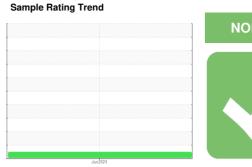


OIL ANALYSIS REPORT

Area
RONI
Machine la 170
Component
Swing Drive PETRO CANADA 30W (--- GAL)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

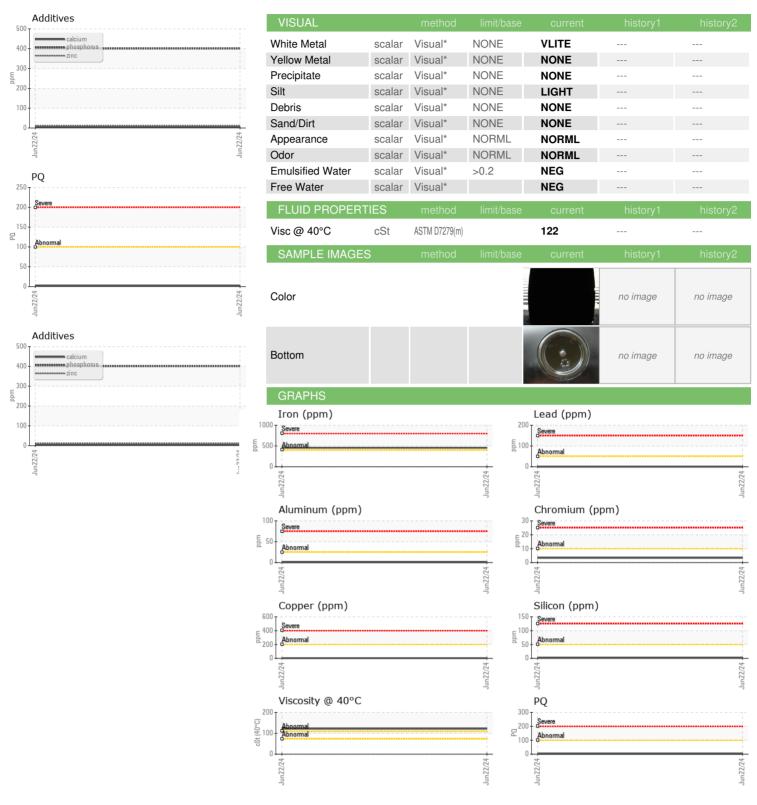
Fluid Condition

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

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info WC0920719 Sample Date Client Info 0 Machine Age hrs Client Info 0 Oil Age hrs Client Info Changed Oil Changed Client Info Changed Sample Status Imit bear current history1 history2 Water WC Method >0.2 NEG WARR METALS method Imit base current history1 history2 PQ ASTM D8184f 2 Chromium ppm ASTM D8185fm >40 456 Chromium ppm ASTM D8188fm >10 >1 Chromium ppm ASTM D8188fm <t< th=""><th></th><th></th><th>1</th><th></th><th>Jun 2024</th><th></th><th></th></t<>			1		Jun 2024		
Sample Date Client Info 22 Jun 2024	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Name	Sample Number		Client Info		WC0920719		
Machine Age hrs Client Info 0			Client Info		22 Jun 2024		
Oil Age hrs Client Info Changed		hrs					
Oil Changed Sample Status Client Info Changed NORMAL			Client Info		0		
Sample Status	-		Client Info		Changed		
Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 2 Iron ppm ASTM D5185(m) >10 456 Chromium ppm ASTM D5185(m) >10 -1 Nickel ppm ASTM D5185(m) >10 -1 Titanium ppm ASTM D5185(m) >25 -1 Aluminum ppm ASTM D5185(m) >25 -1 Aluminum ppm ASTM D5185(m) >20 0 Aluminum ppm ASTM D5185(m) >20 0 Lead ppm ASTM D5185(m) >5 0 Copper ppm ASTM D5185(m) 0 V	Sample Status						
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 2 Iron ppm ASTM D5185(m) >400 456 Chromium ppm ASTM D5185(m) >10 <1 Nickel ppm ASTM D5185(m) 0 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) >25 <1 Aluminum ppm ASTM D5185(m) >50 0 Lead ppm ASTM D5185(m) >50 0 Copper ppm ASTM D5185(m) >10 Tin ppm ASTM D5185(m) >5 0 Antimony ppm ASTM D5185(m) 0 Vanadium <	CONTAMINATIO	N	method	limit/base	current	history1	history2
PQ	Water		WC Method	>0.2	NEG		
Iron	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >10 3 Nickel ppm ASTM D5185(m) >10 <1	PQ		ASTM D8184*		2		
Chromium ppm ASTM D5185(m) >10 3 Nickel ppm ASTM D5185(m) >10 <1	Iron	ppm	ASTM D5185(m)	>400	456		
Titanium	Chromium	ppm	ASTM D5185(m)	>10	3		
Silver	Nickel	ppm	ASTM D5185(m)	>10	<1		
Aluminum ppm ASTM D5185(m) >25 <1	Titanium	ppm	ASTM D5185(m)		0		
Lead	Silver	ppm	ASTM D5185(m)		<1		
Copper ppm ASTM D5185(m) >200 2 Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 15 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 4 Calcium ppm ASTM D518	Aluminum	ppm	ASTM D5185(m)	>25	<1		
Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) 0 Molybdenum ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 4 Magnesium ppm ASTM D5185(m) 4 Calcium ppm ASTM D5185(m) 401 Phosphorus ppm ASTM D5185(m)	Lead	ppm	ASTM D5185(m)	>50	0		
Antimony ppm ASTM D5185(m) >5 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1 Molybdenum ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 4 Magnesium ppm ASTM D5185(m) 4 Calcium ppm ASTM D5185(m) 4 Phosphorus ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 2	Copper	ppm	ASTM D5185(m)	>200	2		
Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1	Tin	ppm	ASTM D5185(m)	>10	0		
Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1 Molybdenum ppm ASTM D5185(m) 0 Manganese ppm ASTM D5185(m) 4 Magnesium ppm ASTM D5185(m) 4 Calcium ppm ASTM D5185(m) 401 Phosphorus ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current <	Antimony	ppm	ASTM D5185(m)	>5	0		
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1	Beryllium	ppm	ASTM D5185(m)		0		
Boron ppm ASTM D5185(m) 15 Barium ppm ASTM D5185(m) <1	Cadmium	ppm	ASTM D5185(m)		0		
Barium ppm ASTM D5185(m) <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 0 Manganese ppm ASTM D5185(m) 4 Magnesium ppm ASTM D5185(m) <1 Calcium ppm ASTM D5185(m) 401 Phosphorus ppm ASTM D5185(m) 11 Zinc ppm ASTM D5185(m) 14220 Sulfur ppm ASTM D5185(m) 2 Lithium ppm ASTM D5185(m) 50 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Boron	ppm	ASTM D5185(m)		15		
Manganese ppm ASTM D5185(m) 4 Magnesium ppm ASTM D5185(m) <1	Barium	ppm	ASTM D5185(m)		<1		
Magnesium ppm ASTM D5185(m) <1 Calcium ppm ASTM D5185(m) 4 Phosphorus ppm ASTM D5185(m) 401 Zinc ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Molybdenum	ppm	ASTM D5185(m)		0		
Calcium ppm ASTM D5185(m) 4 Phosphorus ppm ASTM D5185(m) 401 Zinc ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Manganese	ppm	ASTM D5185(m)		4		
Phosphorus ppm ASTM D5185(m) 401 Zinc ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Magnesium	ppm	ASTM D5185(m)		<1		
Zinc ppm ASTM D5185(m) 11 Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Calcium	ppm	ASTM D5185(m)		4		
Sulfur ppm ASTM D5185(m) 14220 Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Phosphorus	ppm	ASTM D5185(m)		401		
Lithium ppm ASTM D5185(m) 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Zinc	ppm	ASTM D5185(m)		11		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Sulfur	ppm	ASTM D5185(m)		14220		
Silicon ppm ASTM D5185(m) >50 2 Sodium ppm ASTM D5185(m) <1	Lithium	ppm	ASTM D5185(m)		2		
Sodium ppm ASTM D5185(m) <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>50	2		
Potassium ppm ASTM D5185(m) >20 <1	Sodium	ppm	ASTM D5185(m)		<1		
	Potassium	ppm	ASTM D5185(m)	>20	<1		



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WC0920719 Lab Number : 02647172 Unique Number : 5812724

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD.

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Received **Tested** Test Package : MOBCE (Additional Tests: PQ)

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

: 10 Jul 2024 : 11 Jul 2024 Diagnosed

: 11 Jul 2024 - Kevin Marson

100 MACINTOSH BLVD

CA L4K 4P3 Contact: Service Team service.team@roni.ca T:

Validity of results and interpretation are based on the sample and information as supplied. Report Id: RONVAU [WCAMIS] 02647172 (Generated: 07/11/2024 11:58:11) Rev: 1

F:

VAUGHAN, ON