

OIL ANALYSIS REPORT



Machine Id 0557

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0119004	GFL0101708	
Sample Date		Client Info		23 May 2024	20 Nov 2023	
Machine Age	kms	Client Info		201437	193641	
Oil Age	kms	Client Info		0	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	32	23	
Chromium	ppm	ASTM D5185(m)	>20	2	2	
Nickel	ppm	ASTM D5185(m)	>2	- <1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)		16	12	
Lead	ppm	ASTM D5185(m)	>40	0	0	
Copper	ppm	ASTM D5185(m)		2	2	
Tin	ppm	ASTM D5185(m)	>15	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	5	2	
Barium	ppm	ASTM D5185(m)	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	50	59	57	
Manganese	ppm	ASTM D5185(m)		<1	0	
Magnesium	ppm	ASTM D5185(m)	950	932	925	
Calcium	ppm	ASTM D5185(m)	1050	1035	1011	
Phosphorus	ppm	ASTM D5185(m)	995	1001	978	
Zinc	ppm	ASTM D5185(m)	1180	1143	1160	
Sulfur	ppm	ASTM D5185(m)	2600	2441	2470	
Lithium	ppm	ASTM D5185(m)	2000	<1	<1	
CONTAMINAN		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	12	12	
Sodium		ASTM D5185(m)	~	4	4	
Potassium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	>20	4 <1	0	
INFRA-RED	PP	method				
			limit/base		history1	history2
Soot %	%	ASTM D7844*	>3	0.2	0.3	
Nitration	Abs/cm	ASTM D7624*	>20	11.9	11.2	
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	20.5	



Abnormal

35

31

____25·

> 15 14 - Abnorma

FT-IR (Direct Trend)

Oxidation

Nitration
 Sulfation

Viscosity @ 100°C

OIL ANALYSIS REPORT

	FLUID DEGRA			limit/base	current	history1	history2
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.7	20.6	
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
	Silt	scalar	Visual*	NONE	VLITE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor Emulsified Water	scalar	Visual*	NORML	NORML	NORML	
	Free Water	scalar scalar	Visual* Visual*	>0.2	NEG NEG	NEG NEG	
	FLUID PROPE		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.0	10.8	
	GRAPHS						
	Iron (ppm)			10	Lead (ppm)		
	200 - Severe			8	0 - Severe		
	150 100 Abnormal			ud 4	A1		
	50			2			
	0						
	Nov20/23			May23/24	Nov20/23		
				Ma		>	
	Aluminum (ppm)			5	Chromium (p	pm)	
	40 - Severe			4			
0000	Abnormal			E 3	0 - Abnormal		
	10			1			
	0						
	Nov20/23			May23/24	Nov20/23		
				Ma			
	Copper (ppm)			8	Silicon (ppm)		
	300 -			6			
Muc	200 -			톱 4	0		
	100-			2	Abnormai		
	0				D L		
	Nov20/23			May23/24	Nov20/23		
				May			
	Viscosity @ 100°	C		6.	Soot %		
	Abnormal				Severe		
	Base 12 - Base 33 - Abnormal			** ^{4.1}	Abnormal		
	경 _{10 -} Abnormal			⁶⁶ 2.	0 -		
	8			0.1			
	Nov20/23			May23/24 -	Nov20/23 -		
	Novi			lavi	ov,		



 Accredited Laboratory
 Unique Number
 : 5787562
 Diagnosed
 : 29 May 2024 - Wes Davis

 To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

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

Contact/Location: Tim Greig - GFL554 Page 2 of 2

CA T6P 0B8

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