

### **OIL ANALYSIS REPORT**

# Area PARTS LVD 24 FT PRT-PBR-02 (S/N 24079)

Component **Hydraulic System** 

**CASTROL HYSPIN AWH-M ISO 46 (55 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 moderate amount of particulates present in the oil.

#### Fluid Condition

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



| )             |        | Nov2017     | May2019 Oct2019 | 0et2020 Nov2021 | Jan2024     |             |
|---------------|--------|-------------|-----------------|-----------------|-------------|-------------|
| SAMPLE INFORM | IATION | method      | limit/base      | current         | history1    | history2    |
| Sample Number |        | Client Info |                 | WC0884867       | WC0696338   | WC0629915   |
| Sample Date   |        | Client Info |                 | 10 Jan 2024     | 18 May 2022 | 02 Nov 2021 |
| Machine Age   | hrs    | Client Info |                 | 0               | 0           | 0           |
| Oil Age       | hrs    | Client Info |                 | 0               | 0           | 0           |
| Oil Changed   |        | Client Info |                 | N/A             | N/A         | N/A         |
| Sample Status |        |             |                 | ATTENTION       | NORMAL      | NORMAL      |
| WEAR METALS   |        | method      | limit/base      | current         | history1    | history2    |
| Iron          | ppm    | ASTM D5185m | >20             | <1              | 6           | 3           |
| Chromium      | ppm    | ASTM D5185m | >20             | 0               | 0           | 0           |
| Nickel        | ppm    | ASTM D5185m | >20             | 0               | 0           | 0           |
| Titanium      | ppm    | ASTM D5185m |                 | <1              | 0           | 0           |
| Silver        | ppm    | ASTM D5185m |                 | 0               | <1          | 0           |
| Aluminum      | ppm    | ASTM D5185m | >20             | 2               | <1          | 0           |
| Lead          | ppm    | ASTM D5185m | >20             | 0               | <1          | 0           |
| Copper        | ppm    | ASTM D5185m | >20             | 1               | 3           | 2           |
| Tin           | ppm    | ASTM D5185m | >20             | <1              | 0           | 0           |
| Antimony      | ppm    | ASTM D5185m |                 |                 |             | 0           |
| Vanadium      | ppm    | ASTM D5185m |                 | 0               | 0           | 0           |
| Cadmium       | ppm    | ASTM D5185m |                 | 0               | 0           | 0           |

| ADDITIVES  |     | method      |      |      | history2 |
|------------|-----|-------------|------|------|----------|
| Boron      | ppm | ASTM D5185m | 0    | 0    | 2        |
| Barium     | ppm | ASTM D5185m | <1   | 0    | 0        |
| Molybdenum | ppm | ASTM D5185m | <1   | 0    | 0        |
| Manganese  | ppm | ASTM D5185m | 0    | 0    | 0        |
| Magnesium  | ppm | ASTM D5185m | 0    | 0    | 0        |
| Calcium    | ppm | ASTM D5185m | 54   | 46   | 42       |
| Phosphorus | ppm | ASTM D5185m | 495  | 392  | 354      |
| Zinc       | ppm | ASTM D5185m | 581  | 486  | 440      |
| Sulfur     | ppm | ASTM D5185m | 2957 | 2342 | 2372     |

| CONTAMINANTS |     | method      |       |     |     | history2 |
|--------------|-----|-------------|-------|-----|-----|----------|
| Silicon      | ppm | ASTM D5185m | >15   | 2   | 2   | 2        |
| Sodium       | ppm | ASTM D5185m |       | 0   | 0   | <1       |
| Potassium    | ppm | ASTM D5185m | >20   | 1   | 0   | 0        |
| Water        | %   | ASTM D6304  | >0.05 | NEG | NEG | NEG      |

| FLUID CLEANLINES    | SS      | method       | limit/base | curre          | nt history1       | history2 |
|---------------------|---------|--------------|------------|----------------|-------------------|----------|
| Particles >4µm      |         | ASTM D7647   | >5000      | <b>5672</b>    | 308               | 261      |
| Particles >6µm      |         | ASTM D7647   | >1300      | <b>1756</b>    | 88                | 75       |
| Particles >14µm     |         | ASTM D7647   | >160       | <b>172</b>     | 10                | 8        |
| Particles >21µm     |         | ASTM D7647   | >40        | 39             | 5                 | 2        |
| Particles >38µm     |         | ASTM D7647   | >10        | 2              | 0                 | 0        |
| Particles >71µm     |         | ASTM D7647   | >3         | 0              | 0                 | 0        |
| Oil Cleanliness     |         | ISO 4406 (c) | >19/17/14  | <b>20/18/1</b> | <b>5</b> 15/14/10 | 15/13/10 |
| FLUID DEGRADATIO    | ON      | method       |            |                |                   | history2 |
| Acid Number (AN) mg | g KOH/g | ASTM D8045   |            | 0.40           | 0.46              | 0.468    |

Acid Number (AN)

mg KOH/g ASTM D8045

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## **OIL ANALYSIS REPORT**



| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
|------------------|--------|-----------|------------|---------|----------|----------|
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual   | >0.05      | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
|                  |        |           | 1          |         |          |          |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 46.0       | 43.8    | 41.0     | 41.4     |
| SAMPLE IMAGES    | ;      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |





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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)

Certificate L2367

Contact/Location: TODD PITMAN - LANNEW

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