OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6410 6410
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (10 GAL)

RECOMMENDATION

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.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

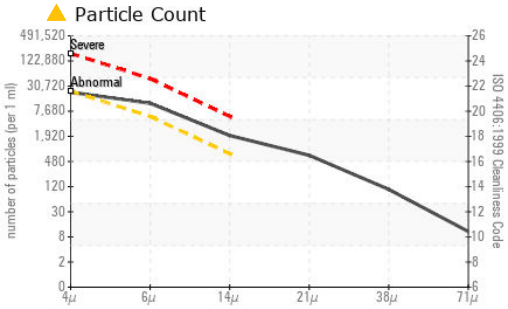
CONTAMINATION

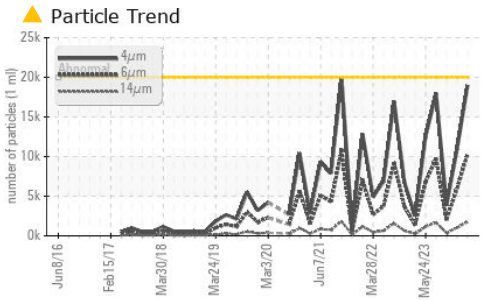
There is a high amount of particulates present in the oil.

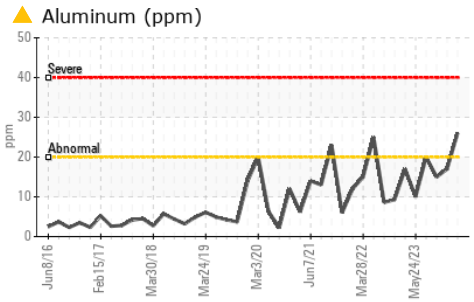
FLUID CONDITION

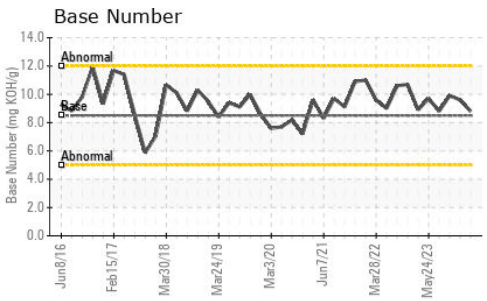
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

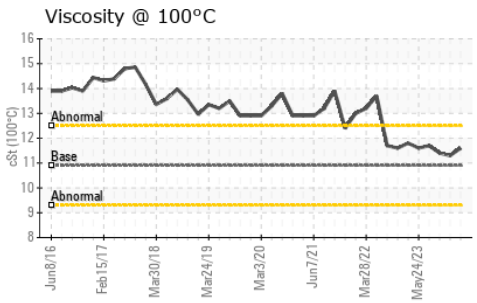
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0918594	WC0885850	WC0867181
Sample Date		Client Info		19 Mar 2024	18 Dec 2023	23 Oct 2023
Machine Age	hrs	Client Info		19829	19525	19247
Oil Age	hrs	Client Info		331	278	454
Filter Age	hrs	Client Info		331	278	454
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>100	55	35	28
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 26	17	15
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	8	4	5
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	25	21	21
Potassium	ppm	ASTM D5185m	>20	1	3	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.4	7.2	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	22.3	22.4
Particles >4µm		ASTM D7647	>20000	18965	10936	3828
Particles >6µm		ASTM D7647	>5000	▲ 10331	● 5957	2085
Particles >14µm		ASTM D7647	>640	▲ 1758	● 1014	355
Particles >21µm		ASTM D7647	>160	▲ 592	● 342	120
Particles >38µm		ASTM D7647	>40	▲ 91	● 53	18
Particles >71µm		ASTM D7647	>10	9	5	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 21/21/18	● 21/20/17	19/18/16
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
Sodium	ppm	ASTM D5185m		5	5	4
Boron	ppm	ASTM D5185m	250	34	54	42
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	53	50	42
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	450	532	553	497
Calcium	ppm	ASTM D5185m	3000	1763	1839	1744
Phosphorus	ppm	ASTM D5185m	1150	783	827	637
Zinc	ppm	ASTM D5185m	1350	931	1004	956
Sulfur	ppm	ASTM D5185m	4250	2760	2679	2856
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.0	20.1	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.8	9.6	9.9
Visc @ 100°C	cSt	ASTM D445	10.9	11.6	11.3	11.4

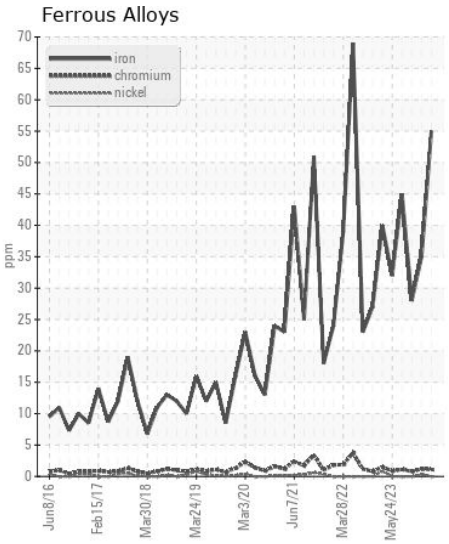


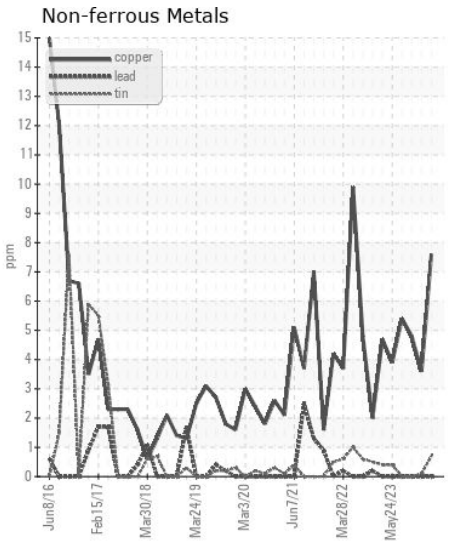


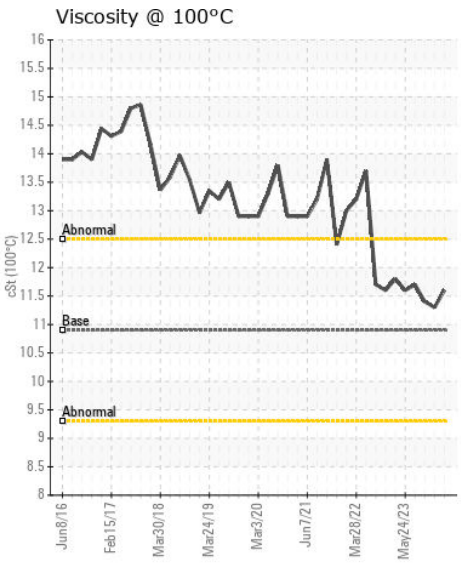


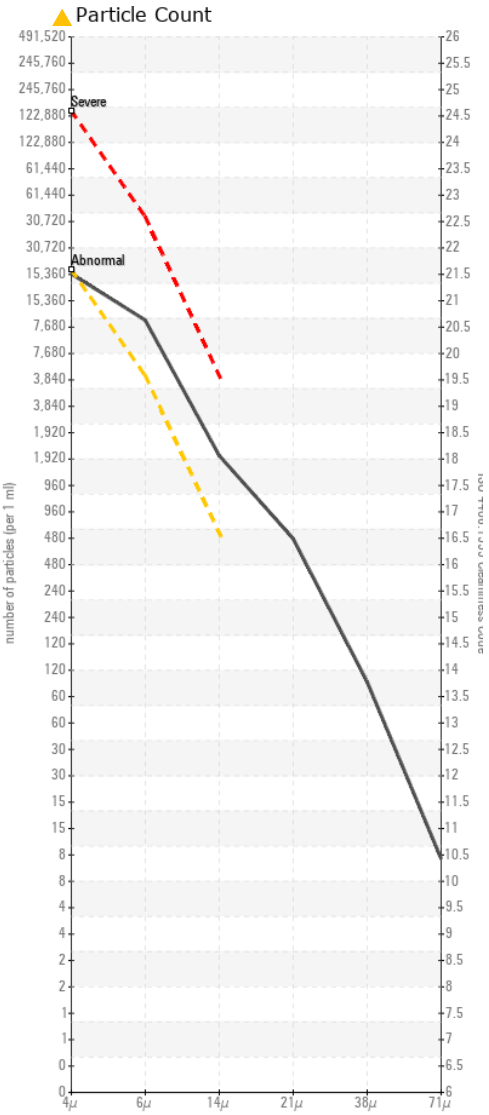


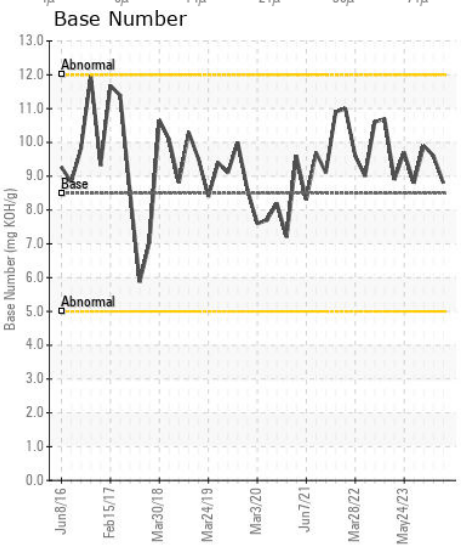












ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: WC0918594	**Received**	: 21 Mar 2024
Lab Number	: 06125565	**Tested**	: 22 Mar 2024
Unique Number	: 10939716	**Diagnosed**	: 25 Mar 2024 - Don Baldridge
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.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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