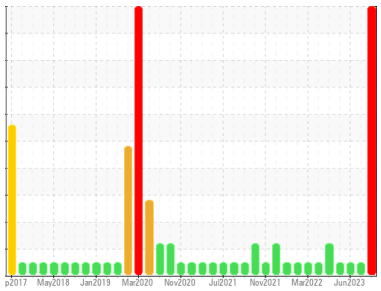
OIL DIAGNOSTICS

PROBLEM SUMMARY

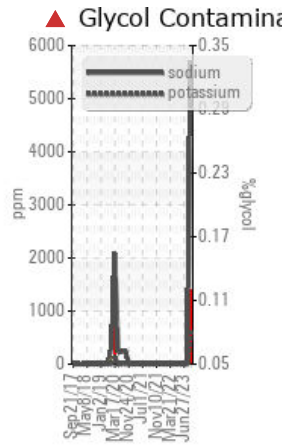
Area
(ML7006)
Machine Id
2687C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

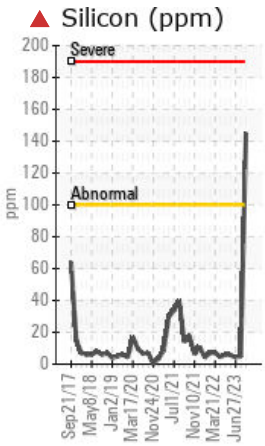
Sample Rating Trend

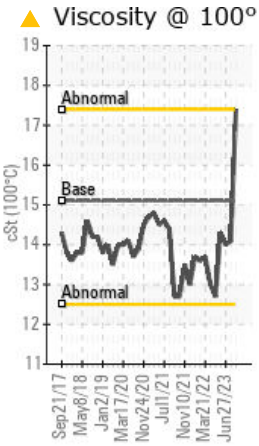


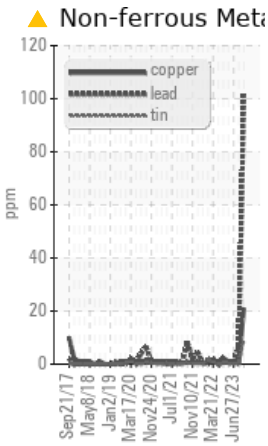
GLYCOL

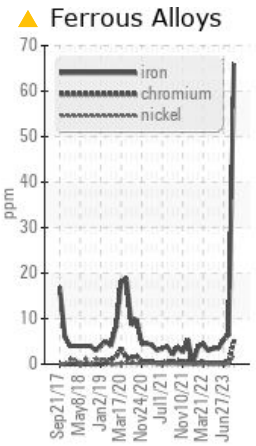
COMPONENT CONDITION SUMMARY











RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ **66**	6	5
Chromium	ppm	ASTM D5185m	>4	▲ **5**	<1	<1
Lead	ppm	ASTM D5185m	>30	▲ **102**	7	<1
Copper	ppm	ASTM D5185m	>35	▲ **21**	0	1
Tin	ppm	ASTM D5185m	>4	▲ **9**	<1	0
Silicon	ppm	ASTM D5185m	>+100	▲ **145**	5	4
Sodium	ppm	ASTM D5185m		▲ **5708**	14	7
Potassium	ppm	ASTM D5185m	>20	▲ **622**	1	<1
Glycol	%	*ASTM D2982		▲ **0.12**	---	---
Visc @ 100°C	cSt	ASTM D445	15.1	▲ **17.4**	14.1	14.0

Customer Id: GFL002
Sample No.: PCA0101762
Lab Number: 06104051
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

28 Aug 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

27 Jun 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

03 Nov 2022 Diag: Angela Borella

NORMAL

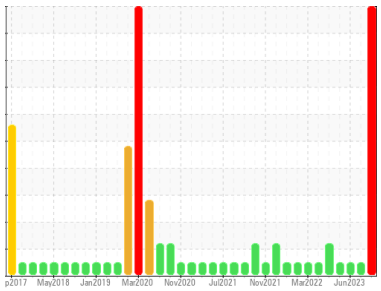
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Area
(ML7006)
Machine Id
2687C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

DIAGNOSIS

▲ Recommendation
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

▲ Wear
Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.

▲ Contamination
Sodium and/or potassium levels are high. Test for glycol is positive. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

▲ Fluid Condition
The oil viscosity is higher than normal. The oil is no longer serviceable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0101762**	PCA0095834	PCA0095830
Sample Date		Client Info		**28 Feb 2024**	28 Aug 2023	27 Jun 2023
Machine Age	hrs	Client Info		**17254**	16063	15545
Oil Age	hrs	Client Info		**1191**	518	1759
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	▲ **66**	6	5
Chromium	ppm	ASTM D5185m	>4	▲ **5**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**2**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	● **18**	2	2
Lead	ppm	ASTM D5185m	>30	▲ **102**	7	<1
Copper	ppm	ASTM D5185m	>35	▲ **21**	0	1
Tin	ppm	ASTM D5185m	>4	▲ **9**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**30**	8	13
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	50	**300**	51	55
Manganese	ppm	ASTM D5185m	0	**2**	<1	<1
Magnesium	ppm	ASTM D5185m	560	**563**	599	640
Calcium	ppm	ASTM D5185m	1510	**1568**	1704	1491
Phosphorus	ppm	ASTM D5185m	780	**857**	781	782
Zinc	ppm	ASTM D5185m	870	**1019**	1018	1031
Sulfur	ppm	ASTM D5185m	2040	**2856**	3166	3235

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	▲ **145**	5	4
Sodium	ppm	ASTM D5185m		▲ **5708**	14	7
Potassium	ppm	ASTM D5185m	>20	▲ **622**	1	<1
Glycol	%	*ASTM D2982		▲ **0.12**	---	---

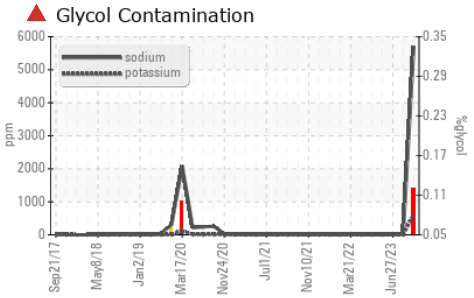
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**25.9**	11.4	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**30.3**	26.3	21.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.5**	23.7	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**34.0**	2.6	5.2

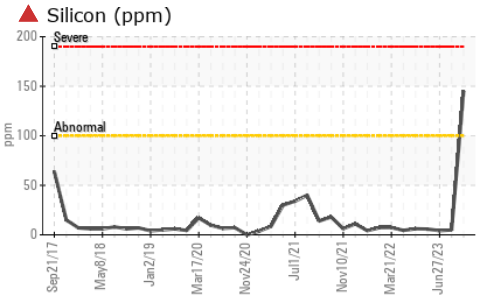
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

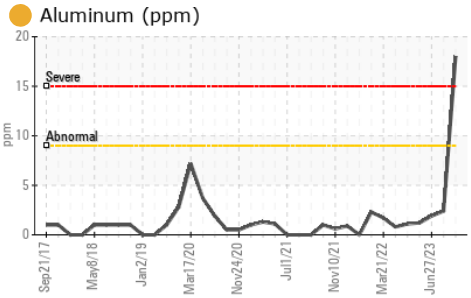
Glycol Contamination



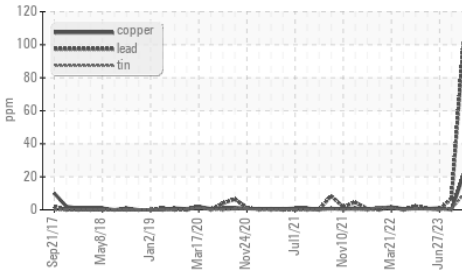
Silicon (ppm)



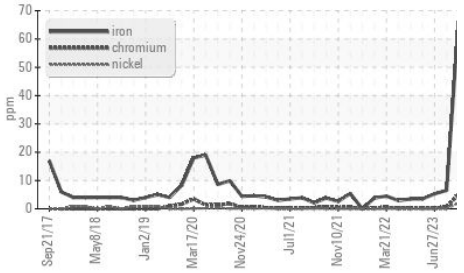
Aluminum (ppm)



Non-ferrous Metals



Ferrous Alloys

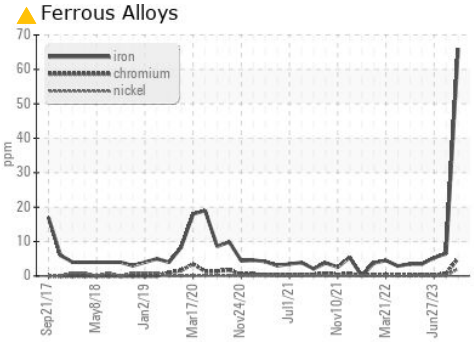


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

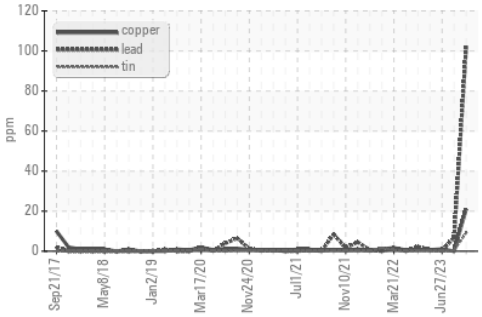
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	▲ **17.4**	14.1	14.0

GRAPHS

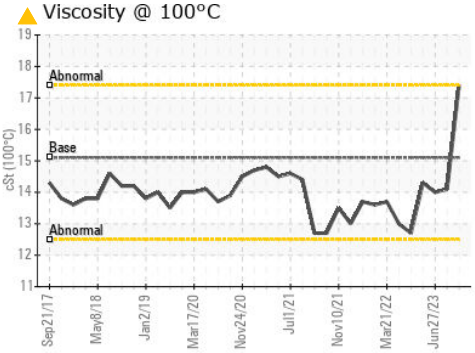
Ferrous Alloys



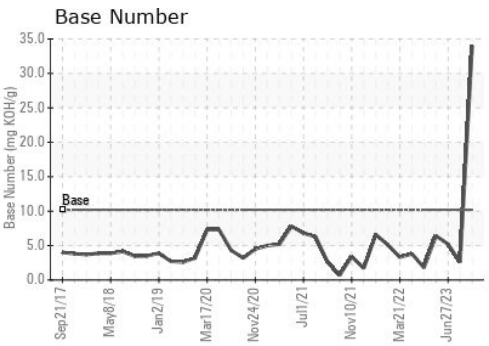
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0101762
Lab Number : 06104051
Unique Number : 10902281
Test Package : FLEET (Additional Tests: Glycol)

Received : 29 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 02 Mar 2024 - Don Baldridge

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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US 27537
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