MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[CONHER]
Machine Id
FREIGHTLINER LAMO - #194 Freightliner
Component
Diesel Engine
Fluid
Volvo Mineral 15W40 CI-4 (45 LTR)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. (Customer Sample Comment: Fluid: Volvi mineral 15W40)

WEAR

All component wear rates are normal.

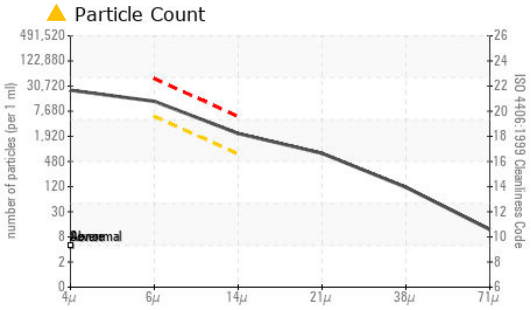
CONTAMINATION

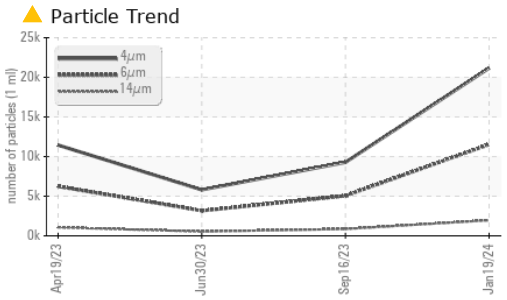
There is a high amount of particulates present in the oil.

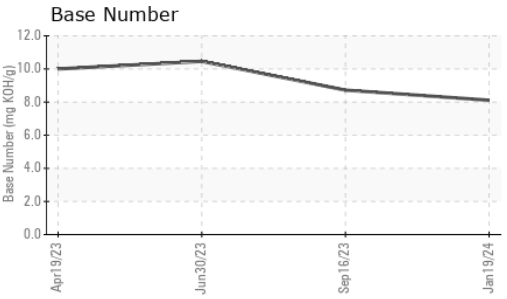
FLUID CONDITION

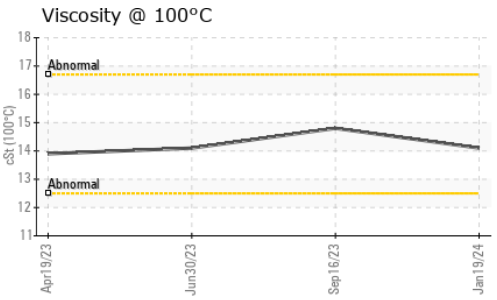
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

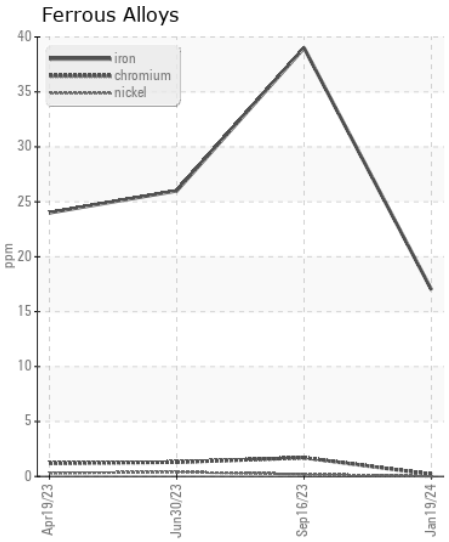
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013461	KL0012830	KL0012384
Sample Date		Client Info		19 Jan 2024	16 Sep 2023	30 Jun 2023
Machine Age	kms	Client Info		119580	77741	46089
Oil Age	kms	Client Info		106089	64250	22598
Filter Age	kms	Client Info		106089	64250	22598
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>200	17	39	26
Chromium	ppm	ASTM D5185m	>6	<1	2	1
Nickel	ppm	ASTM D5185m	>3	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>50	2	9	5
Lead	ppm	ASTM D5185m	>10	5	0	0
Copper	ppm	ASTM D5185m	>50	4	7	6
Tin	ppm	ASTM D5185m	>6	0	<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	>50	8	13	9
Potassium	ppm	ASTM D5185m	>20	6	2	4
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	>3	0.4	0.8	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.3	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	22.4	20.8
Particles >4µm		ASTM D7647		21166	9274	5803
Particles >6µm		ASTM D7647	>5000	▲ 11530	▲ 5052	3161
Particles >14µm		ASTM D7647	>640	▲ 1962	▲ 860	538
Particles >21µm		ASTM D7647	>160	▲ 661	▲ 290	181
Particles >38µm		ASTM D7647	>40	▲ 102	45	28
Particles >71µm		ASTM D7647	>10	10	5	3
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 21/18	▲ 20/17	19/16
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		3	3	2
Boron	ppm	ASTM D5185m		6	17	25
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		2	54	52
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		16	740	788
Calcium	ppm	ASTM D5185m		2430	2001	1818
Phosphorus	ppm	ASTM D5185m		920	1044	1038
Zinc	ppm	ASTM D5185m		1138	1381	1330
Sulfur	ppm	ASTM D5185m		3591	3278	3772
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.3	17.6	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		8.11	8.72	10.46
Visc @ 100°C	cSt	ASTM D445		14.1	14.8	14.1

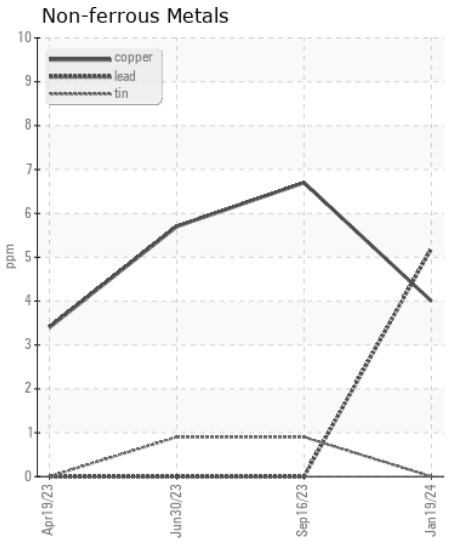


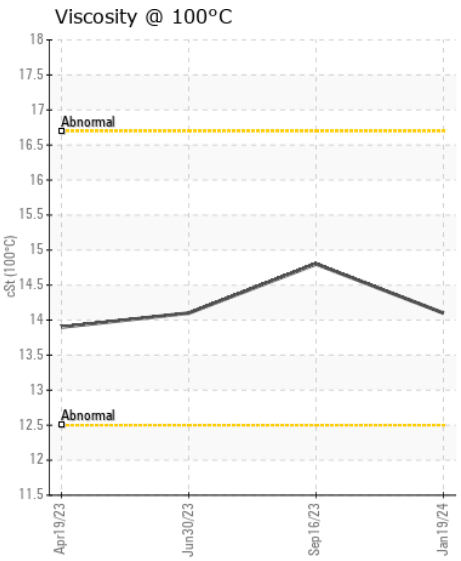


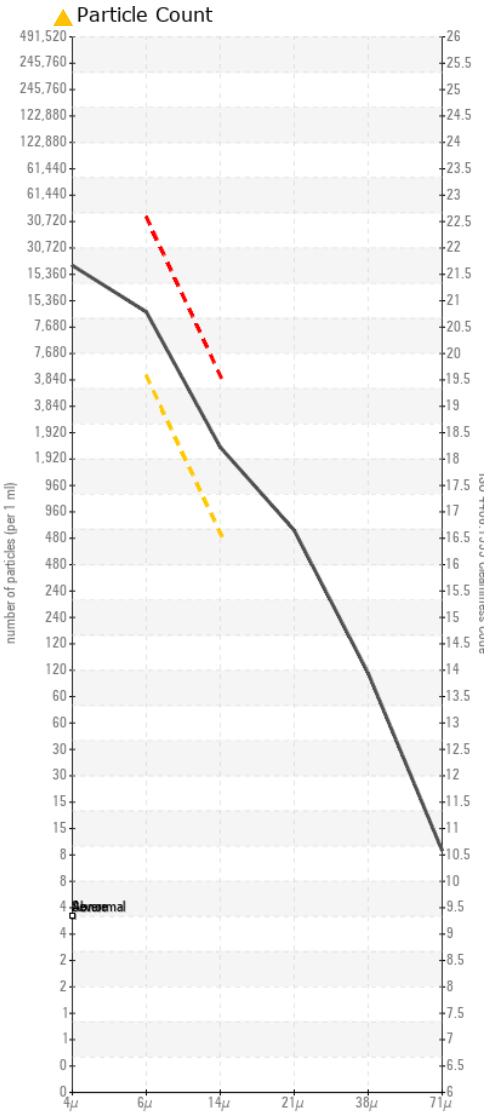


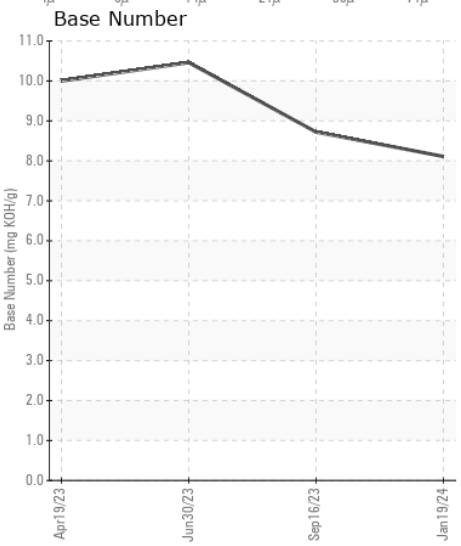












Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: KL0013461	**Recieved**	: 30 Jan 2024
Lab Number	: 06074989	**Diagnosed**	: 02 Feb 2024
Unique Number	: 10857080	**Diagnostician**	: Jonathan Hester
Test Package	: MOB 2 (Additional Tests: PrtCount)		

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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MX
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