OUTCOME FORUM DISCUSSION:
Water processing and disposal issues
associated with continuous foam injection

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General introduction

- How does the process look?
- Generic view…
- Where are the issues?
Cont. Foam → Water → Separation → Polishing unit → Overboard


- Bottle necks?
- Where could we have an effect?
What do we know...

- **Caution**: “I know what I don’t know”
  - **Explore**

- **Certainty**: “I know what I know”
  - **Exploit**

- **Ignorance**: “I don’t know what I don’t know”
  - **Experiment**

- **Amnesia**: “I don’t know what I know”
  - **Expose**
OUTCOME FORUM DISCUSSION
What do we know about the effects of continuous foam applications and water processing

Caution; I know what I don’t know
- Shearing effects causing the oil in water?
- How does foam work?
- Difference between good vs bad oil in water?
- Oil in water depends on foam product?
- Can oil in water problem be designed out
- Other technologies (polishing, deoiler, membrane technology) may help OIW
- How does water composition influence oil in water due to foamers?
- Hydrocyclones or flotation units suitable for polishing?
OUTCOME FORUM DISCUSSION
What do we know about the effects of continuous foam applications and water processing

Certainty; I know what I know

- Emulsion stability, fine oil droplets
- Shearing effects
- To avoid carry-over an anti-foam/defoamer is needed
- Unaligned resources
- Issues with level controls
- High speed centrifuges not good in treating foam emulsions
- Sacrafice worst well in production system for water disposal
- Carbon filter doesn’t work
OUTCOME FORUM DISCUSSION
What do we know about the effects of continuous foam applications and water processing

Ignorance; I don’t know what I don’t know
- New technology
- Foam causes oil in water problems
- Try and see, knowledge sharing
- Design foam and antifoam such that this doesn’t affect OIW
- Learn from other industries
- Steam stripping mitigation for oil in water?
- Is there a chemical solution to fix the OIW?
- Membrane demulsification an option?
- Corrugated plate interceptor an option?

Amnesia; I don’t know what I know
- Who owns the problem?
Low hanging fruits or topics that are identified as most promising
OUTCOME FORUM DISCUSSION:
Low hanging fruits, main topics to work on

- Alignment of resources for starting research on new technologies
- Knowledge sharing between operators and vendors
- Steam stripper application
- Corrugated plate interceptor
- Membrane demulsification
- Other chemicals for treatment
- Foam product requirement such that additional treatment not needed
- Mechanical polishing
- Maximise learning from other industries

The above are listed in random order