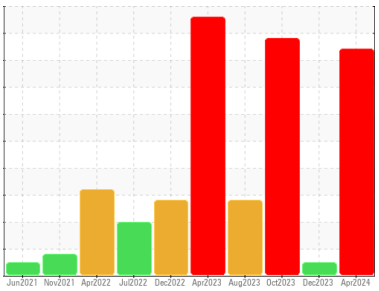
PROBLEM SUMMARY

Area
Mobile Fleet
Machine Id
5215 5215
Component
Front Differential
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

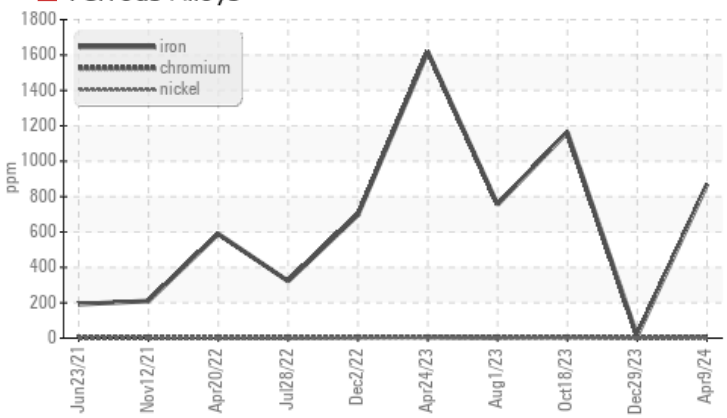
Sample Rating Trend



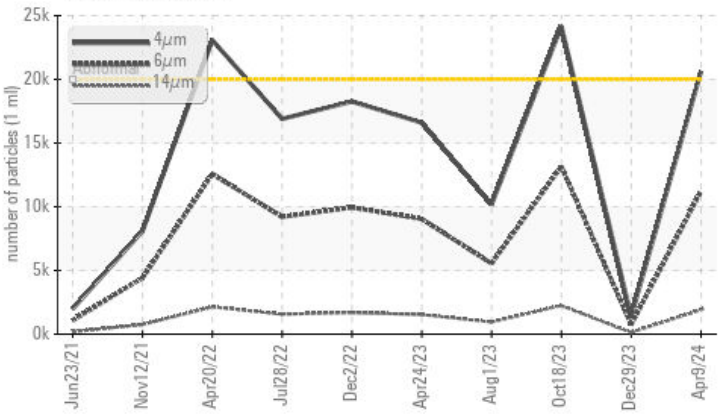
WEAR

COMPONENT CONDITION SUMMARY

Ferrous Alloys



Particle Trend



RECOMMENDATION

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>500	▲ **870**	13	▲ 1164
Particles >4µm		ASTM D7647	>20000	▲ **20618**	1383	▲ 24168
Particles >6µm		ASTM D7647	>5000	▲ **11232**	754	▲ 13166
Particles >14µm		ASTM D7647	>640	▲ **1912**	128	▲ 2241
Particles >21µm		ASTM D7647	>160	▲ **644**	43	▲ 755
Particles >38µm		ASTM D7647	>40	▲ **99**	7	▲ 117
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **22/21/18**	18/17/14	▲ 22/21/18

Customer Id: CARBUTNC
Sample No.: WC0919029
Lab Number: 06146513
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

NORMAL

29 Dec 2023 Diag: Don Baldridge
Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

WEAR

18 Oct 2023 Diag: Don Baldridge
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Gear wear is indicated. There is a high amount of particulates present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

WEAR

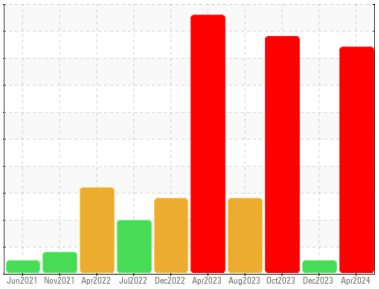
01 Aug 2023 Diag: Don Baldridge
No corrective action is recommended at this time. Resample at the next service interval to monitor.The iron level has decreased, but is still abnormal. All other component wear rates are normal. There is a moderate amount of particulates present in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Area
Mobile Fleet
Machine Id
5215 5215
Component
Front Differential
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
Gear wear is indicated.

Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0919029**	WC0861909	WC0867233
Sample Date		Client Info		**09 Apr 2024**	29 Dec 2023	18 Oct 2023
Machine Age	hrs	Client Info		**12329**	11759	11234
Oil Age	hrs	Client Info		**1119**	1698	1137
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**SEVERE**	NORMAL	SEVERE

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ **870**	13	▲ 1164
Chromium	ppm	ASTM D5185m	>3	**3**	<1	4
Nickel	ppm	ASTM D5185m	>3	**4**	0	4
Titanium	ppm	ASTM D5185m	>2	**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	1
Aluminum	ppm	ASTM D5185m	>30	**5**	2	6
Lead	ppm	ASTM D5185m	>13	**1**	0	2
Copper	ppm	ASTM D5185m	>103	**70**	1	86
Tin	ppm	ASTM D5185m	>5	**1**	<1	2
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**1**	0	<1

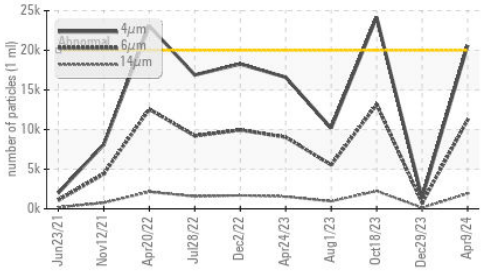
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**2**	0	4
Barium	ppm	ASTM D5185m		**0**	0	1
Molybdenum	ppm	ASTM D5185m		**4**	1	7
Manganese	ppm	ASTM D5185m		**7**	0	8
Magnesium	ppm	ASTM D5185m		**17**	10	41
Calcium	ppm	ASTM D5185m		**3335**	2005	3332
Phosphorus	ppm	ASTM D5185m		**962**	551	929
Zinc	ppm	ASTM D5185m		**975**	663	1088
Sulfur	ppm	ASTM D5185m		**13004**	7682	12851

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	**20**	4	26
Sodium	ppm	ASTM D5185m		**0**	0	<1
Potassium	ppm	ASTM D5185m	>20	**1**	<1	<1

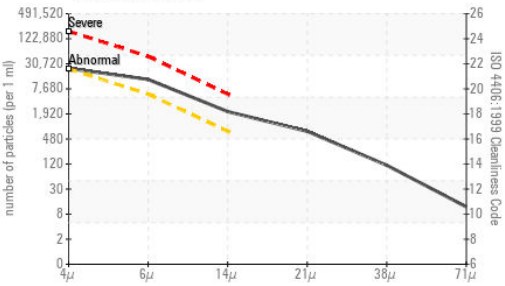
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **20618**	1383	▲ 24168
Particles >6µm		ASTM D7647	>5000	▲ **11232**	754	▲ 13166
Particles >14µm		ASTM D7647	>640	▲ **1912**	128	▲ 2241
Particles >21µm		ASTM D7647	>160	▲ **644**	43	▲ 755
Particles >38µm		ASTM D7647	>40	▲ **99**	7	▲ 117
Particles >71µm		ASTM D7647	>10	**10**	1	▲ 12
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **22/21/18**	18/17/14	▲ 22/21/18

OIL ANALYSIS REPORT

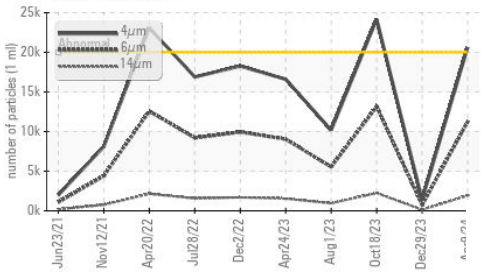
Particle Trend



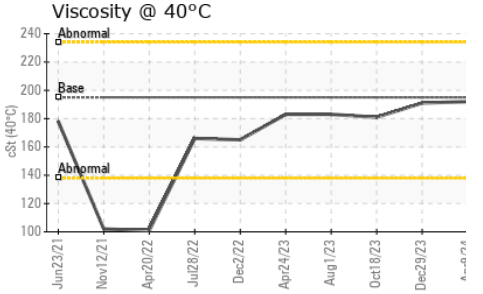
Particle Count



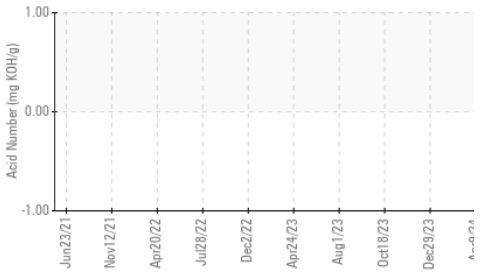
Particle Trend



Viscosity @ 40°C

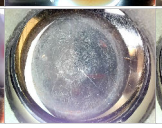


Acid Number



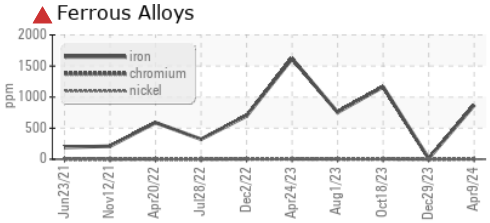
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	195	**192**	191	181

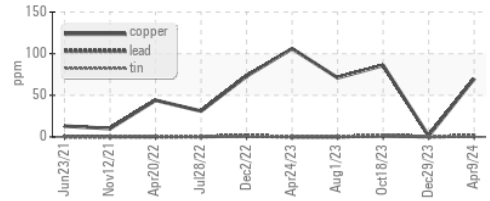
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

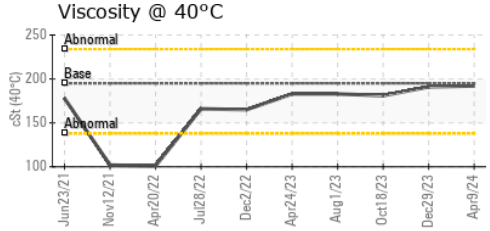
Ferrous Alloys



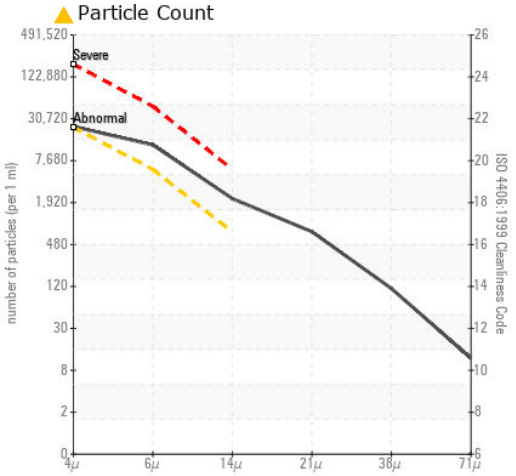
Non-ferrous Metals



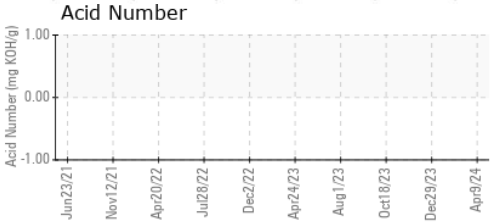
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919029 **Received** : 11 Apr 2024
Lab Number : 06146513 **Tested** : 15 Apr 2024
Unique Number : 10976591 **Diagnosed** : 15 Apr 2024 - Don Baldridge
Test Package : CONST (Additional Tests: PrtCount)

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)

CAROLINA SUNROCK
PO BOX 25
BUTNER, NC
US 27509
Contact: Leigh Dennis
rdennis@thesunrockgroup.com
T: (919)575-4505
F: (919)575-0162