## 6-10420 123 St Grande Prairie, Alberta T8V 8B8 Phone: 780-933-9700

Fax: 780-830-3012



## Magnetic Particle Inspection Report

MT\_87-3568-0\_jun2013

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Client: Devon Canada Corporation Item Inspected: Both Fire Tubes from Treater			Equipment Owner: Devon		Date: June 11, 2013	
			Acceptance Code: ASME VIII, Div 1			
Location: Valhalla Oil E	Battery 10-14-76-10 w	6m			.,	
Procedure: MT-01	Surface Preparation: Sand Blasted		Method: Wet Continuous		Light Source: 3 x C cell Halogen	
Equipment: AC Yoke	Manufacturer: Magi	naflux Serial #	HY-10 Cal. Due: Oct	1, 2013		ME 10 lbs S/N: A392
Contrast Paint: Magnaflux WCP-2		Batch# 02269	Black Light: None		ue: N/A	Serial # n/a
Wet Particles: Magnaflux 7HF		Batch# 00116	Particles: N/A	Batch	# N/A	Temp: 10-20'C

## Job Scope:

- To perform contrast magnetic particle on 100% of the welds on both fire tubes from treater serial #87-3568-0.

-To perform an external visual inspection on both fire tubes.

## Overview





Results: There was three small cracks detected in tube #1, All three cracks were found in one location and were removed by lightly sanding the weld. There was one crack found on tube #2 which was also removed by lightly sanding. No other cracking or linear indications detected on any of the welds on both fire tubes.

These welds remain acceptable to reference code.

These fire tubes were left in the rain overnight after sandblasting and were covered with a wet thick rust. The surface of these tubes were cleaned as much as possible with rags and a wire brush but the visual inspection was still limited. There is areas of corrosion and pitting on all sides of both fire tubes. The average depth of the pitting on tube 1 is 0.53mm. The deepest pit found on tube 1 was 1.05mm. The average depth of the pitting on tube 2 is 0.22mm. The deepest pit found on tube 2 was 0.47mm.

See pg 2 for more inspection photos.

Technician(s): Steve Utz (CGSB Level 2 U.T / M.T #12119)

Client Representative: Jason McGovern

Assistants: Patrick Rabara

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Cracks
Three small cracks were found on the back of the flange to tube weld. Cracks were removed.





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Crack found on the front of the flange to tube weld. Crack was removed.

