



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area  
**Contracting**  
Machine Id  
**5515 5515**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (5 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0947824</b>	WC0862007	WC0637583
Sample Date		Client Info		<b>29 May 2024</b>	04 Oct 2023	03 Nov 2021
Machine Age	hrs	Client Info		<b>6548</b>	6012	4639
Oil Age	hrs	Client Info		<b>536</b>	490	532
Filter Age	hrs	Client Info		<b>536</b>	490	532
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>15</b>	20	14
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>14</b>	18	12
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

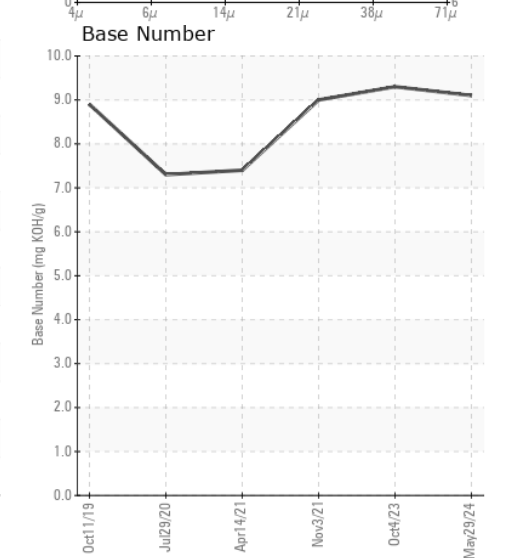
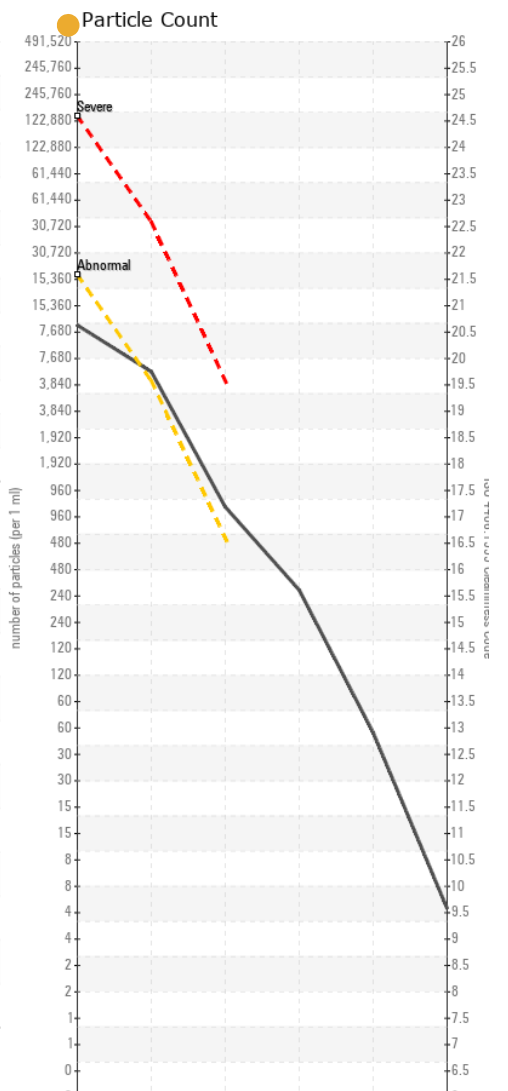
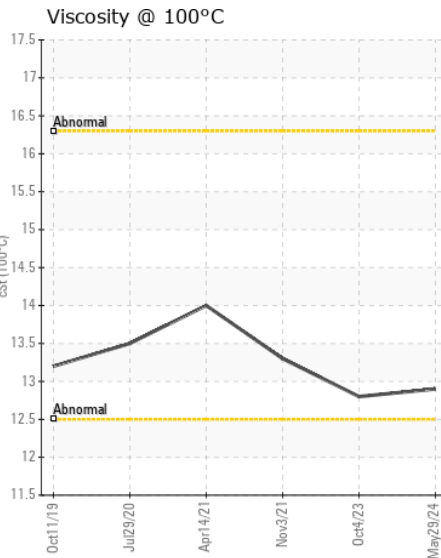
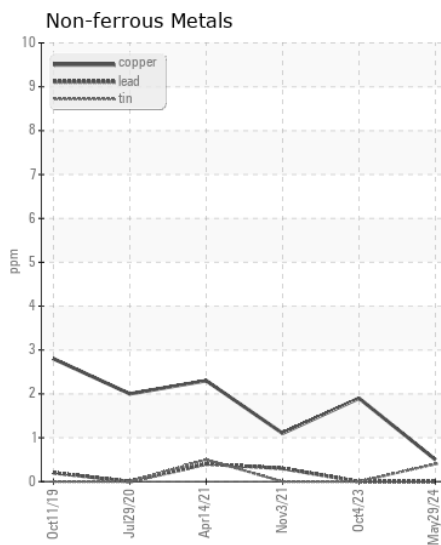
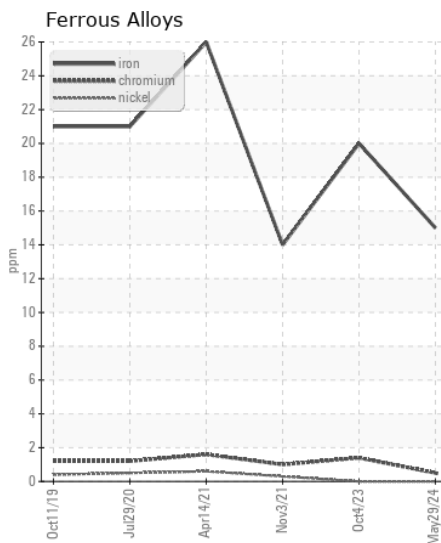
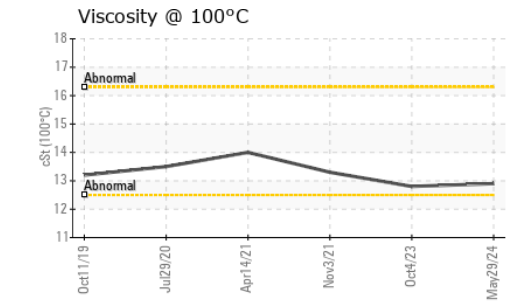
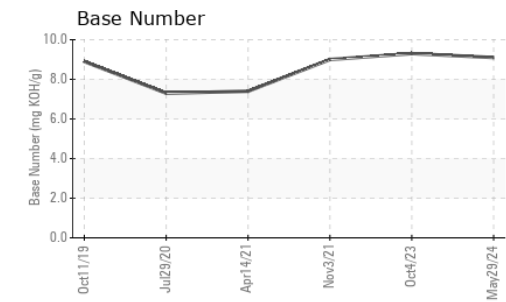
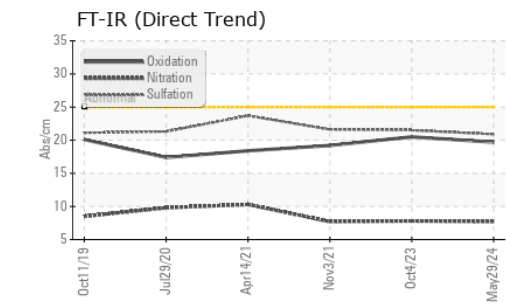
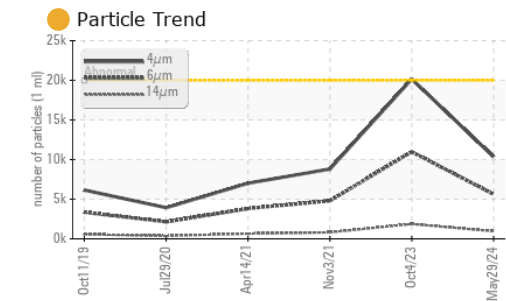
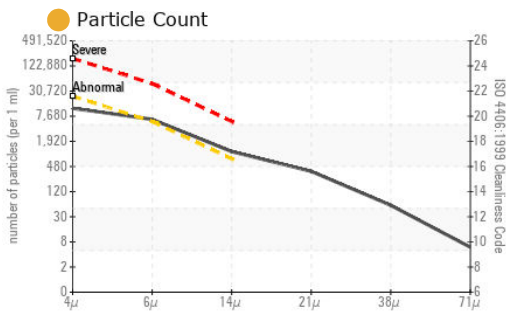
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	7.8	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	21.5	21.6
Particles >4µm		ASTM D7647	>20000	<b>10335</b>	▲ 20157	8802
Particles >6µm		ASTM D7647	>5000	● <b>5630</b>	▲ 10981	4795
Particles >14µm		ASTM D7647	>640	● <b>958</b>	▲ 1869	● 816
Particles >21µm		ASTM D7647	>160	● <b>323</b>	▲ 629	● 275
Particles >38µm		ASTM D7647	>40	● <b>50</b>	▲ 97	● 42
Particles >71µm		ASTM D7647	>10	<b>5</b>	10	4
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● <b>21/20/17</b>	▲ 22/21/18	● 20/19/17
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## 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.

Sodium	ppm	ASTM D5185m	>118	<b>2</b>	4	3
Boron	ppm	ASTM D5185m		<b>39</b>	32	29
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>47</b>	48	38
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>517</b>	559	567
Calcium	ppm	ASTM D5185m		<b>1639</b>	1674	1875
Phosphorus	ppm	ASTM D5185m		<b>773</b>	799	725
Zinc	ppm	ASTM D5185m		<b>916</b>	976	875
Sulfur	ppm	ASTM D5185m		<b>2762</b>	2610	3434
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.7</b>	20.5	19.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.1</b>	9.3	9
Visc @ 100°C	cSt	ASTM D445		<b>12.9</b>	12.8	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0947824  
**Lab Number** : 06196534  
**Unique Number** : 11058657  
**Test Package** : CONST ( Additional Tests: PrtCount, TBN )

**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 03 Jun 2024 - Don Baldrige

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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