

# **OIL ANALYSIS REPORT**

# [182747-N2STV4W] ATE-ACT09-7707

Component **Hydraulic System** 

NOT GIVEN (--- QTS)

Sample Rating Trend



### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

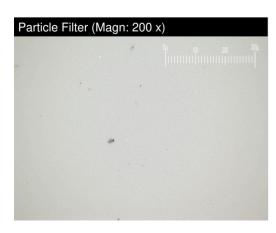
### Contamination

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.

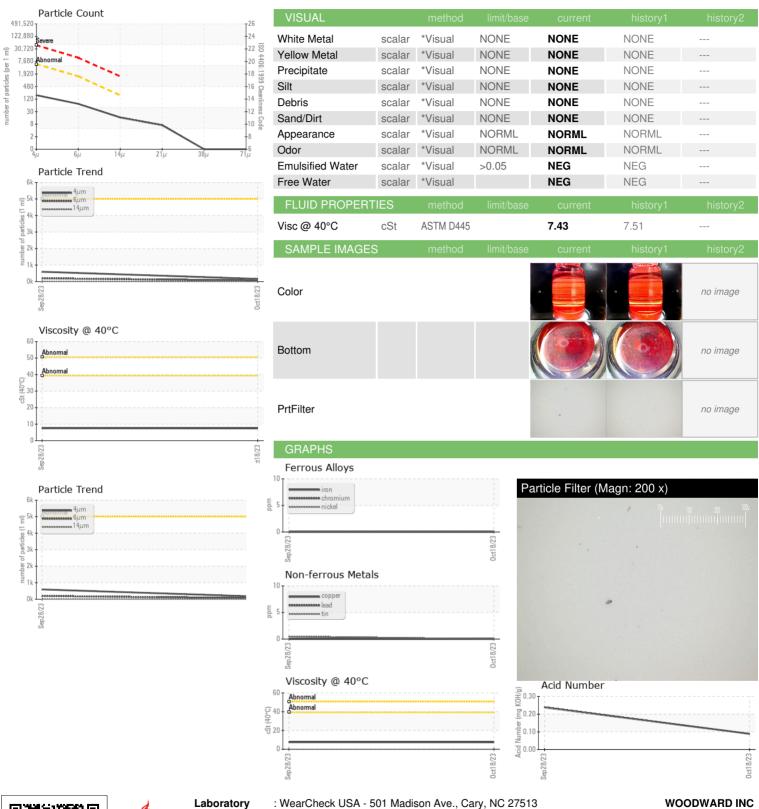
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PH06006628	PH06007359	
Sample Date		Client Info		18 Oct 2023	28 Sep 2023	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		2325	2283	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	0	
Chromium	ppm	ASTM D5185m	>20	0	0	
Nickel	ppm	ASTM D5185m	>20	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>20	0	0	
Lead	ppm	ASTM D5185m	>20	0	0	
Copper	ppm	ASTM D5185m	>20	0	0	
Tin	ppm	ASTM D5185m	>20	0	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES						٠٠ ٠٠ ٠٠٠ ١٠٠
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	Ilmit/base	current 0	0	nistory2 
	ppm ppm		ilmit/base			
Boron		ASTM D5185m	limit/base	0 0 0	0	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	IIMII/base	0 0	0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIMII/base	0 0 0 0	0 0 0 0	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIMIt/base	0 0 0	0 0 0 0 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	Ilmitroase	0 0 0 0 0 0 0 762	0 0 0 0 0 0 0 816	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	Ilmitroase	0 0 0 0 0 0 0 762	0 0 0 0 0 0 0 816	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	Ilmivoase	0 0 0 0 0 0 0 762	0 0 0 0 0 0 0 816	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0 0 0 0 762 0 28	0 0 0 0 0 0 0 816	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 0 0 0 762 0 28	0 0 0 0 0 0 0 816 0 57	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	0 0 0 0 0 0 762 0 28	0 0 0 0 0 0 816 0 57	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	0 0 0 0 0 0 762 0 28	0 0 0 0 0 0 0 816 0 57 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15	0 0 0 0 0 0 762 0 28 current 3	0 0 0 0 0 0 0 816 0 57 history1 4	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15 >20	0 0 0 0 0 0 762 0 28 current 3 <1	0 0 0 0 0 0 816 0 57 history1 4 <1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15 >20 limit/base	0 0 0 0 0 0 762 0 28 current 3 <1 0	0 0 0 0 0 0 0 816 0 57 history1 4 <1 0	history2 history2
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	ASTM D5185m	limit/base >15 >20 limit/base >5000	0 0 0 0 0 0 762 0 28 current 3 <1 0	0 0 0 0 0 0 816 0 57 history1 4 <1 0 history1 593	history2 history2
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	ASTM D5185m  method ASTM D5185m	limit/base >15 >20 limit/base >5000 >1300	0 0 0 0 0 0 762 0 28 current 3 <1 0 current	0 0 0 0 0 0 816 0 57 history1 4 <1 0 history1 593 196	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160	0 0 0 0 0 0 762 0 28 current 3 <1 0 current 163 63 14	0 0 0 0 0 0 816 0 57 history1 4 <1 0 history1 593 196 15	history2 history2
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	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40	0 0 0 0 0 0 762 0 28 current 3 <1 0 current 163 63 14	0 0 0 0 0 0 816 0 57 history1 4 <1 0 history1 593 196 15 3	history2 history2



I LOID OLL/MULINEOU					
Particles >4µm	ASTM D7647	>5000	163	593	
Particles >6µm	ASTM D7647	>1300	63	196	
Particles >14µm	ASTM D7647	>160	14	15	
Particles >21µm	ASTM D7647	>40	6	3	
Particles >38µm	ASTM D7647	>10	0	0	
Particles >71µm	ASTM D7647	>3	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	15/13/11	16/15/11	
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045		0.089	0.238	
	_				



## **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: PH06006628 : 06006628

: 10740390

Received

: 13 Nov 2023 Diagnosed

: 04 Dec 2023 Diagnostician : Doug Bogart

Test Package : PLANT ( Additional Tests: PrtFilter ) 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) 1000 E DRAKE RD

FORT COLLINS, CO US 80525

Contact: JAY BISHOP Jay.Bishop@woodward.com

T:

F:

Contact/Location: JAY BISHOP - WOOFORCO