



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**VOLVO L70H 624395**

Component  
**Diesel Engine**

Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP430276</b>	VCP420484	VCP390548
Sample Date		Client Info		<b>26 Oct 2023</b>	01 May 2023	18 Nov 2022
Machine Age	hrs	Client Info		<b>0</b>	0	1053
Oil Age	hrs	Client Info		<b>0</b>	0	1053
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>16</b>	12	20
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	3
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>7</b>	1	12
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

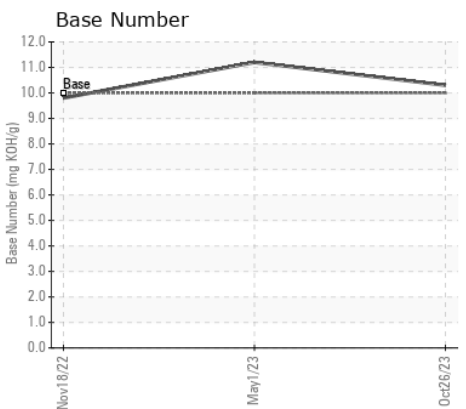
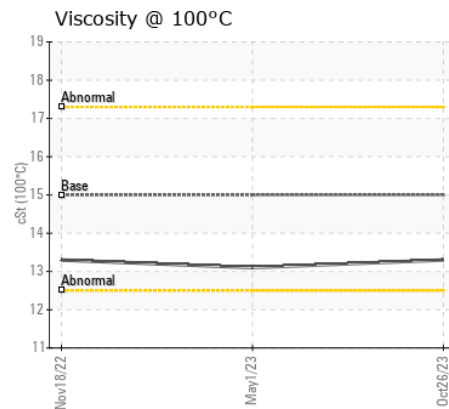
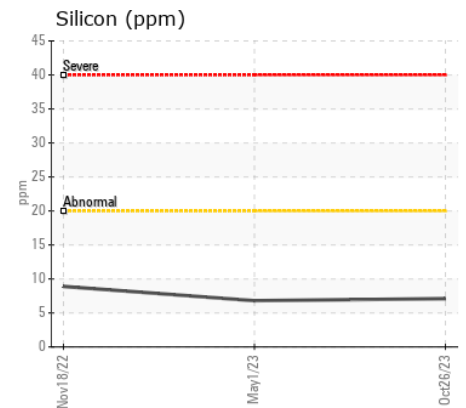
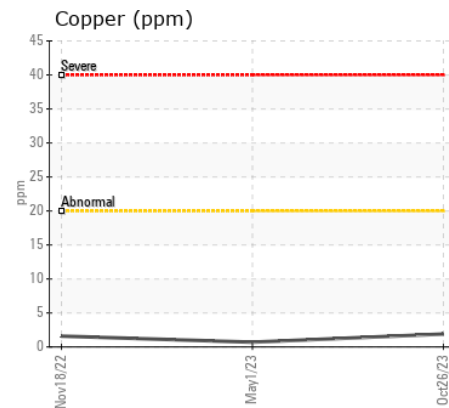
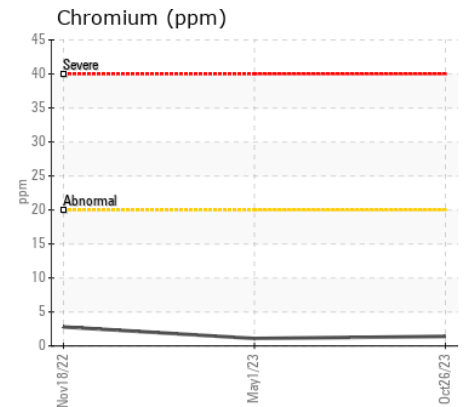
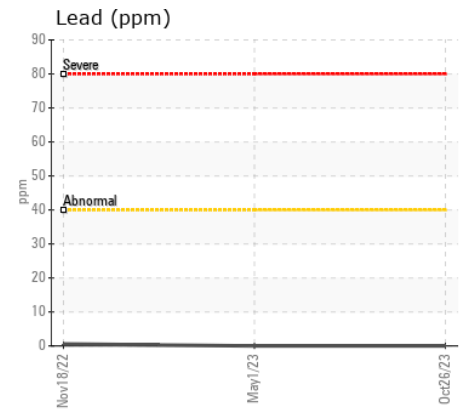
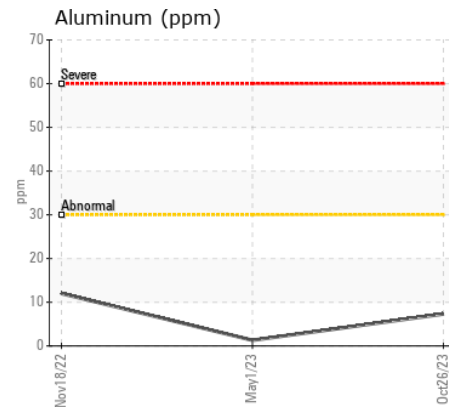
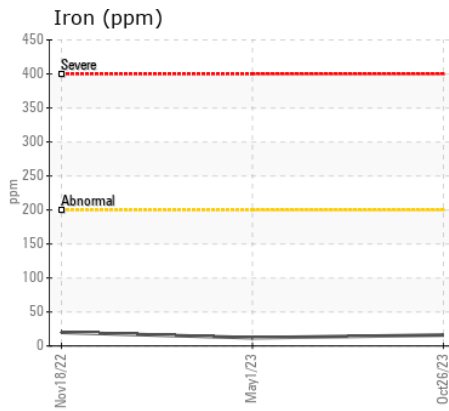
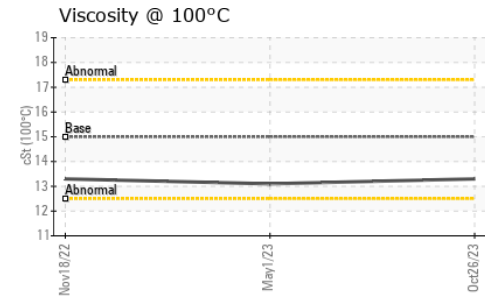
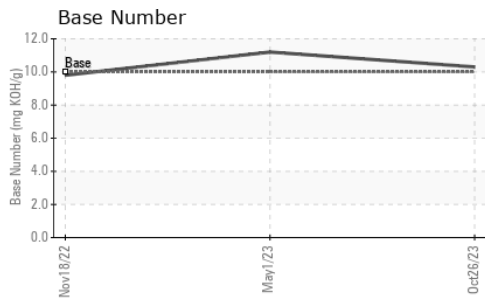
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	7	9
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	6.5	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	22.7	22.8
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>3</b>	3	3
Boron	ppm	ASTM D5185m	2.5	<b>36</b>	54	41
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>43</b>	41	40
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>509</b>	509	530
Calcium	ppm	ASTM D5185m	2057	<b>1697</b>	1804	1694
Phosphorus	ppm	ASTM D5185m	935	<b>964</b>	957	951
Zinc	ppm	ASTM D5185m	1223	<b>1130</b>	1168	1115
Sulfur	ppm	ASTM D5185m	4079	<b>2957</b>	3313	3033
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.9</b>	20.3	20.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.3</b>	11.2	9.8
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.3</b>	13.1	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP430276 **Received** : 09 Feb 2024  
**Lab Number** : 06084440 **Tested** : 09 Feb 2024  
**Unique Number** : 10871885 **Diagnosed** : 09 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**COWIN EQUIPMENT COMPANY**  
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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)