



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO EC460CL 110437**

Component  
**Left Planetary**

Fluid  
**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- 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. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP181446</b>	---	---
Sample Date		Client Info		<b>15 Dec 2015</b>	---	---
Machine Age	hrs	Client Info		<b>4194</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>SEVERE</b>	---	---

### WEAR

Bearing and/or gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>6978</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>93</b>	---	---
Nickel	ppm	ASTM D5185m		<b>33</b>	---	---
Titanium	ppm	ASTM D5185m		<b>43</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>654</b>	---	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>75	<b>435</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>2</b>	---	---
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

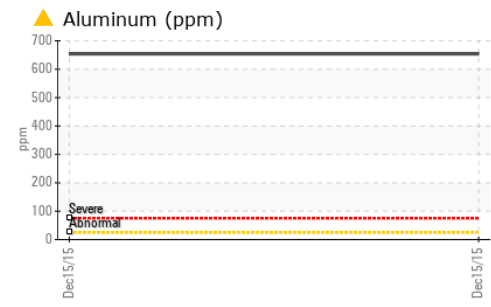
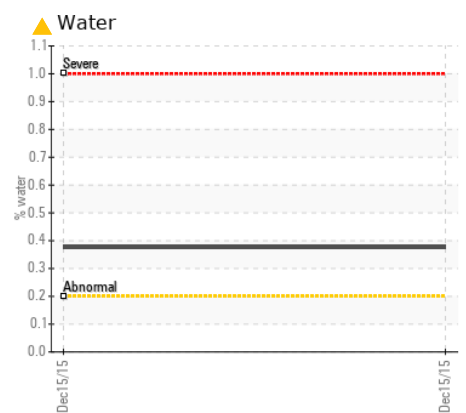
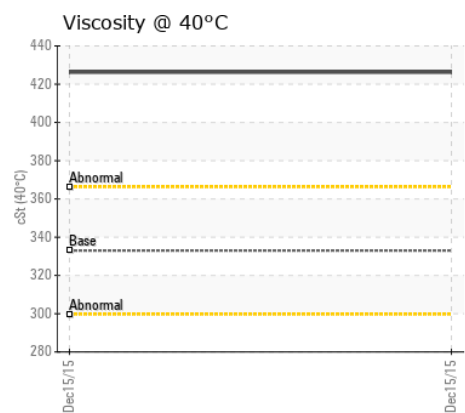
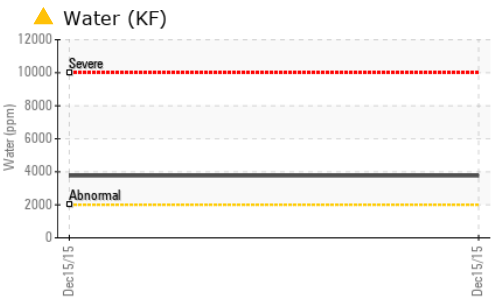
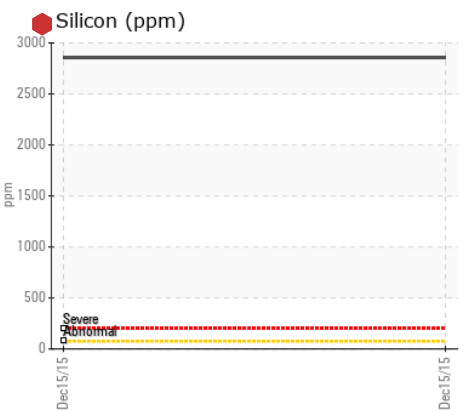
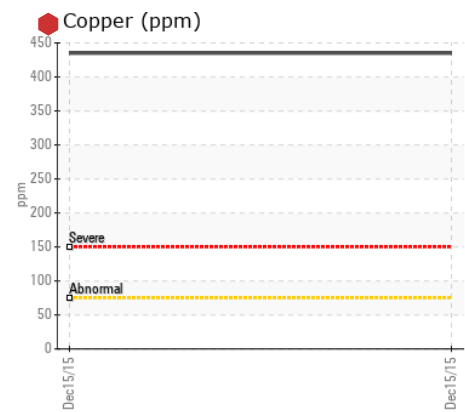
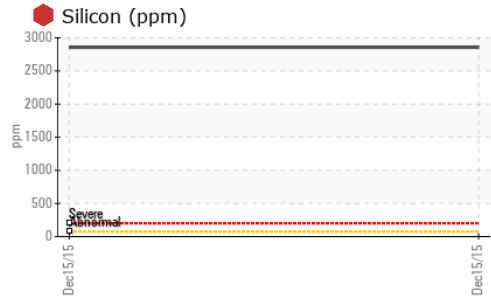
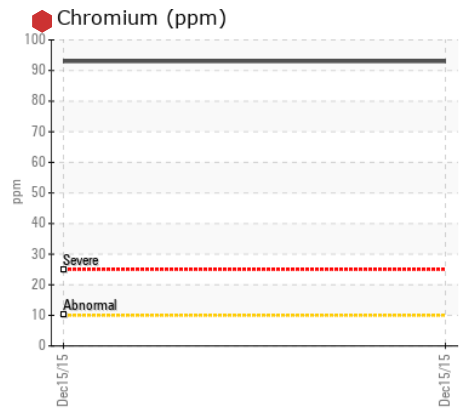
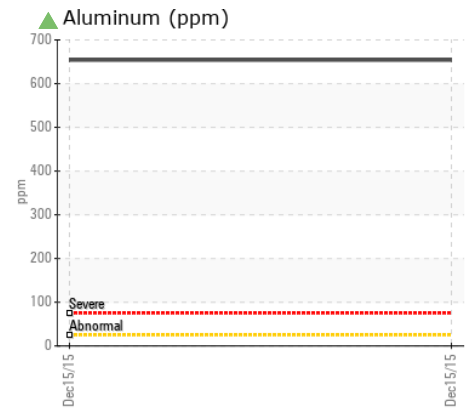
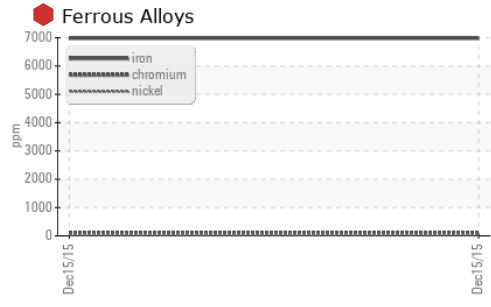
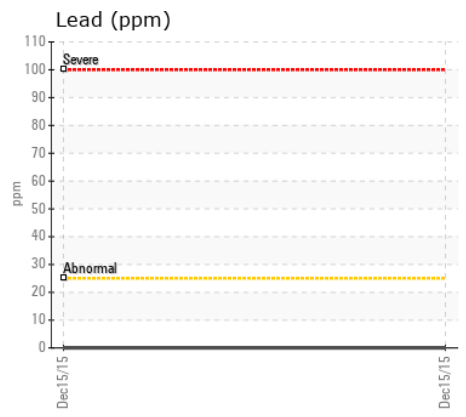
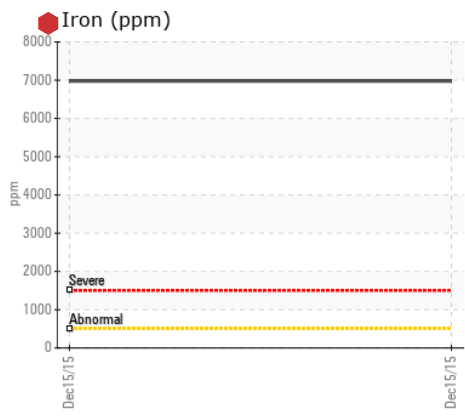
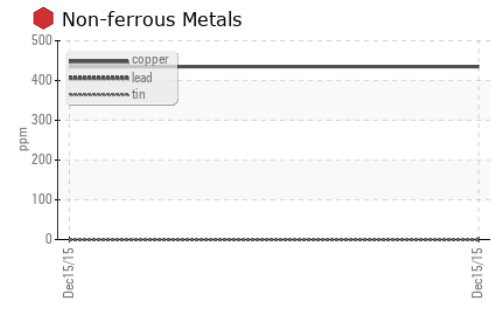
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>2857</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>172</b>	---	---
Water	%	ASTM D6304	>0.2	<b>0.376</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>3760</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>0.5%</b>	---	---

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>17</b>	---	---
Boron	ppm	ASTM D5185m	111	<b>121</b>	---	---
Barium	ppm	ASTM D5185m	0.0	<b>26</b>	---	---
Molybdenum	ppm	ASTM D5185m	0.9	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	0.0	<b>59</b>	---	---
Magnesium	ppm	ASTM D5185m	39	<b>40</b>	---	---
Calcium	ppm	ASTM D5185m	93	<b>22</b>	---	---
Phosphorus	ppm	ASTM D5185m	920	<b>727</b>	---	---
Zinc	ppm	ASTM D5185m	104	<b>83</b>	---	---
Sulfur	ppm	ASTM D5185m	20179	<b>56600</b>	---	---
Visc @ 40°C	cSt	ASTM D445	333	<b>426.3</b>	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP181446 **Received** : 18 Dec 2015  
**Lab Number** : 03885946 **Tested** : 22 Dec 2015  
**Unique Number** : 7241236 **Diagnosed** : 22 Dec 2015 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: KF, PQ )

**MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND**  
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 US 23060  
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 T:  
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Certificate L2367  
 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)