



# VOLVO

## OIL ANALYSIS REPORT

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

Area

[X38832]

Machine Id

KOBELCO LF09010706

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

### 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 and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP429309	---	---
Sample Date		Client Info		16 May 2024	---	---
Machine Age	hrs	Client Info		4096	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				SEVERE	---	---

### WEAR

Piston and cylinder wear is indicated. Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	▲ 1380	---	---
Chromium	ppm	ASTM D5185m	>20	12	---	---
Nickel	ppm	ASTM D5185m	>4	▲ 6	---	---
Titanium	ppm	ASTM D5185m		2	---	---
Silver	ppm	ASTM D5185m	>3	1	---	---
Aluminum	ppm	ASTM D5185m	>20	▲ 112	---	---
Lead	ppm	ASTM D5185m	>40	2	---	---
Copper	ppm	ASTM D5185m	>330	102	---	---
Tin	ppm	ASTM D5185m	>15	7	---	---
Vanadium	ppm	ASTM D5185m		1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

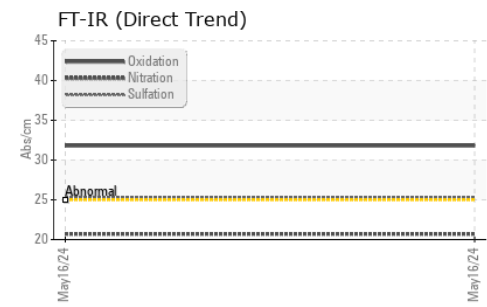
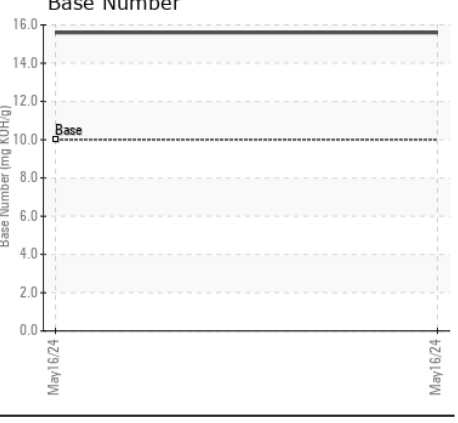
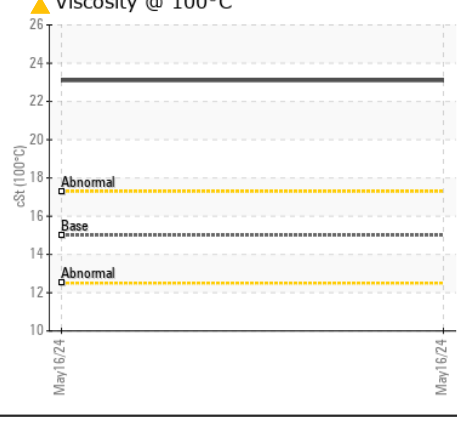
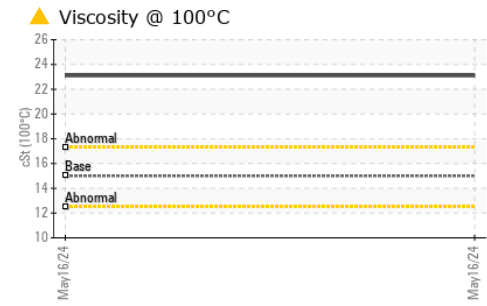
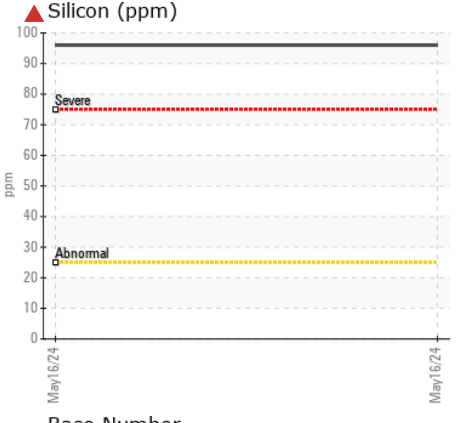
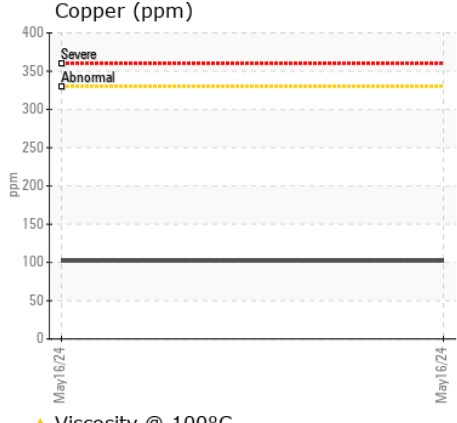
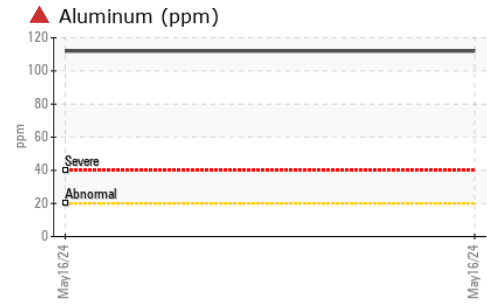
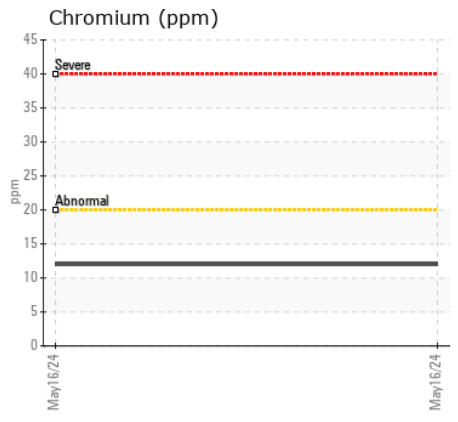
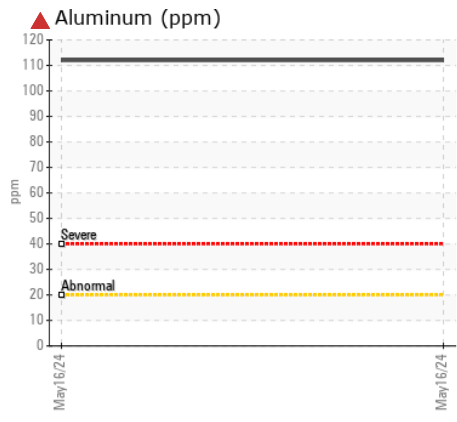
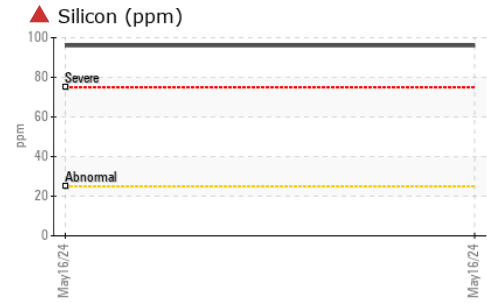
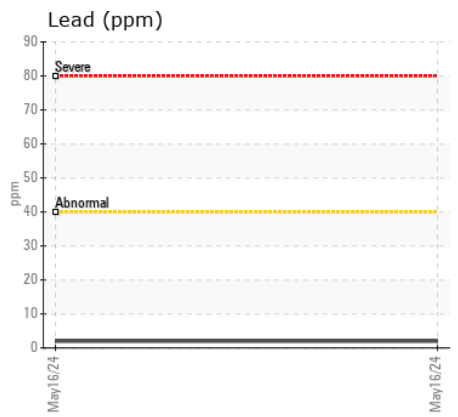
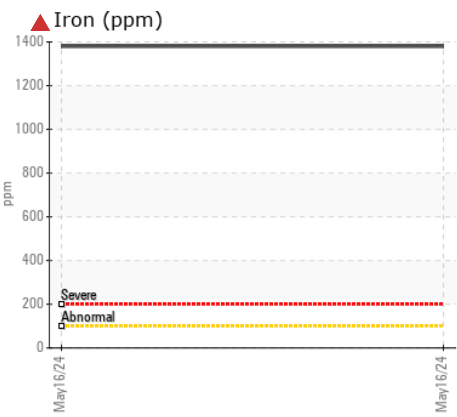
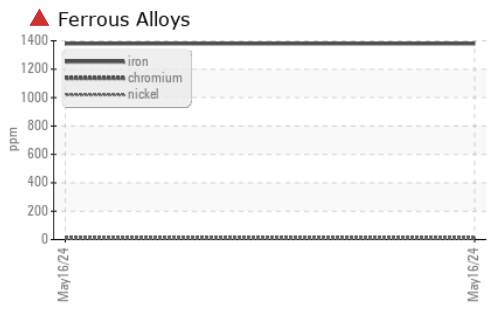
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	▲ 96	---	---
Potassium	ppm	ASTM D5185m	>20	44	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	2.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	20.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.3	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

### FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		9	---	---
Boron	ppm	ASTM D5185m	2.5	49	---	---
Barium	ppm	ASTM D5185m	0.0	0	---	---
Molybdenum	ppm	ASTM D5185m	0.7	149	---	---
Manganese	ppm	ASTM D5185m	0.0	11	---	---
Magnesium	ppm	ASTM D5185m	256	541	---	---
Calcium	ppm	ASTM D5185m	2057	1734	---	---
Phosphorus	ppm	ASTM D5185m	935	926	---	---
Zinc	ppm	ASTM D5185m	1223	1518	---	---
Sulfur	ppm	ASTM D5185m	4079	3045	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	15.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 23.1	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP429309 **Received** : 23 May 2024  
**Lab Number** : 06189883 **Tested** : 30 May 2024  
**Unique Number** : 11046635 **Diagnosed** : 30 May 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: Glycol, kv40, TBN )

**Scott Construction Equipment**  
 PO BOX 40218  
 BATON ROUGE, LA  
 US 70835  
 Contact: BRENT CALDWELL

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)

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