

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 834050 Component

Natural Gas Engine

Fluid NOT GIVEN (--- 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

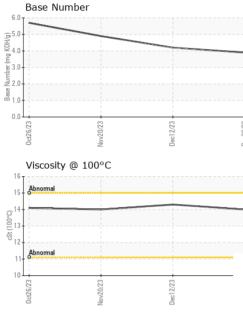
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		0ct2023	Nov2023	Dec2023 De	ec2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0102486	GFL0102513	GFL0098641
Sample Date		Client Info		20 Dec 2023	12 Dec 2023	20 Nov 2023
Machine Age	hrs	Client Info		589	525	393
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
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	50	53	61
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	2	2
Titanium	ppm	ASTM D5185m	>5	0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	2	3	2
Lead	ppm	ASTM D5185m	>40	1	<1	1
Copper	ppm	ASTM D5185m	>150	15	17	20
Tin	ppm	ASTM D5185m	>4	2	1	2
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		and the second	Prest la reserve			
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	15	history1 23	history2 16
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	15	23	16
Boron Barium	ppm	ASTM D5185m ASTM D5185m	IImit/base	15 2	23 3	16 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		15 2 63	23 3 65	16 0 51
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 2 63 8	23 3 65 9	16 0 51 10
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 2 63 8 765	23 3 65 9 753	16 0 51 10 699
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		15 2 63 8 765 1094	23 3 65 9 753 1053	16 0 51 10 699 985
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		15 2 63 8 765 1094 697	23 3 65 9 753 1053 745	16 0 51 10 699 985 627
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	15 2 63 8 765 1094 697 949	23 3 65 9 753 1053 745 948	16 0 51 10 699 985 627 862
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		15 2 63 8 765 1094 697 949 2476	23 3 65 9 753 1053 745 948 2475	16 0 51 10 699 985 627 862 2391
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	15 2 63 8 765 1094 697 949 2476 current	23 3 65 9 753 1053 745 948 2475 history1	16 0 51 10 699 985 627 862 2391 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	15 2 63 8 765 1094 697 949 2476 current 27	23 3 65 9 753 1053 745 948 2475 history1 29	16 0 51 10 699 985 627 862 2391 history2 35
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 >25	15 2 63 8 765 1094 697 949 2476 current 27 3 2	23 3 65 9 753 1053 745 948 2475 history1 29 5	16 0 51 10 699 985 627 862 2391 history2 35 <1
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 >25 >20	15 2 63 8 765 1094 697 949 2476 current 27 3 2	23 3 65 9 753 1053 745 948 2475 history1 29 5 3	16 0 51 10 699 985 627 862 2391 history2 35 <1 35
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	15 2 63 8 765 1094 697 949 2476 current 27 3 2 2 2 2 <i>current</i>	23 3 65 9 753 1053 745 948 2475 history1 29 5 3 3 history1	16 0 51 10 699 985 627 862 2391 history2 35 <1 3 3 history2
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 >25 >20 limit/base	15 2 63 8 765 1094 697 949 2476 current 27 3 2 2 current 0	23 3 65 9 753 1053 745 948 2475 history1 29 5 3 3 history1 0	16 0 51 10 699 985 627 862 2391 history2 35 <1 3 3 history2 0
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 >25 >20 limit/base	15 2 63 8 765 1094 697 949 2476 <i>current</i> 27 3 2 27 3 2 <i>current</i> 0 11.0	23 3 65 9 753 1053 745 948 2475 history1 29 5 3 3 history1 0 10.6	16 0 51 10 699 985 627 862 2391 history2 35 <1 3 3 history2 0 11.5
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 >25 >20 limit/base >20 >20	15 2 63 8 765 1094 697 949 2476 <u>current</u> 27 3 2 <u>current</u> 0 11.0 22.2	23 3 65 9 753 1053 745 948 2475 history1 29 5 3 3 history1 0 10.6 21.7	16 0 51 10 699 985 627 862 2391 history2 35 <1 3 3 history2 0 11.5 21.0
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 D7844	limit/base >25 >20 limit/base >20 >30 limit/base	15 2 63 8 765 1094 697 949 2476 Current 27 3 2 Current 0 11.0 22.2 Current	23 3 65 9 753 1053 745 948 2475 history1 29 5 3 history1 0 10.6 21.7 history1	16 0 51 10 699 985 627 862 2391 history2 35 <1 35 <1 3 history2 0 11.5 21.0



OIL ANALYSIS REPORT

VISUAL



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							NONE
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Jec20,							NORML
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				limit/base			history2 14.0
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	Ferrous Alloys						
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3	50 -						
	e ⁴⁰						
	^B 30-						
	20 -						
	10						
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	Viscosity @ 100°	С					
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				(B)-	.0		
				HOX B	.0 -		
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				ase			
	Abnormal			1	.0 +		
	11 Abnormal						
	11- 10			0	.0		2
	11- 10		c12/23	0	.0	12/23	
	11- Abnormal		Dec12/23			Dec 17/73	
	Abnormal	E01 M*		Dec20/23	0ct26/23		
Laboratory Sample No	: WearCheck USA -		son Ave., Ca	ry, NC 2751	0ct26/23	ironmental - 83	37 - Harrison T
Laboratory Sample No. Lab Number	: WearCheck USA - : GFL0102486	Recieved	son Ave., Ca I : 02 v	Dec20/23	0ct26/23	ironmental - 83 22820 S S	57 - Harrison T State Route 29
Sample No.	: WearCheck USA - : GFL0102486 : 06049405		son Ave., Ca I : 02 . ed : 04 .	ry, NC 2751 Jan 2024	0ct26/23	ironmental - 83 22820 S S	87 - Harrison T
Sample No. Lab Number Unique Number Test Package	: WearCheck USA - : GFL0102486 : 06049405 r : 10810013	Recieved Diagnose Diagnost	son Ave., Ca I : 02 v ed : 04 v ician : We	ry, NC 2751 Jan 2024 Jan 2024 s Davis	0ct26/23	ironmental - 83 22820 S S Ha Contact: BRY	7 - Harrison T State Route 29 arrisonville, M US 6470
		Emulsified Water Free Water FLUID PROPE Visc @ 100°C GRAPHS Ferrous Alloys 70 10 10 10 10 10 10 10 10 10 1	Yellow Metal scalar Precipitate scalar Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar Free Water scalar Free Water scalar Free Water scalar Ferrous Alloys Torn torn torn torn torn to the scalar Non-ferrous Metals Visc of 100°C Solution to the scalar Non-ferrous Metals Viscosity @ 100°C Viscosity @ 100°C	Yellow Metal Precipitate Scalar *Visual Debris Sand/Dirt Sand/Dirt Scalar *Visual Debris Scalar *Visual Sand/Dirt Scalar *Visual Appearance Scalar *Visual Codor Scalar *Visual Emulsified Water Scalar *Visual Free Water Scalar *Visual F	Yellow Metal Precipitate Scalar Visual NONE Sitt Scalar Visual NONE Sand/Dirt Scalar Visual NORE Sand/Dirt Scalar Visual NORML Odor Scalar Visual NORML Scalar Visual NORML Scalar Visual Scalar Visual NORML Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Scalar Visual Scalar Scalar Visual Scalar Scalar Visual Scalar Scal	Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Sitt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML	Vellow Metal scalar Visual NONE NONE NONE NONE Precipitate scalar Visual NONE NONE NONE NONE Sitt scalar Visual NONE NONE NONE NONE Sand/Dirt scalar Visual NONE NONE NONE NONE Sand/Dirt scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORML NORML NORML Codor scalar Visual NORML NORML NORML NORML Emulsified Water scalar Visual NORML NORML NORML Sitt of the scalar Visual NORML NORML NORML Sand/Dirt scalar Visual NORML NORML NORML NORML NORML NORML NORML NORML NORML Sand/Dirt scalar Visual NORML NORML NORML NORML NORML NORML Scalar Visual NORML NORML NORML NORML NORML NORML NORML Sand/Dirt scalar Visual NORML

limit/base

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Contact/Location: BRYAN SWANSON - GFL837