

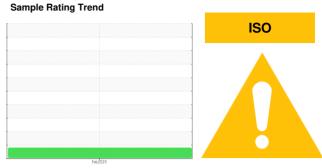
# **OIL ANALYSIS REPORT**

METRO
Machine Id
METRO 25012

**Front Differential** 

Fluid

{not provided} (--- GAL)



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

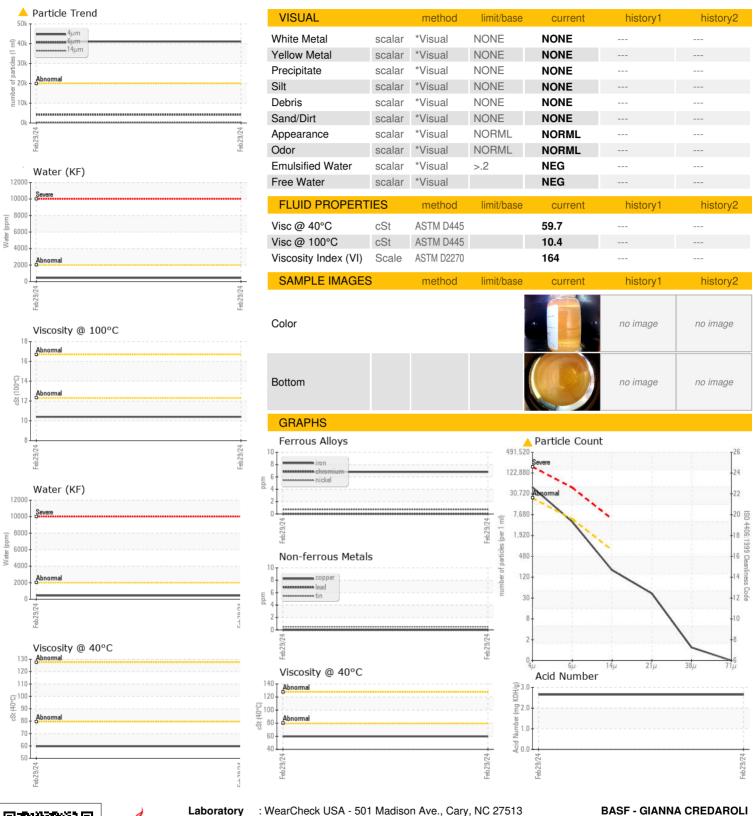
### **Fluid Condition**

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

SAMPLE INFORM						
Cample Number	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0934477		
Sample Date		Client Info		29 Feb 2024		
Machine Age	mls	Client Info		5		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	7		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>10	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>25	0		
Copper	ppm	ASTM D5185m	>100	0		
Tin	ppm	ASTM D5185m	>10	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		291		
Barium	ppm	ASTM D5185m		<1		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		1		
Magnesium	ppm	ASTM D5185m		5		
	ppm	ASTM D5185m		2		
Calcium	-  - · · ·	710 1111 20 100111				
	ppm	ASTM D5185m		1568		
Phosphorus				1568 6		
Phosphorus Zinc	ppm	ASTM D5185m				
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	limit/base	6		
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		6 28619	  	 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method		6 28619 current	  	 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>75	6 28619 current	history1	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>75 >20	6 28619 current 1 2	history1	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2	6 28619 current 1 2 2 2	history1	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	>75 >20 >.2	6 28619 current 1 2 2 0.044	history1	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>75 >20 >.2 >2000	6 28619 current 1 2 2 0.044 440	history1	 history2 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	>75 >20 >.2 >2000 limit/base	6 28619 current 1 2 2 0.044 440 current	history1 history1	history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>75 >20 >.2 >20000 limit/base >20000	6 28619  current  1 2 2 0.044 440  current  41063	history1 history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>75 >20 >.2 >.2 >2000 limit/base >20000 >5000	6 28619  current  1 2 2 0.044 440  current  41063 4164	history1 history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>75 >20 >.2 >2000 limit/base >20000 >5000 >640	6 28619  current  1 2 2 0.044 440  current  41063 4164 169	history1 history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	>75 >20 >.2 >2000 limit/base >20000 >5000 >640 >160	6 28619  current  1 2 2 0.044 440  current  41063 4164 169 36	history1 history1 history1	history2 history2 history2
Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  method  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647	>75 >20 >.2 >2000 limit/base >20000 >5000 >640 >160 >40	6 28619  current  1 2 2 0.044 440  current  41063 4164 169 36 1	history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304  method  ASTM D7647	>75  >20  >.2  >2000  limit/base  >20000  >5000  >640  >160  >40  >10	6 28619  current  1 2 2 0.044 440  current  41063 4164 169 36 1 0	history1 history1 history1	history2 history2



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No.

: WC0934477 Lab Number : 06179402

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 May 2024 **Tested** : 16 May 2024

Unique Number : 11030728 Diagnosed : 16 May 2024 - Angela Borella Test Package : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI ) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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Contact: GIANNA CREDAROLI gianna.credaroli@basf.com T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: