

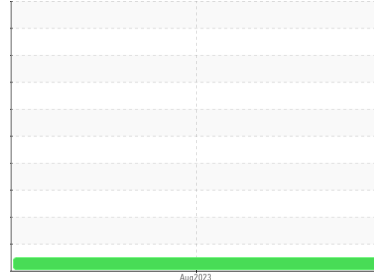
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[2ND]
Machine Id
CATERPILLAR 30-341 (S/N CAT0349FHBZ220803)
Component
Hydraulic System
Fluid
PETRO CANADA ENVIRON AW 46 (20 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 oil viscosity is higher than typical. 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		PC0052384	---	---
Sample Date	Client Info		22 Aug 2023	---	---
Machine Age	hrs	Client Info	6082	---	---
Oil Age	hrs	Client Info	2	---	---
Oil Changed	Client Info		Not Chngd	---	---
Sample Status			NORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	0	---	---
Chromium	ppm	ASTM D5185(m) >20	0	---	---
Nickel	ppm	ASTM D5185(m) >20	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	0	---	---
Aluminum	ppm	ASTM D5185(m) >20	0	---	---
Lead	ppm	ASTM D5185(m) >20	0	---	---
Copper	ppm	ASTM D5185(m) >20	0	---	---
Tin	ppm	ASTM D5185(m) >20	0	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	0	---	---
Barium	ppm	ASTM D5185(m) 0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 0	0	---	---
Manganese	ppm	ASTM D5185(m) 0	0	---	---
Magnesium	ppm	ASTM D5185(m) 0	<1	---	---
Calcium	ppm	ASTM D5185(m) 0	3	---	---
Phosphorus	ppm	ASTM D5185(m) 650	640	---	---
Zinc	ppm	ASTM D5185(m) 0	3	---	---
Sulfur	ppm	ASTM D5185(m) 1280	1334	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

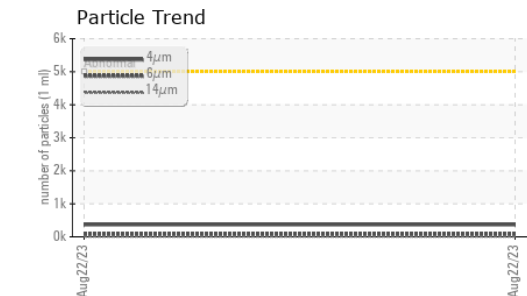
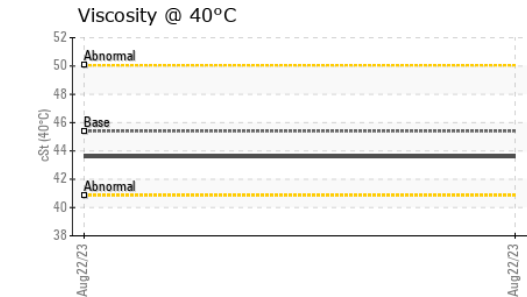
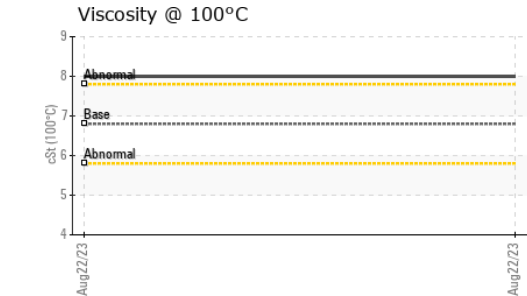
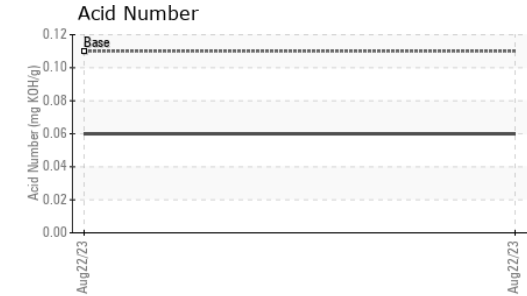
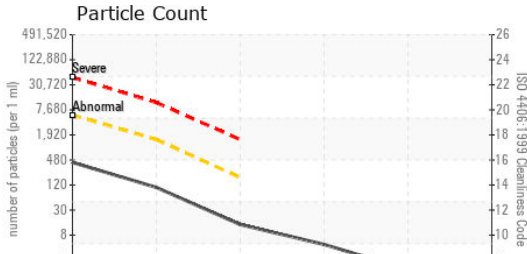
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	0	---	---
Sodium	ppm	ASTM D5185(m)	<1	---	---
Potassium	ppm	ASTM D5185(m) >20	0	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	---	---
Nitration	Abs/cm	ASTM D7624*	2.1	---	---
Sulfation	Abs/.1mm	ASTM D7415*	20.1	---	---

OIL ANALYSIS REPORT



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	369	---	---	
Particles >6µm	ASTM D7647	>1300	93	---	---	
Particles >14µm	ASTM D7647	>160	12	---	---	
Particles >21µm	ASTM D7647	>40	4	---	---	
Particles >38µm	ASTM D7647	>10	1	---	---	
Particles >71µm	ASTM D7647	>3	0	---	---	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	16/14/11	---	---	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*		11.2	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	0.06	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	45.4	43.6	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	6.8	8	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	104	157	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0052384 **Received** : 29 Aug 2023
Lab Number : **02579104** **Diagnosed** : 30 Aug 2023
Unique Number : 5632164 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, VI)

LES ENTREPRISES PEC
 152 CHEMIN DE SAINT-EDGAR
 NEW RICHMOND, QC
 CA G0C 2B0
 Contact: Service Manager
 info@lepec.ca
 T: (418)534-3777
 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.