

OIL ANALYSIS REPORT

Area Engine room G5-21437 STBD PROPULSION GEN BRG OIL

Bearing Fluid

PETRO CANADA TURBOFLO R&O 68 (225 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

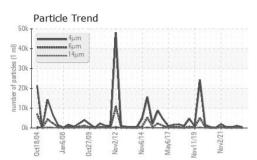
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

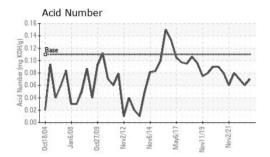


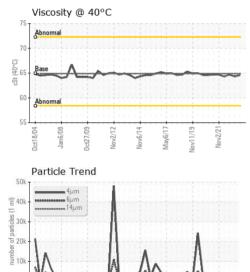
Sample Rating Trend

SAMPLE INFORM	/ ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0855450	WC0772083	WC0700673
Sample Date		Client Info		01 Apr 2024	17 Sep 2023	05 Nov 2022
Machine Age	mths	Client Info		654	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0	0	0
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0
Lead	ppm	ASTM D5185(m)	>20	2	3	2
Copper	ppm	ASTM D5185(m)	>20	<1	<1	0
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 0	history1 <1	history2 <1
Boron Barium	ppm ppm		limit/base			
Boron		ASTM D5185(m)	limit/base	0	<1	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 0	<1 <1	<1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 0	<1 <1 0 0 1	<1 0 0 0 <1
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0 0	<1 <1 0 0	<1 0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 <1	<1 <1 0 1 1 7	<1 0 0 <1 5 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 <1 <1	<1 <1 0 1 1 7 3	<1 0 0 <1 5 7 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 <1 <1 6	<1 <1 0 1 1 7	<1 0 0 <1 5 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 <1 <1 6 3	<1 <1 0 1 1 7 3	<1 0 0 <1 5 7 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 <1 <1 6 3 113	<1 <1 0 1 1 7 3 109	<1 0 0 <1 5 7 3 104
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 4 0	0 0 0 <1 <1 6 3 113 <1	<1 <1 0 1 1 7 3 109 <1	<1 0 0 <1 5 7 3 104 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base	0 0 0 <1 <1 6 3 113 <1	<1 <1 0 1 1 7 3 109 <1 history1	<1 0 0 <1 5 7 3 104 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base >15	0 0 0 <1 <1 6 3 113 <1 2 1 0	<1 <1 0 1 1 7 3 109 <1 history1 0	<1 0 0 <1 5 7 3 104 <1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base >15	0 0 0 <1 <1 6 3 113 <1 2 1 0 0 6	<1 <1 0 1 1 7 3 109 <1 history1 0 7	<1 0 0 <1 5 7 3 104 <1 history2 0 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base >15 >20	0 0 0 <1 <1 6 3 113 <1 current 0 6 <1	<1 <1 0 0 1 1 7 3 109 <1 history1 0 7 0	<1 0 0 <1 5 7 3 104 <1 history2 0 8 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base >15 >20 limit/base	0 0 0 <1 <1 6 3 113 <1 <i>current</i> 0 6 <1 <i>current</i>	<1 <1 0 1 1 7 3 109 <1 history1 0 7 0 history1	<1 0 0 (0 <1 5 7 3 104 <1 history2 0 8 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 4 0 limit/base >15 >20 limit/base	0 0 0 <1 <1 6 3 113 <1 current 0 6 <1 current 522	<1 <1 0 1 1 7 3 109 <1 history1 0 7 0 history1 1126	<1 0 0 (1 5 7 3 104 <1 history2 0 8 <1 history2 309
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 4 0 1 1 1 1 1 1 1 2 0 1 1 1 1 2 0 1 1 1 1	0 0 0 4 1 4 1 6 3 1 13 4 1 0 6 4 4 0 6 4 1 2 22 127	<1 <1 0 0 1 1 7 3 109 <1 <i>history1</i> 0 7 0 <i>history1</i> 1126 291	<1 0 0 0 <1 5 7 3 104 <1 <i>history2</i> 0 8 <1 <i>history2</i> 309 109
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 4 0 3 1 5 15 3 20 1 1 1 1 5 20 1 1 1 1 5 20 1 1 1 1 2 2 1 1 1 1 2 2 0 1 1 1 1 2 1 2	0 0 0 4 1 4 1 6 3 1 13 4 1 3 113 4 1 0 0 6 4 4 1 0 0 6 5 22 127 7	<1 <1 0 0 1 1 7 3 109 <1 history1 0 7 0 history1 1126 291 27 	<1 0 0 0 <1 5 7 3 104 <1 history2 0 8 <1 history2 309 109 12
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 4 0 3 1 5 15 3 20 1 1 1 1 5 20 1 1 1 1 5 20 1 1 1 1 2 2 1 1 1 1 2 2 0 1 1 1 1 2 1 2	0 0 0 () () () () () () () () () () () () ()	<1 <1 0 0 1 1 7 3 109 <1 history1 0 7 0 history1 1126 291 27 9 	<1 0 0 0 <1 5 7 3 104 <1 history2 0 8 <1 history2 309 109 12 3 12 3









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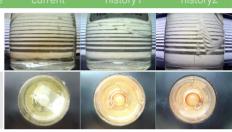
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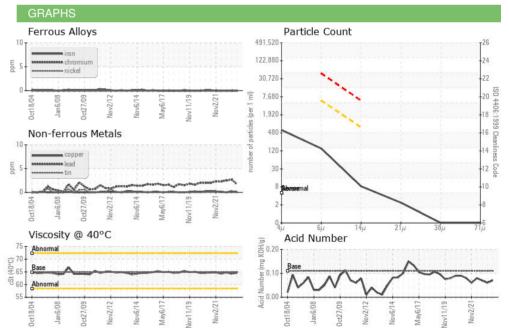
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FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	0.07	0.06	0.07
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	64.9	64.6	64.3	64.7
SAMPLE IMAGES		method	limit/base	current	history1	history2
				1		

Color



Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : WC0855450 Received : 04 Apr 2024 CCGS GRIFFON, PO BOX 1000, 401 KING ST.W : 05 Apr 2024 Lab Number : 02626650 Tested ISO 17025:2017 Accredited Unique Number : 5759782 Diagnosed : 05 Apr 2024 - Wes Davis Laboratory Test Package : MAR 2 (Additional Tests: TAN Man) 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.

Report Id: GRIFFON [WCAMIS] 02626650 (Generated: 04/05/2024 11:30:27) Rev: 1

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