



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(H904547)
Machine Id
3664
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 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		GFL0099754	GFL0073264	GFL0073319
Sample Date		Client Info		27 Feb 2024	24 Jul 2023	25 Apr 2023
Machine Age	hrs	Client Info		600	600	600
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>75	23	64	36
Chromium	ppm	ASTM D5185m	>5	1	3	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	4	19	10
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	1	<1	<1
Tin	ppm	ASTM D5185m	>4	<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

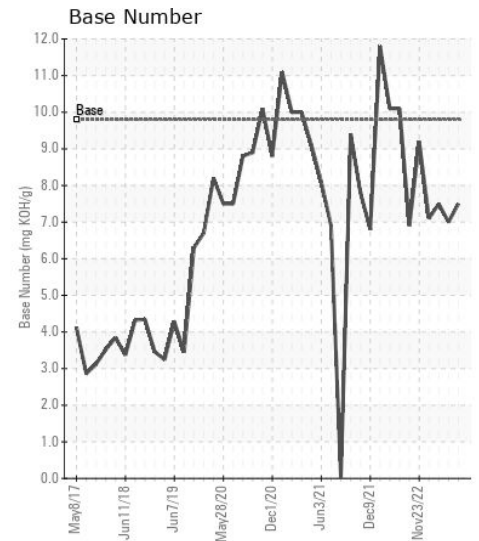
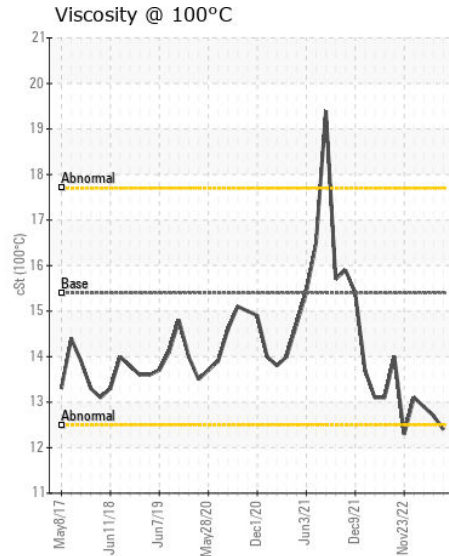
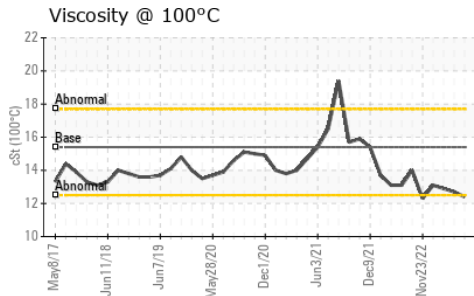
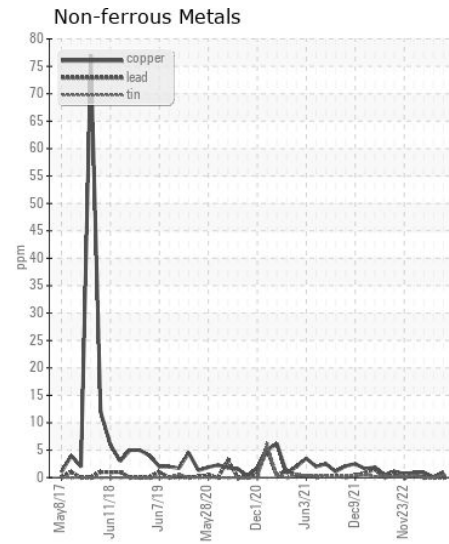
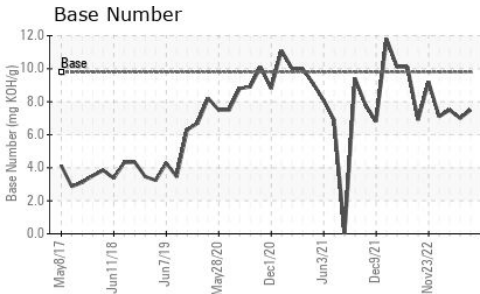
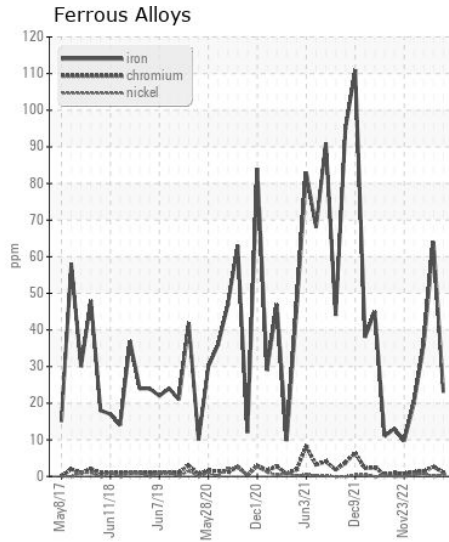
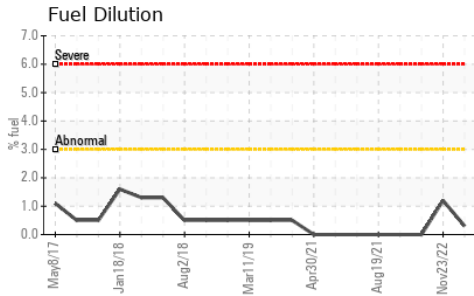
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	13	<1
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel	%	ASTM D3524	>3.0	0.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	1.8	1.7
Nitration	Abs/cm	*ASTM D7624	>20	5.8	11.7	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.0	23.4	21.1
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		76	35	22
Boron	ppm	ASTM D5185m	0	13	16	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	64	87	74
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	1010	789	909	834
Calcium	ppm	ASTM D5185m	1070	928	1347	1348
Phosphorus	ppm	ASTM D5185m	1150	918	1078	1059
Zinc	ppm	ASTM D5185m	1270	1138	1322	1264
Sulfur	ppm	ASTM D5185m	2060	3084	3861	4131
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.8	16.9	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.5	7.0	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	12.7	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0099754

Lab Number : 06104034

Unique Number : 10902264

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 29 Feb 2024

Tested : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Wes Davis

GFL Environmental - 102 - Morristown TN

415 Ryder Lane, PO Box 1894

Morristown, TN

US 37813

Contact: Ricky Dunlap

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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)