STEP energy services

CASE STUDY | QNT 3000 THUNDER PUMP

Project Scope: Pumping pressures above 55 MPa and multi-well pads

Location: Montney and Duvernay

Date: August-December 2016

Rate: 8-20 cubes/min

Total Pumping Hours: 368 hours to date (500 hours on the power end before implementing in the field)

Total Cycles: 1.67 million cycles (2 million cycles on the power end before implementing in the field)

OVERVIEW:

In just over four months STEP's QNT 3000 Thunder Pump has worked for eight clients, on 10 wells, with a total of 4,534 cycles per hour, without any downtime. By using STEP's powerhouse pump, clients receive unparalleled performance at extraordinary operating efficiencies resulting in significant economic savings for large scale operations in the Duvernay and Montney.

EXECUTION:

In addition, clients have realized the following benefits of using STEP's QNT 3000 Thunder Pump:

INCREASED RELIABILITY

- Continuous duty: STEP's QNT 3000 Thunder Pump has been running for 368 continuous hours, representing 1.67 million cycles without any downtime.
- 11" stroke length: Requires less RPM to get the same volume as the standard 8" stroke.
- Stainless steel construction for superior corrosion resistance.

REDUCE PLANNED MAINTENANCE AND NPT

- Traditional pumps must be taken out of service for maintenance every 3,000 hours on a standard 2500hp configuration, but the QNT Thunder Pump's planned maintenance is synced to the standard maintenance interval of all major components, resulting in less downtime.

DECREASED ENVIRONMENTAL IMPACT

- A standard 12-pump job requires eight, QNT 3000 Thunder Pumps, resulting in a smaller environmental footprint.
- The carbon footprint is reduced by two-thirds because fewer pumps are needed.
- The carbon emissions are decreased by using dynamic gas blending.

INCREASED SAFETY

- Fewer pumps are needed to do the same job, meaning fewer professionals to staff the equipment onsite.
- With 30 per cent less cycle maintenance, fewer professionals are required to maintain the equipment.
- There is a decreased risk of motor vehicle incidents as there is less equipment moving to and from site.

Because of the operational success with the QNT 3000 Thunder Pump, STEP plans to add an additional 30,000 horsepower to the fleet in 2017, allowing the Company to better serve producers in delivering an Exceptional Client Experience.

For more information, please visit **stepenergyservices.com**

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