

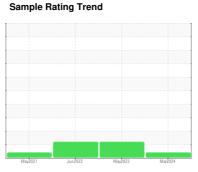
# **OIL ANALYSIS REPORT**

# VIAM/Main Floor

[VIAM^Main Floor] COMP 3 DIE CUTTER

**Hydraulic System** 

PETRO CANADA TURBOFLO R&O 150 (--- GAL)





## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

#### Wear

All component wear rates are normal.

## Contamination

Moderate concentration of visible dirt/debris present in the oil.

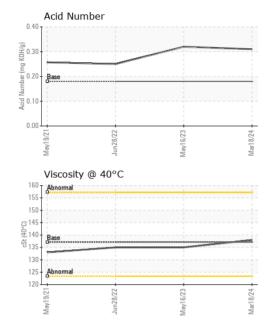
## **Fluid Condition**

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

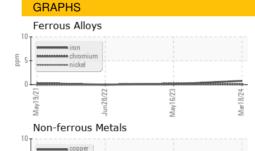
CAMPLE INCORA	AATIONI		11 11/1		1111	111
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KFS0005136	KFS0002486	KFS0001649
Sample Date		Client Info		18 Mar 2024	16 May 2023	28 Jun 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	<1	0
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	2	2	2
Tin	ppm	ASTM D5185m	>20	<1	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	0	0
Boron Barium	ppm ppm		limit/base			
Boron	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1	0 0 <1	0 0 0
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1	0 0 <1 <1	0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 <1 0	0 0 <1 <1 0	0 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	0 0 <1 <1 0	0 0 <1 <1 0	0 0 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 4	0 0 <1 <1 0 0	0 0 <1 <1 0 0	0 0 0 0 0 0 2 196
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 4	0 0 <1 <1 0 0 156	0 0 <1 <1 0 0 188 78	0 0 0 0 0 0 2 196 114
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 4 0	0 0 <1 <1 0 0	0 0 <1 <1 0 0	0 0 0 0 0 0 2 196
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0	0 0 <1 <1 0 0 156	0 0 <1 <1 0 0 188 78	0 0 0 0 0 2 196 114 1310
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0	0 0 <1 <1 0 0 156 79 1234	0 0 <1 <1 0 0 188 78 1086	0 0 0 0 0 2 196 114 1310
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0 limit/base >15	0 0 <1 <1 0 0 156 79 1234	0 0 <1 <1 0 0 188 78 1086 history1	0 0 0 0 0 2 196 114 1310
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0 limit/base >15	0 0 <1 <1 0 0 156 79 1234 current	0 0 <1 <1 0 0 188 78 1086 history1	0 0 0 0 0 2 196 114 1310 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0 limit/base >15	0 0 <1 <1 0 0 156 79 1234 current 4	0 0 <1 <1 0 0 188 78 1086 history1 2 <1	0 0 0 0 0 2 196 114 1310 history2 2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 4 0 limit/base >15 >20	0 0 <1 <1 0 0 156 79 1234 current 4 <1	0 0 <1 <1 0 0 188 78 1086 history1 2 <1 0	0 0 0 0 0 2 196 114 1310 history2 2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m	0 4 0 limit/base >15 >20 limit/base >1300 >320	0 0 <1 <1 0 0 156 79 1234  current 4 <1 0 current	0 0 <1 <1 0 0 188 78 1086 history1 2 <1 0	0 0 0 0 0 2 196 114 1310 history2 2 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	0 4 0 limit/base >15 >20 limit/base >1300 >320 >80	0 0 0 156 79 1234	0 0 <1 <1 0 0 0 188 78 1086 history1 2 <1 0 history1 ▲ 8136 ▲ 849 23	0 0 0 0 0 2 196 114 1310 history2 2 <1 0 history2 ▲ 5455 ▲ 853 59
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	0 4 0 limit/base >15 >20 limit/base >1300 >320 >80 >20	0 0 0 156 79 1234	0 0 0 <1 <1 0 0 188 78 1086 history1 2 <1 0 history1 ▲ 8136 ▲ 849 23 4	0 0 0 0 0 2 196 114 1310 history2 2 <1 0 history2 ▲ 5455 ▲ 853 59
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 4 0 limit/base >15 >20 limit/base >1300 >320 >80 >20 >4	0 0 <1 <1 <1 0 0 156 79 1234  current 4 <1 0  current	0 0 -<1 -<1 0 0 188 78 1086 history1 2 -<1 0 history1 ▲ 8136 ▲ 849 23 4 0	0 0 0 0 0 2 196 114 1310 history2 2 <1 0 history2 ▲ 5455 ▲ 853 59 17 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	0 4 0 limit/base >15 >20 limit/base >1300 >320 >80 >20 >4	0 0 0 0 156 79 1234	0 0 0 <1 <1 0 0 188 78 1086 history1 2 <1 0 history1 ▲ 8136 ▲ 849 23 4	0 0 0 0 0 2 196 114 1310 history2 2 <1 0 history2 ▲ 5455 ▲ 853 59

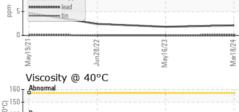


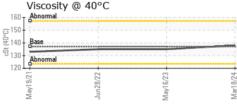
# **OIL ANALYSIS REPORT**

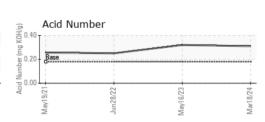


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.18	0.31	0.32	0.25
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	MODER	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	137.1	138	135	135
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				.0.		













Certificate L2367

Laboratory Sample No.

Test Package : IND 2

: KFS0005136 Lab Number : 06124851 Unique Number : 10939002

**Bottom** 

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 **Tested** 

Received : 21 Mar 2024 : 24 Mar 2024 Diagnosed

: 24 Mar 2024 - Don Baldridge

VIAM/VICAM Manufacturing - Tennessee 87 Parktower Road Manchester, TN US 37355

Contact: Eric Thompson ethompson@viammfg.com T: (931)461-2300

To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)