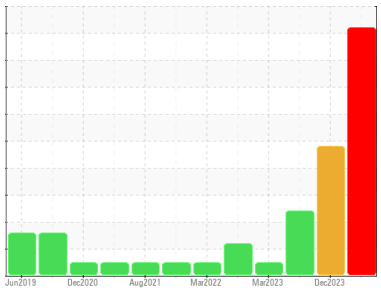
OIL DIAGNOSTICS

PROBLEM SUMMARY

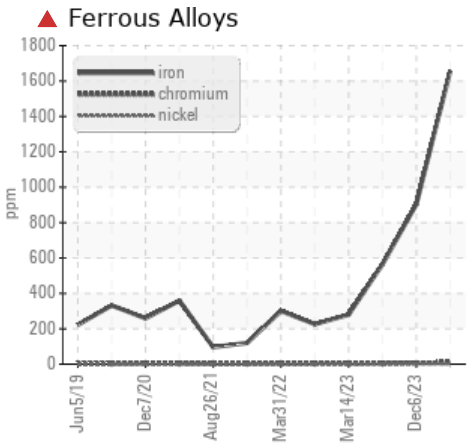
Sample Rating Trend

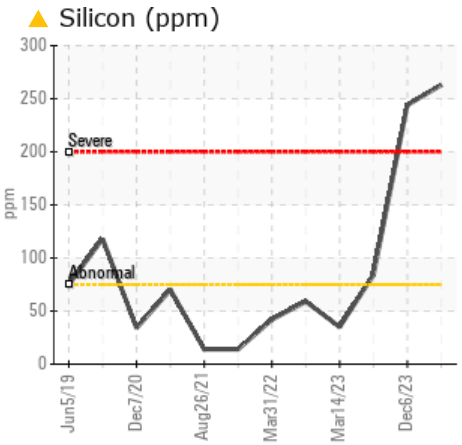


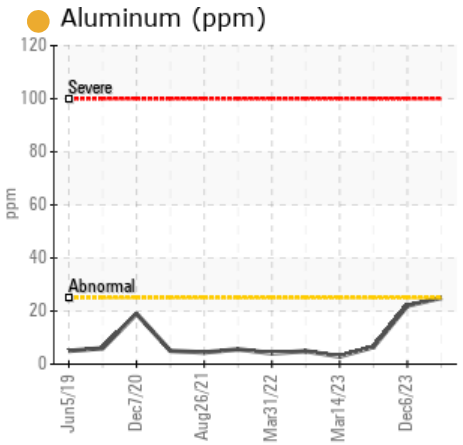
WEAR

Machine Id
DT639
Component
Front Differential
Fluid
CHEVRON RPM SYNTHETIC GEAR 75W90 (4 mls)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

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 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	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>500	▲ **1657**	▲ 903	▲ 565
Chromium	ppm	ASTM D5185m	>10	▲ **10**	7	4
Silicon	ppm	ASTM D5185m	>75	▲ **263**	▲ 244	▲ 84

Customer Id: NWWVAR
Sample No.: PCA0124356
Lab Number: 06174764
Test Package: FLEET

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

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

WATER

06 Dec 2023 Diag: Don Baldridge
We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition.Gear wear is indicated. All other component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report

DIRT

25 Jul 2023 Diag: Don Baldridge
No corrective action is recommended at this time. Resample at the next service interval to monitor.Gear wear is indicated. All other component wear rates are normal. Elemental level of silicon (Si) above normal. The condition of the oil is acceptable for the time in service.

view report

NORMAL

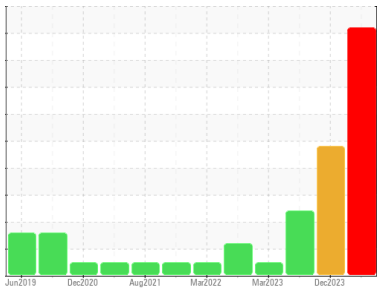
14 Mar 2023 Diag: Jonathan Hester
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
DT639
Component
Front Differential
Fluid
CHEVRON RPM SYNTHETIC GEAR 75W90 (4 mls)

DIAGNOSIS

Recommendation
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 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
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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		**PCA0124356**	PCA0111659	PCA0101871
Sample Date		Client Info		**03 May 2024**	06 Dec 2023	25 Jul 2023
Machine Age	mls	Client Info		**248163**	248163	248163
Oil Age	mls	Client Info		**71725**	71725	71725
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

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	▲ **1657**	▲ 903	▲ 565
Chromium	ppm	ASTM D5185m	>10	▲ **10**	7	4
Nickel	ppm	ASTM D5185m	>10	**1**	2	1
Titanium	ppm	ASTM D5185m		**3**	2	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	● **25**	● 22	6
Lead	ppm	ASTM D5185m	>25	**3**	3	4
Copper	ppm	ASTM D5185m	>100	**47**	34	41
Tin	ppm	ASTM D5185m	>10	**2**	<1	2
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

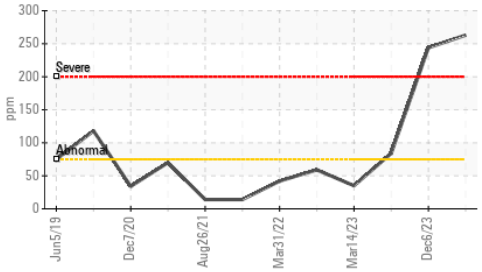
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**225**	236	233
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**20**	19	22
Manganese	ppm	ASTM D5185m		**20**	12	8
Magnesium	ppm	ASTM D5185m		**82**	65	74
Calcium	ppm	ASTM D5185m		**210**	171	180
Phosphorus	ppm	ASTM D5185m		**1364**	1193	1278
Zinc	ppm	ASTM D5185m		**160**	140	144
Sulfur	ppm	ASTM D5185m		**23189**	20389	22861

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	▲ **263**	▲ 244	▲ 84
Sodium	ppm	ASTM D5185m		**8**	5	2
Potassium	ppm	ASTM D5185m	>20	**9**	8	3

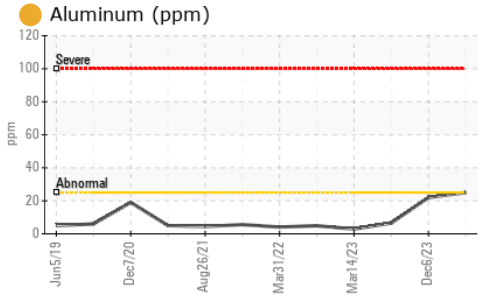
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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**	0.2%	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

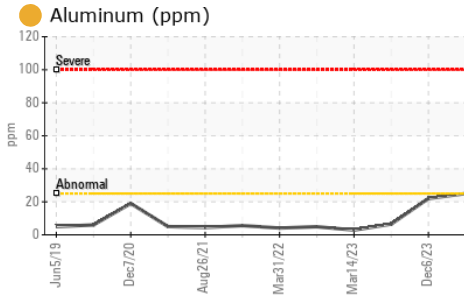
Silicon (ppm)



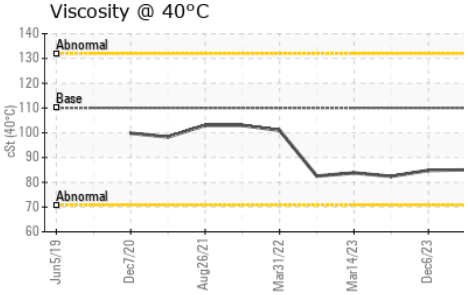
Aluminum (ppm)



Aluminum (ppm)



Viscosity @ 40°C

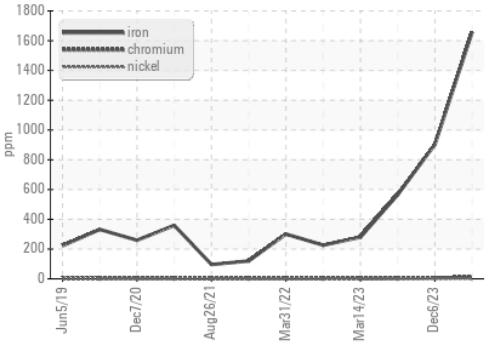


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	110	**85.0**	84.8	82.4

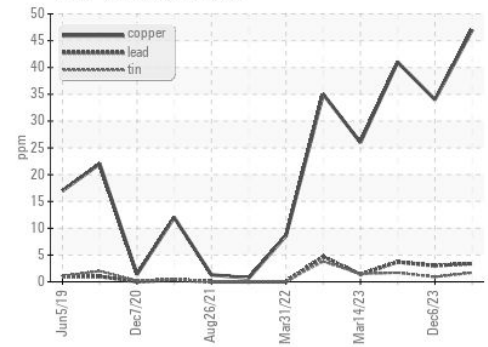
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

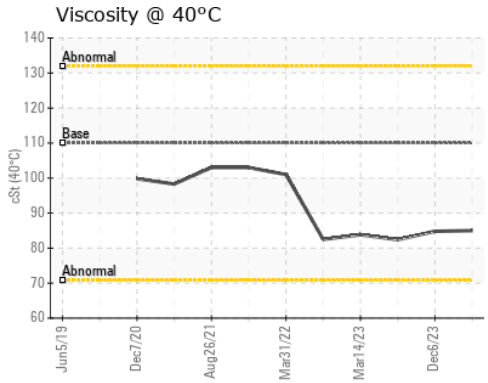
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0124356
Lab Number : 06174764
Unique Number : 11020817
Test Package : FLEET

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 13 May 2024 - 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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Report Id: NWWVAR [WUSCAR] 06174764 (Generated: 05/13/2024 13:57:04) Rev: 1

Submitted By: DAVID WEBB