

## Field Inspection Report - Long\_Run 557073\_09/20/2010\_VT\_Internal

<b>Vessel Number</b>	557073	<b>Vessel Name</b>	INLET SEPARATOR	<b>Province</b>	Alberta
<b>District</b>	NORTHERN - AB	<b>LSD</b>	01-25-076-01W6	<b>Location</b>	EAGLESHAM PLANT
<b>Method</b>	VT	<b>Access</b>	Internal	<b>Cleaning</b>	Good
<b>Inspection Date (mm/dd/yyyy)</b>	09/20/2010	<b>Inspection Interval (months)</b>	12	<b>Next Inspection (mm/dd/yyyy)</b>	09/20/2011
<b>CRN</b>	T6684.2	<b>Skid Number</b>	PKG54820 / V-100	<b>Service</b>	Sweet
<b>Internal Access</b>	YES	<b>Internal Coating</b>	No	<b>Status</b>	In Service
<b>MAWP (PSI)</b>	675	<b>MAWP (kPa)</b>	4653.99	<b>Outstanding NCRs</b>	0
<b>MAWT (°C)</b>	93.33	<b>MAWT (°F)</b>	200		

### General

- The vessel was blinded, opened and cleaned for internal inspection as part of the 2010 T/A.
- Vessel is located inside building.
- 12 month interval was assigned so the internal corrosion can be monitored during the Eaglesham Battery T/A in 2011.

### Safety Valves

PSV P80372 Shell side. Set pressure: 675 PSI / 4653.99 KPa. MAWP: 675 PSI / 4653.99 KPa. Capacity: 17030 SCFM / 482.24 m3/min.

### External Condition

All visible shell surfaces and nozzles appear in good condition. Name plate is intact and legible. Vessel supports, foundation, electrical grounding and external coating appear good. Associated piping, supports and components appear in good condition and alignment with no sign of defects present at the time of inspection. No evidence of short studding or nut rounding at time of inspection. PSV was removed for servicing at time of inspection. Verify vessel has Alberta CRN and A# stamping.

### Internal Condition

- This vessel was not internally coated.
- Pitting was found in 4 locations.
- #1 Vortex Breaker:
  - Pitting around nozzle 0.085" deep x 2" length about 0.5" wide around part of nozzle radius.
- #2 Vortex Breaker:
  - 0.300" deep x 2.5" long about 1.5" wide around nozzle radius

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- 0.160" deep x 2.5" long about 1.0" wide around nozzle radius
- 0.100" deep x 2.0" long about 0.75" wide around nozzle radius
- #3 Nozzle:
  - 0.180" deep, about 0.375" wide around nozzle radius
- #4 Head:
  - a: 8" long x 2" wide pitting corrosion on the shell to head circ weld max depth 0.140" (avg depth 0.100") at 6 o'clock.
  - b: 2" x 0.25" wide minor surface wastage at 7 o'clock on the head to shell circ weld.
- T<sub>min</sub> = 1.199" @ 675 PSI.
- Corrosion Rate assuming consistent corrosion and 48 months service = 0.080"/yr
- No pit depth is greater than one-half the required wall thickness (exclusive of the corrosion allowance). The total area of the pits does not appear to exceed 7 square inches (45 square cm) within any 8-inch (20-cm) diameter circle and meets the requirements of API 510 for widely scattered pitting as per Paragraph 7.4.3.
- PSV set pressure was lowered to 550 PSI as an extra safety precaution until the next internal inspection can more accurately determine the corrosion rate now that a base line inspection has been completed.
- No other apparent defects, corrosion or deterioration at time of inspection.
- Manway and gasket face were in good condition.
- Vortex breakers and weir plate are intact and secure (welded).
- Nozzles were clean and clear.
- Inlet flow diverter box and inlet nozzle are in good condition and showed no sign of erosion.
- Coalescing pads were secure with tower tray clips and removable. Coalescing pads were washed for inspection.

## Recommendations

- Service and reset PSV down to 550 PSI as an extra safety precaution.
- Plan and budget to perform weld metal buildup on the 4 corroded areas during next T/A or look at coating the vessel.
- Install anodes on the weir plate.
- Monitor Anode consumption at next T/A
- New manway gasket
- All recommendations were reviewed with operations after inspection.

<b>Suitable to be returned to Service</b>	Yes	<b>Suggested Inspection interval (Months)</b>	12
<b>Repairs are still required</b>	No		
Randy Murtha Cert 000471 <b>Inspector</b>			09/20/2010 <b>Date (mm/dd/yyyy)</b>
		<b>Signature</b>	

## Pictures

-No pictures for this inspection-	
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101, 56 Cuendet Industrial Way, Sylvan Lake, AB T4S 0B6

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