



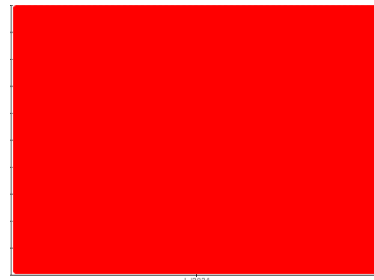
# OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id  
**VOLVO L110G Y614 (S/N VCEL110GC000089618)**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**



## DIAGNOSIS

### ▲ Recommendation

We advise that you check for the source of the coolant leak. We advise that you monitor for an abnormal oil pressure drop and noise. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

### ▲ Wear

Lead ppm levels are severe. Chromium, copper and iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Ring wear is indicated. Bearing wear is indicated.

### ▲ Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 50 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0707868</b>	---	---
Sample Date	Client Info		<b>11 Jul 2024</b>	---	---
Machine Age	hrs	Client Info	<b>6850</b>	---	---
Oil Age	hrs	Client Info	<b>200</b>	---	---
Oil Changed	Client Info		<b>Not Chngd</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.1	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>15</b>	---	---
Iron	ppm	ASTM D5185(m) >50	<b>▲ 100</b>	---	---
Chromium	ppm	ASTM D5185(m) >5	<b>▲ 7</b>	---	---
Nickel	ppm	ASTM D5185(m) >3	<b>1</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m) >20	<b>11</b>	---	---
Lead	ppm	ASTM D5185(m) >5	<b>▲ 17</b>	---	---
Copper	ppm	ASTM D5185(m) >50	<b>▲ 74</b>	---	---
Tin	ppm	ASTM D5185(m) >4	<b>4</b>	---	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>16</b>	---	---
Barium	ppm	ASTM D5185(m)	<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	<b>82</b>	---	---
Manganese	ppm	ASTM D5185(m)	<b>2</b>	---	---
Magnesium	ppm	ASTM D5185(m)	<b>801</b>	---	---
Calcium	ppm	ASTM D5185(m)	<b>1101</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	<b>1096</b>	---	---
Zinc	ppm	ASTM D5185(m)	<b>1153</b>	---	---
Sulfur	ppm	ASTM D5185(m)	<b>2871</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>11</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>● 3706</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>▲ 86</b>	---	---
Glycol	%	ASTM D7922*	<b>▲ 0.313</b>	---	---

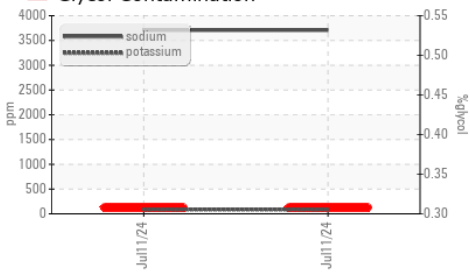
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>1</b>	---	---
Nitration	Abs/cm	ASTM D7624* >20	<b>17.9</b>	---	---
Sulfation	Abs./1mm	ASTM D7415* >30	<b>26.5</b>	---	---

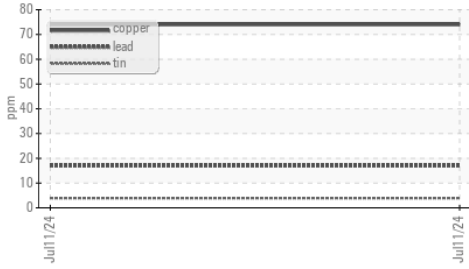


# OIL ANALYSIS REPORT

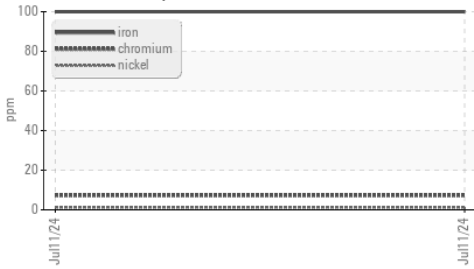
## ▲ Glycol Contamination



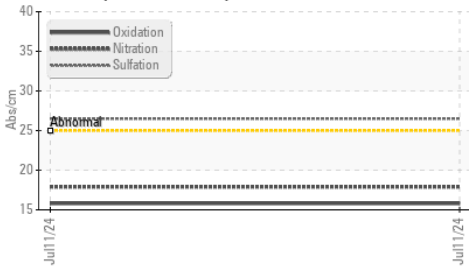
## ▲ Non-ferrous Metals



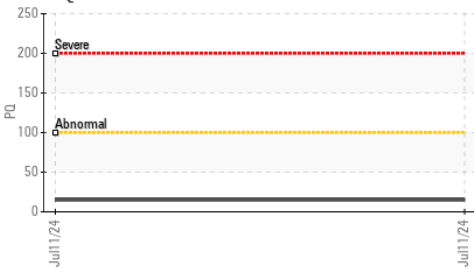
## ▲ Ferrous Alloys



## ▲ FT-IR (Direct Trend)



## ▲ PQ



## FLUID DEGRADATION

Method	Limit/Base	Current	History1	History2
Oxidation (Abs./1mm, ASTM D7414*)	>25	15.8	---	---
Base Number (BN) (mg KOH/g, ASTM D2896*)		19.76	---	---

## VISUAL

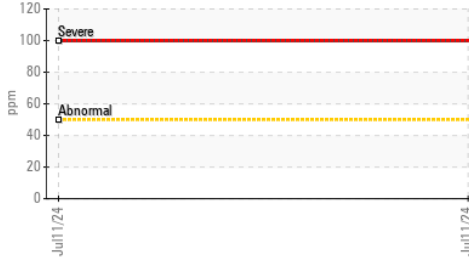
Method	Limit/Base	Current	History1	History2
Emulsified Water (scalar, Visual*)	>0.1	NEG	---	---
Free Water (scalar, Visual*)		NEG	---	---

## FLUID PROPERTIES

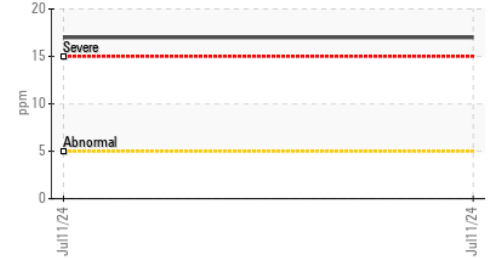
Method	Limit/Base	Current	History1	History2
Visc @ 100°C (cSt, ASTM D7279(m))		▲ 18.0	---	---

## GRAPHS

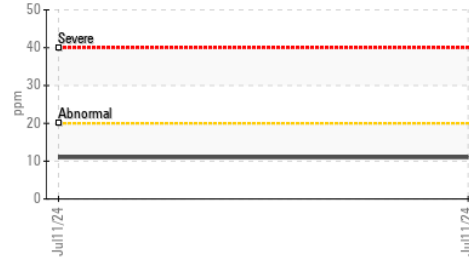
### ▲ Iron (ppm)



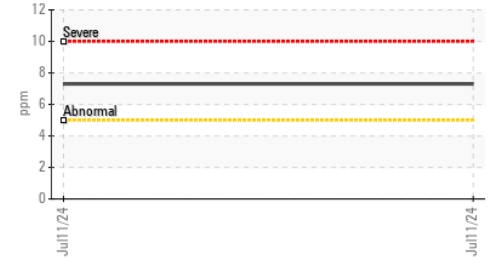
### ▲ Lead (ppm)



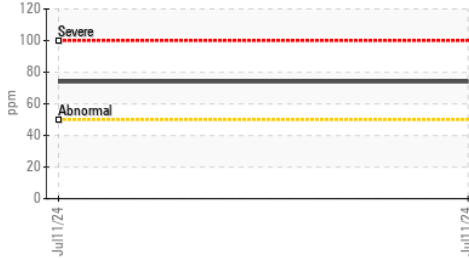
### ▲ Aluminum (ppm)



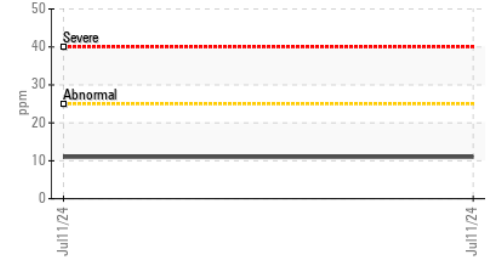
### ▲ Chromium (ppm)



### ▲ Copper (ppm)



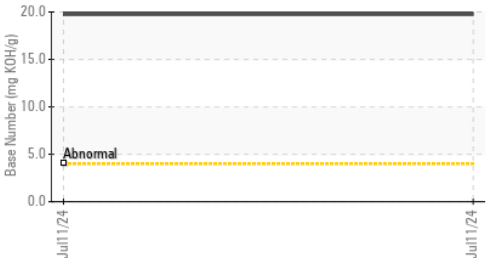
### ▲ Silicon (ppm)



### ▲ Viscosity @ 100°C



### ▲ Base Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0707868  
**Lab Number** : 02648017  
**Unique Number** : 5813569  
**Test Package** : MOB 2 ( Additional Tests: Glycol, PQ )

**SAVAGE CANAC CORPORATION**  
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 CA B9A 1Z4  
 Contact: Jonathan Jeffrey  
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 T: (902)625-3558  
 F: (902)625-2446

*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.*