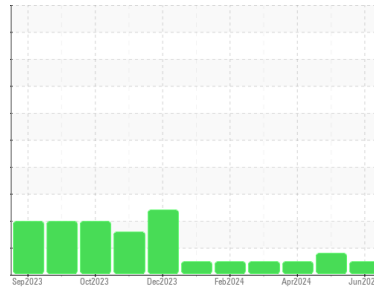




OIL ANALYSIS REPORT

Machine Id
414047
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W30 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0121612	GFL0105303	GFL0105195
Sample Date	Client Info			11 Jun 2024	31 May 2024	11 Apr 2024
Machine Age	hrs	Client Info		1369	1229	1039
Oil Age	hrs	Client Info		150	600	150
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	4	13	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	2	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	6	4
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	33	194	12
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<1	1	3
Barium	ppm	ASTM D5185m	10	1	0	0
Molybdenum	ppm	ASTM D5185m	100	60	59	56
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	450	943	892	892
Calcium	ppm	ASTM D5185m	3000	1077	1040	1034
Phosphorus	ppm	ASTM D5185m	1150	1102	851	1009
Zinc	ppm	ASTM D5185m	1350	1261	1153	1155
Sulfur	ppm	ASTM D5185m	4250	3279	2739	3126

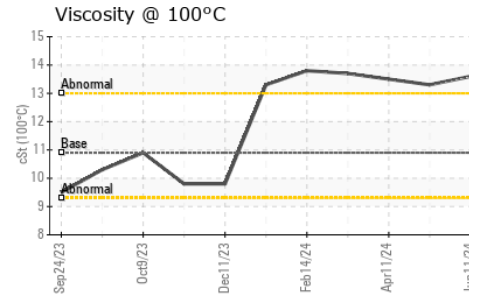
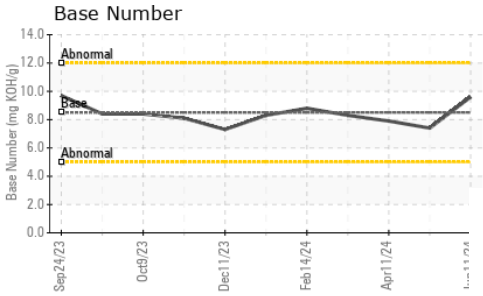
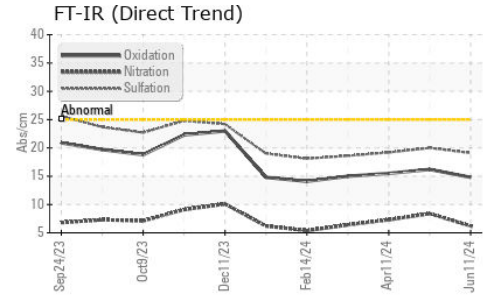
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	9	7
Sodium	ppm	ASTM D5185m	>25	1	<1	1
Potassium	ppm	ASTM D5185m	>20	10	16	9

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.2	8.4	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	20.0	19.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	16.2	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.6	7.4	7.9



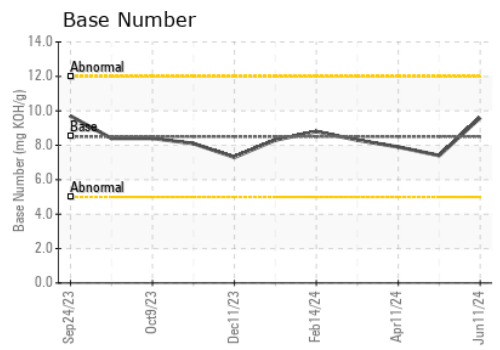
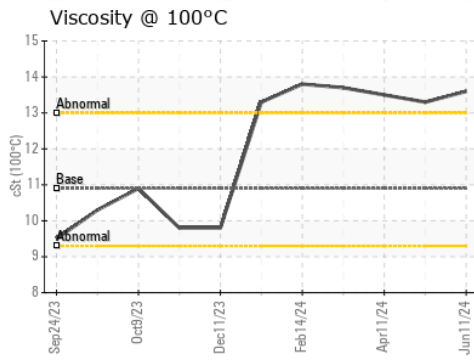
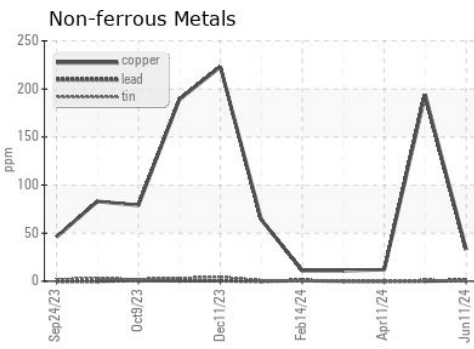
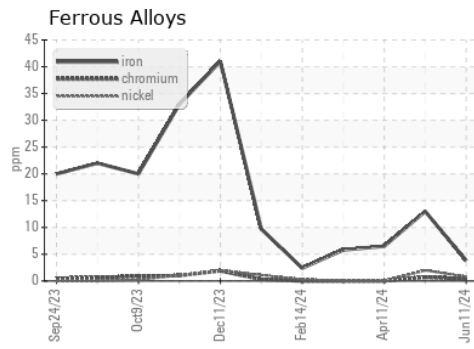
OIL ANALYSIS REPORT



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	10.9	13.6	13.3	13.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0121612 **Received** : 25 Jun 2024
Lab Number : **06219282** **Tested** : 25 Jun 2024
Unique Number : 11097479 **Diagnosed** : 26 Jun 2024 - Don Baldrige
Test Package : FLEET

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536
 Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010
 F:

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)