



ASCENDUM

OIL ANALYSIS REPORT



Area
Ascendum Machinery
Machine Id
VOLVO EC220D EX-1 (S/N 210294)
Component
Right Travel
Fluid
VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
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 recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

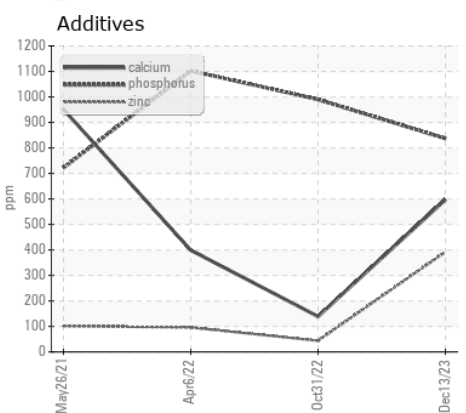
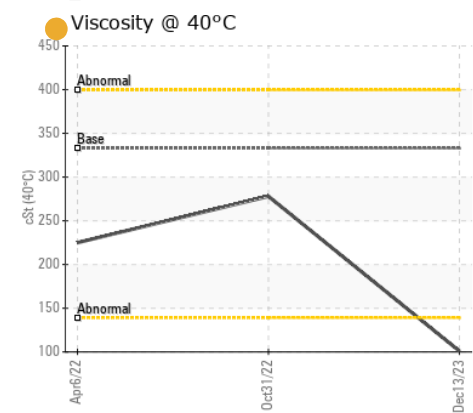
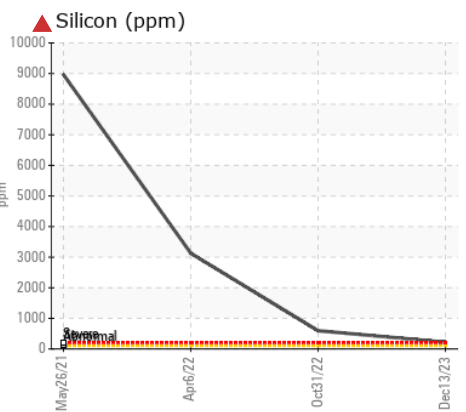
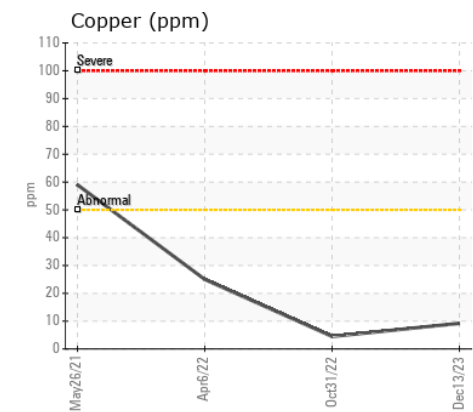
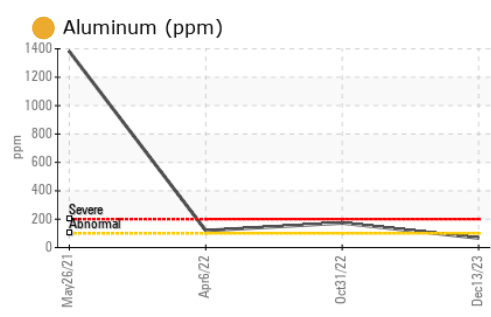
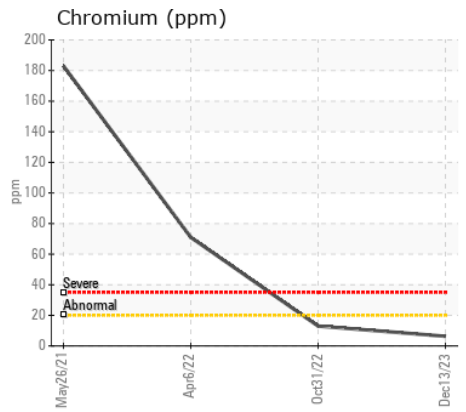
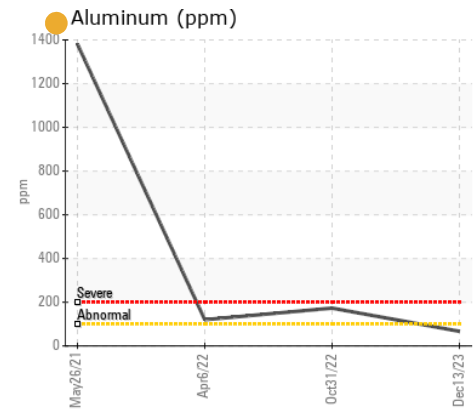
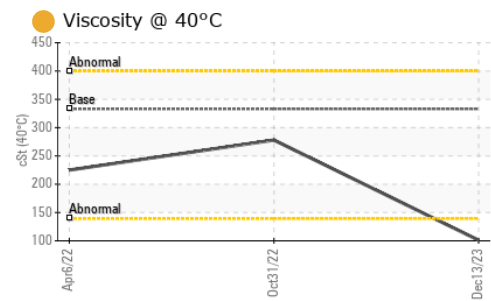
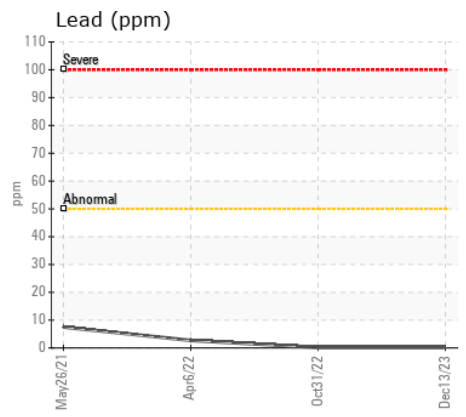
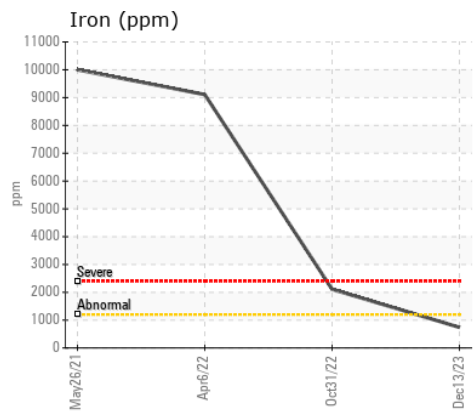
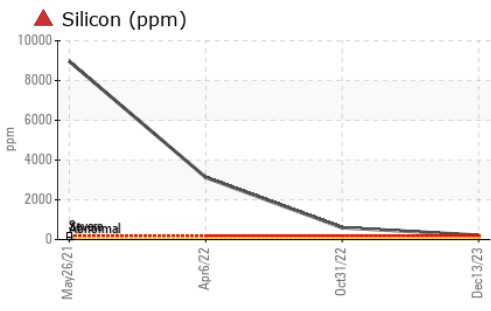
CONTAMINATION

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

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0000944	VCP0004470	VCP356087
Sample Date		Client Info		13 Dec 2023	31 Oct 2022	06 Apr 2022
Machine Age	hrs	Client Info		9894	9436	9045
Oil Age	hrs	Client Info		458	391	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	Not Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>1200	741	▲ 2110	▲ 9108
Chromium	ppm	ASTM D5185m	>20	6	▲ 13	▲ 71
Nickel	ppm	ASTM D5185m	>5	<1	1	8
Titanium	ppm	ASTM D5185m		5	12	67
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>100	67	● 173	● 120
Lead	ppm	ASTM D5185m	>50	<1	<1	3
Copper	ppm	ASTM D5185m	>50	9	4	25
Tin	ppm	ASTM D5185m	>5	<1	0	2
Vanadium	ppm	ASTM D5185m		<1	<1	3
White Metal	scalar	*Visual	NONE	NONE	LIGHT	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>100	▲ 219	▲ 596	▲ 3128
Potassium	ppm	ASTM D5185m	>20	8	15	88
Water		WC Method	>0.25	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	● HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.25	NEG	NEG	0.2%
Sodium	ppm	ASTM D5185m		9	20	121
Boron	ppm	ASTM D5185m	111	93	111	150
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.9	2	2	11
Manganese	ppm	ASTM D5185m	0.0	5	13	58
Magnesium	ppm	ASTM D5185m	39	24	28	159
Calcium	ppm	ASTM D5185m	93	597	139	399
Phosphorus	ppm	ASTM D5185m	920	837	990	1102
Zinc	ppm	ASTM D5185m	104	392	44	96
Sulfur	ppm	ASTM D5185m	20179	15885	32142	21667
Visc @ 40°C	cSt	ASTM D445	333	● 101	278	225



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0000944
Lab Number : 06034910
Unique Number : 10790139
Test Package : MOBCE
Received : 14 Dec 2023
Tested : 15 Dec 2023
Diagnosed : 18 Dec 2023 - Don Baldrige

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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)