MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
27318
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

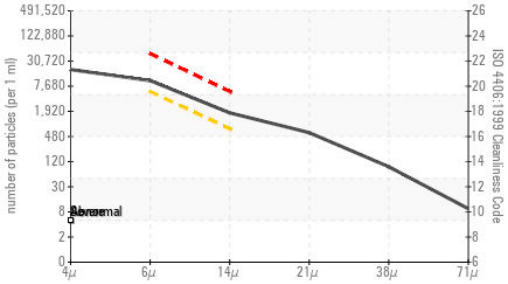
There is a high amount of particulates present in the oil.

FLUID CONDITION

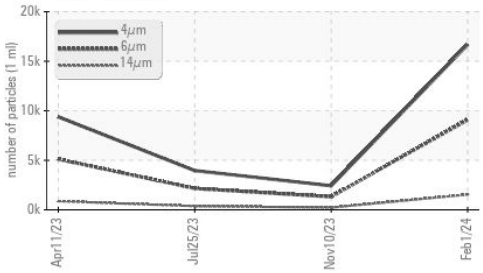
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0012139	KL0012102	KL0012009
Sample Date		Client Info		01 Feb 2024	10 Nov 2023	25 Jul 2023
Machine Age	mls	Client Info		60259	46328	41081
Oil Age	mls	Client Info		59328	0	0
Filter Age	mls	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	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	73	33	145
Chromium	ppm	ASTM D5185m	>20	3	1	5
Nickel	ppm	ASTM D5185m	>4	1	0	<1
Titanium	ppm	ASTM D5185m		1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	16	5	27
Lead	ppm	ASTM D5185m	>40	1	<1	0
Copper	ppm	ASTM D5185m	>330	5	3	11
Tin	ppm	ASTM D5185m	>15	1	<1	1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	11	7	16
Potassium	ppm	ASTM D5185m	>20	48	12	76
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	0.8	1.9
Nitration	Abs/cm	*ASTM D7624	>20	15.0	11.6	17.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.8	26.5	40.3
Particles >4µm		ASTM D7647		16673	2427	3958
Particles >6µm		ASTM D7647	>5000	▲ 9085	1322	2156
Particles >14µm		ASTM D7647	>640	▲ 1546	225	367
Particles >21µm		ASTM D7647	>160	▲ 521	76	124
Particles >38µm		ASTM D7647	>40	▲ 80	12	19
Particles >71µm		ASTM D7647	>10	8	1	2
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 20/18	18/15	18/16
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		7	5	19
Boron	ppm	ASTM D5185m		17	30	12
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		62	62	62
Manganese	ppm	ASTM D5185m		1	<1	2
Magnesium	ppm	ASTM D5185m		1021	1126	1103
Calcium	ppm	ASTM D5185m		958	1054	1170
Phosphorus	ppm	ASTM D5185m		930	1115	1056
Zinc	ppm	ASTM D5185m		1201	1373	1344
Sulfur	ppm	ASTM D5185m		3168	3442	3587
Oxidation	Abs/.1mm	*ASTM D7414	>25	40.8	28.6	50.2
Base Number (BN)	mg KOH/g	ASTM D2896		6.74	5.22	5.97
Visc @ 100°C	cSt	ASTM D445		12.9	13.2	13.8

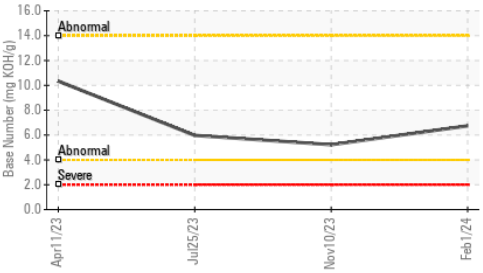
Particle Count



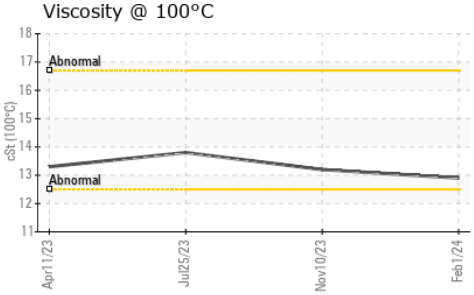
Particle Trend



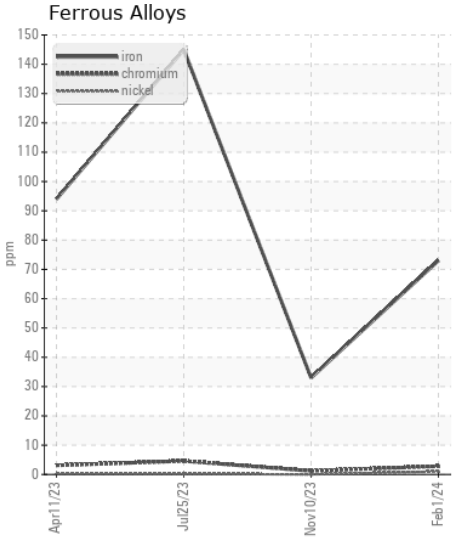
Base Number



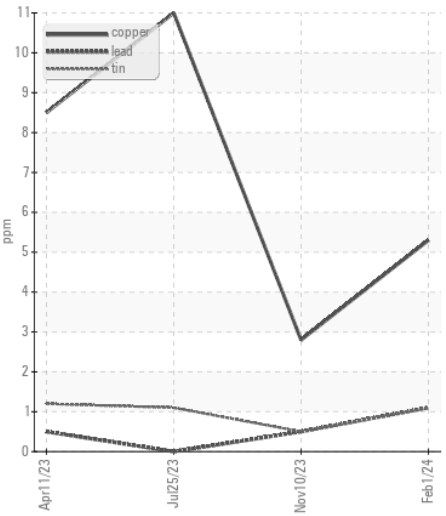
Viscosity @ 100°C



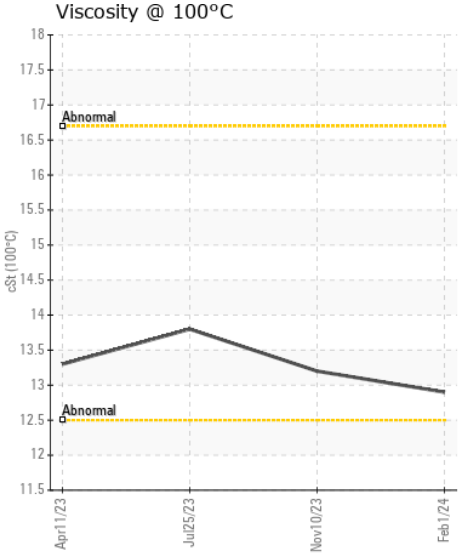
Ferrous Alloys



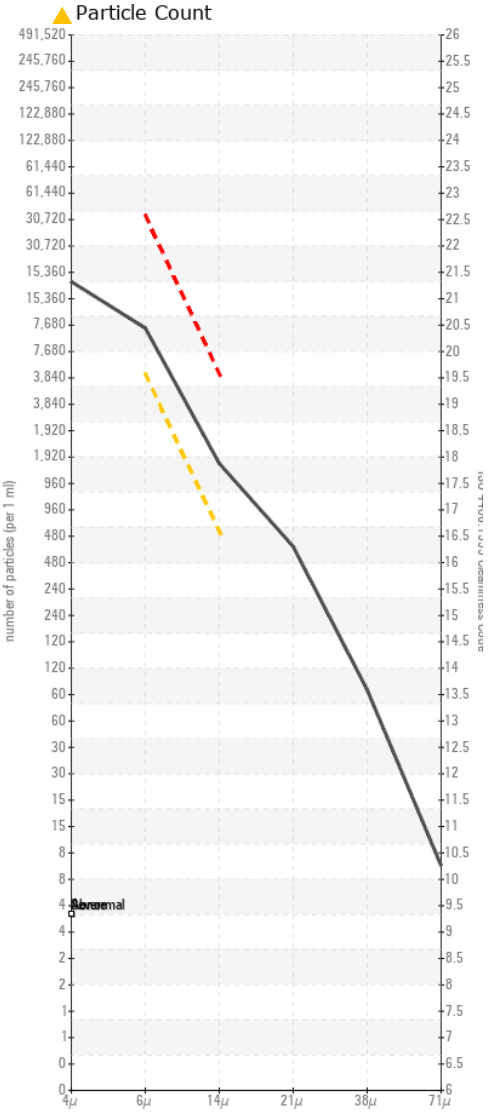
Non-ferrous Metals



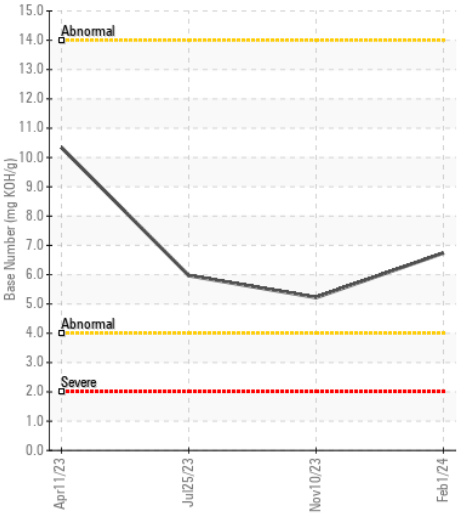
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0012139
Lab Number : 06089625
Unique Number : 10877070
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 14 Feb 2024
Tested : 19 Feb 2024
Diagnosed : 19 Feb 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)

CITY & COUNTY HONOLULU
99-999 IWAENA RD
AIEA, HI
US 96701
Contact: CLYDE OMIJA
comija@honolulu.gov
T: (575)623-9952
F:

Report Id: CITAIE [WUSCAR] 06089625 (Generated: 02/20/2024 04:51:36) Rev: 1

Submitted By: Mike Richardson