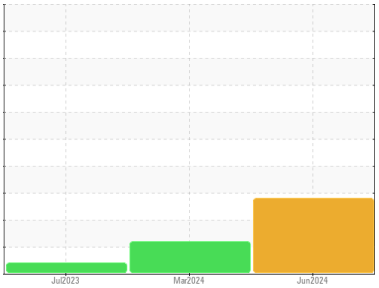
PROBLEM SUMMARY

Sample Rating Trend

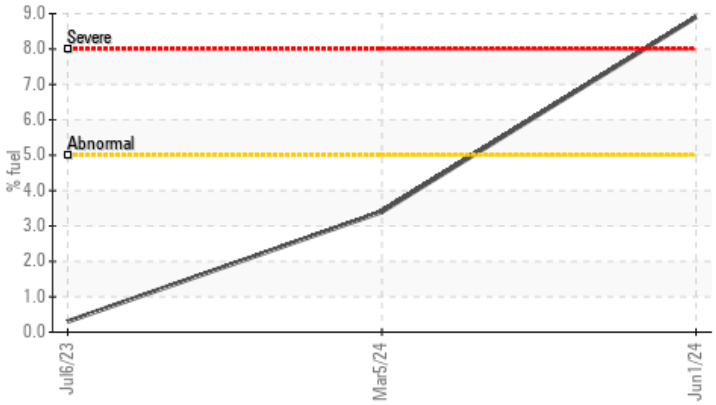


FUEL

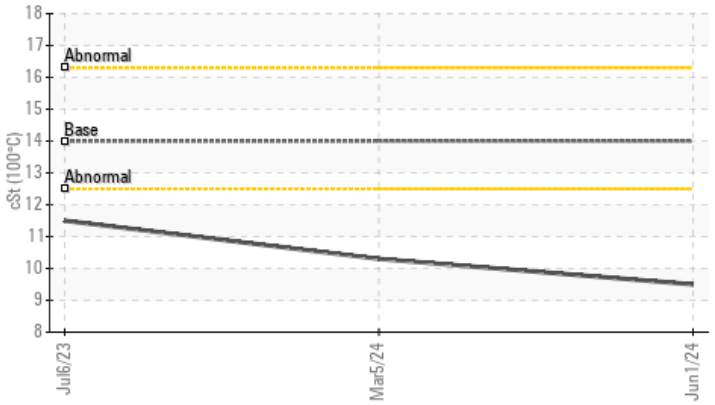
Area
KANSAS/44/EG - MOTOR GRADER
Machine Id
78.263 [KANSAS^44^EG - MOTOR GRADER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (8 GAL)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



▲ Viscosity @ 100°C



RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ATTENTION
Fuel	%	ASTM D3524	>5	▲ **8.9**	▲ 3.4	0.3
Visc @ 100°C	cSt	ASTM D445	14	▲ **9.5**	▲ 10.3	● 11.5

Customer Id: SHEWIC
Sample No.: WC0908886
Lab Number: 06207581
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

FUEL

05 Mar 2024 Diag: Wes Davis

Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

view report

VISCOSITY

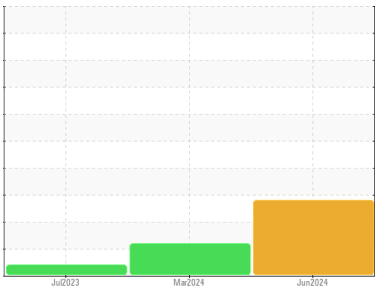
06 Jul 2023 Diag: Doug Bogart

Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
KANSAS/44/EG - MOTOR GRADER
Machine Id
78.263 [KANSAS^44^EG - MOTOR GRADER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (8 GAL)

DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0908886**	WC0886888	WC0821626
Sample Date		Client Info		**01 Jun 2024**	05 Mar 2024	06 Jul 2023
Machine Age	hrs	Client Info		**2561**	2233	1761
Oil Age	hrs	Client Info		**500**	250	1761
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	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	**26**	11	2
Chromium	ppm	ASTM D5185m	>20	**1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	**7**	6	7
Lead	ppm	ASTM D5185m	>40	**1**	0	5
Copper	ppm	ASTM D5185m	>330	**4**	1	6
Tin	ppm	ASTM D5185m	>15	**1**	<1	2
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**29**	39	65
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**37**	36	35
Manganese	ppm	ASTM D5185m		**0**	0	2
Magnesium	ppm	ASTM D5185m	0	**415**	416	512
Calcium	ppm	ASTM D5185m		**1553**	1512	1746
Phosphorus	ppm	ASTM D5185m		**901**	814	1007
Zinc	ppm	ASTM D5185m		**1024**	981	1233
Sulfur	ppm	ASTM D5185m		**2813**	2649	3903

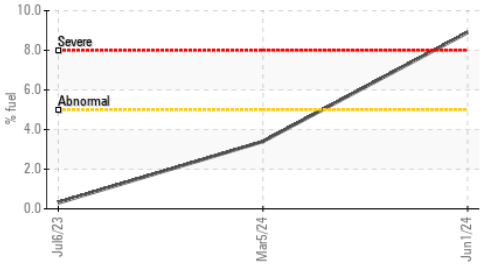
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**10**	8	9
Sodium	ppm	ASTM D5185m		**1**	2	2
Potassium	ppm	ASTM D5185m	>20	**2**	<1	7
Fuel	%	ASTM D3524	>5	▲ **8.9**	▲ 3.4	0.3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.4**	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**9.3**	7.0	4.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.1**	21.1	21.5

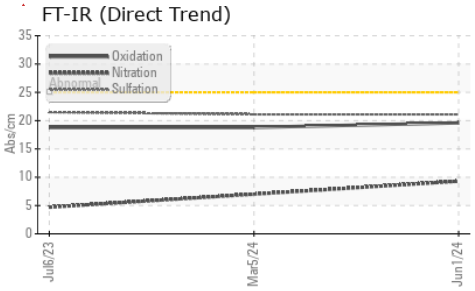
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.6**	18.8	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	**8.6**	10.0	10.3

OIL ANALYSIS REPORT

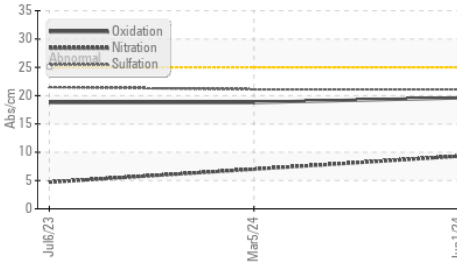
Fuel Dilution



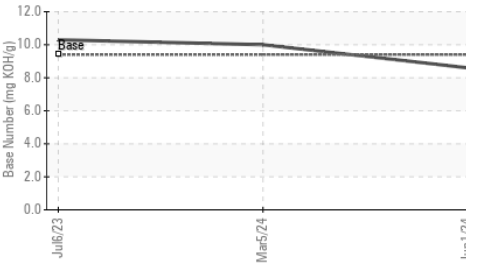
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

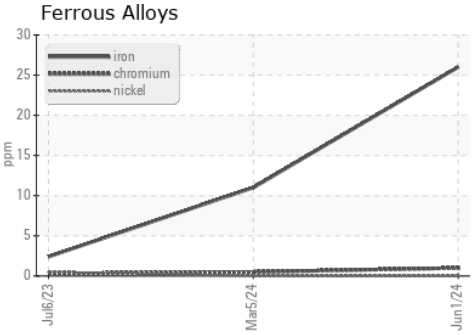


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

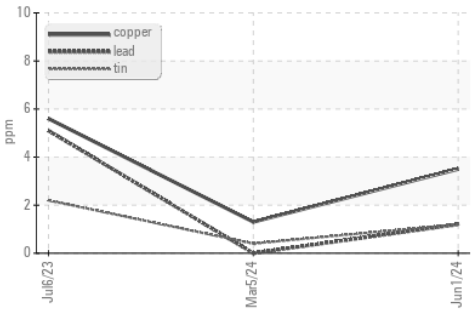
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	▲ **9.5**	▲ 10.3	● 11.5

GRAPHS

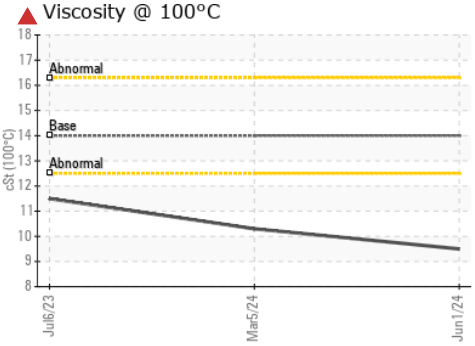
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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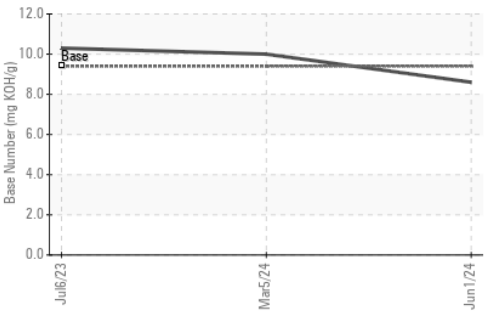

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0908886 **Received** : 12 Jun 2024
Lab Number : 06207581 **Tested** : 19 Jun 2024
Unique Number : 11075042 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : CONST (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)

SHERWOOD CONSTRUCTION CO INC
3219 WEST MAY ST
WICHITA, KS
US 67213
Contact: SHAWN SOUTH
shawn.south@sherwood.net
T: x:
F: x:

Report Id: SHEWIC [WUSCAR] 06207581 (Generated: 06/22/2024 06:55:14) Rev: 1

Submitted By: RUSTY RILEY