

Highlights:

- > Vapour phase cleaning was conducted to address sludge, H₂S, LELs, pyrophoric and ammonia in vessels
- Early job set up allowed for a reduction in personnel intensity requirements
- Robust planning and advance set up resulted in 15% underbudget execution



CASE STUDY

Turnaround Vapour Phase Cleaning During COVID-19

Early job set-up and planning reduced the personnel intensity needs to meet COVID-19 safety requirements and the project being completed **15% under-budget with zero incidents**.

Vapour Phase cleaning was conducted on a plant in the Fort McMurray, Alberta area where the following equipment was cleaned:

- > Feed Heat Exchangers
- Ammonia Stripper and Auxiliary Equipment
- > H₂S Stripper and Auxiliary Equipment
- > Water Trim Coolers
- > Sour Water Degasser
- > Cold Condensate Coolers/Pumps

Due to the COVID-19 pandemic, planning was conducted well in advance to ensure smooth and safe execution:

Early Job-Set Up and Procedure Development

An execution procedure outlining equipment, amount of chemistry, injection points/ rates was written, and client approved months before execution. One week before job kick-off, a small team completed a preliminary set up by tagging injection points and equipment set up. This set-up in advance ultimately reduced the amount of personnel required that would typically be needed during execution.

Four Stage Vapour Phase Cleaning

A four-stage cleaning process was used to remove several types of contaminants. First, FQE Solvent-H was used to deal with the built-up sludge, next FQE LEL-V Eco and FQE $\rm H_2S$ were applied to remove LELs and $\rm H_2S$. Following this, FQE Pyrophoric was used to eliminate pyrophoric materials. Lastly, equipment contaminated with Ammonia received an injection of FQE Ammonia Odor. Due to the advance set up already being complete prior to job execution, the job was completed earlier than planned and 15% under budget.

COVID-19 Safety Measures

The FQE Pandemic plan was used in addition to our client's policy for safe work regarding COVID-19. Safe distancing, reporting, and masks protocols were strictly adhered to, which resulted in zero transmissions of COVID-19.

Contact Us



EDMONTON, AB

9304 - 39 Avenue Northwest Edmonton, AB T6E 5T9 +1 780-485-0690



FourQuest Energy Headquarters in Edmonton, AB



FORT MCMURRAY, AB

136 Macmillan Road Fort McMurray, AB T9H 5L4 +1 780-750-2829



GRANDE PRAIRIE, AB

9618 - 113 Street Grande Prairie, AB T8V 4Z7 +1 250-785-1706

United States of America



HOUSTON, TX

#422, 8300 FM 1960 West Houston, TX 77070 +1 281-671-6616



HONOLULU, HI

500 Ala Moana Blvd, Suite 7400 Honolulu, HI 96813 +1 832-835-8544

