

## HOW TO READ HYDRAULIC OIL FILTRATION REPORT

Adjoining is Actual Photo of Print Out report of Laser Particle Counter known as PODS ( Portable Oil Diagnostic System).

Entire Report is printed out by PODS automatically once the required cleanliness level as per NAS / ISO Standard has reached during filtration.

During settings of the PODS only following commands are manually given, all other items of the report are generated by PODS automatically.

1. **Sample** – The First line that is “Sample” and is the name of the sample / customer. Or Report Identification details.
2. **Volume** – Manually set 10 ml / run (It can be set at 5ml or 20 ml.)
3. **Set NAS Class** – Manually set to NAS – 08 ( It can be set from NAS – 00 to NAS - 12

At the starting of the Filtration Trolley with PODS, Oil Sample is tested automatically by PODS 3 times which are indicated as RUN – 1, RUN – 2 and RUN – 3 and Last column indicates average of all 3 RUNs readings. First column indicates the sizes of particles measured i.e. 5 to 15 Micron, 15 to 25 Micron and so on. Last column indicates the average number of particles of all 3 RUNs.

For Each RUN 10 ML volume of Oil sample is drawn automatically by PODS and counted the number of particles of each size in the Range as shown in first Column of the Report. Contamination in each “ml” of sample passing through PODS during each RUN is measured, thus Average is of 30 readings ( 10 readings per RUN for 3 RUNs)

Stopping Concentration means When Oil cleanliness level has reached to the SET NAS CLASS level and is shown as STOP NAS CLASS. Unless SET level of Oil cleanliness has reached, PODS will not Print out the Report.

Viscosity is only inferred value and may not be correct. Duration is the time taken for completing the Filtration Job. Flow Rate is the PODS Internal flow rate of the Oil Sample.

**HYMAT SERVICES**  
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PODS by ART Instruments, Inc.  
OIL FILTER REPORT

Sample: BONDIL110.1.10  
AUGUST 11, 2016 Unit ID: 1  
Start Time: 11:26:17 Duration: 00:53:10  
Stop Time: 12:19:27  
Volume: 10 mL/RUN Flowrate: 50 mL/min  
Viscosity: 30 cSt Fluid Temp: 29.5 C  
Reported Concentration: Parts/100 mL  
Set NAS Class: 08  
Start NAS Class: 12  
Stop NAS Class: 08 ←

✓--Starting Concentration--  
SIZES RUN1 RUN2 RUN3 AVG  
5-15u 2147080 2949610 3461780 ✓2852823.3  
15-25u 37390 42820 42370 40860.0  
25-50u 8300 6380 6860 7180.0  
50-100u 1770 1020 970 1253.3  
>100u 780 510 320 536.7

✓--Stopping Concentration--  
SIZES RUN1 RUN2 RUN3 AVG  
5-15u 68320 62070 57110 ✓62500.0  
15-25u 930 480 990 800.0  
25-50u 330 240 190 253.3  
50-100u 20 0 80 33.3  
>100u 30 30 0 20.0

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Oil Filtration of BOMBOLI  
Qty: 258 Ltrs.  
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**POI HYMAT SERVICES**  
V.S. Dave  
Mr V. S. DAVE  
(Proprietor)