

Field Inspection Report – Rare Oilfield Services

ST82252_10/06/2021_VLT_Internal

Vessel Number	ST82252	Vessel Name	AST - PRODUCTION TANK	Province	Alberta
District	INVENTORY	LSD	00-00-000-00W0	Location	INVENTORY
Method	VLT	Access	Internal	Cleaning	Good
Inspection Date (mm/dd/yyyy)	10/06/2021	Inspection Interval (months)	60	Next Inspection (mm/dd/yyyy)	10/06/2026
CRN	N/A	Skid Number	N/A	Service	SOUR
Internal Access	Entry	Internal Coating	Yes	Status	Spare
MAWP (PSI)		MAWP (kPa)		Outstanding NCRs	0
MAWT (°C)		MAWT (°F)			

General

Rare Oilfield has requested a third party pre-purchase inspection to be performed on a used tank located outside of High River. Tank was being brokered by Rare Oilfield Services. Tank was located on a site that was being abandoned and reclaimed. Equipment has been out of service for approximately 10 years as per Brokerage Company.

Tank was a 400 barrel capacity, skid mounted, insulated and heated type. Equipment has welded steel transportation skid attached. Tank was insulated with spray urethane and sealed. Fluids heated by catadyne heater installed inside envirovault.

Tank was 100% internally coated. Tag on manway identified that there was an internal coating, but unable to read the type and thickness of coating.

Tank was drained, blinded, and high pressure water washed prior to inspection. Cleaning was adequate, but there was still product on the floor and shell walls. Assessment of tank based upon cleaned areas and general findings.

Tank sat on piles inside lined steel berm for secondary containment. Tank bottom 16" above grade. No evidence of tank bottom or lower shell sitting in water.

No ultrasonic thickness measurements taken on lower shell or tank floor during inspection.
No MFL tank floor examination completed during inspection.

Safety Valves

Thief hatch to be serviced prior to installation.

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External Condition

Shell and Floor

- Tank external surfaces were insulated with spray urethane and sealed.
- Insulation was in good condition. Insulation was well bonded to tank external surfaces, no evidence of disbondment noted. Very little / minor bird damage noted to external surfaces.
- No evidence of distortion or mechanical damage noted to external surfaces.
- No evidence of salt staining or leaks noted on lower shell surfaces.
- Tank floor was in good condition. No issues noted.

Roof

- Inspection performed from attached ladder for safety reasons and to prevent damage to roof insulation.
- Tank roof external surface was insulated with spray urethane and sealed.
- Insulation was well bonded to tank surface, no evidence of disbondment noted. Minor bird damage noted to external surface.

Thief Hatch

- Thief hatch was installed and attached to tank.
- Seals appeared in good condition.
- Recommend servicing thief hatch prior to being placed into service.

Transportation Skid

- Welded steel skid under tank floor was in good condition. No issues noted.
- Welded steel transportation skid, up side of tank, was in good condition. No issues noted.
- Integral ladder to roof was in good condition.
- Transportation skid has welded I-beam piping supports that would need to be removed prior to loading and moving of tank.

Floatboard

- bolted assembly was in good general condition. No damage noted to assembly.

Manway

- manway throat and bolting flange were in good condition.
- flange seal face was flat and true. Coating on seal face was in good condition. No corrosion issues noted to face.
- No evidence of leaks noted around manway seal.

Associated Piping

- the lower piping has been disconnected from tank. Unable to determine if there was any stress on the piping and / or tank nozzles.
- the piping connected to the roof was adequately supported and well aligned. No visible stress on roof nozzle connections.

Envirovault / Heater

- heater box assembly was in good condition. Door was in good condition and free to move.
- catadyne heater was well supported and appeared to be in good condition.
- no evidence of any leaks inside the envirovault as viewed from the outdoors.

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Internal Condition

Limited internal inspection. All inspections performed from floor level. No ladders or scaffolds used during inspection.

Roof

- Tank roof was self-supporting with no internal trusses or supports.
- Roof was internally coated. Coating appeared in good condition. No large open areas of coating damage noted.
- No visible holes through roof.
- No unusual staining noted on surface.
- past coating repairs completed on roof surfaces; unable to assess condition.

Shell

- Shell was washed from floor level and up 10 feet. Upper liquid level approximately 4 feet from tank roof. Oily type product staining noted on unwashed surfaces.
- Shell was internally coated, full height of tank.
- Coating was in good general condition. No chips, cracks, or peeling noted.
- welds were in good condition, as viewed through coating
- past coating repairs were tightly bonded and in good condition; lower repairs examined only.

Floor

- Tank floor was internally coated.
- Coating was in good condition. There were one area of coating defects found.
- Defect was a crack in the coating, which was located 24" left of the manway (facing into tank from manway), at the shell to floor weld. No blistering associated with coating crack. Unable to catch edge on crack and pull on coating. Don't suspect any corrosion issues underneath coating in affected area.
- minor coating repairs completed in the past. Repairs in good condition and well bonded. No issues noted.
- welds were in good condition, as viewed through coating

Envirovault

- vault assembly and coating was in good general condition. No hot spots noted on surfaces from catadyne being placed to close.
- welds were in good condition, as viewed through coating.

Internal Piping and Nozzles

- limited amount of internal piping found in tank.
- fiberglass piping found connected to 4" and 6" flange connections on back wall. Unsure of process associated with piping. Fiberglass piping was adequately supported. Associated U-bolts were tight and secure. Associated flange bolts were stainless steel and were tight and secure.
- No issues noted with internal piping coating or with nozzle internal coating.

Manway

- manway throat and internal surfaces were coated and in good condition.
- welds were in good condition, as viewed through coating.

Float

- float was installed in tank and connected to external floatboard.
- Float was intact and in good condition.
- center float wire connection to float board was intact and secure.
- side float guide wires were intact and secure.

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Recommendations

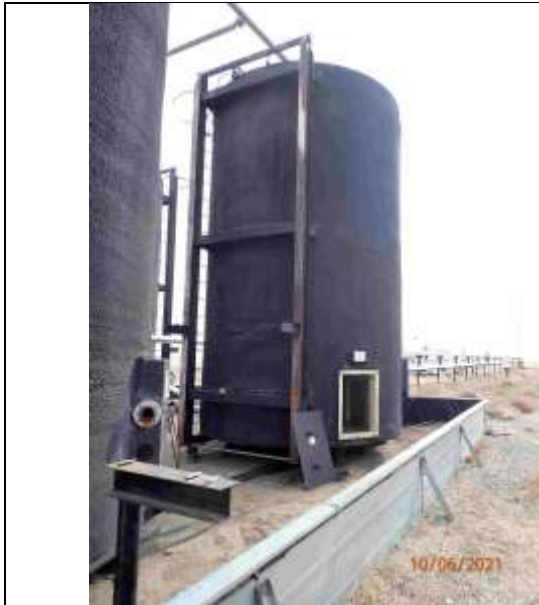
Tank was in good condition, and needed only minor repairs.
 -removal of external piping supports welded to transportation skid
 -spot coating repairs on identified areas.

Suitable to be returned to Service	Yes	Suggested Inspection interval (Months)	60
Repairs are still required	No		
Sean Jahns ABSA ISPV: 000314, API 510: 28064, API 653: 31521 Inspector	 Signature		10/06/2021 Date (mm/dd/yyyy)

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Pictures



Rare-ST82252-AST-PrePurchase-Ext-Shell1-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Shell2-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Nameplate-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Manway-10-06-2021.JPG

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Rare-ST82252-AST-PrePurchase-Ext-Roof-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Piping Supports on Transportation Skid-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Catadyne1a-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Ext-Catadyne1b-10-06-2021.JPG

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Rare-ST82252-AST-PrePurchase-Ext-Catadyne1c-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Manway-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Overview1-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Overview2-10-06-2021.JPG

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Rare-ST82252-AST-PrePurchase-Int-Overview3-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Overview4-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Overview4a-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Past Coating Repairs1-Typical-10-06-2021.JPG

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Rare-ST82252-AST-PrePurchase-Int-Past
Coating Repairs2-Typical-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Internal
Piping1a-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Internal
Piping1b-10-06-2021.JPG



Rare-ST82252-AST-PrePurchase-Int-Roof-10-06-
2021.JPG