

RECOMMENDATION

Limit/Abn **Current** 

History1

History2

Test

UOM

Method

## Machine Id 857-4978 Component Diesel Engine Fluid CHEVRON DELO 400 SAE 10W30 (--- GAL)

Resample at the next service interval to monitor. Please specify the
component make and model with your next sample.

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Metal levels are typical for a new component breaking in.

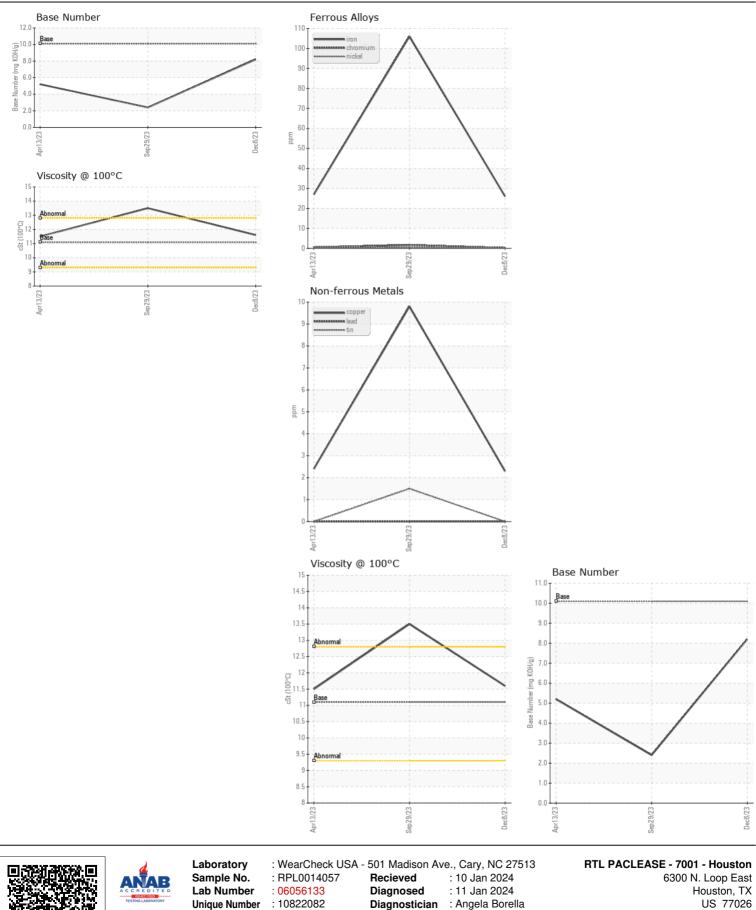
## CONTAMINATION

Elevated aluminum (AI) 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.

	Test	UOIVI	wethod	Limit/Abn	Current	History I	HIStory2
	Sample Number		Client Info		RPL0014057	RPL0010979	RPL0010498
	Sample Date		Client Info		08 Dec 2023	29 Sep 2023	13 Apr 2023
	Machine Age	mls	Client Info		78293	65719	35856
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		Not Changd	Changed	Not Changd
	Filter Changed		Client Info		Not Changd	Changed	Not Changd
	Sample Status		0.10111 1.110		NORMAL	ABNORMAL	NORMAL
	Iron	ppm	ASTM D5185m	>100	26	106	27
	Chromium	ppm	ASTM D5185m	>20	<1	2	<1
	Nickel	ppm	ASTM D5185m	>4	0	<1	<1
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	<1	<1
	Aluminum	ppm	ASTM D5185m	>20	9	37	18
	Lead	ppm	ASTM D5185m	>40	0	0	0
	Copper	ppm	ASTM D5185m	>330	2	10	2
	Tin	ppm	ASTM D5185m	>15	0	2	0
	Vanadium	ppm	ASTM D5185m	10	0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Scalai	v isuai			NONL	NONL
	Silicon	ppm	ASTM D5185m	>25	13	22	11
	Potassium	ppm	ASTM D5185m	>20	26	102	44
	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	0.3	0.8	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	11.3	16.5	9.8
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	35.4	20.5
	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
		ooului	· · · · · · · · · · · · · · · · · · ·			NEG	NLC.
	Sodium	ppm	ASTM D5185m		1	4	2
	Boron	ppm	ASTM D5185m		26	13	42
	Barium	ppm	ASTM D5185m		0	<1	0
	Molybdenum	ppm	ASTM D5185m		43	29	26
	Manganese	ppm	ASTM D5185m		0	2	1
	Magnesium	ppm	ASTM D5185m		566	839	771
	Calcium	ppm	ASTM D5185m		1727	1692	1422
	Phosphorus	ppm	ASTM D5185m	1260	828	909	774
	Zinc	ppm	ASTM D5185m	1400	968	1096	911
	Sulfur	ppm	ASTM D5185m		2734	3200	3716
	Oxidation	Abs/.1mm	*ASTM D7414	>25	23.8	36.3	16.8
	Base Number (BN)	mg KOH/g	ASTM D2896	10.1	8.2	▲ 2.4	5.2
	Visc @ 100°C	cSt	ASTM D445	11.1	11.6	▲ 13.5	11.5
		001	7.0 HVI D44J	1 1 . 1		- 10.0	11.0

## FLUID CONDITION

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



Certificate 12367 Test Package : FLEET 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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