



OIL REPORT

LAB NUMBER:
 REPORT DATE: 8/18/2016
 CODE: 63/32

UNIT ID:
 CLIENT ID:
 PAYMENT:

| | | |
|-------------|--|---|
| UNIT | EQUIP. MAKE/MODEL: BMW 3.0L (N55B30) I-6 Turbo | OIL TYPE & GRADE: BMW TwinPower Turbo 5W/30 |
| | FUEL TYPE: Gasoline (Unleaded) | OIL USE INTERVAL: 10,000 Miles |
| | ADDITIONAL INFO: 335i | |

| | |
|---------------|------------|
| CLIENT | PHONE: |
| | FAX: |
| | ALT PHONE: |
| | EMAIL: |

COMMENTS We didn't find any fuel in this sample, so your sampling technique was fine. Next time you can forego the idling -- sometimes that introduces a little fuel into the oil (but not this time, apparently). Wear metals look pretty good, for the most part. Universal averages show typical wear levels for this engine type after about 6,100 miles on the oil. Your run was longer at 10,000 miles, and metals are all within the average range. Iron is a little higher, but that's a normal outcome of a longer oil run, so we're not worried. Try up to 12,000 miles, if you'd like. Nice!

| ELEMENTS IN PARTS PER MILLION | MI/HR on Oil | 10,000 | UNIT / LOCATION AVERAGES | | | | | UNIVERSAL AVERAGES |
|--------------------------------------|-------------------|-----------|---------------------------------|--|--|--|------|---------------------------|
| | MI/HR on Unit | 45,700 | | | | | | |
| | Sample Date | 8/16/2016 | | | | | | |
| | Make Up Oil Added | 6.5 qts | | | | | | |
| ALUMINUM | 12 | 12 | | | | | 11 | |
| CHROMIUM | 2 | 2 | | | | | 1 | |
| IRON | 57 | 57 | | | | | 45 | |
| COPPER | 11 | 11 | | | | | 6 | |
| LEAD | 1 | 1 | | | | | 1 | |
| TIN | 2 | 2 | | | | | 1 | |
| MOLYBDENUM | 70 | 70 | | | | | 102 | |
| NICKEL | 1 | 1 | | | | | 1 | |
| MANGANESE | 9 | 9 | | | | | 6 | |
| SILVER | 0 | 0 | | | | | 0 | |
| TITANIUM | 0 | 0 | | | | | 1 | |
| POTASSIUM | 4 | 4 | | | | | 4 | |
| BORON | 41 | 41 | | | | | 61 | |
| SILICON | 4 | 4 | | | | | 5 | |
| SODIUM | 6 | 6 | | | | | 7 | |
| CALCIUM | 2348 | 2348 | | | | | 2368 | |
| MAGNESIUM | 16 | 16 | | | | | 65 | |
| PHOSPHORUS | 822 | 822 | | | | | 849 | |
| ZINC | 1030 | 1030 | | | | | 1017 | |
| BARIUM | 0 | 0 | | | | | 0 | |

Values Should Be*

| | | | | | | | |
|-------------------|-----------------------|-------|----------|--|--|--|--|
| PROPERTIES | SUS Viscosity @ 210°F | 67.0 | 57-67 | | | | |
| | cSt Viscosity @ 100°C | 12.15 | 9.4-12.4 | | | | |
| | Flashpoint in °F | 405 | >385 | | | | |
| | Fuel % | <0.5 | <2.0 | | | | |
| | Antifreeze % | 0.0 | 0.0 | | | | |
| | Water % | 0.0 | 0.0 | | | | |
| | Insolubles % | 0.2 | <0.6 | | | | |
| | TBN | | | | | | |
| | TAN | | | | | | |
| | ISO Code | | | | | | |

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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