International Well Control Forum

Subsea BOP Kill Sheet - Vertical Well (Metric/Bar)

DATE : _____

NAME : _____

FORMATION STRENGTH DATA:

SURFACE LEAK -OFF PRESSURE FROM FORMATION STRENGTH TEST **(A)** bar

DRILLING FLUID DENS. AT TEST **(B)** kg/l

MAX. ALLOWABLE DRILLING FLUID DENSITY =

$$\textbf{(B)} + \frac{\textbf{(A) x 10.2}}{\text{SHOE T.V. DEPTH}} = \textbf{(C)} \text{ kg/l}$$

INITIAL MAASP =

$$\frac{(\textbf{(C)} - \text{Current Density}) \times \text{Shoe TVD}}{10.2} = \text{bar}$$

CURRENT WELL DATA:

SUBSEA BOP DATA:

MARINE RISER LENGTH m

CHOKELINE LENGTH m

DRILLING FLUID:

DENSITY kg/l

CASING SHOE DATA:

SIZE in

M. DEPTH m

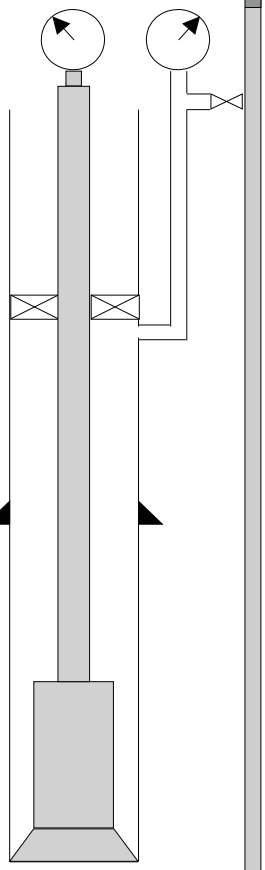
T.V. DEPTH m

HOLE DATA:

SIZE in

M. DEPTH m

T.V. DEPTH m



PUMP NO. 1 DISPL.	PUMP NO. 2 DISPL.
l / stroke	l / stroke

SLOW PUMP RATE DATA:	**(PL)** DYNAMIC **P**RESSURE **L**OSS [bar]					
	PUMP NO. 1			PUMP NO. 2		
	Riser	Choke Line	***Choke Line Friction***	Riser	Choke Line	***Choke Line Friction***
SPM						
SPM						

PRE-RECORDED VOLUME DATA:	LENGTH m	CAPACITY l / m	VOLUME litres	PUMP STROKES stks	TIME minutes
DRILL PIPE	x	=	+	VOLUME / PUMP DISPLACEMENT	
HEVI WALL DRILL PIPE	x	=	+		
DRILL COLLAR	x	=	+		
DRILL STRING VOLUME		**(D)**	l	**(E)** stks	min
DC x OPEN HOLE	x	=			
DP / HWDP x OPEN HOLE	x	=	+		
OPEN HOLE VOLUME		**(F)**	l	stks	min
DP x CASING	x	= **(G)**	+	stks	min
CHOKELINE	x	= **(H)**	+	stks	min
TOTAL ANNULUS/CHOKELINE VOLUME	**(F+G+H) = (I)**		l	stks	min
TOTAL WELL SYSTEM VOLUME	**(D+I) = (J)**		l	stks	min
ACTIVE SURFACE VOLUME	**(K)**		l	stks	
TOTAL ACTIVE FLUID SYSTEM	**(J+K)**		l	stks	
MARINE RISER x DP	x	=	l	stks	

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KICK DATA : SIDPP [ ] bar SICP [ ] bar PIT GAIN [ ] litres

KILL FLUID DENSITY KMD	CURRENT DRILLING FLUID DENSITY + $\frac{\text{SIDPP x 10.2}}{\text{TVD}}$ ..... + _____ = kg / l
INITIAL CIRCULATING PRESSURE ICP	DYNAMIC PRESSURE LOSS + SIDPP ..... + ... = bar
FINAL CIRCULATING PRESSURE FCP	$\frac{\text{KILL FLUID DENSITY}}{\text{CURRENT DRILLING FLUID DENSITY}}$ x DYNAMIC PRESSURE LOSS _____ x ..... = bar

(L) = ICP - FCP = ... - ..... = ... bar

$\frac{\text{(L) x 100}}{\text{(E)}}$ = _____ X 100 = $\frac{\text{bar}}{\text{100 strokes}}$

INITIAL DYNAMIC CASING PRESSURE AT KILL PUMP RATE	SICP - CHOKE LINE FRICTION ..... - ..... = bar

STROKES	PRESSURE [bar]

STATIC & DYNAMIC DRILL PIPE PRESSURE [bar] ↑

STROKES →