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US DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
OREGON

PIPELINE HYDRAULICS

State OREGON	Project			
By	Date	Checked by	Date	Job No.
Friction Loss – Hazen–Williams Equation		$C_1 =$ _____		Sheet _____ of _____

Station	Elevation		Operating Head		Pipe				Capacity Q		h_f from Charts of Tables	Section Length L	Friction Loss in Section $H_f = h_f L$	Other Losses	Accumu–lated Loss
	Hydraulic Grade Line	Ground Surface			Type Class Gage	Inside Dia. (Ins.)	Allowable Working Head								
			feet	psi			feet	psi	cfs	GPM	(ft/ft)	(feet)	(ft)	(feet)	(feet)