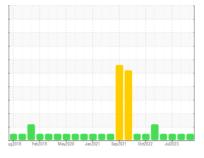


# **GREASE ANALYSIS**

# Materials Handling/NE Pedestal Crane WPD471231 CRANE PEDESTAL NORTH EAST

270° Grease

**MOBIL MOBILGREASE XHP 222 (--- GAL)** 



Sample Rating Trend



### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### **Grease Condition**

The condition of the grease is acceptable for the time in service.

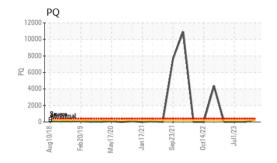
### Contaminants

There is no indication of any contamination in the grease.

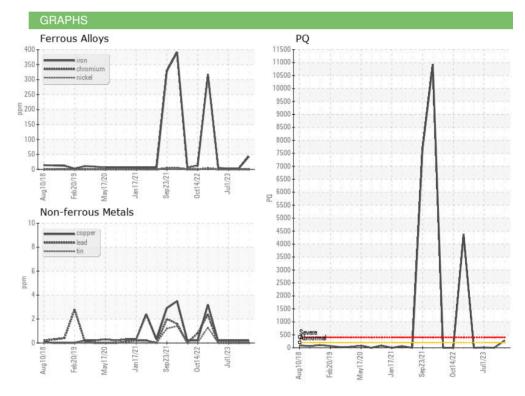
| SAMPLE INFORM  | /ATION   | method   | limit/base                            | current   | history1   | history2   |
|--|--|--|---------------------------------------|---|--|--|
| Sample Number  |  | Client Info  |                                       | PP13994630  | PP   | PP13897519   |
| Sample Date  |  | Client Info  |                                       | 26 May 2024   | 27 Mar 2024  | 01 Jul 2023  |
| Machine Age  | hrs  | Client Info  |                                       | 0   | 0  | 0  |
| Grease Age   | hrs  | Client Info  |                                       | 0   | 0  | 0  |
| Grease Serviced  |  | Client Info  |                                       | N/A   | N/A  | N/A  |
| Sample Status  |  |  |                                       | NORMAL  | NORMAL   | NORMAL   |
| CONTAMINATIO   | V  | method   | limit/base                            | current   | history1   | history2   |
| Water  |  | WC Method  | >0.1                                  | NEG   | NEG  | NEG  |
| WEAR METALS  |  | method   | limit/base                            | current   | history1   | history2   |
| PQ   |  | ASTM D8184*  | >200                                  | 280   | 0  | 10   |
| Iron   | ppm  | ASTM D5185(m)  | >250                                  | 43  | 3  | 2  |
| Chromium   | ppm  | ASTM D5185(m)  | >10                                   | 0   | 0  | 0  |
| Nickel   | ppm  | ASTM D5185(m)  | >5                                    | 0   | 0  | 0  |
| Cadmium  | ppm  | ASTM D5185(m)  |                                       | 0   | 0  | 0  |
| Titanium   | ppm  | ASTM D5185(m)  |                                       | <1  | 0  | 0  |
| Vanadium   | ppm  | ASTM D5185(m)  |                                       | 0   | 0  | 0  |
| Lead   | ppm  | ASTM D5185(m)  |                                       | 0   | 0  | 0  |
| Copper   | ppm  | ASTM D5185(m)  | >75                                   | <1  | <1   | <1   |
| Tin  | ppm  | ASTM D5185(m)  |                                       | 0   | 0  | 0  |
| Silver   | ppm  | ASTM D5185(m)  | >5                                    | 0   | 0  | 0  |
| ADDITIVES  |  | method   |                                       |   |  | history2   |
| //DDITTVEO   |  | memod  | mme bacc                              | Current   | Thistory   |  |
| Boron  | ppm  | ASTM D5185(m)  | mmadadd                               | 12  | 7  | 6  |
|  | ppm  |  |                                       |   | 7  |  |
| Boron<br>Magnesium<br>Manganese  |  | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | mmesacc                               | 12<br>8<br>1  | 7<br>2<br>0  | 6<br>2<br>0  |
| Boron<br>Magnesium<br>Manganese<br>Molybdenum  | ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  | mini Saco                             | 12<br>8<br>1<br>4   | 7<br>2<br>0<br>3   | 6<br>2<br>0<br>4   |
| Boron Magnesium Manganese Molybdenum Phosphorus  | ppm<br>ppm<br>ppm  | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114  | 7<br>2<br>0<br>3<br>119                                    | 6<br>2<br>0<br>4<br>119  |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   |                                       | 12<br>8<br>1<br>4<br>114<br>213   | 7<br>2<br>0<br>3<br>119<br>198                             | 6<br>2<br>0<br>4<br>119<br>184                                       |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114  | 7<br>2<br>0<br>3<br>119                                    | 6<br>2<br>0<br>4<br>119  |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | limit/base                            | 12<br>8<br>1<br>4<br>114<br>213   | 7<br>2<br>0<br>3<br>119<br>198                             | 6<br>2<br>0<br>4<br>119<br>184                                       |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current  | 7 2 0 3 119 198 6 history1                                 | 6<br>2<br>0<br>4<br>119<br>184<br>6<br>history2                      |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)  METHOD  ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1  | 7 2 0 3 119 198 6 history1 0 <1                            | 6<br>2<br>0<br>4<br>119<br>184<br>6<br>history2<br><1                |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2   | 7 2 0 3 119 198 6 history1 0 <1 7                          | 6 2 0 4 119 184 6 history2 <1 <1 6                                   |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44                                     | 7 2 0 3 119 198 6 history1 0 <1 7 14                       | 6 2 0 4 119 184 6 history2 <1 <1 6 8                                 |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212                              | 7 2 0 3 119 198 6 history1 0 <1 7 14 210                   | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191                             |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur  | ppm                            | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44                                     | 7 2 0 3 119 198 6 history1 0 <1 7 14                       | 6 2 0 4 119 184 6 history2 <1 <1 6 8                                 |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium   | ppm                            | ASTM D5185(m)  |                                       | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212                              | 7 2 0 3 119 198 6 history1 0 <1 7 14 210                   | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191                             |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur  | ppm                            | ASTM D5185(m)  | limit/base                            | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212<br>739<br>current<br><1      | 7 2 0 3 119 198 6 history1 0 <1 7 14 210 776               | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191 687                         |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS                                 | ppm                            | ASTM D5185(m)  | limit/base                            | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212<br>739<br>current            | 7 2 0 3 119 198 6 history1 0 <1 7 14 210 776 history1      | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191 687 history2                |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS                                 | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m) | limit/base                            | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212<br>739<br>current<br><1      | 7 2 0 3 119 198 6 history1 0 <1 7 14 210 776 history1 0    | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191 687 history2 <1             |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium               | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  METHOD  ASTM D5185(m)         | limit/base limit/base >150            | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212<br>739<br>current<br><1<br>2 | 7 2 0 3 119 198 6 history1 0 <1 7 14 210 776 history1 0 <1 | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191 687 history2 <1 <1          |
| Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDIT | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m) ASTM D5185(m)  METHOD    | limit/base limit/base >150 limit/base | 12<br>8<br>1<br>4<br>114<br>213<br>10<br>current<br><1<br>2<br>26<br>44<br>212<br>739<br>current<br><1<br>2 | 7 2 0 3 119 198 6 history1 0 <1 7 14 210 776 history1 0 <1 | 6 2 0 4 119 184 6 history2 <1 <1 6 8 191 687 history2 <1 <1 history2 |



## **GREASE ANALYSIS**











CALA ISO 17025:2017 Accredited Laboratory

Sample No.

Laboratory

: PP13994630 Lab Number : 02641883

Unique Number : 5799422

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 13 Jun 2024 **Tested** 

: 24 Jun 2024 Diagnosed : 24 Jun 2024 - Bill Quesnel

Test Package : GRS 1 ( Additional Tests: BottomAnalysis ) 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.

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