



ASCENDUM

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

Ascendum Machinery

Machine Id

VOLVO EC220E 513 (S/N 314288)

Component

Left Travel

Fluid

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

RECOMMENDATION

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		ASC0009688	ASC0001062	VCP0002323
Sample Date		Client Info		06 Jul 2024	28 Aug 2023	20 May 2022
Machine Age	hrs	Client Info		3542	2497	1581
Oil Age	hrs	Client Info		1045	916	1581
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	NORMAL	NORMAL

WEAR

Gear wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>1200	▲ 3904	4	2386
Chromium	ppm	ASTM D5185m	>20	▲ 30	<1	28
Nickel	ppm	ASTM D5185m	>5	4	0	5
Titanium	ppm	ASTM D5185m		<1	0	9
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>100	2	2	120
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>50	▲ 73	<1	4
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

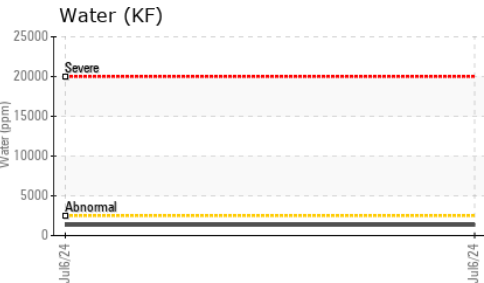
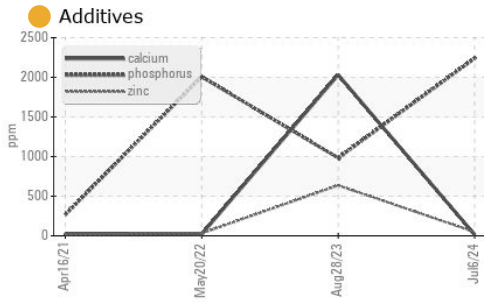
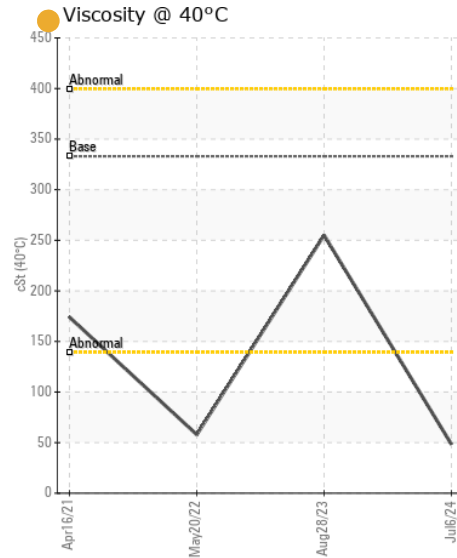
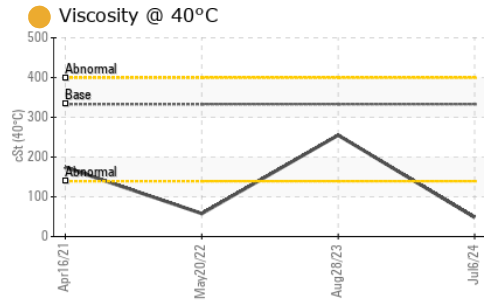
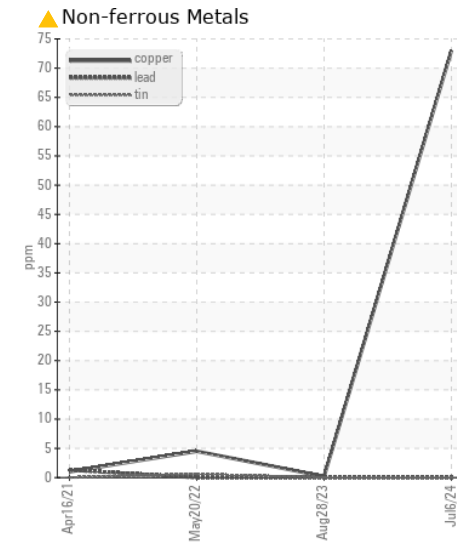
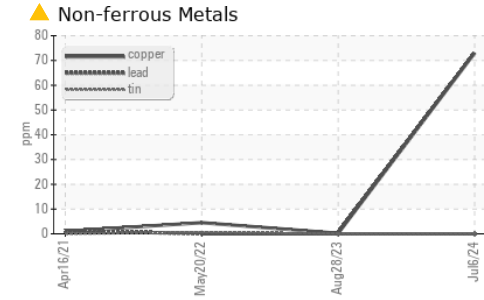
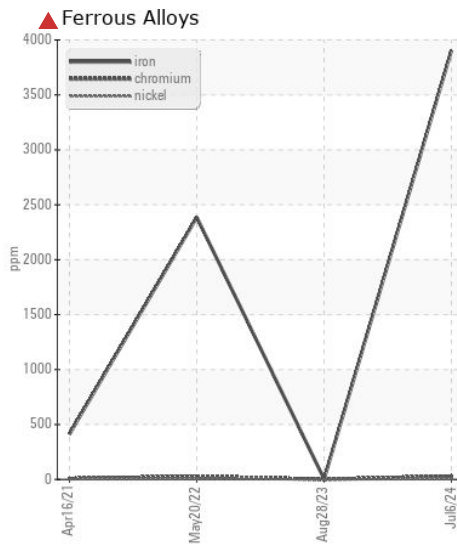
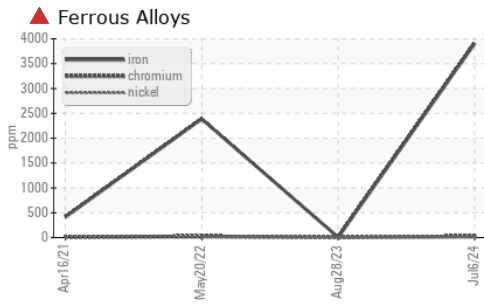
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	19	13	280
Potassium	ppm	ASTM D5185m	>20	0	<1	21
Water	%	ASTM D6304	>0.25	0.133	---	---
ppm Water	ppm	ASTM D6304	>2500	1330	---	---
Silt	scalar	*Visual	NONE	MODER	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	0.2%	NEG	NEG

FLUID CONDITION

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		3	0	11
Boron	ppm	ASTM D5185m	111	128	135	111
Barium	ppm	ASTM D5185m	0.0	0	2	0
Molybdenum	ppm	ASTM D5185m	0.9	8	0	4
Manganese	ppm	ASTM D5185m	0.0	● 28	0	23
Magnesium	ppm	ASTM D5185m	39	1	5	13
Calcium	ppm	ASTM D5185m	93	● 15	2031	20
Phosphorus	ppm	ASTM D5185m	920	● 2240	983	2007
Zinc	ppm	ASTM D5185m	104	● 48	636	30
Sulfur	ppm	ASTM D5185m	20179	29774	16655	26887
Visc @ 40°C	cSt	ASTM D445	333	● 48.4	255	57.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0009688 **Received** : 11 Jul 2024
Lab Number : 06233590 **Tested** : 12 Jul 2024
Unique Number : 11117083 **Diagnosed** : 13 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: KF)

WM WARR & SON
 3800 SMITH FARM RD
 MATTHEWS, NC
 US 28104
 Contact: SERVICE MANAGER

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: