



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
RCR172
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0952694	WC0483862	---
Sample Date		Client Info		19 Jun 2024	03 Jul 2020	---
Machine Age	mls	Client Info		110221	82181	---
Oil Age	mls	Client Info		0	0	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	▲ 119	46	---
Chromium	ppm	ASTM D5185m	>20	2	1	---
Nickel	ppm	ASTM D5185m	>4	2	1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>20	15	14	---
Lead	ppm	ASTM D5185m	>40	24	9	---
Copper	ppm	ASTM D5185m	>330	14	6	---
Tin	ppm	ASTM D5185m	>15	2	5	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

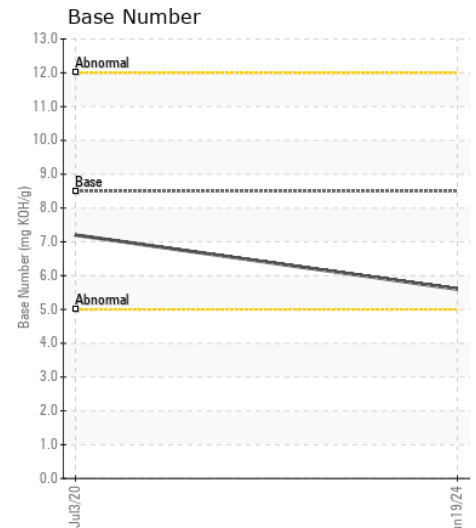
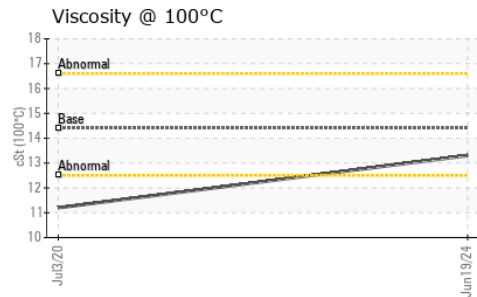
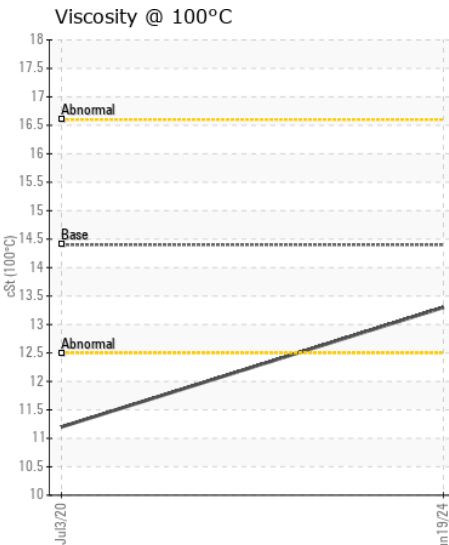
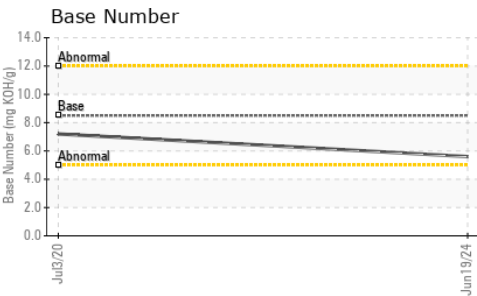
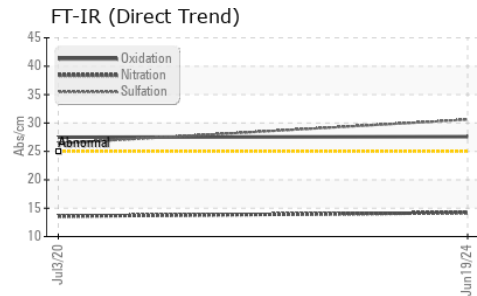
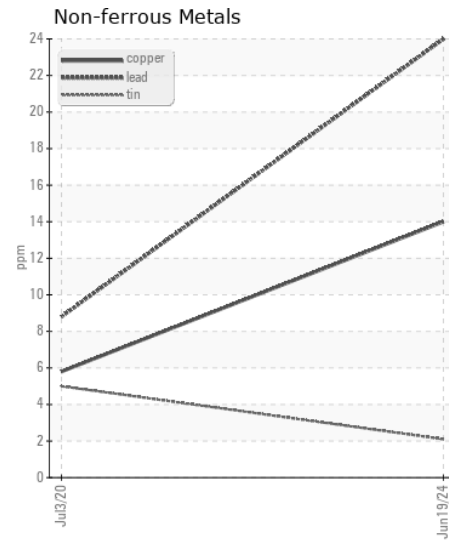
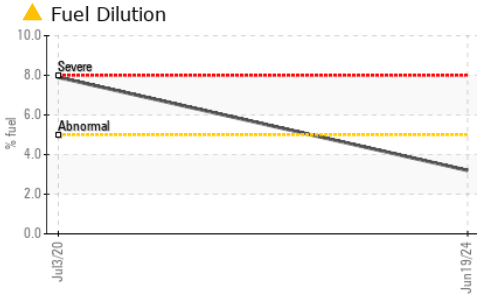
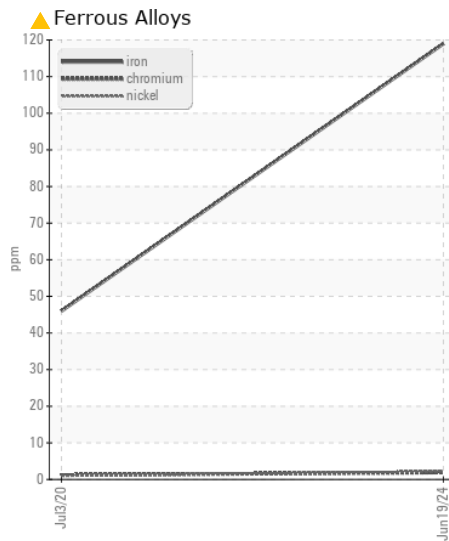
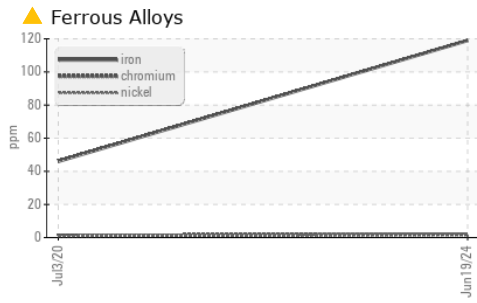
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	10	6	---
Potassium	ppm	ASTM D5185m	>20	25	17	---
Fuel	%	ASTM D3524	>5	▲ 3.2	▲ 7.9	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.8	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	14.2	13.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.6	26.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	8	5	---
Boron	ppm	ASTM D5185m	250	40	53	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	38	57	---
Manganese	ppm	ASTM D5185m		3	<1	---
Magnesium	ppm	ASTM D5185m	450	190	368	---
Calcium	ppm	ASTM D5185m	3000	2382	1564	---
Phosphorus	ppm	ASTM D5185m	1150	980	822	---
Zinc	ppm	ASTM D5185m	1350	1212	1003	---
Sulfur	ppm	ASTM D5185m	4250	3979	2178	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.6	27.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.6	7.2	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	▲ 11.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0952694 **Received** : 03 Jul 2024
Lab Number : 06227253 **Tested** : 08 Jul 2024
Unique Number : 11110746 **Diagnosed** : 08 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: PercentFuel)

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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)