



VOLVO

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
VOLVO EC220EL 314928
 Component
Rear Right Final Drive
 Fluid
VOLVO PREMIUM GEAR OIL 80W-90 GL-5 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

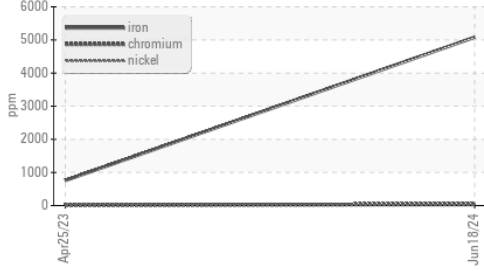
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

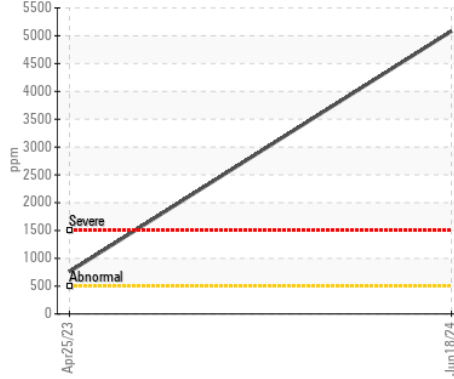
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP434883	VCP406196	---
Sample Date		Client Info		18 Jun 2024	25 Apr 2023	---
Machine Age	hrs	Client Info		1515	510	---
Oil Age	hrs	Client Info		1000	510	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				SEVERE	NORMAL	---
<hr/>						
Iron	ppm	ASTM D5185m	>500	▲ 5081	756	---
Chromium	ppm	ASTM D5185m	>10	▲ 45	12	---
Nickel	ppm	ASTM D5185m	>10	▲ 13	4	---
Titanium	ppm	ASTM D5185m		13	6	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	● 224	125	---
Lead	ppm	ASTM D5185m	>25	<1	0	---
Copper	ppm	ASTM D5185m	>50	6	<1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
<hr/>						
Silicon	ppm	ASTM D5185m	>75	▲ 1717	558	---
Potassium	ppm	ASTM D5185m	>20	95	44	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
<hr/>						
Sodium	ppm	ASTM D5185m		47	17	---
Boron	ppm	ASTM D5185m	379	6	2	---
Barium	ppm	ASTM D5185m	0.0	4	<1	---
Molybdenum	ppm	ASTM D5185m	0.8	5	2	---
Manganese	ppm	ASTM D5185m	0.0	52	13	---
Magnesium	ppm	ASTM D5185m	31	116	55	---
Calcium	ppm	ASTM D5185m	38	425	202	---
Phosphorus	ppm	ASTM D5185m	1077	341	378	---
Zinc	ppm	ASTM D5185m	46	17	12	---
Sulfur	ppm	ASTM D5185m	23526	18785	19275	---
Visc @ 40°C	cSt	ASTM D445	139	178	170	---

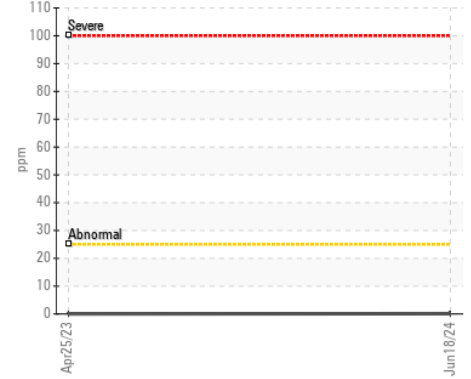
▲ Ferrous Alloys



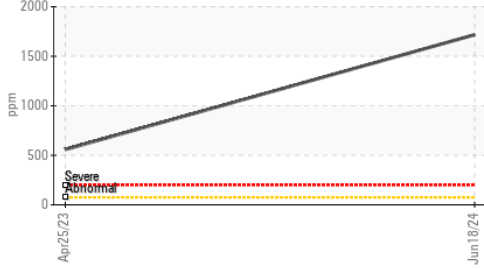
▲ Iron (ppm)



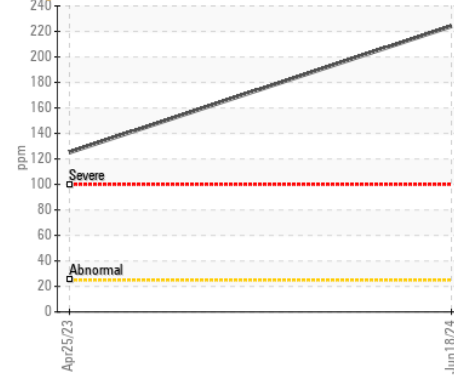
▲ Lead (ppm)



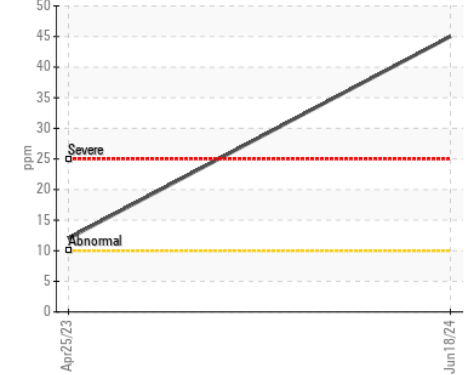
▲ Silicon (ppm)



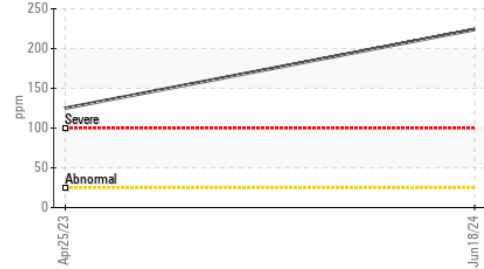
● Aluminum (ppm)



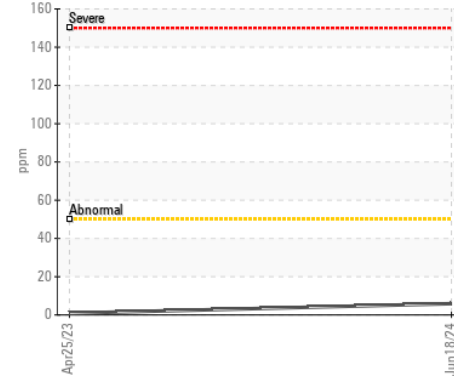
▲ Chromium (ppm)



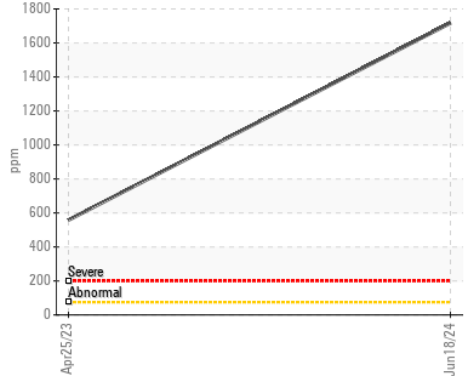
● Aluminum (ppm)



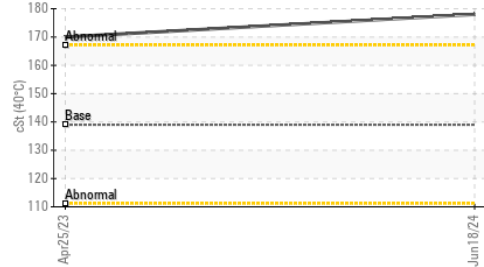
▲ Copper (ppm)



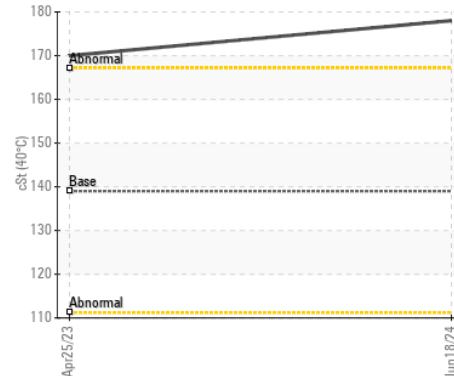
▲ Silicon (ppm)



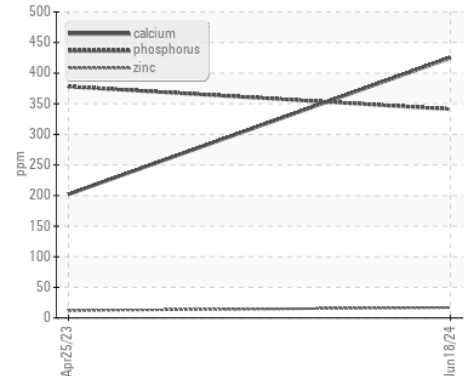
Viscosity @ 40°C



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VCP434883

Lab Number : 06221588

Unique Number : 11099785

Test Package : MOB 1

Received : 26 Jun 2024

Tested : 27 Jun 2024

Diagnosed : 28 Jun 2024 - Jonathan Hester

LEONARDS CONTRACTING

30850 STEPHENSON HWY

MADISON HEIGHTS, MI

US 48071

Contact: LARRY SCHRADER

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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)