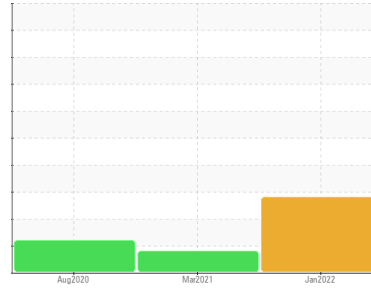


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
7352685 (S/N 1114)

Component
Compressor

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

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Appearance is hazy. There is a moderate concentration of water present in the oil. Moderate concentration of visible dirt/debris 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		KC73030	KC93011	KC66814
Sample Date	Client Info		13 Jan 2022	01 Mar 2021	26 Aug 2020
Machine Age	hrs	Client Info	6379	5369	2470
Oil Age	hrs	Client Info	4360	2899	2470
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	8	<1	1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	<1	<1
Aluminum	ppm	ASTM D5185m >10	<1	<1	7
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >50	24	▲ 75	12
Tin	ppm	ASTM D5185m >10	0	<1	<1
Antimony	ppm	ASTM D5185m	<1	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	5
Barium	ppm	ASTM D5185m	<1	0	5
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m	4	0	34
Calcium	ppm	ASTM D5185m	2	0	0
Phosphorus	ppm	ASTM D5185m 500	325	199	8
Zinc	ppm	ASTM D5185m	443	235	20

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	0	4
Sodium	ppm	ASTM D5185m	18	<1	10
Potassium	ppm	ASTM D5185m >20	8	0	8
Water	%	ASTM D6304 >0.05	▲ 0.764	0.003	0.019
ppm Water	ppm	ASTM D6304 >500	▲ 7640	31.1	195.1

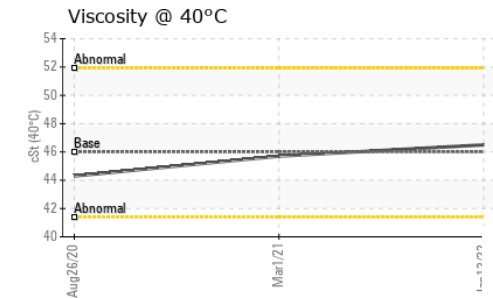
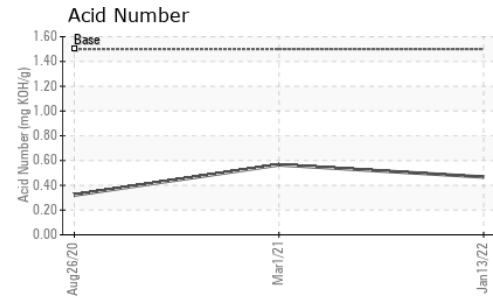
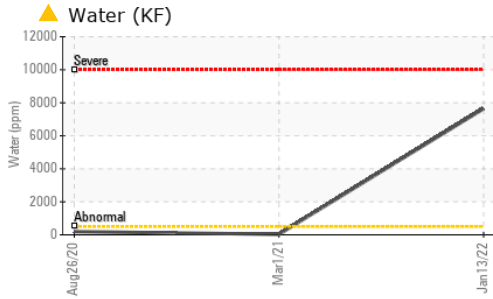
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		---	2176	6906
Particles >6µm	ASTM D7647 >1300		---	880	▲ 2330
Particles >14µm	ASTM D7647 >80		---	79	▲ 140
Particles >21µm	ASTM D7647 >20		---	18	▲ 32
Particles >38µm	ASTM D7647 >4		---	0	2
Particles >71µm	ASTM D7647 >3		---	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13		---	17/13	▲ 18/14

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.5	0.467	0.565	0.321

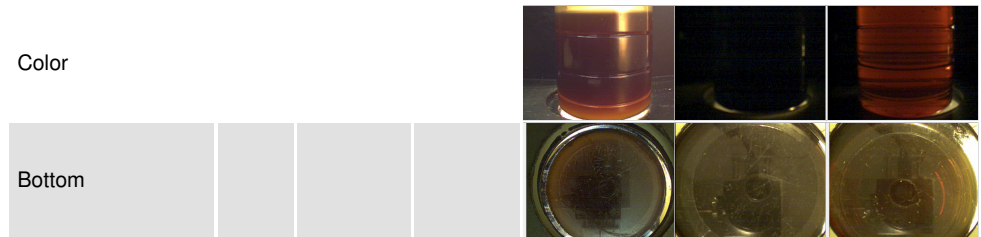
OIL ANALYSIS REPORT



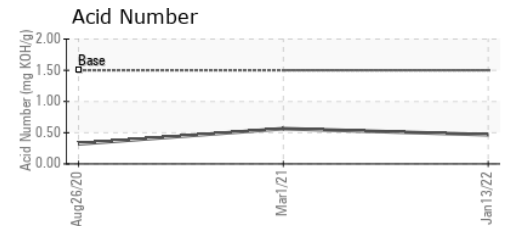
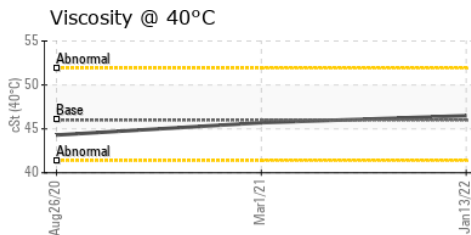
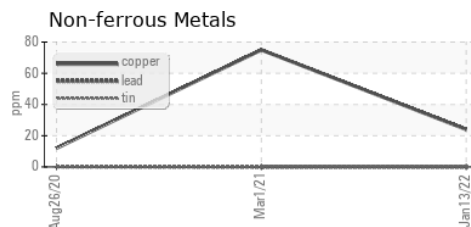
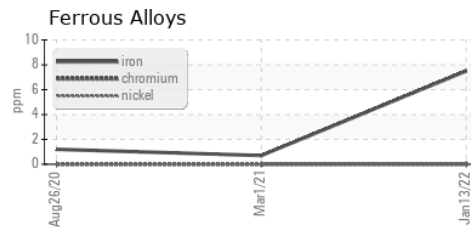
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	46	46.5	45.7	44.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC73030
Lab Number : 05446084
Unique Number : 9815278
Test Package : IND 2
Received : 19 Jan 2022
Tested : 20 Jan 2022
Diagnosed : 20 Jan 2022 - Jonathan Hester

PIERRES ICE CREAM
 6200 EUCLID AVE
 CLEVELAND, OH
 US 44103
 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)

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