# Hydraulic System in Plant [412507817] <br> Combo Dumper SRM - Maximo \#6259 1000052942 (SN 0504516) <br> Component <br> Hydraulic System <br> TOTAL FINA NEVASTANE FG AW 46 (10 GAL) 



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status |  |  | ATTENTION | NORMAL | NORMAL |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Particles $>4 \mu \mathrm{~m}$ | ASTM D7647 | $>5000$ | $\mathbf{\Delta 5 2 1 2}$ | 3899 | 3934 |
| Oil Cleanliness | ISO 4406 (c) | $>19 / 17 / 14$ | $\mathbf{\Delta 2 0 / 1 7 / 1 3}$ | 19/17/13 | 19/16/12 |

Customer Id: CARGUE
Sample No.: WC0848516
Lab Number: 02591426
Test Package: IND 2
To manage this report scan the $Q R$ code
To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca
To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
| :--- | :---: | :---: | :---: | :--- |
| Change Filter | --- | --- | $?$ | We recommend you service the filters on this component. |

## HISTORICAL DIAGNOSIS

## 04 Jul 2023 Diag: Wes Davis

## NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## 23 Apr 2023 Diag: Wes Davis

## NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.


## 16 Jan 2023 Diag: Wes Davis

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

OIL ANALYSIS REPORT
Hydraulic System in Plant [412507817]
Combo Dumper SRM - Maximo $\# 62591000052942$ (SN 0504516 ) Hydraulic System
TOTAL FINA NEVASTANE FG AW 46 (10 GAL)

## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## Wear

All component wear rates are normal.

## Contamination

There is a light amount of silt (particulates $<14$ microns in size) present in the oil.

## Fluid Condition

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

SAMPLE INFORMATION

| Sample Number |  |
| :--- | :--- |
| Sample Date |  |
| Machine Age | hrs |
| Oil Age | hrs |
| Oil Changed |  |
| Sample Status |  |


| WEAR METALS |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Iron | ppm | ASTM D5185(m) | >20 | 1 | 1 | 1 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) |  | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >20 | 12 | 9 | 8 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |


| ADDITIVES |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boron | ppm | ASTM D5185(m) |  | <1 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) |  | 0 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185(m) |  | 146 | 153 | 156 |
| Zinc | ppm | ASTM D5185(m) |  | 3 | 4 | 3 |
| Sulfur | ppm | ASTM D5185(m) |  | 450 | 869 | 442 |
| Lithium | ppm | ASTM D5185(m) |  | <1 | <1 | <1 |


| CONTAMINANTS | method | limitbase | current | history1 | history2 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Silicon | ppm | ASTM D5585(m) | $>15$ | $\mathbf{2}$ | 2 | 2 |
| Sodium | ppm | ASTM D5185 |  |  | $<\mathbf{m}$ |  |
| Potassium | ppm | ASTM D5185 $(\mathrm{m})$ | $>20$ | $\mathbf{< 1}$ | 0 | 0 |


| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Particles $>4 \mu \mathrm{~m}$ | ASTM D7647 | >5000 | $\triangle 5212$ | 3899 | 3934 |
| Particles $>6 \mu \mathrm{~m}$ | ASTM D7647 | >1300 | 898 | 928 | 332 |
| Particles $>14 \mu \mathrm{~m}$ | ASTM D7647 | >160 | 74 | 60 | 21 |
| Particles $>21 \mu \mathrm{~m}$ | ASTM D7647 | $>40$ | 17 | 13 | 8 |
| Particles $>38 \mu \mathrm{~m}$ | ASTM D7647 | >10 | 2 | 1 | 1 |
| Particles $>71 \mu \mathrm{~m}$ | ASTM D7647 | >3 | 1 | 0 | 1 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | $\triangle 20 / 17 / 13$ | 19/17/13 | 19/16/12 |
| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) mg KOH/g | ASTM D974* |  | 0.34 | 0.30 | 0.26 |

## WEAR GHEL

## OIL ANALYSIS REPORT



| VISUAL |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |


| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Visc @ $40^{\circ} \mathrm{C}$ | cSt | ASTM D7279(m) | 46 | $\mathbf{4 5 . 2}$ | 44.6 | 45.2 |
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |  |



SAMPLE IMAGES method limit/base current history1 history2
Color
Bottom



## CALA <br> ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

| Sample No. | $:$ WC0848516 | Received | $: 24$ Oct 2023 |
| :--- | :--- | :--- | :--- |
| Lab Number | $: 02591426$ | Diagnosed | $: 25$ Oct 2023 |
| Unique Number | $: 5668505$ | Diagnostician | : Wes Davis |

Diagnostician : Wes Davis
Cargill Meat Solutions
165 Dunlop Drive
Guelph, ON
CA N1L 1P4
To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted ( ${ }^{*}$ ) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.
Contact: Jakub Posluszny jakub_posluszny@cargill.com T: (519)823-5200
F: (519)823-5893

