

#3 Phelps Dodge (no logs)

$10\frac{3}{4}$ " csg = 1.9 lin ft/cu ft.

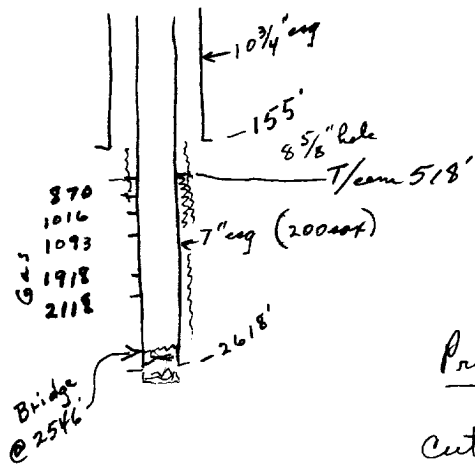
7" csg = 4.8 lin ft/cu ft.

$8\frac{5}{8}$ " hole = 2.46 lin ft/cu ft. (at 66% fill) = 1.63 lin ft/cu ft

Annulus $8\frac{5}{8}$ " hole - 7" csg. (use $8\frac{5}{8}$ " csg - 7" csg $\times .66$) = $(14 \times .66) = 9.25$ lin ft/cu ft.

" $10\frac{3}{4}$ " csg - 7" csg. = 3.7 lin ft/cu ft.

class A cement
= 1.14 cu ft/sack



cement on 7" csg: 200 sack

$1.14 \text{ cf/sack} \times \frac{9.25 \text{ lin ft}}{\text{cf}} = 10.5 \text{ lin ft/sack}$

$200 \text{ sack} \times \frac{10.5 \text{ lin ft}}{\text{sack}} = 2100 \text{ lin ft}$

$\frac{2618}{2100} = 518$

(no pf)

OH = 1.95 lin ft/sack

Prop. Plugging

cut & pull 7" from $\pm 500'$

set plug @ $\pm 500'$ to 445 (25 sack)

set plug @ $\pm 185'$ to 145' (25 sack)

[30' OH = 16 sack; 12' of $10\frac{3}{4}$ " = 9 sack]

5 sack plug @ $\pm 11'$ to surf.

or Fill $8\frac{5}{8}$ " hole - 7" annulus + 25' of $10\frac{3}{4}$ " - 7" ann -

with $\pm (34 \text{ sack} + 6 \text{ sack}) = 40 \text{ sack} (500' \text{ to } 130')$

5 sack plug @ 26' to 0'