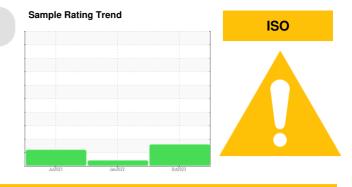


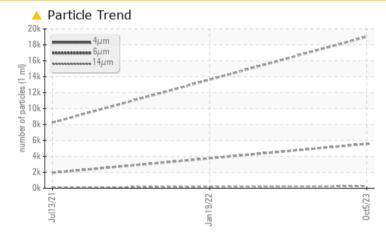
## **PROBLEM SUMMARY**



## Machine Id 4676505 (S/N 1396) Component

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

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS						
Sample Status		ABNORMAL	ABNORMAL	ATTENTION		
Particles >6µm	ASTM D7647 >	1300 🔺 5578		<b>1</b> 949		
Particles >14µm	ASTM D7647 >	80 <b>A 254</b>		<b>1</b> 09		
Particles >21µm	ASTM D7647 >	20 🔺 57		<b>A</b> 31		
Oil Cleanliness	ISO 4406 (c) >	/17/13 🔺 21/20/15		<u> </u>		

Customer Id: ECLMOO Sample No.: KCPA007553 Lab Number: 05981923 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

RECOMMENDED ACTIONS					
Action	Status	Date	Done By	Description	
Change Filter			?	We recommend you service the filters on this component.	

## HISTORICAL DIAGNOSIS

## 19 Jan 2022 Diag: Jonathan Hester





The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

# view report

### 13 Jul 2021 Diag: Angela Borella



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





## **OIL ANALYSIS REPORT**

## Sample Rating Trend ISO

Machine Id 4676505 (S/N 1396) Component

Compressor Fluid

KAESER SIGMA (OEM) M-460 (--- GAL)

## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. 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.

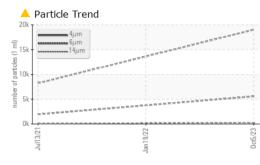
	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA007553	KCP48630	KCP42257
Sample Date		Client Info		05 Oct 2023	19 Jan 2022	13 Jul 2021
Machine Age	hrs	Client Info		47217	32247	27665
Oil Age	hrs	Client Info		0	2000	3000
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	2	0
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>50	22	3	6
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m			<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1	16
Barium	ppm	ASTM D5185m	90	5	15	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
		AOTH DELOS	100	1	71	13
iviagnesium	ppm	ASTM D5185m	100	•	/ 1	10
0	ppm ppm	ASTM D5185m ASTM D5185m		0	3	0
Calcium				-		
Calcium Phosphorus	ppm	ASTM D5185m	0 0	0	3	0
Calcium Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	0 0 0	0 3	3 12	0 5
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 3 18	3 12 0	0 5 9
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 23500 limit/base	0 3 18 19580	3 12 0 18393	0 5 9 17164
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 0 23500 limit/base	0 3 18 19580 current	3 12 0 18393 history1	0 5 9 17164 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 0 0 23500 limit/base >25	0 3 18 19580 current 1	3 12 0 18393 history1 2	0 5 9 17164 history2 <1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	0 0 0 23500 limit/base >25 >20	0 3 18 19580 current 1 1	3 12 0 18393 history1 2 12	0 5 9 17164 history2 <1 1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 23500 limit/base >25 >20 >0.05	0 3 18 19580 current 1 1 2	3 12 0 18393 history1 2 12 2	0 5 9 17164 history2 <1 1 0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 23500 limit/base >25 >20 >0.05	0 3 18 19580 current 1 1 2 0.007	3 12 0 18393 history1 2 12 2 12 2 0.010	0 5 9 17164 history2 <1 1 0 0 0.006
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0 3 18 19580 current 1 1 2 0.007 79.7	3 12 0 18393 history1 2 12 2 0.010 108.0	0 5 9 17164 history2 <1 1 0 0.006 62.0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0 3 18 19580 current 1 1 2 0.007 79.7 current	3 12 0 18393 history1 2 12 2 0.010 108.0	0 5 9 17164 <b>history2</b> <1 1 0 0.006 62.0 <b>history2</b>
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032	3 12 0 18393 history1 2 12 2 0.010 108.0	0 5 9 17164  history2 <1 1 
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	0 0 23500 23500 225 >25 >20 >0.05 >500 limit/base >1300 >80	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032 ▲ 5578	3 12 0 18393 history1 2 12 2 0.010 108.0 history1	0 5 9 17164 <1 1 0 0.006 62.0 history2 8245 ▲ 1949
Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 23500 225 >25 >20 >0.05 >500 limit/base >1300 >80	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032 ▲ 5578 ▲ 254	3 12 0 18393 history1 2 12 2 12 2 0.010 108.0 history1 	0 5 9 17164 <1 1 0 0.006 62.0 history2 8245 8245 ▲ 1949 ▲ 109
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 23500 >25 >20 >20 >0.05 >500 limit/base >300 >80 >20 >20 >30	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032 ▲ 5578 ▲ 254 ▲ 57	3 12 0 18393 history1 2 12 2 12 2 0.010 108.0 history1  	0 5 9 17164 <1 1 0 0 0.006 62.0 bistory2 8245 &1949 ▲ 109 ▲ 31
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 23500 >25 >20 >20 >0.05 >500 limit/base >300 >80 >20 >20 >30	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032 ▲ 5578 ▲ 254 ▲ 57 4	3 12 0 18393 history1 2 12 2 12 2 0.010 108.0 history1  	0 5 9 17164  
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm % ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 23500 >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	0 3 18 19580 current 1 1 2 0.007 79.7 current 19032 ▲ 5578 ▲ 254 ▲ 57 4 0	3 12 0 18393 history1 2 12 2 12 2 0.010 108.0 history1   	0 5 9 17164  17164 <1 <10 <10 <0.006 62.0 <a href="https://align.edu/bubble">https://align.edu/bubble</a>

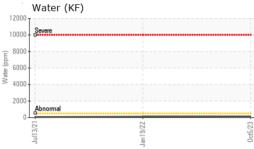
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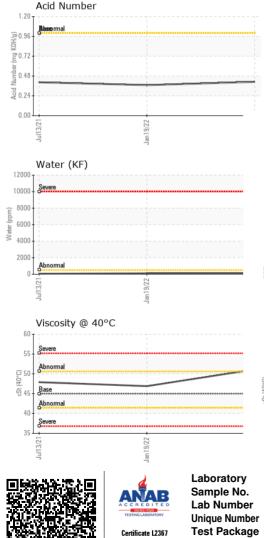
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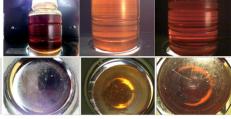
## **OIL ANALYSIS REPORT**



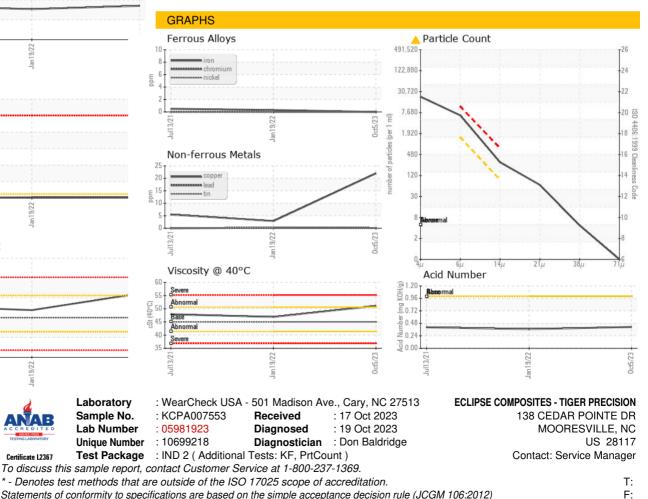




MOLIAI		and a file of the	Line la lle en energi		In the transmission	history O
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	🔺 MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	51.1	46.9	47.9
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
Color				• न -		



Bottom



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

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