

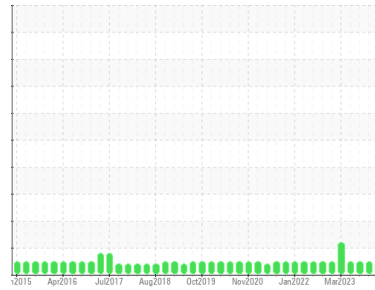


OIL ANALYSIS REPORT



Area
Engine Room [24-00324473-000]
 Machine Id
755-REF-COMP-NH3-02 (S/N 10241G31849714)
 Component
Refrigeration Compressor
 Fluid
FRICK COMPRESSOR OIL #3 (110 GAL)

Sample Rating Trend



NORMAL



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		USP0011857	USP0007670	USP244685
Sample Date	Client Info		27 Apr 2024	13 Feb 2024	16 Aug 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	0	0	<1
Chromium	ppm	ASTM D5185m >2	<1	0	0
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	<1	0
Lead	ppm	ASTM D5185m >2	0	<1	0
Copper	ppm	ASTM D5185m >8	<1	<1	0
Tin	ppm	ASTM D5185m >4	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	2	3	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m	0	0	0
Calcium	ppm	ASTM D5185m	0	0	1
Phosphorus	ppm	ASTM D5185m	0	1	0
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	0	18	50

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	0	<1	0
Sodium	ppm	ASTM D5185m	<1	<1	<1
Potassium	ppm	ASTM D5185m >20	0	<1	0
Water	%	ASTM D6304 >0.01	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304 >100	7	12	9.0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		8591	2361	678
Particles >6µm	ASTM D7647 >2500		1476	330	123
Particles >14µm	ASTM D7647 >320		8	5	7
Particles >21µm	ASTM D7647 >80		1	1	2
Particles >38µm	ASTM D7647 >20		0	0	0
Particles >71µm	ASTM D7647 >4		0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/18/15	20/18/10	18/16/10	17/14/10

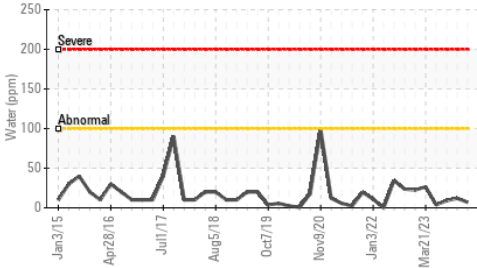
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.014	0.014	0.014

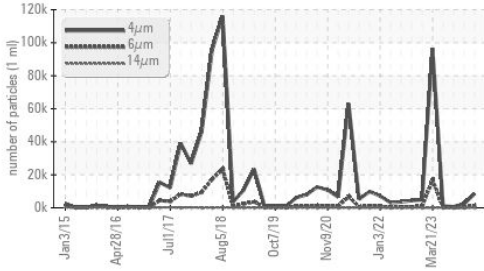


OIL ANALYSIS REPORT

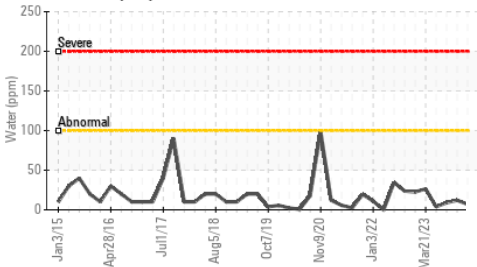
Water (KF)



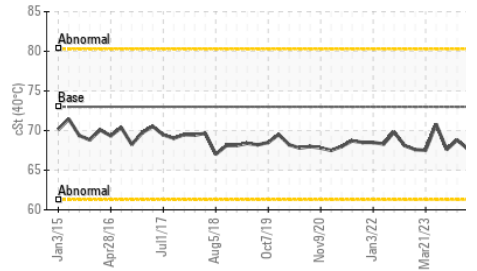
Particle Trend



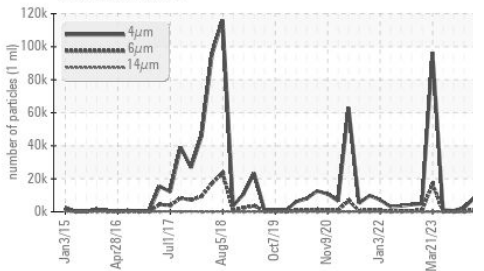
Water (KF)



Viscosity @ 40°C



Particle Trend



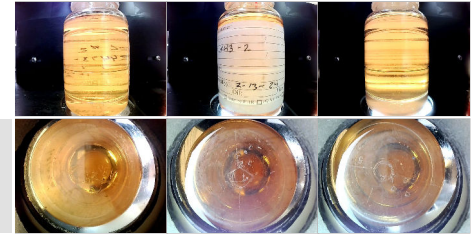
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 73	67.7	68.8	67.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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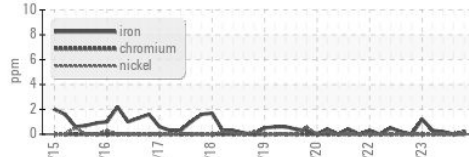
Color

Bottom

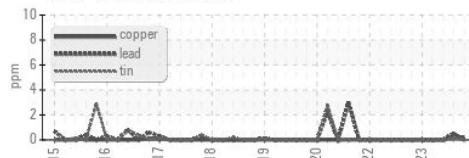


GRAPHS

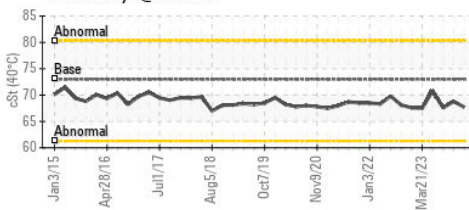
Ferrous Alloys



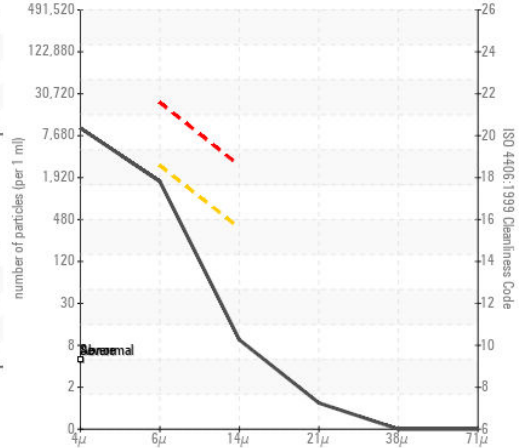
Non-ferrous Metals



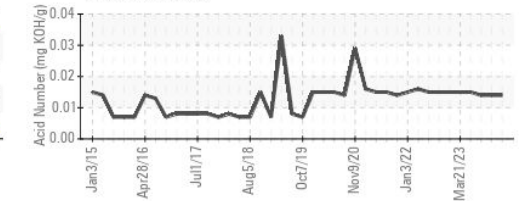
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

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

Sample No. : USP0011857

Lab Number : 06181420

Unique Number : 11032746

Test Package : IND 2

Received : 16 May 2024

Tested : 17 May 2024

Diagnosed : 20 May 2024 - Jonathan Hester

KROGER MOUNTAIN VIEW FOODS

10241 EAST 51ST AVE

DENVER, CO

US 80239

Contact: CHARLES AMMERMAN

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)

T:

F: