



Area
(YA141184)
Machine Id
2424
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115943	GFL0089965	GFL0080561
Sample Date		Client Info		18 Jun 2024	24 Oct 2023	04 Oct 2023
Machine Age	mls	Client Info		412544	412544	412544
Oil Age	mls	Client Info		0	412544	412544
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ATTENTION	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	10	2	10
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	2	<1
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

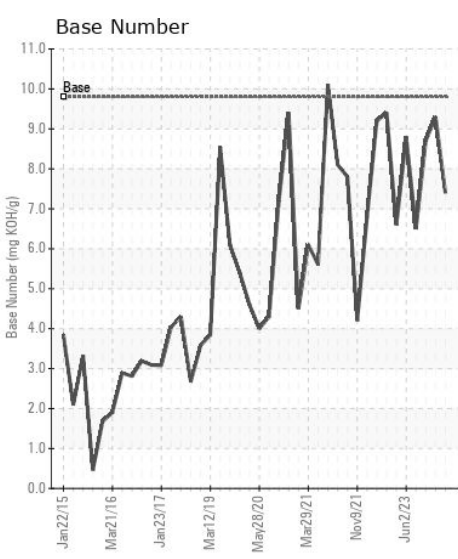
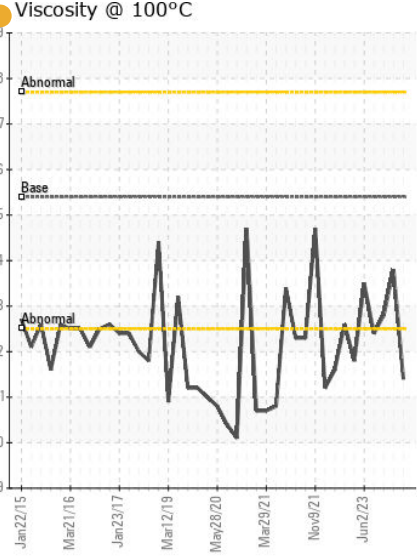
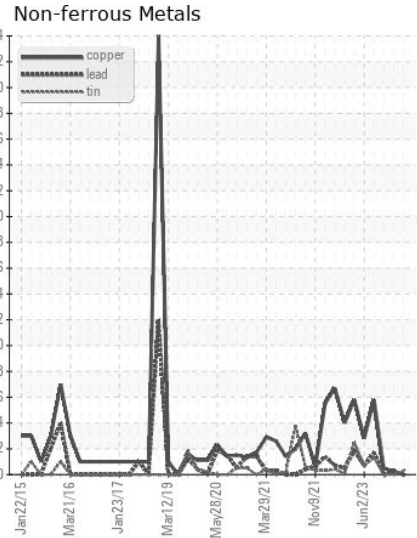
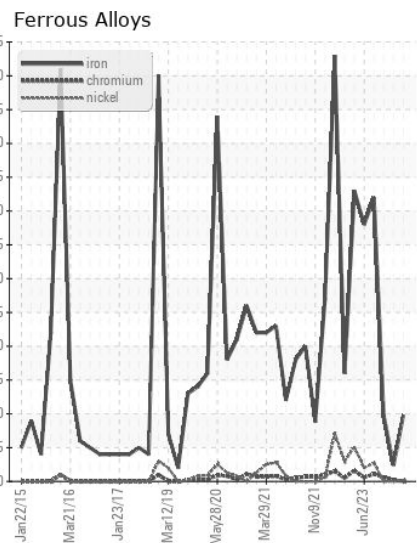
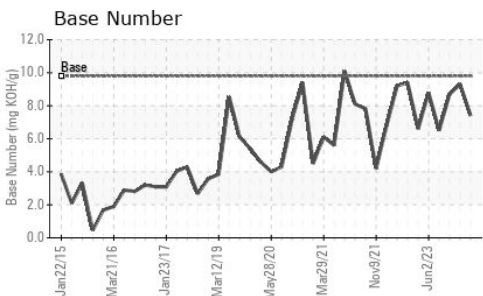
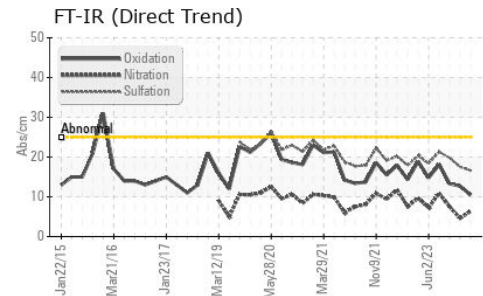
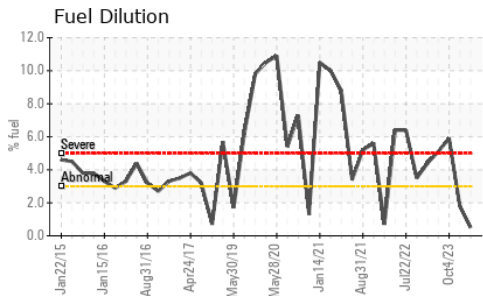
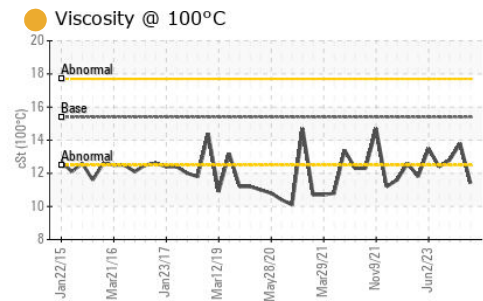
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	3	2
Potassium	ppm	ASTM D5185m	>20	5	2	6
Fuel	%	ASTM D3524	>3.0	0.5	1.8	▲ 5.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.1	0.3	1.7
Nitration	Abs/cm	*ASTM D7624	>20	6.4	4.6	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.6	17.5	19.8
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	0	<1
Boron	ppm	ASTM D5185m	0	13	7	3
Barium	ppm	ASTM D5185m	0	0	3	0
Molybdenum	ppm	ASTM D5185m	60	8	63	55
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	81	910	904
Calcium	ppm	ASTM D5185m	1070	2197	1104	1012
Phosphorus	ppm	ASTM D5185m	1150	928	1075	995
Zinc	ppm	ASTM D5185m	1270	1085	1228	1198
Sulfur	ppm	ASTM D5185m	2060	4205	3568	2973
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.5	12.7	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.4	9.3	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	11.4	13.8	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115943 **Received** : 19 Jun 2024
Lab Number : 06214475 **Tested** : 21 Jun 2024
Unique Number : 11087339 **Diagnosed** : 21 Jun 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
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 T: (910)596-1170
 F:

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)