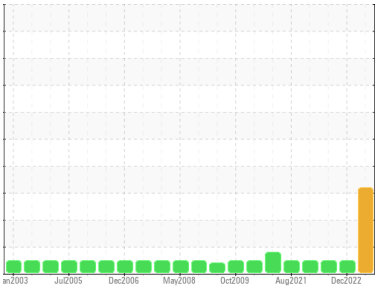
OIL DIAGNOSTICS

PROBLEM SUMMARY

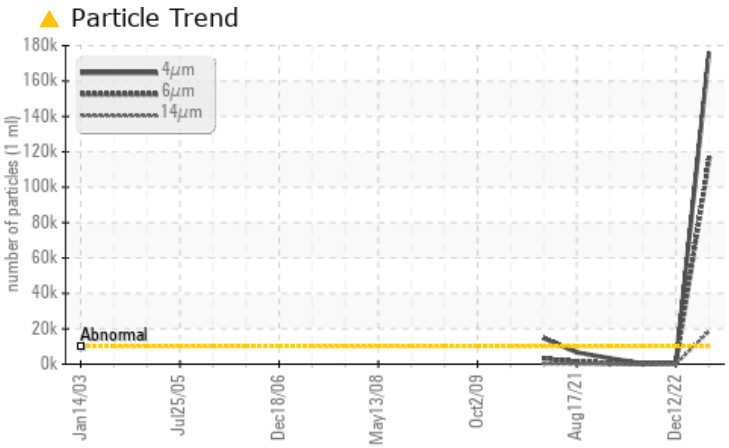
Sample Rating Trend



ISO

Machine Id
COMP 5 (S/N 2012839)
Component
Refrigeration Compressor
Fluid
CAMCO 717 SC (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Particles >4µm		ASTM D7647	>10000	▲ **176179**	666	328
Particles >6µm		ASTM D7647	>2500	▲ **115588**	189	83
Particles >14µm		ASTM D7647	>640	▲ **18513**	14	8
Particles >21µm		ASTM D7647	>160	▲ **5101**	4	2
Particles >38µm		ASTM D7647	>40	▲ **242**	0	0
Particles >71µm		ASTM D7647	>10	▲ **12**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **25/24/21**	17/15/11	16/14/10
Debris	scalar	*Visual	NONE	▲ **VHEVY**	NONE	NONE

Customer Id: KRANEW
Sample No.: PCA0092038
Lab Number: 05811625
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.

HISTORICAL DIAGNOSIS

12 Dec 2022 Diag: Angela Borella

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 amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

20 Jul 2022 Diag: Don Baldridge

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 amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

11 Jan 2022 Diag: Doug Bogart

NORMAL

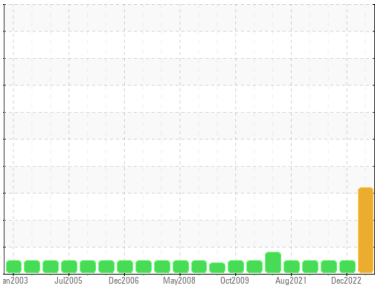
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further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

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
COMP 5 (S/N 2012839)
Component
Refrigeration Compressor
Fluid
CAMCO 717 SC (--- GAL)

DIAGNOSIS

Recommendation
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 particulates present in the oil. Very high concentration of visible dirt/debris 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		**PCA0092038**	PCA0080231	PCA0078688
Sample Date		Client Info		**03 Apr 2023**	12 Dec 2022	20 Jul 2022
Machine Age	hrs	Client Info		**50000**	8957	6892
Oil Age	hrs	Client Info		**10000**	22104	20039
Oil Changed		Client Info		**N/A**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**17**	0	0
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**0**	<1	0
Lead	ppm	ASTM D5185m	>10	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**1**	0	0
Tin	ppm	ASTM D5185m	>10	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
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**	<1	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**0**	<1	0
Calcium	ppm	ASTM D5185m		**13**	0	0
Phosphorus	ppm	ASTM D5185m		**44**	33	4
Zinc	ppm	ASTM D5185m		**0**	6	0
Sulfur	ppm	ASTM D5185m		**618**	0	62

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	0	<1
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	0
Water	%	ASTM D6304	>0.01	**0.009**	0.003	0.003
ppm Water	ppm	ASTM D6304	>100	**90.6**	30.9	27.2

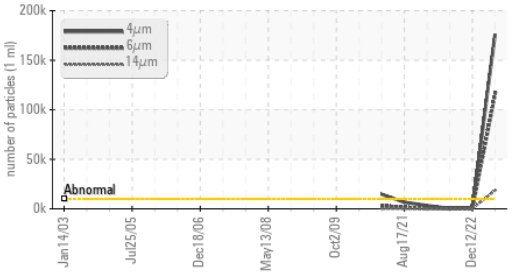
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **176179**	666	328
Particles >6µm		ASTM D7647	>2500	▲ **115588**	189	83
Particles >14µm		ASTM D7647	>640	▲ **18513**	14	8
Particles >21µm		ASTM D7647	>160	▲ **5101**	4	2
Particles >38µm		ASTM D7647	>40	▲ **242**	0	0
Particles >71µm		ASTM D7647	>10	▲ **12**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **25/24/21**	17/15/11	16/14/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		**0.045**	0.014	0.014

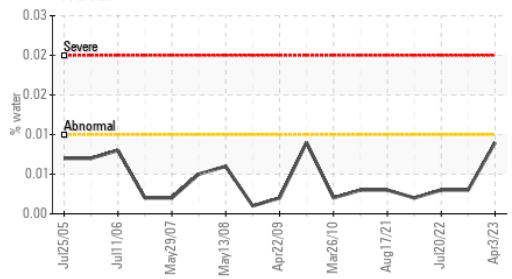
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

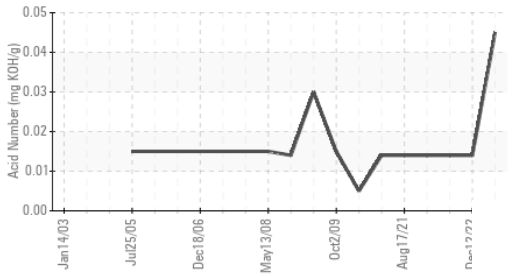
Particle Trend



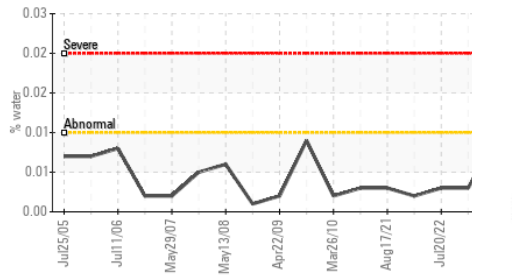
Water



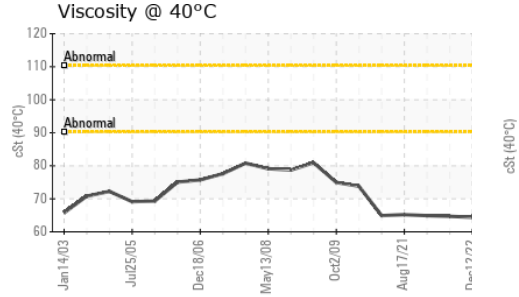
Acid Number



Water



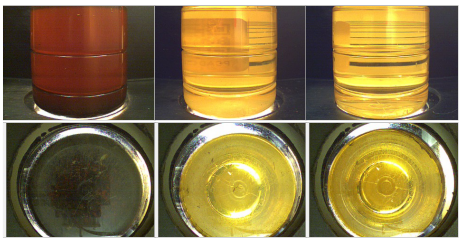
Viscosity @ 40°C



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	▲ **VHEVY**	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	>0.01	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

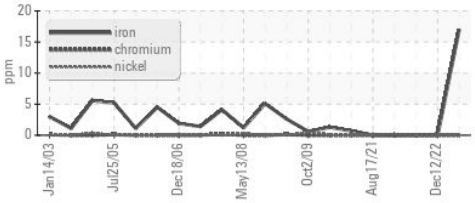
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**71.91**	64.4	64.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

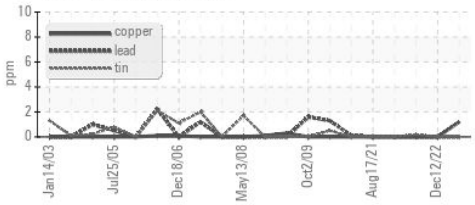


GRAPHS

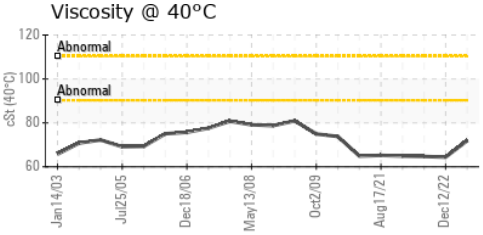
Ferrous Alloys



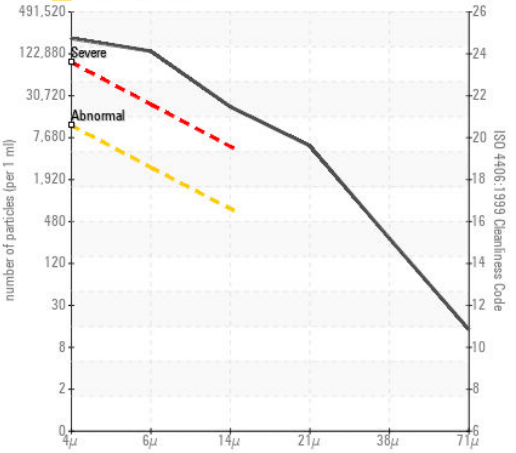
Non-ferrous Metals



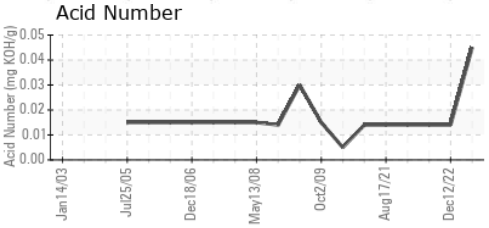
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0092038 **Received** : 05 Apr 2023
Lab Number : 05811625 **Diagnosed** : 12 Apr 2023
Unique Number : 10414417 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

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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NEW ULM, MN
US 56073
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Report Id: KRANEW [WUSCAR] 05811625 (Generated: 09/11/2023 13:42:36) Rev: 1

Submitted By: RYAN SCHMID