



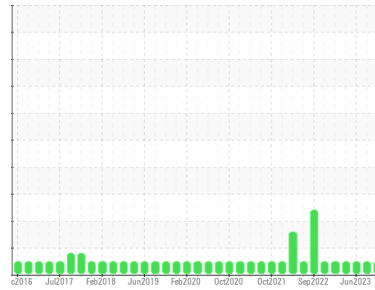
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
CATERPILLAR 966H 1LOADER (S/N CAT966HKA6J01978)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (9 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0750571	WC0535691	WC0535694
Sample Date	Client Info			11 Oct 2023	01 Aug 2023	23 Jun 2023
Machine Age	hrs	Client Info		31282	30869	3060
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	6	13	12
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	1	2	2
Lead	ppm	ASTM D5185(m)	>40	<1	1	<1
Copper	ppm	ASTM D5185(m)	>330	2	3	2
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

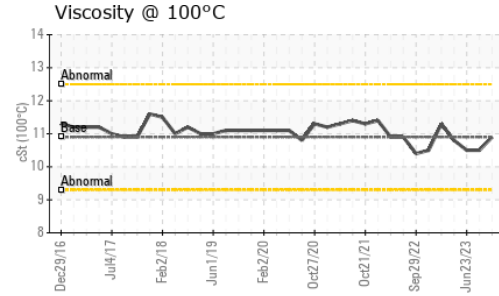
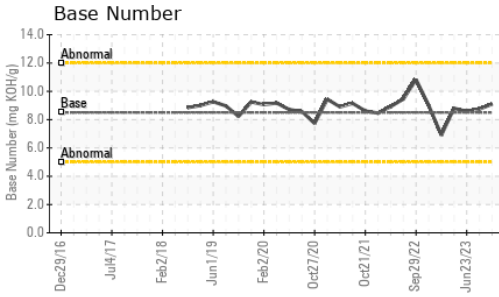
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	53	35	36
Barium	ppm	ASTM D5185(m)	10	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	100	39	36	36
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	497	464	453
Calcium	ppm	ASTM D5185(m)	3000	1702	1739	1780
Phosphorus	ppm	ASTM D5185(m)	1150	733	774	785
Zinc	ppm	ASTM D5185(m)	1350	851	856	850
Sulfur	ppm	ASTM D5185(m)	4250	2170	2409	2371
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	6	6
Sodium	ppm	ASTM D5185(m)		2	3	3
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	5.8	6.6	6.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.4	22.7	22.0



OIL ANALYSIS REPORT

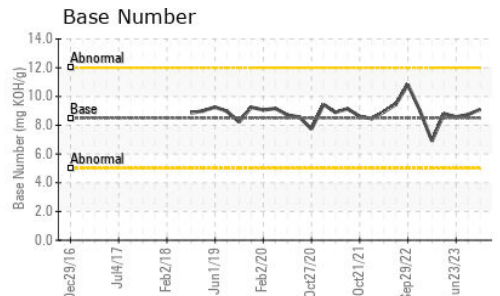
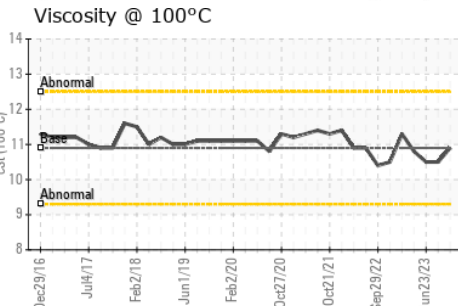
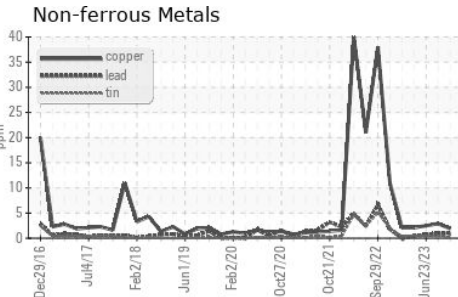
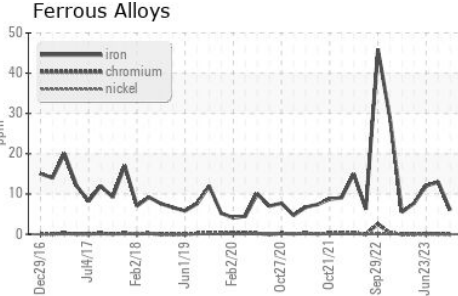


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	20.1	19.5	19.3
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	9.10	8.74	8.58

VISUAL	method	limit/base	current	history1	history2	
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	NONE	---	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	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 PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.9	10.5	10.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0750571
Lab Number : 02588491
Unique Number : 5657557
Test Package : IND 2
Received : 12 Oct 2023
Diagnosed : 16 Oct 2023
Diagnostician : Wes Davis

CARMEUSE LIME CANADA LTD.
 BOX 1690,, HWY 17 EAST
 BLIND RIVER, ON
 CA P0R 1B0
 Contact: Rejean Baillargeon
 rejean.baillargeon@carmeuse.ca
 T: (705)849-2201
 F: (705)849-2355

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.