



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
788M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0107745	GFL0096566	GFL0081246
Sample Date		Client Info		30 Jan 2024	20 Nov 2023	04 Aug 2023
Machine Age	hrs	Client Info		17793	17223	16757
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				ATTENTION	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	36	28	42
Chromium	ppm	ASTM D5185m	>20	2	1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	5	4	4
Lead	ppm	ASTM D5185m	>40	<1	<1	2
Copper	ppm	ASTM D5185m	>330	1	4	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

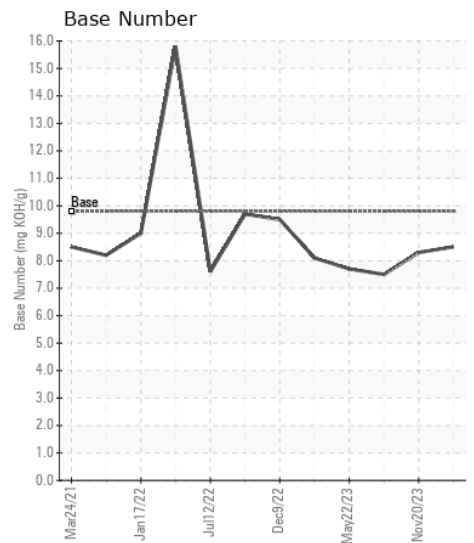
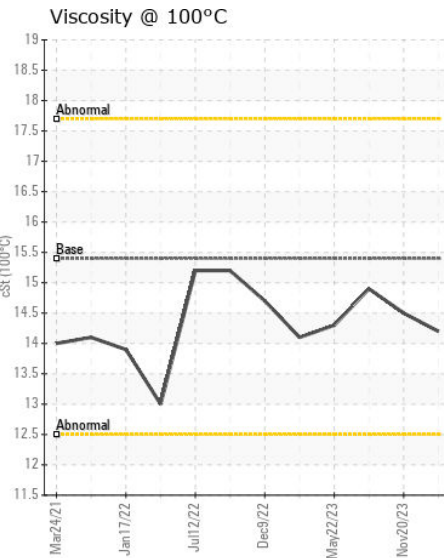
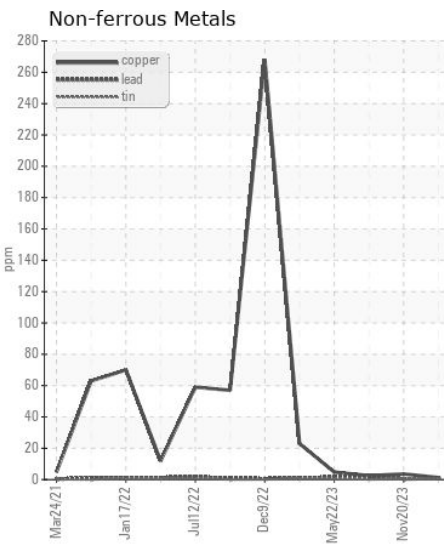
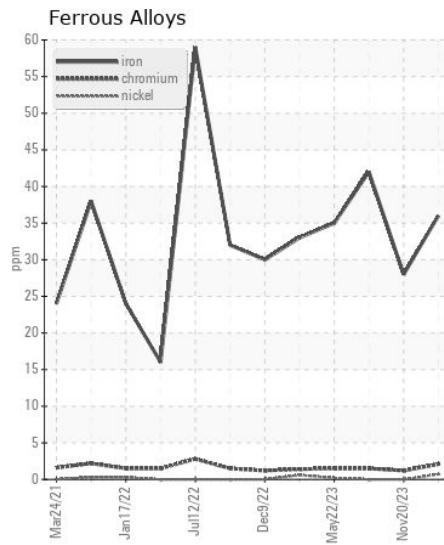
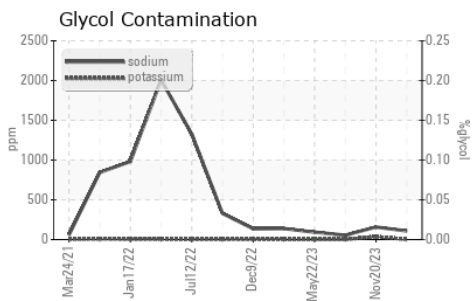
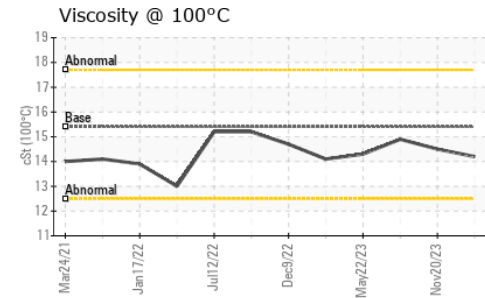
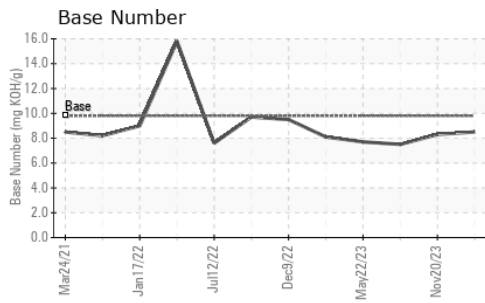
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	7	8	8
Potassium	ppm	ASTM D5185m	>20	3	35	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	1.3	1.8
Nitration	Abs/cm	*ASTM D7624	>20	8.3	10.3	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	22.4	24.1
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		▲ 108	▲ 158	55
Boron	ppm	ASTM D5185m	0	3	2	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	71	68	72
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1092	1045	1023
Calcium	ppm	ASTM D5185m	1070	1195	1208	1247
Phosphorus	ppm	ASTM D5185m	1150	1103	1150	1118
Zinc	ppm	ASTM D5185m	1270	1400	1342	1369
Sulfur	ppm	ASTM D5185m	2060	3224	3064	3086
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	17.5	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	8.3	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	14.5	14.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0107745 **Received** : 09 Feb 2024
Lab Number : 06085273 **Tested** : 12 Feb 2024
Unique Number : 10872718 **Diagnosed** : 12 Feb 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 465 - Pontiac
 888 Baldwin
 Pontiac, MI
 US 48340

Contact: Ricky Matthews
 rickymathews@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: