MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[CONHER]
Machine Id
VOLVO 2008 #111 Volvo
Component
Diesel Engine
Fluid
Volvo Mineral 15W40 CI-4 (45 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Fluid: Volvo mineral CI-4 15W40)

WEAR

All component wear rates are normal.

CONTAMINATION

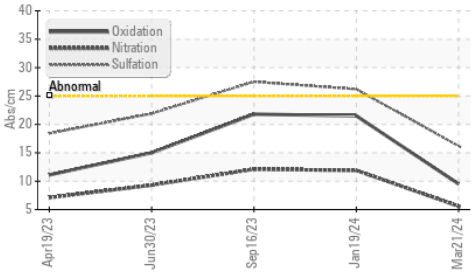
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

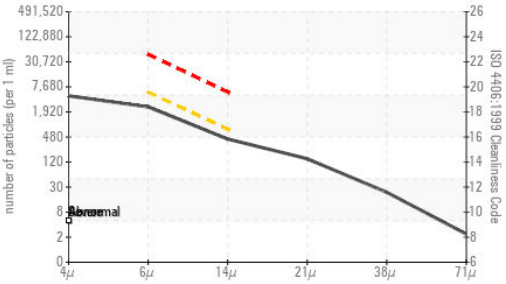
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014533	KL0013460	KL0012829
Sample Date		Client Info		21 Mar 2024	19 Jan 2024	16 Sep 2023
Machine Age	kms	Client Info		21650	5918	1752857
Oil Age	kms	Client Info		10	8000	57740
Filter Age	kms	Client Info		10	8000	57740
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	ATTENTION	ABNORMAL
Iron	ppm	ASTM D5185m	>165	4	77	37
Chromium	ppm	ASTM D5185m	>5	0	2	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	22	4
Lead	ppm	ASTM D5185m	>150	1	0	41
Copper	ppm	ASTM D5185m	>90	<1	9	2
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>35	6	38	17
Potassium	ppm	ASTM D5185m	>20	<1	20	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.1	1.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	5.6	11.9	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.2	26.2	27.5
Particles >4µm		ASTM D7647		4071	10944	14781
Particles >6µm		ASTM D7647	>5000	2218	5962	8052
Particles >14µm		ASTM D7647	>640	377	1015	1370
Particles >21µm		ASTM D7647	>160	127	342	462
Particles >38µm		ASTM D7647	>40	20	53	71
Particles >71µm		ASTM D7647	>10	2	5	7
Oil Cleanliness		ISO 4406 (c)	>19/16	18/16	20/17	20/18
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		0	<1	2
Boron	ppm	ASTM D5185m		0	19	13
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		1	53	9
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		8	610	72
Calcium	ppm	ASTM D5185m		2370	2152	3370
Phosphorus	ppm	ASTM D5185m		869	1006	1034
Zinc	ppm	ASTM D5185m		998	1290	1302
Sulfur	ppm	ASTM D5185m		4108	3680	4237
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	21.5	21.8
Base Number (BN)	mg KOH/g	ASTM D2896		7.10	7.45	7.97
Visc @ 100°C	cSt	ASTM D445		14.3	15.8	15.6

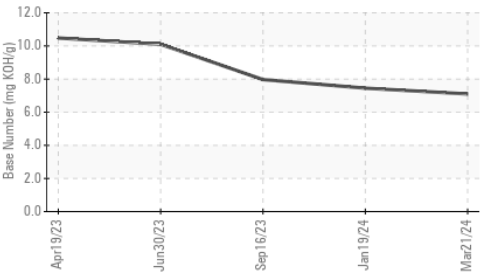
FT-IR (Direct Trend)



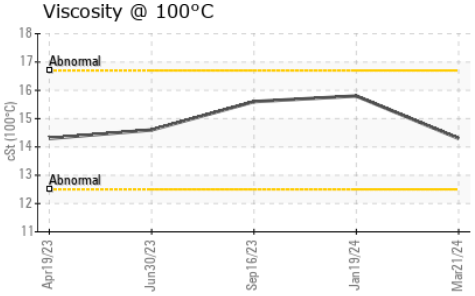
Particle Count



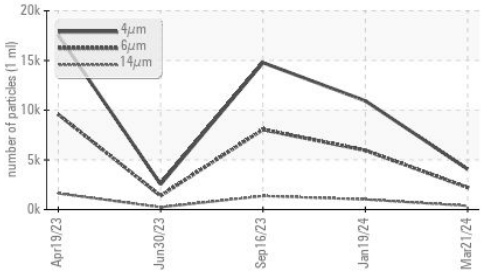
Base Number



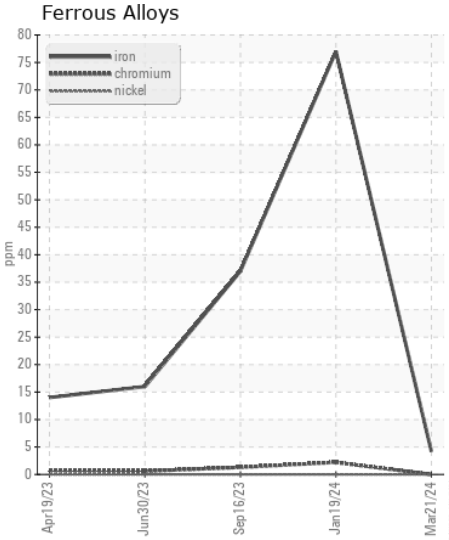
Viscosity @ 100°C



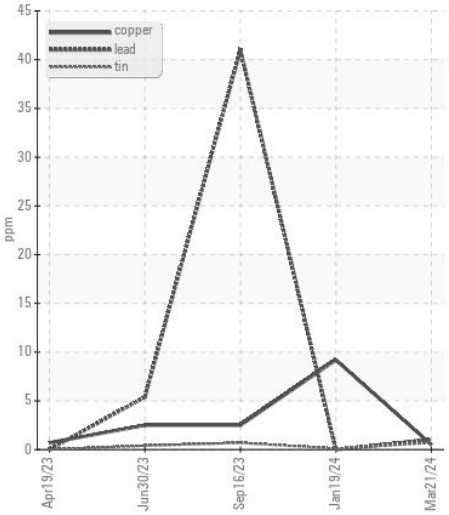
Particle Trend



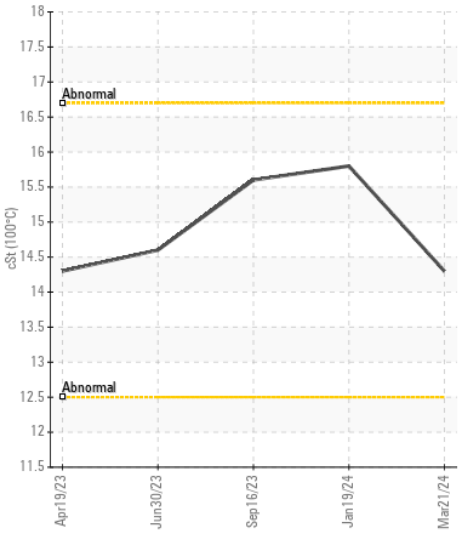
Ferrous Alloys



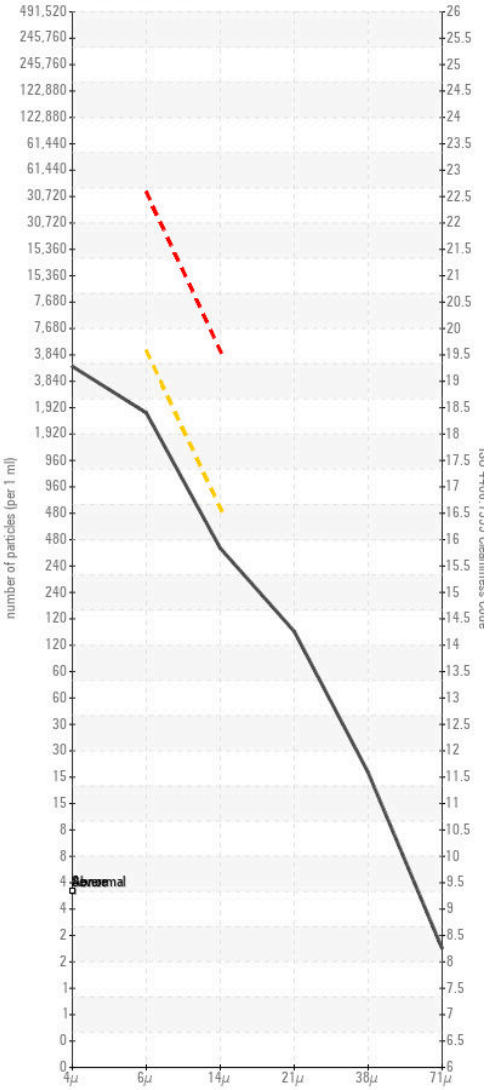
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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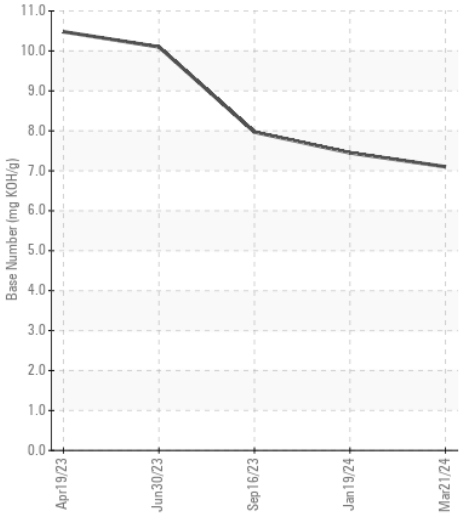

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014533
Lab Number : 06153301
Unique Number : 10983379
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 18 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Jonathan Hester

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)

LAMO

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MX
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