



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
857-4912
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 SAE 10W30 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0014018	RPL0010328	RPL0005583
Sample Date		Client Info		15 Dec 2023	11 Jul 2023	26 Jan 2023
Machine Age	hrs	Client Info		2753	0	18799
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	▲ 114	60	58
Chromium	ppm	ASTM D5185m	>20	2	1	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	75	72	68
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	13	7	23
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

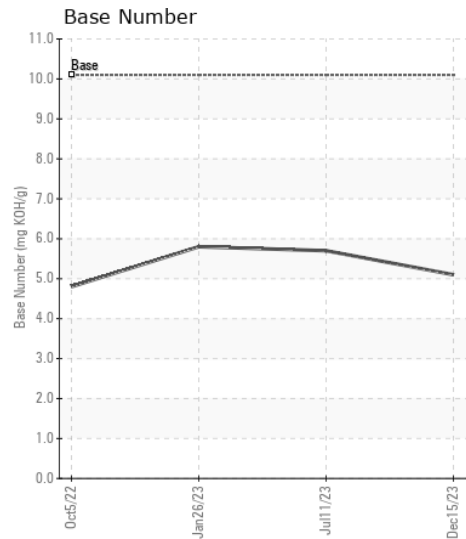
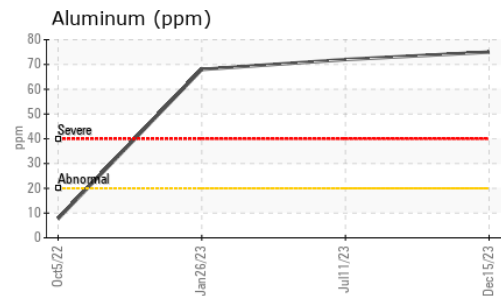
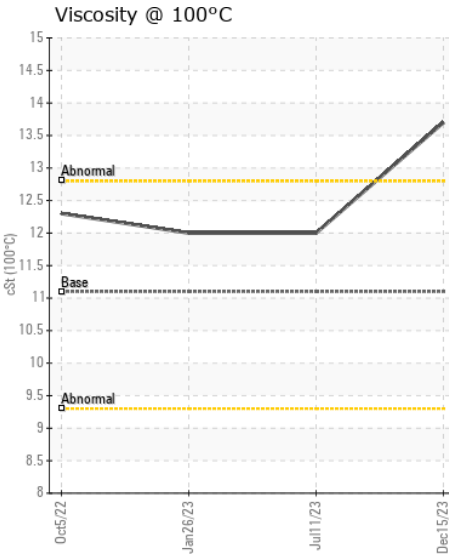
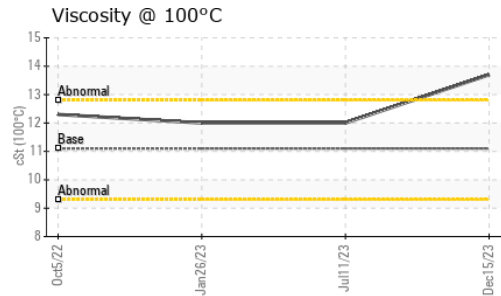
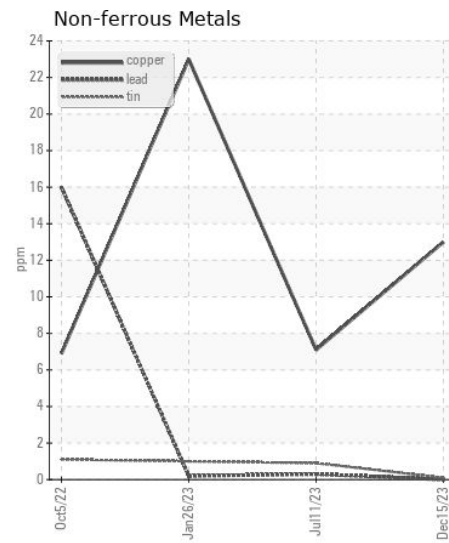
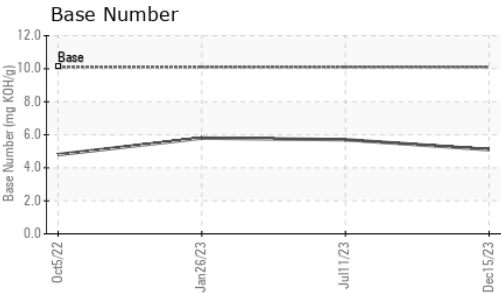
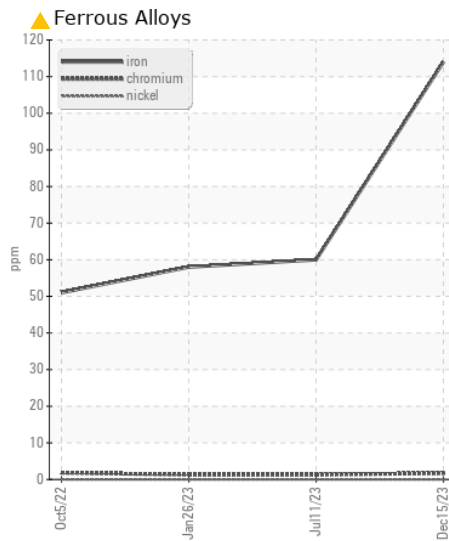
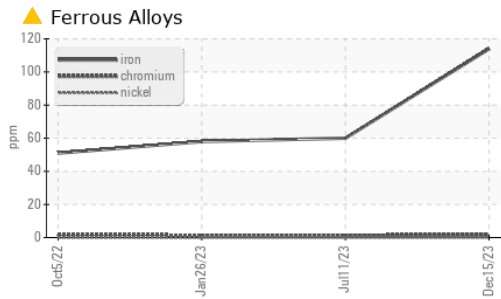
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	17	14	13
Potassium	ppm	ASTM D5185m	>20	204	194	210
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	13.8	11.4	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.4	24.3	23.5
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	>0.2	NEG	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		5	6	1
Boron	ppm	ASTM D5185m		103	29	44
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		31	24	19
Manganese	ppm	ASTM D5185m		<1	1	2
Magnesium	ppm	ASTM D5185m		649	749	640
Calcium	ppm	ASTM D5185m		1566	1573	1413
Phosphorus	ppm	ASTM D5185m	1260	889	814	706
Zinc	ppm	ASTM D5185m	1400	1077	993	870
Sulfur	ppm	ASTM D5185m		3423	3779	2934
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.4	19.4	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.1	5.7	5.8
Visc @ 100°C	cSt	ASTM D445	11.1	13.7	12.0	12.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0014018 **Received** : 10 Jan 2024
Lab Number : 06056189 **Diagnosed** : 11 Jan 2024
Unique Number : 10822138 **Diagnostician** : Sean Felton
Test Package : FLEET

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

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)