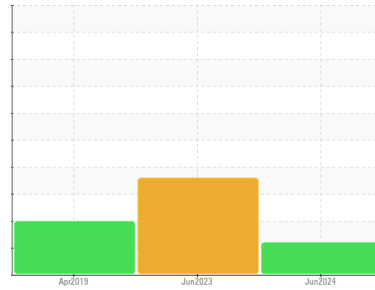




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
KAESER SX 6 2826089 (S/N 1630)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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		KCPA018095	KCPA005438	KCP18294
Sample Date	Client Info		20 Jun 2024	20 Jun 2023	09 Apr 2019
Machine Age	hrs	Client Info	20882	19938	13391
Oil Age	hrs	Client Info	3000	0	2769
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	2	<1
Chromium	ppm	ASTM D5185m >10	<1	0	0
Nickel	ppm	ASTM D5185m >3	0	<1	0
Titanium	ppm	ASTM D5185m >3	<1	0	0
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >10	4	0	0
Lead	ppm	ASTM D5185m >10	0	0	2
Copper	ppm	ASTM D5185m >50	6	16	6
Tin	ppm	ASTM D5185m >10	<1	<1	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 90	20	0	<1
Molybdenum	ppm	ASTM D5185m 0	<1	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m 100	58	15	27
Calcium	ppm	ASTM D5185m 0	0	2	0
Phosphorus	ppm	ASTM D5185m 0	0	2	0
Zinc	ppm	ASTM D5185m 0	18	21	9
Sulfur	ppm	ASTM D5185m 23500	18949	24952	23549

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	0	2	0
Sodium	ppm	ASTM D5185m	4	2	9
Potassium	ppm	ASTM D5185m >20	2	<1	<1
Water	%	ASTM D6304 >0.05	0.025	▲ 0.335	0.018
ppm Water	ppm	ASTM D6304 >500	251	▲ 3350	180

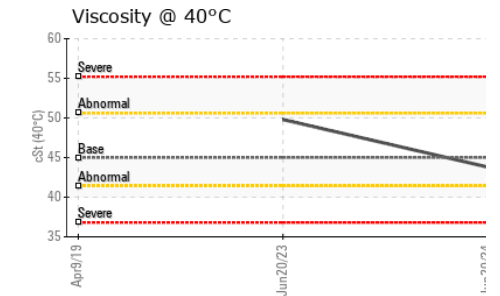
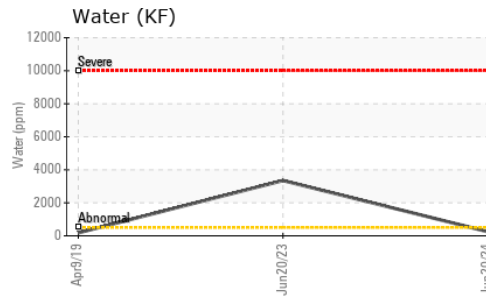
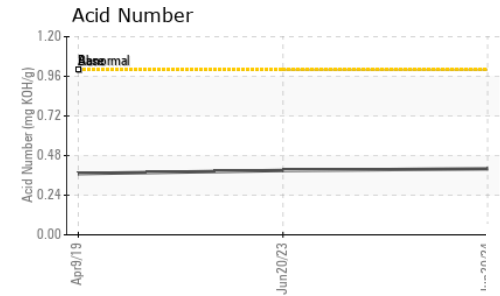
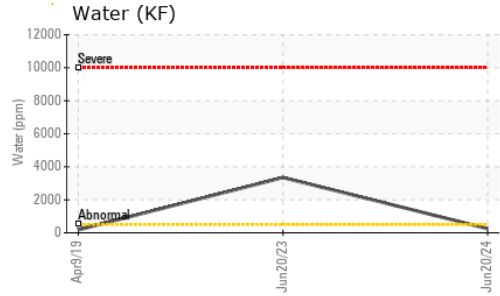
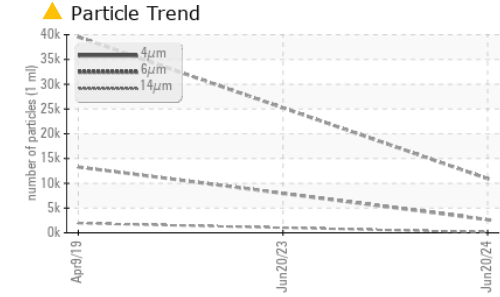
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		10929	---	39556
Particles >6µm	ASTM D7647	>1300	▲ 2655	---	▲ 13285
Particles >14µm	ASTM D7647	>80	▲ 110	---	▲ 1929
Particles >21µm	ASTM D7647	>20	18	---	▲ 713
Particles >38µm	ASTM D7647	>4	1	---	▲ 62
Particles >71µm	ASTM D7647	>3	0	---	▲ 6
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 21/19/14	---	▲ 21/18

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.40	0.39	0.371

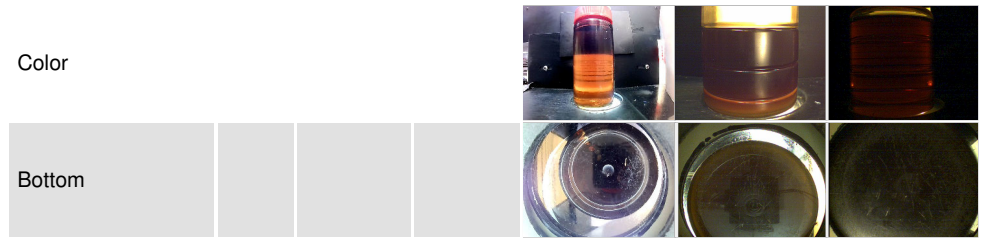
OIL ANALYSIS REPORT



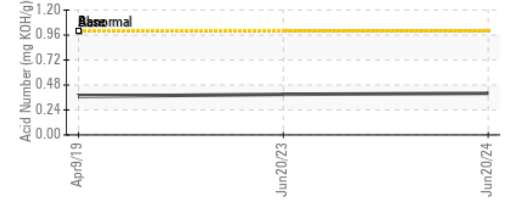
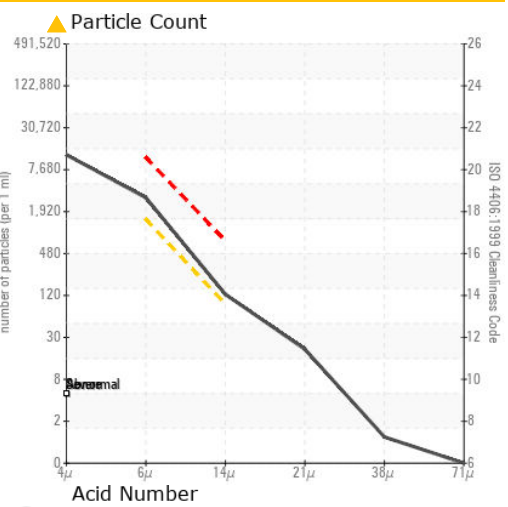
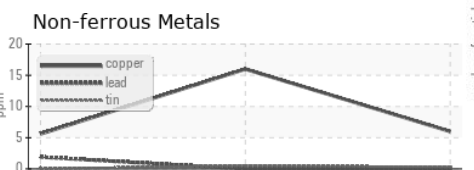
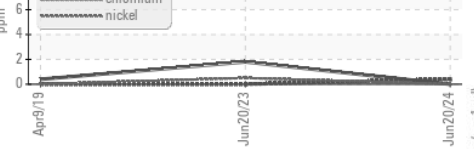
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG
Free Water	scalar	*Visual		▲ 2.0	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	43.8	49.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA018095 **Received** : 18 Jul 2024
Lab Number : 06240339 **Tested** : 19 Jul 2024
Unique Number : 11129173 **Diagnosed** : 20 Jul 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

OLD DOMINION FREIGHT LINES
 9850 OLSON DR, SUITE A
 SAN DIEGO, CA
 US 92121
 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)