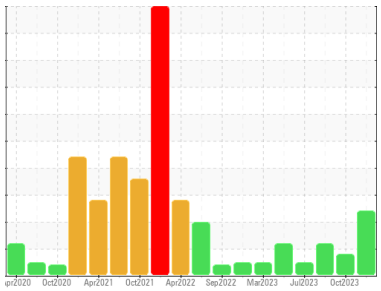
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Area
GRIND ROOM [98651035]
Machine Id
KR-GR-003227 - REWORK GRINDER (S/N GRIND A - 11555379)
Component
Gearbox
Fluid
GEAR OIL ISO 220 (--- LTR)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample. (Customer Sample Comment: 98651035)

▲ Wear

Moderate concentration of visible metal present. Gear wear is indicated.

Contamination

No other contaminants were detected in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0111167**	PCA0104788	PCA0104775
Sample Date		Client Info		**26 Dec 2023**	02 Oct 2023	01 Sep 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	▲ **243**	20	91
Chromium	ppm	ASTM D5185m	>15	**3**	<1	2
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**1**	<1	9
Lead	ppm	ASTM D5185m	>100	**0**	<1	4
Copper	ppm	ASTM D5185m	>200	**29**	22	136
Tin	ppm	ASTM D5185m	>25	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**2**	2	13
Barium	ppm	ASTM D5185m	15	**0**	0	0
Molybdenum	ppm	ASTM D5185m	15	**13**	14	84
Manganese	ppm	ASTM D5185m		**2**	<1	2
Magnesium	ppm	ASTM D5185m	50	**0**	<1	0
Calcium	ppm	ASTM D5185m	50	**0**	3	8
Phosphorus	ppm	ASTM D5185m	350	**561**	581	441
Zinc	ppm	ASTM D5185m	100	**0**	15	79
Sulfur	ppm	ASTM D5185m	12500	**2351**	2896	9466

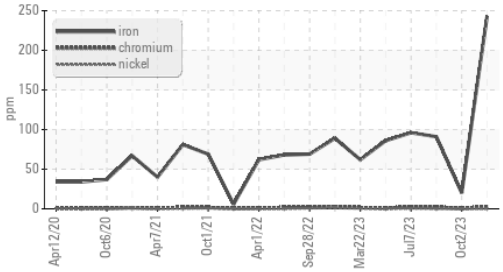
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**7**	6	24
Sodium	ppm	ASTM D5185m		**4**	<1	7
Potassium	ppm	ASTM D5185m	>20	**2**	1	4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	**0.44**	0.39	0.54

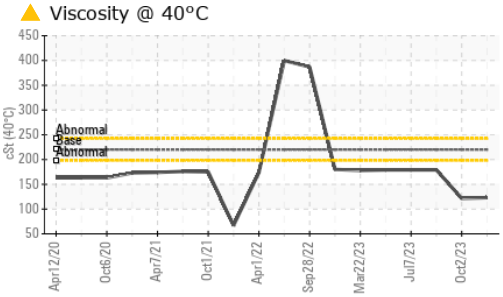
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

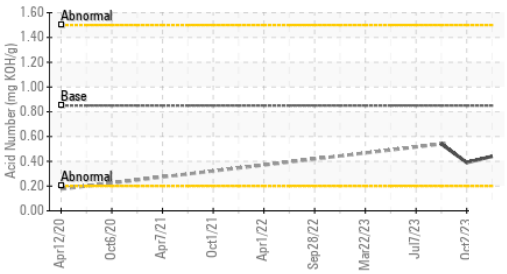
▲ Ferrous Alloys



▲ Viscosity @ 40°C



Acid Number



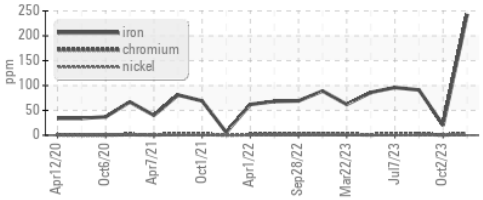
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ **MODER**	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	NONE
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	▲ **123**	▲ 121.5	179

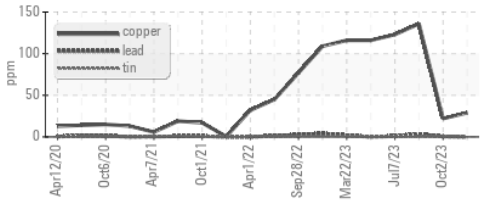
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

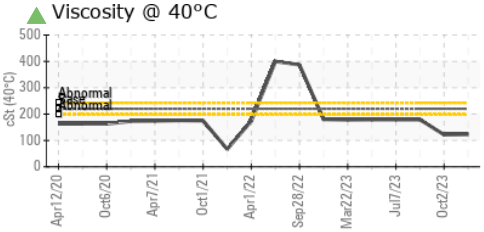
▲ Ferrous Alloys



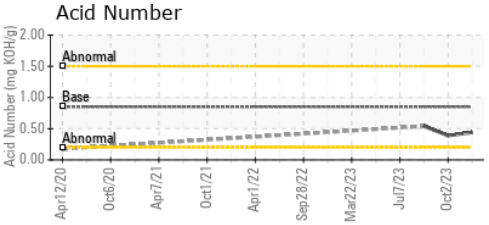
Non-ferrous Metals



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0111167 **Recieved** : 29 Dec 2023
Lab Number : 06047763 **Diagnosed** : 02 Jan 2024
Unique Number : 10808371 **Diagnostician** : Doug Bogart
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)

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