

OIL ANALYSIS REPORT

NORMAL

Sample Rating Trend



Area **GUAY SON [CONHER] CATERPILLAR NAUTICO 5**

KL0014204

20 Mar 2024

Not Changd

0

1152

KL0013488

Not Changd

0

304

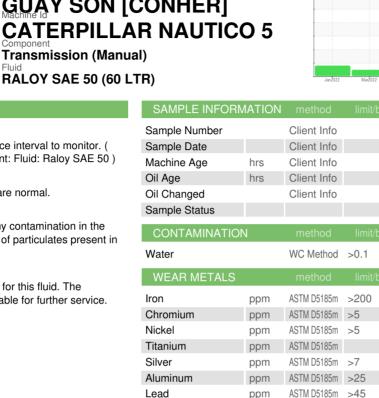
KL0012826

Not Changd

13758

20

20 Jan 2024 15 Sep 2023



Sample Status				NORMAL	ABNORMAL	ATTENTION
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	57	27	16
Chromium	ppm	ASTM D5185m	>5	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>7	0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	2	<1
Lead	ppm	ASTM D5185m	>45	3	2	4
Copper	ppm	ASTM D5185m	>225	12	7	8
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		8	6	10
Calcium	ppm	ASTM D5185m		3394	3398	3562
Phosphorus	ppm	ASTM D5185m		995	917	969
Zinc	ppm	ASTM D5185m		833	851	871
Sulfur	ppm	ASTM D5185m		7143	6746	6136
CONTAMINANTS	;	method	limit/base	current	history1	history2

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Fluid: Raloy SAE 50)

Fluid

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

Silicon	ppm	ASTM D5185m	>125	6	5	7
Sodium	ppm	ASTM D5185m		4	0	5
Potassium	ppm	ASTM D5185m	>20	<1	2	0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		10372	33790	50313
Particles >6µm		ASTM D7647	>2500	913	1 8349	4433
Particles >14µm		ASTM D7647	>320	16	A 2742	66
Particles >21µm		ASTM D7647	>80	4	4 87	14
Particles >38µm		ASTM D7647	>20	0	3	1
Particles >71µm		ASTM D7647	>4	0	1	1
Oil Cleanliness		ISO 4406 (c)	>18/15	17/11	2 1/19	9/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.86	0.81	0.74
4 17:24:27) Rev: 1 Submitted By: EDUARDO GARCIA						

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200

E 150

TE 100

50

0

(⁸.0) (⁸/H0) Ê0.60

a 0.40 0.20 0.00

> 240 Abnor

220 200 cSt (40°C) 160

> 120 lan 28/27

200

(TE 150k

100

50

Ok

Jan28/22

Abnor 140

Acid 1.00

OIL ANALYSIS REPORT

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NONE

NONE

NONE

NONE

NONE

NONE

NORML

De Hele Terre	a					
Particle Tren	a			VISUAL		method
4μm 6μm				White Metal	scalar	*Visual
				Yellow Metal	scalar	*Visual
				Precipitate	scalar	*Visual
				Silt	scalar	*Visual
	/		_	Debris	scalar	*Visual
		STREET STREET STREET	The shade of a later balance	Sand/Dirt	scalar	*Visual
Jan 28/22 Mar 23/22	Can15.023	c.2/c i qəc	Mar20/24	Appearance	scalar	*Visual
Jan	Can	Jan	Mar	Odor	scalar	*Visual
Acid Number	r			Emulsified Water	scalar	*Visual
T:				Free Water	scalar	*Visual
				FLUID PROPER	RTIES	method
				Visc @ 40°C	cSt	ASTM D44
-				SAMPLE IMAGE	ES	method
Jan 28/22	Can 1 C / 2	c2/c1 dac	Mar20/24	Color		
Viscosity @ 4	40°C			Bottom		
Abnormal				GRAPHS		
	ç			Ferrous Alloys		
Jan 28/22 Mar23/22	Can 1 5 / 2 2	c.2/c i qəc	Varuery	60		
⊰ ≊ Particle Tren		ñ ⁰		40 - chromium		/
12	-					1
4μm 6μm 14μm				3/22	5/23	:0/24

	NORML	NORML	NORML	NORML
	>0.1	NEG	NEG	NEG
		NEG	NEG	NEG
d	limit/base	current	history1	history2
145		204	201	226
d	limit/base	current	history1	history2

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NONE

NONE

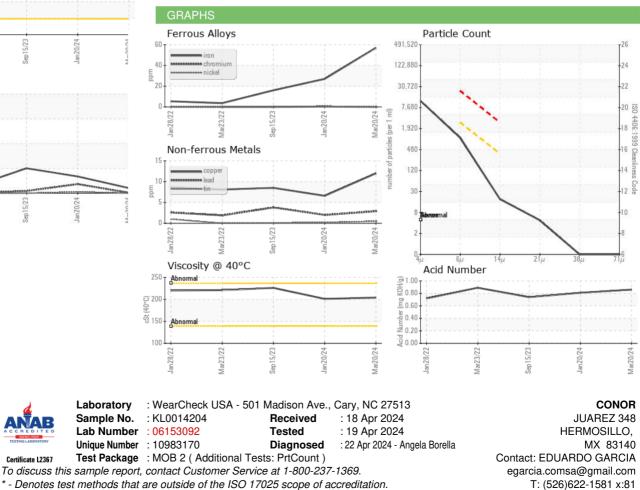
NONE

NONE

NONE

NONE

NORML



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

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Sep15/23

Aar23/22

Submitted By: EDUARDO GARCIA

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