



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

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

Machine Id  
**NORD-INTERMEDIATE CLARIFIER 3**  
 Component  
**Front Gearbox**  
 Fluid  
**TRC 890 VARI-PURPOSE SAE80W90 (1 GAL)**

**RECOMMENDATION**

We advise that you check for the source of water entry. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | TR06148865  | ---      | ---      |
| Sample Date    |     | Client Info |           | 04 Apr 2024 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 28082       | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 9653        | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0           | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Changd  | ---      | ---      |
| Filter Changed |     | Client Info |           | Not Changd  | ---      | ---      |
| Sample Status  |     |             |           | ABNORMAL    | ---      | ---      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >200 | 41   | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >25  | <1   | --- | --- |
| Lead         | ppm    | ASTM D5185m | >50  | 0    | --- | --- |
| Copper       | ppm    | ASTM D5185m | >200 | 18   | --- | --- |
| Tin          | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <1   | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

**CONTAMINATION**

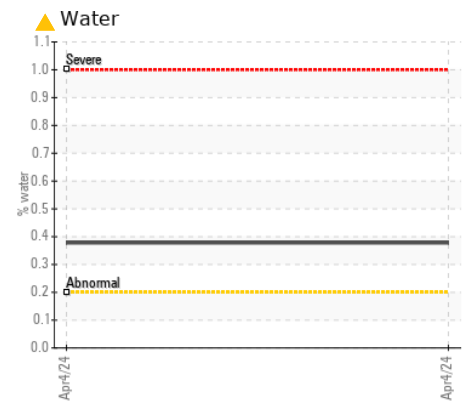
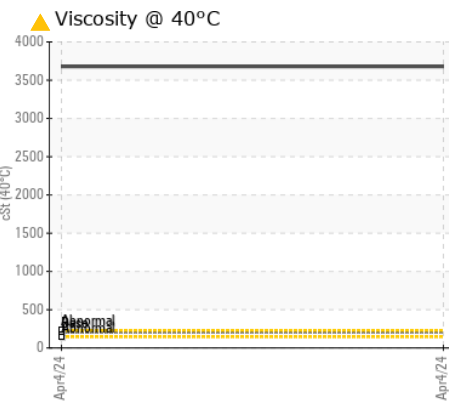
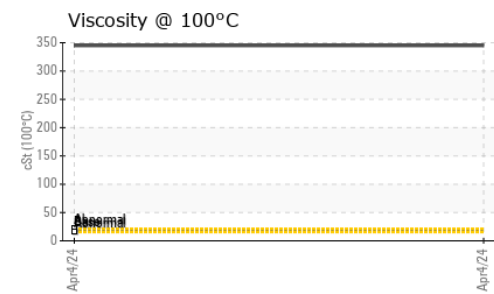
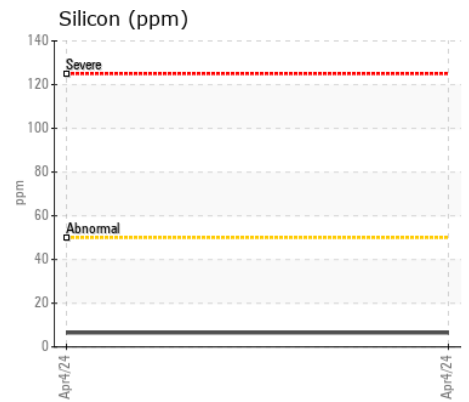
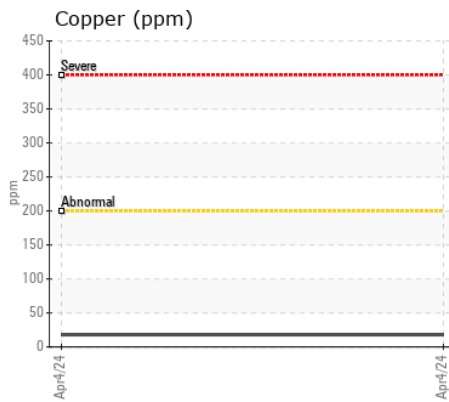
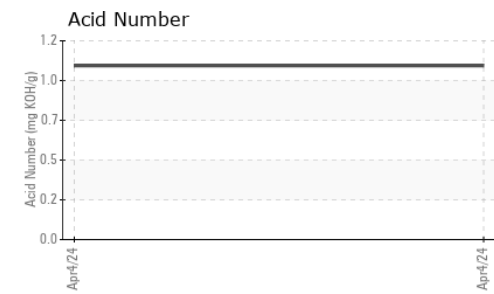
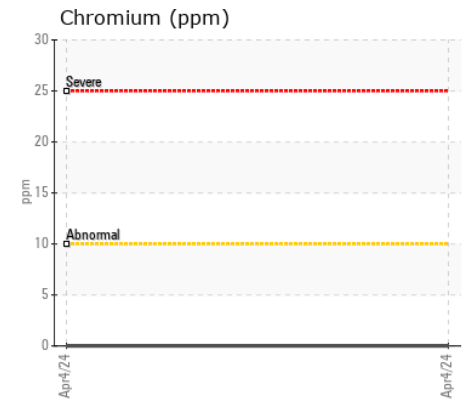
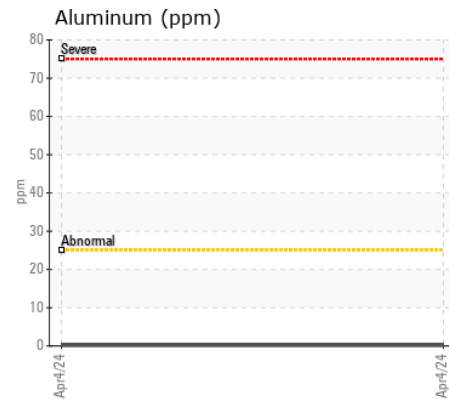
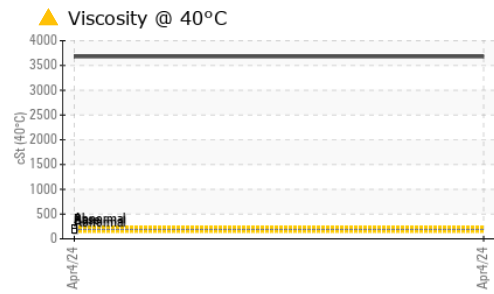
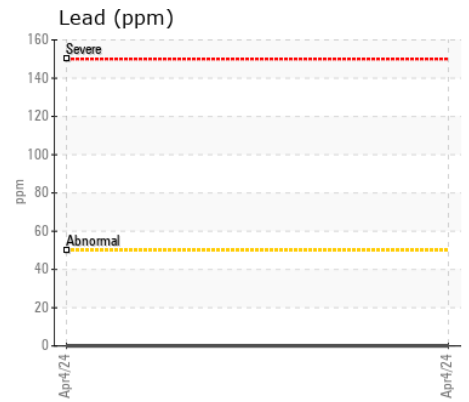
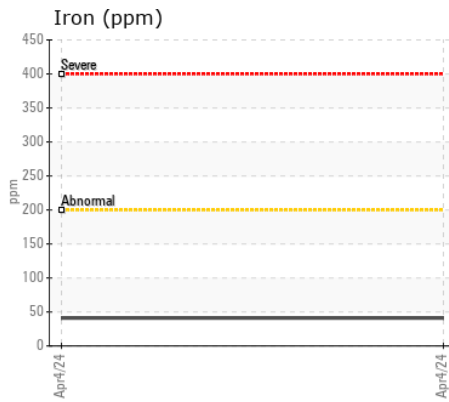
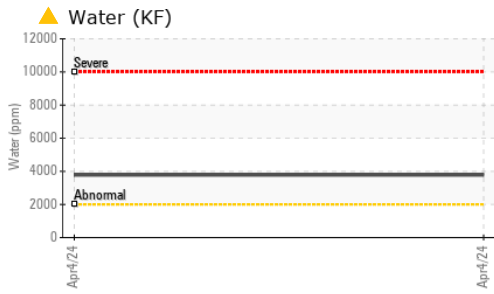
Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water present in the oil.

|                  |        |             |       |         |     |     |
|------------------|--------|-------------|-------|---------|-----|-----|
| Silicon          | ppm    | ASTM D5185m | >50   | 6       | --- | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <1      | --- | --- |
| Water            | %      | ASTM D6304  | >0.2  | ▲ 0.378 | --- | --- |
| ppm Water        | ppm    | ASTM D6304  | >2000 | ▲ 3780  | --- | --- |
| Silt             | scalar | *Visual     | NONE  | NONE    | --- | --- |
| Debris           | scalar | *Visual     | NONE  | ▲ MODER | --- | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | NONE    | --- | --- |
| Appearance       | scalar | *Visual     | NORML | NORML   | --- | --- |
| Odor             | scalar | *Visual     | NORML | NORML   | --- | --- |
| Emulsified Water | scalar | *Visual     | >0.2  | 0.2%    | --- | --- |

**FLUID CONDITION**

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

|                  |          |             |       |        |     |     |
|------------------|----------|-------------|-------|--------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |       | 0      | --- | --- |
| Boron            | ppm      | ASTM D5185m |       | 1      | --- | --- |
| Barium           | ppm      | ASTM D5185m |       | 0      | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |       | 0      | --- | --- |
| Manganese        | ppm      | ASTM D5185m |       | <1     | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |       | 2      | --- | --- |
| Calcium          | ppm      | ASTM D5185m |       | 514    | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 1000  | 714    | --- | --- |
| Zinc             | ppm      | ASTM D5185m |       | 85     | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 17000 | 21295  | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |       | 1.05   | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 207   | ▲ 3679 | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 18    | 345    | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : TR06148865

**Lab Number** : 06148865

**Unique Number** : 10978943

**Test Package** : MOB 2 ( Additional Tests: KF, KV100, VI )

**Received** : 15 Apr 2024

**Tested** : 19 Apr 2024

**Diagnosed** : 19 Apr 2024 - Jonathan Hester

**CITY OF MCHENRY - KEVIN BEGGS**

1415 INDUSTRIAL DR

MCHENRY, IL

US 60050

Contact: JERRY MORTON

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

T:

F: