

OIL ANALYSIS REPORT

Sample Rating Trend





9153 Component Natural Gas Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS 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.

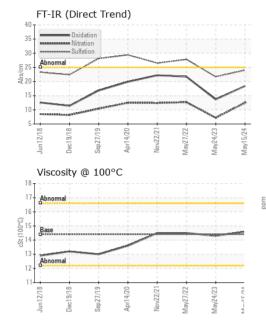
Fluid Condition

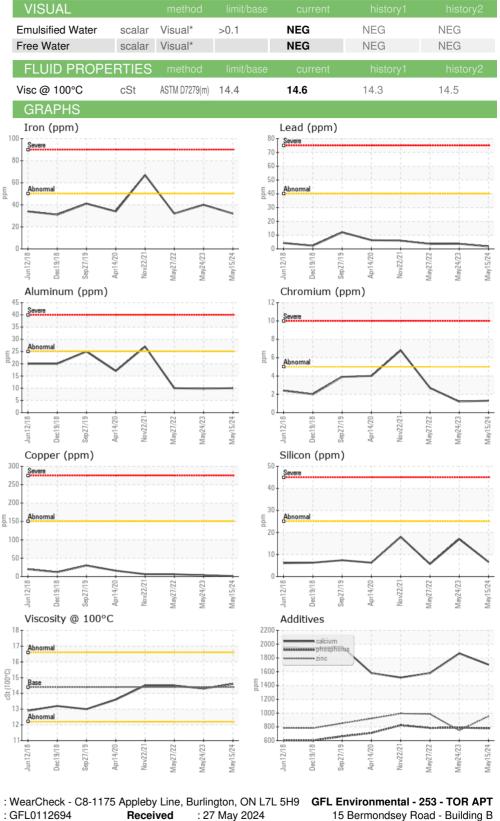
The condition of the oil is acceptable for the time in service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112694	GFL0079553	GFL0053125
Sample Date		Client Info		15 May 2024	24 May 2023	27 May 2022
Machine Age	hrs	Client Info		15611	190307	96331
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	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	32	40	32
Chromium	ppm	ASTM D5185(m)	>5	1	1	3
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	1
Titanium	ppm	ASTM D5185(m)	>5	0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	10	10	10
Lead	ppm	ASTM D5185(m)	>40	2	4	4
Copper	ppm	ASTM D5185(m)	>150	1	4	6
Tin	ppm	ASTM D5185(m)	>4	<1	2	<1
Antimony	ppm	ASTM D5185(m)		0	<1	<1
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 250	current 9	history1 7	history2 6
	ppm ppm		250			
Boron		ASTM D5185(m)	250	9	7	6
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	250 10	9 <1	7 2	6 <1
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10	9 <1 64	7 2 113	6 <1 57
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10 100 450	9 <1 64 1	7 2 113 3	6 <1 57 <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)	250 10 100 450	9 <1 64 1 593	7 2 113 3 131	6 <1 57 <1 663
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)	250 10 100 450 3000 1150	9 <1 64 1 593 1702	7 2 113 3 131 1865	6 <1 57 <1 663 1581
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)	250 10 100 450 3000 1150	9 <1 64 1 593 1702 780	7 2 113 3 131 1865 788	6 <1 57 <1 663 1581 784
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)	250 10 100 450 3000 1150 1350	9 <1 64 1 593 1702 780 954	7 2 113 3 131 1865 788 748	6 <1 57 <1 663 1581 784 985
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)	250 10 100 450 3000 1150 1350	9 <1 64 1 593 1702 780 954 2013	7 2 113 3 131 1865 788 748 2436	6 <1 57 <1 663 1581 784 985 2069
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)	250 10 100 450 3000 1150 1350 4250	9 <1 64 1 593 1702 780 954 2013 <1	7 2 113 3 131 1865 788 748 2436 <1	6 <1 57 <1 663 1581 784 985 2069 <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)	250 10 100 450 3000 1150 1350 4250 imit/base >25	9 <1 64 1 593 1702 780 954 2013 <1 current	7 2 113 3 131 1865 788 748 2436 <1 kistory1	6 <1 57 <1 663 1581 784 985 2069 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm	ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 limit/base >25	9 <1 64 1 593 1702 780 954 2013 <1 2013 <1 2013	7 2 113 3 131 1865 788 748 2436 <1 2436 <1 history1 17	6 <1 57 <1 663 1581 784 985 2069 <1 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 binit/base >25 >158	9 <1 64 1 593 1702 780 954 2013 <1 2013 <1 <i>current</i> 7 9	7 2 113 3 131 1865 788 748 2436 <1 2436 <1 history1 17 6	6 <1 57 <1 663 1581 784 985 2069 <1 2069 <1 history2 6 10
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 binit/base >25 >158 >20	9 <1 64 1 593 1702 780 954 2013 <1 2013 <1 <i>current</i> 7 9 1	7 2 113 3 131 1865 788 748 2436 <1 history1 17 6 1	6 <1 57 <1 663 1581 784 985 2069 <1 history2 6 10 10
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 ppm t t t t	ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >158 >20 Imit/base	9 <1 64 1 593 1702 780 954 2013 <1 2013 <1 <i>current</i> 7 9 1	7 2 113 3 131 1865 788 748 2436 <1 history1 17 6 1 17 6 1 1 <i>history1</i> 0	6 <1 57 <1 663 1581 784 985 2069 <1 bistory2 6 10 1 1 history2 0
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)	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >158 >20 Imit/base	9 <1 64 1 593 1702 780 954 2013 <1 current 7 9 1 1 current 0	7 2 113 3 131 1865 788 748 2436 <1 kistory1 17 6 1 1 <i>history</i> 1	6 <1 57 <1 663 1581 784 985 2069 <1 bistory2 6 10 1 1
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	ASTM D5185(m) ASTM D7844* ASTM D7624*	250 10 100 450 3000 1150 1350 4250 imit/base >25 >20 imit/base >20 >20	9 <1 64 1 593 1702 780 954 2013 <1 current 7 9 1 current 0 12.5 24.0	7 2 113 3 131 1865 788 748 2436 <1 history1 17 6 1 17 6 1 1 history1 0 7.2 21.7	6 <1 57 <1 663 1581 784 985 2069 <1 history2 6 10 1 history2 0 12.7 27.8
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 TS ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7624*	250 10 100 450 3000 1150 1350 4250 imit/base >25 >158 >20 imit/base	9 <1 64 1 593 1702 780 954 2013 <1 <i>current</i> 7 9 1 <i>current</i> 0 12.5	7 2 113 3 131 1865 788 748 2436 <1 history1 17 6 1 17 6 1 1 <i>history1</i> 0 7.2	6 <1 57 <1 663 1581 784 985 2069 <1 history2 6 10 1 1 history2 0 12.7



OIL ANALYSIS REPORT







 Iso 17025:2017
 Lab Number
 : 02637608
 Tested
 : 27 May 2024

 Accredited Laboratory
 Unique Number
 : 5786770
 Diagnosed
 : 27 May 2024 - Wes Davis

 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.

Report Id: GFL253 [WCAMIS] 02637608 (Generated: 05/27/2024 12:32:29) Rev: 1

CALA

Laboratory

Sample No.