PCSB Domestic Idle Well Data Management

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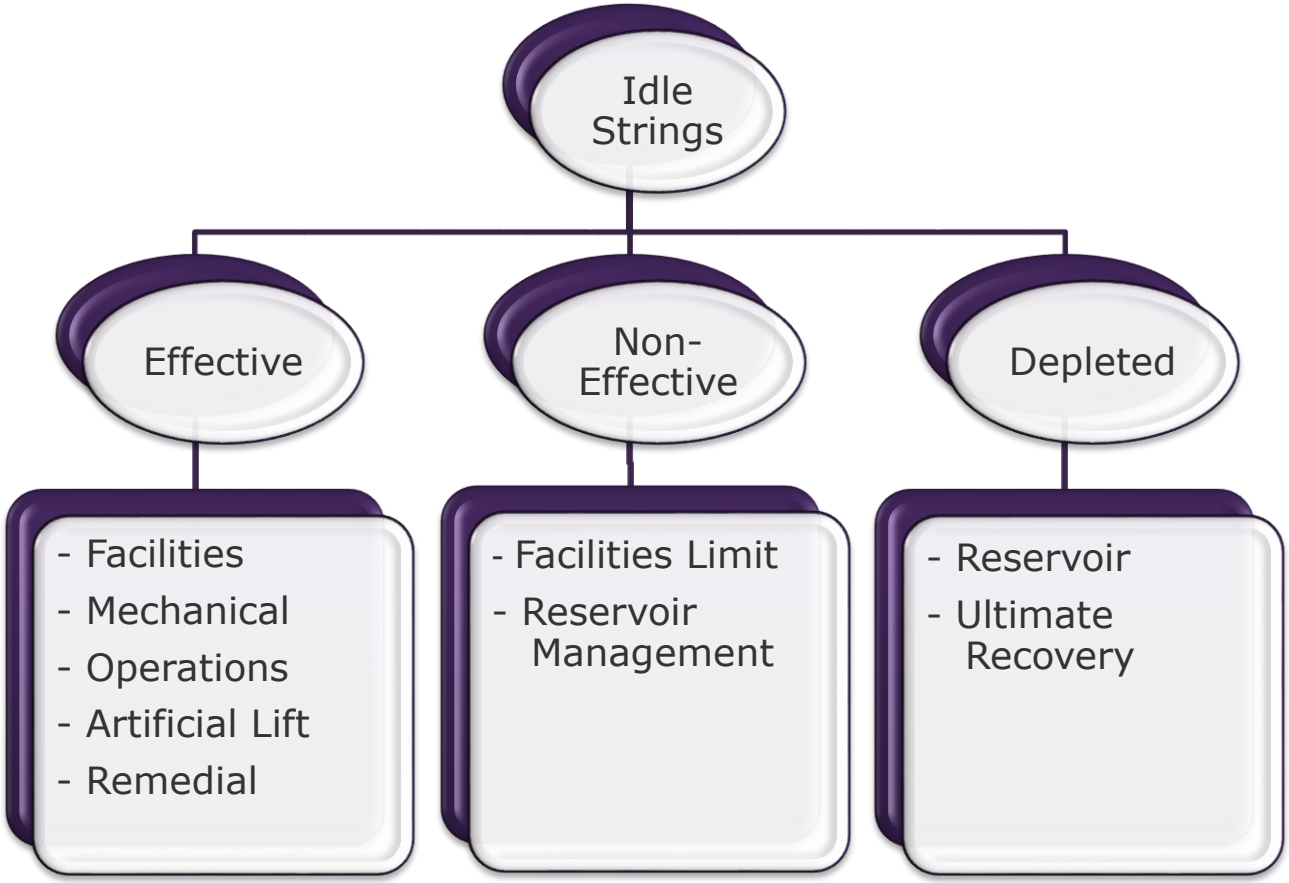
Digital Energy Journal Conference, Kuala Lumpur:
Doing more with Subsurface, Production & Drilling Data
5th October 2015
Impiana Hotel, Kuala Lumpur

Overview

- What is an idle well?
- Business driver for idle well management
- Issues without idle well data management
- Scope of idle well data management
  - Solution architecture
  - Idle well dashboard
- Conclusion
  - Benefits of idle well data management

What is an Idle String?

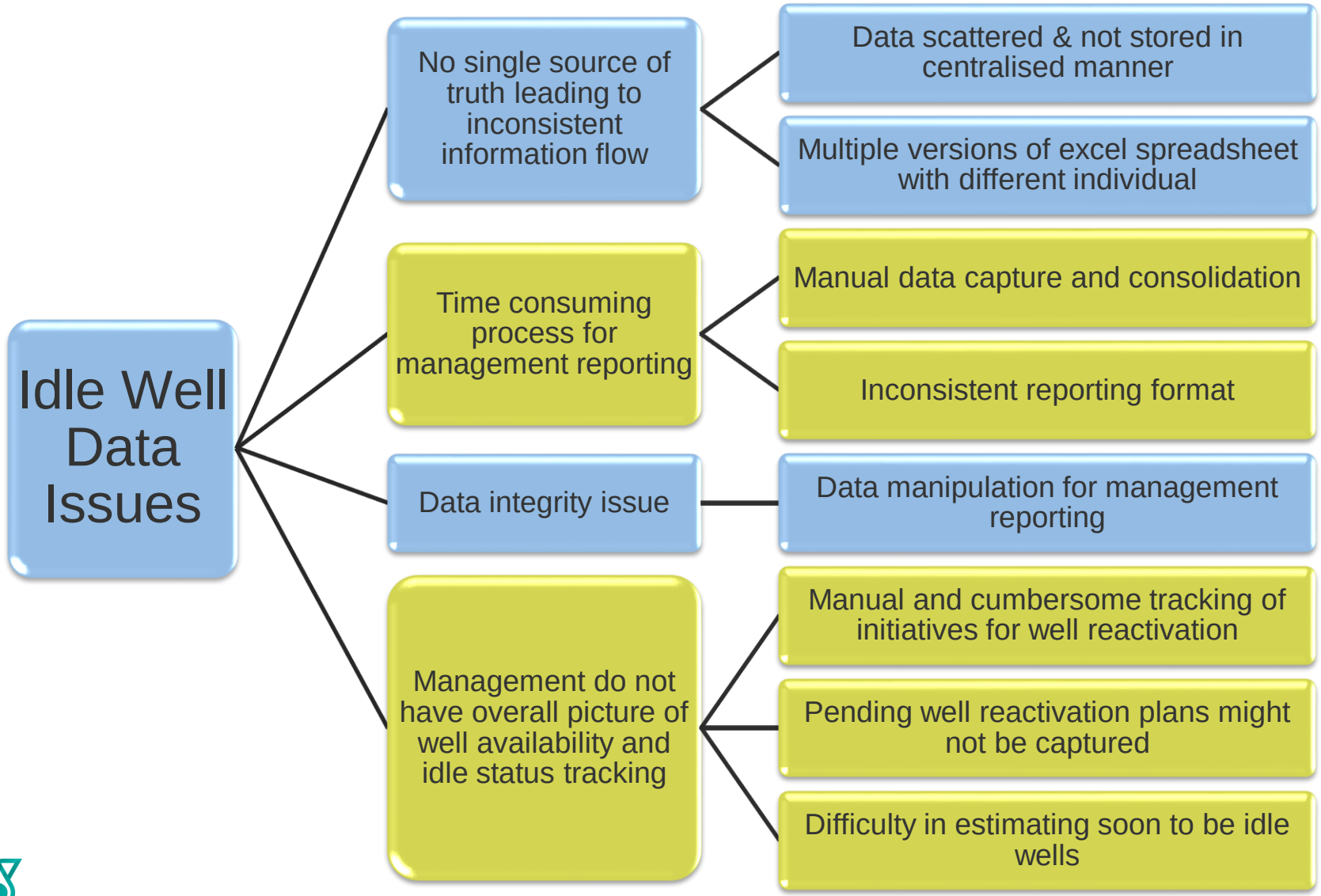
PETRONAS definition: A string that has not produced or injected for more than 90 consecutive days. The idle string is categorised based on the state of its capacity.



Business Driver for Idle Well Management

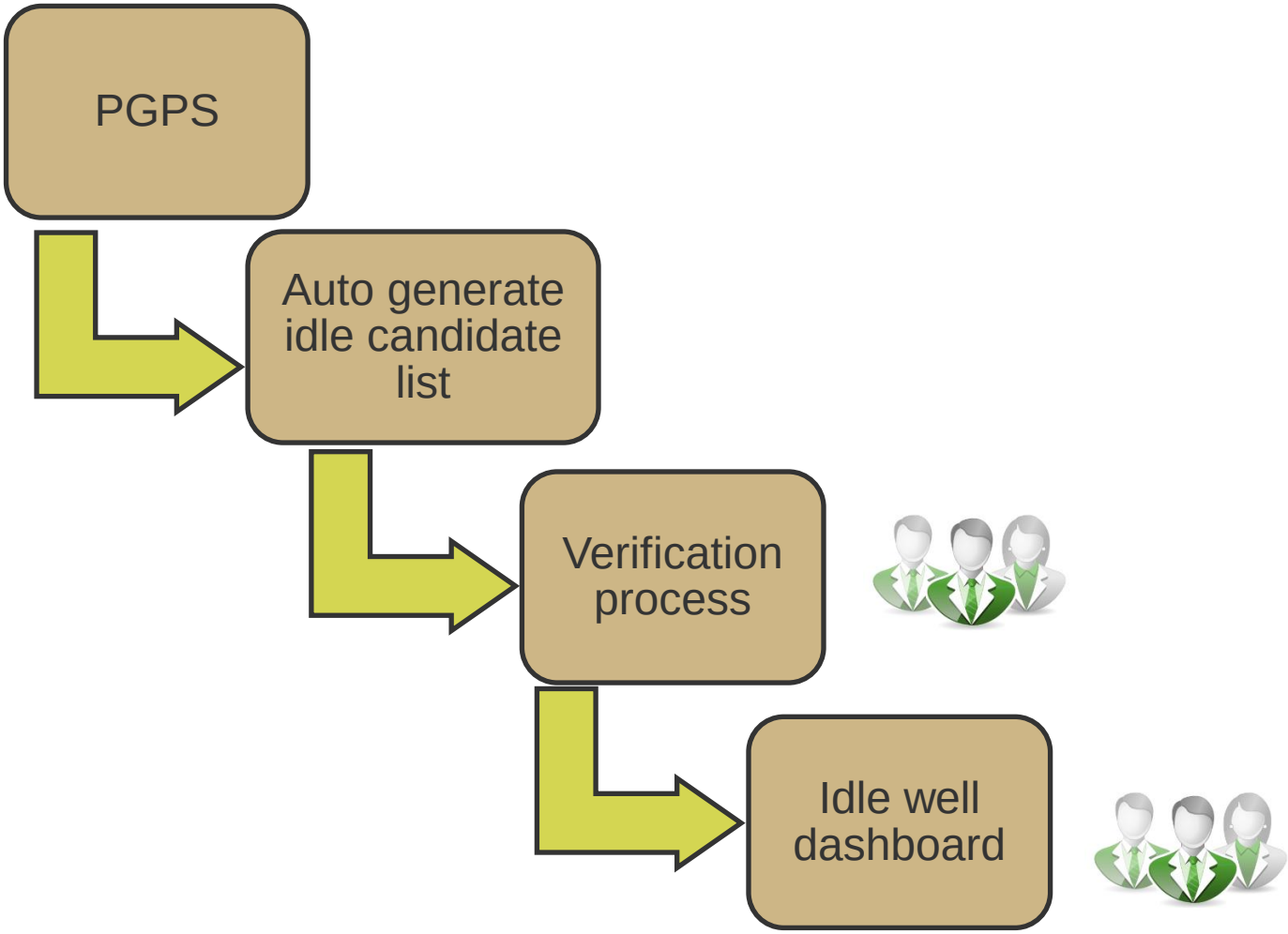
- Achieve management target of having 85% well availability.
- Fast and precise decision making for well activities prioritization.
- Achieve PCSB's production targets.

Issues Before Idle Well Data Management Rollout



Solution Architecture

- Existing production database, PETRONAS Global Production System (PGPS) was chosen as the platform to manage the data



Why is PGPS an Ideal Platform?

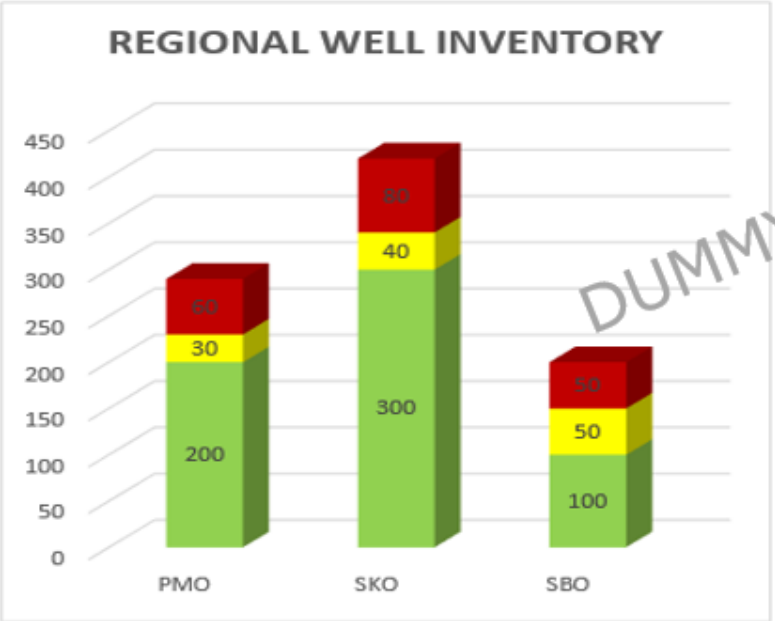
- Most of production related data has been captured in PGPS
  - Automated idle string inventory can be generated
  - Well-structured workflow can be introduce for idle well management
- PGPS is a readily available resource, there is no need for investment in a new system.
- Users who are involve in idle well management are already familiar with PGPS.

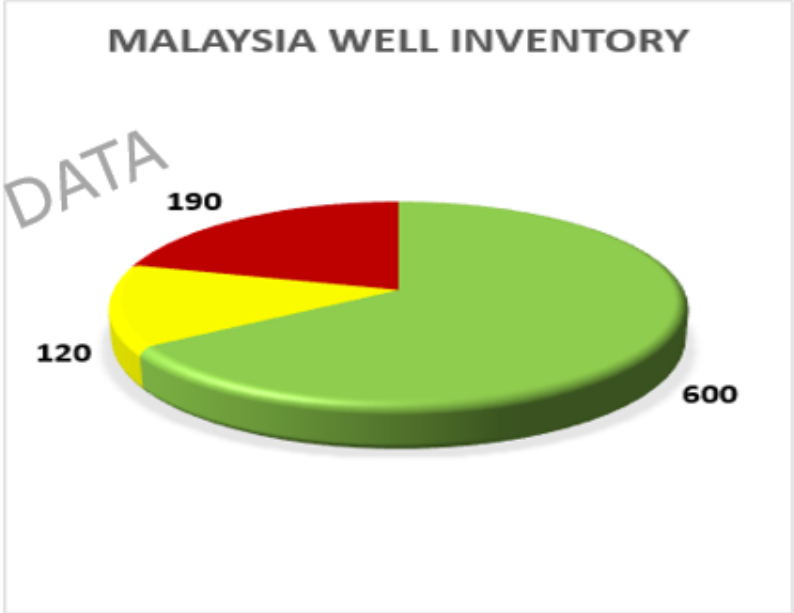
Idle Well Standard Dashboard

Idle Well Report

Report for JUN-2015

Data as of 01-JUN-2015 0000hrs





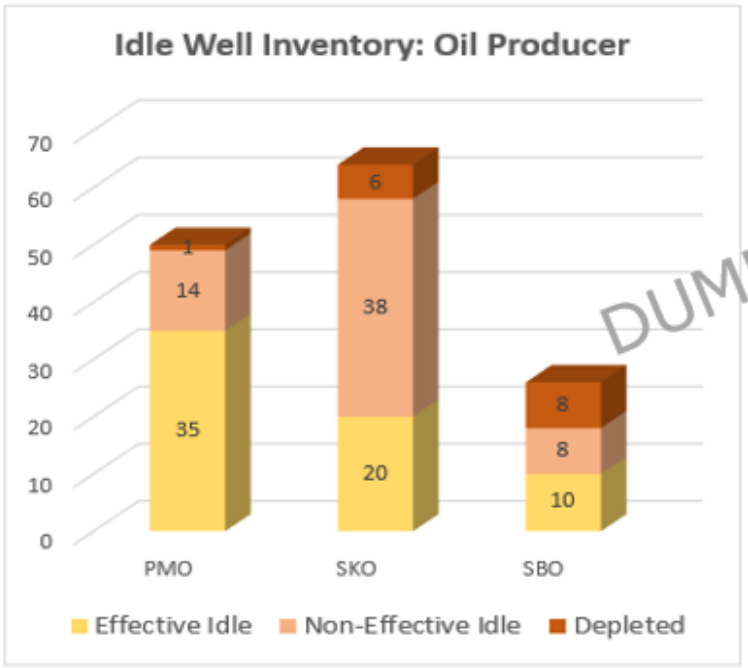
Well Inventory	PMO	SKO	SBO
Active	200	300	100
Emerging	30	40	50
Idle	60	80	50
Total	290	420	200
% Active String	79.3	81.0	75.0

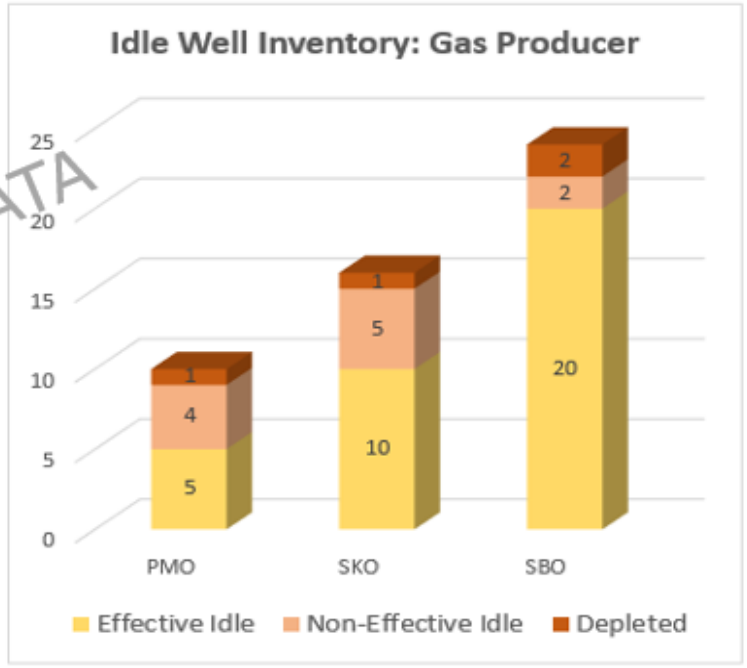
Well Inventory	Malaysia
Active	600
Emerging	120
Idle	190
Total	910
% Active String	79.1

Idle Well Standard Dashboard

Report for JUL-2015

Data as of 01-JUL-2015 0000hrs





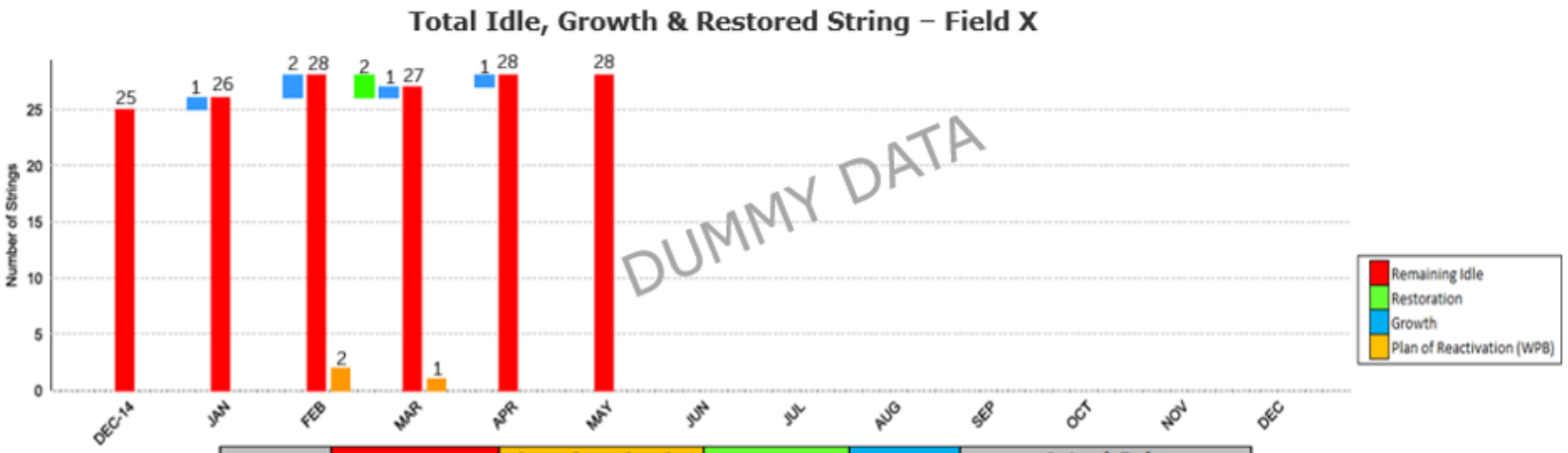
	Locked-In Potential (bbl/d)		
Idle Well Inventory	PMO	SKO	SBO
Effective Idle (EI)	4,000	2,060	1,500
Non-Effective Idle (NEI)	1,300	6,000	820
Depleted (D)	50	300	200
Total	5,350	8,360	2,520

	Locked-In Potential (MMscf/d)		
Idle Well Inventory	PMO	SKO	SBO
Effective Idle (EI)	89.00	300.00	400.00
Non-Effective Idle (NEI)	8.20	15.00	4.35
Depleted (D)	0.50	0.80	0.99
Total	97.70	315.80	405.34

Idle Well Standard Dashboard

Report for JUN-2015

Data as of 01-JUN-2015 0000hrs

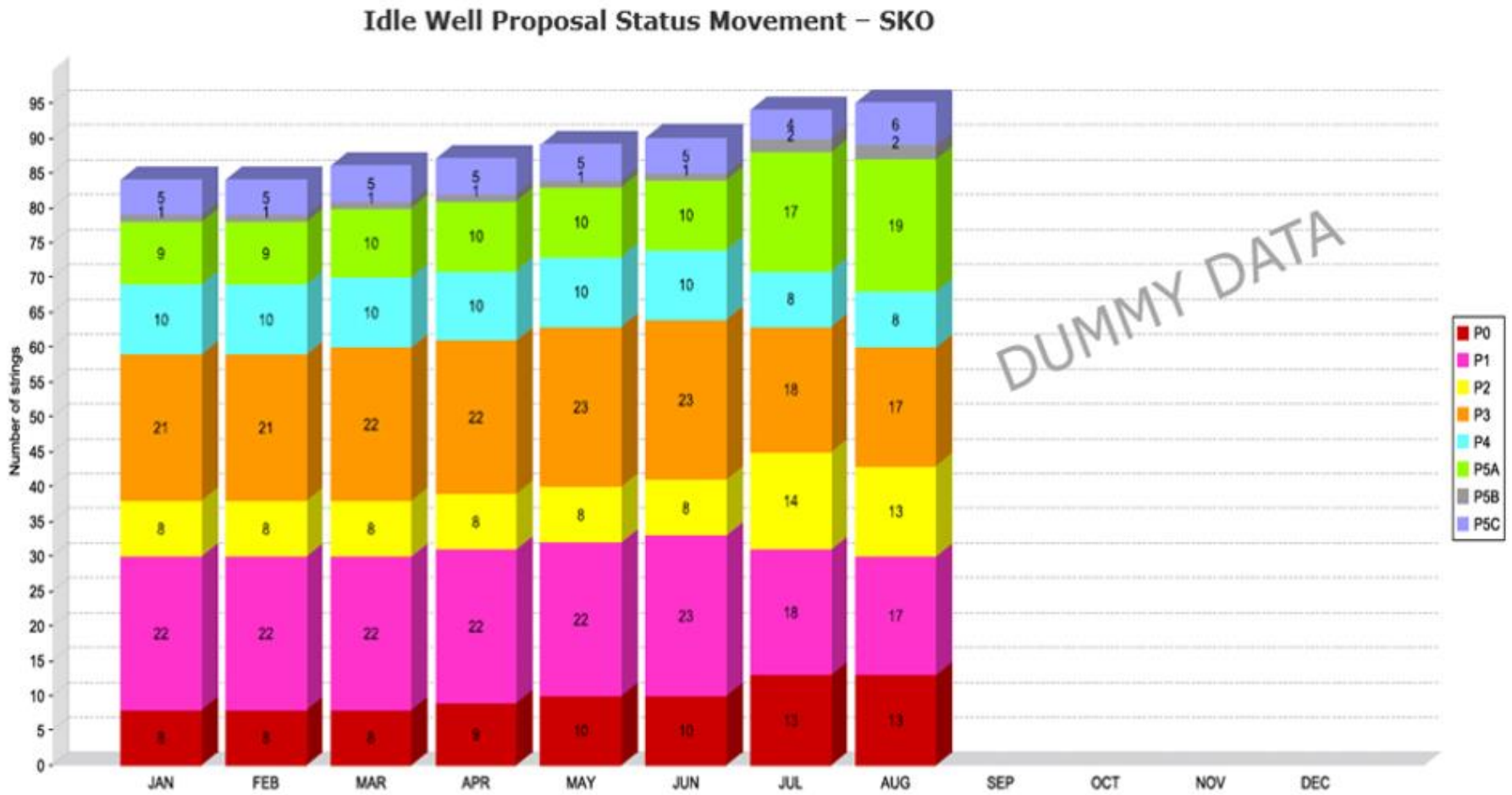


Month	Total Idle	Plan of rectivation (WPB)	Restoration	Growth	Actual Gain	
					Oil (bbl/d)	Gas (MMscf/)
Dec-15	25					
Jan	26	0	0	1	0	0
Feb	28	0	0	2	0	0
Mar	27	2	2	1	373	0
Apr	28	1	0	1	0	0
May	28	0	0	0	0	0
Jun						
Jul						
Aug						
Sep						
Oct						
Nov						
Dec						
Total			2		373	0

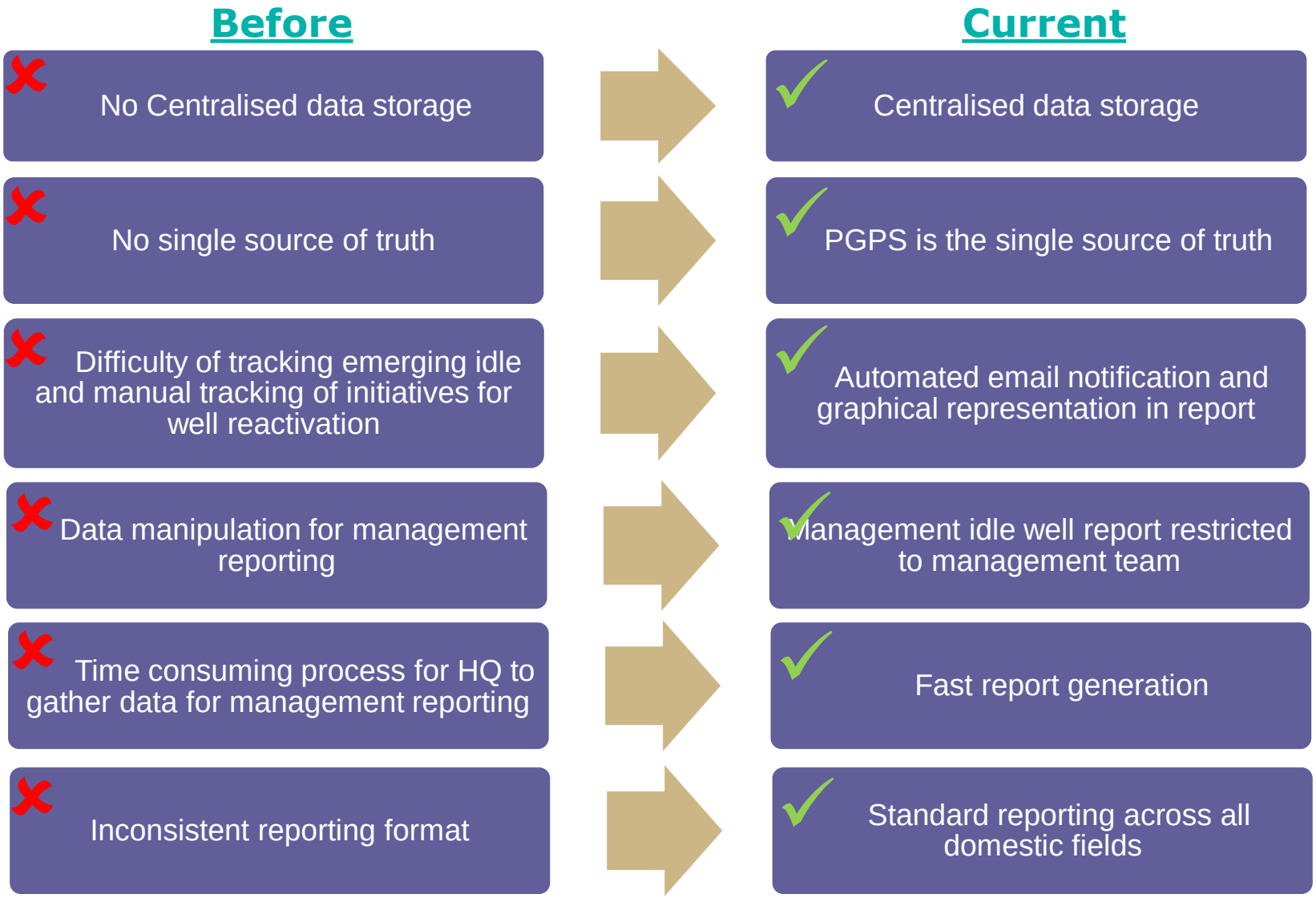
Idle Well Standard Dashboard

Report for JUN-2015

Data as of 01-SEP-2015 0000hrs



Conclusion - Benefits of Idle Well Data Management



Thank you

Acknowledgment to team members:

- Ngu King Chai
- Naveen Gupta
- Rizuwan Zaz Wandy
- Nur Ismawati

Paper Abstract

Leaving a well idle is equivalent to losing production from that well. Many of the idle wells are potential producers and majority of these wells stop producing due to operational issues instead of due to depleted resources. Prematurely plugging these wells would cause permanent loss of large quantities of oil and gas. An effective and efficient idle management system is important to achieve the high well availability. Properly managed idle well data provides a timely, consistent and accurate information to production technologist that will assist in faster and better decisions on managing these idle wells.

PCSB have a standard practice which makes full use of the existing production and deferment data to generate the idle well inventory automatically. This paper highlights the standardize and systematic idle well data management workflow and reporting (dashboard) that provides information transparency to PCSB production technologist and management in helping them monitor and take action to restore the idle well in a prudent manner in line to support PCSB meet its production target.