

RECOMMENDED WORK PROCEDURESE Jicarilla OteroWELL NO. 4ANNULAR FLUID PRIOR TO WORKOVER Well bore Fluids W/O FLUID TO BE USED 3% KCl waterWT. (LBS/GAL.) 8.48 ZONE Gallup HYD. PRESS ±2500 RES. PRESS -

ZONE _____ HYD. PRESS _____ RES. PRESS _____

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1. MIRR PU, ND well head, NU BOP release TA; strap tbg out of hole
2. GIH w/ CIBP on tbg and set at $\pm 6640'$ ($5\frac{1}{2}"$ 15.5 $\frac{lb}{ft}$ K-55 csg) CCL @ 6622', 6637'
3. Spot 11 SXS (100') of class B cmt on BP.
4. PU to 6500' Circulate hole w/ 3% KCl water ± 1556 bbls
5. Close BOP and pressure test BP; csg to 3000 psi (15.5 $\frac{lb}{ft}$ K-55, $5\frac{1}{2}"$ csg yield press. 4810)
6. Bled off pressure, open BOP, PU to 5684' and spot 100 gals 15% HCl
(see below for acid mix) From 5684' - 5584' POH.
7. MIRR logging company, RIH w/ GR-CCL tools; log from 5900' to 5300'
correlate w/ Dresser Atlas CDN log 10/15/75 zero 13.5' AGL GL 6262'
8. RIH w/ 4" csg gun and perf Gallup from 5668' to 5684' w/ JSPF use burrless charges
9. GIH w/ treating pkr on $2\frac{3}{8}"$ tbg to $\pm 5640'$ reverse spot acid into tbg and set pkr at $\pm 5640'$
10. Break down Gallup perms w/ spot acid
11. Swab test to recover formation fluids for emulsion testing
12. Acidize interval if needed w/ 1400 gals 15% HCl drop 2 PCNBS every 84 gallons.
Flush w/ ± 22 bbls 3% KCl water.
13. Swab test interval to recover all load. Recover formation fluid samples. POH
14. GIH w/ retrievable BP on tbg and set @ 5640'
15. PU to 5628' and spot 300 gals of 15% HCl (see below) from 5628' - 5328' POH
16. RIH w/ 4" csg gun and perf Gallup from 5518'-24, 5528'-60, 5576'-98, 5604'-12;
5618'-28' w/ JSPF use burrless charges POH.
17. GIH w/ treating pkr on $2\frac{3}{8}"$ tbg to $\pm 5600'$ reverse spot acid into tbg and set pkr
@ 5600' and break down Gallup perms as follows.
18. MSTP 2500 psi: AIR 106 bpm (see below for acid mix)
 - A. Pump 2200 gals 15% HCl w/ 500 scf N_2 / bbl drop 26 ACNBS
 - B. Pump 2200 gals 15% HCl w/ 500 scf N_2 / bbl drop 26 RCNBS
 - C. Pump 2200 gals 15% HCl w/ 500 scf N_2 / bbl
 - D. Flush w/ ± 22 bbls 3% KCl water
 - E. Flow back and swab to recover load.
19. Release pkr reverse circ w/ 3% KCl to RBP drop down, retrieve BP and POH.
20. Prepare to frac down $5\frac{1}{2}"$ csg if necessary
21. See below for frac recommendation STP ± 300 psi at 506 bpm
22. SI well for 1 hr, flow back slowly. Recover as much load as possible

RECOMMENDED WORK PROCEDURE

WELL NO. 4
 EASE Jicorilla Area Well No. 4
 ANNULAR FLUID PRIOR TO WORKOVER Wellbore Fluids W/O FLUID TO BE USED 3% KCl
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2.3. G/H w/ production equipment and place well on test
 If necessary, to place well on pump.

Set SN at 5700', TA @ 5590'

3950' - 3/4" grade C rods w/ standard sprayed metal couplings

1750' - 7/8" grade C sucker rods w/ slimhole sprayed metal couplings

3"x1 1/4" vial barrel type B.H.E. chrome plated ID barrel & spray metal plunger.

Acid Mix

2 gal/1000 corrosion inhibitor

Iron sequesterant 10% acetic acid equivalent

3 gal/1000 nonionic surfactant

2 gal/1000 clay stay

Mutual solvent 5% by volume Freol

No agent as required

Frac treatment

Pad = 20% of job volume; consisting of 30 lb gel +

3% KCl water w/ $\pm 50\%$ CO₂ no FLA

Fluid 30 lb X-link 3% KCl w/ $\pm 50\%$ CO₂ by vol.

Proppant ± 200 and 16 2/40 sand run 5 ppg to 3 ppg

w/ 5 ppg increments

Flush 3% KCl water w/ 750 SF 20/60

Additives: surfactant as required

.5 gal/1000 biocide

breaker as required

Note: All tanks are to be thoroughly cleaned, all fluids
 should be removed from tanks. Have equipment on
 hand to allow analysis on sand, emulsion test on acid
 and gel quality on fluids.

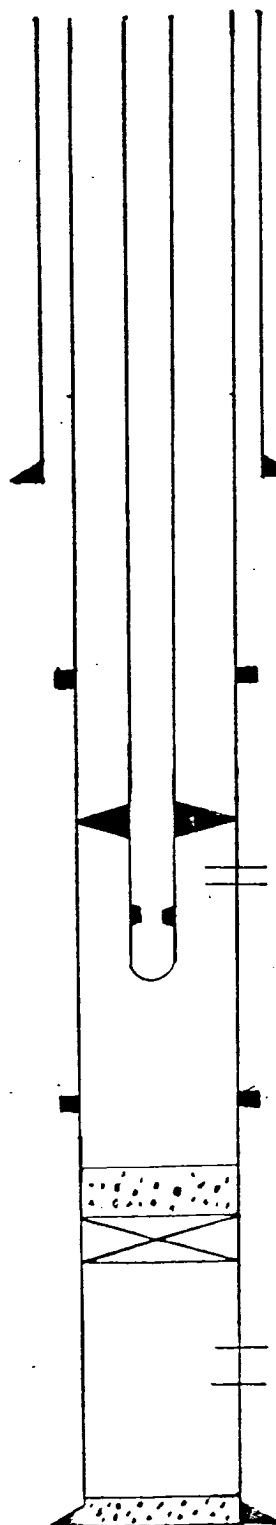
K. S. McCready 8/3/84

DISTRIBUTION

LOCATION 890FWL 79JFNL S2724N5W SIGNED KE MCCREADY
RIO ARriba CO., NM

G.L. 6262
D.F. _____
K.B. 13.5AGL
ZERO 13.5AGL

~~PROPOSED~~



8 5/8" 20 LB/FT GR N.A. CSG SET AT 323' W/200 SX CLASS
B CIRC 12 1/4" HOLE

2 3/8" J-55 TBG EUE

DV TOOL AT 2587'

TA @ 5590'

GALLUP PERFS: 5518'-24', 5528'-60', 5576'-98', 5604'-12',
5618'-28', 5668'-84' IEL 10-15-75

SN @ 5700

DV TOOL AT 5983'

CIBP @ 6630' CAPPED W/100' CLASS B CMT
DAKOTA PERFS: 6683'-6709', 6769'-6789', 6795'-6803',
6808'-6816', 6821'-6845'; 1 JSP 2 FEET

5 1/2" 15.5 LB/FT K55 CSG SET AT 7000' W/1880' SX
CLASS B CIRC 7 7/8" HOLE 1ST STAGE 280 SX
2ND STAGE 750 SX
3RD STAGE 850 SX

PBTD 6530'
TD 7000'