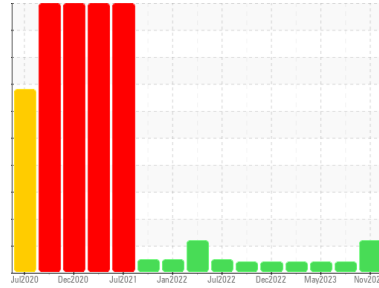


PROBLEM SUMMARY

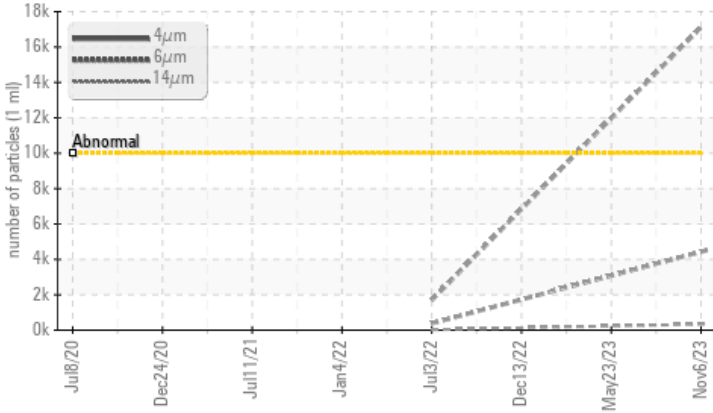
Area
[98558525]
 Machine Id
KR-GR-000869 - MARLEN (S/N STUFF B - 11513113)
 Component
Vacuum Pump
 Fluid
R&O OIL ISO 100 (5 LTR)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>10000	▲ 17114	---	---
Particles >6µm	ASTM D7647	>2500	▲ 4430	---	---
Oil Cleanliness	ISO 4406 (c)	>20/18/16	▲ 21/19/16	---	---

Customer Id: KRAKIR
 Sample No.: PCA0108451
 Lab Number: 06000475
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

05 Sep 2023 Diag: Jonathan Hester

VIS DEBRIS



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. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



23 May 2023 Diag: Jonathan Hester

VIS DEBRIS



No corrective action is recommended at this time. 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



08 Mar 2023 Diag: Don Baldrige

VIS DEBRIS



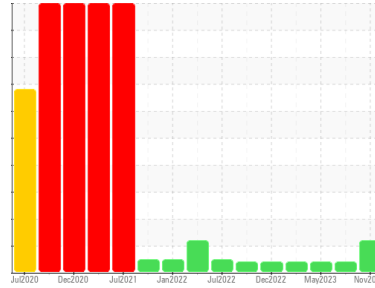
No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The condition of the oil is acceptable for the time in service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
[98558525]
 Machine Id
KR-GR-000869 - MARLEN (S/N STUFF B - 11513113)
 Component
Vacuum Pump
 Fluid
R&O OIL ISO 100 (5 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) 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	PCA0108451	PCA0102559	PCA0097836
Sample Date	Client Info	06 Nov 2023	05 Sep 2023	23 May 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	0	2	3
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	<1	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	5	7	5
Lead	ppm	ASTM D5185m >20	<1	0	0
Copper	ppm	ASTM D5185m >20	<1	<1	1
Tin	ppm	ASTM D5185m >20	0	0	0
Vanadium	ppm	ASTM D5185m	0	<1	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	<1	<1
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m 5	0	0	0
Calcium	ppm	ASTM D5185m 5	2	0	0
Phosphorus	ppm	ASTM D5185m 100	558	389	64
Zinc	ppm	ASTM D5185m 25	0	0	<1
Sulfur	ppm	ASTM D5185m 1500	1561	1164	134

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	8	8	8
Sodium	ppm	ASTM D5185m	8	8	10
Potassium	ppm	ASTM D5185m >20	3	2	5

FLUID CLEANLINESS

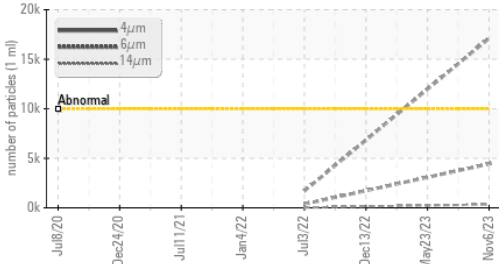
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 17114	---	---
Particles >6µm	ASTM D7647 >2500	▲ 4430	---	---
Particles >14µm	ASTM D7647 >640	337	---	---
Particles >21µm	ASTM D7647 >160	78	---	---
Particles >38µm	ASTM D7647 >40	3	---	---
Particles >71µm	ASTM D7647 >10	1	---	---
Oil Cleanliness	ISO 4406 (c) >20/18/16	▲ 21/19/16	---	---

FLUID DEGRADATION

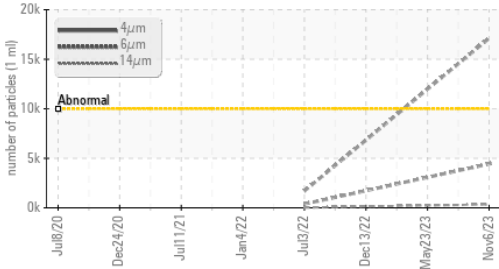
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.08	0.14	0.18	---

OIL ANALYSIS REPORT

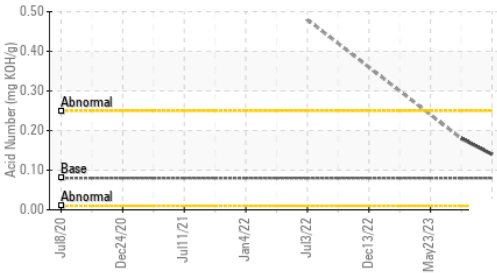
▲ Particle Trend



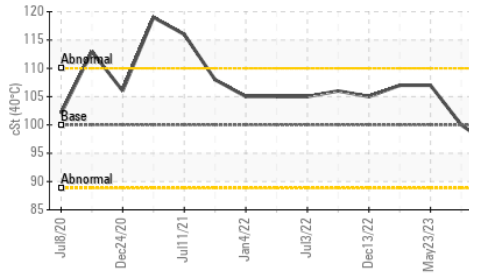
▲ Particle Trend



Acid Number



Viscosity @ 40°C

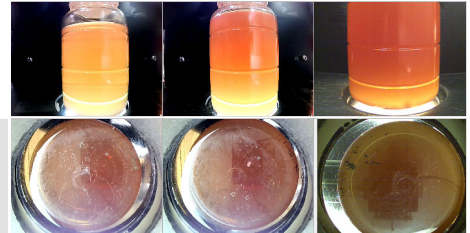


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	96.2	100

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

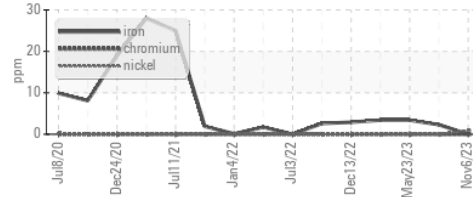
Color



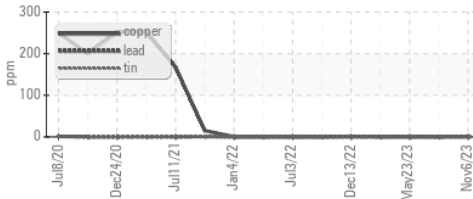
Bottom

GRAPHS

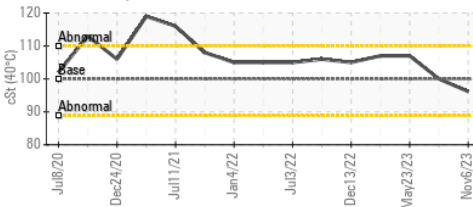
Ferrous Alloys



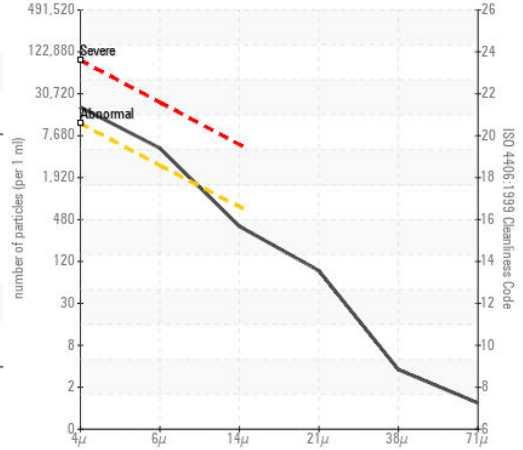
Non-ferrous Metals



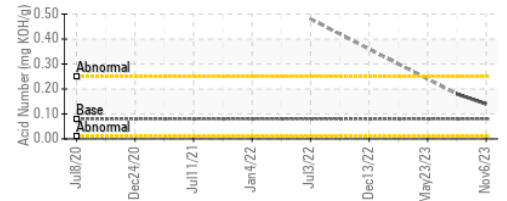
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108451 **Received** : 07 Nov 2023
Lab Number : 06000475 **Diagnosed** : 09 Nov 2023
Unique Number : 10728835 **Diagnostician** : Don Baldrige

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)

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