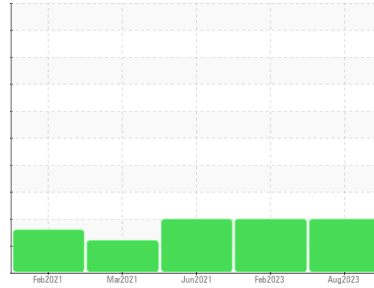




# PROBLEM SUMMARY

## Sample Rating Trend



ISO



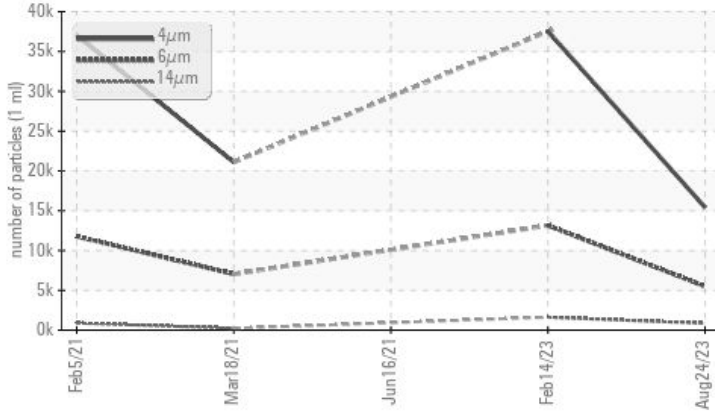
Machine Id  
**KAESER 6756268**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ASTM D7647	ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	>1300	▲ <b>5503</b>	▲ 13145	---	---
Particles >14µm	>80	▲ <b>857</b>	▲ 1620	---	---
Particles >21µm	>20	▲ <b>249</b>	▲ 537	---	---
Particles >38µm	>4	▲ <b>10</b>	▲ 14	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>21/20/17</b>	▲ 22/21/18	---

Customer Id: VALROSNC  
Sample No.: KCPA003719  
Lab Number: 05936741  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Angela Borella +1 800-237-1369  
[angela.borella@wearcheckusa.com](mailto:angela.borella@wearcheckusa.com)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 14 Feb 2023 Diag: Don Baldrige

ISO



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 16 Jun 2021 Diag: Angela Borella

WATER



We advise that you shut down the unit and follow the water drain-off procedure for this component. We recommend you service the filters on this component. We recommend an early resample in 500 hours to monitor this condition. 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. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. The condition of the oil is suitable for further service.

view report



### 18 Mar 2021 Diag: Angela Borella

ISO



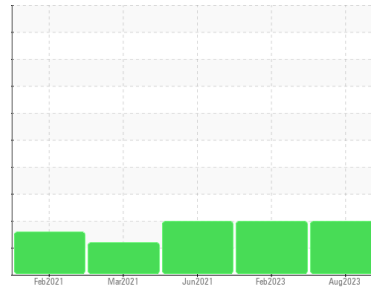
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER 6756268**

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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. The 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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KCPA003719</b>	KCP55092	KCP32489
Sample Date	Client Info	<b>24 Aug 2023</b>	14 Feb 2023	16 Jun 2021
Machine Age	hrs	<b>21638</b>	18227	7558
Oil Age	hrs	<b>0</b>	10669	0
Oil Changed	Client Info	<b>N/A</b>	Changed	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>7</b>	4	9
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	1
Barium	ppm	ASTM D5185m 90	<b>0</b>	16	8
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 100	<b>&lt;1</b>	28	45
Calcium	ppm	ASTM D5185m 0	<b>0</b>	0	3
Phosphorus	ppm	ASTM D5185m 0	<b>3</b>	18	10
Zinc	ppm	ASTM D5185m 0	<b>0</b>	17	19
Sulfur	ppm	ASTM D5185m 23500	<b>15328</b>	10184	19381

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	2	1
Sodium	ppm	ASTM D5185m	<b>0</b>	0	7
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	2
Water	%	ASTM D6304 >0.05	<b>0.008</b>	0.012	▲ 0.277
ppm Water	ppm	ASTM D6304 >500	<b>89.7</b>	122.5	▲ 2770

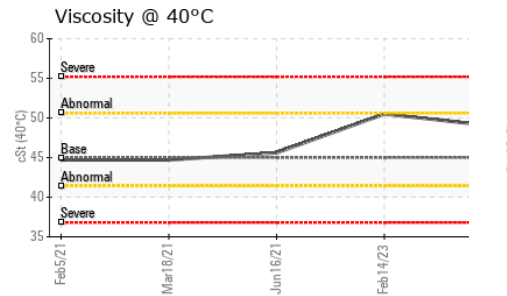
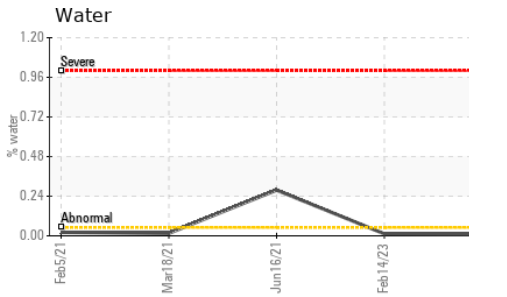
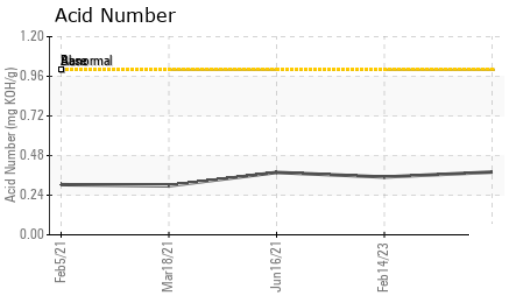
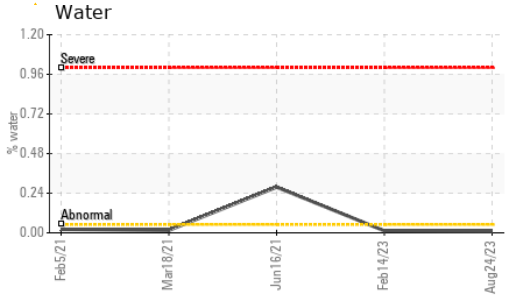
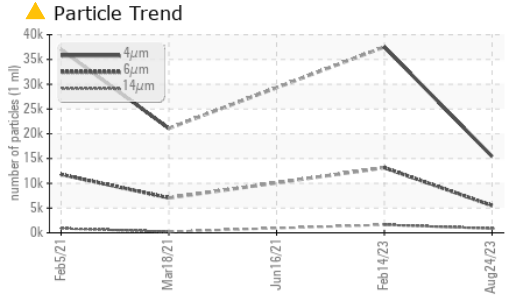
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>15417</b>	37530	---
Particles >6µm	ASTM D7647 >1300	▲ <b>5503</b>	▲ 13145	---
Particles >14µm	ASTM D7647 >80	▲ <b>857</b>	▲ 1620	---
Particles >21µm	ASTM D7647 >20	▲ <b>249</b>	▲ 537	---
Particles >38µm	ASTM D7647 >4	▲ <b>10</b>	▲ 14	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ <b>21/20/17</b>	▲ 22/21/18	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.38</b>	0.35	0.378

# OIL ANALYSIS REPORT

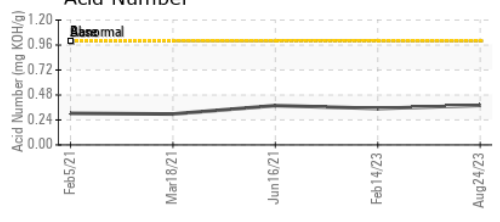
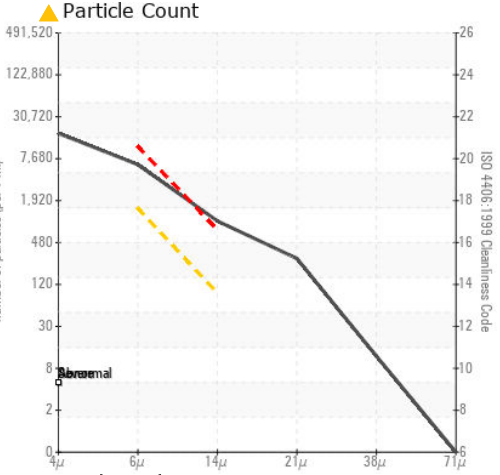
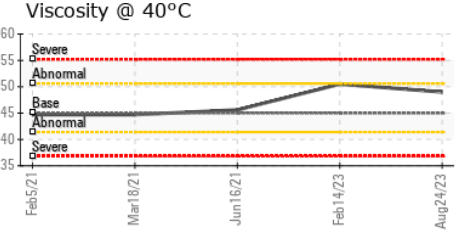
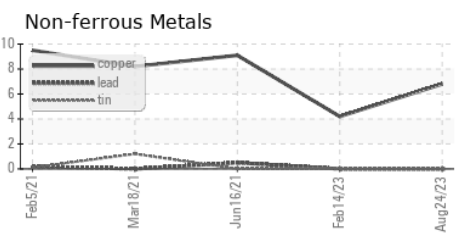
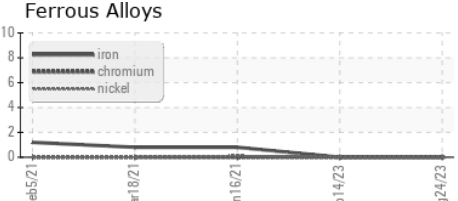


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	49.0	50.5	45.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA003719 **Received** : 28 Aug 2023  
**Lab Number** : 05936741 **Diagnosed** : 29 Aug 2023  
**Unique Number** : 10622012 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**DARLINE INGREDIENTS**  
 469 YELLOWCUT RD  
 ROSE HILL, NC  
 US 28458  
 Contact: KENDALL HUNTER  
 kendall.hunter@darlingii.com  
 T:  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - 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)