



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
52000 series
 Machine Id
Freightliner 52578
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (38 LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
 Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0892030	WC0813090	WC0753966
Sample Date		Client Info		05 Jan 2024	28 May 2023	24 Nov 2022
Machine Age	mls	Client Info		881630	517594	786097
Oil Age	mls	Client Info		30228	29136	36643
Filter Age	mls	Client Info		30228	29136	36643
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>65	49	45	40
Chromium	ppm	ASTM D5185(m)	>5	2	2	2
Nickel	ppm	ASTM D5185(m)	>3	<1	1	1
Titanium	ppm	ASTM D5185(m)	>5	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>35	27	24	20
Lead	ppm	ASTM D5185(m)	>10	0	0	<1
Copper	ppm	ASTM D5185(m)	>180	4	10	7
Tin	ppm	ASTM D5185(m)	>8	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

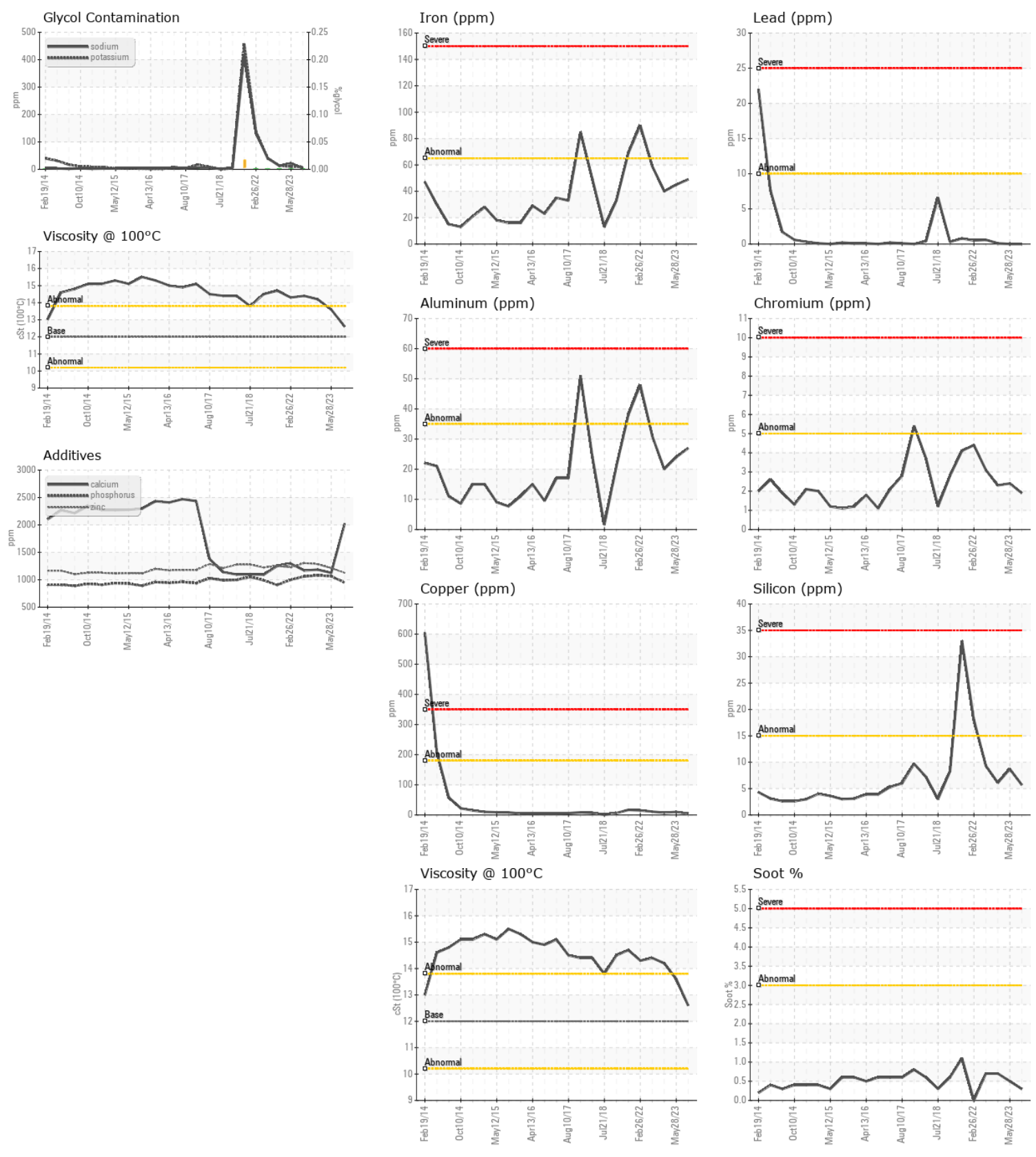
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	6	9	6
Potassium	ppm	ASTM D5185(m)	>20	9	9	13
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.3	0.5	0.7
Nitration	Abs/cm	ASTM D7624*	>20	9.6	10.6	11.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.5	22.9	24.5
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
 The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	22	13
Boron	ppm	ASTM D5185(m)	2	75	1	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	10	63	62
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	132	994	1014
Calcium	ppm	ASTM D5185(m)	1050	2025	1124	1185
Phosphorus	ppm	ASTM D5185(m)	995	946	1064	1081
Zinc	ppm	ASTM D5185(m)	1180	1126	1213	1284
Sulfur	ppm	ASTM D5185(m)	2600	2857	2243	2203
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	19.0	21.5
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	12.6	13.6	14.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0892030
Lab Number : 02609659
Unique Number : 5710745
Test Package : MOB 1 (Additional Tests: Glycol, Visual)

MANITOU LIN TRANSPORT
 75 MUMFORD ROAD
 LIVELY, ON
 CA P3Y 1L1
 Contact: Todd Smith
 tosmith@manitoulintransport.com
 T: (705)562-3302
 F: x:

*To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.*