FIRE MAY SMOLDER FOR MONTHS

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Thursday, November 1th 2001, 2:23AM

Girders of red-hot steel driven as many as six stories below ground by the collapse of the World Trade Center are fueling an underground blaze that threatens to smolder and cough up smoke for months.

The unprecedented structural fire does not have enough oxygen to rapidly devour its enormous fuel supply - desks, carpets, computers, paper, cars and other combustible material contained in and under the 110-story twin towers, experts say.

"So what you've got is a smoldering situation," said George Miller, president of the National Association of State Fire Marshals. "Judging from my 32 years of experience, this could burn for a long time."

Exactly how long "a long time" is, no one knows for sure. But fire engineers and safety experts told the Daily News that the blaze likely will continue burning for months - until most of the 1.2 million tons of debris are hauled away.

A fire needs three things to survive: fuel, oxygen and a heat source.

"If you can break that formula in any way, it will go out," said Marko Bourne, a spokesman for the fire administration of the Federal Emergency Management Agency. "The problem is how to do that with this fire."

While the blaze is starved for oxygen, the scalding steel buried below ground will retain its heat until enough air reaches it or water douses it, said Don Carson, a hazardous materials expert for the National Operating Engineers Union.

The jets that exploded into the towers showered them with gallons of jet fuel and raised the temperature of the structural beams to about 2,000 degrees.

"There are pieces of steel being pulled out that are still cherry red," Carson said as he stood amid the smoking debris this week. "It's like the charcoal that you put in your grill. . . . You light it and it stays hot."

Firefighters continue to soak the ravaged 17-acre area with water, but the heavy streams seep only so far into the layered debris.

As chunks of steel and concrete are raised by excavation machines, the city's Bravest wet the exposed areas and extinguish flames that erupt from crevices when oxygen rushes in.

"We will put it out," said a Bronx firefighter. "It's just a matter of time."
The Fire Department has yet to declare the blaze under control.

No blaze like it

Bourne said the blaze is so "far beyond a normal fire" that it is nearly impossible to draw conclusions about it based on other fires. While it is not unusual for underground fires to smolder for long periods of time, these usually occur in landfills or coal mines.

Several mines in Pennsylvania and Canada have been burning for decades. The classic example cited by experts is a strip mine in Centralia, Pa., that ignited in 1962 and continues to burn.

Forest fires also can rage for months. But Don Smurthwaite of the National Interagency Fire Center said not to come to him for answers to the Ground Zero blaze.

"We can always count on that season-ending event - rain or snow - to take care of the fire," Smurthwaite said. "The fires in the World Trade Center are entirely different. All the fuel they need is right there."

GRAPHIC: FIRE BELOW GROUND ZERO

Hot metal debris as much as six stories below ground fuels a smoldering fire that may last for months. As cranes remove twisted rubble, oxygen pours in and reignites the red hot mass.