WEAR CONTAMINATION FLUID CONDITION

NORMAL ABNORMAL ABNORMAL

History1

0

0

<1

4

0

0

0

2

0

6

0

History2

0

0

<1

<1

0



Machine Id
4490
Component
Diesel Engine

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

Test

Titanium

Aluminum

Silver

Lead

Tin

Copper

UOM

ppm

ppm

ppm

ppm

ppm

ppm

Method

ASTM D5185(m)

ASTM D5185(m)

ASTM D5185(m)

ASTM D5185(m) >25

ASTM D5185(m) >330

ASTM D5185(m) >15

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

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Sample Number		Client Info		GFL0117280	GFL0112415	GFL0099530
Sample Date		Client Info		03 Jun 2024	17 Feb 2024	18 Dec 2023
Machine Age	hrs	Client Info		39315	1127673	1120848
Oil Age	hrs	Client Info		715	0	0
Filter Age	hrs	Client Info		715	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	SEVERE	NORMAL
Iron	ppm	ASTM D5185(m)	>100	7	7	3
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1

>2

>40

Limit/Abn Current

WEAR

All component wear rates are normal.

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Test for glycol is positive. Light fuel dilution occurring. There is a moderate concentration of glycol present in the oil. No other contaminants were detected in the oil.

Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	4	5	4
Potassium	ppm	ASTM D5185(m)	>20	1	1	2
Fuel	%	ASTM D7593*	>6.0	1.5	<1.0	2.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		△ 0.058	▲ 0.739	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.5	5.8	5.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	17.1	18.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	17.1	18.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		40	88	2
Boron	ppm	ASTM D5185(m)	1	5	4	4
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	55	56
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	914	807	918
Calcium	ppm	ASTM D5185(m)	1070	1023	943	1047
Phosphorus	ppm	ASTM D5185(m)	1150	960	929	986
Zinc	ppm	ASTM D5185(m)	1270	1130	1120	1126
Sulfur	ppm	ASTM D5185(m)	2060	2486	2575	2674
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	13.9	15.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.59	10.30	10.86
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	12.5	13.3	12.8





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02641069 Unique Number : 5798608

: GFL0117280

Received **Tested** Diagnosed Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County : 11 Jun 2024 : 13 Jun 2024

: 13 Jun 2024 - Wes Davis

Rocky View County, AB **CA T1X 1X1** Contact: GFL Calgary calgarymaintenance@gflenv.com

220 Carmek Blvd

F: (403)369-6163

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.

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