

OIL ANALYSIS REPORT



Machine Id **FB 1** Component **Gearbox** Fluid **TULCO LUBSOIL INDUSTRIAL GEAR OIL 320 (--- QTS)**

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

| SAMPLE INFORM | 1ATION | method | limit/base | current | history1 | history2 |
|--|---|--|--|--|---|--|
| Sample Number | | Client Info | | TO50002297 | | |
| Sample Date | | Client Info | | 27 Mar 2024 | | |
| Machine Age | days | Client Info | | 20 | | |
| Oil Age | days | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATION | ١ | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | | 16 | | |
| Iron | ppm | ASTM D5185m | >200 | 6 | | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | | |
| Nickel | ppm | ASTM D5185m | >10 | 0 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | | 0 | | |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | | |
| Lead | ppm | ASTM D5185m | >50 | 0 | | |
| Copper | ppm | ASTM D5185m | >200 | 0 | | |
| Tin | ppm | ASTM D5185m | >10 | <1 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| | | | 11.0011/10.000 | | la facta a surat | la la tarra O |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 10 | 0 | | |
| Barium | ppm | ASTM D5185m | | 0 | | |
| Molybdenum | ppm | ASTM D5185m | | 4 | | |
| Manganese | ppm | ASTM D5185m | | <1 | | |
| Magnesium | | | | | | |
| ~ | ppm | ASTM D5185m | | 10 | | |
| Calcium | ppm ppm | ASTM D5185m ASTM D5185m | | 10 26 | | |
| Ū | | | 125 | | | |
| Calcium | ppm | ASTM D5185m | 125 | 26 | | |
| Calcium Phosphorus | ppm ppm | ASTM D5185m ASTM D5185m | 125 5850 | 26 114 | | |
| Calcium Phosphorus Zinc | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | 26 114 10 | | |
| Calcium Phosphorus Zinc Sulfur | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5850 limit/base | 26 114 10 8557 | | |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method | 5850 limit/base | 26 114 10 8557 current | | |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 5850 limit/base >50 | 26 114 10 8557 current 1 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | 5850 limit/base >50 | 26 114 10 8557 <u>current</u> 1 <1 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | 5850 limit/base >50 >20 | 26 114 10 8557 current 1 <1 <1 | history1 | history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5850 limit/base >50 >20 limit/base | 26 114 10 8557 current 1 <1 <1 <1 current | history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal | ppm ppm ppm ppm ppm ppm ppm scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m | 5850 limit/base >50 >20 limit/base NONE | 26 114 10 8557 current 1 <1 <1 <1 current NONE | history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal | ppm ppm ppm ppm ppm ppm ppm scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual | 5850 imit/base >50 >20 imit/base NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 <1 current NONE NONE | history1 history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate | ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual | 5850 imit/base >50 220 imit/base NONE NONE NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 current NONE NONE NONE NONE | history1 history1 history1 | history2 history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt | ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual | 5850 imit/base >50 >20 imit/base NONE NONE NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 current NONE NONE NONE NONE NONE | history1 history1 | history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris | ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D | 5850 imit/base >50 >20 imit/base NONE NONE NONE NONE NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 current NONE NONE NONE NONE NONE NONE | history1 history1 | history2 history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt | ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 5850 imit/base >50 20 imit/base NONE NONE NONE NONE NONE NONE NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 <1 current NONE NONE NONE NONE NONE NONE NONE | history1 history1 - | history2 history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance | ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 5850 imit/base >50 220 imit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE | 26 114 10 8557 current 1 <1 <1 <1 <1 current NONE NONE NONE NONE NONE NONE NONE NON | history1 history1 | history2 history2 history2 |
| Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor | ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual | 5850 5850 imit/base >20 imit/base 0000 000 | 26 114 10 8557 current 1 <1 <1 <1 <1 <1 <1 <1 <1 NONE NONE NONE NONE NONE NONE NONE NON | | history2 history2 history2 |



OIL ANALYSIS REPORT



Contact/Location: BRIAN WALKER - HERROATX

T:

F: