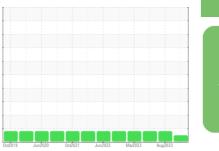


OIL ANALYSIS REPORT







NORMAL

Diesel Engine Fluid CHEVRON DELO 400 SAE 10W30 (--- GAL)

DIAGNOSIS

Machine Id 9474 Component

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

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. Light fuel dilution occurring. No other contaminants were detected in the oil.

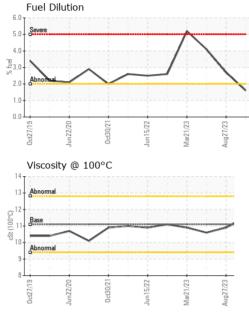
Fluid Condition

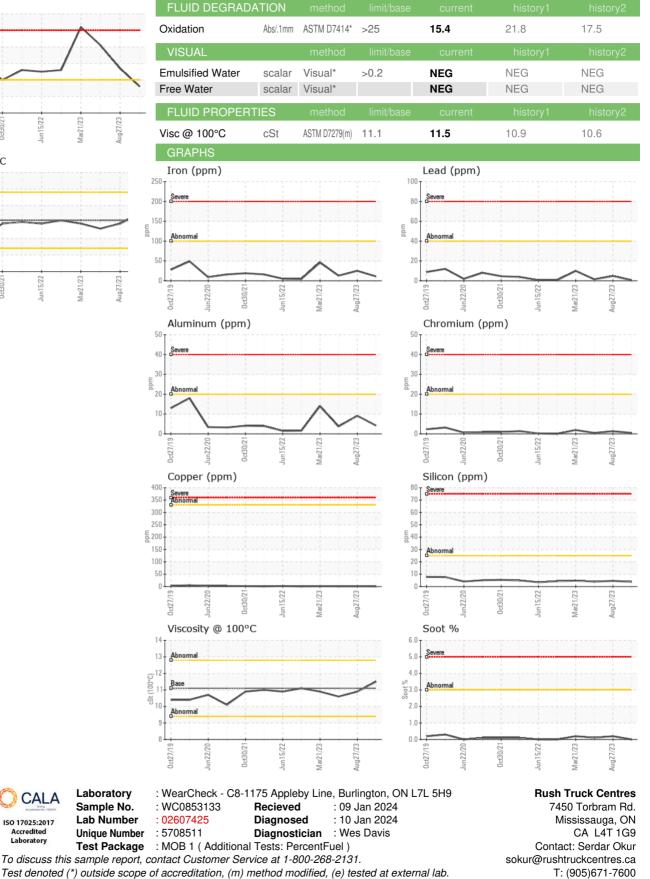
The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853133	WC0853322	WC0796552
Sample Date		Client Info		09 Dec 2023	27 Aug 2023	10 Jun 2023
Machine Age	kms	Client Info		391078	344460	338563
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method	20.L	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	11	25	13
Chromium	ppm	ASTM D5185(m)	>20	<1	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)	~ 7	0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	4	9	4
Lead	ppm	ASTM D5185(m)	>40	4 <1	5	2
Copper	ppm	ASTM D5185(m)	>330	<1	1	<1
Tin		ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium		ASTM D5185(m)		0	0	0
Beryllium	ppm ppm	ASTM D5185(m)		0	0	0
Cadmium		ASTM D5185(m)		0	0	0
	ppm		line it /le e e e	-	-	-
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		62	32	58
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		<1	4	
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		639	723	688
Calcium	ppm	ASTM D5185(m) ASTM D5185(m)	1000	1395 719	1329 713	1366
Phosphorus	ppm	ASTIVI DS183(M)	1260	/14	/13	722
Zine			1400			700
Zinc	ppm	ASTM D5185(m)	1400	789	770	739
Sulfur	ppm ppm	ASTM D5185(m) ASTM D5185(m)		789 2624	770 2475	2506
Sulfur Lithium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		789 2624 <1	770 2475 <1	2506 <1
Sulfur Lithium CONTAMINANTS	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	limit/base	789 2624 <1 current	770 2475 <1 history1	2506 <1 history2
Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)		789 2624 <1 current 4	770 2475 <1 history1 5	2506 <1 history2 4
Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base >25	789 2624 <1 current 4 2	770 2475 <1 <u>history1</u> 5 3	2506 <1 history2 4 3
Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20	789 2624 <1 current 4 2 9	770 2475 <1 <u>history1</u> 5 3 18	2506 <1 history2 4 3 7
Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base >25	789 2624 <1 current 4 2	770 2475 <1 <u>history1</u> 5 3	2506 <1 history2 4 3
Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20	789 2624 <1 current 4 2 9	770 2475 <1 <u>history1</u> 5 3 18	2506 <1 history2 4 3 7
Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >25 >20 >2.0	789 2624 <1 current 4 2 9 1.6	770 2475 <1 history1 5 3 18 ▲ 2.7	2506 <1 <u>history2</u> 4 3 7 4.1
Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593*	limit/base >25 >20 >2.0 limit/base >3	789 2624 <1 current 4 2 9 1.6 current	770 2475 <1 history1 5 3 18 ▲ 2.7 history1	2506 <1 history2 4 3 7 ▲ 4.1 history2
Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* method ASTM D7844*	limit/base >25 >20 >2.0 limit/base >3	789 2624 <1 current 4 2 9 1.6 current 0	770 2475 <1 history1 5 3 18 2.7 history1 0.2	2506 <1 history2 4 3 7 ▲ 4.1 history2 0.1



OIL ANALYSIS REPORT





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Validity of results and interpretation are based on the sample and information as supplied.

CALA

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Contact/Location: Serdar Okur - RUSMIS

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