

FOWLER Mine - Gallop Creek - just above the Maloney Places. - 1-19-67

$$(1.06)^2 \cdot \frac{\pi}{4} = .89$$

$$(1.375)^2 \cdot \frac{\pi}{4} = .11$$

Area of Venturi nozzle plus the 2 shooter nozzles

$$\underline{1.11}$$

1  $\frac{1}{16}$  Noz

2  $\frac{3}{8}$  Noz

Nozzle Area = 1.11 sq. in.

3" pipe + bends

equiv to 250

lineal ft. at

estimate — 400 gpm

$$130 \times 2.32 = 300 \text{ ft}$$

$$50 \times 2.32 = 116$$

$$\text{elev to lift } \underline{30}$$

$$300 - 146 = 154 \text{ ft.}$$

$$V = 7 \sqrt{\frac{12.6}{64} \cdot 154} = 87$$

$$\frac{87 \times 1.11}{144} = .67$$

$$.67 \times 7.5 \times 60 = 300$$

130 Psi at pump

66 Psi on Noz

$V = 87 \text{ ft/sec}$

.67 cu. ft./s

= 300 gpm

The estimate of 400 gpm was high, so estimate  $\frac{3}{4}$  sec ft.

Vol = .25 cu. ft./s

$$\frac{377}{5} = 30 \frac{1}{2}$$

Putting in 100 H.P.  
getting out 25.5 H.P.

Input = about 100 H.P.  
Output = 25.5 H.P. Efficiency of Pump 25%

$$\frac{300 \times .75 \times 62.4}{550} = 25.5$$

$$eff = \frac{\text{Energy accomplished}}{\text{Energy supplied}}$$

$$\frac{.75 \times 62.4 \times 5 \times 3}{.75 \times 154 \times 62.4} = .096$$

Efficiency of the jet a venturi →

Energy by  
pump - 300 ft  
lift and  
.75 cu ft/sec  
25.5 hp.

efficiency of  
jet lift  
3 Vol water  
5 ft.

Vol = .75 of/s  
eff = 9.6%

assuming 2 Vol  
lifted  
eff = 6.5%

FOWLER GROUP (Placer)

Galice area

Owner: J. W. FowlerLocation: On south fork of Galice Creek in sec. 10, T. 35 S., R. 8 W. Elevation 800 feet.  $3\frac{1}{2}$  miles to Galice postoffice. Forest road open the year around.Area: 3 placer claims, 60 acres, held by location.Operation: Active; 2 men at work. One acre mined. Water right, four miners inches from Sailor Jack Creek; some water all year around.Equipment: One no. 1 giant, 300 feet of pipe,  $\frac{3}{4}$  mile of ditch.Geology: Bench and old Galice Creek channel. Fine to heavy gold, some large nuggets.Informant: J. W. Fowler, 4/12/40.Report by: R. M. Alden, Galice, Oregon.