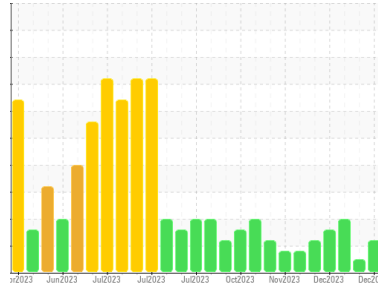




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**RIG 879**  
Machine Id  
**R879-MP-02**  
Component  
**Gearbox**  
Fluid  
**GEAR OIL ISO 320 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of particulates 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	<b>KL0013147</b>	KL0013945	KL0013185	
Sample Date	Client Info	<b>28 Dec 2023</b>	14 Dec 2023	06 Dec 2023	
Machine Age	hrs	Client Info	<b>43803</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>ATTENTION</b>	NORMAL	ABNORMAL	

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	<b>23</b>	16	8
Chromium	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m >50	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>3</b>	4	1
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>3</b>	4	2
Barium	ppm	ASTM D5185m 15	<b>3</b>	3	0
Molybdenum	ppm	ASTM D5185m 15	<b>&lt;1</b>	2	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 50	<b>3</b>	2	6
Calcium	ppm	ASTM D5185m 50	<b>32</b>	16	23
Phosphorus	ppm	ASTM D5185m 350	<b>136</b>	207	142
Zinc	ppm	ASTM D5185m 100	<b>71</b>	104	76
Sulfur	ppm	ASTM D5185m 12500	<b>8848</b>	12767	8804

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	<b>10</b>	12	8
Sodium	ppm	ASTM D5185m	<b>32</b>	6	7
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	0
Water	%	ASTM D6304 >0.2	<b>0.132</b>	0.121	---
ppm Water	ppm	ASTM D6304 >2000	<b>1320</b>	1210	---

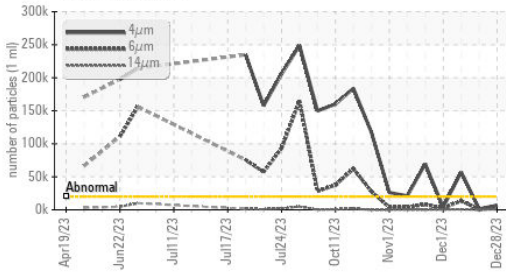
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	<b>6942</b>	1262	▲ 57104
Particles >6µm	ASTM D7647 >5000	<b>3782</b>	687	▲ 13537
Particles >14µm	ASTM D7647 >640	▲ <b>644</b>	117	▲ 821
Particles >21µm	ASTM D7647 >160	▲ <b>217</b>	39	▲ 169
Particles >38µm	ASTM D7647 >40	<b>33</b>	6	4
Particles >71µm	ASTM D7647 >10	<b>3</b>	1	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ <b>20/19/17</b>	17/17/14	▲ 23/21/17

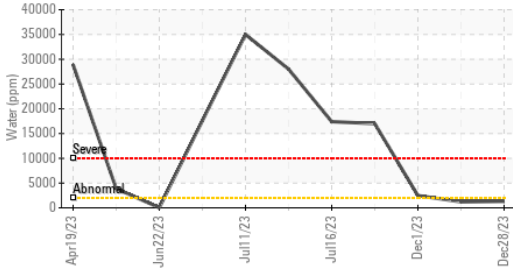
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	<b>0.42</b>	0.41	0.42

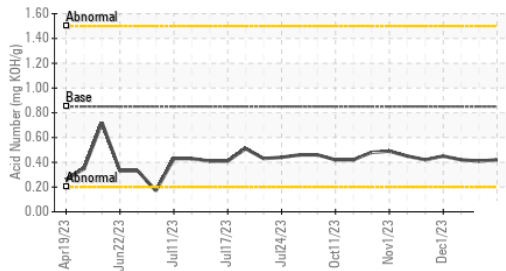
### Particle Trend



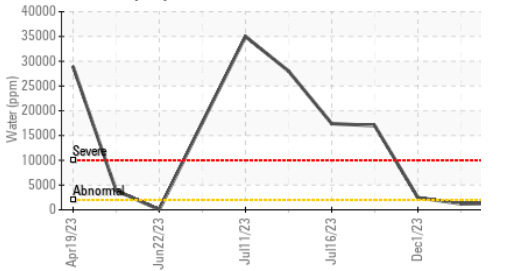
### Water (KF)



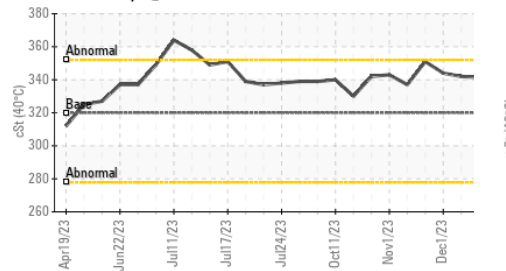
### Acid Number



### Water (KF)



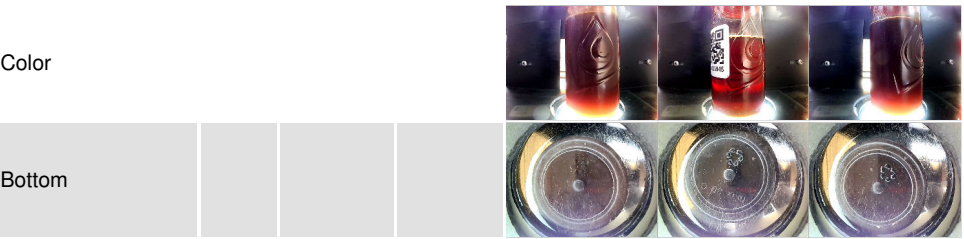
### Viscosity @ 40°C



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	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

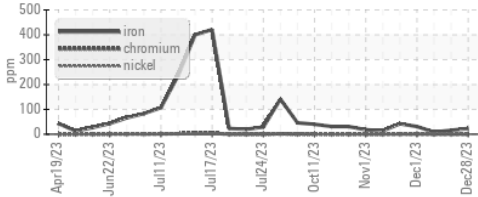
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 320	342	341.4	342

### SAMPLE IMAGES

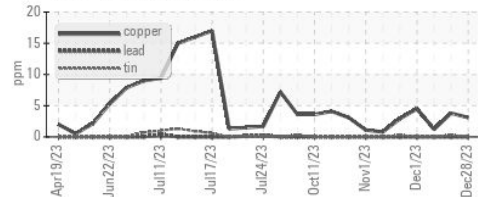


### GRAPHS

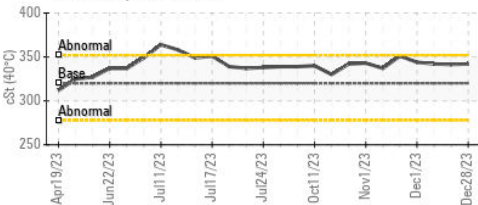
#### Ferrous Alloys



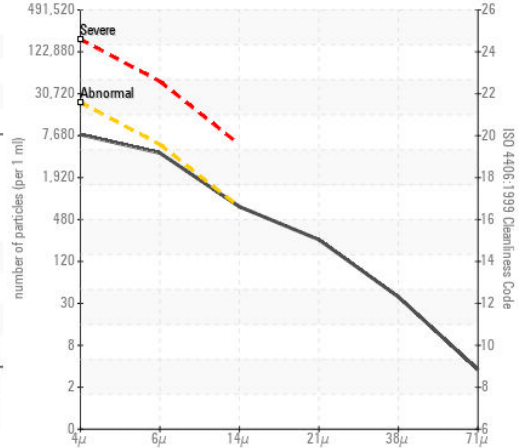
#### Non-ferrous Metals



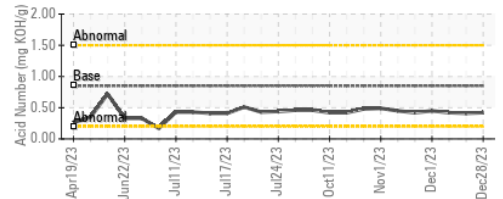
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013147 **Received** : 08 Jan 2024  
**Lab Number** : 06054768 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10820717 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KF, 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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