

### **PROBLEM SUMMARY**

Sample Rating Trend





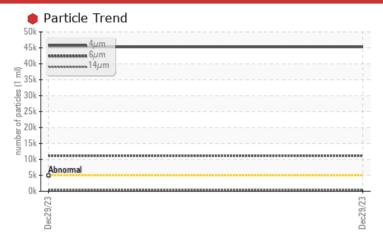


# ORIN CONTRACTORS Machine Id 853

Component **Hydraulic System** 

PETRO CANADA 10W (--- GAL)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

| PROBLEMATIC TEST RESULTS |              |           |              |  |  |  |  |  |
|--------------------------|--------------|-----------|--------------|--|--|--|--|--|
| Sample Status            |              |           | SEVERE       |  |  |  |  |  |
| Particles >4µm           | ASTM D7647   | >5000     | <b>45272</b> |  |  |  |  |  |
| Particles >6µm           | ASTM D7647   | >1300     | 11153        |  |  |  |  |  |
| Particles >14µm          | ASTM D7647   | >160      | <b>△</b> 393 |  |  |  |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >19/17/14 | 23/21/16     |  |  |  |  |  |

Customer Id: RONVAU Sample No.: WC0888442 Lab Number: 02609426 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

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  |  |  |
| Resample            |        |      | ?       | Resample in 30-45 days to monitor this situation.  |  |  |
| Check Breathers     |        |      | ?       | The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. |  |  |
| Check Seals         |        |      | ?       | Check seals and/or filters for points of contaminant entry.  |  |  |

### HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

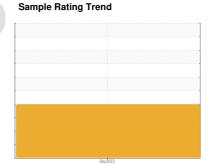


## ORIN CONTRACTORS

853

Component **Hydraulic System** 

PETRO CANADA 10W (--- GAL)





### **DIAGNOSIS**

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

### Wear

All component wear rates are normal.

### Contamination

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

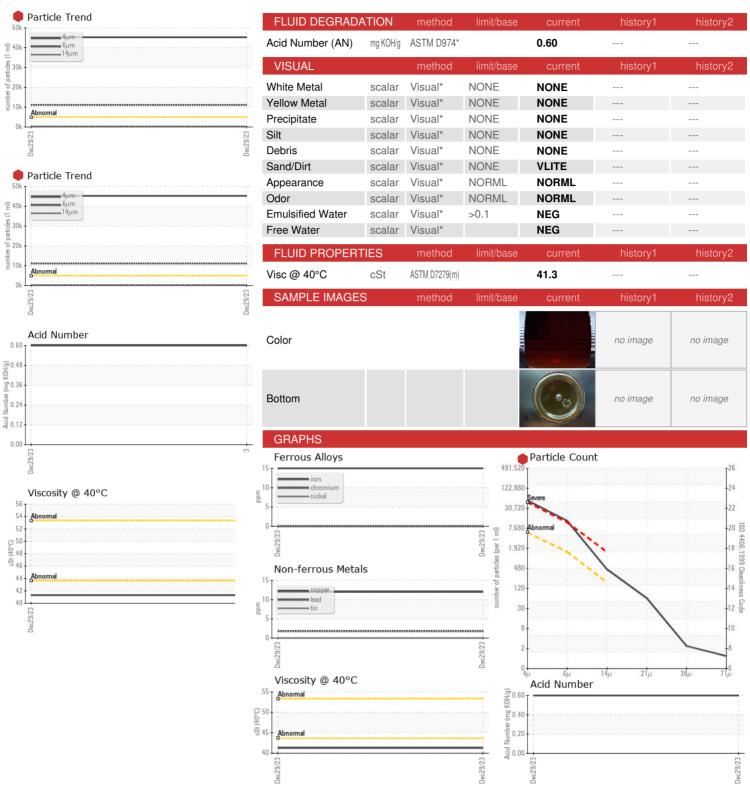
### **Fluid Condition**

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| ,  |   |   |  | Dec2023   |                   |                                  |
|--|---|---|--|---|-------------------|----------------------------------|
| SAMPLE INFORM  | MATION  | method  | limit/base   | current   | history1          | history2                         |
| Sample Number  |   | Client Info   |  | WC0888442   |                   |                                  |
| Sample Date  |   | Client Info   |  | 29 Dec 2023   |                   |                                  |
| Machine Age  | hrs   | Client Info   |  | 0   |                   |                                  |
| Oil Age  | hrs   | Client Info   |  | 0   |                   |                                  |
| Oil Changed  |   | Client Info   |  | Changed   |                   |                                  |
| Sample Status  |   |   |  | SEVERE  |                   |                                  |
| CONTAMINATION  | V   | method  | limit/base   | current   | history1          | history2                         |
| Water  |   | WC Method   | >0.1   | NEG   |                   |                                  |
| WEAR METALS  |   | method  | limit/base   | current   | history1          | history2                         |
| Iron   | ppm   | ASTM D5185(m)   | >20  | 15  |                   |                                  |
| Chromium   | ppm   | ASTM D5185(m)   | >10  | 0   |                   |                                  |
| Nickel   | ppm   | ASTM D5185(m)   | >10  | 0   |                   |                                  |
| Titanium   | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
| Silver   | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
| Aluminum   | ppm   | ASTM D5185(m)   | >10  | 3   |                   |                                  |
| Lead   | ppm   | ASTM D5185(m)   | >10  | 2   |                   |                                  |
| Copper   | ppm   | ASTM D5185(m)   | >75  | 12  |                   |                                  |
| Tin  | ppm   | ASTM D5185(m)   | >10  | 0   |                   |                                  |
| Antimony   | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
| Vanadium   | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
| Beryllium  | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
| Cadmium  | ppm   | ASTM D5185(m)   |  | 0   |                   |                                  |
|  |   |   |  |   |                   |                                  |
| ADDITIVES  |   | method  | limit/base   | current   | history1          | history2                         |
| ADDITIVES<br>Boron   | ppm   | method<br>ASTM D5185(m)   | limit/base   | current   | history1          | history2                         |
|  | ppm   |   | limit/base   |   | history1          | history2                         |
| Boron  |   | ASTM D5185(m)   | limit/base   | 1   |                   | history2<br><br>                 |
| Boron<br>Barium  | ppm   | ASTM D5185(m)<br>ASTM D5185(m)  | limit/base   | 1<br>0  |                   | history2                         |
| Boron<br>Barium<br>Molybdenum  | ppm<br>ppm  | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | limit/base   | 1<br>0<br>0   |                   |                                  |
| Boron<br>Barium<br>Molybdenum<br>Manganese   | ppm<br>ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   | limit/base   | 1<br>0<br>0   |                   |                                  |
| Boron Barium Molybdenum Manganese Magnesium  | ppm<br>ppm<br>ppm   | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>0<br>95   |                   | <br><br>                         |
| Boron Barium Molybdenum Manganese Magnesium Calcium  | ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>0<br>95<br>494  |                   |                                  |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus   | ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>0<br>95<br>494<br>796   |                   |                                  |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929   |                   | <br><br><br>                     |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877   |                   |                                  |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)   |  | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877   |                   |                                  |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1                                       |                   | <br><br><br><br><br><br>history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185(m)  method ASTM D5185(m)   | limit/base   | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current                            |                   | history2                         |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)   | limit/base<br>>20                                  | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current                            |                   | history2                         |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)   | limit/base<br>>20<br>>20                           | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current<br>4<br><1                 |                   | history2                         |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185(m)  MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   | limit/base >20 >20 limit/base                      | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current<br>4<br><1<br>1            |                   | history2                         |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium 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 D5185(m)  MASTM D5185(m) ASTM D5185(m) | limit/base >20 >20 limit/base >5000                | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current<br>4<br><1<br>1            |                   | history2 history2                |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium 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 D5185(m)  method ASTM D5185(m)                       | limit/base >20 >20 limit/base >5000 >1300          | 1<br>0<br>0<br>0<br>95<br>494<br>796<br>929<br>1877<br><1<br>current<br>4<br><1<br>1<br>current | history1 history1 | history2 history2                |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  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 D5185(m)  method ASTM D5185(m) ASTM D7647 ASTM D7647               | limit/base >20 >20 limit/base >5000 >1300 >160     | 1 0 0 0 95 494 796 929 1877 <1 current 4 <1 1 current 4 45272 11153 393                         |                   | history2 history2                |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  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 D5185(m)  MASTM D5185(m)  MASTM D5185(m)  MASTM D5185(m)  MASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647  | limit/base >20 >20 limit/base >5000 >1300 >160 >40 | 1 0 0 0 95 494 796 929 1877 <1 current 4 <1 1 current  4 45272 11153 393 54                     |                   | history2 history2                |



### **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** 

Test Package : MOBCE

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD. : WC0888442

: 5710512

: 02609426

Recieved Diagnosed Diagnostician

: 17 Jan 2024 : 19 Jan 2024

100 MACINTOSH BLVD VAUGHAN, ON : Kevin Marson **CA L4K 4P3** 

Contact: Service Team service.team@roni.ca T:

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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