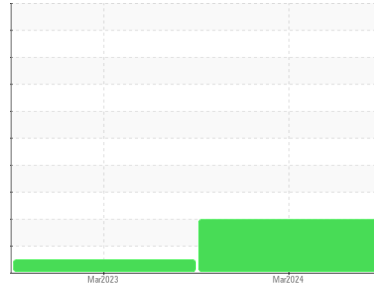




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
[944833]
 Machine Id
LAV-1

Component
Diesel Engine
 Fluid
PHILLIPS 66 Fleet Supreme EC 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info | WC0803171 | WC0785298 | --- |
| Sample Date | Client Info | 14 Mar 2024 | 13 Mar 2023 | --- |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | Not Changed | N/A | --- |
| Sample Status | | ABNORMAL | NORMAL | --- |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water | WC Method >0.2 | NEG | NEG | --- |
| Glycol | WC Method | NEG | NEG | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|----------|----------------------|--------------|----------|----------|
| Iron | ppm ASTM D5185m >100 | 2 | 4 | --- |
| Chromium | ppm ASTM D5185m >20 | 0 | <1 | --- |
| Nickel | ppm ASTM D5185m >4 | 0 | 0 | --- |
| Titanium | ppm ASTM D5185m | 5 | <1 | --- |
| Silver | ppm ASTM D5185m >3 | 0 | 0 | --- |
| Aluminum | ppm ASTM D5185m >20 | 1 | 2 | --- |
| Lead | ppm ASTM D5185m >40 | 0 | 0 | --- |
| Copper | ppm ASTM D5185m >330 | <1 | <1 | --- |
| Tin | ppm ASTM D5185m >15 | 0 | <1 | --- |
| Vanadium | ppm ASTM D5185m | <1 | <1 | --- |
| Cadmium | ppm ASTM D5185m | 0 | 0 | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|----------------------|-------------|----------|----------|
| Boron | ppm ASTM D5185m | 76 | 70 | --- |
| Barium | ppm ASTM D5185m | 0 | 0 | --- |
| Molybdenum | ppm ASTM D5185m | 1 | 0 | --- |
| Manganese | ppm ASTM D5185m | 0 | <1 | --- |
| Magnesium | ppm ASTM D5185m | 486 | 514 | --- |
| Calcium | ppm ASTM D5185m | 1037 | 1043 | --- |
| Phosphorus | ppm ASTM D5185m 1116 | 936 | 890 | --- |
| Zinc | ppm ASTM D5185m 1250 | 914 | 959 | --- |
| Sulfur | ppm ASTM D5185m | 4059 | 3844 | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|---------------------|--------------|----------|----------|
| Silicon | ppm ASTM D5185m >25 | 2 | 3 | --- |
| Sodium | ppm ASTM D5185m | 2 | 0 | --- |
| Potassium | ppm ASTM D5185m >20 | 2 | <1 | --- |
| Fuel | % ASTM D3524 >5 | ▲ 4.5 | <1.0 | --- |

INFRA-RED

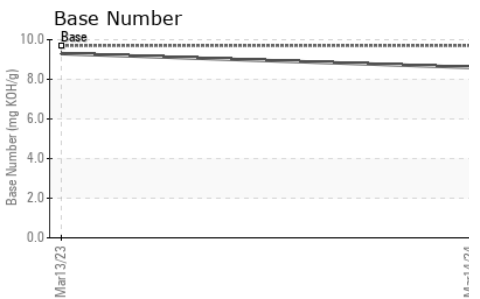
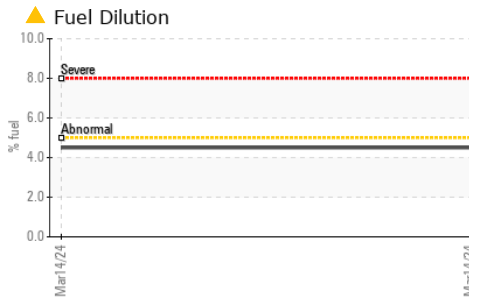
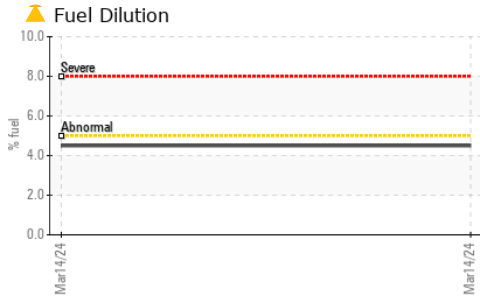
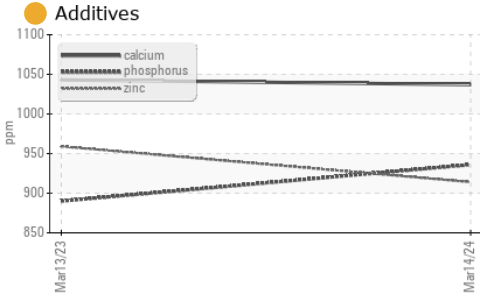
| method | limit/base | current | history1 | history2 |
|-----------|--------------------------|-------------|----------|----------|
| Soot % | % *ASTM D7844 >3 | 0 | 0.1 | --- |
| Nitration | Abs/cm *ASTM D7624 >20 | 7.5 | 7.9 | --- |
| Sulfation | Abs/.1mm *ASTM D7415 >30 | 16.8 | 17.8 | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|------------------|--------------------------|-------------|----------|----------|
| Oxidation | Abs/.1mm *ASTM D7414 >25 | 11.1 | 11.5 | --- |
| Base Number (BN) | mg KOH/g ASTM D2896 9.7 | 8.6 | 9.3 | --- |



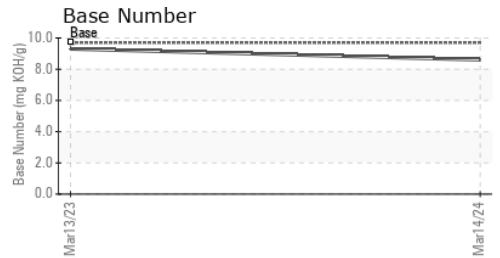
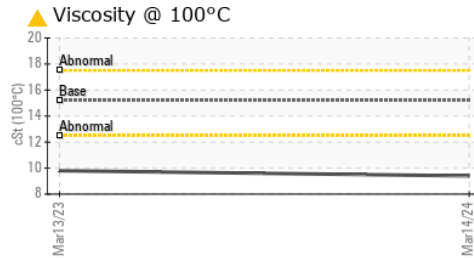
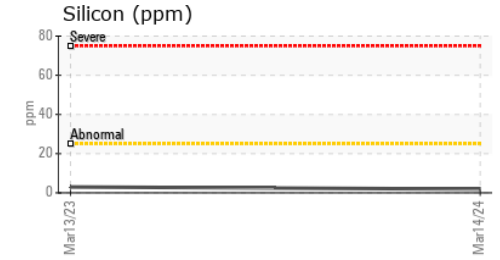
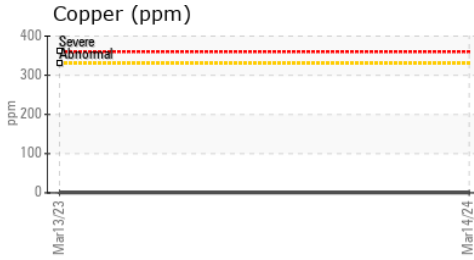
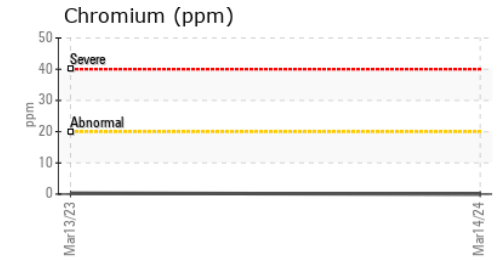
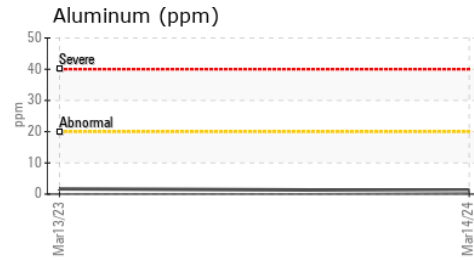
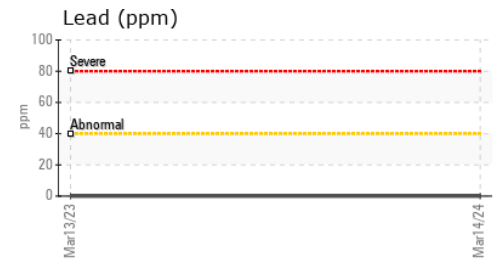
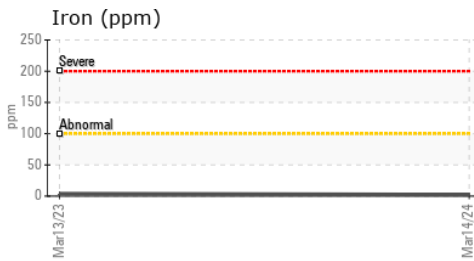
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| 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 | >0.2 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.2 | ▲ 9.4 | 9.8 |

GRAPHS



Certificate L2367

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

Sample No. : WC0803171

Lab Number : 06123011

Unique Number : 10937162

Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 19 Mar 2024

Tested : 22 Mar 2024

Diagnosed : 22 Mar 2024 - Wes Davis

AES USA - NORTH CHARLESTON

5400 INTERNATIONAL BLVD, BLDG 88-20

NORTH CHARLESTON, SC

US 29418

Contact: Maxime Banctel

maxime.banctel@aes-gse.com

T:

F: x:

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)