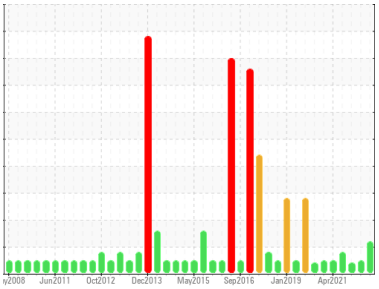
PROBLEM SUMMARY

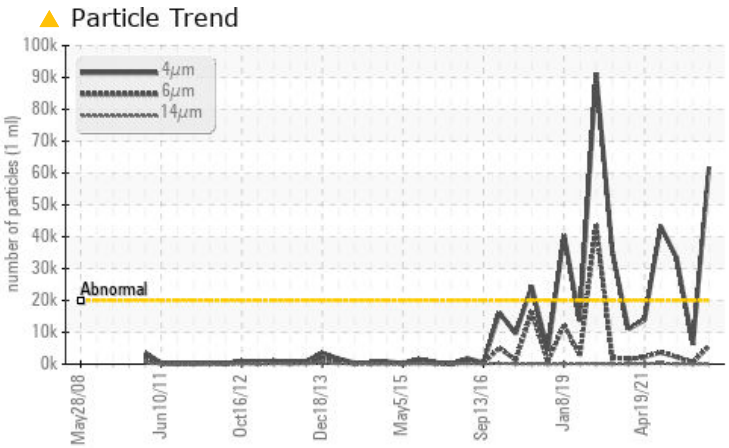
Sample Rating Trend



ISO

Area
TM 11
Machine Id
TM 11 WET BROKE AGT REDUCER
Component
Gearbox
Fluid
GEAR OIL ISO 220 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>20000	▲ **61726**	6222	▲ 33283
Particles >6µm		ASTM D7647	>5000	▲ **5731**	590	2245
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/20/14**	20/16/11	▲ 22/18/13

Customer Id: KIMMOBTM11
Sample No.: RP0034372
Lab Number: 05994353
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

05 May 2023 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

30 Mar 2022 Diag: Doug Bogart

ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

08 Oct 2021 Diag: Doug Bogart

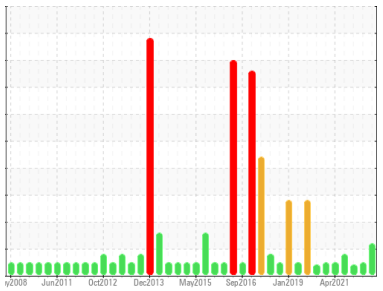
ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
TM 11
Machine Id
TM 11 WET BROKE AGT REDUCER
Component
Gearbox
Fluid
GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

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

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0034372**	RP0023585	RP0016701
Sample Date		Client Info		**08 Aug 2023**	05 May 2023	30 Mar 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**13**	12	---
Iron	ppm	ASTM D5185m	>200	**50**	30	32
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>15	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**<1**	<1	<1
Lead	ppm	ASTM D5185m	>100	**0**	0	<1
Copper	ppm	ASTM D5185m	>200	**<1**	0	<1
Tin	ppm	ASTM D5185m	>25	**<1**	0	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**32**	18	16
Barium	ppm	ASTM D5185m	15	**19**	0	0
Molybdenum	ppm	ASTM D5185m	15	**<1**	0	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	50	**0**	0	0
Calcium	ppm	ASTM D5185m	50	**21**	16	17
Phosphorus	ppm	ASTM D5185m	350	**473**	364	363
Zinc	ppm	ASTM D5185m	100	**88**	41	95

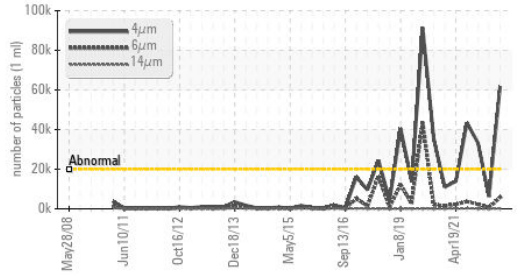
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**6**	2	4
Sodium	ppm	ASTM D5185m		**1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.2	**0.019**	0.012	0.010
ppm Water	ppm	ASTM D6304	>2000	**192.8**	129.6	106.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **61726**	6222	▲ 33283
Particles >6µm		ASTM D7647	>5000	▲ **5731**	590	2245
Particles >14µm		ASTM D7647	>640	**132**	11	75
Particles >21µm		ASTM D7647	>160	**22**	2	15
Particles >38µm		ASTM D7647	>40	**0**	0	2
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/20/14**	20/16/11	▲ 22/18/13

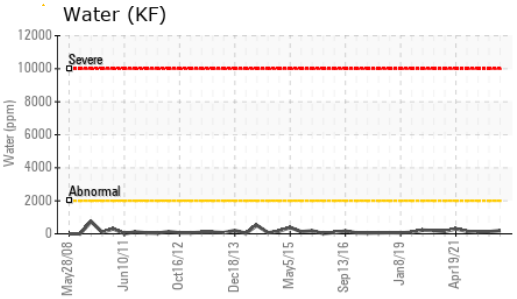
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	**1.50**	1.34	1.12

OIL ANALYSIS REPORT

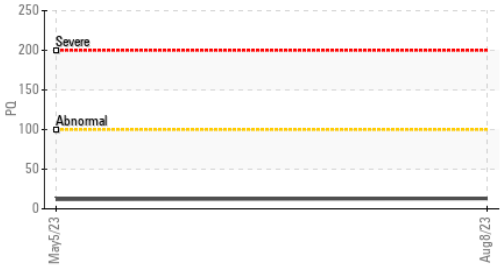
Particle Trend



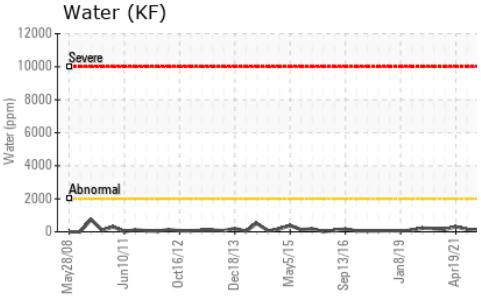
Water (KF)



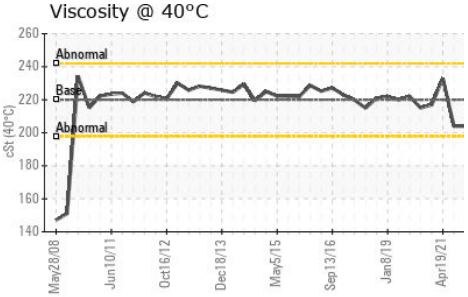
PQ



Water (KF)

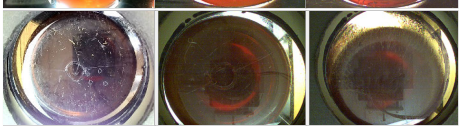


Viscosity @ 40°C



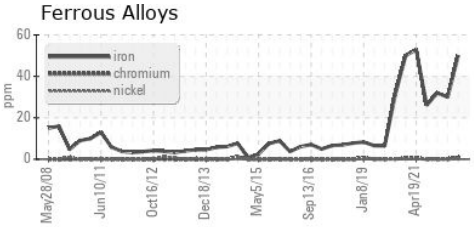
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	**210**	208	204

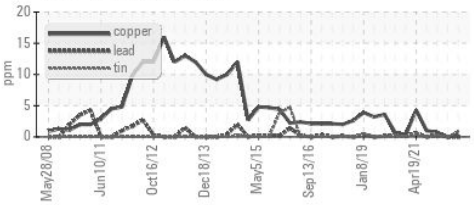
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

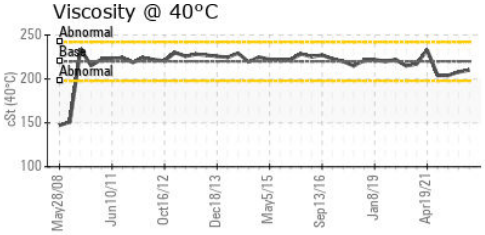
Ferrous Alloys



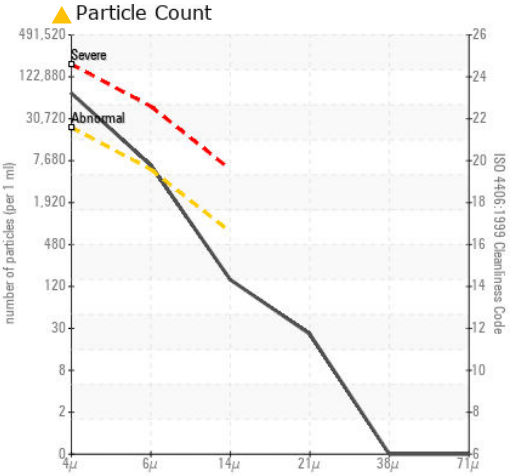
Non-ferrous Metals



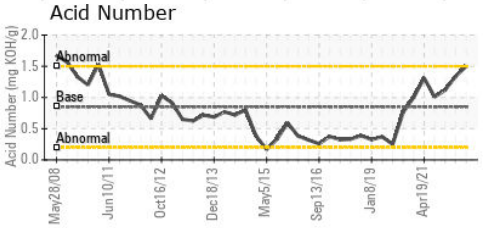
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034372 **Received** : 31 Oct 2023
Lab Number : 05994353 **Diagnosed** : 01 Nov 2023
Unique Number : 10722713 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

Certificate L2367

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)

Kimberly-Clark - Mobile - TM 11
200 BAYBRIDGE RD
MOBILE, AL
US 36610
Contact: LARRY WEAVER
Larry.D.Weaver@kcc.com
T:
F: (251)452-6335