CE3105 Mechanics of Fluids Laboratory, Texas Tech University

Experiment: Friction Loss in a Pipe - Data Sheet

Date of Experiment:, Name:.......

Experimental Data:

 $\left(slugs/ft^3\right)$, Gravity, g= 32.2 $\left(ft/s^2\right)$ Temperature of water, T = 18 °celsius , Water density, $\rho =$

Lower Flow Rates:

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Volume	Time	Volume Time Flow Rate, Q	Flow Velocity, u	h_1	h_2	Δh	 $\log i$	log i log u Re	${ m Re}$	J
27 ml	$10.6 \mathrm{s}$			345 mm	266 mm					
41 ml	$10.08\mathrm{s}$			351 mm	252 mm					
49 ml	$10.4 \mathrm{\ s}$			360 mm	240 mm					
54 ml	$9.9 \mathrm{s}$			385 mm	204 mm					
$62 \mathrm{ml}$	$10.06\mathrm{s}$			$405 \mathrm{~mm}$	182 mm					

Higher Flow Rates:

Volume	Time	Flow Rate, Q	Flow Rate, Q Flow Velocity, u Δh	Δh	 log i	log i log u Re	m Re	f
$230 \mathrm{\ ml}$	$10.42\mathrm{s}$			$2.32 \mathrm{m}$				
$210 \mathrm{ml}$	$10.38\mathrm{s}$			$2.18 \mathrm{m}$				
$200 \mathrm{ml}$	$9.85 \mathrm{s}$			$1.97 \mathrm{m}$				
190 ml	$10.07\mathrm{s}$			$1.75 \mathrm{m}$				
$170 \mathrm{\ ml}$	$9.9 \mathrm{ s}$			1.31 m				

Instructor's Signature