



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
1461456
 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.

WEAR

Metal levels are typical for a new component breaking in.

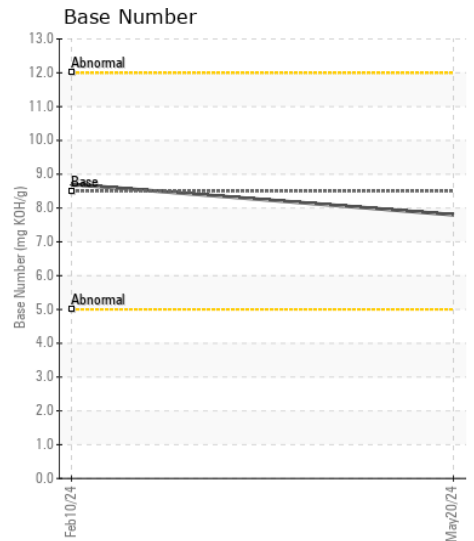
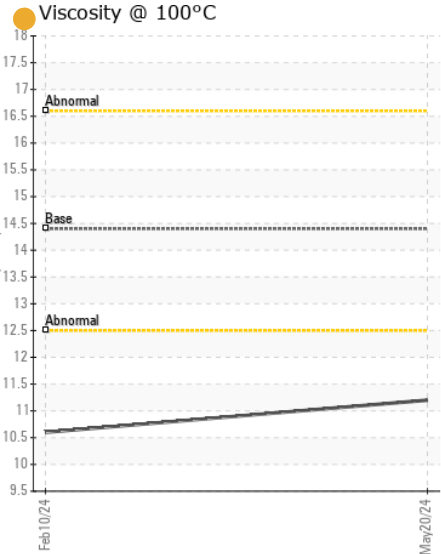
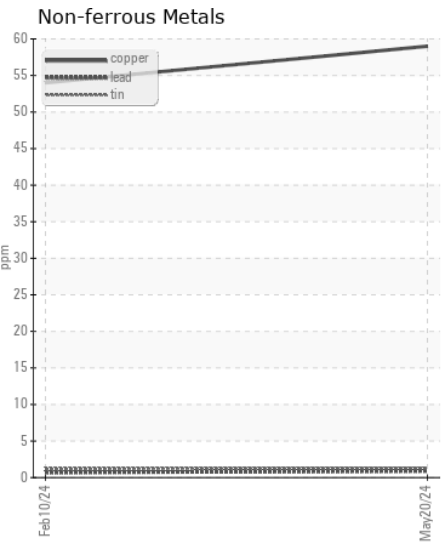
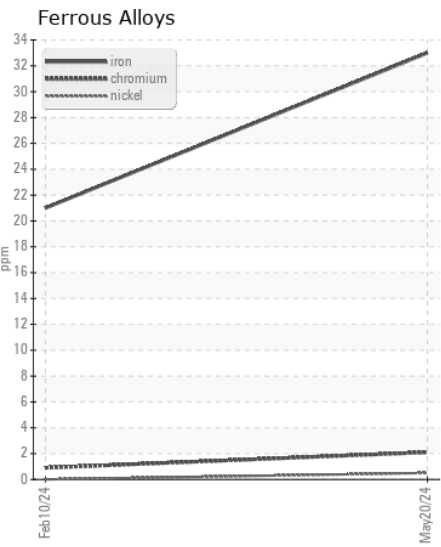
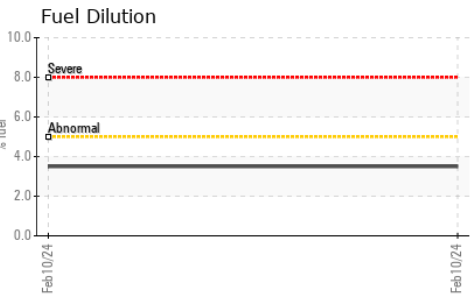
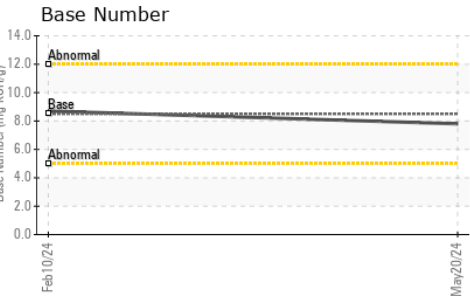
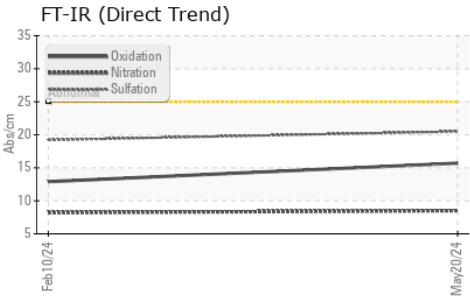
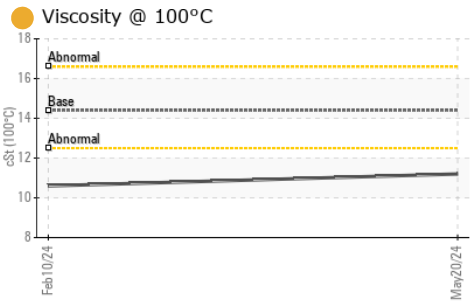
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0017050	RPL0011137	---
Sample Date		Client Info		20 May 2024	10 Feb 2024	---
Machine Age	mls	Client Info		3672	1531	---
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				ATTENTION	ABNORMAL	---
Iron	ppm	ASTM D5185m	>100	33	21	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	11	10	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m	>40	<1	<1	---
Copper	ppm	ASTM D5185m	>330	59	54	---
Tin	ppm	ASTM D5185m	>15	1	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	28	31	---
Potassium	ppm	ASTM D5185m	>20	8	5	---
Fuel	%	ASTM D3524	>5	<1.0	▲ 3.5	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	19.2	---
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	---
Sodium	ppm	ASTM D5185m	>158	10	11	---
Boron	ppm	ASTM D5185m	250	71	81	---
Barium	ppm	ASTM D5185m	10	4	2	---
Molybdenum	ppm	ASTM D5185m	100	16	2	---
Manganese	ppm	ASTM D5185m		4	3	---
Magnesium	ppm	ASTM D5185m	450	700	667	---
Calcium	ppm	ASTM D5185m	3000	1336	1193	---
Phosphorus	ppm	ASTM D5185m	1150	1019	992	---
Zinc	ppm	ASTM D5185m	1350	1119	1097	---
Sulfur	ppm	ASTM D5185m	4250	3498	3438	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	12.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.8	8.7	---
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.2	▲ 10.6	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0017050 **Received** : 31 May 2024
Lab Number : 06196283 **Tested** : 03 Jun 2024
Unique Number : 11058406 **Diagnosed** : 03 Jun 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution)

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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)