

OIL ANALYSIS REPORT

Area (YA122789) 10583C AUTOCAR ACX

Natural Gas Engine

Fluid PETRO CANADA DURON GEO LD 15W40 (28 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

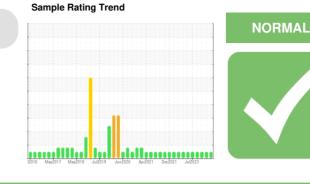
All component wear rates are normal.

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.



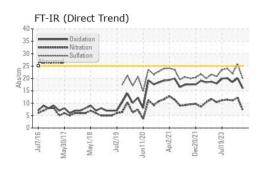
SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0117421	GFL0117530	GFL0094718
Sample Date	Client Info		26 Jun 2024	04 Jun 2024	14 Nov 2023
Machine Age mls	Client Info		252492	251136	19921
Oil Age mls	Client Info		112351	110995	0
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			NORMAL	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	5	24	8
Chromium ppm	ASTM D5185m	>4	<1	2	<1
Nickel ppm	ASTM D5185m	>2	0	<1	0
Titanium ppm	ASTM D5185m		<1	<1	<1
Silver ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm	ASTM D5185m	>9	1	2	2
Lead ppm	ASTM D5185m	>30	2	15	<1
Copper ppm	ASTM D5185m	>35	<1	2	<1
Tin ppm	ASTM D5185m	>4	<1	1	0
Vanadium ppm	ASTM D5185m		0	0	<1
Cadmium ppm	ASTM D5185m		0	0	0
ADDITIVES	method	limit/base	current	history1	history2
ADDITIVES Boron ppm	method ASTM D5185m	50	current 34	11	history2 14
Boron ppm Barium ppm	ASTM D5185m ASTM D5185m	50 5			14 <1
Boron ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	34 0 48	11 0 61	14 <1 55
Boron ppm Barium ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	34 0	11 0	14 <1 55 <1
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	34 0 48	11 0 61 <1 676	14 <1 55
Boron ppm Barium ppm Molybdenum ppm Manganese ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	34 0 48 <1	11 0 61 <1	14 <1 55 <1
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	34 0 48 <1 618	11 0 61 <1 676	14 <1 55 <1 598 1748 778
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510	34 0 48 <1 618 1711	11 0 61 <1 676 1693	14 <1 55 <1 598 1748 778 1040
Boron ppm Barium ppm Molybdenum ppm Manganese ppm Magnesium ppm Calcium ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	34 0 48 <1 618 1711 865	11 0 61 <1 676 1693 880	14 <1 55 <1 598 1748 778
Boron ppm Barium ppm Molybdenum ppm Manganese ppm Magnesium ppm Calcium ppm Phosphorus ppm Zinc ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870	34 0 48 <1 618 1711 865 1030	11 0 61 <1 676 1693 880 1142	14 <1 55 <1 598 1748 778 1040
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 560 1510 780 870 2040	34 0 48 <1 618 1711 865 1030 3250	11 0 61 <1 676 1693 880 1142 3115 history1 6	14 <1 55 <1 598 1748 778 1040 2569
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmCONTAMINANTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base	34 0 48 <1 618 1711 865 1030 3250 current	11 0 61 <1 676 1693 880 1142 3115 history1	14 <1 55 <1 598 1748 778 1040 2569 history2
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmCONTAMINANTppmSiliconppmSodiumppmPotassiumppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 5 50 560 1510 780 870 2040 limit/base >+100	34 0 48 <1 618 1711 865 1030 3250 current 4	11 0 61 <1 676 1693 880 1142 3115 history1 6	14 <1 55 <1 598 1748 778 1040 2569 history2 11
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSulfurppmSodiumppmSodiumppmPotassiumppmINFRA-RED	ASTM D5185m ASTM D5185m	50 5 50 560 1510 780 870 2040 limit/base >+100	34 0 48 <1 618 1711 865 1030 3250 current 4 4 4 <1 current	11 0 61 <76 1693 880 1142 3115 history1 6 9 12 history1	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSiliconppmSodiumppmPotassiumppmINFRA-RED%	ASTM D5185m ASTM D5185m	50 50 00 560 1510 780 870 2040 limit/base >+100	34 0 48 <1 618 1711 865 1030 3250 <u>current</u> 4 4 <1 <u>current</u> 0	11 0 61 <1 676 1693 880 1142 3115 history1 6 9 12 history1 0.6	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2 0
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSulfurppmSodiumppmPotassiumppmINFRA-RED	ASTM D5185m ASTM D5185m	50 50 00 560 1510 780 870 2040 limit/base >+100	34 0 48 <1 618 1711 865 1030 3250 current 4 4 4 <1 current	11 0 61 <76 1693 880 1142 3115 history1 6 9 12 history1	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSulfurppmSiliconppmSodiumppmPotassiumppmINFRA-RED%	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 limit/base >+100 >20	34 0 48 <1 618 1711 865 1030 3250 <u>current</u> 4 4 <1 <u>current</u> 0	11 0 61 <1 676 1693 880 1142 3115 history1 6 9 12 history1 0.6	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2 0
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSulfurppmSoliconppmPotassiumppmINFRA-REDpmSoot %%NitrationAbs/cm	ASTM D5185m ASTM D5185m	50 50 00 560 1510 780 870 2040 Iimit/base >+100 S20	34 0 48 <1 618 1711 865 1030 3250 current 4 4 4 <1 current 0 7.0 19.7	11 0 61 <1 676 1693 880 1142 3115 history1 6 9 12 history1 0.6 12.2	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2 0 history2
BoronppmBariumppmMolybdenumppmManganeseppmMagnesiumppmCalciumppmPhosphorusppmZincppmSulfurppmSulfurppmSodiumppmPotassiumppmINFRA-RED%NitrationAbs/.tmm	ASTM D5185m ASTM D5185m	50 50 50 150 780 870 2040 Iimit/base >+100 220 Iimit/base >20	34 0 48 <1 618 1711 865 1030 3250 current 4 4 4 <1 current 0 7.0 19.7	11 0 61 <76 1693 880 1142 3115 history1 6 9 12 history1 0.6 12.2 25.8	14 <1 55 <1 598 1748 778 1040 2569 history2 11 7 0 history2 0 11.1 22.0

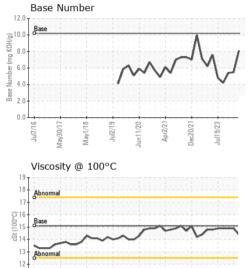


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OIL ANALYSIS REPORT





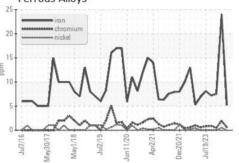
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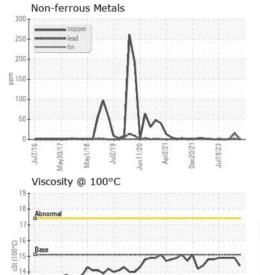
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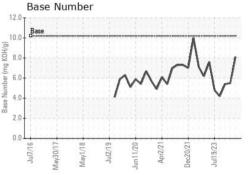
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	14.4	14.9	14.9
GRAPHS						

Ferrous Alloys







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 001 - Raleigh(CNG) Sample No. : GFL0117421 Received : 01 Jul 2024 3741 Conquest Drive Lab Number : 06224325 Tested : 02 Jul 2024 Garner, NC US 27529 Unique Number : 11102522 Diagnosed : 02 Jul 2024 - Wes Davis Test Package : FLEET Contact: Craig Johnson Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. craig.johnson@gflenv.com T: (919)662-7100 * - 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) F: (919)662-7130

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Submitted By: aka Keith - Ronald Gregory

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