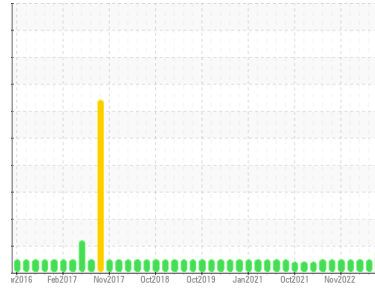


PROBLEM SUMMARY

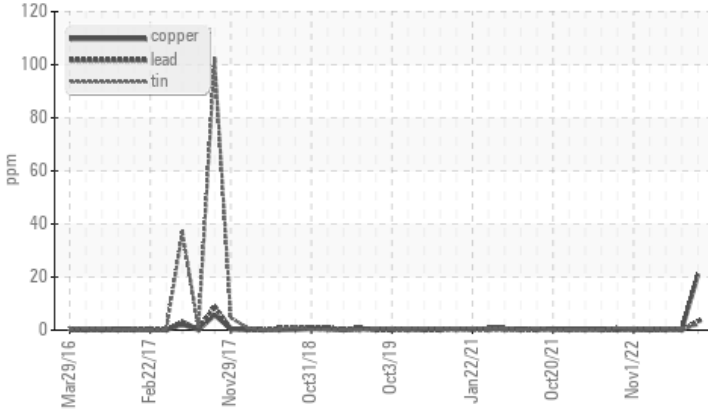
Area
TEAM 1
Machine Id
122651 Pump Outboard
Component
Bearing
Fluid
PETRO CANADA TURBOFLO R&O 32 (2 LTR)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	NORMAL
Copper	ppm	ASTM D5185(m)	>20	▲ 21	<1

Customer Id: CANDRY
Sample No.: PC0069844
Lab Number: 02577180
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

12 Apr 2023 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



15 Feb 2023 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



05 Jan 2023 Diag: Kevin Marson

NORMAL

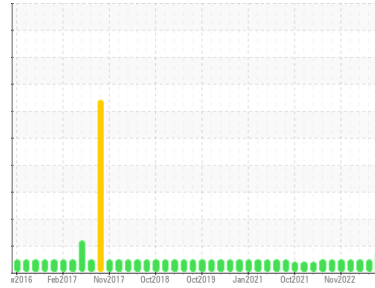


Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
TEAM 1
Machine Id
122651 Pump Outboard
Component
Bearing
Fluid
PETRO CANADA TURBOFLO R&O 32 (2 LTR)



DIAGNOSIS

Recommendation

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

Copper ppm levels are abnormal. A sharp increase in the copper level is noted. Bearing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0069844	PC0070237	PC0070284
Sample Date	Client Info	10 Aug 2023	12 Apr 2023	15 Feb 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm	ASTM D5185(m) >20	<1	<1
Chromium	ppm	ASTM D5185(m) >20	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	0
Titanium	ppm	ASTM D5185(m)	0	0
Silver	ppm	ASTM D5185(m)	0	0
Aluminum	ppm	ASTM D5185(m) >20	0	0
Lead	ppm	ASTM D5185(m) >20	3	0
Copper	ppm	ASTM D5185(m) >20	▲ 21	<1
Tin	ppm	ASTM D5185(m) >20	2	<1
Antimony	ppm	ASTM D5185(m)	<1	<1
Vanadium	ppm	ASTM D5185(m)	0	0
Beryllium	ppm	ASTM D5185(m)	0	0
Cadmium	ppm	ASTM D5185(m)	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1
Barium	ppm	ASTM D5185(m)	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0
Manganese	ppm	ASTM D5185(m)	0	0
Magnesium	ppm	ASTM D5185(m)	<1	0
Calcium	ppm	ASTM D5185(m) 0	<1	0
Phosphorus	ppm	ASTM D5185(m) 4	4	4
Zinc	ppm	ASTM D5185(m) 0	3	5
Sulfur	ppm	ASTM D5185(m)	139	158
Lithium	ppm	ASTM D5185(m)	<1	<1

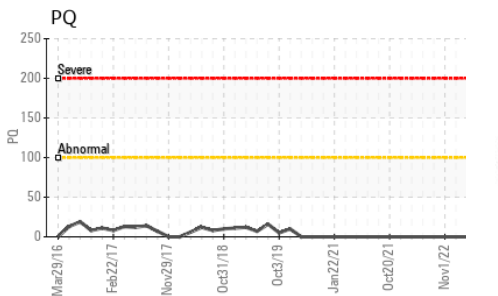
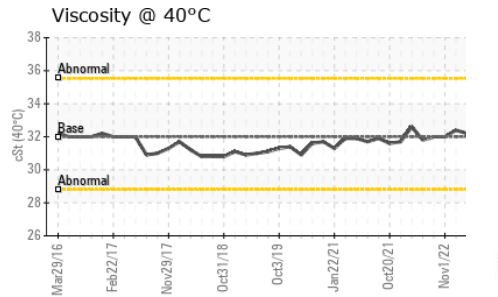
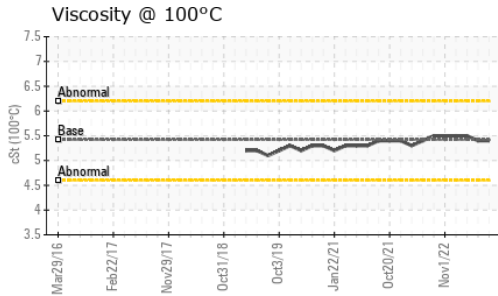
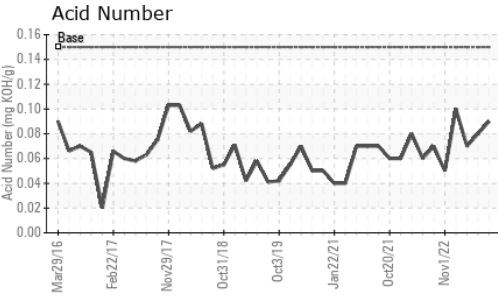
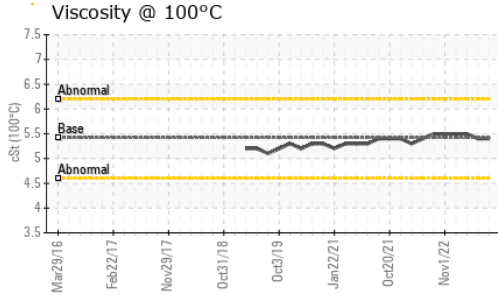
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	2	0
Sodium	ppm	ASTM D5185(m)	2	0
Potassium	ppm	ASTM D5185(m) >20	2	0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.15	0.09	0.08

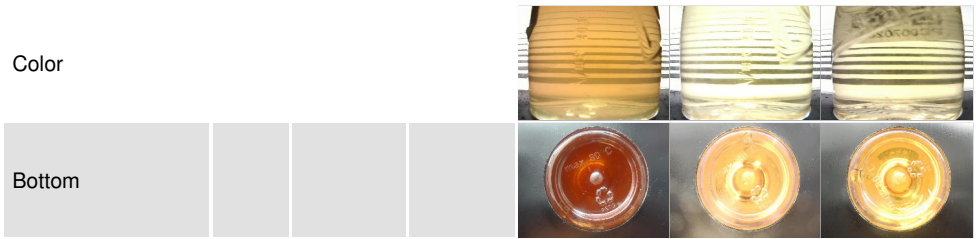
OIL ANALYSIS REPORT



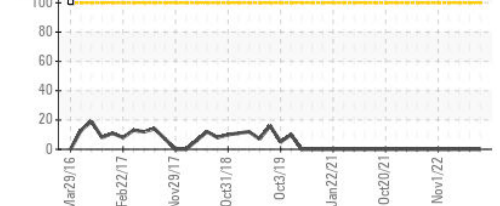
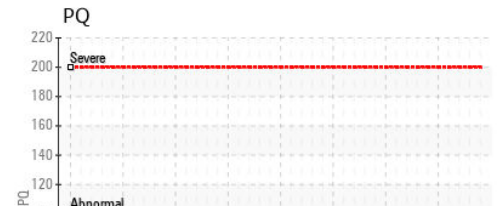
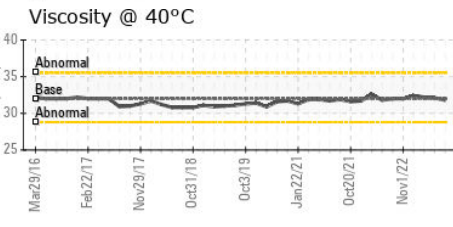
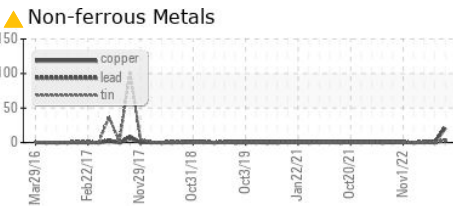
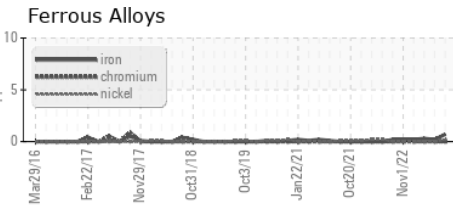
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	31.8	32.1
Visc @ 100°C	cSt	ASTM D7279(m)	5.42	5.4	5.5
Viscosity Index (VI)	Scale	ASTM D2270*	103	103	101

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0069844 **Received** : 21 Aug 2023
Lab Number : 02577180 **Diagnosed** : 22 Aug 2023
Unique Number : 5630240 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

Dryden Fibre
 Box 3001, 1 Duke Street
 Dryden, ON
 CA P8N 2Z7
 Contact: Yvon St. Laurent
 yvon.stlaurent@domtar.com
 T: (807)223-9838
 F: (807)223-9176

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.