



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Area
[37278]
 Machine Id
79967741

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the engine tuning and timing. We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0021836	---	---
Sample Date		Client Info		29 Dec 2023	---	---
Machine Age	kms	Client Info		621609	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	18	---	---
Chromium	ppm	ASTM D5185(m)	>5	<1	---	---
Nickel	ppm	ASTM D5185(m)	>4	0	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	4	---	---
Lead	ppm	ASTM D5185(m)	>150	23	---	---
Copper	ppm	ASTM D5185(m)	>90	9	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

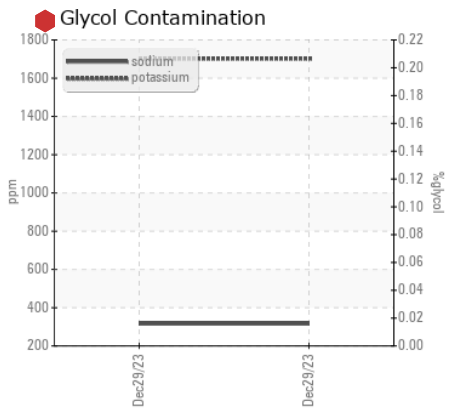
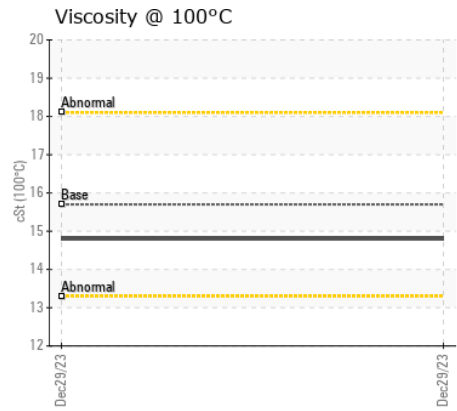
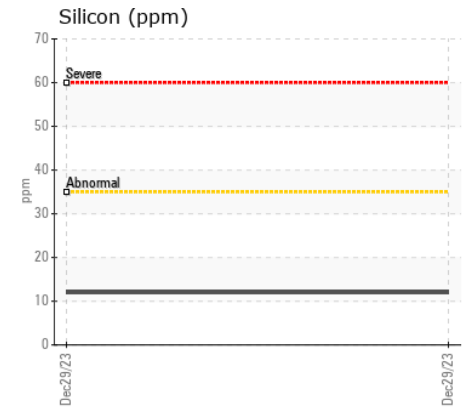
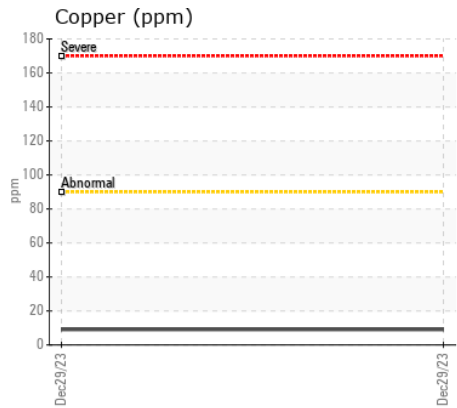
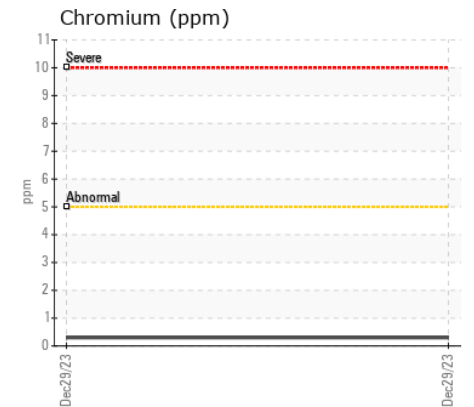
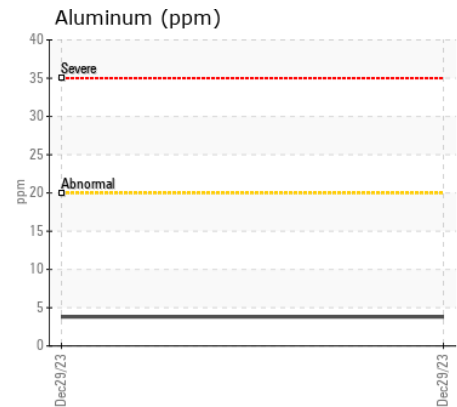
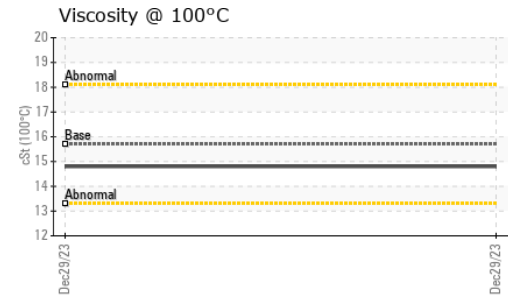
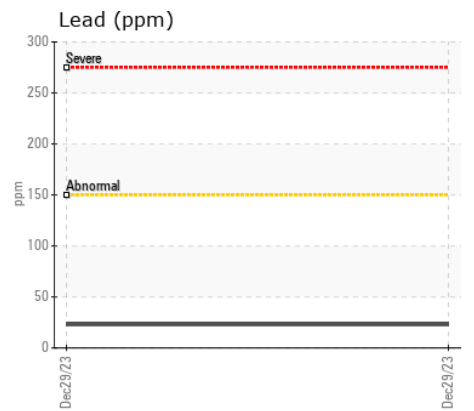
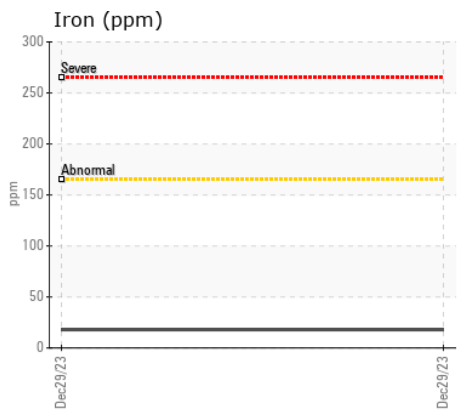
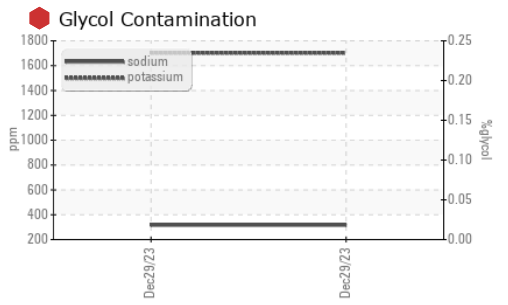
There is an abnormal level of nitration indicated. There is an abnormal level of sulfation indicated. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185(m)	>35	12	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 1702	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		◆ >.70	---	---
Soot %	%	ASTM D7844*	>7.5	0.6	---	---
Nitration	Abs/cm	ASTM D7624*	>20	▲ 23.0	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	▲ 32.1	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		▲ 316	---	---
Boron	ppm	ASTM D5185(m)	35	4	---	---
Barium	ppm	ASTM D5185(m)	0	1	---	---
Molybdenum	ppm	ASTM D5185(m)	0	309	---	---
Manganese	ppm	ASTM D5185(m)	0	0	---	---
Magnesium	ppm	ASTM D5185(m)	10	13	---	---
Calcium	ppm	ASTM D5185(m)	2340	1276	---	---
Phosphorus	ppm	ASTM D5185(m)	1110	471	---	---
Zinc	ppm	ASTM D5185(m)	1210	825	---	---
Sulfur	ppm	ASTM D5185(m)	3890	2033	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.9	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	14.8	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0021836 **Received** : 05 Jan 2024
Lab Number : 02606683 **Diagnosed** : 08 Jan 2024
Unique Number : 5707769 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

STEER ENTERPRISES LTD
 7051 COUNTY ROAD 9
 STAYNER, ON
 CA L0M 1S0
 Contact: Service Manager
 caitlyn@steer.ca

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.

T:
F: