



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL



Machine Id
VOLVO A45G 79 (S/N 342558)
Component
Diesel Engine
Fluid
SHELL ROTELLA T 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VC06152512	VCP06115622	VCP405326
Sample Date		Client Info		02 Apr 2024	04 Dec 2023	01 Oct 2023
Machine Age	hrs	Client Info		0	0	12523
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	N/A	Changed
Sample Status				SEVERE	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	53	25	30
Chromium	ppm	ASTM D5185m	>20	3	<1	1
Nickel	ppm	ASTM D5185m	>2	4	2	2
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	8	8	9
Lead	ppm	ASTM D5185m	>40	4	1	2
Copper	ppm	ASTM D5185m	>330	4	2	2
Tin	ppm	ASTM D5185m	>15	2	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

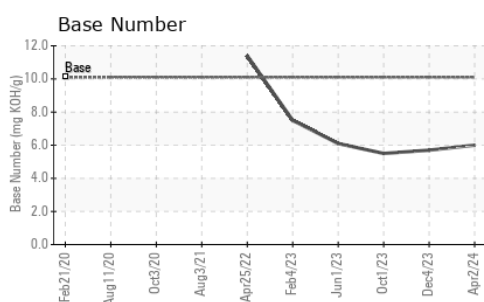
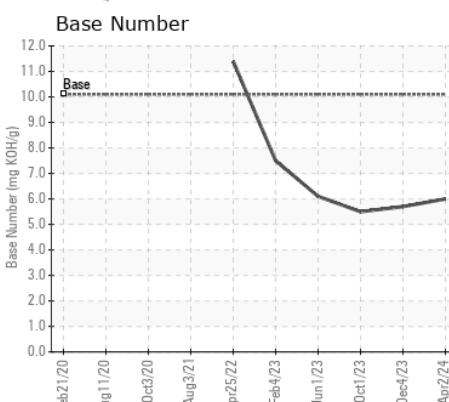
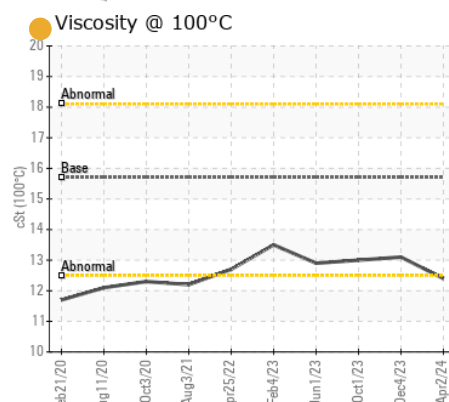
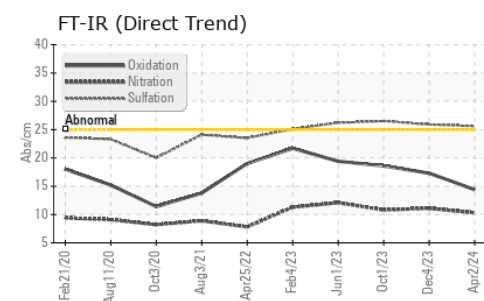
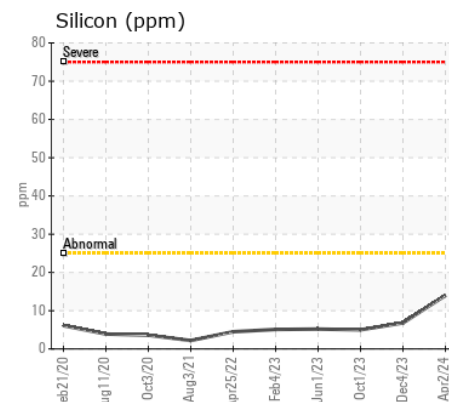
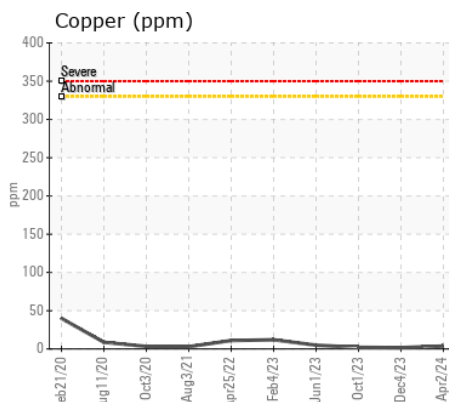
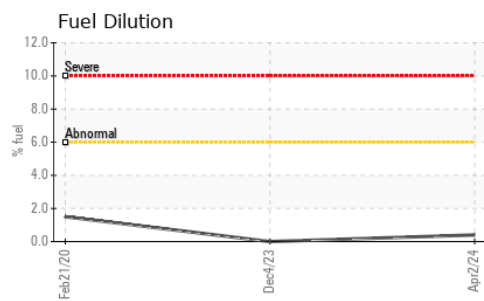
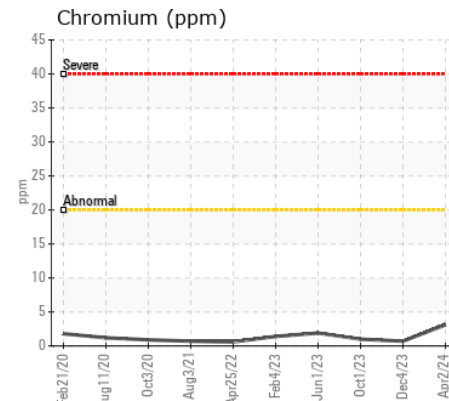
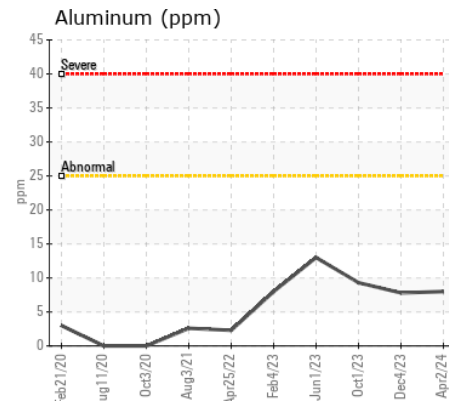
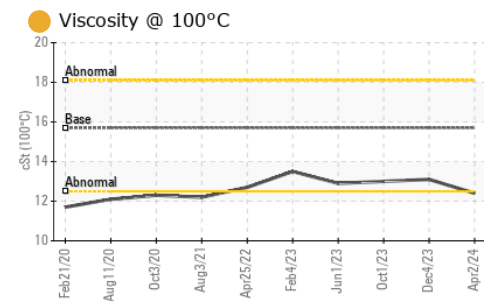
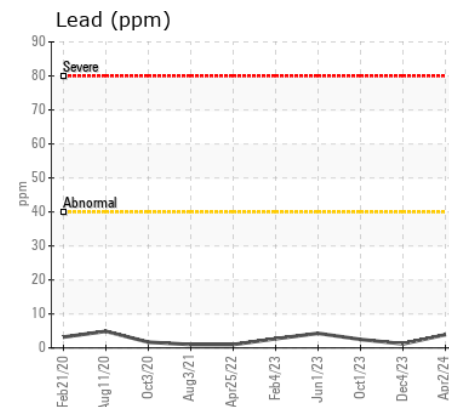
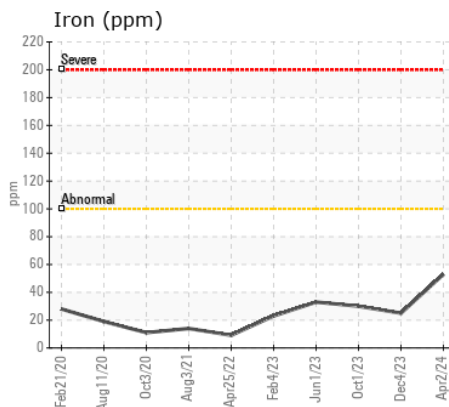
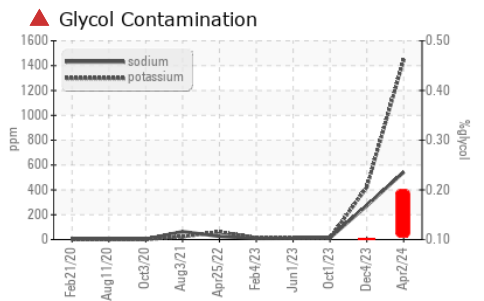
Sodium and/or potassium levels are high. Test for glycol is positive. Fuel content negligible. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	14	7	5
Potassium	ppm	ASTM D5185m	>20	▲ 1445	▲ 422	11
Fuel	%	ASTM D3524	>6.0	0.4	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.20	▲ 0.10	NEG
Soot %	%	*ASTM D7844	>3	1	1.2	1.5
Nitration	Abs/cm	*ASTM D7624	>20	10.3	11.1	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.6	25.9	26.5
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 oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m		▲ 543	● 273	14
Boron	ppm	ASTM D5185m	316	22	● 13	19
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	57	43	32
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	24	110	● 88	205
Calcium	ppm	ASTM D5185m	2292	3115	2169	1988
Phosphorus	ppm	ASTM D5185m	1064	1412	904	961
Zinc	ppm	ASTM D5185m	1160	1539	1035	1223
Sulfur	ppm	ASTM D5185m	4996	6260	3650	3085
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	17.3	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.0	5.7	5.5
Visc @ 100°C	cSt	ASTM D445	15.7	● 12.4	13.1	13.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VC06152512
Lab Number : 06152512
Unique Number : 10982590
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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)