

# **OIL ANALYSIS REPORT**

ISO

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### Machine Id **52648** Component **Hydraulic System** Fluid **AW HYDRAULIC OIL ISO 32 (--- GAL)**

# DIAGNOSIS

#### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

## **Fluid Condition**

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

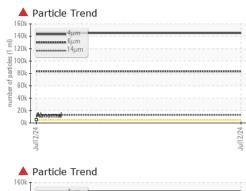
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SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0005166		
Sample Date		Client Info		12 Jul 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0 Not Observed		
Oil Changed		Client Info		Not Changd		
Sample Status				SEVERE		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	1		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>20	4		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	1		
Tin	ppm	ASTM D5185m	>20	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0		
			0	0		
Barium	ppm	ASTM D5185m	5	<1		
Barium Molybdenum				<1 <1		
	ppm	ASTM D5185m	5	<1		
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	5 5 25	<1 <1		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25 200	<1 <1 0		
Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25	<1 <1 0 1		 
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25 200	<1 <1 0 1 33		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25 200 300	<1 <1 0 1 33 263	  	  
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	5 5 25 200 300 370	<1 <1 0 1 33 263 376	   	   
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	5 5 25 200 300 370 2500 Limit/base	<1 <1 0 1 33 263 376 703	    	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25 200 300 370 2500 Limit/base	<1 <1 0 1 33 263 376 703 current	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 25 200 300 370 2500 Limit/base	<1 <1 0 1 33 263 376 703 current 0	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	5 5 25 200 300 370 2500 Limit/base >15	<1 <1 0 1 33 263 376 703 current 0 0 0	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	5 5 25 200 300 370 2500 <b>limit/base</b> >15 >20	<1 <1 0 1 33 263 376 703 current 0 0 <1	     history1	     history2
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 ASTM D5185m	5 5 25 200 300 370 2500 2500 2500 2500 2500	<1 <1 0 1 33 263 376 703 current 0 0 <1	     history1   history1	     history2   history2
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	ASTM D5185m ASTM D5185m	5 5 25 200 300 370 2500 2500 2500 >15 >20 <u>limit/base</u> >20 <u>limit/base</u> >5000 >1300 >160	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> current <ul> <li>0</li> <li>0</li> <li>&lt;1</li> </ul> current <ul> <li>145166</li> <li>83373</li> <li>12777</li> </ul>	     history1   history1	     history2  history2
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 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 25 200 300 370 2500 2500 2500 >15 >20 <u>limit/base</u> >20 <u>limit/base</u> >5000 >1300 >160	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> <i>current</i> <ul> <li>0</li> <li>&lt;1</li> </ul> <i>current</i> <ul> <li>145166</li> <li>83373</li> <li>12777</li> <li>3238</li> </ul>	      history1  history1  history1	      history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5617 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 25 200 300 370 2500 2500 >15 >20 <b>Imit/base</b> >20 <b>S</b> 000 >1300 >160 >40 >10	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> <i>current</i> <ul> <li>0</li> <li>&lt;1</li> <li><i>current</i></li> <li>145166</li> <li>83373</li> <li>12777</li> <li>3238</li> <li>61</li> </ul>	      history1   history1	      history2  history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 25 200 300 370 2500 2500 2500 >15 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> current <ul> <li>0</li> <li>&lt;1</li> </ul> current <ul> <li>145166</li> <li>83373</li> <li>12777</li> <li>3238</li> <li>61</li> <li>1</li> </ul>	     history1   history1	     history2   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5617 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 25 200 300 370 2500 2500 >15 >20 <b>Imit/base</b> >20 <b>S</b> 000 >1300 >160 >40 >10	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> <i>current</i> <ul> <li>0</li> <li>&lt;1</li> <li><i>current</i></li> <li>145166</li> <li>83373</li> <li>12777</li> <li>3238</li> <li>61</li> </ul>	      history1  history1   	      history2  history2   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 25 200 300 370 2500 2500 2500 >15 >20 20 20 20 20 20 20 20 20 20 20 20 20 2	<1 <ul> <li>&lt;1</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>33</li> <li>263</li> <li>376</li> <li>703</li> </ul> <li><i>current</i> <ul> <li>0</li> <li>&lt;1</li> <li>145166</li> <li>83373</li> <li>12777</li> <li>3238</li> <li>61</li> <li>1</li> <li>24/24/21</li> </ul></li>	     history1   history1    	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>

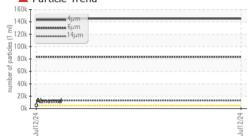
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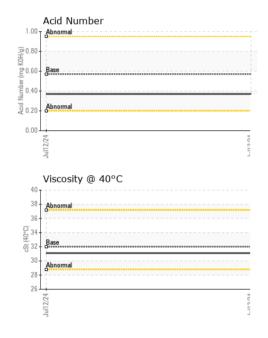
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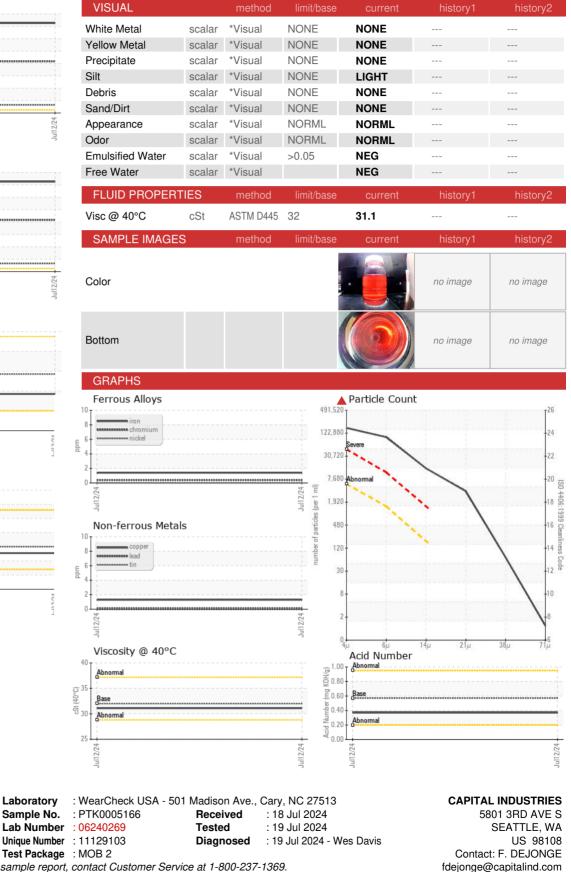


# **OIL ANALYSIS REPORT**









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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Certificate 12367

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Laboratory

Sample No.

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