



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
728056-8
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0070929	GFL0058083	GFL0100171
Sample Date		Client Info		28 May 2024	28 Feb 2024	04 Dec 2023
Machine Age	hrs	Client Info		13868	13398	12821
Oil Age	hrs	Client Info		470	577	565
Filter Age	hrs	Client Info		470	577	565
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	17	25	25
Chromium	ppm	ASTM D5185m	>5	1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	4	4	2
Lead	ppm	ASTM D5185m	>30	2	0	0
Copper	ppm	ASTM D5185m	>150	<1	<1	1
Tin	ppm	ASTM D5185m	>5	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

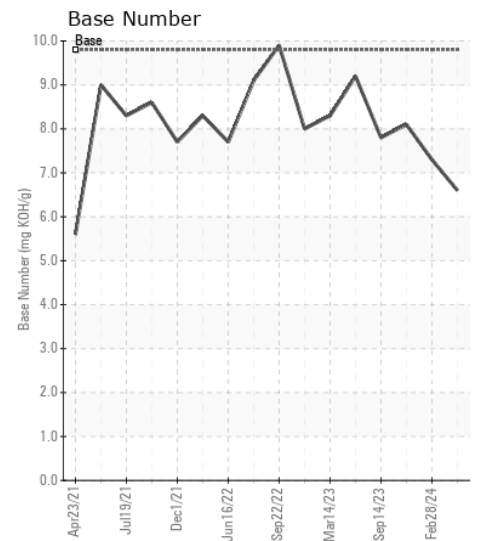
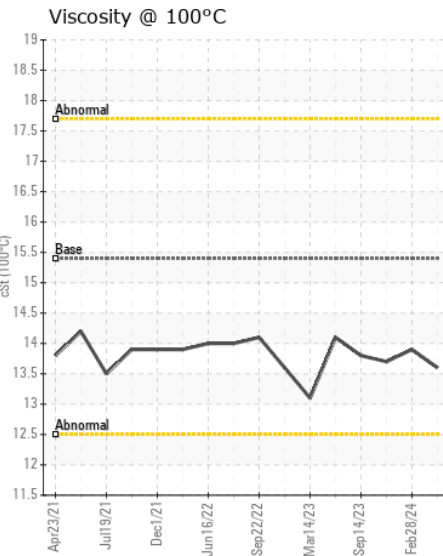
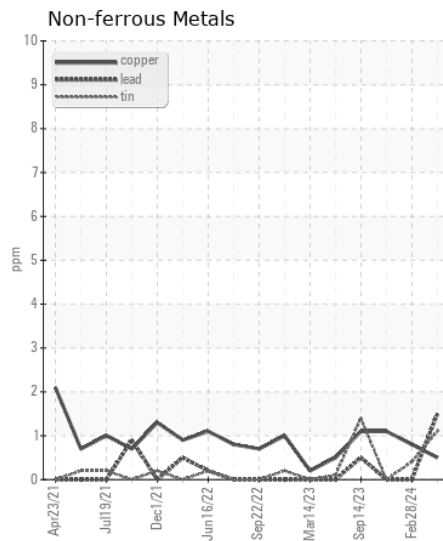
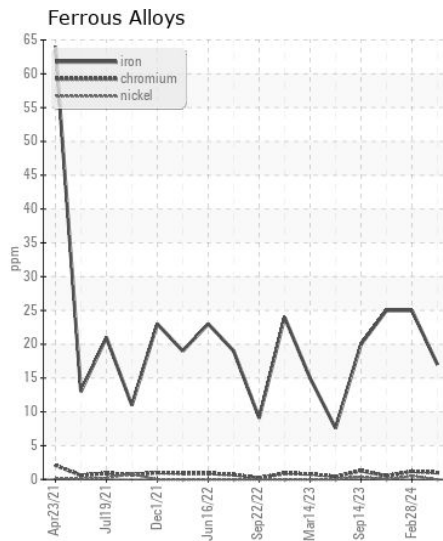
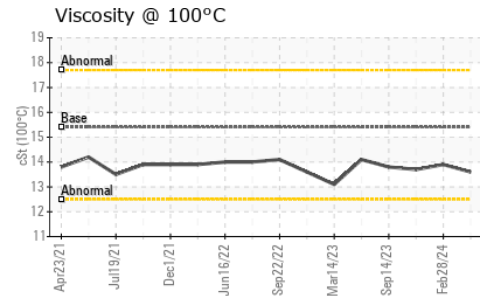
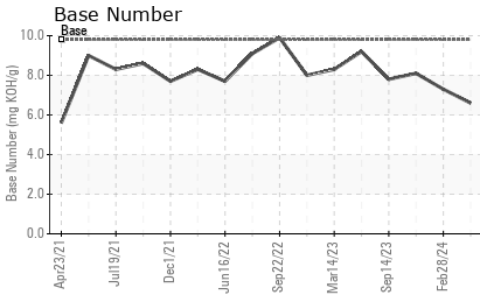
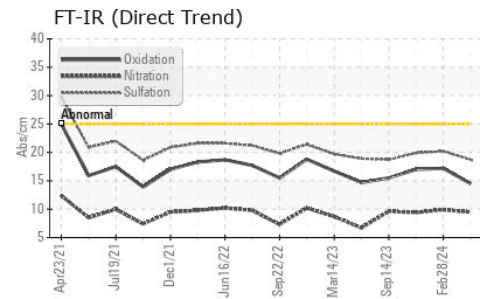
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	11	6	6
Potassium	ppm	ASTM D5185m	>20	2	1	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.9	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	20.2	19.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	6	3
Boron	ppm	ASTM D5185m	0	41	3	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	84	62	63
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	133	981	931
Calcium	ppm	ASTM D5185m	1070	2181	1052	1098
Phosphorus	ppm	ASTM D5185m	1150	1032	1026	1038
Zinc	ppm	ASTM D5185m	1270	1181	1310	1234
Sulfur	ppm	ASTM D5185m	2060	4165	3221	3033
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	17.2	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.6	7.3	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.9	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0070929
Lab Number : 06194783
Unique Number : 11056906
Test Package : FLEET

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 31 May 2024 - Sean Felton

GFL Environmental - 657 - Charlottesville Hauling
 5498 Richmond Road
 Troy, VA
 US 22974
 Contact: Brian Ulickas
 bulickas@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: