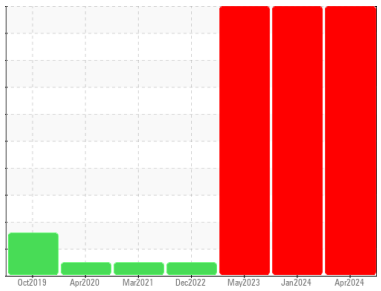
OIL DIAGNOSTICS

PROBLEM SUMMARY

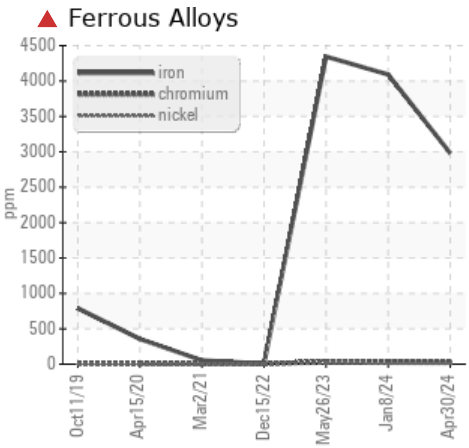
Machine Id
DT641
Component
Front Differential
Fluid
CHEVRON RPM SYNTHETIC GEAR 75W90 (4 mls)

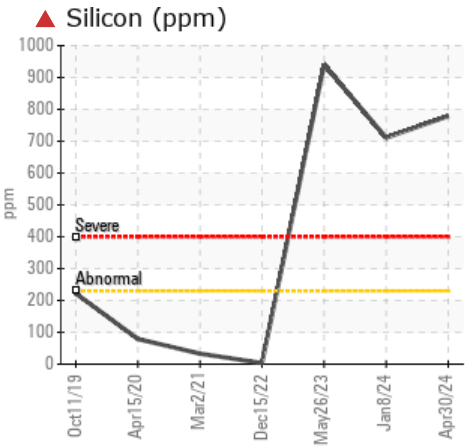
Sample Rating Trend

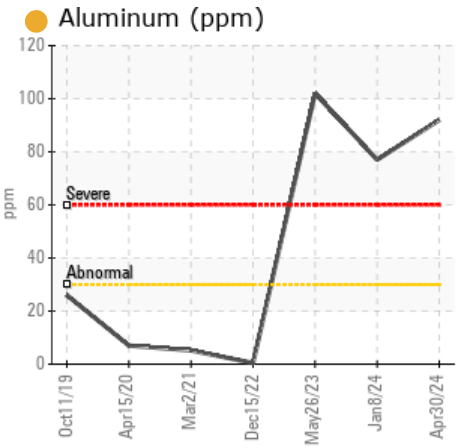


WEAR

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**	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>1200	▲ **2982**	▲ 4092	▲ 4346
Chromium	ppm	ASTM D5185m	>8	▲ **26**	▲ 35	▲ 42
Silicon	ppm	ASTM D5185m	>230	▲ **779**	▲ 711	▲ 940

Customer Id: NWWVAR
Sample No.: PCA0124363
Lab Number: 06174766
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

WEAR

08 Jan 2024 Diag: Sean Felton

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.Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

view report

WEAR

26 May 2023 Diag: Don Baldridge

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.A sharp increase in the iron level is noted. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

view report

NORMAL

15 Dec 2022 Diag: Don Baldridge

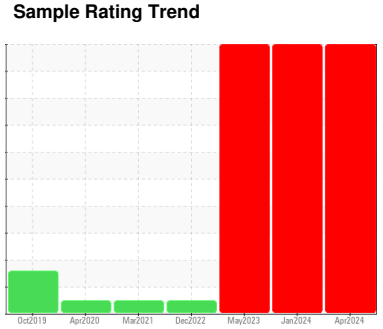
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Sample Rating Trend



WEAR

Machine Id
DT641
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 due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0124363**	PCA0111629	PCA0095246
Sample Date		Client Info		**30 Apr 2024**	08 Jan 2024	26 May 2023
Machine Age	mls	Client Info		**95585**	95585	95585
Oil Age	mls	Client Info		**95585**	95585	95585
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	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	>1200	▲ **2982**	▲ 4092	▲ 4346
Chromium	ppm	ASTM D5185m	>8	▲ **26**	▲ 35	▲ 42
Nickel	ppm	ASTM D5185m	>20	**8**	10	12
Titanium	ppm	ASTM D5185m	>4	**5**	5	7
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	● **92**	● 77	● 102
Lead	ppm	ASTM D5185m	>25	**1**	2	1
Copper	ppm	ASTM D5185m	>50	**57**	51	34
Tin	ppm	ASTM D5185m	>5	**1**	2	2
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	<1	<1

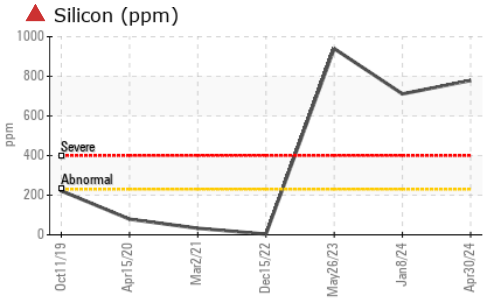
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**40**	64	3
Barium	ppm	ASTM D5185m		**0**	2	0
Molybdenum	ppm	ASTM D5185m		**4**	8	4
Manganese	ppm	ASTM D5185m		**44**	49	52
Magnesium	ppm	ASTM D5185m		**33**	45	10
Calcium	ppm	ASTM D5185m		**125**	114	48
Phosphorus	ppm	ASTM D5185m		**685**	848	537
Zinc	ppm	ASTM D5185m		**49**	68	7
Sulfur	ppm	ASTM D5185m		**20241**	18621	21096

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>230	▲ **779**	▲ 711	▲ 940
Sodium	ppm	ASTM D5185m		**10**	8	12
Potassium	ppm	ASTM D5185m	>20	**20**	18	22

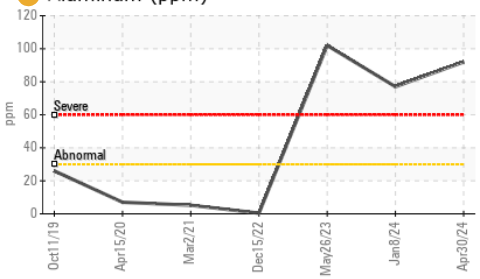
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

OIL ANALYSIS REPORT

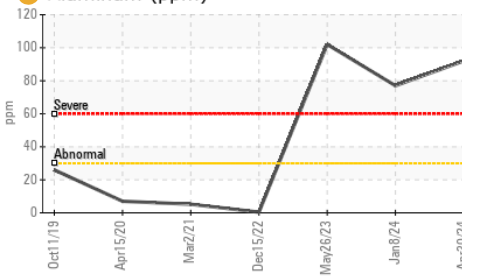
Silicon (ppm)



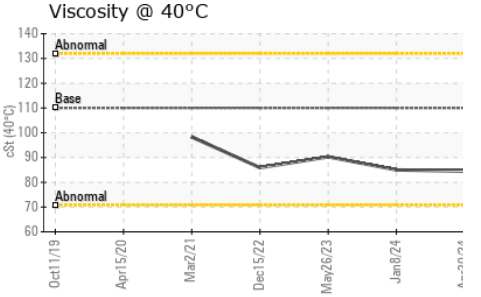
Aluminum (ppm)



Aluminum (ppm)



Viscosity @ 40°C

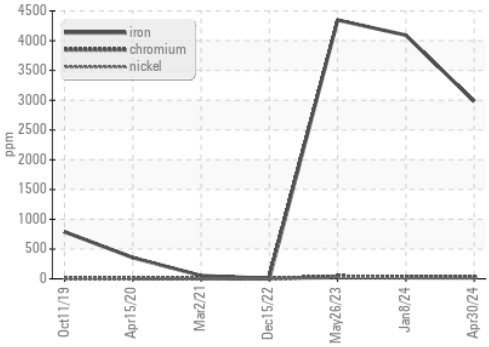


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	110	**84.5**	85.0	90.3

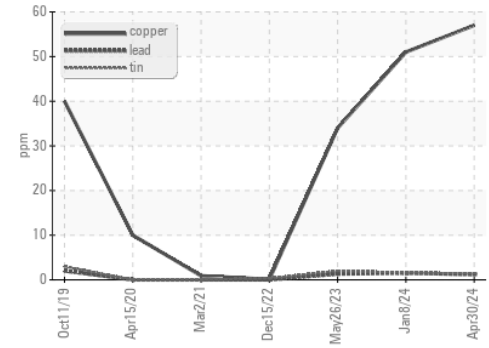
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

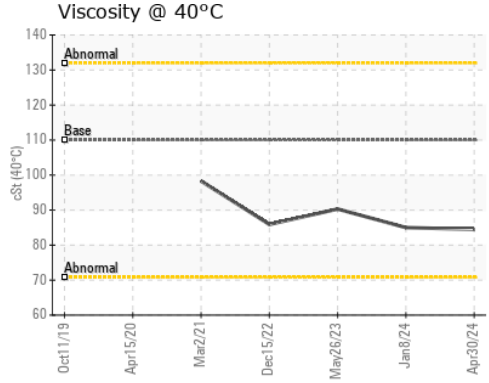
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0124363
Lab Number : 06174766
Unique Number : 11020819
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] 06174766 (Generated: 05/13/2024 13:56:37) Rev: 1

Submitted By: DAVID WEBB