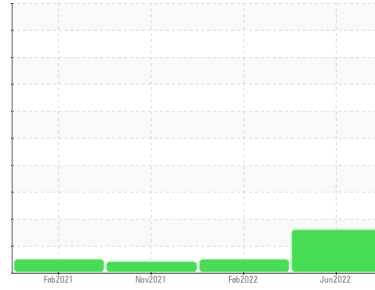




PROBLEM SUMMARY

Sample Rating Trend



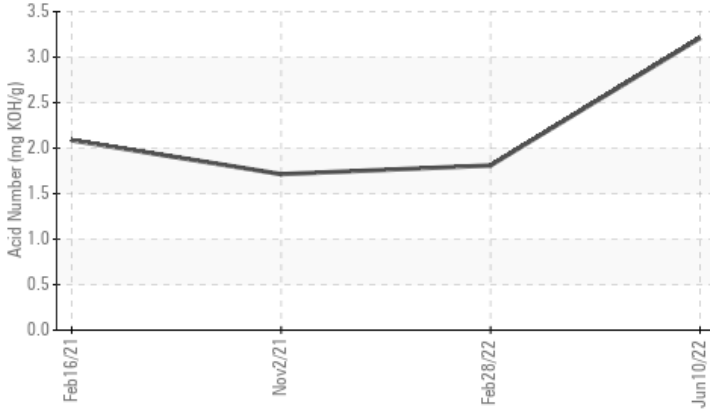
DEGRADATION



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

▲ Acid Number



RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	ABNORMAL
Acid Number (AN)	mg KOH/g ASTM D8045	▲ 3.21	1.81	1.714
Debris	scalar *Visual NONE	▲ MODER	LIGHT	▲ MODER

Customer Id: VEOCAR
 Sample No.: WC0685262
 Lab Number: 05581672
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Service/change Fluid	MISSED	Sep 29 2022	?	The oil is near the end of it's useful service life, recommend schedule an oil change.

HISTORICAL DIAGNOSIS

28 Feb 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



02 Nov 2021 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



16 Feb 2021 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

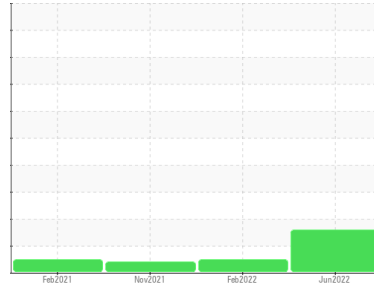
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



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 oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

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

▲ Fluid Condition

The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0685262	WC0539366	WC0539372
Sample Date	Client Info		10 Jun 2022	28 Feb 2022	02 Nov 2021
Machine Age	hrs	Client Info	26280	26280	26280
Oil Age	hrs	Client Info	26280	28440	1460
Oil Changed	Client Info		N/A	Filtered	Not Changd
Sample Status			ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	151	8	5
Chromium	ppm	ASTM D5185m	<1	<1	<1
Nickel	ppm	ASTM D5185m	3	0	0
Titanium	ppm	ASTM D5185m	3	3	3
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m	<1	1	0
Lead	ppm	ASTM D5185m	5	4	2
Copper	ppm	ASTM D5185m	16	7	1
Tin	ppm	ASTM D5185m	70	76	72
Antimony	ppm	ASTM D5185m	---	0	0
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	4
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	<1	0	0
Calcium	ppm	ASTM D5185m	29	87	84
Phosphorus	ppm	ASTM D5185m	525	516	472
Zinc	ppm	ASTM D5185m	88	66	30
Sulfur	ppm	ASTM D5185m	5838	4142	4067

CONTAMINANTS

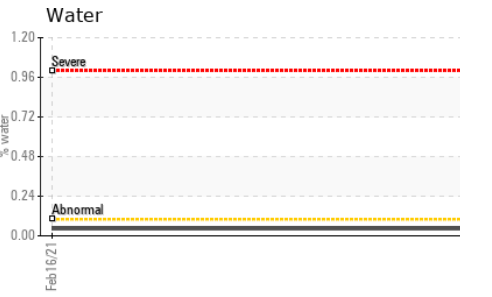
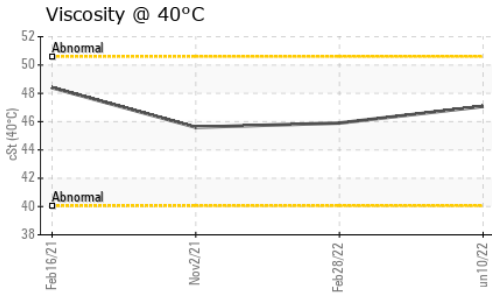
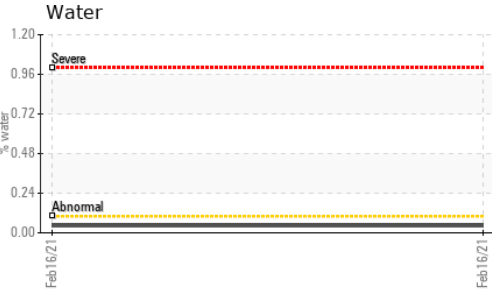
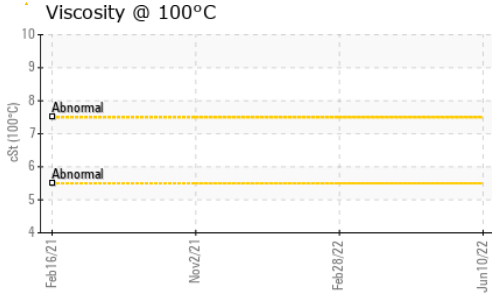
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	1	<1	<1
Sodium	ppm	ASTM D5185m	3	4	0
Potassium	ppm	ASTM D5185m	>20	0	<1
Water	%	ASTM D6304	---	---	---
ppm Water	ppm	ASTM D6304	---	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	▲ 3.21	1.81	1.714



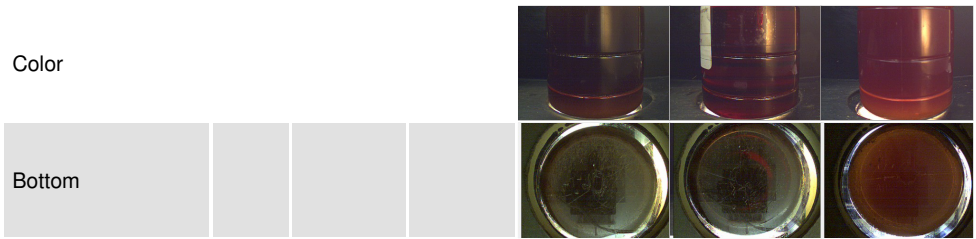
OIL ANALYSIS REPORT



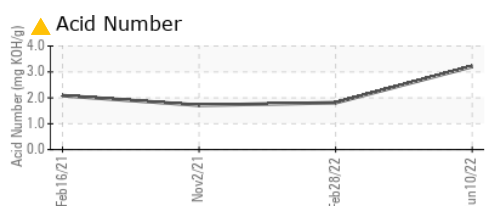
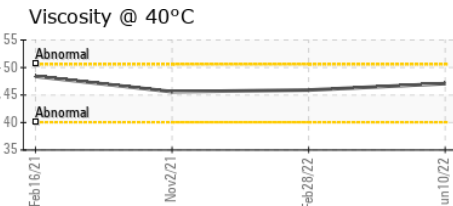
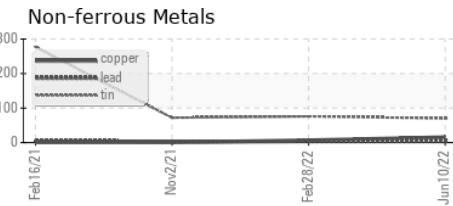
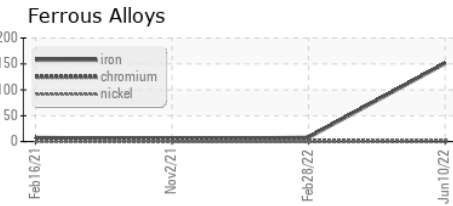
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	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	47.08	45.9	45.6
Visc @ 100°C	cSt	ASTM D445	8.71	---	---
Viscosity Index (VI)	Scale	ASTM D2270	166	---	---

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0685262 Received : 30 Jun 2022
 Lab Number : 05581672 Diagnosed : 05 Jul 2022
 Unique Number : 10036098 Diagnostician : Jonathan Hester
 Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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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