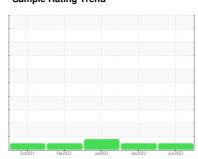


# **OIL ANALYSIS REPORT**

### Sample Rating Trend





Machine Id DT777 Component Front Axle

## **CHEVRON RPM SYNTHETIC GEAR 75W90 (--- GAL**

# DIAGNOSIS

### Recommendation

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

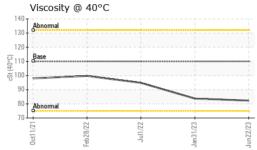
## **Fluid Condition**

The condition of the oil is acceptable for the time in service.

Sample Number         Client Info         PCA0100018         PCA0084961         PCA007586           Sample Date         Client Info         22 Jun 2023         31 Jan 2023         31 Jan 2023         01 Jul 2022           Machine Age         mls         Client Info         124346         99138         0           Oil Changed         Client Info         N/A         Not Changd         N/A           Sample Status         NORMAL         NORMAL         NORMAL         ABNORMAL           WEAR METALS         method         limit/base         current         history 1         history 2           Iron         ppm         ASTM D5185m         >500         88         62         148           Chromium         ppm         ASTM D5185m         >500         88         62         148           Chromium         ppm         ASTM D5185m         >10         <1	( GAL)		0ct2021	Feb2022	Jul2022 Jan2023	Jun2023	
Sample Date   Client Info   22 Jun 2023   31 Jan 2023   01 Jul 2022	SAMPLE INFORI	MATION	method	limit/base	current	history 1	history 2
Sample Date   Client Info   22 Jun 2023   31 Jan 2023   01 Jul 2022	Sample Number		Client Info		PCA0100018	PCA0084961	PCA007586
Machine Age         mls         Client Info         124346         99138         0           Oil Age         mls         Client Info         124346         0         0         0           Oil Changed         Client Info         N/A         Not Changd         N/A         Not Changd         N/A           Sample Status         method         Imit base         current         history 1         history 1           Iron         ppm         ASTM D5185m         >500         88         62         148           Chromium         ppm         ASTM D5185m         >10         1         <1			Client Info		22 Jun 2023	31 Jan 2023	01 Jul 2022
Dil Changed   Client Info   N/A   Not Changed   N/A   NORMAL   NORMAL   NORMAL   NORMAL   ABNORMAL	•	mls	Client Info		124346	99138	0
Oil Changed   Client Info   N/A   Not Changd   N/A	Oil Age	mls	Client Info		124346	0	0
NORMAL   NORMAL   ABNORMAL	-		Client Info		N/A	Not Changd	N/A
Chromium	Sample Status				NORMAL		ABNORMAL
Chromium         ppm         ASTM D5185m         >10         1         <1         1         1         1         1         1         1         1         1         1         1         1         1         0         <1         1         1         0         <1         1         1         0         <1         1         0         0         <1         1         0         0         <1         1         0         1         2         1	WEAR METAL	S	method	limit/base	current	history 1	history 2
Nickel	Iron	ppm	ASTM D5185m	>500	88	62	148
Description	Chromium	ppm	ASTM D5185m	>10	1	<1	1
Silver	Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Aluminum   ppm   ASTM D5185m   >25   6	Titanium	ppm	ASTM D5185m		1	0	0
Lead         ppm         ASTM D5185m         >25         1         0         <1           Copper         ppm         ASTM D5185m         >50         17         13         ▲ 54           Tin         ppm         ASTM D5185m         >10         <1	Silver	ppm	ASTM D5185m		0	0	0
Lead         ppm         ASTM D5185m         >25         1         0         <1           Copper         ppm         ASTM D5185m         >50         17         13         ▲ 54           Tin         ppm         ASTM D5185m         >10         <1	Aluminum	ppm	ASTM D5185m	>25	6	<1	1
Copper	Lead		ASTM D5185m	>25	1	0	<1
Antimony	Copper		ASTM D5185m	>50	17	13	<u></u> 4 54 ≤ 54 ≤ 54 ≤ 54 ≤ 54 ≤ 54 ≤ 54 ≤ 5
Antimony	• • • • • • • • • • • • • • • • • • • •						
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history 1         history 2           Boron         ppm         ASTM D5185m         213         230         242           Boron         ppm         ASTM D5185m         0         0         4           Molybdenum         ppm         ASTM D5185m         18         19         <1           Manganese         ppm         ASTM D5185m         6         5         17           Magnesium         ppm         ASTM D5185m         96         88         <1           Calcium         ppm         ASTM D5185m         188         193         11           Phosphorus         ppm         ASTM D5185m         1241         1223         1416           Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         his	Antimony			>5			
Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history 1         history 2           Boron         ppm         ASTM D5185m         213         230         242           Barium         ppm         ASTM D5185m         0         0         4           Molybdenum         ppm         ASTM D5185m         18         19         <1           Manganese         ppm         ASTM D5185m         6         5         17           Magnesium         ppm         ASTM D5185m         96         88         <1           Calcium         ppm         ASTM D5185m         188         193         11           Phosphorus         ppm         ASTM D5185m         1241         1223         1416           Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         3         0	•				0	0	0
Boron   ppm   ASTM D5185m   213   230   242					_		
Barium	ADDITIVES		method	limit/base	current	history 1	history 2
Molybdenum         ppm         ASTM D5185m         18         19         <1           Manganese         ppm         ASTM D5185m         6         5         17           Magnesium         ppm         ASTM D5185m         96         88         <1	Boron	ppm	ASTM D5185m		213	230	242
Manganese         ppm         ASTM D5185m         6         5         17           Magnesium         ppm         ASTM D5185m         96         88         <1	Barium	ppm	ASTM D5185m		0	0	4
Magnesium         ppm         ASTM D5185m         96         88         <1           Calcium         ppm         ASTM D5185m         188         193         11           Phosphorus         ppm         ASTM D5185m         1241         1223         1416           Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         >75         32         23         65           Sodium         ppm         ASTM D5185m         >20         4         0         1           VISUAL         method         limit/base         current         history 1         history 2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar	Molybdenum	ppm	ASTM D5185m		18	19	<1
Calcium         ppm         ASTM D5185m         188         193         11           Phosphorus         ppm         ASTM D5185m         1241         1223         1416           Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         >75         32         23         65           Sodium         ppm         ASTM D5185m         >20         4         0         1           VISUAL         method         limit/base         current         history 1         history 2           VISUAL         method         limit/base         current         history 1         history 2           VISUAL         NONE         NONE         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Vellow Metal         scalar         *Visual         NONE         NONE         NONE<	Manganese	ppm	ASTM D5185m		6	5	17
Phosphorus         ppm         ASTM D5185m         1241         1223         1416           Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         >75         32         23         65           Sodium         ppm         ASTM D5185m         >20         4         0         1           VISUAL         method         limit/base         current         history 1         history 2           VISUAL         method         limit/base         current         history 1         history 2           VISUAL         method         limit/base         current         history 1         history 2           VISUAL         NONE         NONE         NONE         NONE           Visual         NONE         NONE         NONE         NONE           Visual         NONE         NONE         NONE         NONE           Sand/Dir	Magnesium	ppm	ASTM D5185m		96	88	<1
Zinc         ppm         ASTM D5185m         155         147         15           Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         >75         32         23         65           Sodium         ppm         ASTM D5185m         3         0         5           Potassium         ppm         ASTM D5185m         >20         4         0         1           VISUAL         method         limit/base         current         history 1         history 2           White Metal         scalar         *Visual         NONE         NONE         NONE           Wellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NONE         NORML         NORML <td>Calcium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>188</td> <td>193</td> <td>11</td>	Calcium	ppm	ASTM D5185m		188	193	11
25	Phosphorus		ASTM D5185m		1241	1223	1416
Sulfur         ppm         ASTM D5185m         23712         23459         28843           CONTAMINANTS         method         limit/base         current         history 1         history 2           Silicon         ppm         ASTM D5185m         >75         32         23         65           Sodium         ppm         ASTM D5185m         3         0         5           Potassium         ppm         ASTM D5185m         >20         4         0         1           VISUAL         method         limit/base         current         history 1         history 2           White Metal         scalar         *Visual         NONE         NONE         NONE           White Metal         scalar         *Visual         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			ASTM D5185m		155	147	15
Silicon	Sulfur		ASTM D5185m		23712	23459	28843
Sodium	CONTAMINAN	TS	method	limit/base	current	history 1	history 2
Potassium ppm ASTM D5185m >20 4 0 1  VISUAL method limit/base current history 1 history 2  White Metal scalar *Visual NONE NONE MODER NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE MODER NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Dodor scalar *Visual NORML NORML NORML NORML DOdor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG	Silicon	ppm	ASTM D5185m	>75	32	23	65
White Metal scalar *Visual NONE NONE MODER NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE MODER NONE NONE Debris scalar *Visual NONE MODER NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Odor scalar *Visual NORML NORML NORML NORML Debris Scalar *Visual NORML Emulsified Water scalar *Visual >0.2 NEG NEG	Sodium	ppm	ASTM D5185m		3	0	5
White Metal scalar *Visual NONE NONE MODER NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE MODER 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 >0.2 NEG NEG	Potassium	ppm	ASTM D5185m	>20	4	0	1
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONEMODERNONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	VISUAL		method	limit/base	current	history 1	history 2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE MODER 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 >0.2 NEG NEG NEG	White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Silt scalar *Visual NONE MODER 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 >0.2 NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE 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 NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Silt	scalar	*Visual	NONE	MODER	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.2 <b>NEG</b> NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar *Visual >0.2 <b>NEG</b> NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water			>0.2	NEG	NEG	NEG
	Free Water	scalar				NEG	NEG

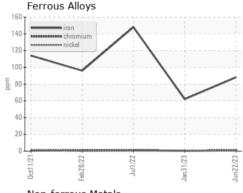


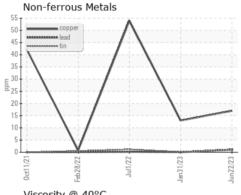
## **OIL ANALYSIS REPORT**

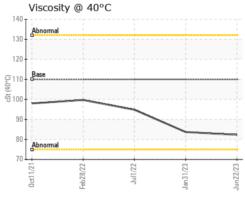




## **GRAPHS**











Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : FLEET

: PCA0100018 : 05884737 : 10535220

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 27 Jun 2023 Diagnosed : 30 Jun 2023 Diagnostician : Jonathan Hester

NW WHITE & CO - COLUMBIA DIVISION

100 INDEPENDENCE BLVD COLUMBIA, SC US 29210

Contact: GEORGE EDWARDS

gedwards@nwwhite.com

T:

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)

F: