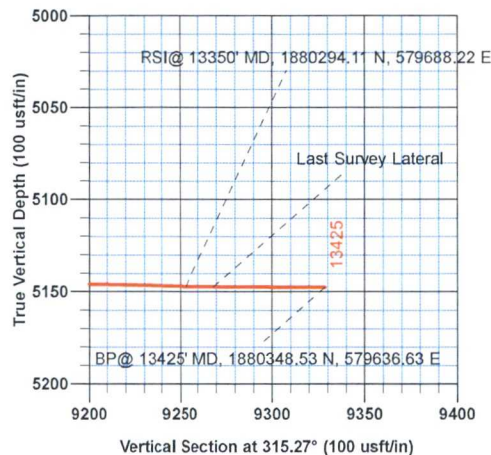
TVD	MD
384.98	385.00
4323.20	4479.00
4414.11	4574.00
5095.42	5715.00
5095.36	5753.00
5095.37	5799.00
5147.21	13350.00
5147.40	13365.00
5147.86	13425.00

ANNOTATIONS

Annotation
First Survey Int.
Last Survey Int.
First Survey Curve
Last Survey Curve
First Survey Lateral
Last Survey Lateral
7" Casing@ 5799' MD, 1874968.47 N, 585038.34 E
RSI@ 13350' MD, 1880294.11 N, 579688.22 E
Last Survey Lateral
BP@ 13425' MD, 1880348.53 N, 579636.63 E



Azimuths to True North
Magnetic North: 8.92°
Magnetic Field
Strength: 49510.6nT
Dip Angle: 68.87°
Date: 9/21/2017
Model: HDGM



Bailey Fellows
8:17, October 23 2017

Scientific Drilling
325 S. Faudree Rd.
Odessa, TX 79765

WPX Energy

Sandoval County, NM 3003 West
N Escavada UT 311-312 Pad
N Escavada UT 311H
API: 30-043-21302
Wellbore #1

Design: Actual

Survey Report - Geographic

30 October, 2017



www.scientificdrilling.com



Scientific Drilling Int.
Survey Report - Geographic

Company:	WPX Energy	Local Co-ordinate Reference:	Well N Escavada UT 311H
Project:	Sandoval County, NM 3003 West	TVD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Site:	N Escavada UT 311-312 Pad	MD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Well:	N Escavada UT 311H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Grand Junction District

Project	Sandoval County, NM 3003 West		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		N Escavada UT 311-312 Pad			
Site Position:		Northing:	1,873,197.03 usft	Latitude:	36.147880
From:	Lat/Long	Easting:	585,645.55 usft	Longitude:	-107.543247
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

Well	N Escavada UT 311H					
Well Position	+N/-S	0.00 usft	Northing:	1,873,205.88 usft	Latitude:	36.147904
	+E/-W	0.00 usft	Easting:	585,684.50 usft	Longitude:	-107.543115
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,961.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/21/2017	8.92	62.87	49,511

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 (°)	
	0.00	0.00	0.00	315.27	

Survey Program	Date	10/30/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
21.00	316.00	Gyros (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
385.00	4,479.00	SDI MWD Intermediate (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM	
4,574.00	5,715.00	SDI MWD Curve (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM	
5,753.00	13,425.00	SDI MWD Lateral (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,873,205.88	585,684.50	36.147904	-107.543115	
21.00	0.00	0.00	21.00	0.00	0.00	1,873,205.88	585,684.50	36.147904	-107.543115	
51.00	0.28	304.10	51.00	0.04	-0.06	1,873,205.92	585,684.44	36.147904	-107.543115	
81.00	0.34	279.14	81.00	0.10	-0.21	1,873,205.98	585,684.29	36.147904	-107.543116	
111.00	0.77	258.81	111.00	0.07	-0.49	1,873,205.95	585,684.01	36.147904	-107.543117	
141.00	0.89	284.97	140.99	0.09	-0.92	1,873,205.97	585,683.58	36.147904	-107.543118	
171.00	0.81	273.13	170.99	0.16	-1.35	1,873,206.04	585,683.15	36.147905	-107.543120	
201.00	0.84	274.56	200.99	0.19	-1.79	1,873,206.07	585,682.71	36.147905	-107.543121	
231.00	0.52	259.07	230.99	0.18	-2.14	1,873,206.06	585,682.36	36.147905	-107.543123	

Scientific Drilling Int.
Survey Report - Geographic

Company:	WPX Energy	Local Co-ordinate Reference:	Well N Escavada UT 311H
Project:	Sandoval County, NM 3003 West	TVD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Site:	N Escavada UT 311-312 Pad	MD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Well:	N Escavada UT 311H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
261.00	0.32	273.97	260.99	0.16	-2.36	1,873,206.04	585,682.14	36.147905	-107.543123
291.00	0.44	277.60	290.98	0.19	-2.55	1,873,206.06	585,681.95	36.147905	-107.543124
316.00	0.36	254.95	315.98	0.18	-2.72	1,873,206.05	585,681.78	36.147905	-107.543124
385.00	0.39	210.31	384.98	-0.08	-3.05	1,873,205.79	585,681.45	36.147904	-107.543126
First Survey Int.									
447.00	0.19	106.50	446.98	-0.29	-3.06	1,873,205.58	585,681.44	36.147903	-107.543126
541.00	1.22	2.75	540.98	0.66	-2.86	1,873,206.53	585,681.64	36.147906	-107.543125
634.00	2.46	2.40	633.93	3.65	-2.73	1,873,209.52	585,681.76	36.147914	-107.543125
727.00	4.05	3.91	726.77	8.92	-2.42	1,873,214.79	585,682.05	36.147929	-107.543123
821.00	5.91	2.01	820.41	17.07	-2.03	1,873,222.94	585,682.42	36.147951	-107.543122
914.00	8.13	0.80	912.71	28.43	-1.77	1,873,234.30	585,682.65	36.147982	-107.543121
1,007.00	10.18	357.58	1,004.52	43.22	-2.02	1,873,249.09	585,682.35	36.148023	-107.543122
1,101.00	12.80	355.82	1,096.63	61.90	-3.13	1,873,267.77	585,681.18	36.148074	-107.543126
1,194.00	14.77	356.40	1,186.95	84.01	-4.63	1,873,289.88	585,679.62	36.148135	-107.543131
1,287.00	16.09	352.59	1,276.60	108.62	-7.04	1,873,314.48	585,677.14	36.148203	-107.543139
1,381.00	17.38	352.80	1,366.61	135.47	-10.48	1,873,341.32	585,673.62	36.148276	-107.543151
1,474.00	19.28	349.93	1,454.89	164.37	-14.90	1,873,370.21	585,669.11	36.148356	-107.543166
1,567.00	18.81	348.29	1,542.80	194.17	-20.63	1,873,399.99	585,663.29	36.148438	-107.543185
1,661.00	18.36	347.51	1,631.90	223.46	-26.91	1,873,429.26	585,656.93	36.148518	-107.543206
1,754.00	16.75	352.30	1,720.57	251.05	-31.87	1,873,456.83	585,651.88	36.148594	-107.543223
1,847.00	15.22	351.32	1,809.97	276.40	-35.51	1,873,482.17	585,648.17	36.148663	-107.543236
1,941.00	15.70	353.46	1,900.57	301.23	-38.82	1,873,506.99	585,644.78	36.148732	-107.543247
2,034.00	16.89	356.15	1,989.83	327.21	-41.16	1,873,532.97	585,642.36	36.148803	-107.543255
2,127.00	17.77	356.22	2,078.61	354.85	-43.00	1,873,560.60	585,640.44	36.148879	-107.543261
2,221.00	17.63	353.22	2,168.16	383.30	-45.63	1,873,589.04	585,637.73	36.148957	-107.543270
2,314.00	15.98	351.62	2,257.19	409.95	-49.16	1,873,615.68	585,634.12	36.149030	-107.543282
2,407.00	18.18	354.70	2,346.08	437.07	-52.36	1,873,642.79	585,630.83	36.149105	-107.543293
2,501.00	17.59	353.64	2,435.54	465.79	-55.29	1,873,671.50	585,627.82	36.149184	-107.543303
2,594.00	17.36	353.26	2,524.25	493.53	-58.48	1,873,699.23	585,624.55	36.149260	-107.543313
2,687.00	18.60	355.58	2,612.71	522.10	-61.25	1,873,727.79	585,621.69	36.149338	-107.543323
2,781.00	18.38	355.09	2,701.85	551.81	-63.67	1,873,757.50	585,619.18	36.149420	-107.543331
2,874.00	17.39	356.21	2,790.36	580.29	-65.84	1,873,785.97	585,616.92	36.149498	-107.543338
2,969.00	16.38	355.08	2,881.26	607.80	-67.93	1,873,813.47	585,614.75	36.149574	-107.543345
3,064.00	17.64	353.38	2,972.11	635.44	-70.74	1,873,841.11	585,611.86	36.149650	-107.543355
3,159.00	16.51	353.48	3,062.92	663.16	-73.93	1,873,868.81	585,608.59	36.149726	-107.543366
3,254.00	16.31	349.98	3,154.05	689.70	-77.79	1,873,895.35	585,604.65	36.149799	-107.543379
3,349.00	16.88	353.03	3,245.09	716.53	-81.78	1,873,922.16	585,600.58	36.149873	-107.543392
3,445.00	18.34	352.11	3,336.59	745.33	-85.55	1,873,950.95	585,596.73	36.149952	-107.543405
3,540.00	17.93	351.91	3,426.87	774.61	-89.66	1,873,980.22	585,592.53	36.150032	-107.543419
3,635.00	17.58	350.95	3,517.35	803.26	-93.97	1,874,008.85	585,588.13	36.150111	-107.543434
3,730.00	16.87	350.62	3,608.09	831.02	-98.47	1,874,036.61	585,583.54	36.150187	-107.543449
3,825.00	18.05	351.18	3,698.71	859.17	-102.98	1,874,064.74	585,578.96	36.150264	-107.543464
3,920.00	16.45	350.63	3,789.43	886.99	-107.42	1,874,092.54	585,574.43	36.150341	-107.543479
4,015.00	17.34	352.10	3,880.33	914.28	-111.56	1,874,119.82	585,570.21	36.150416	-107.543493
4,110.00	19.19	352.21	3,970.54	943.78	-115.62	1,874,149.31	585,566.06	36.150497	-107.543507
4,205.00	17.01	351.00	4,060.84	972.97	-119.91	1,874,178.49	585,561.68	36.150577	-107.543521
4,300.00	17.64	353.50	4,151.53	1,001.00	-123.72	1,874,206.51	585,557.79	36.150654	-107.543534
4,395.00	16.13	352.07	4,242.43	1,028.37	-127.17	1,874,233.87	585,554.26	36.150729	-107.543546
4,479.00	15.81	351.24	4,323.19	1,051.24	-130.52	1,874,256.72	585,550.84	36.150792	-107.543557
Last Survey Int.									
4,574.00	17.93	351.74	4,414.09	1,078.50	-134.59	1,874,283.98	585,546.69	36.150867	-107.543571
First Survey Curve									
4,669.00	18.78	350.09	4,504.26	1,108.04	-139.32	1,874,313.50	585,541.87	36.150948	-107.543587
4,701.00	18.15	350.02	4,534.61	1,118.02	-141.07	1,874,323.48	585,540.09	36.150975	-107.543593
4,733.00	18.27	344.06	4,565.01	1,127.76	-143.32	1,874,333.20	585,537.82	36.151002	-107.543601

Scientific Drilling Int.
Survey Report - Geographic

Company:	WPX Energy	Local Co-ordinate Reference:	Well N Escavada UT 311H
Project:	Sandoval County, NM 3003 West	TVD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Site:	N Escavada UT 311-312 Pad	MD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Well:	N Escavada UT 311H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,764.00	19.28	337.60	4,594.37	1,137.16	-146.60	1,874,342.60	585,534.50	36.151028	-107.543612
4,796.00	20.82	333.85	4,624.43	1,147.15	-151.12	1,874,352.57	585,529.95	36.151056	-107.543627
4,828.00	22.57	333.71	4,654.16	1,157.76	-156.35	1,874,363.17	585,524.69	36.151085	-107.543645
4,891.00	26.03	332.34	4,711.57	1,180.85	-168.12	1,874,386.23	585,512.85	36.151148	-107.543685
4,923.00	27.77	330.20	4,740.11	1,193.54	-175.09	1,874,398.89	585,505.85	36.151183	-107.543708
4,955.00	29.61	328.68	4,768.18	1,206.77	-182.90	1,874,412.09	585,497.99	36.151219	-107.543735
4,986.00	31.53	328.31	4,794.87	1,220.21	-191.14	1,874,425.51	585,489.71	36.151256	-107.543763
5,018.00	33.48	326.87	4,821.85	1,234.72	-200.36	1,874,440.00	585,480.45	36.151296	-107.543794
5,050.00	36.66	326.42	4,848.04	1,250.07	-210.47	1,874,455.32	585,470.29	36.151338	-107.543828
5,081.00	39.26	326.13	4,872.48	1,265.93	-221.06	1,874,471.15	585,459.66	36.151382	-107.543864
5,113.00	42.54	325.66	4,896.66	1,283.28	-232.81	1,874,488.45	585,447.86	36.151429	-107.543904
5,145.00	45.77	324.76	4,919.62	1,301.58	-245.53	1,874,506.72	585,435.08	36.151480	-107.543947
5,176.00	48.16	326.34	4,940.77	1,320.26	-258.34	1,874,525.36	585,422.21	36.151531	-107.543990
5,208.00	52.25	325.32	4,961.25	1,340.60	-272.15	1,874,545.66	585,408.34	36.151587	-107.544037
5,240.00	54.99	323.58	4,980.23	1,361.55	-287.14	1,874,566.57	585,393.30	36.151645	-107.544088
5,272.00	58.33	323.34	4,997.82	1,383.03	-303.05	1,874,587.99	585,377.32	36.151703	-107.544142
5,303.00	62.05	322.62	5,013.22	1,404.50	-319.25	1,874,609.42	585,361.06	36.151762	-107.544197
5,335.00	65.15	321.24	5,027.45	1,427.05	-336.92	1,874,631.92	585,343.32	36.151824	-107.544256
5,366.00	68.23	321.01	5,039.72	1,449.22	-354.79	1,874,654.03	585,325.38	36.151885	-107.544317
5,398.00	70.55	319.73	5,050.98	1,472.28	-373.89	1,874,677.04	585,306.21	36.151949	-107.544382
5,430.00	73.12	319.77	5,060.96	1,495.48	-393.54	1,874,700.18	585,286.50	36.152012	-107.544448
5,462.00	75.48	319.53	5,069.61	1,518.96	-413.48	1,874,723.60	585,266.48	36.152077	-107.544516
5,493.00	77.27	318.89	5,076.92	1,541.77	-433.16	1,874,746.35	585,246.73	36.152140	-107.544582
5,525.00	79.67	318.43	5,083.31	1,565.31	-453.87	1,874,769.82	585,225.95	36.152204	-107.544653
5,557.00	82.26	317.85	5,088.34	1,588.84	-474.96	1,874,793.30	585,204.80	36.152269	-107.544724
5,588.00	84.68	317.37	5,091.86	1,611.59	-495.72	1,874,815.98	585,183.97	36.152331	-107.544794
5,620.00	87.14	317.35	5,094.15	1,635.07	-517.34	1,874,839.39	585,162.28	36.152396	-107.544868
5,652.00	89.43	317.23	5,095.10	1,658.57	-539.03	1,874,862.83	585,140.51	36.152460	-107.544941
5,715.00	90.03	316.23	5,095.40	1,704.44	-582.22	1,874,908.57	585,097.19	36.152586	-107.545087
Last Survey Curve									
5,753.00	90.13	315.64	5,095.35	1,731.74	-608.64	1,874,935.80	585,070.68	36.152661	-107.545177
First Survey Lateral									
5,778.49	89.97	315.50	5,095.32	1,749.94	-626.49	1,874,953.94	585,052.79	36.152711	-107.545237
NEU311H POE									
5,799.00	89.85	315.39	5,095.35	1,764.56	-640.88	1,874,968.52	585,038.36	36.152752	-107.545286
7" Casing @ 5799' MD, 1874968.47 N, 585038.34 E - 7"									
5,873.00	89.40	315.00	5,095.84	1,817.07	-693.02	1,875,020.87	584,986.05	36.152896	-107.545463
5,968.00	89.03	315.53	5,097.14	1,884.54	-759.88	1,875,088.15	584,919.00	36.153081	-107.545689
6,064.00	88.02	315.55	5,099.61	1,953.04	-827.09	1,875,156.44	584,851.58	36.153269	-107.545917
6,159.00	88.32	314.93	5,102.65	2,020.46	-893.95	1,875,223.66	584,784.52	36.153455	-107.546143
6,254.00	89.46	315.54	5,104.49	2,087.90	-960.84	1,875,290.90	584,717.43	36.153640	-107.546370
6,349.00	90.54	315.90	5,104.49	2,155.91	-1,027.16	1,875,358.71	584,650.90	36.153827	-107.546595
6,444.00	90.40	315.43	5,103.71	2,223.86	-1,093.55	1,875,426.46	584,584.31	36.154013	-107.546819
6,539.00	90.31	315.11	5,103.12	2,291.35	-1,160.41	1,875,493.75	584,517.25	36.154199	-107.547046
6,634.00	90.30	314.71	5,102.61	2,358.42	-1,227.69	1,875,560.62	584,449.77	36.154383	-107.547274
6,729.00	90.10	313.73	5,102.28	2,424.67	-1,295.77	1,875,626.67	584,381.49	36.154565	-107.547504
6,824.00	89.73	314.02	5,102.42	2,490.51	-1,364.25	1,875,692.30	584,312.82	36.154746	-107.547736
6,919.00	90.13	314.67	5,102.54	2,556.91	-1,432.19	1,875,758.50	584,244.68	36.154928	-107.547967
7,014.00	92.15	314.24	5,100.65	2,623.43	-1,499.98	1,875,824.82	584,176.69	36.155111	-107.548196
7,109.00	90.00	313.33	5,098.87	2,689.15	-1,568.55	1,875,890.33	584,107.92	36.155292	-107.548428
7,205.00	89.97	315.79	5,098.89	2,756.50	-1,636.94	1,875,957.48	584,039.33	36.155477	-107.548660
7,300.00	90.13	316.86	5,098.81	2,825.21	-1,702.55	1,876,025.99	583,973.52	36.155665	-107.548882
7,395.00	87.58	316.53	5,100.71	2,894.33	-1,767.69	1,876,094.91	583,908.17	36.155855	-107.549103
7,490.00	88.22	316.08	5,104.19	2,962.97	-1,833.27	1,876,163.36	583,842.38	36.156044	-107.549325

Scientific Drilling Int.
Survey Report - Geographic

Company:	WPX Energy	Local Co-ordinate Reference:	Well N Escavada UT 311H
Project:	Sandovall County, NM 3003 West	TVD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Site:	N Escavada UT 311-312 Pad	MD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Well:	N Escavada UT 311H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Grand Junction District

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,585.00	88.82	315.61	5,106.64	3,031.10	-1,899.43	1,876,231.29	583,776.03	36.156231	-107.549549	
7,680.00	88.46	314.55	5,108.90	3,098.35	-1,966.49	1,876,298.34	583,708.76	36.156416	-107.549777	
7,775.00	89.10	314.24	5,110.92	3,164.80	-2,034.35	1,876,364.59	583,640.70	36.156598	-107.550006	
7,870.00	88.66	316.67	5,112.78	3,232.49	-2,100.97	1,876,432.07	583,573.88	36.156784	-107.550232	
7,965.00	89.09	316.18	5,114.64	3,301.30	-2,166.44	1,876,500.69	583,508.20	36.156973	-107.550454	
8,060.00	90.47	316.48	5,115.01	3,370.01	-2,232.04	1,876,569.21	583,442.40	36.157162	-107.550676	
8,155.00	90.37	315.82	5,114.31	3,438.52	-2,297.85	1,876,637.52	583,376.38	36.157350	-107.550899	
8,250.00	91.14	315.64	5,113.06	3,506.54	-2,364.16	1,876,705.34	583,309.87	36.157537	-107.551124	
8,345.00	89.20	315.72	5,112.77	3,574.50	-2,430.53	1,876,773.10	583,243.30	36.157724	-107.551349	
8,439.00	90.64	315.84	5,112.91	3,641.87	-2,496.08	1,876,840.27	583,177.55	36.157909	-107.551571	
8,532.00	89.19	314.93	5,113.04	3,708.07	-2,561.40	1,876,906.28	583,112.03	36.158090	-107.551792	
8,625.00	90.70	314.74	5,113.13	3,773.64	-2,627.35	1,876,971.65	583,045.89	36.158271	-107.552015	
8,719.00	87.72	314.76	5,114.43	3,839.80	-2,694.09	1,877,037.61	582,978.95	36.158452	-107.552241	
8,812.00	88.49	314.50	5,117.50	3,905.10	-2,760.24	1,877,102.71	582,912.61	36.158632	-107.552466	
8,905.00	92.05	314.15	5,117.07	3,970.07	-2,826.76	1,877,167.48	582,845.89	36.158810	-107.552691	
8,999.00	90.34	314.04	5,115.11	4,035.46	-2,894.25	1,877,232.67	582,778.20	36.158990	-107.552920	
9,092.00	89.13	314.70	5,115.54	4,100.49	-2,960.73	1,877,297.51	582,711.53	36.159168	-107.553145	
9,185.00	89.60	314.34	5,116.57	4,165.70	-3,027.03	1,877,362.51	582,645.03	36.159348	-107.553369	
9,279.00	89.87	313.69	5,117.00	4,231.01	-3,094.63	1,877,427.62	582,577.24	36.159527	-107.553598	
9,372.00	90.64	313.02	5,116.59	4,294.86	-3,162.25	1,877,491.27	582,509.43	36.159702	-107.553828	
9,465.00	90.30	315.18	5,115.82	4,359.57	-3,229.03	1,877,555.78	582,442.46	36.159880	-107.554054	
9,559.00	90.47	313.39	5,115.19	4,425.20	-3,296.32	1,877,621.21	582,374.97	36.160060	-107.554282	
9,652.00	88.52	314.18	5,116.01	4,489.54	-3,363.45	1,877,685.35	582,307.65	36.160237	-107.554509	
9,745.00	89.13	313.72	5,117.92	4,554.07	-3,430.39	1,877,749.68	582,240.51	36.160414	-107.554736	
9,839.00	90.13	313.36	5,118.53	4,618.83	-3,498.53	1,877,814.23	582,172.18	36.160592	-107.554967	
9,932.00	90.94	312.69	5,117.66	4,682.28	-3,566.52	1,877,877.48	582,104.01	36.160766	-107.555197	
10,025.00	90.27	315.36	5,116.68	4,746.90	-3,633.38	1,877,941.90	582,036.96	36.160944	-107.555424	
10,119.00	90.60	314.57	5,115.96	4,813.32	-3,699.88	1,878,008.13	581,970.25	36.161126	-107.555649	
10,212.00	88.66	316.54	5,116.56	4,879.71	-3,765.00	1,878,074.32	581,904.94	36.161309	-107.555870	
10,305.00	88.83	316.05	5,118.60	4,946.93	-3,829.24	1,878,141.34	581,840.50	36.161493	-107.556087	
10,399.00	89.90	315.23	5,119.64	5,014.13	-3,894.95	1,878,208.35	581,774.58	36.161678	-107.556310	
10,492.00	91.44	314.87	5,118.55	5,079.94	-3,960.65	1,878,273.96	581,708.69	36.161859	-107.556533	
10,585.00	90.67	315.97	5,116.84	5,146.17	-4,025.92	1,878,339.99	581,643.23	36.162041	-107.556754	
10,679.00	87.92	315.11	5,118.00	5,213.25	-4,091.74	1,878,406.88	581,577.20	36.162225	-107.556977	
10,772.00	88.76	314.36	5,120.69	5,278.67	-4,157.78	1,878,472.11	581,510.97	36.162405	-107.557200	
10,865.00	89.83	313.87	5,121.84	5,343.40	-4,224.54	1,878,536.64	581,444.01	36.162582	-107.557427	
10,959.00	89.26	315.04	5,122.58	5,409.23	-4,291.63	1,878,602.27	581,376.72	36.162763	-107.557654	
11,052.00	90.10	313.96	5,123.10	5,474.42	-4,357.96	1,878,667.25	581,310.20	36.162942	-107.557879	
11,145.00	89.90	316.70	5,123.10	5,540.55	-4,423.34	1,878,733.19	581,244.63	36.163124	-107.558100	
11,240.00	90.77	316.35	5,122.55	5,609.49	-4,488.70	1,878,801.93	581,179.06	36.163313	-107.558322	
11,335.00	89.09	316.31	5,122.66	5,678.20	-4,554.30	1,878,870.45	581,113.26	36.163502	-107.558544	
11,430.00	88.15	314.65	5,124.95	5,745.91	-4,620.88	1,878,937.96	581,046.47	36.163688	-107.558769	
11,525.00	88.79	313.33	5,127.49	5,811.87	-4,689.21	1,879,003.71	580,977.95	36.163869	-107.559001	
11,620.00	88.83	316.45	5,129.46	5,878.89	-4,756.49	1,879,070.53	580,910.47	36.164053	-107.559229	
11,716.00	90.07	316.66	5,130.38	5,948.59	-4,822.50	1,879,140.03	580,844.25	36.164245	-107.559453	
11,811.00	89.40	316.46	5,130.82	6,017.56	-4,887.82	1,879,208.81	580,778.72	36.164434	-107.559674	
11,906.00	88.83	316.89	5,132.29	6,086.66	-4,952.99	1,879,277.72	580,713.34	36.164624	-107.559895	
12,001.00	89.03	315.77	5,134.06	6,155.37	-5,018.58	1,879,346.22	580,647.55	36.164813	-107.560117	
12,096.00	89.66	315.13	5,135.15	6,223.06	-5,085.22	1,879,413.72	580,580.71	36.164999	-107.560343	
12,191.00	90.13	314.22	5,135.32	6,289.86	-5,152.77	1,879,480.31	580,512.96	36.165182	-107.560572	
12,286.00	90.20	313.22	5,135.05	6,355.51	-5,221.43	1,879,545.76	580,444.10	36.165362	-107.560804	
12,381.00	90.60	312.09	5,134.39	6,419.88	-5,291.30	1,879,609.92	580,374.05	36.165539	-107.561041	
12,476.00	89.26	314.97	5,134.50	6,485.30	-5,360.16	1,879,675.14	580,304.98	36.165719	-107.561274	
12,571.00	88.83	316.53	5,136.09	6,553.34	-5,426.44	1,879,742.97	580,238.50	36.165906	-107.561499	
12,666.00	88.99	316.05	5,137.89	6,622.00	-5,492.08	1,879,811.44	580,172.66	36.166094	-107.561721	

Scientific Drilling Int.
Survey Report - Geographic

Company:	WPX Energy	Local Co-ordinate Reference:	Well N Escavada UT 311H
Project:	Sandoval County, NM 3003 West	TVD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Site:	N Escavada UT 311-312 Pad	MD Reference:	GL 6961 + KB 21 = @ 6982.00usft (Cyclone 32)
Well:	N Escavada UT 311H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,761.00	88.83	314.44	5,139.70	6,689.44	-5,558.95	1,879,878.68	580,105.59	36.166280	-107.561948
12,856.00	88.20	315.02	5,142.16	6,756.28	-5,626.42	1,879,945.32	580,037.92	36.166463	-107.562177
12,951.00	90.13	314.63	5,143.55	6,823.24	-5,693.79	1,880,012.07	579,970.35	36.166647	-107.562405
13,046.00	89.60	315.49	5,143.77	6,890.48	-5,760.89	1,880,079.12	579,903.05	36.166832	-107.562632
13,141.00	88.39	314.89	5,145.44	6,957.87	-5,827.83	1,880,146.30	579,835.91	36.167017	-107.562859
13,236.00	90.87	314.98	5,146.05	7,024.96	-5,895.07	1,880,213.19	579,768.46	36.167201	-107.563087
13,331.00	88.29	315.67	5,146.75	7,092.51	-5,961.86	1,880,280.54	579,701.47	36.167387	-107.563313
13,350.00	89.00	316.27	5,147.20	7,106.16	-5,975.06	1,880,294.16	579,688.23	36.167424	-107.563358
RSI@ 13350' MD, 1880294.11 N, 579688.22 E									
13,365.00	89.56	316.75	5,147.39	7,117.05	-5,985.38	1,880,305.01	579,677.88	36.167454	-107.563393
Last Survey Lateral									
13,423.54	89.56	316.75	5,147.83	7,159.68	-6,025.49	1,880,347.53	579,637.64	36.167571	-107.563529
NEU311H BHL									
13,425.00	89.56	316.75	5,147.85	7,160.75	-6,026.49	1,880,348.59	579,636.64	36.167574	-107.563532
BP@ 13425' MD, 1880348.53 N, 579636.63 E									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,799.00	7"		7	8-3/4

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
385.00	384.98	-0.08	-3.05	First Survey Int.
4,479.00	4,323.19	1,051.24	-130.52	Last Survey Int.
4,574.00	4,414.09	1,078.50	-134.59	First Survey Curve
5,715.00	5,095.40	1,704.44	-582.22	Last Survey Curve
5,753.00	5,095.35	1,731.74	-608.64	First Survey Lateral
5,799.00	5,095.35	1,764.56	-640.88	7"Casing@ 5799' MD, 1874968.47 N, 585038.34 E
13,350.00	5,147.20	7,106.16	-5,975.06	RSI@ 13350' MD, 1880294.11 N, 579688.22 E
13,365.00	5,147.39	7,117.05	-5,985.38	Last Survey Lateral
13,425.00	5,147.85	7,160.75	-6,026.49	BP@ 13425' MD, 1880348.53 N, 579636.63 E

Checked By: _____ Approved By: _____ Date: _____