



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**139431**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

## RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0019704</b>	RPL0016773	RPL0014921
Sample Date		Client Info		<b>10 Jun 2024</b>	12 Apr 2024	06 Oct 2023
Machine Age	mls	Client Info		<b>231482</b>	203301	194209
Oil Age	mls	Client Info		<b>231482</b>	203301	50000
Filter Age	mls	Client Info		<b>0</b>	0	50000
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>30</b>	13	22
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	8
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>6</b>	0	6
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

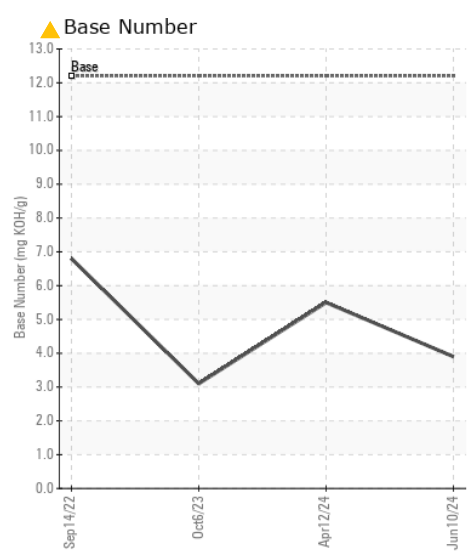
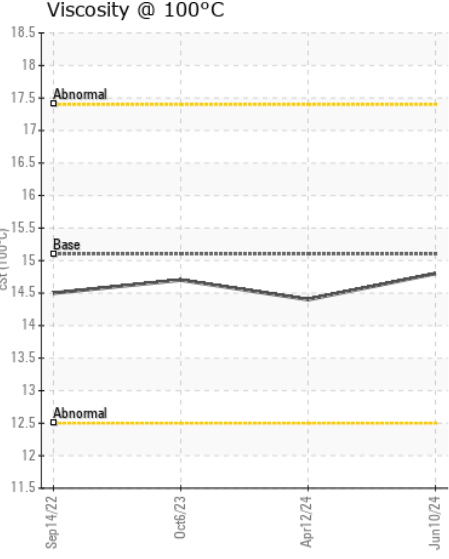
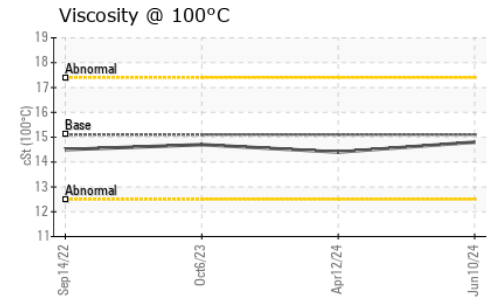
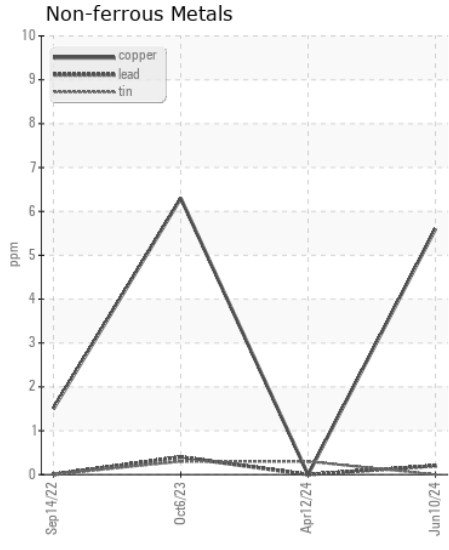
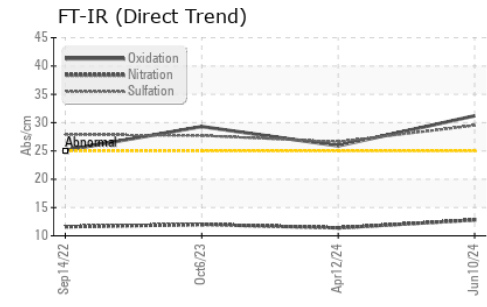
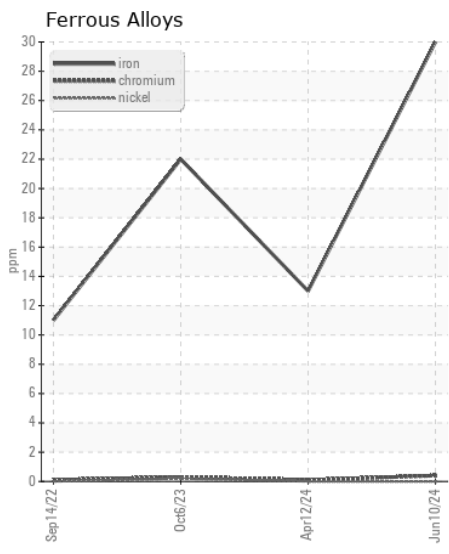
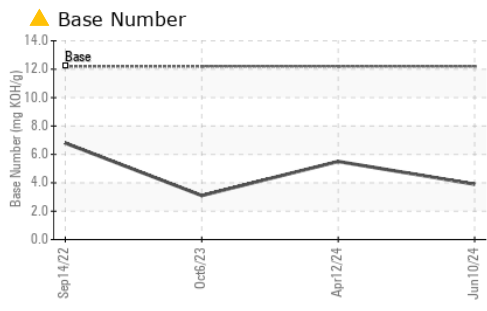
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>9</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	2	10
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.8</b>	11.4	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>29.5</b>	26.6	27.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
Boron	ppm	ASTM D5185m		<b>44</b>	106	28
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>138</b>	125	139
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>772</b>	724	703
Calcium	ppm	ASTM D5185m		<b>1614</b>	1491	1413
Phosphorus	ppm	ASTM D5185m	1360	<b>800</b>	716	730
Zinc	ppm	ASTM D5185m	1480	<b>1006</b>	856	936
Sulfur	ppm	ASTM D5185m		<b>2574</b>	2674	2590
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>31.2</b>	25.9	29.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>▲ 3.9</b>	5.5	▲ 3.1
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.8</b>	14.4	14.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0019704 **Received** : 21 Jun 2024  
**Lab Number** : 06216588 **Tested** : 24 Jun 2024  
**Unique Number** : 11089452 **Diagnosed** : 24 Jun 2024 - Sean Felton  
**Test Package** : FLEET

**RTL PACLEASE - 7005 - Arlington**  
 1900 E Division  
 Arlington, TX  
 US 76011  
 Contact: Ricardo Ronquillo  
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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)