



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO A45G 342403
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0002754	ML0000898	VCP409489
Sample Date		Client Info		13 Jun 2024	07 Mar 2024	29 Nov 2023
Machine Age	hrs	Client Info		8578	8074	7608
Oil Age	hrs	Client Info		504	500	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	12	12
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	4	2
Lead	ppm	ASTM D5185m	>40	4	0	<1
Copper	ppm	ASTM D5185m	>330	4	3	2
Tin	ppm	ASTM D5185m	>15	<1	1	<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

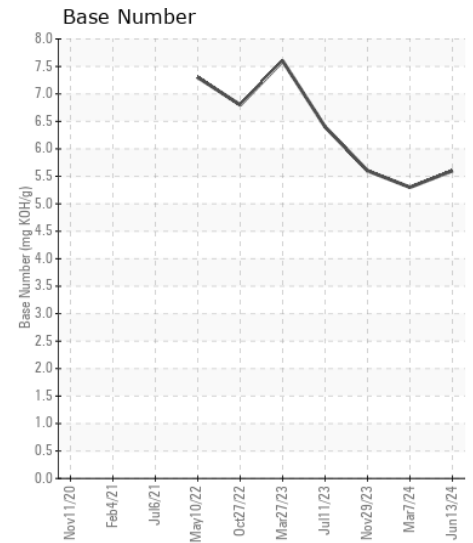
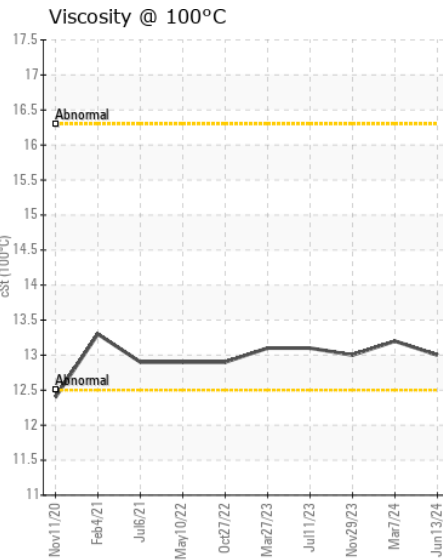
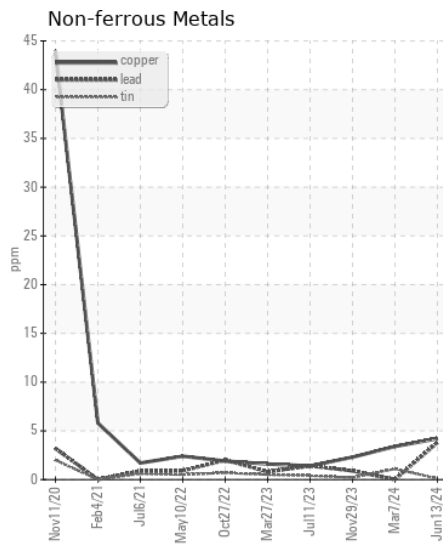
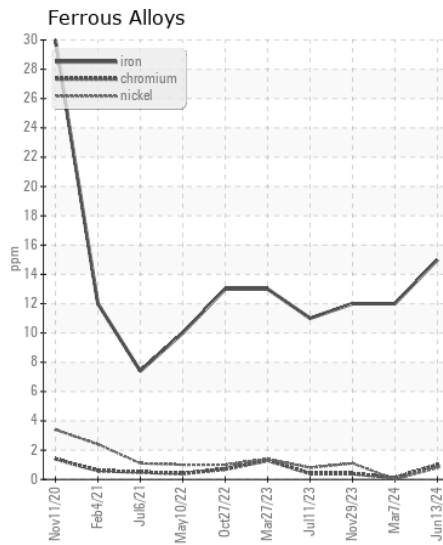
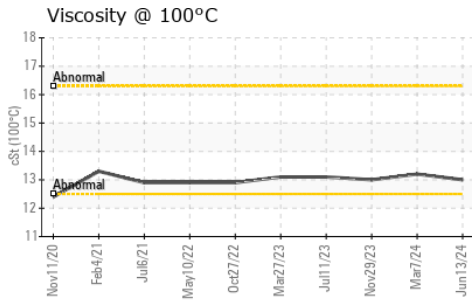
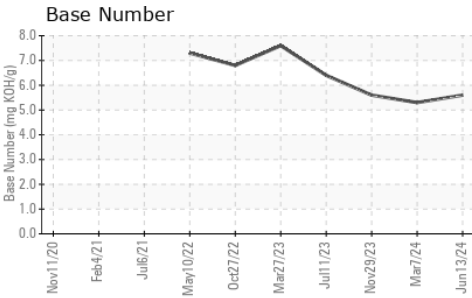
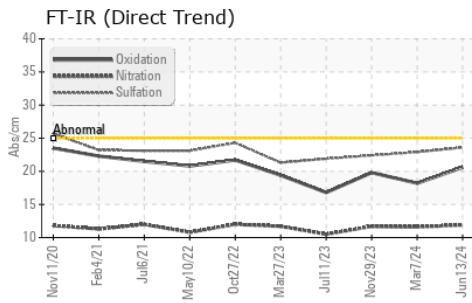
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	5
Potassium	ppm	ASTM D5185m	>20	8	0	2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.9	11.6	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	22.9	22.4
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	>0.2	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		16	3	0
Boron	ppm	ASTM D5185m		20	27	21
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		53	76	53
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		673	177	590
Calcium	ppm	ASTM D5185m		1638	1981	1418
Phosphorus	ppm	ASTM D5185m		804	972	703
Zinc	ppm	ASTM D5185m		1091	1111	942
Sulfur	ppm	ASTM D5185m		3190	3598	2610
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	18.2	19.8
Base Number (BN)	mg KOH/g	ASTM D2896		5.6	5.3	5.6
Visc @ 100°C	cSt	ASTM D445		13.0	13.2	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0002754
Lab Number : 06215583
Unique Number : 11088447
Test Package : CONST (Additional Tests: TBN)

MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND
 1345 MOUNTAIN ROAD
 GLEN ALLEN, VA
 US 23060
 Contact: KYLE RATLIFFE
 KRATLIFFE@MCCLEUNG-LOGAN.COM

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)

T:
F: (804)266-1611