OIL ANALYSIS REPORT

McCLUNG LOGAN EQUIPMENT COMPANY

Sample Rating Trend

Mar2024

DIRT

Machine Id
VOLVO 315217
Component
Right Final Drive
Fluid
VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)

DIAGNOSIS

⚠ **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. Resample at the next service interval to monitor.

🔴 **Wear**
Metal levels are typical for a new component breaking in.

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

🔴 **Fluid Condition**
The oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number		Client Info	**ML0000610**	---	---
Sample Date		Client Info	**29 Mar 2024**	---	---
Machine Age	hrs	Client Info	**495**	---	---
Oil Age	hrs	Client Info	**495**	---	---
Oil Changed		Client Info	**Changed**	---	---
Sample Status			**ABNORMAL**	---	---

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.2	**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	**537**	---	---
Chromium	ppm	ASTM D5185m	>10	**14**	---	---
Nickel	ppm	ASTM D5185m	>10	**1**	---	---
Titanium	ppm	ASTM D5185m		**3**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>25	🔴 **23**	---	---
Lead	ppm	ASTM D5185m	>25	**0**	---	---
Copper	ppm	ASTM D5185m	>50	**2**	---	---
Tin	ppm	ASTM D5185m	>10	**27**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		🔴 **0**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**<1**	---	---
Manganese	ppm	ASTM D5185m		**10**	---	---
Magnesium	ppm	ASTM D5185m		**3**	---	---
Calcium	ppm	ASTM D5185m		🔴 **23**	---	---
Phosphorus	ppm	ASTM D5185m		🔴 **246**	---	---
Zinc	ppm	ASTM D5185m		🔴 **27**	---	---
Sulfur	ppm	ASTM D5185m		🔴 **16038**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	⚠ **108**	---	---
Sodium	ppm	ASTM D5185m		**9**	---	---
Potassium	ppm	ASTM D5185m	>20	**7**	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**MODER**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
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**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

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Silicon (ppm)

Additives

- calcium
- phosphorus
- zinc

Aluminum (ppm)

Aluminum (ppm)
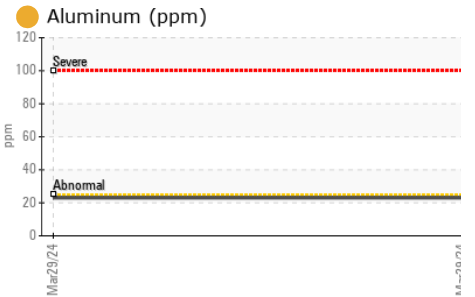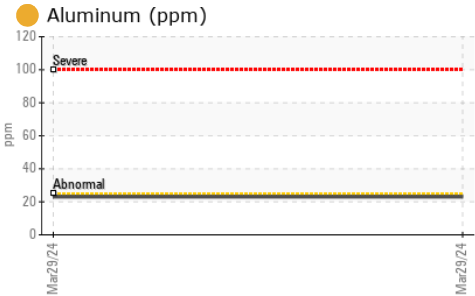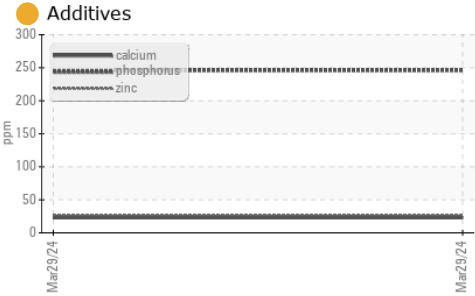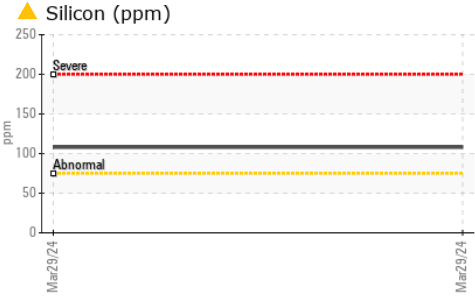
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		● **140**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS
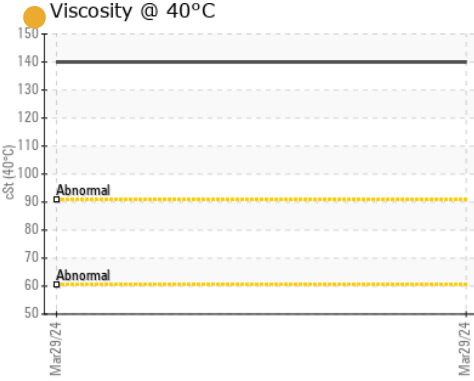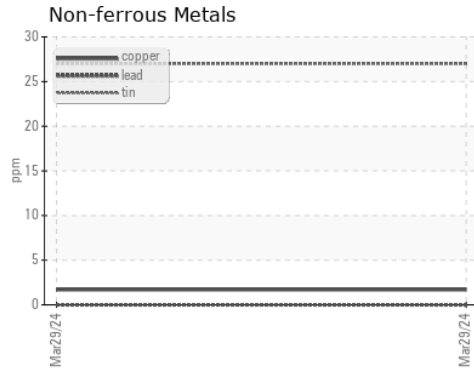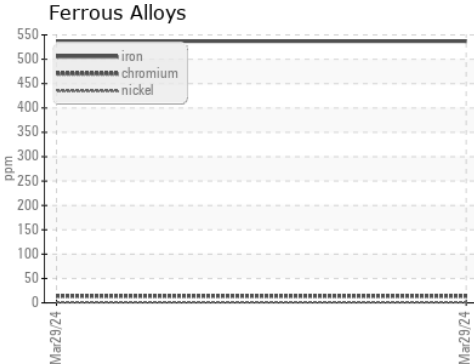
Ferrous Alloys
- iron
- chromium
- nickel

Non-ferrous Metals
- copper
- lead
- tin

Viscosity @ 40°C

Certificate L2367

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)