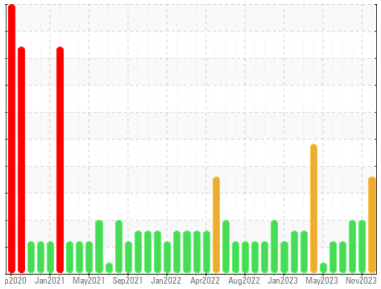
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
PROCESS CHEESE [98778593]
Machine Id
4615-CMX
Component
Pump
Fluid
R&O OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. 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.

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		**PCA0096801**	PCA0096856	PCA0096857
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				**ABNORMAL**	ABNORMAL	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	**4**	16	17
Chromium	ppm	ASTM D5185m	>5	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>5	**0**	<1	0
Titanium	ppm	ASTM D5185m	>3	**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>7	**0**	2	0
Lead	ppm	ASTM D5185m	>12	**0**	0	0
Copper	ppm	ASTM D5185m	>30	**0**	<1	0
Tin	ppm	ASTM D5185m	>9	**0**	<1	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		**0**	<1	0
Magnesium	ppm	ASTM D5185m	5	**0**	<1	<1
Calcium	ppm	ASTM D5185m	5	**0**	0	0
Phosphorus	ppm	ASTM D5185m	100	▲ **446**	80	60
Zinc	ppm	ASTM D5185m	25	▲ **63**	31	30
Sulfur	ppm	ASTM D5185m	1500	▲ **994**	0	2

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**1**	4	3
Sodium	ppm	ASTM D5185m		**0**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **98020**	▲ 72324	▲ 69591
Particles >6µm		ASTM D7647	>1300	▲ **32699**	▲ 13480	▲ 14782
Particles >14µm		ASTM D7647	>320	▲ **1349**	▲ 548	▲ 872
Particles >21µm		ASTM D7647	>80	▲ **277**	▲ 127	▲ 249
Particles >38µm		ASTM D7647	>20	**4**	5	19
Particles >71µm		ASTM D7647	>4	**0**	0	2
Oil Cleanliness		ISO 4406 (c)	>19/17/15	▲ **24/22/18**	▲ 23/21/16	▲ 23/21/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.08	**0.21**	0.11	0.12

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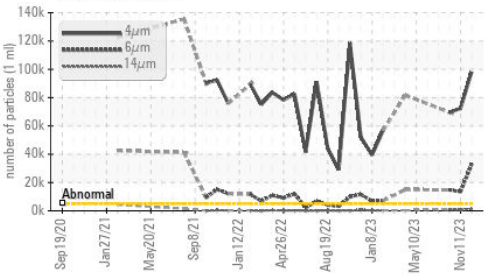
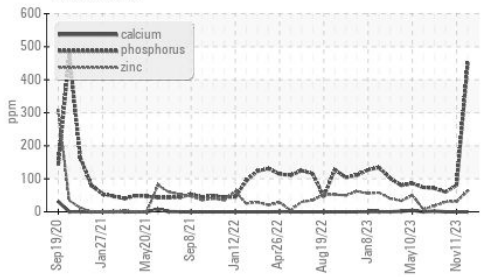
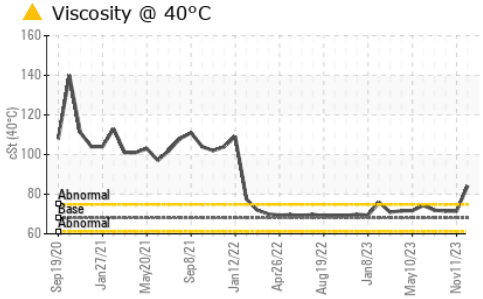
Particle Trend



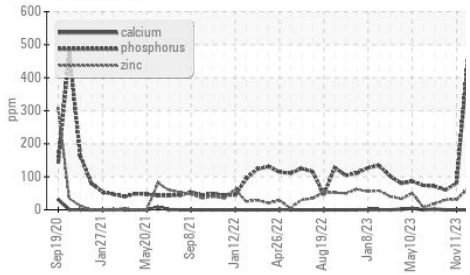
Additives



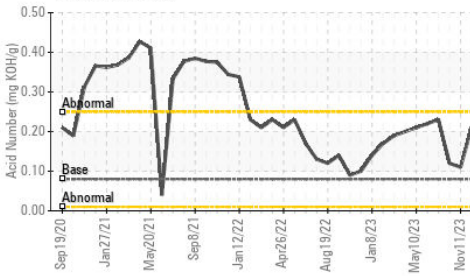
Viscosity @ 40°C



Additives

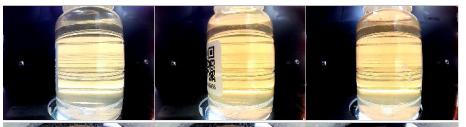


Acid Number



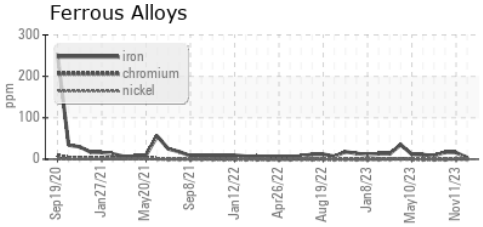
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**LIGHT**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	▲ **84.3**	71.4	71.5

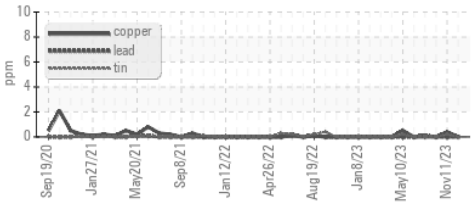
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

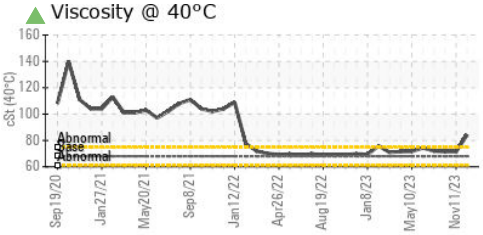
Ferrous Alloys



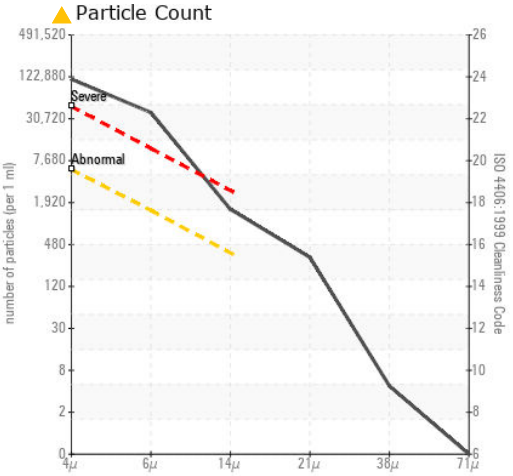
Non-ferrous Metals



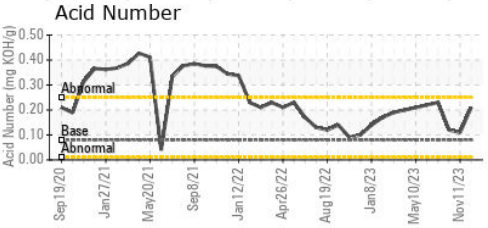
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096801 **Recieved** : 05 Feb 2024
Lab Number : 06079773 **Tested** : 06 Feb 2024
Unique Number : 10861864 **Diagnosed** : 07 Feb 2024
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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