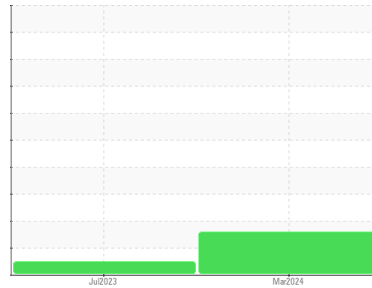


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER 8367741

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. The 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 AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KCPA015381	KCPA004137	---
Sample Date	Client Info		12 Mar 2024	18 Jul 2023	---
Machine Age	hrs	Client Info	5133	3062	---
Oil Age	hrs	Client Info	3127	0	---
Oil Changed	Client Info		Not Chngd	N/A	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	0	---
Chromium	ppm	ASTM D5185m >10	0	0	---
Nickel	ppm	ASTM D5185m >3	0	0	---
Titanium	ppm	ASTM D5185m >3	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >10	0	<1	---
Lead	ppm	ASTM D5185m >10	0	0	---
Copper	ppm	ASTM D5185m >50	4	7	---
Tin	ppm	ASTM D5185m >10	0	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	---
Barium	ppm	ASTM D5185m 90	<1	0	---
Molybdenum	ppm	ASTM D5185m 0	0	0	---
Manganese	ppm	ASTM D5185m	0	<1	---
Magnesium	ppm	ASTM D5185m 100	5	2	---
Calcium	ppm	ASTM D5185m 0	0	0	---
Phosphorus	ppm	ASTM D5185m 0	2	0	---
Zinc	ppm	ASTM D5185m 0	0	0	---
Sulfur	ppm	ASTM D5185m 23500	20168	22390	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	2	0	---
Sodium	ppm	ASTM D5185m	4	2	---
Potassium	ppm	ASTM D5185m >20	0	2	---
Water	%	ASTM D6304 >0.05	0.007	0.006	---
ppm Water	ppm	ASTM D6304 >500	74	63.4	---

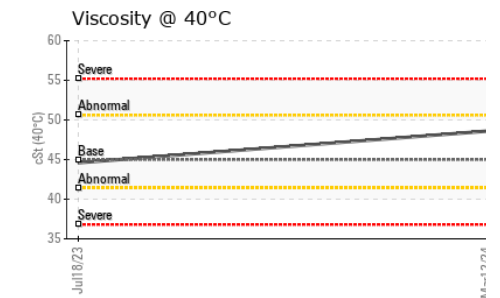
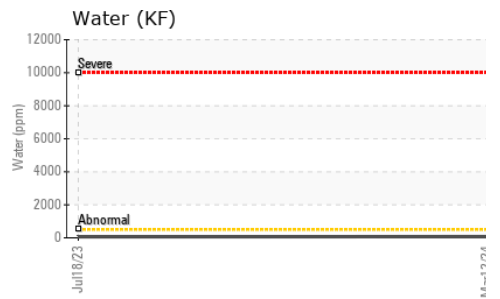
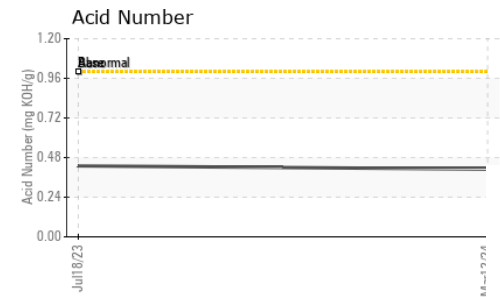
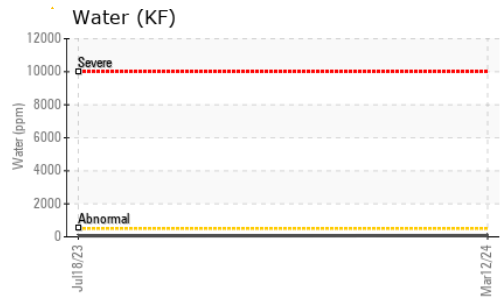
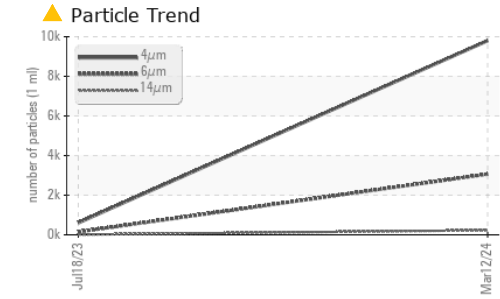
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		9802	605	---
Particles >6µm	ASTM D7647	>1300	▲ 3063	147	---
Particles >14µm	ASTM D7647	>80	▲ 228	10	---
Particles >21µm	ASTM D7647	>20	▲ 55	4	---
Particles >38µm	ASTM D7647	>4	1	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 20/19/15	16/14/10	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.41	0.43	---

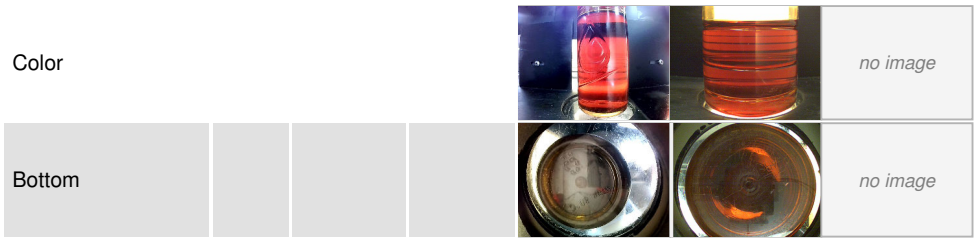
OIL ANALYSIS REPORT



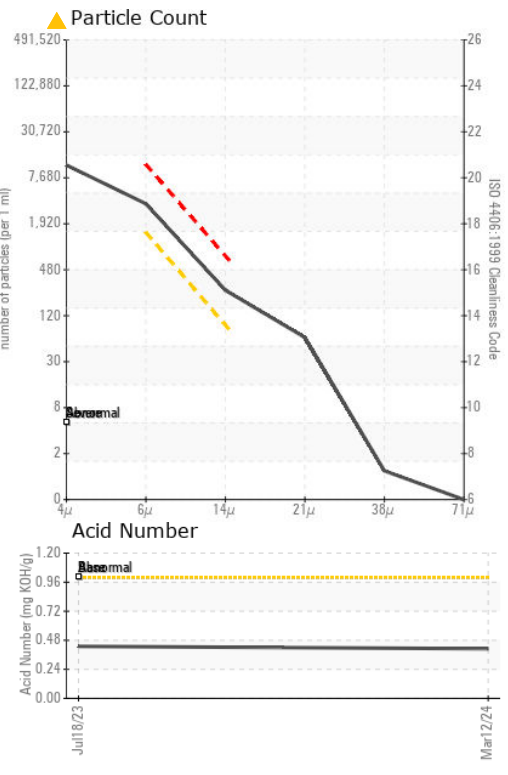
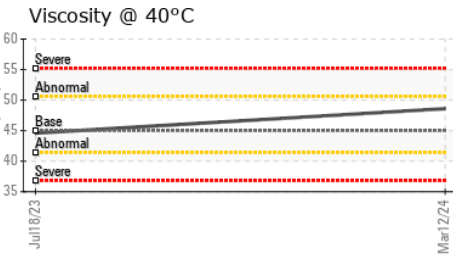
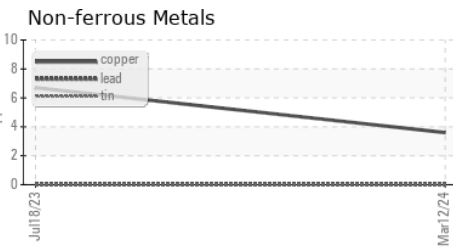
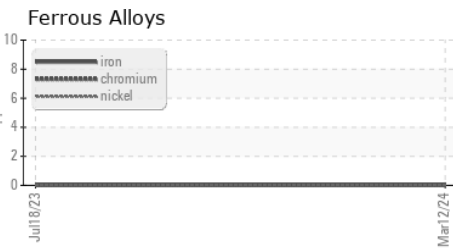
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	45	48.6	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA015381 **Received** : 20 Mar 2024
Lab Number : 06124302 **Tested** : 21 Mar 2024
Unique Number : 10938453 **Diagnosed** : 23 Mar 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

HIRSCH VOGEL INC
 2230 S 3RD ST
 COLUMBUS, OH
 US 43207
 Contact: Service Manager

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)