



August 16, 2002

DEVIATION REPORT

Well Name: ROSA UNIT #24C
Location: C SEC 32 T31N R5W
County, State: RIO ARriba COUNTY, NEW MEXICO
Formation: BLANCO MV/BASIN DK

DEVIATION	DEPTH
3/4°	300'
1/4°	777'
3/4°	1277'
1°	1771'
1°	2268'
1°	2765'
1°	3260'
1°	3822'
1°	5820'

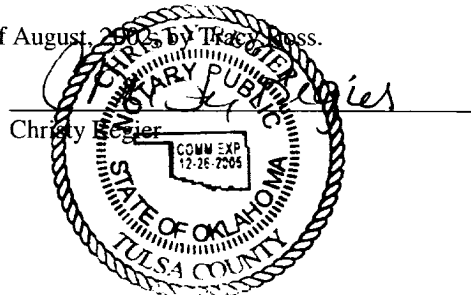
Tracy Ross
Tracy Ross
Production Analyst

State of Oklahoma)
) ss:
County of Tulsa)

The foregoing instrument was acknowledged before me this 16th day of August, 2002, by Tracy Ross.

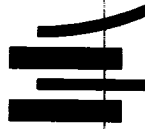
My Commission Expires:

MY COMMISSION EXPIRES 12-26-2005





LTR



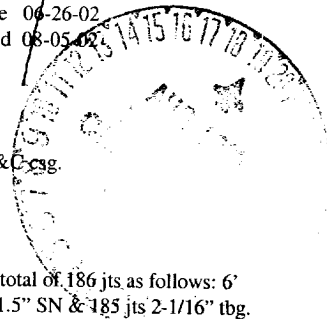
Job separation sheet

ROSA UNIT #24C **BLANCO MV/BASIN DK**

Location: 210' FNL, 1950' FWL
 NE/4 NW/4 Section 32(D), T31N, R5W
 Rio Arriba Co., NM

Elevation: 6500' GR
API #: 30-039-26968

Spud Date 06-26-02
 Completed 08-05-02



6 jts of 10 3/4", 40.5#, K-55, ST&C csg.
 Set @ 290'

Mesaverde Tubing: Ran a total of 186 jts as follows: 6' perf sub, 1 jt 2-1/16" tbg, 1.5" SN & 185 jts 2-1/16" tbg. Landed @ 5956'

Dakota Tubing: Ran a total of 252 jts as follows: 1/2" mule shoe on bottom, 1 jt 2-1/16" tbg, 1.5" SN, 61 jts 2-1/16" tbg, seal bore assembly w/ 5 seals, 190 jts 2-1/16" tbg. Landed @ 8093'.

Arrow model "D" packer @ 6100'

86 jts of 7-5/8", 26.4#, J-55, LT&C csg. Landed @ 3823'.
 Float @ 3776'.

4735'

5728'

5769'

182 jts of 5-1/2", 17#, N-80, LT&C csg.
 Landed @ 8146'. Float collar @ 8134'.
 Marker jts @ 7663' & 5055'

5998'

7980'

8100'

TD @ 8145'
 PBTD @ 8134'

<i>Tops</i>	<i>Depth</i>
Kirtland	2762'
Pictured Cliffs	3352'
Cliff House	5509'
Point Lookout	5787'
Mancos	6187'
Dakota	7977'

Cliff House/Menefee 4735' - 5728' (28, 0.33" holes)
 79,000# of 20/40 sand in 1851 BBI's slick water.

Point Lookout 5769' - 5998' (25, 0.33" holes)
 81,000# of 20/40 sand in 1921 BBI's slick water.

Dakota 7980' - 8100' (16, 0.46" holes)
 85,240# of 20/40 Ottawa sand & 5240 lbs 14/30 Flex sand,
 carried in a 20Q Vistar foam

HOLE SIZE	CASING	CEMENT	CU. FT.	CMT TOP
14 3/4"	10 3/4" - 40.5#	250 sx	350 cu.ft.	Surface
9 7/8"	7 5/8" - 26.4#	875 sx	1644 cu. ft.	Surface
6 3/4"	5 1/2" - 17#	260 sx	550 cu. ft.	4100'