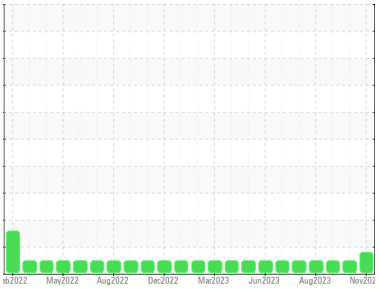
PROBLEM SUMMARY

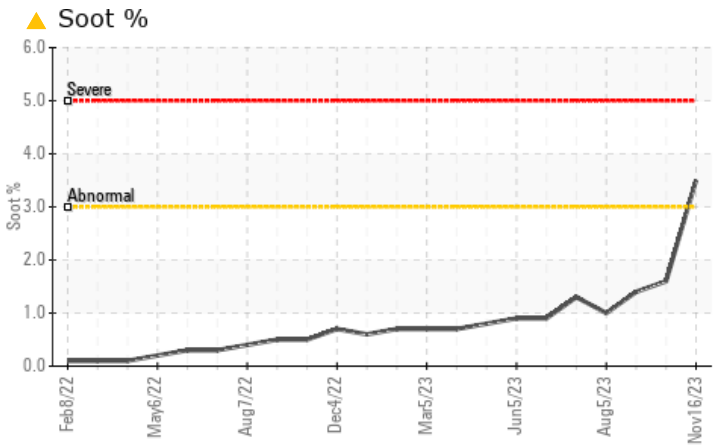
Area
GEORGIA
Machine Id
7064
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Sample Rating Trend



SOOT

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Soot %	%	*ASTM D7844	>3	▲ **3.5**	1.6	1.4

Customer Id: SEAOKL
Sample No.: WC0810694
Lab Number: 06028319
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

02 Oct 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

06 Sep 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

05 Aug 2023 Diag: Don Baldridge

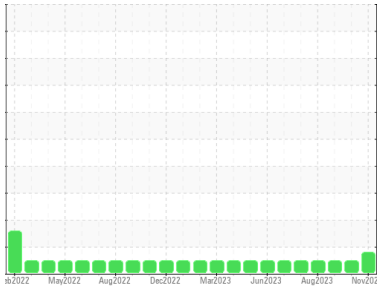
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



SOOT

Area
GEORGIA
Machine Id
7064
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is an abnormal amount of solids and carbon present in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0810694**	WC0838575	WC0857178
Sample Date		Client Info		**16 Nov 2023**	02 Oct 2023	06 Sep 2023
Machine Age	mls	Client Info		**394330**	397550	399869
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**81**	43	11
Chromium	ppm	ASTM D5185m	>20	**3**	1	<1
Nickel	ppm	ASTM D5185m	>4	**2**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	8	4
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**14**	8	1
Lead	ppm	ASTM D5185m	>40	**6**	1	6
Copper	ppm	ASTM D5185m	>330	**6**	2	4
Tin	ppm	ASTM D5185m	>15	**<1**	0	2
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	250	**16**	18	44
Barium	ppm	ASTM D5185m	10	**6**	0	0
Molybdenum	ppm	ASTM D5185m	100	**47**	44	43
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m	450	**471**	491	525
Calcium	ppm	ASTM D5185m	3000	**1600**	1570	1755
Phosphorus	ppm	ASTM D5185m	1150	**946**	950	1102
Zinc	ppm	ASTM D5185m	1350	**1187**	1246	1359
Sulfur	ppm	ASTM D5185m	4250	**3092**	2881	3342

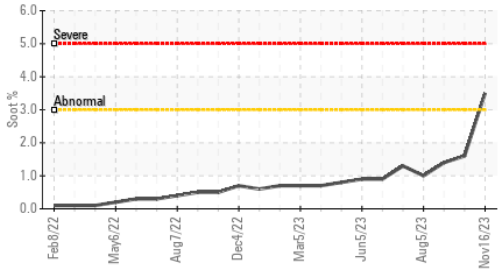
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**16**	12	4
Sodium	ppm	ASTM D5185m	>158	**3**	3	6
Potassium	ppm	ASTM D5185m	>20	**7**	3	5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**3.5**	1.6	1.4
Nitration	Abs/cm	*ASTM D7624	>20	**15.0**	10.7	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**30.8**	24.5	23.0

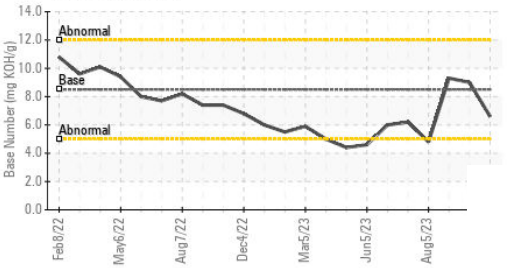
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**25.5**	21.0	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**6.6**	9.0	9.3

OIL ANALYSIS REPORT

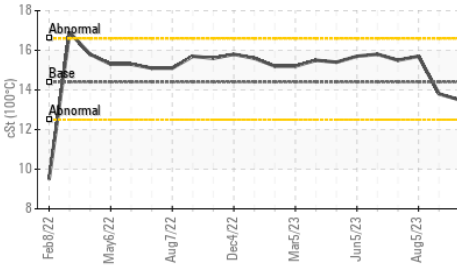
Soot %



Base Number



Viscosity @ 100°C

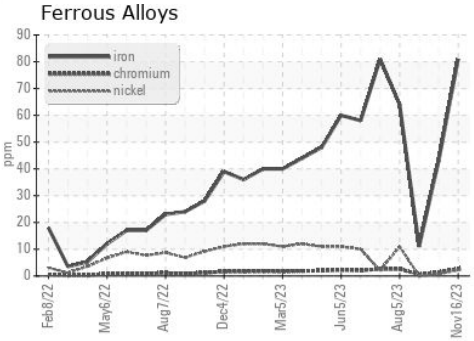


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

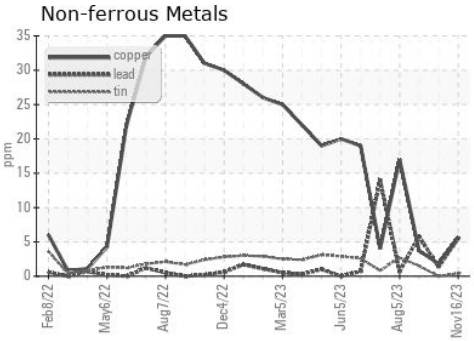
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**13.8**	13.5	13.8

GRAPHS

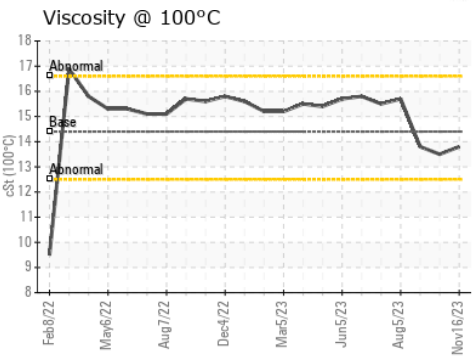
Ferrous Alloys



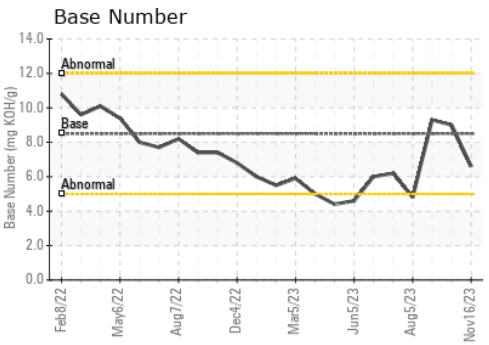
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0810694
Lab Number : 06028319
Unique Number : 10778110
Test Package : FLEET

Received : 07 Dec 2023
Diagnosed : 10 Dec 2023
Diagnostician : Don Baldridge

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)

LIBERTY DISPOSAL
6401 S EASTERN AVE
OKLAHOMA CITY, OK
US 73149
Contact: Loran Cottle
l.cottle@ldi89.com
T: (910)970-0291
F: x: