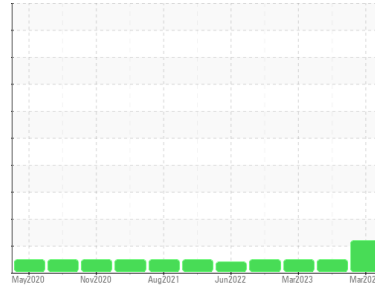


OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
VOLVO A45G 342394
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

DIAGNOSIS

● Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

● Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		ML0000905	VCP425034	VCP396505
Sample Date	Client Info		26 Mar 2024	06 Jun 2023	16 Mar 2023
Machine Age	hrs	Client Info	8192	7086	6588
Oil Age	hrs	Client Info	500	0	500
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ATTENTION	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	11	6	9
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	3	1	1
Lead	ppm	ASTM D5185m >40	1	1	<1
Copper	ppm	ASTM D5185m >330	2	1	2
Tin	ppm	ASTM D5185m >15	1	<1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	29	31	19
Barium	ppm	ASTM D5185m	2	0	0
Molybdenum	ppm	ASTM D5185m	77	83	44
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	785	110	661
Calcium	ppm	ASTM D5185m	1260	2045	1085
Phosphorus	ppm	ASTM D5185m	987	918	569
Zinc	ppm	ASTM D5185m	1179	1121	764
Sulfur	ppm	ASTM D5185m	3179	3776	2421

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	3	3
Sodium	ppm	ASTM D5185m	1	1	3
Potassium	ppm	ASTM D5185m >20	2	2	<1
Fuel	%	ASTM D3524 >6.0	▲ 2.1	<1.0	<1.0

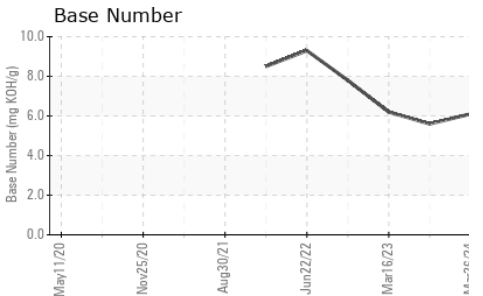
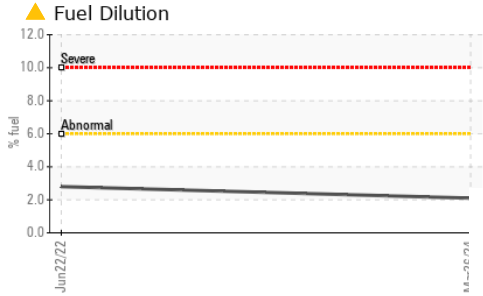
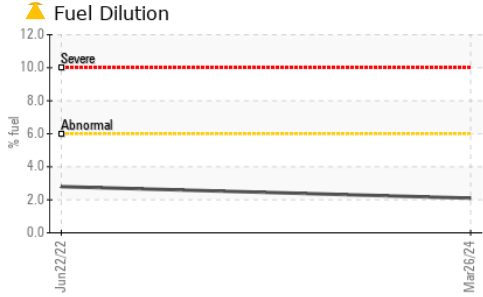
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.5	0.3	0.5
Nitration	Abs/cm	*ASTM D7624 >20	10.0	10.7	11.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.0	20.0	22.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.6	15.1	20.0
Base Number (BN)	mg KOH/g	ASTM D2896	6.1	5.6	6.2

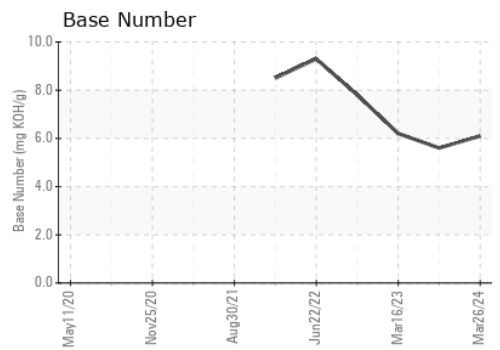
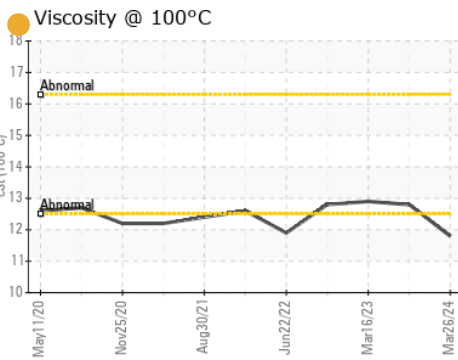
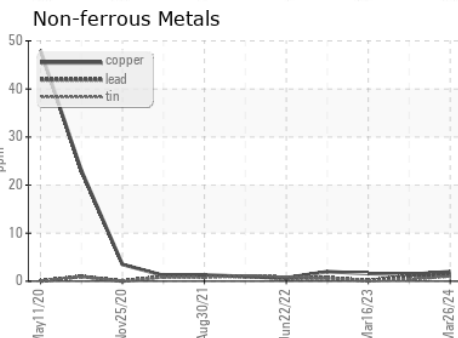
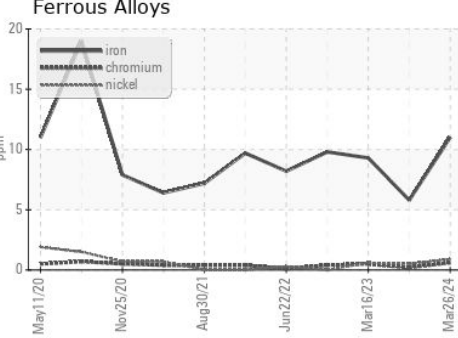
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	● 11.8	12.8	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0000905 **Received** : 29 Mar 2024
Lab Number : 06133800 **Tested** : 03 Apr 2024
Unique Number : 10953265 **Diagnosed** : 03 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, 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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