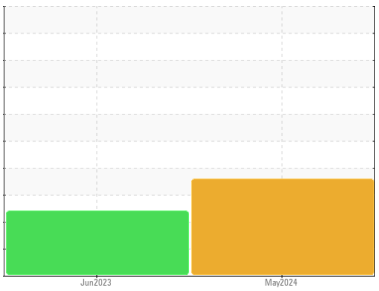
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
[23256]
Machine Id
Komatsu
Component
Hydraulic System
Fluid
CONOCO MEGAFLOW AW 46 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. 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
There is a light concentration of water present in the oil. There is a moderate amount of visible silt present in the sample.

Fluid Condition
The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0923342**	WC0818737	---
Sample Date		Client Info		**02 May 2024**	20 Jun 2023	---
Machine Age	hrs	Client Info		**7304**	6286	---
Oil Age	hrs	Client Info		**2000**	2286	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**16**	22	---
Chromium	ppm	ASTM D5185m	>10	**0**	<1	---
Nickel	ppm	ASTM D5185m	>10	**0**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	**2**	2	---
Lead	ppm	ASTM D5185m	>10	**0**	0	---
Copper	ppm	ASTM D5185m	>75	**4**	3	---
Tin	ppm	ASTM D5185m	>10	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**24**	13	---
Barium	ppm	ASTM D5185m		**<1**	0	---
Molybdenum	ppm	ASTM D5185m		**2**	9	---
Manganese	ppm	ASTM D5185m		**0**	<1	---
Magnesium	ppm	ASTM D5185m		**15**	33	---
Calcium	ppm	ASTM D5185m		● **1955**	255	---
Phosphorus	ppm	ASTM D5185m		**721**	283	---
Zinc	ppm	ASTM D5185m		**799**	315	---
Sulfur	ppm	ASTM D5185m		● **3114**	1620	---

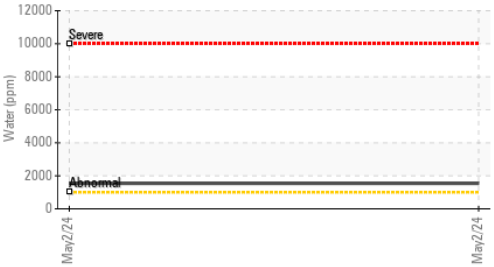
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**11**	▲ 23	---
Sodium	ppm	ASTM D5185m		**3**	2	---
Potassium	ppm	ASTM D5185m	>20	**<1**	5	---
Water	%	ASTM D6304	>0.1	▲ **0.154**	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ **1540**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	▲ 53222	---
Particles >6µm		ASTM D7647	>1300	**---**	1089	---
Particles >14µm		ASTM D7647	>160	**---**	60	---
Particles >21µm		ASTM D7647	>40	**---**	13	---
Particles >38µm		ASTM D7647	>10	**---**	0	---
Particles >71µm		ASTM D7647	>3	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	▲ 23/17/13	---

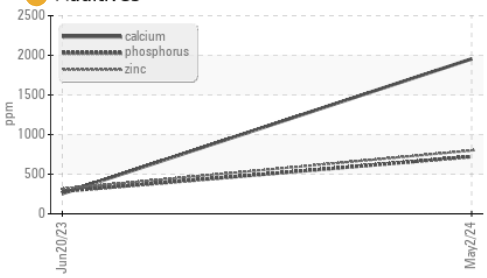
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.38	**0.83**	0.33	---

OIL ANALYSIS REPORT

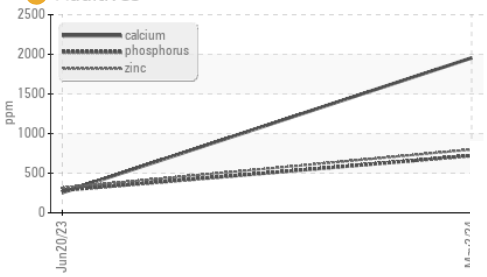
Water (KF)



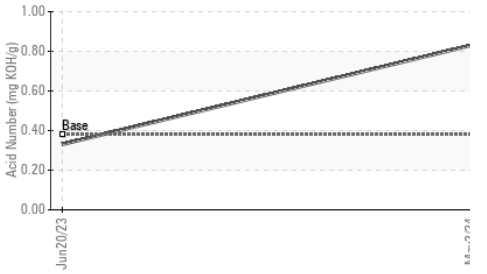
Additives



Additives

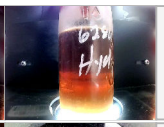


Acid Number



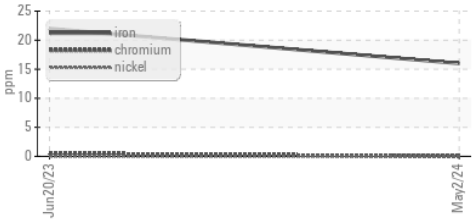
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.1	**0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	● **35.25**	39.6	---

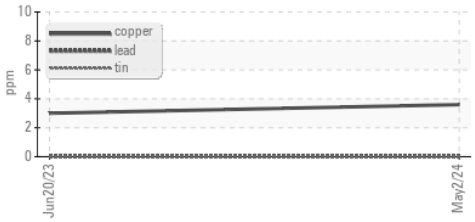
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

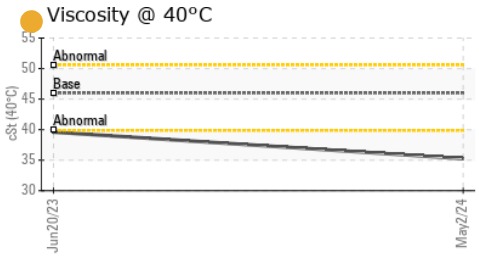
Ferrous Alloys



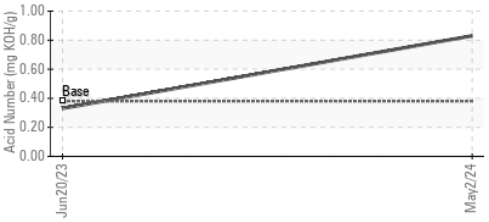
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0923342 **Received** : 11 Jun 2024
Lab Number : 06207062 **Tested** : 19 Jun 2024
Unique Number : 11074523 **Diagnosed** : 19 Jun 2024 - Jonathan Hester
Test Package : CONST (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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Report Id: MANTUL [WUSCAR] 06207062 (Generated: 06/22/2024 21:20:02) Rev: 1

Submitted By: JAMES STEELMON