



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
724002

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (26 QTS)

RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL011008	GFL0110994	GFL0103490
Sample Date		Client Info		14 Feb 2024	22 Jan 2024	21 Dec 2023
Machine Age	hrs	Client Info		22508	22495	22501
Oil Age	hrs	Client Info		0	0	446
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>75	▲ 167	▲ 159	75
Chromium	ppm	ASTM D5185m	>5	5	3	2
Nickel	ppm	ASTM D5185m	>4	3	3	2
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	10	8	4
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	2	<1	<1
Tin	ppm	ASTM D5185m	>4	0	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

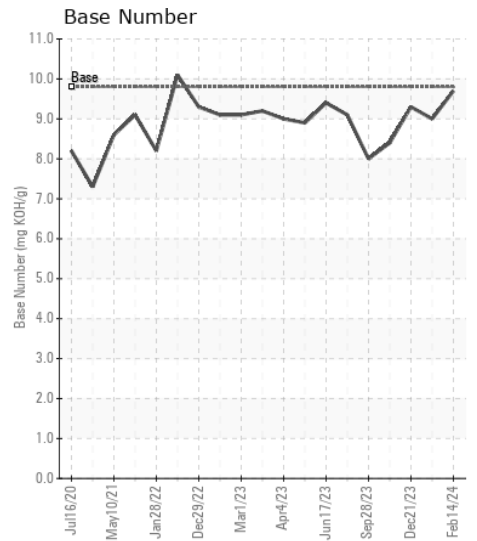
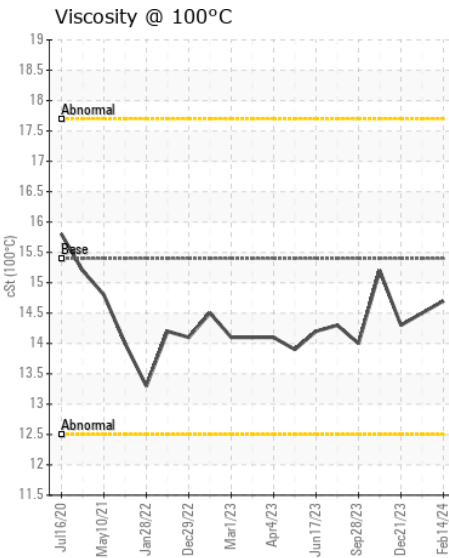
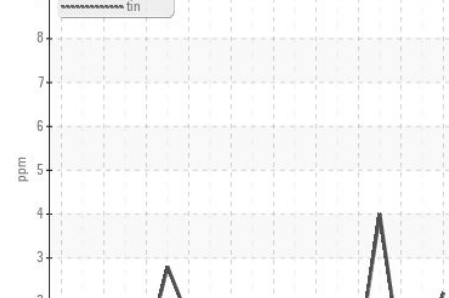
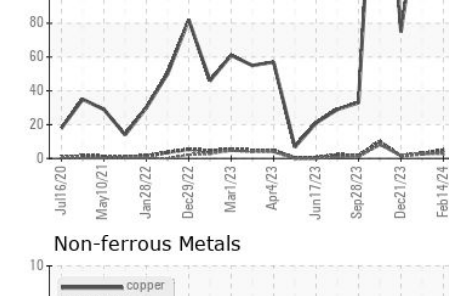
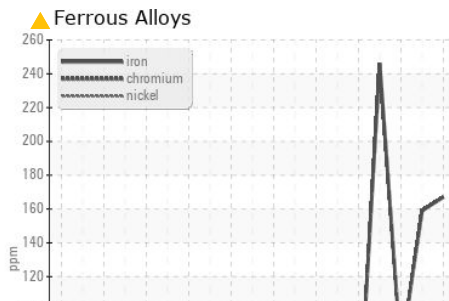
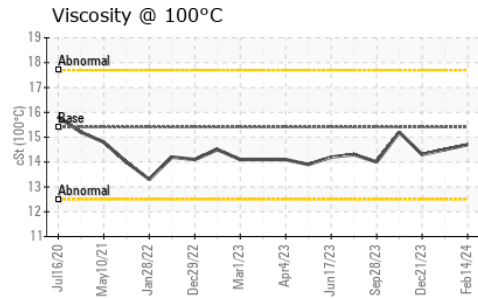
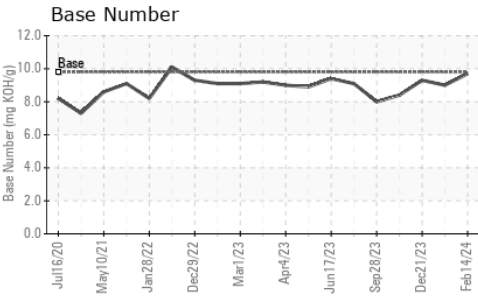
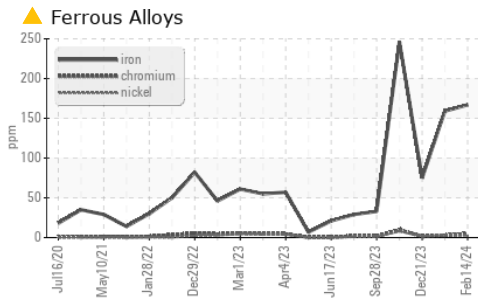
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	14	11	8
Potassium	ppm	ASTM D5185m	>20	3	1	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.4	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.3	5.9	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	18.3	18.1
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.

Sodium	ppm	ASTM D5185m		5	<1	4
Boron	ppm	ASTM D5185m	0	6	5	4
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	63	61	63
Manganese	ppm	ASTM D5185m	0	1	1	<1
Magnesium	ppm	ASTM D5185m	1010	945	858	892
Calcium	ppm	ASTM D5185m	1070	1127	980	1027
Phosphorus	ppm	ASTM D5185m	1150	1045	974	884
Zinc	ppm	ASTM D5185m	1270	1217	1160	1171
Sulfur	ppm	ASTM D5185m	2060	3068	2692	3061
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.4	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.7	9.0	9.3
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.5	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111008
Lab Number : 06101364
Unique Number : 10899594
Test Package : FLEET

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Don Baldrige

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)
 13737 Plant Rd
 Childersburg, AL
 US 35044
 Contact: JONATHAN WILLIAMS
 jonathan.williams@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)

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F: