MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
RIG 879
Machine Id
R879-MP-01
Component
Gearbox
Fluid
BRENNTAG COASTAL CHEMICAL HBC GEAR OIL 320 (--- GAL)

RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

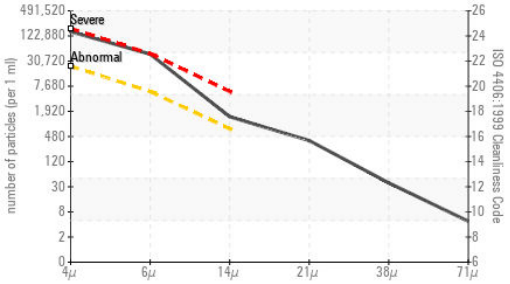
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

FLUID CONDITION

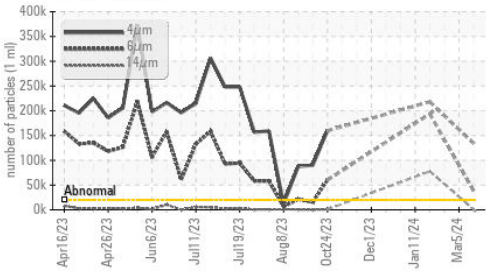
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014301	KL0013733	KL0013943
Sample Date		Client Info		03 Apr 2024	05 Mar 2024	06 Feb 2024
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Filter Age	days	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	ABNORMAL
Iron	ppm	ASTM D5185m	>200	17	44	150
Chromium	ppm	ASTM D5185m	>10	0	0	1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	3
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	11	● 55
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	6	11	20
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	15	44	▲ 205
Potassium	ppm	ASTM D5185m	>20	<1	2	21
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 134132	---	---
Particles >6µm		ASTM D7647	>5000	▲ 38915	---	---
Particles >14µm		ASTM D7647	>640	● 1252	---	---
Particles >21µm		ASTM D7647	>160	▲ 337	---	---
Particles >38µm		ASTM D7647	>40	33	---	---
Particles >71µm		ASTM D7647	>10	4	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 24/22/17	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	▲ MODER
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		5	17	44
Boron	ppm	ASTM D5185m		<1	1	2
Barium	ppm	ASTM D5185m		6	46	287
Molybdenum	ppm	ASTM D5185m		0	<1	2
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m		<1	0	12
Calcium	ppm	ASTM D5185m		32	35	207
Phosphorus	ppm	ASTM D5185m		113	84	138
Zinc	ppm	ASTM D5185m		39	30	51
Sulfur	ppm	ASTM D5185m		10044	8579	8527
Acid Number (AN)	mg KOH/g	ASTM D8045		0.41	0.36	0.28
Visc @ 40°C	cSt	ASTM D445	310	333	333	333

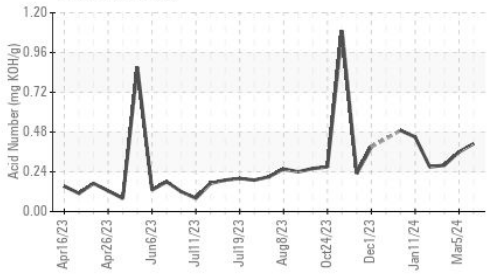
Particle Count



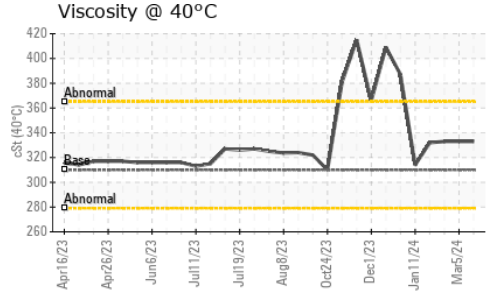
Particle Trend



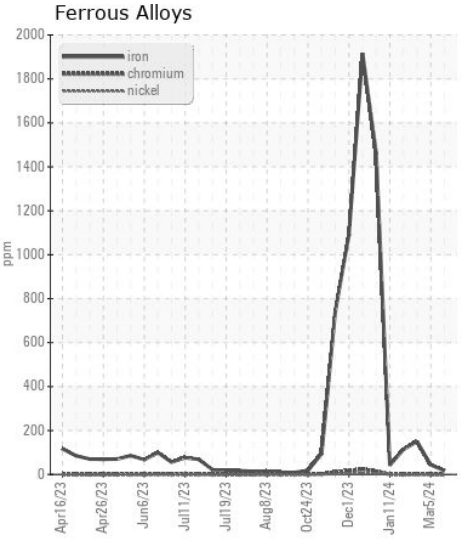
Acid Number



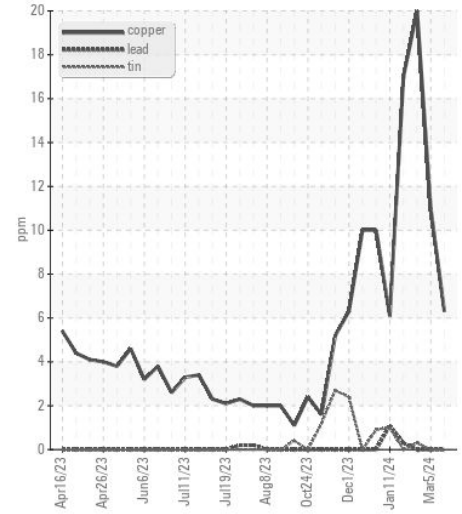
Viscosity @ 40°C



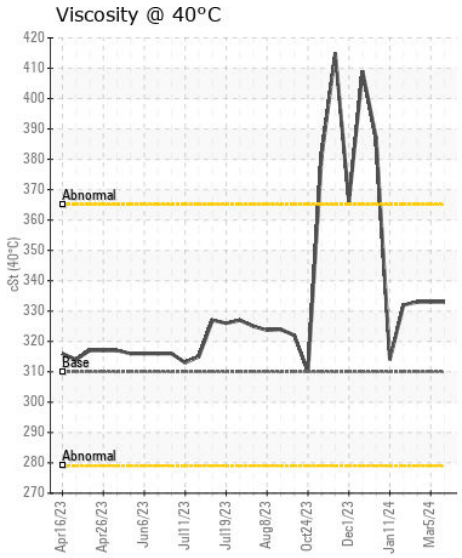
Ferrous Alloys



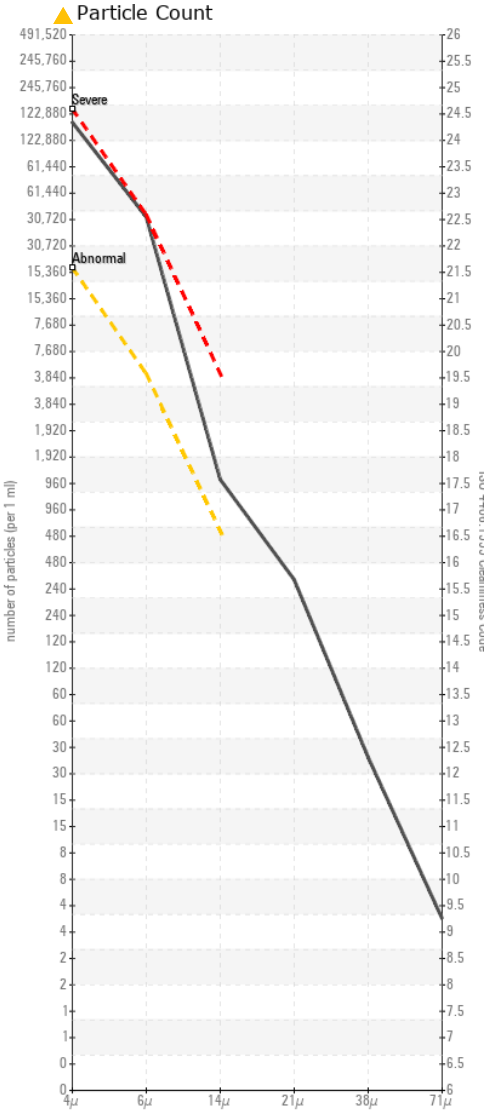
Non-ferrous Metals



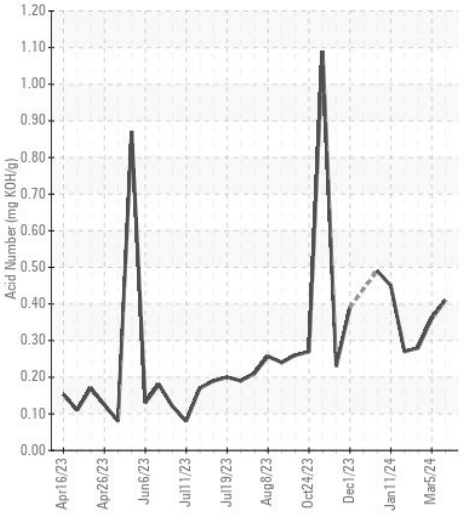
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014301
Lab Number : 06145838
Unique Number : 10975916
Test Package : MOB 2 (Additional Tests: PrtCount)

Received : 11 Apr 2024
Tested : 12 Apr 2024
Diagnosed : 12 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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Report Id: PATMIDTX [WUSCAR] 06145838 (Generated: 04/12/2024 10:36:35) Rev: 1

Submitted By: Mike Richardson