



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[A12264]**  
Machine Id  
**VOLVO L110H 632525**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP440354</b>	VCP432253	VCP412604
Sample Date		Client Info		<b>06 Mar 2024</b>	20 Dec 2023	03 Oct 2023
Machine Age	hrs	Client Info		<b>3145</b>	2440	1785
Oil Age	hrs	Client Info		<b>500</b>	500	500
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	>100	<b>21</b>	14	22
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	3	0
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	3
Copper	ppm	ASTM D5185m	>15	<b>2</b>	2	7
Tin	ppm	ASTM D5185m	>10	<b>1</b>	<1	1
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

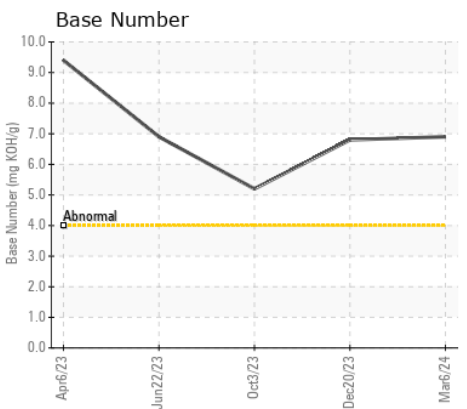
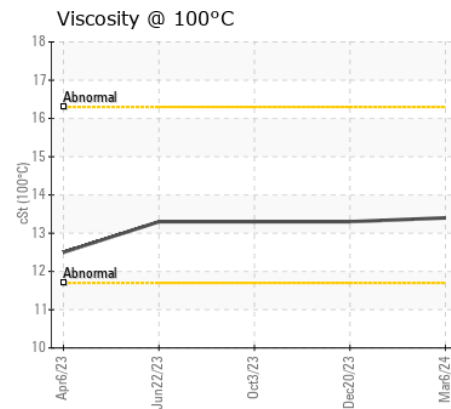
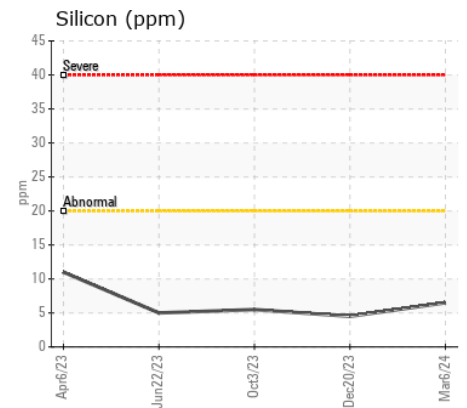
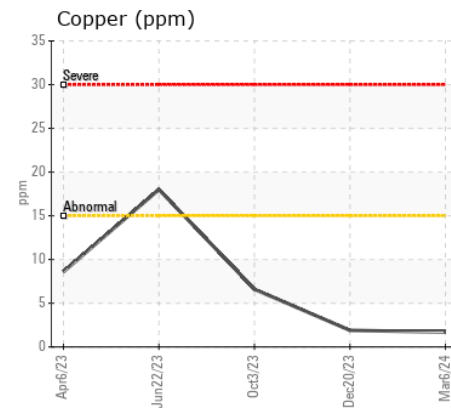
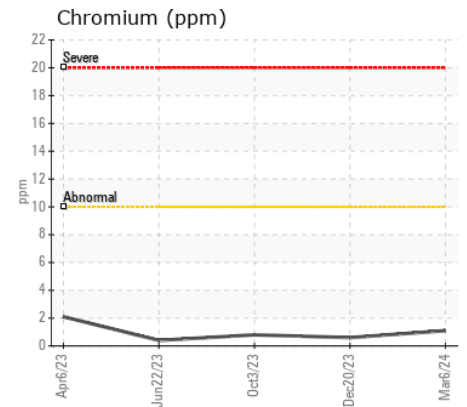
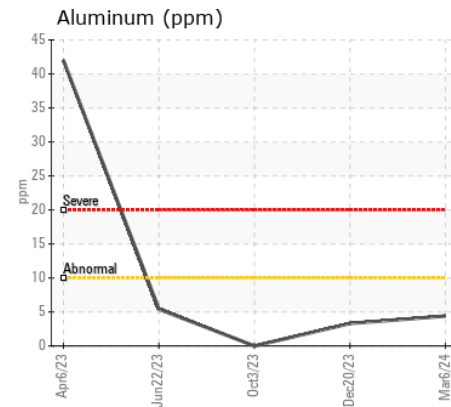
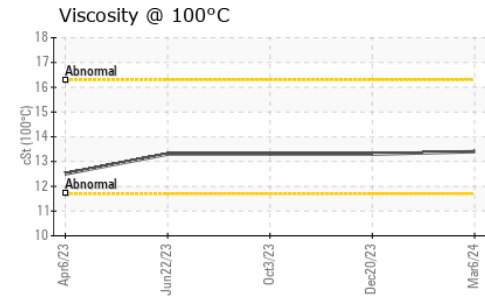
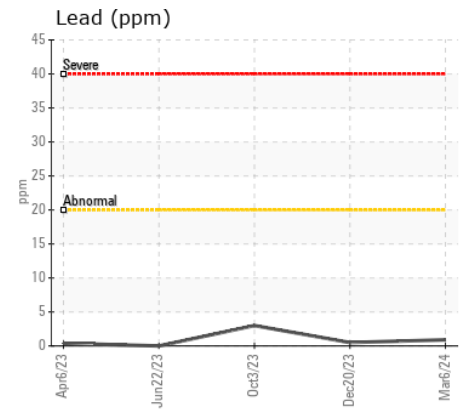
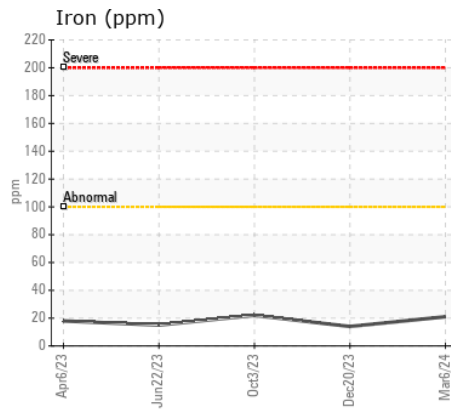
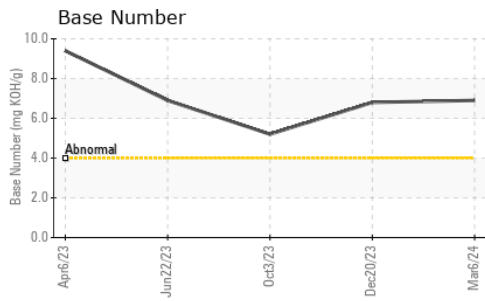
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.3	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	19.7	21.7
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	>0.1	<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	>118	<b>2</b>	2	0
Boron	ppm	ASTM D5185m		<b>13</b>	7	6
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>18</b>	24	32
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>210</b>	331	369
Calcium	ppm	ASTM D5185m		<b>2186</b>	1900	1813
Phosphorus	ppm	ASTM D5185m		<b>962</b>	964	926
Zinc	ppm	ASTM D5185m		<b>1135</b>	1152	1143
Sulfur	ppm	ASTM D5185m		<b>3747</b>	3342	3549
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	13.4	16.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.9</b>	6.8	5.2
Visc @ 100°C	cSt	ASTM D445		<b>13.4</b>	13.3	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP440354 **Received** : 20 Mar 2024  
**Lab Number** : 06123430 **Tested** : 21 Mar 2024  
**Unique Number** : 10937581 **Diagnosed** : 21 Mar 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**HMR ASSOCIATES**  
 PO BOX 485  
 TOUGHKENAMON, PA  
 US 19374  
 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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