

JAMES RANCH UNIT NO. 71

CASING / TUBING DETAIL CON'T

MAKEUP TORQUE (ft-lbs) SECTION I 5082

CENTRALIZERS USED: THIRTEEN USED

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| 1. MIDDLE OF FIRST JOINT | 8. COLLAR OF EIGHTY FOURTH JOINT |
| 2. COLLAR OF SECOND JOINT | 9. COLLAR OF EIGHTY SIXTH JOINT |
| 3. COLLAR OF FOURTH JOINT | 10. COLLAR OF EIGHTY EIGHTH JOINT |
| 4. COLLAR OF SIXTH JOINT | 11. COLLAR OF NINETY NINTH JOINT |
| 5. COLLAR OF EIGHTH JOINT | 12. COLLAR OF ONE HUNDRED AND FIRST JOINT |
| 6. COLLAR OF TENTH JOINT | 13. COLLAR OF ONE HUNDRED AND THIRD JOINT |
| 7. COLLAR OF EIGHTY SECOND JOINT | |

SPECIAL TOOLS: 12 HYDRO BONDERS USED

HOLE CONDITIONS PRIOR TO CEMENTING: GOOD

CEMENTING DETAIL

CEMENTING COMPANY:	THE WESTERN COMPANY	OFFICE:	(505) 392-5556
SLURRY ONE	1189 SACKS	SUPER "H" MODIFIED (61# H, 15# POZ, 11# CSE) + .5% CF-2 + .2% LWL + 5#/SACK GILSONITE	
		# GAL. -- 12.6 PPG	FT3/SK -- 1.76 BARRELS -- 373
SLURRY TWO	1065 SACKS	CLASS "H" + 8#/SACK CSE + .8% CF-14 + .2% CF-2 + 5#/SACK GILSONITE + .2% DIACEL LWL	
		# GAL. -- 13.8 PPG.	FT3/SK -- 1.69 BARRELS -- 321
TESTED PUMP LINES TO 3000 PSI.			
PUMPED 105 BARRELS OF NITRIFIED FRESH WATER (150 STANDARD CUBIC FEET OF NITROGEN PER BARREL)			
PUMPED 12 BARRELS OF WMW-1 FLUSH			
PUMPED 5 BARRELS OF FRESH WATER			
PUMPED 12 BARRELS OF SUREBOND SPACER			
PUMPED 5 BARRELS OF FRESH WATER			
DID NOT USE BOTTOM PLUG			