

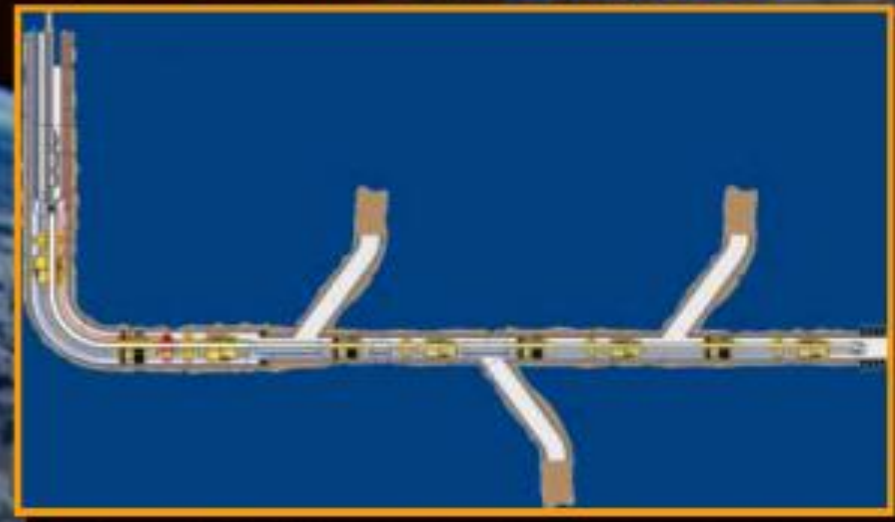
# Chapter 8 Saudi Arabia's Major Oil Fields

## Haradh-III crude oil production ramp-up

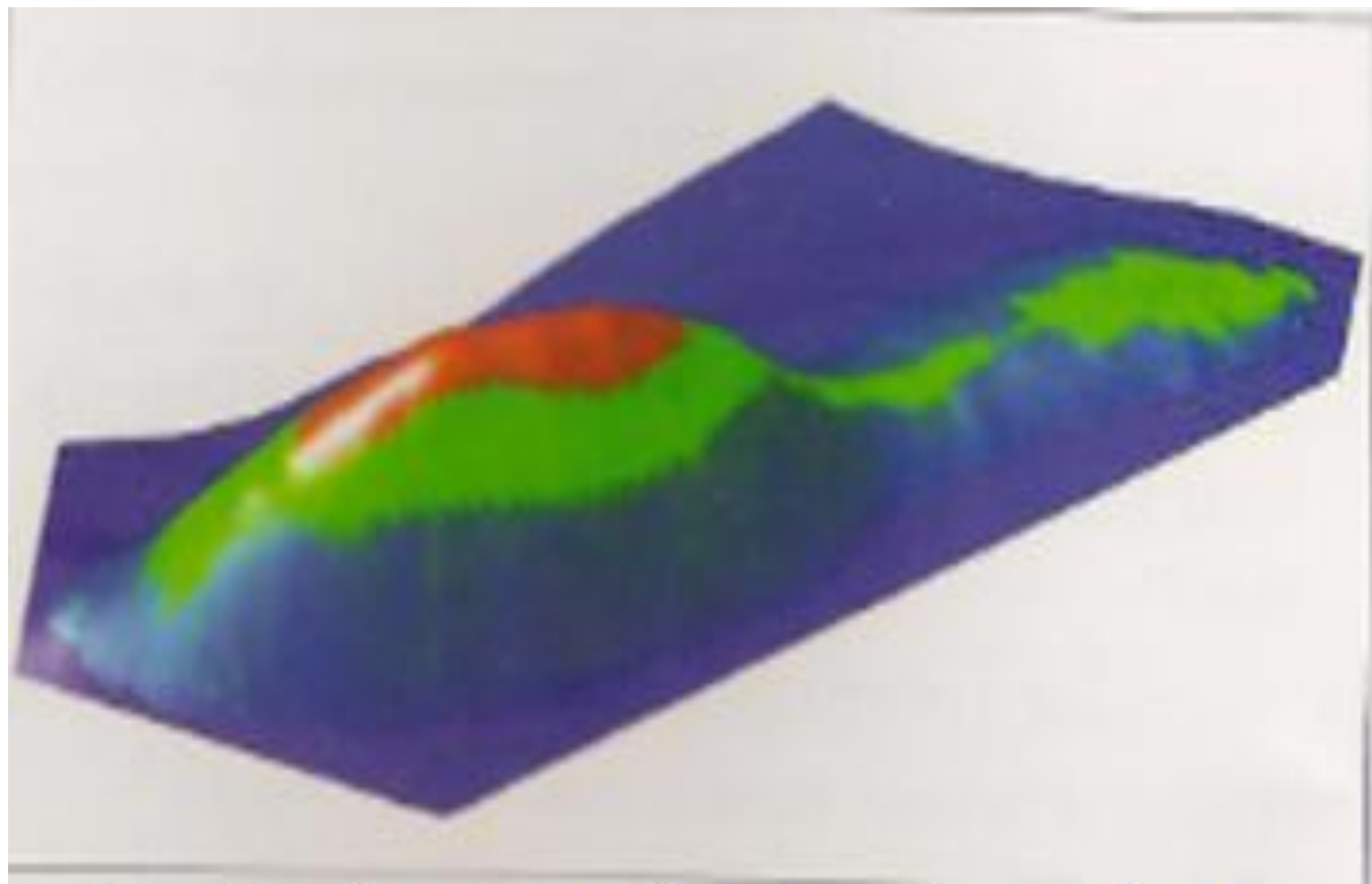
### e-Field/Smart Wells Haradh Increment III



### Quad-Lateral Smart Completion



Onstream: July 2006  
Rate: 300,000 B/D  
Plateau: 30 Years  
Depletion: 1.7% per Year



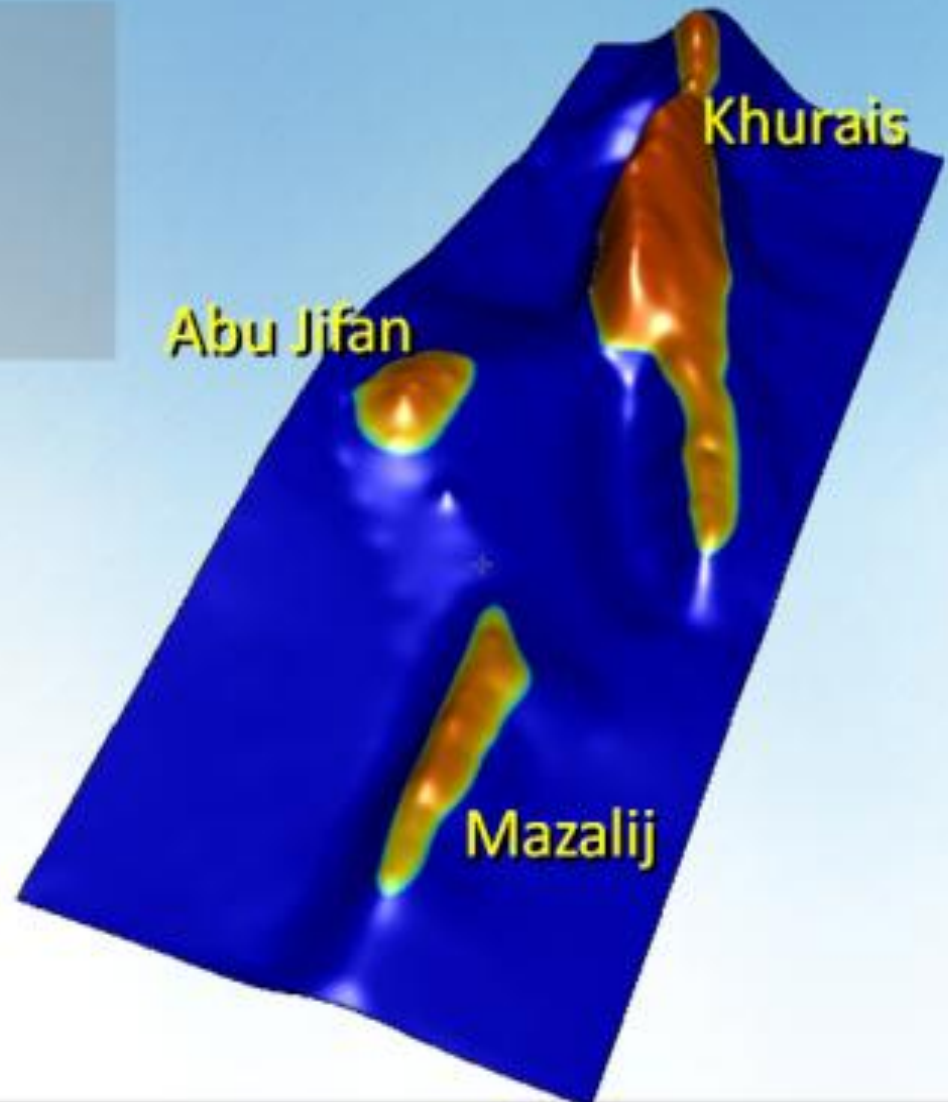
**Abqaiq Structure Showing Secondary  
Gas Cap and Water Advance**

Saudi Aramco Fall 2008 J of Tech

# Khurais Development



1,200 MBD Arab Light  
350 MMSCFD Gas  
70 MBD NGLs  
310 Horizontal Wells



# Khurais Area Development



## Real Time Reservoir Management



## Strategic surveillance plan

*Saturation Monitoring*

## Real time surveillance

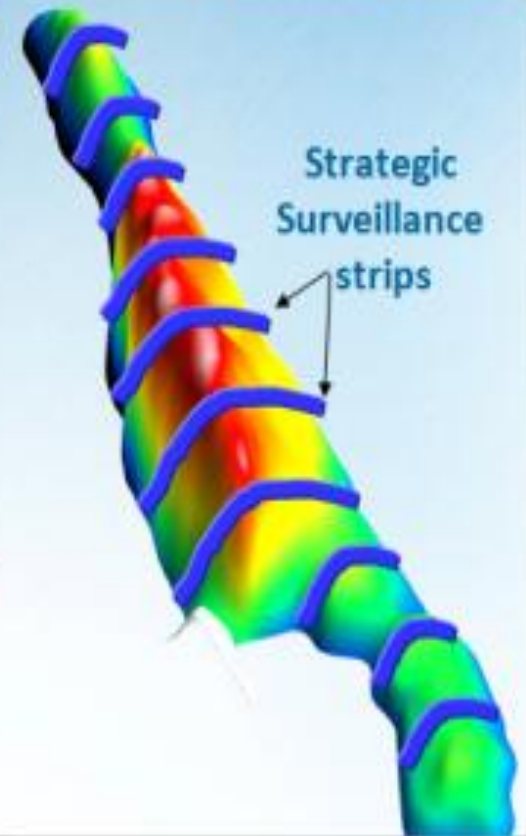
*MFPM, Pressure & Temperature*

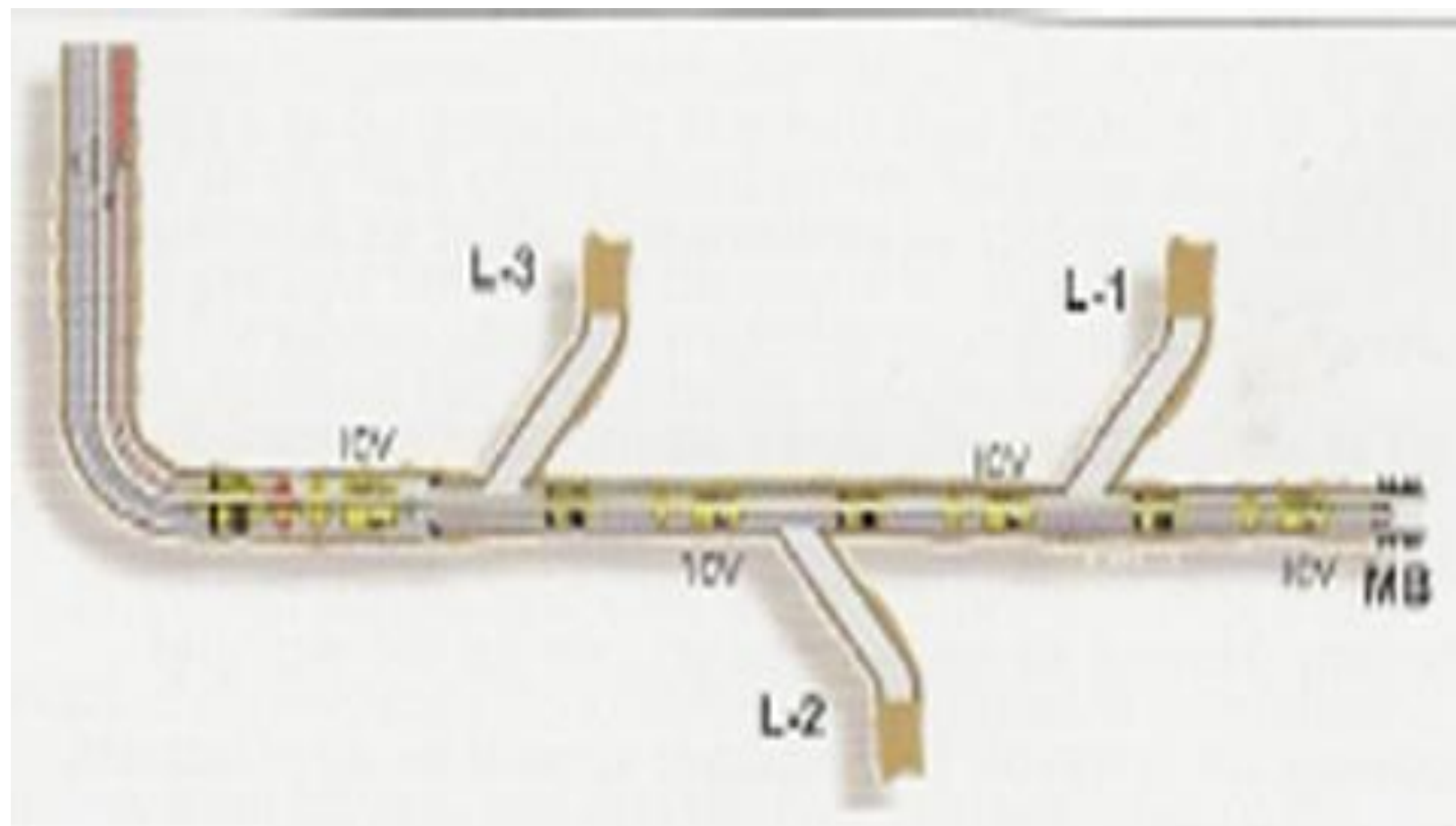
*Dual PDHMS*

*Remotely activated shutdown system*

## Intelligent Reservoir Management Tools

*Data visualization & Real time modeling and simulation*





## **Schematic of Quaterlateral well equipped with four ICV's**

Ref Saudi Aramco JOT Fall 2009





Rub' al Khali  
1978



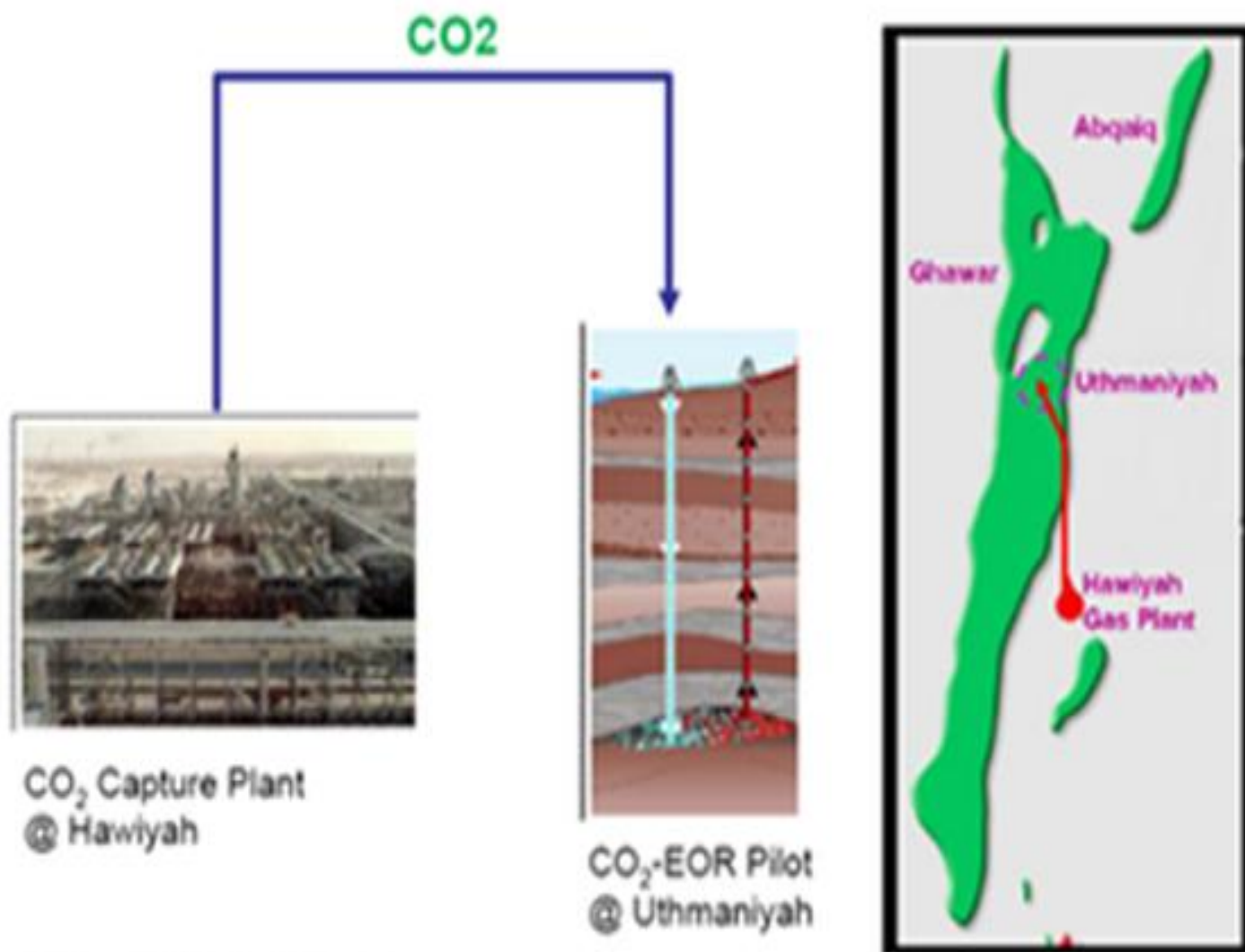
Safaniya

265 KM

Dhahran

Abqaiq





## CO<sub>2</sub>-EOR Pilot

