

OIL ANALYSIS REPORT

Sample Rating Trend





834025 Component Natural Gas Engine

{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

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

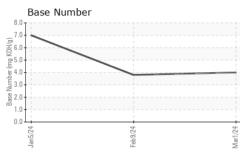
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

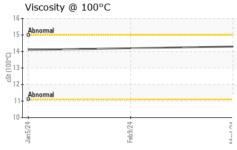
L)		Jar	2024	Feb2024 Mar20	24	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0111837	GFL0108286	GFL0098238
Sample Date		Client Info		01 Mar 2024	09 Feb 2024	05 Jan 2024
Machine Age	hrs	Client Info		637	442	272
Oil Age	hrs	Client Info		637	442	272
Oil Changed		Client Info		Not Changd	Not Changd	N/A
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	40	39	21
Chromium	ppm	ASTM D5185m	>4	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	2	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>9	3	3	2
Lead	ppm	ASTM D5185m	>30	<1	2	<1
Copper	ppm	ASTM D5185m	>35	11	19	10
Tin	ppm	ASTM D5185m	>4	1	2	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		8	6	12
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		8 5	6 17	12 2
Barium	ppm	ASTM D5185m		5	17	2
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		5 52	17 51	2 51
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		5 52 13	17 51 14	2 51 8
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		5 52 13 806	17 51 14 714	2 51 8 842
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		5 52 13 806 1253	17 51 14 714 1141	2 51 8 842 1134
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		5 52 13 806 1253 709	17 51 14 714 1141 691	2 51 8 842 1134 862
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	5 52 13 806 1253 709 908	17 51 14 714 1141 691 834	2 51 8 842 1134 862 1031
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		5 52 13 806 1253 709 908 2013	17 51 14 714 1141 691 834 2561	2 51 8 842 1134 862 1031 2615
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		5 52 13 806 1253 709 908 2013 current	17 51 14 714 1141 691 834 2561 history1	2 51 8 842 1134 862 1031 2615 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>+100	5 52 13 806 1253 709 908 2013 current 29	17 51 14 714 1141 691 834 2561 history1 32	2 51 8 842 1134 862 1031 2615 history2 21
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>+100	5 52 13 806 1253 709 908 2013 current 29 3 2	17 51 14 714 1141 691 834 2561 history1 32 2	2 51 8 842 1134 862 1031 2615 history2 21 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20	5 52 13 806 1253 709 908 2013 current 29 3 2	17 51 14 714 1141 691 834 2561 history1 32 2 6	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base	5 52 13 806 1253 709 908 2013 current 29 3 2 2 3 2	17 51 14 714 1141 691 834 2561 history1 32 2 6 history1	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3 }
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m	>+100 >20 limit/base	5 52 13 806 1253 709 908 2013 current 29 3 2 2 3 2 2 0	17 51 14 714 1141 691 834 2561 history1 32 2 6 history1 0	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3 history2 0.1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D7844 *ASTM D7624	>+100 >20 limit/base >20	5 52 13 806 1253 709 908 2013 current 29 3 2 2 3 2 current 0 12.1 23.8	17 51 14 714 1141 691 834 2561 history1 32 2 6 history1 0 12.5	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3 history2 0.1 8.9
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D7844 *ASTM D7624	>+100 >20 limit/base >20 >30 limit/base	5 52 13 806 1253 709 908 2013 current 29 3 2 2 3 2 current 0 12.1 23.8	17 51 14 714 1141 691 834 2561 history1 32 2 6 history1 0 12.5 23.0	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3 history2 0.1 8.9 19.0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRA	ppm ppm ppm ppm ppm ppm ppm ppm TTS ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	>+100 >20 limit/base >20 >30 limit/base	5 52 13 806 1253 709 908 2013 current 29 3 2 2 current 0 12.1 23.8 current	17 51 14 714 1141 691 834 2561 history1 32 2 6 history1 0 12.5 23.0 history1	2 51 8 842 1134 862 1031 2615 history2 21 3 3 3 history2 0.1 8.9 19.0 history2



OIL ANALYSIS REPORT

VISUAL





	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
Feb 9/24 Mar1/24	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		14.3	14.2	14.1
	GRAPHS						
	Ferrous Alloys			_			
Feb.9/24 -	35 - iron						
Feb	30 nickel						
	25 E						
	특 20 - 15 -						
	10						
	5+						
	0						
	Jan 5/2 4	Feb 9/24		Mar1/24			
				W			
	Non-ferrous Metal	S					
	copper						
	15-						
	툍 10						
	5-						
	A STATISTICS AND A STAT	addeal discourses					
	Jan5/24	Feb 9/24 -					
	Jan	Feb		Mar1/24			
	Viscosity @ 100°C				Base Number		
	16 Abnormal			8.0			
	15 - d	1		7.0 ©6.0			
	14- O			9 6.0 9 8 5.0 9 4.0 9 4.0			
	()-00 ()-113 75			<u>ட</u> த 4.0			
	- デジ 12			4 a.0			
	Abnormal			8 2.0			
	11	1		1.0	•		
	10	24		-0.0	24	24 -	
	Jan 5/24	Feb 9/24		Mar1/24	Jan5/24	Feb9/24	Mar1/24
Laboratory Sample No.	: WearCheck USA - 50 ⁻ : GFL0111837 : 06109239	1095	I - 652 - Fredericksburg Hauling 10954 Houser Drive Fredericksburg, VA US 22408 Contact: WILLIAM MILC wmilo@gflenv.com				

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