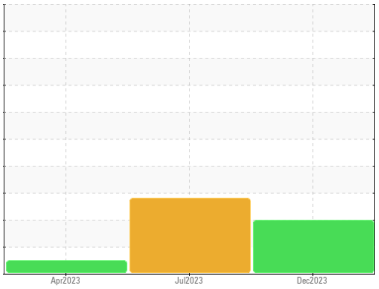
PROBLEM SUMMARY

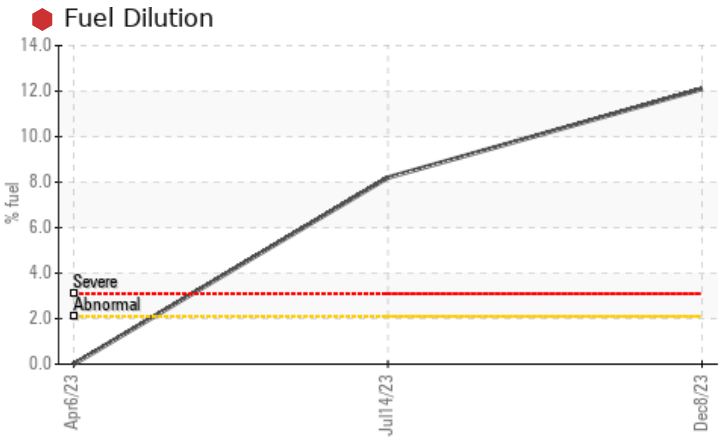
Area
RONI
Machine Id
389
Component
Diesel Engine
Fluid
PETRO CANADA 10W30 (--- GAL)

Sample Rating Trend



FUEL

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	NORMAL
Fuel	%	ASTM D7593*	>2.1	**12.1**	8.2	<1.0

Customer Id: RONVAU
Sample No.: WC0872964
Lab Number: 02603069
Test Package: MOBCE

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

14 Jul 2023 Diag: Wes Davis

FUEL

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report

06 Apr 2023 Diag: Wes Davis

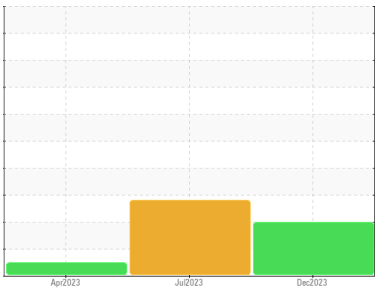
NORMAL

Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
RONI
Machine Id
389
Component
Diesel Engine
Fluid
PETRO CANADA 10W30 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0872964**	LH0270767	LH0232539
Sample Date		Client Info		**08 Dec 2023**	14 Jul 2023	06 Apr 2023
Machine Age	hrs	Client Info		**0**	2068	1500
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>51	**14**	14	18
Chromium	ppm	ASTM D5185(m)	>11	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>31	**3**	2	2
Lead	ppm	ASTM D5185(m)	>26	**11**	5	5
Copper	ppm	ASTM D5185(m)	>26	**1**	2	7
Tin	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

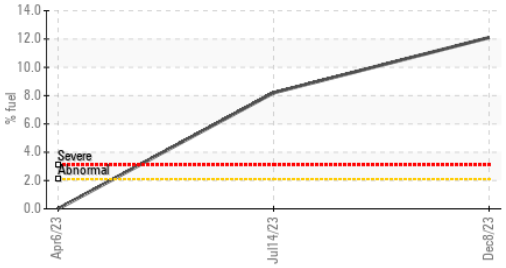
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**1**	1	4
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**52**	53	56
Manganese	ppm	ASTM D5185(m)		**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**814**	880	859
Calcium	ppm	ASTM D5185(m)		**876**	916	986
Phosphorus	ppm	ASTM D5185(m)		**822**	984	937
Zinc	ppm	ASTM D5185(m)		**1019**	1088	1068
Sulfur	ppm	ASTM D5185(m)		**2161**	2349	2393
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>22	**3**	3	2
Sodium	ppm	ASTM D5185(m)		**2**	2	3
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	1
Fuel	%	ASTM D7593*	>2.1	**12.1**	8.2	<1.0

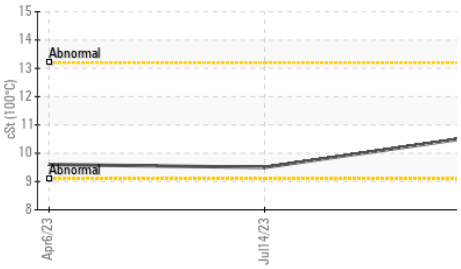
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.3**	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**10.9**	9.8	11.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**19.8**	19.3	22.5

OIL ANALYSIS REPORT

Fuel Dilution



Viscosity @ 100°C



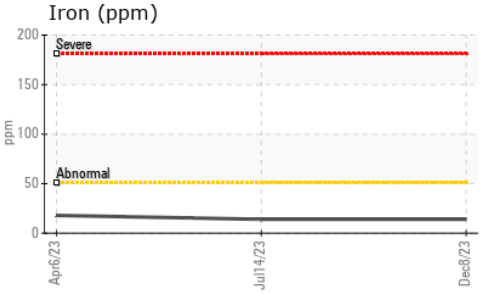
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**18.7**	17.0	17.9

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.21	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

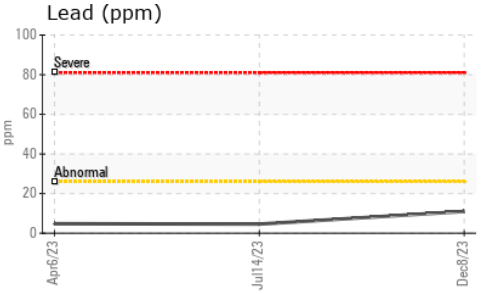
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**10.6**	9.5	9.6

GRAPHS

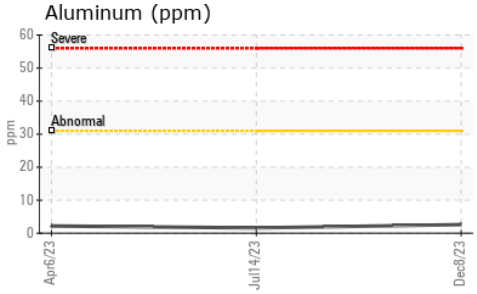
Iron (ppm)



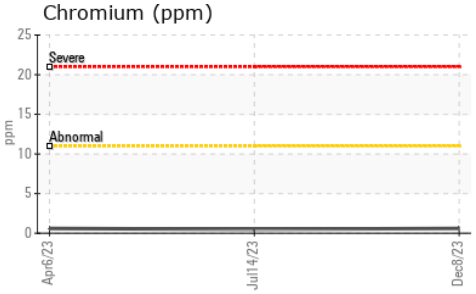
Lead (ppm)



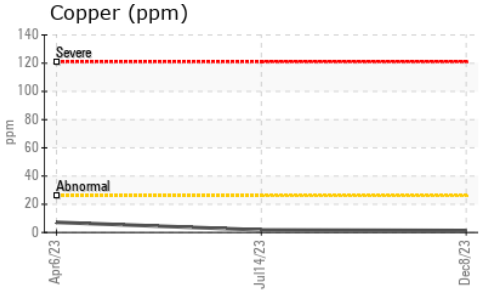
Aluminum (ppm)



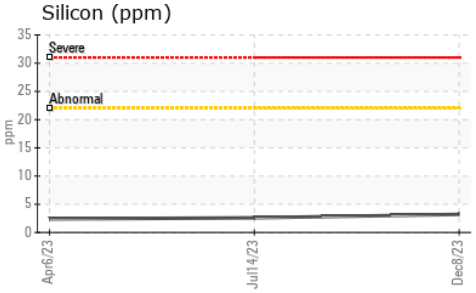
Chromium (ppm)



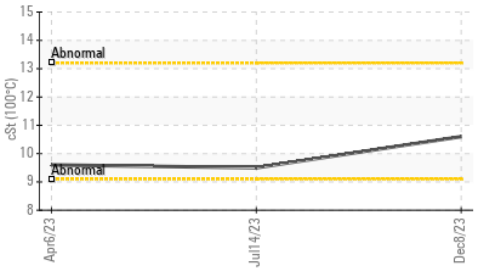
Copper (ppm)



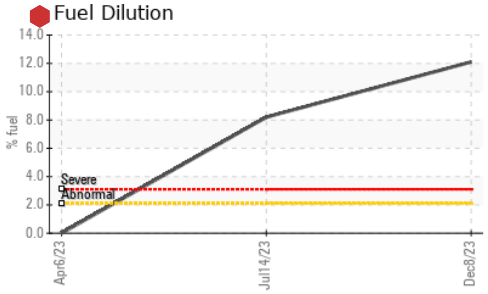
Silicon (ppm)



Viscosity @ 100°C



Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**
Sample No. : WC0872964 **Recieved** : 14 Dec 2023 100 MACINTOSH BLVD
Lab Number : 02603069 **Diagnosed** : 15 Dec 2023 VAUGHAN, ON
Unique Number : 5696154 **Diagnostician** : Wes Davis CA L4K 4P3
Test Package : MOBCE (Additional Tests: PercentFuel) Contact: Service Team

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