

Machine Id
3720090
Component
Diesel Engine
Fluid
SHELL ROTELLA T4 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0084002	PC0071783	PC0074765
Sample Date		Client Info		16 Feb 2024	22 Sep 2023	27 Jun 2023
Machine Age	mls	Client Info		394220	339711	106579
Oil Age	mls	Client Info		55000	59000	54000
Filter Age	mls	Client Info		55000	59000	54000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	37	37	60
Chromium	ppm	ASTM D5185(m)	>6	2	2	3
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>50	16	11	41
Lead	ppm	ASTM D5185(m)	>10	0	<1	2
Copper	ppm	ASTM D5185(m)	>50	6	10	75
Tin	ppm	ASTM D5185(m)	>6	<1	1	3
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

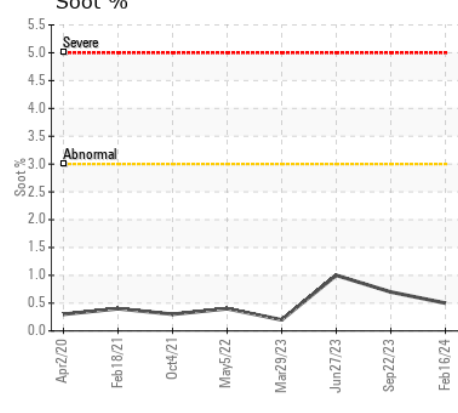
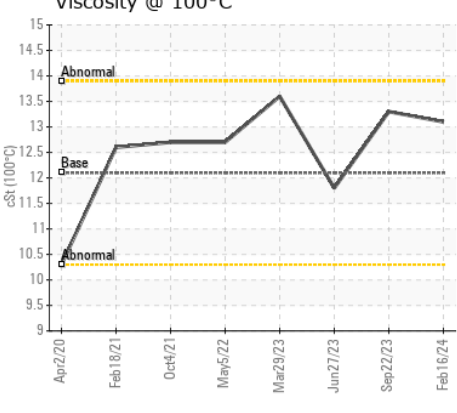
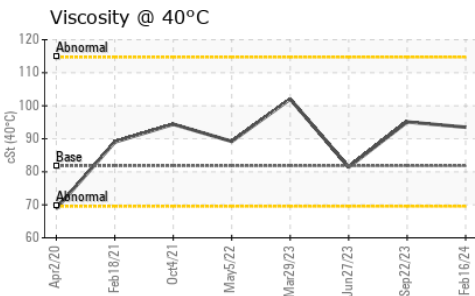
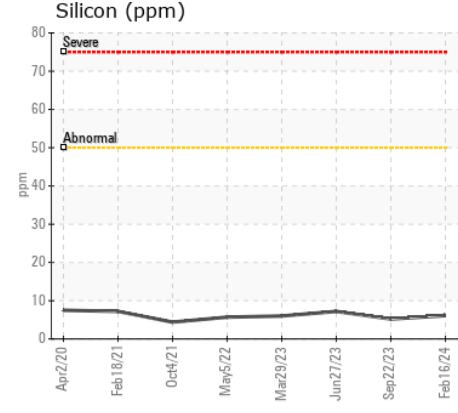
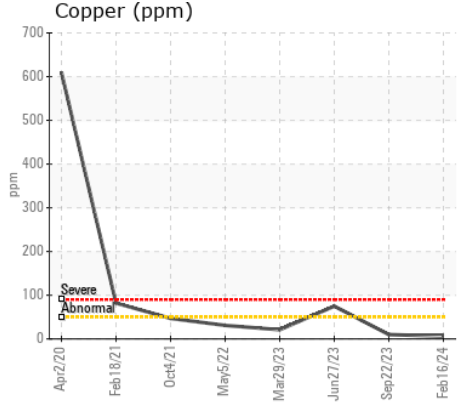
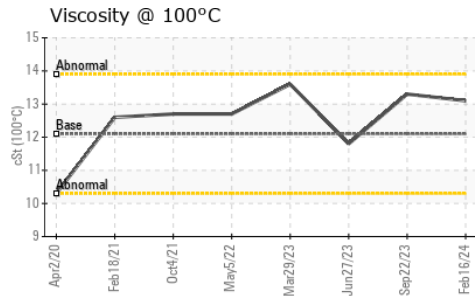
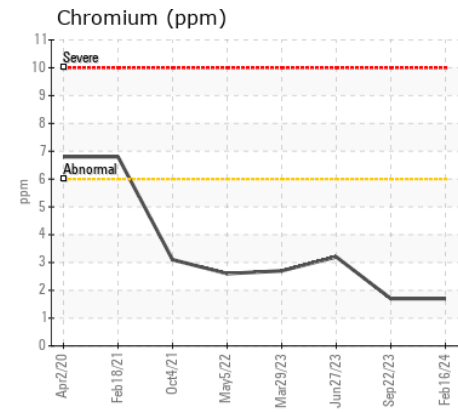
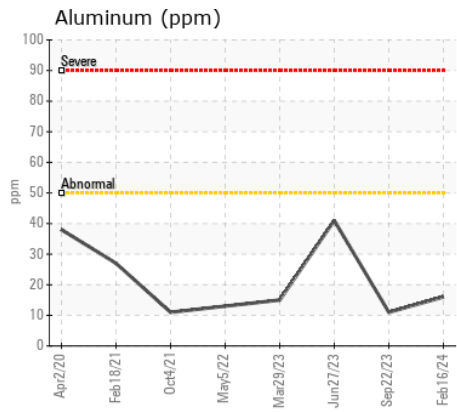
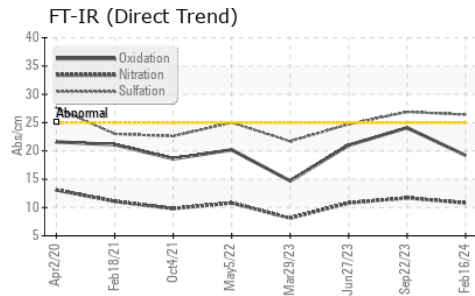
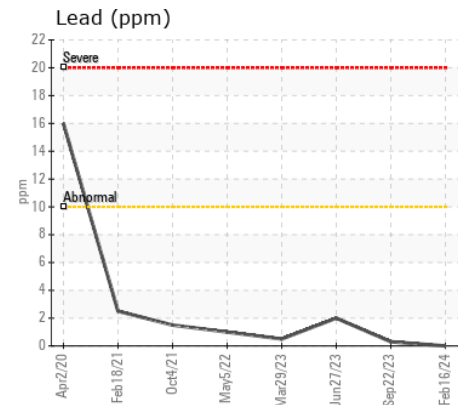
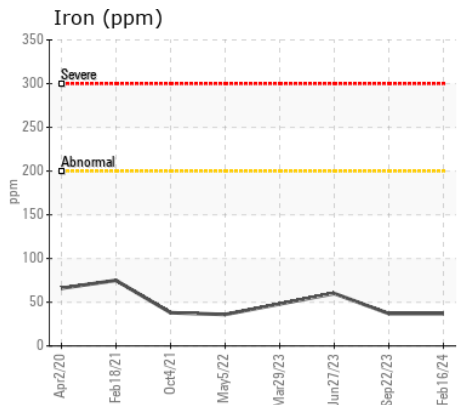
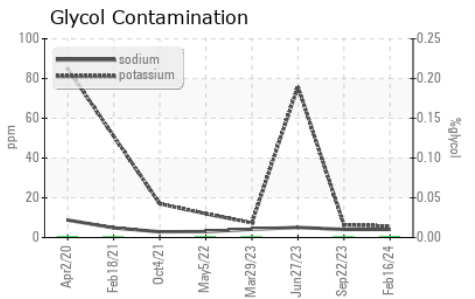
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	6	5	7
Potassium	ppm	ASTM D5185(m)	>20	6	6	76
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	NEG
Soot %	%	ASTM D7844*	>3	0.5	0.7	1
Nitration	Abs/cm	ASTM D7624*	>20	10.8	11.7	10.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.4	26.9	24.7
Silt	scalar	Visual*	NONE	VLITE	---	---
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

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	4	5
Boron	ppm	ASTM D5185(m)		12	9	22
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		13	54	54
Manganese	ppm	ASTM D5185(m)		<1	<1	1
Magnesium	ppm	ASTM D5185(m)		115	486	436
Calcium	ppm	ASTM D5185(m)		2262	1793	1821
Phosphorus	ppm	ASTM D5185(m)		905	1003	983
Zinc	ppm	ASTM D5185(m)		1103	1230	1172
Sulfur	ppm	ASTM D5185(m)		2650	2412	1990
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.2	24.1	21.0
Visc @ 40°C	cSt	ASTM D7279(m)	81.8	93.5	95.1	81.4
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	13.1	13.3	11.8
Viscosity Index (VI)	Scale	ASTM D2270*	141	138	139	138



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0084002 **Received** : 03 Jun 2024
Lab Number : 02639359 **Tested** : 03 Jun 2024
Unique Number : 5788521 **Diagnosed** : 03 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, KV40, VI, Visual)

TRANSPORT BESNER INC
 1950, 3e RUE
 LEVIS, QC
 CA G6W 5M6
 Contact: DEMERS GUY
 gdemers@besner.com
 T: (418)831-5444
 F: (418)831-2639

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.