

PROBLEM SUMMARY

Sample Rating Trend

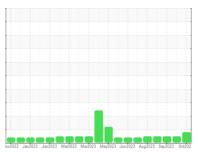
FUEL



ALEXANDER CITY 723009-234528

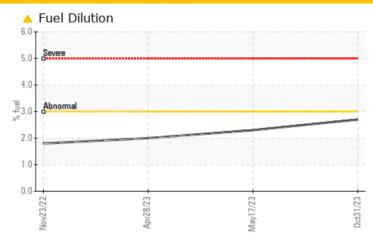
Component **Diesel Engine**

CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)





COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	NORMAL	NORMAL		
Fuel	%	ASTM D3524	>3.0	2.7	<1.0	<1.0		

Customer Id: GFL172 Sample No.: GFL0089919 Lab Number: 06008959 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

19 Oct 2023 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



29 Sep 2023 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



01 Sep 2023 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





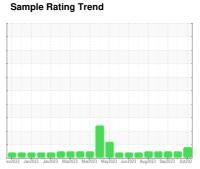
OIL ANALYSIS REPORT



ALEXANDER CITY 723009-234528 Component

Diesel Engine

CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

Light fuel dilution occurring.

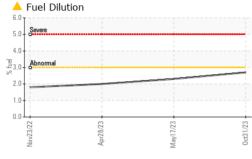
Fluid Condition

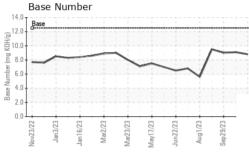
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

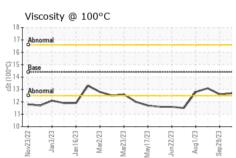
งเชื่อวิว โลกเชื่อวิว โลกเชื่อวิว Maržoz3 Maržoz3 Maržoz3 โลกเชื่อวิว โลกเชื่อวิว จิตกูชัดวิว จิตกูชัดวิว จิตกู							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		GFL0089919	GFL0089924	GFL0078465	
Sample Date		Client Info		31 Oct 2023	19 Oct 2023	29 Sep 2023	
Machine Age	hrs	Client Info		24484	24345	24191	
Oil Age	hrs	Client Info		24484	24345	24191	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				ABNORMAL	NORMAL	NORMAL	
CONTAMINATION	ON	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG	NEG	NEG	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS	3	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>120	7	8	6	
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1	
Nickel	ppm	ASTM D5185m	>5	2	2	2	
Titanium	ppm	ASTM D5185m	>2	0	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>20	11	9	7	
Lead	ppm	ASTM D5185m	>40	0	0	1	
Copper	ppm	ASTM D5185m	>330	2	1	2	
Tin	ppm	ASTM D5185m	>15	<1	0	1	
Vanadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
/ LDDITTV LO		memou	IIIIII/Dase	Current	HISTORY	HISTOLYZ	
Boron	ppm	ASTM D5185m	151	16	16	15	
	ppm ppm						
Boron		ASTM D5185m	151	16	16	15	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	151 0.4	16 0	16 0	15 0	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	151 0.4	16 0 57	16 0 63	15 0 59	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	151 0.4 250	16 0 57 <1	16 0 63	15 0 59 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	151 0.4 250	16 0 57 <1 833	16 0 63 0 850	15 0 59 <1 877	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	151 0.4 250 0 2046	16 0 57 <1 833 987	16 0 63 0 850 1050	15 0 59 <1 877 1023	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	151 0.4 250 0 2046 1043	16 0 57 <1 833 987 936	16 0 63 0 850 1050 991	15 0 59 <1 877 1023 995	
Boron 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 ASTM D5185m ASTM D5185m	151 0.4 250 0 2046 1043 943	16 0 57 <1 833 987 936 1108	16 0 63 0 850 1050 991 1159	15 0 59 <1 877 1023 995 1166	
Boron 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 ASTM D5185m	151 0.4 250 0 2046 1043 943 5012	16 0 57 <1 833 987 936 1108 2846	16 0 63 0 850 1050 991 1159 3226	15 0 59 <1 877 1023 995 1166 3003	
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	151 0.4 250 0 2046 1043 943 5012 limit/base	16 0 57 <1 833 987 936 1108 2846	16 0 63 0 850 1050 991 1159 3226 history1	15 0 59 <1 877 1023 995 1166 3003	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base	16 0 57 <1 833 987 936 1108 2846 current	16 0 63 0 850 1050 991 1159 3226 history1	15 0 59 <1 877 1023 995 1166 3003 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base >25	16 0 57 <1 833 987 936 1108 2846 current 5	16 0 63 0 850 1050 991 1159 3226 history1 6 2	15 0 59 <1 877 1023 995 1166 3003 history2 7	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base >25	16 0 57 <1 833 987 936 1108 2846 current 5 3	16 0 63 0 850 1050 991 1159 3226 history1 6 2	15 0 59 <1 877 1023 995 1166 3003 history2 7 3	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0	16 0 57 <1 833 987 936 1108 2846 current 5 3 1	16 0 63 0 850 1050 991 1159 3226 history1 6 2 <1.0 history1	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0 limit/base	16 0 57 <1 833 987 936 1108 2846 current 5 3 1 ▲ 2.7 current 1.7	16 0 63 0 850 1050 991 1159 3226 history1 6 2 2 <1.0 history1 1.5	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0	16 0 57 <1 833 987 936 1108 2846 current 5 3 1 ▲ 2.7 current	16 0 63 0 850 1050 991 1159 3226 history1 6 2 <1.0 history1	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0 limit/base	16 0 57 <1 833 987 936 1108 2846 current 5 3 1 ▲ 2.7 current 1.7 8.9	16 0 63 0 850 1050 991 1159 3226 history1 6 2 2 <1.0 history1 1.5 7.8	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0 history2 1.5 7.7	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m ASTM D78185m ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415 method	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0 limit/base >4 >20 >30 limit/base	16 0 57 <1 833 987 936 1108 2846 current 5 3 1 ▲ 2.7 current 1.7 8.9 19.2 current	16 0 63 0 850 1050 991 1159 3226 history1 6 2 <1.0 history1 1.5 7.8 18.6 history1	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0 history2 1.5 7.7 18.6 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	151 0.4 250 0 2046 1043 943 5012 limit/base >25 >20 >3.0 limit/base >4 >20 >30	16 0 57 <1 833 987 936 1108 2846 current 5 3 1 ▲ 2.7 current 1.7 8.9 19.2	16 0 63 0 850 1050 991 1159 3226 history1 6 2 2 <1.0 history1 1.5 7.8 18.6	15 0 59 <1 877 1023 995 1166 3003 history2 7 3 3 <1.0 history2 1.5 7.7 18.6	

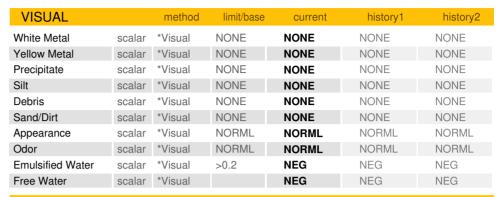


OIL ANALYSIS REPORT



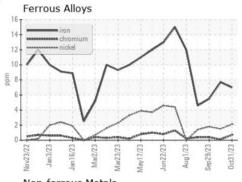


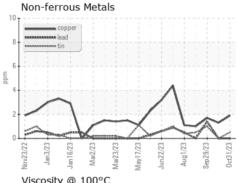


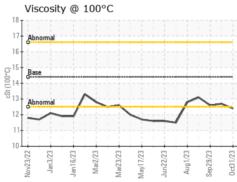


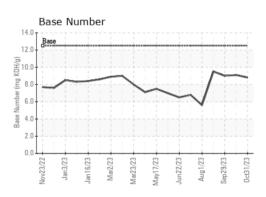
FLUID PROP	EHITES	method	iiiiii/base	current	riistory i	riistoryz
Visc @ 100°C	cSt	ASTM D445	14.4	12.4	12.7	12.6

GRAPHS













Certificate L2367

Laboratory Sample No.

Lab Number **Unique Number**

: GFL0089919 : 06008959 : 10742721

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Nov 2023 Diagnosed : 20 Nov 2023

Diagnostician : Sean Felton

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) To discuss this sample report, contact Customer Service at 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)

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee

Multiple Sites Montgomery, AL US 36108

Contact: BRANDON HURST

brandonhurst@gflenv.com

T: F: