



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
MK HPU
 Component
Hydraulic System
 Fluid
SHELL NATURELLE S2 HYDRAULIC FLUID 46 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PH0001872	---	---
Sample Date		Client Info		05 Jan 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	14	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>20	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>20	<1	---	---
Copper	ppm	ASTM D5185m	>20	4	---	---
Tin	ppm	ASTM D5185m	>20	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

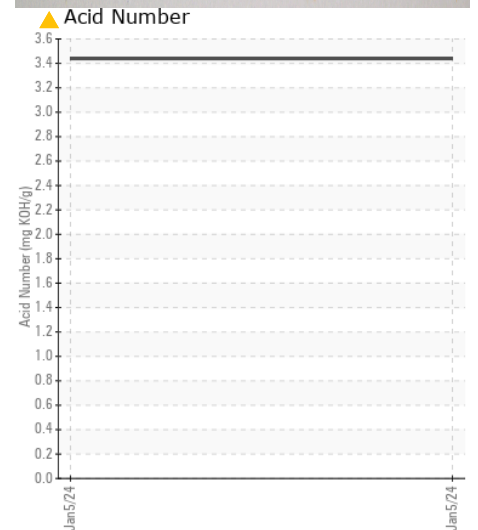
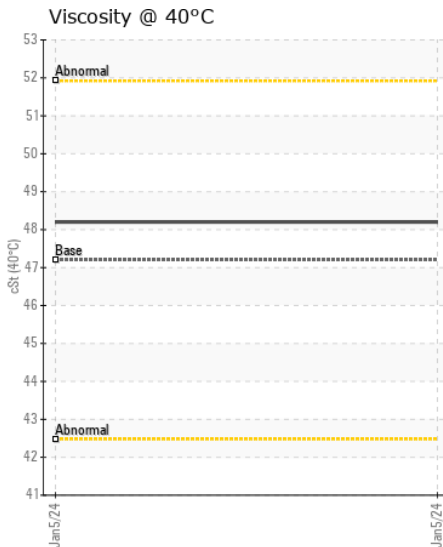
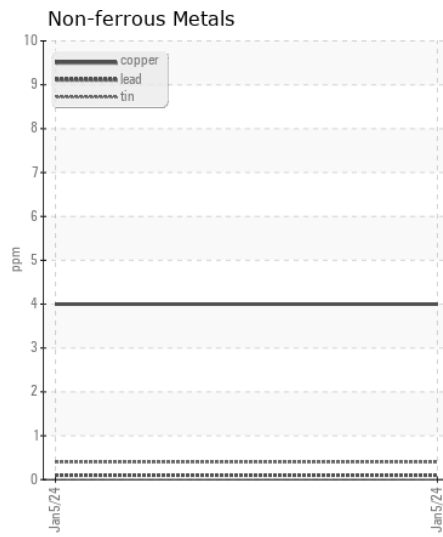
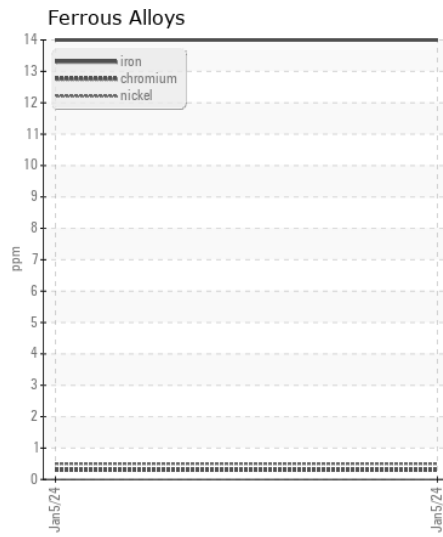
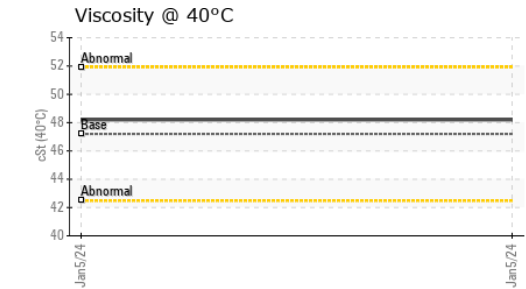
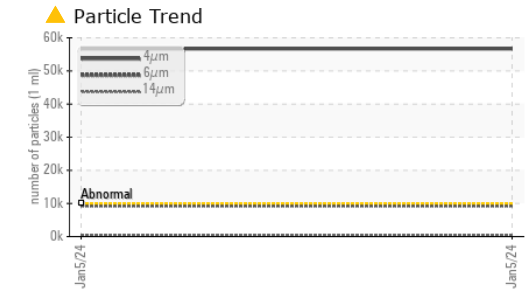
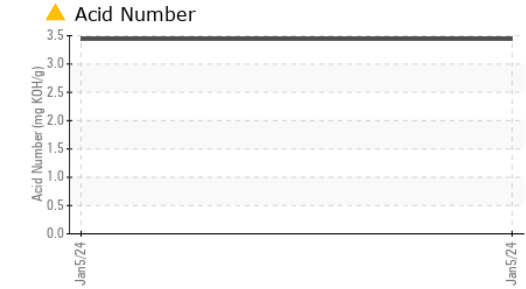
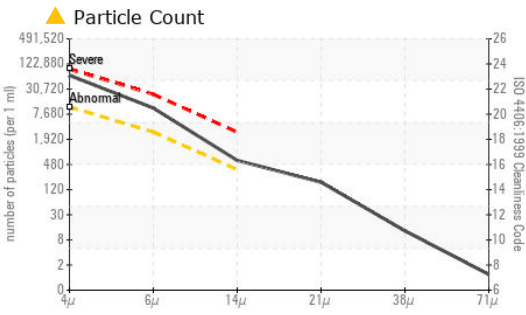
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>15	<1	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.05	NEG	---	---
Particles >4µm		ASTM D7647	>10000	▲ 56687	---	---
Particles >6µm		ASTM D7647	>2500	▲ 9388	---	---
Particles >14µm		ASTM D7647	>320	▲ 528	---	---
Particles >21µm		ASTM D7647	>80	▲ 159	---	---
Particles >38µm		ASTM D7647	>20	11	---	---
Particles >71µm		ASTM D7647	>4	1	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 23/20/16	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---	---

FLUID CONDITION

The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		11	---	---
Boron	ppm	ASTM D5185m		2	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		<1	---	---
Calcium	ppm	ASTM D5185m		5	---	---
Phosphorus	ppm	ASTM D5185m		211	---	---
Zinc	ppm	ASTM D5185m		0	---	---
Sulfur	ppm	ASTM D5185m		2016	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 3.44	---	---
Visc @ 40°C	cSt	ASTM D445	47.2	48.2	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0001872 **Received** : 11 Jan 2024
Lab Number : 06058727 **Diagnosed** : 15 Jan 2024
Unique Number : 10830109 **Diagnostician** : Jonathan Hester
Test Package : PLANT (Additional Tests: PrtFilter)

ALBANY ENGINEERING
 5 WASHINGTON SQ
 ALBANY, NY
 US 12205
 Contact: CRAIG POILLON

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)

T:
F: