MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
R202-F-01
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

CONTAMINATION

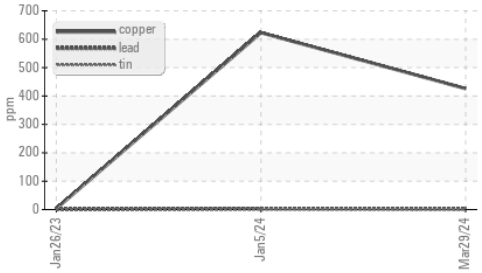
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

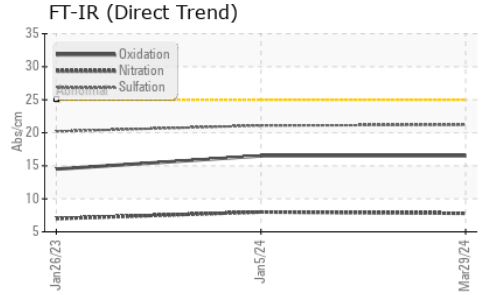
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014223	KL0014045	KLMFA11980
Sample Date		Client Info		29 Mar 2024	05 Jan 2024	26 Jan 2023
Machine Age	hrs	Client Info		45371	45297	44946
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	MARGINAL
Iron	ppm	ASTM D5185m	>100	47	58	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	2	3	<1
Copper	ppm	ASTM D5185m	>330	▲ 426	▲ 623	4
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	2	5	3
Potassium	ppm	ASTM D5185m	>20	3	2	0
Fuel	%	ASTM D3524	>5	<1.0	2.7	▲ 3.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.8	8.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	21.1	20.2
Particles >4µm		ASTM D7647		1322	774	---
Particles >6µm		ASTM D7647	>5000	720	422	---
Particles >14µm		ASTM D7647	>640	123	72	---
Particles >21µm		ASTM D7647	>160	41	24	---
Particles >38µm		ASTM D7647	>40	6	4	---
Particles >71µm		ASTM D7647	>10	1	0	---
Oil Cleanliness		ISO 4406 (c)	>19/16	17/14	16/13	---
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		<1	2	0
Boron	ppm	ASTM D5185m		321	245	318
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		71	67	74
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		306	313	337
Calcium	ppm	ASTM D5185m		1307	1242	1324
Phosphorus	ppm	ASTM D5185m		960	882	823
Zinc	ppm	ASTM D5185m		1012	970	1019
Sulfur	ppm	ASTM D5185m		3458	3426	3478
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	16.5	14.5
Base Number (BN)	mg KOH/g	ASTM D2896		6.31	6.23	8.4
Visc @ 100°C	cSt	ASTM D445		12.0	12.0	12.1

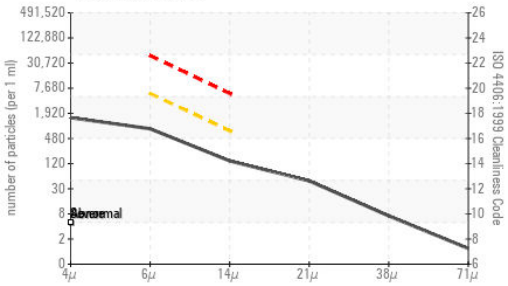
Non-ferrous Metals



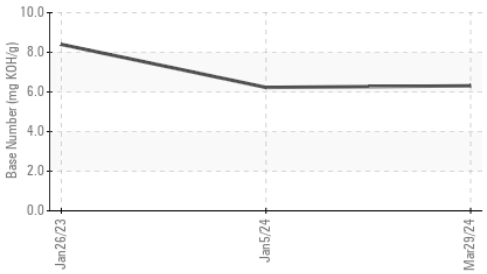
FT-IR (Direct Trend)



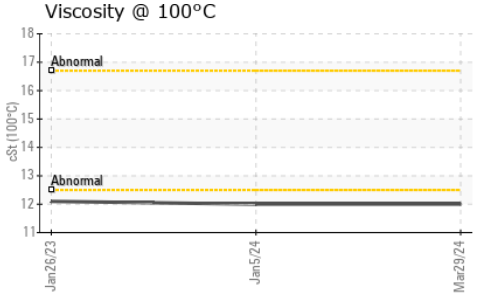
Particle Count



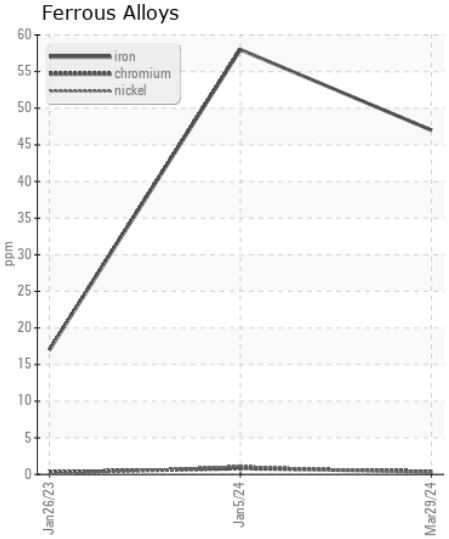
Base Number



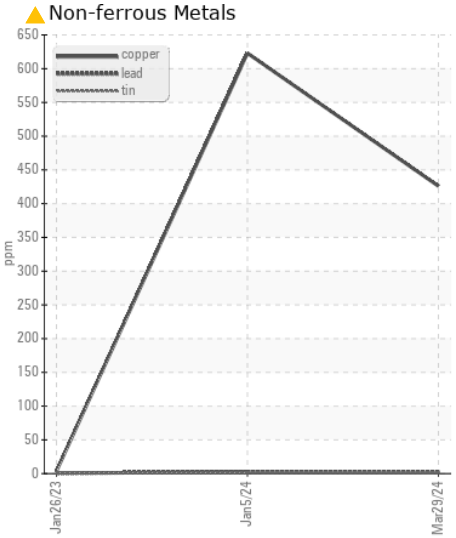
Viscosity @ 100°C



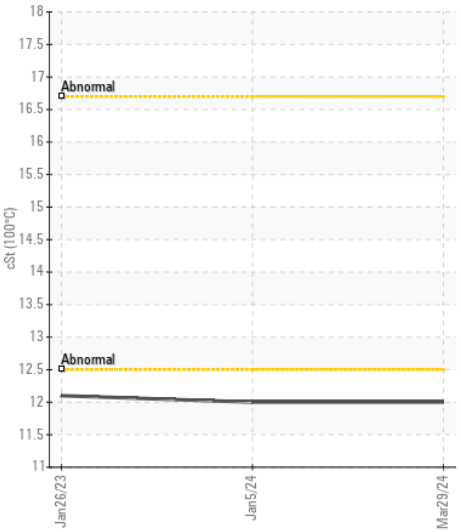
Ferrous Alloys



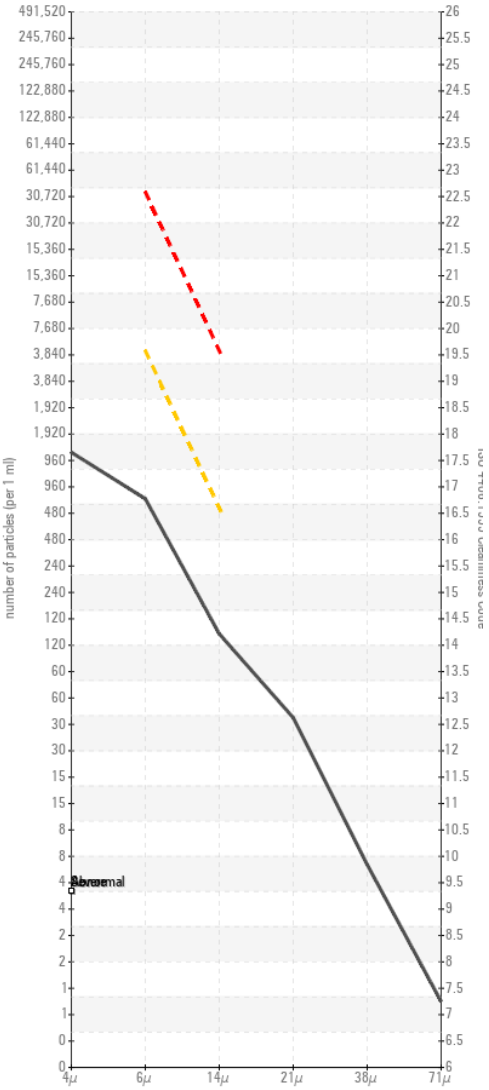
Non-ferrous Metals



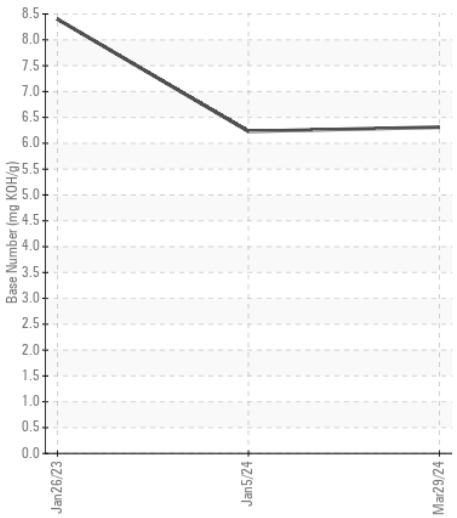
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014223 **Received** : 10 Apr 2024
Lab Number : 06145359 **Tested** : 15 Apr 2024
Unique Number : 10970167 **Diagnosed** : 15 Apr 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, 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)

STRATEGY LATERAL
PO BOX 80543
MIDLAND, TX
US 76065
Contact: KIRK WADE
KIRK.WADE@STRATEGYLATERAL.COM
T:
F: