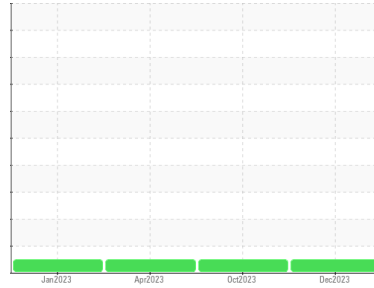




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**ORIN CONTRACTORS**  
 Machine Id  
**166**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA 10W30 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0872935</b>	WC0873054	LH0232518
Sample Date	Client Info			<b>19 Dec 2023</b>	27 Oct 2023	01 Apr 2023
Machine Age	hrs	Client Info		<b>0</b>	0	500
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>17</b>	23	25
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	4	6
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	10	10
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

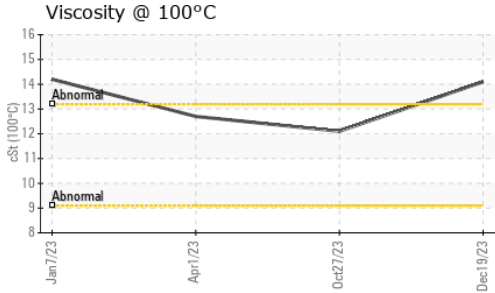
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>2</b>	11	3
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>58</b>	56	60
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>963</b>	903	946
Calcium	ppm	ASTM D5185(m)		<b>1036</b>	1061	1120
Phosphorus	ppm	ASTM D5185(m)		<b>1003</b>	1003	1047
Zinc	ppm	ASTM D5185(m)		<b>1157</b>	1187	1195
Sulfur	ppm	ASTM D5185(m)		<b>2656</b>	2246	2202
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	4
Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	6	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>1.3</b>	2	2.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.8</b>	15.3	18.7
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>22.5</b>	28.1	34.2



# OIL ANALYSIS REPORT

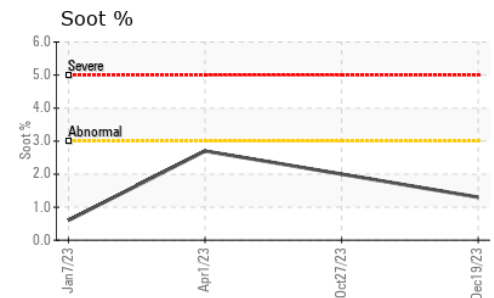
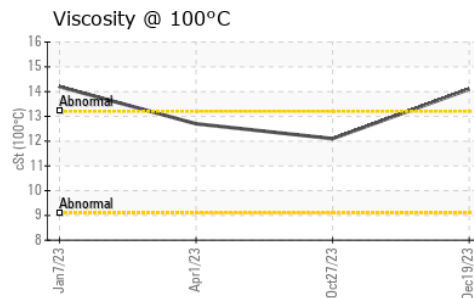
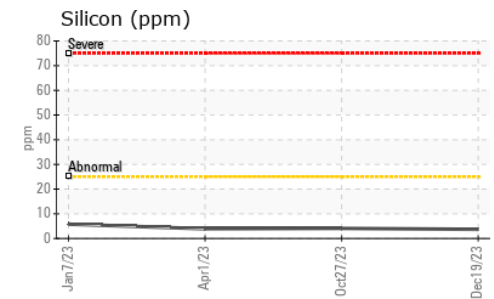
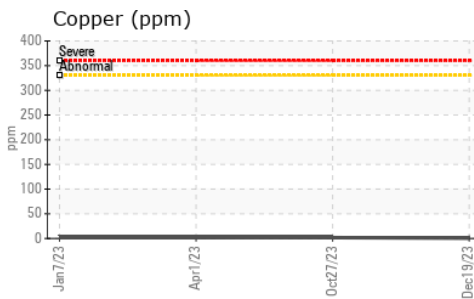
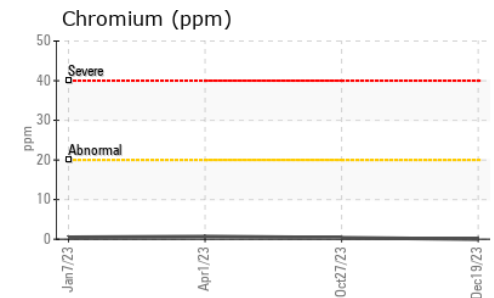
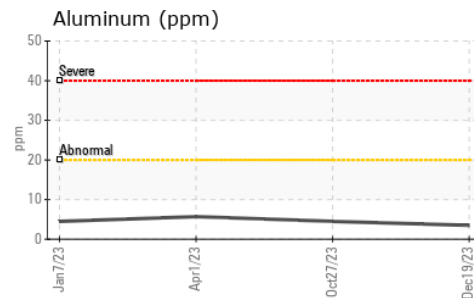
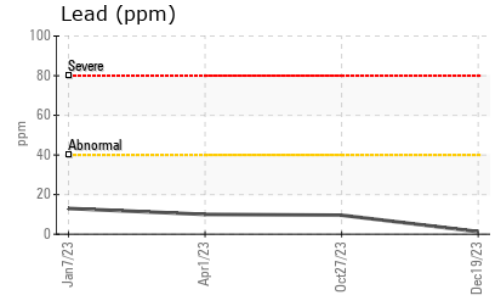
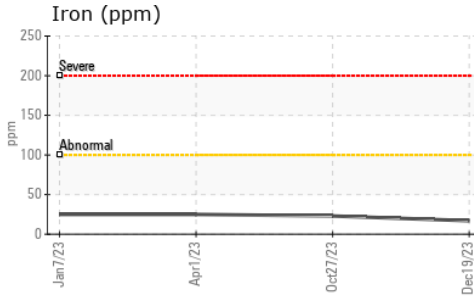


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.8</b>	27.7	33.9

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.1</b>	12.1	12.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RONI/IRON SHORE EXCAVATING LTD.**  
**Sample No.** : WC0872935 **Received** : 27 Dec 2023 **100 MACINTOSH BLVD**  
**Lab Number** : 02605200 **Diagnosed** : 27 Dec 2023 **VAUGHAN, ON**  
**Unique Number** : 5698285 **Diagnostician** : Kevin Marson **CA L4K 4P3**  
**Test Package** : MOBCE **Contact: Service Team**  
**service.team@roni.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.