



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L220H 3589
Component
Diesel Engine
Fluid
SHELL ROTELLA T3 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP453833	VCP441406	VCP441039
Sample Date		Client Info		17 Jun 2024	29 May 2024	13 May 2024
Machine Age	hrs	Client Info		2429	2113	1816
Oil Age	hrs	Client Info		316	297	297
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	3	3	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>5	0	<1	2
Titanium	ppm	ASTM D5185m		<1	<1	2
Silver	ppm	ASTM D5185m	>2	0	0	3
Aluminum	ppm	ASTM D5185m	>30	2	1	3
Lead	ppm	ASTM D5185m	>40	0	0	3
Copper	ppm	ASTM D5185m	>20	7	▲ 35	▲ 109
Tin	ppm	ASTM D5185m	>20	0	<1	3
Vanadium	ppm	ASTM D5185m		0	0	2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

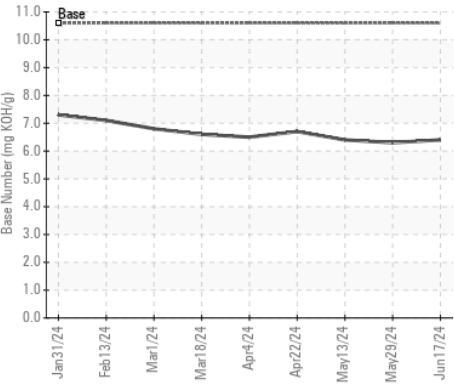
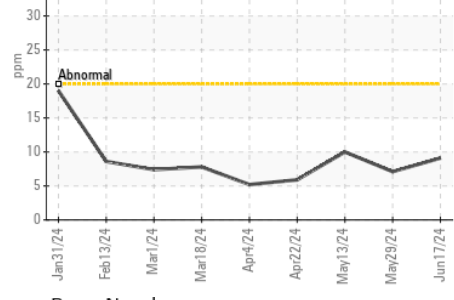
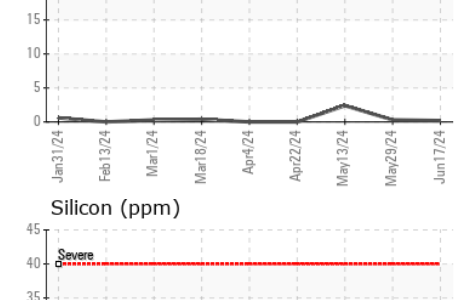
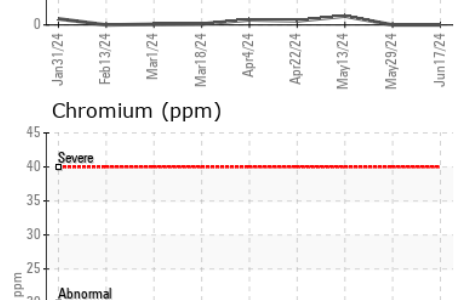
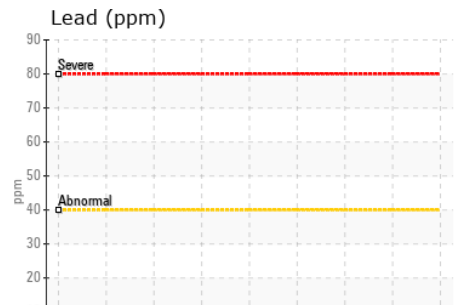
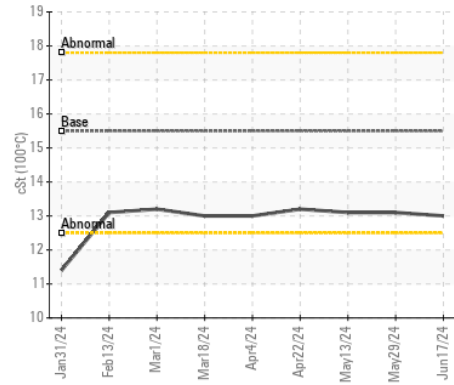
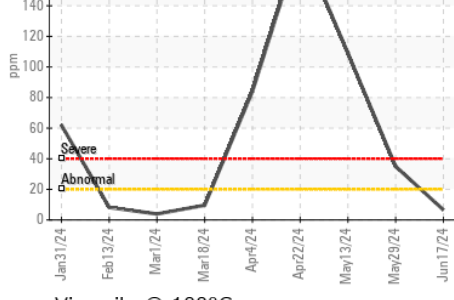
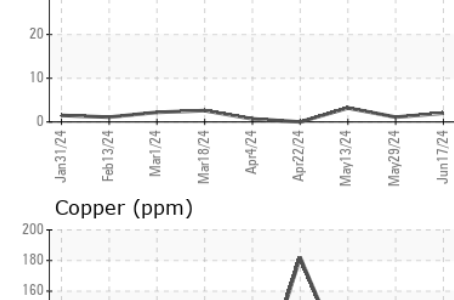
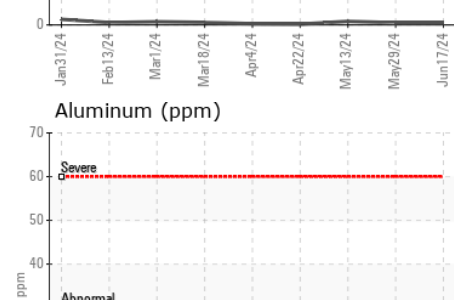
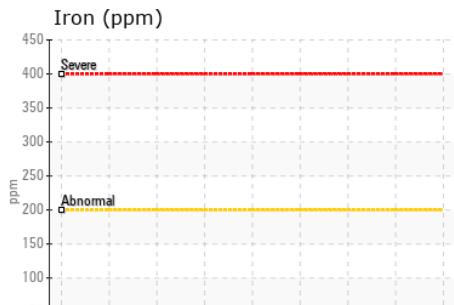
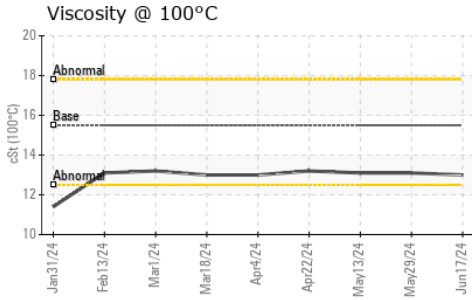
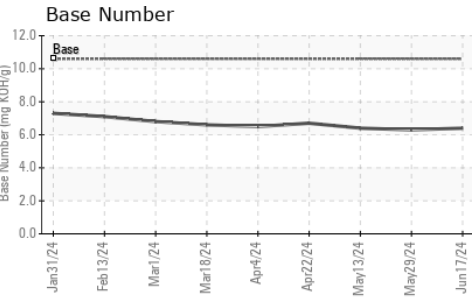
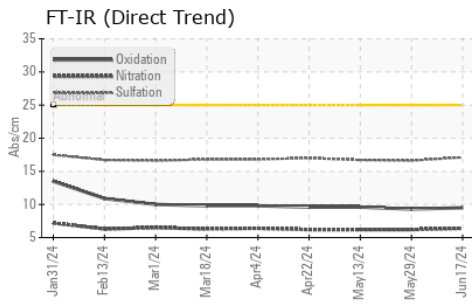
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	9	7	10
Potassium	ppm	ASTM D5185m	>20	2	2	4
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	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.4	6.2	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.1	16.6	16.7
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		<1	<1	3
Boron	ppm	ASTM D5185m	10	5	4	10
Barium	ppm	ASTM D5185m	0	0	0	1
Molybdenum	ppm	ASTM D5185m	10	8	8	13
Manganese	ppm	ASTM D5185m		0	0	2
Magnesium	ppm	ASTM D5185m	10	59	36	42
Calcium	ppm	ASTM D5185m	2600	2303	2242	2195
Phosphorus	ppm	ASTM D5185m	1050	917	905	876
Zinc	ppm	ASTM D5185m	1250	1113	1057	1029
Sulfur	ppm	ASTM D5185m	3900	3586	3815	3824
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	9.3	9.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.6	6.4	6.3	6.4
Visc @ 100°C	cSt	ASTM D445	15.5	13.0	13.1	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP453833 **Received** : 21 Jun 2024
Lab Number : 06216544 **Tested** : 24 Jun 2024
Unique Number : 11089408 **Diagnosed** : 24 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: 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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