



# OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

**Mobile Fleet**

Machine Id

**6415 6415**

Component

**Rear Differential**

Fluid

**MOBIL DELVAC 1 SYNTHETIC GEAR SAE 75W90 (9 GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0861924</b>	WC0726424	WC0585626
Sample Date		Client Info		<b>03 Jan 2024</b>	02 Aug 2022	24 May 2021
Machine Age	hrs	Client Info		<b>15029</b>	12817	10958
Oil Age	hrs	Client Info		<b>2222</b>	4138	2279
Filter Age	hrs	Client Info		<b>2222</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Sample Status				<b>ABNORMAL</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>144</b>	140	88
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>3</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	2	1
Aluminum	ppm	ASTM D5185m	>25	<b>▲ 45</b>	14	8
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>100	<b>0</b>	<1	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
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

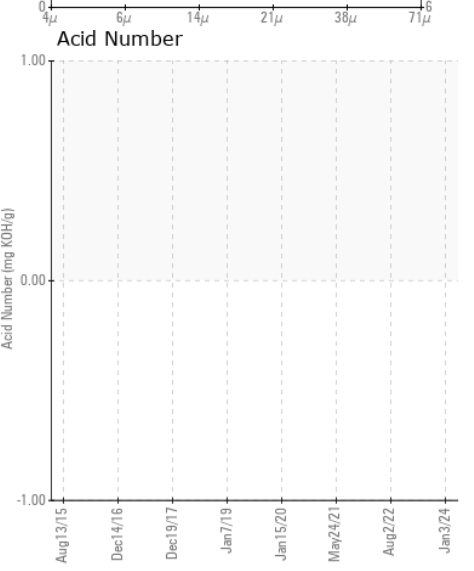
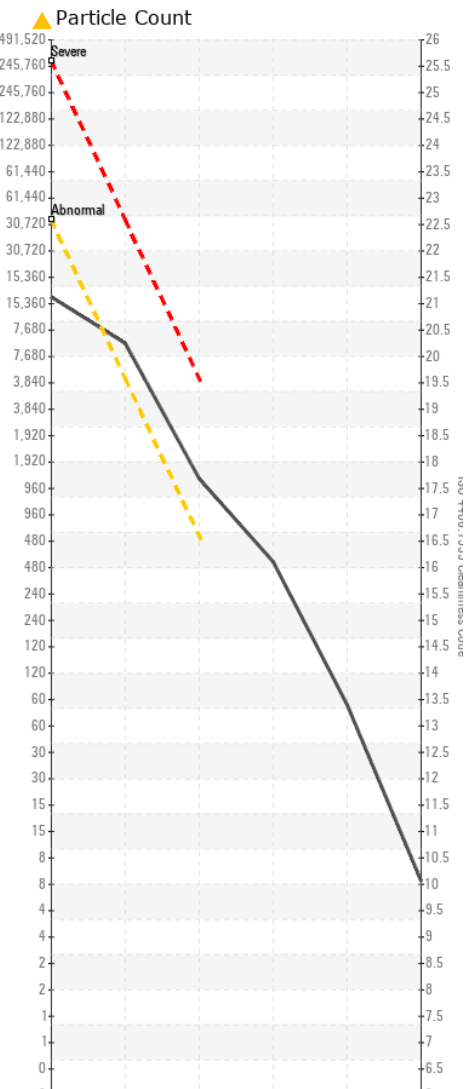
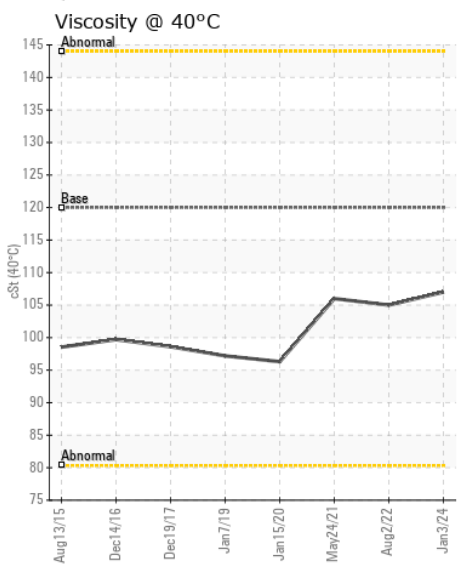
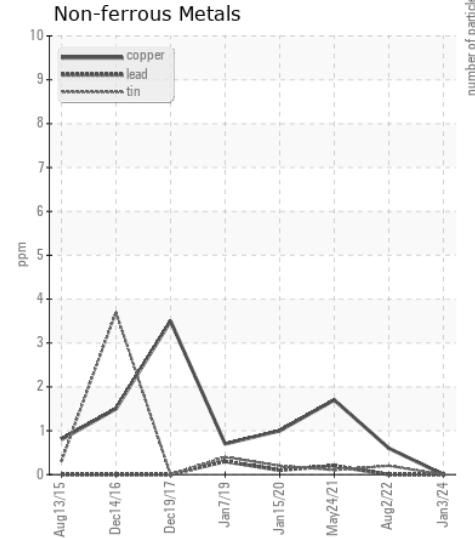
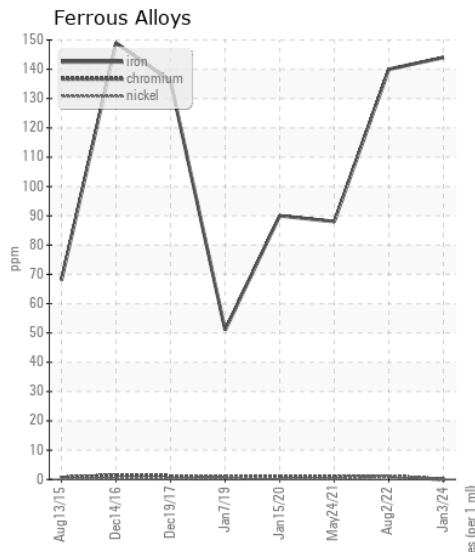
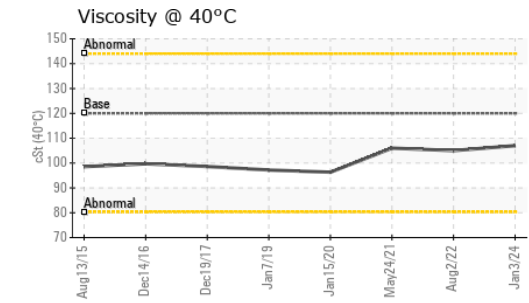
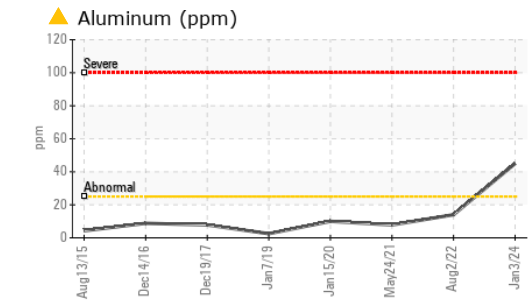
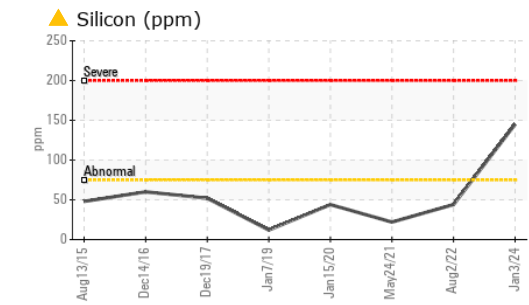
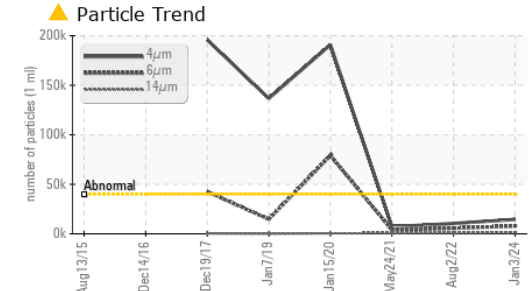
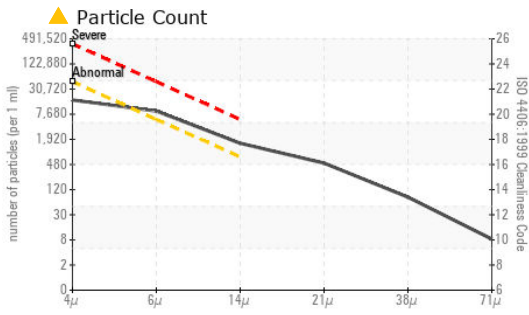
There is a high amount of particulates present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 145</b>	44	22
Potassium	ppm	ASTM D5185m	>20	<b>24</b>	4	2
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>40000	<b>14581</b>	10442	7127
Particles >6µm		ASTM D7647	>5000	<b>▲ 7943</b>	▲ 5688	3883
Particles >14µm		ASTM D7647	>640	<b>▲ 1352</b>	▲ 968	▲ 661
Particles >21µm		ASTM D7647	>160	<b>▲ 455</b>	▲ 326	▲ 223
Particles >38µm		ASTM D7647	>40	<b>▲ 70</b>	▲ 50	34
Particles >71µm		ASTM D7647	>10	<b>7</b>	5	4
Oil Cleanliness		ISO 4406 (c)	>22/19/16	<b>▲ 21/20/18</b>	▲ 21/20/17	▲ 20/19/17
Silt	scalar	*Visual	NONE	<b>LIGHT</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	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>9</b>	5	3
Boron	ppm	ASTM D5185m		<b>69</b>	289	310
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Manganese	ppm	ASTM D5185m		<b>2</b>	5	4
Magnesium	ppm	ASTM D5185m		<b>24</b>	17	14
Calcium	ppm	ASTM D5185m		<b>67</b>	61	48
Phosphorus	ppm	ASTM D5185m		<b>898</b>	1344	1333
Zinc	ppm	ASTM D5185m		<b>39</b>	47	31
Sulfur	ppm	ASTM D5185m		<b>21299</b>	25604	21719
Visc @ 40°C	cSt	ASTM D445	120	<b>107</b>	105	106



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0861924 **Received** : 09 Jan 2024  
**Lab Number** : 06055825 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10821774 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PrtCount )

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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)