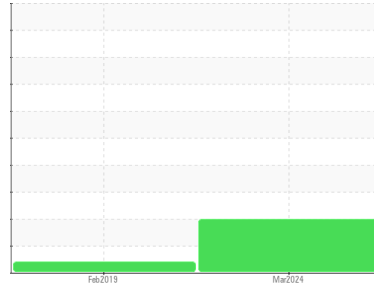




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER SK 15 5487132 (S/N 1919)

Component
Compressor

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

DIAGNOSIS

▲ Recommendation

Oil and 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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA014908	KCP13829	---
Sample Date	Client Info			11 Mar 2024	12 Feb 2019	---
Machine Age	hrs	Client Info		9773	1235	---
Oil Age	hrs	Client Info		3277	1235	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				ABNORMAL	ATTENTION	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	3	---
Chromium	ppm	ASTM D5185m	>10	0	<1	---
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	2	3	---
Tin	ppm	ASTM D5185m	>10	<1	0	---
Antimony	ppm	ASTM D5185m		---	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

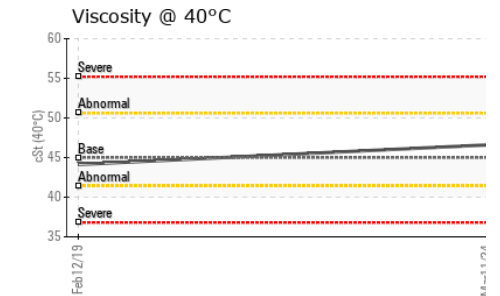
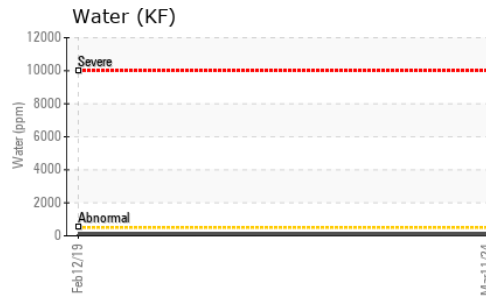
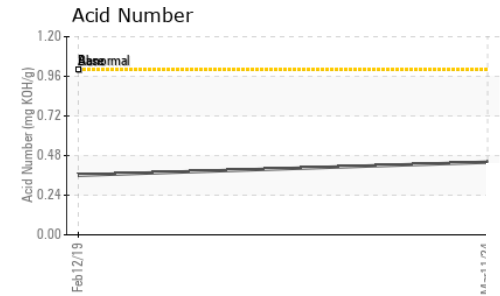
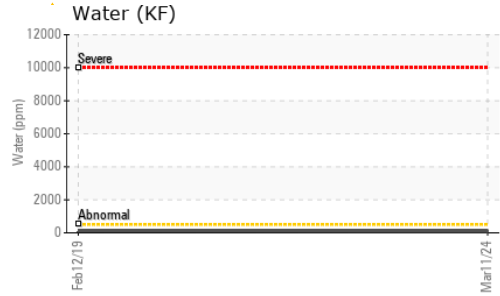
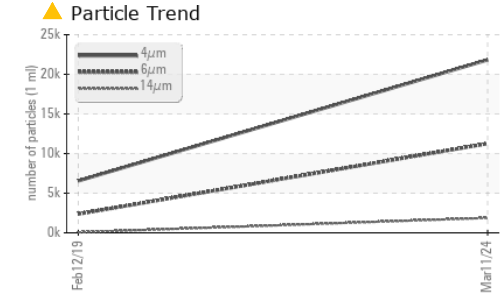
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	---
Barium	ppm	ASTM D5185m	90	8	<1	---
Molybdenum	ppm	ASTM D5185m	0	0	0	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	100	61	53	---
Calcium	ppm	ASTM D5185m	0	1	<1	---
Phosphorus	ppm	ASTM D5185m	0	0	2	---
Zinc	ppm	ASTM D5185m	0	3	6	---
Sulfur	ppm	ASTM D5185m	23500	22353	20440	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	1	---
Sodium	ppm	ASTM D5185m		15	12	---
Potassium	ppm	ASTM D5185m	>20	0	1	---
Water	%	ASTM D6304	>0.05	0.010	0.013	---
ppm Water	ppm	ASTM D6304	>500	103	130	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		21831	6553	---
Particles >6µm		ASTM D7647	>1300	▲ 11265	● 2369	---
Particles >14µm		ASTM D7647	>80	▲ 1881	60	---
Particles >21µm		ASTM D7647	>20	▲ 485	7	---
Particles >38µm		ASTM D7647	>4	▲ 7	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 22/21/18	● 18/13	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.44	0.361	---

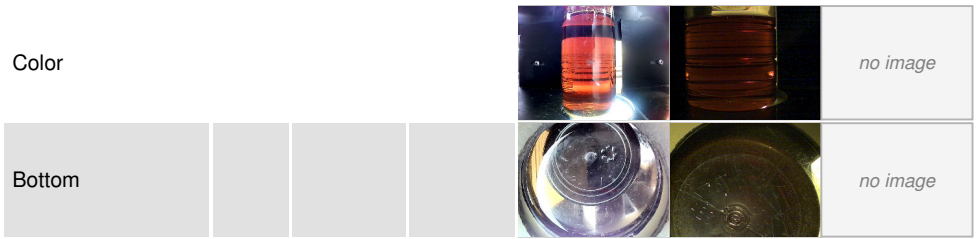
OIL ANALYSIS REPORT



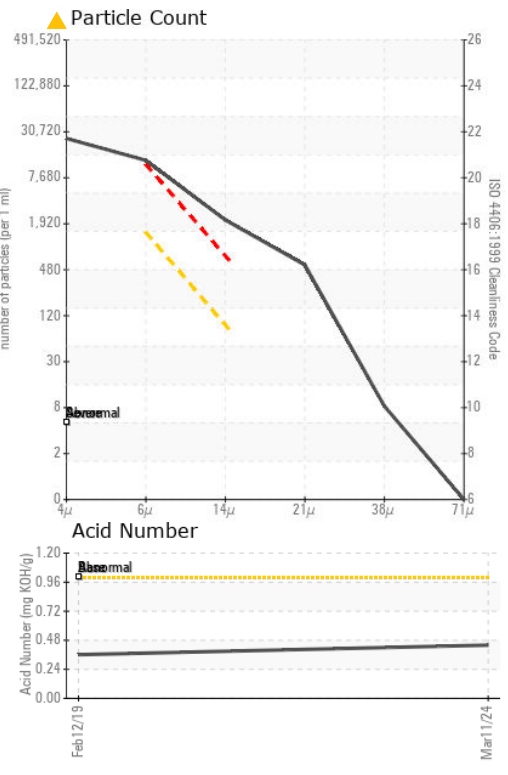
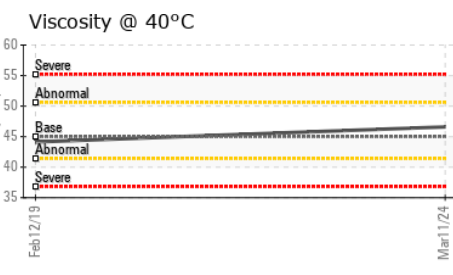
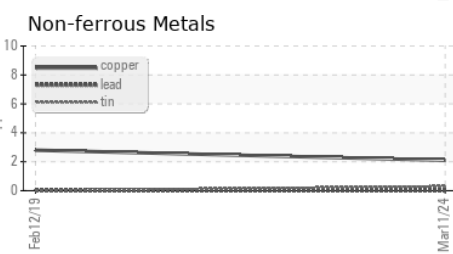
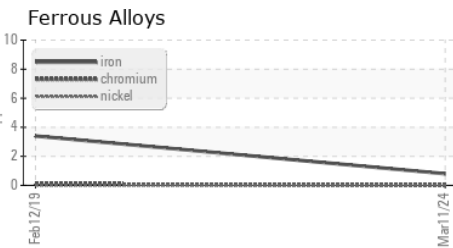
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	46.6	44.13

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA014908 **Received** : 20 Mar 2024
Lab Number : 06123660 **Tested** : 25 Mar 2024
Unique Number : 10937811 **Diagnosed** : 25 Mar 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

MICHAELS AUTO BODY
 970 PARK ST
 CASTLE ROCK, CO
 US 80109
 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)