

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

SAMPLE INFORMATION method limit/base

## NORMAL

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Machine Id **10510C AUTOCAR ISL** Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (28 QTS)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

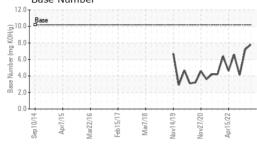
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

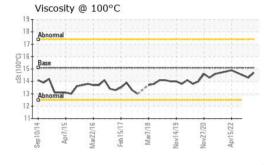
Sample Number		Client Info		GFL0087131	GFL0056681	GFL0056545
Sample Date		Client Info		18 Jul 2023	17 Apr 2023	22 Sep 2022
Machine Age	hrs	Client Info		4771	4321	2890
Oil Age	hrs	Client Info		0	197	540
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	14	14	19
Chromium	ppm	ASTM D5185m	>4	1	2	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	5	2	4
Lead	ppm	ASTM D5185m	>30	<1	2	9
Copper	ppm	ASTM D5185m	>35	6	2	3
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	26	26	8
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	51	51	55
Manganese	ppm	ASTM D5185m	0	<1	2	<1
Magnesium	ppm	ASTM D5185m	560	523	- 536	559
Calcium	ppm	ASTM D5185m	1510	1528	1456	1660
Phosphorus	ppm	ASTM D5185m	780	747	701	706
Zinc	ppm	ASTM D5185m	870	923	891	949
Sulfur	ppm	ASTM D5185m	2040	2566	2497	2962
CONTAMINAN		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	10	5	14
Sodium	ppm	ASTM D5185m	00	4	8	9
Potassium	ppm	ASTM D5185m	>20	3	4	5
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.2	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	19.5	26.5
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	16.3	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	7.8	7.2	4.1
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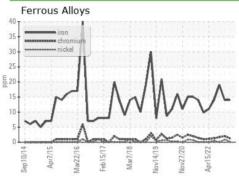
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Base Number



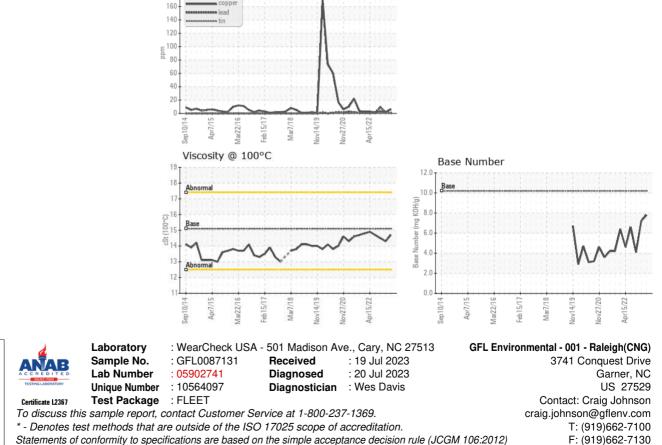


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.3	14.5
GRAPHS						



Non-ferrous Metals

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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Craig Johnson

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