



## Diversified Technology Services

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Location: Somehow USA

### Vessel UT Inspection Intervals and Evaluation Sheet

Circuit Number	Description	Corr. Rate (mpy)	UT Inspection Criteria			Comments
			UTT Last	Intvl. (Yrs)	UTT Next	
A-301	Amine Cooler	15	04/30/03	5.00	04/28/08	There was no apparent wall loss found on this vessel.
A-302	Amine Still Reflux Condensor		04/30/03	3.16	06/28/06	There was no apparent wall loss found on this vessel. The corrosion rate of 22 mpy is based on the readings taken from one of the nozzles and could possibly be due to mill tolerance factors.
E-202	Lean / Rich Amine Exchanger	3.5	04/30/03	1.31	08/19/04	Readings are all within 5 to 10 mills of the original thickness. This Exchanger is Stainless Steel.
E-203	Amine Reboiler	9	05/06/03	3.48	10/27/06	
F-405	Rich Amine Filter	10	05/07/03	3.40	09/29/06	
F-410	Lean Amine Filter	6	05/07/03	5.00	05/05/08	
F-411	Lean Amine Charcoal Filter	9	05/07/03	4.98	04/29/08	
T-501	Amine Contactor		05/06/03	5.00	05/04/08	<p>This vessel shows no apparent wall loss but there are some questions about the pressure rating of this vessel and the minimum thickness values. Engineering will need to evaluate t-min factors for this vessel closer.</p> <p><b>Note: After further review the U-1 shows this vessel built to the 1999 stress tables which raise the stress values and correct the t-min problem noted earlier.</b></p>
T-502	Amine Still	13.5	05/06/03	5.00	05/04/08	Shell and head reading were all at or above the original nominal thickness. Some nozzles have higher corrosion rates which could be attributed to the mill tolerance factors.
V-350	Water Knockout	14	04/30/03	0.75	01/28/04	One location on the top head showed a corrosion rate of 5 mills per year. The higher corrosion rates limiting this circuit are on nozzles and may be attributed to mill tolerance factors.
V-370	Incinerator Seal Pot	18	04/30/03	2.00	04/29/05	This vessel does have some apparent wall loss in the top and bottom heads. The bottom head has approx 18 to 28 mills of wall loss from the original nominal, and the top head has approx. 12 to 36 mills of wall loss from the original nominal. There are also two nozzles that are showing the same corrosion patterns of approx. 14 to 30 mills of wall loss from the original nominal. None of these areas are reaching the minimum Calculated t-mins at this time but are showing mild signs of corrosion growth that should be looked at to determine corrosion growth.
V-402	Inlet Filter Sep.	21	04/30/03	2.46	10/14/05	This vessel shows light signs of corrosion growth at this time. In the shell material. The high corrosion rates for this circuit were found in the shell and recorded with approx. 15 to 21 mills of wall loss at this time. This vessel should be monitored to evaluate the actual rate of growth.
V-403	Residue Gas Scrub	23	04/30/03	1.80	02/16/05	Shell and head reading were all at or above the original nominal thickness. Some nozzles have higher corrosion rates which could be attributed to the mill tolerance factors.
V-404	Amine Flash Tank	7	05/07/03	5.00	05/05/08	
V-407	Amine Still Reflux Accumulator	11.5	05/06/03	0.75	02/02/04	The two top nozzles (8") are showing signs of light corrosion at this time. Shell and head showed no mentionable areas of corrosion at this time. The wall loss on the nozzle could be associated with Mill tolerance.
V-408	Amine Surge Tank	9.5	05/07/03	5.00	05/05/08	