



Machine Id
801036
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111729	WC0875108	WC0875111
Sample Date		Client Info		29 Feb 2024	13 Dec 2023	05 Dec 2023
Machine Age	hrs	Client Info		11461	120211	10854
Oil Age	hrs	Client Info		0	120211	352
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				ATTENTION	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	49	8	29
Chromium	ppm	ASTM D5185(m)	>5	1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<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)	>30	4	2	4
Lead	ppm	ASTM D5185(m)	>30	<1	0	<1
Copper	ppm	ASTM D5185(m)	>150	2	<1	1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

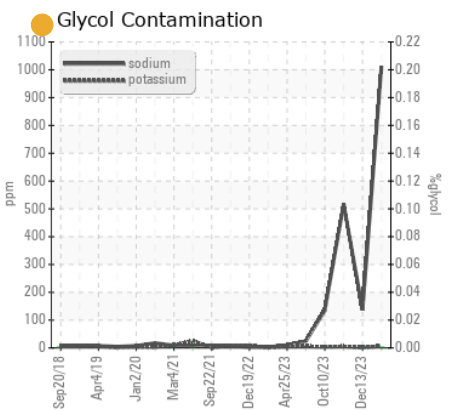
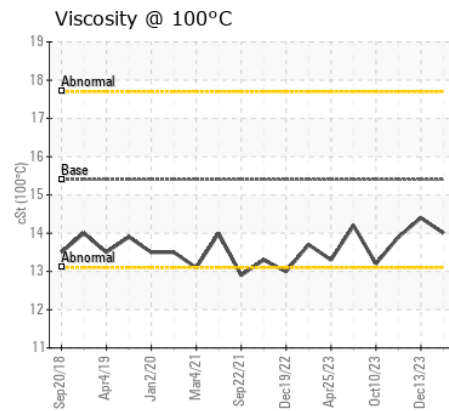
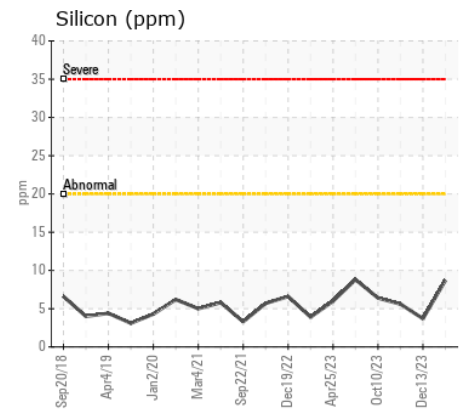
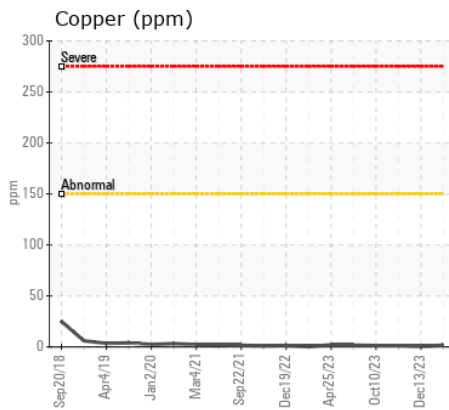
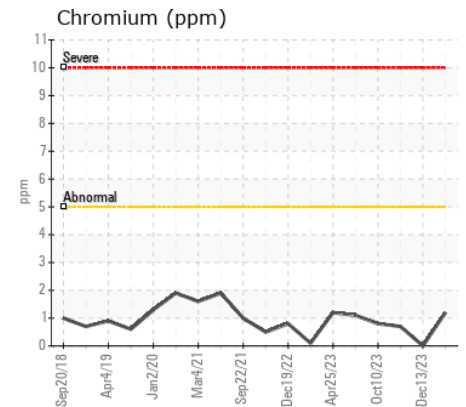
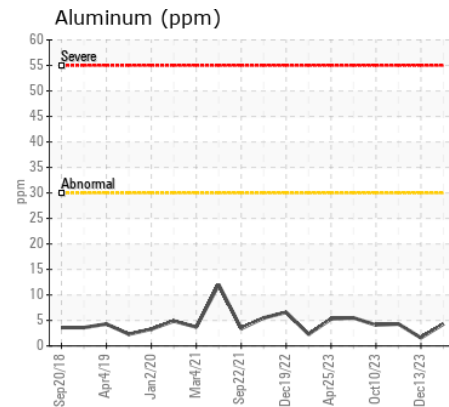
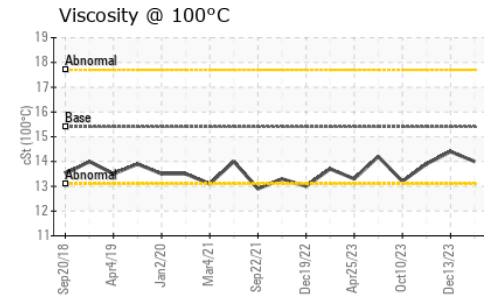
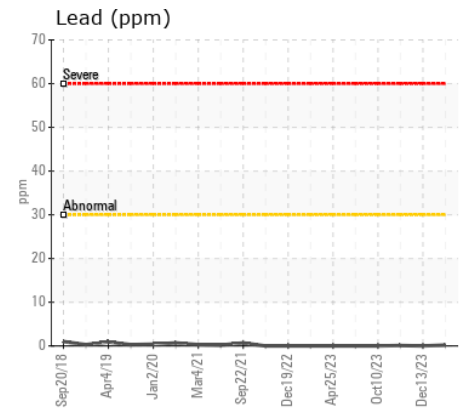
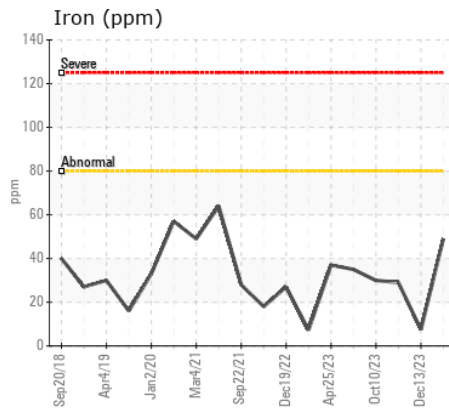
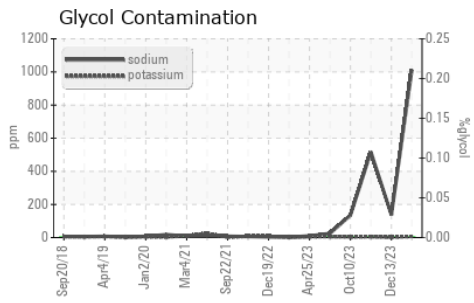
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	9	4	6
Potassium	ppm	ASTM D5185(m)	>20	7	1	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.8	0.1	0.7
Nitration	Abs/cm	ASTM D7624*	>20	12.0	5.7	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.9	18.4	21.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		1012	137	517
Boron	ppm	ASTM D5185(m)	0	7	23	46
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	60	60	66
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	837	907	789
Calcium	ppm	ASTM D5185(m)	1070	1034	1025	1117
Phosphorus	ppm	ASTM D5185(m)	1150	808	977	940
Zinc	ppm	ASTM D5185(m)	1270	1080	1176	1166
Sulfur	ppm	ASTM D5185(m)	2060	2553	2608	2511
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.1	13.5	17.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.0	14.4	13.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111729
Lab Number : 02619483
Unique Number : 5736593
Test Package : MOB 1 (Additional Tests: Glycol)

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.