



# XTO - Wellbore Diagram

Well Name: Hill Ranch 01-05V

API/UWI	E/W Dist (ft)	E/W Ref	N/S Dist (ft)	N/S Ref	Location	Field Name	County	State/Province
05071073460000	716.0	FWL	1,497.0	FNL	T35S-R67W-S01	Purgatoire River	Las Animas	Colorado
Well Configuration Type	XTO ID B	Orig KB Elev (ft)	Gr Elev (ft)	KB-Grd (ft)	Spud Date	PBTD (All) (ftKB)	Total Depth (ftKB)	Method Of Production
Vertical	94613	7,892.00	7,892.00	0.00	6/18/2001	Original Hole - 2310.0	2,365.0	PCP

Well Config: Vertical - Original Hole, 10/14/2013 2:52:47 PM

Schematic - Actual		Incl	ftKB (TVD)	ftKB (MD)	Zones						
					Zone	Top (ftKB)		Btm (ftKB)			
				0	Raton	570.0		1,400.0			
				16	Vermejo	1,877.0		2,170.0			
				22	Casing Strings						
				347	Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (ftKB)	
				570	Surface	8 5/8	23.00	J-55		347.0	
				571	Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (ftKB)	
				653	Production	5 1/2	15.50	J-55		2,342.0	
				654	Cement						
				658	Description	Type		String			
				659	Production Casing Cement	casing		Production, 2,342.0ftKB			
				723	Comment						
				724	Cmt w/ 290 sx, btm 2,341' Method Grade CBL.						
				770	Description	Type		String			
				771	Surface Casing Cement	casing		Surface, 347.0ftKB			
				783	Comment						
				784	Cmt w/ 95 sx btm 344'.						
				788	Perforations						
				789							
				834							
				835	Date	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Hole Diameter (in)	Phasing (°)	
				838	9/9/2006	570.0	571.0	3.0	0.460	120	
				840	9/9/2006	653.0	654.0	3.0	0.460	120	
				872	9/9/2006	658.0	659.0	3.0	0.460	120	
				873	9/9/2006	723.0	724.0	3.0	0.460	120	
				962	9/9/2006	770.0	771.0	3.0	0.460	120	
				963	9/9/2006	783.0	784.0	3.0	0.460	120	
				1,017	9/9/2006	788.0	789.0	3.0	0.460	120	
				1,018	9/9/2006	834.0	835.0	4.0	0.460	120	
				1,163	9/9/2006	834.0	835.0	4.0	0.460	120	
				1,164	9/9/2006	838.0	840.0	4.0	0.460	120	
				1,239	9/9/2006	872.0	873.0	4.0	0.460	120	
				1,240	9/9/2006	962.0	963.0	4.0	0.460	120	
				1,265	9/9/2006	1,017.0	1,018.0	4.0	0.460	120	
				1,266	9/9/2006	1,163.0	1,164.0	4.0	0.460	120	
				1,399	9/9/2006	1,239.0	1,240.0	4.0	0.460	120	
				1,400	9/9/2006	1,265.0	1,266.0	4.0	0.460	120	
				1,487	9/9/2006	1,399.0	1,400.0	4.0	0.460	120	
				1,491	9/9/2006	1,877.0	1,887.0	4.0			
				1,500	8/13/2002	1,877.0	1,887.0	4.0			
				1,501	8/13/2002	1,937.0	1,940.0	4.0			
				1,501	8/13/2002	1,937.0	1,940.0	4.0			
				1,600	8/13/2002	1,944.0	1,947.0	4.0			
				1,601	8/13/2002	1,944.0	1,947.0	4.0			
				1,601	8/13/2002	2,076.0	2,079.0	4.0			
				1,877	8/13/2002	2,076.0	2,079.0	4.0			
				1,877	8/13/2002	2,084.0	2,086.0	4.0			
				1,887	8/13/2002	2,084.0	2,086.0	4.0			
				1,935	8/13/2002	2,088.0	2,091.0	4.0			
				1,937	8/13/2002	2,088.0	2,091.0	4.0			
				1,940	8/13/2002	2,093.0	2,096.0	4.0			
				1,944	8/13/2002	2,093.0	2,096.0	4.0			
				1,944	8/13/2002	2,160.0	2,163.0	4.0			
				1,944	8/13/2002	2,160.0	2,163.0	4.0			
				1,947	8/13/2002	2,166.0	2,170.0	4.0			
				1,947	8/13/2002	2,166.0	2,170.0	4.0			
				2,076	Tubing Strings						
				2,076	Tubing Description	Run Date		Set Depth (ftKB)			
				2,079	Tubing - Production	9/19/2006		1,501.2			
				2,084	Tubing Components						
				2,086	Item Description	Jts	Model	OD (in)	Wt (lbs/ft)	Top Thread	
				2,088	Tubing	48	T&C Upset	2 7/8	6.50	J-55	
				2,091							
				2,093							
				2,096							
				2,160	Tubing Sub	1		2 7/8	6.50	J-55	
				2,163	Stator	1	20N0...	3 1/2			
				2,166	No Turn Tool	1		5 1/2			
				2,170	Notched Collar	1		2 7/8			
				2,206							
				2,273	Rods						
				2,296	Rod Description	Run Date		String Length (ft)		Set Depth (ftKB)	
				2,310	Rod String	9/19/2006		1,499.63		1,499.8	
				2,342							
				2,365							

Top (MD):570, Des:Raton

5 1/2" CIBP, 5.100, 1,600-1,601

Top (MD):1,877, Des:Vermejo

Fish, 2,273-2,296

PBTD, 2,310

TD, 2,365

Top (MD):570,  
Des:Raton

5 1/2" CIBP, 5,100,  
1,600-1,601

Top (MD):1,877,  
Des:Vermejo

Fish, 2,273-2,296

PBTD,  
2,310

TD, 2,365

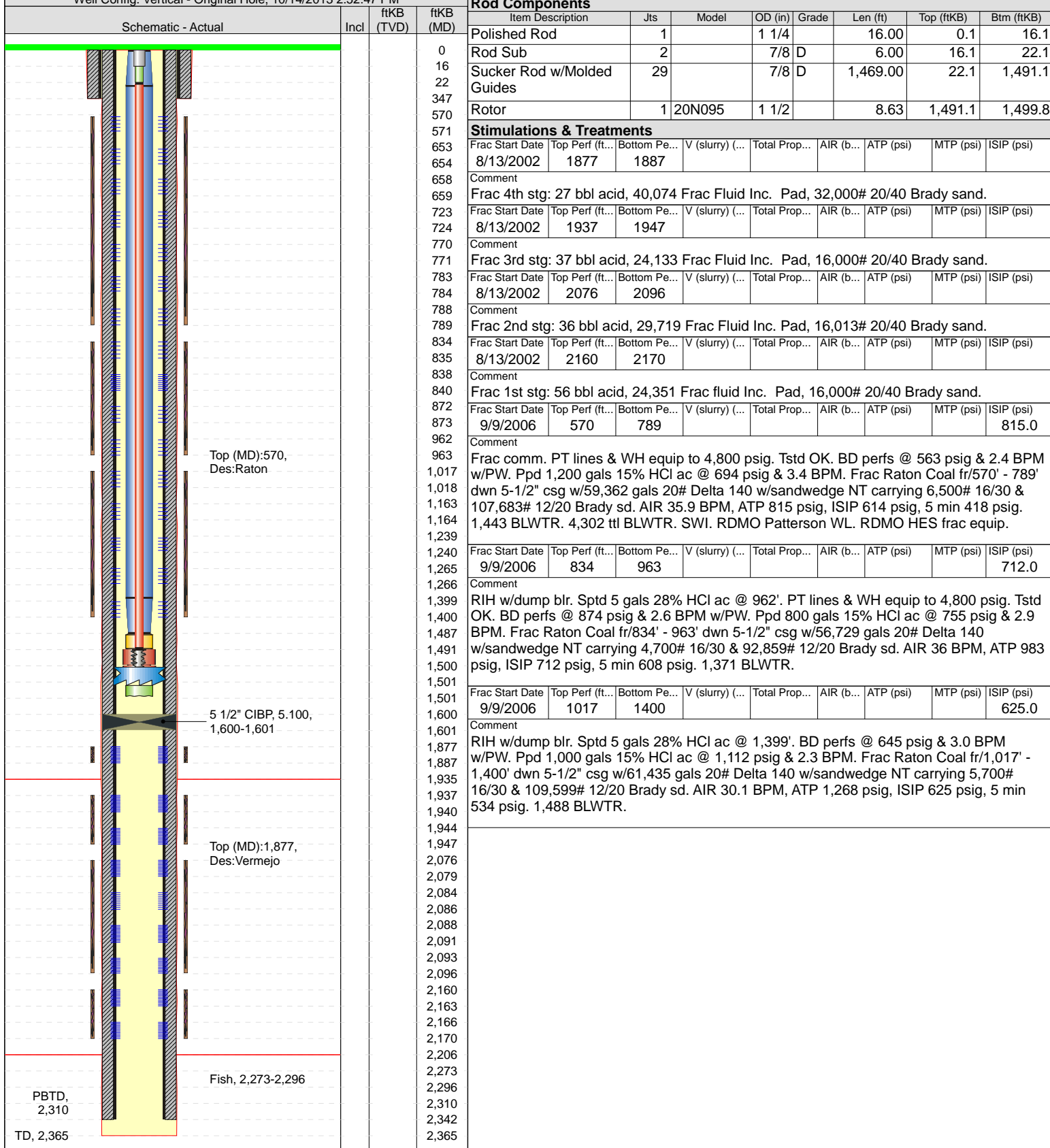


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## Rod Components

Item Description	Jts	Model	OD (in)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)
Polished Rod	1		1 1/4		16.00	0.1	16.1
Rod Sub	2		7/8	D	6.00	16.1	22.1
Sucker Rod w/Molded Guides	29		7/8	D	1,469.00	22.1	1,491.1
Rotor	1	20N095	1 1/2		8.63	1,491.1	1,499.8

## Stimulations & Treatments

Frac Start Date	Top Perf (ft...)	Bottom Pe...	V (slurry) (...)	Total Prop...	AIR (b...	ATP (psi)	MTP (psi)	ISIP (psi)
8/13/2002	1877	1887						
Comment								
Frac 4th stg: 27 bbl acid, 40,074 Frac Fluid Inc. Pad, 32,000# 20/40 Brady sand.								
8/13/2002	1937	1947						
Comment								
Frac 3rd stg: 37 bbl acid, 24,133 Frac Fluid Inc. Pad, 16,000# 20/40 Brady sand.								
8/13/2002	2076	2096						
Comment								
Frac 2nd stg: 36 bbl acid, 29,719 Frac Fluid Inc. Pad, 16,013# 20/40 Brady sand.								
8/13/2002	2160	2170						
Comment								
Frac 1st stg: 56 bbl acid, 24,351 Frac fluid Inc. Pad, 16,000# 20/40 Brady sand.								
9/9/2006	570	789						815.0
Comment								
Frac comm. PT lines & WH equip to 4,800 psig. Tstd OK. BD perfs @ 563 psig & 2.4 BPM w/PW. Ppd 1,200 gals 15% HCl ac @ 694 psig & 3.4 BPM. Frac Raton Coal fr/570' - 789' dwn 5-1/2" csg w/59,362 gals 20# Delta 140 w/sandwedge NT carrying 6,500# 16/30 & 107,683# 12/20 Brady sd. AIR 35.9 BPM, ATP 815 psig, ISIP 614 psig, 5 min 418 psig. 1,443 BLWTR. 4,302 ttl BLWTR. SWI. RDMO Patterson WL. RDMO HES frac equip.								
9/9/2006	834	963						712.0
Comment								
RIH w/dump blr. Sptd 5 gals 28% HCl ac @ 962'. PT lines & WH equip to 4,800 psig. Tstd OK. BD perfs @ 874 psig & 2.6 BPM w/PW. Ppd 800 gals 15% HCl ac @ 755 psig & 2.9 BPM. Frac Raton Coal fr/834' - 963' dwn 5-1/2" csg w/56,729 gals 20# Delta 140 w/sandwedge NT carrying 4,700# 16/30 & 92,859# 12/20 Brady sd. AIR 36 BPM, ATP 983 psig, ISIP 712 psig, 5 min 608 psig. 1,371 BLWTR.								
9/9/2006	1017	1400						625.0
Comment								
RIH w/dump blr. Sptd 5 gals 28% HCl ac @ 1,399'. BD perfs @ 645 psig & 3.0 BPM w/PW. Ppd 1,000 gals 15% HCl ac @ 1,112 psig & 2.3 BPM. Frac Raton Coal fr/1,017' - 1,400' dwn 5-1/2" csg w/61,435 gals 20# Delta 140 w/sandwedge NT carrying 5,700# 16/30 & 109,599# 12/20 Brady sd. AIR 30.1 BPM, ATP 1,268 psig, ISIP 625 psig, 5 min 534 psig. 1,488 BLWTR.								