

OIL ANALYSIS REPORT

Sample Rating Trend





7104 Component Natural Gas Engine Fluid PETRO CANADA DURON GEO LD 15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Machine Id

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

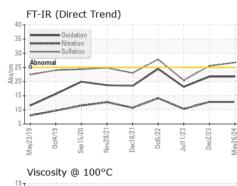
Fluid Condition

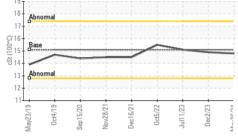
The condition of the oil is acceptable for the time in service.

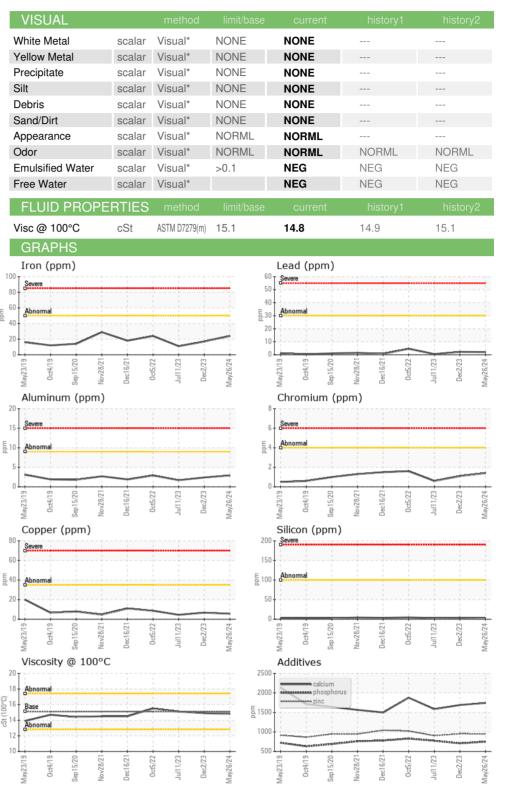
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0113292	GFL0097542	GFL0074288
Sample Date		Client Info		26 May 2024	02 Dec 2023	11 Jul 2023
Machine Age	hrs	Client Info		17364	16236	15017
Oil Age	hrs	Client Info		1128	1219	1606
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	24	17	11
Chromium	ppm	ASTM D5185(m)	>4	1	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	3	2	2
Lead	ppm	ASTM D5185(m)	>30	2	2	<1
Copper	ppm	ASTM D5185(m)	>35	6	7	4
Tin	ppm	ASTM D5185(m)	>4	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 50	current 6	history1 9	history2 13
	ppm ppm		50			
Boron		ASTM D5185(m)	50	6	9	13
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	50 5 50	6 0	9 <1	13 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50	6 0 56	9 <1 56	13 0 51
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560	6 0 56 <1	9 <1 56 0	13 0 51 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780	6 0 56 <1 598	9 <1 56 0 590	13 0 51 <1 593
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780	6 0 56 <1 598 1741	9 <1 56 0 590 1690	13 0 51 <1 593 1583
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780	6 0 56 <1 598 1741 751	9 <1 56 0 590 1690 708	13 0 51 <1 593 1583 774
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870	6 0 56 <1 598 1741 751 948	9 <1 56 0 590 1690 708 952	13 0 51 <1 593 1583 774 904
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870	6 0 56 <1 598 1741 751 948 1956	9 <1 56 0 590 1690 708 952 1968	13 0 51 <1 593 1583 774 904 1944
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040	6 0 56 <1 598 1741 751 948 1956 <1	9 <1 56 0 590 1690 708 952 1968 <1	13 0 51 <1 593 1583 774 904 1944 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	50 50 0 560 1510 780 870 2040 iimit/base	6 0 56 <1 598 1741 751 948 1956 <1	9 <1 56 0 590 1690 708 952 1968 <1 history1	13 0 51 <1 593 1583 774 904 1944 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040 iimit/base >+100	6 0 56 <1 598 1741 751 948 1956 <1 20 20 20 20 20 20 20 20 20 20 20 20 20	9 <1 56 0 590 1690 708 952 1968 <1 +istory1 4	13 0 51 <1 593 1583 774 904 1944 <1 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 5 50 0 560 1510 780 870 2040 iimit/base >+100	6 0 56 <1 598 1741 751 948 1956 <1 current 3 10	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 50 00 560 1510 780 870 2040 Imit/base >+100	6 0 56 <1 598 1741 751 948 1956 <1 current 3 10 <1	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9 <1	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185(m) ASTM D5185(m)	50 50 560 1510 780 870 2040 Iimit/base >+100 	6 0 56 <1 598 1741 751 948 1956 <1 current 3 10 <1 <1	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9 <1 history1	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7 <1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm	ASTM D5185(m) ASTM D5185(m)	50 50 560 1510 780 870 2040 Iimit/base >+100 	6 0 56 <1 598 1741 751 948 1956 <1 current 3 10 <1 <1 0	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9 <1 4 9 <1 history1 0	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7624*	50 50 560 1510 780 870 2040 imit/base >+100 \$20 imit/base \$20 \$20	6 0 56 <1 598 1741 751 948 1956 <1 <i>current</i> 3 10 <1 <i>current</i> 0 12.8 26.7	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9 <1 history1 0 12.8 25.5	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7 <1 history2 0 10.3 20.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7624*	50 50 00 560 1510 780 870 2040 2040 2040 2040 2040 20 20 20 20 20 20 20 20 20	6 0 56 <1 598 1741 751 948 1956 <1 <i>current</i> 3 10 <1 <i>current</i> 0 12.8	9 <1 56 0 590 1690 708 952 1968 <1 history1 4 9 <1 4 9 <1 history1 0 12.8	13 0 51 <1 593 1583 774 904 1944 <1 history2 3 7 <1 history2 0 10.3



OIL ANALYSIS REPORT







Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : GFL0113292 Received : 29 May 2024 Lab Number : 02638436 Tested : 29 May 2024 ISO 17025:2017 Accredited Unique Number : 5787598 Diagnosed : 29 May 2024 - Wes Davis Laboratory Test Package : MOB 1 (Additional Tests: Visual) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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Submitted By: Tom Hatzioannidis

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