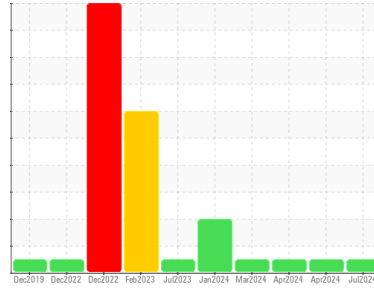




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(EPI821)
 Machine Id
10896C
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (7 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	GFL0111576	GFL0111518	GFL0111508
Sample Date	Client Info	06 Jul 2024	26 Apr 2024	12 Apr 2024
Machine Age	hrs	0	0	0
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
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	27	11	19
Chromium	ppm	ASTM D5185m >4	<1	1	1
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	5	2	2
Lead	ppm	ASTM D5185m >30	3	2	2
Copper	ppm	ASTM D5185m >35	8	7	16
Tin	ppm	ASTM D5185m >4	2	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 0	24	9	9
Barium	ppm	ASTM D5185m 0	14	<1	0
Molybdenum	ppm	ASTM D5185m 60	116	65	59
Manganese	ppm	ASTM D5185m 0	6	3	<1
Magnesium	ppm	ASTM D5185m 1010	621	579	618
Calcium	ppm	ASTM D5185m 1070	1307	1709	1380
Phosphorus	ppm	ASTM D5185m 1150	615	703	688
Zinc	ppm	ASTM D5185m 1270	760	987	936
Sulfur	ppm	ASTM D5185m 2060	2720	2804	2539

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	34	8	10
Sodium	ppm	ASTM D5185m	2	7	4
Potassium	ppm	ASTM D5185m >20	5	0	0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0.5
Nitration	Abs/cm	*ASTM D7624 >20	7.0	10.9	11.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.3	22.0	21.6

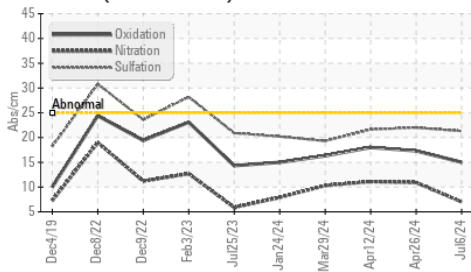
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.0	17.3	18.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.5	3.7	4.5

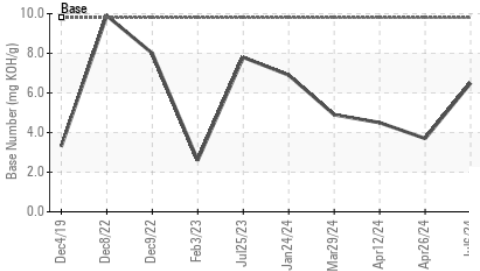


OIL ANALYSIS REPORT

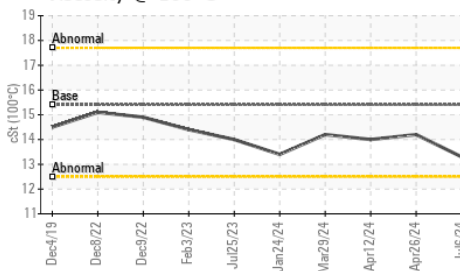
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

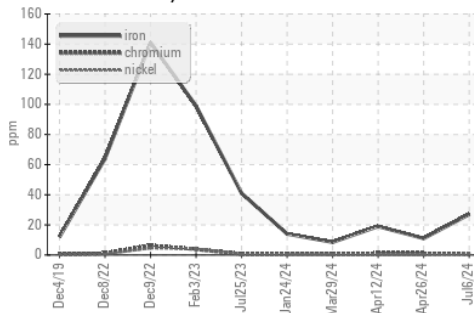


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

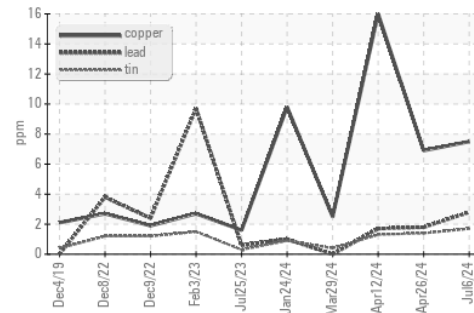
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	14.2

GRAPHS

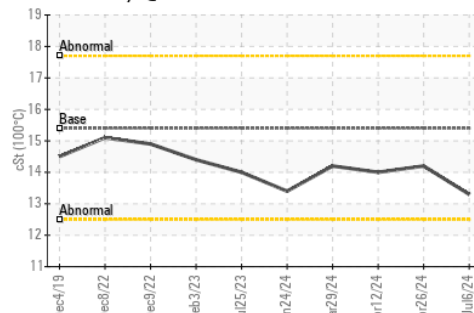
Ferrous Alloys



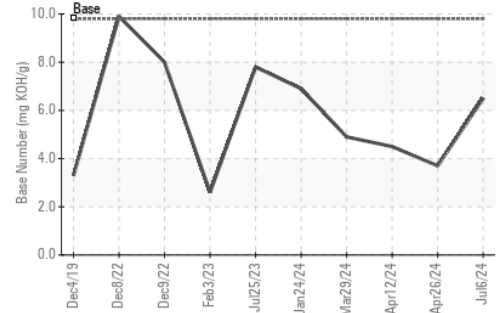
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0111576
 Lab Number : 06232144
 Unique Number : 11115637
 Test Package : FLEET

Received : 10 Jul 2024
 Tested : 11 Jul 2024
 Diagnosed : 11 Jul 2024 - Don Baldrige

GFL Environmental - 074 - Douglas - Transwaste
 1219 Landfill Road
 Douglas, GA
 US 31533

Contact: CURTIS JACOBS
 CURTIS.JACOBS@GFLENV.COM
 T: (912)384-6001

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)