



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO 12802
Component
Diesel Engine
Fluid
SHELL ROTELLA T4 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0888372	WC0692806	WC0617645
Sample Date		Client Info		21 Jun 2024	10 Jul 2022	19 Dec 2021
Machine Age	mls	Client Info		432120	373400	326766
Oil Age	mls	Client Info		24100	25110	27486
Filter Age	mls	Client Info		24100	25110	27486
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	22	14	14
Chromium	ppm	ASTM D5185m	>6	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	3	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	5
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	2	4
Lead	ppm	ASTM D5185m	>95	2	1	1
Copper	ppm	ASTM D5185m	>85	4	2	3
Tin	ppm	ASTM D5185m	>9	0	1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

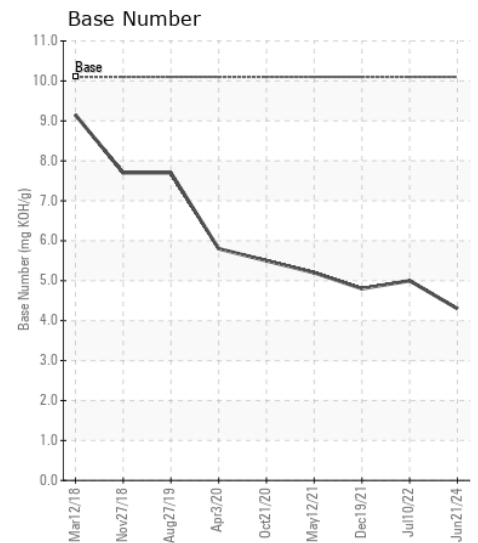
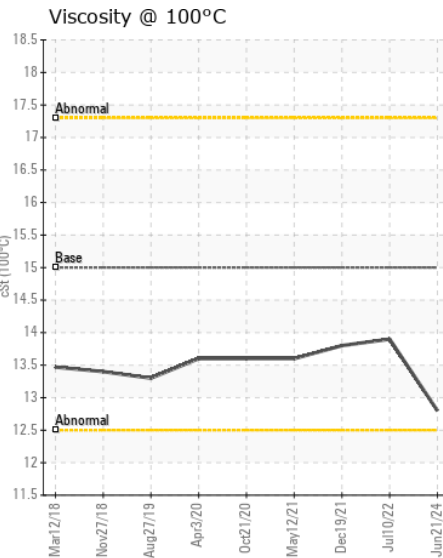
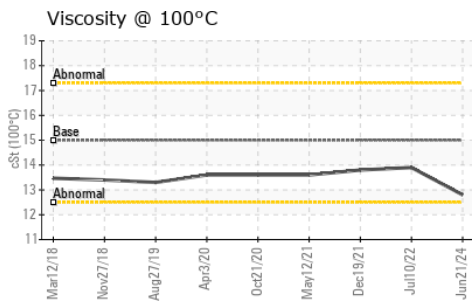
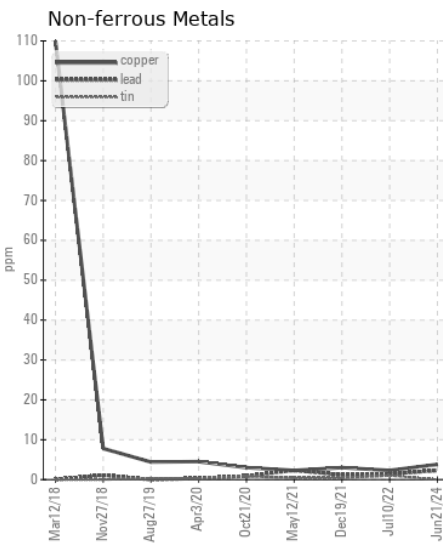
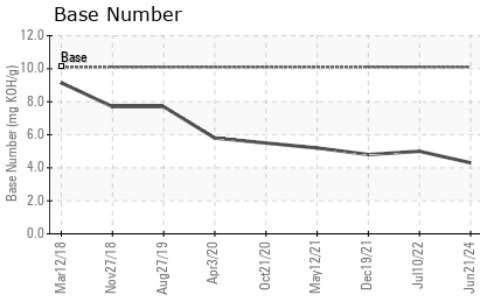
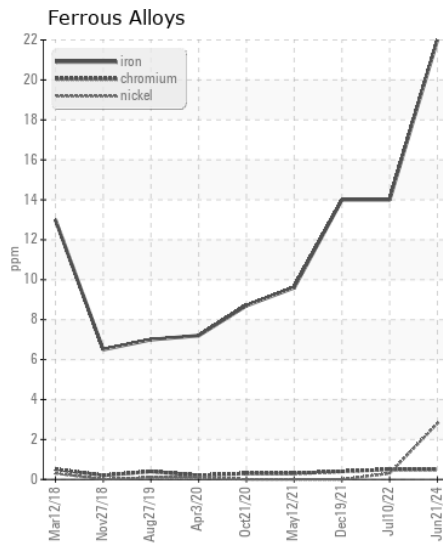
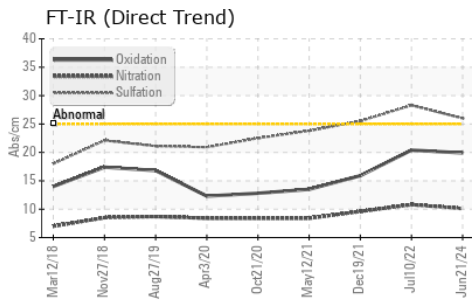
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	4	6
Potassium	ppm	ASTM D5185m	>20	5	2	3
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.1	10.8	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.0	28.3	25.5
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	>0.1	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		10	10	8
Boron	ppm	ASTM D5185m		15	13	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		29	9	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		127	69	38
Calcium	ppm	ASTM D5185m		2193	2224	2334
Phosphorus	ppm	ASTM D5185m		957	857	919
Zinc	ppm	ASTM D5185m		1192	1108	1098
Sulfur	ppm	ASTM D5185m		3514	3699	2847
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	20.4	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	4.3	5.0	4.8
Visc @ 100°C	cSt	ASTM D445	15	12.8	13.9	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0888372

Lab Number : 06234339

Unique Number : 11123173

Test Package : FLEET

Received : 11 Jul 2024

Tested : 12 Jul 2024

Diagnosed : 14 Jul 2024 - Don Baldrige

NOKOMIS - PGT INDUSTRIES INC

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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)