

The fine art of Managing Pore Pressure in Exploration Drilling



WELLESLEY
PETROLEUM



Date:	2024 01 18
Audience:	HAVTIL
Presenters:	Morten Diesen
Ref No:	N/A

Why is it important to know the pore pressure?



Optimize

Well Design

Simulate

Blowout scenarios

Dimension

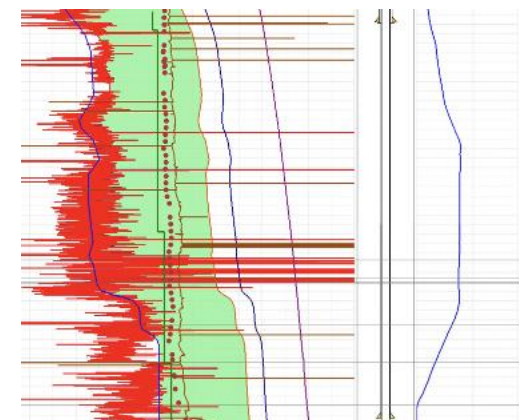
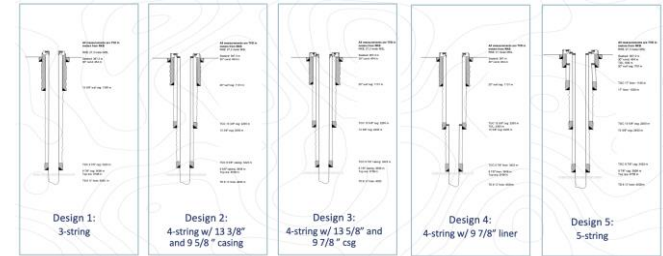
Oil Spill Preparedness

Analyze

Environmental Risk

Safe

Well Execution



How do we work with pore pressure



PL 173
WELL 35/10-1

COMPLETION REPORT

July 1992



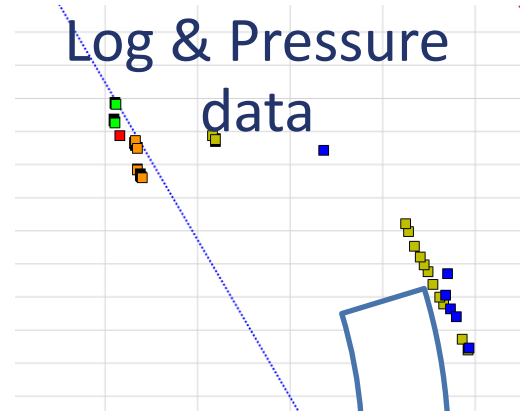
Mob

OIL

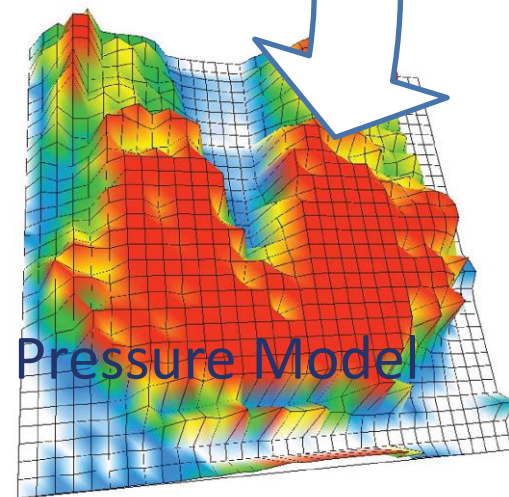
Drilling data

Daily Drilling Report #14 - 14 Apr 2002				
Well Name: 35/10-1				
Date	14 Apr 2002	Day Company Shift	Class Production	
Report Number	13	High Company Shift	Site Control	
Safety Officer	Alex Etard	Officer	Supervisor	
		Drillmaster	Drillmaster	
		Toolpusher	Toolpusher	
Well Details				
Well Name	35/10-1	Depth From Base	10.15	
Well ID	35/10-1	Depth From Top	17.50	
Well Type	Oil	Depth From 100'	1.15	
Well Status	Drilling	Depth From 500'	477.2	
Well Depth	27.30	Depth From Last 500'	2.85	
Well Status	Drilling			
Operations Summary 0000 - 2359 hrs				
Detailed 17:07:00 to section 10' at 2500' MD/2500' in TVD. Circulation down and weighed up mud system from 1.35 SG to 1.4 SG.				
MUDLOG 17:07:00 to 17:07:00				
Operations Summary 0000 - 0000 hrs				
Planned Operations				
Reverse terminal base procedure from 13.50' SPFH to 15.00' and run 13.50' casing.				
MD 13.50' using regular head assembly. Non-accident 13.50' casing on 3.50' mud.				
Current 13.50' casing.				
MIS				
Incident Type	No.	Description and Report Reference	MIS to Date	Check Date
CO2 leak	1	State Control	1992	0.00
Weekly Ops	4	Weekly Meeting (Oper)	4	4.07
Safety Meeting	4	Weekly Safety Meeting (Oper)	4	4.07
Safety Meeting	4	Weekly Safety Meeting (Oper)	4	4.07
Final Account	1		1	13.00
Casing Data				
Section	10'	From Depth 267.00'	1.08 10'	From Depth 7.00'
				1.08 10'

Log & Pressure data

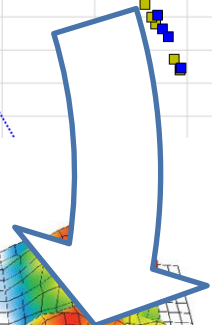
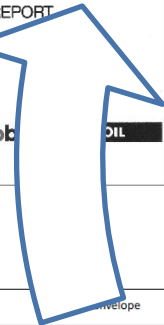
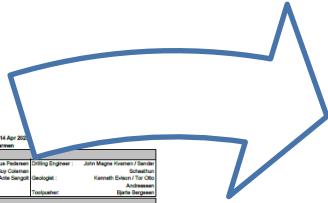
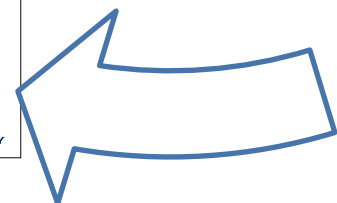
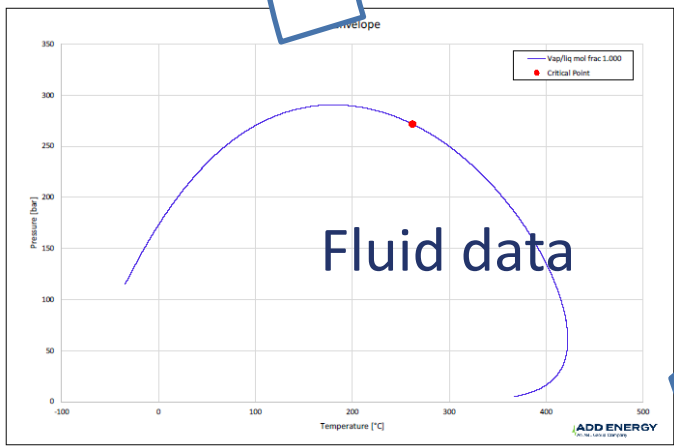


The PPFG Model

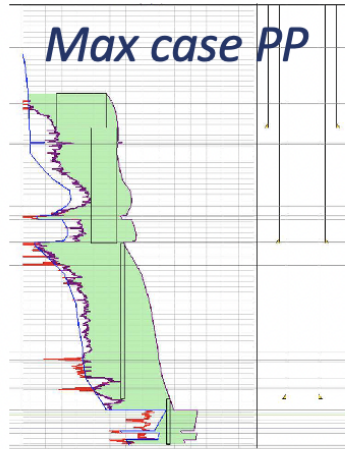


Pressure Model

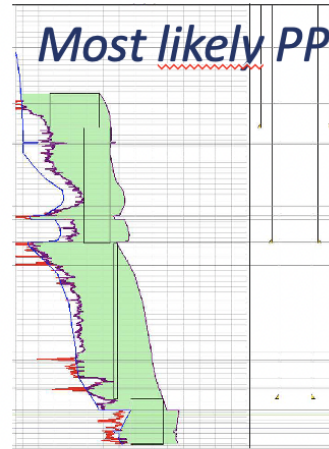
Fluid data



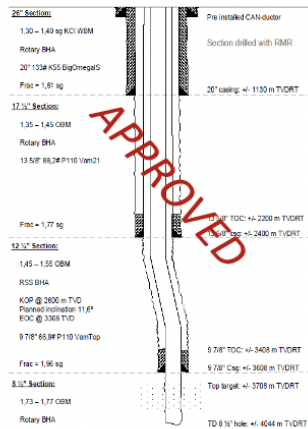
Pore Pressure Application



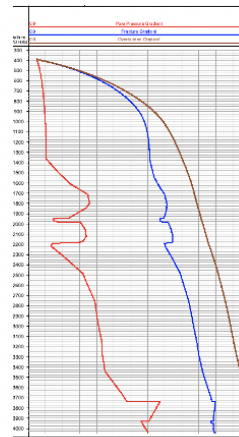
vs



Kick or Loss?



Casing design & Pressure tests



Mud Weight Selection