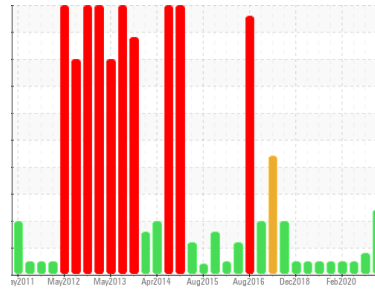




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
TM 8
 Machine Id
TM 8 FORMING ROLL GRBX
 Component
Gearbox
 Fluid
ROYAL PURPLE SYNFILM GT220 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample at the next service interval to monitor.

Wear

An increase in the iron level is noted. All other component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0037987	RP05256020	RP201122
Sample Date	Client Info		30 Apr 2024	16 May 2021	25 May 2020
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	155	59	30
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	<1
Lead	ppm	ASTM D5185m >100	0	0	<1
Copper	ppm	ASTM D5185m >200	1	<1	<1
Tin	ppm	ASTM D5185m >25	<1	<1	0
Antimony	ppm	ASTM D5185m >5	---	2	<1
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	22	10	3
Barium	ppm	ASTM D5185m	4	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	2	<1	<1
Magnesium	ppm	ASTM D5185m 90	2	<1	<1
Calcium	ppm	ASTM D5185m	8	17	16
Phosphorus	ppm	ASTM D5185m	441	194	158
Zinc	ppm	ASTM D5185m	21	20	2

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	3	2	5
Sodium	ppm	ASTM D5185m	1	6	4
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.2	0.027	0.172	0.039
ppm Water	ppm	ASTM D6304 >2000	277	1720	390

FLUID CLEANLINESS

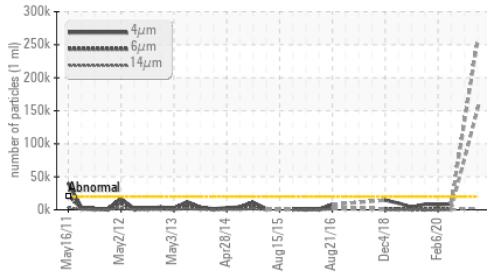
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	256471	---	8691
Particles >6µm	ASTM D7647	>5000	152811	---	1168
Particles >14µm	ASTM D7647	>640	2653	---	75
Particles >21µm	ASTM D7647	>160	187	---	24
Particles >38µm	ASTM D7647	>40	2	---	9
Particles >71µm	ASTM D7647	>10	0	---	5
Oil Cleanliness	ISO 4406 (c)	>21/19/16	25/24/19	---	20/17/13

FLUID DEGRADATION

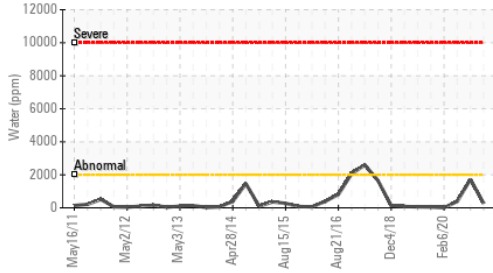
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.25	1.62	0.397	0.371

OIL ANALYSIS REPORT

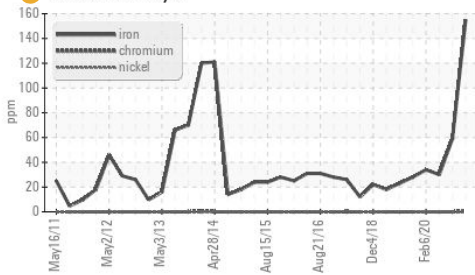
▲ Particle Trend



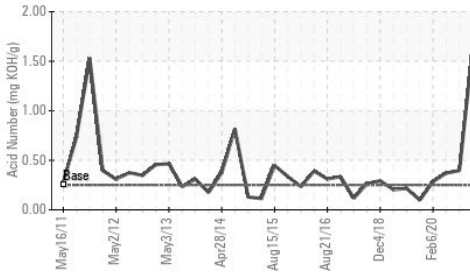
Water (KF)



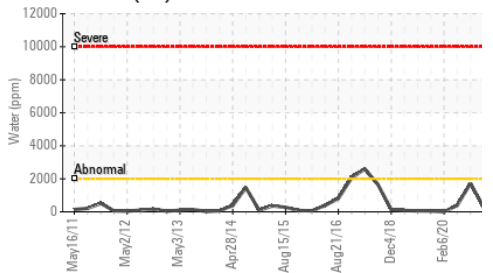
● Ferrous Alloys



Acid Number



Water (KF)

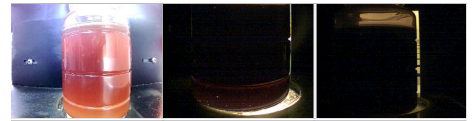


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

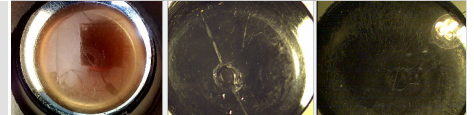
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	222	206.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

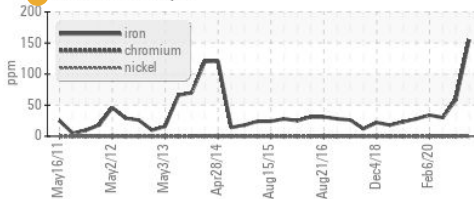


Bottom

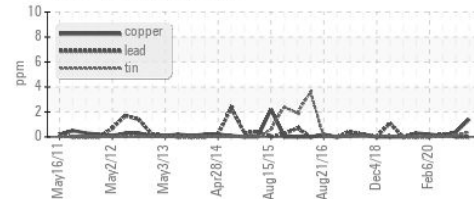


GRAPHS

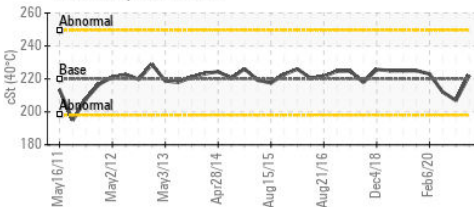
● Ferrous Alloys



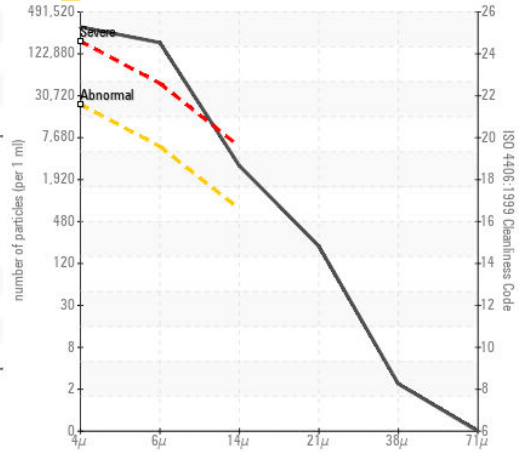
Non-ferrous Metals



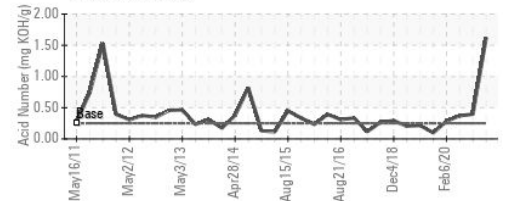
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : RP0037987

Lab Number : 06179422

Unique Number : 11030748

Test Package : IND 2 (Additional Tests: 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)

Received : 14 May 2024

Tested : 16 May 2024

Diagnosed : 16 May 2024 - Angela Borella

Kimberly-Clark - Mobile - TM 8

200 BAYBRIDGE RD

MOBILE, AL

US 36610

Contact: LARRY WEAVER

Larry.D.Weaver@kcc.com

T: (251)330-2356

F: (251)452-6335