



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W05004160]
Machine Id
VOLVO A40G 341170
Component
Diesel Engine
Fluid
MOBIL 15W40 (15 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W05004160)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0000446	VCP419407	VCP420836
Sample Date		Client Info		16 Apr 2024	26 Oct 2023	29 Aug 2023
Machine Age	hrs	Client Info		11296	10875	10638
Oil Age	hrs	Client Info		250	250	500
Filter Age	hrs	Client Info		250	0	0
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	>100	8	5	4
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	2	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	6	3	2
Lead	ppm	ASTM D5185m	>40	1	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	1	0	0
Vanadium	ppm	ASTM D5185m		<1	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.

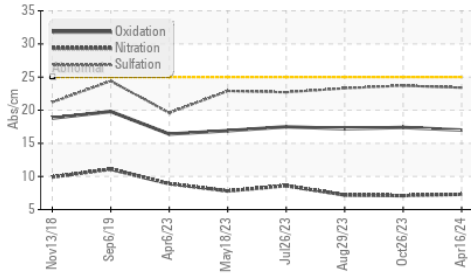
Silicon	ppm	ASTM D5185m	>25	10	6	5
Potassium	ppm	ASTM D5185m	>20	2	1	3
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.3	7.1	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	23.7	23.3
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

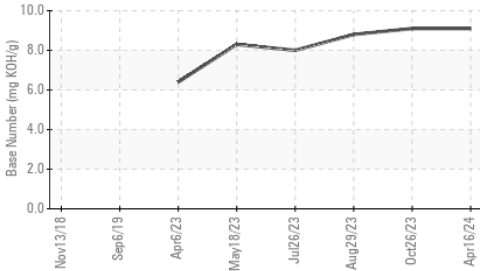
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	1	0	2
Boron	ppm	ASTM D5185m		495	437	357
Barium	ppm	ASTM D5185m		<1	4	0
Molybdenum	ppm	ASTM D5185m		167	135	126
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m		832	654	726
Calcium	ppm	ASTM D5185m		2028	1497	1743
Phosphorus	ppm	ASTM D5185m		1054	741	822
Zinc	ppm	ASTM D5185m		1131	841	1001
Sulfur	ppm	ASTM D5185m		3857	2490	3473
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	17.4	17.2
Base Number (BN)	mg KOH/g	ASTM D2896		9.1	9.1	8.8
Visc @ 100°C	cSt	ASTM D445		12.7	13.3	13.2

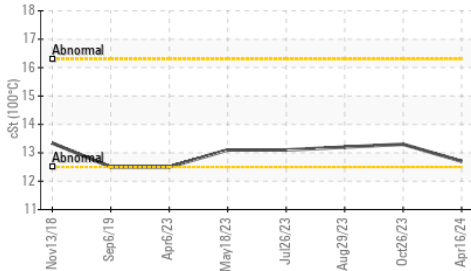
FT-IR (Direct Trend)



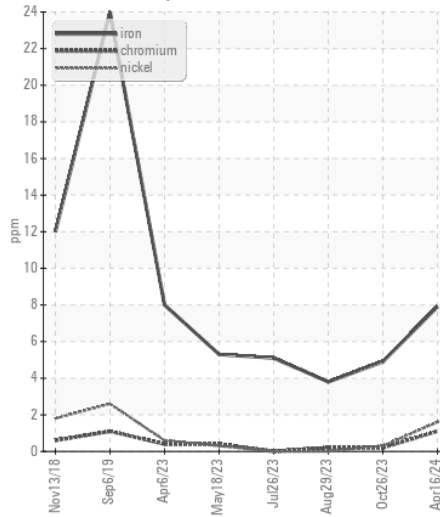
Base Number



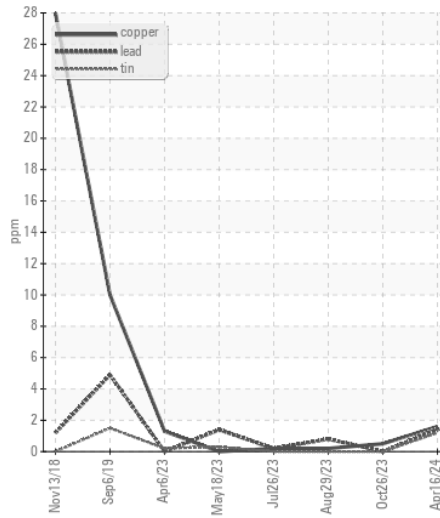
Viscosity @ 100°C



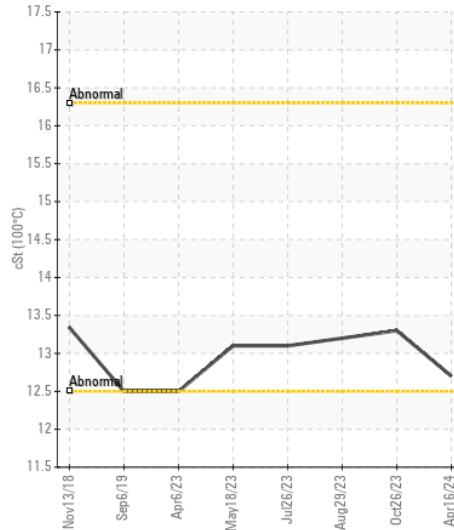
Ferrous Alloys



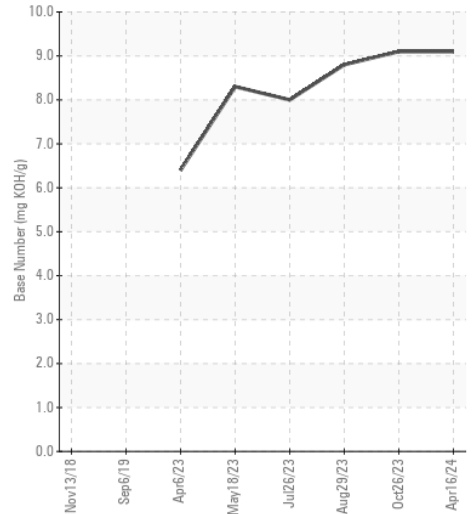
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0000446 **Received** : 18 Apr 2024
Lab Number : 06152748 **Tested** : 18 Apr 2024
Unique Number : 10982826 **Diagnosed** : 22 Apr 2024 - Don Baldrige
Test Package : CONST (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)