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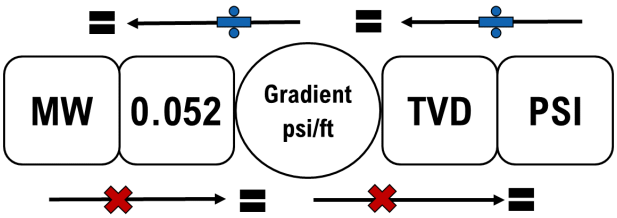
Drilling Killsheet

Vertical Wells
Surface Stack



ROUNDING RULE # 1

Kill Weight Mud should **ALWAYS ROUND UP** to the next tenth of a pound-per-gallon.

ROUNDING RULE # 2

Maximum Allowable Mud Weight should **ALWAYS ROUND DOWN** to the tenth of a pound-per-gallon.

ROUNDING RULE # 3

Pressure Reduction Schedules should **ALWAYS ROUND DOWN** to the whole number.

Maximum Allowable Mud Weight (with Leak Off Pressure) ***REFERENCE ROUNDING RULE #2***

(____ psi ÷ ____ ft ÷ 0.052) + ____ ppg = ____ ppg

Surface Leak Off Pressure | TVD of Casing Shoe | Test Mud Weight | MAMW

Maximum Allowable Mud Weight (with Fracture Gradient) ***REFERENCE ROUNDING RULE #2***

____ psi/ft ÷ 0.052 = ____ ppg

Fracture Gradient | MAMW

Maximum Allowable Annular Surface Pressure (Before the Kick)

(____ ppg − ____ ppg) × 0.052 × ____ ft = ____ psi

MAMW | Current Mud Weight | TVD of Casing Shoe | MAASP Before Kick

Kill Weight Mud ***REFERENCE ROUNDING RULE #1***

(____ psi ÷ ____ ft ÷ 0.052) + ____ ppg = ____ ppg

SIDPP | TVD of Well | Current Mud Weight | Kill Weight Mud

Maximum Allowable Annular Surface Pressure (After the Well has been Killed)

(____ ppg − ____ ppg) × 0.052 × ____ ft = ____ psi

MAMW | Kill Weight Mud | TVD of Casing Shoe | MAASP After Kill

Initial Circulating Pressure

____ psi + ____ psi = ____ psi

SCR Pressure | SIDPP | ICP

Final Circulating Pressure

____ psi × ____ ppg ÷ ____ ppg = ____ psi

SCR Pressure | Kill Weight Mud | Current Mud Weight | FCP

Volume Calculations in Drill String

bbl/ft × ft = bbl

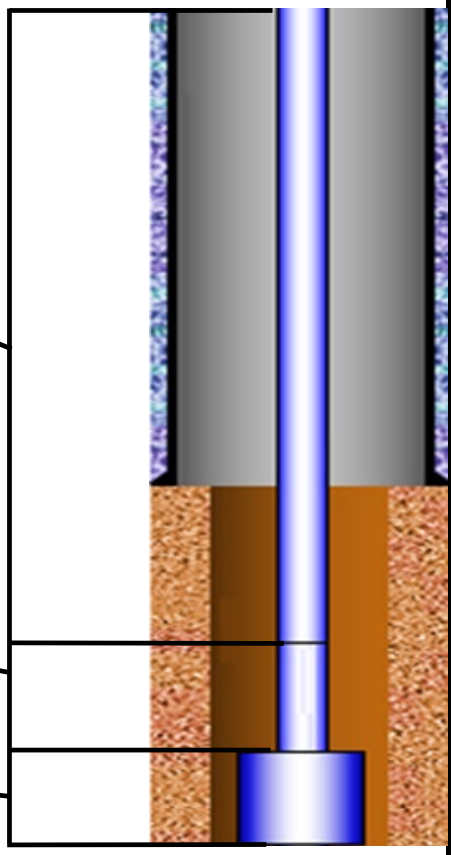
Internal Capacity of Drill Pipe × Length of Drill Pipe = Internal Volume of Drill Pipe

bbl/ft × ft = bbl

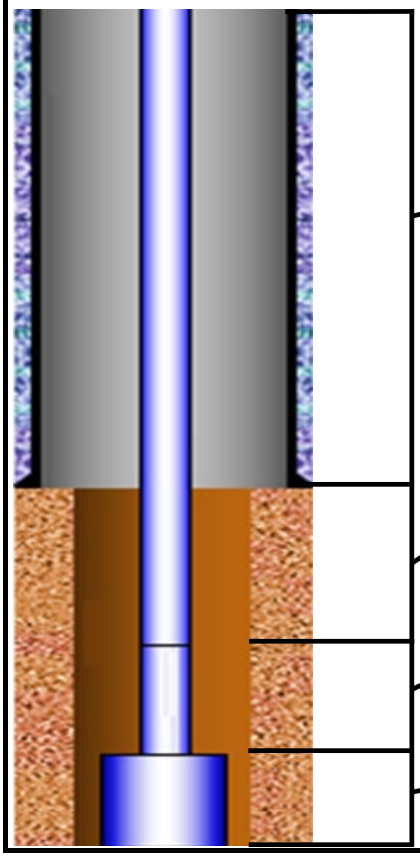
Internal Capacity of HWDP × Length of HWDP = Internal Volume of HWDP

bbl/ft × ft = bbl

Internal Capacity of Drill Collars × Length of Drill Collars = Internal Volume of Drill Collars



Volume Calculations in Annulus



bbl/ft × ft = bbl

Annular Capacity Casing/Drill Pipe × Length of Casing = Annular Volume Casing/Drill Pipe

bbl/ft × ft = bbl

Annular Capacity Open Hole/Drill Pipe × Length of Drill Pipe in Open Hole = Annular Volume Open Hole/Drill Pipe

bbl/ft × ft = bbl

Annular Capacity Open Hole/HWDP × Length of HWDP in Open Hole = Annular Volume Open Hole/HWDP

bbl/ft × ft = bbl

Annular Capacity Open Hole/Drill Collars × Length of Drill Collars in Open Hole = Annular Volume Open Hole/Drill Collars

Total Strokes from Surface to Bit

(____ bbl + ____ bbl + ____ bbl) ÷ ____ bbl/stk = ____ stks

Internal Volume of Drill Pipe	Internal Volume of HWDP	Internal Volume of Drill Collars	Pump Output	Strokes from Surface to Bit

Total Strokes from Bit to Shoe

(____ bbl + ____ bbl + ____ bbl) ÷ ____ bbl/stk = ____ stks

Annular Volume Open Hole/Drill Collars	Annular Volume Open Hole/HWDP	Annular Volume Open Hole/Drill Pipe	Pump Output	Strokes from Bit to Shoe

Total Strokes from Bit to Surface

____ bbl ÷ ____ bbl/stk = ____ stks + ____ stks = ____ stks

Annular Volume Casing/Drill Pipe	Pump Output	Strokes from Casing Shoe to Surface	Strokes from Bit to Shoe	Strokes from Bit to Surface

Pressure Drop per Step (One Tenth of Strokes to Bit) ***REFERENCE ROUNDING RULE #3***

(____ psi − ____ psi) ÷ 10 = ____ psi/step

ICP	FCP		Pressure Drop per Step

Pressure Drop per 100 Strokes ***REFERENCE ROUNDING RULE #3***

(____ psi − ____ psi) ÷ ____ stks × 100 = ____ psi/100 stks

ICP	FCP	Strokes from Surface to Bit		Pressure Drop per 100 stks

PSI

Strokes