



Machine Id
LOUISIANA PURCHASE

Component
Starboard Steering

Fluid
CHEVRON RANDO HD 32 (40 GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0042837	---	---
Sample Date		Client Info		25 Jan 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<1	---	---
Chromium	ppm	ASTM D5185m	>15	0	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>5	0	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>50	1	---	---
Tin	ppm	ASTM D5185m	>5	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

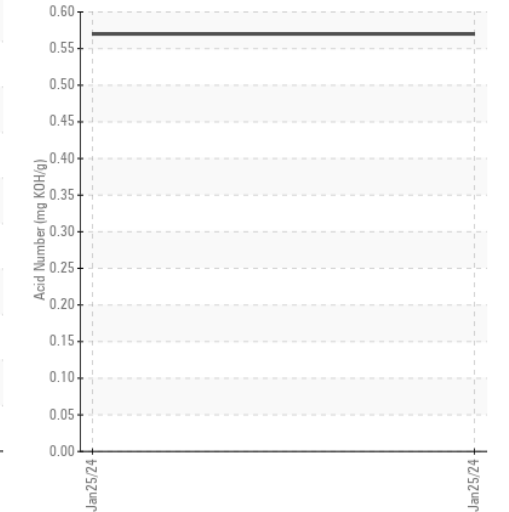
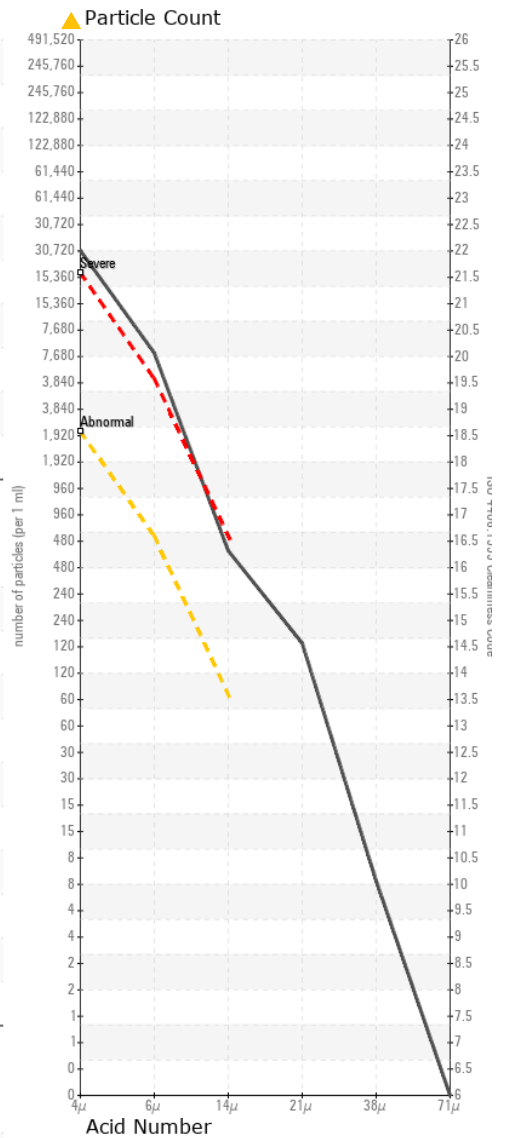
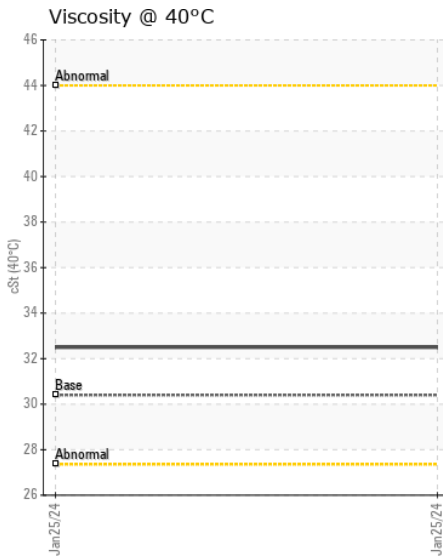
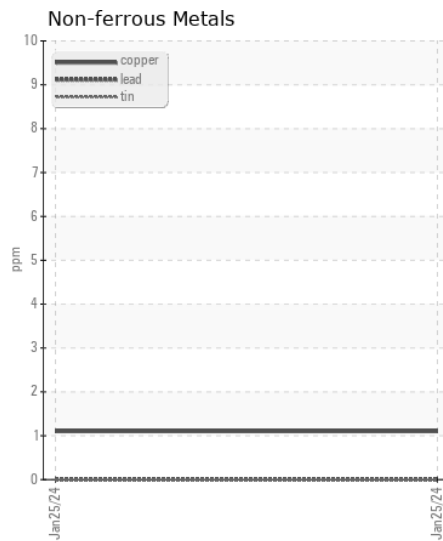
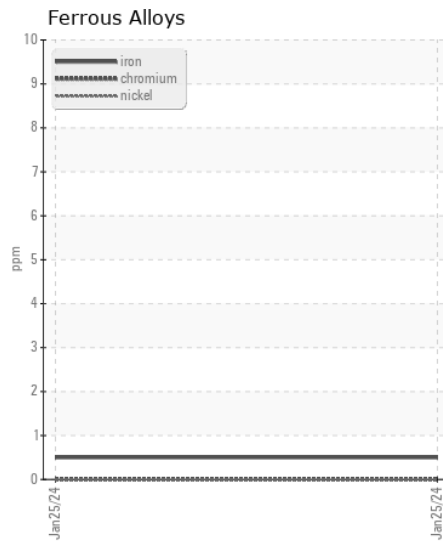
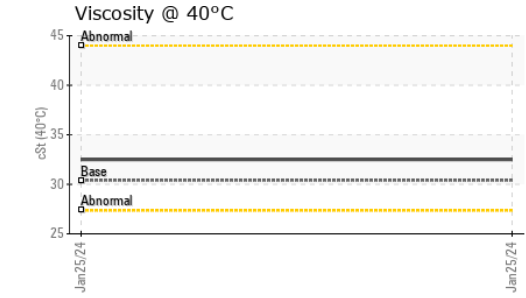
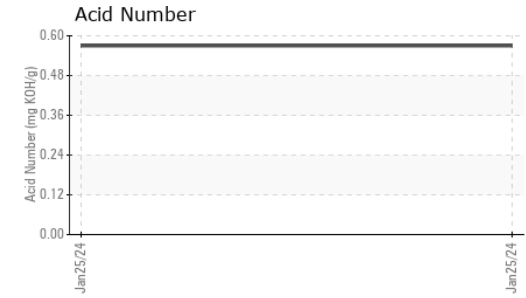
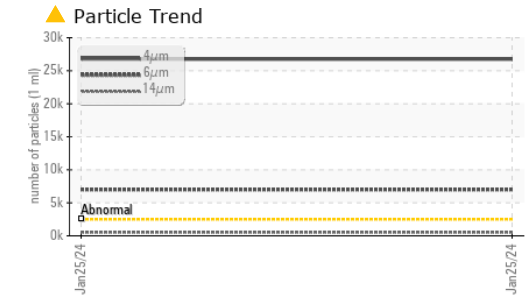
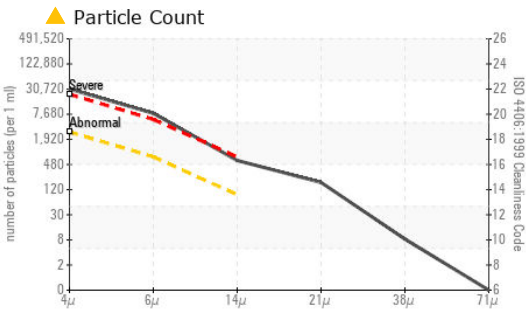
There is a high amount of particulates present in the fluid.

Silicon	ppm	ASTM D5185m	>15	8	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method	>0.2	NEG	---	---
Particles >4µm		ASTM D7647	>2500	▲ 26756	---	---
Particles >6µm		ASTM D7647	>640	▲ 7009	---	---
Particles >14µm		ASTM D7647	>80	▲ 526	---	---
Particles >21µm		ASTM D7647	>20	▲ 157	---	---
Particles >38µm		ASTM D7647	>4	▲ 7	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 22/20/16	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		<1	---	---
Calcium	ppm	ASTM D5185m		19	---	---
Phosphorus	ppm	ASTM D5185m		253	---	---
Zinc	ppm	ASTM D5185m		299	---	---
Sulfur	ppm	ASTM D5185m		607	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.57	---	---
Visc @ 40°C	cSt	ASTM D445	30.4	32.5	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0042837 **Received** : 01 Feb 2024
Lab Number : 06077637 **Diagnosed** : 04 Feb 2024
Unique Number : 10859728 **Diagnostician** : Don Baldrige
Test Package : MAR 2 (Additional Tests: PrtCount)

AMERICAN RIVER TRANSPORTATION CO
 8400 RIVER RD, PO BOX 656
 WESTWEGO, LA
 US 70094-2317
 Contact: KEVIN CHIASSON
 kevin.chiasson@adm.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: