

Area (EJQ361)

OIL ANALYSIS REPORT

Sample Rating Trend



728008 Component Diesel Engine Fluid {not provided} (12 QTS)

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

Test for glycol is negative. There is no indication of any contamination in the oil.

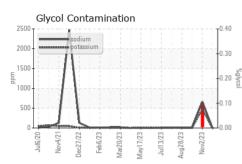
Fluid Condition

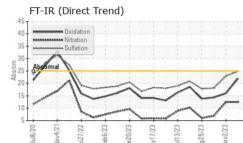
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

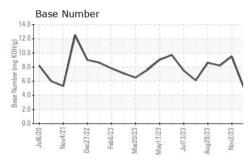
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0111512	GFL0083065	GFL0069114
Sample Date		Client Info		10 Apr 2024	02 Nov 2023	27 Sep 2023
Machine Age	hrs	Client Info		0	9906	11477
Oil Age	hrs	Client Info		0	0	205
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	SEVERE	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	44	1 28	16
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	14	4
Lead	ppm	ASTM D5185m	>40	3	0	0
Copper	ppm	ASTM D5185m	>330	51	4	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 10	history1 16	history2 1
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	10	16	1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	10 0	16 0	1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 56	16 0 118	1 0 67
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 56 <1	16 0 118 <1	1 0 67 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 56 <1 789	16 0 118 <1 749	1 0 67 <1 972
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 56 <1 789 1249	16 0 118 <1 749 1008	1 0 67 <1 972 1089
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	limit/base	10 0 56 <1 789 1249 858	16 0 118 <1 749 1008 825	1 0 67 <1 972 1089 1105
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 56 <1 789 1249 858 1067	16 0 118 <1 749 1008 825 1074	1 0 67 <1 972 1089 1105 1341
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	limit/base	10 0 56 <1 789 1249 858 1067 2378	16 0 118 <1 749 1008 825 1074 2659	1 0 67 <1 972 1089 1105 1341 3909
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 56 <1 789 1249 858 1067 2378 current	16 0 118 <1 749 1008 825 1074 2659 history1	1 0 67 <1 972 1089 1105 1341 3909 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	limit/base	10 0 56 <1 789 1249 858 1067 2378 current 14	16 0 118 <1 749 1008 825 1074 2659 history1 12	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	10 0 56 <1 789 1249 858 1067 2378 <u>current</u> 14 4	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2
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	10 0 56 <1 789 1249 858 1067 2378 <u>current</u> 14 4 1	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	10 0 56 <1 789 1249 858 1067 2378 <u>current</u> 14 4 1 0.0	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470 ▲ 0.10	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m *ASTM D2982	limit/base >25 >20 limit/base >3	10 0 56 <1 789 1249 858 1067 2378 current 14 4 1 0.0 current	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470 ▲ 0.10 history1	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m *ASTM D2982 method	limit/base >25 >20 limit/base >3 >20	10 0 56 <1 789 1249 858 1067 2378 <i>current</i> 14 4 1 0.0 <i>current</i>	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470 ▲ 0.10 history1 1.8	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2 NEG history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm 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 *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7824	limit/base >25 >20 limit/base >3 >20	10 0 56 <1 789 1249 858 1067 2378 <i>current</i> 14 4 1 0.0 <i>current</i> 1.5 12.5	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470 ▲ 0.10 history1 1.8 1.8 12.5	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 NEG NEG history2 0.2 6.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm 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 *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7824	limit/base >25 >20 limit/base >20 limit/base >3 >20 >30	10 0 56 <1 789 1249 858 1067 2378 current 14 4 1 0.0 current 1.5 12.5 24.9	16 0 118 <1 749 1008 825 1074 2659 history1 12 ▲ 663 ▲ 470 ▲ 0.10 history1 1.8 1.8 12.5 23.0	1 0 67 <1 972 1089 1105 1341 3909 history2 5 2 2 2 NEG history2 0.2 6.9 18.1

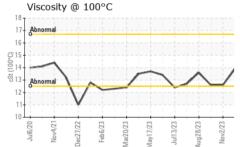


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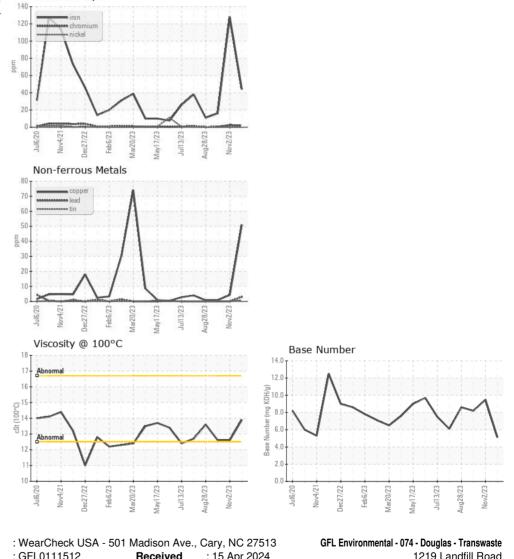






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	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		13.9	12.6	12.6
GRAPHS						

Ferrous Alloys



Laboratory Sample No. : GFL0111512 Received : 15 Apr 2024 1219 Landfill Road Lab Number : 06148217 Tested : 17 Apr 2024 Douglas, GA US 31533 Unique Number : 10978295 Diagnosed : 17 Apr 2024 - Wes Davis Test Package : FLEET Contact: CURTIS JACOBS Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. CURTIS.JACOBS@GFLENV.COM T: (912)384-6001 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: JOSH MALONEY

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