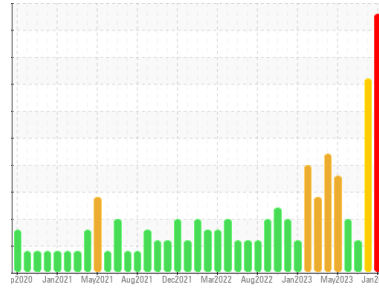


PROBLEM SUMMARY

Area
PROCESS CHEESE [98778593]
Machine Id
4625-CMX
Component
Pump
Fluid
R&O OIL ISO 68 (--- GAL)

Sample Rating Trend

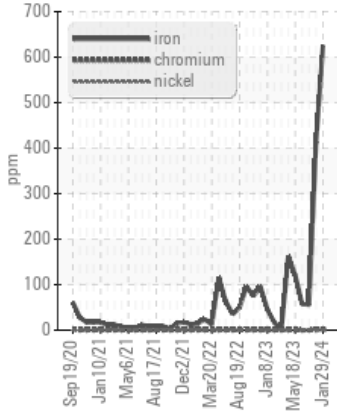


WEAR

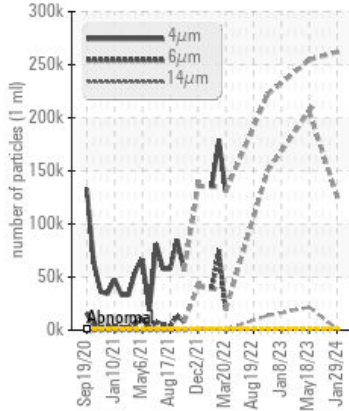


COMPONENT CONDITION SUMMARY

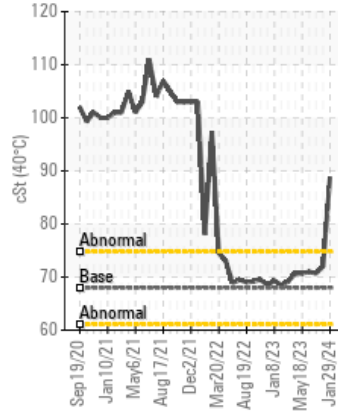
Ferrous Alloys



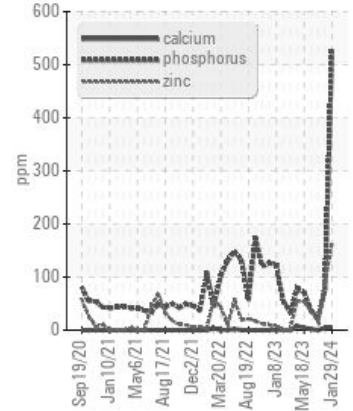
Particle Trend



Viscosity @ 40°C



Additives



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m >90	625	413	56
Particles >4µm		ASTM D7647 >1300	261932	---	---
Particles >6µm		ASTM D7647 >320	126331	---	---
Particles >14µm		ASTM D7647 >80	954	---	---
Particles >21µm		ASTM D7647 >20	129	---	---
Oil Cleanliness		ISO 4406 (c) >17/15/13	25/24/17	---	---

Customer Id: KRASPRMO
Sample No.: PCA0096802
Lab Number: 06079771
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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

11 Nov 2023 Diag: Don Baldrige

WEAR



Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. The iron level is severe. Appearance is hazy. High concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.

view report



15 Aug 2023 Diag: Angela Borella

SEDIMENT



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. High concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



12 Jun 2023 Diag: Don Baldrige

WATER



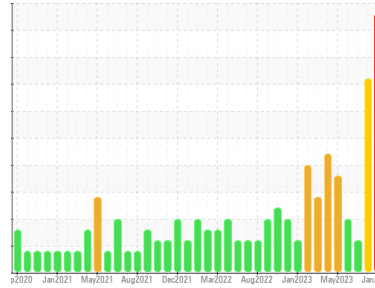
The oil change at the time of sampling has been noted. We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a light concentration of water present in the oil. High concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
PROCESS CHEESE [98778593]
 Machine Id
4625-CMX
 Component
Pump
 Fluid
R&O OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

The iron level is severe.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0096802	PCA0096855	PCA0081541
Sample Date	Client Info		29 Jan 2024	11 Nov 2023	15 Aug 2023
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	1	1	1
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	625	413	56
Chromium	ppm	ASTM D5185m >5	2	2	0
Nickel	ppm	ASTM D5185m >5	<1	<1	0
Titanium	ppm	ASTM D5185m >3	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	<1	2	0
Lead	ppm	ASTM D5185m >12	<1	0	0
Copper	ppm	ASTM D5185m >30	<1	1	<1
Tin	ppm	ASTM D5185m >9	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0	0
Barium	ppm	ASTM D5185m 5	0	4	0
Molybdenum	ppm	ASTM D5185m 5	0	<1	0
Manganese	ppm	ASTM D5185m	4	3	<1
Magnesium	ppm	ASTM D5185m 5	0	<1	<1
Calcium	ppm	ASTM D5185m 5	5	5	0
Phosphorus	ppm	ASTM D5185m 100	529	76	22
Zinc	ppm	ASTM D5185m 25	163	89	15
Sulfur	ppm	ASTM D5185m 1500	1206	0	4

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	4	4	1
Sodium	ppm	ASTM D5185m	6	5	2
Potassium	ppm	ASTM D5185m >20	<1	2	0

FLUID CLEANLINESS

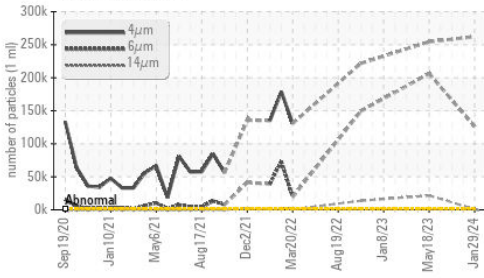
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	261932	---	---
Particles >6µm	ASTM D7647	>320	126331	---	---
Particles >14µm	ASTM D7647	>80	954	---	---
Particles >21µm	ASTM D7647	>20	129	---	---
Particles >38µm	ASTM D7647	>4	3	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>17/15/13	25/24/17	---	---

FLUID DEGRADATION

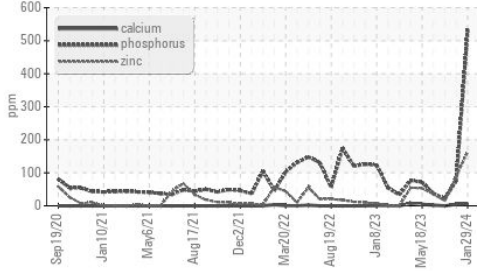
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.08	0.13	0.091	0.11

OIL ANALYSIS REPORT

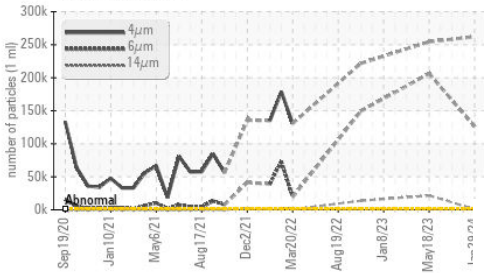
▲ Particle Trend



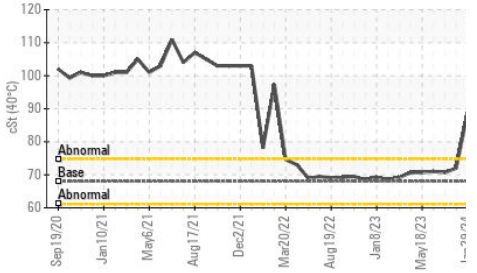
▲ Additives



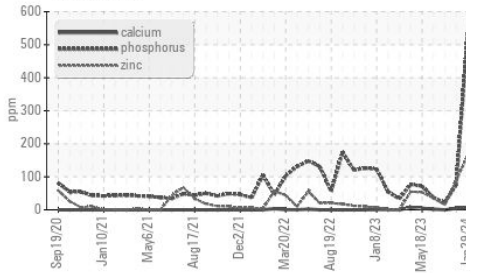
▲ Particle Trend



▲ Viscosity @ 40°C



▲ Additives



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	▲ MODER
Debris	scalar	*Visual	NONE	▲ LIGHT	▲ HEAVY
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	▲ 88.8	72.0	70.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

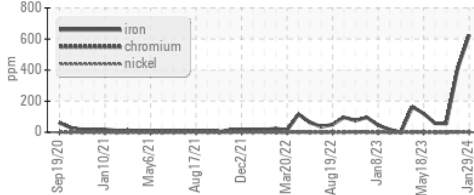


Bottom

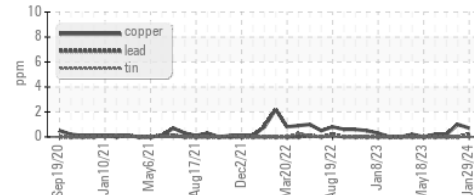


GRAPHS

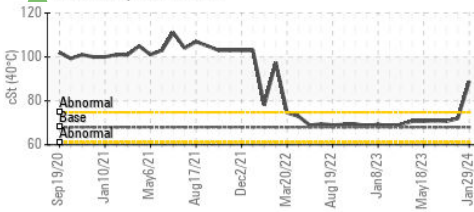
● Ferrous Alloys



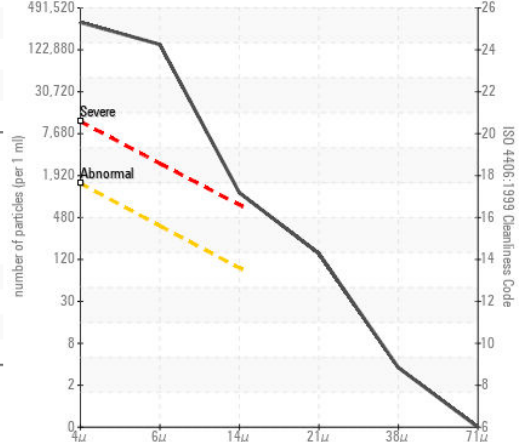
● Non-ferrous Metals



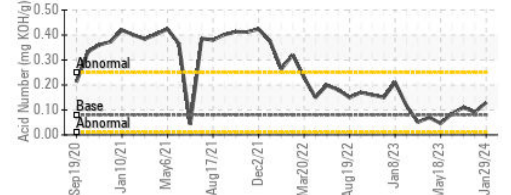
▲ Viscosity @ 40°C



▲ Particle Count



▲ Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096802 **Received** : 05 Feb 2024
Lab Number : 06079771 **Tested** : 06 Feb 2024
Unique Number : 10861862 **Diagnosed** : 07 Feb 2024
Test Package : IND 2 (Additional Tests: PrtCount)

KraftHeinz - Springfield - Plant 8311 PCA
 2035 E BENNETT
 SPRINGFIELD, MO
 US 65804
 Contact: Service Manager

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)

T:
F: