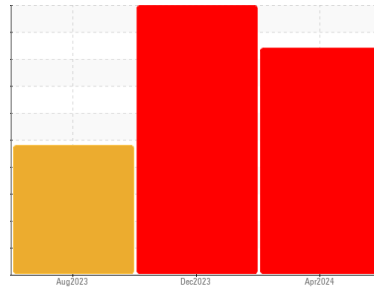




OIL ANALYSIS REPORT

Area
RONI
 Machine Id
861
 Component
Left Final Drive
 Fluid
PETRO CANADA 30W (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

PQ levels are abnormal. Chromium and iron ppm levels are abnormal. Aluminum ppm levels are noted. Titanium ppm levels are marginal. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

Contamination

There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

Sample Number	Client Info	method	limit/base	current	history1	history2
WC0920824	Client Info				WC0872906	LH0270759
09 Apr 2024	Client Info				01 Dec 2023	14 Aug 2023
0	Client Info				0	0
0	Client Info				0	0
N/A	Client Info				Changed	N/A
ABNORMAL					SEVERE	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		▲ 366	▲ 1267	295
Iron	ppm ASTM D5185(m)	>500	▲ 2626	▲ 3437	▲ 1557
Chromium	ppm ASTM D5185(m)	>10	▲ 55	▲ 89	▲ 44
Nickel	ppm ASTM D5185(m)	>10	5	7	3
Titanium	ppm ASTM D5185(m)		▲ 33	▲ 61	▲ 13
Silver	ppm ASTM D5185(m)		0	<1	0
Aluminum	ppm ASTM D5185(m)	>25	● 620	● 983	● 215
Lead	ppm ASTM D5185(m)	>25	2	2	<1
Copper	ppm ASTM D5185(m)	>50	4	7	3
Tin	ppm ASTM D5185(m)	>10	0	0	0
Antimony	ppm ASTM D5185(m)	>5	0	0	0
Vanadium	ppm ASTM D5185(m)		<1	2	<1
Beryllium	ppm ASTM D5185(m)		0	0	0
Cadmium	ppm ASTM D5185(m)		0	0	0

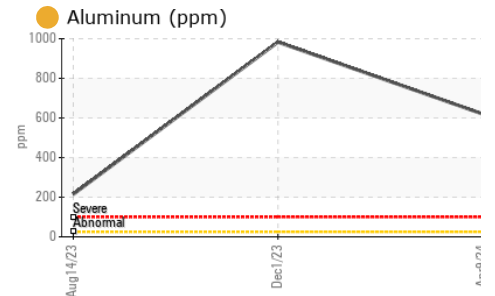
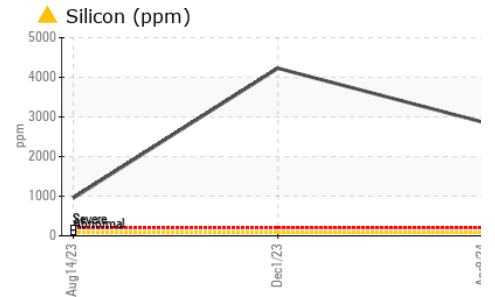
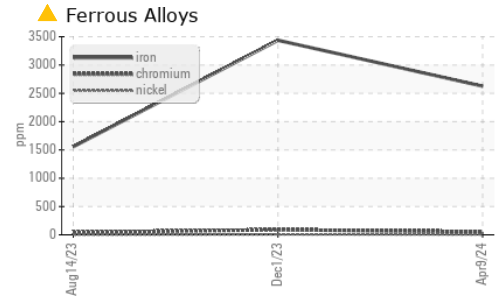
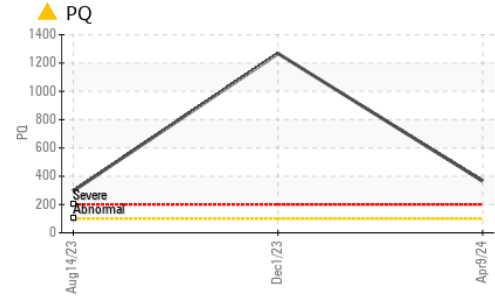
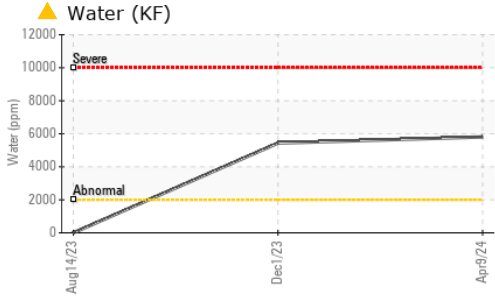
ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)		96	145	149
Barium	ppm ASTM D5185(m)		5	9	3
Molybdenum	ppm ASTM D5185(m)		4	7	4
Manganese	ppm ASTM D5185(m)		24	38	15
Magnesium	ppm ASTM D5185(m)		642	384	110
Calcium	ppm ASTM D5185(m)		2204	3645	1078
Phosphorus	ppm ASTM D5185(m)		996	926	1038
Zinc	ppm ASTM D5185(m)		688	214	212
Sulfur	ppm ASTM D5185(m)		8989	15911	15786
Lithium	ppm ASTM D5185(m)		<1	1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>75	▲ 2869	▲ 4229	▲ 953
Sodium	ppm ASTM D5185(m)		182	258	68
Potassium	ppm ASTM D5185(m)	>20	225	357	80
Water	% ASTM D6304*	>0.2	▲ 0.580	▲ 0.543	---
ppm Water	ppm ASTM D6304*	>2000	▲ 5809	▲ 5437	---

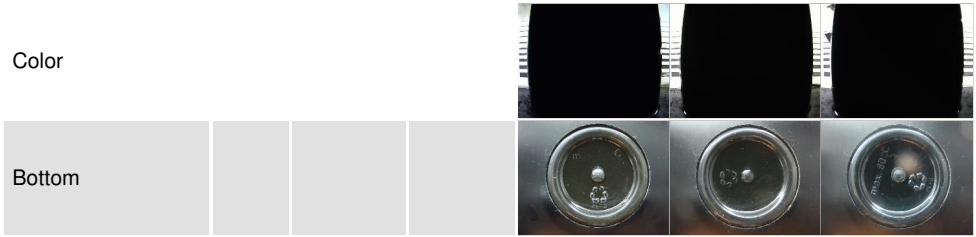
OIL ANALYSIS REPORT



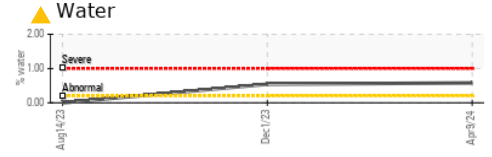
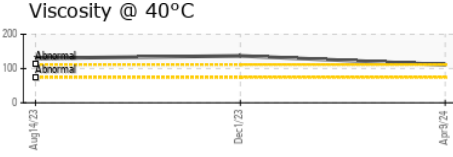
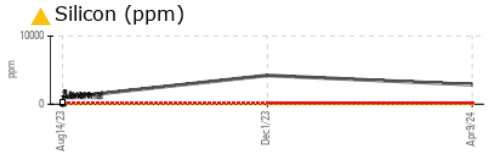
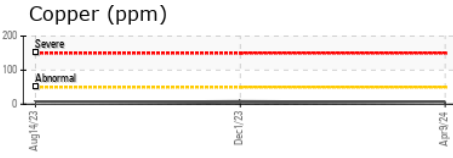
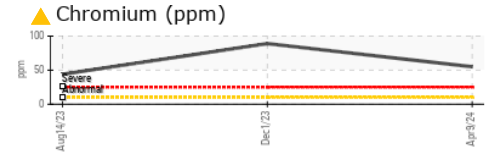
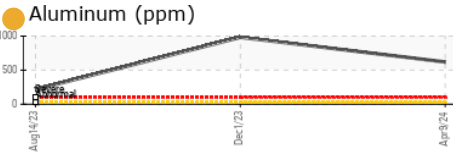
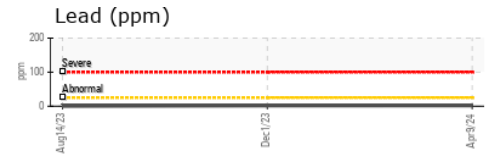
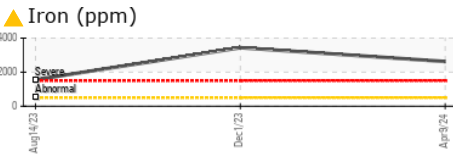
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	▲ .2%
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	111	137	130

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0920824
Lab Number : 02629269
Unique Number : 5762401
Test Package : MOBCE (Additional Tests: KF, PQ, Visual)

RONI/IRON SHORE EXCAVATING LTD.
 100 MACINTOSH BLVD
 VAUGHAN, ON
 CA L4K 4P3
 Contact: Service Team
 service.team@roni.ca

Received : 16 Apr 2024
 Tested : 17 Apr 2024
 Diagnosed : 18 Apr 2024 - Kevin Marson
 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.