



Machine Id
511004
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115564	GFL0090877	GFL0056786
Sample Date		Client Info		09 May 2024	22 Sep 2023	19 Aug 2022
Machine Age	kms	Client Info		445132	417824	0
Oil Age	kms	Client Info		249840	0	357386
Filter Age	kms	Client Info		0	0	357386
Oil Changed		Client Info		Changed	N/A	Not Changd
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	20	20	27
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	3	2	3
Lead	ppm	ASTM D5185(m)	>40	<1	1	2
Copper	ppm	ASTM D5185(m)	>330	6	5	8
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

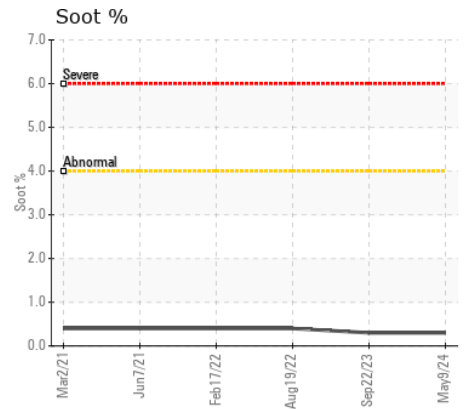
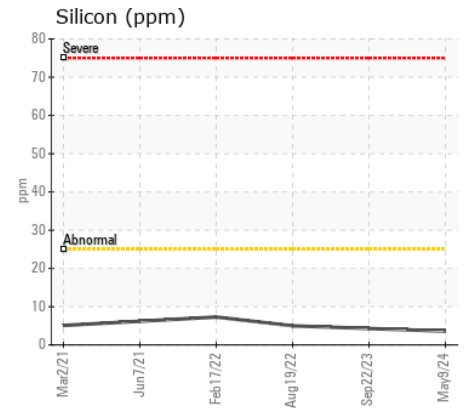
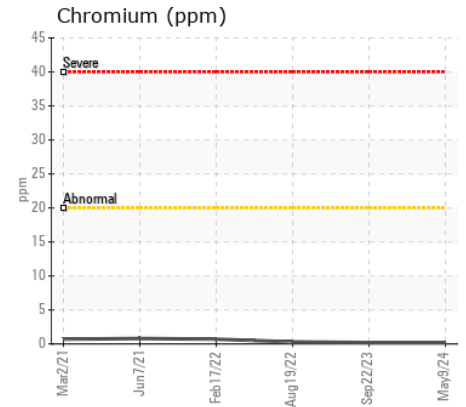
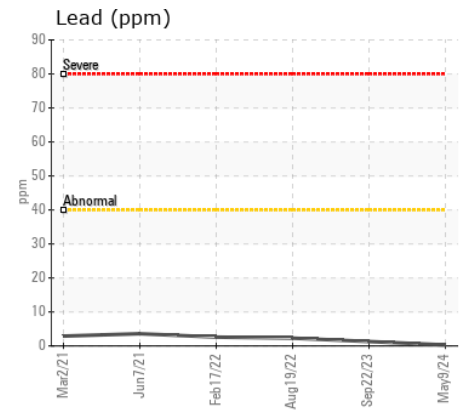
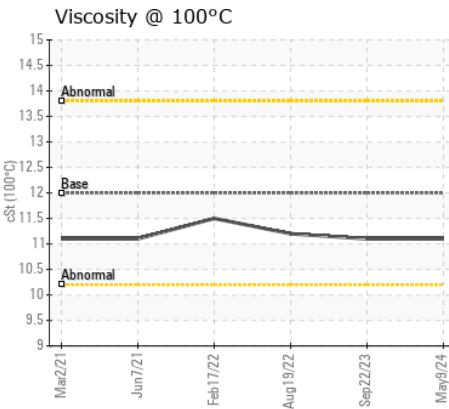
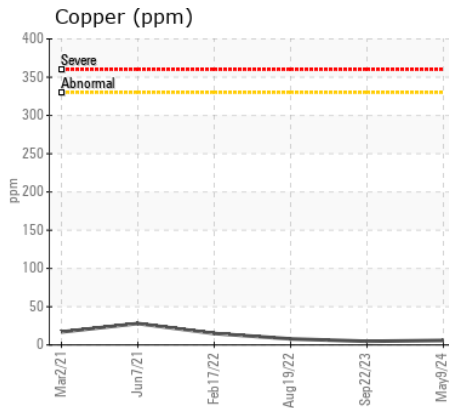
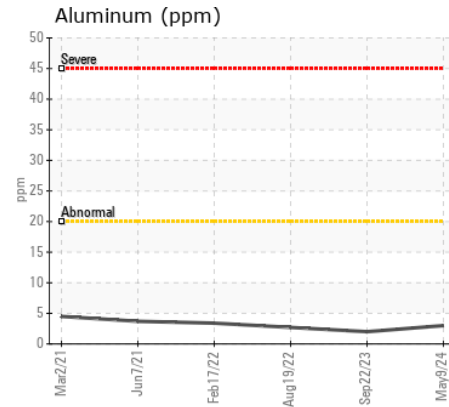
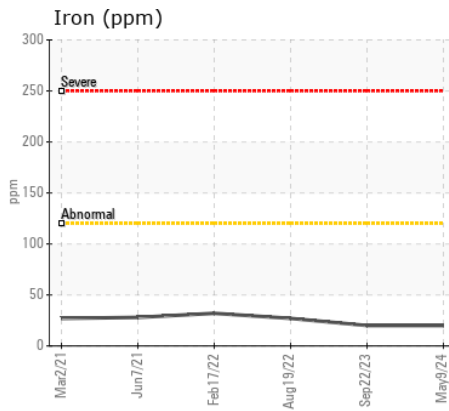
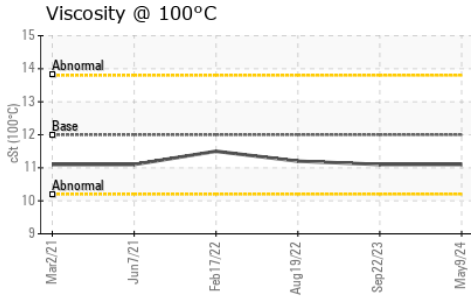
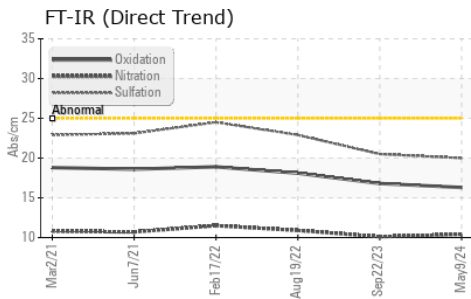
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	4	5
Potassium	ppm	ASTM D5185(m)	>20	3	2	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.3	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.4	10.1	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	20.5	22.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	2	3	2	3
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	60	61	63
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	950	966	995	976
Calcium	ppm	ASTM D5185(m)	1050	1099	1158	1151
Phosphorus	ppm	ASTM D5185(m)	995	981	1035	928
Zinc	ppm	ASTM D5185(m)	1180	1202	1263	1226
Sulfur	ppm	ASTM D5185(m)	2600	2466	2516	2500
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.3	16.8	18.1
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.1	11.1	11.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0115564
Lab Number : 02634456
Unique Number : 5775609
Test Package : MOB 1
Received : 10 May 2024
Tested : 10 May 2024
Diagnosed : 10 May 2024 - Wes Davis

GFL Environmental - 245 - BJ Bear
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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.