MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

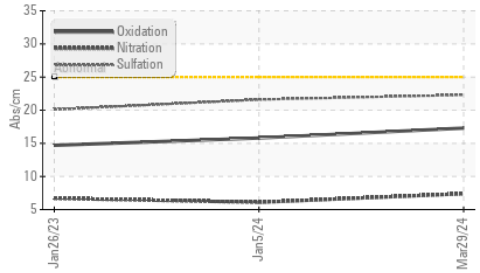
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

FLUID CONDITION

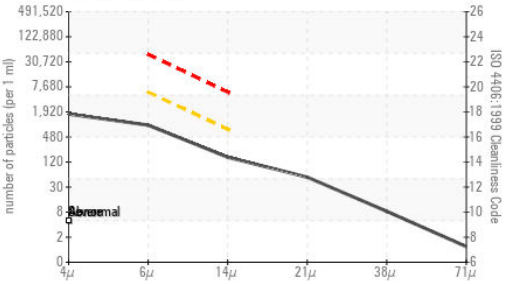
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014221	KL0013992	KLM2340960
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				NORMAL	MARGINAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	11	4	11
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	10	7	3
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	3	5	6
Potassium	ppm	ASTM D5185m	>20	3	2	1
Fuel		WC Method	>5	<1.0	▲ 2.3	▲ 4.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.1	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	21.6	20.1
Particles >4µm		ASTM D7647		1488	4654	49449
Particles >6µm		ASTM D7647	>5000	810	2535	▲ 26938
Particles >14µm		ASTM D7647	>640	138	432	▲ 4584
Particles >21µm		ASTM D7647	>160	46	145	▲ 1544
Particles >38µm		ASTM D7647	>40	7	22	▲ 238
Particles >71µm		ASTM D7647	>10	1	2	▲ 24
Oil Cleanliness		ISO 4406 (c)	>19/16	17/14	19/16	▲ 22/19
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	<1
Boron	ppm	ASTM D5185m		466	431	351
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		91	94	75
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		412	440	393
Calcium	ppm	ASTM D5185m		1392	1281	1240
Phosphorus	ppm	ASTM D5185m		1045	927	805
Zinc	ppm	ASTM D5185m		1123	1091	1018
Sulfur	ppm	ASTM D5185m		3606	3229	3274
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	15.8	14.7
Base Number (BN)	mg KOH/g	ASTM D2896		7.74	8.00	7.87
Visc @ 100°C	cSt	ASTM D445		13.3	13.3	12.1

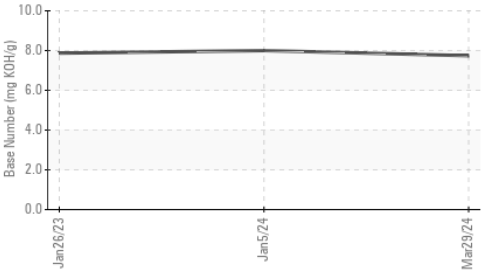
FT-IR (Direct Trend)



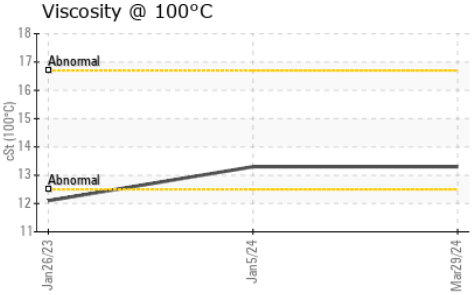
Particle Count



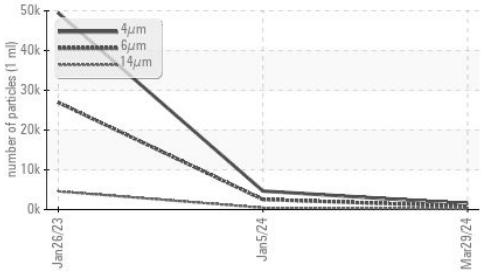
Base Number



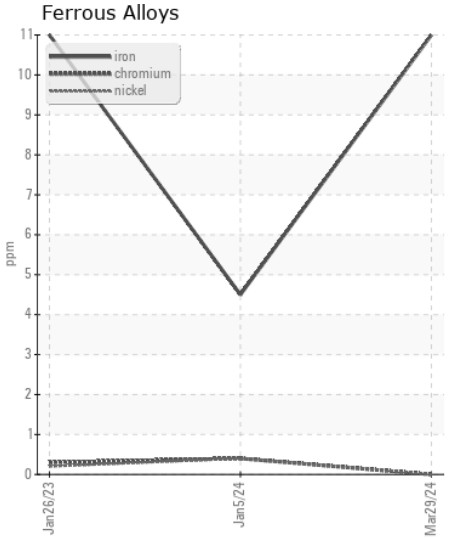
Viscosity @ 100°C



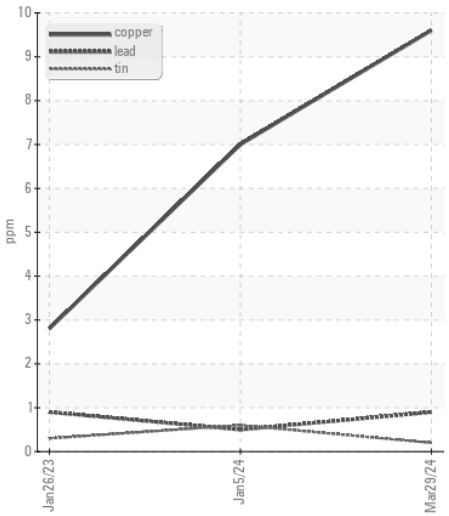
Particle Trend



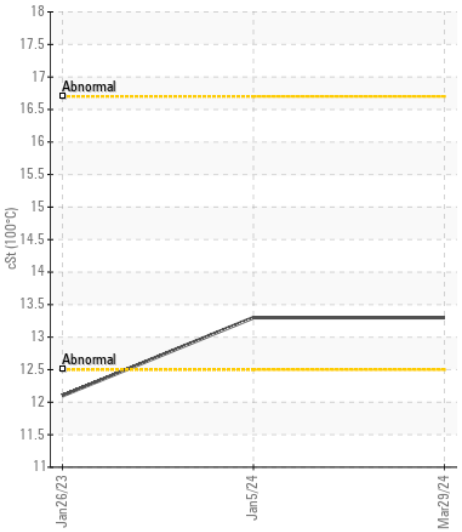
Ferrous Alloys



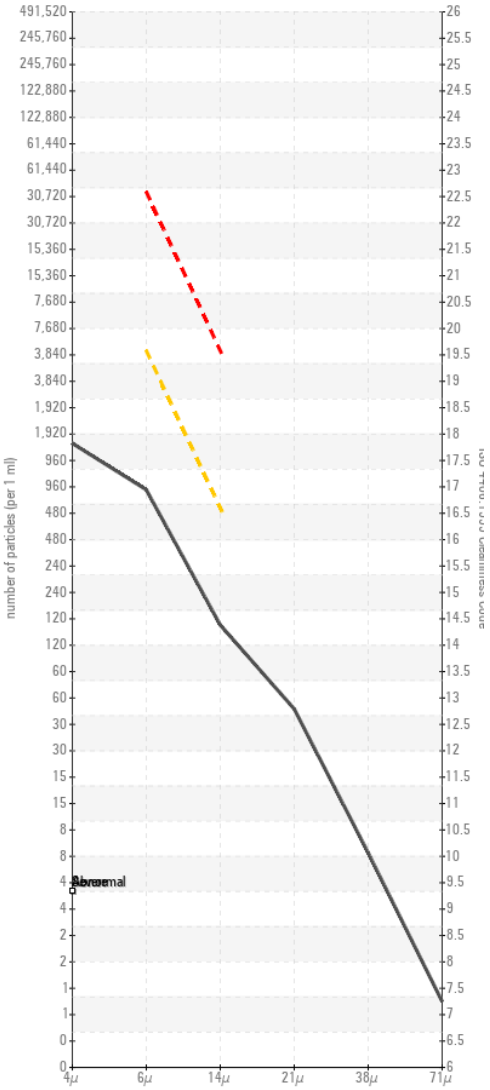
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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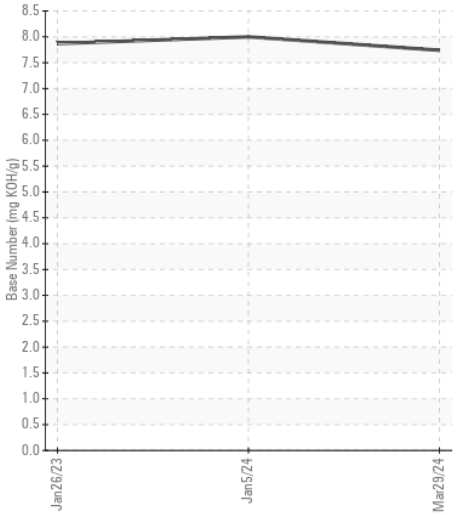

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014221
Lab Number : 06145361
Unique Number : 10970169
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 10 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

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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