CCQTA Project Activities Update for the COQG

May 25, 2006
CCQTA Update for COQG
May 2006

- CCQTA membership is expanding, currently have 48 member companies
- Association is considering a bylaw change to promote the public release of project information after five years
Projects List

- Heavy Oil BS&W
- Phosphorus in Crude
- TAN Project
- NGL Contamination
- Heavy Oil Emulsion Viscosity
- Heavy Oil Manual
- Additive Impact
Heavy Oil BS&W Project Status Report

May 25th 2006

Project Manager: Jack Suggett
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Heavy Oil BS&W Participants

- Baker Petrolite
- Champion Technologies
- Conoco Phillips
- Encana Corporation
- ExxonMobil
- GE
- Maxxam Analytics
- NCUT
- Suncor Energy
- BP
- CITGO
- Enbridge
- Husky Oil
- Nalco
- Petro-Canada
Heavy Oil BS&W Project

Project Status

1. Collect additional samples of problem crude
2. Explore option of completing sampling of good/bad sample sets at an alternate refinery site
3. Prepare a detailed project summary report for project members, summarizing data from Phases I, II, and III
Phosphorus in Crude

Participants

- B.J. Services
- CCS Energy Services Canada
- Clearwater Inc.
- Halliburton
- Imperial Oil Limited Analytics
- Nalco
- United Refining
- BP
- Chevron
- Enerchem
- New Alta
- Maxxam
- Petro-Canada
Phosphorus in Crude Project Status

- Preliminary CAPP testing indicates phosphorus volatilities much greater than anticipated from frac fluids
- Test procedure being verified by commercial lab
- Ongoing activities include:
  - Confirm volatility of frac gellants
  - Determine if new high volatile additives are being used
  - Evaluate pilot plant fouling tendencies of “low volatile” alternatives
TAN Project Participants

- Alberta Research Council Petrolite
- BP
- Enbridge Pipelines Corporation
- GE
- Marathon Petroleum
- Nalco Canada
- Petro-Canada
- Suncor Energy
- Total
- Upgrading

Baker
Conoco Phillips
Encana
JACOS
Maxxam Analytics
NCUT
Shell
Terasen Pipelines
NorthWest
Project summary

- Modifications to ASTM D664 published on website
- Corrosivity testing completed on MacKay River gas oil, and two SJV gas oil samples (low & high Tan) and Albian gas-oil
- Completed preliminary review of speciation results
- Results to date support hypothesis that Athabasca oilsands product is not as corrosive as the TAN would suggest
- Plan to test three more gas oil samples. Two from oilsands bitumen and one from a “known” corrosive non-oilsands source
NGL Contamination Project Status Report

May 25th, 2006

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NGL Contamination Participants

- ARC
- BP
- Keyera
- Maxxam
- Pall Filters
- Provident Energy Energy Services

Participation for 2006 - pending

Alberta Envirofuels
Dow Chemical
Imperial Oil
Nova Corporation
Petro-Canada
Halliburton
NGL Contamination Activities

- Evidence to suggest that NGL contamination is carried through to $fC_4$ during distillation
- Preliminary results suggest that contamination during pipeline transport (batched with condensate) has minimal impact
- Next steps include:
  1. Track sources of sediment upstream of fractionators
  2. Evaluate effectiveness of existing filtration systems.
  3. Determine the best option for contaminant
Heavy Oil Viscosity Participants

- EnCana Corporation
- Total E&P Canada
- Suncor Energy
Heavy Oil Viscosity
Project Status

- Project goal – Quantify the gap between predicted and actual pressure drop in SAGD emulsion gathering system pipelines
- Project will compare plant data collected over a one month period against predicted data based on the measured flow conditions
- Testing will be done in the summer to mitigate issues with freezing
Heavy Oil Manual Project

Objective

- Provide a document to assist users of heavy oil methods with an understanding of their capabilities and limitations and allow users to make informed decisions on method selection.

  - Users include: analytical chemists, researchers, site engineers and marketing personnel.
Heavy Oil Manual Project

Scope

- Density
- Viscosity
- Sulphur
- BS&W
- Water & solids cleanup techniques

- Asphaltenes
- TAN
- Distillations (TBP, Simdist)
- Chloride
Heavy Oil Manual

Project Status

- Initial scope to include water and solids cleanup procedures and 2 other methods.
- Initial work to be completed in six months.
- Scope will be expanded and manual modified as required.
- Funding to be provided by CCQTA membership:
  - $25K annually.
- Availability & distribution of material to third parties - to be determined.
Additive Impact
Proposed Project

May 25th, 2006

Project Manager: Graham Derby
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Additive Impact

Objective

- Improve awareness of commercially used chemistries used in all up-stream activities in the petroleum industry.
- Share information with refinery technical staff in order to improve their awareness of chemistries used in petroleum production.
- In return, obtain from refinery technical staff information regarding sensitive products, processes, and chemistries.
- Assist in future product development activities and possible testing of pre-commercialized additives.
Additive Impact
Project Status

Preliminary data being collected using two approaches

- Refinery incident reporting
  - COQG survey
- Additive suppliers to provide a summary of key products for investigation. Selection based on
  - Total volumes in use
  - Potentially sensitive chemistries
Next Meeting

CCQTA will hold a general meeting:

Date: June 7, 2006
Time: 1:30 PM
Location: BP
240-4th Avenue SW
Calgary, Alberta

Project meetings will be held on the 6th & 7th in accordance with the schedule previously issued.

Everyone is welcome to the general meetings. If you wish to attend a project meeting and are not a project member, contact the project manager.

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