



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

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

Machine Id  
**19**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (20 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1    | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|----------|
| Sample Number  |     | Client Info |           | TR0001555   | TR0001459   | ---      |
| Sample Date    |     | Client Info |           | 17 Jun 2024 | 23 Feb 2024 | ---      |
| Machine Age    | hrs | Client Info |           | 1522        | 612         | ---      |
| Oil Age        | hrs | Client Info |           | 1522        | 612         | ---      |
| Filter Age     | hrs | Client Info |           | 1522        | 612         | ---      |
| Oil Changed    |     | Client Info |           | Not Chngd   | Not Chngd   | ---      |
| Filter Changed |     | Client Info |           | Not Chngd   | Not Chngd   | ---      |
| Sample Status  |     |             |           | NORMAL      | NORMAL      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |      |      |     |
|--------------|--------|-------------|------|------|------|-----|
| Iron         | ppm    | ASTM D5185m | >20  | 2    | 1    | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <1   | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <1   | 0    | --- |
| Titanium     | ppm    | ASTM D5185m |      | <1   | 0    | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >10  | 2    | 2    | --- |
| Lead         | ppm    | ASTM D5185m | >10  | <1   | 0    | --- |
| Copper       | ppm    | ASTM D5185m | >75  | 4    | 2    | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <1   | 0    | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | NONE | --- |

## CONTAMINATION

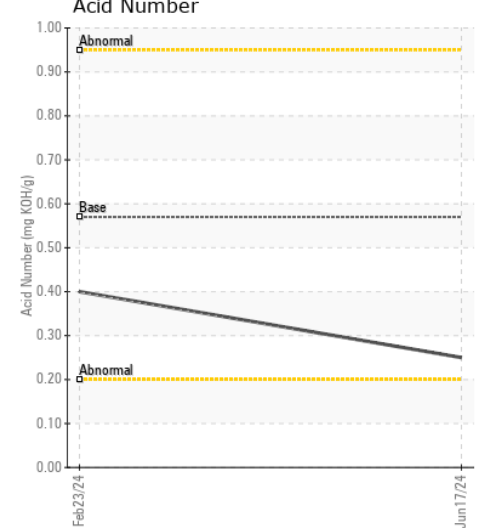
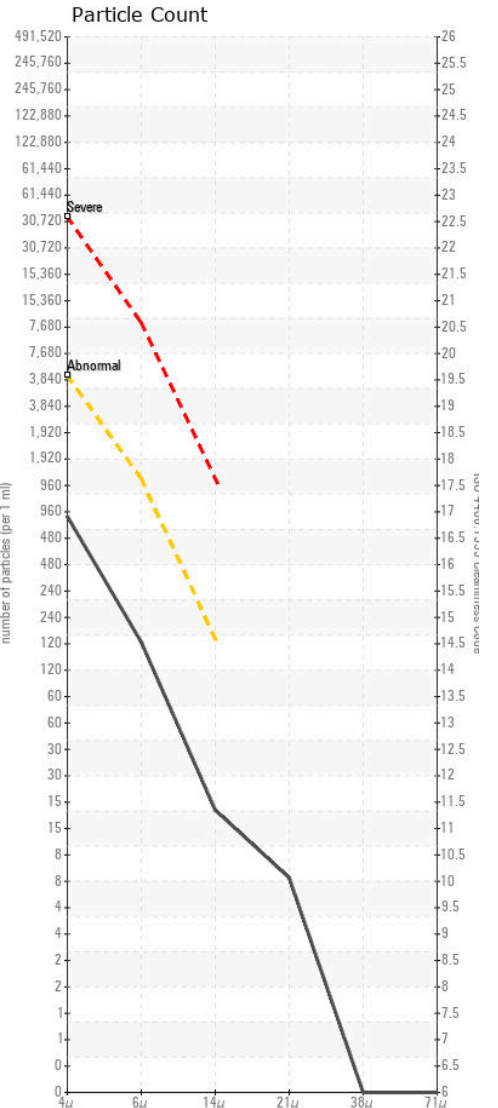
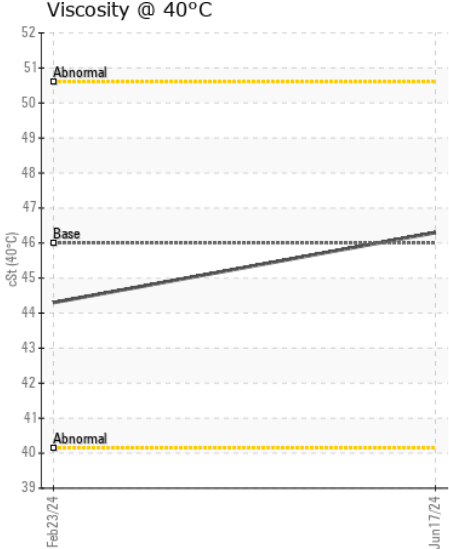
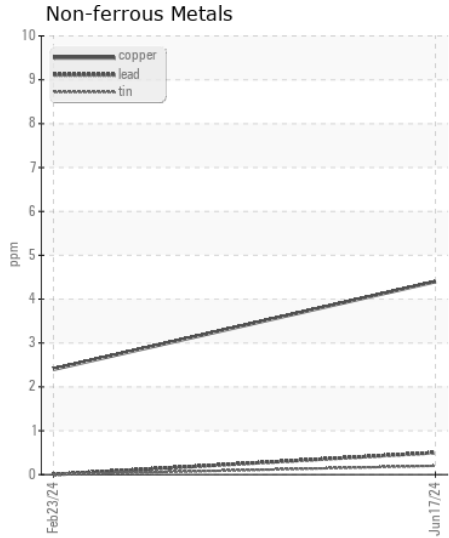
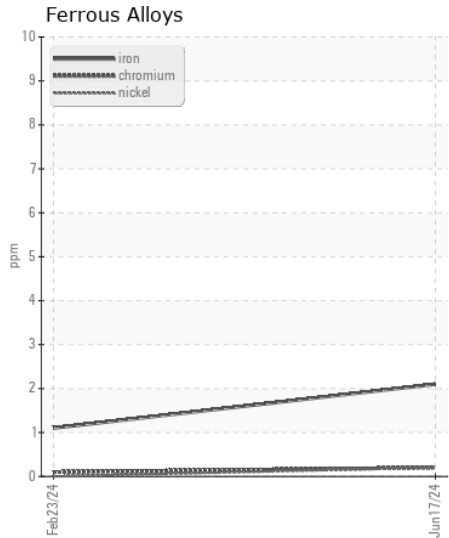
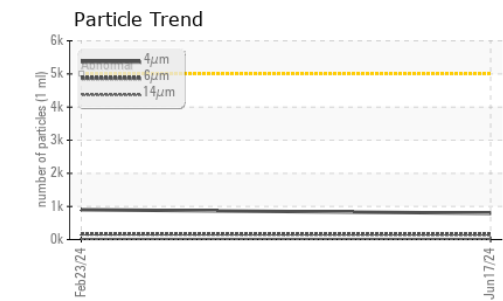
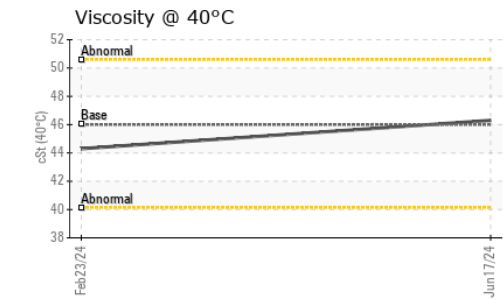
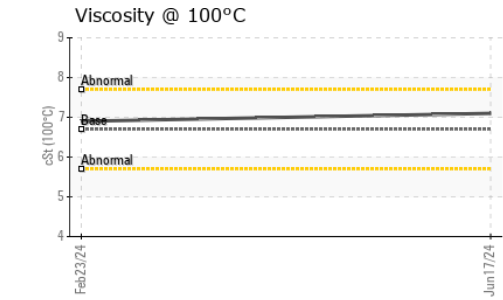
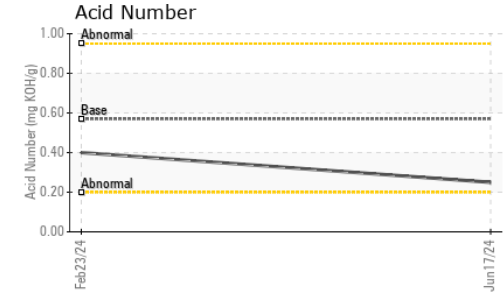
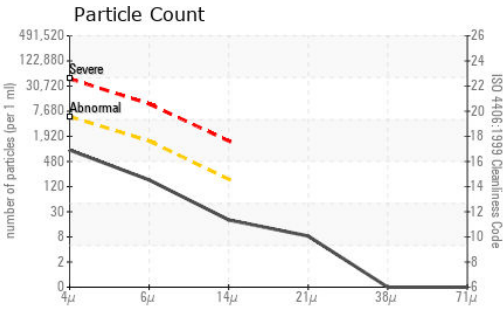
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

|                  |        |              |           |          |          |     |
|------------------|--------|--------------|-----------|----------|----------|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | 2        | 1        | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | <1       | 1        | --- |
| Water            |        | WC Method    | >0.1      | NEG      | NEG      | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | 793      | 902      | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | 153      | 168      | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | 17       | 16       | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | 7        | 6        | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | 0        | 0        | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | 0        | 0        | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | 17/14/11 | 17/15/11 | --- |
| Silt             | scalar | *Visual      | NONE      | NONE     | NONE     | --- |
| Debris           | scalar | *Visual      | NONE      | NONE     | NONE     | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | NONE     | NONE     | --- |
| Appearance       | scalar | *Visual      | NORML     | NORML    | NORML    | --- |
| Odor             | scalar | *Visual      | NORML     | NORML    | NORML    | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | NEG      | NEG      | --- |

## FLUID CONDITION

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

|                      |          |             |      |      |      |     |
|----------------------|----------|-------------|------|------|------|-----|
| Sodium               | ppm      | ASTM D5185m |      | 0    | 0    | --- |
| Boron                | ppm      | ASTM D5185m | 5    | 0    | 2    | --- |
| Barium               | ppm      | ASTM D5185m | 5    | 0    | 9    | --- |
| Molybdenum           | ppm      | ASTM D5185m | 5    | <1   | 0    | --- |
| Manganese            | ppm      | ASTM D5185m |      | <1   | 0    | --- |
| Magnesium            | ppm      | ASTM D5185m | 25   | 4    | 5    | --- |
| Calcium              | ppm      | ASTM D5185m | 200  | 61   | 102  | --- |
| Phosphorus           | ppm      | ASTM D5185m | 300  | 323  | 337  | --- |
| Zinc                 | ppm      | ASTM D5185m | 370  | 420  | 410  | --- |
| Sulfur               | ppm      | ASTM D5185m | 2500 | 2730 | 2390 | --- |
| Acid Number (AN)     | mg KOH/g | ASTM D8045  | 0.57 | 0.25 | 0.40 | --- |
| Visc @ 40°C          | cSt      | ASTM D445   | 46   | 46.3 | 44.3 | --- |
| Visc @ 100°C         | cSt      | ASTM D445   | 6.7  | 7.1  | 6.9  | --- |
| Viscosity Index (VI) | Scale    | ASTM D2270  | 97   | 111  | 112  | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR0001555 **Received** : 15 Jul 2024  
**Lab Number** : 06235922 **Tested** : 16 Jul 2024  
**Unique Number** : 11124756 **Diagnosed** : 16 Jul 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

**S S CONCRETE MATERIALS LLC**  
P.O. BOX 23283  
BULLHEAD CITY, AZ  
US 86439  
Contact: SNS INVENTORY  
snsinventory@yahoo.com  
T:  
F: (928)754-1991

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)