Worksheet for Circular Pipe - 1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.015	
Channel Slope	1.75000	%
Diameter	24.00	in
Discharge	20.00	ft^3/s

Results

Normal Depth	1.32	ft
Flow Area	2.20	ft^2
Wetted Perimeter	3.79	ft
Top Width	1.90	ft
Critical Depth	1.61	ft
Percent Full	65.9	%
Critical Slope	0.01081	ft/ft
Velocity	9.11	ft/s
Velocity Head	1.29	ft
Specific Energy	2.61	ft
Froude Number	1.49	
Maximum Discharge	27.90	ft^3/s
Discharge Full	25.93	ft^3/s
Slope Full	0.01041	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	65.90	%
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s