

# **OIL ANALYSIS REPORT**

# Sample Rating Trend



# TRIPLE M

Component

**Hydraulic System** 

AW HYDRAULIC OIL ISO 46 (--- GAL)

### **DIAGNOSIS**

### Recommendation

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

All component wear rates are normal.

### Contamination

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

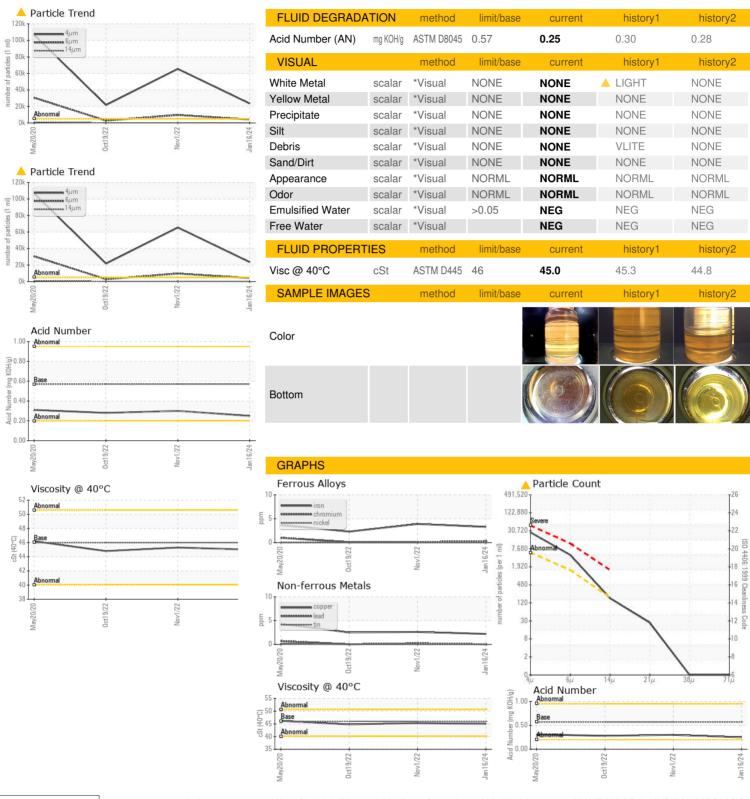
### **Fluid Condition**

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

		May202	0 0ct2022	Nov2022 Ja	n2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0701759	WC0701753	WC0701752
Sample Date		Client Info		16 Jan 2024	01 Nov 2022	19 Oct 2022
Machine Age	wks	Client Info		0	0	144
Oil Age	wks	Client Info		156	0	12
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	4	2
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	<1
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>20	2	3	2
Tin	ppm	ASTM D5185m	>20	0	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	10 10 100	AOTH DE LOE				
Cadimum	ppm	ASTM D5185m		0	0	0
ADDITIVES	ррпі	method	limit/base	current	0 history1	0 history2
	ppm		limit/base	-		
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	5	current 0	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	5 5	current 0 3	history1 0 <1	history2 0 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	5 5	current 0 3 0	history1 0 <1 0	history2 0 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese	ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	5 5 5	current 0 3 0	history1 0 <1 0 0	history2 0 0 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	5 5 5 25	current 0 3 0 0 4	history1  0 <1 0 <1 0 <1	history2 0 0 0 0 0 0 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185m	5 5 5 25 200	current 0 3 0 0 4 64	history1  0  <1  0  <1  72	history2  0 0 0 0 0 <1 74
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	5 5 5 25 200 300	current 0 3 0 0 4 64 361	history1  0 <1 0 0 <1 72 289	history2  0 0 0 0 0 <1 74 288
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370	current 0 3 0 0 4 64 361 370	history1  0 <1 0 <1 72 289 365	history2  0 0 0 0 0 <1 74 288 361
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base	current 0 3 0 0 4 64 361 370 890	history1  0 <1 0 <1 72 289 365 890	history2  0  0  0  0  <1  74  288  361  889
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base	current  0 3 0 0 4 64 361 370 890 current	history1  0 <1 0 <1 72 289 365 890 history1	history2  0 0 0 0 <1 74 288 361 889 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15	current 0 3 0 0 4 64 361 370 890 current 0	history1  0 <1 0 <1 72 289 365 890 history1	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15	current 0 3 0 0 4 64 361 370 890 current 0	history1  0  <1  0  0  <1  72  289  365  890  history1  1  0	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15 >20	current  0 3 0 0 4 64 361 370 890 current 0 0 <1	history1  0  <1  0  <1  72  289  365  890  history1  1  0  0	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15 >20	current  0 3 0 0 4 64 361 370 890 current 0 0 <1	history1  0  <1  0  0  <1  72  289  365  890  history1  1  0  history1	history2  0  0  0  0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000	current  0 3 0 0 4 64 361 370 890 current  0 0 <1 current  23506	history1  0 <1 0 0 <1 72 289 365 890 history1  1 0 0 history1  ▲ 65466	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0 0 history2  ▲ 21720
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300	current       0       3       0       0       4       64       361       370       890       current       0       <1       current       △       23506       △       4150	history1  0 <1 0 0 <1 72 289 365 890 history1 1 0 0 history1  △ 65466 △ 9680	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0 0 history2  ▲ 21720 ▲ 2839
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm  Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	current       0       3       0       0       4       64       361       370       890       current       0       <1       current       △ 23506       ▲ 4150       151	history1  0 <1 0 <1 0 <1 72 289 365 890 history1  1 0 0 history1  △ 65466 △ 9680 △ 233	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0 0 history2  △ 21720 △ 2839 △ 212
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	current  0 3 0 0 4 64 361 370 890  current 0 0 <1  current  △ 23506  △ 4150 151 23	history1  0 <1 0 <1 0 <1 72 289 365 890 history1 1 0 0 history1  ▲ 65466 ▲ 9680 ▲ 233 19	history2  0 0 0 0 0 <1 74 288 361 889 history2 <1 0 0 history2  ▲ 21720 ▲ 2839 ▲ 212 40



## OIL ANALYSIS REPORT







Laboratory

Sample No. Lab Number **Unique Number** 

: 06063544 : 10834926 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0701759 Recieved : 17 Jan 2024 Diagnosed : 19 Jan 2024

Diagnostician : Don Baldridge

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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