

Carrot Creek, Edson, Alberta

1,478 HP at 1,200 RPM sweet gas, high pressure injection retrofit

Enerflex retrofitted a Waukesha 7042GSI multi-stage unit into a high pressure injection package — completed in under four months with zero incidents.

Enerflex was commissioned to retrofit a 2004 fleet Waukesha 7042GSI – Ariel JGK 4/3 into a high-pressure injection package (4,000 psig discharge). This was a multi-stage retrofit that required overhead cranes due to the cooler and interconnecting pipe modules being too heavy to lift by hand.

The rebuild was complex and needed to be staged in three phases. The engine, compressor, and all rotating equipment was overhauled, with upgrades to every peripheral part of the unit. Enerflex teams fabricated new process spooling across all three stages of compression as well as added four new pulsation bottles, new two- and three-stage suction scrubbers, and three new IC1, IC2, and AC cooler sections. In addition, three cylinders were replaced, a B149.1

fuel train upgrade was completed, and new process pressure transmitters were installed — alongside a new control panel.

All pressure vessels, spooling, and cooler sections were updated to ABSA, and acoustic and torsional studies were completed with QC documentation.



Outcome

The project was completed in under four months. It has a P.Eng-stamped PAID, complete with a line list. The project wrapped-up with a test run, full third-party inspection, unit dismantling, and loading onto three trailers — all with zero incidents.

