



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[SWO-071782 VULCAN]**  
 Machine Id  
**VOLVO EC380EL 310021**  
 Component  
**Rear Left Final Drive**  
 Fluid  
**GEAR OIL SAE 90W140 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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.

### FLUID CONDITION

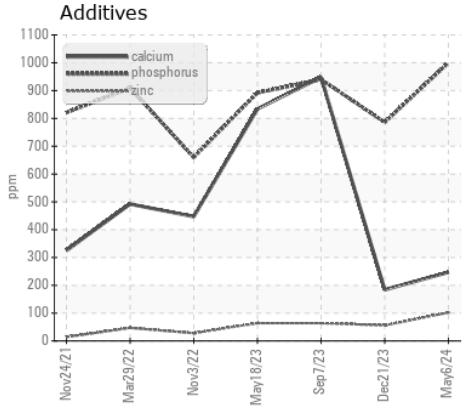
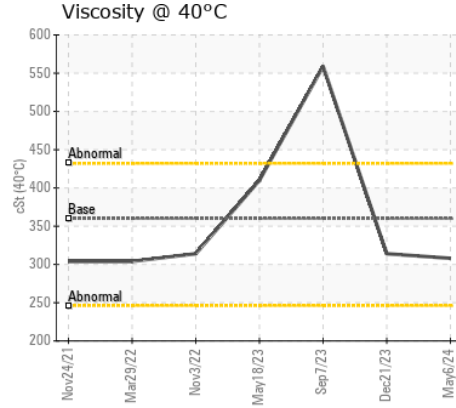
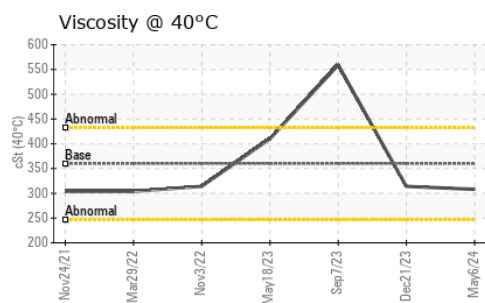
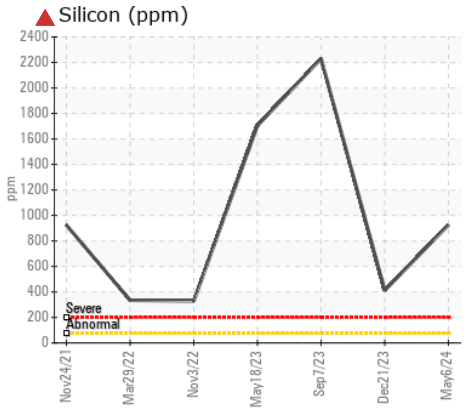
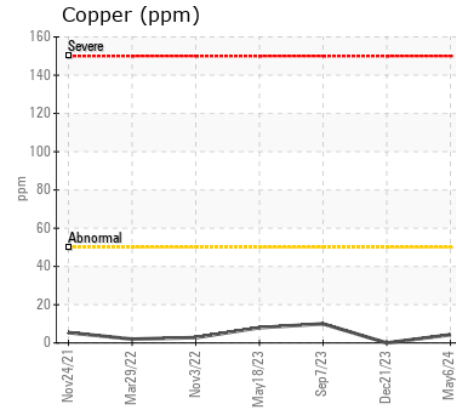
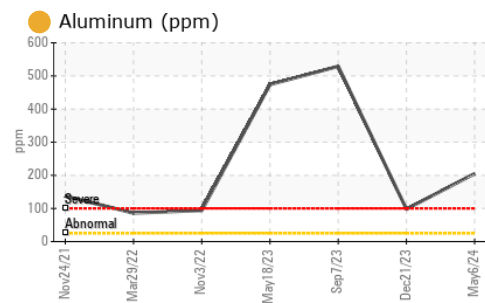
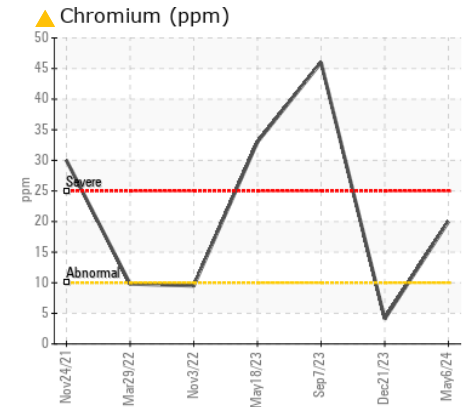
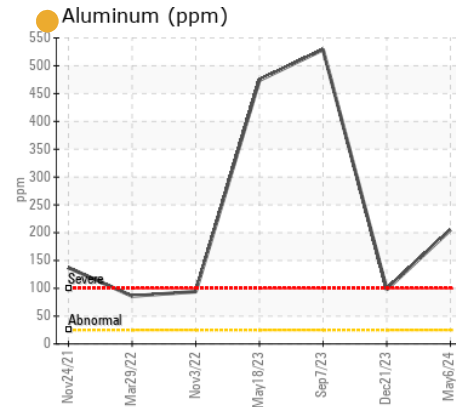
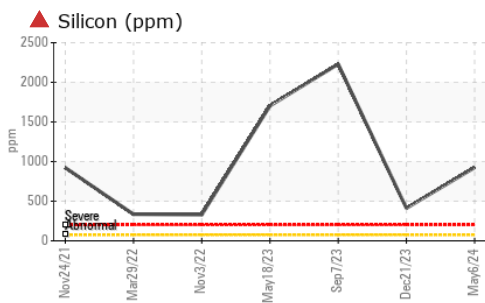
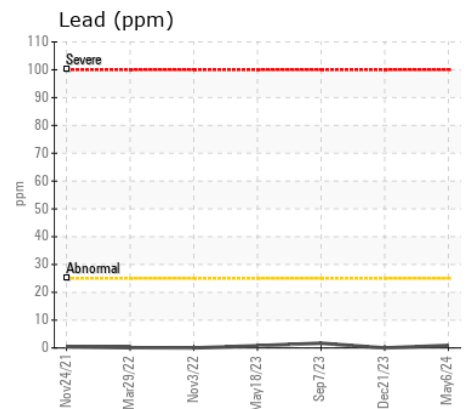
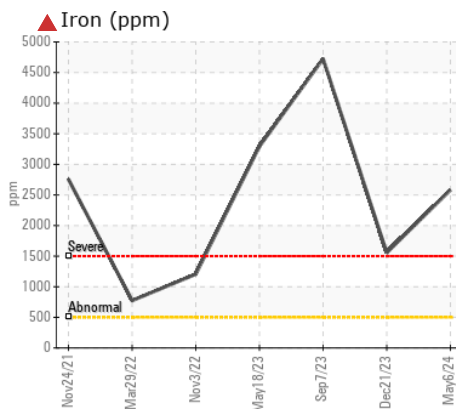
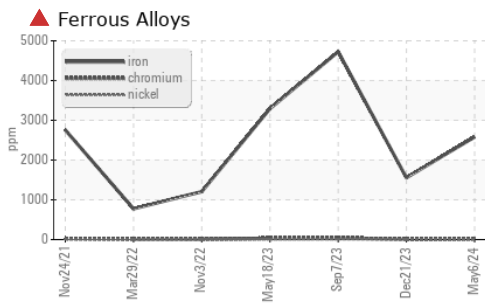
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP453682</b>	VCP428706	VCP428919
Sample Date		Client Info		<b>06 May 2024</b>	21 Dec 2023	07 Sep 2023
Machine Age	hrs	Client Info		<b>11224</b>	10648	10247
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

Iron	ppm	ASTM D5185m	>500	<b>▲ 2582</b>	▲ 1556	▲ 4725
Chromium	ppm	ASTM D5185m	>10	<b>▲ 20</b>	4	▲ 46
Nickel	ppm	ASTM D5185m	>10	<b>5</b>	0	8
Titanium	ppm	ASTM D5185m		<b>▲ 16</b>	2	35
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>● 205</b>	● 98	● 529
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185m	>50	<b>4</b>	0	10
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
White Metal	scalar	*Visual	NONE	<b>HEAVY</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>75	<b>▲ 925</b>	▲ 412	▲ 2230
Potassium	ppm	ASTM D5185m	>20	<b>66</b>	33	183
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185m		<b>16</b>	0	43
Boron	ppm	ASTM D5185m	400	<b>109</b>	65	152
Barium	ppm	ASTM D5185m	200	<b>2</b>	5	0
Molybdenum	ppm	ASTM D5185m	12	<b>11</b>	3	8
Manganese	ppm	ASTM D5185m		<b>17</b>	3	30
Magnesium	ppm	ASTM D5185m	12	<b>77</b>	44	212
Calcium	ppm	ASTM D5185m	150	<b>247</b>	184	948
Phosphorus	ppm	ASTM D5185m	1650	<b>1000</b>	786	940
Zinc	ppm	ASTM D5185m	125	<b>102</b>	56	64
Sulfur	ppm	ASTM D5185m	22500	<b>27025</b>	26268	25056
Visc @ 40°C	cSt	ASTM D445	360	<b>308</b>	314	559



Certificate L2367

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

Sample No. : VCP453682

Lab Number : 06174246

Unique Number : 11020299

Test Package : MOB 1

Received : 09 May 2024

Tested : 10 May 2024

Diagnosed : 13 May 2024 - Angela Borella

WHITAKER CONTRACTING

692 CONVICT CAMP RD

GUNTERSVILLE, AL

US 35976

Contact: BROTHER WHITAKER

BrotherWhitaker@whitaker-contracting.com

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F:

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)