

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. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA TURBOFLO R&O 32, however, a fluid match indicates that this fluid is ISO 32 R&O Hydraulic Oil. Please confirm the oil type and grade on your next sample.

**Wear**  
Copper ppm levels are abnormal. Bearing wear is indicated.

**Contamination**  
There is no indication of any contamination in the oil.

**Fluid Condition**  
Additive levels indicate the addition of a different brand, or type of oil. 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			<b>PC0080427</b>	PC0076937	PC0069901
Sample Date	Client Info			<b>03 Jul 2024</b>	22 Jan 2024	06 Oct 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2	<b>NEG</b>	NEG	NEG

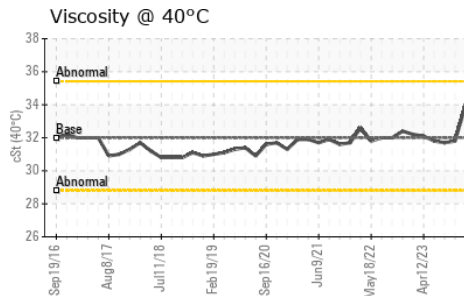
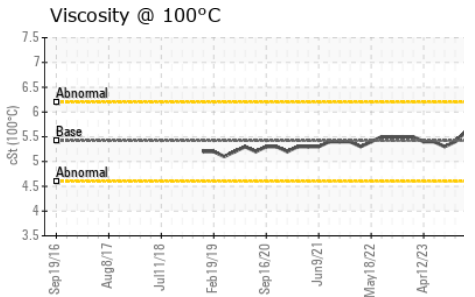
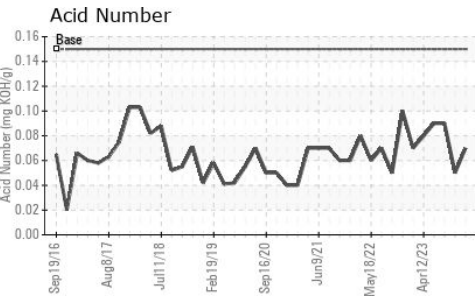
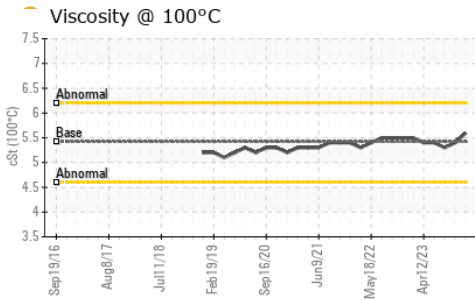
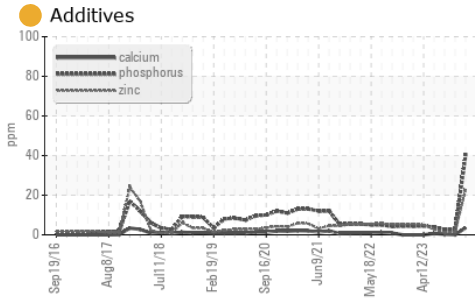
WEAR METALS		method	limit/base	current	history1	history2
PQ	ASTM D8184*			<b>0</b>	0	0
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185(m)	>20	<b>2</b>	3	<1
Copper	ppm	ASTM D5185(m)	>20	<b>▲ 64</b>	▲ 44	9
Tin	ppm	ASTM D5185(m)	>20	<b>2</b>	▲ 16	4
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	0
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>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m)	0	<b>4</b>	0	<1
Phosphorus	ppm	ASTM D5185(m)	4	<b>● 40</b>	3	3
Zinc	ppm	ASTM D5185(m)	0	<b>● 23</b>	1	1
Sulfur	ppm	ASTM D5185(m)		<b>219</b>	111	135
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.15	<b>0.07</b>	0.05	0.09

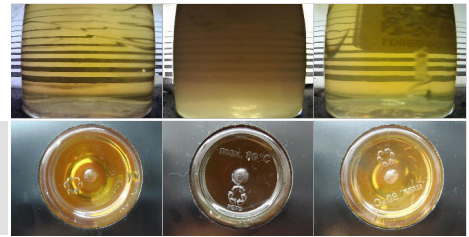
# OIL ANALYSIS REPORT



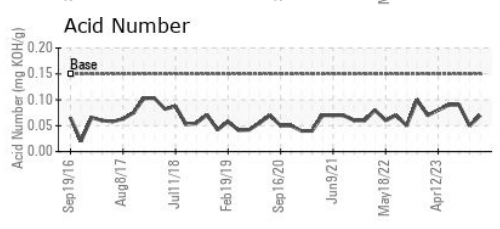
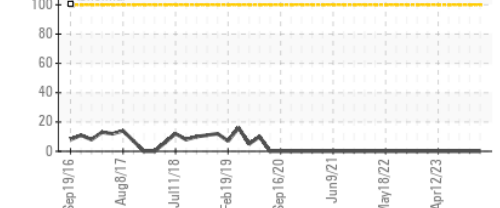
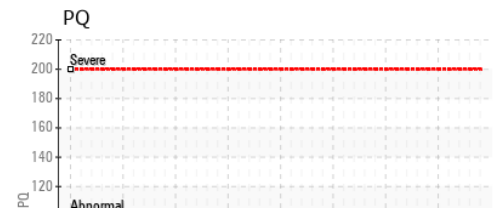
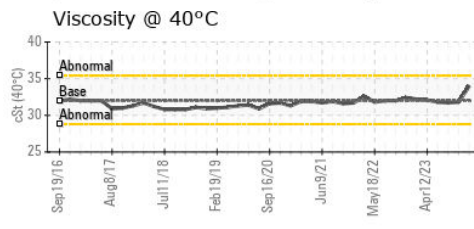
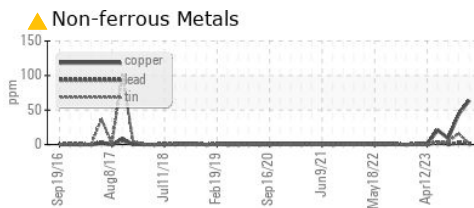
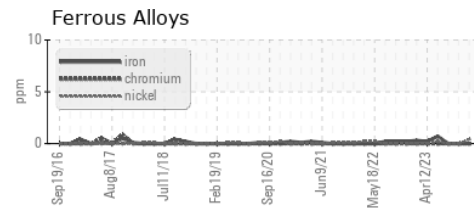
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	VLITE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	31.7
Visc @ 100°C	cSt	ASTM D7279(m)	5.42	5.4	5.3
Viscosity Index (VI)	Scale	ASTM D2270*	103	103	97

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080427 **Received** : 10 Jul 2024  
**Lab Number** : 02647017 **Tested** : 10 Jul 2024  
**Unique Number** : 5812569 **Diagnosed** : 11 Jul 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KV100, TAN Man, VI )

**Dryden Fibre**  
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 CA P8N 2Z7  
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 T: (807)223-9950  
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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.