



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
MASSEY FERGUSEN NM59318

Component
Hydraulic System

Fluid
TRC UTF RED (12 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06101109	TR05741402	---
Sample Date		Client Info		26 Feb 2024	24 Nov 2022	---
Machine Age	hrs	Client Info		1737	1335	---
Oil Age	hrs	Client Info		521	123	---
Filter Age	hrs	Client Info		521	123	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	20	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	<1	---
Lead	ppm	ASTM D5185m	>50	14	8	---
Copper	ppm	ASTM D5185m	>75	37	▲ 33	---
Tin	ppm	ASTM D5185m	>10	2	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

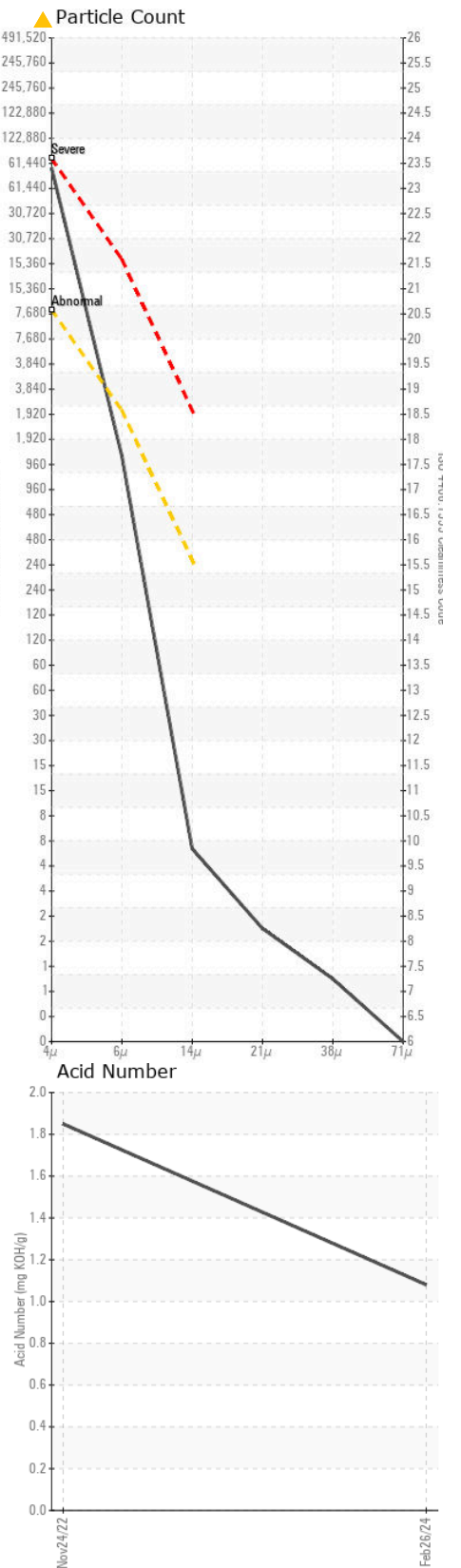
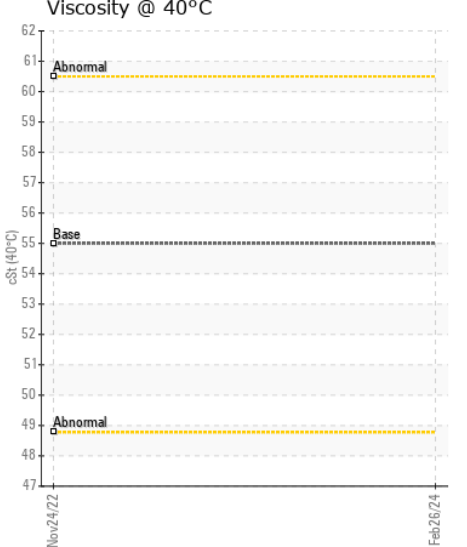
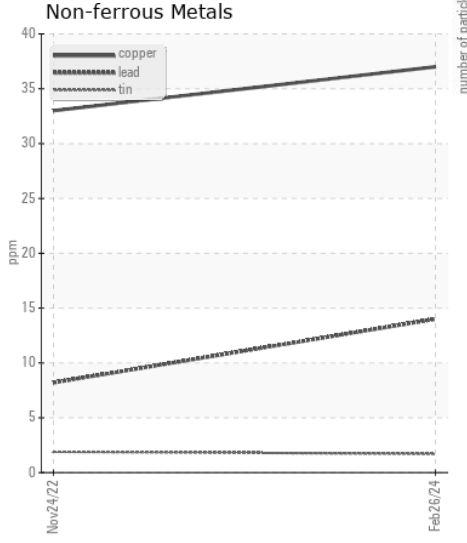
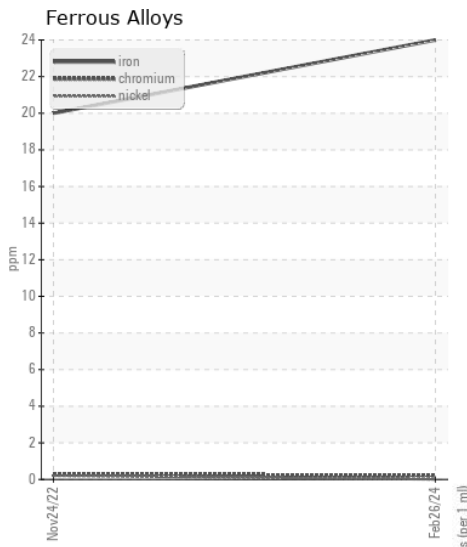
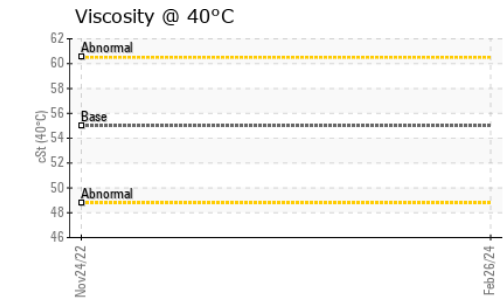
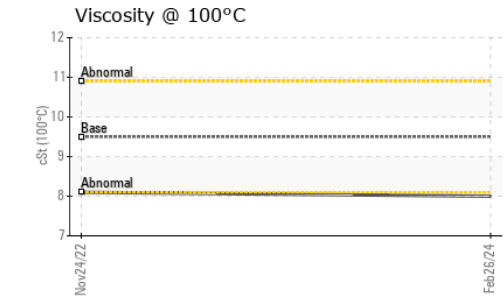
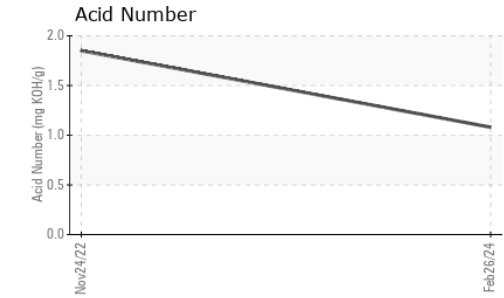
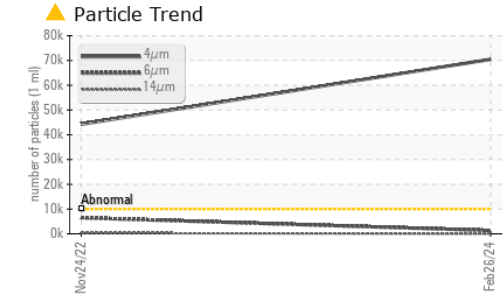
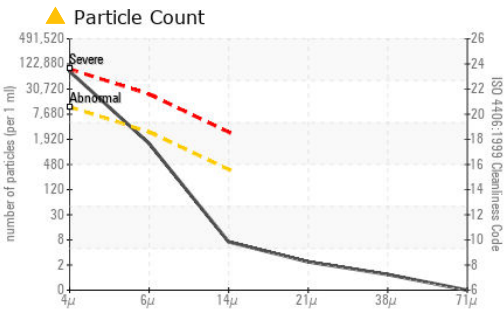
There is a high amount of silt (particulates < 6 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>50	12	11	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>10000	▲ 70452	▲ 44252	---
Particles >6µm		ASTM D7647	>2500	1335	▲ 6485	---
Particles >14µm		ASTM D7647	>320	6	▲ 302	---
Particles >21µm		ASTM D7647	>80	2	▲ 55	---
Particles >38µm		ASTM D7647	>20	1	3	---
Particles >71µm		ASTM D7647	>4	0	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 23/18/10	▲ 23/20/15	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	10	---
Boron	ppm	ASTM D5185m		70	80	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m		<1	2	---
Manganese	ppm	ASTM D5185m		2	1	---
Magnesium	ppm	ASTM D5185m		24	21	---
Calcium	ppm	ASTM D5185m	4200	3595	3663	---
Phosphorus	ppm	ASTM D5185m	1100	1129	1060	---
Zinc	ppm	ASTM D5185m	2000	1443	1363	---
Sulfur	ppm	ASTM D5185m		4528	4366	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.08	1.85	---
Visc @ 40°C	cSt	ASTM D445	55	49.3	---	---
Visc @ 100°C	cSt	ASTM D445	9.5	8	8.1	---
Viscosity Index (VI)	Scale	ASTM D2270	157	132	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06101109 **Received** : 26 Feb 2024
Lab Number : 06101109 **Tested** : 28 Feb 2024
Unique Number : 10899339 **Diagnosed** : 28 Feb 2024 - Doug Bogart
Test Package : MOB 2 (Additional Tests: KV100, PrtCount, VI)

VALLEY SPRAY
P.O. BOX 466
MONROE, OR
US 97456
Contact: JEFF WARREN

To discuss this sample report, contact Customer Service at 1-800-827-0711.
* - 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: