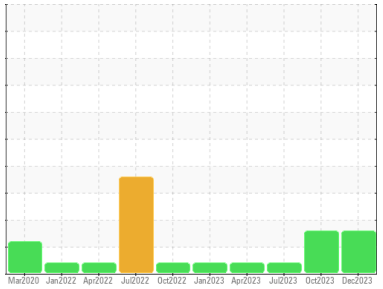
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
TUMBLE ROOM [98650913]
Machine Id
KR-GR-003068 - TUMBLER 3 (S/N TUMBLE ROOM - 11513091)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. (Customer Sample Comment: 98650913)

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0114842**	PCA0106052	PCA0096609
Sample Date		Client Info		**20 Dec 2023**	25 Oct 2023	17 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	0	3
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>20	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	<1
Lead	ppm	ASTM D5185m	>20	**0**	0	<1
Copper	ppm	ASTM D5185m	>20	**4**	3	4
Tin	ppm	ASTM D5185m	>20	**0**	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	5	**0**	0	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	25	**0**	4	1
Calcium	ppm	ASTM D5185m	200	**0**	5	2
Phosphorus	ppm	ASTM D5185m	300	**337**	400	401
Zinc	ppm	ASTM D5185m	370	**2**	37	51
Sulfur	ppm	ASTM D5185m	2500	**884**	1226	1458

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**4**	4	3
Sodium	ppm	ASTM D5185m		**3**	0	<1
Potassium	ppm	ASTM D5185m	>20	**2**	0	0

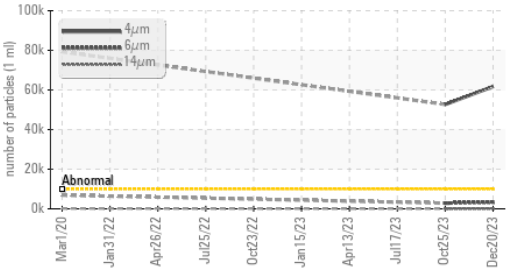
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **61733**	▲ 52670	---
Particles >6µm		ASTM D7647	>2500	▲ **3332**	▲ 2854	---
Particles >14µm		ASTM D7647	>640	**70**	13	---
Particles >21µm		ASTM D7647	>160	**18**	2	---
Particles >38µm		ASTM D7647	>40	**1**	0	---
Particles >71µm		ASTM D7647	>10	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/19/13**	▲ 23/19/11	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.18**	0.19	---

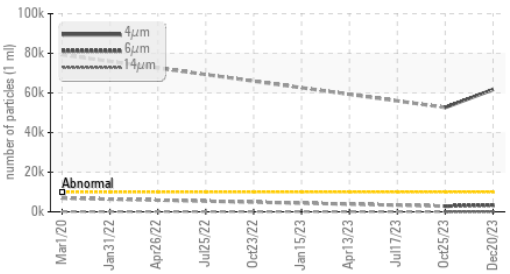
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

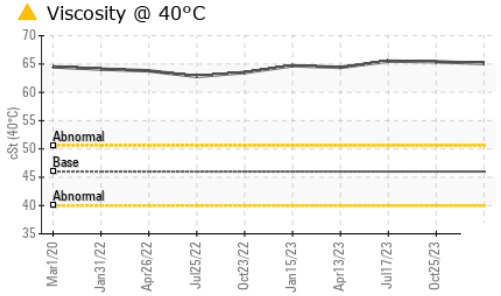
Particle Trend



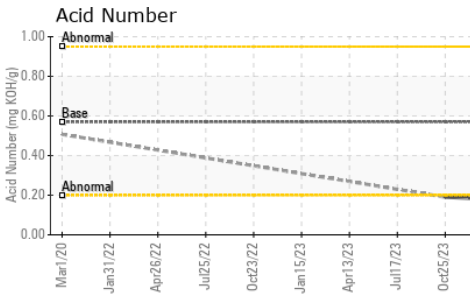
Particle Trend



Viscosity @ 40°C



Acid Number



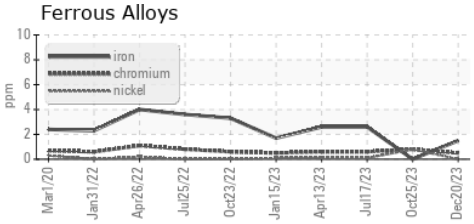
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	▲ **65.1**	▲ 65.4	▲ 65.5

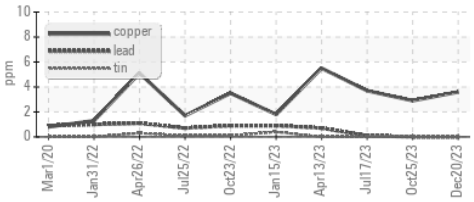
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

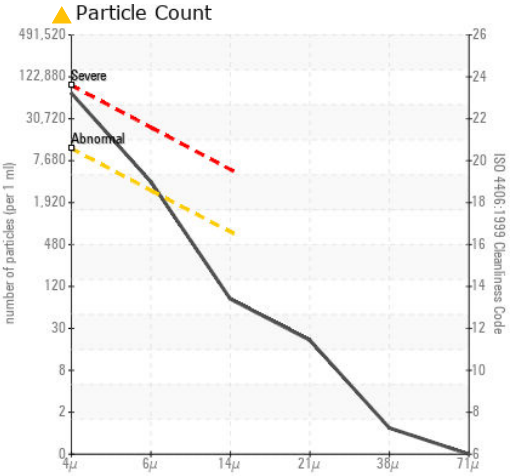
Ferrous Alloys



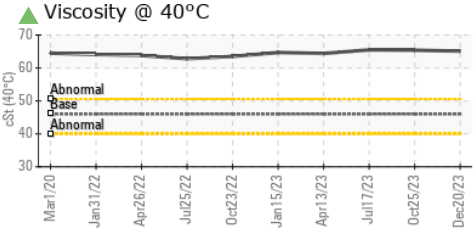
Non-ferrous Metals



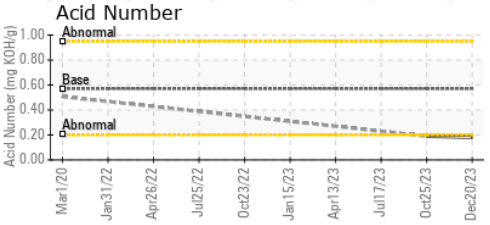
Particle Count



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0114842
Lab Number : 06047748
Unique Number : 10808356
Test Package : IND 2

Recieved : 29 Dec 2023
Diagnosed : 02 Jan 2024
Diagnostician : Don Baldridge

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)

KraftHeinz - Kirksville - Plant 8333 PCA
2504 INDUSTRIAL DR
KIRKSVILLE, MO
US 63501
Contact: WALLACE WARD
wallace.ward@kraftheinzcompany.com
T: (660)627-1031
F: (660)627-5887