



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**857-3872**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0014649</b>	RPL0010306	RPL0010412
Sample Date		Client Info		<b>10 Nov 2023</b>	10 Aug 2023	05 May 2023
Machine Age	hrs	Client Info		<b>11189</b>	10599	332639
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>24</b>	9	22
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>40	<b>15</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
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

Elemental level of silicon (Si) above normal indicating ingress of seal material.

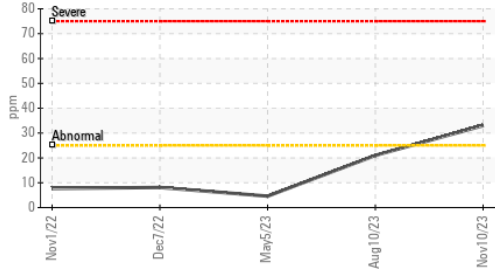
Silicon	ppm	ASTM D5185m	>25	<b>▲ 33</b>	21	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	6	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.7</b>	6.5	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.8</b>	20.5	26.5
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

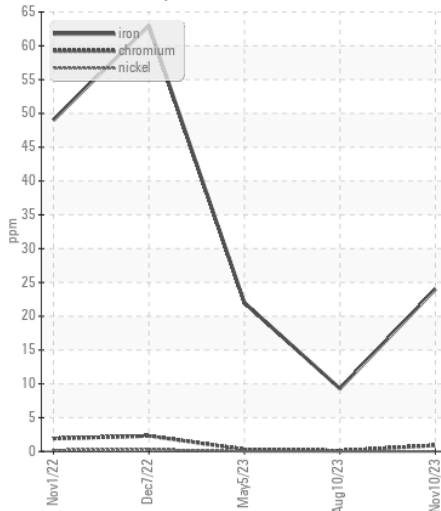
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	2	4
Boron	ppm	ASTM D5185m		<b>31</b>	83	47
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>38</b>	35	10
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>508</b>	571	613
Calcium	ppm	ASTM D5185m		<b>1565</b>	1698	1293
Phosphorus	ppm	ASTM D5185m	1260	<b>752</b>	794	589
Zinc	ppm	ASTM D5185m	1400	<b>889</b>	950	694
Sulfur	ppm	ASTM D5185m		<b>2531</b>	3232	3061
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>28.8</b>	17.3	26.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>6.6</b>	9.3	4.6
Visc @ 100°C	cSt	ASTM D445	11.1	<b>10.4</b>	11.3	11.1

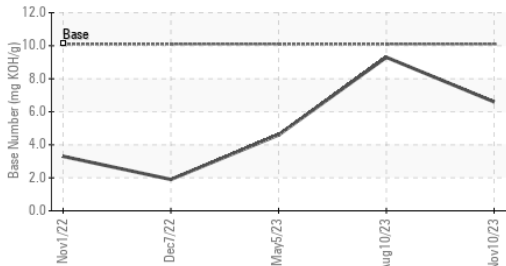
▲ Silicon (ppm)



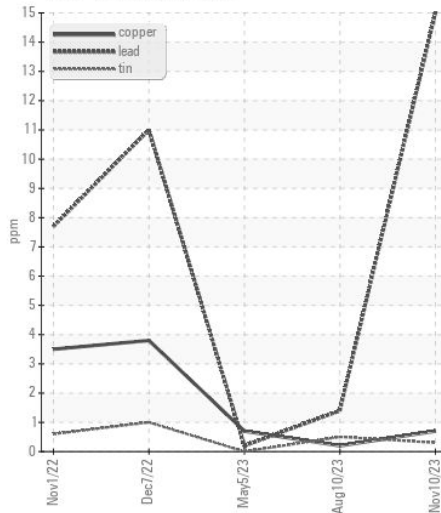
Ferrous Alloys



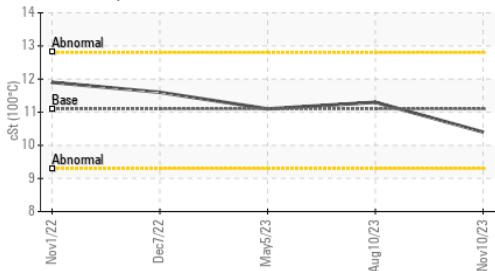
Base Number



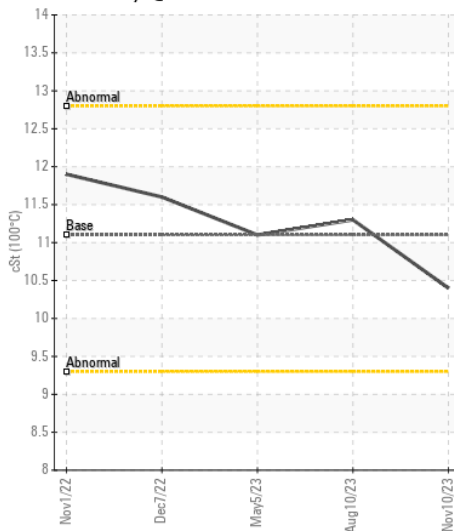
Non-ferrous Metals



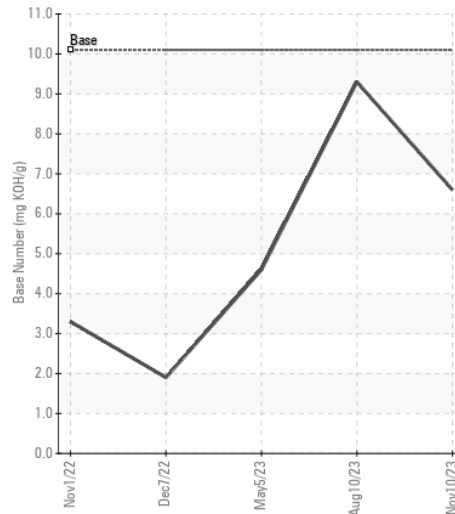
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0014649 **Received** : 10 Jan 2024  
**Lab Number** : 06056156 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822105 **Diagnostician** : Angela Borella  
**Test Package** : FLEET

**RTL PACLEASE - 7001 - Houston**  
 6300 N. Loop East  
 Houston, TX  
 US 77026  
 Contact: RODNEY BRIGGS  
 briggs@rushenterprises.com

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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F: