



Lease Review All - Frac Summary

Well Name: RAZOR FEDERAL 26J-3510B

API Number 051233834400		WPC ID 1CO0761024		Well Permit Number		Field Name DJ Horizontal Niobrara		County Weld		State CO	
Well Configuration Type Lateral/Horizontal		Orig KB Elv (ft) 4,743.00		Ground Elevation (ft) 4,726.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 12,124.0	
Original Spud Date 2/28/2014		Completion Date 8/5/2014		Asset Group Redtail		Responsible Engineer Andrew Fish		N/S Dist (ft) 2,251.0		N/S Ref FSL	E/W Dist (ft) 1,981.0 E/W Ref FEL
Lot		Quarter 1 NW	Quarter 2 SE	Quarter 3	Quarter 4	Section 26	Section Suffix	Section Type	Township 10 N	Township N/S Dir	Range 58 W Range E/W Dir Meridian

Lateral/Horizontal - Original Hole, 12/10/2014 2:47:05 PM					Wellbore Sections									
MD (ftKB)	D (ft K B)	n ( K B)	l ( K B)	Vertical schematic (actual)	Logs	Wellbore Name		Start Date	Size (in)	Act Top (ftKB)	Act Btm (ftKB)			
						Original Hole		1/20/2014	20	17.0	96.0			
1,518.7	1.5187	14	14			Original Hole		2/28/2014	13 1/2	96.0	1,581.0			
						Original Hole		3/2/2014	8 3/4	1,581.0	5,935.0			
						Original Hole		3/7/2014	6	5,935.0	12,124.0			
						Original Hole								
Conductor Pipe, 96.0ftKB														
OD (in)		Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)				
16		75.00		J-55		17.0		96.0		79.00				
Casing Joints														
Surface Csg, 1,562.6ftKB														
OD (in)		Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)				
9 5/8		36.00		J-55		17.0		17.0		0.00				
9 5/8		36.00		J-55		17.0		19.5		2.50				
9 5/8		36.00		J-55		19.5		22.0		2.50				
9 5/8		36.00		J-55		22.0		1,518.8		1,496.77				
9 5/8		36.00		J-55		1,518.8		1,520.3		1.50				
9 5/8		36.00		J-55		1,520.3		1,561.1		40.82				
9 5/8		36.00		J-55		1,561.1		1,562.6		1.50				
Intermediate Csg, 5,920.2ftKB														
OD (in)		Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)				
7		29.00		L-80		17.0		17.0		0.00				
7		29.00		L-80		17.0		22.0		5.00				
7		29.00		L-80		22.0		5,873.2		5,851.20				
7		29.00		L-80		5,873.2		5,874.7		1.50				
7		29.00		L-80		5,874.7		5,918.7		44.02				
7		29.00		L-80		5,918.7		5,920.2		1.50				
Liner, 12,120.0ftKB														
OD (in)		Wt (lb/ft)		Grade		Top (ftKB)		Btm (ftKB)		Len (ft)				
4 1/2		11.60		L-80		5,020.0		5,040.9		20.90				
4 1/2		11.60		L-80		5,040.9		5,047.5		6.65				
4 1/2		11.60		L-80		5,047.5		5,049.0		1.49				
4 1/2		11.60		L-80		5,049.0		5,054.5		5.49				
4 1/2		11.60		L-80		5,054.5		12,070.5		7,016.05				
4 1/2		11.60		L-80		12,070.5		12,072.9		2.39				
4 1/2		11.60		L-80		12,072.9		12,117.5		44.55				
4 1/2		11.60		L-80		12,117.5		12,120.0		2.53				
Cement Stages														
Des		Pump Start Date		Drill Out Date		Top (ftKB)		Btm (ftKB)		Top Meas Meth				
Conductor Cement		2/14/2014				17.0		96.0		Returns to Surface				
Surface Casing Cement		2/28/2014				17.0		1,562.6		Volume Calculations				
Intermediate Casing Cement		3/6/2014				17.0		5,920.2		Returns to Surface				
Liner Cement		3/12/2014				5,031.5		12,120.0		Returns to Surface				
Perforations														
Type of Hole		Date		Top (ftKB)		Btm (ftKB)		Zone						
Perforated Liner		8/4/2014		5,928.0		5,930.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		5,994.0		5,996.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,038.0		6,040.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,088.0		6,090.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,138.0		6,140.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,178.0		6,180.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,238.0		6,240.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,282.0		6,284.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,328.0		6,330.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,392.0		6,394.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,438.0		6,440.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,482.0		6,484.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,538.0		6,540.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,588.0		6,590.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,628.0		6,630.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,684.0		6,686.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,728.0		6,730.0		Niobrara, Original Hole						
Perforated Liner		8/4/2014		6,774.0		6,776.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		6,838.0		6,840.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		6,888.0		6,890.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		6,925.0		6,927.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		6,988.0		6,990.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		7,038.0		7,040.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		7,078.0		7,080.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		7,150.0		7,152.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		7,194.0		7,196.0		Niobrara, Original Hole						
Perforated Liner		8/3/2014		7,238.0		7,240.0		Niobrara, Original Hole						



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API Number	WPC ID	Well Permit Number	Field Name	County	State
051233834400	1CO0761024		DJ Horizontal Niobrara	Weld	CO
Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Lateral/Horizontal	4,743.00	4,726.00			12,124.0
Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref
2/28/2014	8/5/2014	Redtail	Andrew Fish	2,251.0	FSL
				E/W Dist (ft)	E/W Ref
				1,981.0	FEL
Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section
	NW	SE			26
					Section Suffix
					Section Type
					Township
					10 N
					Township N/S Dir
					Range
					58 W
					Range E/W Dir
					Meridian

Lateral/Horizontal - Original Hole, 12/10/2014 2:47:07 PM					Perforations				
MD (ftKB)	D (ft K B)	n c l	Vertical schematic (actual)	Logs	Type of Hole	Date	Top (ftKB)	Btm (ftKB)	Zone
1,518.7	1.0272	34			Perforated Liner	8/3/2014	7,288.0	7,290.0	Niobrara, Original Hole
1,787.7	1.7864	34			Perforated Liner	8/3/2014	7,338.0	7,340.0	Niobrara, Original Hole
4,086.3	4.0791	34			Perforated Liner	8/3/2014	7,374.0	7,376.0	Niobrara, Original Hole
5,031.5	5.0214	32			Perforated Liner	8/3/2014	7,438.0	7,440.0	Niobrara, Original Hole
5,583.0	5.5741	32			Perforated Liner	8/3/2014	7,482.0	7,484.0	Niobrara, Original Hole
5,873.0	5.8705	34			Perforated Liner	8/3/2014	7,528.0	7,530.0	Niobrara, Original Hole
5,994.1	5.9791	34			Perforated Liner	8/3/2014	7,590.0	7,592.0	Niobrara, Original Hole
6,089.9	6.0750	34			Perforated Liner	8/3/2014	7,590.0	7,592.0	Niobrara, Original Hole
6,237.9	6.2270	34			Perforated Liner	8/3/2014	7,638.0	7,640.0	Niobrara, Original Hole
6,359.9	6.3480	34			Perforated Liner	8/3/2014	7,680.0	7,682.0	Niobrara, Original Hole
6,507.9	6.4937	34			Perforated Liner	8/3/2014	7,738.0	7,740.0	Niobrara, Original Hole
6,629.9	6.6171	34			Perforated Liner	8/3/2014	7,788.0	7,790.0	Niobrara, Original Hole
6,773.9	6.7578	34			Perforated Liner	8/3/2014	7,828.0	7,830.0	Niobrara, Original Hole
6,890.1	6.8854	34			Perforated Liner	8/3/2014	7,885.0	7,887.0	Niobrara, Original Hole
7,038.1	7.0253	34			Perforated Liner	8/3/2014	7,946.0	7,948.0	Niobrara, Original Hole
7,151.9	7.1463	34			Perforated Liner	8/3/2014	7,974.0	7,976.0	Niobrara, Original Hole
7,288.1	7.2781	34			Perforated Liner	8/3/2014	8,038.0	8,040.0	Niobrara, Original Hole
7,398.0	7.3840	34			Perforated Liner	8/3/2014	8,088.0	8,090.0	Niobrara, Original Hole
7,558.1	7.5471	34			Perforated Liner	8/3/2014	8,088.0	8,090.0	Niobrara, Original Hole
7,682.1	7.6681	34			Perforated Liner	8/3/2014	8,128.0	8,130.0	Niobrara, Original Hole
7,828.1	7.8181	34			Perforated Liner	8/3/2014	8,128.0	8,130.0	Niobrara, Original Hole
7,948.2	7.9384	34			Perforated Liner	8/3/2014	8,188.0	8,190.0	Niobrara, Original Hole
8,087.9	8.0781	34			Perforated Liner	8/3/2014	8,238.0	8,240.0	Niobrara, Original Hole
8,190.0	8.1804	34			Perforated Liner	8/3/2014	8,278.0	8,280.0	Niobrara, Original Hole
8,348.1	8.3384	34			Perforated Liner	8/3/2014	8,278.0	8,280.0	Niobrara, Original Hole
8,460.0	8.4504	34			Perforated Liner	8/3/2014	8,348.0	8,350.0	Niobrara, Original Hole
8,594.2	8.5837	34			Perforated Liner	8/3/2014	8,394.0	8,396.0	Niobrara, Original Hole
8,724.1	8.7141	34			Perforated Liner	8/3/2014	8,437.0	8,439.0	Niobrara, Original Hole
8,878.0	8.8640	34			Perforated Liner	8/3/2014	8,488.0	8,490.0	Niobrara, Original Hole
8,990.2	8.9804	34			Perforated Liner	8/3/2014	8,488.0	8,490.0	Niobrara, Original Hole
9,126.0	9.1164	34			Perforated Liner	8/3/2014	8,538.0	8,540.0	Niobrara, Original Hole
9,240.2	9.2304	34			Perforated Liner	8/3/2014	8,570.0	8,572.0	Niobrara, Original Hole
9,388.1	9.3784	34			Perforated Liner	8/3/2014	8,632.0	8,634.0	Niobrara, Original Hole
9,509.8	9.4944	34			Perforated Liner	8/3/2014	8,677.0	8,679.0	Niobrara, Original Hole
9,658.1	9.6474	34			Perforated Liner	8/3/2014	8,677.0	8,679.0	Niobrara, Original Hole
9,779.9	9.7674	34			Perforated Liner	8/3/2014	8,722.0	8,724.0	Niobrara, Original Hole
9,921.9	9.9134	34			Perforated Liner	8/3/2014	8,722.0	8,724.0	Niobrara, Original Hole
10,040.0	10.0304	34			Perforated Liner	8/3/2014	8,788.0	8,790.0	Niobrara, Original Hole
10,188.0	10.1784	34			Perforated Liner	8/3/2014	8,788.0	8,790.0	Niobrara, Original Hole
10,282.2	10.2724	34			Perforated Liner	8/3/2014	8,828.0	8,830.0	Niobrara, Original Hole
10,438.0	10.4284	34			Perforated Liner	8/3/2014	8,828.0	8,830.0	Niobrara, Original Hole
10,565.9	10.5554	34			Perforated Liner	8/3/2014	8,878.0	8,880.0	Niobrara, Original Hole
10,708.0	10.6974	34			Perforated Liner	8/3/2014	8,938.0	8,940.0	Niobrara, Original Hole
10,836.0	10.8254	34			Perforated Liner	8/3/2014	8,938.0	8,940.0	Niobrara, Original Hole
10,978.0	10.9674	34			Perforated Liner	8/3/2014	8,988.0	8,990.0	Niobrara, Original Hole
11,082.0	11.0674	34			Perforated Liner	8/3/2014	9,028.0	9,030.0	Niobrara, Original Hole
11,237.9	11.2274	34			Perforated Liner	8/3/2014	9,078.0	9,080.0	Niobrara, Original Hole
11,339.9	11.3274	34			Perforated Liner	8/3/2014	9,126.0	9,128.0	Niobrara, Original Hole
11,480.0	11.4694	34			Perforated Liner	8/3/2014	9,126.0	9,128.0	Niobrara, Original Hole
11,609.9	11.5974	34			Perforated Liner	8/3/2014	9,170.0	9,172.0	Niobrara, Original Hole
11,768.0	11.7574	34			Perforated Liner	8/3/2014	9,238.0	9,240.0	Niobrara, Original Hole
11,892.1	11.8874	34			Perforated Liner	8/3/2014	9,288.0	9,290.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,322.0	9,324.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,388.0	9,390.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,434.0	9,436.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,478.0	9,480.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,546.0	9,548.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,590.0	9,592.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,636.0	9,638.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,688.0	9,690.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,738.0	9,740.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,778.0	9,780.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,834.0	9,836.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,878.0	9,880.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,922.0	9,924.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	9,988.0	9,990.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,038.0	10,040.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,078.0	10,080.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,138.0	10,140.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,188.0	10,190.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,228.0	10,230.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,280.0	10,282.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,342.0	10,344.0	Niobrara, Original Hole
					Perforated Liner	8/3/2014	10,368.0	10,370.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,438.0	10,440.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,488.0	10,490.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,528.0	10,530.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,588.0	10,590.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,634.0	10,636.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,678.0	10,680.0	Niobrara, Original Hole
					Perforated Liner	7/31/2014	10,744.0	10,746.0	Niobrara, Original Hole



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API Number 051233834400		WPC ID 1CO0761024		Well Permit Number		Field Name DJ Horizontal Niobrara		County Weld		State CO	
Well Configuration Type Lateral/Horizontal		Orig KB Elv (ft) 4,743.00		Ground Elevation (ft) 4,726.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 12,124.0	
Original Spud Date 2/28/2014		Completion Date 8/5/2014		Asset Group Redtail		Responsible Engineer Andrew Fish		N/S Dist (ft) 2,251.0		N/S Ref FSL	
E/W Dist (ft) 1,981.0		E/W Ref FEL		Lot		Quarter 1 NW		Quarter 2 SE		Quarter 3	
Quarter 4		Section 26		Section Suffix		Section Type		Township 10 N		Range 58 W	
Meridian		Lateral/Horizontal - Original Hole, 12/10/2014 2:47:09 PM									
		Perforations									





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Well Name: RAZOR FEDERAL 26J-3510B

API Number 051233834400		WPC ID 1CO0761024		Well Permit Number		Field Name DJ Horizontal Niobrara			County Weld			State CO	
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,743.00	Ground Elevation (ft) 4,726.00	Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ft)KB 12,124.0			
Original Spud Date 2/28/2014		Completion Date 8/5/2014		Asset Group Redtail		Responsible Engineer Andrew Fish			N/S Dist (ft) 2,251.0		N/S Ref FSL	E/W Dist (ft) 1,981.0	E/W Ref FEL
Lot	Quarter 1 NW	Quarter 2 SE	Quarter 3	Quarter 4	Section 26	Section Suffix	Section Type	Township 10	Township N/S Dir N	Range 58	Range E/W Dir W	Meridian	

Lateral/Horizontal - Original Hole, 12/10/2014 2:47:11 PM						Stim/Treat Additives									
MD (ftKB)	D (ft K B)	n ( K B)	c ( K B)	l ( K B)	Vertical schematic (actual)	Logs	Stg #	Add		Type	Amount	Units	Sand Size		
							5	Proppant		20/40WS	141,507.6	lb	20/40		
							5	Proppant		40/70/WS	3,022.5	lb	40/70		
1,518.7	1.5170	24				Interval 6									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
1,787.7	1.7868	24				6	7/31/2014	11,036.0	11,126.0	2908.70	3067.90	Clearstar 30 XL Gel:1824 bbl; 30# Linear Gel:400 bbl; Slickwater:664 bbl; 15% HCl:22bbl			
4,086.3	4.0811	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
5,031.5	5.0310	24				6	Proppant		20/40WS		144,309.8	lb	20/40		
5,583.0	5.5816	24				6	Proppant		40/70/WS		3,559.6	lb	40/70		
5,873.0	5.8705	24				Interval 7									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
5,994.1	5.9911	24				7	7/31/2014	10,888.0	10,980.0	2880.30	3033.90	Clearstar 30 XL Gel:1806 bbl; 30# Linear Gel:400 bbl; Slickwater:652 bbl; 15% HCl:22bbl			
6,089.9	6.0750	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
6,237.9	6.2379	24				7	Proppant		20/40WS		139,044.6	lb	20/40		
6,359.9	6.3599	24				7	Proppant		40/70/WS		3,614.0	lb	40/70		
6,507.9	6.5077	24				Interval 8									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
6,629.9	6.6299	24				8	7/31/2014	10,744.0	10,836.0	2894.00	3056.10	Clearstar 30 XL Gel:1822 bbl; 30# Linear Gel:400 bbl; Slickwater:649 bbl; 15% HCl:24bbl			
6,773.9	6.7739	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
6,890.1	6.8901	24				8	Proppant		20/40WS		146,937.5	lb	20/40		
7,038.1	7.0381	24				8	Proppant		40/70/WS		3,625.1	lb	40/70		
7,151.9	7.1519	24				Interval 9									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
7,288.1	7.2881	24				9	7/31/2014	10,588.0	10,680.0	2815.50	2974.50	Clearstar 30 XL Gel:1794 bbl; 30# Linear Gel:350 bbl; Slickwater:648 bbl; 15% HCl:24bbl			
7,398.0	7.3980	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
7,558.1	7.5581	24				9	Proppant		20/40WS		144,055.0	lb	20/40		
7,682.1	7.6821	24				9	Proppant		40/70/WS		3,664.6	lb	40/70		
7,828.1	7.8281	24				Interval 10									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
7,948.2	7.9482	24				10	7/31/2014	10,438.0	10,530.0	2801.70	2956.70	Clearstar 30 XL Gel:1788 bbl; 30# Linear Gel:349 bbl; Slickwater:642 bbl; 15% HCl:22bbl			
8,087.9	8.0879	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
8,190.0	8.1900	24				10	Proppant		20/40WS		140,336.7	lb	20/40		
8,348.1	8.3481	24				10	Proppant		40/70/WS		3,637.4	lb	40/70		
8,460.0	8.4600	24				Interval 11									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
8,594.2	8.5942	24				11	7/31/2014	10,280.0	10,370.0	2821.10	2979.60	Clearstar 30 XL Gel:1843 bbl; 30# Linear Gel:299 bbl; Slickwater:654 bbl; 15% HCl:25bbl			
8,724.1	8.7241	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
8,878.0	8.8780	24				11	Proppant		20/40WS		143,748.0	lb	20/40		
8,990.2	8.9902	24				11	Proppant		40/70/WS		3,474.4	lb	40/70		
9,126.0	9.1260	24				Interval 12									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
9,240.2	9.2402	24				12	8/1/2014	10,138.0	10,230.0	2809.30	2967.40	Clearstar 30 XL Gel:1843 bbl; 30# Linear Gel:306 bbl; Slickwater:635 bbl; 15% HCl:25bbl			
9,388.1	9.3881	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
9,509.8	9.5098	24				12	Proppant		20/40WS		143,627.6	lb	20/40		
9,658.1	9.6581	24				12	Proppant		40/70/WS		3,217.6	lb	40/70		
9,779.9	9.7799	24				Interval 13									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
9,921.9	9.9219	24				13	8/1/2014	9,988.0	10,080.0	2777.70	2935.50	Clearstar 30 XL Gel:1798 bbl; 30# Linear Gel:314 bbl; Slickwater:641 bbl; 15% HCl:25bbl			
10,040.0	10.0400	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
10,188.0	10.1880	24				13	Proppant		20/40WS		143,069.7	lb	20/40		
10,282.2	10.2822	24				13	Proppant		40/70/WS		3,542.3	lb	40/70		
10,438.0	10.4380	24				Interval 14									
						Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment			
10,565.9	10.5659	24				14	8/1/2014	9,834.0	9,924.0	2727.20	2878.60	Clearstar 30 XL Gel:1789 bbl; 30# Linear Gel:349 bbl; Slickwater:590 bbl; 15% HCl:0bbl			
10,708.0	10.7080	24				Stim/Treat Additives									
						Stg #	Add		Type		Amount	Units	Sand Size		
10,836.0	10.8360	24				14	Proppant		20/40WS		137,060.9	lb	20/40		
10,978.0	10.9780	24													
11,082.0	11.0820	24													
11,237.9	11.2379	24													
11,339.9	11.3399	24													
11,480.0	11.4800	24													
11,609.9	11.6099	24													
11,768.0	11.7680	24													
11,892.1	11.8921	24													



Lease Review All - Frac Summary  
Well Name: RAZOR FEDERAL 26J-3510B

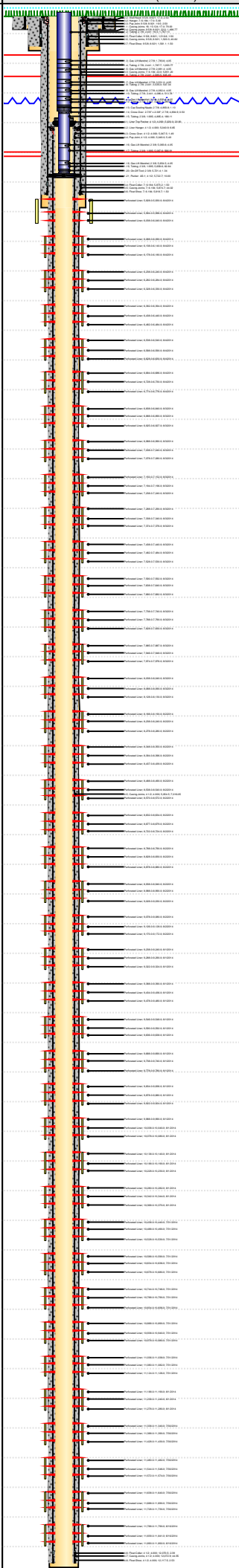
API Number 051233834400				WPC ID 1CO0761024				Well Permit Number				Field Name DJ Horizontal Niobrara				County Weld		State CO							
Well Configuration Type Lateral/Horizontal				Orig KB Elv (ft) 4,743.00				Ground Elevation (ft) 4,726.00				Casing Flange Elevation (ft)				Tubing Head Elevation (ft)				Total Depth (ftKB) 12,124.0					
Original Spud Date 2/28/2014				Completion Date 8/5/2014				Asset Group Redtail				Responsible Engineer Andrew Fish				N/S Dist (ft) 2,251.0		N/S Ref FSL		E/W Dist (ft) 1,981.0		E/W Ref FEL			
Lot		Quarter 1 NW		Quarter 2 SE		Quarter 3		Quarter 4		Section 26		Section Suffix		Section Type		Township 10 N		Township N/S Dir N		Range 58 W		Range E/W Dir W		Meridian	
Lateral/Horizontal - Original Hole, 12/10/2014 2:47:13 PM												Stim/Treat Additives													
MD (ftKB)	D (ft K B)	n (ft K B)	c (ft K B)	l (ft K B)	Vertical schematic (actual)	Logs	Stg #		Add		Type		Amount		Units		Sand Size								
							14	Proppant		40/70/WS		3,551.0		lb		40/70									
Interval 15																									
1,518.7	1,517.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1817 bbl; 30# Linear Gel:300 bbl; Slickwater:599 bbl; 15% HCl:0bbl												
1,787.7	1,786.0	314				15	8/1/2014	9,688.0	9,780.0	2715.80	2873.20														
Stim/Treat Additives																									
4,086.3		4,079.1	314				Stg #	Add		Type		Amount		Units		Sand Size									
5,031.5		5,021.0	312				15	Proppant		20/40WS		142,539.0		lb		20/40									
5,583.0		5,571.0	314				15	Proppant		40/70/WS		3,633.7		lb		40/70									
Interval 16																									
5,873.0	5,870.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1804 bbl; 30# Linear Gel:299 bbl; Slickwater:599 bbl; 15% HCl:0bbl												
5,994.1	5,979.1	312					16	8/1/2014	9,546.0	9,638.0	2701.60	2858.40													
Stim/Treat Additives																									
6,089.9		6,075.0	311				Stg #	Add		Type		Amount		Units		Sand Size									
6,237.9		6,230.0	314				16	Proppant		20/40WS		141,999.2		lb		20/40									
6,359.9		6,350.0	314				16	Proppant		40/70/WS		3,611.5		lb		40/70									
Interval 17																									
6,507.9	6,500.0	311					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1856 bbl; 30# Linear Gel:300 bbl; Slickwater:609 bbl; 15% HCl:0bbl												
6,629.9	6,621.0	314					17	8/1/2014	9,388.0	9,480.0	2764.20	2920.50													
Stim/Treat Additives																									
6,773.9		6,767.0	312				Stg #	Add		Type		Amount		Units		Sand Size									
6,890.1		6,885.0	314				17	Proppant		20/40WS		141,672.1		lb		20/40									
7,038.1		7,033.0	314				17	Proppant		40/70/WS		3,541.1		lb		40/70									
Interval 18																									
7,151.9	7,146.0	312					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1795 bbl; 30# Linear Gel:338 bbl; Slickwater:590 bbl; 15% HCl:0bbl												
7,288.1	7,283.0	312					18	8/1/2014	9,238.0	9,324.0	2723.50	2881.80													
Stim/Treat Additives																									
7,398.0		7,394.0	314				Stg #	Add		Type		Amount		Units		Sand Size									
7,558.1		7,551.0	314				18	Proppant		20/40WS		143,196.2		lb		20/40									
7,682.1		7,681.0	314				18	Proppant		40/70/WS		3,811.5		lb		40/70									
Interval 19																									
8,087.9	8,084.0	311					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1758 bbl; 30# Linear Gel:377 bbl; Slickwater:592 bbl; 15% HCl:0bbl												
8,190.0	8,186.0	314					19	8/1/2014	9,078.0	9,172.0	2727.40	2881.30													
Stim/Treat Additives																									
8,348.1		8,343.0	312				Stg #	Add		Type		Amount		Units		Sand Size									
8,460.0		8,452.0	314				19	Proppant		20/40WS		139,320.4		lb		20/40									
8,594.2		8,593.0	314				19	Proppant		40/70/WS		3,588.0		lb		40/70									
Interval 20																									
8,724.1	8,723.0	317					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1802 bbl; 30# Linear Gel:299 bbl; Slickwater:581 bbl; 15% HCl:0bbl												
8,878.0	8,874.0	317					20	8/2/2014	8,938.0	9,030.0	2681.80	2839.60													
Stim/Treat Additives																									
8,990.2		8,984.0	314				Stg #	Add		Type		Amount		Units		Sand Size									
9,126.0		9,126.0	314				20	Proppant		20/40WS		142,988.3		lb		20/40									
9,240.2		9,236.0	311				20	Proppant		40/70/WS		3,596.7		lb		40/70									
Interval 21																									
9,388.1	9,379.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1832 bbl; 30# Linear Gel:300 bbl; Slickwater:580 bbl; 15% HCl:0bbl												
9,509.8	9,500.0	312					21	8/2/2014	8,788.0	8,880.0	2712.20	2871.70													
Stim/Treat Additives																									
9,658.1		9,654.0	314				Stg #	Add		Type		Amount		Units		Sand Size									
9,779.9		9,774.0	317				21	Proppant		20/40WS		144,655.0		lb		20/40									
9,921.9		9,916.0	314				21	Proppant		40/70/WS		3,516.4		lb		40/70									
Interval 22																									
10,040.0	10,035.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1811 bbl; 30# Linear Gel:300 bbl; Slickwater:587 bbl; 15% HCl:0bbl												
10,188.0	10,182.0	317					22	8/2/2014	8,632.0	8,724.0	2697.90	2852.30													
Stim/Treat Additives																									
10,282.2		10,278.0	314				Stg #	Add		Type		Amount		Units		Sand Size									
10,438.0		10,432.0	314				22	Proppant		20/40WS		140,071.9		lb		20/40									
10,565.9		10,560.0	314				22	Proppant		40/70/WS		3,321.3		lb		40/70									
Interval 23																									
10,708.0	10,703.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1878 bbl; 30# Linear Gel:300 bbl; Slickwater:527 bbl; 15% HCl:0bbl												
10,836.0	10,830.0	314					23	8/2/2014	8,488.0	8,572.0	2704.90	2863.40													
Stim/Treat Additives																									
10,978.0		10,973.0	317				Stg #	Add		Type		Amount		Units		Sand Size									
11,082.0		11,077.0	317				23	Proppant		20/40WS		143,652.7		lb		20/40									
11,237.9		11,232.0	317				23	Proppant		40/70/WS		3,599.1		lb		40/70									
Interval 23																									
11,339.9	11,334.0	314					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment Clearstar 30 XL Gel:1878 bbl; 30# Linear Gel:300 bbl; Slickwater:527 bbl; 15% HCl:0bbl												
11,480.0	11,475.0	314					23	8/2/2014	8,488.0	8,572.0	2704.90	2863.40													
Stim/Treat Additives																									
11,609.9		11,604.0	314				Stg #	Add		Type		Amount		Units		Sand Size									
11,768.0		11,763.0	314				23	Proppant		20/40WS		143,652.7		lb		20/40									
11,892.1		11,887.0	317				23	Proppant		40/70/WS		3,599.1		lb		40/70									



Lease Review All - Frac Summary  
Well Name: RAZOR FEDERAL 26J-3510B

API Number 051233834400		WPC ID 1CO0761024		Well Permit Number		Field Name DJ Horizontal Niobrara		County Weld		State CO					
Well Configuration Type Lateral/Horizontal		Orig KB Elv (ft) 4,743.00		Ground Elevation (ft) 4,726.00		Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB) 12,124.0					
Original Spud Date 2/28/2014		Completion Date 8/5/2014		Asset Group Redtail		Responsible Engineer Andrew Fish		N/S Dist (ft) 2,251.0		N/S Ref FSL		E/W Dist (ft) 1,981.0		E/W Ref FEL	
Lot		Quarter 1 NW	Quarter 2 SE	Quarter 3	Quarter 4	Section 26	Section Suffix	Section Type		Township 10	Township N/S Dir N	Range 58		Range E/W Dir W	Meridian
Lateral/Horizontal - Original Hole, 12/10/2014 2:47:16 PM						Stim/Treat Stages									
MD (ftKB)	D (ft K B)	n ( C B)	Vertical schematic (actual)	Logs	Interval 24										
					Stg # 24	Start Date 8/2/2014	Top (ftKB) 8,348.0	Btm (ftKB) 8,439.0	Vol Clean... 2692.60	Vol Slurry... 2845.00	Comment Clearstar 30 XL Gel:1840 bbl; 30# Linear Gel:302 bbl; Slickwater:551 bbl; 15% HCl:0bbl				
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
24		Proppant		20/40WS		138,149.6		lb		20/40					
24		Proppant		40/70/WS		3,442.3		lb		40/70					
Interval 25															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
25	8/2/2014	8,188.0	8,280.0	2675.30	2833.20	Clearstar 30 XL Gel:1799 bbl; 30# Linear Gel:298 bbl; Slickwater:578 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
25		Proppant		20/40WS		142,974.3		lb		20/40					
25		Proppant		40/70/WS		3,727.5		lb		40/70					
Interval 26															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
26	8/2/2014	8,038.0	8,130.0	2710.90	2869.90	Clearstar 30 XL Gel:1840 bbl; 30# Linear Gel:298 bbl; Slickwater:573 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
26		Proppant		20/40WS		143,976.7		lb		20/40					
26		Proppant		40/70/WS		3,683.1		lb		40/70					
Interval 27															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
27	8/3/2014	7,885.0	7,976.0	2715.00	2872.60	Clearstar 30 XL Gel:1838 bbl; 30# Linear Gel:299 bbl; Slickwater:578 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
27		Proppant		20/40WS		142,820.9		lb		20/40					
27		Proppant		40/70/WS		3,573.2		lb		40/70					
Interval 28															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
28	8/3/2014	7,738.0	7,830.0	2926.70	3083.60	Clearstar 30 XL Gel:1819 bbl; 30# Linear Gel:521 bbl; Slickwater:587 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
28		Proppant		20/40WS		142,325.3		lb		20/40					
28		Proppant		40/70/WS		3,449.7		lb		40/70					
Interval 29															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
29	8/3/2014	7,590.0	7,682.0	2677.50	2832.80	Clearstar 30 XL Gel:1809 bbl; 30# Linear Gel:313 bbl; Slickwater:556 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
29		Proppant		20/40WS		140,582.5		lb		20/40					
29		Proppant		40/70/WS		3,652.2		lb		40/70					
Interval 30															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
30	8/3/2014	7,438.0	7,530.0	2677.80	2835.30	Clearstar 30 XL Gel:1820 bbl; 30# Linear Gel:301 bbl; Slickwater:557 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
30		Proppant		20/40WS		142,596.2		lb		20/40					
30		Proppant		40/70/WS		3,669.5		lb		40/70					
Interval 31															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
31	8/3/2014	7,288.0	7,376.0	2688.20	2844.80	Clearstar 30 XL Gel:1810 bbl; 30# Linear Gel:315 bbl; Slickwater:563 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
31		Proppant		20/40WS		142,829.9		lb		20/40					
31		Proppant		40/70/WS		2,580.5		lb		40/70					
Interval 32															
Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment									
32	8/3/2014	7,150.0	7,240.0	2690.50	2848.40	Clearstar 30 XL Gel:2132 bbl; 30# Linear Gel:0 bbl; Slickwater:558 bbl; 15% HCl:0bbl									
Stim/Treat Additives															
Stg #		Add		Type		Amount		Units		Sand Size					
32		Proppant		20/40WS		143,108.9		lb		20/40					
32		Proppant		40/70/WS		3,564.6		lb		40/70					



Lease Review All - Frac Summary																
API Number			WPC ID			Well Permit Number			Field Name			County	State			
051233834400			1CO0761024						DJ Horizontal Niobrara			Weld	CO			
Well Configuration Type			Orig KB Elv (ft)			Ground Elevation (ft)			Casing Flange Elevation (ft)		Tubing Head Elevation (ft)		Total Depth (ftKB)			
Lateral/Horizontal			4,743.00			4,726.00							12,124.0			
Original Spud Date		Completion Date		Asset Group			Responsible Engineer			N/S Dist (ft)		N/S Ref	E/W Dist (ft)		E/W Ref	
2/28/2014		8/5/2014		Redtail			Andrew Fish			2,251.0		FSL	1,981.0		FEL	
Lot		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Section Suffix	Section Type		Township	Township N/S Dir		Range	Range E/W Dir		Meridian
		NW	SE			26				10	N		58	W		
Lateral/Horizontal - Original Hole, 12/10/2014 2:47:18 PM						Stim/Treat Stages										
MD (ftKB)	D (ft K B)	n ( K B)	Vertical schematic (actual)	Logs	Interval 33											
					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
					33	8/3/2014	6,988.0	7,080.0	2685.00	2841.30	Clearstar 30 XL Gel:1850 bbl; 30# Linear Gel:301 bbl; Slickwater:534 bbl; 15% HCl:0bbl					
					Stim/Treat Additives											
					Stg #	Add		Type			Amount		Units	Sand Size		
					33	Proppant		20/40WS			141,594.9		lb	20/40		
					33	Proppant		40/70/WS			3,564.6		lb	40/70		
					Interval 34											
					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
1,518.7	1.5170	34			34	8/3/2014	6,838.0	6,927.0	2710.60	2868.00	Clearstar 30 XL Gel:1822 bbl; 30# Linear Gel:301 bbl; Slickwater:587 bbl; 15% HCl:0bbl					
1,787.7	1.7862	34		Stim/Treat Additives												
					Stg #	Add		Type			Amount		Units	Sand Size		
4,086.3	4.0791	34			34	Proppant		20/40WS			143,145.9		lb	20/40		
5,031.5	5.0212	32			34	Proppant		40/70/WS			3,099.1		lb	40/70		
5,583.0	5.5741	31			Interval 35											
					Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
5,873.0	5.8702	30			35	8/4/2014	6,684.0	6,776.0	2724.10	2877.30	Clearstar 30 XL Gel:1837 bbl; 30# Linear Gel:302 bbl; Slickwater:586 bbl; 15% HCl:0bbl					
5,994.1	5.9791	31			Stim/Treat Additives											
					Stg #	Add		Type			Amount		Units	Sand Size		
6,089.9	6.0760	30			34	Proppant		20/40WS			138,780.5		lb	20/40		
6,237.9	6.2270	30			34	Proppant		40/70/WS			3,099.1		lb	40/70		
6,359.9	6.3490	30			Interval 36											
6,507.9	6.4971	30			Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
6,629.9	6.6171	30			35	8/4/2014	6,684.0	6,776.0	2724.10	2877.30	Clearstar 30 XL Gel:1837 bbl; 30# Linear Gel:302 bbl; Slickwater:586 bbl; 15% HCl:0bbl					
6,773.9	6.7678	30			Stim/Treat Additives											
					Stg #	Add		Type			Amount		Units	Sand Size		
6,890.1	6.8854	30			35	Proppant		20/40WS			138,780.5		lb	20/40		
7,038.1	7.0323	30			35	Proppant		40/70/WS			3,099.1		lb	40/70		
7,151.9	7.1463	30			Interval 37											
7,288.1	7.2813	30			Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
7,398.0	7.3940	30			36	8/4/2014	6,538.0	6,630.0	2637.80	2789.30	Clearstar 30 XL Gel:1798 bbl; 30# Linear Gel:300 bbl; Slickwater:539 bbl; 15% HCl:0bbl					
7,558.1	7.5511	30			Stim/Treat Additives											
					Stg #	Add		Type			Amount		Units	Sand Size		
7,682.1	7.6761	30			36	Proppant		20/40WS			137,178.3		lb	20/40		
7,828.1	7.8213	30			36	Proppant		40/70/WS			3,565.8		lb	40/70		
7,948.2	7.9404	30			Interval 38											
8,087.9	8.0843	30			Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment					
8,190.0	8.1854	30		37	8/4/2014	6,392.0	6,484.0	2650.20	2801.50	Clearstar 30 XL Gel:1814 bbl; 30# Linear Gel:300 bbl; Slickwater:537 bbl; 15% HCl:0bbl						
8,348.1	8.3429	30		Stim/Treat Additives												
				Stg #	Add		Type			Amount		Units	Sand Size			
8,460.0	8.4554	30		37	Proppant		20/40WS			136,986.7		lb	20/40			
8,594.2	8.5877	30		37	Proppant		40/70/WS			3,527.5		lb	40/70			
8,724.1	8.7183	30		Interval 39												
8,878.0	8.8743	30		Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment						
8,990.2	8.9854	30		38	8/4/2014	6,238.0	6,330.0	2646.00	2800.00	Clearstar 30 XL Gel:1828 bbl; 30# Linear Gel:302 bbl; Slickwater:516 bbl; 15% HCl:0bbl						
9,126.0	9.1214	30		Stim/Treat Additives												
				Stg #	Add		Type			Amount		Units	Sand Size			
9,240.2	9.2354	30		38	Proppant		20/40WS			139,515.0		lb	20/40			
9,388.1	9.3824	30		38	Proppant		40/70/WS			3,493.0		lb	40/70			
9,509.8	9.5043	30		Interval 40												
9,658.1	9.6494	30		Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment						
9,779.9	9.7754	30		39	8/4/2014	6,088.0	6,180.0	2738.70	2897.20	Clearstar 30 XL Gel:1851 bbl; 30# Linear Gel:301 bbl; Slickwater:587 bbl; 15% HCl:0bbl						
9,921.9	9.9170	30		Stim/Treat Additives												
				Stg #	Add		Type			Amount		Units	Sand Size			
10,040.0	10.0354	30		39	Proppant		20/40WS			143,911.5		lb	20/40			
10,188.0	10.1832	30		39	Proppant		40/70/WS			3,337.4		lb	40/70			
10,282.2	10.2774	30		Interval 40												
10,438.0	10.4330	30		Stg #	Start Date	Top (ftKB)	Btm (ftKB)	Vol Clean...	Vol Slurry...	Comment						
10,565.9	10.5610	30		40	8/4/2014	5,928.0	6,040.0	2751.70	2920.60	Clearstar 30 XL Gel:1885 bbl; 30# Linear Gel:301 bbl; Slickwater:519 bbl; 15% HCl:47bbl						
10,708.0	10.7032	30		Stim/Treat Additives												
				Stg #	Add		Type			Amount		Units	Sand Size			
10,836.0	10.8310	30		40	Proppant		20/40WS			153,594.2		lb	20/40			
10,978.0	10.9730	30		40	Proppant		40/70/WS			3,320.1		lb	40/70			
Tubing - Production set at 5,732.8ftKB on 8/22/2014 15:00																
11,082.0	11.0772	30		Set Depth (ftKB)		Comment					Run Date		Pull Date			
				5,732.8							8/22/2014					
11,237.9	11.2329	30		Item Des		OD (in)		ID (in)		Len (ft)		Top (ftKB)		Btm (ftKB)		
11,339.9	11.3354	30		KB						16.00		0.5		16.5		
				Tubing		2 7/8		2.441		1,767.13		16.5		1,783.6		
11,480.0	11.4753	30		Gas Lift Mandrel		2 7/8				4.05		1,783.6		1,787.7		
11,609.9	11.6057	30		Tubing		2 7/8		2.441		1,093.77		1,787.7		2,881.5		
11,768.0	11.7633	30		Gas Lift Mandrel		2 7/8				4.05		2,881.5		2,885.5		
11,892.1	11.8872	30		Tubing		2 7/8		2.441		645.49		2,885.5		3,531.0		



Lateral/Horizontal - Original Hole, 12/10/2014 2:47:20 PM				Item Des	OD (in)	ID (in)	Len (ft)	Top (ftKB)	Btm (ftKB)	
MD (ftKB)	D (ft K B)	n c l (	Vertical schematic (actual)	Logs	Gas Lift Mandrel	2 7/8		4.05	3,531.0	3,535.0
					Tubing	2 7/8	2.441	547.34	3,535.0	4,082.4
					Gas Lift Mandrel	2 7/8		4.05	4,082.4	4,086.4
					Tubing	2 7/8	2.441	513.78	4,086.4	4,600.2
					Gas Lift Mandrel	2 7/8		4.05	4,600.2	4,604.3
					Tubing	2 7/8	2.441	289.59	4,604.3	4,893.9
					Cup Seating Nipple	2 7/8		1.10	4,893.9	4,895.0
					Cross Over 2-7/8" x 2-3/8"	2 7/8		0.50	4,895.0	4,895.5
					Tubing	2 3/8	1.995	188.11	4,895.5	5,083.6
					Gas Lift Mandrel	2 3/8		4.05	5,083.6	5,087.6
					Tubing	2 3/8	1.995	566.91	5,087.6	5,654.5
					Gas Lift Mandrel	2 3/8		4.05	5,654.5	5,658.6
					Tubing	2 3/8	1.995	62.84	5,658.6	5,721.4
					On-Off Tool	2 3/8		1.34	5,721.4	5,722.8
					Packer AS-1	4 1/2		10.00	5,722.8	5,732.8
Rod Strings										
<des> on <dtmrun>										
Rod Description						Run Date		Pull Date		
Item Des						OD (in)	Len (ft)	Top (ftKB)	Btm (ftKB)	
Other Strings										
Set Depth (ftKB)				Comment				Run Date		Pull Date
Item Des				OD (in)		Len (ft)		Top (ftKB)	Btm (ftKB)	
Other In Hole										
Des		OD (in)		Run Date		Pull Date		Top (ftKB)	Btm (ftKB)	
CFP		4				8/20/2014		6,058.0	6,060.0	
CFP		4				8/20/2014		6,213.0	6,215.0	
CFP		4				8/20/2014		6,358.0	6,360.0	
CFP		4				8/20/2014		6,508.0	6,510.0	
CFP		4				8/20/2014		6,658.0	6,660.0	
CFP		4				8/20/2014		6,808.0	6,810.0	
CFP		4				8/20/2014		6,952.0	6,954.0	
CFP		4				8/20/2014		7,108.0	7,110.0	
CFP		4				8/20/2014		7,258.0	7,260.0	
CFP		4				8/20/2014		7,396.0	7,398.0	
CFP		4				8/20/2014		7,558.0	7,560.0	
CFP		4				8/20/2014		7,708.0	7,710.0	
CFP		4				8/20/2014		7,835.0	7,837.0	
CFP		4				8/20/2014		8,008.0	8,010.0	
CFP		4				8/20/2014		8,152.0	8,154.0	
CFP		4				8/20/2014		8,308.0	8,310.0	
CFP		4				8/20/2014		8,458.0	8,460.0	
CFP		4				8/20/2014		8,594.0	8,596.0	
CFP		4				8/20/2014		8,758.0	8,760.0	
CFP		4				8/20/2014		8,902.0	8,904.0	
CFP		4				8/20/2014		9,056.0	9,058.0	
CFP		4				8/20/2014		9,208.0	9,210.0	
CFP		4				8/20/2014		9,348.0	9,350.0	
CFP		4				8/20/2014		9,508.0	9,510.0	
CFP		4				8/20/2014		9,658.0	9,660.0	
CFP		4				8/20/2014		9,808.0	9,810.0	
CFP		4				8/20/2014		9,958.0	9,960.0	
CFP		4				8/20/2014		10,101.0	10,103.0	
CFP		4				8/20/2014		10,258.0	10,260.0	
CFP		4				8/21/2014		10,408.0	10,410.0	
CFP		4				8/21/2014		10,564.0	10,566.0	
CFP		4				8/21/2014		10,708.0	10,710.0	
CFP		4				8/21/2014		10,858.0	10,860.0	
CFP		4				8/21/2014		11,012.0	11,014.0	
CFP		4				8/21/2014		11,158.0	11,160.0	
CFP		4				8/21/2014		11,302.0	11,304.0	
CFP		4				8/21/2014		11,458.0	11,460.0	
CFP		4				8/21/2014		11,608.0	11,610.0	
CFP		4				8/21/2014		11,768.0	11,770.0	
Bottom Hole Cores										
Date		Core #		Top (ftKB)		Btm (ftKB)		Recov (ft)		