PROBLEM SUMMARY

Sample Rating Trend
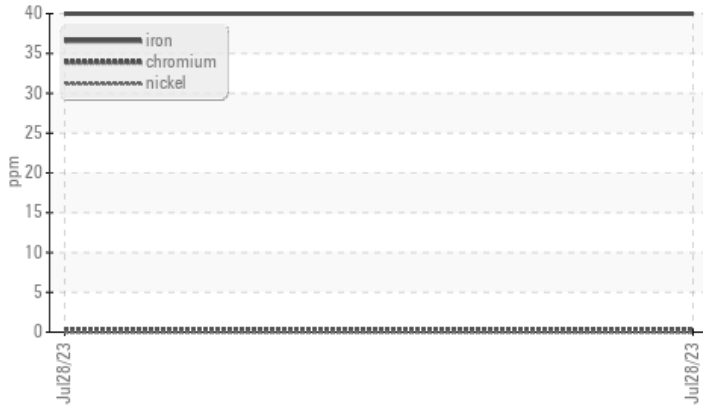

Jul2023

WEAR

Machine Id
PLATAFORMA (S/N 310)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC 68 (600 LTR)

COMPONENT CONDITION SUMMARY

⚠ Ferrous Alloys
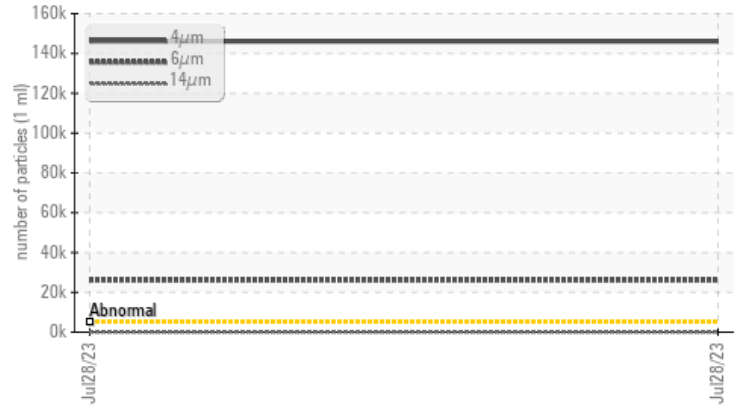
- iron
- chromium
- nickel

⚠ Particle Trend

- 4µm
- 6µm
- 14µm

Abnormal

RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

| Sample Status				**ABNORMAL**	---	---
Iron	ppm	ASTM D5185m	>20	⚠ **40**	---	---
Particles >4µm		ASTM D7647	>5000	⚠ **146050**	---	---
Particles >6µm		ASTM D7647	>1300	⚠ **26119**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⚠ **24/22/14**	---	---

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend
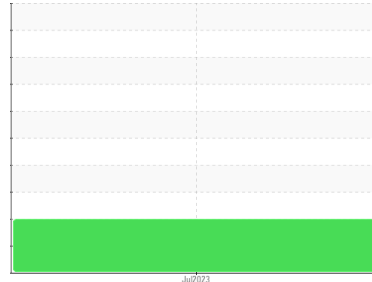
Machine Id
PLATAFORMA (S/N 310)
Component
Hydraulic System
Fluid
ROYAL PURPLE SYNDRAULIC 68 (600 LTR)

DIAGNOSIS

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

▲ Wear
The iron level is abnormal. All other component wear rates are normal.

▲ Contamination
There is a high 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		RP0032905	---	---
Sample Date		Client Info		28 Jul 2023	---	---
Machine Age	hrs	Client Info		1000	---	---
Oil Age	hrs	Client Info		1000	---	---
Oil Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ 40	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>20	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	<1	---	---
Lead	ppm	ASTM D5185m	>20	4	---	---
Copper	ppm	ASTM D5185m	>20	12	---	---
Tin	ppm	ASTM D5185m	>20	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		3	---	---
Calcium	ppm	ASTM D5185m		52	---	---
Phosphorus	ppm	ASTM D5185m		394	---	---
Zinc	ppm	ASTM D5185m		481	---	---

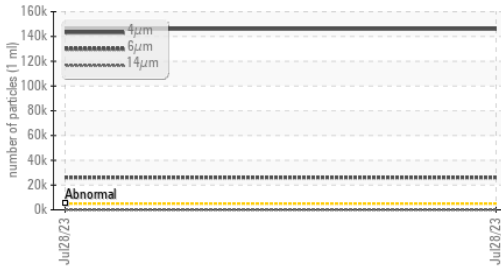| CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	3	---	---
Sodium	ppm	ASTM D5185m		2	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water	%	ASTM D6304	>0.05	0.004	---	---
ppm Water	ppm	ASTM D6304	>500	40.0	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ 146050	---	---
Particles >6µm		ASTM D7647	>1300	▲ 26119	---	---
Particles >14µm		ASTM D7647	>160	91	---	---
Particles >21µm		ASTM D7647	>40	4	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 24/22/14	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.80	---	---

OIL ANALYSIS REPORT

PERFORMANCE UNDER PRESSURE — ROYAL PURPLE

Particle Trend

(graph: number of particles (1 ml) vs Jul28/23 — Jul28/23; legend: 4µm, 6µm, 14µm; Abnormal line)

Water

(graph: % water vs Jul28/23; Severe, Abnormal lines)

Ferrous Alloys

(graph: ppm vs Jul28/23; legend: iron, chromium, nickel)

Acid Number

(graph: Acid Number (mg KOH/g) vs Jul28/23)

Water

(graph: % water vs Jul28/23; Severe, Abnormal lines)
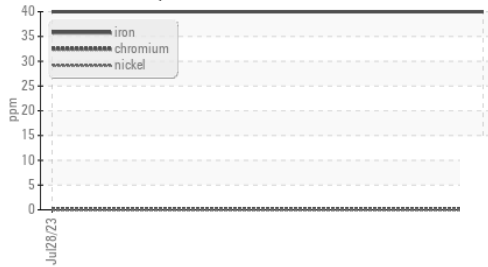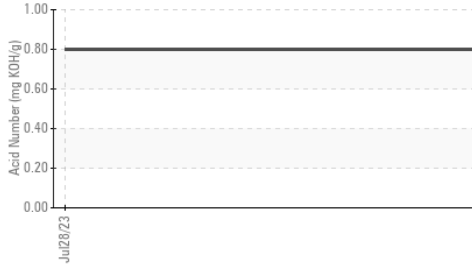
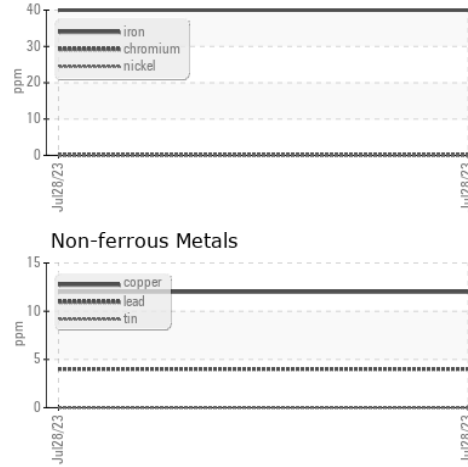| VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.05	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68.0	**66.1**	---	---

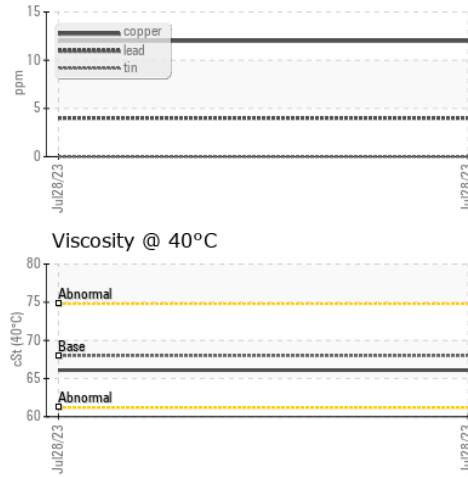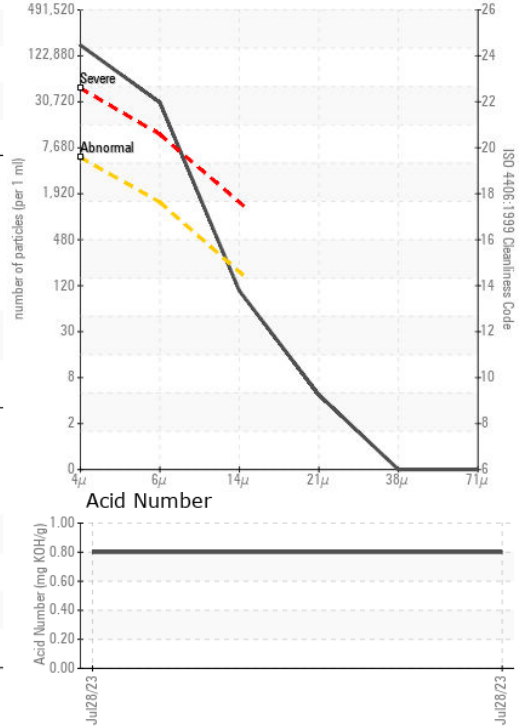| SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				<image>	no image	no image
Bottom				<image>	no image	no image

GRAPHS

Ferrous Alloys

(graph: ppm vs Jul28/23; legend: iron, chromium, nickel)

Non-ferrous Metals

(graph: ppm vs Jul28/23; legend: copper, lead, tin)

Viscosity @ 40°C

(graph: cSt (40°C) vs Jul28/23; Abnormal, Base, Abnormal lines)

Particle Count

(graph: number of particles (per 1 ml) vs 4µ–71µ; ISO 4406:1999 Cleanliness Code; Severe, Abnormal lines)

Acid Number

(graph: Acid Number (mg KOH/g) vs Jul28/23)