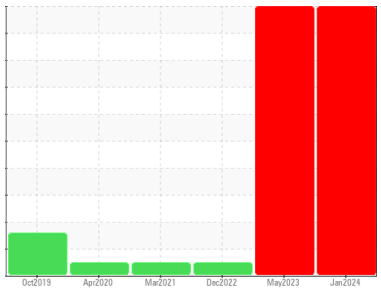
OIL DIAGNOSTICS

PROBLEM SUMMARY

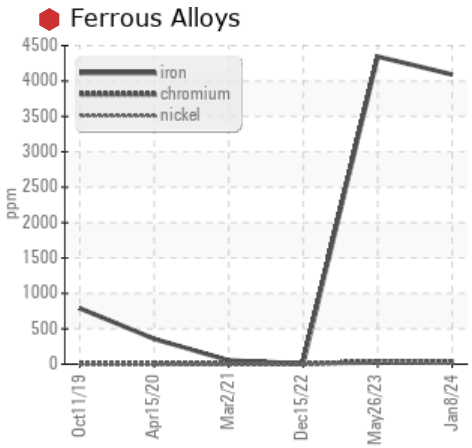
Sample Rating Trend

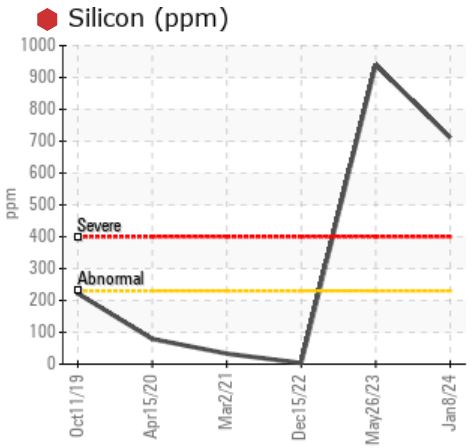


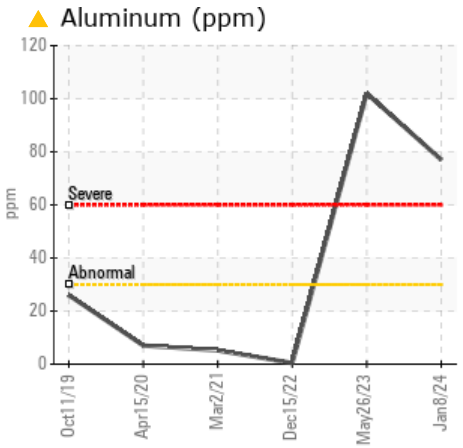
WEAR

Machine Id
DT641
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	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>1200	**4092**	4346	6
Chromium	ppm	ASTM D5185m	>8	**35**	42	0
Silicon	ppm	ASTM D5185m	>230	**711**	940	3

Customer Id: NWWVAR
Sample No.: PCA0111629
Lab Number: 06065199
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

26 May 2023 Diag: Don Baldridge

WEAR

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

15 Dec 2022 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 oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

view report

02 Mar 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 oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

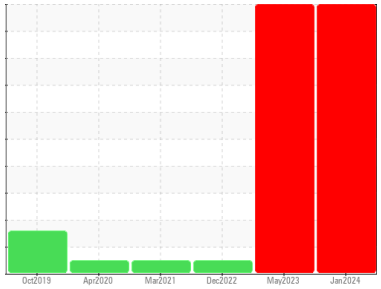
view report

OIL ANALYSIS REPORT

OIL DIAGNOSTICS

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

Sample Rating Trend



WEAR

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		**PCA0111629**	PCA0095246	PCA0076414
Sample Date		Client Info		**08 Jan 2024**	26 May 2023	15 Dec 2022
Machine Age	mls	Client Info		**95585**	95585	95585
Oil Age	mls	Client Info		**95585**	95585	74721
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**SEVERE**	SEVERE	NORMAL

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	**4092**	4346	6
Chromium	ppm	ASTM D5185m	>8	**35**	42	0
Nickel	ppm	ASTM D5185m	>20	**10**	12	<1
Titanium	ppm	ASTM D5185m	>4	**5**	7	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	**77**	102	<1
Lead	ppm	ASTM D5185m	>25	**2**	1	0
Copper	ppm	ASTM D5185m	>50	**51**	34	<1
Tin	ppm	ASTM D5185m	>5	**2**	2	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

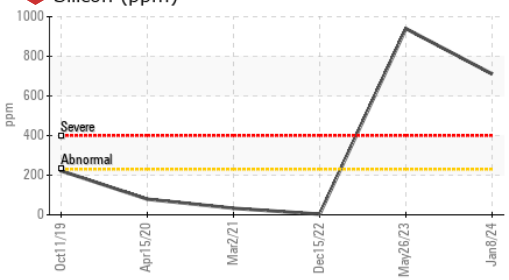
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**64**	3	202
Barium	ppm	ASTM D5185m		**2**	0	0
Molybdenum	ppm	ASTM D5185m		**8**	4	20
Manganese	ppm	ASTM D5185m		**49**	52	<1
Magnesium	ppm	ASTM D5185m		**45**	10	103
Calcium	ppm	ASTM D5185m		**114**	48	231
Phosphorus	ppm	ASTM D5185m		**848**	537	1162
Zinc	ppm	ASTM D5185m		**68**	7	177
Sulfur	ppm	ASTM D5185m		**18621**	21096	22522

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>230	**711**	940	3
Sodium	ppm	ASTM D5185m		**8**	12	0
Potassium	ppm	ASTM D5185m	>20	**18**	22	1

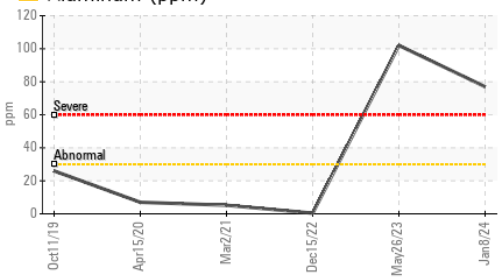
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

OIL ANALYSIS REPORT

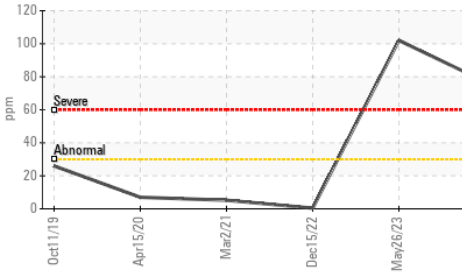
Silicon (ppm)



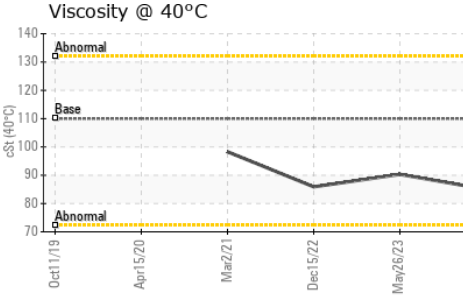
Aluminum (ppm)



Aluminum (ppm)



Viscosity @ 40°C

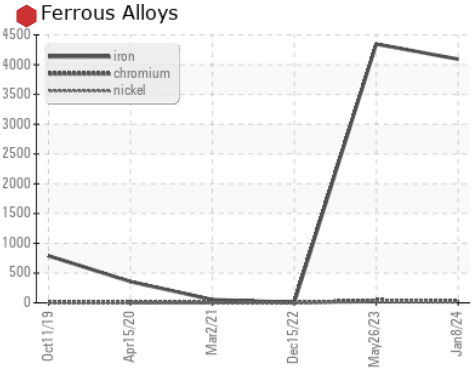


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	110	**85.0**	90.3	85.9

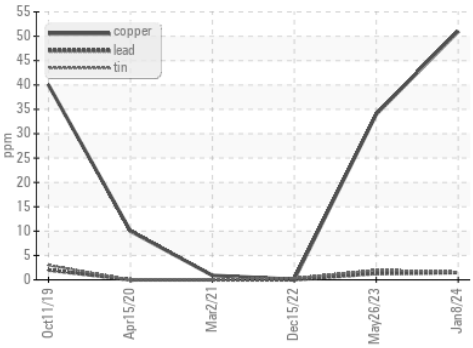
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

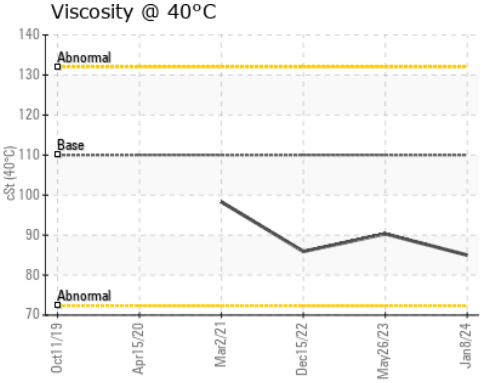
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0111629 **Recieved** : 18 Jan 2024
Lab Number : 06065199 **Diagnosed** : 22 Jan 2024
Unique Number : 10836581 **Diagnostician** : Sean Felton
Test Package : FLEET

Certificate L2367

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)

NW WHITE & CO - BEAUFORT DIVISION
1491 YENMASSEE HIGHWAY
VARNVILLE, SC
US 29944
Contact: VINCENT BULLOCK
bullockvince514@gmail.com
T:
F: