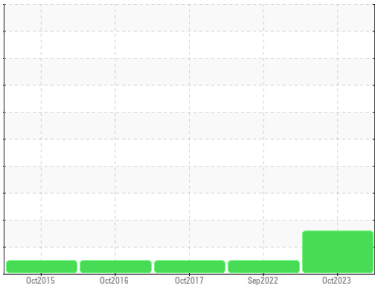
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
CHEESECOTE CUMMINS B120301508
Component
Diesel Engine
Fluid
MOBIL 15W40 (3 GAL)

DIAGNOSIS

Recommendation
The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Light fuel dilution occurring.

Fluid Condition
Calcium ppm levels are abnormally low. Visc @ 100°C is abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0834371**	WC0699379	WCM1384180
Sample Date		Client Info		**02 Oct 2023**	14 Sep 2022	23 Oct 2017
Machine Age	hrs	Client Info		**0**	327	151
Oil Age	hrs	Client Info		**0**	0	15
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**2**	1	2
Chromium	ppm	ASTM D5185m	>20	**0**	3	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	0	1
Lead	ppm	ASTM D5185m	>40	**0**	2	0
Copper	ppm	ASTM D5185m	>330	**<1**	3	<1
Tin	ppm	ASTM D5185m	>15	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	4
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**39**	412	2
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**56**	77	63
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**765**	364	1014
Calcium	ppm	ASTM D5185m		▲ **990**	1492	1104
Phosphorus	ppm	ASTM D5185m		**908**	1004	1102
Zinc	ppm	ASTM D5185m		**1078**	1184	1199
Sulfur	ppm	ASTM D5185m		**3133**	3608	3291

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	6	4
Sodium	ppm	ASTM D5185m	>118	**2**	<1	2
Potassium	ppm	ASTM D5185m	>20	**2**	1	0
Fuel	%	ASTM D3524	>3.0	▲ **1.3**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**0.1**	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	**5.3**	5.1	4.
Sulfation	Abs/.1mm	*ASTM D7415	>30	**16.5**	20.2	14.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.1**	13.9	9.
Base Number (BN)	mg KOH/g	ASTM D2896		**9.5**	9.5	---

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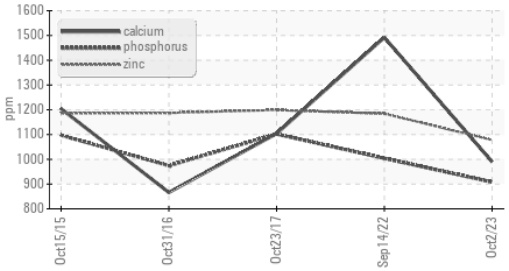
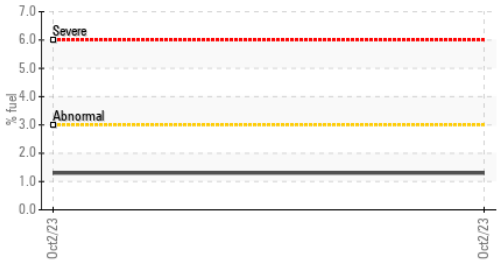
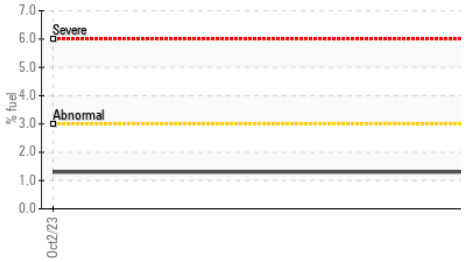
Additives



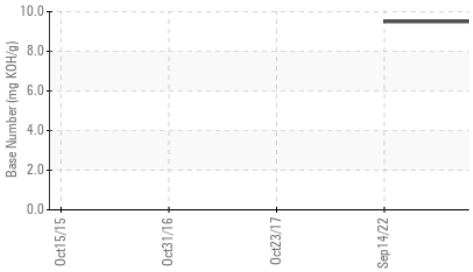
Fuel Dilution



Fuel Dilution



Base Number

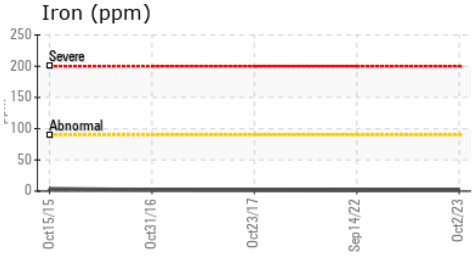


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

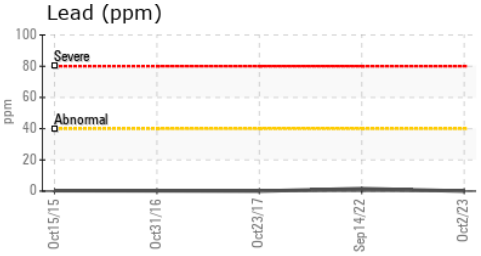
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		▲ **8.5**	13.4	13.41

GRAPHS

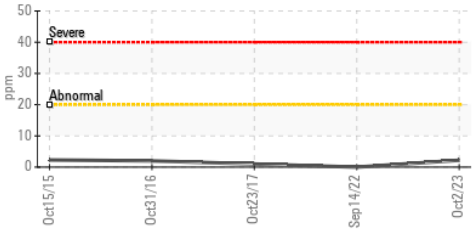
Iron (ppm)



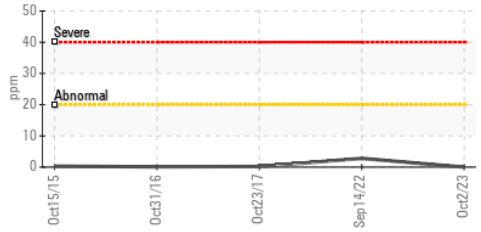
Lead (ppm)



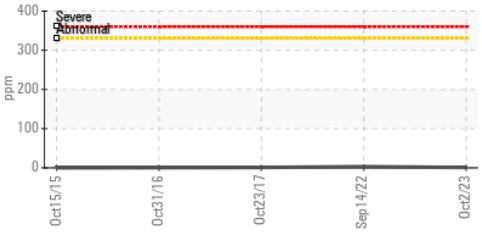
Aluminum (ppm)



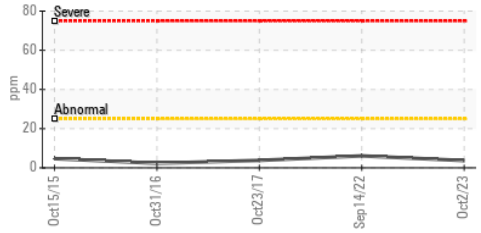
Chromium (ppm)



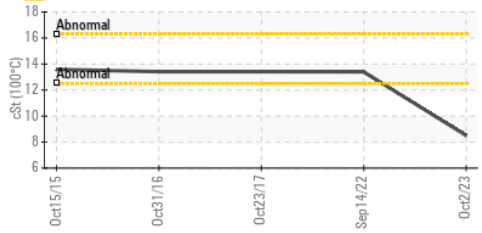
Copper (ppm)



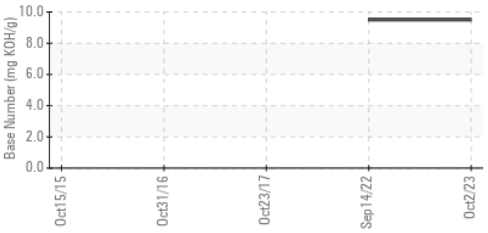
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0834371 **Received** : 03 Oct 2023
Lab Number : 05967360 **Diagnosed** : 05 Oct 2023
Unique Number : 10673911 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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

GEN TECH LTD
3017 RT 9W
NEW WINDSOR, NY
US 12553
Contact: JOE SAYEGH
joe@gentechltd.com
T: (845)568-0500
F: (845)568-3073