

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

### **3753066 (S/N 1059)** Component **Compressor**

#### 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.

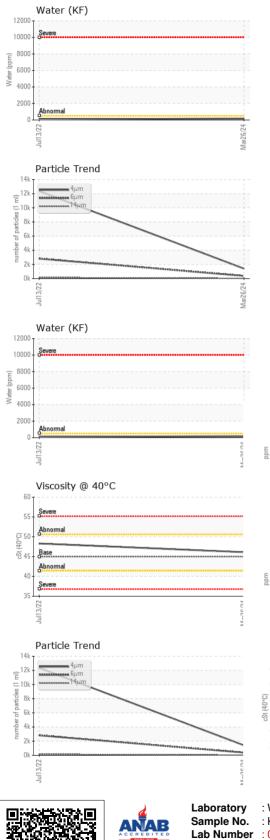
#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA015060	KCP40518	
Sample Date		Client Info		26 Mar 2024	13 Jul 2022	
Machine Age	hrs	Client Info		67811	54998	
Oil Age	hrs	Client Info		6481	5000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	<1	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>3	0	0	
Titanium	ppm		>3	<1	0	
Silver	ppm	ASTM D5185m	>2	<1	<1	
Aluminum	ppm	ASTM D5185m	>10	2	<1	
Lead	ppm	ASTM D5185m	>10	0	<1	
		ASTM D5185m	>50	2	11	
Copper Tin	ppm	ASTM D5185m	>10	2 <1	<1	
Vanadium	ppm		>10	<1	0	
Cadmium	ppm ppm	ASTM D5185m ASTM D5185m		<1	0	
ADDITIVES	ppm	method	limit/base	current	history1	history2
Boron		ASTM D5185m	0		0	
	ppm			0		
Barium	ppm	ASTM D5185m	90	16	2	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m	100	57	<1	
Calcium	ppm	ASTM D5185m	0	4	0	
Phosphorus	ppm	ASTM D5185m	0	3	7	
Zinc	ppm	ASTM D5185m	0	6	13	
Sulfur	ppm	ASTM D5185m	23500	21886	21373	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	
Sodium	ppm	ASTM D5185m		17	0	
Potassium	ppm	ASTM D5185m	>20	3	<1	
Water	%	ASTM D6304	>0.05	0.017	0.009	
ppm Water	ppm	ASTM D6304	>500	176	92.1	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1405	12356	
Particles >6µm		ASTM D7647	>1300	374	<u> </u>	
Particles >14µm		ASTM D7647	>80	26	148	
Particles >21µm		ASTM D7647	>20	5	<b>4</b> 3	
Particles >38µm		ASTM D7647	>4	0	3	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>/17/13	18/16/12	▲ 21/19/14	
FLUID DEGRADA	TIO <u>N</u>	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.35	0.42	
	ing NOTing	70 HVI D0040	1.0	0.00	0.72	



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	VISUAL						
			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	LIGHT	
4	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Mar26/24	Appearance	scalar	*Visual	NORML	NORML	NORML	
Mar	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPERT	TIES	method	limit/base	current	history1	history2
1	Visc @ 40°C	cSt	ASTM D445	45	46.1	48.3	
	SAMPLE IMAGES	S	method	limit/base	current	history1	history2
-							
Mar26/24	Color						no image
Ma							
1	Bottom						no imago
	Bottom						no image
	GRAPHS						
	Ferrous Alloys				Particle Count		
	10iron]			491,520	1		1 <sup>26</sup>
v	6 - normium			122,880	-		-24
6.36~							
	2			30,720	1		-22
	L			7,680	N. 1		-20
					T		
	322						
	Jul13/22						-18
		s				<b>N</b>	-18
	Non-ferrous Metal	s					-18
	Non-ferrous Metal	s					-18 -16 -14
	Non-ferrous Metal	s		of particles (per 1 ml)			+20 +18 +16 +14 +12
	Non-ferrous Metal	S		Mar26/24 Mar26/24 1 ml) 120			+18 +16 +14 +12 +10
Proc-1	Non-ferrous Metal	s		+C/92/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2			+18 +16 +14 +12 +10
ACC-A	Non-ferrous Metal	s		+C/92/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2			-18 -16 -14 -12 -10 -8
VC/GC~~FW	Non-ferrous Metal	s		Mar26/24 Mar26/24 1 ml) 120	Beresemal	144 214	-12 -10 -8 5
ha-oc.ni	Non-ferrous Metal	s		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	-18 -16 -14 -12 -10 -8 $-38\mu$ $-71\frac{5}{\mu}$
AN-JORNA	Non-ferrous Metal	5		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	-12 -10 -8 6
AC OC-M	Non-ferrous Metal	5		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	+12
ACC-A	Non-ferrous Metal	S		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	-12
M4-D5 CAA	Non-ferrous Metal	s		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	+12 +10 +8
A DODA	Non-ferrous Metal	S		+2/92/ше 480 120 120 120 120 120 120 120 12	Beresemal Acid Number	14μ 21μ	-12 -10 -8 6
ч Ч Ч Ч	Non-ferrous Metal	S		+2/92/2PW 1.920 +2/92/2PW 480 480 480 480 480 480 480 480	Beresemal Acid Number	14μ 21μ	+12

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: S. AKER - RIPSANCA Page 2 of 2

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