Certificate no.:
TAD00001RJ

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Valve

with type designation(s)
2" & 3" Fig. 1502 Plug Valves & Swing Check Valves

issued to
Red Deer Ironworks Inc.
Red Deer, AB, Canada

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2024
DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Houston** on **2025-04-30**
This Certificate is valid until **2030-04-29**.
DNV local unit: **Long Beach**

for **DNV**

Approval Engineer: **Xiangwen Maggie Wang**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

- 2" & 3" Fig. 1502 Plug Valves 15K Standard Service
- 2" & 3" Fig. 1502 Swing Check Valves 15K Standard Service

Reference standards

- API 6A, *Specification for Wellhead and Tree Equipment*, 21st Edition

Application/Limitation

Design Parameter

Max. Working Pressure	15,000 psi
Shell Test Pressure	22,500 psi
Design Temperature	-20 °F to 250 °F
Material Class	AA
Product Specification Level	1
Performance Requirement	1
Service	Standard

Type Approval documentation

Tests carried out

1. Plug Valve 3” Fig. 1502 MXF DET INT 15000 psi Acid and Standard Service dated March 27th, 2025
2. Plug Valve 2" FIG 1502 MXF DET INT 15000 psi Low Torque Standard Service dated March 27th, 2025
3. Swing Check Valve Top Entry 3" Fig 1502 15,000 psi Standard Service dated March 27th, 2025
4. Swing Check Valve 2" Fig 1502 MxF DET 15000 psi Standard Flow Standard Service dated March 27th, 2025

Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer’s name or trademark.
3. Additional Marking at manufacturer’s discretion.

Periodical assessment

For retention of the Type Approval, DNV’s surveyor shall perform periodical assessment after 2 years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV’s Class Programme DNV-CP-0338, Section 4.

Other conditions/comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV’s local surveyor.
2. DNV ref.: A1659263.

Manufactured by:

1. **Red Deer Ironworks Inc.,** 6430 Golden West Avenue, Red Deer, AB T4P 1A6 Canada