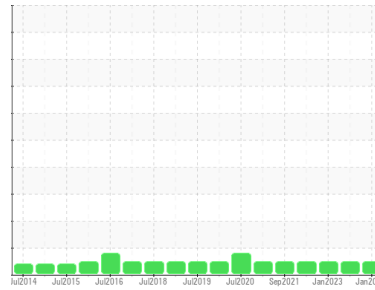




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**BRUCE A/2/71310**  
 Machine Id  
**2-71310-P4-PM Up Brg Filler**  
 Component  
**Upper Bearing**  
 Fluid  
**PETRO CANADA TURBOFLO XL68 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0871732</b>	WC0815757	WC0719042
Sample Date	Client Info	<b>12 Jan 2024</b>	20 Aug 2023	16 Jan 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >10	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185(m) >5	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	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>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
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>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185(m)	<b>&lt;1</b>	1	0
Phosphorus	ppm	ASTM D5185(m)	<b>4</b>	3	2
Zinc	ppm	ASTM D5185(m) 0	<b>2</b>	3	2
Sulfur	ppm	ASTM D5185(m)	<b>2180</b>	2060	2096
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

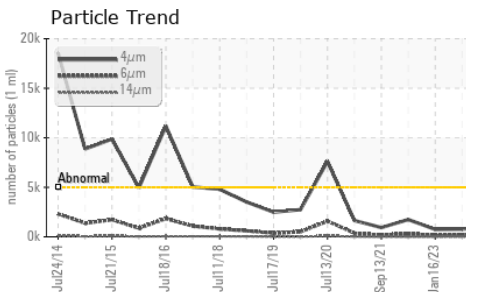
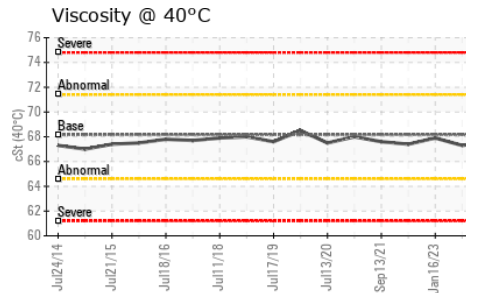
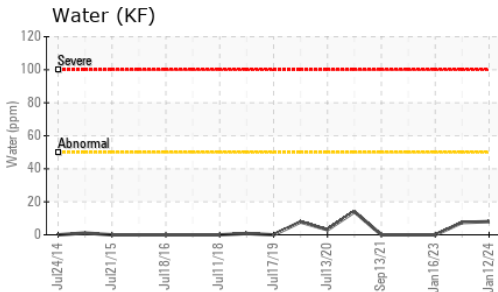
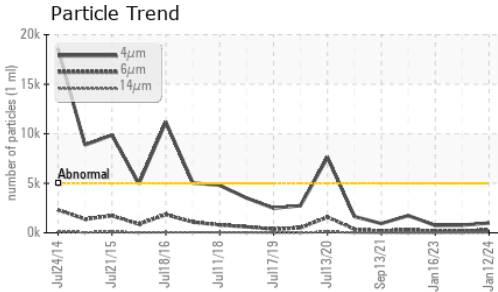
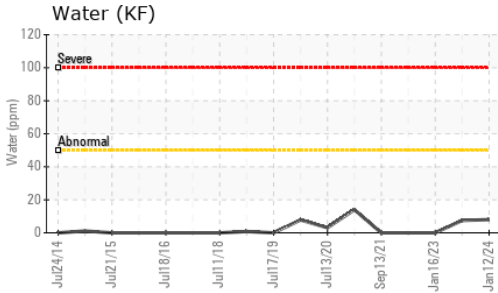
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >5	<b>4</b>	4	4
Sodium	ppm	ASTM D5185(m) >5	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304* >0.005	<b>0.001</b>	0.001	0.00
ppm Water	ppm	ASTM D6304* >50	<b>8</b>	7.5	0.00

## FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	<b>995</b>	772	743
Particles >6µm	ASTM D7647	>1300	<b>272</b>	183	127
Particles >14µm	ASTM D7647	>320	<b>28</b>	17	8
Particles >21µm	ASTM D7647	>80	<b>8</b>	5	2
Particles >38µm	ASTM D7647	>20	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/15	<b>17/15/12</b>	17/15/11	17/14/10



# OIL ANALYSIS REPORT

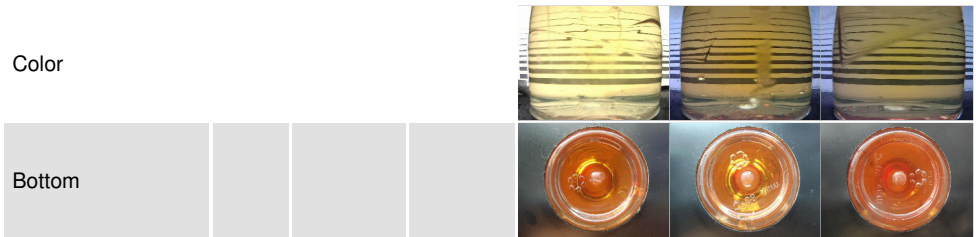


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	<b>0.14</b>	0.15	0.10

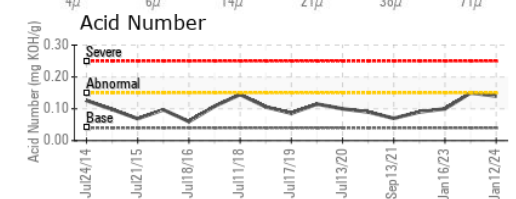
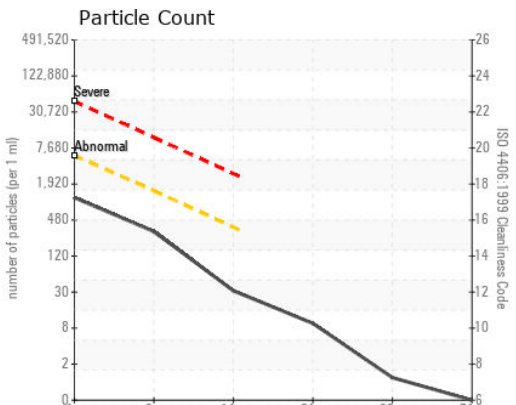
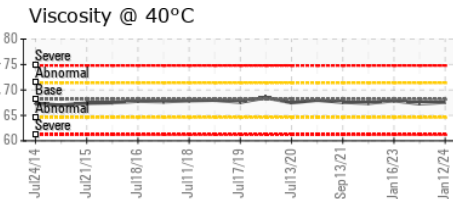
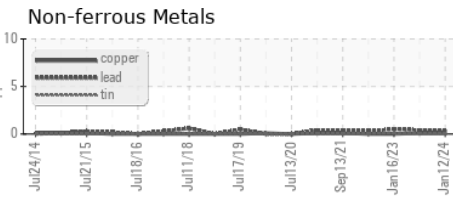
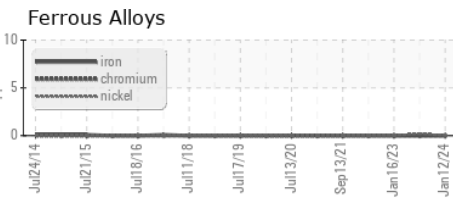
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.005	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68.17	<b>67.6</b>	67.3	67.9

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.** : WC0871732  
**Lab Number** : 02609368  
**Unique Number** : 5710454  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**Bruce Power - Bruce A PdM**  
 P.O.Box 1540, 177 Tie Road., RM-222 U2 Column 2N11 615'  
 Tiverton, ON  
 CA N0G 2T0  
 Contact: Pierre Adouki  
 pierre.adouki@brucepower.com  
 T: (519)361-2673  
 F:

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.