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# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**8291057 (S/N 1295)**

Component  
**Compressor**

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

## 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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KCPA010906</b>	KCP52314	KCP44544
Sample Date		Client Info		<b>28 Nov 2023</b>	02 May 2023	12 Sep 2022
Machine Age	hrs	Client Info		<b>6489</b>	4210	1842
Oil Age	hrs	Client Info		<b>0</b>	4210	1841
Filter Age	hrs	Client Info		<b>0</b>	4210	1841
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>0</b>	2	1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>6</b>	7	7
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

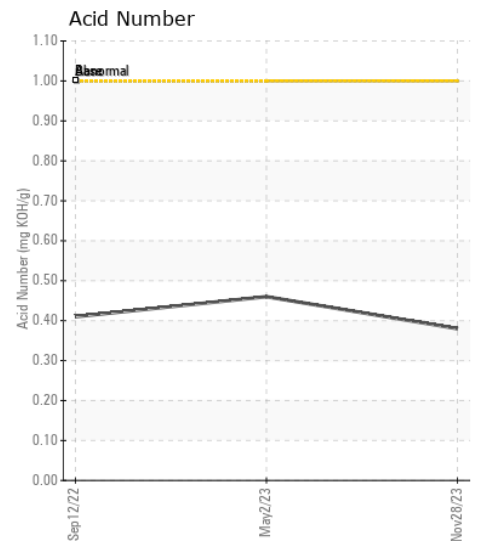
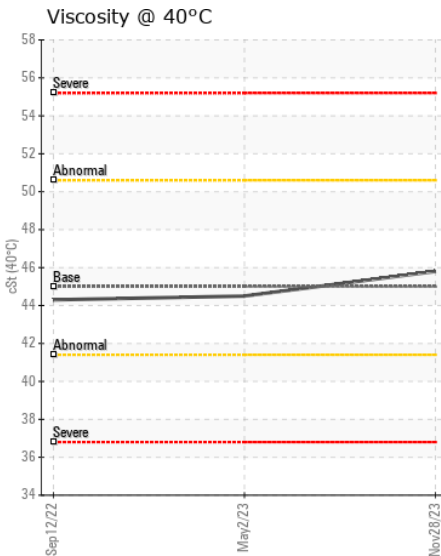
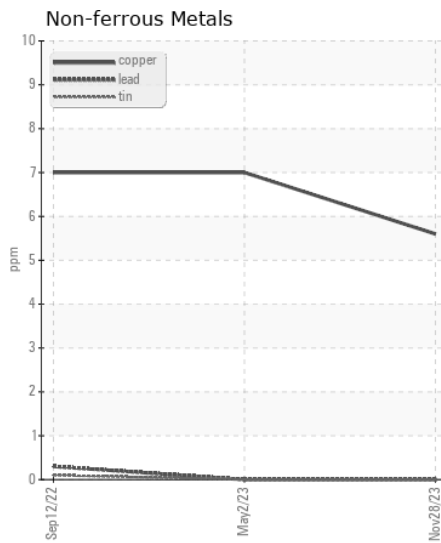
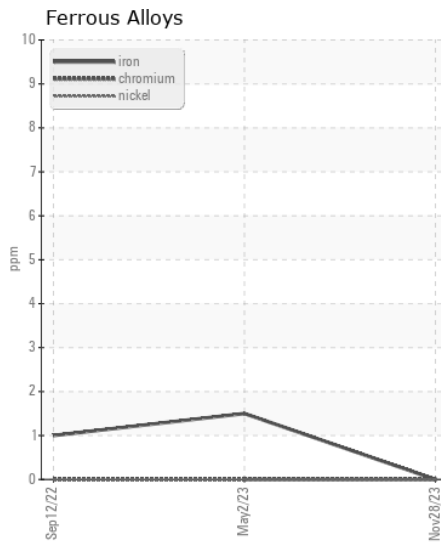
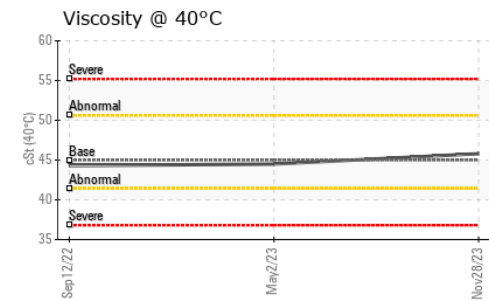
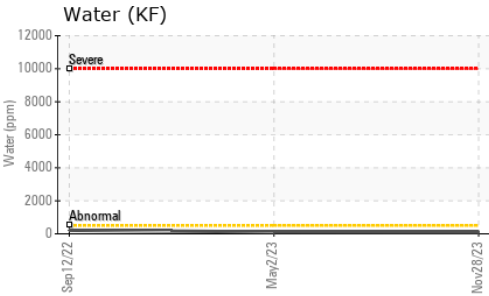
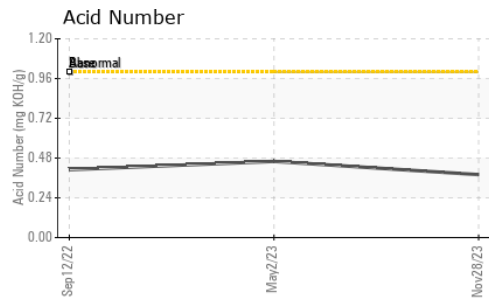
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	6	8
Water	%	ASTM D6304	>0.05	<b>0.009</b>	0.011	0.021
ppm Water	ppm	ASTM D6304	>500	<b>93</b>	112.2	215.8
Particles >4µm		ASTM D7647		<b>---</b>	---	6288
Particles >6µm		ASTM D7647	>1300	<b>---</b>	---	1070
Particles >14µm		ASTM D7647	>80	<b>---</b>	---	31
Particles >21µm		ASTM D7647	>20	<b>---</b>	---	7
Particles >38µm		ASTM D7647	>4	<b>---</b>	---	1
Particles >71µm		ASTM D7647	>3	<b>---</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>-/17/13	<b>---</b>	---	20/17/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	▲ MODER	VLITE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>11</b>	12	9
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	90	<b>0</b>	7	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	100	<b>25</b>	43	52
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m	0	<b>2</b>	2	9
Zinc	ppm	ASTM D5185m	0	<b>3</b>	16	4
Sulfur	ppm	ASTM D5185m	23500	<b>16930</b>	19971	21086
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.38</b>	0.46	0.41
Visc @ 40°C	cSt	ASTM D445	45	<b>45.8</b>	44.5	44.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA010906 **Received** : 06 Dec 2023  
**Lab Number** : 06026431 **Tested** : 07 Dec 2023  
**Unique Number** : 10776222 **Diagnosed** : 07 Dec 2023 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**RCI METAL WORKS**  
 6701 N FRANKLIN AVE  
 LOVELAND, CO  
 US 80538  
 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)

T:  
F: