



State Supervision of Mines  
*Ministry of Economic Affairs*

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Netherlands Oil and Gas  
Exploration and Production Association

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**Cees van Oosterom**

# **Emergency response in case of a blowout in shallow waters**

# Content

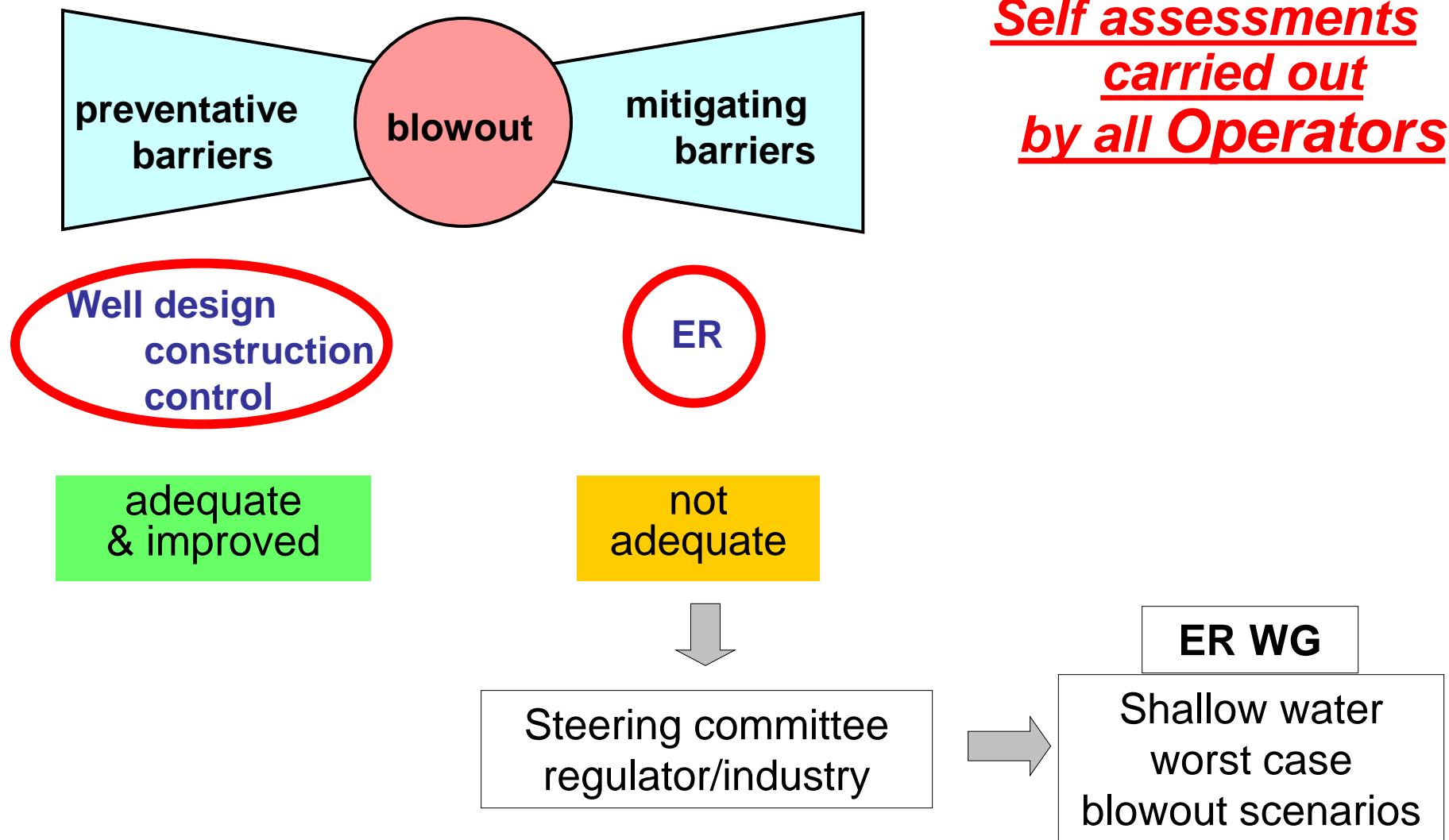
## The regulator: State Supervision of Mines (SSM):

- ☐ background/reference information
- ☐ Dutch regulator initiatives
- ☐ worst case blowout scenario's
- ☐ main objectives of the cooperation  
between industry and authorities
- ☐ worldwide initiatives after Deepwater Horizon
- ☐ stakeholders
- ☐ RACI matrix

## Background / reference information

- ☐ Dutch legislation
- ☐ Piper-alpha; > 50% recomb. are ER related
- ☐ Deepwater Horizon investigation reports
- ☐ world-wide initiatives
- ☐ shallow water blowouts
- ☐ protection of Waddenzee
- ☐ mainly gas wells in NL

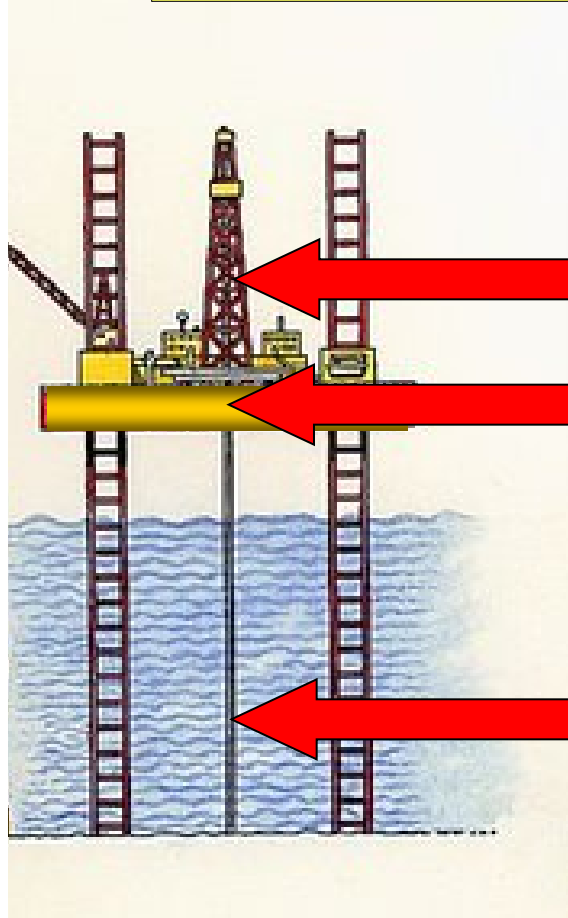
## Dutch regulator initiatives



## **Self Assessments / shortcomings ER readiness**

- ☐ ER capping equipment
- ☐ relief well drilling
- ☐ source control ER plan
- ☐ cooperation with contractors and authorities
- ☐ communication of information
- ☐ suppliers of emergency services or goods

## 3 shallow water scenario's



**lubricator BOP (well services)**

**rig BOP**

**subsea riser**



## Main objectives of ER cooperation

- ☐ improve overall ER plans
- ☐ close gap's between the different ER plans
- ☐ improve communication
- ☐ evaluate capping possibilities
- ☐ practice annual ER exercises
- ☐ establish source control ER plan template
- ☐ communicate lessons learned

## worldwide initiatives after Deepwater Horizon

### **OSPRAG (Oil Spill Prevention & Response Advisory Group / UK)**

- technical review group
- oil spill and emergency response group
- insurance & indemnity review group

### **GIRG (Global Industry Response Group / OGP)**

- prevention: improving well safety
- intervention: capping & containment
- oil spill response

### **MWCC (Marine Well Containment Company)**

- developing capping and containment systems

Shallow water ?

- Most initiatives are equipment related and for deepwater
- Only few initiatives on ER planning and the impact on an organisation



## Stakeholders (key)

- Coastguard
- Interdepartmental government policy team
- Maritime department
- Dutch regulator / State Supervision of Mines
- Ministry of Environment
- Ministry of Economic Affairs
- Oranje-Nassau Energy (Operator)
- Drilling contractor
- Other contractors



## Stakeholders



**One or a combination of the following 7 ER activities will be relevant to any blowout scenario**

- 1) to rescue people and bring people to safety;**
- 2) extinguishing of fires;**
- 3) the cleaning-up of oil in the sea, on beaches or in harbours;**
- 4) securing the (offshore) installation;**
- 5) well capping / killing;**
- 6) well containment;**
- 7) drilling a relief well.**

## Create clarity for who is responsible for what

<b>R</b>	who is responsible	the person who is <u>assigned</u> to do the work
<b>A</b>	who is accountable	the person who makes the <u>final decision</u> and has the <u>ultimate ownership</u>
<b>C</b>	who is consulted	the person who must be consulted <u>before</u> a decision or action is taken
<b>I</b>	who is informed	the person who must be informed that a decision or action <u>has</u> been taken

## 1. ER activity "rescue of people"

**1.1** : serious incident reporting

**1.2** : determine incident phase

**1.3** : .....

	Operator	Ministries					others
		Infrastrucure & Environment			Economic Affairs		
		Coast-guard	Maritime depart.	Commun.	SSM	Commun.	
1.1	R	I			I <sub>4</sub>		
1.2	I	R	C		I		

note 4: SSM informs regularly the Ministry of Economic affairs

ER activities		subactivities	Operator	Organisations					
				Ministries					
				Infrastrucure & Environment			Economic Affairs		others
				Coast-guard	Maritime depart.	Commun.	SSM	Commun.	
1	rescue of people	competent government authority with final accountability		R	A				
		Operations							
		1.1 serious incident reporting	R	I			I <sub>4</sub>		
		1.2 determine incident phase	I	R	C		I		
		1.3 monitoring the whereabouts of rig/platform personnel	C	R					
		1.4 dispatch SAR	I	R					
		1.5 dispatch KNRM	I	R					
		1.6 appoint on-scene commander (if required)	I	R					
		1.7 initial mobilization standby-boat (FRC)	R <sub>1</sub>	I					
		1.8 mobilise other ships	I	R					
		1.9 check safety for rescue operations (sea & air / including establishing larger safety zone)	C	R			C		
		1.10 evacuation by helicopter	C	R					
		1.11 evacuation by lifeboat	R <sub>1</sub>	I					
		1.12 rescue from sea by helicopter	I	R					
		1.13 rescue from sea by standby boat (FRC)	I	R					
		1.14 rescue from sea by other vessels	I	R					
		1.15 rescue from lifeboat by helicopter	I	R					
		1.16 rescue from lifeboat by standby boat (FRC)	I	R					
		1.17 control over airspace		R					C ( LVNL )
		1.18 determine VTS necessity	I	R					
		Communication							
		1.19 sitreps	I	R	I	I <sub>3</sub>	I <sub>4</sub>		
		1.20 informing next of kin	R				I		
		1.21 produce holding statement	R	I			I		
		1.22 produce press releases	C <sub>5</sub>	R <sub>6</sub>		R <sub>6</sub>			
		1.23 organise press conferences	C <sub>5</sub>	R <sub>6</sub>		R <sub>6</sub>			

ER activities	subactivities		Operator	organisations					
				authorities					
				Infrastruct. & Environm.			Economic Affairs		
				Coast-guard	Maritime depart.	commun.	SSM	commun.	
5	well capping / killing	competent governm. author. with final accountability					A		
		operations							
		5.1 create well control task force incl. experts	R				I		
		5.2 prepare plan of attack	R	C10	C10		C		
		5.3 decide on plan of attack	R	I	I		A		
		5.4 organize/conduct onsite survey	R	I			A		
		5.5 source equipment & services	R				I		
		5.6 execute well capping activities	R	I			A		
		5.7 continued monitoring extent of pollution	I	I	R		I		
		communication							
		5.8 situation update	R	I	I		I		
		5.9 produce holding statement (if ap	R				I		
		5.10 produce press releases	C <sub>5</sub>				C	R <sub>6</sub>	
		5.11 organise press conferences	C <sub>5</sub>				C	R <sub>6</sub>	

## Content

### The industry: association of Dutch operators (NOGEPa):

- ☐ annual industry wide ER exercise / NOREX 2013
- ☐ source control ER plan
- ☐ ER organisation
- ☐ a well capping operation in shallow waters
- ☐ NOREX 2013 follow-up recommendations
- ☐ lessons learned for ER in shallow waters





# NOREX<sup>(1)</sup> 2013 ER blowout in shallow waters

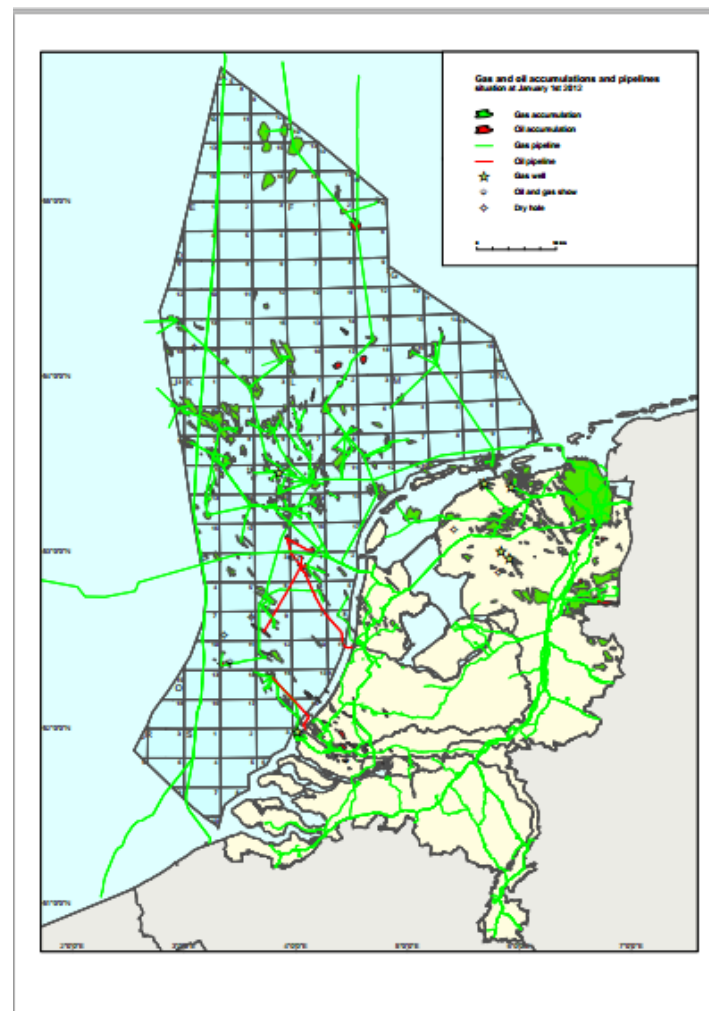
Cees van Oosterom – Advisor NOGEPa

**(1): NOREX = North Sea disaster exercise**

## NOREX - focus

*Post Macondo  
Deep water*

*NOREX  
Shallow water*

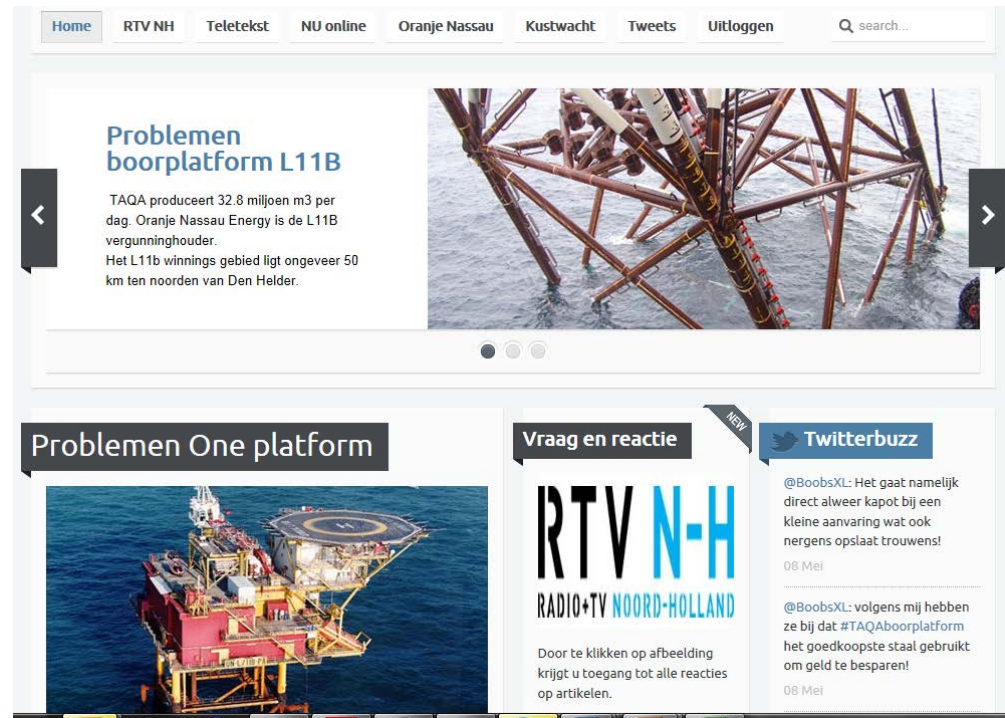


## NOREX – exercise in 3 parts

❑ Rescue-at-Sea

❑ Communications/  
(Social) Media

❑ Well Control



## Exercise to be ready

- ☐ Seek experience in dealing with Well Control in shallow water
- ☐ Wild Well Control considerable experience in the wake of hurricane Katrina in 2005
- ☐ Again in 2009
- ☐ Being prepared is more than a contract with WWC

## **NOREX – 3 Shallow Water exercises post Macondo**

### **2011 – GDF SUEZ**

**Drilling relief well and well capping operations**

### **2012 – NAM**

**Further expansion**

### **2013 – Oranje-Nassau**

**Prepared Source Control ER Guide**

**Prepared presentation for Well Control Workshop**



Well**CONTAINED**  
Subsea Containment Solutions

## Source Control Emergency Response Guide



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## SCERP themes

- **branch organization**
- **SIMOPS**
- **site survey**
- **BOP/wellhead intervention**
- **dispersants**
- **debris removal**
- **capping**
- **relief well**
- **well kill**
- **engineering services**
- **decontamination/demobilization**



# NOREX 2013 Well Control Workshop

**08 May 2013**



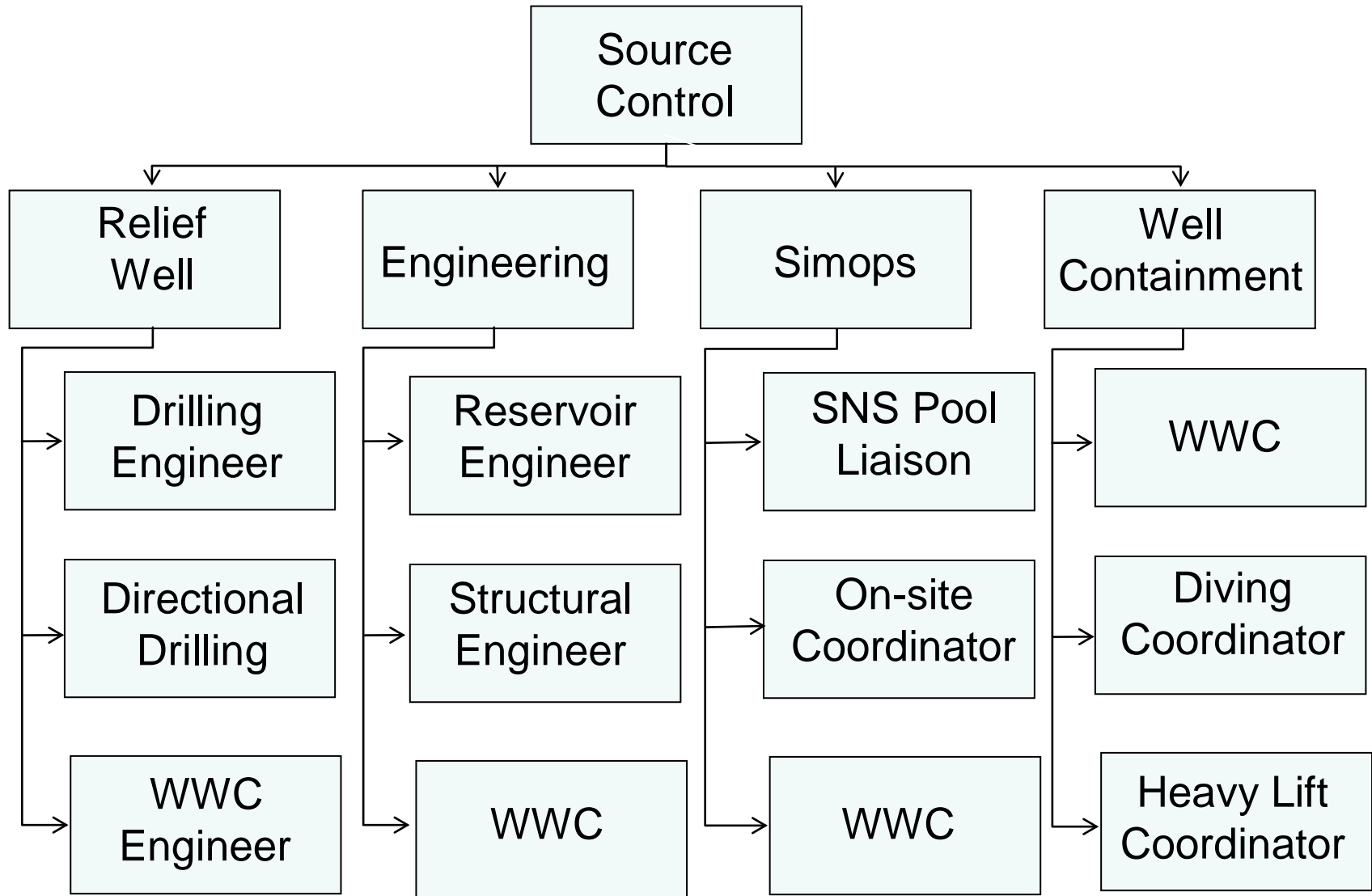
## Exercise to be ready

Be ready = think and plan ahead

Key is:

- Plan the organization you would require
- Organize responsibilities
- Know what you need to address the problem
- Know where to get it from
- Train

# NOREX - Source Control Branches





Shallow waters blowout / emergency response

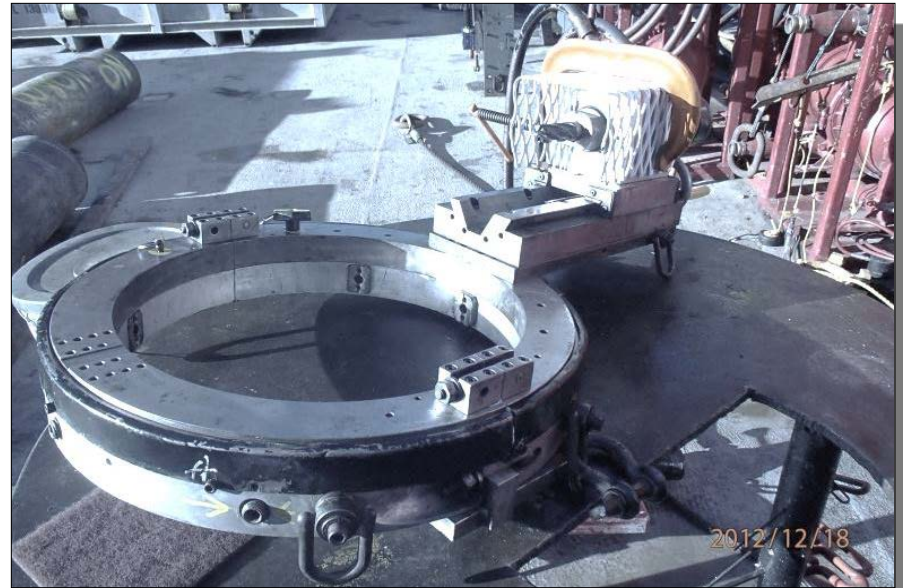


**survey &  
preparation**

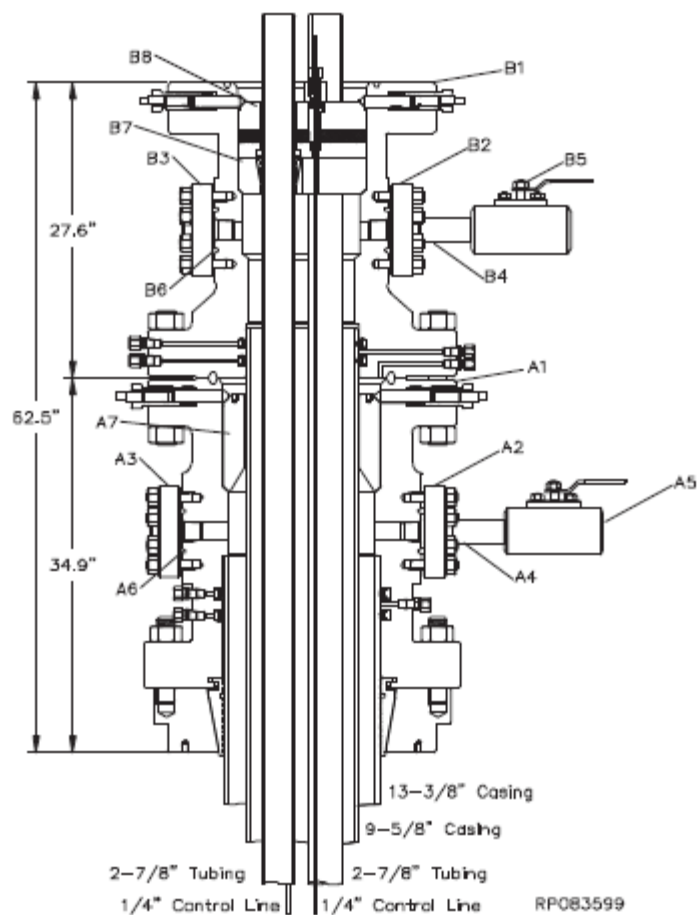




# Wedding caking tools – Roto-Mill, Mag Drill, & Tree Stand



## capping



## RELIEF WELL GROUP

Basic Plan incl. site for relief well

OCES

- joint declaration Emergency Assistance
- Set of Principles

## Pre-Event Strategic Planning

- *Develop Source Control Emergency Response Plan (SCERP)*
- *Assign Emergency Response Team (ERT) roles*
- *Identify potential resource suppliers*
- *Develop Relief Well Dynamic Kill (RWDK) plan*
- *Discuss/review event scenarios*
- *Conduct drills & exercises*





## NOREX - follow-up recommendations

- stimulate Operators to develop a **source control** ER plan
- map out well control **team**
- close gaps for **ER organization** when lasting > 1 day, from parent organization and/or colleague Operators
- companies to also include **finance, contracting & legal** in ER organizations
- plan and execute **ER exercises** for the three other worst case scenario's
- organise workshops to improve **communication** matters between government and industry, including social media aspect

## Lessons learned for ER in shallow waters

### Shallow water ER readiness deserves more attention:

- ☐ Use experts to clearly define the **risks and control measures** for 'worst case' **shallow water** blowout scenario's
- ☐ Work out **mutual aid** in large-scale offshore incidents (see OGP report 487) in the ER plans
- ☐ Evaluate if **adequate tools** are readily available to prepare and execute capping operations **in shallow waters**
- ☐ To ensure all parties involved in an emergency are aware of the feasibility to bring a well back under control, it is essential to **exercise ER with all parties** involved, including government agencies at all levels