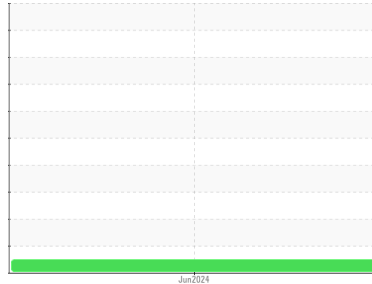




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**6675571 (S/N 1273)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

**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>KCPA018447</b>	---	---
Sample Date	Client Info	<b>05 Jun 2024</b>	---	---
Machine Age	hrs Client Info	<b>18544</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## WEAR METALS

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

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m	0	<b>0</b>	---	---
Barium ppm ASTM D5185m	90	<b>14</b>	---	---
Molybdenum ppm ASTM D5185m	0	<b>0</b>	---	---
Manganese ppm ASTM D5185m		<b>0</b>	---	---
Magnesium ppm ASTM D5185m	100	<b>39</b>	---	---
Calcium ppm ASTM D5185m	0	<b>6</b>	---	---
Phosphorus ppm ASTM D5185m	0	<b>8</b>	---	---
Zinc ppm ASTM D5185m	0	<b>20</b>	---	---
Sulfur ppm ASTM D5185m	23500	<b>21261</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>25	<b>1</b>	---	---
Sodium ppm ASTM D5185m		<b>22</b>	---	---
Potassium ppm ASTM D5185m	>20	<b>1</b>	---	---
Water % ASTM D6304	>0.05	<b>0.012</b>	---	---
ppm Water ppm ASTM D6304	>500	<b>120</b>	---	---

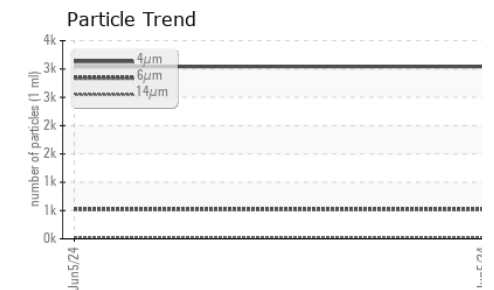
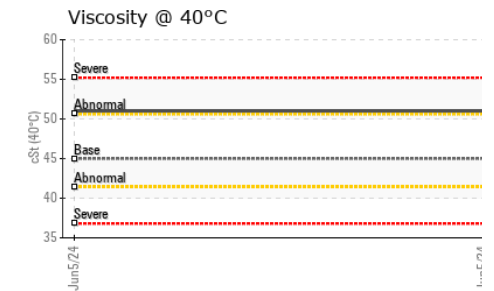
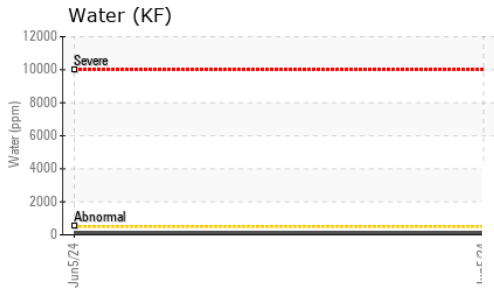
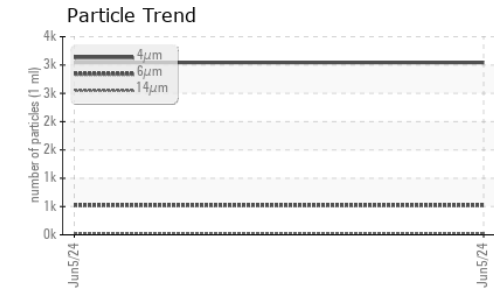
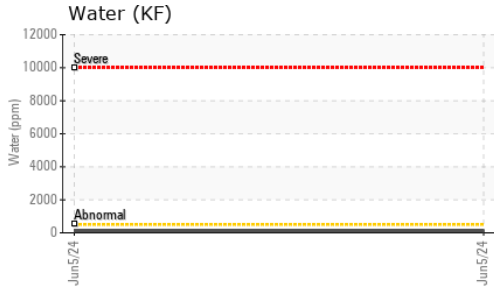
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647		<b>3043</b>	---	---
Particles >6µm ASTM D7647	>1300	<b>522</b>	---	---
Particles >14µm ASTM D7647	>80	<b>30</b>	---	---
Particles >21µm ASTM D7647	>20	<b>8</b>	---	---
Particles >38µm ASTM D7647	>4	<b>0</b>	---	---
Particles >71µm ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness ISO 4406 (c)	>--/17/13	<b>19/16/12</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045	1.0	<b>0.36</b>	---	---

# OIL ANALYSIS REPORT



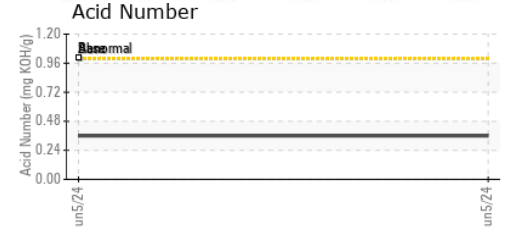
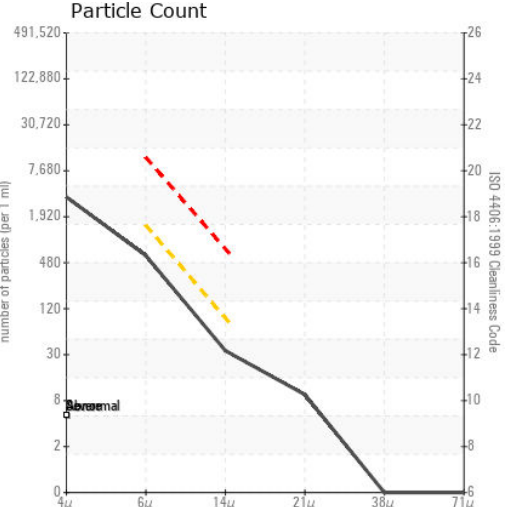
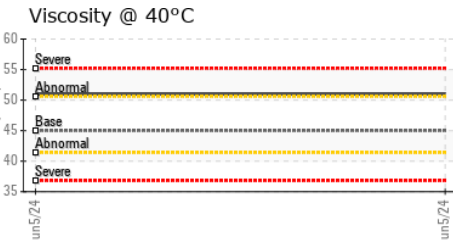
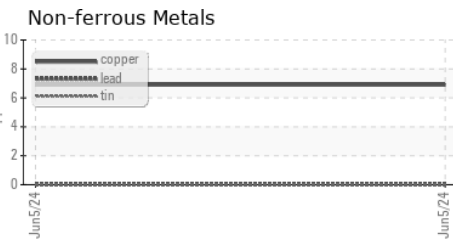
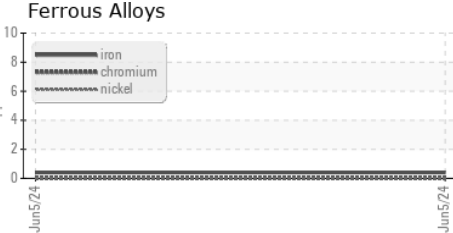
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	51.0	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA018447 **Received** : 11 Jun 2024  
**Lab Number** : 06206498 **Tested** : 13 Jun 2024  
**Unique Number** : 11073959 **Diagnosed** : 13 Jun 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**HAWTHORNE HYDROPONICS LLC**  
 2877 GIFFEN AVE  
 SANTA ROSA, CA  
 US 95407  
 Contact: J. ALAMILLO  
 jalamillo@hawthorne.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)