



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

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

Machine Id
RSI LSG-875 2424
 Component
Propane Engine
 Fluid
TRC MOLY XL PROSPEC III 15W40 (14 QTS)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | TR06194238 | --- | --- |
| Sample Date | | Client Info | | 21 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 3936 | --- | --- |
| Oil Age | hrs | Client Info | | 509 | --- | --- |
| Filter Age | hrs | Client Info | | 509 | --- | --- |
| Oil Changed | | Client Info | | Not Changd | --- | --- |
| Filter Changed | | Client Info | | Not Changd | --- | --- |
| Sample Status | | | | ABNORMAL | --- | --- |

WEAR

Piston, ring and cylinder wear is indicated. Valve wear is indicated.

| | | | | | | |
|--------------|--------|-------------|------|-------|-----|-----|
| Iron | ppm | ASTM D5185m | >100 | ▲ 313 | --- | --- |
| Chromium | ppm | ASTM D5185m | >25 | ▲ 25 | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | ▲ 28 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 1 | --- | --- |
| Silver | ppm | ASTM D5185m | >5 | 1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | ▲ 27 | --- | --- |
| Lead | ppm | ASTM D5185m | >25 | 15 | --- | --- |
| Copper | ppm | ASTM D5185m | >35 | 8 | --- | --- |
| Tin | ppm | ASTM D5185m | >8 | 1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

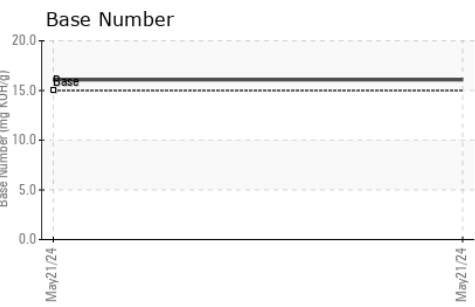
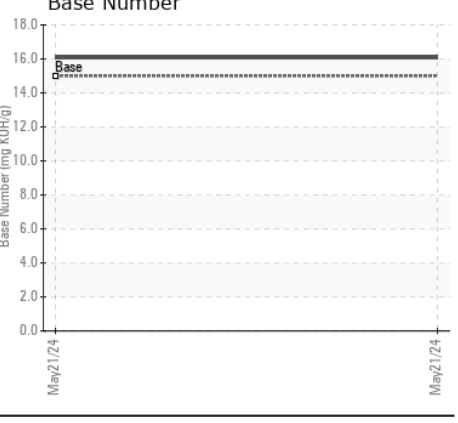
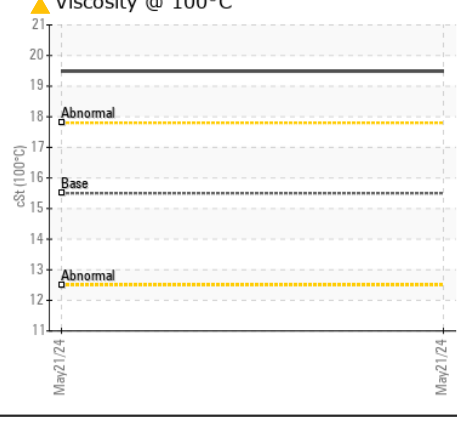
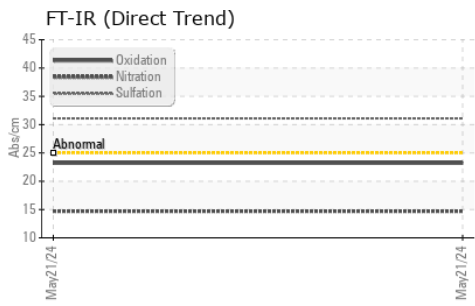
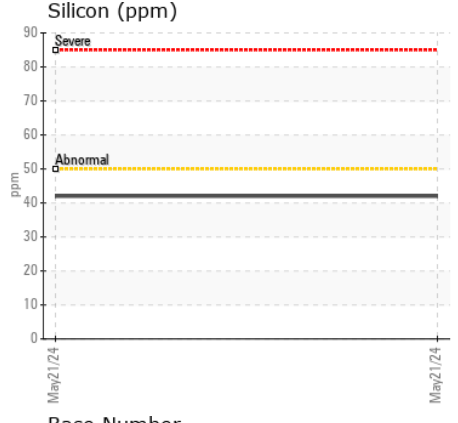
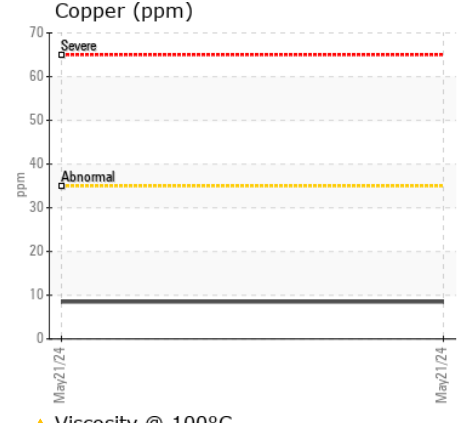
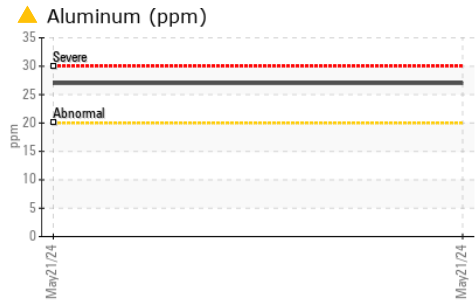
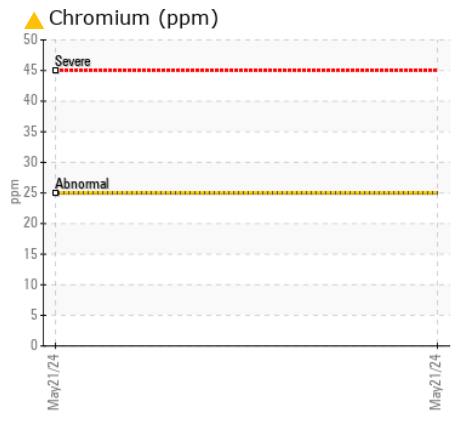
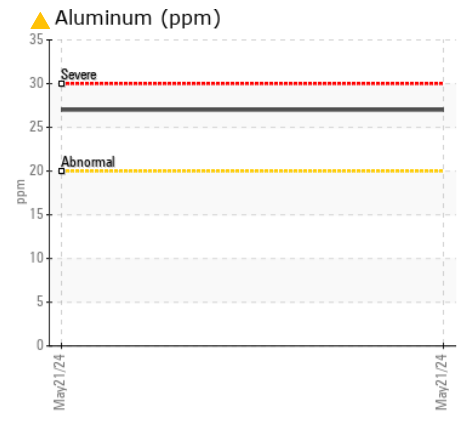
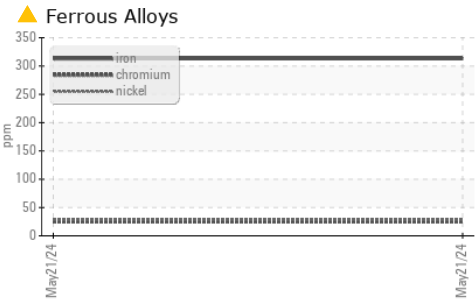
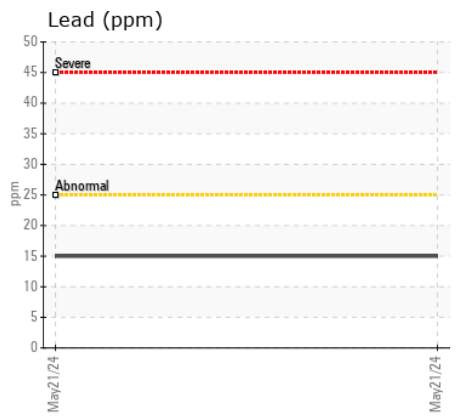
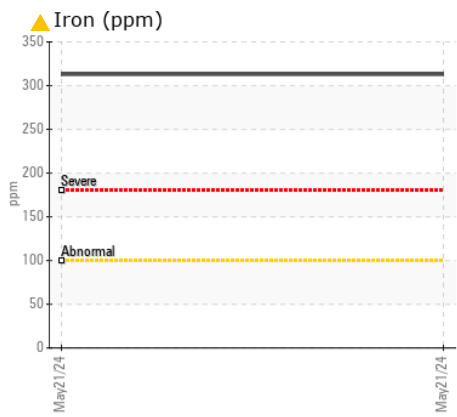
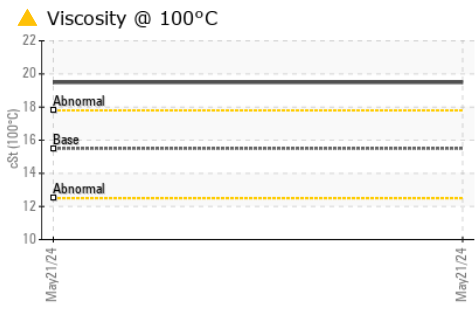
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >50 | 42 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 11 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | | 0.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 14.7 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 31.1 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |

FLUID CONDITION

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

| | | | | | | |
|------------------|----------|-------------|------|---------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 8 | --- | --- |
| Boron | ppm | ASTM D5185m | | 155 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 359 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 4 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 671 | --- | --- |
| Calcium | ppm | ASTM D5185m | 4500 | 6058 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 1253 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1400 | 1535 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 5683 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.2 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 15 | 16.08 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.5 | ▲ 19.49 | --- | --- |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06194238
Lab Number : 06194238
Unique Number : 11056361
Test Package : MOB 2
Received : 29 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Jonathan Hester

RSI
 15727 TEXACO AVE
 PARAMOUNT, CA
 US 90723
 Contact: NORMAN MASSON

Certificate L2367
 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)

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