Doing Multiphase Economic Analysis, Like a Boss!

Raden Irfan Fajar PURNOMO, Yan Bastian PANGGABEAN, Erwin Andri KUSUMA

Present for SIS Global Forum 2019
Introduction: Presenters

Yan Bastian Panggabean
8+ years experience in Oil & Gas
Working for PERTAMINA EP Cepu, subsidiary of PERTAMINA Group
Specialty: Petroleum Economic, Project Management, Risk Management

Raden Irfan Fajar Purnomo
7+ years experience in Oil & Gas
Working for PERTAMINA EP Cepu, subsidiary of PERTAMINA Group
Specialty: Chemical Engineering, Petroleum Economic, Project Management, Risk Management
Agenda

- Project Background
- Problem Statement
- Solution
- Conclusion
- What Next?
- Q&A
Introduction: PT Pertamina EP Cepu

- Production: B Field
- Development: J Field, K Field
- Exploration: Others Field
- Current Production: ± 200MBOPD
Project Background
(Motivation)

- PEPC need a robust Economic Calculation Tool
- PEPC need a comprehensive multiphase economics analysis

Provide Comprehensive Economics Analysis
Project Background
(Conventional Solution: Workflow)

- Request Workflow
Project Background
(Conventional Solution: Perform Economics)
Project Background
(Conventional Solution: Stand Alone Economics)

- The formula is complicated
- Hard to track formula
- Takes time
- Hard to track changes
- Run slow

- Consolidation?
- Incremental?
Project Background
(Conventional Solution: Multiphase Economics)

Multiphase economics is more challenging and complicated.
Problem Statement

- Perform multiphase economics using conventional solution:
  - Challenging and complicated
  - Takes time & effort (quantify?)
  - Unreliable result

- Data gathering (within internal teams) is a laborious task:
  - Prone to human error
  - Takes time & effort (quantify?)
  - Sudden data update is stressful
Solution

- PEPC need a standard economic model
- PEPC Need an economic calculation engine that:
  - Perform multiphase economics
  - Easy to use
  - Provide robust economic result
- Solutions that reduce unnecessary laborious task
Solution

PEPC Autonomics

Merak Peep

Reports

Cases

Consolidation

Incremental

Reports

Schlumberger
Solution

Like A Boss!
Conclusion

- Merak Peep is one single source of truth for economic analysis
  - Now PEPC can perform multiphase economics analysis with confidence

- PEPC Autonomics is one single tools that handle unnecessary tasks:
  - Read data automatically
  - Run tasks automatically
  - Perform economic calculation automatically
What Next? (Next Challenges)

- Perform Economics online and can be accessed via mobile phone
- Dashboarding that provide comprehensive economics information that can be used by various department
- Portfolio Management
- Integrated working environment to help teams is needed: Peep and PEPC
  Autonomics only can help Economics team, not other teams
What Next?  
(IBOSS: Integrated Business Operating System & Support)

Integrated Environment:
- Team
- Data
- Knowledge