



Machine Id
4493
Component
Right Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (36 LTR)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0117327	GFL0091654	GFL0084295
Sample Date		Client Info		02 Apr 2024	28 Sep 2023	25 Jul 2023
Machine Age	hrs	Client Info		37747	36942	676520
Oil Age	hrs	Client Info		805	0	0
Filter Age	hrs	Client Info		805	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Nickel ppm levels are severe. Exhaust valve wear is indicated.

Iron	ppm	ASTM D5185(m)	>100	57	32	6
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>2	▲ 7	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	3	1	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>330	10	1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

Fuel content negligible. Light concentration of carbon/soot present in the oil.

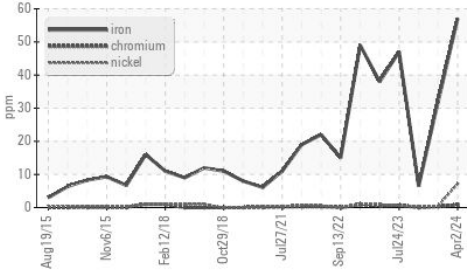
Silicon	ppm	ASTM D5185(m)	>25	4	4	5
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel	%	ASTM D7593*	>6.0	0.7	<1.0	1.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	▲ 3.1	2.4	0
Nitration	Abs/cm	ASTM D7624*	>20	13.1	9.9	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.1	22.8	20.5
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

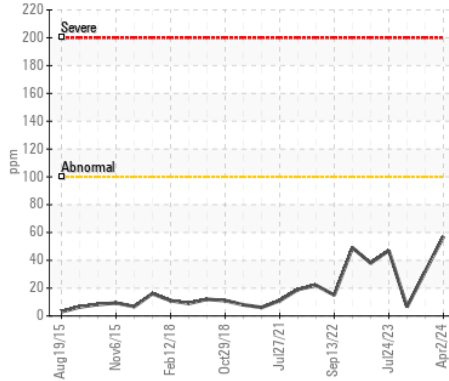
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		10	4	4
Boron	ppm	ASTM D5185(m)	1	3	3	2
Barium	ppm	ASTM D5185(m)	1	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	56	58	56
Manganese	ppm	ASTM D5185(m)	1	1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	873	929	945
Calcium	ppm	ASTM D5185(m)	1070	996	1049	1016
Phosphorus	ppm	ASTM D5185(m)	1150	911	982	1006
Zinc	ppm	ASTM D5185(m)	1270	1114	1172	1147
Sulfur	ppm	ASTM D5185(m)	2060	2334	2508	2372
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	15.3	16.4
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	9.60	8.85	8.22
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	14.6	15.0	13.1

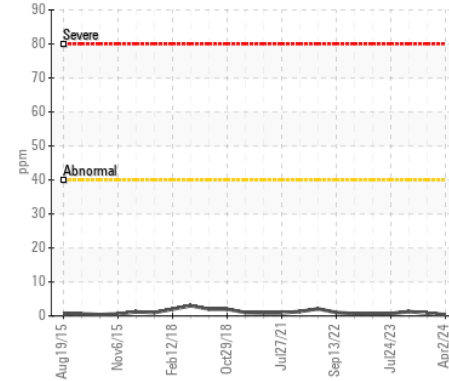
▲ Ferrous Alloys



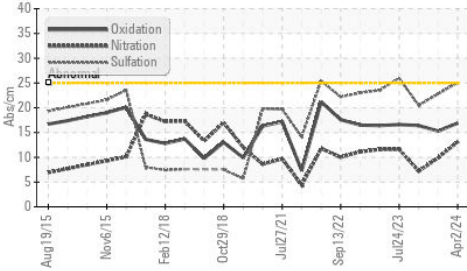
Iron (ppm)



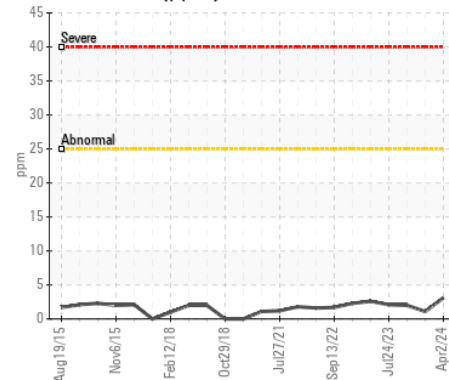
Lead (ppm)



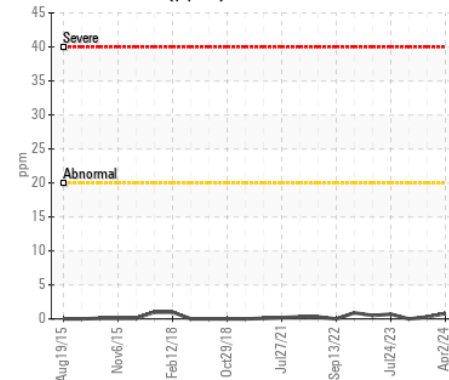
▲ FT-IR (Direct Trend)



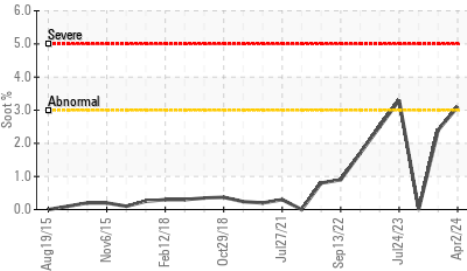
Aluminum (ppm)



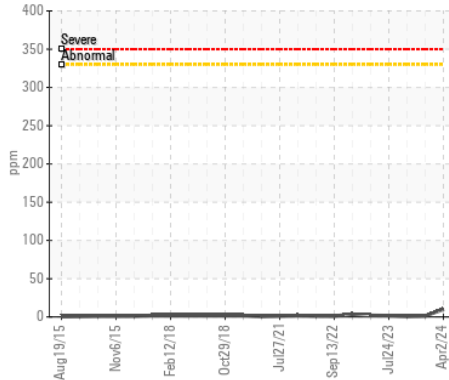
Chromium (ppm)



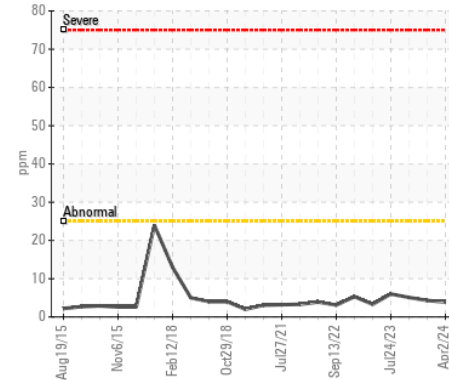
▲ Soot %



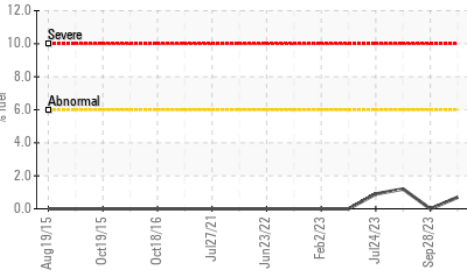
Copper (ppm)



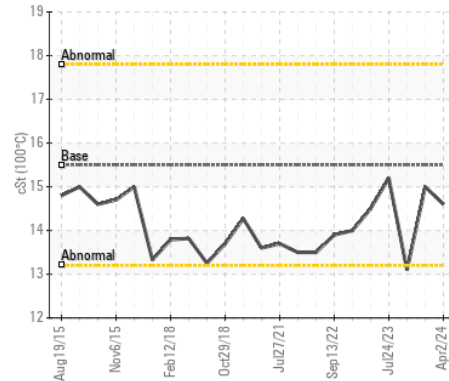
Silicon (ppm)



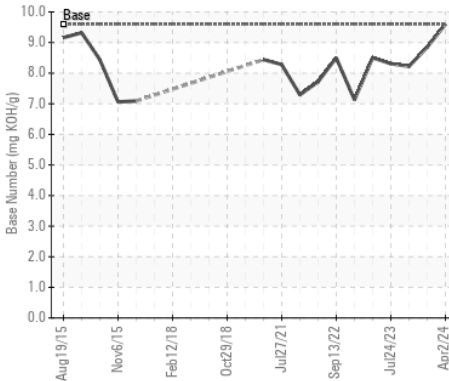
Fuel Dilution



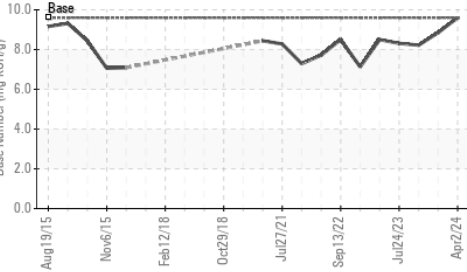
Viscosity @ 100°C



Base Number



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117327
Lab Number : 02628765
Unique Number : 5761897
Test Package : MOB 2 (Additional Tests: FUELDILUTION, PercentFuel)

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com

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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