



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4511
 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		GFL0038124	GFL0059391	GFL0059388
Sample Date		Client Info		25 Jan 2024	23 Mar 2023	07 Mar 2023
Machine Age	hrs	Client Info		19015	18139	18091
Oil Age	hrs	Client Info		200	600	600
Filter Age	hrs	Client Info		200	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	18	32	3
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	3	2
Lead	ppm	ASTM D5185(m)	>150	1	2	0
Copper	ppm	ASTM D5185(m)	>90	<1	2	<1
Tin	ppm	ASTM D5185(m)	>5	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

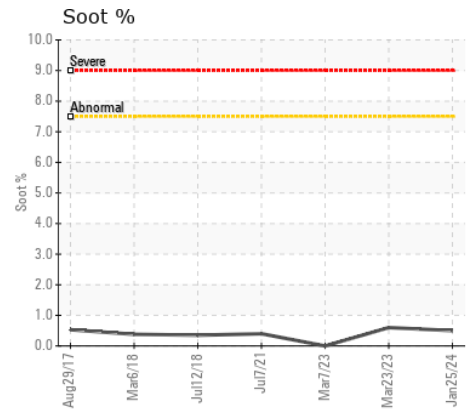
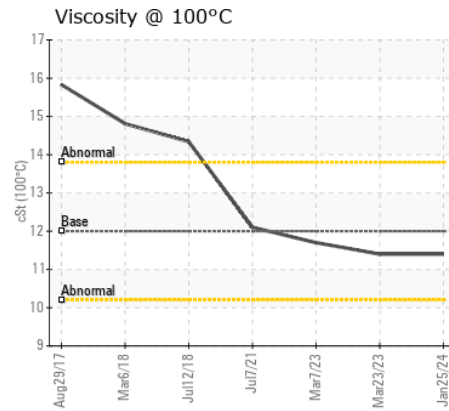
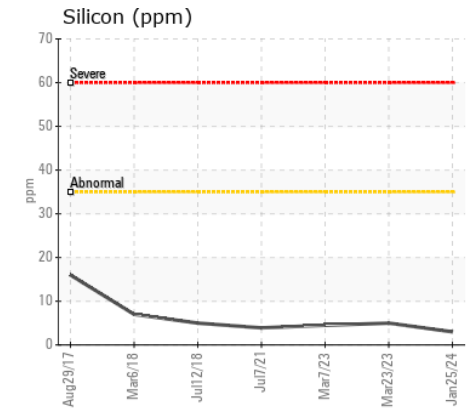
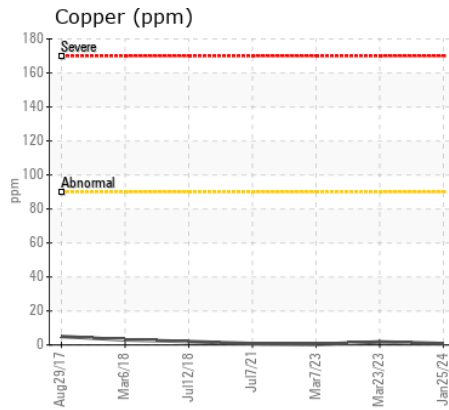
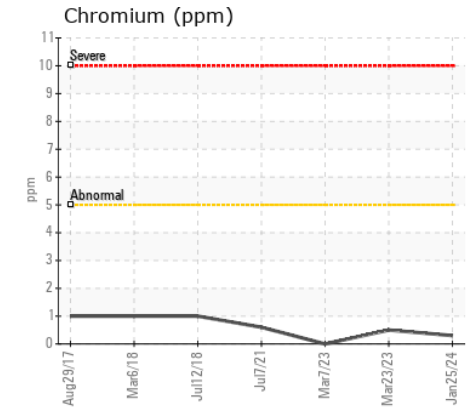
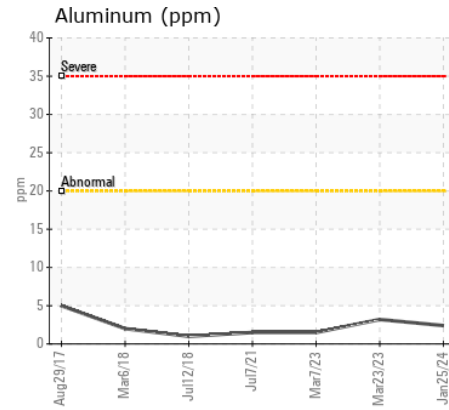
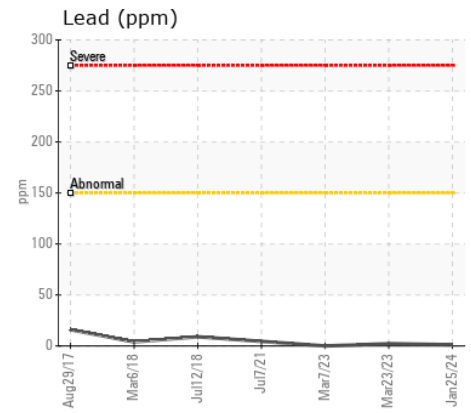
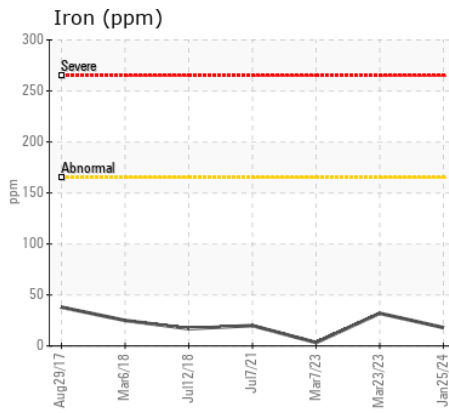
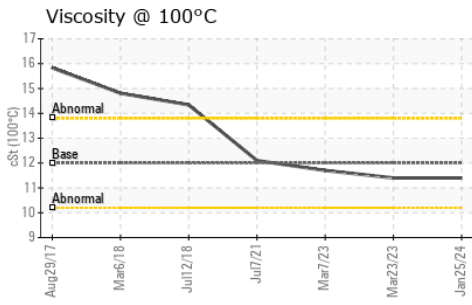
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	3	5	4
Potassium	ppm	ASTM D5185(m)	>20	2	3	1
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*	>7.5	0.5	0.6	0
Nitration	Abs/cm	ASTM D7624*	>20	8.9	10.9	4.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	23.7	20.6
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)		7	27	2
Boron	ppm	ASTM D5185(m)	2	5	2	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	61	65	59
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	982	1020	960
Calcium	ppm	ASTM D5185(m)	1050	1091	1151	1076
Phosphorus	ppm	ASTM D5185(m)	995	1058	1136	1070
Zinc	ppm	ASTM D5185(m)	1180	1217	1265	1156
Sulfur	ppm	ASTM D5185(m)	2600	2779	2692	2661
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.7	17.4	13.3
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.4	11.4	11.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0038124
Lab Number : 02619161
Unique Number : 5736271
Test Package : MOB 1
Received : 01 Mar 2024
Tested : 01 Mar 2024
Diagnosed : 01 Mar 2024 - Wes Davis

GFL Environmental - 555 - Slave Lake
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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.