



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
925035-142576
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0103464	GFL0103456	GFL0103445
Sample Date		Client Info		08 Apr 2024	08 Mar 2024	01 Feb 2024
Machine Age	hrs	Client Info		17363	17249	17132
Oil Age	hrs	Client Info		333	219	102
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	9	11	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	3
Lead	ppm	ASTM D5185m	>40	2	0	1
Copper	ppm	ASTM D5185m	>330	10	228	9
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

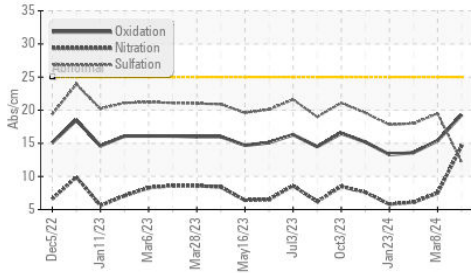
Silicon	ppm	ASTM D5185m	>25	5	7	4
Potassium	ppm	ASTM D5185m	>20	4	8	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	14.6	7.5	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	12.2	19.5	18.0
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

FLUID CONDITION

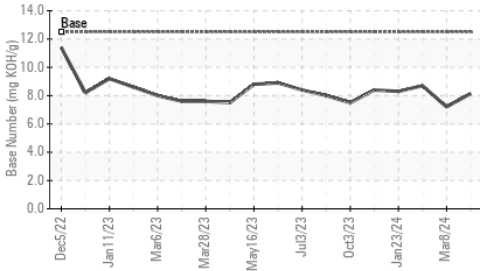
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		49	3	4
Boron	ppm	ASTM D5185m	151	35	18	35
Barium	ppm	ASTM D5185m	0.4	0	0	1
Molybdenum	ppm	ASTM D5185m	250	73	75	72
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	0	954	844	896
Calcium	ppm	ASTM D5185m	2046	1218	1098	1071
Phosphorus	ppm	ASTM D5185m	1043	1096	942	989
Zinc	ppm	ASTM D5185m	943	1354	1138	1211
Sulfur	ppm	ASTM D5185m	5012	3989	2811	3154
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	15.4	13.6
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.14	7.2	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	12.7	13.1

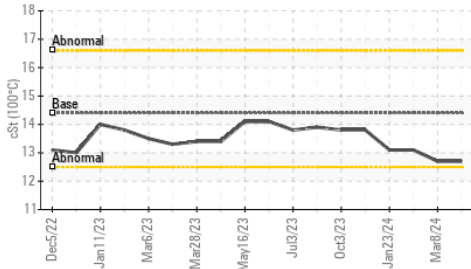
FT-IR (Direct Trend)



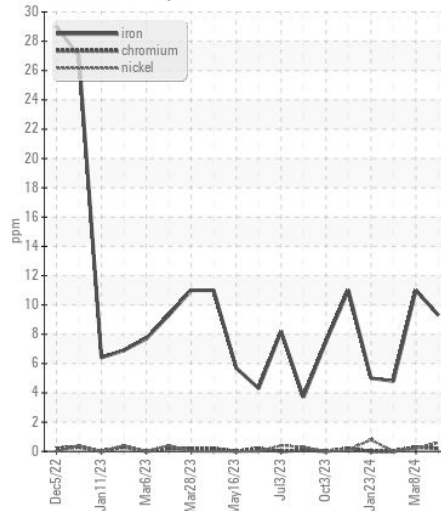
Base Number



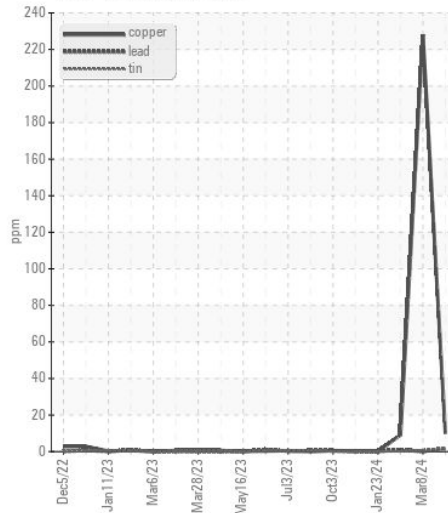
Viscosity @ 100°C



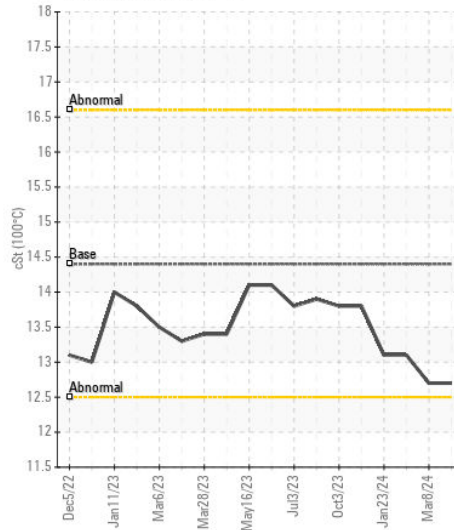
Ferrous Alloys



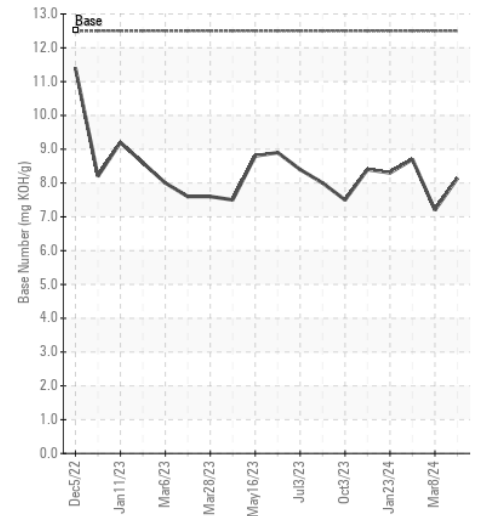
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103464
Lab Number : 06145708
Unique Number : 10970516
Test Package : FLEET

Received : 11 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 18 Apr 2024 - Jonathan Hester

GFL Environmental - 180 - Tuscaloosa Hauling
 4701 12TH ST NE
 Tuscaloosa, AL
 US 35404

Contact: FREDERICK ROGERS
 fred.rogers@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)

T:
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