



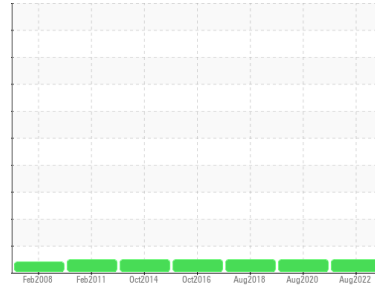
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**EBL [348617]**  
 Machine Id  
**MERRIT DAVIS 120052 (S/N CF01764-01)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 220 (17 GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>USP235995</b>	USP215334	USP187125
Sample Date	Client Info	<b>23 Aug 2022</b>	24 Aug 2020	20 Aug 2018
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	Not Changd
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>200	<b>3</b>	5	9
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	1
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	0	0
Lead	ppm	ASTM D5185m	>100	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>200	<b>2</b>	4	8
Tin	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m		<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	50	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	50	<b>0</b>	2	<1
Calcium	ppm	ASTM D5185m	50	<b>2</b>	5	3
Phosphorus	ppm	ASTM D5185m	350	<b>292</b>	241	209
Zinc	ppm	ASTM D5185m	100	<b>0</b>	6	11
Sulfur	ppm	ASTM D5185m	12500	<b>12605</b>	11950	12532

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water	%	ASTM D6304	>0.2	<b>0.005</b>	0.001	0.003
ppm Water	ppm	ASTM D6304	>2000	<b>56.4</b>	3.4	30

## FLUID CLEANLINESS

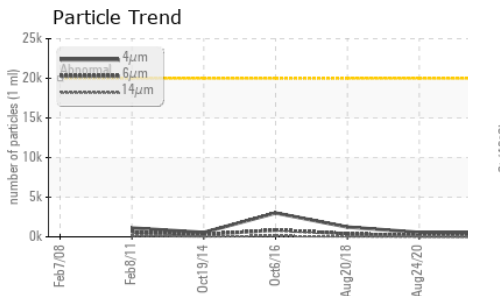
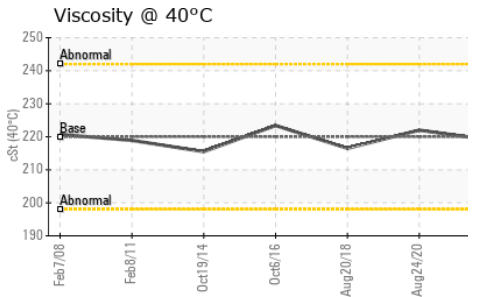
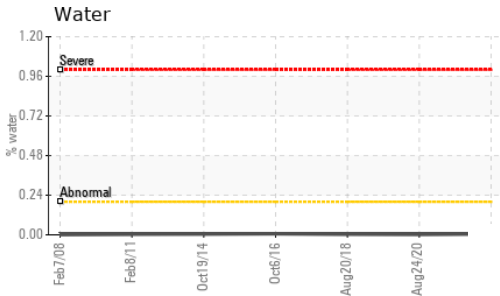
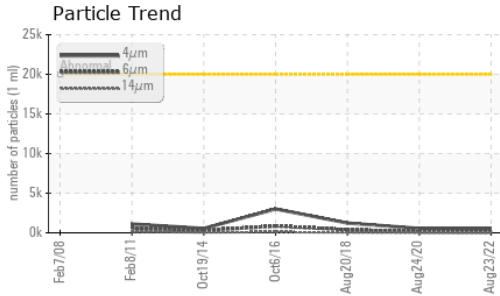
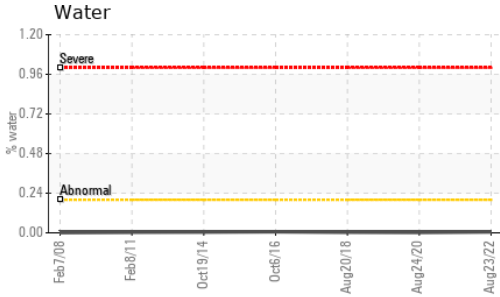
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>20000	<b>459</b>	555	1233
Particles >6µm	ASTM D7647	>5000	<b>89</b>	133	379
Particles >14µm	ASTM D7647	>640	<b>8</b>	8	42
Particles >21µm	ASTM D7647	>160	<b>2</b>	1	13
Particles >38µm	ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>16/14/10</b>	16/14/10	17/16/13

## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	<b>0.54</b>	0.505	0.593



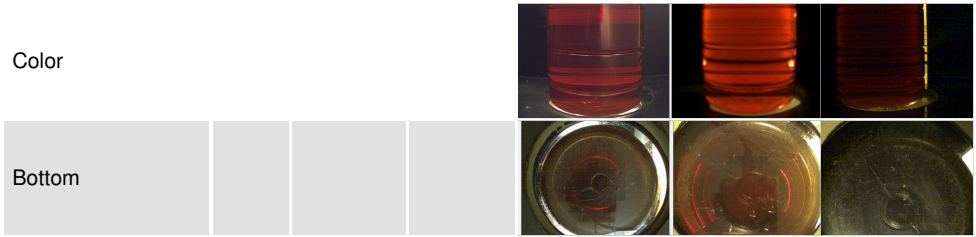
# OIL ANALYSIS REPORT



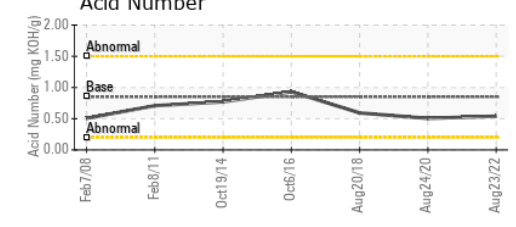
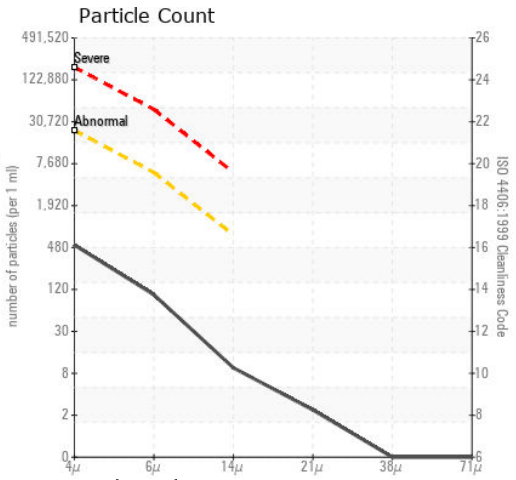
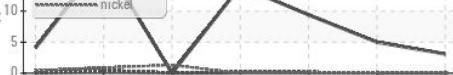
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	219	222	216.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP235995 **Received** : 09 Sep 2022  
**Lab Number** : 05637570 **Diagnosed** : 12 Sep 2022  
**Unique Number** : 10127100 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**3M - FAIRMONT**  
 710 NORTH STATE STREET  
 FAIRMONT, MN  
 US 56031  
 Contact: JEFF NELSON  
 jnelson2@mmm.com  
 T: (507)235-2111  
 F: (507)235-2180

Certificate L2367  
 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)