

OIL ANALYSIS REPORT

Sample Rating Trend

FUEL

Machine Id KIA KIA SEDONA Component

Gasoline Engine Fluid KIRKLAND 5W30 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

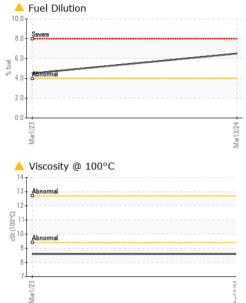
Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| | | | Mar2023 | Mar2024 | | |
|--|--|--|--|--|---|----------------------------|
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0802539 | WC0802538 | |
| Sample Date | | Client Info | | 13 Mar 2024 | 01 Mar 2023 | |
| Machine Age | kms | Client Info | | 164731 | 140000 | |
| Oil Age | kms | Client Info | | 0 | 6000 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| CONTAMINATIO | N | 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 D5185(m) | >150 | 4 | 4 | |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | 0 | |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | <1 | |
| Aluminum | ppm | ASTM D5185(m) | >40 | 4 | 3 | |
| Lead | ppm | ASTM D5185(m) | >50 | 0 | 0 | |
| Copper | ppm | ASTM D5185(m) | >155 | 1 | <1 | |
| Tin | ppm | ASTM D5185(m) | >10 | 0 | 0 | |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Dia un all'a una | | ACTM DE10E(m) | | 0 | 0 | |
| Beryllium | ppm | ASTM D5185(m) | | v | 0 | |
| Cadmium | ppm | ASTM D5185(m) ASTM D5185(m) | | 0 | 0 | |
| , | | | limit/base | | | history2 |
| Cadmium | | ASTM D5185(m) | limit/base | 0 | 0 | |
| Cadmium ADDITIVES | ppm | ASTM D5185(m) | limit/base | 0 current | 0 history1 | history2 |
| Cadmium ADDITIVES Boron | ppm ppm | ASTM D5185(m) method ASTM D5185(m) | limit/base | 0 current 56 | 0 history1 126 | history2 |
| Cadmium ADDITIVES Boron Barium | ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 | 0 history1 126 0 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum | ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 | 0 history1 126 0 68 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 | 0 history1 126 0 68 0 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 | 0 history1 126 0 68 0 484 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 1114 | 0 history1 126 0 68 0 484 1256 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 1114 580 | 0 history1 126 0 68 0 484 1256 705 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 1114 580 681 | 0 history1 126 0 68 0 484 1256 705 707 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 1114 580 681 1577 | 0 history1 126 0 68 0 484 1256 705 707 2446 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 | 0 history1 126 0 68 0 484 1256 705 705 707 2446 <1 2446 <1 history1 6 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 | 0 history1 126 0 68 0 484 1256 705 705 707 2446 <1 kistory1 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base >30 | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 <1 | 0 history1 126 0 68 0 484 1256 705 707 2446 <1 2446 <1 history1 6 2 2 <1 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | limit/base >30 >400 | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 | 0 history1 126 0 68 0 484 1256 705 705 707 2446 <1 2446 <1 history1 6 2 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base >30 >400 >20 | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 <1 | 0 history1 126 0 68 0 484 1256 705 707 2446 <1 2446 <1 history1 6 2 2 <1 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base >30 >400 >20 >4.0 | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 <1 ▲6.5 | 0 history1 126 0 68 0 484 1256 705 707 2446 <1 6 2 <1 history1 6 2 <1 ▲ 4.5 | history2 history2 history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base >30 >400 >20 >4.0 limit/base | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 <1 ▲ 6.5 Current | 0 history1 126 0 68 0 484 1256 705 707 2446 <1 6 2 48 1 | history2 |
| Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) | limit/base >30 >400 >20 >4.0 limit/base | 0 current 56 0 124 0 454 1114 580 681 1577 <1 current 13 2 <1 ▲ 6.5 current 0 | 0 history1 126 0 68 0 484 1256 705 707 2446 <1 6 2446 <1 history1 6 2 <1 ▲ 1256 1256 705 707 2446 <1 12566 12566 12566 12566 12566 12566 12566 12566 12 | history2 history2 history2 |



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Validity of results and interpretation are based on the sample and information as supplied. Report Id: CHRCOO [WCAMIS] 02624105 (Generated: 03/26/2024 10:25:29) Rev: 1

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