



ASCENDUM

OIL ANALYSIS REPORT



Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO EC300E 2131 (S/N 314707)

Component

Rear Right Final Drive

Fluid

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

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE

SEVERE

ATTENTION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

FLUID CONDITION

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

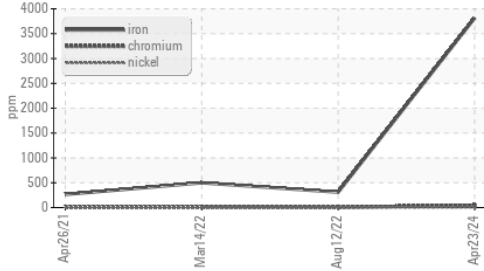
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0001841	VCP0002006	VCP0000853
Sample Date		Client Info		23 Apr 2024	12 Aug 2022	14 Mar 2022
Machine Age	hrs	Client Info		3516	2627	2041
Oil Age	hrs	Client Info		889	2627	2041
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>500	▲ 3814	310	499
Chromium	ppm	ASTM D5185m	>10	▲ 48	6	10
Nickel	ppm	ASTM D5185m	>10	2	0	<1
Titanium	ppm	ASTM D5185m		▲ 29	<1	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	● 389	5	10
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	5	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

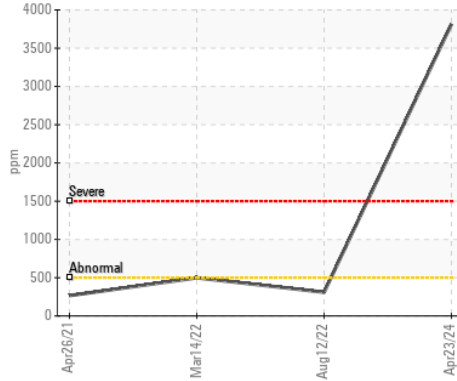
Silicon	ppm	ASTM D5185m	>75	▲ 1560	14	21
Potassium	ppm	ASTM D5185m	>20	75	3	4
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

Sodium	ppm	ASTM D5185m		28	<1	1
Boron	ppm	ASTM D5185m	111	186	123	88
Barium	ppm	ASTM D5185m	0.0	2	1	0
Molybdenum	ppm	ASTM D5185m	0.9	4	<1	1
Manganese	ppm	ASTM D5185m	0.0	31	4	6
Magnesium	ppm	ASTM D5185m	39	21	1	1
Calcium	ppm	ASTM D5185m	93	57	22	14
Phosphorus	ppm	ASTM D5185m	920	1070	925	838
Zinc	ppm	ASTM D5185m	104	14	20	24
Sulfur	ppm	ASTM D5185m	20179	35741	24410	23157
Visc @ 40°C	cSt	ASTM D445	333	● 451	169	280

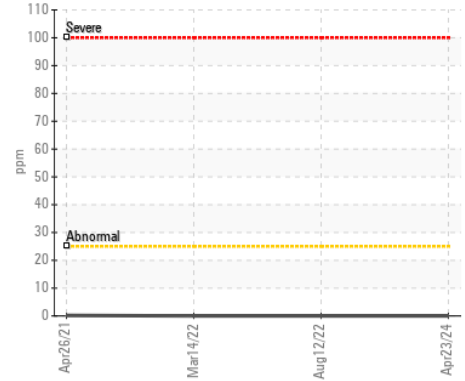
▲ Ferrous Alloys



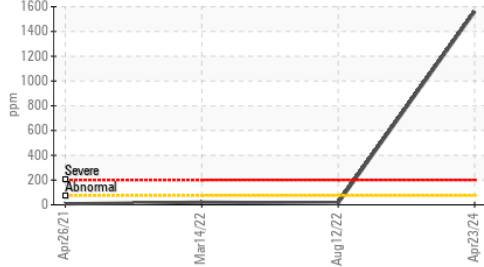
▲ Iron (ppm)



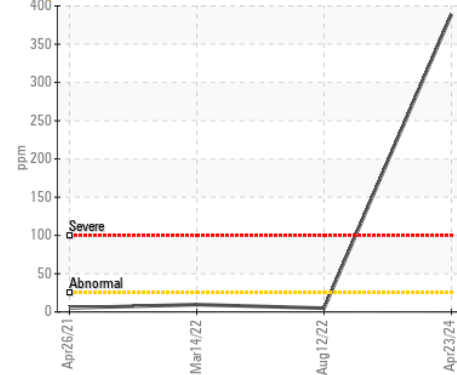
▲ Lead (ppm)



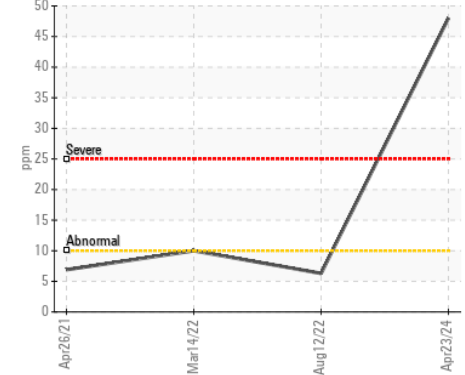
▲ Silicon (ppm)



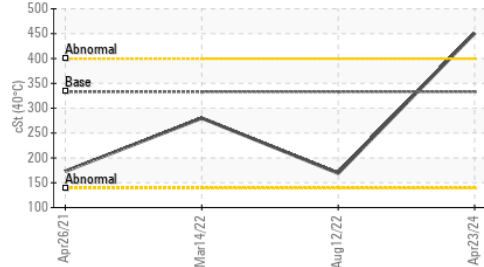
● Aluminum (ppm)



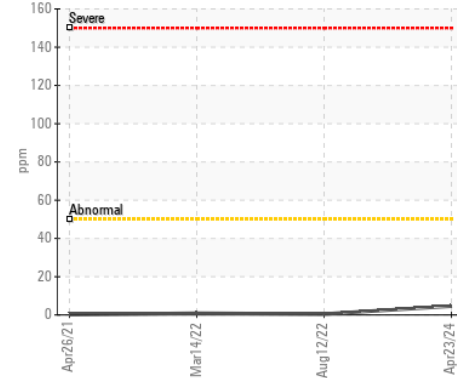
▲ Chromium (ppm)



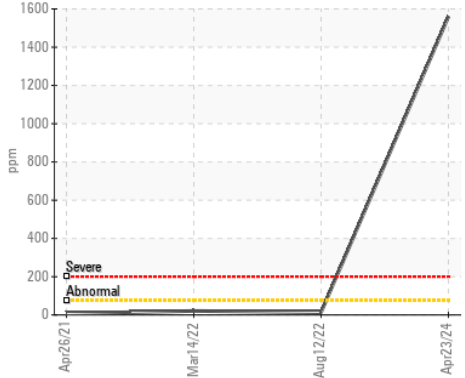
● Viscosity @ 40°C



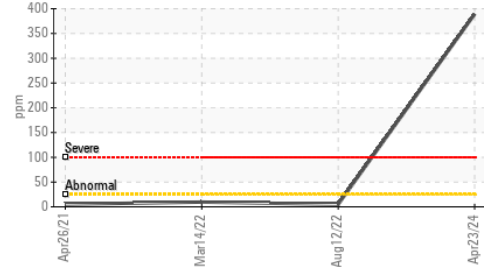
▲ Copper (ppm)



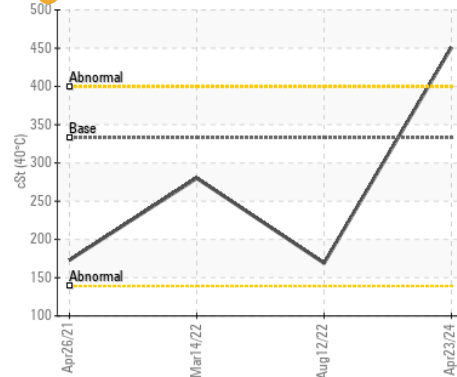
▲ Silicon (ppm)



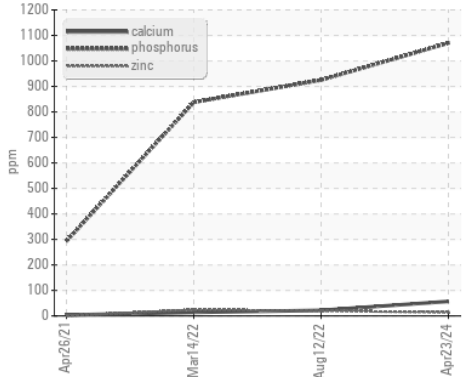
● Aluminum (ppm)



● Viscosity @ 40°C



▲ Additives



Certificate L2367

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

Sample No. : ASC0001841

Lab Number : 06160766

Unique Number : 10996189

Test Package : MOBCE

Received : 25 Apr 2024

Tested : 26 Apr 2024

Diagnosed : 29 Apr 2024 - Don Baldrige

TRIANGLE GRADING AND PAVING INC

1521 Huffman Mill Rd

BURLINGTON, NC

US 27216

Contact: ADAM CORBETT

wacorbett@trianglegradingpaving.com

T:

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)

F: (336)584-0145