



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**TR-2**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC06062683</b>	WC06043239	WC05605117
Sample Date		Client Info		<b>15 Jan 2024</b>	20 Dec 2023	28 Jul 2022
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	3	1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

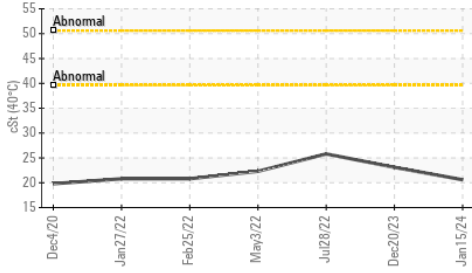
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	2
Water	%	ASTM D6304	>0.05	<b>0.004</b>	0.007	0.018
ppm Water	ppm	ASTM D6304	>500	<b>44</b>	79	183.1
Particles >4µm		ASTM D7647	>5000	<b>---</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>---</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>---</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>---</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>---</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>---</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>---</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	NONE
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

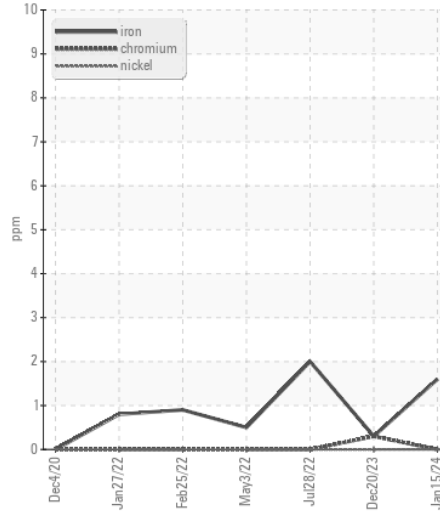
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>&lt;1</b>	1	4
Phosphorus	ppm	ASTM D5185m		<b>307</b>	353	234
Zinc	ppm	ASTM D5185m		<b>0</b>	0	5
Sulfur	ppm	ASTM D5185m		<b>4390</b>	4514	4021
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.80</b>	0.78	0.56
Visc @ 40°C	cSt	ASTM D445		▲ <b>20.6</b>	23.1	25.8

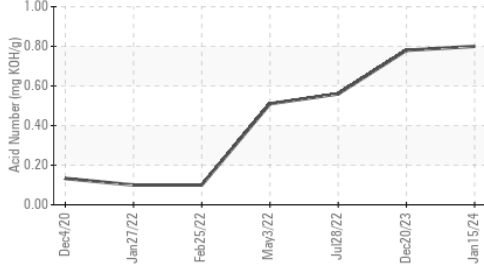
▲ Viscosity @ 40°C



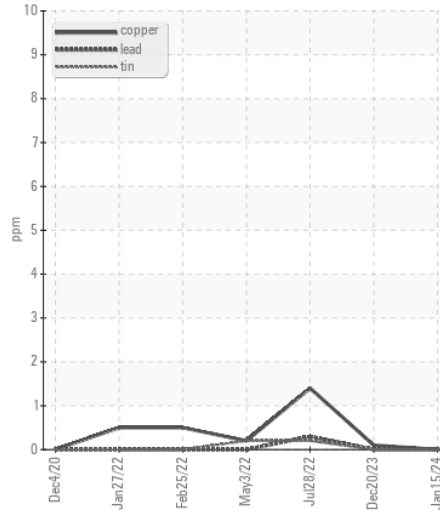
Ferrous Alloys



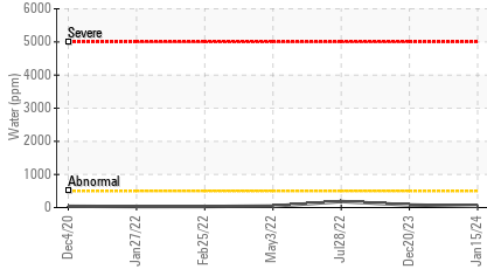
Acid Number



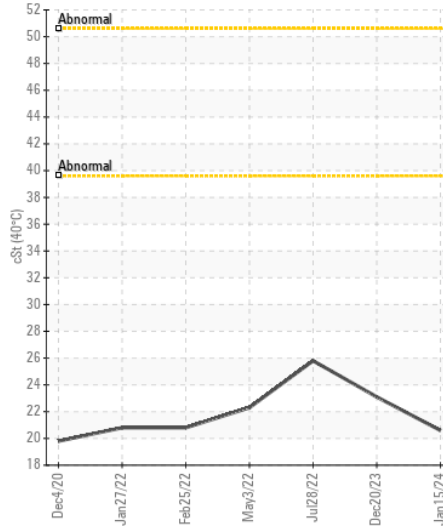
Non-ferrous Metals



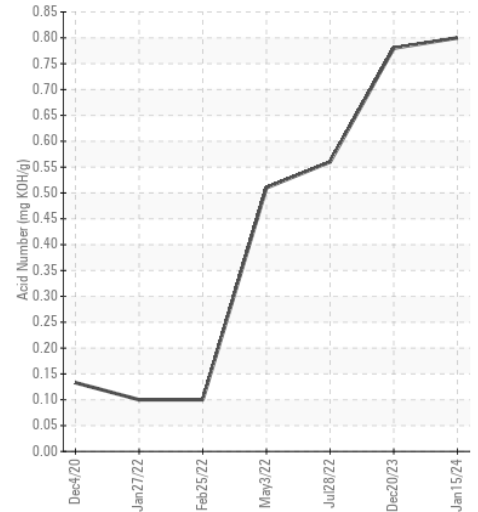
Water (KF)



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06062683 **Received** : 17 Jan 2024  
**Lab Number** : 06062683 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10834065 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF )

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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