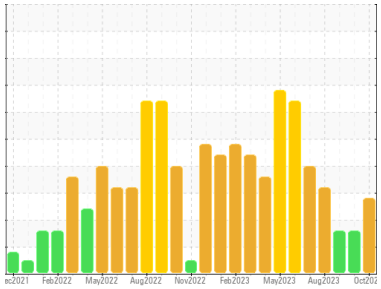
OIL DIAGNOSTICS

PROBLEM SUMMARY

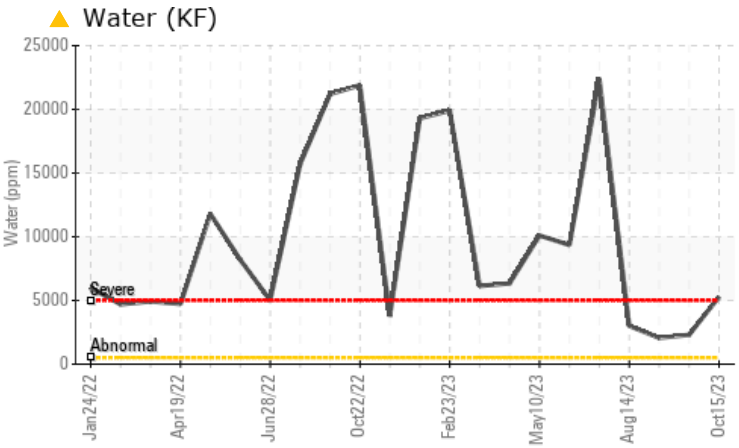
Sample Rating Trend

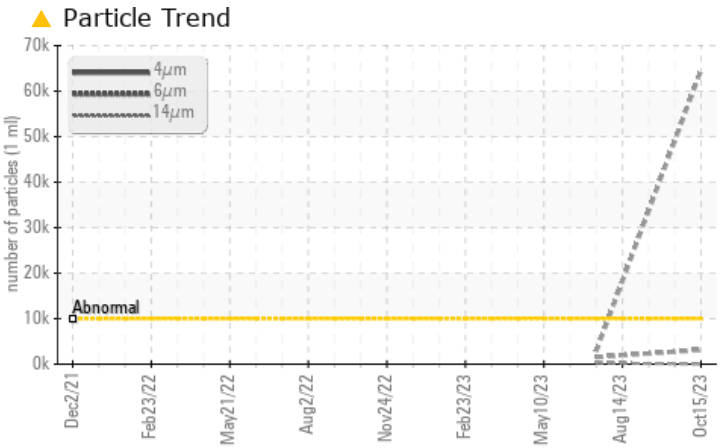


WATER

Area
[98559375]
Machine Id
KR-GR-003105 - DUMPER 1B - NORTH (S/N INJECT B - 11513036)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check for the source of water entry. We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ **0.528**	▲ 0.230	▲ 0.206
ppm Water	ppm	ASTM D6304	>500	▲ **5280**	▲ 2300	▲ 2060
Particles >4µm		ASTM D7647	>10000	▲ **64557**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **3140**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/19/10**	---	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	0.2%	0.2%

Customer Id: KRAKIR
Sample No.: PCA0108239
Lab Number: 05979585
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
Change Filter	---	---	?	We recommend you service the filters on this component.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

22 Sep 2023 Diag: Jonathan Hester

WATER

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 light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

22 Sep 2023 Diag: Jonathan Hester

WATER

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 light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

14 Aug 2023 Diag: Jonathan Hester

WATER

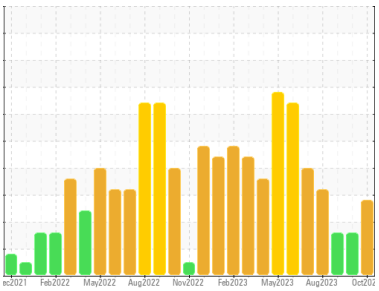
We advise that you check for the source of water entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Appearance is milky. There is a moderate concentration of water present in the oil. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
[98559375]
Machine Id
KR-GR-003105 - DUMPER 1B - NORTH (S/N INJECT B - 11513036)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0108239**	PCA0100857	PCA0091776
Sample Date		Client Info		**15 Oct 2023**	22 Sep 2023	22 Sep 2023
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	**10**	5	4
Chromium	ppm	ASTM D5185m	>20	**2**	1	<1
Nickel	ppm	ASTM D5185m	>20	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	<1	<1
Copper	ppm	ASTM D5185m	>20	**1**	<1	5
Tin	ppm	ASTM D5185m	>20	**0**	0	<1
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	5	**0**	0	0
Barium	ppm	ASTM D5185m	5	**0**	2	2
Molybdenum	ppm	ASTM D5185m	5	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m	25	**0**	1	<1
Calcium	ppm	ASTM D5185m	200	**9**	10	3
Phosphorus	ppm	ASTM D5185m	300	**457**	446	427
Zinc	ppm	ASTM D5185m	370	**72**	69	48
Sulfur	ppm	ASTM D5185m	2500	**882**	946	963

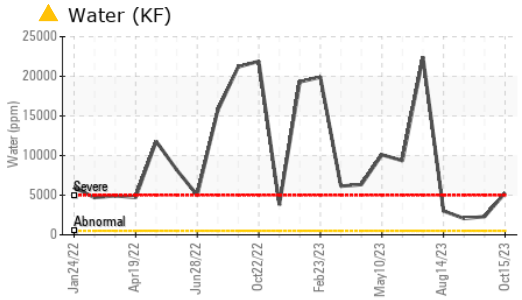
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**3**	3	2
Sodium	ppm	ASTM D5185m		**3**	1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.05	▲ **0.528**	▲ 0.230	▲ 0.206
ppm Water	ppm	ASTM D6304	>500	▲ **5280**	▲ 2300	▲ 2060

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **64557**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **3140**	---	---
Particles >14µm		ASTM D7647	>640	**10**	---	---
Particles >21µm		ASTM D7647	>160	**2**	---	---
Particles >38µm		ASTM D7647	>40	**0**	---	---
Particles >71µm		ASTM D7647	>10	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/19/10**	---	---

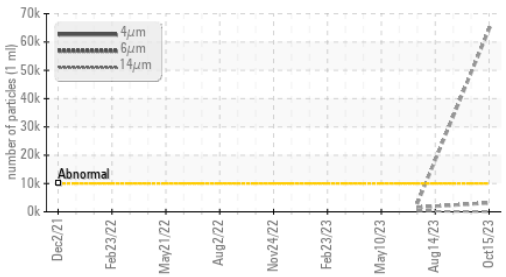
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.28**	---	---

OIL ANALYSIS REPORT

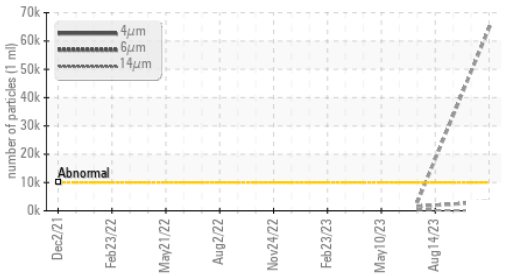
Water (KF)



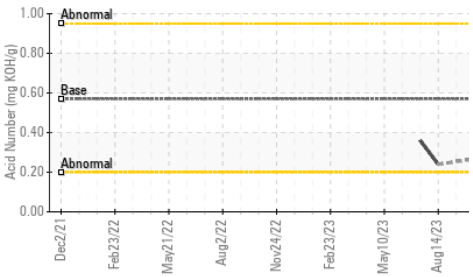
Particle Trend



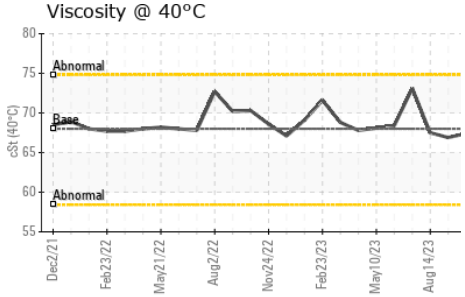
Particle Trend



Acid Number



Viscosity @ 40°C



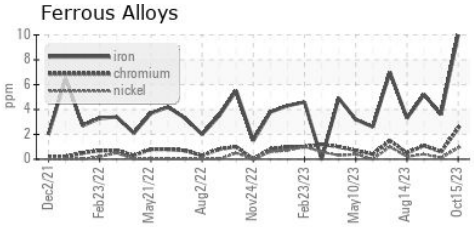
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	**68.5**	67.4	66.9

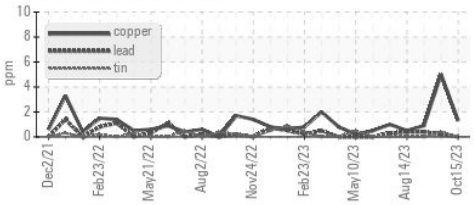
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

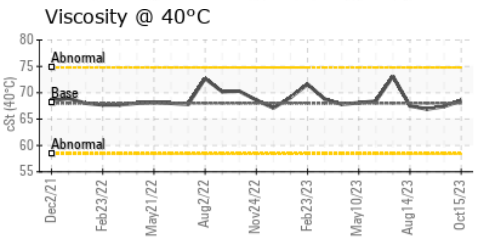
Ferrous Alloys



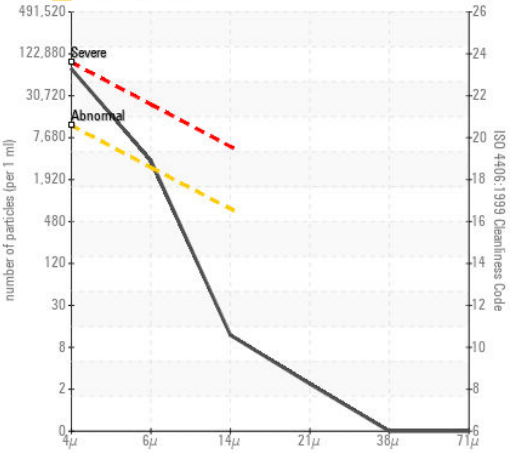
Non-ferrous Metals



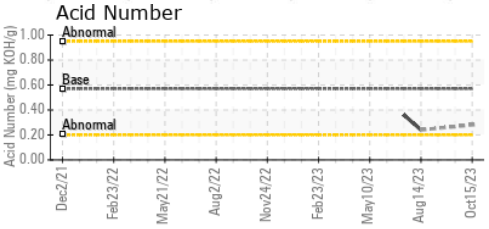
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108239 **Received** : 16 Oct 2023
Lab Number : 05979585 **Diagnosed** : 19 Oct 2023
Unique Number : 10696880 **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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