McCLUNG-LOGAN EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[WASTE MANAGEMENT]
Machine Id
VOLVO A35G 352013
Component
Diesel Engine
Fluid
CASTROL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

WEAR

Valve wear is indicated.

CONTAMINATION

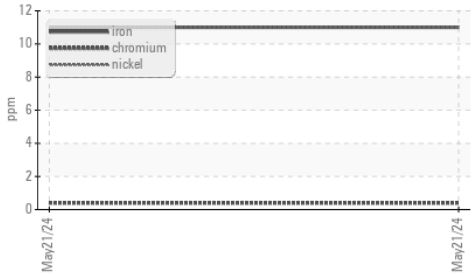
Sodium and/or potassium levels are high. Fuel content negligible.

FLUID CONDITION

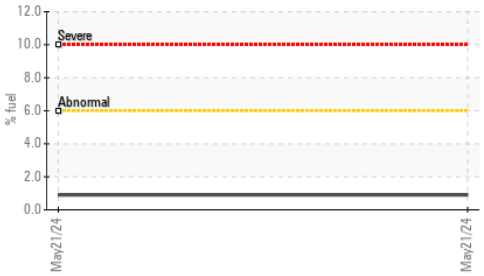
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0001779	---	---
Sample Date		Client Info		21 May 2024	---	---
Machine Age	hrs	Client Info		7930	---	---
Oil Age	hrs	Client Info		400	---	---
Filter Age	hrs	Client Info		400	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>100	11	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>2	▲ 11	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>25	7	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	10	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Fuel	%	ASTM D3524	>6.0	0.9	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	---	---
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 D5185m	>406	▲ 173	---	---
Boron	ppm	ASTM D5185m		104	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		63	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		1123	---	---
Calcium	ppm	ASTM D5185m		1067	---	---
Phosphorus	ppm	ASTM D5185m		1089	---	---
Zinc	ppm	ASTM D5185m		1273	---	---
Sulfur	ppm	ASTM D5185m		3980	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.8	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.1	---	---

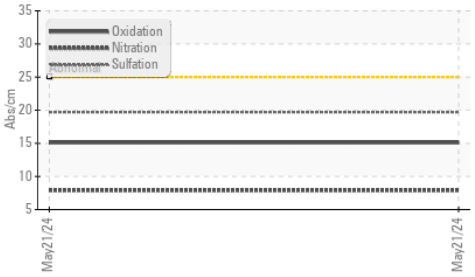
Ferrous Alloys



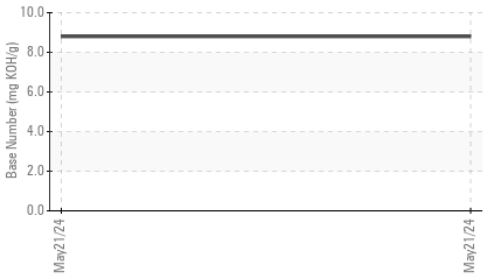
Fuel Dilution



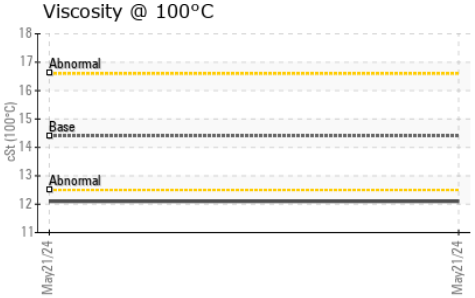
FT-IR (Direct Trend)



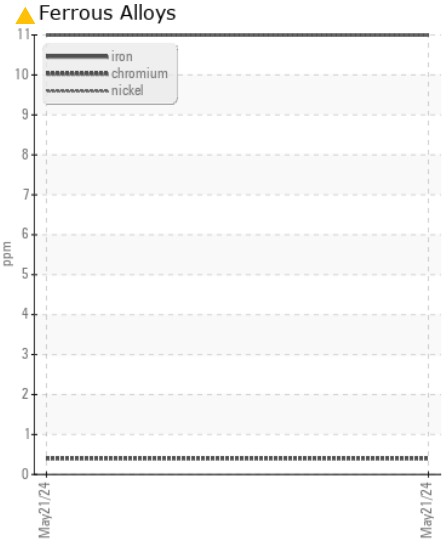
Base Number



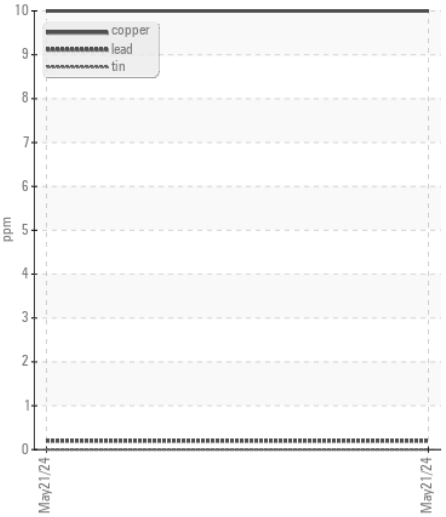
Viscosity @ 100°C



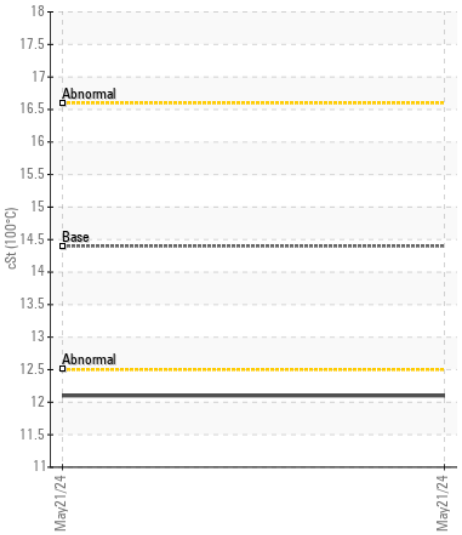
Ferrous Alloys



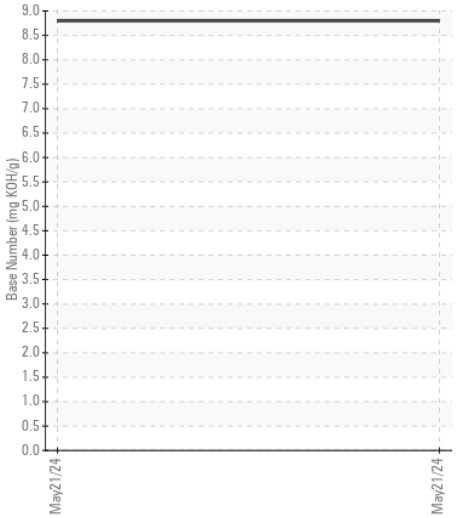
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001779 **Received** : 29 May 2024
Lab Number : 06193497 **Tested** : 31 May 2024
Unique Number : 11050249 **Diagnosed** : 31 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

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)

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