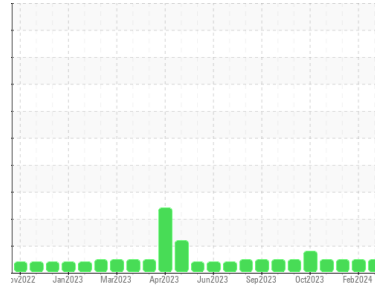




OIL ANALYSIS REPORT

Area
(62A0X13) ALEXANDER CITY
Machine Id
723009-234528
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0089905	GFL0089906	GFL0079754	
Sample Date	Client Info	04 Mar 2024	28 Feb 2024	13 Dec 2023	
Machine Age	hrs	Client Info	25254	25232	24709
Oil Age	hrs	Client Info	25254	0	24709
Oil Changed	Client Info	Not Chngd	N/A	N/A	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2	
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>120	7	7	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	2	2
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	10	9
Lead	ppm	ASTM D5185m	>40	0	0	1
Copper	ppm	ASTM D5185m	>330	4	4	1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	151	39	38	17
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	61	62	58
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	0	813	814	831
Calcium	ppm	ASTM D5185m	2046	1065	1055	970
Phosphorus	ppm	ASTM D5185m	1043	922	931	821
Zinc	ppm	ASTM D5185m	943	1072	1077	1136
Sulfur	ppm	ASTM D5185m	5012	2965	2945	3016

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	4	4	6
Sodium	ppm	ASTM D5185m		6	6	1
Potassium	ppm	ASTM D5185m	>20	0	0	1
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	<1.0

INFRA-RED

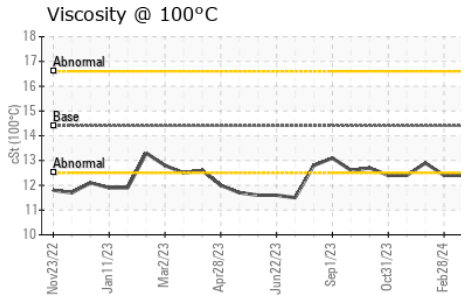
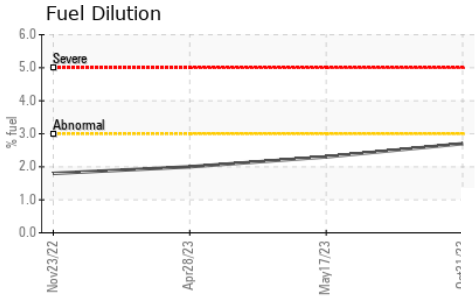
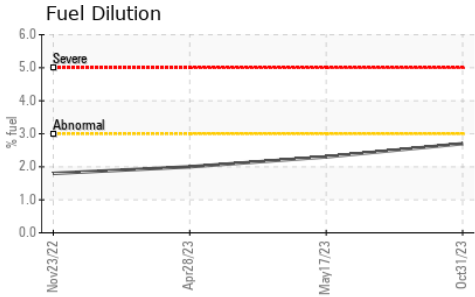
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>4	1	1	1.2
Nitration	Abs/cm	*ASTM D7624	>20	6.7	6.8	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	18.3	18.1

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.3	12.5	12.1
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	9.0	9.0	7.6



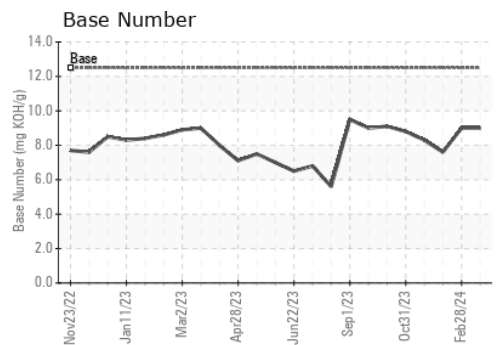
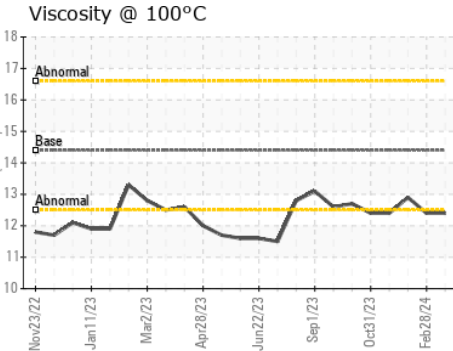
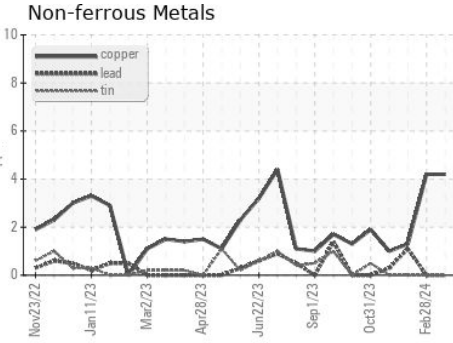
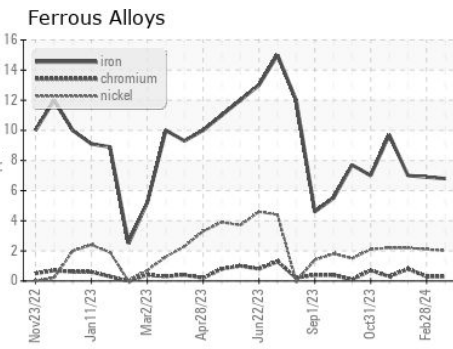
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	12.4	12.4	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089905 **Received** : 07 Mar 2024
Lab Number : **06111295** **Tested** : 11 Mar 2024
Unique Number : 10914792 **Diagnosed** : 11 Mar 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: BRANDON HURST
 brandonhurst@gflenv.com

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)