



Machine Id
925005
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113256	GFL0102857	GFL0090849
Sample Date		Client Info		29 Feb 2024	18 Jan 2024	12 Sep 2023
Machine Age	kms	Client Info		23332	23071	22501
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	5	10	6
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	3	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	1	<1	1
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

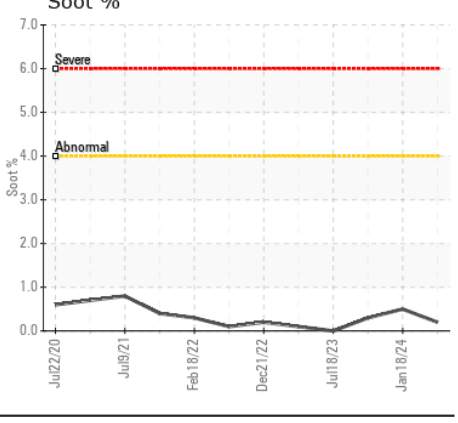
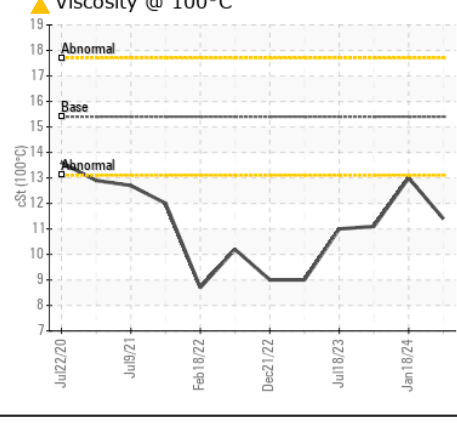
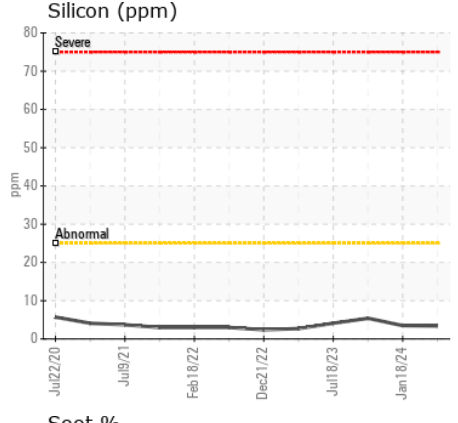
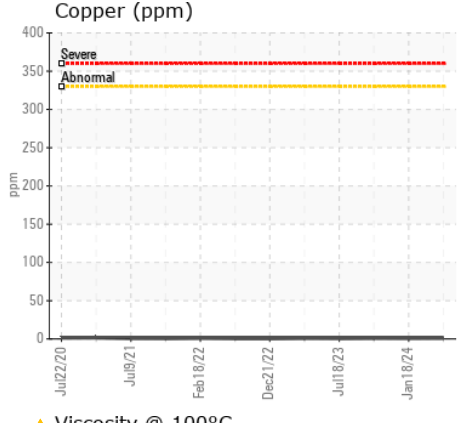
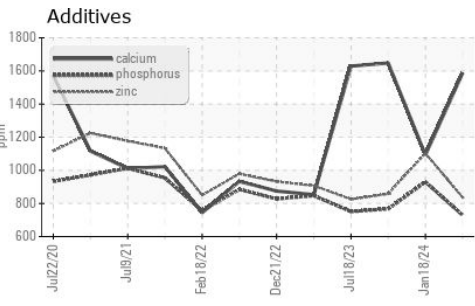
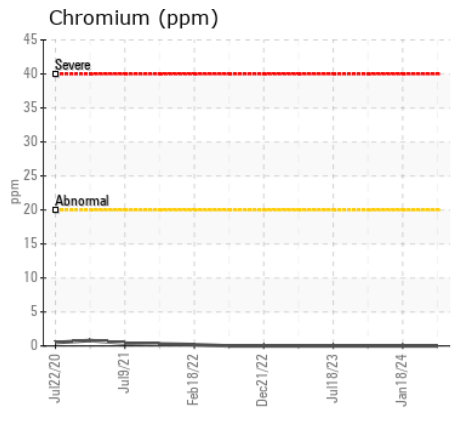
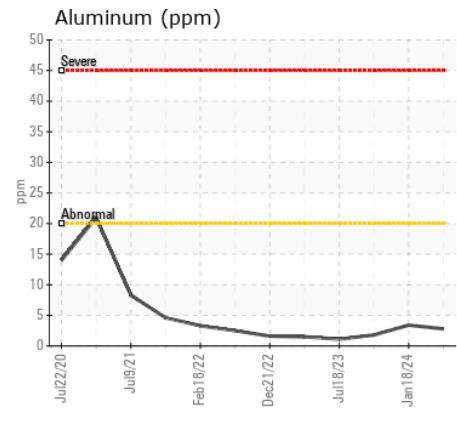
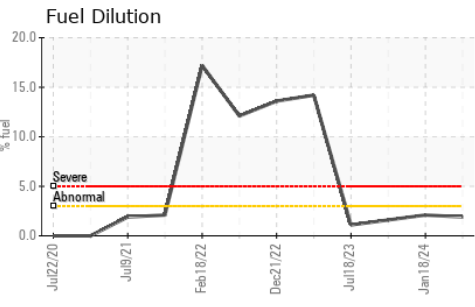
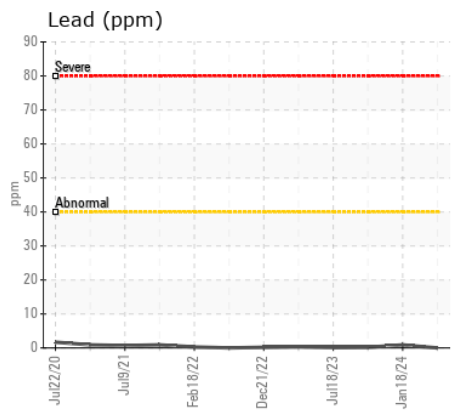
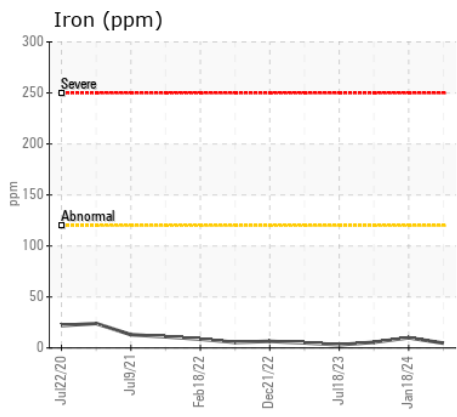
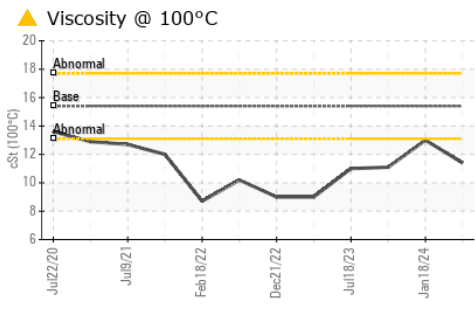
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	5
Potassium	ppm	ASTM D5185(m)	>20	2	22	2
Fuel	%	ASTM D7593*	>3.0	1.9	2.1	1.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>4	0.2	0.5	0.3
Nitration	Abs/cm	ASTM D7624*	>20	6.9	9.0	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	20.5	22.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	3
Boron	ppm	ASTM D5185(m)	0	41	5	27
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	40	56	40
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	505	871	501
Calcium	ppm	ASTM D5185(m)	1070	1587	1093	1648
Phosphorus	ppm	ASTM D5185(m)	1150	729	930	767
Zinc	ppm	ASTM D5185(m)	1270	837	1102	858
Sulfur	ppm	ASTM D5185(m)	2060	2196	2419	2036
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.6	16.3	20.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.4	13.0	▲ 11.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113256 **Received** : 05 Mar 2024
Lab Number : 02619833 **Tested** : 06 Mar 2024
Unique Number : 5736943 **Diagnosed** : 06 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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.