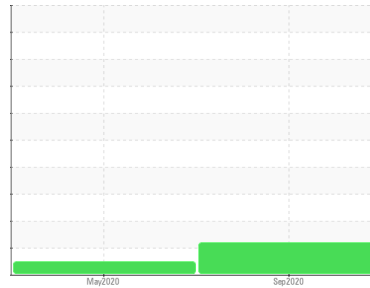


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
6821939 (S/N 2071)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-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 moderate 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			KC84475	KC83606	---
Sample Date	Client Info			22 Sep 2020	22 May 2020	---
Machine Age	hrs	Client Info		1944	1437	---
Oil Age	hrs	Client Info		1944	1437	---
Oil Changed	Client Info			Changed	Not Changd	---
Sample Status				ATTENTION	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	2	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>3	<1	0	---
Titanium	ppm	ASTM D5185m	>3	0	0	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>10	3	12	---
Lead	ppm	ASTM D5185m	>10	0	<1	---
Copper	ppm	ASTM D5185m	>50	12	5	---
Tin	ppm	ASTM D5185m	>10	<1	0	---
Antimony	ppm	ASTM D5185m		<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		12	<1	---
Barium	ppm	ASTM D5185m	90	0	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	90	<1	3	---
Calcium	ppm	ASTM D5185m	2	0	<1	---
Phosphorus	ppm	ASTM D5185m		2	3	---
Zinc	ppm	ASTM D5185m		21	0	---

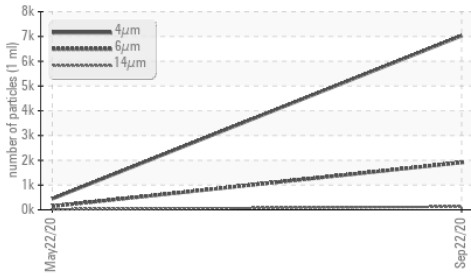
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	<1	---
Sodium	ppm	ASTM D5185m		<1	0	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Water	%	ASTM D6304	>0.05	0.006	0.007	---
ppm Water	ppm	ASTM D6304	>500	67.7	75.5	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		7030	445	---
Particles >6µm		ASTM D7647	>1300	▲ 1912	143	---
Particles >14µm		ASTM D7647	>80	▲ 126	18	---
Particles >21µm		ASTM D7647	>20	▲ 32	4	---
Particles >38µm		ASTM D7647	>4	4	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 18/14	14/11	---

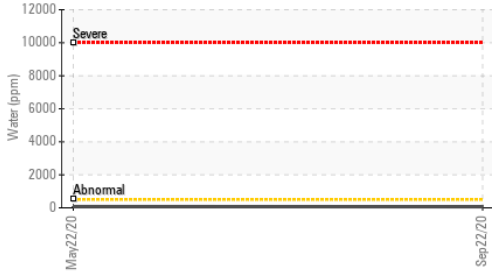
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.427	0.412	---

OIL ANALYSIS REPORT

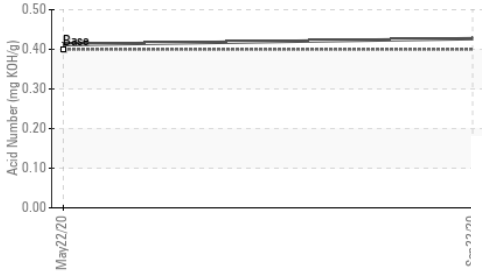
▲ Particle Trend



Water (KF)



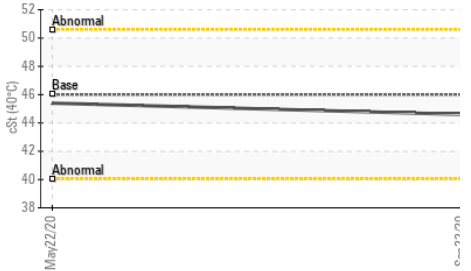
Acid Number



Water (KF)



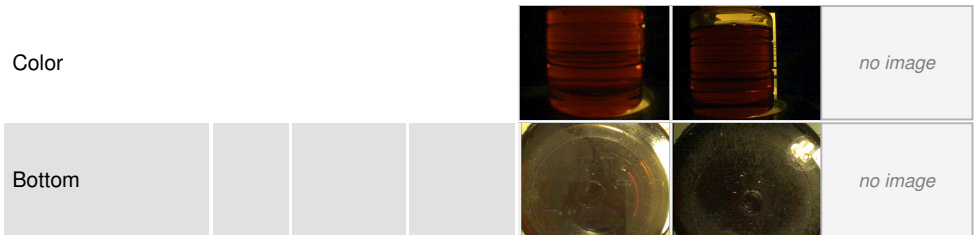
Viscosity @ 40°C



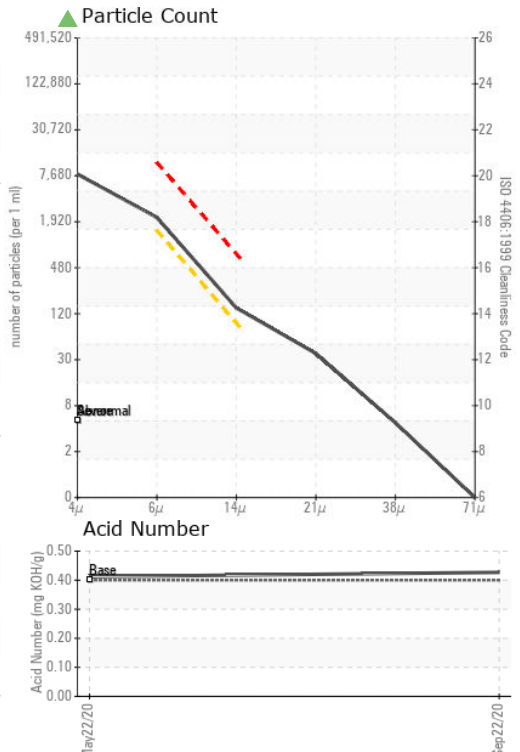
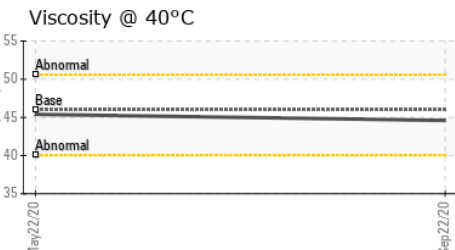
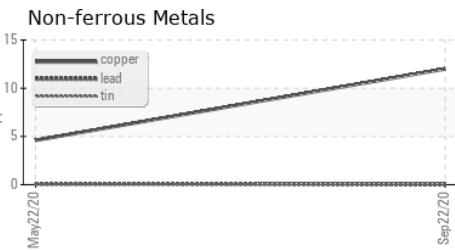
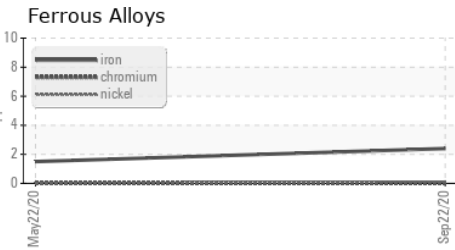
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	44.6	45.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC84475
Lab Number : 05074455
Unique Number : 9189686
Test Package : IND 2

BETTCHEr INDUSTRIES
 6801 ST RT 60
 BIRMINGHAM, OH
 US 44889
 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)