International Well Control Forum
Subsea BOP vertical well kill sheet
(SI units)

Date: _____

Name: _____

Formation strength data:

Surface leak-off pressure from formation strength test **(A)** kPa

Fluid density at test **(B)** kg/m3

Maximum allowable fluid density =

$$(\mathbf{B}) + \left(\frac{(\mathbf{A})}{\text{casing shoe TVD} \times 0.00981}\right) = \mathbf{(C)}\ \text{kg/m3}$$

Initial MAASP =

((**C**) −current fluid density) × 0.00981 × casing shoe TVD

= _____ kPa

Current well data:

Subsea BOP data:

Marine riser length _____ m

Choke line length _____ m

Current fluid:

Density _____ kg/m3

Casing shoe data:

Size _____ mm

MD _____ m

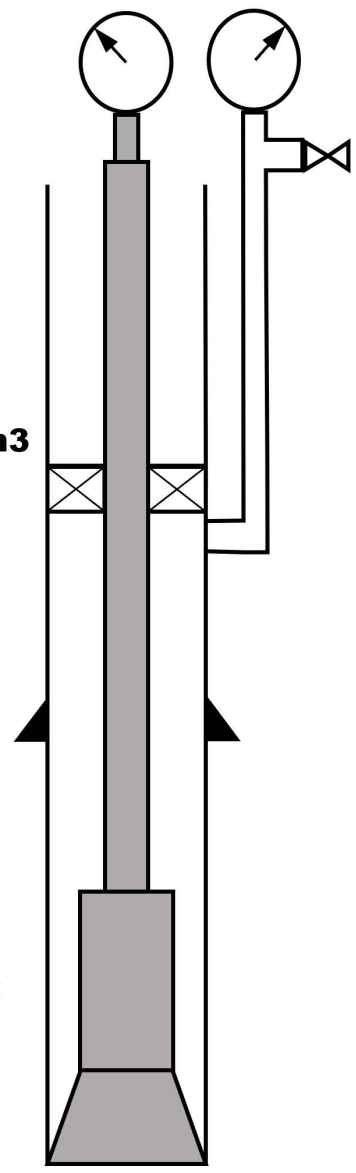
TVD _____ m

Openhole data:

Size _____ mm

MD _____ m

TVD _____ m



Pump 1 displacement	Pump 2 displacement
m3/stroke	m3/stroke

	Circulating pressure at kill rate (SCR)					
Kill rate data:	Pump 1			Pump 2		
	Riser	Choke line	Choke line friction	Riser	Choke line	Choke line friction
SPM						
SPM						

Surface lines volume	**(D)** m3	strokes

Pre-recorded volume data	Length m	Capacity m3/m	Volume m3	Pump strokes	Time minutes
Drillpipe (DP)	x	=		volume / pump displacement	pump strokes / kill rate
Heavy weight drillpipe (HWDP)	x	=	+		
Drill collars (DC)	x	=	+		
Drillstring volume	**(E)**		m3	**(F)** strokes	min
DC x openhole	x	=			
DP/HWDP x openhole	x	=	+		
Openhole volume	**(G)**		m3	strokes	min
DP x casing	**(H)** x	=	+	strokes	min
Choke line	**(I)** x	=	+	strokes	min
Total annulus/choke line volume	**(G)+(H)+(I)=(J)**		m3	strokes	min
Total well system volume	**(E)+(J)=(K)**		m3	strokes	min
Active surface pit volume	**(L)**		m3	strokes	
Total active fluid volume	**(D)+(K)+(L)**		m3	strokes	
Marine riser x DP	x	=	m3	strokes	min

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Kick data:

SIDPP [ ] **kPa** **SICP** [ ] **kPa** **pit gain** [ ] **m3**

Kill fluid density	current fluid density + $\left(\frac{\text{SIDPP}}{\text{TVD} \times 0.00981}\right)$ + _____ = **kg/m3**
Initial circulating pressure (ICP)	circulating pressure at kill rate + SIDPP + = **kPa**
Final circulating pressure (FCP)	$\left(\frac{\text{kill fluid density}}{\text{current fluid density}}\right)$ × circulating pressure at kill rate _____ × = **kPa**

(M) = (ICP) – (FCP) = – **=** **kPa**

$\frac{(\mathbf{M}) \times 100}{(\mathbf{F})}$ = _____ × 100 = $\frac{\text{kPa}}{100 \text{ strokes}}$

Initial dynamic casing pressure at kill pump rate	SICP - choke line friction = - = **kPa**

strokes	pressure (kPa)

static and dynamic drillpipe pressure (kPa)

strokes