

CCQTA

CCQTA Project Activities Update for the COQG

February 23rd, 2006

CCQTA Update for COQG

February 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



CCQTA

Heavy Oil BS&W Project Status Report

February 8th 2006

Project Manager:

Jack Suggett
1403 645 2807

Jack.suggett@encana.com

Heavy Oil BS&W

The Canadian Crude

CCQTA Participants

- Baker Petrolite
- Champion Technologies
- Conoco Phillips
- Encana Corporation
- GE
- Maxxam Analytics
- NCUT
- Suncor Energy
- BP
- CITGO
- Enbridge
- ExxonMobil
- Husky Oil
- Nalco Canada
- 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

CCQTA

Phosphorus in Crude Project Status Report

February 7th, 2006

Project Manager:

Bruce Kennedy

1 416 986 6722

kennedybw@rogers.com

Phosphorus In Crude

Canadian Crude

CCQTA

Participants

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



CCQTA

TAN Project- Phase 2 Status Report

February 8th, 2006

Project Manager:

John Van Heyst

1403 920 8922

jvanheyst@suncor.com

IAN Project Participants

CCQTA

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

Baker Petrolite
Conoco Phillips
Encana Corporation
JACOS
Maxxam Analytics
NCUT
Shell
Terasen Pipelines
NorthWest Upgrading

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

CCQTA

NGL Contamination Project Status Report

February 7th, 2006

Project Manager:

Bob Falkiner

1416 968 8316

bob.j.falkiner@esso.ca

NGL Contamination

CCQTA Participants

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

Alberta Envirofuels
Dow Chemical
Imperial Oil
Nova Corporation
Petro-Canada
Halliburton Energy Services

Participation for 2006 - pending

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 management

The background is a collage of four images: top-left shows an industrial facility with tall towers; top-right shows a man in a lab coat holding a beaker; bottom-left shows an oil pumpjack; bottom-right shows laboratory glassware with colored liquids.

CCQTA

Heavy Oil Emulsion Viscosity Project Status Report

February 8th, 2006

Project Manager: Steve Bater
1 403 537 7238
Steve.bater@Total.com

Heavy Oil Viscosity

The Canadian Crude

CCQTA

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

CCQTA

Heavy Oil Manual Project

February 8th, 2006

Project Manager:

Bryan Fuhr
1780 450 5032
fuhr@arc.ab.ca

Heavy Oil Manual Project

CCQTA 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

CCQTA

Scope

- Density
- Viscosity
- Sulphur
- BS&W
- Asphaltenes
- TAN
- Distillations
(TBP, Simdist)
- Chloride
- Water & solids cleanup techniques

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

CCQTA

Additive Impact Proposed Project

February 7th, 2006

Project Manager:

Graham Derby

1403 219 0640

graham.derby@champ-tech.com

Additive Impact

The Canadian Crude

CCQTA 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

