

EQUIPMENT INTERNAL INSPECTION REPORT

Customer: _____ **ITS Job No.:** 1635
District: Northern **Date:** 08-Mar-2012
Facility: Edson Field **LSD:** _____
Equip. Description: Inlet Separator **Serial No.:** 01-004
Equip. / OIP No.: 259VS015 **PRN.:** A470038
Equip. Type: VSL Tower Exchanger Cooler Filter Other: _____

Head (1)	Head (2)	Shell	Boot Shell / Head
<input type="checkbox"/> Top <input checked="" type="checkbox"/> North <input type="checkbox"/> West	<input type="checkbox"/> Bottom <input checked="" type="checkbox"/> South <input type="checkbox"/> East	<input type="checkbox"/> Top <input type="checkbox"/> Bottom	<input type="checkbox"/> Not Applicable
<input type="checkbox"/> Flat <input type="checkbox"/> FLG <input type="checkbox"/> ELL <input type="checkbox"/> ECC <input type="checkbox"/> HEMI	<input type="checkbox"/> Flat <input type="checkbox"/> FLG <input type="checkbox"/> ELL <input type="checkbox"/> ECC <input type="checkbox"/> HEMI	<input checked="" type="checkbox"/> Good Condition	<input checked="" type="checkbox"/> Good Condition
<input checked="" type="checkbox"/> Good Condition	<input checked="" type="checkbox"/> Good Condition	<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Internal Corrosion
<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Pitting _____ (Max\ Depth)
<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Wear / Erosion
<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked
<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	<input type="checkbox"/> Blistered	<input type="checkbox"/> Blistered
<input type="checkbox"/> Blistered	<input type="checkbox"/> Blistered	<input type="checkbox"/> Scale	<input type="checkbox"/> Scale
<input type="checkbox"/> Scale	<input type="checkbox"/> Scale	<input type="checkbox"/> Coated	<input type="checkbox"/> Coated
<input type="checkbox"/> Coated	<input type="checkbox"/> Coated	<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Mechanical Damage
<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Bulged / Distorted / Deformation	<input type="checkbox"/> Bulged / Distorted / Deformation
<input type="checkbox"/> Bulged / Distorted / Deformation	<input type="checkbox"/> Bulged / Distorted / Deformation	<input type="checkbox"/> See Comments	<input checked="" type="checkbox"/> Limited Access
<input type="checkbox"/> See Comments	<input type="checkbox"/> See Comments		

Channel Head	Internal Welds	Internal Nozzles	Drum
<input checked="" type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Good Condition	<input checked="" type="checkbox"/> Good Condition	<input type="checkbox"/> Mud <input type="checkbox"/> Steam
<input type="checkbox"/> Good Condition	<input type="checkbox"/> Poor Quality	<input type="checkbox"/> Internal Corrosion	<input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Good Condition
<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Pitting _____ (Max\ Depth)	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Internal Corrosion
<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Cracked	<input type="checkbox"/> Pitting _____ (Max\ Depth)
<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	<input type="checkbox"/> Scale	<input type="checkbox"/> Wear / Erosion
<input type="checkbox"/> Blistered	<input type="checkbox"/> Scale	<input type="checkbox"/> Coated	<input type="checkbox"/> Cracked
<input type="checkbox"/> Scale	<input type="checkbox"/> Coated	<input type="checkbox"/> Plugged	<input type="checkbox"/> Blistered
<input type="checkbox"/> Coated	<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Poor Welding	<input type="checkbox"/> Scale
<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> See Comments	<input type="checkbox"/> Leaking	<input type="checkbox"/> Coated
<input type="checkbox"/> Bulged / Distorted / Deformation		<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Mechanical Damage
<input type="checkbox"/> See Comments		<input type="checkbox"/> See Comments	<input type="checkbox"/> Bulged / Distorted / Deformation
			<input type="checkbox"/> See Comments

Internal Protection	Vessel Internals	Heating Coil (A)	Heating Coil (B)
<input type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Adequate Cleaning	<input checked="" type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Coating <input type="checkbox"/> Lining	<input type="checkbox"/> Vortex Breaker(s) / Deflection Plate(s) Damage	<input type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition
<input type="checkbox"/> Good Condition		<input type="checkbox"/> Corrosion	<input type="checkbox"/> Corrosion
<input type="checkbox"/> Blisterer(s)		<input type="checkbox"/> Pitting _____ (Max Depth)	<input type="checkbox"/> Pitting _____ (Max Depth)
<input type="checkbox"/> Dis-bonded	<input type="checkbox"/> Weir(s) / Baffle(s) / Divider(s) Damage	<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked
<input type="checkbox"/> Chipped	<input type="checkbox"/> Spray Nozzles Damaged / Missing	<input type="checkbox"/> Scaled	<input type="checkbox"/> Scaled
<input type="checkbox"/> Holidays / Cracked		<input type="checkbox"/> Worn	<input type="checkbox"/> Worn
<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Down-comer Corrosion	<input type="checkbox"/> Loose	<input type="checkbox"/> Loose
<input type="checkbox"/> Missing		<input type="checkbox"/> Poor Installation	<input type="checkbox"/> Poor Installation
<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> See Comments	<input type="checkbox"/> See Comments	<input type="checkbox"/> See Comments

Demister Screen	Refractory	Manway	Trays
<input type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable
<input checked="" type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition	<input checked="" type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition
<input type="checkbox"/> Dislodged	<input type="checkbox"/> Cracked (minor)	<input type="checkbox"/> Coating Damage	<input type="checkbox"/> Collapsed
<input type="checkbox"/> Broken	<input type="checkbox"/> Spalling	<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> Distorted
<input type="checkbox"/> Missing	<input type="checkbox"/> Missing	<input type="checkbox"/> Mechanical Damage	<input type="checkbox"/> Loose
<input type="checkbox"/> Tie-downs Missing	<input type="checkbox"/> Damaged	<input type="checkbox"/> Seal Face Corrosion	<input type="checkbox"/> Missing
<input type="checkbox"/> Fouling	<input type="checkbox"/> Cracked (Severe)	<input type="checkbox"/> Pitting _____ (Max Depth)	<input type="checkbox"/> Wear
<input type="checkbox"/> Corrosion	<input type="checkbox"/> See Comments	<input type="checkbox"/> See Comments	<input type="checkbox"/> Corrosion
<input checked="" type="checkbox"/> See Comments			<input type="checkbox"/> Poor
			<input type="checkbox"/> Valve Caps Missing
			<input type="checkbox"/> See Comments

Tube Sheet	Firetube(s)	Tube Bundle	Tubes
<input checked="" type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Not Applicable
<input type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition	<input type="checkbox"/> Good Condition
<input type="checkbox"/> Corrosion	<input type="checkbox"/> Corrosion	<input type="checkbox"/> Corrosion	<input type="checkbox"/> External Corrosion
<input type="checkbox"/> Pitting _____ (Max Depth)	<input type="checkbox"/> Pitting _____ (Max Depth)	<input type="checkbox"/> Pitting _____ (Max Depth)	<input type="checkbox"/> Internal Corrosion
<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Wear / Erosion	<input type="checkbox"/> Pitting _____ (Max Depth)
<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	<input type="checkbox"/> Cracked	<input type="checkbox"/> Wear / Erosion
<input type="checkbox"/> Damaged	<input type="checkbox"/> Scaled	<input type="checkbox"/> Damaged	<input type="checkbox"/> Cracked
<input type="checkbox"/> See Comments	<input type="checkbox"/> Coated	<input type="checkbox"/> Plugged	<input type="checkbox"/> Thinning
	<input type="checkbox"/> Heat Impinged	<input type="checkbox"/> Scaled	<input type="checkbox"/> Heat Impinged
	<input type="checkbox"/> Burner Misalignment	<input type="checkbox"/> See Comments	<input type="checkbox"/> Bulged / Distorted
	<input type="checkbox"/> Damaged Supports		<input type="checkbox"/> Leaking
	<input type="checkbox"/> Damaged Guides / Tracks		<input type="checkbox"/> See Comments
	<input type="checkbox"/> See Comments		

Observations:

Vessel in Good Condition

**Based on API 510 Visual Internal Inspection
this vessel is fit for service**

- Limited inspection due to access.
- Shell is free of corrosion / pitting.
- Manway and inlet nozzle in good condition; no signs of corrosion, pitting or damage.
- Baffle in good condition (no signs of damage).
- Wier plate in good condition, no signs of corrosion or pitting.
- Demister inspected in place, no signs of fouling, corrosion or damage.
- Water covering bottom shell, south of wier plate.
- Boot appeared to be in good condition.

Recommendations:

Nothing at this time.

Pictures:



SOUTH HEAD INTERNAL



DEMISTER



INLET NOZZLE DEFLECTION PLATES



INTERNAL Baffle



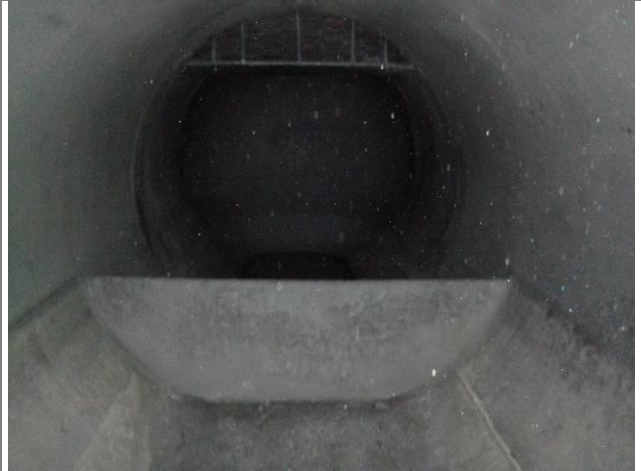
INTERNAL BOOT OPENING



MANWAY NOZZLE WELD



SHELL INTERNAL



WEIR PLATE

Additional Comments:

None

Internal Inspection Performed By:

Print Name: Scott Abbott

Certification No.:

API 510# 30978 /
IPV 000424

Signature:

Report Reviewed:

Initial