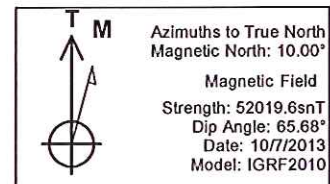
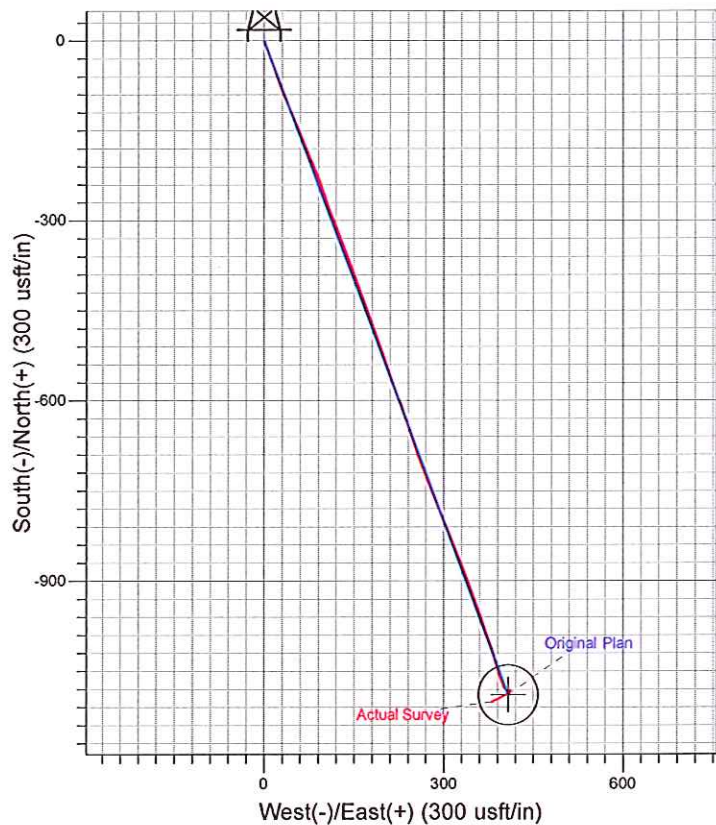
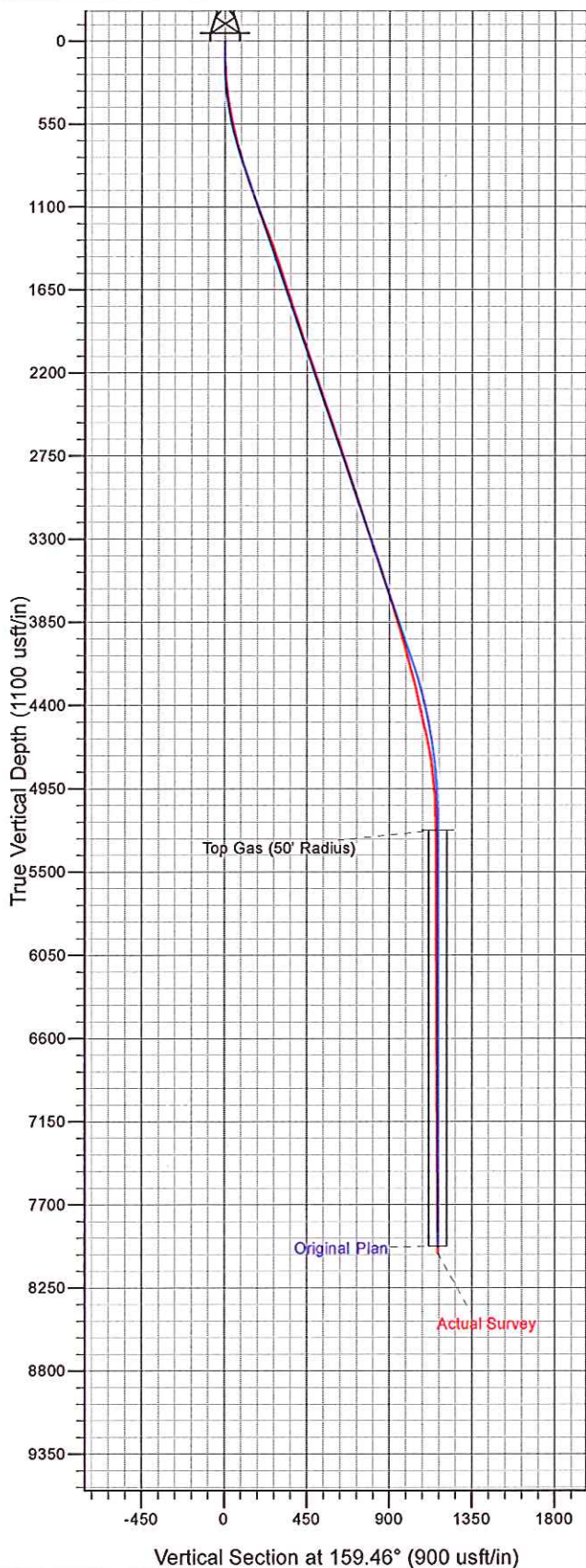




Well Name: RWF 442-4  
 Surface Location: RMV 108-4 Pad  
 North American Datum 1983 , US State Plane 1983 . Colorado Central Zone  
 Ground Elevation: 5794.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1606152.10 2325699.10 39.47332 -107.88894 A04  
 KELLY BUSHING @ 5820.00usft (Nabors 574 (26' RKB) kjs)



## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well/Wellbore Information

Well	RWF 442-4	Wellbore No.	00
Wellbore Legal Name	RWF 442-4	Common Wellbore Name	RWF 442-4
Project	RU 04-07S-094W	Site	RMV 108-4 Pad
Vertical Section Azimuth	159.46 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	10/12/2013	UWI	RWF 442-4
Active datum	KB @5,820.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	10/12/2013	Ended	
Tool Name	MWD	Engineer	

#### 2.1.1 Tie On Point

MD (ft)	Inc. (°)	Azl. (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

#### 2.1.2 Survey Stations

5266

Date	Type	MD (ft)	Inc. (°)	Azl. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
10/12/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/12/2013	NORMAL	103.0	0.97	161.02	103.00	-0.82	0.28	0.87	0.94	0.94	0.00	161.02
	NORMAL	134.0	1.41	171.39	133.99	-1.45	0.43	1.51	1.57	1.42	33.45	31.33
	NORMAL	164.0	1.67	164.09	163.98	-2.24	0.60	2.30	1.08	0.87	-24.33	319.28
	NORMAL	195.0	2.38	162.69	194.96	-3.28	0.92	3.40	2.30	2.29	-4.52	355.31
	NORMAL	225.0	3.17	161.46	224.92	-4.67	1.37	4.85	2.64	2.63	-4.10	355.07
	NORMAL	255.0	3.78	152.58	254.87	-6.33	2.08	6.66	2.71	2.03	-29.60	314.09
	NORMAL	286.0	4.40	159.26	285.79	-8.35	2.98	8.86	2.52	2.00	21.55	40.90
	NORMAL	317.0	5.45	154.25	316.67	-10.79	4.04	11.52	3.66	3.39	-16.16	335.22
10/13/2013	NORMAL	347.0	6.16	159.52	346.52	-13.58	5.22	14.55	2.96	2.37	17.57	39.54
	NORMAL	377.0	7.30	158.99	376.31	-16.86	6.47	18.06	3.81	3.80	-1.77	356.62
	NORMAL	407.0	7.65	160.40	406.06	-20.53	7.82	21.96	1.32	1.17	4.70	28.36
	NORMAL	438.0	8.36	158.82	436.76	-24.57	9.33	26.28	2.40	2.29	-5.10	342.00
	NORMAL	468.0	9.15	158.73	466.41	-28.83	10.98	30.85	2.63	2.63	-0.30	358.96
	NORMAL	498.0	9.85	161.81	496.00	-33.49	12.65	35.80	2.89	2.34	10.27	37.45
	NORMAL	529.0	10.03	161.81	526.53	-38.57	14.32	41.14	0.58	0.58	0.00	0.00
	NORMAL	559.0	10.29	159.70	556.06	-43.57	16.06	46.43	1.51	0.87	-7.03	303.89
	NORMAL	620.0	11.81	160.66	615.95	-54.47	19.98	58.02	2.18	2.16	1.57	8.34
	NORMAL	710.0	13.28	160.93	703.83	-72.79	26.36	77.41	1.86	1.86	0.30	2.13
	NORMAL	801.0	14.25	157.24	792.22	-92.99	34.11	99.05	1.44	1.07	-4.05	316.05
	NORMAL	872.0	14.84	157.48	860.94	-109.45	40.97	116.87	0.84	0.83	0.34	5.95

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (")	Azi. (")	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (%/100usft)	Build Rate (%/100usft)	Turn (%/100usft)	Tface (")
10/13/2013	NORMAL	963.0	15.39	156.69	948.79	-131.30	50.21	140.58	0.65	0.60	-0.87	339.09
	NORMAL	1,058.0	16.18	157.66	1,040.21	-155.12	60.23	166.40	0.88	0.83	1.02	18.94
	NORMAL	1,125.0	16.97	157.48	1,104.43	-172.79	67.53	185.50	1.18	1.18	-0.27	358.19
10/15/2013	NORMAL	1,252.0	18.29	156.69	1,225.46	-208.21	82.51	223.93	1.06	1.04	-0.62	349.35
	NORMAL	1,348.0	17.01	159.85	1,316.94	-235.23	93.31	253.02	1.67	-1.33	3.29	144.68
	NORMAL	1,444.0	15.87	162.14	1,409.02	-260.91	102.17	280.17	1.37	-1.19	2.39	151.48
	NORMAL	1,539.0	14.64	159.15	1,500.67	-284.49	110.43	305.15	1.54	-1.29	-3.15	211.17
	NORMAL	1,634.0	14.86	159.50	1,592.54	-307.12	118.97	329.34	0.25	0.23	0.37	22.22
	NORMAL	1,729.0	15.39	157.74	1,684.25	-330.20	128.01	354.12	0.74	0.56	-1.85	318.24
	NORMAL	1,824.0	15.16	160.38	1,775.89	-353.57	136.96	379.14	0.77	-0.24	2.78	109.57
	NORMAL	1,920.0	15.56	159.20	1,868.46	-377.43	145.74	404.57	0.53	0.42	-1.23	321.43
	NORMAL	2,015.0	15.03	160.21	1,960.10	-400.93	154.44	429.63	0.62	-0.56	1.06	153.80
	NORMAL	2,111.0	15.74	160.29	2,052.66	-424.90	163.05	455.10	0.74	0.74	0.08	1.75
	NORMAL	2,207.0	16.44	160.82	2,144.90	-449.89	171.90	481.70	0.75	0.73	0.55	12.11
	NORMAL	2,302.0	15.12	159.41	2,236.32	-474.29	180.68	507.53	1.45	-1.39	-1.48	195.52
	NORMAL	2,397.0	15.65	158.89	2,327.91	-497.84	189.65	532.73	0.58	0.56	-0.55	345.16
	NORMAL	2,492.0	15.21	162.05	2,419.49	-521.65	198.10	557.99	1.00	-0.46	3.33	119.14
	NORMAL	2,588.0	15.43	160.91	2,512.08	-545.70	206.16	583.34	0.39	0.23	-1.19	305.59
	NORMAL	2,683.0	15.78	160.21	2,603.58	-569.80	214.67	608.89	0.42	0.37	-0.74	331.38
	NORMAL	2,778.0	16.13	158.62	2,694.92	-594.24	223.85	635.00	0.59	0.37	-1.67	307.92
	NORMAL	2,873.0	15.25	161.35	2,786.38	-618.37	232.66	660.69	1.21	-0.93	2.87	141.31
	NORMAL	2,969.0	15.16	160.91	2,879.02	-642.19	240.80	685.85	0.15	-0.09	-0.46	231.84
	NORMAL	3,065.0	14.81	161.44	2,971.75	-665.68	248.81	710.66	0.39	-0.36	0.55	158.87
	NORMAL	3,160.0	15.08	160.29	3,063.54	-688.83	256.85	735.16	0.42	0.28	-1.21	311.76
	NORMAL	3,252.0	15.52	158.71	3,152.28	-711.56	265.35	759.43	0.66	0.48	-1.72	315.78
	NORMAL	3,351.0	15.30	158.71	3,247.72	-736.08	274.90	785.73	0.22	-0.22	0.00	180.00
	NORMAL	3,447.0	15.43	158.36	3,340.29	-759.75	284.21	811.17	0.17	0.14	-0.36	324.33
	NORMAL	3,542.0	15.21	157.57	3,431.91	-783.01	293.63	836.26	0.32	-0.23	-0.83	223.11
	NORMAL	3,637.0	15.08	157.83	3,523.61	-805.98	303.04	861.07	0.15	-0.14	0.27	152.54
	NORMAL	3,733.0	15.52	158.10	3,616.21	-829.46	312.55	886.39	0.46	0.46	0.28	9.33
10/16/2013	NORMAL	3,828.0	14.37	158.01	3,708.00	-852.18	321.70	910.88	1.21	-1.21	-0.09	181.11
	NORMAL	3,923.0	14.29	156.78	3,800.04	-873.89	330.74	934.38	0.33	-0.08	-1.29	254.68
	NORMAL	4,018.0	13.28	160.12	3,892.30	-894.93	339.07	957.00	1.35	-1.06	3.52	143.38
	NORMAL	4,114.0	13.28	160.21	3,985.74	-915.67	346.56	979.05	0.02	0.00	0.09	90.04
	NORMAL	4,209.0	13.06	159.41	4,078.24	-935.99	354.02	1,000.70	0.30	-0.23	-0.84	219.25
	NORMAL	4,304.0	12.13	159.77	4,170.95	-955.40	361.25	1,021.41	0.98	-0.98	0.38	175.35
	NORMAL	4,400.0	11.03	162.75	4,265.00	-973.63	367.46	1,040.67	1.30	-1.15	3.10	152.92
	NORMAL	4,495.0	10.77	161.26	4,358.28	-990.72	373.01	1,058.61	0.40	-0.27	-1.57	226.57
	NORMAL	4,591.0	10.99	159.77	4,452.56	-1,007.80	379.05	1,076.73	0.37	0.23	-1.55	307.30
	NORMAL	4,686.0	10.42	164.34	4,545.91	-1,024.57	384.50	1,094.34	1.08	-0.60	4.81	126.11
	NORMAL	4,781.0	9.19	163.02	4,639.52	-1,040.10	389.04	1,110.47	1.32	-1.29	-1.39	189.71
	NORMAL	4,877.0	7.74	162.58	4,734.47	-1,053.60	393.21	1,124.58	1.51	-1.51	-0.46	182.34
	NORMAL	4,972.0	5.76	160.38	4,828.81	-1,064.19	396.73	1,135.74	2.10	-2.08	-2.32	186.35
10/17/2013	NORMAL	5,068.0	4.22	160.29	4,924.44	-1,072.06	399.54	1,144.09	1.60	-1.60	-0.09	180.25
	NORMAL	5,163.0	2.46	146.41	5,019.28	-1,077.05	401.85	1,149.57	2.03	-1.85	-14.61	197.86
	NORMAL	5,258.0	1.71	134.19	5,114.21	-1,079.73	403.99	1,152.84	0.91	-0.79	-12.86	204.65
	NORMAL	5,352.0	0.88	173.48	5,208.19	-1,081.43	405.08	1,154.80	1.24	-0.88	41.80	151.56
	NORMAL	5,448.0	0.40	111.69	5,304.19	-1,082.28	405.47	1,155.74	0.81	-0.50	-64.36	207.03
	NORMAL	5,543.0	0.48	97.28	5,399.18	-1,082.46	406.18	1,156.15	0.14	0.08	-15.17	298.52
	NORMAL	5,638.0	0.66	99.03	5,494.18	-1,082.59	407.11	1,156.61	0.19	0.19	1.84	6.40
	NORMAL	5,734.0	0.22	71.70	5,590.18	-1,082.62	407.83	1,156.89	0.50	-0.46	-28.47	192.27
	NORMAL	5,829.0	0.31	66.78	5,685.18	-1,082.46	408.24	1,156.88	0.10	0.09	-5.18	343.34
	NORMAL	5,925.0	0.31	56.32	5,781.17	-1,082.22	408.70	1,156.81	0.06	0.00	-10.90	264.77
10/18/2013	NORMAL	6,021.0	0.40	85.76	5,877.17	-1,082.05	409.25	1,156.85	0.21	0.09	30.67	78.96
	NORMAL	6,117.0	0.48	84.84	5,973.17	-1,081.99	409.98	1,157.05	0.08	0.08	-0.98	354.49
	NORMAL	6,212.0	0.48	80.66	6,068.17	-1,081.89	410.77	1,157.23	0.04	0.00	-4.40	267.91

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
10/19/2013	NORMAL	6,308.0	0.57	81.63	6,164.16	-1,081.75	411.64	1,157.41	0.09	0.09	1.01	6.13
	NORMAL	6,404.0	0.79	88.31	6,260.16	-1,081.66	412.77	1,157.72	0.24	0.23	6.96	23.18
	NORMAL	6,498.0	0.18	161.96	6,354.15	-1,081.78	413.47	1,158.08	0.81	-0.65	78.35	166.85
	NORMAL	6,594.0	0.16	245.81	6,450.15	-1,081.99	413.38	1,158.24	0.25	0.00	87.34	131.92
	NORMAL	6,687.0	0.22	262.86	6,543.15	-1,082.07	413.07	1,158.21	0.08	0.04	18.33	64.82
	NORMAL	6,783.0	0.40	246.34	6,639.15	-1,082.23	412.58	1,158.19	0.21	0.19	-17.21	325.17
	NORMAL	6,878.0	0.48	249.24	6,734.15	-1,082.50	411.90	1,158.21	0.09	0.08	3.05	17.01
	NORMAL	6,973.0	0.26	233.33	6,829.15	-1,082.77	411.35	1,158.27	0.25	-0.23	-16.75	197.22
	NORMAL	7,068.0	0.48	247.31	6,924.15	-1,083.05	410.81	1,158.34	0.25	0.23	14.72	29.40
10/20/2013	NORMAL	7,164.0	0.70	208.19	7,020.14	-1,083.73	410.17	1,158.74	0.46	0.23	-40.75	278.13
	NORMAL	7,259.0	0.70	216.81	7,115.13	-1,084.70	409.54	1,159.44	0.11	0.00	9.07	94.31
	NORMAL	7,354.0	0.70	209.95	7,210.13	-1,085.67	408.91	1,160.12	0.09	0.00	-7.22	266.57
	NORMAL	7,449.0	0.88	218.56	7,305.12	-1,086.74	408.16	1,160.87	0.23	0.19	9.06	37.76
	NORMAL	7,545.0	1.14	236.58	7,401.10	-1,087.85	406.91	1,161.46	0.42	0.27	18.77	59.94
	NORMAL	7,639.0	1.54	250.73	7,495.08	-1,088.78	404.93	1,161.64	0.55	0.43	15.05	46.82
	NORMAL	7,734.0	1.93	249.06	7,590.03	-1,089.77	402.23	1,161.62	0.41	0.41	-1.76	351.78
	NORMAL	7,830.0	2.50	245.37	7,685.96	-1,091.22	398.82	1,161.78	0.61	0.59	-3.84	344.10
	NORMAL	7,926.0	3.21	243.61	7,781.84	-1,093.29	394.51	1,162.20	0.75	0.74	-1.83	352.08
	NORMAL	8,022.0	4.22	242.65	7,877.64	-1,096.11	388.97	1,162.90	1.05	1.05	-1.00	356.00
10/21/2013	NORMAL	8,088.0	4.22	242.65	7,943.46	-1,098.34	384.65	1,163.47	0.00	0.00	0.00	0.00
	NORMAL	8,116.0	4.04	244.76	7,971.39	-1,099.23	382.84	1,163.68	0.84	-0.64	7.54	140.88
	NORMAL	8,161.0	4.04	244.76	8,016.28	-1,100.58	379.98	1,163.94	0.00	0.00	0.00	0.00

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 442-4		
Project	RU 04-07S-094W	Site	RMV 108-4 Pad
Rig Name/No.	SSD/574	Event	DRILLING
Start date	10/12/2013	End date	10/22/2013
Spud date	10/12/2013	UWI	RWF 442-4
Active datum	KB @5,820.0ft (above Mean Sea Level)		
Afe No./Description	WT36627 / Drilling AFE		

## 2 Summary

### 2.1 Operation Summary

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
10/12/2013	10:00 11:00	1.00		01	02	P		SKID RIG
	11:00 13:30	2.50		01	02	P		RIG UP DREDGE PUMP - NABORS PRE SPUD RIG CHECK - BUILD SPUD MUD - RIG ON COMPANY TIME @ 13:30 ON 10/12/2013
	13:30 15:00	1.50		06	07	P		PICKUP 8" BHA - SCRIBE AND ORIENT TOOL - INSTALL SDI GYRO
	15:00 15:30	0.50		20		T		TROUBLESHOOT GYRO
	15:30 0:00	8.50		02	01	P	89.0	TAG UP @ 89' - SPUD WELL @ 1530 ON 10/12/2013 - DIR DRILL W/ 30' GYRO SURVEYS
10/13/2013	0:00 1:00	1.00		02	01	P	349.0	DIR DRILL
	1:00 1:30	0.50		06	01	P		TOOH
	1:30 2:00	0.50		06	07	P		CHANGE BIT - P/U PDC
	2:00 2:30	0.50		06	01	P		TIH
	2:30 5:00	2.50		02	01	P	382.0	DIR DRILL
	5:00 5:30	0.50		05	01	T		CIRCULATE FOR GYRO FAILURE - NO SIGNAL
	5:30 6:00	0.50		06	06	T		TOOH FOR TOOL FAILURE
	6:00 6:30	0.50		06	07	T		LAY DOWN GYRO TOOL
	6:30 9:30	3.00		20		T		WAIT ON GYRO TOOL F/ GRAND JUNCTION - BUILD AND ROLL TEST TOOL
	9:30 10:00	0.50		06	07	T		INSTALL TOOL IN BHA
	10:00 10:30	0.50		06	06	T		TIH WITH NEW TOOL
	10:30 11:00	0.50		02	01	P	533.0	DIR DRILL
	11:00 12:30	1.50		20		T		NO GYRO SIGNAL - TROUBLESHOOT SURFACE EQUIPMENT - TROUBLESHOOT TOOL
	12:30 13:00	0.50		05	01	T		CIRCULATE
	13:00 13:30	0.50		06	06	T		TOOH WITH FAILED TOOL
	13:30 14:00	0.50		06	07	T		LAY DOWN GYRO TOOL
	14:00 15:00	1.00		20		T		REBUILD TOOL AND ROLL TEST - INSTALL TOOL
10/14/2013	15:00 15:30	0.50		06	06	T		TIH
	15:30 0:00	8.50		02	01	P	564.0	DIR DRILL
	0:00 0:30	0.50		02	01	P	1,125.0	DIR DRILL
	0:30 1:30	1.00		05	01	P		CIRCULATE HOLE CLEAN
	1:30 2:30	1.00		06	05	P		TOOH
	2:30 3:30	1.00		06	07	P		LAY DOWN TOOL, BIT, MUD MOTOR AND SDI SUBS
	3:30 4:00	0.50		12	01	P		RIG UP CASING CREW

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
	4:00 6:00	2.00		12	02	P		RUN 24 JTS, H-40, 32.30# AND 1 JT, J-55, 36# 9 5/8 " CASING W/ WEATHERFORD SHOE AND FLOAT COLLAR W/ CENTRALIZERS ON THE FIRST 3 JTS AND THEN SPACED 132' APART FOR 8 TOTAL W/ 2 TURBOLIZERS SPACED 528' APART - ASSEMBLY LENGTH 1129' SET AT 1155'
	6:00 7:00	1.00		05	01	P		CIRCULATE CASING
	7:00 8:00	1.00		12	02	P		PRESSURE TEST LINES TO 2500 PSI - PUMP 20 BBLS WATER SPACER - MIX AND PUMP 160 SX, 67.8 BBLS, 12.3 PPG, 2.38 YLD, 13.75 GAL/SX LEAD AND 160 SX, 60.1 BBLS, 12.8 PPG, 2.11 YLD TAIL CEMENT - DROP PLUG - DISPLACE W/ 86.2 BBLS WATER - BUMPED PLUG W/ 800 PSI ( 300 PSI PRIOR ) FLOAT HELD - BLED OFF PRESSURE - 1/2 BBL BACK TO TRUCK - 20 BBLS CEMENT BACK TO SURFACE - FULL RETURNS THROUGHOUT JOB
	8:00 14:00	6.00		13		P		WOC
	14:00 16:00	2.00		14		P		NIPPLE UP BOP
	16:00 20:00	4.00		15		P		TEST ALL FLOOR VALVES, IBOP, CHOKE AND KILL LINES, CHOKE MANIFOLD, INNER STACK VALVES TO 3000 PSI FOR 10 MIN, TEST HYDRIL TO 1500 PSI FOR 10 MIN, TEST BOTH MANUAL CHOKES TO 500 PSI FOR 5 MIN, TEST CASING TO 1500 PSI FOR 30 MIN
	20:00 21:30	1.50		09		P		SLIP AND CUT DRILLING LINE
	21:30 22:00	0.50		26		P		INSTALL WEAR BUSHING
	22:00 23:00	1.00		06	07	P		PICKUP 6" BHA - SCRIBE AND ORIENT AND INSTALL MWD TOOL
	23:00 0:00	1.00		06	01	P		TIH
	10/15/2013 0:00 1:00	1.00		02	02	P		DRILL CEMENT AND FLOAT EQUIPMENT - 10' NEW HOLE
	1:00 1:30	0.50		25		P		FIT TEST @ 1180' MD - 1157' TVD - 8.5 PPG MW, 400 PSI FOR AN EQMW OF 15.15
	1:30 5:30	4.00		02	01	P	1,170.0	DIR DRILL
10/15/2013	5:30 6:00	0.50		07		P		RIG SERVICE
	6:00 6:30	0.50		02	01	P	1,711.0	DIR DRILL
	6:30 7:00	0.50		27		P		BOP DRILL
	7:00 15:30	8.50		02	01	P	1,774.0	DIR DRILL
	15:30 16:00	0.50		07		P		RIG SERVICE
	16:00 0:00	8.00		02	01	P	2,728.0	DIR DRILL
	10/16/2013 0:00 0:30	0.50		27		P		BOP DRILL 69 SEC
	0:30 7:30	7.00		02	01	P	3,657.0	DRILL F 3657 TO 4254
	7:30 8:00	0.50		27		P		BOPD 67 SEC
	8:00 17:30	9.50		02	01	P	4,254.0	DRILL & SLIDE 4254 TO 4826
10/16/2013	17:30 18:00	0.50		07		P		RIG SERVICE
	18:00 0:00	6.00		02	01	P	4,826.0	DRILL & SLIDE 4826 TO 5047
	10/17/2013 0:00 0:30	0.50		27		P		BOPD 67 SEC
	0:30 3:30	3.00		02	01	P	5,047.0	DRILL & SLIDE 5047 TO 5208
	3:30 4:00	0.50		07		P		RIG SERVICE
	4:00 6:30	2.50		02	01	P	5,208.0	DRILL 5208 TO 5303
	6:30 7:00	0.50		05	01	P		CIRCULATE & CLEAN OUT PUMP SCREENS.
	7:00 9:00	2.00		02	01	P	5,303.0	DRILL 5303 TO 5397
	9:00 9:30	0.50		27		P		BOPD 68SEC
	9:30 16:00	6.50		02	01	P	5,397.0	DRILL 5397 TO 5683
10/17/2013	16:00 16:30	0.50		07		P		RIG SERVICE
	16:30 0:00	7.50		02	01	P	5,683.0	DRILL 5683 TO 6000
	10/18/2013 0:00 1:00	1.00		05	01	P		CIRCULATE FOR BIT TRIP
	1:00 3:30	2.50		06	01	P		BIT TRIP OUT TO 2120
	3:30 4:30	1.00		03		T		WORK THREW TIGHT HOLE G SANDS, BACK REAM 2120 TO 2000
	4:30 8:00	3.50		03		T		BACK REAM THREW TIGHT SPOTS 1800 TO 1450
	8:00 9:00	1.00		06	01	P		BIT TRIP OUT
	9:00 11:00	2.00		06	07	P		CHANGE OUT E TOOL, MMTR & BIT.
	11:00 11:30	0.50		27		P		BOPD. 63 SEC, OPERATE BLIND RAMS & PIPE



## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
10/19/2013	11:30 13:00	1.50		06	01	P		STAGE IN HOLE TO 1830
	13:00 15:00	2.00		03		T		WASH & REAM FROM 1830 TO 2500
	15:00 17:30	2.50		06	01	P		STAGE IN TO 5083
	17:30 19:30	2.00		03		T		REAM F 5083 TO 6000
	19:30 0:00	4.50		02	01	P	6,000.0	DRILL 6000 TO 6152
	0:00 0:30	0.50		27		P		BOPD 63 SEC
	0:30 5:30	5.00		02	01	P	6,152.0	DRILL 6152 TO 6353
	5:30 6:00	0.50		07		P		RIG SERVICE
	6:00 7:30	1.50		02	01	P	6,353.0	DRILL 6353 TO 6449
	7:30 8:00	0.50		27		P		BOPD 61SEC
	8:00 10:00	2.00		02	01	P	6,449.0	DRILL 6449 TO 6543
	10:00 10:30	0.50		05	01	P		CIRC GAS
	10:30 15:00	4.50		02	01	P	6,543.0	DRILL 6543 TO 6732
	15:00 15:30	0.50		07		P		SERVICE RIG
10/20/2013	15:30 0:00	8.50		02	01	P	6,732.0	DRILL 6732 TO 7194
	0:00 0:30	0.50		27		P		BOPD 40 SEC
	0:30 4:30	4.00		02	01	P	7,194.0	DRILL 7194 TO 7399.
	4:30 5:00	0.50		07		P		RIG SERVICE
	5:00 11:30	6.50		02	01	P	7,399.0	DRILL 7399 TO 7684
	11:30 12:00	0.50		27		P		BOPD
	12:00 13:30	1.50		02	01	P	7,684.0	DRILL 7684 TO 7779
	13:30 14:00	0.50		05	02	T		CIRCULATE GAS
	14:00 16:30	2.50		02	01	P	7,779.0	DRILL 7779 TO 7875
	16:30 17:00	0.50		07		P		RIG SERVICE
	17:00 22:30	5.50		02	01	P	7,875.0	DRILL 7875 TO 8088
	22:30 23:30	1.00		06	04	T		LOST FULL RET 60 BBLs TRIP 10 STANDS TO 7139
	23:30 0:00	0.50		05	01	T		MIX LCM TO 20 % & BUILD VOLUME
	0:00 0:30	0.50		05	01	T		MIX LCM TO 20 % BIT DEPTH @MD 7160 VD 6995, HOLE DEPTH 8088 MD
10/21/2013	0:30 2:30	2.00		23		T		TOOK 37BBL GAIN , SHUT IN WELL 800 CSGPSI, 200 SPPSI, SOFT SHUT IN. PUMPING 80 STM, 5620 STROKES, LOST 200 BBLs DURING KILL OPERATIONS. CHOKE 0 PSI SPPSI 46. BUILD VOLUME,
	2:30 10:30	8.00		05	02	T		BUILD VOLUME, 13.9 WT, 20% LCM
	10:30 12:00	1.50		23		T		PUMP 13.9WT, 20 % LCM THREW CHOKE 80 SPM SURF TO SURF 5620. CHOKE PSI 0 SPPSI 47. NO FLOW OPEN BAG. WELL DEAD.
	12:00 14:00	2.00		03		P		WASH & REAM F7189 TO 8088.
	14:00 14:30	0.50		27		P		BOPD 56SEC.
	14:30 16:30	2.00		02	01	P	8,088.0	DRILL F 8088 TO 8161. TD PICKED BY COLIN JOHNSON, GEO FIELD SERVICE
	16:30 19:30	3.00		05	01	P		CIRC & COND
	19:30 0:00	4.50		06	05	P		TRIP OUT FOR CSG
	0:00 1:30	1.50		06	05	P		TRIP OUT DISPLACED WITH 54BBL MUD.
	1:30 2:00	0.50		27		P		BOPD 80 SEC
	2:00 3:00	1.00		06	07	P		LAY DOWN DIRECTIONAL TOOLS
	3:00 3:30	0.50		26		P		PULL WEAR BUSHING
	3:30 4:00	0.50		12	01	P		RIG UP CSG CREW
	4:00 7:30	3.50		12	02	P		RUN 4 1/2 CSG 3500
10/22/2013	7:30 8:30	1.00		05	01	P		INSTALL ROT HEAD, FILL PIPE & CIRC
	8:30 9:00	0.50		12	02	P		RUN 4 1/2 CSG 6029
	9:00 9:30	0.50		05	01	P		FILL PIPE BREAK CIRC
	9:30 11:30	2.00		12	02	P		RUN 4 1/2 CSG 8151 RAN 186 JTS, 4 1/2, 11.60, I-80, LTC. WEATHERFORD FLOAT COLLAR & SHOE. SET @ 8151'. ASSY LENGTH 8125'. RAN 30 CENTRALIZERS. TOP @ 4515' BTM 8133'
	11:30 14:30	3.00		05	01	P		CIRC & RECIPROCATATE PIPE

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
	14:30 16:30	2.00		12	02	P		CEMENT CSGCEMENTED WITH 1335 SKS, 290 BBL, 14.7 PPG, 1.22 YIELD, 5.07 GAL/SK VARICEM TAIL CEMENT AND DISPLACED WITH 128 BBLS KCL WATER. BUMPED PLUG AT 3170 PSI. PREVIOUS PRESSURE 2450 PSI. PLUG HELD, 1.5 BBL BACK TO TRUCK. FULL RETURNS THROUGHOUT JOB.
	16:30 17:00	0.50		12	01	P		RIG DOWN CEMENTERS
	17:00 18:30	1.50		14		P		NIPPLE DOWN, SET SLIPS 85K, CUT OFF
	18:30 19:00	0.50		01	02	P		PREP RIG FOR SKID RELEASED @ 19:00 10/22/13



## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 442-4		
Project	RU 04-07S-094W	Site	RMV 108-4 Pad
Rig Name/No.		Event	COMPLETION
Start date	12/12/2013	End date	12/30/2013
Spud date	10/12/2013	UWI	RWF 442-4
Active datum	KB @5,820.0ft (above Mean Sea Level)		
Afe No./Description	WT36627 / Completion AFE		

## 2 Summary

### 2.1 Operation Summary

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
12/12/2013	0:00 0:01	0.02		LOC	01	P		Prep Location Log (CBL) 11/14/2013 Baker Atlas Install Wellheads & Frac Valves 12/9/2013 Cameron/RSI Clean Cellars 12/09/2013 Hyland Back Fill Cellars 12/11/2013 PMI Rig In Sales Houses 12/11/2013 PMI
	0:01 0:02	0.02		PUMP	01	P		Pressure Test Casing 12/11/2013 Hoss Pressure Test Casing to 7020 psi. pass Pressure Loss 41 psi in 15 minutes (6979 psi)
	0:02 17:00	16.97		WSI	01	P		WSI awaiting perf
	17:00 17:50	0.83		PERF	01	P		RMWS perf Lower Cameo, 7 intervals use 23-22.7gm JS
	17:50 0:00	6.17		WSI	01	P		WSI awaiting frac
12/13/2013	0:00 14:31	14.52		WSI	01	P		WSI awaiting frac
	14:31 15:57	1.43		STIM	02	P		Frac Lower Cameo
	15:57 16:57	1.00		WSI	01	P		WSI
12/14/2013	16:57 0:00	7.05		PROD	01	P		Well flowing to tanks on 1-20/64 choke,
	0:00 5:00	5.00		PROD	02	P		Well flowing to sales on 1-20/64 choke, 2200psi 2.403mmcf 24hr recovered 1326bbbls
	5:00 8:00	3.00		WSI	01	P		WSI awaiting perf
	8:00 8:50	0.83		PERF	01	P		RMWS perf Cameo, 6 intervals, use 20-22.7gm JS set 8K Bearclaw FP @ 7512'
	8:50 10:28	1.63		WSI	01	P		WSI awaiting frac
	10:28 11:32	1.07		STIM	02	P		Frac Cameo
	11:32 12:32	1.00		WSI	01	P		WSI
12/15/2013	12:32 0:00	11.47		PROD	01	P		Well flowing to tanks on 1-20/64 choke
	0:00 0:00	24.00		PROD	02	P		Well flowing to sales on 1-20/64 choke, 1950psi 1.280mmcf 24hr recovered 1395bbbls
12/16/2013	0:00 5:00	5.00		PROD	04	P		Well flowing to sales on 1-20/64 choke, 1350psi 1.520mmcf 24hr recovered 654bbbls
	5:00 7:00	2.00		WSI	01	P		WSI awaiting perf
	7:00 7:50	0.83		PERF	01	P		RMWS perf MV 1, 7 intervals, use 23-22.7gm JS set 8K Bearclaw FP @ 7118'
	7:50 8:40	0.83		WSI	01	P		WSI awaiting frac
	8:40 9:48	1.13		STIM	02	P		Frac MV 1
	9:48 10:48	1.00		WSI	01	P		WSI
	10:48 0:00	13.20		PROD	01	P		Well flowing to tanks on 1-20/64 choke

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
12/17/2013	0:00 5:00	5.00		PROD	04	P		Well flowing to sales on 1-20/64 choke, 1475psi 1.140mmcf 24hr recovered 1221bbls
	5:00 6:00	1.00		WSI	01	P		WSI awaiting perf
	6:00 6:50	0.83		PERF	01	P		RMWS perf MV 2, 7 intervals, use 23-22.7gm JS set 8K Bearclaw FP @ 6612'
	6:50 7:38	0.80		WSI	01	P		WSI awaiting frac
	7:38 8:43	1.08		STIM	02	P		Frac MV 2
	8:43 10:00	1.28		WSI	01	P		WSI awaiting perf
	10:00 10:50	0.83		PERF	01	P		RMWS perf MV 3, 6 intervals, use 20-22.7gm JS set 8K Bearclaw FP @ 6403'
	10:50 12:40	1.83		WSI	01	P		WSI awaiting frac
	12:40 13:51	1.18		STIM	02	P		Frac MV 3
	13:51 14:00	0.15		WSI	01	P		WSI awaiting perf
	14:00 14:50	0.83		PERF	01	P		RMWS perf MV 4, 7 intervals, use 23-22.7gm JS set 8K Bearclaw FP @ 5482'
	14:50 18:12	3.37		WSI	01	P		WSI awaiting frac
	18:12 19:16	1.07		STIM	02	P		Frac MV 4
	19:16 20:16	1.00		WSI	01	P		WSI
	20:16 0:00	3.73		PROD	01	P		Well flowing to tanks on 1-20/64 choke
12/18/2013	0:00 0:00	24.00		PROD	04	P		well flowing to production thru plugs on 1-20/64 choke Gas spot rate 1.140 MMCFD
12/19/2013	0:00 13:00	13.00		PROD	04	P		well flowing to tank/flare on 1-32/64 choke
	13:00 15:30	2.50		WSI	01	P		well shut in
	15:30 16:45	1.25		PLUG	02	P	5,150.0	set 8K kill plug at 5150', bleed casing to 0 psi
12/20/2013	16:45 0:00	7.25		WSI	01	P		well shut in
	0:00 0:00	24.00		WSI	01	P		well shut in ready to drill out
12/21/2013	0:00 0:00	24.00		WSI	01	P		well shut in ready to drill out
12/22/2013	0:00 10:00	10.00		WSI	01	P		well shut in
	10:00 11:14	1.23		MIRU	01	P		remove frac tree and rig up BOPs and snubbing unit
	11:14 11:47	0.55		BOP	01	P		Pressure test all BOPs and valves to 3000 psi, good test
	11:47 14:35	2.80		RIH	01	P	5,150.0	Make up BHA and run in hole with 3-7/8" bit, dual flapper bit sub, 1 joint, 1-7/8" seat nipple and 158 joints. Tag Kill plug @5150'
	14:35 15:36	1.02		DOP	01	P	5,150.0	Load tubing with 24 BBLs and Drill kill plug @5150'
	15:36 17:11	1.58		PUMP	04	P		Well goes on a vacume while drilling kill plug. try to break circulation by circulating with Gas/water, well comes around with 900 psi on casing
	17:11 17:22	0.18		RIH	01	P	5,482.0	Tag 70' of sand above frac plug #1 @5482'
	17:22 18:07	0.75		DOP	01	P	5,482.0	Wash down to and Drill frac plug #1 @5482' 1 BPM on pump and 500 psi on casing. well making lots of sand
	18:07 0:00	5.88		PROD	02	P		well flowing to Tank/flare on 1-32/64 choke
	0:00 7:00	7.00		PROD	04	P		well flowing to sales on 1-20/64 choke
12/23/2013	7:00 7:45	0.75		RIH	01	P	6,313.0	Tag sand 90' above frac plug #2 @ 6313'
	7:45 8:30	0.75		DOP	01	P	6,313.0	wash down to and drill frac plug #2 @6403' 1 BPM on pump and 1350 psi on well
	8:30 8:44	0.23		RIH	01	P	6,612.0	Tag frac plug #3 @6612'
	8:44 8:54	0.17		DOP	04	P	6,612.0	Drill frac plug #3 @6612' 1 BPM at pump and 1350 psi on well
	8:54 9:16	0.37		RIH	01	P	7,118.0	Tag frac plug #4 @7118'
	9:16 9:37	0.35		DOP	01	P	7,118.0	Drill frac plug #4 @ 7118' 1 BPM on pump and 1300 psi on well
	9:37 9:55	0.30		RIH	01	P	7,512.0	Tag frac plug #5 @7512'
	9:55 10:10	0.25		DOP	03	P	7,512.0	Drill frac plug #5 @7512' 1 BPM on pump and 1300 psi on well
	10:10 10:46	0.60		RIH	01	P	7,754.0	Tag fill @7754'
	10:46 11:26	0.67		DOP	02	P	7,754.0	rotate and wash from 7754' to 7958'. 204' of clean rat hole
	11:26 11:58	0.53		POOH	01	P		pull up to landing depth
	11:58 13:05	1.12		WELL	01	P	7,465.0	Make up hanger and land tubing with 228 joints of new N80 2-3/8" tubing, depth of 7465.2'
	13:05 15:45	2.67		RDMO	01	P		rig down and load out snubbing unit. nipple up production tree and pump bit off with 9 BBLs and 2400 psi.
	15:45 0:00	8.25		PROD	02	P		well flowing to sales up the tubing on 1-20/64 choke

12/24/2013

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Code	Sub	Class	MD from (ft)	Operation
	0:00 0:00	24.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.702 MMCFD
12/25/2013	0:00 0:00	0.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.837 MMCFD
12/26/2013	0:00 0:00	0.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.866 MMCFD
12/27/2013	0:00 0:00	0.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.869 MMCFD
12/28/2013	0:00 0:00	0.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.830 MMCFD
12/29/2013	0:00 0:00	0.00		PROD	02	P		well flowing to sales up the tubing on 1—20/64 Gas spot rate 1.840 MMCFD
12/30/2013	0:00 7:00	7.00		PROD	02	P		well flowing to sales on 1—20/64 choke
	7:00			PROD	05	P		WSI to Turn to Production FINAL REPORT  KB 26' PBD 8117' Tubing Landed 7465.2' TVD ' Zones Lower Cameo - MV 4 Perf's 5266'-7754' Rathole 204 ' Tubing 228 jts 2 3/8" 4.7# N-80

1/20/2014

**Allocated Daily Production****BASIN** PICEANCE**Start Date** 12/14/2013**FIELD** RULISON**End Date** 01/20/2014**WELL** RWF 442-4

62382871

Production Date	MCF	MMBTU	Casing Press	Tubing Press	Hours On
12/14/2013	678.8	705.8	0.0	0.0	14
12/15/2013	1,162.6	1,208.9	0.0	0.0	21
12/16/2013	1,178.7	1,225.6	0.0	0.0	17
12/18/2013	19.0	19.8	0.0	0.0	1
12/19/2013	513.9	534.4	0.0	0.0	24
12/20/2013	885.6	920.9	0.0	0.0	22
12/21/2013	1,355.2	1,409.1	0.0	0.0	24
12/22/2013	1,640.5	1,705.8	0.0	0.0	24
12/23/2013	1,707.4	1,775.3	0.0	0.0	24
12/24/2013	1,617.9	1,682.3	0.0	0.0	24
12/25/2013	1,776.8	1,847.5	0.0	0.0	24
12/26/2013	1,748.2	1,817.8	0.0	0.0	24
12/27/2013	1,721.1	1,789.6	0.0	0.0	24
12/28/2013	1,692.6	1,760.0	0.0	0.0	24
12/29/2013	1,476.5	1,535.2	0.0	0.0	22
12/30/2013	1,175.8	1,222.6	744.0	635.0	20
12/31/2013	1,345.2	1,398.7	1768.0	1485.0	24
<b>Total MCF</b>	21,695.8	22,559.1	17	<b>Days on production</b>	

## Western Slope Well Services LLC.

Well Information	
Company	WPX
Companyman	Cole
Well Number	RWF 442-4
Pad Number	RMV 108-4
Type of test	Casing
Units	PSI/minutes

Pressure Test Info	
Start Time	12/11/13 8:14:32 AM
Stop time	12/11/13 9:20:23 AM
Start Pressure	7020
End Pressure	6979
Pressure Loss PSI	41 psi / 15 min
Manifold Test	0

