



ASCENDUM

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
SEVERE
NORMAL



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)

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		ASC0000961	ASC0000073	VCP0007246
Sample Date		Client Info		13 Dec 2023	06 Jun 2023	13 Feb 2023
Machine Age	hrs	Client Info		5519	5011	4511
Oil Age	hrs	Client Info		508	500	464
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ATTENTION	NORMAL

WEAR

An increase in the iron level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>1200	893	367	3
Chromium	ppm	ASTM D5185m	>20	5	2	0
Nickel	ppm	ASTM D5185m	>5	3	1	0
Titanium	ppm	ASTM D5185m		5	2	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>100	77	42	0
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>50	1	0	0
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

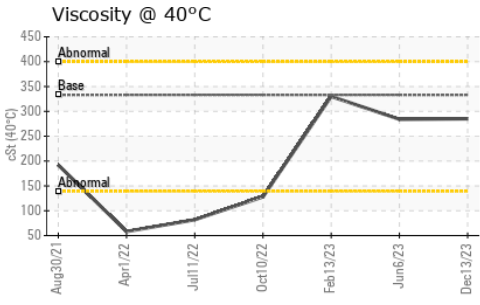
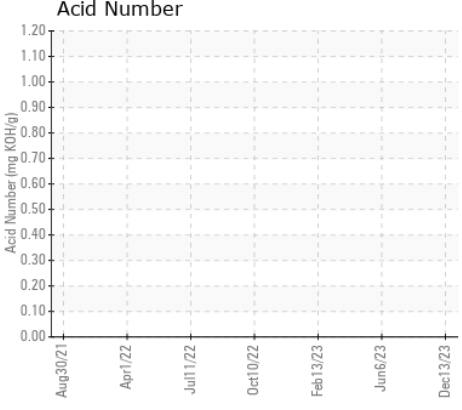
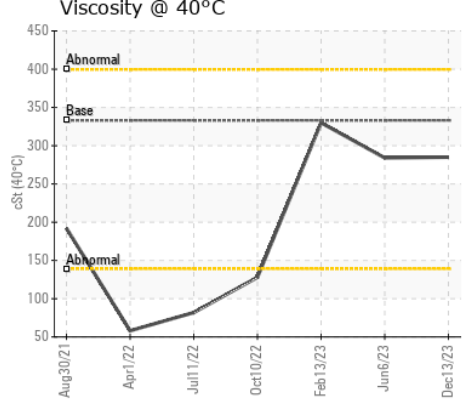
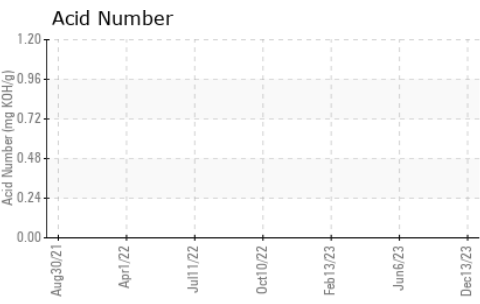
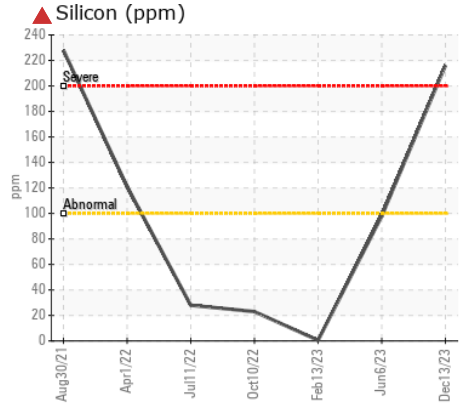
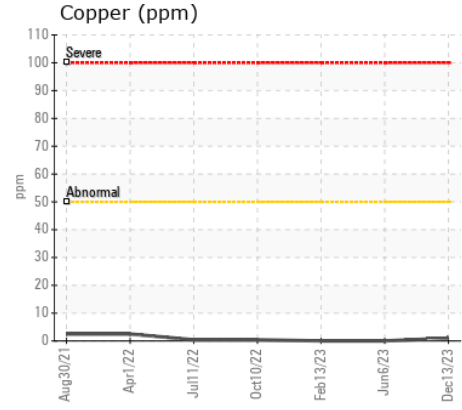
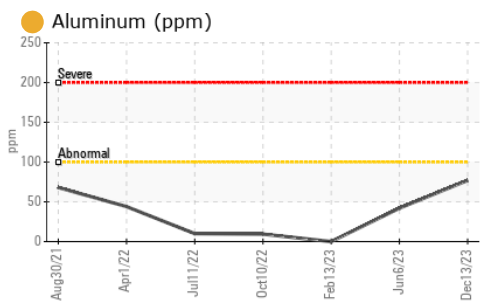
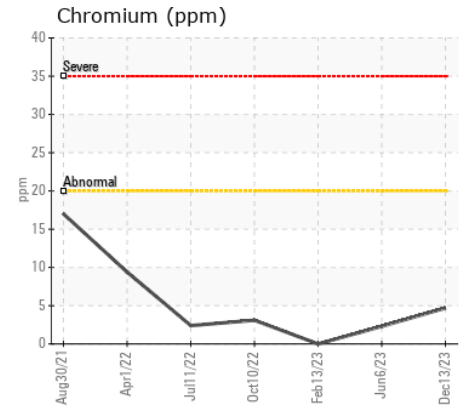
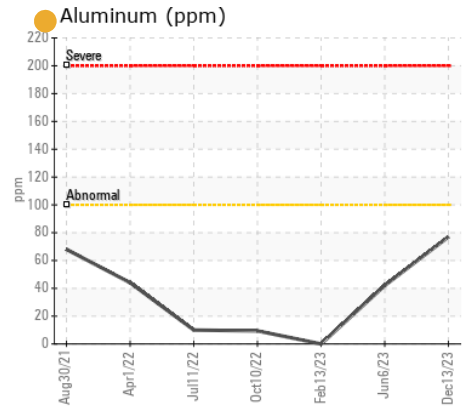
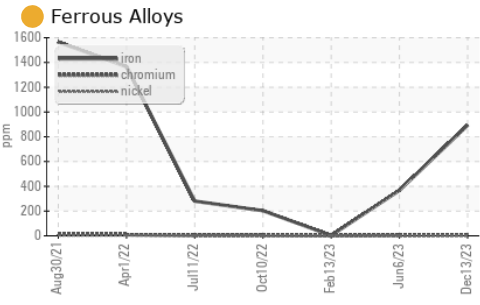
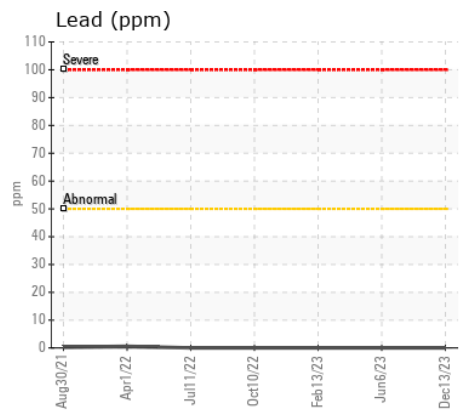
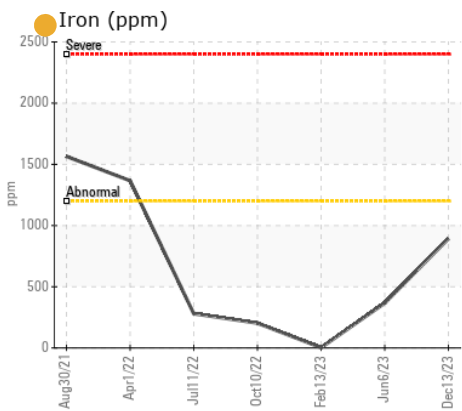
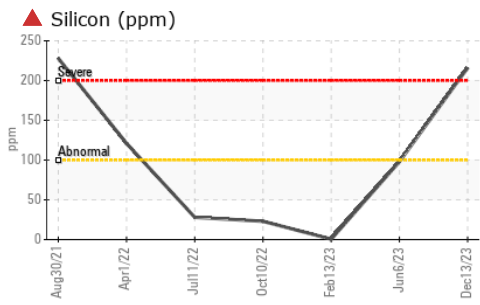
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	216	98	<1
Potassium	ppm	ASTM D5185m	>20	9	4	0
Water		WC Method	>0.25	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.25	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	<1	<1
Boron	ppm	ASTM D5185m	111	209	212	185
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.9	<1	<1	0
Manganese	ppm	ASTM D5185m	0.0	5	2	0
Magnesium	ppm	ASTM D5185m	39	5	1	0
Calcium	ppm	ASTM D5185m	93	24	18	10
Phosphorus	ppm	ASTM D5185m	920	1167	1022	845
Zinc	ppm	ASTM D5185m	104	0	0	7
Sulfur	ppm	ASTM D5185m	20179	36126	34416	28455
Acid Number (AN)	mg KOH/g	ASTM D8045		1.155	---	---
Visc @ 40°C	cSt	ASTM D445	333	285	284	330



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0000961
Lab Number : 06034916
Unique Number : 10790145
Test Package : MOBCE
Received : 14 Dec 2023
Tested : 15 Dec 2023
Diagnosed : 18 Dec 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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