

# Cat® NGEO™ EL350 (Natural Gas Engine Oil)

**SAE 40**

For natural gas engines and other engines requiring low ash oil



Cat NGEO EL350 (Natural Gas Engine Oil) represents a significant performance breakthrough in natural gas engine lubricating oil technology. Cat NGEO EL350 provides capability for longer drain intervals over that of previous oils. This oil has proven superiority in thermal stability and resistance to oxidation. The new specially selected base stock and unique additive package in Cat NGEO EL350 provide excellent viscosity control.

## Recommended use

### Application

Cat NGEO EL350 provides outstanding performance in Caterpillar and other OEM engines that use gaseous fuels. This oil has proven ability to optimize the life of all engine components while achieving extended oil change intervals. It has been tested and proven superior in severe applications worldwide.

### Fuel Compatibility

For maximum engine service life and oil life, use Cat NGEO EL350 with low sulfur gaseous fuels that contain less than 0.43 mg hydrogen sulfide (H<sub>2</sub>S) per mega Joule (MJ) (0.45 µg hydrogen sulfide per BTU).

Engines using high sulfur natural gas or bio-gas (from landfills and sewage digesters) may also benefit from Cat NGEO EL350, but a shorter oil change interval may be required. Refer to the S•O•S<sup>SM</sup> information on the reverse side of this data sheet to determine oil change intervals.

Cat Natural Gas Engine Oil is formulated from select base stocks blended with special additives to provide:

- Excellent anti-oxidation/nitration properties
- Thermal stability
- Reduced carbon and sludge formulation

Cat NGEO EL350 is also compatible with exhaust catalyst applications that require a low phosphorus oil. With a typical phosphorus level of 300 ppm, Cat NGEO EL350 meets the requirements of most catalyst suppliers.

### Performance

Modern gaseous-fueled engines are moving to higher power ratings, BMEP and greater compression ratios. The new Cat NGEO EL350, with specially selected base stock and superior additives, has greater capacity to resist the increased stress these engine design changes place on the lubricating oil.

The specially selected base stock and highest quality additives result in Cat NGEO EL350's superior resistance to oxidation and nitration, in addition to providing excellent thermal stability. Extensive field-testing in Europe and North America proved its superiority for reducing carbon and sludge formation in severe applications. It also provides excellent resistance to foaming and outstanding resistance to corrosion.

## Typical Characteristics\*

SAE Viscosity Grade	40
Flash Point, °C (ASTM D92)	257
Pour Point, °C (ASTM D97)	-12
Viscosity:	
cSt @ 40°C (ASTM D445)	130
cSt @ 100°C (ASTM D445)	13
Viscosity Index (ASTM D2270)	99
Sulfated Ash, % wt. (ASTM D874)	0.57
TBN, mg KOH/g (ASTM D2896)	6.5
Phosphorus, % wt. (ASTM D4951)	0.030
Calcium, % wt. (Spectro or AA)	0.14
Gravity @ 16°C (60°F)	
API (ASTM D287)	28.9
Specific	0.882

\*The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

# Cat NGEO EL350 (Natural Gas Engine Oil)

**Superior formulation provides superior performance and protection**

- Longer drain intervals.
- Potential for further drain extensions with Cat S•O•S Oil Analysis.
- Excellent thermal stability.
- Superior oxidation and nitration resistance.
- Reduced sludge formation.
- Protection against foaming and corrosion resistance.
- Resistance to valve guttering.
- Reduced piston scuffing, scoring and piston/liner wear.

Cat NGEO EL350 is compatible with the Cat NGEO family of products.

**Cat Oil Filters for the best protection**

Oil filters should be changed every time used oil is drained from the engine and replaced with fresh oil. Oil filter life can extend to the same interval as that for the oil by carefully monitoring oil analysis and oil filter differential pressure.\* Water (moisture) in the oil can cause the paper media in the oil filter element to harden and fracture. This is a time and temperature related phenomena. Caterpillar® filters have been designed to provide maximum performance; therefore, using Caterpillar filters in this application is strongly recommended.

\*Except G3600 engines for which the filters should be changed at a maximum of 4000 hours. Refer to IRM FLU03-03, PELJ0195 for additional guidance.

**S•O•S Services to determine optimal oil change intervals**

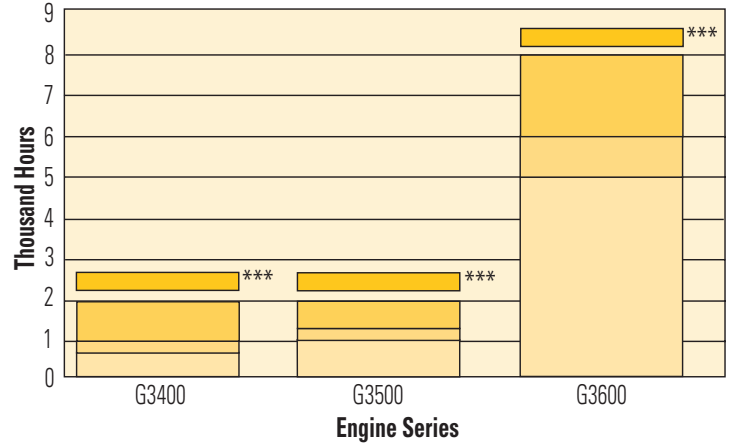
S•O•S Services are the means to determine optimum oil drain periods for your natural gas engines. In extreme operating conditions with corrosive fuels, S•O•S Oil Analysis can be used to identify premature oil degradation.

**Cat NGEO EL350 part numbers\*\***

Package Size U.S. (Gallons)	Part Numbers SAE 40	Package Size Metric (Liters)	Part Numbers SAE 40
55 Gal.	225-5083	208 L	225-5085
5 Gal.	225-5082	20 L	225-5084

\*\*Cat NGEO EL350 is offered in viscosity grade SAE 40 only.

**Standard Oil Change Recommendations**



- Drain interval with Cat NGEO and other oils
- Drain interval with Cat NGEO EL250
- Drain interval with Cat NGEO EL350

\*\*\*With use of Cat filter and S•O•S Oil Analysis, engines in certain applications and load factors may obtain longer oil change intervals.

Engine Series	Cat NGEO and Other Oils	Cat NGEO EL250****	Cat NGEO EL350
G3400	750 hours	1000 hours	2000 hours
G3500	1000 hours	1250 hours	2000 hours
G3600	5000 hours	6000 hours	8000 hours

\*\*\*\*Cat NGEO EL250 is not available in the countries of Europe, Africa and the Middle East.

**Information sources**

We can help you determine the right oil for your Cat engines, or you can refer to your "Operations and Maintenance Manual."

**Proper use for health and safety**

Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures. Read and understand the Material Safety Data Sheet (MSDS) before using this product. The MSDS is available on the Internet at:

[www.catmsds.com](http://www.catmsds.com)