



# ASCENDUM

## OIL ANALYSIS REPORT



Area

**Ascendum Machinery**

Machine Id

**VOLVO EC220E EX-4 (S/N 310878)**

Component

**Right Travel**

Fluid

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

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**

**ABNORMAL**

**NORMAL**

### 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. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0001744</b>	ASC0000961	ASC0000073
Sample Date		Client Info		<b>22 Apr 2024</b>	13 Dec 2023	06 Jun 2023
Machine Age	hrs	Client Info		<b>5981</b>	5519	5011
Oil Age	hrs	Client Info		<b>462</b>	508	500
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>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	SEVERE	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1200	<b>568</b>	● 893	367
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	5	2
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	3	1
Titanium	ppm	ASTM D5185m		<b>4</b>	5	2
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>100	● <b>54</b>	● 77	● 42
Lead	ppm	ASTM D5185m	>50	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>0</b>	1	0
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

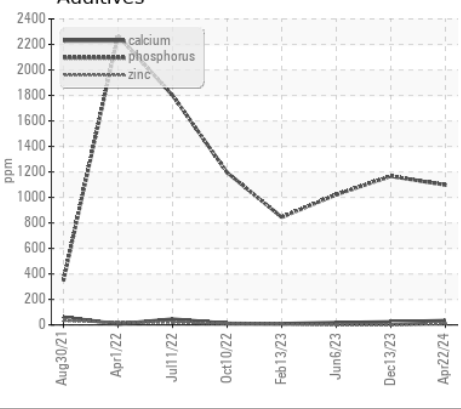
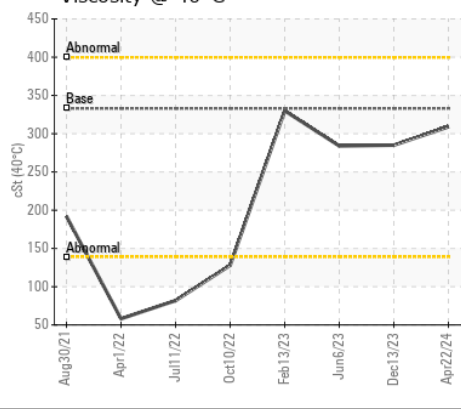
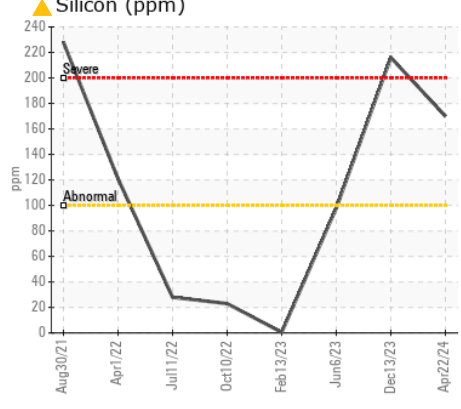
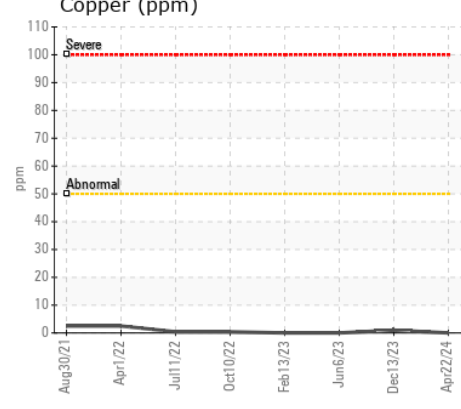
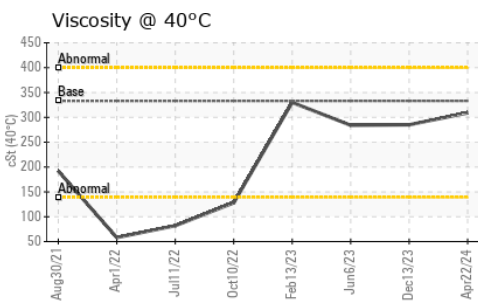
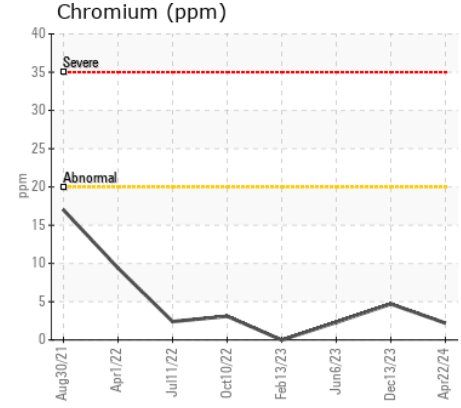
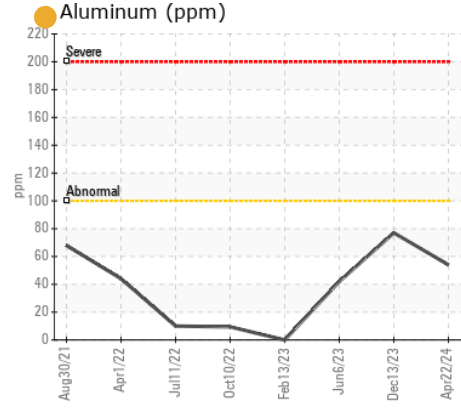
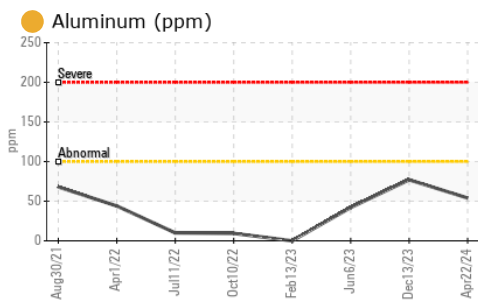
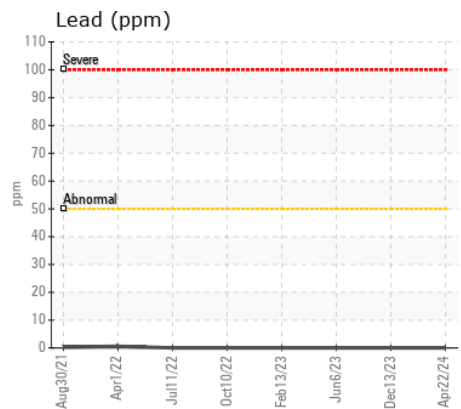
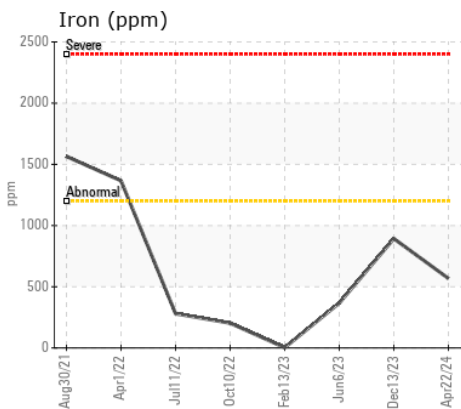
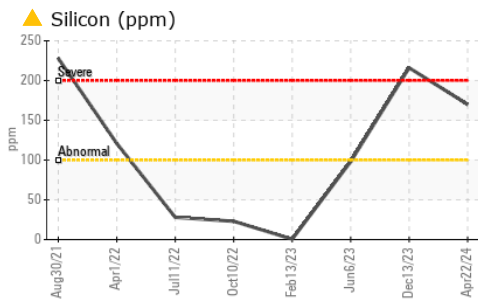
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	▲ <b>170</b>	▲ 216	● 98
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	9	4
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	1	<1
Boron	ppm	ASTM D5185m	111	<b>194</b>	209	212
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.9	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m	0.0	<b>3</b>	5	2
Magnesium	ppm	ASTM D5185m	39	<b>5</b>	5	1
Calcium	ppm	ASTM D5185m	93	<b>34</b>	24	18
Phosphorus	ppm	ASTM D5185m	920	<b>1098</b>	1167	1022
Zinc	ppm	ASTM D5185m	104	<b>10</b>	0	0
Sulfur	ppm	ASTM D5185m	20179	<b>34106</b>	36126	34416
Visc @ 40°C	cSt	ASTM D445	333	<b>309</b>	285	284



Certificate L2367

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

Sample No. : ASC0001744

Lab Number : 06160771

Unique Number : 10996194

Test Package : MOBCE

Received : 25 Apr 2024

Tested : 26 Apr 2024

Diagnosed : 29 Apr 2024 - Don Baldrige

CAROLINA EXCAVATING

1036 BRANCHVIEW DR, SUITE 106

CONCORD, NC

US 28025

Contact: KEVIN LADGERWOOD

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T:

F:

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)