

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-68W-08 PAPA JO 2-25 19-8HZ Pad

PAPA JO 2-25 29N-8HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

11 August, 2016



Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52381.8snT
Dip Angle: 66.56°
Date: 8/9/2016
Model: IGRF2010

SITE: 1N-68W-08 PAPA JO 2-25 19-8HZ Pad

Well: PAPA JO 2-25 29N-8HZ
Wellbore: Plan A
Design: Permit Rev-1

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1020.00	1025.31	Fox Hills
4196.00	4408.63	Parkman
4624.00	4866.78	Sussex
7406.00	7732.49	Sharon Springs
7447.00	7781.62	Niobrara
7587.00	7978.62	Nio B
7689.00	8210.92	Nio C

WELL DETAILS: PAPA JO 2-25 29N-8HZ

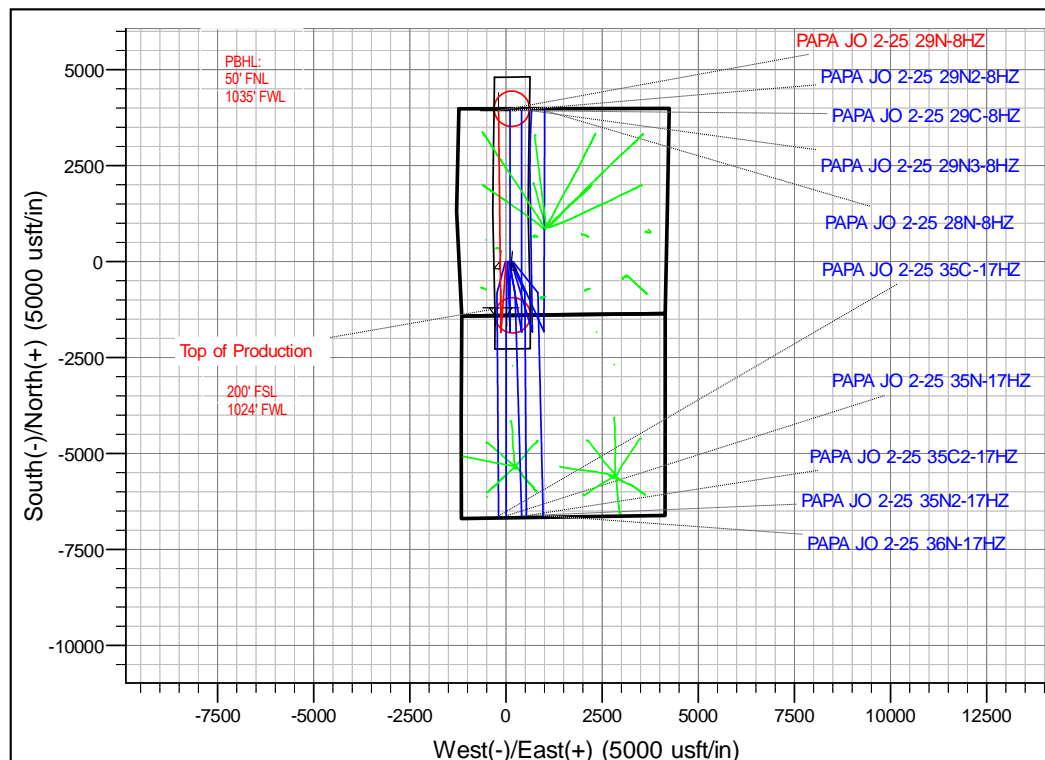
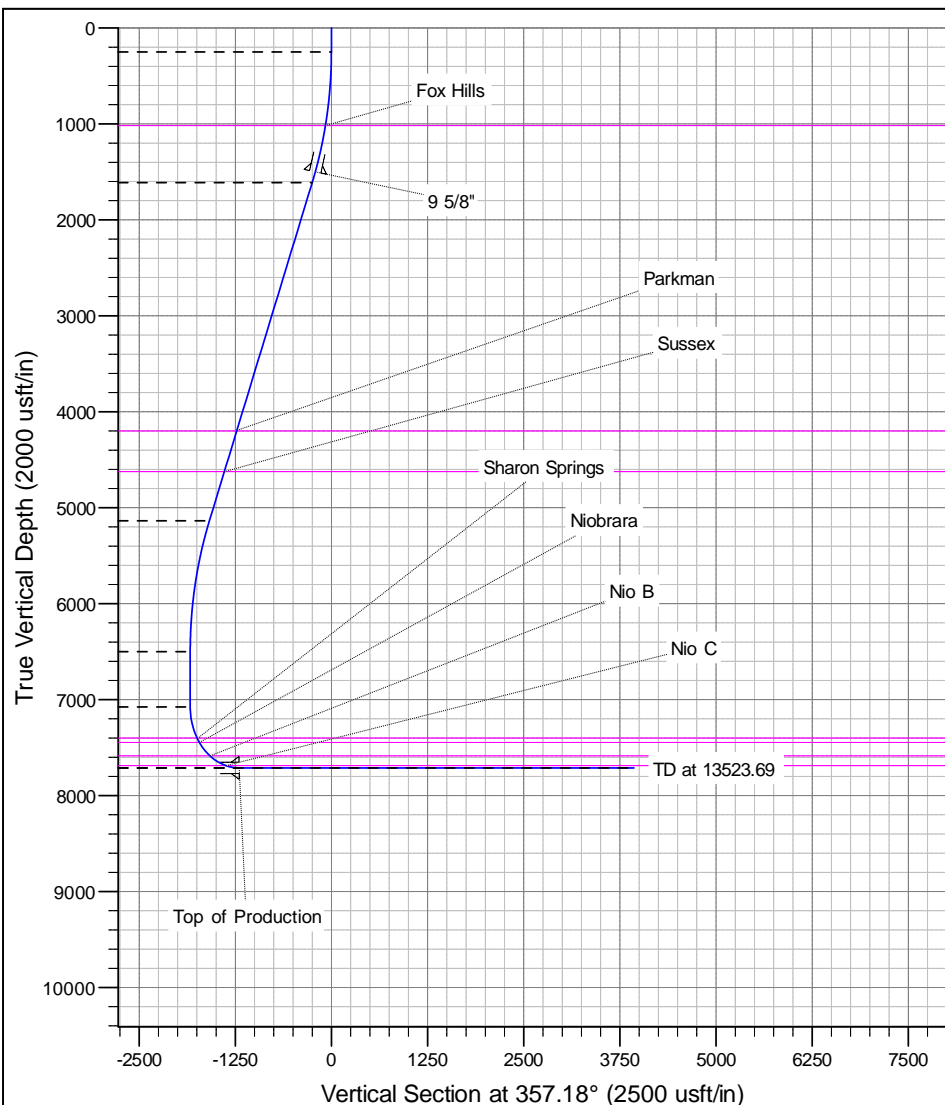
+N/-S	+E/-W	GL: 5065.00 Northing	RKB @ 5082.00usft (Original Well Elev) Easting	Latitude 40.062071	Longitude -105.032980	Slot
0.00	0.00	14549337.86	1631188.95			

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00
1643.31	20.90	184.03	1612.62	-250.69	-17.67	1.50	-249.52
5416.31	20.90	184.03	5137.38	-1593.31	-112.33	0.00	1585.86
6809.62	0.00	0.00	6500.00	-1844.00	-130.00	1.50	1835.38
7385.90	0.00	0.00	7076.28	-1844.00	-130.00	0.00	1835.38
8386.01	90.01	359.37	7712.90	-1207.31	-136.99	9.00	1199.11
13523.69	90.01	359.37	7712.00	3930.06	-193.41	0.00	3934.82

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PAPA JO 2-25 29N-8HZ_PBHL	7712.00	3930.06	-193.41	14553268.00	1630997.00	40.072864	-105.033671



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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well PAPA JO 2-25 29N-8HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5082.00usft (Original Well Elev)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5082.00usft (Original Well Elev)
Site:	1N-68W-08 PAPA JO 2-25 19-8HZ Pad	North Reference:	True
Well:	PAPA JO 2-25 29N-8HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		1N-68W-08 PAPA JO 2-25 19-8HZ Pad				
Site Position:		Northing:	14,549,337.87 usft	Latitude:	40.062071	
From:	Lat/Long	Easting:	1,631,173.84 usft	Longitude:	-105.033034	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.02 °

Well	PAPA JO 2-25 29N-8HZ					
Well Position	+N-S	0.00 usft	Northing:	14,549,337.86 usft	Latitude:	40.062071
	+E-W	15.11 usft	Easting:	1,631,188.95 usft	Longitude:	-105.032980
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,065.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/9/2016	8.29	66.56	52,382

Design	Permit Rev-1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	357.18

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,643.31	20.90	184.03	1,612.62	-250.69	-17.67	1.50	1.50	0.00	184.03	
5,416.31	20.90	184.03	5,137.38	-1,593.31	-112.33	0.00	0.00	0.00	0.00	
6,809.62	0.00	0.00	6,500.00	-1,844.00	-130.00	1.50	-1.50	0.00	180.00	
7,385.90	0.00	0.00	7,076.28	-1,844.00	-130.00	0.00	0.00	0.00	0.00	
8,386.01	90.01	359.37	7,712.90	-1,207.31	-136.99	9.00	9.00	0.00	359.37	
13,523.69	90.01	359.37	7,712.00	3,930.06	-193.41	0.00	0.00	0.00	0.00	PAPA JO 2-25 29N-

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Planning Report

Database: PLANNING
Company: US ROCKIES WATTENBERG PLANNING
Project: WELD-NAD83-UTMFT13N
Site: 1N-68W-08 PAPA JO 2-25 19-8HZ Pad
Well: PAPA JO 2-25 29N-8HZ
Wellbore: Plan A
Design: Permit Rev-1

Local Co-ordinate Reference: Well PAPA JO 2-25 29N-8HZ
TVD Reference: RKB @ 5082.00usft (Original Well Elev)
MD Reference: RKB @ 5082.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.75	184.03	300.00	-0.33	-0.02	-0.32	1.50	1.50	0.00
400.00	2.25	184.03	399.96	-2.94	-0.21	-2.92	1.50	1.50	0.00
500.00	3.75	184.03	499.82	-8.16	-0.58	-8.12	1.50	1.50	0.00
600.00	5.25	184.03	599.51	-15.98	-1.13	-15.91	1.50	1.50	0.00
700.00	6.75	184.03	698.96	-26.41	-1.86	-26.29	1.50	1.50	0.00
800.00	8.25	184.03	798.10	-39.43	-2.78	-39.25	1.50	1.50	0.00
900.00	9.75	184.03	896.87	-55.04	-3.88	-54.78	1.50	1.50	0.00
1,000.00	11.25	184.03	995.19	-73.21	-5.16	-72.87	1.50	1.50	0.00
1,025.31	11.63	184.03	1,020.00	-78.22	-5.51	-77.86	1.50	1.50	0.00
Fox Hills									
1,100.00	12.75	184.03	1,093.00	-93.95	-6.62	-93.51	1.50	1.50	0.00
1,200.00	14.25	184.03	1,190.24	-117.24	-8.27	-116.69	1.50	1.50	0.00
1,300.00	15.75	184.03	1,286.83	-143.06	-10.09	-142.39	1.50	1.50	0.00
1,400.00	17.25	184.03	1,382.71	-171.39	-12.08	-170.58	1.50	1.50	0.00
1,500.00	18.75	184.03	1,477.81	-202.21	-14.26	-201.26	1.50	1.50	0.00
1,523.46	19.10	184.03	1,500.00	-209.80	-14.79	-208.82	1.50	1.50	0.00
9 5/8"									
1,600.00	20.25	184.03	1,572.07	-235.51	-16.60	-234.41	1.50	1.50	0.00
1,643.31	20.90	184.03	1,612.62	-250.69	-17.67	-249.52	1.50	1.50	0.00
1,700.00	20.90	184.03	1,665.58	-270.86	-19.10	-269.60	0.00	0.00	0.00
1,800.00	20.90	184.03	1,759.00	-306.45	-21.60	-305.02	0.00	0.00	0.00
1,900.00	20.90	184.03	1,852.42	-342.03	-24.11	-340.43	0.00	0.00	0.00
2,000.00	20.90	184.03	1,945.84	-377.62	-26.62	-375.85	0.00	0.00	0.00
2,100.00	20.90	184.03	2,039.26	-413.20	-29.13	-411.27	0.00	0.00	0.00
2,200.00	20.90	184.03	2,132.68	-448.79	-31.64	-446.69	0.00	0.00	0.00
2,300.00	20.90	184.03	2,226.10	-484.37	-34.15	-482.11	0.00	0.00	0.00
2,400.00	20.90	184.03	2,319.52	-519.96	-36.66	-517.53	0.00	0.00	0.00
2,500.00	20.90	184.03	2,412.94	-555.54	-39.17	-552.95	0.00	0.00	0.00
2,600.00	20.90	184.03	2,506.36	-591.13	-41.67	-588.36	0.00	0.00	0.00
2,700.00	20.90	184.03	2,599.78	-626.71	-44.18	-623.78	0.00	0.00	0.00
2,800.00	20.90	184.03	2,693.20	-662.30	-46.69	-659.20	0.00	0.00	0.00
2,900.00	20.90	184.03	2,786.63	-697.88	-49.20	-694.62	0.00	0.00	0.00
3,000.00	20.90	184.03	2,880.05	-733.47	-51.71	-730.04	0.00	0.00	0.00
3,100.00	20.90	184.03	2,973.47	-769.05	-54.22	-765.46	0.00	0.00	0.00
3,200.00	20.90	184.03	3,066.89	-804.64	-56.73	-800.88	0.00	0.00	0.00
3,300.00	20.90	184.03	3,160.31	-840.22	-59.23	-836.29	0.00	0.00	0.00
3,400.00	20.90	184.03	3,253.73	-875.81	-61.74	-871.71	0.00	0.00	0.00
3,500.00	20.90	184.03	3,347.15	-911.39	-64.25	-907.13	0.00	0.00	0.00
3,600.00	20.90	184.03	3,440.57	-946.98	-66.76	-942.55	0.00	0.00	0.00
3,700.00	20.90	184.03	3,533.99	-982.56	-69.27	-977.97	0.00	0.00	0.00
3,800.00	20.90	184.03	3,627.41	-1,018.15	-71.78	-1,013.39	0.00	0.00	0.00
3,900.00	20.90	184.03	3,720.83	-1,053.73	-74.29	-1,048.81	0.00	0.00	0.00
4,000.00	20.90	184.03	3,814.25	-1,089.32	-76.80	-1,084.22	0.00	0.00	0.00
4,100.00	20.90	184.03	3,907.67	-1,124.90	-79.30	-1,119.64	0.00	0.00	0.00
4,200.00	20.90	184.03	4,001.09	-1,160.49	-81.81	-1,155.06	0.00	0.00	0.00
4,300.00	20.90	184.03	4,094.51	-1,196.07	-84.32	-1,190.48	0.00	0.00	0.00
4,400.00	20.90	184.03	4,187.94	-1,231.66	-86.83	-1,225.90	0.00	0.00	0.00
4,408.63	20.90	184.03	4,196.00	-1,234.73	-87.05	-1,228.96	0.00	0.00	0.00
Parkman									

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Planning Report

Database: PLANNING
Company: US ROCKIES WATTENBERG PLANNING
Project: WELD-NAD83-UTMFT13N
Site: 1N-68W-08 PAPA JO 2-25 19-8HZ Pad
Well: PAPA JO 2-25 29N-8HZ
Wellbore: Plan A
Design: Permit Rev-1

Local Co-ordinate Reference: Well PAPA JO 2-25 29N-8HZ
TVD Reference: RKB @ 5082.00usft (Original Well Elev)
MD Reference: RKB @ 5082.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	20.90	184.03	4,281.36	-1,267.24	-89.34	-1,261.32	0.00	0.00	0.00
4,600.00	20.90	184.03	4,374.78	-1,302.83	-91.85	-1,296.74	0.00	0.00	0.00
4,700.00	20.90	184.03	4,468.20	-1,338.41	-94.36	-1,332.15	0.00	0.00	0.00
4,800.00	20.90	184.03	4,561.62	-1,374.00	-96.87	-1,367.57	0.00	0.00	0.00
4,866.78	20.90	184.03	4,624.00	-1,397.76	-98.54	-1,391.22	0.00	0.00	0.00
Sussex									
4,900.00	20.90	184.03	4,655.04	-1,409.58	-99.37	-1,402.99	0.00	0.00	0.00
5,000.00	20.90	184.03	4,748.46	-1,445.16	-101.88	-1,438.41	0.00	0.00	0.00
5,100.00	20.90	184.03	4,841.88	-1,480.75	-104.39	-1,473.83	0.00	0.00	0.00
5,200.00	20.90	184.03	4,935.30	-1,516.33	-106.90	-1,509.25	0.00	0.00	0.00
5,300.00	20.90	184.03	5,028.72	-1,551.92	-109.41	-1,544.67	0.00	0.00	0.00
5,400.00	20.90	184.03	5,122.14	-1,587.50	-111.92	-1,580.08	0.00	0.00	0.00
5,416.31	20.90	184.03	5,137.38	-1,593.31	-112.33	-1,585.86	0.00	0.00	0.00
5,500.00	19.64	184.03	5,215.88	-1,622.23	-114.37	-1,614.65	1.50	-1.50	0.00
5,600.00	18.14	184.03	5,310.49	-1,654.53	-116.64	-1,646.80	1.50	-1.50	0.00
5,700.00	16.64	184.03	5,405.92	-1,684.35	-118.75	-1,676.48	1.50	-1.50	0.00
5,800.00	15.14	184.03	5,502.09	-1,711.67	-120.67	-1,703.67	1.50	-1.50	0.00
5,900.00	13.64	184.03	5,598.95	-1,736.47	-122.42	-1,728.35	1.50	-1.50	0.00
6,000.00	12.14	184.03	5,696.42	-1,758.73	-123.99	-1,750.51	1.50	-1.50	0.00
6,100.00	10.64	184.03	5,794.45	-1,778.44	-125.38	-1,770.12	1.50	-1.50	0.00
6,200.00	9.14	184.03	5,892.96	-1,795.58	-126.59	-1,787.18	1.50	-1.50	0.00
6,300.00	7.64	184.03	5,991.89	-1,810.14	-127.61	-1,801.68	1.50	-1.50	0.00
6,400.00	6.14	184.03	6,091.16	-1,822.11	-128.46	-1,813.59	1.50	-1.50	0.00
6,500.00	4.64	184.03	6,190.71	-1,831.49	-129.12	-1,822.93	1.50	-1.50	0.00
6,600.00	3.14	184.03	6,290.48	-1,838.26	-129.60	-1,829.67	1.50	-1.50	0.00
6,700.00	1.64	184.03	6,390.39	-1,842.43	-129.89	-1,833.82	1.50	-1.50	0.00
6,800.00	0.14	184.03	6,490.38	-1,843.99	-130.00	-1,835.37	1.50	-1.50	0.00
6,809.62	0.00	0.00	6,500.00	-1,844.00	-130.00	-1,835.38	1.50	-1.50	0.00
6,900.00	0.00	0.00	6,590.38	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,000.00	0.00	0.00	6,690.38	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,100.00	0.00	0.00	6,790.38	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,200.00	0.00	0.00	6,890.38	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,300.00	0.00	0.00	6,990.38	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,385.90	0.00	0.00	7,076.28	-1,844.00	-130.00	-1,835.38	0.00	0.00	0.00
7,400.00	1.27	359.37	7,090.37	-1,843.84	-130.00	-1,835.23	9.00	9.00	0.00
7,500.00	10.27	359.37	7,189.77	-1,833.80	-130.11	-1,825.19	9.00	9.00	0.00
7,600.00	19.27	359.37	7,286.36	-1,808.34	-130.39	-1,799.74	9.00	9.00	0.00
7,700.00	28.27	359.37	7,377.79	-1,768.08	-130.83	-1,759.51	9.00	9.00	0.00
7,732.49	31.19	359.37	7,406.00	-1,751.97	-131.01	-1,743.41	9.00	9.00	0.00
Sharon Springs									
7,781.62	35.61	359.37	7,447.00	-1,724.93	-131.31	-1,716.39	9.00	9.00	0.00
Niobrara									
7,800.00	37.27	359.37	7,461.79	-1,714.01	-131.43	-1,705.48	9.00	9.00	0.00
7,900.00	46.27	359.37	7,536.29	-1,647.47	-132.16	-1,638.98	9.00	9.00	0.00
7,978.62	53.34	359.37	7,587.00	-1,587.46	-132.82	-1,579.01	9.00	9.00	0.00
Nio B									
8,000.00	55.27	359.37	7,599.47	-1,570.10	-133.01	-1,561.66	9.00	9.00	0.00
8,100.00	64.27	359.37	7,649.77	-1,483.79	-133.96	-1,475.41	9.00	9.00	0.00
8,200.00	73.27	359.37	7,685.95	-1,390.68	-134.98	-1,382.36	9.00	9.00	0.00
8,210.92	74.25	359.37	7,689.00	-1,380.19	-135.09	-1,371.89	9.00	9.00	0.00
Nio C									
8,300.00	82.27	359.37	7,707.11	-1,293.05	-136.05	-1,284.80	9.00	9.00	0.00
8,386.01	90.01	359.37	7,712.90	-1,207.31	-136.99	-1,199.12	9.00	9.00	0.00

Anadarko

Planning Report

Database: PLANNING
Company: US ROCKIES WATTENBERG PLANNING
Project: WELD-NAD83-UTMFT13N
Site: 1N-68W-08 PAPA JO 2-25 19-8HZ Pad
Well: PAPA JO 2-25 29N-8HZ
Wellbore: Plan A
Design: Permit Rev-1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well PAPA JO 2-25 29N-8HZ
 RKB @ 5082.00usft (Original Well Elev)
 RKB @ 5082.00usft (Original Well Elev)
 True
 Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Top of Production - PAPA JO 2-25 29N-8HZ_PHL									
8,400.00	90.01	359.37	7,712.89	-1,193.32	-137.15	-1,185.14	0.00	0.00	0.00
8,500.00	90.01	359.37	7,712.88	-1,093.33	-138.24	-1,085.21	0.00	0.00	0.00
8,600.00	90.01	359.37	7,712.86	-993.33	-139.34	-985.28	0.00	0.00	0.00
8,700.00	90.01	359.37	7,712.84	-893.34	-140.44	-885.36	0.00	0.00	0.00
8,800.00	90.01	359.37	7,712.82	-793.35	-141.54	-785.43	0.00	0.00	0.00
8,900.00	90.01	359.37	7,712.81	-693.35	-142.64	-685.50	0.00	0.00	0.00
9,000.00	90.01	359.37	7,712.79	-593.36	-143.73	-585.57	0.00	0.00	0.00
9,100.00	90.01	359.37	7,712.77	-493.36	-144.83	-485.65	0.00	0.00	0.00
9,200.00	90.01	359.37	7,712.75	-393.37	-145.93	-385.72	0.00	0.00	0.00
9,300.00	90.01	359.37	7,712.74	-293.38	-147.03	-285.79	0.00	0.00	0.00
9,400.00	90.01	359.37	7,712.72	-193.38	-148.13	-185.87	0.00	0.00	0.00
9,500.00	90.01	359.37	7,712.70	-93.39	-149.23	-85.94	0.00	0.00	0.00
9,600.00	90.01	359.37	7,712.68	6.61	-150.32	13.99	0.00	0.00	0.00
9,700.00	90.01	359.37	7,712.67	106.60	-151.42	113.91	0.00	0.00	0.00
9,800.00	90.01	359.37	7,712.65	206.59	-152.52	213.84	0.00	0.00	0.00
9,900.00	90.01	359.37	7,712.63	306.59	-153.62	313.77	0.00	0.00	0.00
10,000.00	90.01	359.37	7,712.62	406.58	-154.72	413.70	0.00	0.00	0.00
10,100.00	90.01	359.37	7,712.60	506.58	-155.81	513.62	0.00	0.00	0.00
10,200.00	90.01	359.37	7,712.58	606.57	-156.91	613.55	0.00	0.00	0.00
10,300.00	90.01	359.37	7,712.56	706.56	-158.01	713.48	0.00	0.00	0.00
10,400.00	90.01	359.37	7,712.55	806.56	-159.11	813.40	0.00	0.00	0.00
10,500.00	90.01	359.37	7,712.53	906.55	-160.21	913.33	0.00	0.00	0.00
10,600.00	90.01	359.37	7,712.51	1,006.55	-161.30	1,013.26	0.00	0.00	0.00
10,700.00	90.01	359.37	7,712.49	1,106.54	-162.40	1,113.19	0.00	0.00	0.00
10,800.00	90.01	359.37	7,712.48	1,206.53	-163.50	1,213.11	0.00	0.00	0.00
10,900.00	90.01	359.37	7,712.46	1,306.53	-164.60	1,313.04	0.00	0.00	0.00
11,000.00	90.01	359.37	7,712.44	1,406.52	-165.70	1,412.97	0.00	0.00	0.00
11,100.00	90.01	359.37	7,712.42	1,506.52	-166.80	1,512.89	0.00	0.00	0.00
11,200.00	90.01	359.37	7,712.41	1,606.51	-167.89	1,612.82	0.00	0.00	0.00
11,300.00	90.01	359.37	7,712.39	1,706.50	-168.99	1,712.75	0.00	0.00	0.00
11,400.00	90.01	359.37	7,712.37	1,806.50	-170.09	1,812.67	0.00	0.00	0.00
11,500.00	90.01	359.37	7,712.35	1,906.49	-171.19	1,912.60	0.00	0.00	0.00
11,600.00	90.01	359.37	7,712.34	2,006.49	-172.29	2,012.53	0.00	0.00	0.00
11,700.00	90.01	359.37	7,712.32	2,106.48	-173.38	2,112.46	0.00	0.00	0.00
11,800.00	90.01	359.37	7,712.30	2,206.47	-174.48	2,212.38	0.00	0.00	0.00
11,900.00	90.01	359.37	7,712.28	2,306.47	-175.58	2,312.31	0.00	0.00	0.00
12,000.00	90.01	359.37	7,712.27	2,406.46	-176.68	2,412.24	0.00	0.00	0.00
12,100.00	90.01	359.37	7,712.25	2,506.46	-177.78	2,512.16	0.00	0.00	0.00
12,200.00	90.01	359.37	7,712.23	2,606.45	-178.87	2,612.09	0.00	0.00	0.00
12,300.00	90.01	359.37	7,712.21	2,706.44	-179.97	2,712.02	0.00	0.00	0.00
12,400.00	90.01	359.37	7,712.20	2,806.44	-181.07	2,811.95	0.00	0.00	0.00
12,500.00	90.01	359.37	7,712.18	2,906.43	-182.17	2,911.87	0.00	0.00	0.00
12,600.00	90.01	359.37	7,712.16	3,006.43	-183.27	3,011.80	0.00	0.00	0.00
12,700.00	90.01	359.37	7,712.14	3,106.42	-184.37	3,111.73	0.00	0.00	0.00
12,800.00	90.01	359.37	7,712.13	3,206.41	-185.46	3,211.65	0.00	0.00	0.00
12,900.00	90.01	359.37	7,712.11	3,306.41	-186.56	3,311.58	0.00	0.00	0.00
13,000.00	90.01	359.37	7,712.09	3,406.40	-187.66	3,411.51	0.00	0.00	0.00
13,100.00	90.01	359.37	7,712.07	3,506.40	-188.76	3,511.44	0.00	0.00	0.00
13,200.00	90.01	359.37	7,712.06	3,606.39	-189.86	3,611.36	0.00	0.00	0.00
13,300.00	90.01	359.37	7,712.04	3,706.38	-190.95	3,711.29	0.00	0.00	0.00
13,400.00	90.01	359.37	7,712.02	3,806.38	-192.05	3,811.22	0.00	0.00	0.00
13,500.00	90.01	359.37	7,712.00	3,906.37	-193.15	3,911.14	0.00	0.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well PAPA JO 2-25 29N-8HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5082.00usft (Original Well Elev)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5082.00usft (Original Well Elev)
Site:	1N-68W-08 PAPA JO 2-25 19-8HZ Pad	North Reference:	True
Well:	PAPA JO 2-25 29N-8HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,523.69	90.01	359.37	7,712.00	3,930.06	-193.41	3,934.82	0.00	0.00	0.00
PAPA JO 2-25 29N-8HZ_PBHL									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PAPA JO 2-25 29N-8H - plan hits target center - Point	0.00	0.00	7,712.00	3,930.06	-193.41	14,553,268.00	1,630,997.00	40.072864	-105.033672
PAPA JO 2-25 29N-8H - plan hits target center - Point	0.00	0.00	7,712.90	-1,207.31	-136.99	14,548,130.60	1,631,051.51	40.058756	-105.033470

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,523.46	1,500.00	9 5/8"	9-5/8	12-1/4	
8,386.01	7,712.90	Top of Production	5-1/2	8-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,025.31	1,020.00	Fox Hills				
4,408.63	4,196.00	Parkman				
4,866.78	4,624.00	Sussex				
7,732.49	7,406.00	Sharon Springs				
7,781.62	7,447.00	Niobrara				
7,978.62	7,587.00	Nio B				
8,210.92	7,689.00	Nio C				