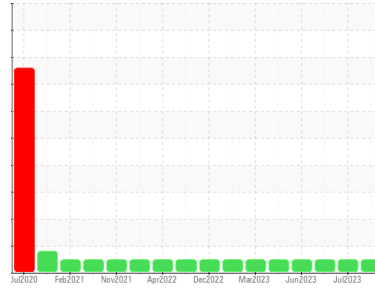




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
429061-402470

Component
Diesel Engine

Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

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	GFL0074786	GFL0074772	GFL0074766
Sample Date	Client Info	30 Aug 2023	30 Jul 2023	09 Jul 2023
Machine Age	hrs	8244	8051	7876
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >110	23	19	14
Chromium	ppm ASTM D5185m >4	2	2	1
Nickel	ppm ASTM D5185m >2	0	<1	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >2	0	<1	0
Aluminum	ppm ASTM D5185m >25	2	3	3
Lead	ppm ASTM D5185m >45	2	2	1
Copper	ppm ASTM D5185m >85	3	1	<1
Tin	ppm ASTM D5185m >4	0	<1	<1
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	4	6
Barium	ppm ASTM D5185m	0	1	0
Molybdenum	ppm ASTM D5185m	69	68	66
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	889	872	931
Calcium	ppm ASTM D5185m	1239	1235	1233
Phosphorus	ppm ASTM D5185m 1360	1021	1014	1075
Zinc	ppm ASTM D5185m 1480	1283	1260	1338
Sulfur	ppm ASTM D5185m	3240	2965	3742

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	9	8	6
Sodium	ppm ASTM D5185m	2	<1	2
Potassium	ppm ASTM D5185m >20	1	3	3

INFRA-RED

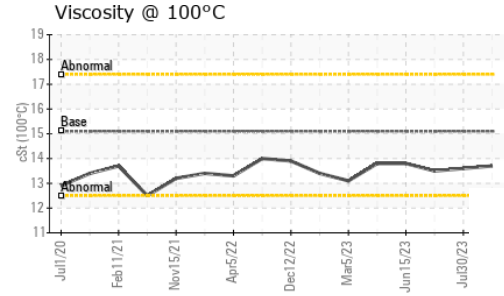
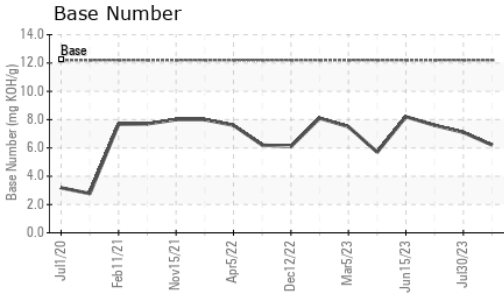
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.7	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	11.4	9.9	8.6
Sulfation	Abs/.1mm *ASTM D7415 >30	23.4	21.8	21.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.5	17.4	17.3
Base Number (BN)	mg KOH/g ASTM D2896 12.2	6.2	7.1	7.6



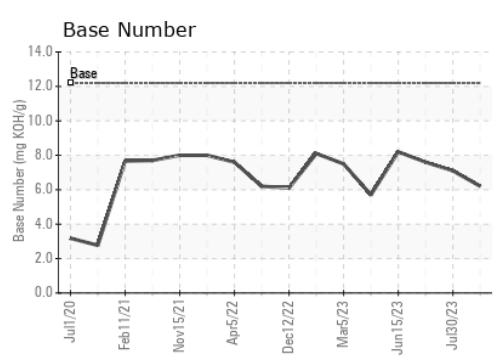
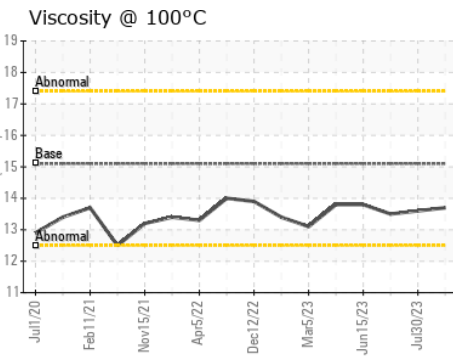
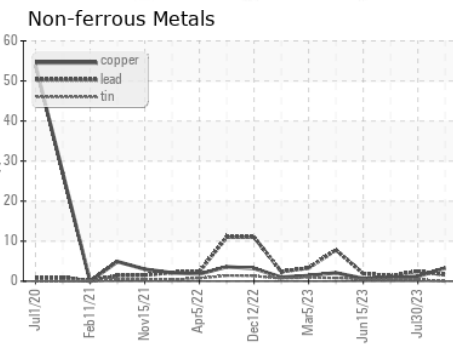
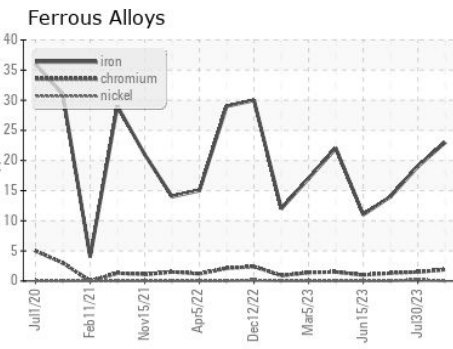
OIL ANALYSIS REPORT



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	15.1	13.7	13.6	13.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0074786 **Received** : 31 Aug 2023
Lab Number : **05940076** **Diagnosed** : 05 Sep 2023
Unique Number : 10630688 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 816 - WCA of South Arkansas
 3083 Smackover Hwy
 El Dorado, AR
 US 71730
 Contact: Mike Howell
 mike.howell@gflenv.com
 T:
 F:

Certificate L2367
 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)