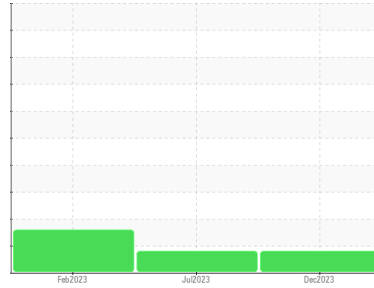




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**8685026 (S/N 1704)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- QTS)**

## 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 moderate amount of silt (particulates < 14 microns in size) 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>KCPA008748</b>	KCPA005740	KCP55579
Sample Date	Client Info		<b>15 Dec 2023</b>	26 Jul 2023	03 Feb 2023
Machine Age	hrs	Client Info	<b>10172</b>	6787	2687
Oil Age	hrs	Client Info	<b>0</b>	0	2687
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>ATTENTION</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>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>6</b>	5	2
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>46</b>	49	88
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 100	<b>61</b>	37	80
Calcium	ppm	ASTM D5185m 0	<b>4</b>	0	5
Phosphorus	ppm	ASTM D5185m 0	<b>32</b>	0	5
Zinc	ppm	ASTM D5185m 0	<b>0</b>	0	7
Sulfur	ppm	ASTM D5185m 23500	<b>19356</b>	21327	19183

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>23</b>	12	24
Potassium	ppm	ASTM D5185m >20	<b>12</b>	8	16
Water	%	ASTM D6304 >0.05	<b>0.013</b>	0.021	0.022
ppm Water	ppm	ASTM D6304 >500	<b>139</b>	212.3	221.6

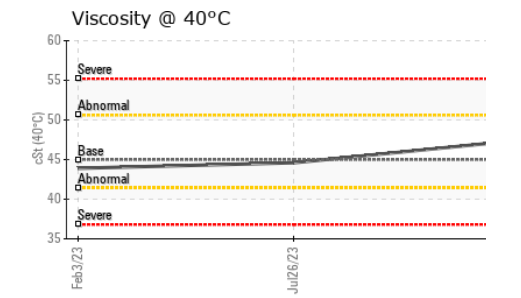
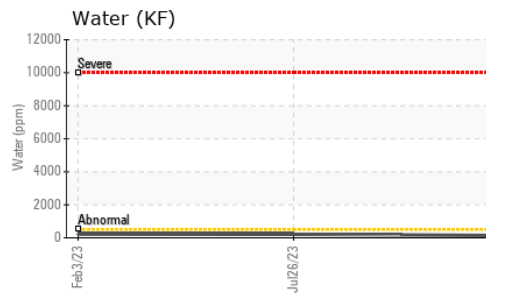
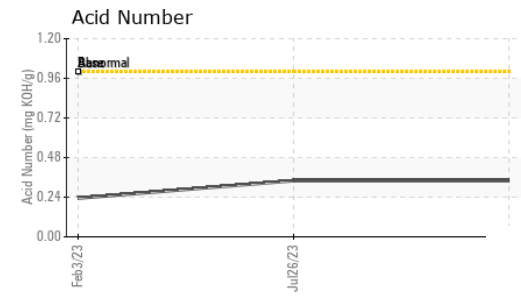
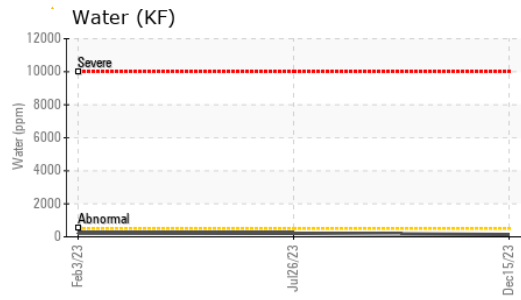
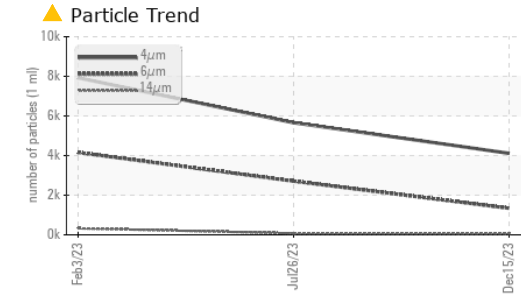
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>4114</b>	5659	7927
Particles >6µm	ASTM D7647 >1300		<b>▲ 1339</b>	▲ 2708	▲ 4157
Particles >14µm	ASTM D7647 >80		<b>61</b>	72	▲ 327
Particles >21µm	ASTM D7647 >20		<b>15</b>	7	▲ 33
Particles >38µm	ASTM D7647 >4		<b>1</b>	0	3
Particles >71µm	ASTM D7647 >3		<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c) >--/17/13		<b>▲ 19/18/13</b>	▲ 20/19/13	▲ 20/19/16

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.34</b>	0.34	0.234

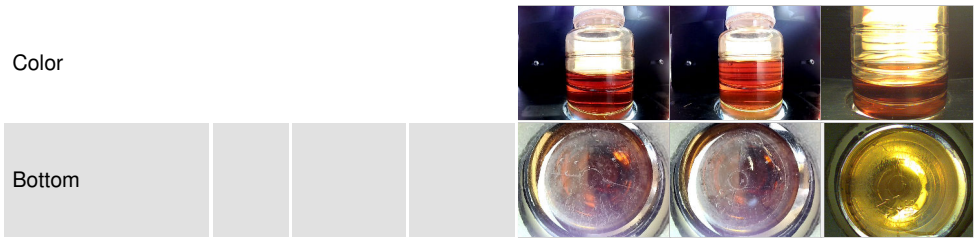
# OIL ANALYSIS REPORT



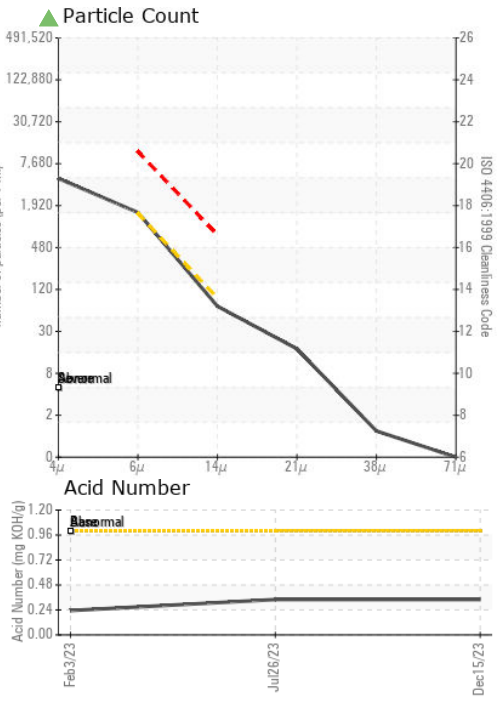
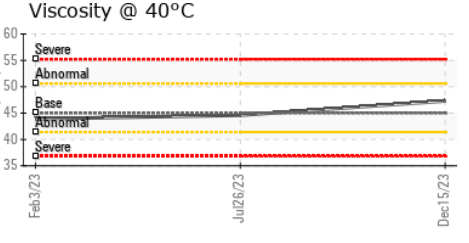
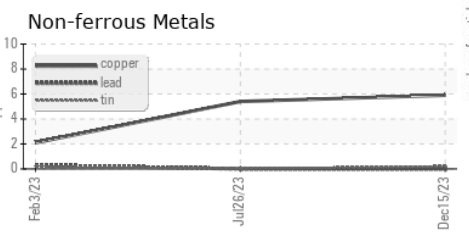
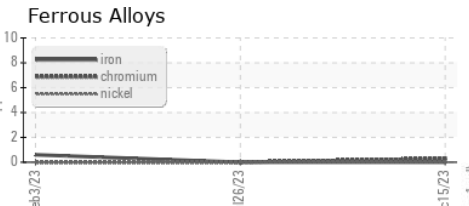
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	47.3	44.6	43.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA008748 **Received** : 16 Jan 2024  
**Lab Number** : 06061972 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833354 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**ION STORAGE SYSTEM INC**  
 12500 BALTIMORE AVE, SUITE D  
 BELTSVILLE, MD  
 US 20705  
 Contact: Service Manager

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)