WEAR CONTAMINATION FLUID CONDITION

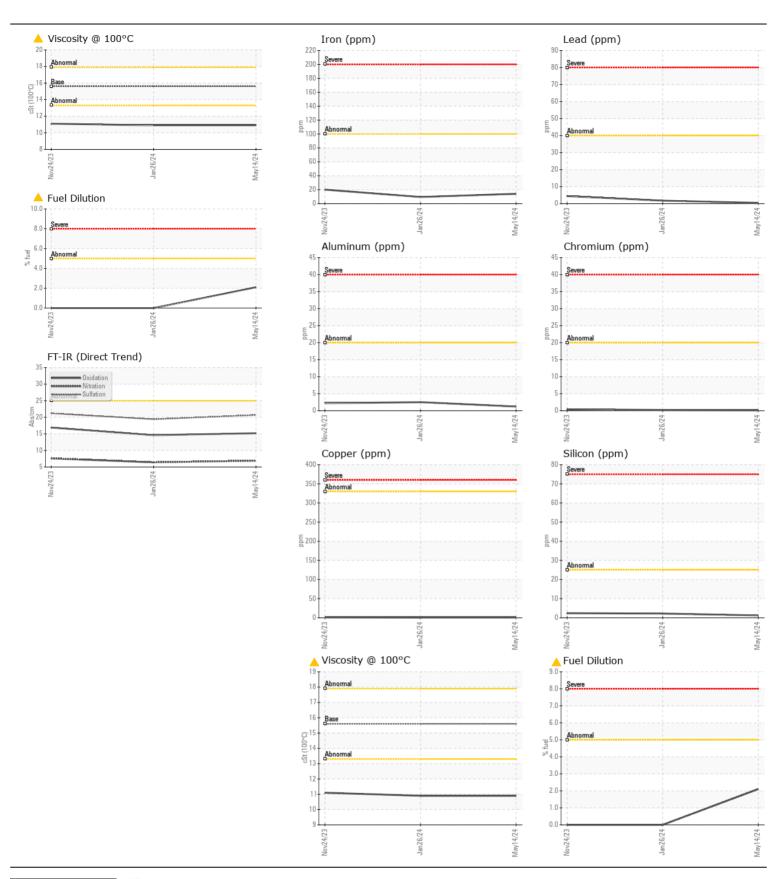
NORMAL MARGINAL ABNORMAL

Machine Id

4518 Component

Component Diesel Engine

PETRO CANADA DURON SAE 15W40 (GAL))						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		GFL0112495	GFL0102625	GFL0101732
	Sample Date		Client Info		14 May 2024	26 Jan 2024	24 Nov 2023
	Machine Age	hrs	Client Info		32154	32098	31766
	Oil Age	hrs	Client Info		0	332	0
	Filter Age	hrs	Client Info		0	332	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185(m)	~100	14	9	20
	Chromium	ppm	ASTM D5185(m)		<1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		0	<1	<1
	Titanium	ppm	ASTM D5185(m)	77	0	0	0
	Silver	ppm	ASTM D5185(m)	>3	0	0	0
	Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
	Lead	ppm	ASTM D5185(m)	>40	- <1	2	4
	Copper	ppm	ASTM D5185(m)		<1	- <1	1
	Tin	ppm		>15	0	<1	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	0
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	1	2	2
Light fuel dilution occurring.	Potassium	ppm	1 /	>20	2	2	1
	Fuel	%	ASTM D7593*	>5	<u>2.1</u>	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	ASTM D7844*		0.8	0.3	0.7
	Nitration	Abs/cm	ASTM D7624*	>20	6.9	6.4	7.6
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	19.4	21.2
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		<1	<1	2
Fuel is present in the oil and is lowering the viscosity. The condition of	Boron	ppm	ASTM D5185(m)	1	5	2	2
the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)	1	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	60	55	57	60
	Manganese	ppm	ASTM D5185(m)	1	0	0	0
	Magnesium	ppm	ASTM D5185(m)	1010	904	921	964
	Calcium	ppm	ASTM D5185(m)	1070	995	1033	1044
	Phosphorus	ppm	ASTM D5185(m)	1150	913	973	980
	Zinc	ppm	ASTM D5185(m)	1270	1093	1123	1167
	Sulfur	ppm	ASTM D5185(m)	2060	2325	2647	2474
	Oxidation	Abs/.1mm	ASTM D7414*	>25	15.2	14.6	16.9
	Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<u> </u>	10.9	11.1





CALA ISO 17025:2017 Accredited Laboratory

Sample No.

Laboratory

: GFL0112495 Lab Number : 02637116 Unique Number : 5786278

Received : 23 May 2024 : 24 May 2024 **Tested** Diagnosed

Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel)

: 24 May 2024 - Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW 8409 -15th Street NW Edmonton, AB CA T6P 0B8 Contact: Tim Greig tgreig@gflenv.com T: (780)231-0521

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.