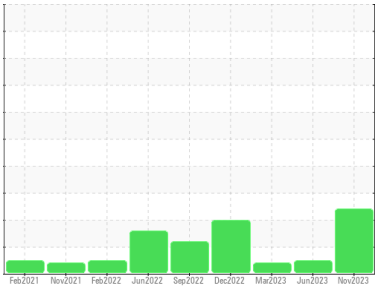
PROBLEM SUMMARY

Sample Rating Trend

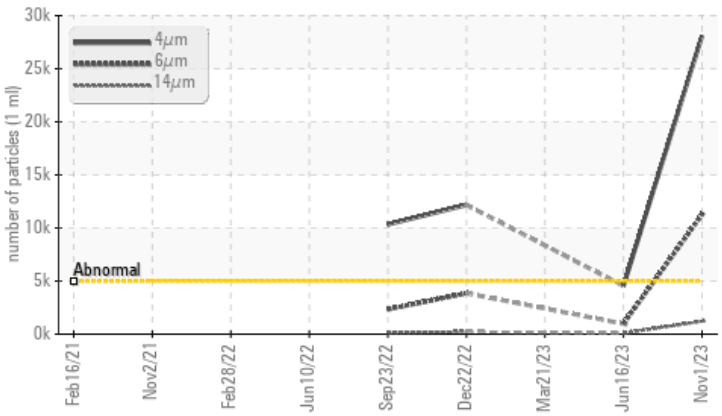


ISO

Area
Powerblock
Machine Id
KAMENGO KAMENGO HPU (S/N PHS01233RER)
Component
Bulk Fluid Tank
Fluid
Royal Purple biomass EAL hydraulic oil 46 (--- GAL)

COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **28098**	4540	---
Particles >6µm		ASTM D7647	>1300	▲ **11249**	972	---
Particles >14µm		ASTM D7647	>160	▲ **1210**	90	---
Particles >21µm		ASTM D7647	>40	▲ **346**	38	---
Particles >38µm		ASTM D7647	>10	▲ **22**	6	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/21/17**	19/17/14	---

Customer Id: VEOCAR
Sample No.: WC0814538
Lab Number: 06000164
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

16 Jun 2023 Diag: Jonathan Hester

NORMAL

This is a baseline read-out on the submitted sample.

view report

21 Mar 2023 Diag: Jonathan Hester

VIS DEBRIS

We recommend you service the filters on this component. 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.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

22 Dec 2022 Diag: Jonathan Hester

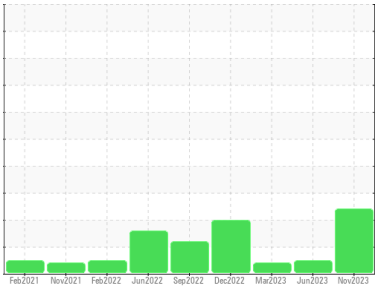
ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Powerblock
Machine Id
KAMENGO KAMENGO HPU (S/N PHS01233RER)
Component
Bulk Fluid Tank
Fluid
Royal Purple biomass EAL hydraulic oil 46 (--- GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high 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		**WC0814538**	WC0814553	WC0798557
Sample Date		Client Info		**01 Nov 2023**	16 Jun 2023	21 Mar 2023
Machine Age	mths	Client Info		**60**	26280	26280
Oil Age	mths	Client Info		**3**	26280	26280
Oil Changed		Client Info		**Filtered**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		**38**	1	2
Chromium	ppm	ASTM D5185m		**<1**	<1	<1
Nickel	ppm	ASTM D5185m		**0**	0	<1
Titanium	ppm	ASTM D5185m		**1**	2	2
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m		**0**	1	0
Lead	ppm	ASTM D5185m		**2**	2	2
Copper	ppm	ASTM D5185m		**6**	19	35
Tin	ppm	ASTM D5185m		**<1**	2	4
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**0**	2	3
Calcium	ppm	ASTM D5185m		**86**	105	63
Phosphorus	ppm	ASTM D5185m		**515**	653	520
Zinc	ppm	ASTM D5185m		**23**	18	51
Sulfur	ppm	ASTM D5185m		**6319**	8569	6456

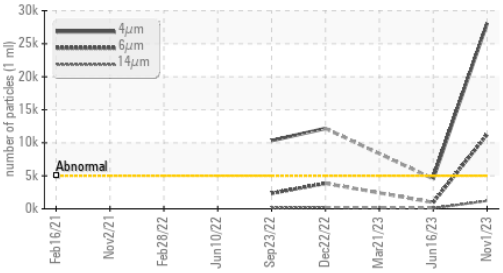
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		**0**	<1	0
Sodium	ppm	ASTM D5185m		**5**	<1	1
Potassium	ppm	ASTM D5185m	>20	**2**	1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **28098**	4540	---
Particles >6µm		ASTM D7647	>1300	▲ **11249**	972	---
Particles >14µm		ASTM D7647	>160	▲ **1210**	90	---
Particles >21µm		ASTM D7647	>40	▲ **346**	38	---
Particles >38µm		ASTM D7647	>10	▲ **22**	6	---
Particles >71µm		ASTM D7647	>3	**2**	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/21/17**	19/17/14	---

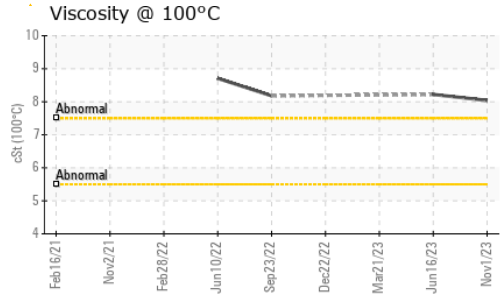
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.29**	1.82	1.94

OIL ANALYSIS REPORT

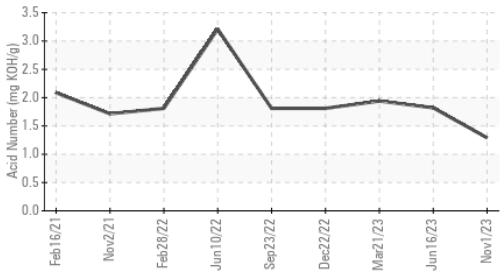
Particle Trend



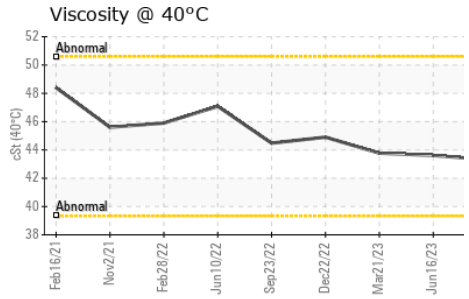
Viscosity @ 100°C



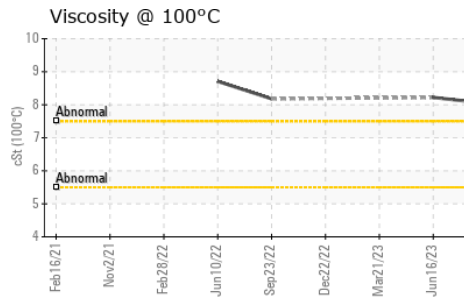
Acid Number



Viscosity @ 40°C

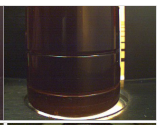
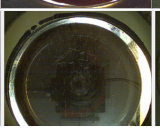
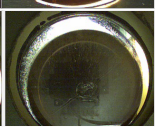


Viscosity @ 100°C



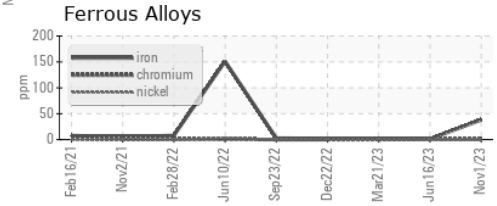
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	▲ MODER
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**43.31**	43.61	43.77
Visc @ 100°C	cSt	ASTM D445		**8.04**	8.22	---
Viscosity Index (VI)	Scale	ASTM D2270		**160**	166	---

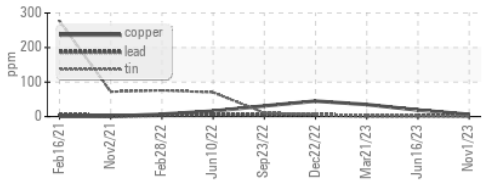
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

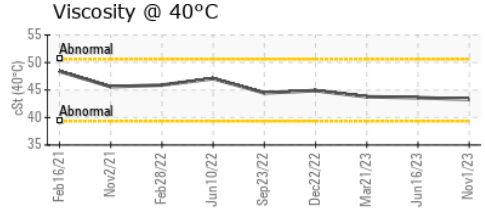
Ferrous Alloys



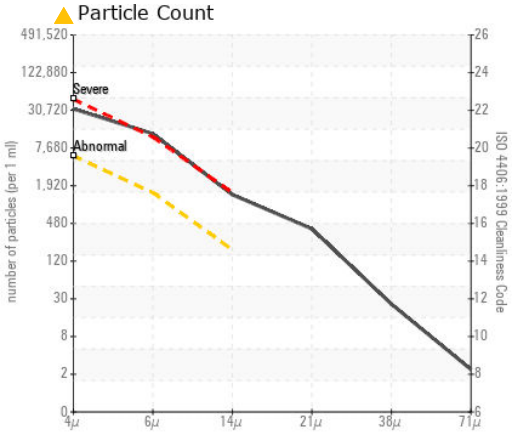
Non-ferrous Metals



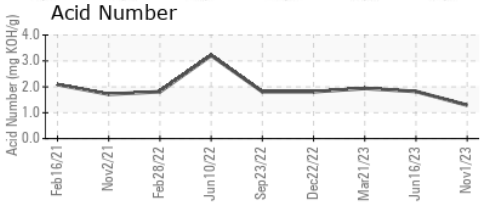
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0814538 **Received** : 06 Nov 2023
Lab Number : 06000164 **Diagnosed** : 13 Nov 2023
Unique Number : 10728524 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KV100, PrtCount, VI)

Certificate L2367

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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