

**Letter of Reference – Maviro Catalyst Canada Inc.**

To whom it may concern:

I am writing to recommend the Maviro Catalyst Services team for future catalyst change out jobs at your facility. I had the pleasure of working with the Maviro team throughout the Ammonia #2 plant turnaround at the Courtright Nitrogen Complex in the fall of 2018, in which they consistently demonstrated a commitment to both working safety and meeting client expectations.

The scope of work for the outage included catalyst replacement of several major vessels (e.g. Hydrodesulphurizer Reactor, High/Low Temperature Shift Reactors) as well as the Primary Reformer. Utilization of the CALM reformer loading system resulted in a very efficient reformer loading process. Out of 168 total tubes replaced not a single one needed to be reloaded, as all of them were within specification for pressure drop following the initial loading. Given that the reformer catalyst change out fell under the critical path for the outage, this was of great value to us.

Overall, the Maviro team was an instrumental contributor to the success of this outage. They showed a consistent dedication to both safety and quality regardless of the job requirements. They were flexible and accommodating in the event of schedule changes, and their past knowledge and experience base was an asset throughout the inert entry jobs. For these reasons, I absolutely endorse their services.

**CF Industries**  
Project Engineer, Medicine Hat Nitrogen Complex