



RTD QUALITY SERVICES
GRANDE PRAIRIE OPERATIONS
PH: 1-780-814-7227
FAX: 1-780-402-3030

GENERAL NDE REPORT Chinchaga 2011-31

Date Sept 24-2011 Page 1 of 2
 RTD Job #: 10.110763
 RTD Dep. #:

Client: Canadian Natural Resources Ltd.
 Address: Grande Prairie AB
 P.O.#:
 Client Rep.: Craig Liba / Deston Reber

Lot #: Chinchaga Gas Plant
 Location: LSD 01-24-96-05 W6M
 Procedure: (RTD) MT-001
 Code: ASME VIII Div 1

Description: Brascan Line Heater – Fire tube
 Surface Condition: Weldment Machined Painted
 Ground PowerBrushed Other Surface Temp (C°): < 5 > 5 < 60 > 60

MAGNETIC PARTICLE INSPECTION

Equipment Type: Yoke Bench Asset No.: 11823 Calibration Due Date: Dec 2011
 Blacklight: Intensity Check: _____ $\mu\text{W}/\text{cm}^2$ Asset No.: _____ Calibration Date: _____
 Method: A/C D/C Type: Continuous Residual Power Supply: 120 V Battery Natural
 Type: Dry Powder Colour: _____ Wet: Black and White Fluorescent
 Product Manufacturer: Magnaflux Product Identification Code: WCP-2 / 7-HF

LIQUID PENETRANT INSPECTION

Type: I-Fluorescent II-Visible Dye Method: A (Water Wash) B (P.E. Lipophilic) C (Solvent Removable) D (P.E. Hydrophilic)
 Blacklight: Asset No.: _____ Calibration Date: _____ Blacklight Intensity: _____ $\mu\text{W}/\text{cm}^2$
 Dwell Times: Penetrant; _____ Minutes Developer; _____ Minutes Product Manufacturer: _____

ULTRASONIC THICKNESS MEASUREMENT

Method: P/E Dual T/T Other Type: Longitudinal Shear Wave
 Instrumentation: Manufacturer: _____ RTD Asset No.; _____ Calibration Due Date; _____
 Cal. Block(s): Type; _____ RTD Asset No.; _____ Serial No: _____
 Couplant: Manufacturer: _____ Type: _____

Probe Type	Angle	Frequency	Size	Reference Level (dB)	Scanning Level (dB)	Range	Skip Value	Beam Travel	Transfer Value (dB)

INSPECTION DETAILS

Scope: To do a Magnetic Particle inspection on the welds of the Heater Fire tube
 Ref: Fire tube
A170474
 Results: The welds of the Fire tube were buffed to a clean state and inspected with Magnetic Particle no indications of concern were found at the time of the inspection. No cracking.

Technician: Dwight Carson
 Signature: _____ Method: CGSB MT 2
 Assistant: Chris Bethel CGSB /ASNT/SNT Level: 2
 Client Signature: _____

Start Time: _____ Stop Time: _____ ST _____ OT _____
 Unit: _____ Km: _____ Travel Time: _____
 Subsistence required OT Meal
 Consumables: _____

Photo Table



Overview of Firetube A170474



Handwritten label on firetube



Data Plate on Firetube



Data Plate on Vessel



Welds were Power Brushed to clean



Blank area