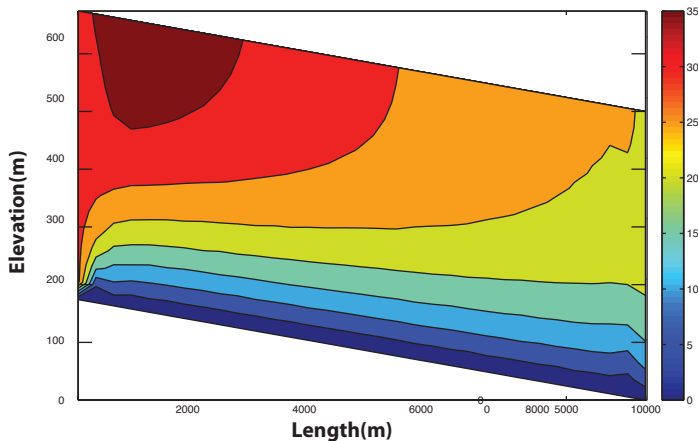


center slice

Gale

Velocity (m/yr)



Boundary Conditions

Left:  $u = 30$  m/yr;  $v = 0$  (  
flux condition, not moving boundary)

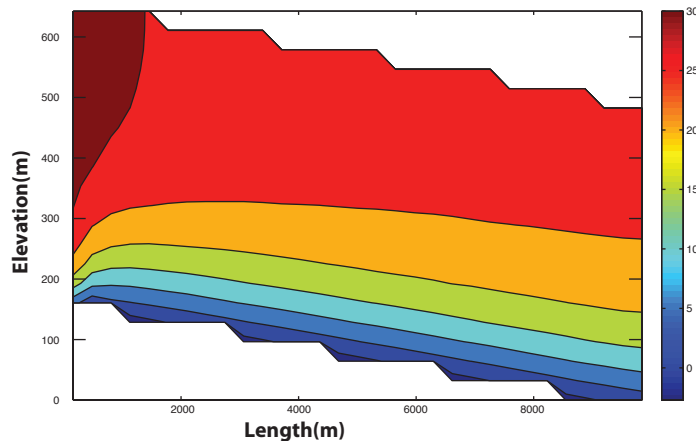
Bottom:  $u, v, w = 0$

Top:  $v = 0$

Front & Back:  $w = 0$ ;

Comsol

Velocity (m/yr)



Boundary Conditions

Left:  $u = 30$  m/yr

Bottom:  $u, v, w = 0$

Free surface or no flux

doesn't seem to make a different

Simplified, analytical solution for  $u_x(y=y_s)$

$$u(y_s) = 2 A_{sl} (\rho g \sin(\alpha))^n H^{n+1}$$

$$A_{sl} = 6.8 \times 10^{-24}$$

$$n = 3$$

$$H = 500$$

$$\rho = 917$$

$$\alpha = 1^\circ$$

$$u_x(y_s) = 26 \text{ m/yr (8.26 m/s)}$$

Comsol Vectors

