

# **OIL ANALYSIS REPORT**



Machine Id

# **ARBURG ARBURG 2 (S/N 188428)**

Hydraulic System

**AW HYDRAULIC OIL ISO 46 (--- GAL)** 

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm.

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### **Fluid Condition**

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

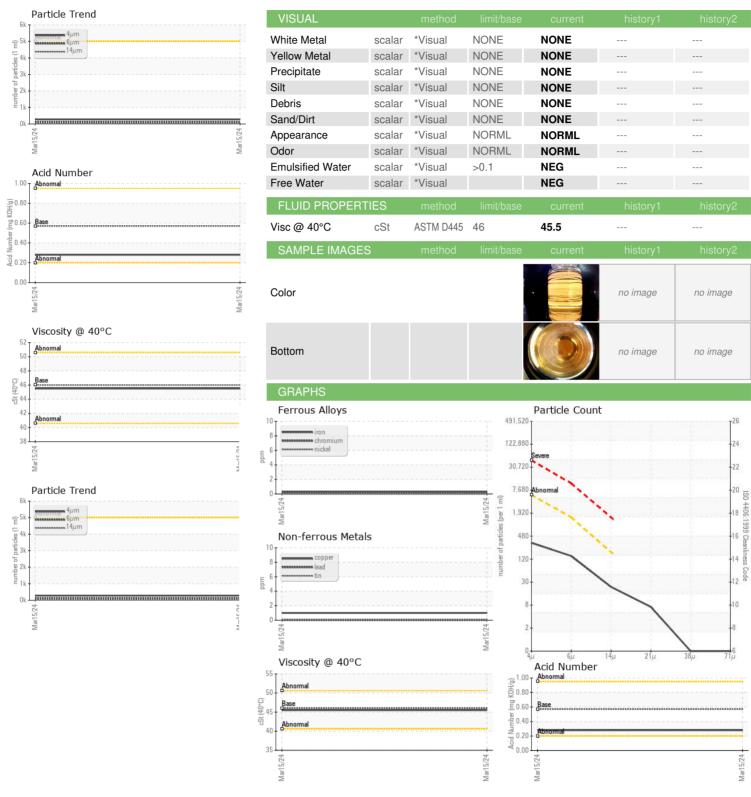
|   |  |   |   | Mar2024   |                                  |                              |
|---|--|---|---|---|----------------------------------|------------------------------|
| SAMPLE INFORM   | MATION   | l method  | limit/base  | current   | history1                         | history2                     |
|   | ia i ion   |   | IIIIII/Dase   |   | •                                | HISTOLYZ                     |
| Sample Number   |  | Client Info   |   | PTK0005484  |                                  |                              |
| Sample Date   |  | Client Info   |   | 15 Mar 2024   |                                  |                              |
| Machine Age   | hrs  | Client Info   |   | 0   |                                  |                              |
| Oil Age   | hrs  | Client Info   |   | 0   |                                  |                              |
| Oil Changed   |  | Client Info   |   | N/A   |                                  |                              |
| Sample Status   |  |   |   | NORMAL  |                                  |                              |
| CONTAMINATION   | <b>V</b>   | method  | limit/base  | current   | history1                         | history2                     |
| Water   |  | WC Method   | >0.1  | NEG   |                                  |                              |
| WEAR METALS   |  | method  | limit/base  | current   | history1                         | history2                     |
| Iron  | ppm  | ASTM D5185m   | >20   | <1  |                                  |                              |
| Chromium  | ppm  | ASTM D5185m   | >10   | <1  |                                  |                              |
| Nickel  | ppm  | ASTM D5185m   | >10   | 0   |                                  |                              |
| Titanium  | ppm  | ASTM D5185m   |   | 0   |                                  |                              |
| Silver  | ppm  | ASTM D5185m   |   | 0   |                                  |                              |
| Aluminum  | ppm  | ASTM D5185m   | >10   | 0   |                                  |                              |
| Lead  | ppm  | ASTM D5185m   | >10   | 0   |                                  |                              |
| Copper  | ppm  | ASTM D5185m   | >75   | 1   |                                  |                              |
| Tin   | ppm  | ASTM D5185m   | >10   | 0   |                                  |                              |
| Vanadium  | ppm  | ASTM D5185m   |   | 0   |                                  |                              |
| Cadmium   | ppm  | ASTM D5185m   |   | 0   |                                  |                              |
| ADDITIVEC   |  |   | 12 21 //  |   |                                  | la la tarre O                |
| ADDITIVES   |  | method  | limit/base  | current   | historv1                         | nistory2                     |
| ADDITIVES   | nnm  | method  | limit/base  | current   | history1                         | history2                     |
| Boron   | ppm  | ASTM D5185m   | 5   | 0   |                                  |                              |
| Boron<br>Barium   | ppm  | ASTM D5185m<br>ASTM D5185m  | 5<br>5  | 0<br>0  |                                  |                              |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5   | 0<br>0<br>0   |                                  |                              |
| Boron<br>Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>5   | 0<br>0<br>0   |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium   | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>5<br>25   | 0<br>0<br>0<br>0<br>5   |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium   | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>5<br>25<br>200  | 0<br>0<br>0<br>0<br>5<br>41   |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300   | 0<br>0<br>0<br>0<br>5<br>41<br>292  |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>5<br>25<br>200<br>300<br>370  | 0<br>0<br>0<br>0<br>5<br>41<br>292  |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300   | 0<br>0<br>0<br>0<br>5<br>41<br>292  |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>5<br>25<br>200<br>300<br>370  | 0<br>0<br>0<br>0<br>5<br>41<br>292  |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500  | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274   |                                  |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base  | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current  | <br><br><br><br><br><br>history1 | <br><br><br><br><br>history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20   | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current  | <br><br><br><br><br>history1     |                              |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20   | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1  | history1                         | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20  | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1                                     | history1                         | history2                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m   | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20  | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1<br>current                          | history1                         | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m  MASTM D5185m ASTM D5185m                                     | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>limit/base   | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1<br><1                               | history1 history1                | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m               | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300                | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1<br>current<br>280<br>128            | history1 history1                | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647                                 | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300<br>>160        | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1<br>current<br>280<br>128<br>20      | history1 history1                | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm                                | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647                      | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300<br>>160<br>>40 | 0<br>0<br>0<br>0<br>5<br>41<br>292<br>361<br>1274<br>current<br><1<br>1<br>current<br>280<br>128<br>20<br>6 | history1 history1                | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm                | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647            | 5 5 5 200 300 370 2500 limit/base >20 >20 limit/base >40 >100   | 0 0 0 0 5 41 292 361 1274 current <1 1 current 280 128 20 6 0   | history1 history1                | history2 history2            |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >5µm Particles >21µm Particles >38µm Particles >71µm | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 5 5 5 200 300 370 2500 limit/base >20 >20 limit/base >100 >1300 >140 >10 >3   | 0 0 0 0 5 41 292 361 1274 current <1 1 <1 current 280 128 20 6 0 0  | history1 history1                | history2 history2            |

Acid Number (AN)

mg KOH/g ASTM D8045 0.57



## **OIL ANALYSIS REPORT**





Certificate 12367

Sample No. Lab Number : 06148649

: PTK0005484 Unique Number : 10978727 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Apr 2024 **Tested** : 16 Apr 2024

Diagnosed : 16 Apr 2024 - Wes Davis

US 55115 Contact: STUART SHEPHERD stuart.shepherd@federalplasticscorp.com

**FEDERAL MOLDING** 

16 LONG LAKE RD

MAHTOMEDI, MN

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

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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

T:

F: