



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM H2350501
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0200439	JR0049339	---
Sample Date		Client Info		29 Feb 2024	19 Aug 2020	---
Machine Age	hrs	Client Info		1085	470	---
Oil Age	hrs	Client Info		0	470	---
Filter Age	hrs	Client Info		0	470	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	51	41	---
Chromium	ppm	ASTM D5185m	>20	2	4	---
Nickel	ppm	ASTM D5185m	>4	0	1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	8	7	---
Lead	ppm	ASTM D5185m	>40	2	6	---
Copper	ppm	ASTM D5185m	>330	9	11	---
Tin	ppm	ASTM D5185m	>15	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

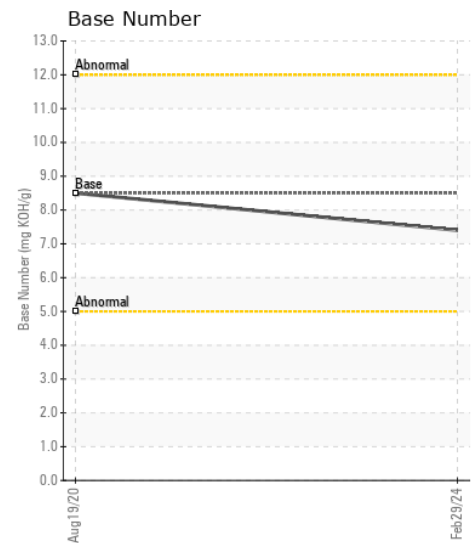
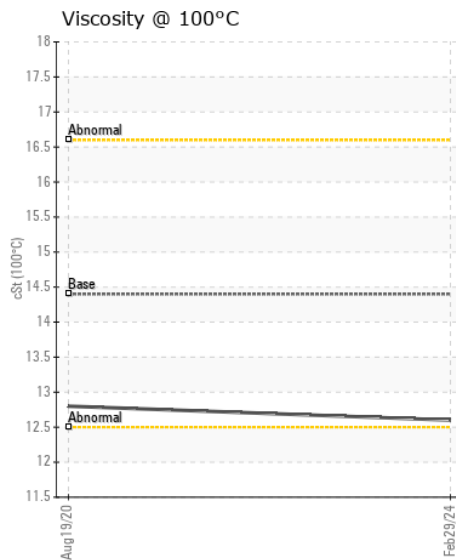
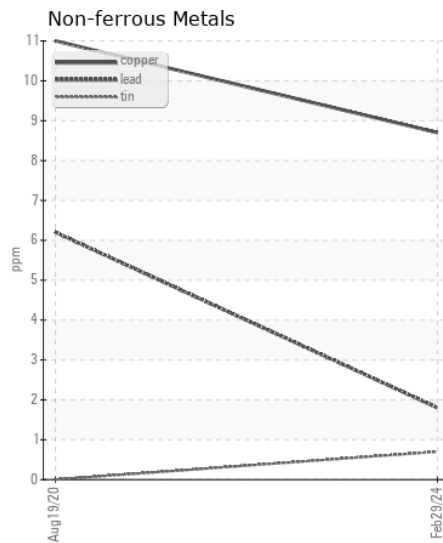
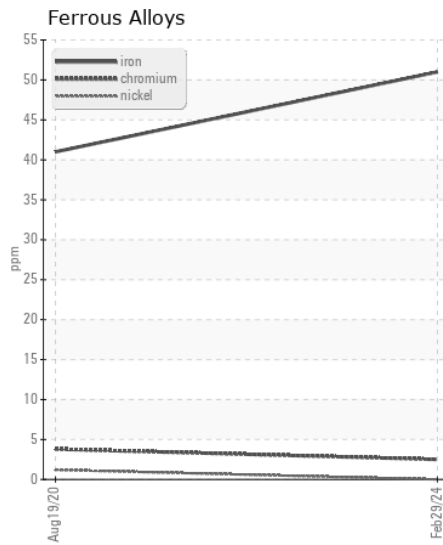
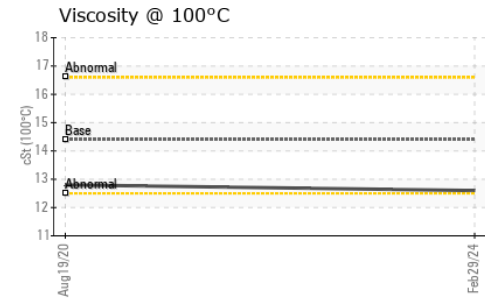
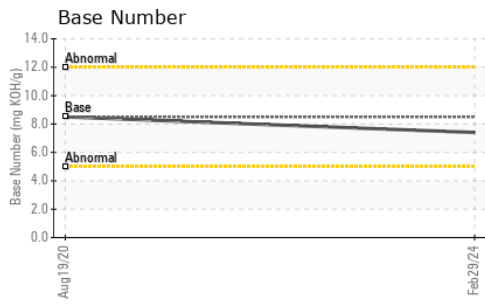
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	18	27	---
Potassium	ppm	ASTM D5185m	>20	2	8	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	8.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	21.4	---
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	4	---
Boron	ppm	ASTM D5185m	250	129	94	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	208	91	---
Manganese	ppm	ASTM D5185m		2	3	---
Magnesium	ppm	ASTM D5185m	450	775	600	---
Calcium	ppm	ASTM D5185m	3000	1430	1684	---
Phosphorus	ppm	ASTM D5185m	1150	835	1019	---
Zinc	ppm	ASTM D5185m	1350	1102	1194	---
Sulfur	ppm	ASTM D5185m	4250	2929	3418	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	17	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.4	8.5	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	12.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0200439

Lab Number : 06105909

Unique Number : 10909406

Test Package : CONST (Additional Tests: TBN)

Received : 01 Mar 2024

Tested : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Wes Davis

JRE - ASHLAND

11047 LEADBETTER RD

ASHLAND, VA

US 23005

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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)