

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

KENWORTH 427205-SW4831

Diesel Engine

MOBIL DELVAC ELITE 15W40 (--- GAL)

DIAGNOSIS

A Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

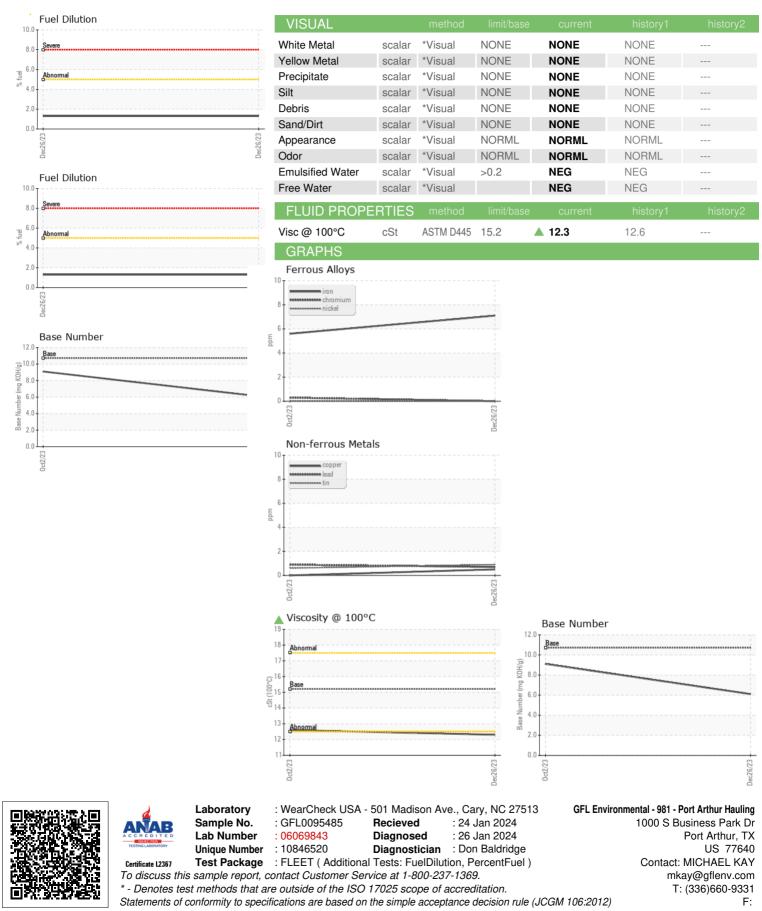
Fluid Condition

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

| | | | 0ct2023 | Dec2023 | | |
|---|---|--|--|--|---|---|
| SAMPLE INFORM | / IATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | GFL0095485 | GFL0095444 | |
| Sample Date | | Client Info | | 26 Dec 2023 | 02 Oct 2023 | |
| Machine Age | hrs | Client Info | | 12863 | 12357 | |
| Oil Age | hrs | Client Info | | 500 | 500 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Sample Status | | | | ATTENTION | NORMAL | |
| CONTAMINATI | ON | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | |
| Glycol | | WC Method | | NEG | NEG | |
| WEAR METALS | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 7 | 6 | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 3 | |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | |
| Copper | ppm | ASTM D5185m | >330 | <1 | 0 | |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 82 | 101 | |
| Barium | ppm | ASTM D5185m | | 0 | <1 | |
| Molybdenum | ppm | ASTM D5185m | | 108 | 119 | |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | |
| Magnesium | | | | | | |
| | ppm | ASTM D5185m | | 620 | 662 | |
| Calcium | ppm ppm | ASTM D5185m ASTM D5185m | | 620 1116 | 662 1259 | |
| | | | | | | |
| Phosphorus | ppm | ASTM D5185m | | 1116 | 1259 | |
| Phosphorus Zinc | ppm ppm | ASTM D5185m ASTM D5185m | | 1116 657 | 1259 750 | |
| Phosphorus Zinc | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | limit/base | 1116 657 729 | 1259 750 880 | |
| Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | limit/base | 1116 657 729 2798 | 1259 750 880 3307 | |
| Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon | ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method | | 1116 657 729 2798 current | 1259 750 880 3307 history1 | history2 |
| Phosphorus Zinc Sulfur CONTAMINAN [®] Silicon Sodium | ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | | 1116 657 729 2798 current 6 | 1259 750 880 3307 history1 6 | history2 |
| Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium | ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >25 | 1116 657 729 2798 current 6 2 | 1259 750 880 3307 history1 6 2 | history2 |
| Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium | ppm ppm ppm ppm TS ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >25 >20 | 1116 657 729 2798 current 6 2 2 2 | 1259 750 880 3307 history1 6 2 3 | history2 |
| Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED | ppm ppm ppm ppm TS ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 | >25 >20 >5 | 1116 657 729 2798 current 6 2 2 2 1.3 | 1259 750 880 3307 history1 6 2 3 <1.0 | history2 |
| Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % | ppm ppm ppm ppm TS ppm ppm % | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | >25 >20 >5 limit/base >3 | 1116 657 729 2798 current 6 2 2 2 1.3 current | 1259 750 880 3307 history1 6 2 3 <1.0 history1 | history2 history2 |
| Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration | ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method | >25 >20 >5 limit/base >3 | 1116 657 729 2798 current 6 2 2 1.3 current 0.7 | 1259 750 880 3307 history1 6 2 3 <1.0 history1 0.4 | history2 history2 history2 |
| Phosphorus Zinc Sulfur CONTAMINAN ^T Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration | ppm ppm ppm ppm TS ppm ppm % % % Abs/cm Abs/.1mm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7824 | >25 >20 >5 limit/base >3 >20 | 1116 657 729 2798 current 6 2 2 1.3 current 0.7 8.9 | 1259 750 880 3307 history1 6 2 3 <1.0 history1 0.4 7.4 | history2 history2 |
| CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm TS ppm ppm % % % Abs/cm Abs/.1mm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D7844 *ASTM D7824 | >25 >20 >5 limit/base >3 >20 >30 | 1116 657 729 2798 current 6 2 2 1.3 current 0.7 8.9 18.4 | 1259 750 880 3307 history1 6 2 3 <1.0 history1 0.4 7.4 19.5 | history2 history2 |



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