MOB I VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
VOLVO A40G 342175
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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Valve wear is indicated. All other component wear rates are normal.

CONTAMINATION

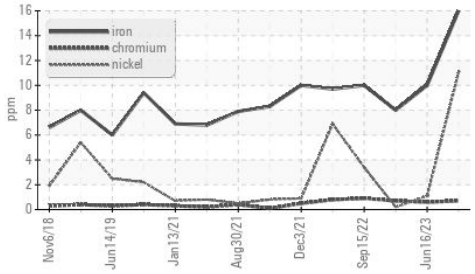
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

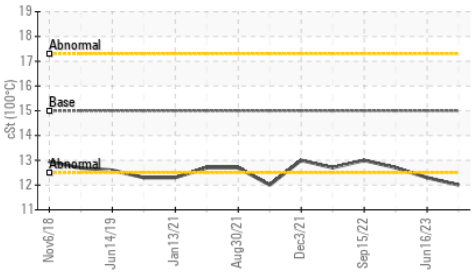
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**VCP440009**	VCP407857	VCP386184
Sample Date		Client Info		**17 Jan 2024**	16 Jun 2023	28 Nov 2022
Machine Age	hrs	Client Info		**9773**	9340	8479
Oil Age	hrs	Client Info		**0**	500	500
Filter Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**16**	10	8
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	▲ **11**	1	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**9**	11	8
Lead	ppm	ASTM D5185m	>40	**<1**	0	0
Copper	ppm	ASTM D5185m	>330	**7**	1	<1
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**4**	4	5
Potassium	ppm	ASTM D5185m	>20	**15**	4	10
Fuel	%	ASTM D3524	>6.0	**0.7**	0.7	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.4**	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**7.4**	8.0	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.9**	22.0	23.2
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
Sodium	ppm	ASTM D5185m		**14**	7	10
Boron	ppm	ASTM D5185m	2.5	**38**	37	37
Barium	ppm	ASTM D5185m	0.0	**<1**	0	0
Molybdenum	ppm	ASTM D5185m	0.7	**49**	51	52
Manganese	ppm	ASTM D5185m	0.0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	256	**456**	446	392
Calcium	ppm	ASTM D5185m	2057	**1540**	1580	1768
Phosphorus	ppm	ASTM D5185m	935	**931**	851	947
Zinc	ppm	ASTM D5185m	1223	**1069**	1027	1125
Sulfur	ppm	ASTM D5185m	4079	**3288**	3311	3707
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.0**	19.0	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	**9.5**	9.8	10.2
Visc @ 100°C	cSt	ASTM D445	15.0	▲ **12.0**	12.3	12.7

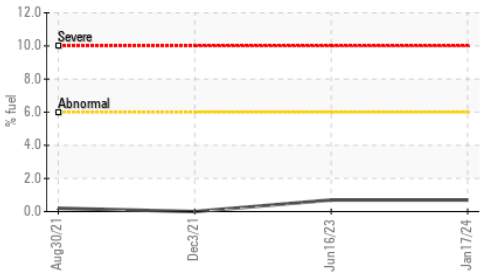
Ferrous Alloys



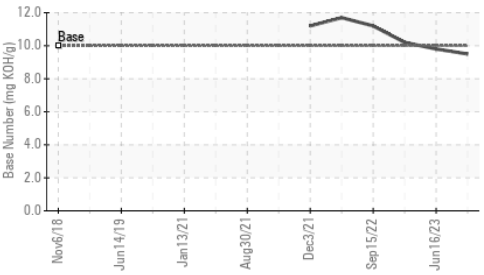
Viscosity @ 100°C



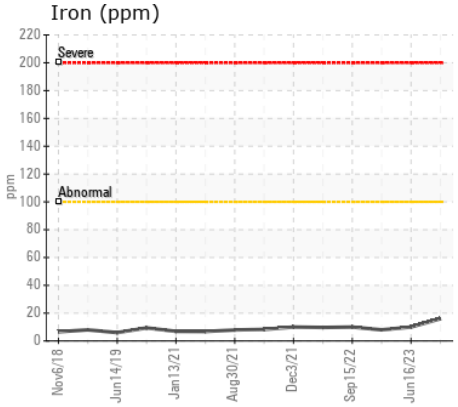
Fuel Dilution



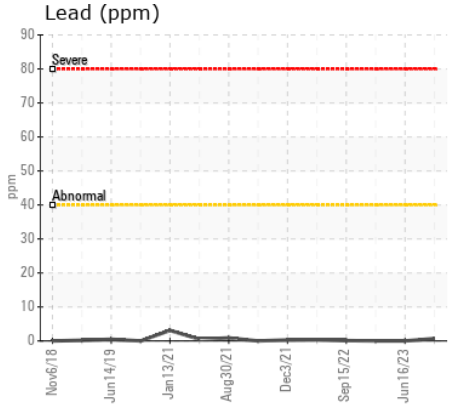
Base Number



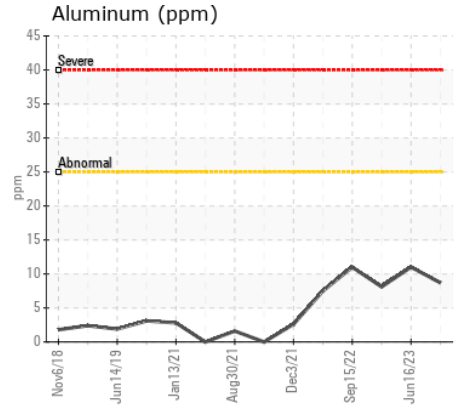
Iron (ppm)



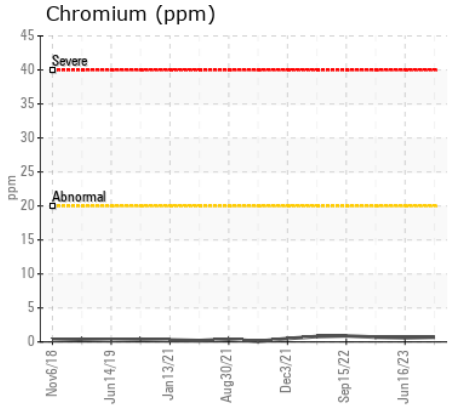
Lead (ppm)



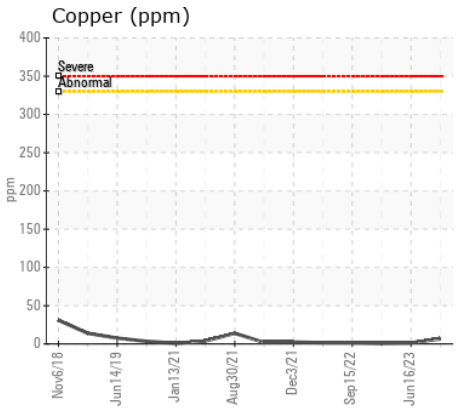
Aluminum (ppm)



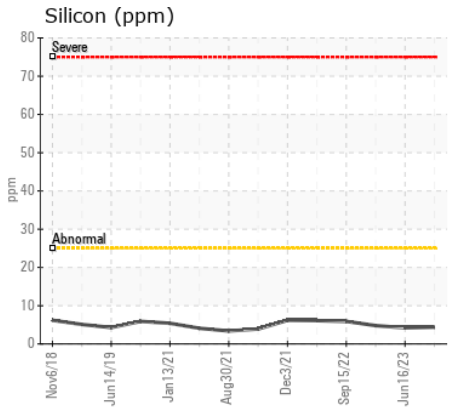
Chromium (ppm)



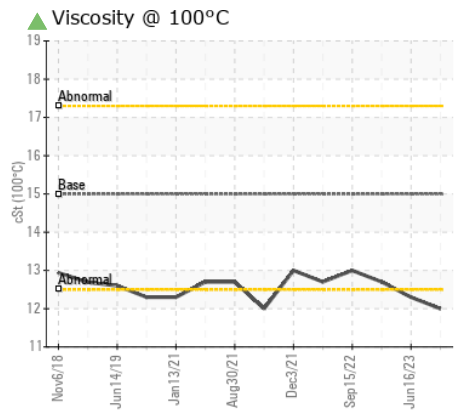
Copper (ppm)



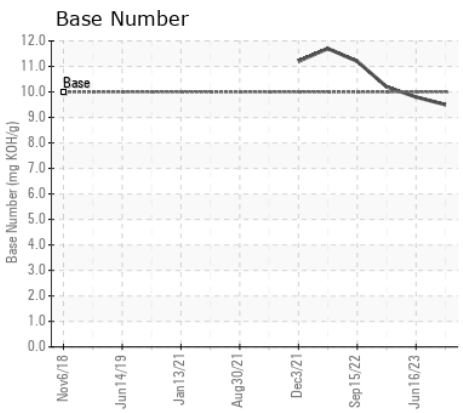
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP440009 **Received** : 08 Feb 2024
Lab Number : 06083338 **Tested** : 09 Feb 2024
Unique Number : 10870783 **Diagnosed** : 09 Feb 2024 - Don Baldridge
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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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