

OIL ANALYSIS REPORT

Sample Rating Trend



Area (ML7044) Machine Id AUTOCAR 832005 Component

Natural Gas Engine Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

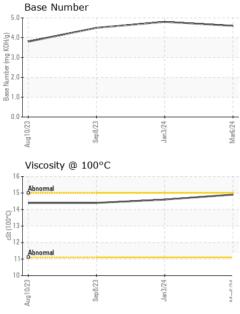
Fluid Condition

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

		Aug202	3 Sep2023	Jan2024 M	ar2024	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0109658	GFL0087454	GFL0087518
Sample Date		Client Info		06 Mar 2024	03 Jan 2024	08 Sep 2023
Machine Age	hrs	Client Info		2456	1956	1178
Oil Age	hrs	Client Info		500	778	1178
Oil Changed		Client Info		Not Changd	Not Changd	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 D5185m	>50	15	11	32
Chromium	ppm	ASTM D5185m	>4	1	1	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>9	2	2	4
Lead	ppm	ASTM D5185m	>30	1	1	1
Copper	ppm	ASTM D5185m	>35	2	2	10
Tin	ppm	ASTM D5185m	>4	<1	1	2
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES			11 1. 4			le le terre vo
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	current 10	history1 11	9
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	10	11	9
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	10 0	11 0	9 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 72	11 0 66	9 0 71
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 72 1	11 0 66 1	9 0 71 8
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		10 0 72 1 704	11 0 66 1 656	9 0 71 8 783
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	Imit/base	10 0 72 1 704 2080	11 0 66 1 656 1754	9 0 71 8 783 1653
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	Imit/base	10 0 72 1 704 2080 853	11 0 66 1 656 1754 805	9 0 71 8 783 1653 785
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 72 1 704 2080 853 1166	11 0 66 1 656 1754 805 1100	9 0 71 8 783 1653 785 1088
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		10 0 72 1 704 2080 853 1166 2797	11 0 66 1 656 1754 805 1100 2582	9 0 71 8 783 1653 785 1088 3049
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 72 1 2080 853 1166 2797 current	11 0 66 1 656 1754 805 1100 2582 history1	9 0 71 8 783 1653 785 1088 3049 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	10 0 72 1 704 2080 853 1166 2797 current 5	11 0 66 1 656 1754 805 1100 2582 history1 6	9 0 71 8 783 1653 785 1088 3049 history2 15
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >+100	10 0 72 1 704 2080 853 1166 2797 current 5 7	11 0 66 1 656 1754 805 1100 2582 history1 6 7	9 0 71 8 783 1653 785 1088 3049 history2 15 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >+100 >20	10 0 72 1 704 2080 853 1166 2797 current 5 7 0	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20	10 0 72 1 704 2080 853 1166 2797 current 5 7 0 0	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1 kistory1	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	10 0 72 1 704 2080 853 1166 2797 current 5 7 0 0 current 0	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1 6 7 <1 0	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3 3 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base	10 0 72 1 704 2080 853 1166 2797 <i>current</i> 5 7 0 <i>current</i> 0 12.2	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1 6 7 <1 history1 0 12.2	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3 3 history2 0.1 11.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >+100 >20 limit/base >20 >20	10 0 72 1 704 2080 853 1166 2797 current 5 7 0 current 0 12.2 25.4	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1 6 7 <1 0 12.2 23.7	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3 3 history2 0.1 11.7 23.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >+100 >20 limit/base >20 >30 limit/base	10 0 72 1 704 2080 853 1166 2797 <i>current</i> 5 7 0 <i>current</i> 0 12.2 25.4	11 0 66 1 656 1754 805 1100 2582 history1 6 7 <1 history1 0 12.2 23.7 history1	9 0 71 8 783 1653 785 1088 3049 history2 15 5 3 history2 0.1 11.7 23.8 history2



OIL ANALYSIS REPORT



		method		current		
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	ERTIES	method	limit/base	current	history1	history
Visc @ 100°C	cSt	ASTM D445		14.9	14.6	14.4
o						
nickel		1324				
Non-ferrous Meta	IIs	Jan324	Mat6.24			
Non-ferrous Meta	IIS					
Non-ferrous Meta	IIS		Ma624			

Base Number

Sep 8/23

5.0

(B/HOX Bw)

Number Number

0.0

Aug10/23 -

Base

Mar6/24 -

:07 Mar 2024

:08 Mar 2024



 Unique Number
 : 10915346
 Diagnosed
 : 08 Mar 2024 - Wes Davis

 Certificate 12367
 Test Package
 : FLEET
 Certificate 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)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received

Tested

Jan3/24 -

Sep8/23.

Viscosity @ 100°C

16

15

(100°C)

ぢ 12

Lab Number : 06111849

Laboratory Sample No. 11 10

Aug10/23.

: GFL0109658

180 Ada Moore Rd

Columbus, NC

Jan3/24

GFL Environmental - 331 - Columbus

Mar6/24