

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# 5284735 (S/N 1619)

### Component Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

#### 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	IATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		KCPA016000	KCP11834			
Sample Date		Client Info		05 Apr 2024	10 Sep 2021			
Machine Age	hrs	Client Info		22783	17060			
Oil Age	hrs	Client Info		0	3000			
Oil Changed		Client Info		Changed	Changed			
Sample Status				NORMAL	NORMAL			
WEAR METALS		method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>50	0	<1			
Chromium	ppm	ASTM D5185m	>10	<1	0			
Nickel	ppm	ASTM D5185m	>3	<1	0			
Titanium	ppm	ASTM D5185m	>3	<1	0			
Silver	ppm	ASTM D5185m	>2	0	<1			
Aluminum	ppm	ASTM D5185m	>10	2	<1			
Lead	ppm	ASTM D5185m	>10	- <1	0			
Copper	ppm	ASTM D5185m	>50	10	2			
Tin	ppm	ASTM D5185m	>10	<1	0			
Antimony	ppm	ASTM D5185m	~10		0			
Vanadium		ASTM D5185m		0	0			
	ppm	ASTM D5185m		0 <1	0			
Cadmium	ppm				-			
ADDITIVES		method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	0	<1			
Barium	ppm	ASTM D5185m	90	3	22			
Volybdenum	ppm	ASTM D5185m	0	<1	0			
Vanganese	ppm	ASTM D5185m		0	0			
Magnesium	ppm	ASTM D5185m	100	25	66			
Calcium	ppm	ASTM D5185m	0	4	0			
Phosphorus	ppm	ASTM D5185m	0	<1	3			
Zinc	ppm	ASTM D5185m	0	13	0			
Sulfur	ppm	ASTM D5185m	23500	25193	18868			
CONTAMINANTS		method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	1	2			
Sodium	ppm	ASTM D5185m	- 10	4	12			
Potassium	ppm	ASTM D5185m	>20	1	2			
Water	%	ASTM D310311		0.009	0.032			
opm Water	ppm	ASTM D0304 ASTM D6304		92	329.6			
FLUID CLEANLIN		method	limit/base	current	history1	history2		
Particles >4µm	200-	ASTM D7647	minubase	886	4659			
Particles >6µm		ASTM D7647 ASTM D7647	>1300	198	835			
Particles >0µm		ASTM D7647 ASTM D7647	>80	190	34			
Particles >21µm		ASTM D7647 ASTM D7647		5	8			
-								
Particles >38µm		ASTM D7647	>4	0	0			
Particles >71µm		ASTM D7647		0	0			
Oil Cleanliness		ISO 4406 (c)	>/17/13	17/15/11	17/12			
FLUID DEGRADA	TION	method	limit/base	current	history1	history2		
cid Number (AN) mg KOH/g ASTM D8045 1.0 0.41 0.350    4:41) Rev: 1 Contact/Location: CHRIS WRIGHT - AMTMC								

Report Id: AMTMOR [WUSCAR] 06148085 (Generated: 04/17/2024 15:54:41) Rev: 1

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12000-	Water (KF)	VISUAL		method	limit/base	current	history1	history2
10000.	Severe	White Metal	scalar	*Visual	NONE	NONE	NONE	
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
• 0008 Vater (ppm)		Precipitate	scalar	*Visual	NONE	NONE	NONE	
A000.		Silt	scalar	*Visual	NONE	NONE	NONE	
2000-		Debris	scalar	*Visual	NONE	NONE	NONE	
0.	Abnormal	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Sep 10/21 Apr5/24	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Ap Sep	Odor	scalar	*Visual	NORML	NORML	NORML	
	Particle Trend	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
5k -	4μm	Free Water	scalar	*Visual		NEG	NEG	
€ 4k -		FLUID PROPER	TIES	method	limit/base	current	history1	history2
f particle 3k -		Visc @ 40°C	cSt	ASTM D445	45	51.8	46.9	
(Im I) sabitred for admun 3k 1k		SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
0k -	Sep 10/21 Apri5/24	Color						no image
12000- 10000-	Water (KF)	Bottom						no image
(ppm)		GRAPHS						
≥ 4000.		Ferrous Alloys				Particle Count		
2000-	Abaamad	10 iron			491,520	ľ		1 <sup>26</sup>
0-	Abnormal	o - chromium			122,880	-		-24
	Sep10/2 				20.720			22
	σ. · · ·	2			30,720	-		-22
	Viscosity @ 40°C	0			7,680			-20 2
60-	Saura	Sep 10/21			Apr5/24			+20 50 44 16 1999 +18 45 1999 +16 6 Ceaning +16 Ceaning +12 6 46 +12 7 66
55-	Severe				A cles (p		<b>N</b>	199
0 50	Abnormal	Non-ferrous Meta	als		sapping 480			16 0
()- 050 - 153 45 -	Base	8 copper		- Contractor Contractor	ja 120			+14 8
40-	Abnormal	E 6+ tin		and and a second se	E a			12 00
	Severe P				30	1		+12
35-		2				Bioreman		-10
	Sep10/21	0			24			-8
		Sep 10/2'			Apr5/2			
5k-	Particle Trend	Viscosity @ 40°C			C	4μ 6μ	14µ 21µ	38µ 71µ
€ 4k	4μm 6μm	<sup>60</sup> T			- 1.20	Acid Number		
(m 1) sabitices (1 m) 38 - 38 - 38 - 38 - 38 - 38 - 38 - 38 -		55 - Severe			() <sup>1.20</sup> 90.96	Base mal		
-log 3k -		S 45 - Abnormal			Ĕ.0.72			
jo 2k -		る 数 45 - Base Abnormal			4 0.48 9 0.24 9 0.24			
aquinu 1k -	444444	Severe			Pg 0.24			
0k -		35			0.00	-		24 -
- 1	Sep 10/21	Sep10/21			Apr5/24	Sep 10/2		Apr5/24
	Laboratory Sample No. Lab Number Unique Number	t are outside of the ISO	Rece Teste Diagr ests: KF, F vice at 1-8 17025 sco	ived : 12 ed : 15 nosed : 17 PrtCount ) 800-237-1365 ope of accred	2 Apr 2024 5 Apr 2024 Apr 2024 - Jonat 9. ditation.	han Hester CHRIS.V	MOR Contact: Cł /RIGHT@AMETE	CHRANE CIR GAN HILL, CA US 95037 HRIS WRIGHT

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