



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[458006]
 Machine Id
VOLVO A45FS 352082

Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP454413	VCP449250	VCP301472
Sample Date		Client Info		23 Jan 2024	09 Jan 2024	19 May 2021
Machine Age	hrs	Client Info		4649	4631	2030
Oil Age	hrs	Client Info		0	0	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	10	13	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	3	2
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	6	2
Lead	ppm	ASTM D5185m	>40	0	2	1
Copper	ppm	ASTM D5185m	>330	2	18	68
Tin	ppm	ASTM D5185m	>15	0	<1	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

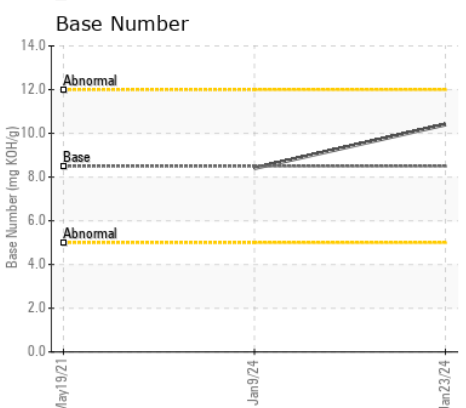
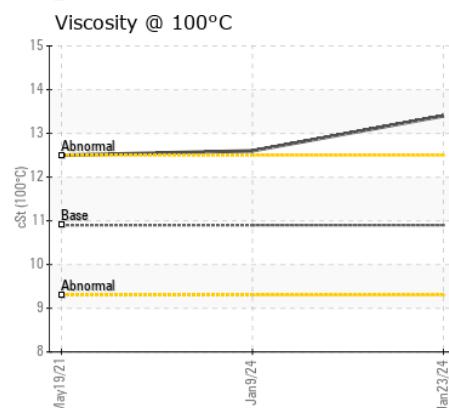
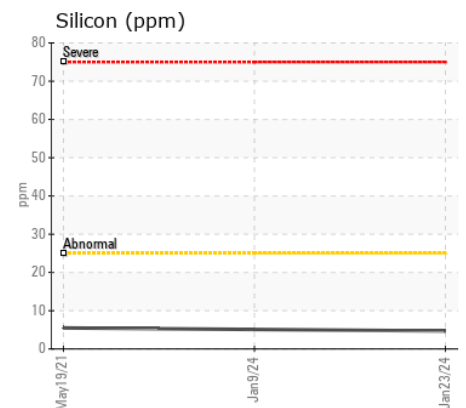
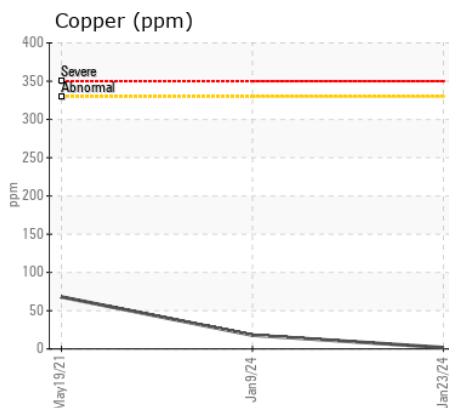
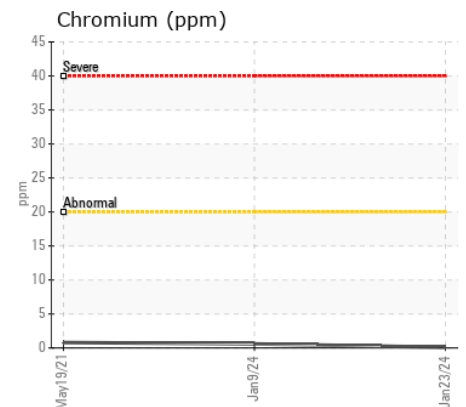
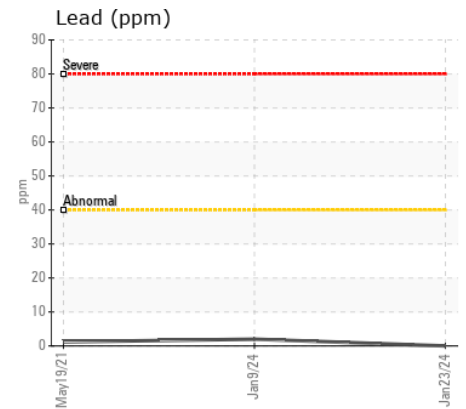
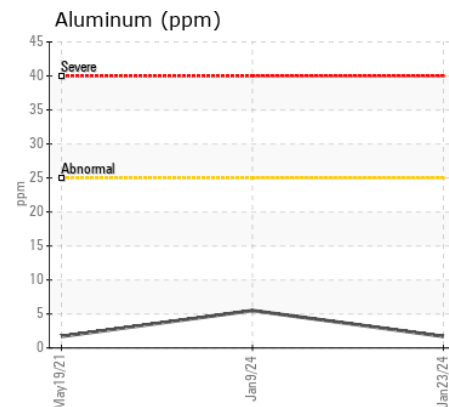
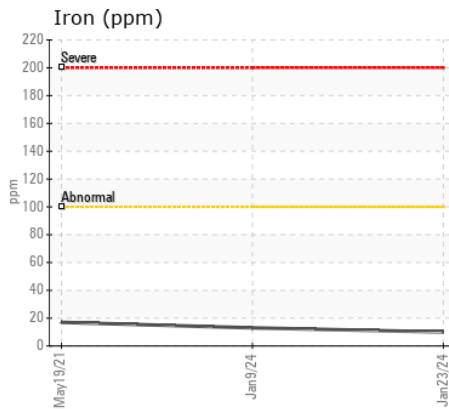
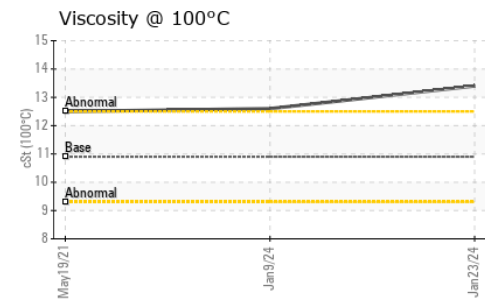
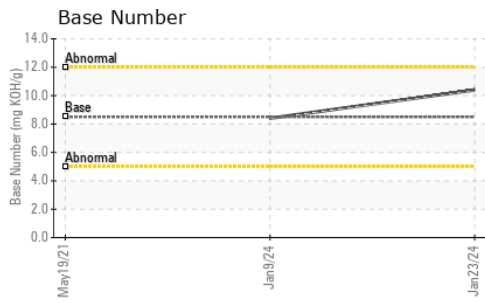
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	6
Potassium	ppm	ASTM D5185m	>20	0	<1	0
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	0.1	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.0	8.4	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	22.0	25.3
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. Confirm oil type. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	1	3	2
Boron	ppm	ASTM D5185m	250	57	12	31
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	44	41	38
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	612	579	511
Calcium	ppm	ASTM D5185m	3000	1448	1528	1692
Phosphorus	ppm	ASTM D5185m	1150	958	940	902
Zinc	ppm	ASTM D5185m	1350	1109	1184	1117
Sulfur	ppm	ASTM D5185m	4250	2903	2920	2561
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	19.7	22.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.4	8.4	---
Visc @ 100°C	cSt	ASTM D445	10.9	13.4	12.6	12.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP454413 **Received** : 12 Feb 2024
Lab Number : 06086507 **Tested** : 12 Feb 2024
Unique Number : 10873952 **Diagnosed** : 12 Feb 2024 - Doug Bogart
Test Package : MOB 1 (Additional Tests: TBN)

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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)