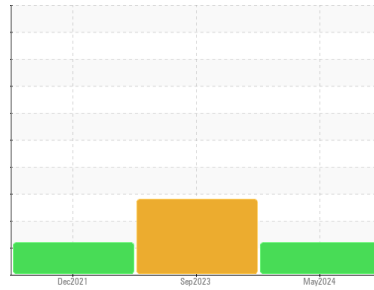




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**6675792 (S/N 1263)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Oil and 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 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>KCPA013337</b>	KCPA000798	KCP35275
Sample Date	Client Info			<b>01 May 2024</b>	22 Sep 2023	29 Dec 2021
Machine Age	hrs	Client Info		<b>28282</b>	24421	14944
Oil Age	hrs	Client Info		<b>0</b>	0	6843
Oil Changed	Client Info			<b>Changed</b>	N/A	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	0
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	<1
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	4	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>4</b>	6	7
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>	0	0

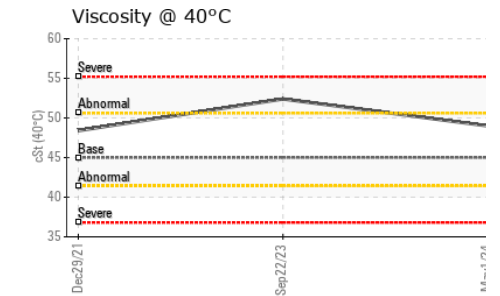
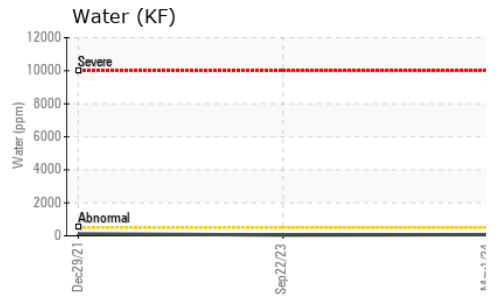
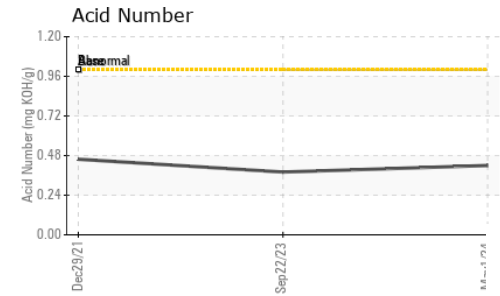
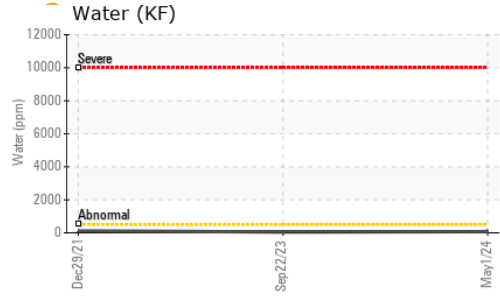
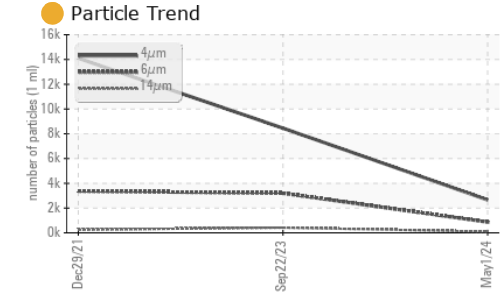
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	23
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	30
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	100	<b>0</b>	4	33
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Zinc	ppm	ASTM D5185m	0	<b>0</b>	0	3
Sulfur	ppm	ASTM D5185m	23500	<b>20989</b>	16366	18567

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304	>0.05	<b>0.007</b>	0.004	0.012
ppm Water	ppm	ASTM D6304	>500	<b>74</b>	46.6	124.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>2660</b>	8453	14102
Particles >6µm		ASTM D7647	>1300	<b>867</b>	▲ 3199	▲ 3371
Particles >14µm		ASTM D7647	>80	● <b>94</b>	▲ 419	▲ 249
Particles >21µm		ASTM D7647	>20	● <b>27</b>	▲ 126	▲ 65
Particles >38µm		ASTM D7647	>4	<b>1</b>	▲ 9	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	▲ 2	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	● <b>19/17/14</b>	▲ 20/19/16	▲ 19/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.42</b>	0.38	0.458

# OIL ANALYSIS REPORT

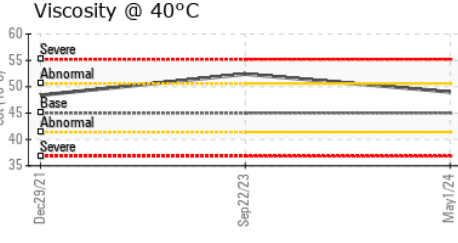
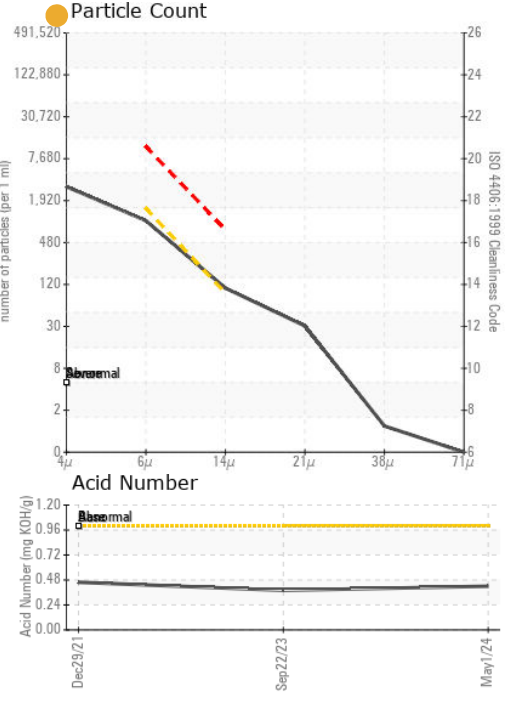
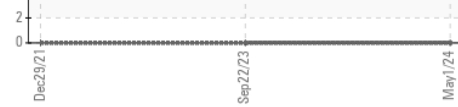
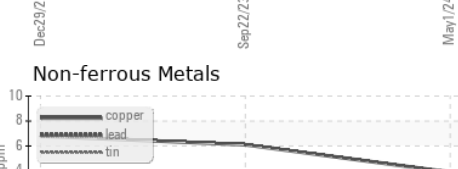
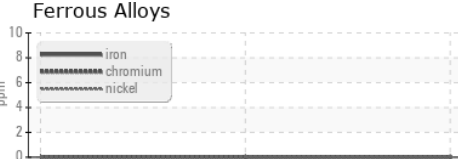


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 45	49.0	▲ 52.4	48.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA013337 **Received** : 09 May 2024  
**Lab Number** : 06174655 **Tested** : 13 May 2024  
**Unique Number** : 11020708 **Diagnosed** : 13 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**MONOGRAM BIOSCIENCES INC**  
 345 OYSTER POINT BLVD  
 SOUTH SAN FRANCISCO, CA  
 US 94080  
 Contact: JESS R.  
 jessr@mjmechanicalservices.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)