

[44633298]

L1453

Diesel Engine

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

RECOMMENDATION

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Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

WEAR

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.

	- .	11014		1.1. 11/41			
	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0703076	WC0703070	
	Sample Date		Client Info		15 May 2024	02 May 2024	
	Machine Age	kms	Client Info		65457	59216	
	Oil Age	kms	Client Info		65457	59216	
	Filter Age	kms	Client Info		65457	59216	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
	1			00	<u></u>	40	
	Iron	ppm	ASTM D5185(m)	>90	69	49	
	Chromium	ppm	ASTM D5185(m)	>20	1	1	
	Nickel	ppm	ASTM D5185(m)	>2	<1	<1	
	Titanium	ppm	ASTM D5185(m)	>2	0	0	
	Silver	ppm	ASTM D5185(m)	>2	0	<1	
	Aluminum	ppm	ASTM D5185(m)	>20	9	25	
	Lead	ppm	ASTM D5185(m)	>40	5	4	
	Copper	ppm	ASTM D5185(m)	>330	23	26	
	Tin	ppm	ASTM D5185(m)	>15	3	4	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Silicon	nom	ASTM D5185(m)	>25	34	37	
	Potassium	ppm	ASTM D5185(m)	>20	34	68	
	Fuel	ppm	WC Method	>3.0	<1.0	<1.0	
	Water		WC Method	>0.2	<1.0 NEG	<1.0 NEG	
	Glycol		WC Method	>0.2	NEG	NEG	
	Soot %	%	ASTM D7844*	>6	0.3	0.2	
	Nitration	/o Abs/cm	ASTM D7644 ASTM D7624*	>20	9.7	9.3	
	Sulfation	Abs/.1mm	ASTM D7024 ASTM D7415*	>30	23.3	23.1	
	Silt	scalar	Visual*	NONE	NONE	20.1	
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
		304141	VISUAI	20.L		NLG	
	Sodium	ppm	ASTM D5185(m)		5	5	
	Boron	ppm	ASTM D5185(m)		30	39	
	Barium	ppm	ASTM D5185(m)		4	4	
	Molybdenum	ppm	ASTM D5185(m)		54	59	
	Manganese	ppm	ASTM D5185(m)		4	4	
	Magnesium	ppm	ASTM D5185(m)		499	467	
	Calcium	ppm	ASTM D5185(m)		1717	1728	
	Phosphorus	ppm	ASTM D5185(m)	1260	898	916	
	Zinc	ppm	ASTM D5185(m)	1400	1107	1130	
	Sulfur	ppm	ASTM D5185(m)		2215	2247	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	20.3	20.1	
	Visc @ 100°C	cSt	ASTM D7279(m)	11.1	11.5	11.5	

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



