

### **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

Machine Id

# KAESER 743318

#### Component Compressor Fluid KAESER SIGMA (OEM) M-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 high amount of particulates present in the oil.

#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA012385		
Sample Date		Client Info		22 Apr 2024		
Machine Age	hrs	Client Info		14567		
Oil Age	hrs	Client Info		3000		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>3	<1		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm		>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	71		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m	Ū	0		
Magnesium	ppm	ASTM D5185m	100	90		
Calcium	ppm		0	3		
Phosphorus	ppm	ASTM D5185m	0	<1		
Zinc	ppm		0	3		
Sulfur	ppm	ASTM D5185m	23500	22921		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2		
Sodium	ppm	ASTM D5185m		16		
Potassium	ppm	ASTM D5185m	>20	13		
Water	%	ASTM D6304		0.027		
ppm Water	ppm	ASTM D6304	>500	280		
FLUID CLEANLINI	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		7929		
Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >14µm		ASTM D7647	>80	<b>4</b> 02		
Particles >21µm		ASTM D7647		<u> </u>		
Particles >38µm		ASTM D7647	>4	2		
Particles >71µm		ASTM D7647		0		
Oil Cleanliness		ISO 4406 (c)	>/17/13	<b>20/19/16</b>		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.41		



## **OIL ANALYSIS REPORT**

A Particle Trend		VISUAL		method	limit/base	current	history1	history2
8k - 6μm		White Metal	scalar	*Visual	NONE	NONE		
management 1 t/2 (11)		Yellow Metal	scalar	*Visual	NONE	NONE		
82 6k		Precipitate	scalar	*Visual	NONE	NONE		
5 4k		Silt	scalar	*Visual	NONE	NONE		
2k		Debris	scalar	*Visual	NONE	NONE		
0k		Sand/Dirt	scalar	*Visual	NONE	NONE		
Apr22/24	Apr22/24	Appearance	scalar	*Visual	NORML	NORML		
Apr	Apr	Odor	scalar	*Visual	NORML	NORML		
Water (KF)		Emulsified Water	scalar	*Visual	>0.05	NEG		
2000		Free Water	scalar	*Visual		NEG		
000 - G		FLUID PROPER	TIES	method	limit/base	current	history1	history2
100		Visc @ 40°C	cSt	ASTM D445	45	51.3		
00		SAMPLE IMAGE	S	method	limit/base	current	history1	history2
00 Abnormal								
Api22/24	Apr22/24	Color					no image	no image
Acid Number		Bottom					no image	no image
.96								
40		GRAPHS						
48		Ferrous Alloys				Particle Count		
.24		10 iron			491,520	I		T <sup>26</sup>
00 4:	v	6 - newspace chromium			122,880	+		-24
Apr22/24	<i></i>				30,720			-22
4	<	2-			50,720			
Water (KF)		0 Li			7,680	~ .		-20
00 Severe		Apr22/24			Apr22/24 . (per 1 ml)			+20 +18 +16 +14 +12
		Ap			Apr22/24- 036'1 ml) 088		N	
10 -		Non-ferrous Meta	ls		-11 480			16
0		8 - copper			ja 120			-14
0		E 6 - tin			-ing 120 		· \	12
Abnormal					50	[		-12
124	2	2 -				<b>Bisreve</b> mal		-10
Apr22/24	ووسم	0			* 2	Į		
		Apr22/24			Apr22/			
Viscosity @ 40°C		⊲ Viscosity @ 40°C			- O	<sup>4</sup> μ 6μ	14µ 21µ	38µ 71µ
Severe		<sup>60</sup> T			_ 1.20	Acid Number		
Abnormal		55 - Severe			(BHO) 0.96	Basermal		
0 + 9		G 50 - Abnormal			Ĕ.0.72			
50 - <b>G</b> 15 - <b>B</b> ase		5 5 45 - Abnormal			-ag 0.48 PD 0.24			
Abnormal 0-		40 - Severe			2 0.24			
Severe		35			24	24		7
apr22/24	100	Apr22/24			Apr22/2	Apr22/24		1000
Apri	Amel	4			4	4		<
Certificate 12367 To discuss th	Sample No. Lab Number Unique Number Test Package		Rece Teste Diagi sts: KF, F	ived : 10 ed : 14 Prosed : 14 PrtCount )	0 May 2024 4 May 2024 May 2024 - Ange	ela Borella	1494 S WA SAN BER	MAZON SBD ATERMAN AV NARDINO, C. US 9240 ervice Manage
* - Denotes te	est methods that a	ecifications are based	17025 sco	pe of accred	ditation.	rule (JCGM 106	5:2012)	٦ F