



VOLVO

OIL ANALYSIS REPORT

WEAR

ABNORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL



Area

Ascendum Machinery/500 Hour CSA [41944]

Machine Id

VOLVO A40G 2220 (S/N 352927)

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP454988	VCP410003	VCP0004959
Sample Date		Client Info		22 Apr 2024	12 Apr 2023	13 Nov 2022
Machine Age	hrs	Client Info		1441	953	543
Oil Age	hrs	Client Info		0	410	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	18	11	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	▲ 6	4	4
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	0	3
Lead	ppm	ASTM D5185m	>40	<1	<1	3
Copper	ppm	ASTM D5185m	>330	8	30	162
Tin	ppm	ASTM D5185m	>15	2	2	4
Vanadium	ppm	ASTM D5185m		0	0	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.

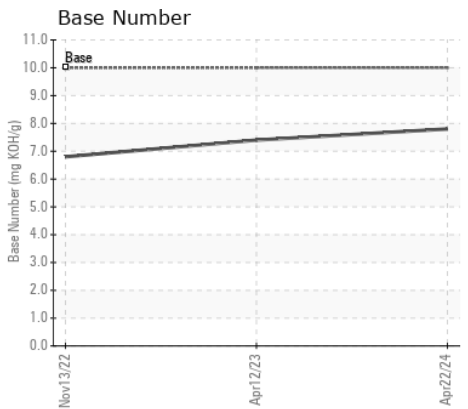
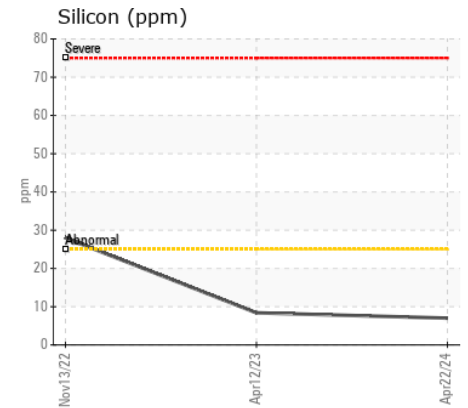
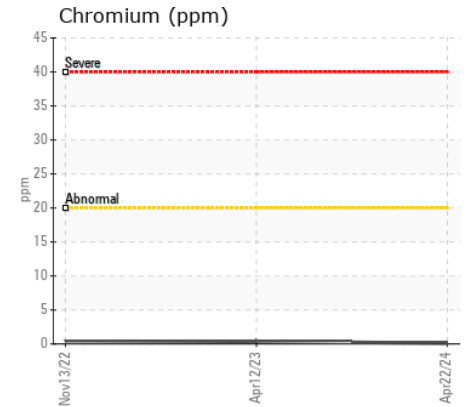
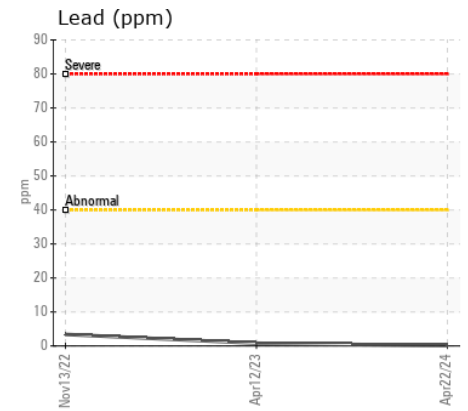
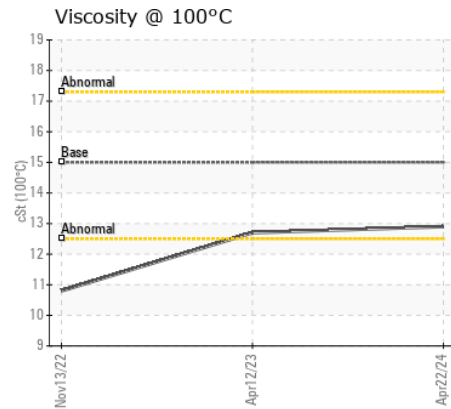
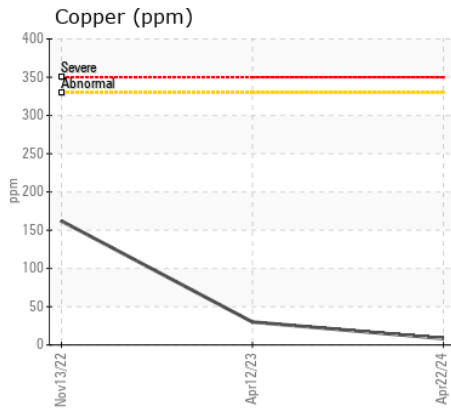
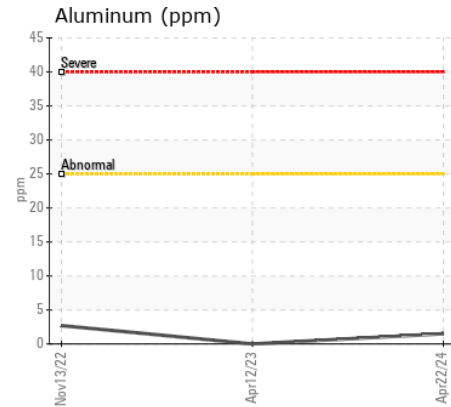
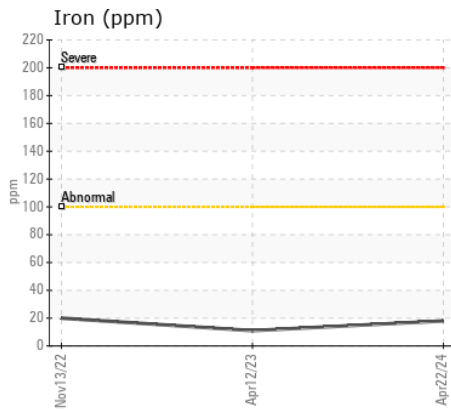
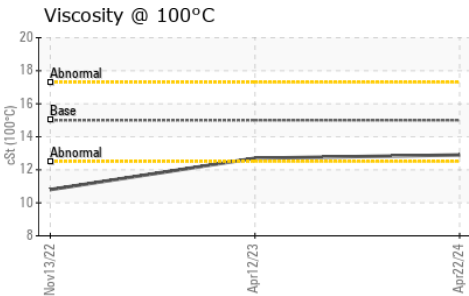
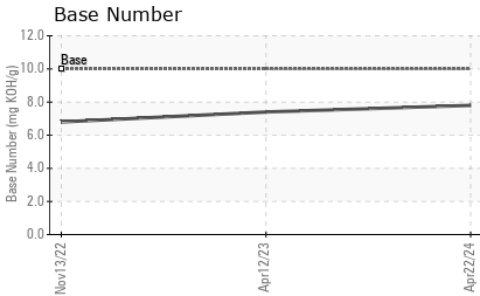
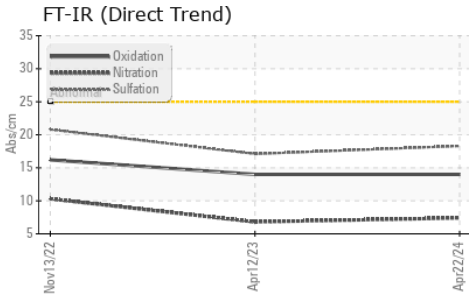
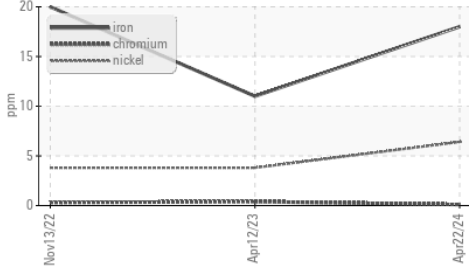
Silicon	ppm	ASTM D5185m	>25	7	8	28
Potassium	ppm	ASTM D5185m	>20	0	1	2
Fuel		WC Method	>6.0	<1.0	<1.0	0.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.8	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	17.1	20.8
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	2	3
Boron	ppm	ASTM D5185m	2.5	10	10	48
Barium	ppm	ASTM D5185m	0.0	0	2	0
Molybdenum	ppm	ASTM D5185m	0.7	61	61	81
Manganese	ppm	ASTM D5185m	0.0	1	<1	3
Magnesium	ppm	ASTM D5185m	256	892	770	86
Calcium	ppm	ASTM D5185m	2057	1153	1224	2102
Phosphorus	ppm	ASTM D5185m	935	1052	993	917
Zinc	ppm	ASTM D5185m	1223	1216	1178	1154
Sulfur	ppm	ASTM D5185m	4079	3462	3392	4445
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	14.0	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.8	7.4	6.8
Visc @ 100°C	cSt	ASTM D445	15.0	12.9	12.7	10.8

▲ Ferrous Alloys



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP454988 **Received** : 23 Apr 2024
Lab Number : 06157352 **Tested** : 24 Apr 2024
Unique Number : 10992775 **Diagnosed** : 25 Apr 2024 - Jonathan Hester
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)