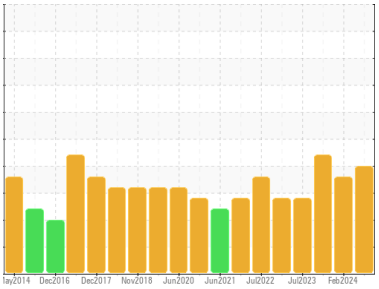
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
412
Machine Id
622 AIRVAYOR
Component
Inboard Bearing
Fluid
MOBIL SHC 630 (10 GAL)

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
The iron level is abnormal. All other component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

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		**WC0479429**	WC06087142	WC0838894
Sample Date		Client Info		**14 Mar 2024**	08 Feb 2024	10 Nov 2023
Machine Age	hrs	Client Info		**0**	0	6
Oil Age	hrs	Client Info		**600**	0	0
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**27**	18	24
Iron	ppm	ASTM D5185m	>20	▲ **21**	9	▲ 22
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	<1
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	<1	<1
Tin	ppm	ASTM D5185m	>20	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

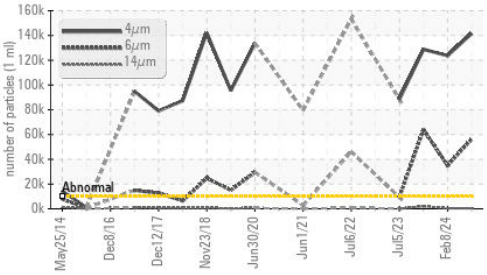
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	7
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	0	<1
Calcium	ppm	ASTM D5185m		**4**	0	<1
Phosphorus	ppm	ASTM D5185m		**477**	446	424
Zinc	ppm	ASTM D5185m		**0**	0	0
Sulfur	ppm	ASTM D5185m		**16**	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **34**	▲ 43	▲ 44
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1

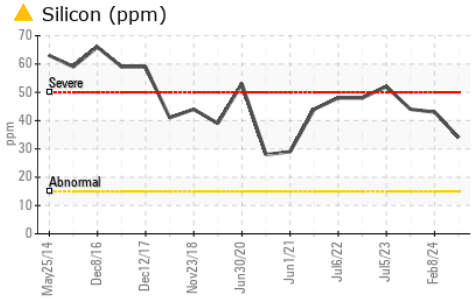
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **141599**	▲ 123614	▲ 128813
Particles >6µm		ASTM D7647	>2500	▲ **56187**	▲ 35050	▲ 63872
Particles >14µm		ASTM D7647	>160	▲ **368**	▲ 410	▲ 1976
Particles >21µm		ASTM D7647	>40	**38**	▲ 66	▲ 221
Particles >38µm		ASTM D7647	>10	**0**	2	5
Particles >71µm		ASTM D7647	>3	**0**	0	3
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ **24/23/16**	▲ 24/22/16	▲ 24/23/18

OIL ANALYSIS REPORT

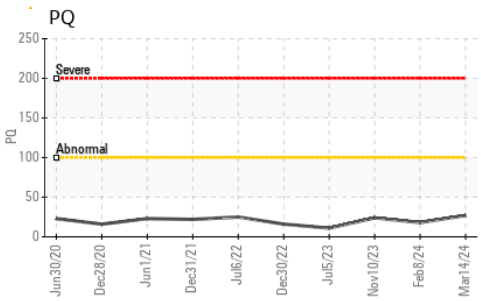
Particle Trend



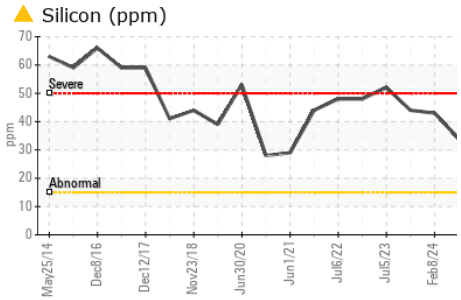
Silicon (ppm)



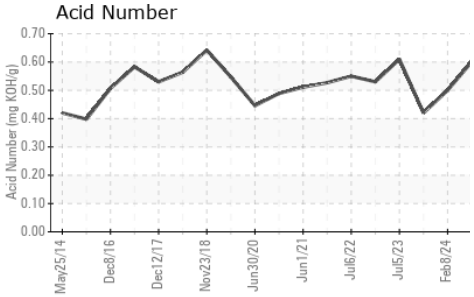
PQ



Silicon (ppm)



Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.60**	0.50	0.42

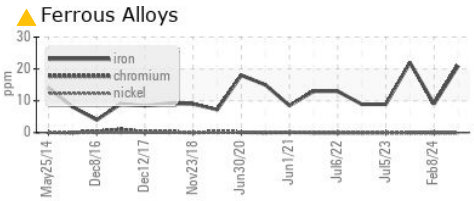
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	217.7	**215**	215	220

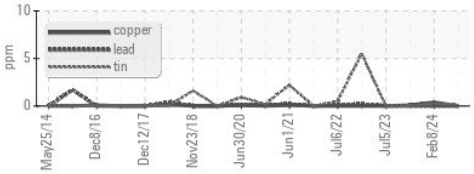
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

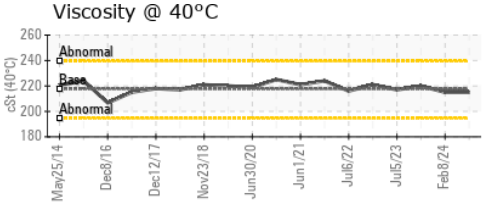
Ferrous Alloys



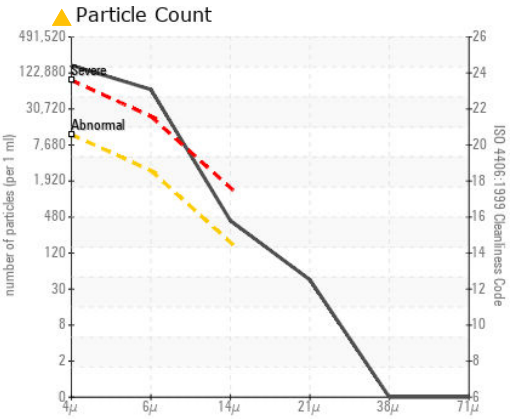
Non-ferrous Metals



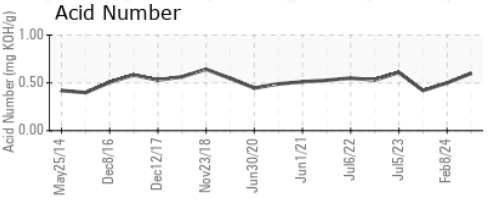
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0479429
Lab Number : 06123538
Unique Number : 10937689
Test Package : IND 2 (Additional Tests: PQ, PrtCount)

Received : 20 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Jonathan Hester

BRIDGESTONE FIRESTONE - DES MOINES
4600 NW 2ND AVE
DES MOINES, IA
US 50313
Contact: SCOTT CARTER
CarterScottA@FirestoneAg.com
T: x:
F: x:

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)