

NELSON REMEDIAL WORK POSSIBILITIES

10/27/97

<u>Well No.</u>	<u>Gross Sand</u>	<u>Net Sand</u>	<u>Floodable Sand</u>	<u>Perfs.</u>
RW-12 (B-2)	12.0	4.4	4.4	648-50 & 653-56
(B-3)	6.0	5.1	5.1	663-68

Seating Nipple: None Casing: 2 7/8" Logger T.D.: 724'
Fraced: 1000# sand, 40 bbls. water, 50# rock salt

Recommendations:

Using 1" pipe, wash to 680'. Shut-in overnight. Spot acid and chemicals at 670'. Pull 1".
Return to injection.

June 30, 1995:

Using Company pump truck, mixed one gallon Goldtreat and one gallon ESA-50 in 12 barrels lease water. Tied onto well and pressured up to 800 PSI; well started taking fluid. Pumped 12 barrels at a rate of one barrel per five minutes. Pressure dropped to 450 PSI; shut-in overnight. Previous injection: 0 barrels per day at 700 PSI.

July 1, 1995:

13 barrels at 600 PSI

July 2, 1995:

12 barrels at 600 PSI

July 3, 1995:

13 barrels at 600 PSI

July 4, 1995:

21 barrels at 670 PSI

July 5, 1995:

22 barrels at 670 PSI

July 12, 1995:

Ran coil tubing. Spotted 40 gallons 28% acid, two gallons Goldtreat, one gallon ESA-96, one quart ESA-91 and one pint ESA-50 on perforations. Pulled tubing. Pushed back into formation with three barrels injection water. Let set for two hours. Turned back on regular injection rate.

July 13, 1995:

58 bbls. @ 550 PSI.

July 14, 1995:

58 bbls. @ 550 PSI.

September 7, 1995:

Set up Company coiled tubing unit. Ran down well with anchor until solids were hit. Spotted 25 gallons 28% acid, two gallons Goldtreat, one gallon ESA-96, one quart ESA-91 and one pint ESA-50 on bottom. Pulled out coiled tubing and hooked well up to injection system. Resumed normal injection rate.

October 27, 1995:

Filled up lateral with five gallons 28% acid, 1/2 pint of ESA-94, 1 1/2 gallons ESA-91, and 1 1/2 gallons ESA-96; let soak overnight. Flushed out the next morning. Hooked up to injection system.

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April 17, 1996:

Ran down with coil tubing unit. Spotted 50 gallons 28% acid, two gallons ESA-96, two gallons ESA-91, and two quarts ESA-50. Pulled out and hooked up to injection system. Resumed normal injection rate.

October 30, 1997:

Ran steel line measure to T.D. of 652'.

November 6, 1997:

Moved in and rigged up Company wash equipment and pulling unit. Ran 1" and jet bit to 648' and hit bridge. Attached wash head; washed and spudded to T.D. of 725'. Caught samples of fine black iron sulfide and some larger pieces of formation.

Washed well clean and pulled up to 668'. Dropped jetting ball and jetted perforations from 668'-648'. Jetted with ten barrels of lease salt water mixed with one gallon ESA-96, one gallon Goldtreat, and one-half gallon ESA-50. After jetting, lowered bottom of pipe to 670'. Spotted 65 gallons 28% acid at bottom of perforations. Acid also contained two gallons ESA-96, two gallons ESA-91, and one-half gallon ESA-50.

Displaced acid out of 1" pipe with one barrel water. Tightened stuffing box at surface. Hooked pump truck up to annulus and started displacing acid into perforations. Well treated as follows: Broke down at 800 PSI; treated at 550 PSI, at a rate of one barrel per two minutes. Treated at 600 PSI, at a rate of one barrel per minute.

Displaced acid into perforations with six barrels of field salt water. Shut well in at 400 lbs. Shut down for lunch. Pulled 1" wash string and bit one hour later. Placed well back on injection.

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April 13, 1998:

Shut well in; preparing for MIT.

April 14, 1998:

Using J & K, Inc., ran MIT; well passed.

April 16, 1998:

Using coil tubing unit, acidized with 50 gallons 28% acid, one gallon Goldtreat, one gallon ESA-96, one quart ESA-91, one pint ESA-50. Left well shut-in overnight.

April 17, 1998:

Repeated above treatment.

April 18, 1998:

48 bbls. @ 440 PSI

April 19, 1998:

48 bbls. @ 440 PSI

April 20, 1998:

48 bbls. @ 440 PSI

October 21, 1998:

Using coil tubing unit, acidized with 50 gallons 28% acid, two gallons Goldtreat, two gallons ESA-96, two quarts ESA-91, and two pints ESA-50. Left well shut-in.

October 23, 1998:

Repeated above treatment.

October 25, 1998:

40 bbls. @ 530 PSI

October 26, 1998:

40 bbls. @ 530 PSI

October 27, 1998:

33 bbls. @ 550 PSI