

# CASE STUDY

## VAPOUR PHASE DECONTAMINATION OF OILSANDS PROCESSING PLANT



## **SCOPE**

Vapour phase decontamination of oilsands processing plant using **ROC 60 VP**.

## **The PROBLEM**

A major western Canadian oil producer had planned a Turnaround for inspection and maintenance of plant hydrocarbon processing equipment. The operator of the facility desired to optimize the shutdown procedure in order to minimize the duration from «oil out» until vessels and equipment could be degassed and made safe for opening, inspection and mechanical work.

## **Our SOLUTION**

The Vapour-Phase process is the fastest method for decontaminating and degassing plant process equipment and consistently reducing steam-out time required during the unit shutdown.

In the Vapour-Phase procedure, West Penetone **ROC 60 VP** is injected directly into the plant steam source, allowing contact and penetration of all vessel internal surfaces. The following vessels and equipment were successfully decontaminated in a single step:

1. Mixed Fuel Gas Separator
2. Flare KO Drum
3. Inlet Separator
4. Free Water KO Drum
5. Oil Treater "A"
6. Oil Treater "B"
7. Gas Boot Drum
8. Produced Gas KO Drum
9. Produced Gas Separator
10. Recovered Diluent Separator
11. Associated exchangers, coolers and condensers
12. All associated process piping

The Vapour Phase process with **ROC 60 VP** removed residual oil, gas, LEL, hydrogen sulphide (H<sub>2</sub>S), benzene and hydrates pyrophoric iron sulphides, eliminating the exothermic reaction between those deposits and the atmosphere.



## RESULTS ACHIEVED

- ▶ The Vapour Phase process using **ROC 60 VP** reduced hydrogen sulphide from 2,500 ppm to zero, LEL's to zero, and benzene level to less than 0.5 ppm within just a few hours. The whole Vapour Phase process was completed in 16 hours.
- ▶ The Vapour Phase process using **ROC 60 VP** can reduce unit decontamination time by as much as 1-2 shifts. It also increases the efficiency of maintenance in spection and repairs by providing oil and sludge free surfaces, minimizing turn around time and reducing mechanical contractor costs.

*Inlet Separation and  
Oil Removal Unit*



## *A comprehensive and integrated approach*

With over 100 years of product development, manufacturing and application experience, the West Penetone family of companies has designed and patented many products to satisfy the needs of our clients world wide.

Our technical group provides customers effective support to ensure that contaminants are paired with the right chemistry for any task.

Establishing and maintaining a collaborative approach with our customers in tackling their operational and maintenance challenges is key to realizing efficiencies and cost savings.

Questions? [solution@westpenetone.com](mailto:solution@westpenetone.com)

Canada

**WEST PENETONE INC.**  
10,900 Secant St  
Anjou, Quebec H1J 1S5  
**1.800.361.8927**

**WEST PENETONE INC.**  
11411-160 Street  
Edmonton, Alberta T5M 3T7  
**1.866.454.3919**

United States

**PENETONE CORPORATION**  
125 Kingsland Avenue  
Clifton, NJ 07014  
**1.800.631.1652**

**PENETONE CORPORATION**  
8201 4th Street, Unit G  
Downey, CA 90241  
**1.800.421.6211**



[www.westpenetone.com](http://www.westpenetone.com)

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