

International Well Control Forum
Subsea BOP Kill Sheet - Deviated Well (Metric/Bar)

DATE : _____

NAME : _____

FORMATION STRENGTH DATA:

SURFACE LEAK-OFF PRESSURE FROM FORMATION STRENGTH TEST bar
 DRILLING FLUID DENS. AT TEST kg/l
 MAX. ALLOWABLE DRILLING FLUID DENSITY =
(B) + $\frac{(A)}{\text{SHOE T.V. DEPTH} \times 0.0981}$ = (C) kg/l

INITIAL MAASP =

((C) - Current Density) x Shoe TVD x 0.0981
 =

CURRENT DRILLING FLUID:

DENSITY kg/l

SUBSEA BOP DATA:

MARINE RISER LENGTH m
 CHOKELINE LENGTH m

DEVIATION DATA:

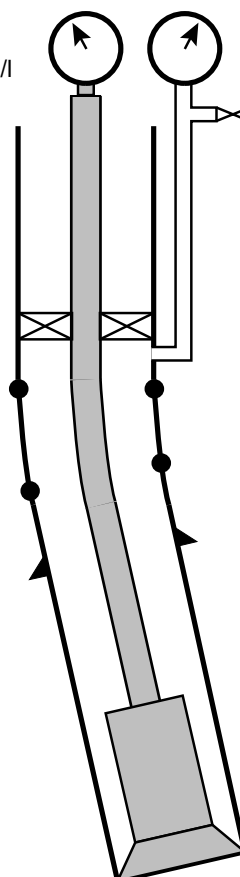
KOP M.D. m
 KOP T.V.D. m
 EOB M.D. m
 EOB T.V.D. m

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 PRESSURE LOSS [bar]					
	PUMP NO. 1			PUMP NO. 2		
	Riser	Choke Line	Friction Choke Line	Riser	Choke Line	Friction Choke Line
SPM						
SPM						

PRE-RECORDED VOLUME DATA:	LENGTH m	CAPACITY l / m	VOLUME litres	PUMP STROKES stks	TIME minutes
DP - SURFACE TO KOP	x	=		(L)	stks
DP - KOP TO EOB	x	=	+	(M)	stks
DP - EOB TO BHA	x	=	+	(N1)	stks
HEVI WALL DRILL PIPE	x	=	+	(N2)	stks
DRILL COLLAR	x	=	+	(N3)	stks
DRILL STRING VOLUME			(D)		min
DC x OPEN HOLE	x	=			
DP / HWDP x OPEN HOLE	x	=	+		
OPEN HOLE VOLUME			(F)		min
DP x CASING	x	=	+		min
CHOKELINE	x	=	+		min
TOTAL ANNULUS/CHOKELINE VOLUME			(F+G+H) = (I)		min
TOTAL WELL SYSTEM VOLUME			(D+I) = (J)		min
ACTIVE SURFACE VOLUME			(K)		stks
TOTAL ACTIVE FLUID SYSTEM			(J+K)		stks
MARINE RISER x DP	x	=			stks

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KICK DATA : SIDPP bar SICP bar PIT GAIN litres

KILL FLUID DENSITY
KMD

$$\text{CURRENT DRILLING FLUID DENSITY} + \frac{\text{SIDPP}}{\text{TVD} \times 0.0981} = \dots\dots\dots \text{ kg / l}$$

INITIAL CIRC. PRESS.
ICP

$$\text{DYNAMIC PRESSURE LOSS} + \text{SIDPP} = \dots\dots\dots \text{ bar}$$

INITIAL DYNAMIC CASING PRESS AT KILL PUMP RATE

$$\text{SICP} - \text{CHOKE LINE FRICTION} = \dots\dots\dots - \dots\dots\dots = \dots\dots\dots \text{ bar}$$

FINAL CIRCULATING PRESSURE
FCP

$$\frac{\text{KILL FLUID DENSITY}}{\text{CURRENT DRILLING FLUID DENSITY}} \times \text{DYNAMIC PRESSURE LOSS} = \dots\dots\dots \text{ bar}$$

DYNAMIC PRESSURE LOSS AT KOP (O)

$$\text{PL} + \left[(\text{FCP} - \text{PL}) \times \frac{\text{KOPMD}}{\text{TDMD}} \right] = \dots\dots\dots + \left[(\dots\dots\dots - \dots\dots\dots) \times \frac{\dots\dots\dots}{\dots\dots\dots} \right] = \dots\dots\dots \text{ bar}$$

REMAINING SIDPP AT KOP (P)

$$\text{SIDPP} - \left[(\text{KMD} - \text{OMD}) \times 0.0981 \times \text{KOPTVD} \right] = \dots\dots\dots - \left[(\dots\dots\dots - \dots\dots\dots) \times \dots\dots\dots \times \dots\dots\dots \right] = \dots\dots\dots \text{ bar}$$

CIRCULATING PRESS. AT KOP (KOP CP)

$$(\text{O}) + (\text{P}) = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots \text{ bar}$$

DYNAMIC PRESS. LOSS AT EOB (R)

$$\text{PL} + \left[(\text{FCP} - \text{PL}) \times \frac{\text{EOBMD}}{\text{TDMD}} \right] = \dots\dots\dots + \left[(\dots\dots\dots - \dots\dots\dots) \times \frac{\dots\dots\dots}{\dots\dots\dots} \right] = \dots\dots\dots \text{ bar}$$

REMAINING SIDPP AT EOB (S)

$$\text{SIDPP} - \left[(\text{KMD} - \text{OMD}) \times 0.0981 \times \text{EOBTVD} \right] = \dots\dots\dots - \left[(\dots\dots\dots - \dots\dots\dots) \times \dots\dots\dots \times \dots\dots\dots \right] = \dots\dots\dots \text{ bar}$$

CIRCULATING PRESS. AT EOB (EOB CP)

$$(\text{R}) + (\text{S}) = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots \text{ bar}$$

(T) = ICP - KOP CP = - = bar

$$\frac{(T) \times 100}{(L)} = \frac{\dots\dots\dots \times 100}{\dots\dots\dots} = \dots\dots\dots \frac{\text{bar}}{100 \text{ strokes}}$$

(U) = KOP CP - EOB CP = - = bar

$$\frac{(U) \times 100}{(M)} = \frac{\dots\dots\dots \times 100}{\dots\dots\dots} = \dots\dots\dots \frac{\text{bar}}{100 \text{ strokes}}$$

(W) = EOB CP - FCP = - = bar

$$\frac{(W) \times 100}{(N1+N2+N3)} = \frac{\dots\dots\dots \times 100}{\dots\dots\dots} = \dots\dots\dots \frac{\text{bar}}{100 \text{ strokes}}$$

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STATIC & DYNAMIC DRILL PIPE PRESSURE [bar] ↑

A large grid for plotting pressure data against strokes. The grid is 20 columns wide and 30 rows high. The vertical axis is labeled 'STATIC & DYNAMIC DRILL PIPE PRESSURE [bar]' with an upward arrow. The horizontal axis is labeled 'STROKES' with a rightward arrow.

STROKES →

STROKES

PRESSURE
[bar]

A table for recording stroke and pressure data. It has 20 columns and 2 rows. The first row is for 'PRESSURE [bar]' and the second row is for 'STROKES'.