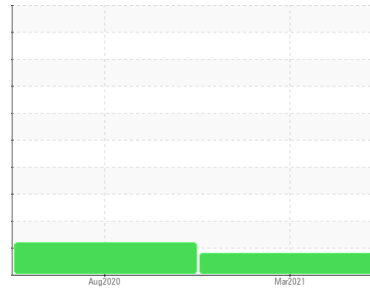


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



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. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable.

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			KC93011	KC66814	---
Sample Date	Client Info			01 Mar 2021	26 Aug 2020	---
Machine Age	hrs	Client Info		5369	2470	---
Oil Age	hrs	Client Info		2899	2470	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				ABNORMAL	ATTENTION	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	1	---
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	<1	<1	---
Aluminum	ppm	ASTM D5185m	>10	<1	7	---
Lead	ppm	ASTM D5185m	>10	0	<1	---
Copper	ppm	ASTM D5185m	>50	▲ 75	12	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Antimony	ppm	ASTM D5185m		0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	<1	---

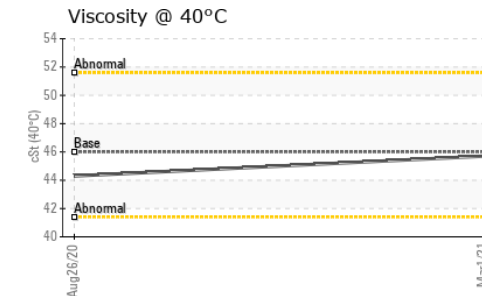
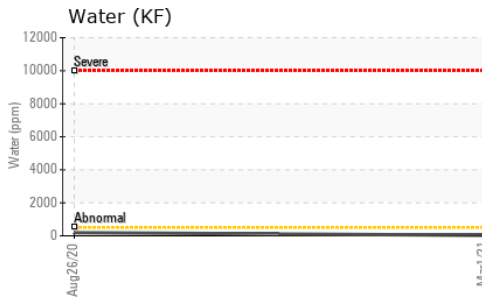
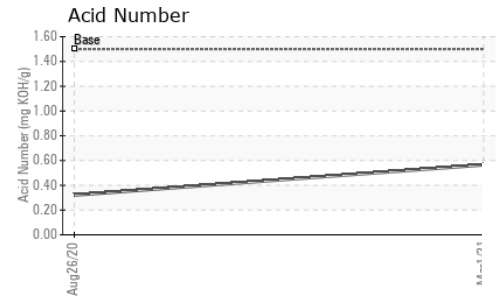
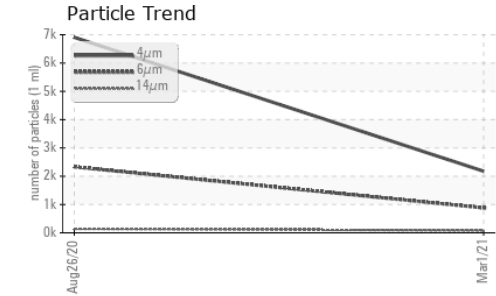
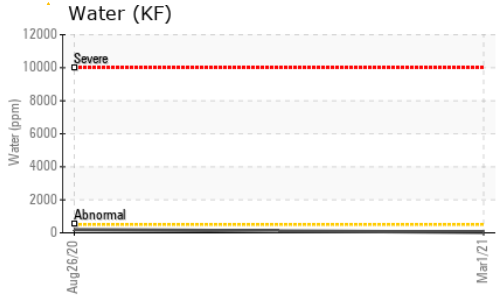
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		2	5	---
Barium	ppm	ASTM D5185m		0	5	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		0	34	---
Calcium	ppm	ASTM D5185m		0	0	---
Phosphorus	ppm	ASTM D5185m	500	199	8	---
Zinc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

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	4	---
Sodium	ppm	ASTM D5185m		<1	10	---
Potassium	ppm	ASTM D5185m	>20	0	8	---
Water	%	ASTM D6304	>0.05	0.003	0.019	---
ppm Water	ppm	ASTM D6304	>500	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	0.565	0.321	---

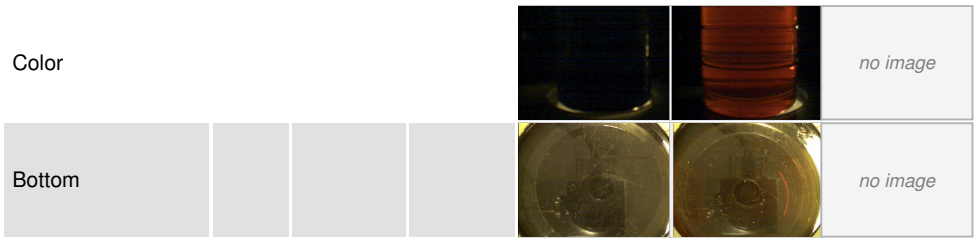
OIL ANALYSIS REPORT



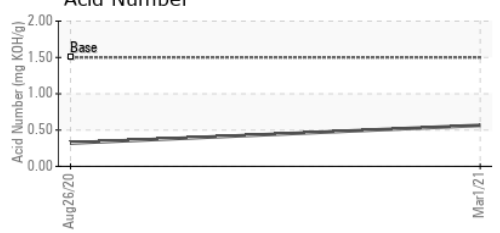
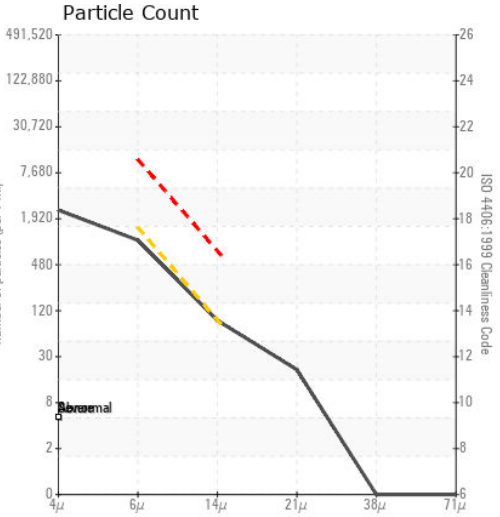
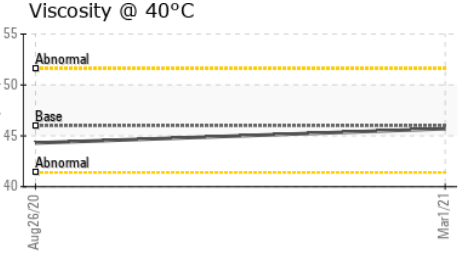
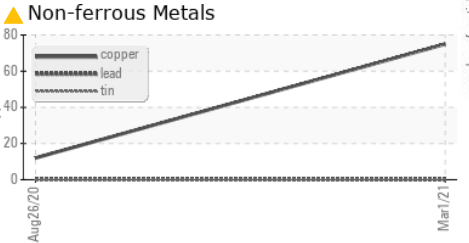
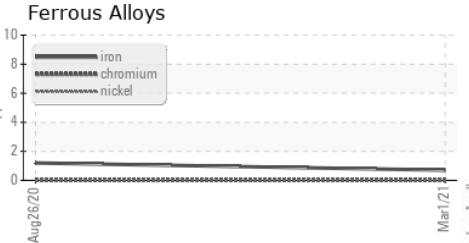
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE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

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

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC93011
Lab Number : 05198937
Unique Number : 9394248
Test Package : IND 2
Received : 09 Mar 2021
Tested : 10 Mar 2021
Diagnosed : 10 Mar 2021 - Angela Borella

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)