



# VOLVO

## OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area

[139179 DOLESE]

Machine Id

VOLVO EC220D 210447

Component

Front Right Final Drive

Fluid

{not provided} (--- 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

The iron and chrome levels are severe. Gear wear is indicated.

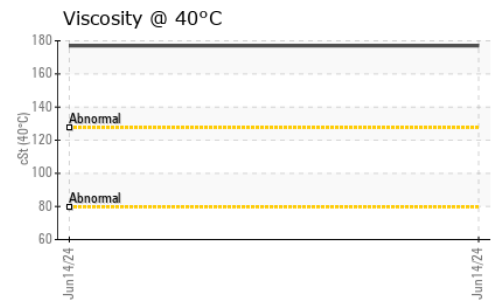
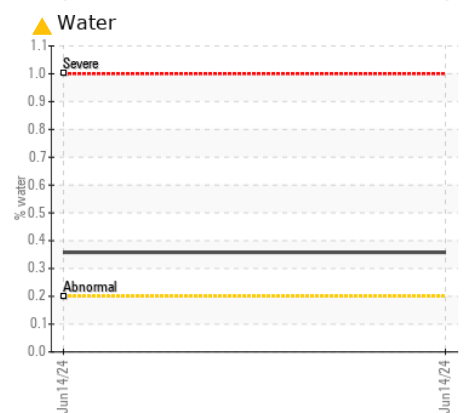
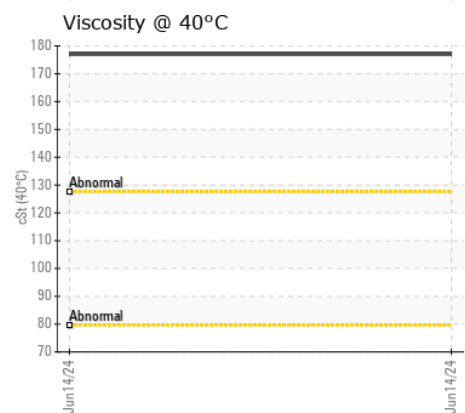
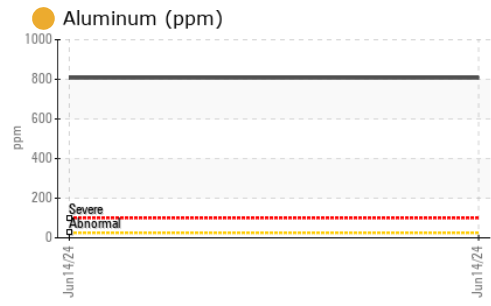
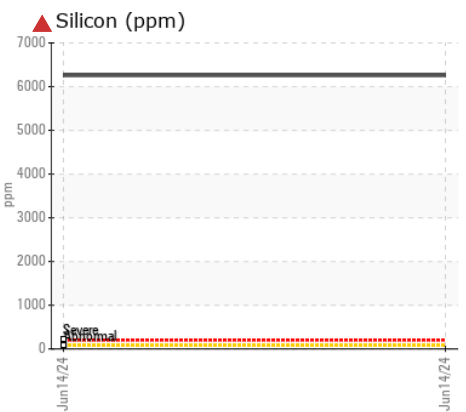
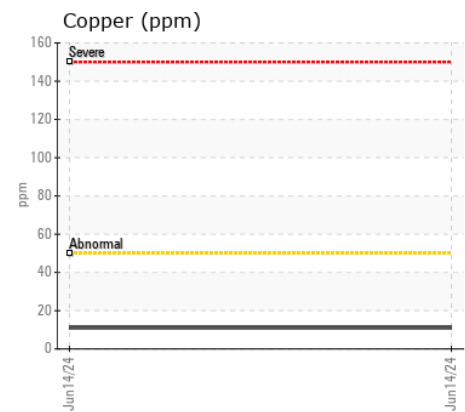
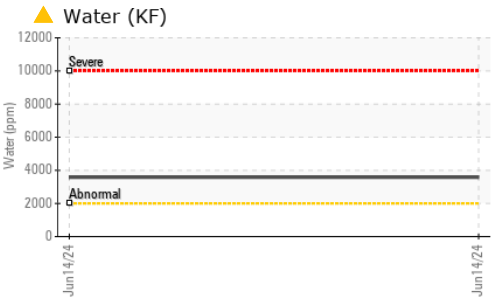
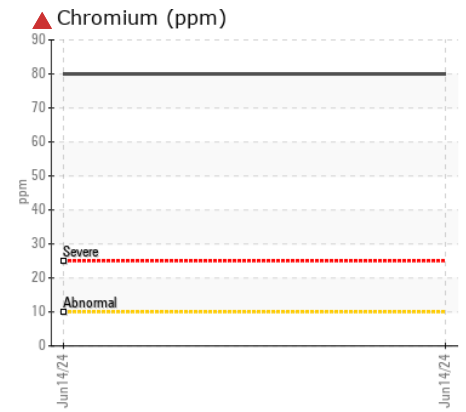
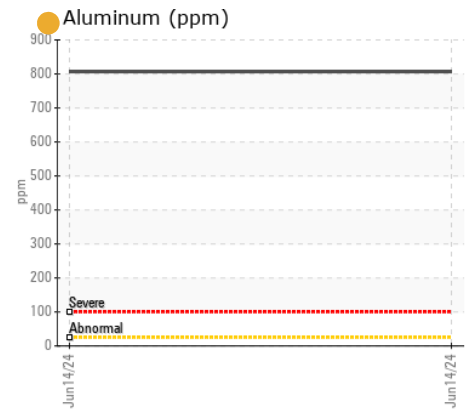
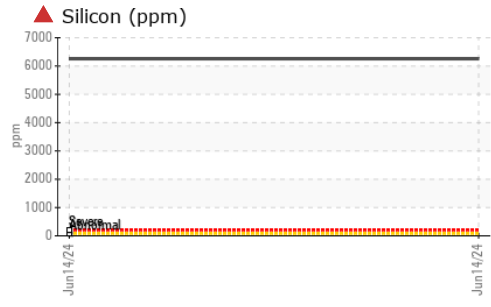
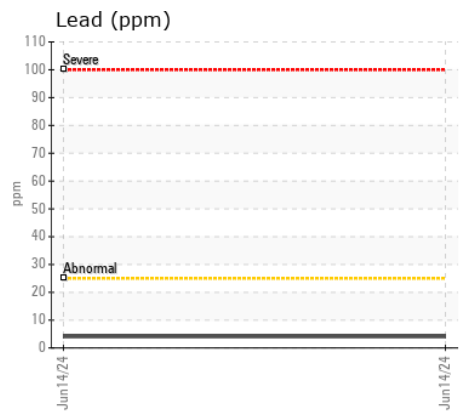
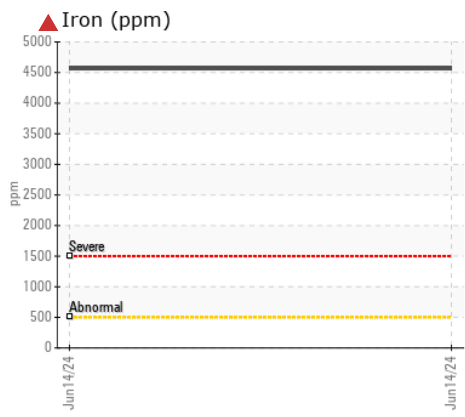
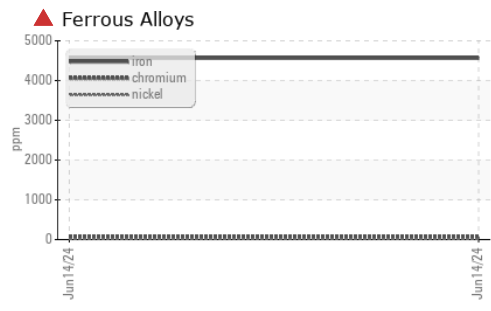
### CONTAMINATION

There is a light concentration of water present in the oil. 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		VCP413748	---	---
Sample Date		Client Info		14 Jun 2024	---	---
Machine Age	hrs	Client Info		7249	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>500	▲ 4564	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 80	---	---
Nickel	ppm	ASTM D5185m	>10	▲ 14	---	---
Titanium	ppm	ASTM D5185m		56	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	● 807	---	---
Lead	ppm	ASTM D5185m	>25	4	---	---
Copper	ppm	ASTM D5185m	>50	11	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		2	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>75	▲ 6257	---	---
Potassium	ppm	ASTM D5185m	>20	400	---	---
Water	%	ASTM D6304	>0.2	▲ 0.358	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 3580	---	---
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	0.2%	---	---
Sodium	ppm	ASTM D5185m		144	---	---
Boron	ppm	ASTM D5185m		25	---	---
Barium	ppm	ASTM D5185m		12	---	---
Molybdenum	ppm	ASTM D5185m		13	---	---
Manganese	ppm	ASTM D5185m		38	---	---
Magnesium	ppm	ASTM D5185m		158	---	---
Calcium	ppm	ASTM D5185m		2413	---	---
Phosphorus	ppm	ASTM D5185m		777	---	---
Zinc	ppm	ASTM D5185m		693	---	---
Sulfur	ppm	ASTM D5185m		7326	---	---
Visc @ 40°C	cSt	ASTM D445		177	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP413748 **Received** : 17 Jun 2024  
**Lab Number** : 06212159 **Tested** : 19 Jun 2024  
**Unique Number** : 11085023 **Diagnosed** : 19 Jun 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: KF )

**THE GW VAN KEPPEL CO**  
 1876 NORTH 105TH EAST AVENUE  
 TULSA, OK  
 US 74116  
 Contact: MIKE DEVORE  
 MDEVORE@VANKEPPEL.COM  
 T: (918)836-8851  
 F: (918)834-1659

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)