



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
918001
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0106944	GFL0106951	GFL0073240
Sample Date		Client Info		13 Jun 2024	04 Apr 2024	02 Oct 2023
Machine Age	hrs	Client Info		3373	2960	2155
Oil Age	hrs	Client Info		413	599	300
Filter Age	hrs	Client Info		413	599	300
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	48	12
Chromium	ppm	ASTM D5185m	>20	0	2	1
Nickel	ppm	ASTM D5185m	>4	<1	2	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	15	17
Lead	ppm	ASTM D5185m	>40	<1	2	<1
Copper	ppm	ASTM D5185m	>330	0	2	<1
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

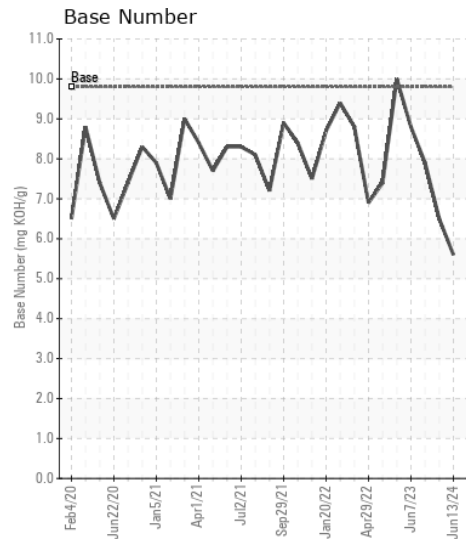
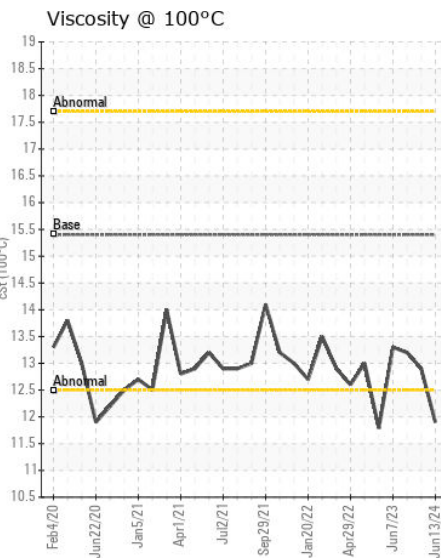
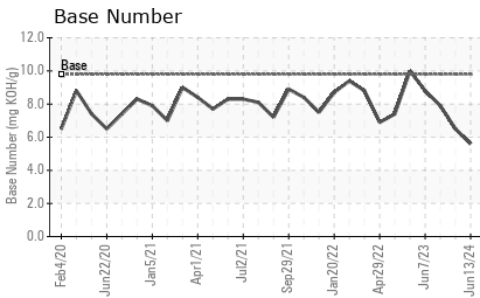
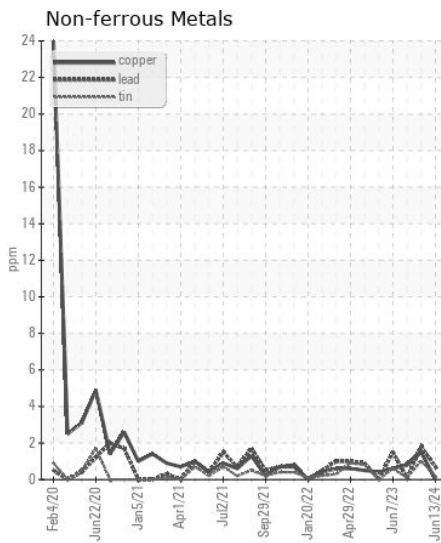
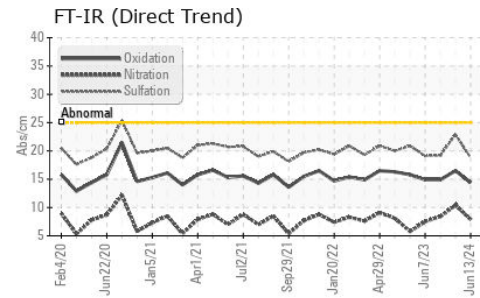
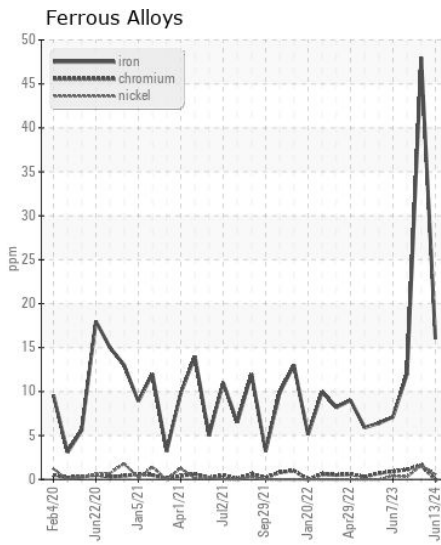
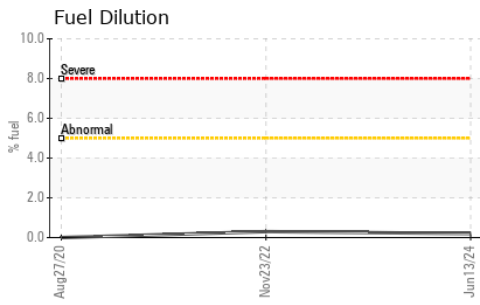
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	8	7
Potassium	ppm	ASTM D5185m	>20	4	4	13
Fuel	%	ASTM D3524	>5	0.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	7.9	10.4	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	22.9	19.2
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		11	2	3
Boron	ppm	ASTM D5185m	0	8	5	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	58	71	66
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	861	901	990
Calcium	ppm	ASTM D5185m	1070	952	1105	1049
Phosphorus	ppm	ASTM D5185m	1150	968	1021	1070
Zinc	ppm	ASTM D5185m	1270	1152	1189	1289
Sulfur	ppm	ASTM D5185m	2060	2989	2794	3311
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	16.5	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.6	6.5	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	11.9	12.9	13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0106944 **Received** : 20 Jun 2024
Lab Number : 06215425 **Tested** : 24 Jun 2024
Unique Number : 11088289 **Diagnosed** : 24 Jun 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)
 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)

GFL Environmental - 097 - Knoxville Hauling
 1901 Sutherland Ave
 Knoxville, TN
 US 37921
 Contact: Doug Weeden
 dweeden@gflenv.com
 T:
 F: