

PROBLEM SUMMARY

,

Sample Rating Trend

ISO

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Machine Id **54-74**

Component **Gearbox**

PETRO CANADA ENDURATEX EP 320 (2200 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS								
Sample Status			ABNORMAL					
Particles >4µm	ASTM D7647	>20000	A 88552					
Particles >6μm	ASTM D7647	>5000	21574					
Oil Cleanliness	ISO 4406 (c)	>21/19/16	24/22/16					

Customer Id: HOLCOL Sample No.: PC0062134 Lab Number: 02568094 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS							
١.							
next sample.							

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Machine Id **54-74**

Component **Gearbox**

PETRO CANADA ENDURATEX EP 320 (2200 LTR

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

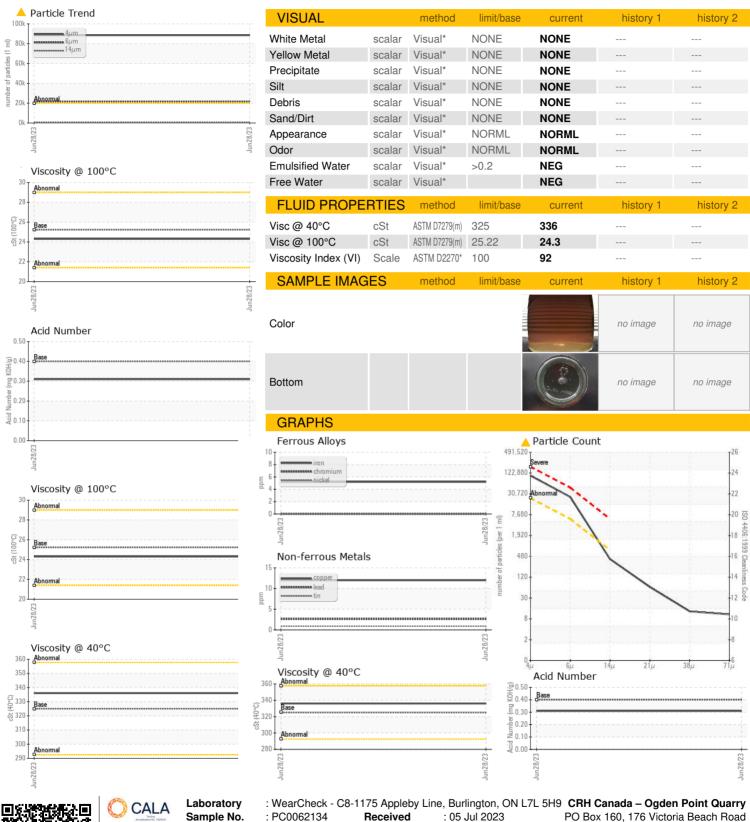
Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

00 LTR)				Jun 2023		
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		PC0062134		
Sample Date		Client Info		28 Jun 2023		
Machine Age	hrs	Client Info		2545		
Oil Age	hrs	Client Info		829		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>200	5		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>25	<1		
Lead	ppm	ASTM D5185(m)	>50	3		
Copper	ppm	ASTM D5185(m)	>200	12		
Tin	ppm	ASTM D5185(m)	>10	<1		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history 1	history 2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 55	current 46	history 1	history 2
	ppm ppm					
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185(m)	55	46		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	55 0	46 0		
Boron Barium Molybdenum	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	55 0 0	46 0 0		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	55 0 0 0	46 0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	55 0 0 0 0	46 0 0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0	46 0 0 0 0 <1 2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0 0 240	46 0 0 0 <1 2 244		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0 0 240	46 0 0 0 <1 2 244 3		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0 0 240	46 0 0 0 0 <1 2 244 3 4916		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0 240 1 13700	46 0 0 0 <1 2 244 3 4916		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	55 0 0 0 0 0 0 240 1 13700	46 0 0 0 <1 2 244 3 4916 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	55 0 0 0 0 0 0 240 1 13700	46 0 0 0 <1 2 244 3 4916 <1 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	ASTM D5185(m)	55 0 0 0 0 0 240 1 13700	46 0 0 0 <1 2 244 3 4916 <1 current 6 <1	history 1	history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185(m)	55 0 0 0 0 0 240 1 13700 limit/base >50	46 0 0 0 <1 2 244 3 4916 <1 current 6 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL	ppm	ASTM D5185(m) METHOD ASTM D5185(m)	55 0 0 0 0 0 240 1 13700 limit/base >50 limit/base	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm	ASTM D5185(m) METHOD ASTM D5185(m)	55 0 0 0 0 0 240 1 13700 limit/base >50 limit/base >20000	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 <1 <1 current ▲ 88552	history 1 history 1	history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm	ASTM D5185(m) METHOD ASTM D5185(m)	55 0 0 0 0 240 1 13700 limit/base >50 limit/base >20 >20000 >5000	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 <1 current △ 88552 △ 21574	history 1 history 1	history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm	ppm	ASTM D5185(m) METHOD 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)	55 0 0 0 0 0 240 1 13700 limit/base >50 limit/base >20000 >5000 >640	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 <1 <ur> current 6 <1</ur>	history 1 history 1	history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	55 0 0 0 0 240 1 13700 limit/base >50 >20 limit/base >20000 >5000 >640 >160 >40 >10	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 <1 current ▲ 88552 ▲ 21574 351 55	history 1 history 1	history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm	ASTM D5185(m) METHOD METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	55 0 0 0 0 240 1 13700 limit/base >50 >20 limit/base >20000 >5000 >640 >160 >40	46 0 0 0 0 <1 2 244 3 4916 <1 current 6 <1 <1 <ur> current 6 <1 ≤1 1 5 11</ur>	history 1 history 1	history 2



OIL ANALYSIS REPORT





ISO 17025:2017 Accredited

Laboratory

Sample No. Lab Number **Unique Number**

: PC0062134 : 02568094

: 5605140

Received

Diagnosed Diagnostician : Wes Davis

: 06 Jul 2023 Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

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