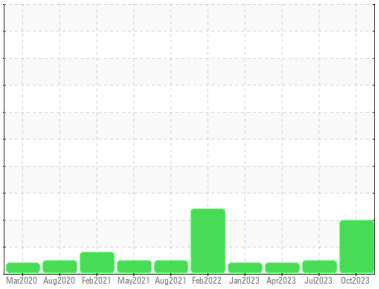
OIL DIAGNOSTICS

PROBLEM SUMMARY

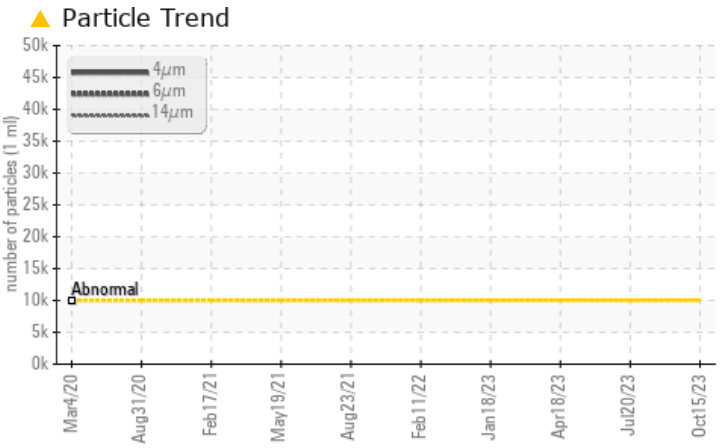
Sample Rating Trend



ISO

Area
[98557573]
Machine Id
KR-GR-000017 - MARLEN (S/N STUFF D - 11513137)
Component
Hydraulic System
Fluid
R&O OIL ISO 100 (40 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	ABNORMAL
Particles >4µm		ASTM D7647	>10000	▲ **45106**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **16078**	---	---
Particles >14µm		ASTM D7647	>640	▲ **1630**	---	---
Particles >21µm		ASTM D7647	>160	▲ **453**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/21/18**	---	---

Customer Id: KRAKIR
Sample No.: PCA0108228
Lab Number: 05986431
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

20 Jul 2023 Diag: Jonathan Hester

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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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18 Apr 2023 Diag: Angela Borella

VIS DEBRIS

We suspect abnormal contamination may be due to sampling method. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The condition of the oil is acceptable for the time in service.

view report

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18 Jan 2023 Diag: Don Baldridge

VISCOSITY

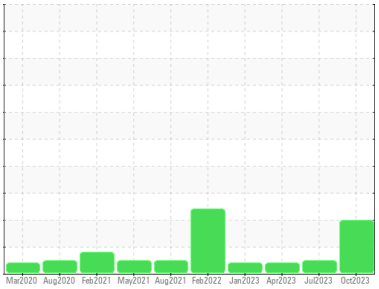
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 100 range, advise investigate. Confirm oil type.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
[98557573]
Machine Id
KR-GR-000017 - MARLEN (S/N STUFF D - 11513137)
Component
Hydraulic System
Fluid
R&O OIL ISO 100 (40 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.

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		**PCA0108228**	PCA0102539	PCA0093101
Sample Date		Client Info		**15 Oct 2023**	20 Jul 2023	18 Apr 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**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**9**	<1	2
Chromium	ppm	ASTM D5185m	>20	**0**	1	0
Nickel	ppm	ASTM D5185m	>20	**1**	1	0
Titanium	ppm	ASTM D5185m		**0**	1	0
Silver	ppm	ASTM D5185m		**0**	3	0
Aluminum	ppm	ASTM D5185m	>20	**3**	0	0
Lead	ppm	ASTM D5185m	>20	**<1**	8	0
Copper	ppm	ASTM D5185m	>20	**3**	2	3
Tin	ppm	ASTM D5185m	>20	**<1**	2	0
Vanadium	ppm	ASTM D5185m		**0**	2	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	<1	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	1	1
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	5	**3**	19	0
Calcium	ppm	ASTM D5185m	5	**4**	0	0
Phosphorus	ppm	ASTM D5185m	100	**550**	296	245
Zinc	ppm	ASTM D5185m	25	**0**	0	3
Sulfur	ppm	ASTM D5185m	1500	**1556**	1531	768

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	3	1
Sodium	ppm	ASTM D5185m		**4**	43	0
Potassium	ppm	ASTM D5185m	>20	**3**	100	<1

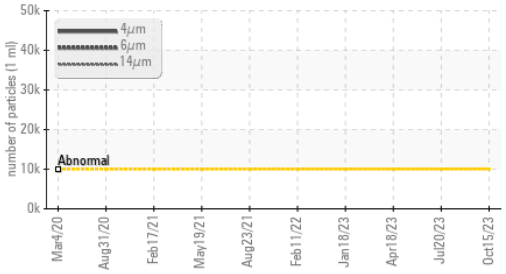
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **45106**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **16078**	---	---
Particles >14µm		ASTM D7647	>640	▲ **1630**	---	---
Particles >21µm		ASTM D7647	>160	▲ **453**	---	---
Particles >38µm		ASTM D7647	>40	**28**	---	---
Particles >71µm		ASTM D7647	>10	**3**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/21/18**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.08	**0.07**	0.17	---

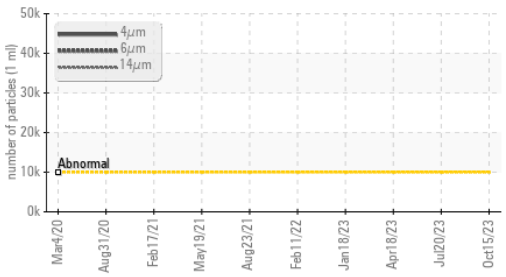
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

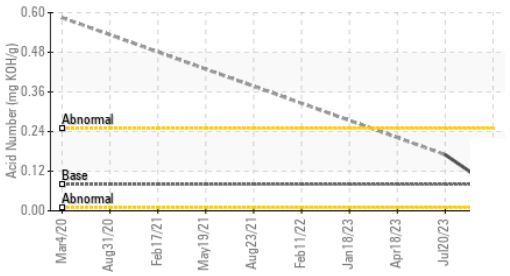
Particle Trend



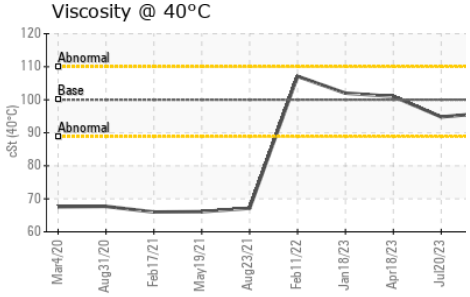
Particle Trend



Acid Number

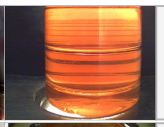
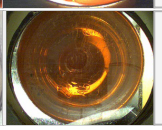


Viscosity @ 40°C



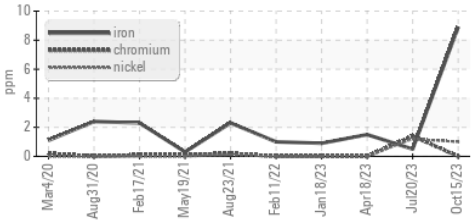
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Sand/Dirt	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	100	**96.0**	94.8	101

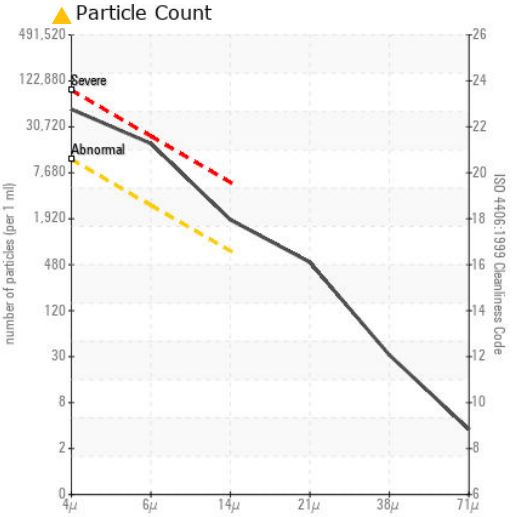
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

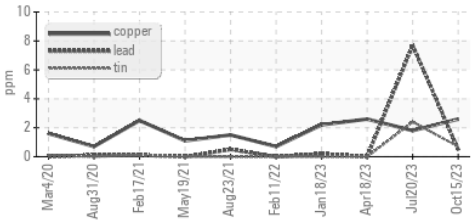
Ferrous Alloys



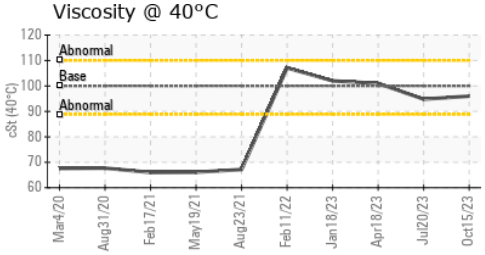
Particle Count



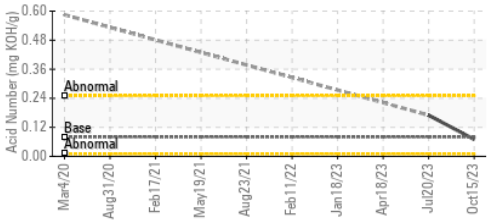
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108228
Lab Number : 05986431
Unique Number : 10709093
Test Package : IND 2

Received : 23 Oct 2023
Diagnosed : 25 Oct 2023
Diagnostician : Jonathan Hester

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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