



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
945019-260276
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0121862	GFL0106806	GFL0092062
Sample Date		Client Info		23 May 2024	12 Mar 2024	14 Feb 2024
Machine Age	hrs	Client Info		34803	34229	32182
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	13	10	14
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	0	1
Lead	ppm	ASTM D5185m	>30	<1	0	<1
Copper	ppm	ASTM D5185m	>35	3	<1	8
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Sodium and/or potassium levels are high. Test for glycol is negative.

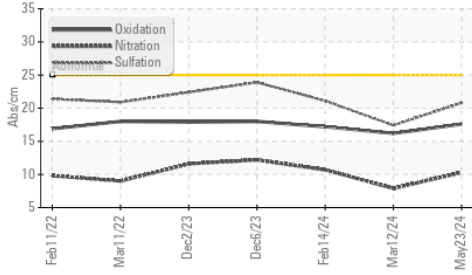
Silicon	ppm	ASTM D5185m	>+100	9	5	4
Potassium	ppm	ASTM D5185m	>20	52	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	10.3	7.9	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	17.4	21.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	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	>0.1	NEG	0.2%	NEG

FLUID CONDITION

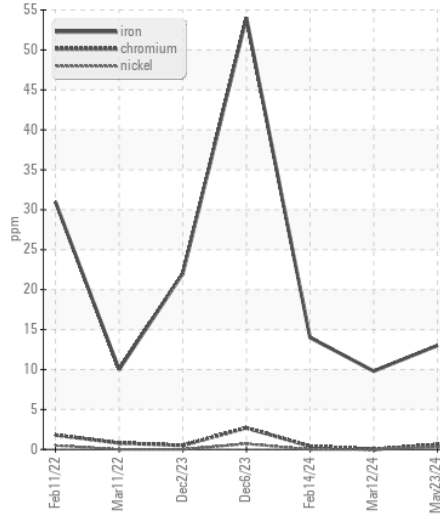
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		16	4	5
Boron	ppm	ASTM D5185m	50	13	41	14
Barium	ppm	ASTM D5185m	5	<1	0	0
Molybdenum	ppm	ASTM D5185m	50	60	47	46
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	560	575	567	560
Calcium	ppm	ASTM D5185m	1510	1593	1643	1566
Phosphorus	ppm	ASTM D5185m	780	838	853	698
Zinc	ppm	ASTM D5185m	870	945	1020	941
Sulfur	ppm	ASTM D5185m	2040	2663	3096	2362
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	16.2	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	6.1	11.2	4.4
Visc @ 100°C	cSt	ASTM D445	15.1	14.6	---	14.4

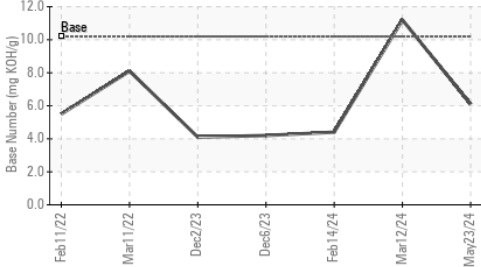
FT-IR (Direct Trend)



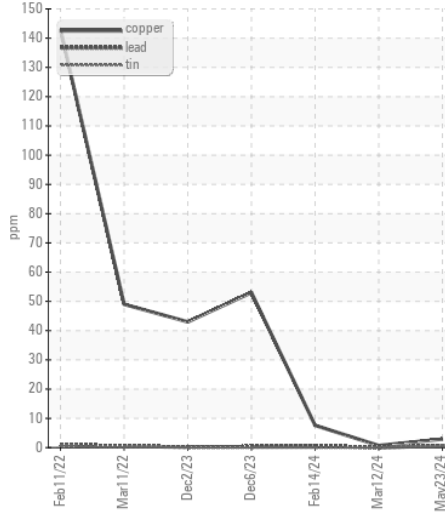
Ferrous Alloys



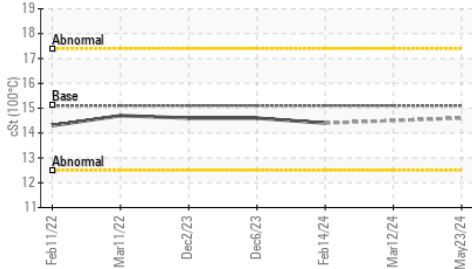
Base Number



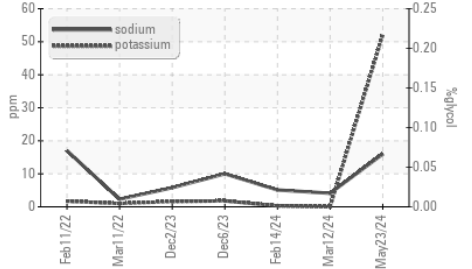
Non-ferrous Metals



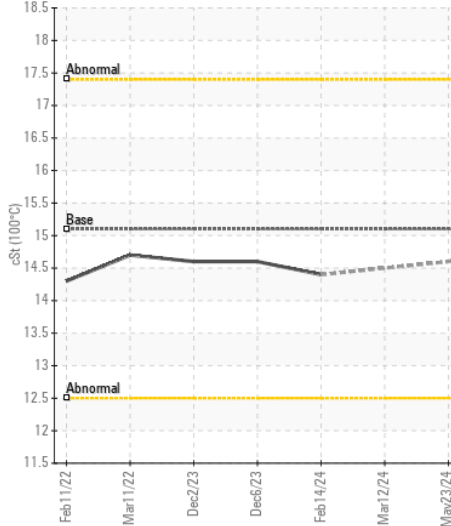
Viscosity @ 100°C



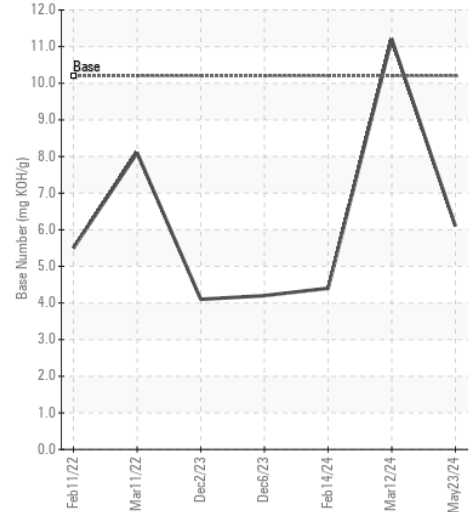
Glycol Contamination



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0121862 **Received** : 31 May 2024
Lab Number : 06196296 **Tested** : 04 Jun 2024
Unique Number : 11058419 **Diagnosed** : 04 Jun 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Apolinar Zacarias
 pzacariascano@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)

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