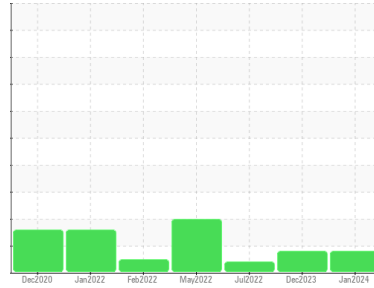




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



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

DIAGNOSIS

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.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris 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		WC06062683	WC06043239	WC05605117
Sample Date	Client Info		15 Jan 2024	20 Dec 2023	28 Jul 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	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	2	<1	2
Chromium	ppm	ASTM D5185m >20	0	<1	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	<1	2
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >20	1	3	1
Lead	ppm	ASTM D5185m >20	0	0	<1
Copper	ppm	ASTM D5185m >20	0	<1	1
Tin	ppm	ASTM D5185m >20	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	<1	<1	<1
Calcium	ppm	ASTM D5185m	<1	1	4
Phosphorus	ppm	ASTM D5185m	307	353	234
Zinc	ppm	ASTM D5185m	0	0	5
Sulfur	ppm	ASTM D5185m	4390	4514	4021

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	0	0	<1
Potassium	ppm	ASTM D5185m >20	<1	2	2
Water	%	ASTM D6304 >0.05	0.004	0.007	0.018
ppm Water	ppm	ASTM D6304 >500	44	79	183.1

FLUID CLEANLINESS

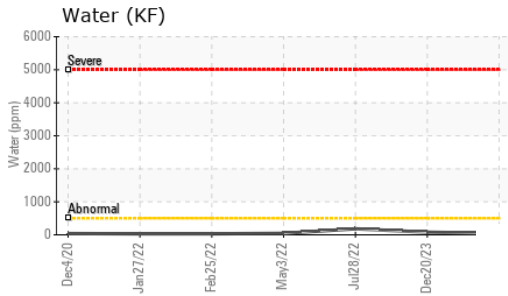
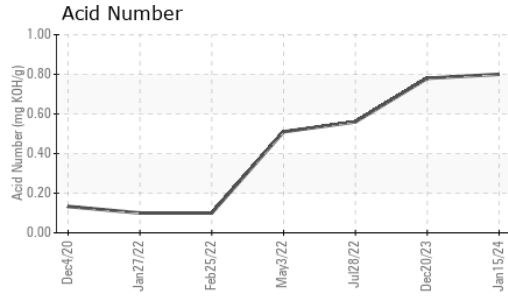
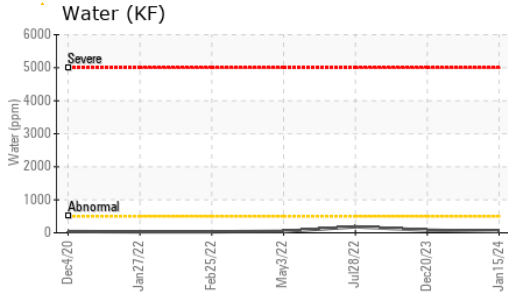
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	---	---
Particles >6µm	ASTM D7647	>1300	---	---	---
Particles >14µm	ASTM D7647	>160	---	---	---
Particles >21µm	ASTM D7647	>40	---	---	---
Particles >38µm	ASTM D7647	>10	---	---	---
Particles >71µm	ASTM D7647	>3	---	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.80	0.78	0.56



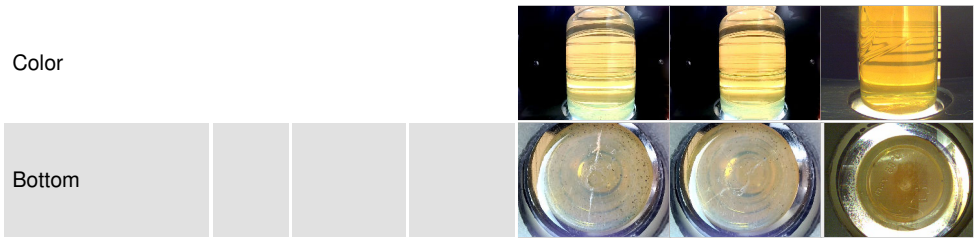
OIL ANALYSIS REPORT



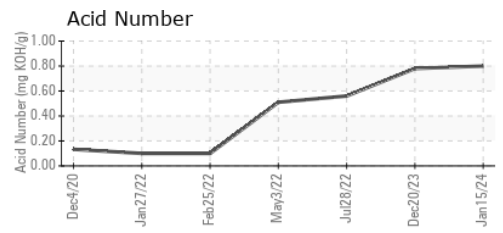
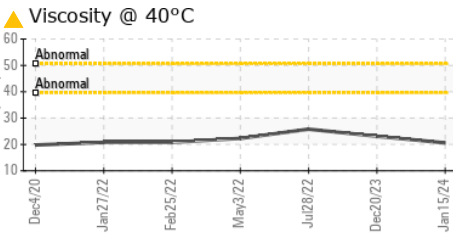
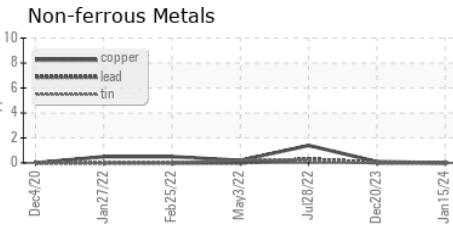
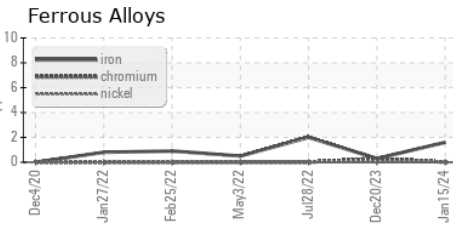
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	▲ MODER	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	▲ 20.6	23.1	25.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



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

METALUBE INC
 56 CYPRESS DR
 YOUNGSVILLE, NC
 US 27596
 Contact: CHRIS BARNES
 cbarnes@metalubeinc.com
 T: (919)554-3024
 F: (919)554-3023

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)