



OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Area  
**KEMP QUARRIES / BCS - STILLWELL [68279]**

Machine Id  
**WL144**

Component  
**Front Differential**

Fluid  
**PETRO CANADA HYDREX AW 68 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. ( Customer Sample Comment: PM-2 sampled fluid )

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>PCA0109093</b>  | PCA0086991  | PCA0085708  |
| Sample Date    |     | Client Info |           | <b>20 May 2024</b> | 17 Oct 2023 | 05 May 2023 |
| Machine Age    | hrs | Client Info |           | <b>23340</b>       | 22822       | 22358       |
| Oil Age        | hrs | Client Info |           | <b>23340</b>       | 22822       | 22358       |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ABNORMAL    |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |       |
|--------------|--------|-------------|------|--------------|------|-------|
| Iron         | ppm    | ASTM D5185m | >500 | <b>223</b>   | 274  | ▲ 517 |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>2</b>     | 1    | 3     |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>2</b>     | 3    | 5     |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1    |
| Silver       | ppm    | ASTM D5185m |      | <b>1</b>     | 0    | 0     |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>&lt;1</b> | 2    | 1     |
| Lead         | ppm    | ASTM D5185m | >25  | <b>3</b>     | 3    | 8     |
| Copper       | ppm    | ASTM D5185m | >100 | <b>9</b>     | 10   | 23    |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | <1    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0     |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |

**CONTAMINATION**

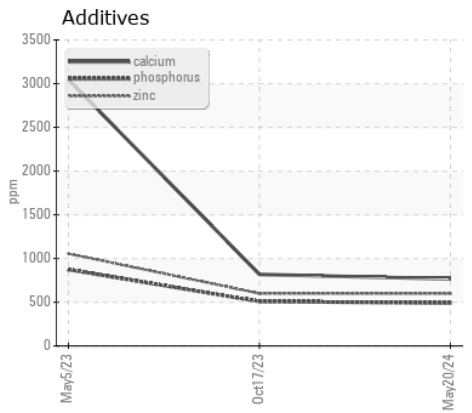
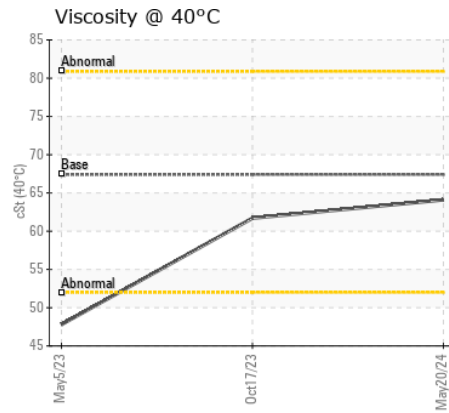
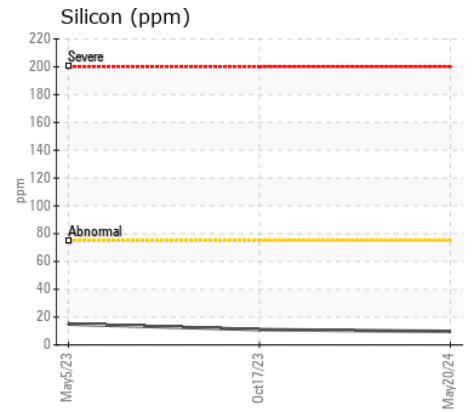
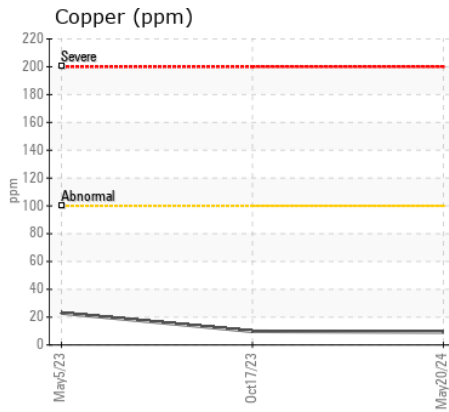
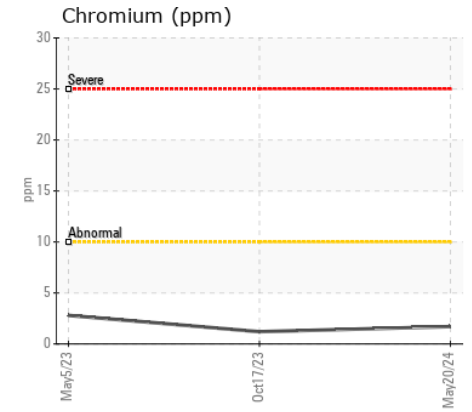
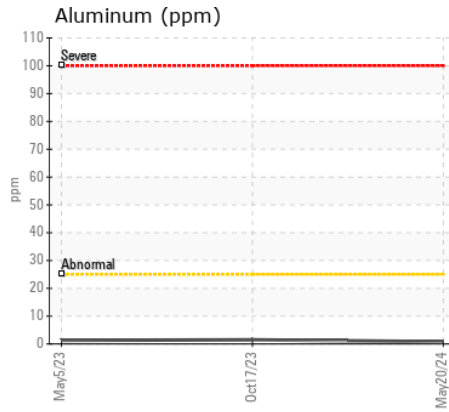
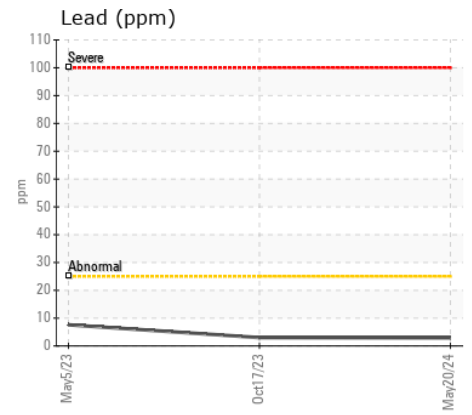
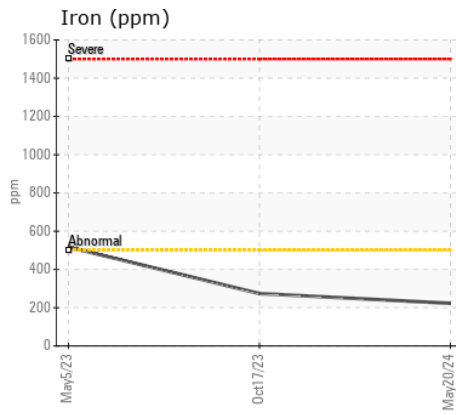
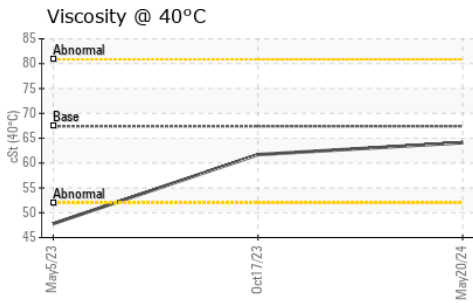
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >75   | <b>10</b>    | 11    | 15    |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>1</b>     | 1     | 2     |
| Water            |        | WC Method   | >.2   | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | *Visual     | >.2   | <b>NEG</b>   | NEG   | NEG   |

**FLUID CONDITION**

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

|             |     |             |      |              |      |        |
|-------------|-----|-------------|------|--------------|------|--------|
| Sodium      | ppm | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0      |
| Boron       | ppm | ASTM D5185m | 0    | <b>6</b>     | 8    | 29     |
| Barium      | ppm | ASTM D5185m | 0    | <b>0</b>     | 9    | 0      |
| Molybdenum  | ppm | ASTM D5185m | 0    | <b>13</b>    | 8    | 17     |
| Manganese   | ppm | ASTM D5185m | 0    | <b>2</b>     | 2    | 4      |
| Magnesium   | ppm | ASTM D5185m | 0    | <b>137</b>   | 51   | 84     |
| Calcium     | ppm | ASTM D5185m | 50   | <b>766</b>   | 818  | 3046   |
| Phosphorus  | ppm | ASTM D5185m | 330  | <b>491</b>   | 508  | 874    |
| Zinc        | ppm | ASTM D5185m | 430  | <b>599</b>   | 600  | 1055   |
| Sulfur      | ppm | ASTM D5185m | 760  | <b>1592</b>  | 1707 | 3327   |
| Visc @ 40°C | cSt | ASTM D445   | 67.4 | <b>64.1</b>  | 61.7 | ● 47.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109093  
**Lab Number** : 06193083  
**Unique Number** : 11049835  
**Test Package** : MOB 1

**Received** : 28 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Sean Felton

**Kemp Quarries - Benton County Stone - Stillwell**  
 463917 Highway 100  
 Bunch, OK  
 US 74931  
 Contact:

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)

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