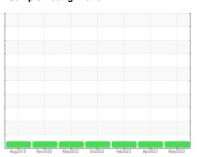


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id CATERPIL Component Diesel Engine Fluid PETRO CANADA

Machine Id CATERPILLAR 1311

PETRO CANADA DURON HP 15W40 (--- Oz)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

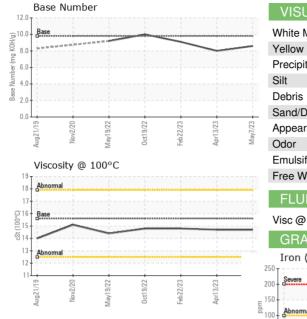
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

514 TH 1544-0 (-	02)	Aug2019	Nov2020 May2022	Oct2022 Feb2023 Apr2023	May2023		
SAMPLE INFOR	MATION	method	limit/base	current	history 1	history 2	
Sample Number		Client Info		PCA0083452	PCA0083476	PCA0083500	
Sample Date		Client Info		07 May 2023	13 Apr 2023	22 Feb 2023	
Machine Age	hrs	Client Info		136	205	334	
Oil Age	hrs	Client Info		136	205	334	
Oil Changed		Client Info		Changed	Changed	Changed	
Sample Status	mple Status			NORMAL	NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history 1	history 2	
Fuel		WC Method	>5	<1.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history 1	history 2	
ron	ppm	ASTM D5185m	>100	12	18	23	
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1	
Nickel	ppm	ASTM D5185m	>2	<1	0	<1	
Titanium	ppm	ASTM D5185m	>2	0	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>25	2	2	2	
Lead	ppm	ASTM D5185m	>40	0	0	0	
Copper	ppm	ASTM D5185m	>330	<1	4	1	
Tin	ppm	ASTM D5185m	>15	<1	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m		1	2	2	
Barium	ppm	ASTM D5185m		0	0	0	
Molybdenum	ppm	ASTM D5185m		58	63	62	
Manganese	ppm	ASTM D5185m		<1	<1	<1	
Magnesium	ppm	ASTM D5185m		999	1090	1066	
Calcium	ppm	ASTM D5185m		1064	1167	1137	
Phosphorus	ppm	ASTM D5185m		1088	1095	1121	
Zinc	ppm	ASTM D5185m		1344	1346	1397	
Sulfur	ppm	ASTM D5185m		3944	3695	4085	
CONTAMINAN	ITS	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m	>25	3	4	2	
Sodium	ppm	ASTM D5185m		1	0	<1	
Potassium	ppm	ASTM D5185m	>20	2	3	<1	
INFRA-RED		method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.6	
Nitration	Abs/cm	*ASTM D7624	>20	6.4	6.4	7.7	
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	16.9	19.4	
FLUID DEGRAI	NOITAC	method	limit/base	current	history 1	history 2	
FLUID DEGRAI Oxidation	OATION Abs/.1mm	method *ASTM D7414	limit/base >25	current 15.1	history 1 13.4	history 2 15.0	



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history 1	history 2
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	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history 1	history 2

	FLUID PROPE	RTIES	method	limit/b	ase	current	ŀ	nistory 1		history	2	
	Visc @ 100°C	cSt	ASTM D445	15.6		14.7	14	1.7		14.8		
	GRAPHS											
25	Iron (ppm)					Lead (ppm)						
25	Severe				100	Severe			-			
					00							
트 15 10	0 - Abnormal				E 40	Abnormal						
5					20-							
	Nov2/20 +	Oct19/22 +	Feb22/23 -	May7/23 +	0 1	Mov2/20 -	9/22	0ct19/22 -	2/23	3/23	May7/23	
	Aug21/19 Nov2/20 May19/22	Octl	Feb22/23 Apr13/23	Мау	<	Aug21/19 Nov2/20	May19/22	Octl	Feb22/23	Apr13/23	Мау	
5	Aluminum (ppm)				50 -	Chromium (ppm)						
4	Severe				40 -	Severe						
шd 2	Abnormal				ad 30							
					20 7	Abnormal						
1	0				10							
	Aug21/19 - Nov2/20 - May19/22 -	Oct19/22 -	Feb22/23 -	May7/23 -		Aug21/19 -	May19/22 -	Oct19/22 -	Feb22/23 -	Apr13/23 -	May7/23 -	
		Oct	Feb	Ma				Oct	-Be	Apr	Ma	
40	Copper (ppm)					Silicon (ppm Severe)				,-	
30	All Marianal				60 -	1 1						
E 20	0				E 40 -							
10					20-	Abnormal						
	0				0		-		-	_	_	
	Aug21/19 Nov2/20	Oct19/22	Feb22/23 Apr13/23	May7/23	5	Augz 1/19 Nov2/20	May19/22	Oct19/22 .	Feb22/23	Apr13/23	May7/23 -	
			Fet Ap	Σ				00	큔	Ap	Σ	
2					12.0 T	Base Numbe	r					
_ 1				-	¥ 10.0+	Base						
cSt (100°C)	6 Base				6.0 per (m)							
で 1 1					Base Number (mg KOH/g)							
1					0.0 —							
	002/20	t19/22	522/23 -	ay7/23 .	2	002/20	y19/22	:119/22	522/23	r13/23 .	ay7/23 .	





Laboratory Sample No.

Lab Number

Unique Number : 10550109

: PCA0083452 : 05894299

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 10 Jul 2023 : 11 Jul 2023 Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN)

* - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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