



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[5351]**  
Machine Id  
**VOLVO L110H 10197**  
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>VCP394561</b>	VCP335155	VCP347484
Sample Date		Client Info		<b>21 Mar 2024</b>	20 Dec 2023	20 Apr 2022
Machine Age	hrs	Client Info		<b>7025</b>	6787	5538
Oil Age	hrs	Client Info		<b>500</b>	500	0
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	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	14	10
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>3</b>	6	6
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>15	<b>1</b>	2	2
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

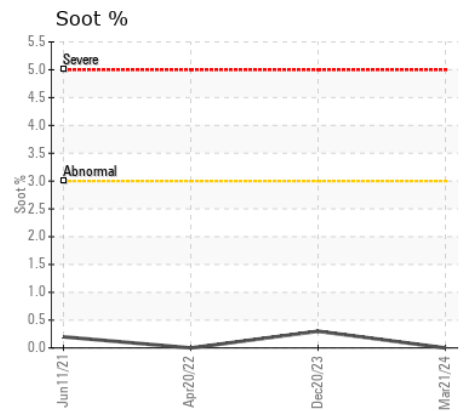
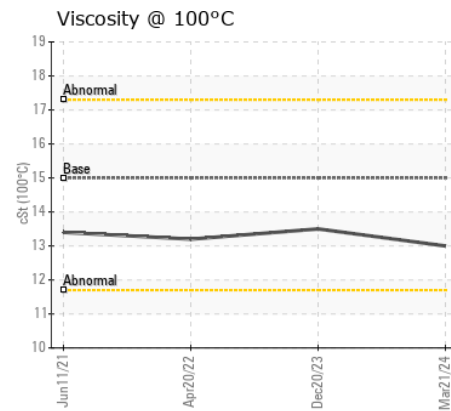
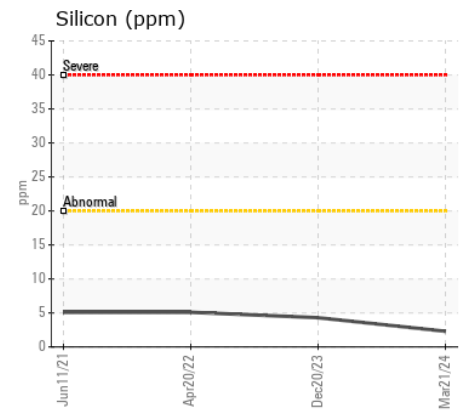
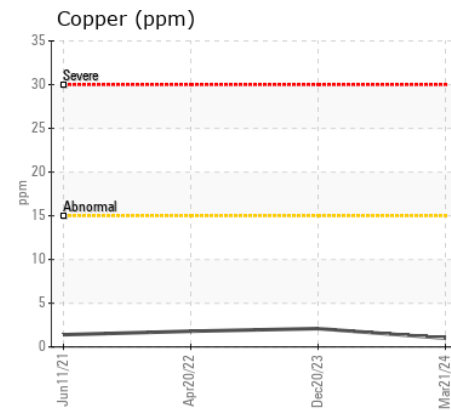
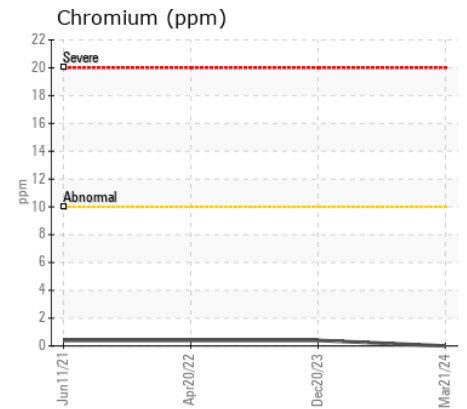
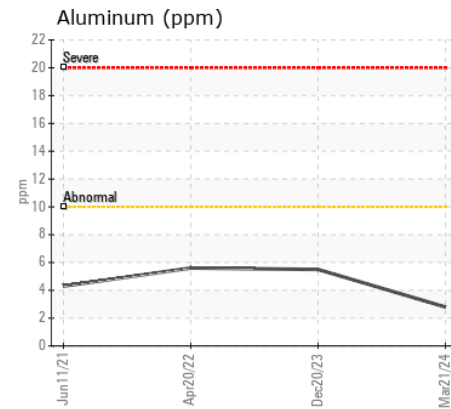
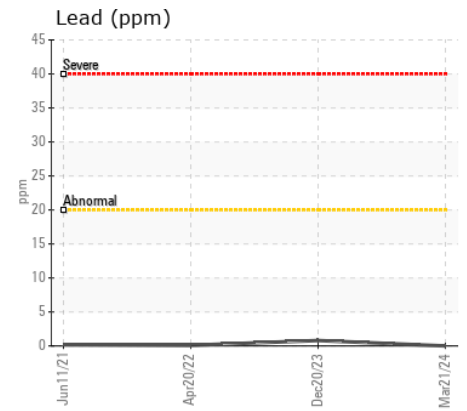
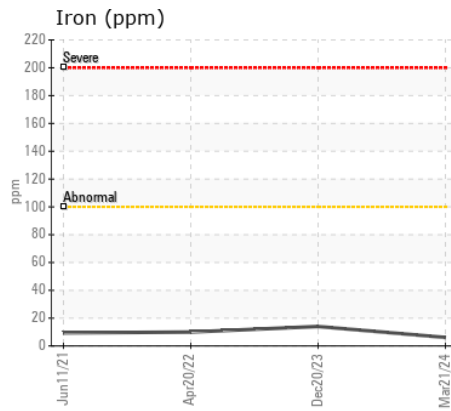
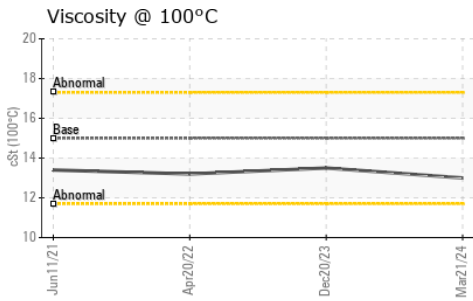
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>2</b>	4	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1
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</b>	0.3	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.1</b>	10.8	3.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.6</b>	23.7	14.8
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	2.5	<b>47</b>	27	32
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.7	<b>41</b>	43	41
Manganese	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	256	<b>526</b>	567	571
Calcium	ppm	ASTM D5185(m)	2057	<b>1699</b>	1703	1635
Phosphorus	ppm	ASTM D5185(m)	935	<b>944</b>	980	1007
Zinc	ppm	ASTM D5185(m)	1223	<b>1093</b>	1123	1175
Sulfur	ppm	ASTM D5185(m)	4079	<b>2420</b>	2511	2495
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.9</b>	24.4	7.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	<b>13.0</b>	13.5	13.2



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP394561 **Received** : 02 Apr 2024  
**Lab Number** : 02626006 **Tested** : 02 Apr 2024  
**Unique Number** : 5759138 **Diagnosed** : 02 Apr 2024 - Wes Davis  
**Test Package** : MOB 1

**CITY OF KELOWNA**  
 1435 WATER STREET  
 KELOWNA, BC  
 CA V1Y 1J4  
 Contact: Myles Bancarz  
 mbancarz@kelowna.ca  
 T: (250)763-6011  
 F: (250)868-3330

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.