



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**TMR-West Palm [SPM700380]**  
Machine Id  
**311390 VOLVO EC380 311390**  
Component  
**Swing Drive**  
Fluid  
**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP454052</b>	VCP330151	VCP301083
Sample Date		Client Info		<b>08 Apr 2024</b>	28 Mar 2022	08 Jan 2021
Machine Age	hrs	Client Info		<b>7409</b>	4427	2638
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>SEVERE</b>	SEVERE	NORMAL

### WEAR

The iron level is severe. Gear wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>1200	<b>▲ 4922</b>	▲ 7339	285
Chromium	ppm	ASTM D5185m	>10	<b>▲ 48</b>	▲ 73	2
Nickel	ppm	ASTM D5185m	>10	<b>4</b>	4	0
Titanium	ppm	ASTM D5185m		<b>2</b>	1	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>25	<b>15</b>	▲ 31	1
Lead	ppm	ASTM D5185m	>50	<b>2</b>	3	0
Copper	ppm	ASTM D5185m	>50	<b>▲ 406</b>	▲ 559	10
Tin	ppm	ASTM D5185m	>10	<b>0</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

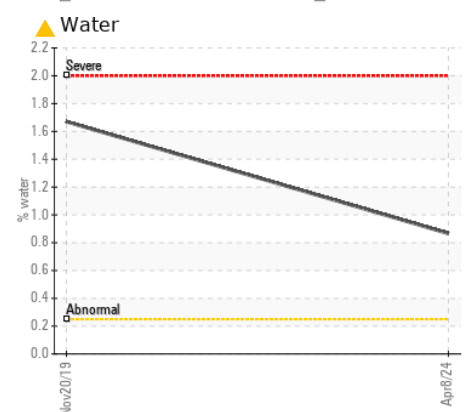
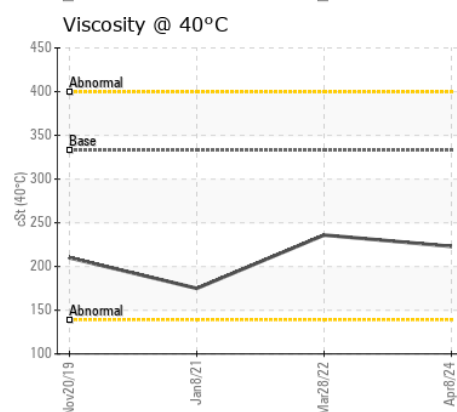
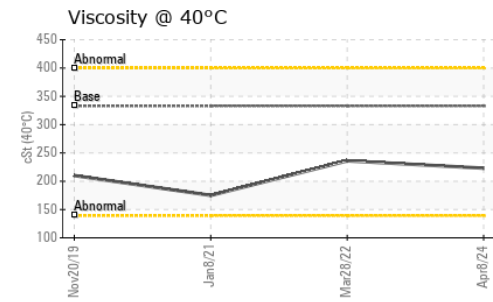
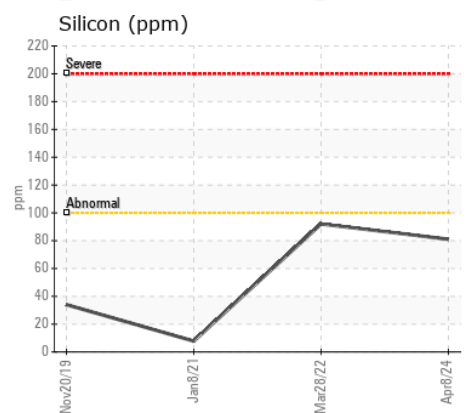
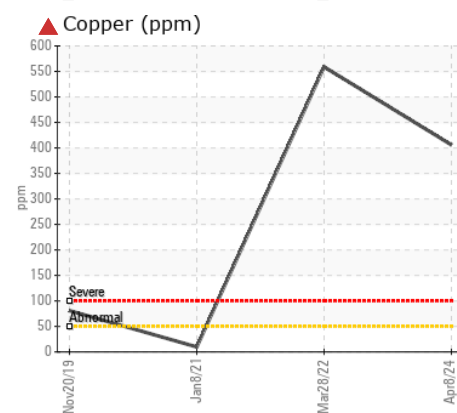
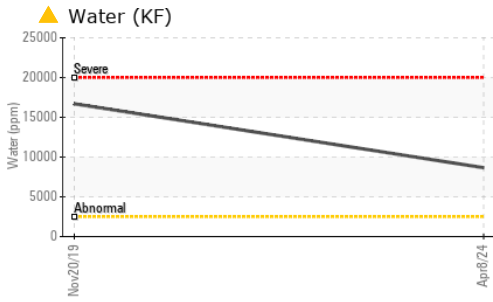
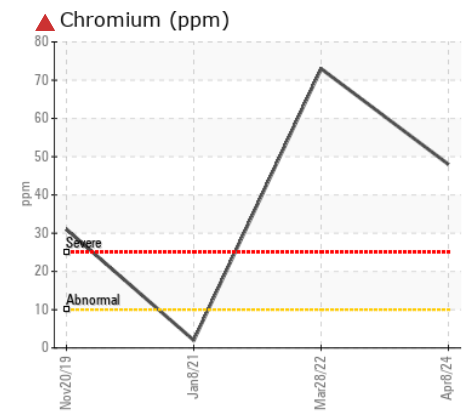
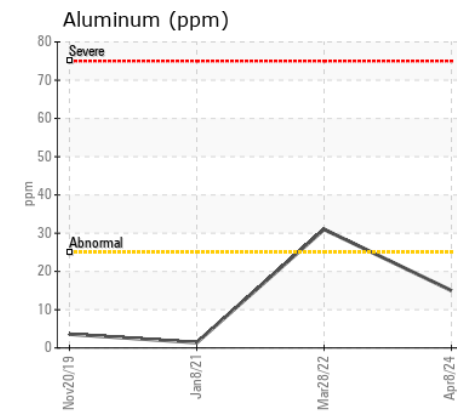
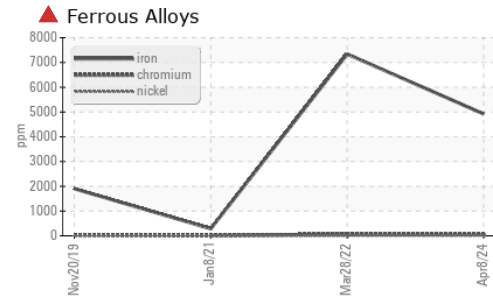
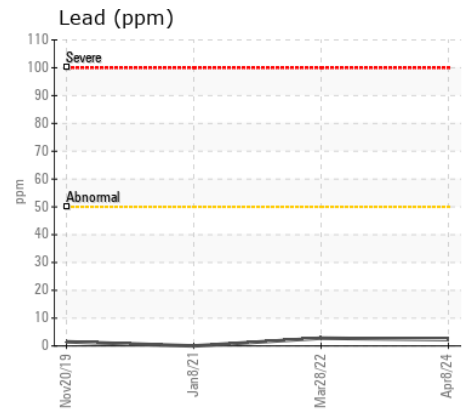
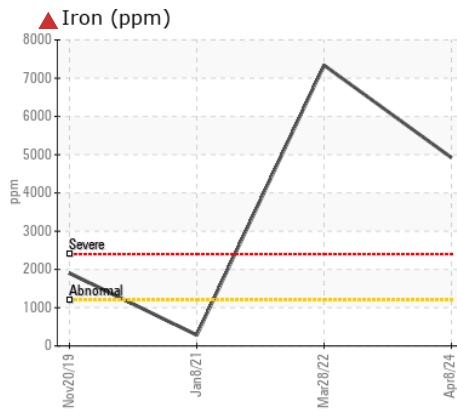
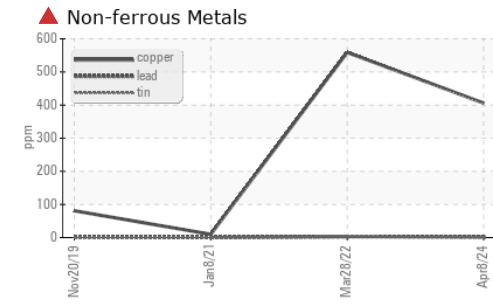
Appearance is milky. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>81</b>	92	8
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	10
Water	%	ASTM D6304	>0.25	<b>▲ 0.866</b>	---	---
ppm Water	ppm	ASTM D6304	>2500	<b>▲ 8660</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>● MILKY</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.25	<b>▲ 0.2%</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>7</b>	5	2
Boron	ppm	ASTM D5185m	111	<b>57</b>	5	2
Barium	ppm	ASTM D5185m	0.0	<b>3</b>	<1	2
Molybdenum	ppm	ASTM D5185m	0.9	<b>9</b>	7	0
Manganese	ppm	ASTM D5185m	0.0	<b>52</b>	73	4
Magnesium	ppm	ASTM D5185m	39	<b>31</b>	18	0
Calcium	ppm	ASTM D5185m	93	<b>198</b>	79	9
Phosphorus	ppm	ASTM D5185m	920	<b>986</b>	1191	371
Zinc	ppm	ASTM D5185m	104	<b>344</b>	404	103
Sulfur	ppm	ASTM D5185m	20179	<b>17797</b>	12925	8620
Visc @ 40°C	cSt	ASTM D445	333	<b>223</b>	236	175



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP454052 **Received** : 15 Apr 2024  
**Lab Number** : 06149048 **Tested** : 17 Apr 2024  
**Unique Number** : 10979126 **Diagnosed** : 17 Apr 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: KF )

**TRADEMARK METALS RECYCLING - WEST PALM**  
 6552 NORTH JOG ROAD  
 WEST PALM BEACH, FL  
 US 33412  
 Contact: RYAN BOWDEN

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)

T: (561)687-2177

F: (561)687-1617