



Machine Id
401153
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (36 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0086787	GFL0094384	GFL0086789
Sample Date		Client Info		04 Mar 2024	15 Dec 2023	01 Sep 2023
Machine Age	hrs	Client Info		11526	11016	7717
Oil Age	hrs	Client Info		11526	11016	7717
Filter Age	hrs	Client Info		11526	11016	7717
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	4	6	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	6	1	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

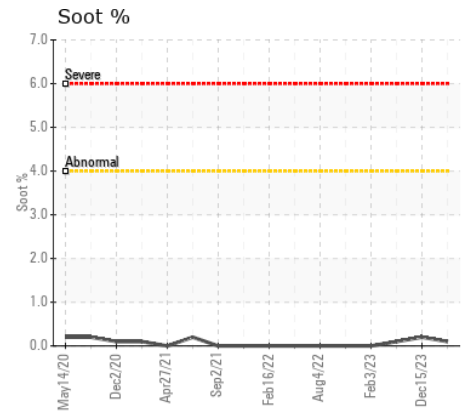
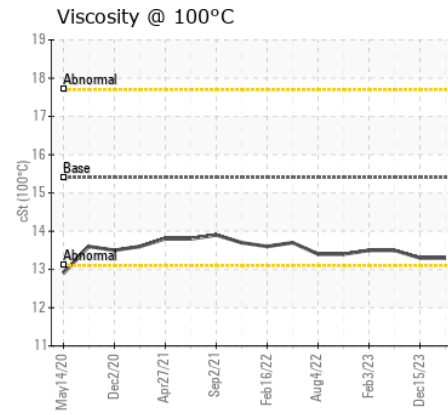
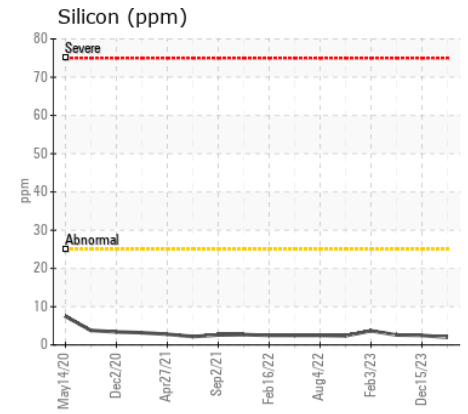
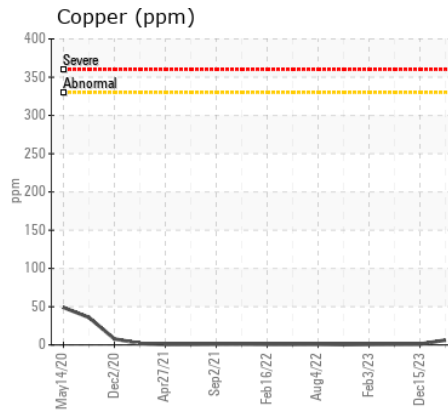
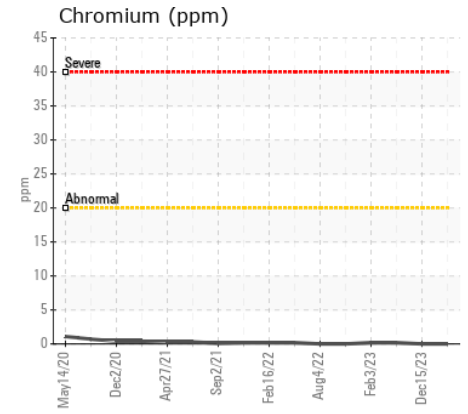
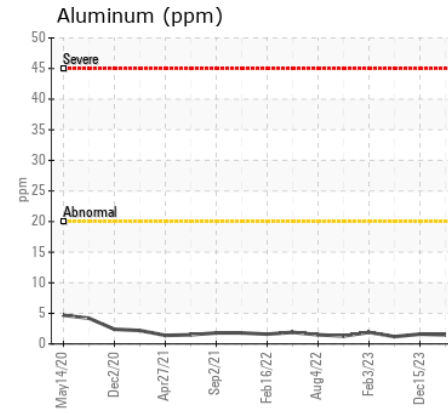
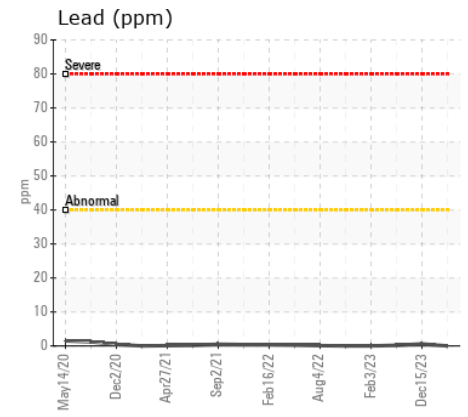
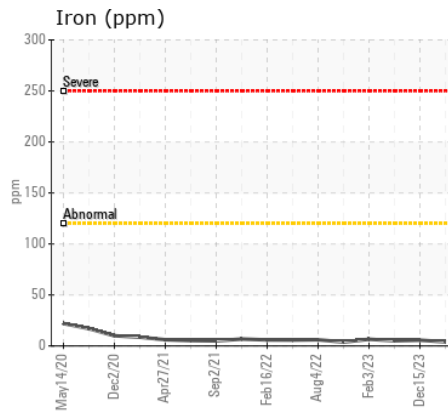
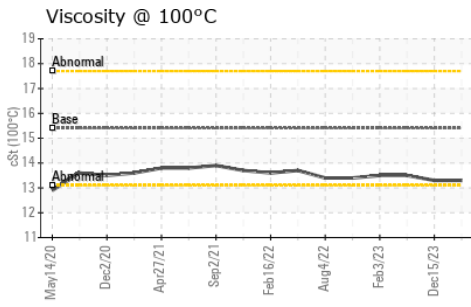
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	2	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	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*	>4	0.1	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.1	8.9	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.0	18.7	19.3
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)		<1	2	2
Boron	ppm	ASTM D5185(m)	0	8	7	6
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	60	62	59
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	931	968	953
Calcium	ppm	ASTM D5185(m)	1070	1073	1128	1050
Phosphorus	ppm	ASTM D5185(m)	1150	997	987	1025
Zinc	ppm	ASTM D5185(m)	1270	1147	1202	1144
Sulfur	ppm	ASTM D5185(m)	2060	2723	2484	2411
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.3	15.6	13.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.3	13.3	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0086787
Lab Number : 02619835
Unique Number : 5736945
Test Package : MOB 1

Received : 05 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Wes Davis

GFL Environmental - 222 - Sandhill
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD
 ORANGEVILLE, ON
 CA L9W 3X5
 Contact: GLENN COOK
 gcook@gflenv.com
 T: (519)940-4167
 F:

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.