



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Ascendum Machinery
Machine Id
VOLVO EC220E EX-7 (S/N 310467)
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP0006604	VCP0002405	---
Sample Date		Client Info		23 May 2023	29 Jul 2022	---
Machine Age	hrs	Client Info		4959	3999	---
Oil Age	hrs	Client Info		960	3999	---
Filter Age	hrs	Client Info		960	3999	---
Oil Changed		Client Info		Not Changed	Changed	---
Filter Changed		Client Info		Not Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	16	18	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>20	4	6	---
Lead	ppm	ASTM D5185m	>20	<1	<1	---
Copper	ppm	ASTM D5185m	>150	25	41	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

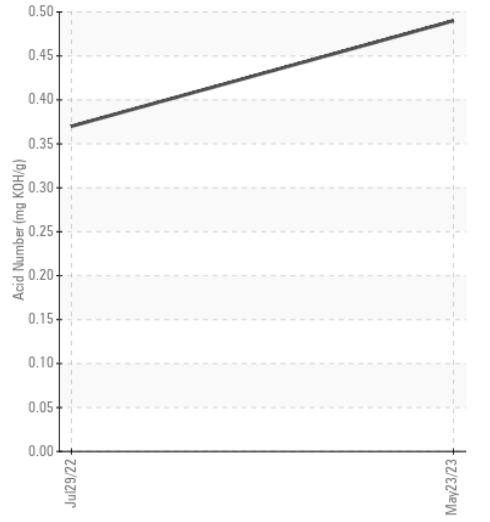
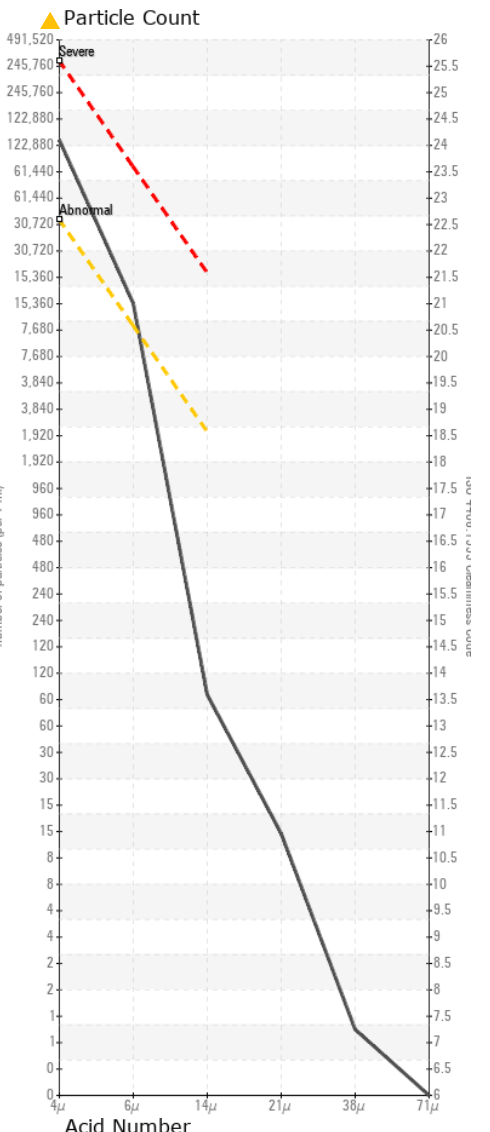
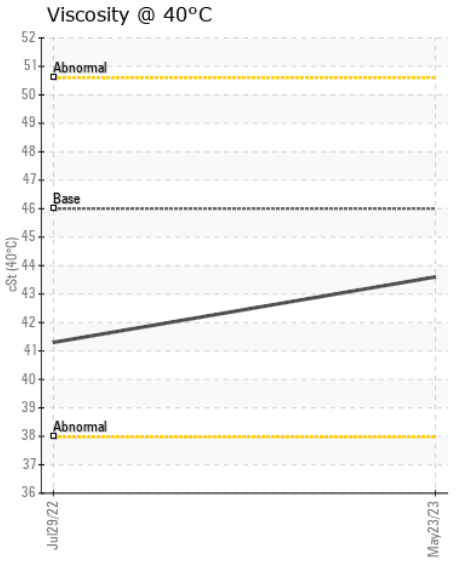
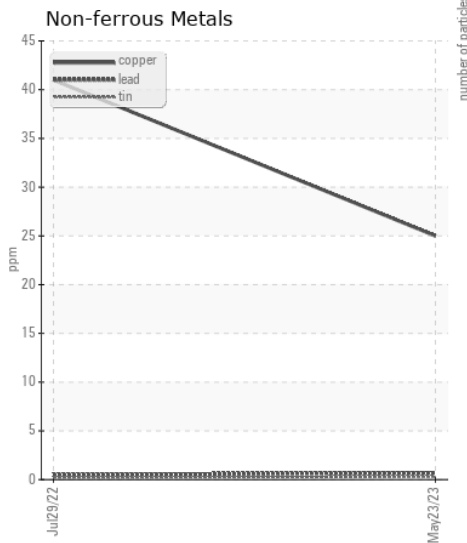
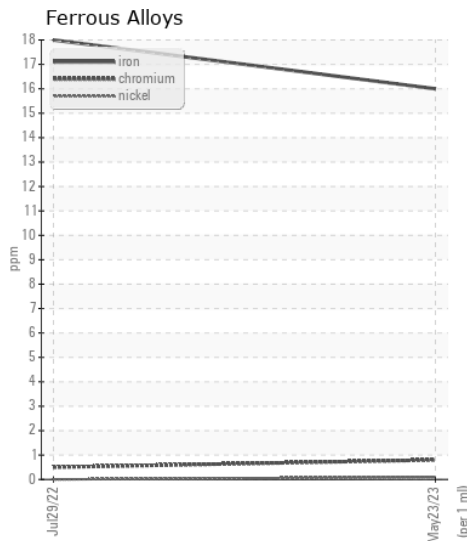
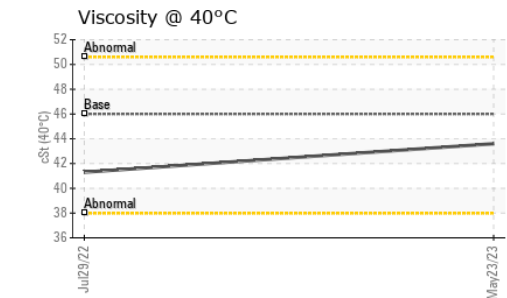
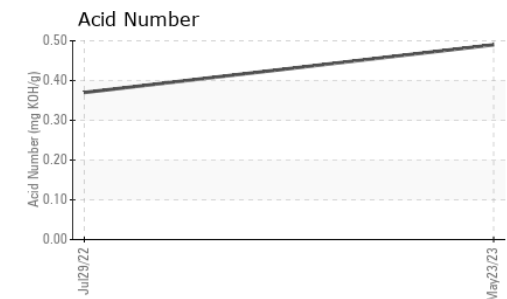
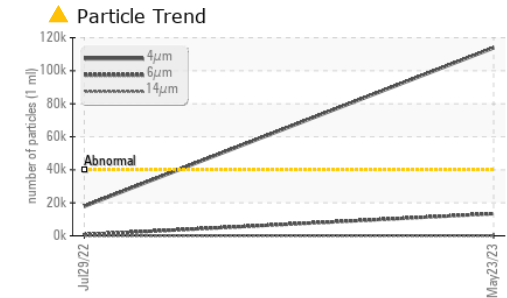
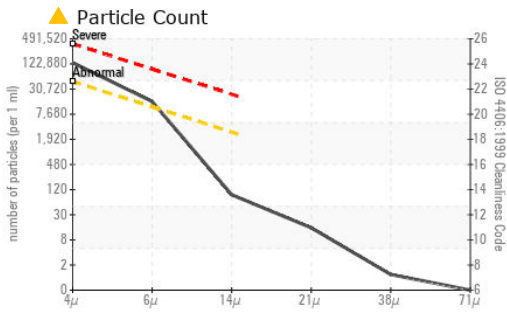
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>50	13	16	---
Potassium	ppm	ASTM D5185m	>20	3	1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>40000	▲ 113878	17885	---
Particles >6µm		ASTM D7647	>10000	● 13406	700	---
Particles >14µm		ASTM D7647	>2500	80	17	---
Particles >21µm		ASTM D7647	>640	13	3	---
Particles >38µm		ASTM D7647	>160	1	0	---
Particles >71µm		ASTM D7647	>40	0	0	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	▲ 24/21/13	21/17/11	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		1	0	---
Boron	ppm	ASTM D5185m	14	3	0	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.0	4	0	---
Manganese	ppm	ASTM D5185m	0.0	<1	0	---
Magnesium	ppm	ASTM D5185m	2.6	46	1	---
Calcium	ppm	ASTM D5185m	49	269	50	---
Phosphorus	ppm	ASTM D5185m	354	385	340	---
Zinc	ppm	ASTM D5185m	419	407	329	---
Sulfur	ppm	ASTM D5185m	3719	1404	1805	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.49	0.37	---
Visc @ 40°C	cSt	ASTM D445	46	43.6	41.3	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP0006604
Lab Number : 05856100
Unique Number : 10485455
Test Package : MOBCE
Received : 24 May 2023
Tested : 26 May 2023
Diagnosed : 26 May 2023 - Wes Davis

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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)