



WEAR **NORMAL**

CONTAMINATION **ABNORMAL**

FLUID CONDITION **ABNORMAL**

Area
(P658099)

Machine Id
3819C

Component
Natural Gas Engine

Fluid
PETRO CANADA 10W40 (8 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

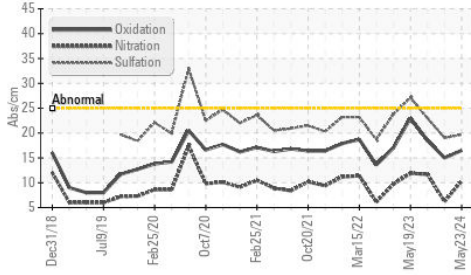
Sodium and/or potassium levels are high.

FLUID CONDITION

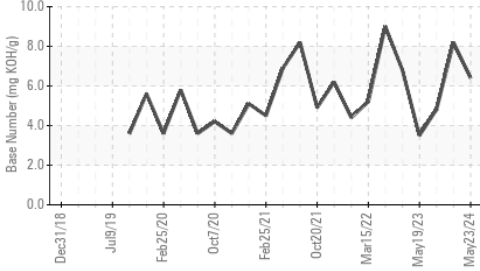
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109580	GFL0096944	GFL0096985
Sample Date		Client Info		23 May 2024	29 Jan 2024	05 Dec 2023
Machine Age	hrs	Client Info		13646	13116	12733
Oil Age	hrs	Client Info		13646	13116	0
Filter Age	hrs	Client Info		13646	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	6	<1	14
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	1	2
Lead	ppm	ASTM D5185m	>30	1	<1	<1
Copper	ppm	ASTM D5185m	>35	1	0	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>+100	8	5	6
Potassium	ppm	ASTM D5185m	>20	▲ 72	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	6.2	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	19.0	23.0
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
Sodium	ppm	ASTM D5185m	>20	▲ 260	3	12
Boron	ppm	ASTM D5185m		20	41	7
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		72	47	62
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		607	550	612
Calcium	ppm	ASTM D5185m		1486	1307	1493
Phosphorus	ppm	ASTM D5185m		800	758	730
Zinc	ppm	ASTM D5185m		967	868	1016
Sulfur	ppm	ASTM D5185m		2760	2253	2575
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	15.0	18.5
Base Number (BN)	mg KOH/g	ASTM D2896		6.4	8.2	4.8
Visc @ 100°C	cSt	ASTM D445		14.1	14.1	13.3

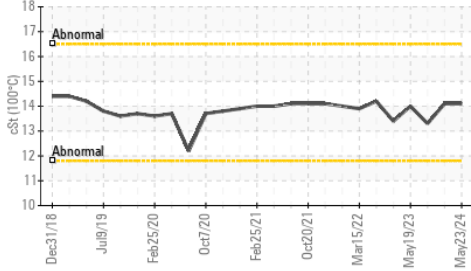
FT-IR (Direct Trend)



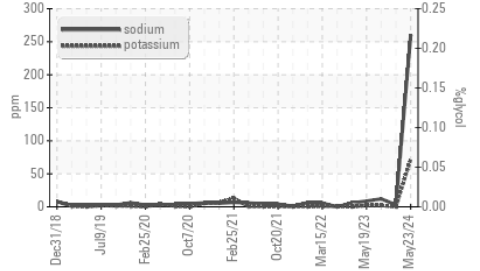
Base Number



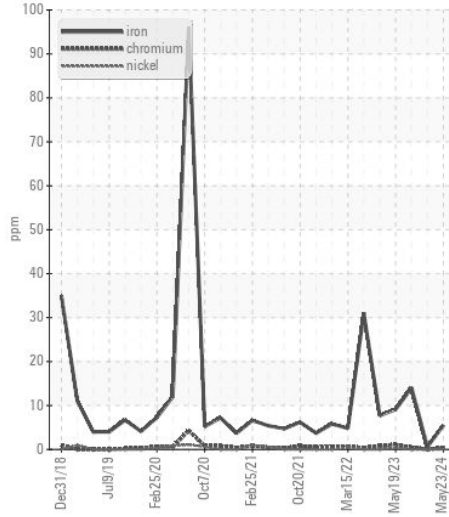
Viscosity @ 100°C



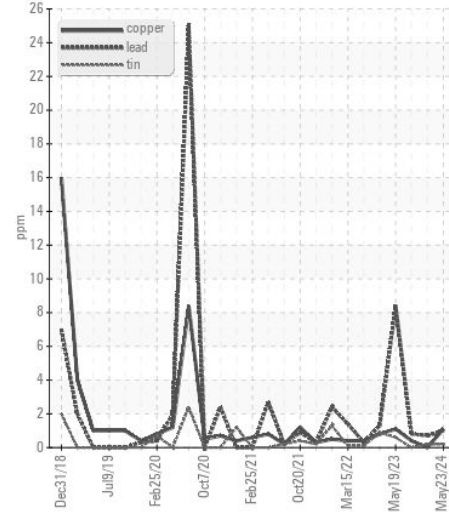
Glycol Contamination



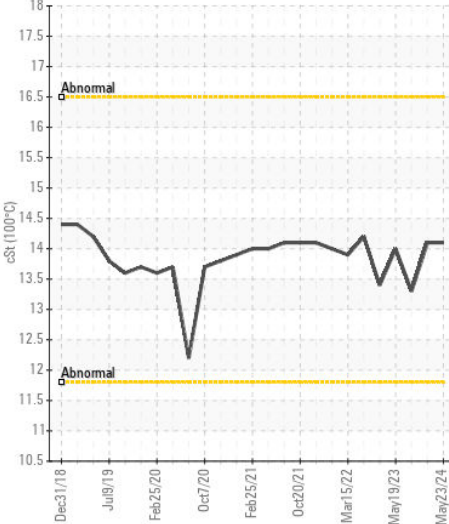
Ferrous Alloys



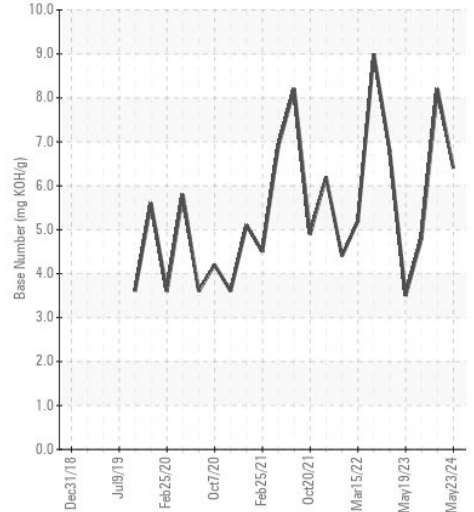
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109580 **Received** : 24 May 2024
Lab Number : 06191645 **Tested** : 30 May 2024
Unique Number : 11048397 **Diagnosed** : 30 May 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 031 - Greenville/Spartanburg
 1635 Antioch Church Rd
 Piedmont, SC
 US 29673
 Contact: TECHNICIAN ACCOUNT
 catherine.anastasio@wearcheck.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: