



OIL ANALYSIS REPORT

Sample Rating Trend

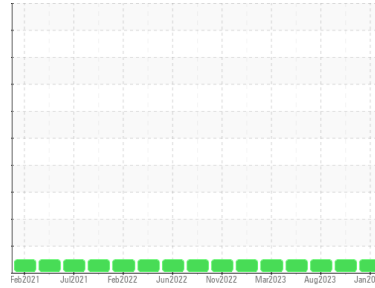
NORMAL



Machine Id
529014-1211

Component
Diesel Engine

Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0096096	GFL0084486	GFL0084517
Sample Date	Client Info		09 Jan 2024	19 Oct 2023	14 Aug 2023
Machine Age	hrs	Client Info	17245	16606	16040
Oil Age	hrs	Client Info	639	566	560
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	24	34	22
Chromium	ppm	ASTM D5185m >20	1	1	1
Nickel	ppm	ASTM D5185m >4	<1	<1	0
Titanium	ppm	ASTM D5185m	12	13	14
Silver	ppm	ASTM D5185m >3	0	<1	0
Aluminum	ppm	ASTM D5185m >20	4	6	3
Lead	ppm	ASTM D5185m >40	5	15	3
Copper	ppm	ASTM D5185m >330	<1	2	<1
Tin	ppm	ASTM D5185m >15	1	1	<1
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	62	26	38
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	58	48	48
Manganese	ppm	ASTM D5185m	<1	1	<1
Magnesium	ppm	ASTM D5185m	784	723	760
Calcium	ppm	ASTM D5185m	1712	1504	1653
Phosphorus	ppm	ASTM D5185m 760	850	678	712
Zinc	ppm	ASTM D5185m 830	1046	863	855
Sulfur	ppm	ASTM D5185m 2770	3522	2735	3467

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	9	6
Sodium	ppm	ASTM D5185m	4	7	6
Potassium	ppm	ASTM D5185m >20	5	11	11

INFRA-RED

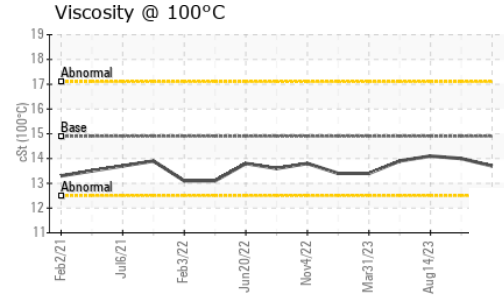
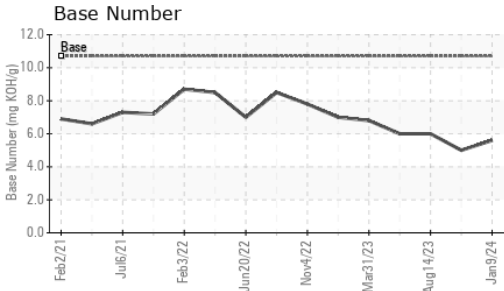
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.8	0.7	0.8
Nitration	Abs/cm	*ASTM D7624 >20	11.1	12.7	11.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.6	26.2	23.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.4	20.5	18.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	5.6	5.0	6.0



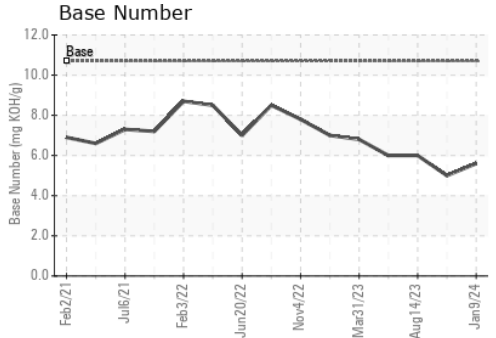
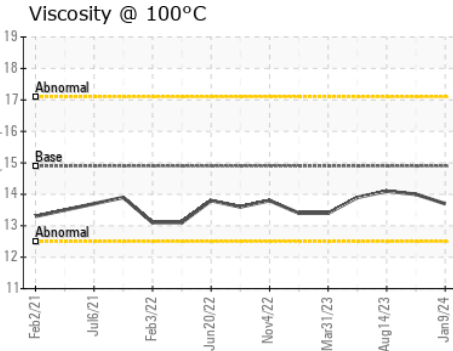
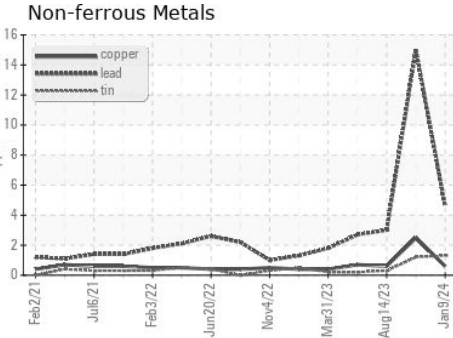
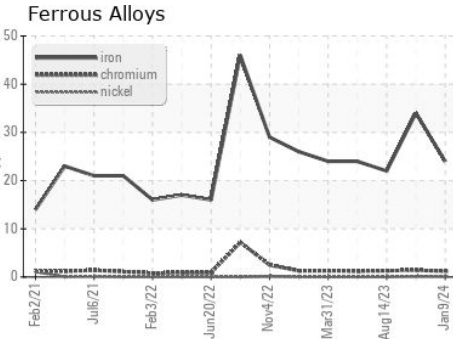
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	13.7	14.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096096 **Received** : 12 Jan 2024
Lab Number : 06058969 **Diagnosed** : 12 Jan 2024
Unique Number : 10830351 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 629 - Northern A1
 3947 US 131 N
 Kalkaska, MI
 US 49646-8428
Contact: MITCH HERSHBERGER

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: