



McCLUNG-LOGAN
EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W07014299]
Machine Id
VOLVO EC460CL 110437
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0000677	VCP250277	VCP290606
Sample Date		Client Info		08 Feb 2024	29 Sep 2021	06 Jan 2021
Machine Age	hrs	Client Info		0	6354	6082
Oil Age	hrs	Client Info		0	250	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	11	27
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	3	0
Lead	ppm	ASTM D5185m	>20	4	2	3
Copper	ppm	ASTM D5185m	>15	3	<1	2
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

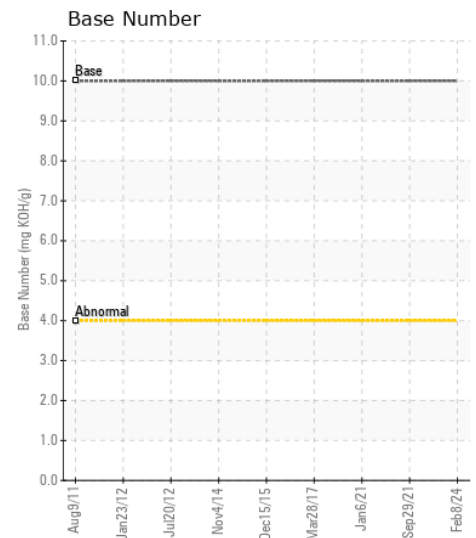
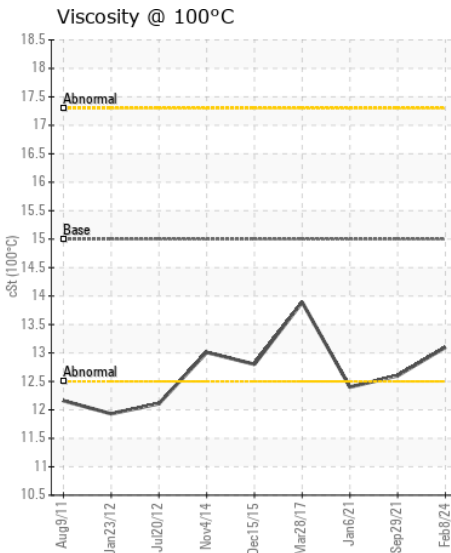
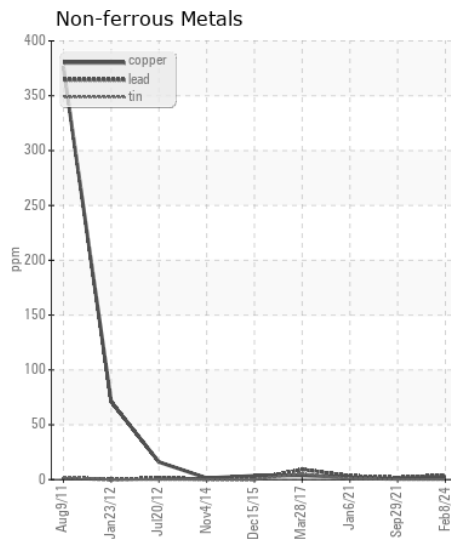
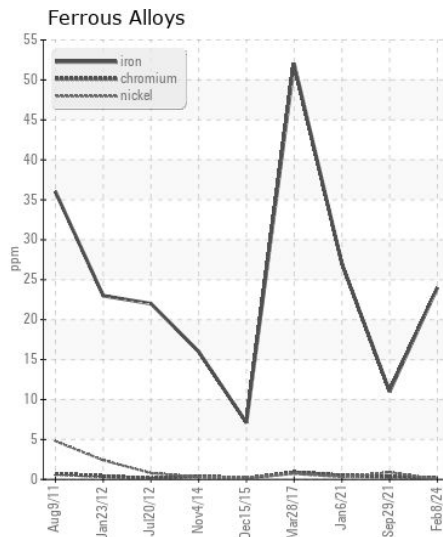
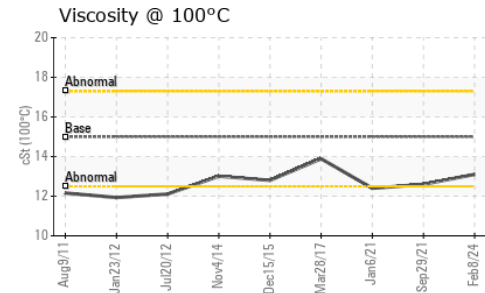
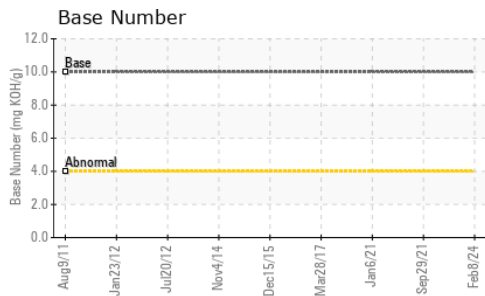
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	13	8	12
Potassium	ppm	ASTM D5185m	>20	2	3	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2	1	1.9
Nitration	Abs/cm	*ASTM D7624	>20	11.4	8	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	23.7	25.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	<1
Boron	ppm	ASTM D5185m	2.5	49	206	27
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	56	102	35
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	256	755	674	416
Calcium	ppm	ASTM D5185m	2057	1115	1539	1732
Phosphorus	ppm	ASTM D5185m	935	829	728	754
Zinc	ppm	ASTM D5185m	1223	918	800	876
Sulfur	ppm	ASTM D5185m	4079	2659	3863	2094
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	17	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.0	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	12.6	12.4



Certificate L2367

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

Sample No. : ML0000677

Lab Number : 06086842

Unique Number : 10874287

Test Package : CONST (Additional Tests: TBN)

Received : 13 Feb 2024

Tested : 13 Feb 2024

Diagnosed : 14 Feb 2024 - Sean Felton

MCCULLUNG-LOGAN EQUIPMENT CO - RICHMOND

1345 MOUNTAIN ROAD

GLEN ALLEN, VA

US 23060

Contact: KYLE RATLIFFE

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T:

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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