

OIL ANALYSIS REPORT

Sample Rating Trend

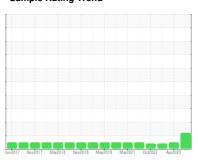
GLYCOL



Machine Id 4486 Component

Diesel Engine

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)





DIAGNOSIS

Recommendation

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

Water treatment chemicals present, indicating slow coolant leak. The water content is negligible. Test for glycol is negative. 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 acceptable for the time in service (see recommendation).

Sample Date Client Info 01 Aug 2023 19 Apr 2023 18 Oct 2022 Machine Age hrs Client Info 37937 37465 37256 3725	SYN BLEND 15W40	(GAL)	Jun2017 Nov	2017 Mar2018 Nov2018	May2019 Mar2021 Oct2022	Apr2023	
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 37937 37465 37256 Oil Age hrs Client Info 474 209 528 Oil Changed Client Info Changed Changed Changed Sample Status Brown Brown ATTENTION NORMAL ABNORMAL CONTAMINATION method Ilmil/base current history1 history2 Fuel WC Method 6.0 <1.0	Sample Number		Client Info		GFL0084310	GFL0077570	GFL0060201
Dil Age	Sample Date		Client Info		01 Aug 2023	19 Apr 2023	18 Oct 2022
Dil Age	•	hrs	Client Info		_	37465	37256
Contained Client Info		hrs	Client Info		474	209	528
ATTENTION NORMAL ABNORMAL	-				Changed	Changed	Changed
WEAR METALS	Sample Status					Ü	
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
Description	Fuel		WC Method	>6.0	<1.0	0.5	1.9
Chromium ppm ASTM D5185(m) >20 1 <1 2 Nickel ppm ASTM D5185(m) >2 <1 <1 1 Titanium ppm ASTM D5185(m) >2 <1 <1 1 Siliver ppm ASTM D5185(m) >2 0 0 0 Aluminum ppm ASTM D5185(m) >2 2 2 4 Lead ppm ASTM D5185(m) >2 2 2 4 Lead ppm ASTM D5185(m) >330 2 2 7 Lead ppm ASTM D5185(m) 0 0 <1 2 Lead ppm ASTM D5185(m) 0 0 <1 2 Lead ppm ASTM D5185(m) 0 0 <1 2 Lead ppm ASTM D5185(m) 0 0 0 <1 Cadadium ppm ASTM D5185(m) 1 2 3	WEAR METAL	S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >20 1 <1 2	Iron	mqq	ASTM D5185(m)	>100	33	22	56
Nickel	Chromium		. ,			<1	
Description			, ,				
Soliver			. ,	_			
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Sulfur ppm ASTM D5185(m) 2060 2480 2578 2730 Lithium ppm ASTM D5185(m) 2060 2480 2578 2730 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 8 5 10 Sodium ppm ASTM D5185(m) >25 8 5 10 Sodium ppm ASTM D5185(m) >20 20 7 11 Glycol % ASTM D7822* 0.0 0.0 0.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Phosphorus	ppm	ASTM D5185(m)	1150	991	1039	1075
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CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 8 5 10 Sodium ppm ASTM D5185(m) >25 8 63 Potassium ppm ASTM D5185(m) >20 20 7 11 Glycol % ASTM D7922* 0.0 0.0 0.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Sulfur	ppm	. ,			2578	2730
Silicon ppm ASTM D5185(m) >25 8 5 10 Sodium ppm ASTM D5185(m) ▲ 578 48 63 Potassium ppm ASTM D5185(m) >20 20 7 11 Glycol % ASTM D7922* 0.0 0.0 0.0 0.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Lithium	ppm	ASTM D5185(m)		<1	<1	<1
Sodium ppm ASTM D5185(m) ▲ 578 48 63 Potassium ppm ASTM D5185(m) >20 7 11 Glycol % ASTM D7922* 0.0 0.0 0.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	CONTAMINAN	ITS	method	limit/base	current	history1	history2
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Glycol % ASTM D7922* 0.0 0.0 0.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Sodium	ppm	ASTM D5185(m)		<u>▲</u> 578	48	63
INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Potassium	ppm	ASTM D5185(m)	>20	20	7	11
Soot % % ASTM D7844* >3 0.5 0.2 0.4 Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Glycol	%	ASTM D7922*		0.0	0.0	0.0
Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* >20 8.7 5.9 7.4	Soot %	%	ASTM D7844*	>3	0.5	0.2	0.4
	Nitration						
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	18.3	21.1



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited

Laboratory Sample No. Lab Number Unique Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County

: 5619504

To discuss this sample report, contact Customer Service at 1-800-268-2131.

: GFL0084310 : 02574453

Received Diagnosed

: 08 Aug 2023 : 09 Aug 2023

: Kevin Marson Diagnostician Test Package : MOB 2 (Additional Tests: Glycol)

220 Carmek Blvd Rocky View County, AB **CA T1X 1X1**

Contact: GFL Calgary calgarymaintenance@gflenv.com T:

Submitted By: GFL Calgary

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.

F: (403)369-6163