

WEAR CONTAMINATION **FLUID CONDITION**

NORMAL ATTENTION NORMAL

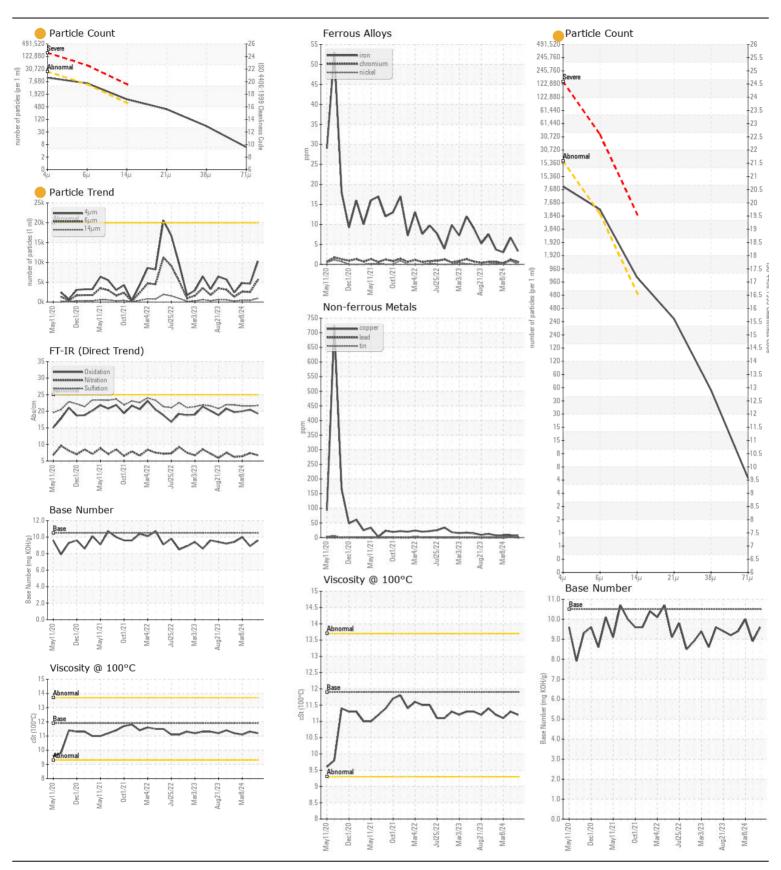
Mobile Fleet

6451 6451 Component Diesel Engine

DECOMMENDATION.	- .		N.A. 11	11 676		1.00	10.
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number Sample Date		Client Info		WC0937860 02 Jul 2024	WC0918968 01 May 2024	WC0902932 08 Mar 2024
	Machine Age	hrs	Client Info		9544	9158	8834
	Oil Age	hrs	Client Info		386	706	292
	Filter Age	hrs	Client Info		386	706	292
	Oil Changed		Client Info		Changed	Changed	Not Change
	Filter Changed		Client Info		Changed	Changed	Not Change
	Sample Status				ATTENTION	NORMAL	NORMAL
WEAR	Iron	nnm	ASTM D5185m	- 65	3	7	3
WEAN	Chromium	ppm	ASTM D5105m		<1	1	<1
All component wear rates are normal.	Nickel	ppm		>3	0	<1	0
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m		<1	<1	0
	Aluminum	ppm	ASTM D5185m		3	4	3
	Lead	ppm	ASTM D5185m	>10	0	2	0
	Copper	ppm	ASTM D5185m	>180	7	8	8
	Tin	ppm	ASTM D5185m	>8	0	2	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>15	3	5	5
OSITAMINATION	Potassium	ppm	ASTM D5185m		<1	4	4
There is a moderate amount of particulates present in the oil.	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.2	0.3	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	6.7	7.4	6.4
	Sulfation	Abs/.1mm	*ASTM D7415		21.7	21.6	21.6
	Particles >4µm		ASTM D7647	>20000	10283	4593	4785
	Particles >6µm		ASTM D7647		5602	2502	2607
	Particles >14µm Particles >21µm		ASTM D7647 ASTM D7647		953	426 143	444 149
	Particles >2 rµm		ASTM D7647		321 50	22	23
	Particles >30µm		ASTM D7647		5	2	2
	Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/20/17	19/19/16	19/19/16
	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
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5	3	<1
I LOID CONDITION	Boron	ppm	ASTM D5185m		47	33	50
The BN result indicates that there is suitable alkalinity remaining in the	Barium	ppm	ASTM D5185m		0	0	0
oil. The condition of the oil is suitable for further service.	Molybdenum	ppm	ASTM D5185m		46	42	47
	Manganese	ppm	ASTM D5185m		<1	1	0
	Magnesium	ppm	ASTM D5185m		477	530	482
	Calcium	ppm	ASTM D5185m		1715	1820	1627
	Phosphorus	ppm	ASTM D5185m		693	827	694
	Zinc	ppm	ASTM D5185m		798	956	896
	Sulfur	ppm	ASTM D5185m	05	2445	2963	2432
	Oxidation		*ASTM D7414		19.3	20.5	20.0
	Base Number (BN)	mg KOH/g	ASTM D2896	10.5	9.6	8.9	10.0

Visc @ 100°C cSt

ASTM D445 11.9





Certificate L2367

Report Id: CARBUTNC [WUSCAR] 06228409 (Generated: 07/09/2024 22:57:16) Rev: 1

Laboratory Sample No.

Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0937860 : 06228409

Received **Tested** Unique Number: 11111902 Diagnosed

Test Package: CONST (Additional Tests: PrtCount, 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.

: 09 Jul 2024 : 09 Jul 2024 - Don Baldridge

: 05 Jul 2024

Contact: Leigh Dennis rdennis@thesunrockgroup.com

T: (919)575-4505 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)575-0162

CAROLINA SUNROCK

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