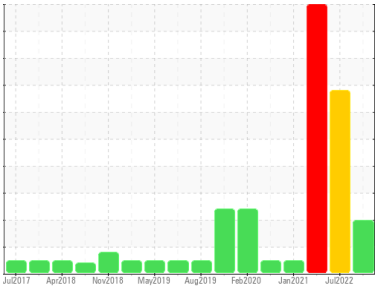
PROBLEM SUMMARY

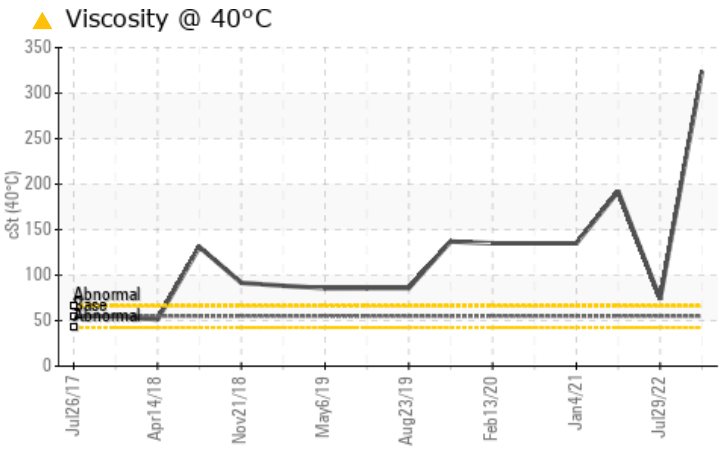
Area
OKLAHOMA/1053/EG - LOADER
Machine Id
45.39L [OKLAHOMA^1053^EG - LOADER]
Component
Front Differential
Fluid
MOBIL MOBILFLUID 424 (--- GAL)

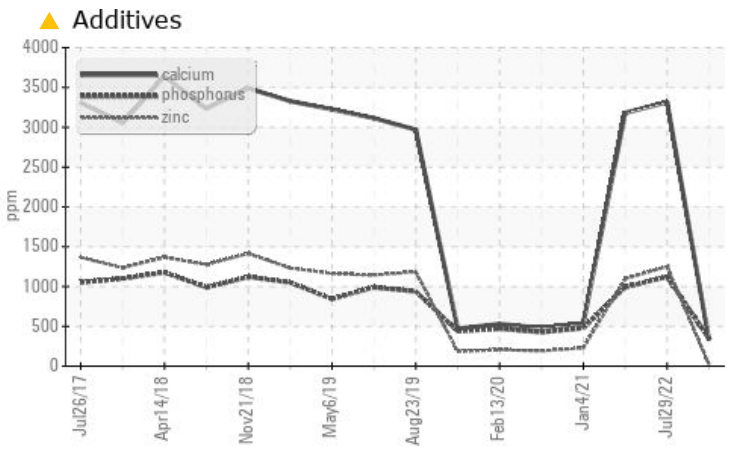
Sample Rating Trend



VISCOSITY

COMPONENT CONDITION SUMMARY





RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	SEVERE	SEVERE
Calcium	ppm	ASTM D5185m		▲ 330	3315	3181
Phosphorus	ppm	ASTM D5185m		▲ 344	1124	992
Zinc	ppm	ASTM D5185m		▲ 20	1252	1097
Sulfur	ppm	ASTM D5185m		▲ 9789	7615	9092
Visc @ 40°C	cSt	ASTM D445	55	▲ 324	73.8	192

Customer Id: SHEWIC
Sample No.: WC0808031
Lab Number: 05935035
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

29 Jul 2022 Diag: Don Baldridge

WATER

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Appearance is milky. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

20 Jul 2021 Diag: Jonathan Hester

DIRT

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.Gear wear is indicated. Appearance is milky. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

04 Jan 2021 Diag: Don Baldridge

NORMAL

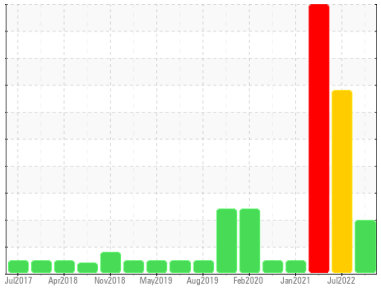
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Area
OKLAHOMA/1053/EG - LOADER
Machine Id
45.39L [OKLAHOMA^1053^EG - LOADER]
Component
Front Differential
Fluid
MOBIL MOBILFLUID 424 (--- GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

▲ Recommendation
The oil change at the time of sampling has been noted. 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.

▲ Fluid Condition
The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0808031**	WC0713309	WC0598673
Sample Date		Client Info		**17 Aug 2023**	29 Jul 2022	20 Jul 2021
Machine Age	hrs	Client Info		**12217**	11008	9616
Oil Age	hrs	Client Info		**1209**	4382	500
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**ATTENTION**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	**91**	235	▲ 556
Chromium	ppm	ASTM D5185m	>3	**2**	5	9
Nickel	ppm	ASTM D5185m	>3	**0**	6	13
Titanium	ppm	ASTM D5185m	>2	**<1**	2	5
Silver	ppm	ASTM D5185m	>2	**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>30	**1**	▲ 40	▲ 64
Lead	ppm	ASTM D5185m	>13	**0**	1	<1
Copper	ppm	ASTM D5185m	>103	**2**	6	14
Tin	ppm	ASTM D5185m	>5	**0**	2	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

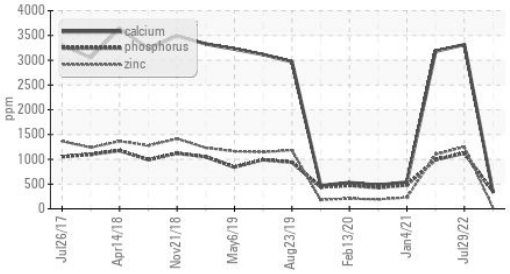
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**113**	109	▲ 34
Barium	ppm	ASTM D5185m		**0**	0	4
Molybdenum	ppm	ASTM D5185m		**<1**	8	19
Manganese	ppm	ASTM D5185m		**3**	3	7
Magnesium	ppm	ASTM D5185m		**<1**	38	58
Calcium	ppm	ASTM D5185m		▲ **330**	3315	3181
Phosphorus	ppm	ASTM D5185m		▲ **344**	1124	992
Zinc	ppm	ASTM D5185m		▲ **20**	1252	1097
Sulfur	ppm	ASTM D5185m		▲ **9789**	7615	9092

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	**9**	▲ 135	⬢ 239
Sodium	ppm	ASTM D5185m		**6**	6	20
Potassium	ppm	ASTM D5185m	>20	**0**	7	12

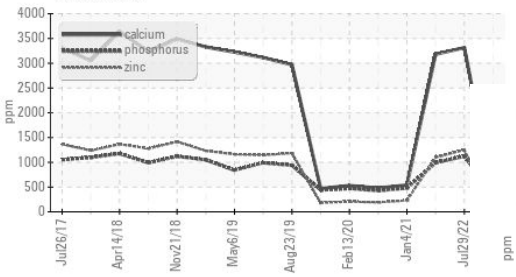
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	▲ MILKY	▲ MILKY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	**NEG**	⬢ 0.2%	⬢ 0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

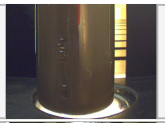
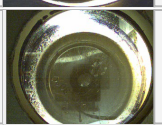
Additives



Additives

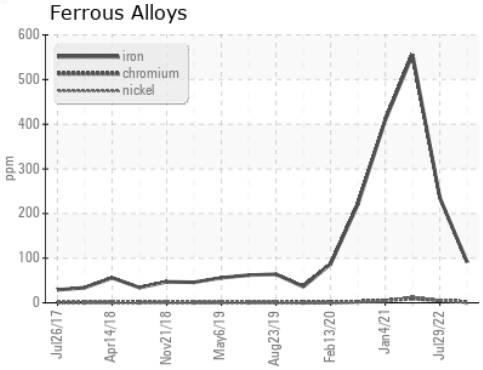


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55	▲ **324**	73.8	192

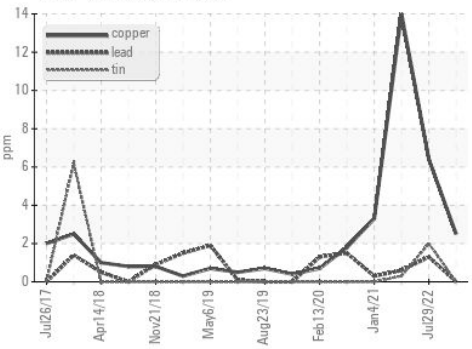
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*		*no image*
Bottom			*no image*		*no image*

GRAPHS

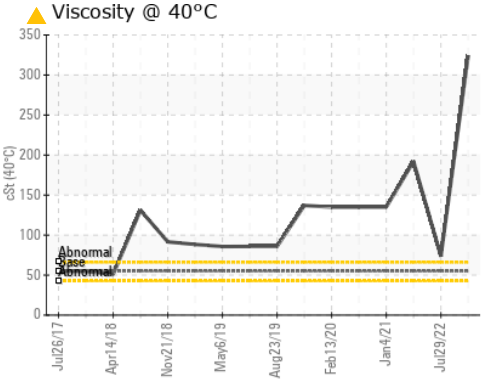
Ferrous Alloys



Non-ferrous Metals



▲ Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0808031
Lab Number : 05935035
Unique Number : 10620306
Test Package : CONST

Received : 25 Aug 2023
Diagnosed : 28 Aug 2023
Diagnostician : Sean Felton

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)

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