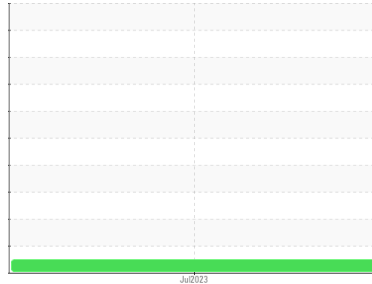




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
KAESER 7475339

Component
Compressor

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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	KCPA002135	---	---
Sample Date	Client Info	17 Jul 2023	---	---
Machine Age	hrs Client Info	19003	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		NORMAL	---	---

WEAR METALS

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

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m	0	0	---	---
Barium ppm ASTM D5185m	90	6	---	---
Molybdenum ppm ASTM D5185m	0	0	---	---
Manganese ppm ASTM D5185m		0	---	---
Magnesium ppm ASTM D5185m	100	77	---	---
Calcium ppm ASTM D5185m	0	1	---	---
Phosphorus ppm ASTM D5185m	0	<1	---	---
Zinc ppm ASTM D5185m	0	6	---	---
Sulfur ppm ASTM D5185m	23500	20797	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>25	<1	---	---
Sodium ppm ASTM D5185m		22	---	---
Potassium ppm ASTM D5185m	>20	4	---	---
Water % ASTM D6304	>0.05	0.023	---	---
ppm Water ppm ASTM D6304	>500	236.3	---	---

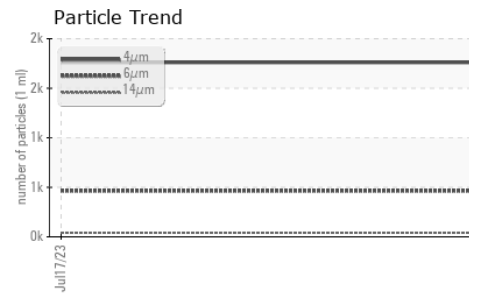
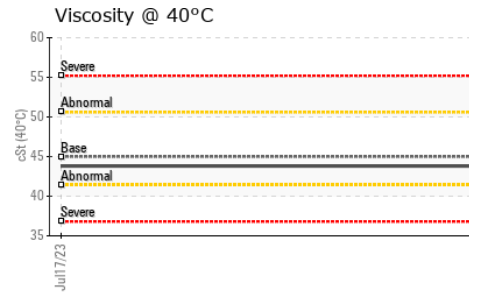
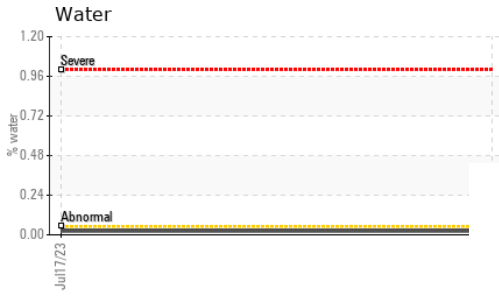
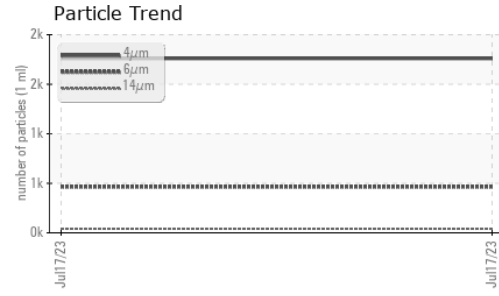
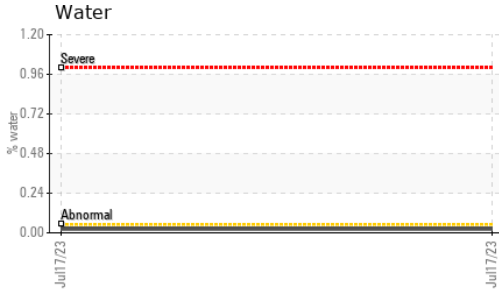
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647		1760	---	---
Particles >6µm ASTM D7647	>1300	465	---	---
Particles >14µm ASTM D7647	>80	41	---	---
Particles >21µm ASTM D7647	>20	12	---	---
Particles >38µm ASTM D7647	>4	1	---	---
Particles >71µm ASTM D7647	>3	0	---	---
Oil Cleanliness ISO 4406 (c)	>--/17/13	18/16/13	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045	1.0	0.48	---	---

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	43.8	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

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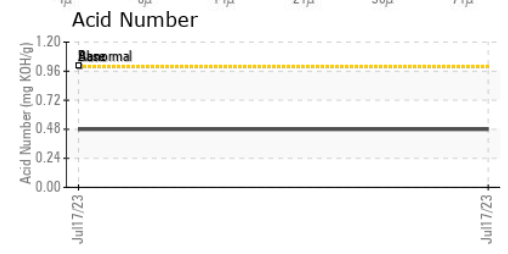
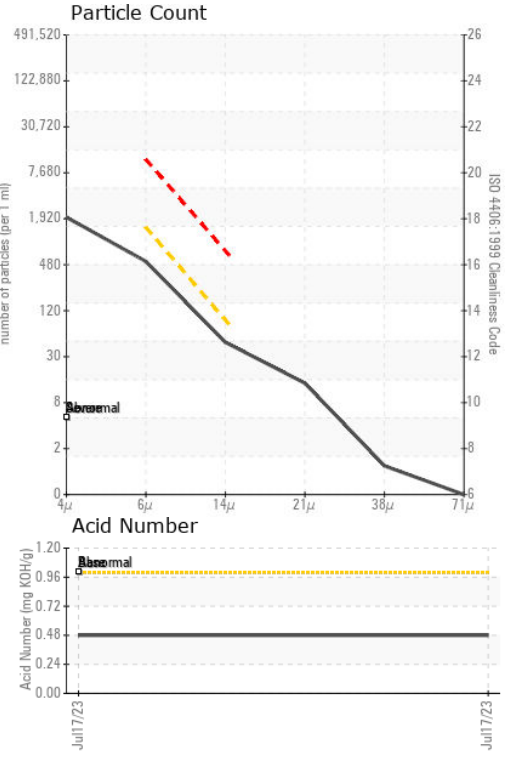
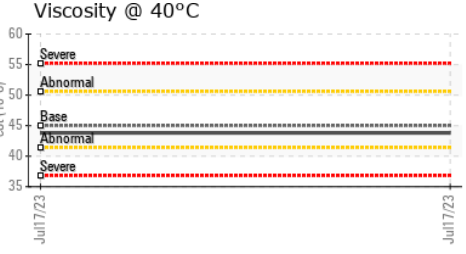
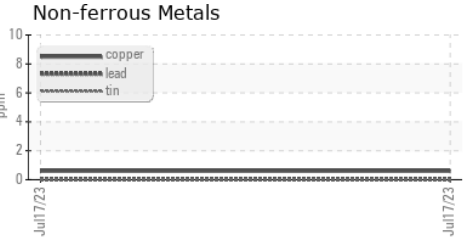
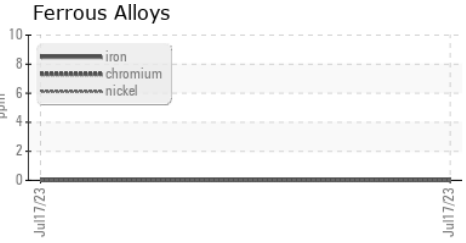
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA002135 **Received** : 17 Aug 2023
Lab Number : 05927873 **Diagnosed** : 21 Aug 2023
Unique Number : 10607820 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

AMTRAK - IVY CITY YARD
 1401 T ST NE
 WASHINGTON, DC
 US 20018
 Contact: Service Manager
 WOODNAP@AMTRAK.COM

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)