



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
OKLAHOMA/102/EG - MOTOR GRADER
 Machine Id
78.264 [OKLAHOMA^102^EG - MOTOR GRADER]

Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: 2182 hrs)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0864323	WC0862653	---
Sample Date		Client Info		31 Jan 2024	23 Oct 2023	---
Machine Age	hrs	Client Info		1916	1916	---
Oil Age	hrs	Client Info		1916	1916	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Not Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ATTENTION	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	2	---
Chromium	ppm	ASTM D5185m	>20	<1	0	---
Nickel	ppm	ASTM D5185m	>2	0	<1	---
Titanium	ppm	ASTM D5185m	>2	<1	0	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>25	1	2	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	1	1	---
Tin	ppm	ASTM D5185m	>15	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

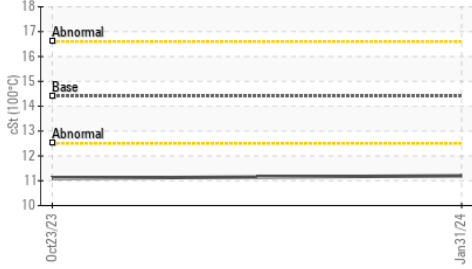
Silicon	ppm	ASTM D5185m	>25	5	5	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel		WC Method	>5	<1.0	0.3	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	6.6	5.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	21.1	---
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	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

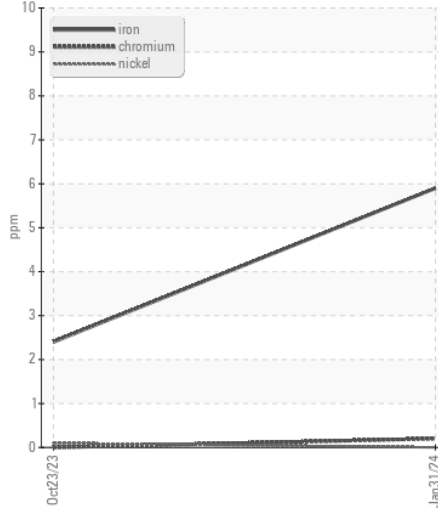
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	<1	3	---
Boron	ppm	ASTM D5185m	250	54	53	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	39	38	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	450	459	520	---
Calcium	ppm	ASTM D5185m	3000	1516	1630	---
Phosphorus	ppm	ASTM D5185m	1150	884	970	---
Zinc	ppm	ASTM D5185m	1350	1021	1166	---
Sulfur	ppm	ASTM D5185m	4250	2856	3044	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	18.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.4	10.2	---
Visc @ 100°C	cSt	ASTM D445	14.4	11.2	11.1	---

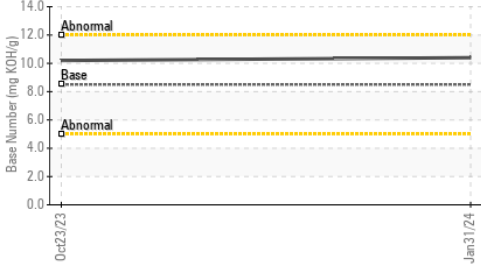
● Viscosity @ 100°C



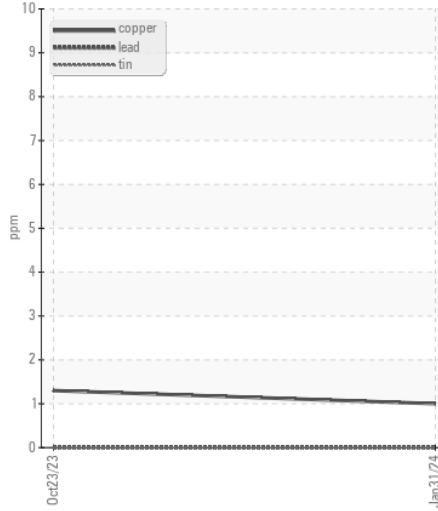
Ferrous Alloys



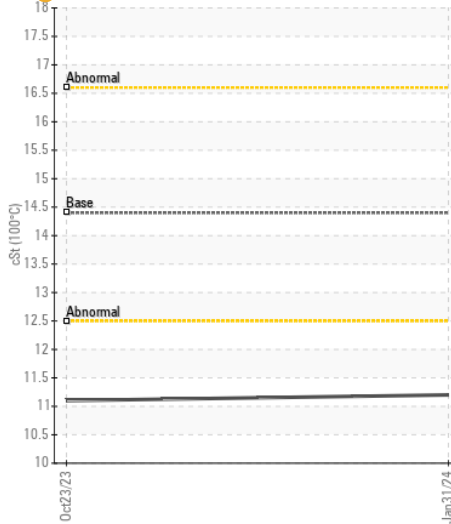
Base Number



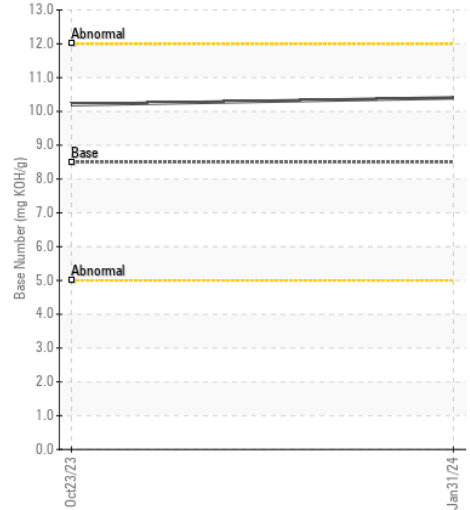
Non-ferrous Metals



● Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0864323 **Received** : 13 Feb 2024
Lab Number : 06086858 **Tested** : 13 Feb 2024
Unique Number : 10874303 **Diagnosed** : 14 Feb 2024 - Sean Felton
Test Package : CONST (Additional Tests: TBN)

SHERWOOD CONSTRUCTION CO INC
 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: BILL ORCUTT
 william.orcutt@wildcat.net

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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F: