

Well Name: FC FEDERAL COM #15S

API / UWI 3004534971	Surface Legal Location 015-030N-011W-F	Field Name BASIN FRUITLAND COAL	License No.	State/Province NEW MEXICO	Well Configuration Type VERTICAL
Ground Elevation (ft) 5,815.00	Original KBRT Elevation (ft) 5,830.00	KB-Ground Distance (ft) 15.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

VERTICAL - Original Hole, 6/1/2015 7:06:05 AM

Formation Tops

MD (ftKB)	Formation Tops
-8.8	Tubing; 2 3/8 in; 4.70 lb/ft; J-55; 15.0 ftKB; 2,234.6 ftKB
-1.3	Hyd Frac-Gelled N2; 3/22/2011; STIMULATE UPPER FRUITLAND COAL: (2,048'-2,126') 64 TOTAL PERF HOLES: START LOAD BREAK ON 2 % KCL WATER @ 5.0 BPM BROKE @ 2607, START 500 GAL OF 10% FORMIC ACID @ 5.0 BPM @ 1022 PSI, START 25# X-LINK PRE-PAD @ 17 BPM @ 1665 PSI START 25# LINEAR GEL 75% FOAM PAD @ 50 BPM @ 1831 PSI, FRAC ZONE WITH 32,172 GALS. @ BPM @ 2023 WITH 93,032 LBS. OF 20/40 ARIZONA SAND.RAN FAW-4 @ 3.0 GALS/1000, INFLOW 250W 1.0 GALS/1000, GW-3LD@ 6.25 GALS/1000, ENZYME G II @ 1.0 GALS/1000, XLW-32 @ 1.0 GAL/1000 PUMPED 32 BBLs FOAM FLUSH. MIN. RATE: 49 BPM. MAX. RATE: 54 BPM. AVG. RATE: 51 BPM. MIN. PSI: 1022 PSI. MAX. PSI: 2361 PSI. AVG. PSI: 1986 PSI. MAX. SAND CONC: 10.00 PSA. ISIP: 1380 FLUID TO RECOVER (BREAKDOWN, AND FRAC: 766 CLEAN BBLs). PUMPED 870 SLURRY BBLs. TOTAL N2 1,300,000 SCF.
18.1	Hyd Frac-Gelled N2; 3/22/2011; STIMULATE LOWER FRUITLAND COAL (2,208'-2,226') 36 TOTAL PERF. START LOAD BREAK DOWN W/ 2% KCL WATER @ 5.0 BPM BROKE @ 1,785 PSI, START 500 GAL OF 10% FORMIC ACID @ 5.0 BPM @ 705 PSI, START 25# PRE PAD X-LINK @ 17 BPM @ 1409 PSI, START 25# LINEAR GEL 75% FOAM PAD @ 7.5 BPM @ 1784 PSI, FRAC ZONE WITH 23,016 GALS. @ 31 BPM @ 2091 WITH 53,624 LBS. OF 20/40 BRADY SAND.RAN FAW-4 @ 3.0 GALS/1000, INFLOW 250W 1.0 GALS/1000, GW-3LD@ 6.25 GALS/1000, ENZYME G II @ 1.0 GALS/1000, XLW-32 1.0 GALS/1000 PUMPED 36 BBLs FLUID FLUSH. MIN. RATE: 30 BPM. MAX. RATE: 32 BPM. AVG. RATE: 31 BPM. MIN. PSI: 1620 PSI. MAX. PSI: 2973 PSI. AVG. PSI: 2091 PSI. MAX. SAND CONC: 10.00 PSA. ISIP: 1018 FLUID TO RECOVER (BREAKDOWN, AND FRAC: 548 CLEAN BBLs). PUMPED 618 SLURRY BBLs. TOTAL N2 856,000 SCF.
18.7	Profile Nipple/F-Nipple; 2 3/8 in; 4.70 lb/ft; J-55; 2,234.6 ftKB; 2,235.6 ftKB
17.1	2 3/8 Mud Anchor w/ weep hole; 2 3/8 in; 4.70 lb/ft; J-55; 2,235.6 ftKB; 2,268.4 ftKB
20.7	PBTD: 2,400.0

Vertical schematic (actual)

OIL CONS. DIV DIST. 3
JUN 03 2015

Surface T in 6400 m 18.0 OVR 227.0 RVS
SURFACE CSD DUT. 18.0-227.0 1/202011. CDS SLS OF GOOD DUT TO SURFACE
Aut cement plug 18.0-227.0 1/202011. Automatically created cement plug from the casing cement because it had a tagged catch

2.4 Super Rod 2,200.00

(1) 2 1/4 X 4 Poly Rod 4.00
PROD - FRUITLAND COAL 2,048'-2,126' 3/22/2011
2 1/4 Super Rod 180.00
PROD - FRUITLAND COAL 2,208'-2,226' 3/22/2011
Shear Coupling 0.00
Guided Rod 0.00
1" X 1 1/2" Sub 1.00
SHOCK ROD Insert Pump 14.10
1" X 1 Strainer nipple 1.00
2. Production: 4 1/2 m 4,000 m 18.0 RVS RUN ST ITS OF 4 1/2 10m STC JOE PROD CSD SET @ 3424.9 S @ 3416.8 S @ 3416.8 S HARVER JT @ 1831.8 SENT 10 ABOVE SHOES JT THEN EVERY OTHER JT TO THE TOP OF FRUITLAND THEN EVERY 4TH JT TO TOP OF HORTLAND SHALE SENT EVERY JT THROUGH CUD FORMATION W/ TURBOGRIDDERS PLACED IN TRANSITION ZONE OF HORTLAND & CUD FORMATION & ANOTHER TURBOGRIDER ON TOP OF CUD FORMATION THEN EVERY 4TH JT INTO SURF SHOES BREAK CSD EVERY 20 ITS & AT TOP OF COAL WASH 20 OF FULL RIU 20K S/D - 20K STRING WT - STC 2,400.00
Production Casing Cement: 18.0-226.4 1/202011. F.W.B. PRESSURE TEST UNITS TO 2800 PS: (D/C) DUT 4 1/2 PRODUCTION CASING 10 SLS FRESH WATER + 10 SLS GE-WATER + 10 SLS FRESH WATER
PUMP 5 SCS OF SCAVENGER. PREMIUM UTS RM W/ 2% CADL + 25 PPS CELLULOSE + 5 PPS LOWI + 5% SODONATE + .4% SWS + .4% FLG @ 110 PPG. 200 CURTICK YIELD 8 SLS. 20 CURT
PUMP 17S SCS OF LEAD. PREMIUM UTS RM W/ 2% CADL + 25 PPS CELLULOSE + 5 PPS LOWI + 5% SODONATE + .4% SWS + .4% FLG @ 121 PPG. 210 CURTICK YIELD 8S 20 SLS. 20 CURT
PUMP 20 SCS OF PAUL TYPE III W/ 1% CADL + 25 PPS CELLULOSE + .2% FLG @ 148 PPG. 120 CURTICK YIELD 10 SLS. 24 CURT
SHUT DOWN DROP FLUG. WASH PUMPS & UNDES DISPLACE W/ 25-4 SLS OF WATER (ST 10 SLS W/ 10% OF SUGAR). FINAL @ 2 SPV + 150 PS. SURVED FLUG W/ 150 PS @ 160 PPS. HOLD 150 PS FOR 10 MINS. FLOWED BACK 10 SLS. DRILLATED 14 SLS GOOD OF CEMENT TO SURFACE. CEMENT RAT & MOUSE HOLE W/ 20 SCS LEAD FLUG
Aut cement plug 2,400.0-2,400.0 1/202011. Automatically created cement plug from the casing cement because it had a tagged catch
Production Casing Cement: 2,400.0-2,475.0 1/202011. F.W.B. PRESSURE TEST UNITS TO 2800 PS: (D/C) DUT 4 1/2 PRODUCTION CASING 10 SLS FRESH WATER + 10 SLS GE-WATER + 10 SLS FRESH WATER
PUMP 5 SCS OF SCAVENGER. PREMIUM UTS RM W/ 2% CADL + 25 PPS CELLULOSE + 5 PPS LOWI + 5% SODONATE + .4% SWS + .4% FLG @ 110 PPG. 200 CURTICK YIELD 8 SLS. 20 CURT
PUMP 17S SCS OF LEAD. PREMIUM UTS RM W/ 2% CADL + 25 PPS CELLULOSE + 5 PPS LOWI + 5% SODONATE + .4% SWS + .4% FLG @ 121 PPG. 210 CURTICK YIELD 8S 20 SLS. 20 CURT
PUMP 20 SCS OF PAUL TYPE III W/ 1% CADL + 25 PPS CELLULOSE + .2% FLG @ 148 PPG. 120 CURTICK YIELD 10 SLS. 24 CURT
SHUT DOWN DROP FLUG. WASH PUMPS & UNDES DISPLACE W/ 25-4 SLS OF WATER (ST 10 SLS W/ 10% OF SUGAR). FINAL @ 2 SPV + 150 PS. SURVED FLUG W/ 150 PS @ 160 PPS. HOLD 150 PS FOR 10 MINS. FLOWED BACK 10 SLS. DRILLATED 14 SLS GOOD OF CEMENT TO SURFACE. CEMENT RAT & MOUSE HOLE W/ 20 SCS LEAD FLUG