

Machine Id
701030
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (22 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0107125	WC0875106	WC0875112
Sample Date		Client Info		17 Jan 2024	13 Dec 2023	05 Dec 2023
Machine Age	hrs	Client Info		0	106415	10668
Oil Age	hrs	Client Info		0	106415	496
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	12	7	27
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	7	3	8
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	<1	3	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

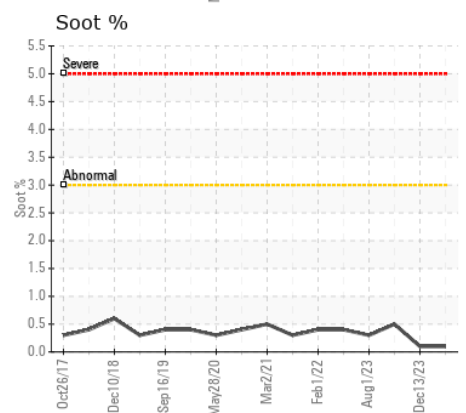
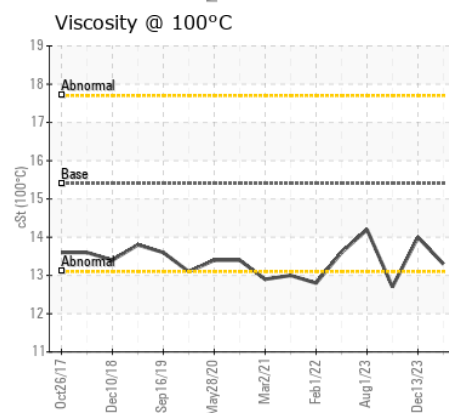
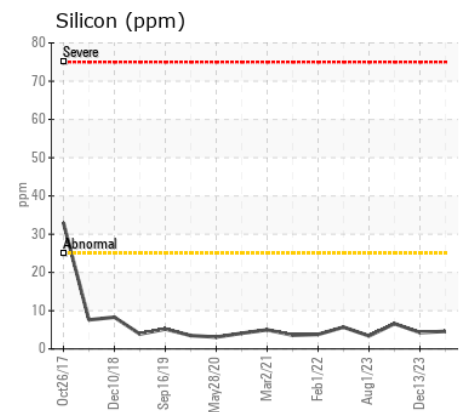
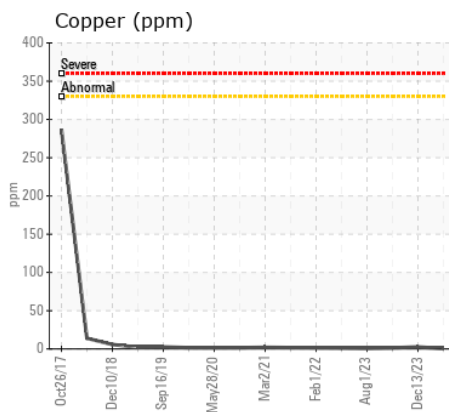
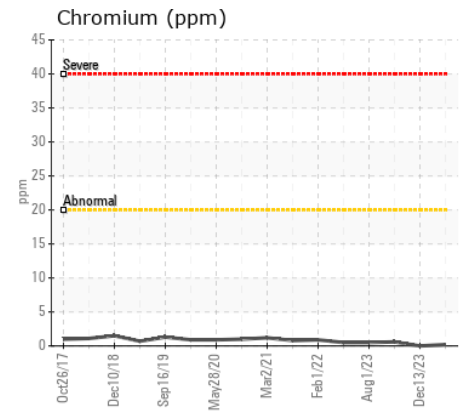
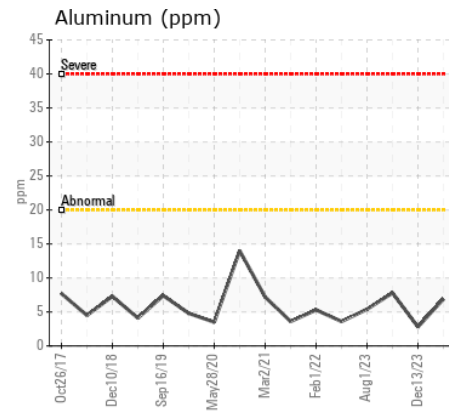
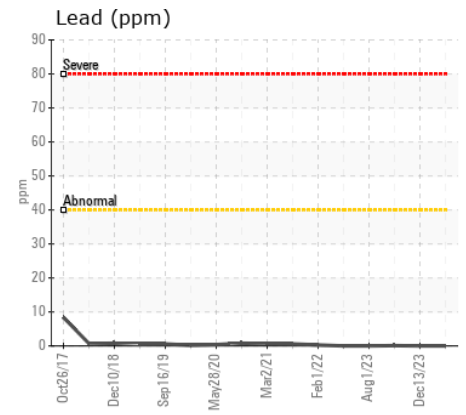
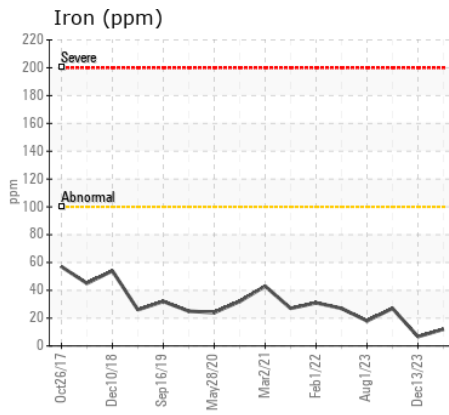
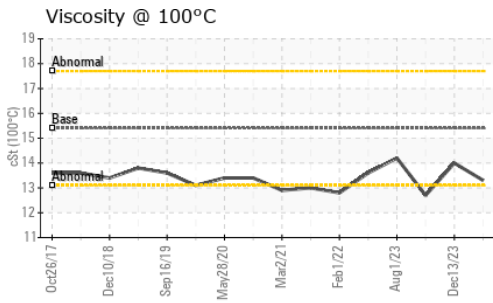
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	4	7
Potassium	ppm	ASTM D5185(m)	>20	8	2	10
Fuel		WC Method	>5	<1.0	<1.0	▲ 3.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0.1	0.5
Nitration	Abs/cm	ASTM D7624*	>20	6.8	6.0	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.3	18.0	21.7
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)		4	4	8
Boron	ppm	ASTM D5185(m)	0	15	20	4
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	57	59	61
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	908	918	931
Calcium	ppm	ASTM D5185(m)	1070	1023	1014	1066
Phosphorus	ppm	ASTM D5185(m)	1150	991	962	907
Zinc	ppm	ASTM D5185(m)	1270	1145	1170	1162
Sulfur	ppm	ASTM D5185(m)	2060	2688	2571	2397
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.5	14.0	19.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.3	14.0	12.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107125
Lab Number : 02609871
Unique Number : 5710957
Test Package : MOB 1

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com
 T:
 F: (905)713-2445

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.