



Key Energy Services, Inc.

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FARMINGTON, NM

**P&A OPERATION
CEMENT SERVICE REPORT**

WELL NAME: HORSESHOE GALLUP UNIT #126

TOTAL PLUGS SET: 3

DATE STARTED: 11-15-98

TOTAL SACKS USED: 105sx.

DATE COMPLETED: 11-17-98

BLM WITNESS: J. SANCHEZ

OPERATOR WITNESS: N/A

MOL AND RU. OPEN TBG AND ATTEMPT TO BLEED DOWN WELL. WELL FLOWING 2 BPM WITH DIRTY OIL AND H₂S. SHUT IN PRESSURE AT 350 PSI. ESTABLISHED INJECTION RATE INTO PERFORATIONS WITH WATER AT 1.5 BPM WITH 550 PSI. PRESSURE TESTED CASING TO 500 PSI AND HELD GOOD FOR 10 MINUTES. **BLM APPROVED CHANGE IN PROCEDURE.**

PLUG #1 (WATER FLOW, PERFORATIONS),

MIXED 16 SX CL. B CEMENT PLUG WITH 2% CaCl AND DISPLACED TO PACKER. WOC. WELL STILL FLOWING. MIXED 24 SX CL. B CEMENT PLUG AND DISPLACED TO PACKER. WOC. ND WELLHEAD AND PULL TBG SLIPS. PACKER NOT RELEASING. RIH WITH WIRELINE AND TAGGED TOC AT 929'. CUT OFF TBG AT 920'.

PLUG #2 (770' - 920'),

BALANCED 17 SX CL. B CEMENT PLUG INSIDE CASING. POH.

PLUG #3 (SURFACE, 0' - 187'),

RIH WITH WIRELINE AND PERFORATED SQUEEZE HOLES AT 187'. CIRCULATED HOLE CLEAN WITH WATER OUT THE BRADON HEAD. MIXED 48 SX CL. B CEMENT TO CIRCULATE GOOD CEMENT TO SURFACE. CUT OFF WELLHEAD, RD RIG AND MOL.

NATHAN E. CRAWFORD.
P&A SUPERVISOR