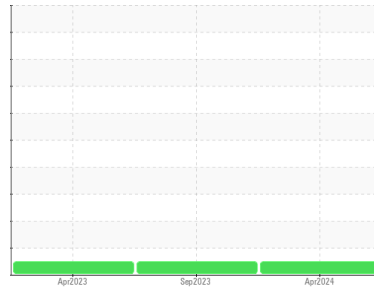




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**WC-9800B-0103-5 Chiller #3**  
 Component  
**Chiller**  
 Fluid  
**YORK TYPE K (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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>WC0836586</b>	WC0836522	WC0784759
Sample Date	Client Info			<b>08 Apr 2024</b>	18 Sep 2023	04 Apr 2023
Machine Age	hrs	Client Info		<b>27664</b>	26111	24465
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>3	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>4	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m	0	<b>4</b>	<1	0
Phosphorus	ppm	ASTM D5185m	5	<b>0</b>	2	9
Zinc	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Sulfur	ppm	ASTM D5185m	10	<b>0</b>	0	10

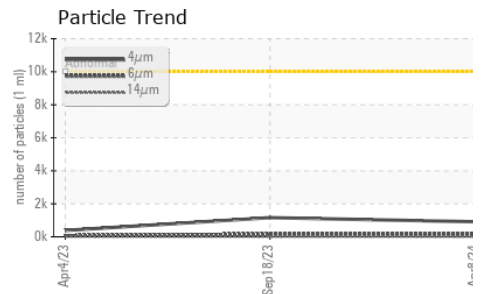
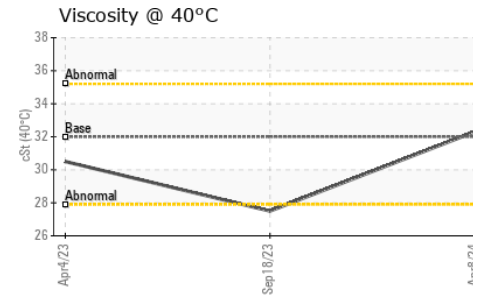
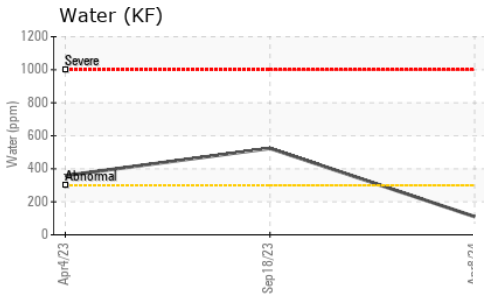
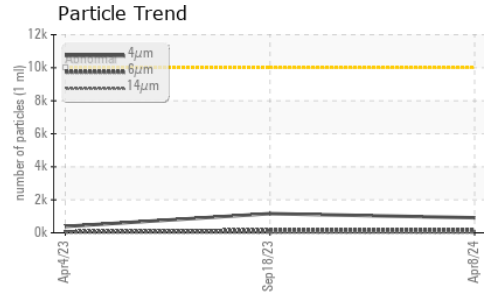
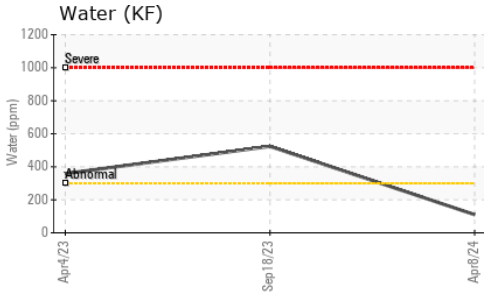
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>8</b>	8	8
Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Water	%	ASTM D6304	>0.03	<b>0.011</b>	0.052	0.035
ppm Water	ppm	ASTM D6304	>300	<b>110</b>	523.8	358.6

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>912</b>	1161	388
Particles >6µm		ASTM D7647	>2500	<b>193</b>	164	65
Particles >14µm		ASTM D7647	>320	<b>9</b>	12	11
Particles >21µm		ASTM D7647	>80	<b>1</b>	5	3
Particles >38µm		ASTM D7647	>20	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>17/15/10</b>	17/15/11	16/13/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.03	<b>0.096</b>	0.073	0.085



# OIL ANALYSIS REPORT

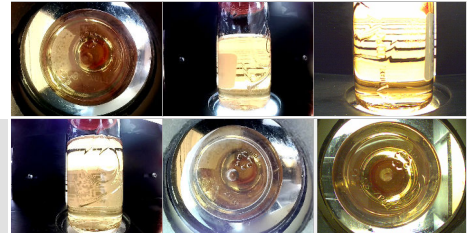


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.0	32.3	27.5

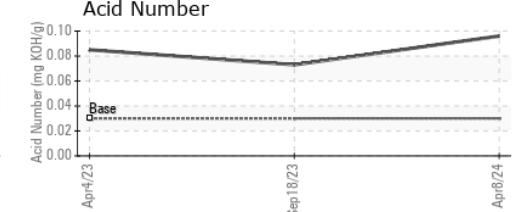
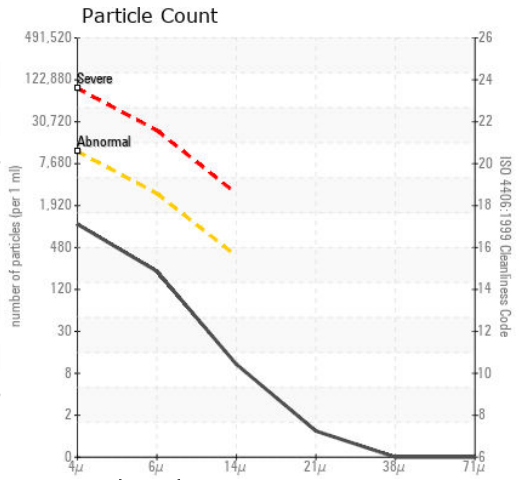
SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



Bottom

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0836586

Lab Number : 06144325

Unique Number : 10969133

Test Package : PLANT

Received : 10 Apr 2024

Tested : 11 Apr 2024

Diagnosed : 11 Apr 2024 - Doug Bogart

Chugach Consolidated Solutions - NSA

10840 Guilford Road, Suites 406-407

Annapolis Junction, MD

US 20701

Contact: Susan Nord

susan.nord@chugachgov.com

T: (301)688-6363

F: (443)479-5666

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)