



# VOLVO

## OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**  
**SEVERE**  
**NORMAL**



Area

**Ascendum Machinery**

Machine Id

**VOLVO EC220E EX-7 (S/N 310467)**

Component

**Right Travel**

Fluid

**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP0006605</b>	VCP0004384	VCP0002110
Sample Date		Client Info		<b>23 May 2023</b>	29 Nov 2022	29 Jul 2022
Machine Age	hrs	Client Info		<b>4959</b>	4503	3999
Oil Age	hrs	Client Info		<b>456</b>	504	3999
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	None	N/A
Sample Status				<b>SEVERE</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1200	<b>540</b>	340	1166
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	3	9
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	1
Titanium	ppm	ASTM D5185m		<b>6</b>	1	2
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>100	<b>108</b>	14	27
Lead	ppm	ASTM D5185m	>50	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>MODER</b>	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

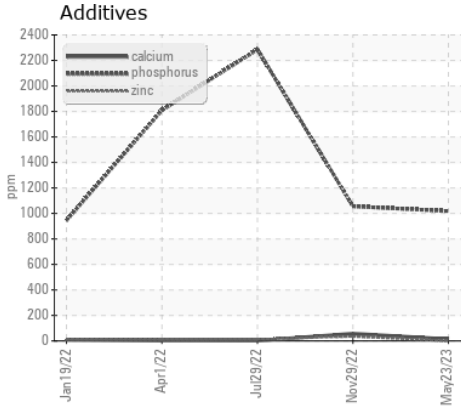
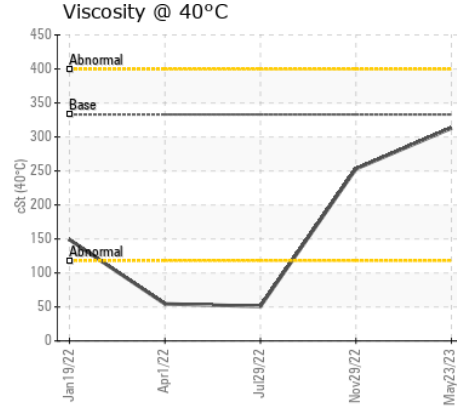
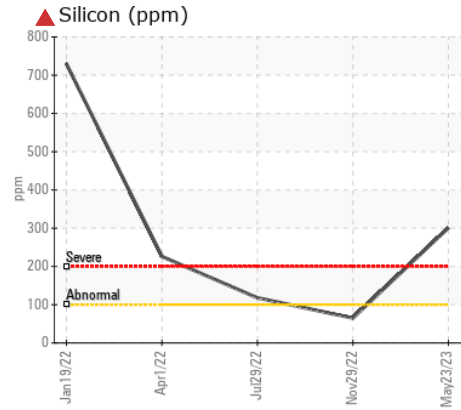
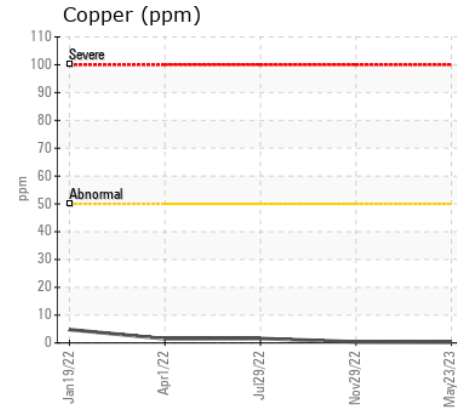
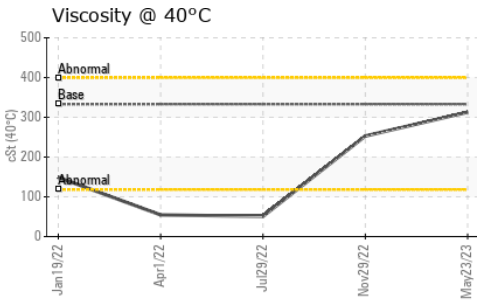
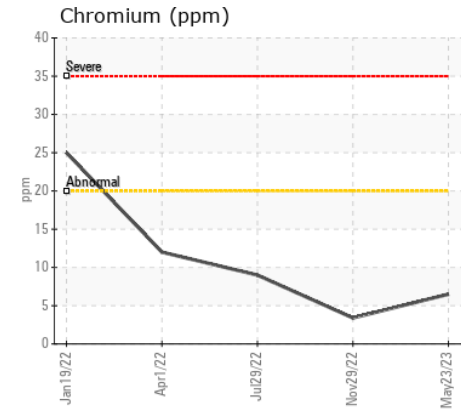
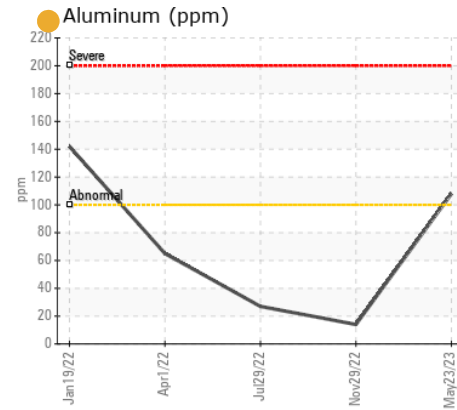
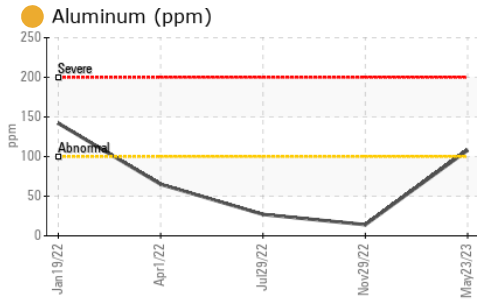
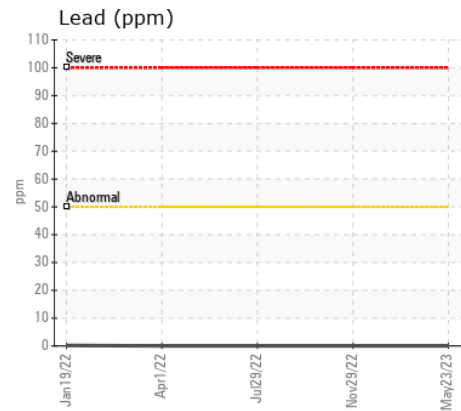
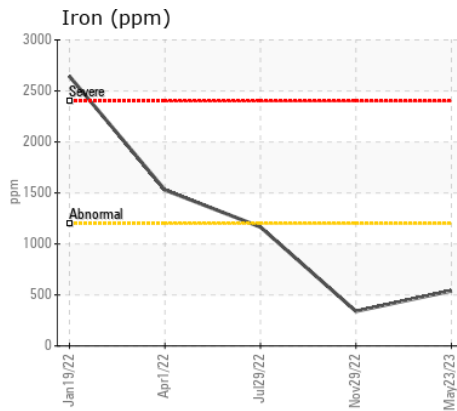
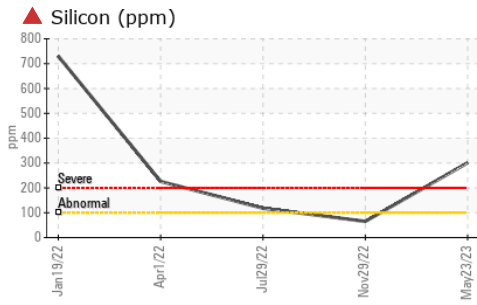
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	<b>▲ 301</b>	65	▲ 118
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	<1	0
Water		WC Method	>0.25	<b>NEG</b>	NEG	NEG
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>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.25	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>2</b>	2	0
Boron	ppm	ASTM D5185m	111	<b>172</b>	156	251
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.9	<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185m	0.0	<b>3</b>	2	6
Magnesium	ppm	ASTM D5185m	39	<b>5</b>	6	0
Calcium	ppm	ASTM D5185m	93	<b>14</b>	58	2
Phosphorus	ppm	ASTM D5185m	920	<b>1018</b>	1056	2286
Zinc	ppm	ASTM D5185m	104	<b>0</b>	35	12
Sulfur	ppm	ASTM D5185m	20179	<b>35447</b>	30596	25056
Visc @ 40°C	cSt	ASTM D445	333	<b>313</b>	253	● 50.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP0006605  
**Lab Number** : 05856396  
**Unique Number** : 10485751  
**Test Package** : MOBCE

**Received** : 24 May 2023  
**Tested** : 25 May 2023  
**Diagnosed** : 26 May 2023 - Don Baldrige

**CAROLINA EXCAVATING**  
 1036 BRANCHVIEW DR, SUITE 106  
 CONCORD, NC  
 US 28025  
 Contact: KEVIN LADGERWOOD  
 kevin@carlinaexcavation.com

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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F: