

## **OIL ANALYSIS REPORT**



Machine Id

# 8384572 (S/N 1483)

Compressor Fluid KAESER SIGMA (OEM) M-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.

#### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil.

#### Fluid Condition

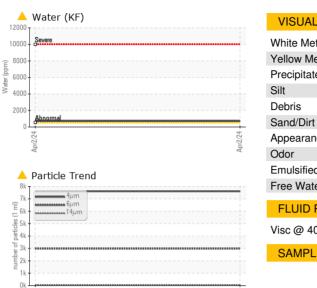
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

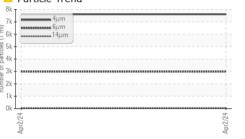
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA015069		
Sample Date		Client Info		02 Apr 2024		
Machine Age	hrs	Client Info		7		
Oil Age	hrs	Client Info		7		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>3	<1		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm	ASTM D5185m	>50	1		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Barium	ppm	ASTM D5185m	90	33		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	100	24		
Calcium	ppm	ASTM D5185m	0	4		
Phosphorus	ppm	ASTM D5185m	0	2		
Zinc	ppm	ASTM D5185m	0	9		
Sulfur	ppm	ASTM D5185m	23500	20235		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0		
Sodium	ppm	ASTM D5185m		0		
Potassium	ppm	ASTM D5185m	>20	4		
Water	%	ASTM D6304	>0.05	<b>A</b> 0.070		
ppm Water	ppm	ASTM D6304	>500	<b>A</b> 708		
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		7608		
Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >14µm		ASTM D7647	>80	66		
Particles >21µm		ASTM D7647	>20	3		
Particles >38µm		ASTM D7647	>4	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>/17/13	<b>A</b> 20/19/13		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.23		



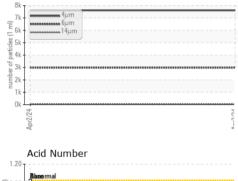
Built for a lifetime."

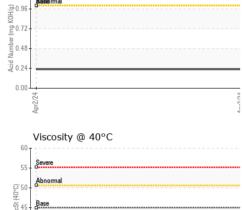
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	LIGHT		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	42.9		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color					no image	no image
					noimage	no image
Bottom				a 5	no image	no image
GRAPHS						
Ferrous Alloys						
				Darticlo Count	-	
			491,520-	Particle Count		T2
iron			491,520·	Particle Count		
im			491,520	Particle Count		
iron chromium			491,520·	Particle Count		+2
iron http://www.chromium nickel			491,520 122,880 30,720	Particle Count		+2 +2
iron chromium nickel			491,520 122,880 30,720 7,680	Particle Count		+2 +2
iron chromium nickel			491,520 122,880 30,720 7,680	Particle Count		-2 +2 +2
iron chromium nickel			491,520 122,880 30,720 7,680	Particle Count		-7 -7 -7 -1
iron chromium Non-ferrous Metal			491,520 122,880 30,720 7,680	Particle Count		-7 -7 -7 -1
Non-ferrous Metal			491,520 122,880 30,720 7,680	Particle Count		+2 +2 +2 +1 +1
Non-ferrous Metal			491,520- 122,880- 30,720- 7,680- 7,680- 7,680- 7,680- 122,200 122,200 122,200 122,200 122,200 122,200 122,200 122,880- 122,99- 120,99- 12	Particle Count		+2 +2 +1 +1 +1 +1
Non-ferrous Metal			491,520 122,880 30,720 7,680	Particle Count		12 +2 +2 +2 +2 +1 +1 +1 +1
Non-ferrous Metal	s		491,520- 122,880- 30,720- 7,680- 7,20- 7,680- 7,20- 7,	Particle Count		+2 +2 +1 +1 +1 +1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 480 1,920 480 1,920 480 30,720 1,920 1,920 480 30,720 8,9 480 480 480 480 480 480 480 480			+2 +2 +2 +1 1 +1 +1 +1 +1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 480 1,920 480 1,920 480 30,720 1,920 1,920 480 30,720 8,9 480 480 480 480 480 480 480 480			+2 +2 +1 +1 +1 +1 +1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 480 1,920 480 1,920 480 1,920 480 30,720 80 122,880 122,880 80 122,880 122,880 80 122,880 102,000 100,000 102,000		14μ 21μ	-2 -2 -2 +1 -1 +1 +1 -1 +1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 427,680 427,680 427,680 427,680 427,680 420,790 480 480 480 480 480 480 480 48	Bereemal		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 420,790 420,790 400,7	Bereemal		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 420,790 420,790 400,7	Berevernal Acid Number		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 420,790 420,790 400,7	Berevernal Acid Number		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 420,790 420,790 400,7	Berevernal Acid Number		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 7,680 7,680 7,680 7,680 1,920 480 1,920 1,200 1,	Berevernal Acid Number		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Non-ferrous Metal	s		491,520: 122,880 30,720 7,680 420,790 420,790 400,7	Berevernal Acid Number		-2 -2 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1



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> Sample No. : KCPA015069 :08 Apr 2024 21 FATHER DEVALLES BLVD Received Lab Number : 06142305 Tested : 09 Apr 2024 FALL RIVER, MA Unique Number : 10967113 Diagnosed : 10 Apr 2024 - Doug Bogart US 02723 Test Package : IND 2 (Additional Tests: KF, PrtCount) Contact: ALEX SHEA Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. alex.shea@l3harris.com \* - 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)

Report Id: L3TFAL [WUSCAR] 06142305 (Generated: 04/10/2024 09:31:24) Rev: 1

Laboratory

Contact/Location: ALEX SHEA - L3TFAL Page 2 of 2

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