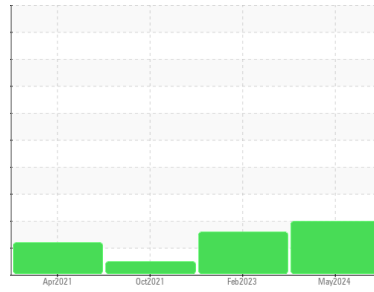




# OIL ANALYSIS REPORT

Sample Rating Trend



**DEGRADATION**



Machine Id  
**KAESER CSD 100S 7481621 (S/N 1060)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) FG-460 (--- QTS)**

**DIAGNOSIS**

**Recommendation**

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

**Wear**

All component wear rates are normal.

**Contamination**

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

**Fluid Condition**

The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KCPA016650</b>	KCP54846	KCP38811
Sample Date	Client Info		<b>08 May 2024</b>	07 Feb 2023	20 Oct 2021
Machine Age	hrs	Client Info	<b>29968</b>	19018	7869
Oil Age	hrs	Client Info	<b>10000</b>	3700	4000
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<1	<1	1
Chromium	ppm	ASTM D5185m >10	<1	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	<1	0	<1
Aluminum	ppm	ASTM D5185m >10	<b>18</b>	3	<1
Lead	ppm	ASTM D5185m >10	<1	0	<1
Copper	ppm	ASTM D5185m >50	<b>3</b>	11	11
Tin	ppm	ASTM D5185m >10	0	<1	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	0	3	2
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m 500	<b>128</b>	182	228
Zinc	ppm	ASTM D5185m	<b>21</b>	152	227
Sulfur	ppm	ASTM D5185m	<b>57</b>	876	1836

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	<1	<1
Sodium	ppm	ASTM D5185m	<b>4</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>5</b>	0	<1
Water	%	ASTM D6304 >0.05	<b>0.011</b>	0.003	0.005
ppm Water	ppm	ASTM D6304 >500	<b>119</b>	38.9	59.5

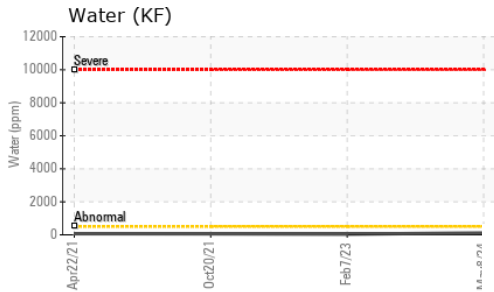
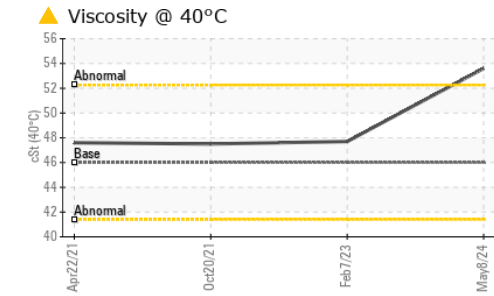
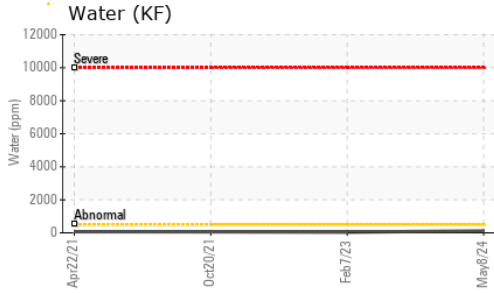
**FLUID CLEANLINESS**

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		---	92865	2842
Particles >6µm	ASTM D7647 >1300		---	▲ 33787	511
Particles >14µm	ASTM D7647 >80		---	▲ 1244	20
Particles >21µm	ASTM D7647 >20		---	▲ 246	5
Particles >38µm	ASTM D7647 >4		---	3	0
Particles >71µm	ASTM D7647 >3		---	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13		---	▲ 24/22/17	16/11

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.5	▲ <b>3.33</b>	0.50	0.530

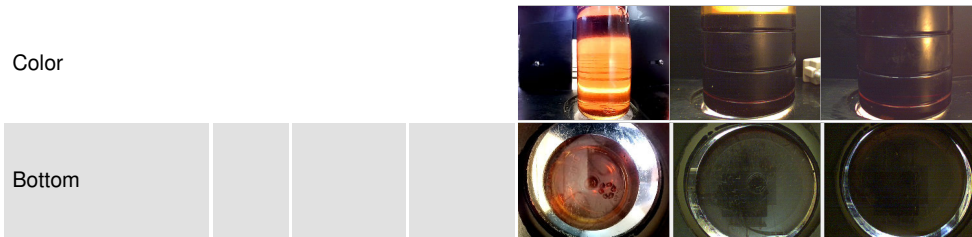
# OIL ANALYSIS REPORT



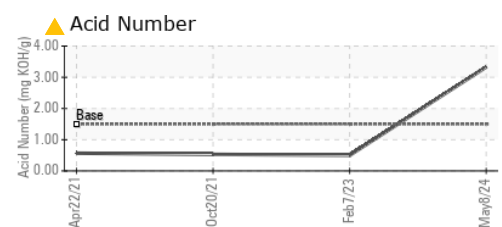
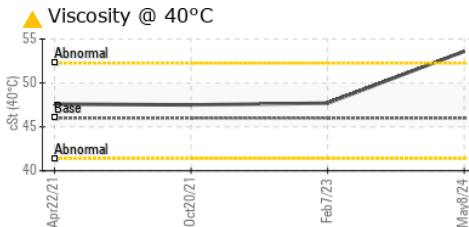
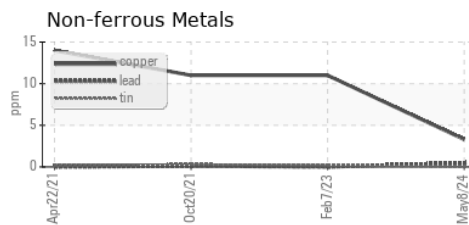
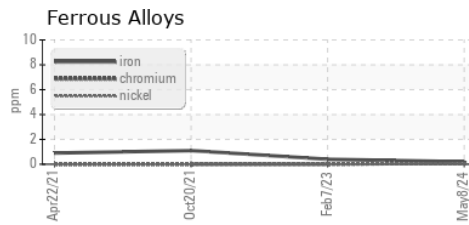
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 46	▲ 53.6	47.7	47.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA016650 **Received** : 16 May 2024  
**Lab Number** : 06182019 **Tested** : 20 May 2024  
**Unique Number** : 11033345 **Diagnosed** : 20 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**PURATOS CORP**  
 5000 70TH AVE  
 KENOSHA, WI  
 US 53144  
 Contact: D. JONES  
 djones@puratos.com

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)