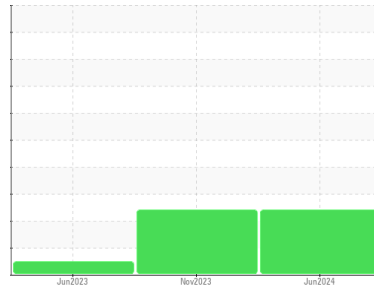




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
[] WC-9990-0202-5 Chiller #2
 Component
Chiller
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

Bearing wear is indicated.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a trace of moisture present in the oil.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	WC0827421	WC0836559	WC0784796	
Sample Date	Client Info	10 Jun 2024	13 Nov 2023	27 Jun 2023	
Machine Age	hrs	Client Info	113059	110910	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A	
Sample Status		ABNORMAL	ABNORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >8	▲ 41	▲ 53	<1
Chromium ppm	ASTM D5185m >2	0	0	<1
Nickel ppm	ASTM D5185m	0	0	0
Titanium ppm	ASTM D5185m	0	0	0
Silver ppm	ASTM D5185m >2	0	0	0
Aluminum ppm	ASTM D5185m >3	0	0	0
Lead ppm	ASTM D5185m >2	▲ 2	<1	0
Copper ppm	ASTM D5185m >8	1	0	0
Tin ppm	ASTM D5185m >4	0	2	<1
Vanadium ppm	ASTM D5185m	0	0	1
Cadmium ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	0	0	0
Barium ppm	ASTM D5185m	0	0	0
Molybdenum ppm	ASTM D5185m	0	0	0
Manganese ppm	ASTM D5185m	<1	<1	0
Magnesium ppm	ASTM D5185m	0	<1	0
Calcium ppm	ASTM D5185m	0	0	0
Phosphorus ppm	ASTM D5185m	0	1	0
Zinc ppm	ASTM D5185m	2	0	0
Sulfur ppm	ASTM D5185m	0	0	0

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >15	<1	▲ 21	2
Sodium ppm	ASTM D5185m	<1	0	29
Potassium ppm	ASTM D5185m >20	0	0	5
Water %	ASTM D6304 >0.01	0.039	0.022	0.043
ppm Water	ASTM D6304 >100	399	226.1	430.8

FLUID CLEANLINESS

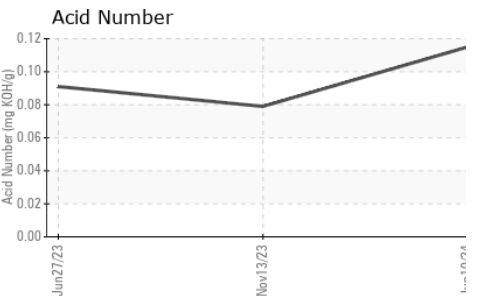
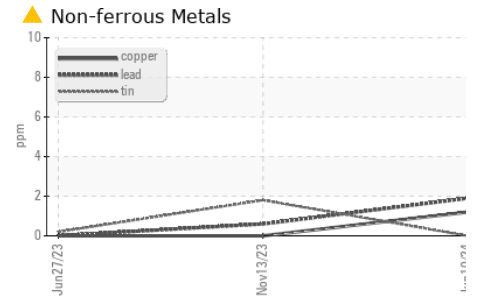
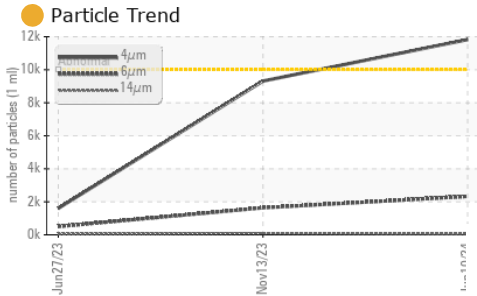
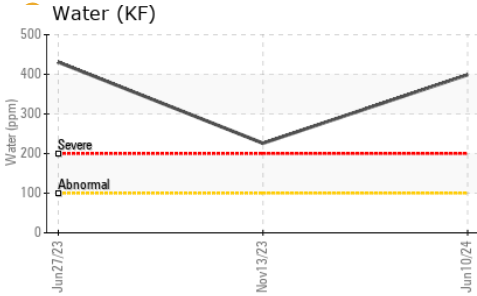
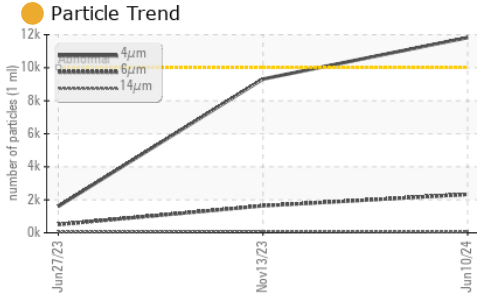
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	● 11828	9314	1606
Particles >6µm	ASTM D7647 >2500	2329	1637	501
Particles >14µm	ASTM D7647 >320	41	90	43
Particles >21µm	ASTM D7647 >80	4	21	7
Particles >38µm	ASTM D7647 >20	2	0	0
Particles >71µm	ASTM D7647 >4	1	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	● 21/18/13	20/18/14	18/16/13

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045	0.115	0.079	0.091



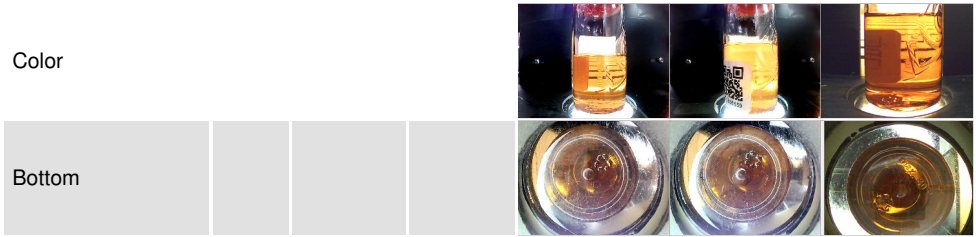
OIL ANALYSIS REPORT



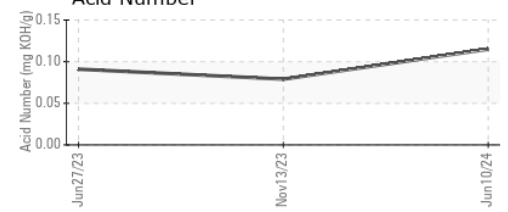
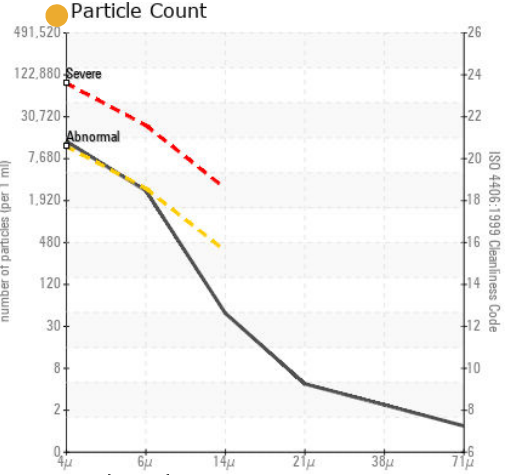
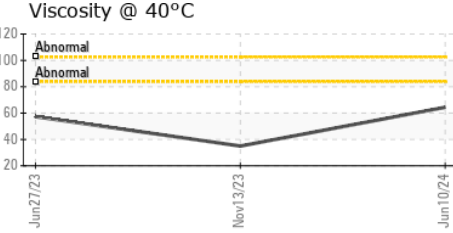
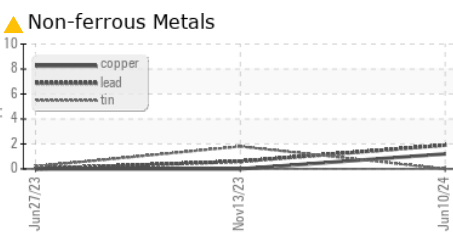
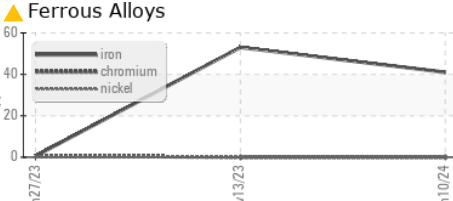
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	64.4	35	57.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0827421
 Lab Number : 06208752
 Unique Number : 11076213
 Test Package : PLANT

Received : 13 Jun 2024
 Tested : 19 Jun 2024
 Diagnosed : 19 Jun 2024 - Angela Borella

Chugach Consolidated Solutions - NSA
 10840 Guilford Road, Suites 406-407
 Annapolis Junction, MD
 US 20701

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)

Contact: Susan Nord
 susan.nord@chugachgov.com

T: (301)688-6363

F: (443)479-5666