



# OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO ECR235 314138**  
Component  
**Rear Right Final Drive**  
Fluid  
**MOBIL MOBILUBE HD 85W140 (2 GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: 4000 hour service )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0886322</b>	VCP319141	VCP322911
Sample Date		Client Info		<b>09 Feb 2024</b>	19 Oct 2021	21 Jun 2021
Machine Age	hrs	Client Info		<b>4085</b>	2031	1823
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>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 722</b>	96	156
Chromium	ppm	ASTM D5185m	>10	<b>▲ 8</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>2</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>▲ 22</b>	<1	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

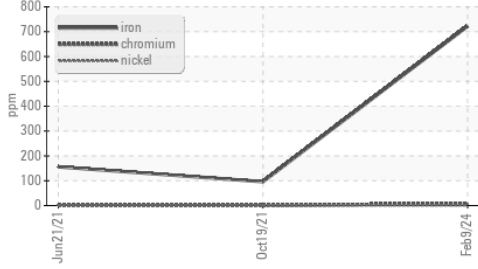
Silicon	ppm	ASTM D5185m	>75	<b>▲ 126</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	2	<1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	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

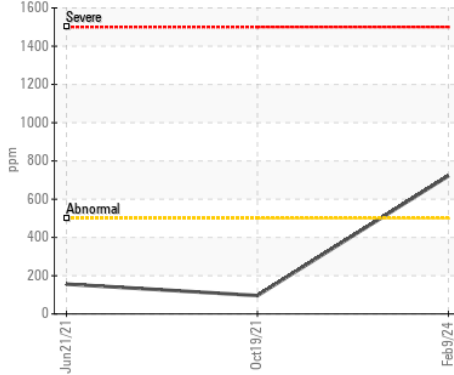
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>165</b>	186	169
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>17</b>	18	16
Manganese	ppm	ASTM D5185m		<b>7</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>147</b>	140	109
Calcium	ppm	ASTM D5185m		<b>561</b>	541	510
Phosphorus	ppm	ASTM D5185m		<b>1012</b>	874	888
Zinc	ppm	ASTM D5185m		<b>346</b>	359	279
Sulfur	ppm	ASTM D5185m		<b>21746</b>	19202	17354
Visc @ 40°C	cSt	ASTM D445	328	<b>156</b>	172	166

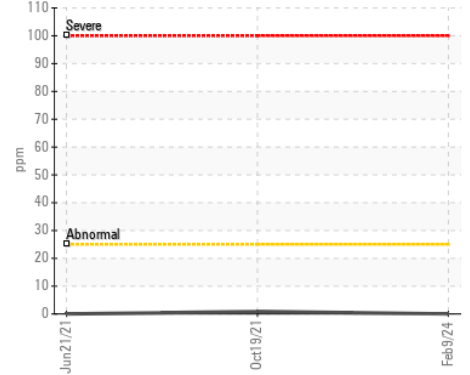
▲ Ferrous Alloys



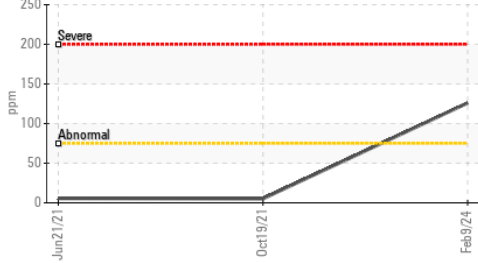
▲ Iron (ppm)



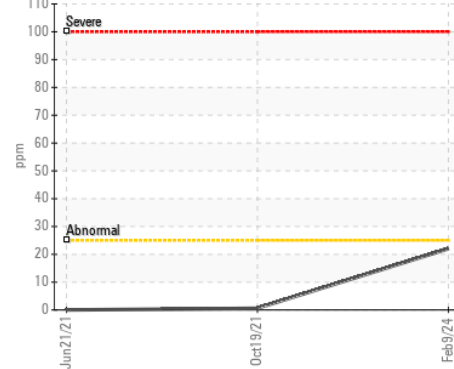
▲ Lead (ppm)



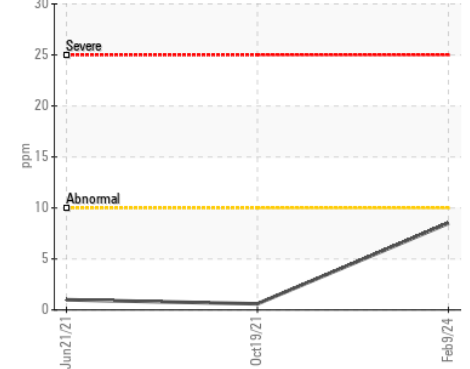
▲ Silicon (ppm)



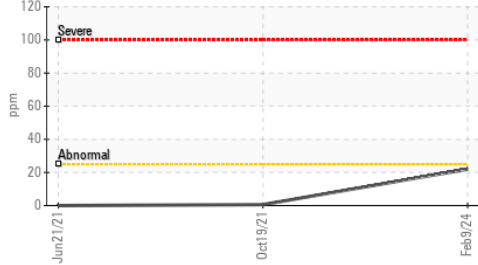
▲ Aluminum (ppm)



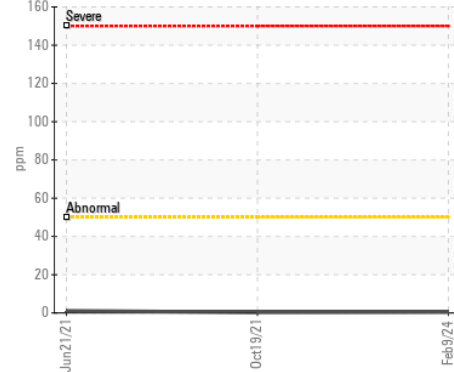
▲ Chromium (ppm)



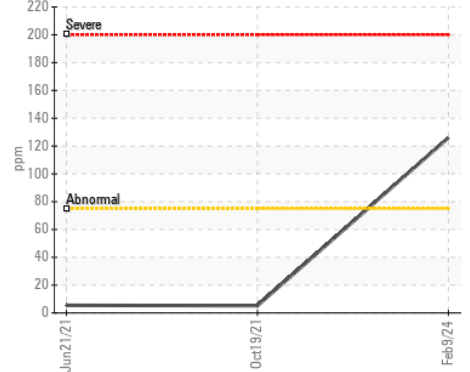
▲ Aluminum (ppm)



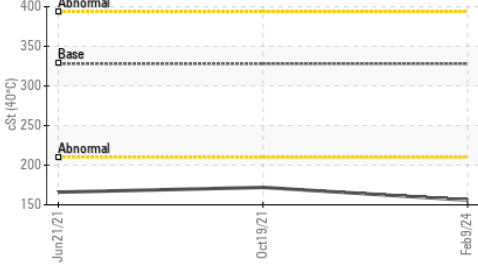
▲ Copper (ppm)



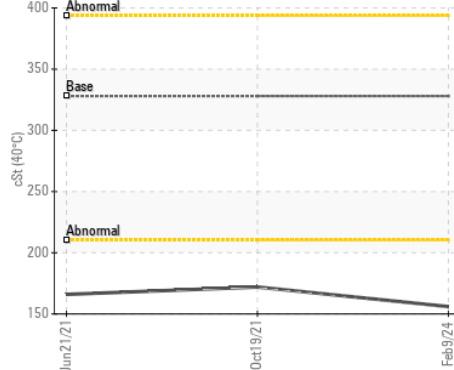
▲ Silicon (ppm)



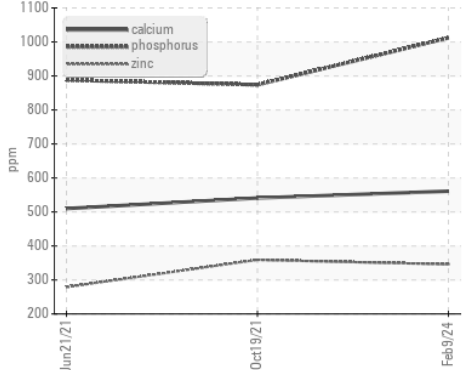
▲ Viscosity @ 40°C



▲ Viscosity @ 40°C



▲ Additives



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0886322  
**Lab Number** : 06088395  
**Unique Number** : 10875840  
**Test Package** : MOBCE

**Received** : 13 Feb 2024  
**Tested** : 14 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Sean Felton

**MCCCLUNG-LOGAN EQUIPMENT CO - MANASSAS**  
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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)