

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# Machine Id 291909

#### Component Diesel Engine

CHEVRON DELO 400 SAE 10W30 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### 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.

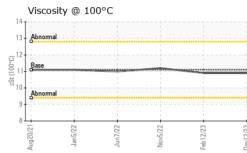
#### Fluid Condition

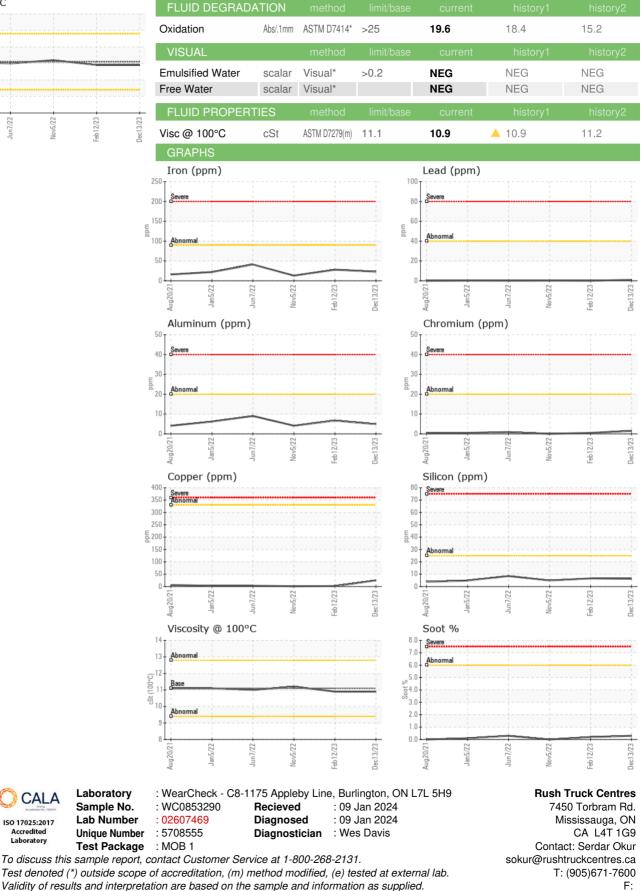
The condition of the oil is acceptable for the time in service.

		Aug2021	Jan2022 Jun2022	2 Nov2022 Feb2023	Dec2023	
SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853290	WC0702888	WC0737532
Sample Date		Client Info		13 Dec 2023	12 Feb 2023	05 Nov 2022
Machine Age	kms	Client Info		412451	357197	341823
Oil Age	kms	Client Info		9869	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<b>2</b> .4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	23	28	13
Chromium	ppm	ASTM D5185(m)	>20	2	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	5	7	4
Lead	ppm	ASTM D5185(m)	>40	1	0	<1
Copper	ppm	ASTM D5185(m)	>330	25	2	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		28	<b>4</b> 9	77
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		8	<b>8</b>	8
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		524	711	707
Calcium	ppm	ASTM D5185(m)		1465	1372	1324
Phosphorus	ppm	ASTM D5185(m)	1260	665	706	741
Zinc	ppm	ASTM D5185(m)	1400	763	750	750
Sulfur	ppm	ASTM D5185(m)		2426	2554	2494
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6	7	5
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	5	6	4
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.3	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	11.5	11.0	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.4	23.7	20.0



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Accredited

Laboratory