



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L20H 1220565
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0000873	VCP413034	---
Sample Date		Client Info		25 Feb 2024	18 Dec 2023	---
Machine Age	hrs	Client Info		1057	623	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	10	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	3	1	---
Lead	ppm	ASTM D5185m	>20	0	0	---
Copper	ppm	ASTM D5185m	>15	3	11	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

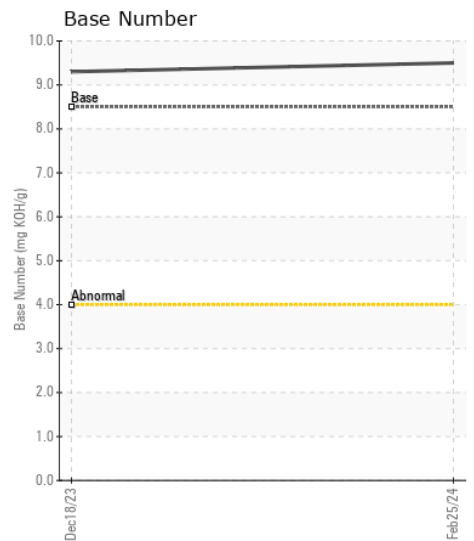
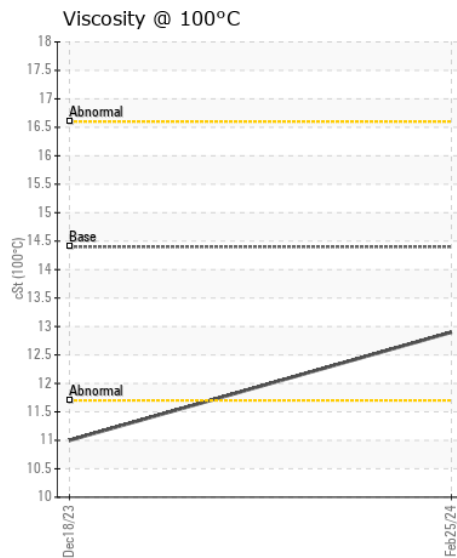
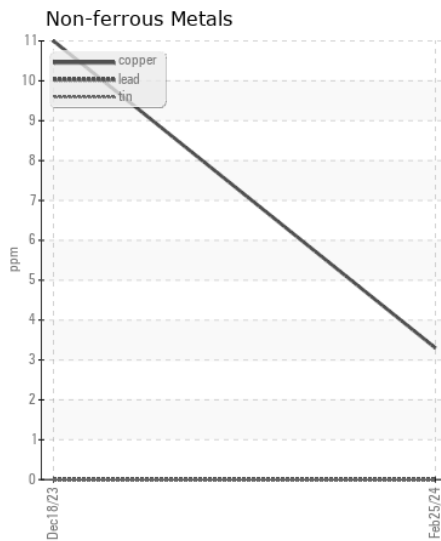
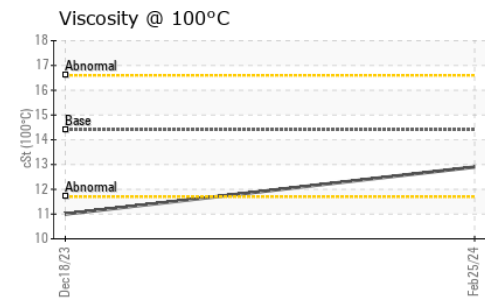
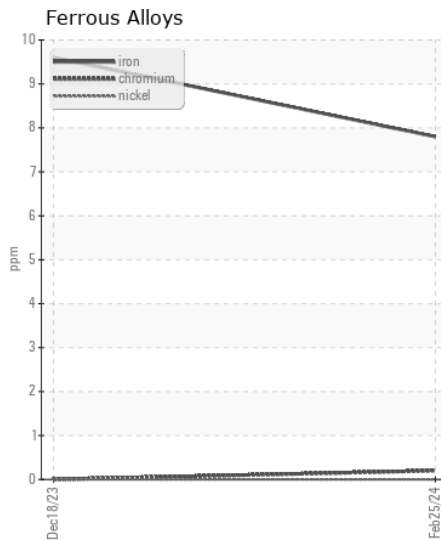
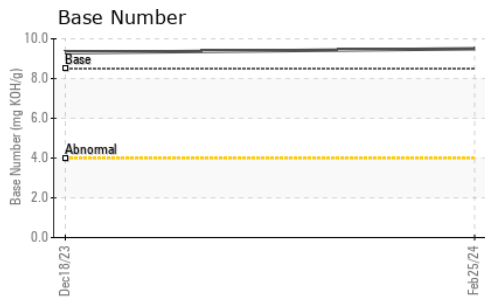
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	8	13	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Fuel		WC Method	>6.0	<1.0	0.1	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0	0	---
Nitration	Abs/cm	*ASTM D7624	>20	6.8	7.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	21.7	---
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	2	4	---
Boron	ppm	ASTM D5185m	250	12	48	---
Barium	ppm	ASTM D5185m	10	0	2	---
Molybdenum	ppm	ASTM D5185m	100	60	31	---
Manganese	ppm	ASTM D5185m		1	2	---
Magnesium	ppm	ASTM D5185m	450	937	391	---
Calcium	ppm	ASTM D5185m	3000	1330	1743	---
Phosphorus	ppm	ASTM D5185m	1150	1171	755	---
Zinc	ppm	ASTM D5185m	1350	1359	954	---
Sulfur	ppm	ASTM D5185m	4250	3538	2910	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	20.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	9.3	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	11.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0000873 **Received** : 28 Feb 2024
Lab Number : 06103510 **Tested** : 01 Mar 2024
Unique Number : 10901740 **Diagnosed** : 02 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND
 1345 MOUNTAIN ROAD
 GLEN ALLEN, VA
 US 23060
 Contact: KYLE RATLIFFE
 KRATLIFFE@MCCLEUNG-LOGAN.COM
 T:
 F: (804)266-1611

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)