



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION



Area
CAVANAGH [389438]
Machine Id
VOLVO EC380E 314152
Component
Front Right Track Drive
Fluid
VOLVO PREMIUM GEAR OIL 80W-90 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. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

Iron and titanium ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

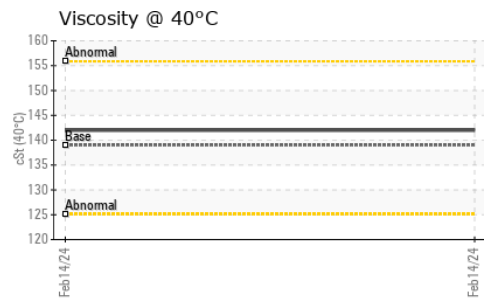
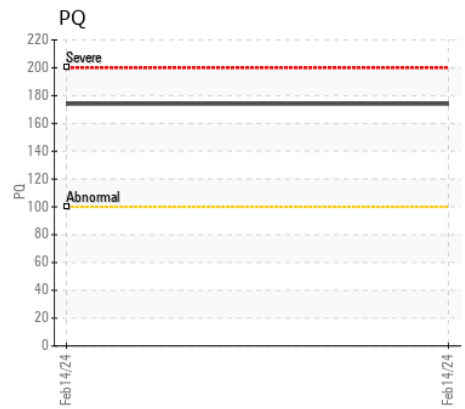
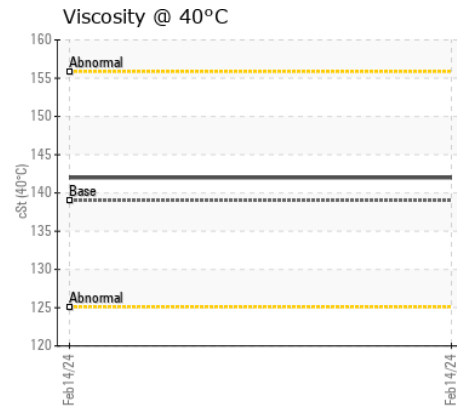
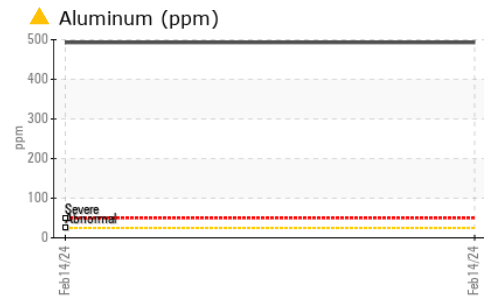
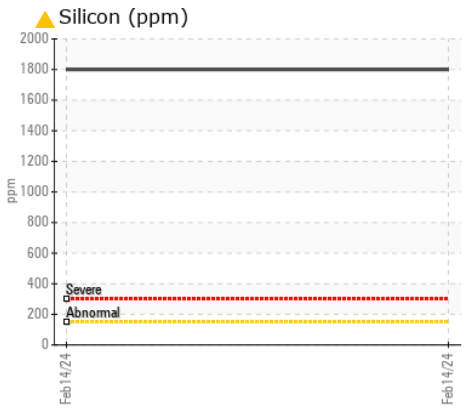
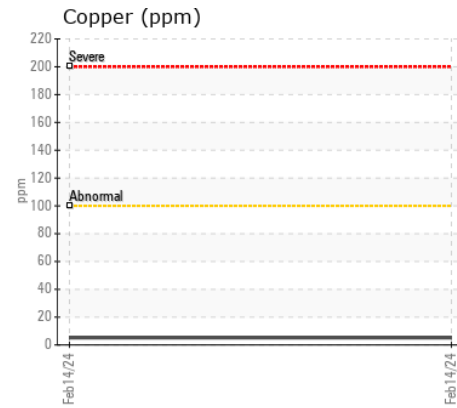
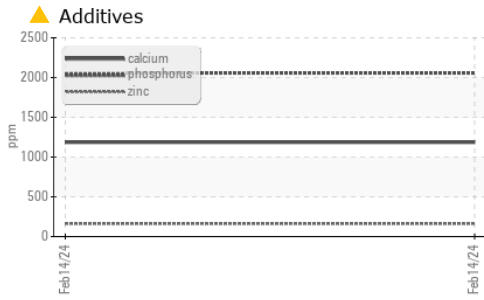
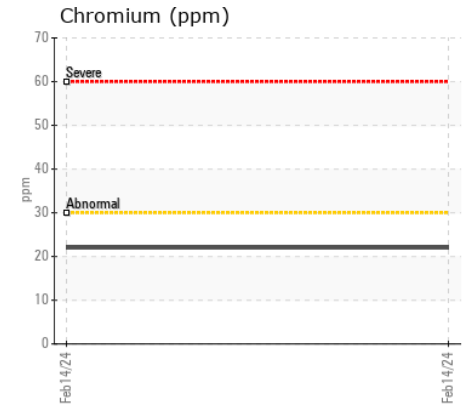
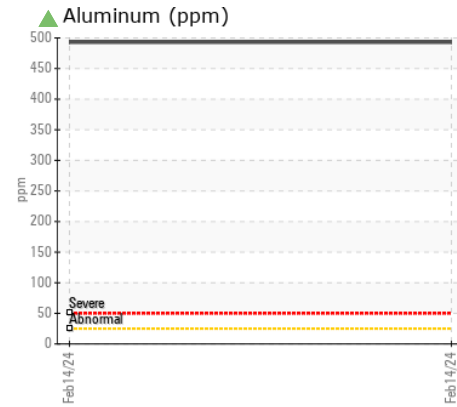
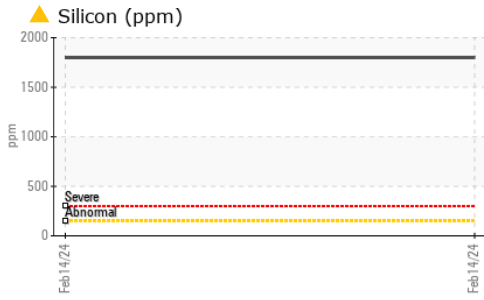
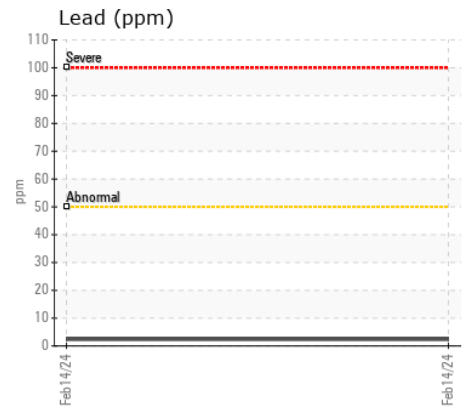
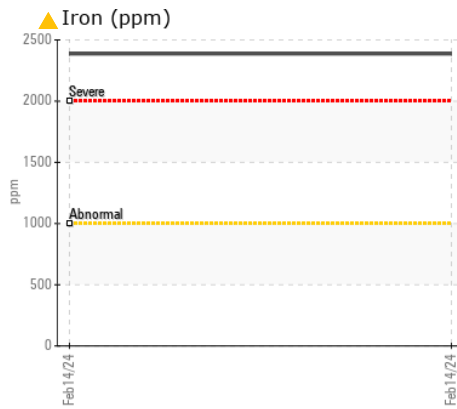
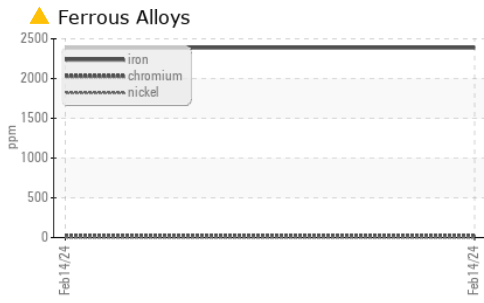
CONTAMINATION

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

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCE430157	---	---
Sample Date		Client Info		14 Feb 2024	---	---
Machine Age	hrs	Client Info		6981	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
PQ		ASTM D8184*		174	---	---
Iron	ppm	ASTM D5185(m)	>1000	▲ 2387	---	---
Chromium	ppm	ASTM D5185(m)	>30	22	---	---
Nickel	ppm	ASTM D5185(m)	>7	2	---	---
Titanium	ppm	ASTM D5185(m)		▲ 30	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	▲ 493	---	---
Lead	ppm	ASTM D5185(m)	>50	2	---	---
Copper	ppm	ASTM D5185(m)	>100	5	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		<1	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>150	▲ 1800	---	---
Potassium	ppm	ASTM D5185(m)	>20	183	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		123	---	---
Boron	ppm	ASTM D5185(m)	379	115	---	---
Barium	ppm	ASTM D5185(m)	0.0	5	---	---
Molybdenum	ppm	ASTM D5185(m)	0.8	2	---	---
Manganese	ppm	ASTM D5185(m)	0.0	20	---	---
Magnesium	ppm	ASTM D5185(m)	31	▲ 175	---	---
Calcium	ppm	ASTM D5185(m)	38	▲ 1186	---	---
Phosphorus	ppm	ASTM D5185(m)	1077	▲ 2058	---	---
Zinc	ppm	ASTM D5185(m)	46	▲ 162	---	---
Sulfur	ppm	ASTM D5185(m)	23526	21490	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	139	142	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VGE430157 **Received** : 27 Feb 2024
Lab Number : 02618470 **Tested** : 28 Feb 2024
Unique Number : 5735580 **Diagnosed** : 28 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.