



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

RMR-Metropolis

Machine Id

5813 VOLVO L180H 5813

Component

Diesel Engine

Fluid

{not provided} (--- GAL)



RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ06219255	DJJ06097447	---
Sample Date		Client Info		24 Jun 2024	21 Feb 2024	---
Machine Age	hrs	Client Info		0	526	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	10	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	<1	0	---
Aluminum	ppm	ASTM D5185m	>10	3	2	---
Lead	ppm	ASTM D5185m	>20	<1	2	---
Copper	ppm	ASTM D5185m	>15	21	▲ 109	---
Tin	ppm	ASTM D5185m	>10	1	2	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

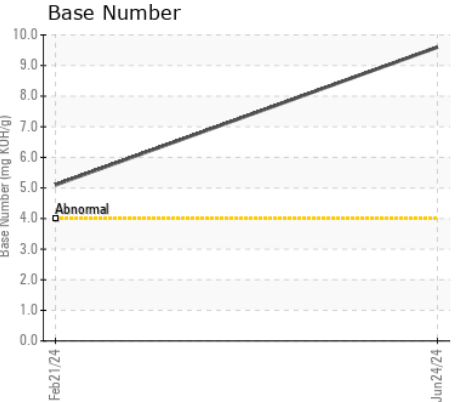
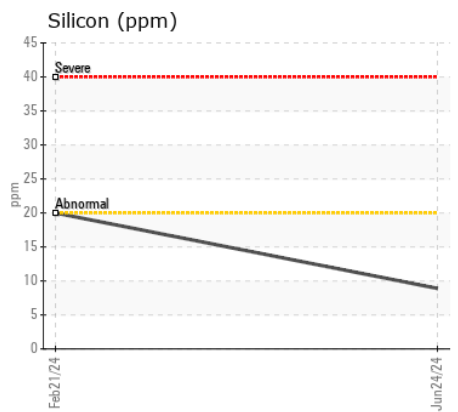
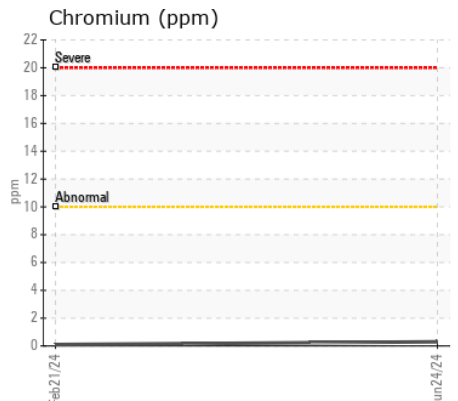
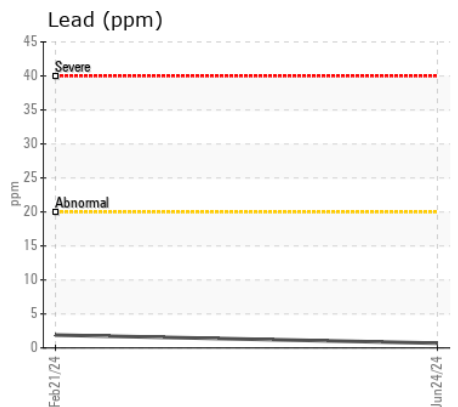
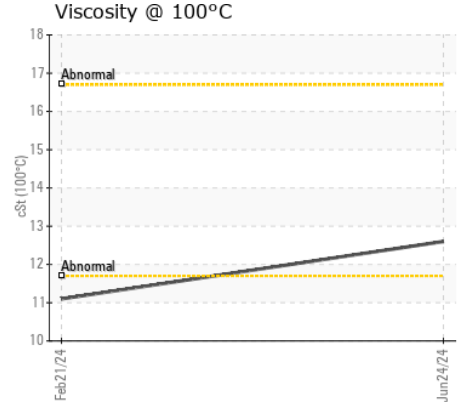
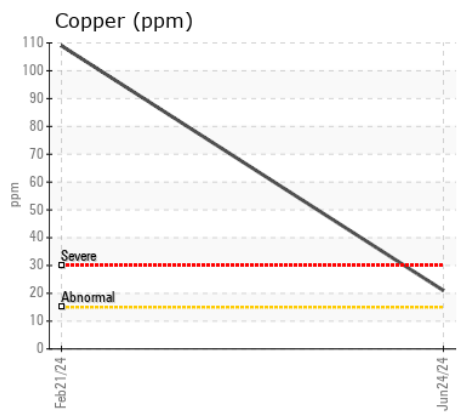
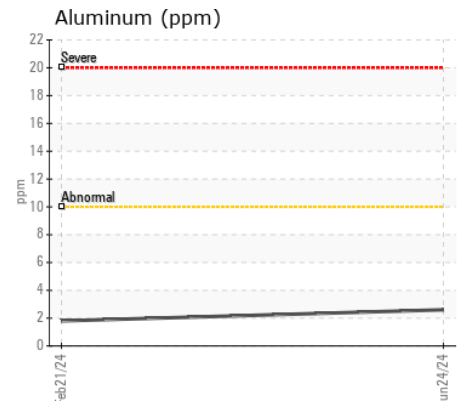
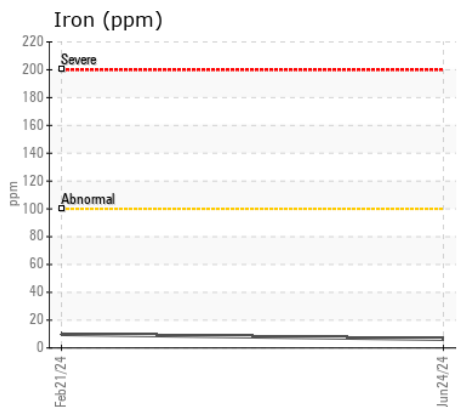
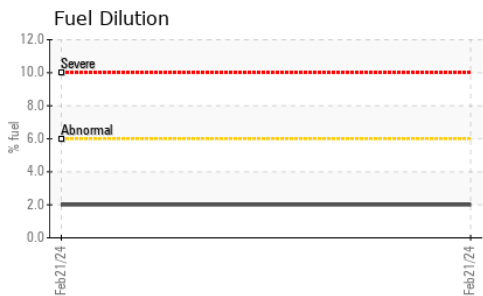
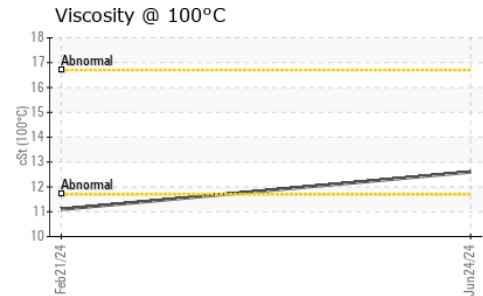
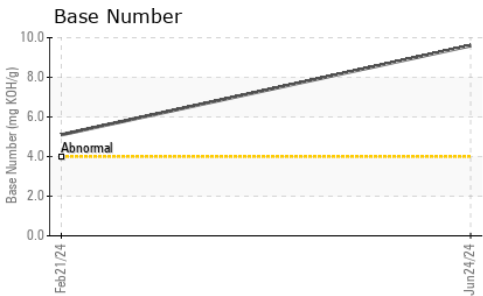
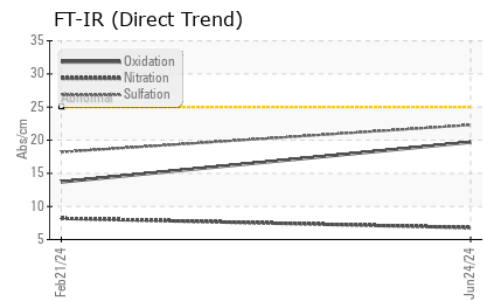
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	9	20	---
Potassium	ppm	ASTM D5185m	>20	3	2	---
Fuel	%	ASTM D3524	>6.0	<1.0	▲ 2.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	6.8	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	18.2	---
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	>0.1	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<1	2	---
Boron	ppm	ASTM D5185m		53	84	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m		45	78	---
Manganese	ppm	ASTM D5185m		1	2	---
Magnesium	ppm	ASTM D5185m		438	63	---
Calcium	ppm	ASTM D5185m		1701	1863	---
Phosphorus	ppm	ASTM D5185m		998	939	---
Zinc	ppm	ASTM D5185m		1123	1133	---
Sulfur	ppm	ASTM D5185m		3136	3552	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.6	5.1	---
Visc @ 100°C	cSt	ASTM D445		12.6	11.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ06219255 **Received** : 25 Jun 2024
Lab Number : 06219255 **Tested** : 26 Jun 2024
Unique Number : 11097452 **Diagnosed** : 26 Jun 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

RIVER METALS RECYCLING - ASHLAND
 1900 FRONT ST
 ASHLAND, KY
 US 41101
 Contact: Service Manager

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)

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F: