

# **OIL ANALYSIS REPORT**

Sample Rating Trend

VISCOSITY

# L-11 SAT REDUCTION

#### **Gearbox** Fluid

## PETRO CANADA ENDURATEX EP 150 (27 GAL)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

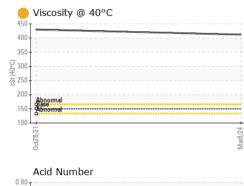
Viscosity of sample indicates oil is within ISO 460 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

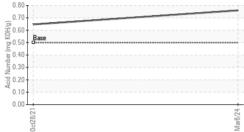
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0119616	PCA0030534	
Sample Date		Client Info		08 Mar 2024	28 Oct 2021	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				ATTENTION	ABNORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	29	26	
Chromium	ppm	ASTM D5185m	>15	0	<1	
Nickel	ppm	ASTM D5185m	>15	0	0	
Titanium	ppm	ASTM D5185m		2	2	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>25	0	<1	
Lead	ppm	ASTM D5185m	>100	0	0	
Copper	ppm	ASTM D5185m	>200	<1	<1	
Tin	ppm	ASTM D5185m	>25	0	<1	
Antimony	ppm	ASTM D5185m	>5		0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	55	15	14	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m	0	0	<1	
Magnesium	ppm	ASTM D5185m	2	0	0	
Calcium	ppm	ASTM D5185m	6	0	2	
Phosphorus	ppm	ASTM D5185m	250	268	286	
Zinc	ppm	ASTM D5185m	3	0	0	
Sulfur	ppm	ASTM D5185m	7500	8419	6659	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	4	3	
Sodium	ppm	ASTM D5185m		<1	<1	
Potassium	ppm	ASTM D5185m	>20	0	0	
FLUID DEGRAD	<b>ATION</b>	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.5	0.76	0.647	



# **OIL ANALYSIS REPORT**

VISUAL





	VISUAL		methoa	iimit/base	current	nistory i	nistory2
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	LIGHT	A MODER	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
8/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	
Mai	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
		RTIES	method	limit/base	current	history1	history2
			ASTNI D445	150.0	412	430	
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
Mar6/24	Color						no image
	Bottom					$\left( \right)$	no image
	GRAPHS						
	Ferrous Alloys						
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		de		2			
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	200 - Abnormal Honormal			N D.	20		
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	100			5.74			
	100			Mar8/24	0ct28/21		
		)1 Madiso Recei Teste Diagn	<b>ved</b> : 18 <b>d</b> : 19			701 E WAS	NTEED COR SHINGTON S JACKSON, N US 4920
	Mar0.24 Mar0.24	Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water Free Water Color Bottom GRAPHS Ferrous Alloys Toron-ferrous Metal	Precipitate scalar Debris scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar Free Water scalar Color Color Bottom GRAPHS Ferrous Alloys On-ferrous Metals Viscosity @ 40°C Viscosity @ 40°C	Precipitate scalar *Visual Sitt scalar *Visual Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Emulsified Water scalar *Visual Free Water scalar *Visual Free Water scalar *Visual Free Water scalar *Visual Color Color Bottom GRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0	Precipitate scalar *Visual NONE Sitt scalar *Visual NONE Sand/Dirt scalar *Visual NONE Appearance scalar *Visual NORML Odor scalar *Visual NORML Emulsified Water scalar *Visual NORML SAMPLE IMAGES method limit/base Color Non-ferrous Alloys Mon-ferrous Metals Uscosity @ 40°C	Precipitate scalar 'Visual NONE NONE Sitt scalar 'Visual NONE NONE Debris scalar 'Visual NONE LIGHT Sand/Dirt scalar 'Visual NONE NONE Appearance scalar 'Visual NORML NORML Odor scalar 'Visual NORML NORML NORML Emulsified Water scalar 'Visual >0.2 NEG Free Water scalar 'Visual >0.2 NEG Free Water scalar 'Visual NORML NORML Visc @ 40°C cSt ASTM D445 150.0 • 412 SAMPLE IMAGES method imit/base current Visc @ 40°C cSt ASTM D445 150.0 • 412 Color Bottom Bottom Non-ferrous Alloys • • • • • • • • • • • • • • • • • • •	Precipitate scalar Visual NONE NONE NONE Sitt scalar Visual NONE NONE NONE Sand/Dirt scalar Visual NONE LIGHT MODER Appearance scalar Visual NORML NORML NORML Odor scalar Visual NORML NORML NORML Odor scalar Visual NORML NORML NORML Odor scalar Visual NORML

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (517)787-8974