



# OIL ANALYSIS REPORT

Sample Rating Trend

DIRT

Area  
**[66821]**  
 Machine Id  
**VOLVO VNL740 9706**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

### Wear

Aluminum ppm levels are abnormal. Piston wear is indicated.

### Contamination

Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component.

### Fluid Condition

Viscosity of sample indicates oil is within SAE 30 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>WC0909032</b>	---	---
Sample Date	Client Info			<b>11 Mar 2024</b>	---	---
Machine Age	kms Client Info			<b>102275</b>	---	---
Oil Age	kms Client Info			<b>0</b>	---	---
Oil Changed	Client Info			<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	<b>NEG</b>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>84</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>4</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>2	<b>1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>▲ 31</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>33</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>5</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

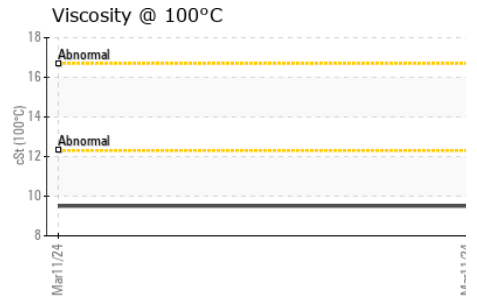
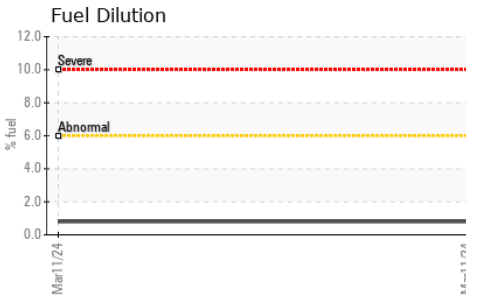
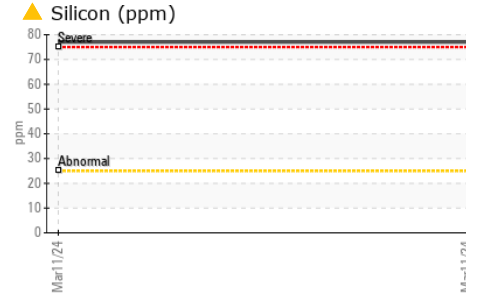
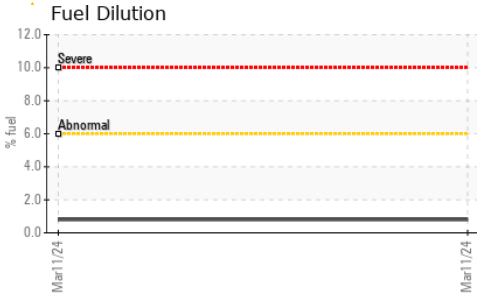
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>17</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>128</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>5</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>726</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>1482</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>724</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>851</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>1958</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 77</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>6</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>73</b>	---	---
Fuel	%	ASTM D7593*	>6.0	<b>0.8</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>13.9</b>	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>27.1</b>	---	---



# OIL ANALYSIS REPORT

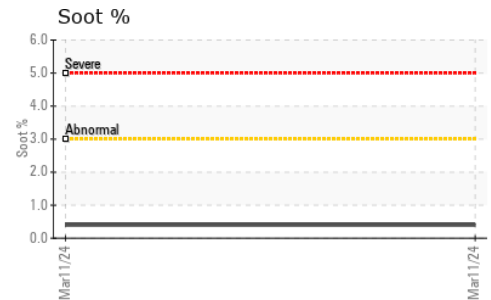
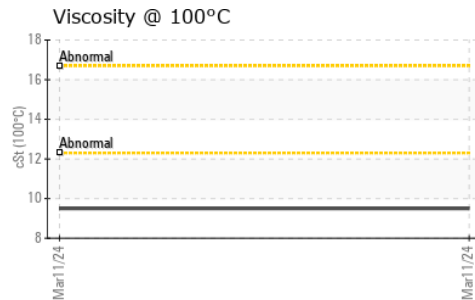
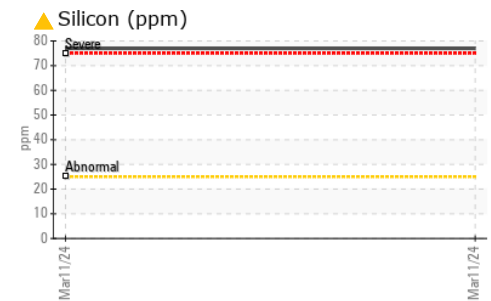
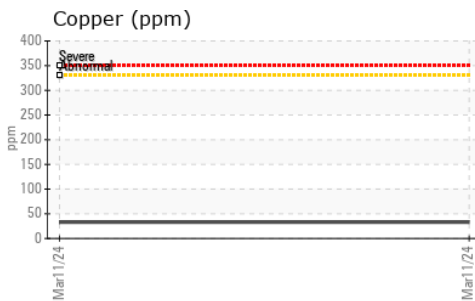
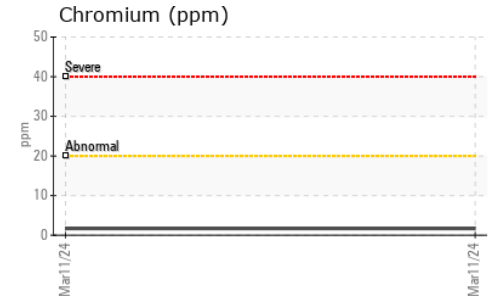
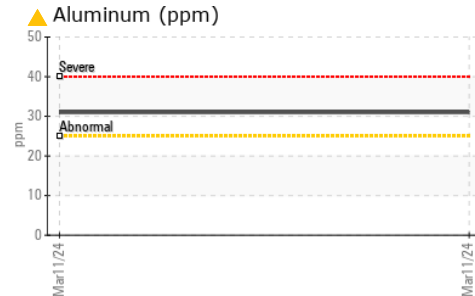
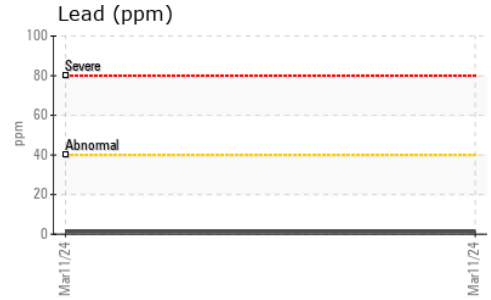
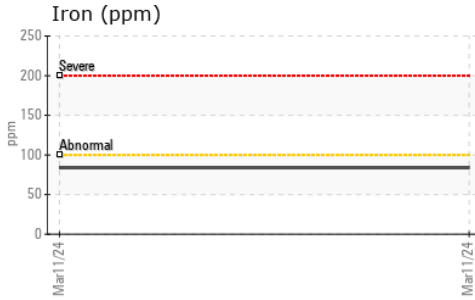


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>29.9</b>	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		<b>9.5</b>	---	---

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **PERFORMANCE EQUIPMENT - VISION TRUCK**  
**Sample No.** : WC0909032 **Received** : 19 Mar 2024 415 EVANS AVENUE  
**Lab Number** : 02622938 **Tested** : 20 Mar 2024 ETOBICOKE, ON  
**Unique Number** : 5748057 **Diagnosed** : 20 Mar 2024 - Kevin Marson CA M8W 0B3  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel ) Contact: Service

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.

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