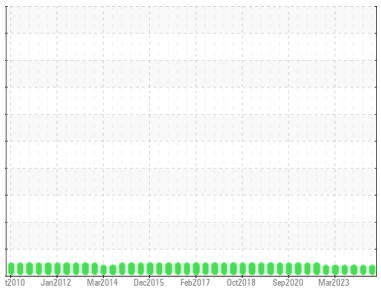
OIL ANALYSIS REPORT

Area
KANSAS/44/EG - LOADER
Machine Id
46.68L [KANSAS^44^EG - LOADER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0862526**	WC0789922	WC0781130
Sample Date		Client Info		**09 Apr 2024**	29 Nov 2023	05 Sep 2023
Machine Age	hrs	Client Info		**10892**	10758	10495
Oil Age	hrs	Client Info		**134**	1336	9422
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**ATTENTION**	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
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	**4**	6	6
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**1**	1	1
Lead	ppm	ASTM D5185m	>40	**0**	0	1
Copper	ppm	ASTM D5185m	>330	**0**	<1	1
Tin	ppm	ASTM D5185m	>15	**0**	0	<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	**68**	56	53
Barium	ppm	ASTM D5185m	0	**0**	2	0
Molybdenum	ppm	ASTM D5185m	0	**42**	41	40
Manganese	ppm	ASTM D5185m		**0**	0	1
Magnesium	ppm	ASTM D5185m	0	**487**	485	551
Calcium	ppm	ASTM D5185m		**1765**	1671	1804
Phosphorus	ppm	ASTM D5185m		**874**	824	804
Zinc	ppm	ASTM D5185m		**962**	1008	1013
Sulfur	ppm	ASTM D5185m		**2767**	2742	3291

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	4	4
Sodium	ppm	ASTM D5185m		**<1**	0	3
Potassium	ppm	ASTM D5185m	>20	**2**	1	1
Fuel	%	ASTM D3524	>5	**<1.0**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.2**	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**6.0**	7.4	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.8**	23.3	22.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.5**	21.4	21.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	**10.0**	9.7	9.1

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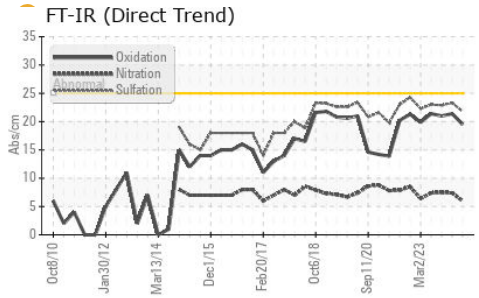
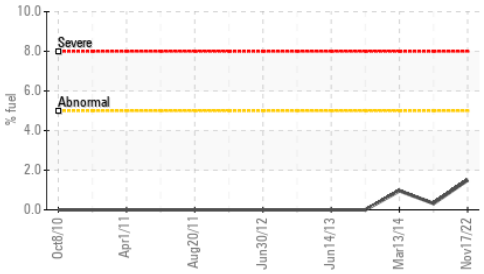
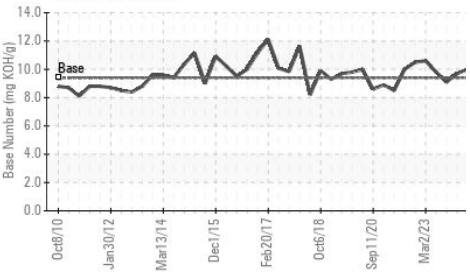
FT-IR (Direct Trend)



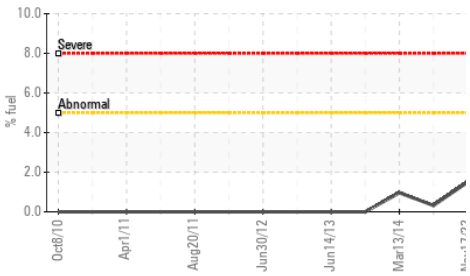
Fuel Dilution



Base Number



Fuel Dilution

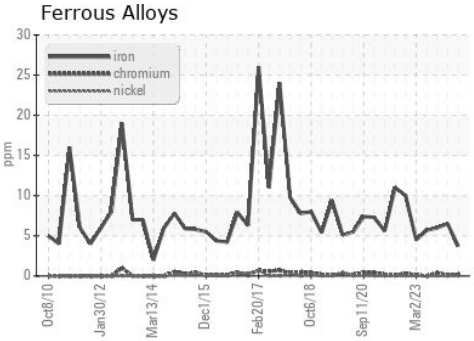


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

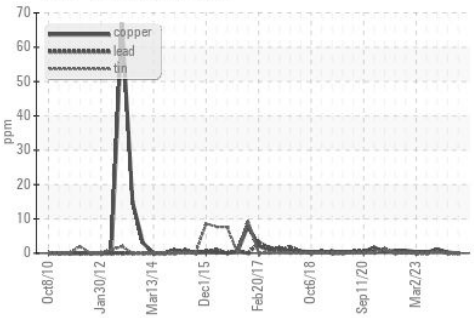
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	**11.9**	12.2	12.4

GRAPHS

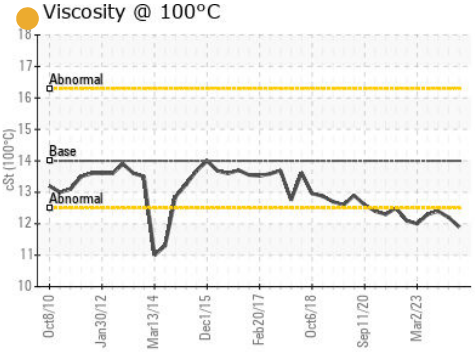
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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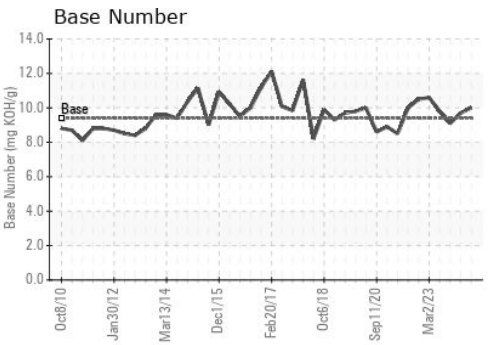

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0862526
Lab Number : 06151840
Unique Number : 10981918
Test Package : CONST (Additional Tests: FuelDilution, TBN)

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 18 Apr 2024 - Jonathan Hester

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)

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Report Id: SHEWIC [WUSCAR] 06151840 (Generated: 04/23/2024 05:12:48) Rev: 1

Submitted By: NOAH HANSON