

VISUAL EXAMINATION REPORT

Customer: CNRL **Rpt.** VT- 080425-02
Location: 5-11-45-25W4M Hobbema **Job #:** 333
Examination of: A0242142 Treater **Date:** 25 April 2008
Part/Serial Number: _____ **P.O.:** _____
Acceptance Standard: Per client request **Page:** 1 of 1
Examination Standard: Reference API 510
Examination of: Vessel internals and firetubes

Surface: As Ground As Welded Machined Base Metal Painted Sand Blast
Inspection Conditions: Vessel internal pressure washed

EXAMINATION RESULTS:

OBSERVATIONS:

Interior boxes were not opened.
Shell shows evidence between 5:00 and 7:00 of general 0.050" pitting prior to coating.
Approximately 2 sq.ft of weld overlay has been applied at 6:00 adjacent east weir. Approximately 6 sq.ft. of coating is missing from east head and shell. No active corrosion was observed .
Both anodes were completely consumed. It was stated that last anode change was 3 yrs ago.
Unit has two firetubes (20" x 9', 0.500" nominal, mitred return, 1 3/4" tubesheet) with near identical defects. One tubesheet is stamped "KA8283 7990331, the other is devoid of markings.
Flame arresters and burners were attached, and some damage was observed.
Both units had 0.005 to 0.020 pitting on cold side, and extensive pitting 0.200-0.260 on fire side.
Each fireside tube had a patch applied to top of hot side made of two pieces of 4"x 24" x 3/8" plate which was attached facing cold tube starting at tubesheet weld. A series of weldments had been applied as wear surface to the underside of each hot tube. A 1/16" plate app 2"x 7" had been welded to inside of hot tube, outside of pressure envelope to accommodate mounting of a sealed electrical box. Tube-to-tubesheet welds were not full penetration, and voids exist between fillet welds.

RECOMMENDATIONS:

1. Replace firetube sections as required.
2. Replace anodes annually. Monitor consumption rate and decrease interval if required.
3. Plan for re-coat next shutdown. Coating specialist to determine extent required at that time.
4. Open internal boxes for cleaning and inspection next shutdown

VISUAL INSPECTION PERFORMED PRIOR TO VISUAL EXAMINATION.
INTERPRETATION IS DONE IN ACCORDANCE WITH THE ABOVE MENTIONED STANDARDS, TO THE BEST OF MY PROFESSIONAL ABILITY.

Inspector:

Print: A. Coates **API Certification** 510 **Reg. #:** _____ **Sign:** _____
THE ABOVE REPRESENTATION IS A PROFESSIONAL OPINION, FINAL INTERPRETATION IS THE RESPONSIBILITY OF THE CUSTOMER. I HAVE REVIEWED AND AM IN FULL AGREEMENT WITH THIS REPORT.