



# OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO 1866**  
Component  
**Front Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (44 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0749192</b>	WC0749191	WC0749190
Sample Date		Client Info		<b>02 May 2024</b>	28 Jun 2023	03 Mar 2023
Machine Age	mls	Client Info		<b>12000</b>	11000	12000
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>165	<b>4</b>	5	5
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	3
Lead	ppm	ASTM D5185(m)	>150	<b>&lt;1</b>	12	5
Copper	ppm	ASTM D5185(m)	>90	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

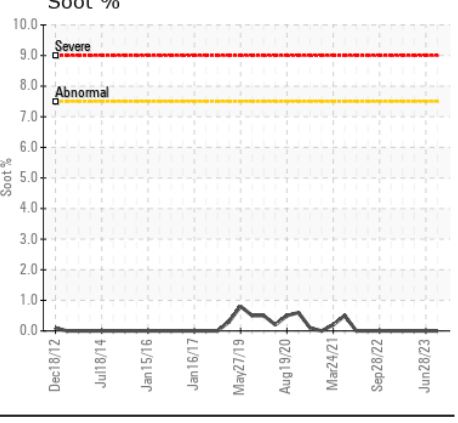
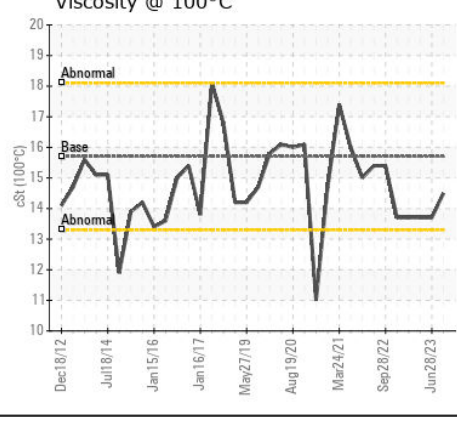
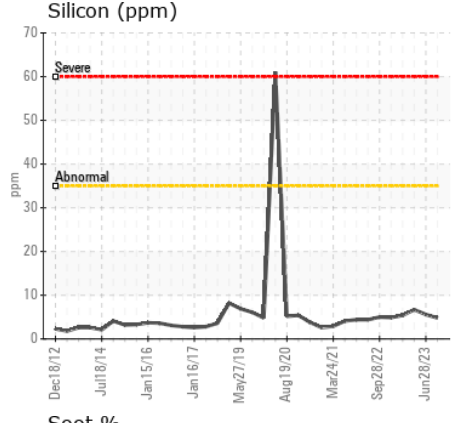
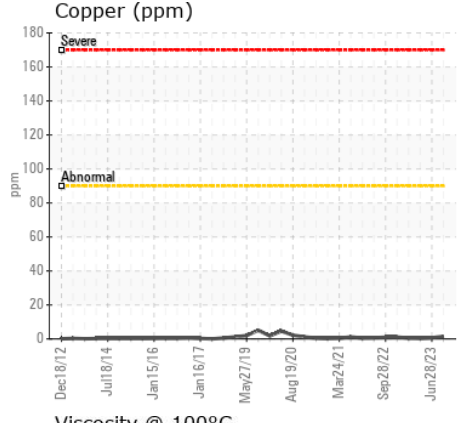
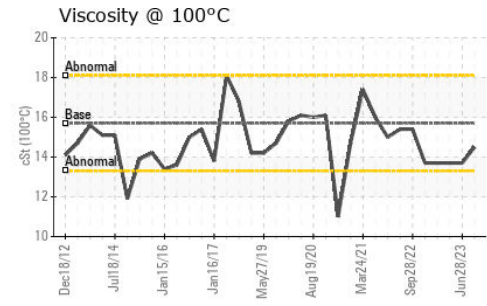
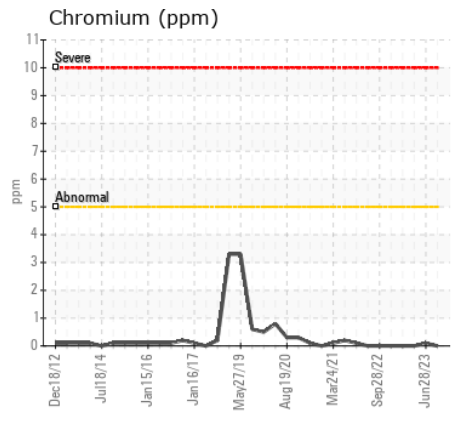
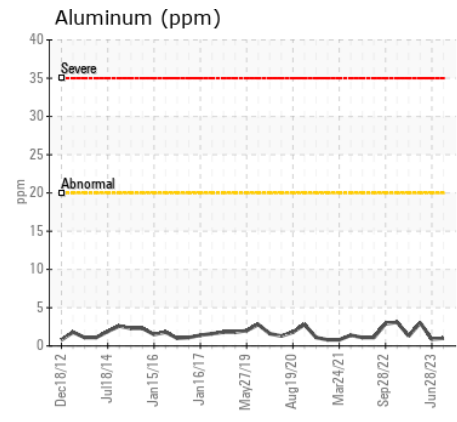
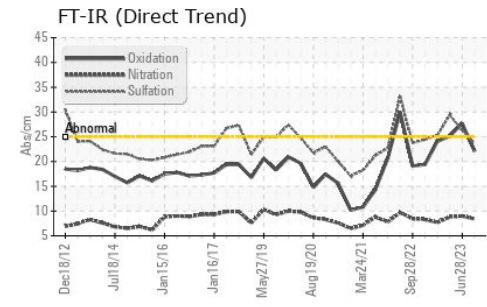
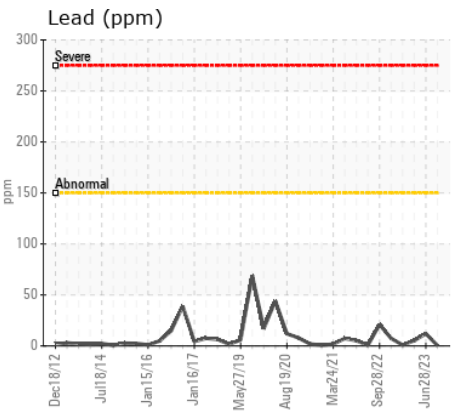
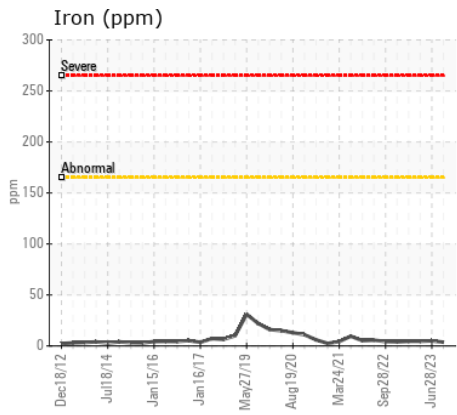
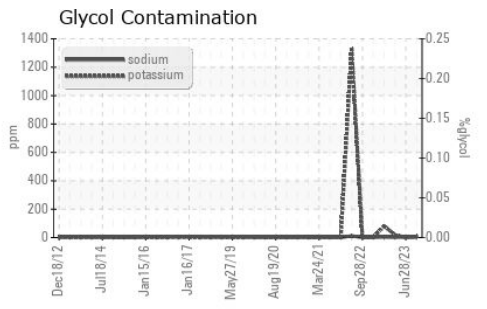
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	<b>5</b>	6	7
Potassium	ppm	ASTM D5185(m)	>20	<b>8</b>	2	19
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	0.0
Soot %	%	ASTM D7844*	>7.5	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.4</b>	9.0	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.6</b>	26.3	29.4
Emulsified Water	scalar	Visual*	>0.2	<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)	35	<b>93</b>	30	193
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>13</b>	46	99
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	10	<b>199</b>	623	657
Calcium	ppm	ASTM D5185(m)	2340	<b>2006</b>	1475	2311
Phosphorus	ppm	ASTM D5185(m)	1110	<b>902</b>	835	813
Zinc	ppm	ASTM D5185(m)	1210	<b>1075</b>	915	865
Sulfur	ppm	ASTM D5185(m)	3890	<b>2681</b>	2116	2348
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>22.1</b>	27.7	25.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>14.5</b>	13.7	13.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0749192 **Received** : 09 May 2024  
**Lab Number** : 02634243 **Tested** : 09 May 2024  
**Unique Number** : 5775396 **Diagnosed** : 09 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

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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.