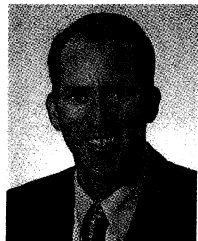


# Determining the Ownership of Landfill Gas

The process of collecting methane from landfills is gaining momentum throughout the country. The question remains: Who really owns the gas?

By James E. Goddard and Patrick Beaton

Imagine the following situation: You have just completed the installation of dozens of methane collection wells and a state-of-the-art gas collection and processing system on your landfill, and are now ready to sell landfill gas. Then you receive a “cease-and-desist” letter from an oil and gas company claiming to have an oil and gas lease on the property. The oil and gas company asserts that the oil and gas lease has granted it title to all of the gas in, on or under the landfill, and that which may be produced from wells on the landfill property. The company alleges it is entitled to all of the landfill gas produced from the landfill. This mineral lessee demands either a hefty royalty on all landfill gas produced or, worse yet, that it takes over operations of the collection wells pursuant to its right to operate under the oil and gas lease.



Beaton

It may surprise many that there is very little legal authority addressing the issue of who actually owns the methane gas produced from landfills. The purpose of this article is to discuss the scant authority on the topic and to address analogous situations that lead to the only logical conclusion on the issue: the owner/operator of the landfill, not the mineral owner or its lessee, has title to and the right to produce the landfill gas. Because Texas is the top-producing state of both oil and gas and a large number of landfills identified by the U.S. EPA's Landfill Methane Outreach Program are located in Texas, this article refers mainly to Texas legal principles, but many

of these principles are equally applicable to a number of states that recognize the “split estate” concept of the separate ownership of the surface estate and mineral estate.

A number of factors militate in favor of the conclusion that the landfill owner is the owner of the landfill gas. First, while the mineral estate includes the “oil, gas and minerals in, on and under, or that may be produced from” the land, it should not be considered to include gases that were never part of a geological reservoir associated with the land,

but instead are the byproduct of a commercial use of the surface. Second, by way of analogy to cases determining the ownership of re-injected gases, the landfill gas is an “extraneous” rather than “native” gas, and thus its extraction should not be considered a diminution of the mineral estate. Finally, from an economic incentive viewpoint, the policy concerns stated in certain legislation that encourage the capture and use of landfill gas can realistically only be realized by recognizing the owner of the landfill as the owner of the landfill gas.

## Defining Landfill Gas

When organic-rich solid wastes are deposited in a landfill and left to decompose outside of the presence of oxygen, the matter will be partially transformed by microorganisms into a mixture of gases. One of which, methane, is also the chief component of natural gas. The organic material is segregated from the lower layers of the soil by a

liner, which helps prevent the migration of various contaminants. The gas, which would otherwise likely be vented or flared for safety reasons, is generally collected by a series of wells drilled into the landfill. It is then compressed, dried and filtered and either used in a low-Btu gas turbine electric generator or further processed and sold to third-party industrial users and used to fuel furnaces and boilers.

## Surface Estate Versus Mineral Estate

For the purposes of this article, we assume the landfill owner/operator is either the owner or lessee of the surface of the land on which the site is located, but not the owner of the minerals of such land. Purchasing or gaining control of the mineral estate would eliminate the problem, but this is not always an option for the operator of a landfill. Leaving aside for the moment who owns the landfill gas, the owner of the minerals does have certain rights to access the surface in order to extract its minerals, which is another reason the landfill owner should seek to control the mineral estate as well as the surface. An in-depth discussion of the “dominance” of the mineral estate is beyond the scope of this article.

Many states recognize the mineral estate of a particular tract of land may be owned by someone other than the owner of the surface. In states such as Texas, the mineral estate is a corporeal, or possessory, interest in real property. Because a mineral estate is a corporeal interest in the real property of the minerals “in place” on the land, it should not include gases or any other minerals that are created

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Goddard

as a byproduct of some use of the surface estate at some point after the severance of the estate. In the context of a bankruptcy case, one federal court in Illinois opined that it was “very unlikely” that a contract

for the extraction of landfill gas from a landfill would be viewed as a mineral lease under Illinois law, in part because the gas was “a hazardous byproduct of a commercial activity,” unlike the oil and natural gas contained in the land that is normally the subject of a lease.

The mineral estate owner or its lessee may argue that since landfill gas has a high concentration of methane (usually 45 percent to 55 percent), which is the primary component of natural gas, and since the landfill gas is “produced” from wells on the “land” (albeit out of the lined portions of the landfill, segregated from the other layers of soil), it should be part of the mineral estate. However, such an argument ignores an important difference between landfill gas and natural gas, in addition to the obvious fact that natural gas contains approximately twice as much methane as landfill gas (*In re: Resource Technology Corp.*, 254 B.R. 215, 225 n.8 (N.D. Ill. 2000)).

Unlike “native” natural gas located in formations that are sometimes thousands of feet below the natural surface of the earth, landfill gas was never “in place” at the time of the mineral severance; it never existed in a geological reservoir of naturally-occurring hydrocarbons. In fact, landfill gas was never located under the surface of the earth. It is created above the landfill liner, which was placed on top of the then-existing surface of the land when the landfill was first formed.

Instead landfill gas is created within the landfill as a “hazardous byproduct” of commercial activities carried out by the surface estate owner running the landfill. Carried to its logical conclusion, an argument that the landfill gas belongs to the mineral estate would require that almost any product produced from an activity on the surface that created a “mineral” in the plain and ordinary meaning of the word, that had not already been found to belong to the surface estate, should belong to the mineral estate.

For example, if a waste disposal company were to solve the alchemists’ puzzle and discover a way to produce gold out of garbage, the gold would, under this argument, belong to the mineral estate—clearly not the just and equitable result. Yet, except for a difference in the value of the mineral at issue, the extraction of landfill gas is very much the same.

Additionally, allowing the mineral estate to own the landfill gas would essentially destroy the utility of the use of the surface as a landfill, which is not normally contemplated in the severance of a mineral estate. To allow the mineral owners access to the landfill to exploit the landfill gas would clearly destroy the utility of the surface for the landfill owner, not just of a preexisting use of the surface, but for a use that in itself creates the very gas for which the mineral estate owner would be drilling.

### Native Gas Versus Extracted Gas

By way of analogy to case law interpreting the ownership interest of re-injected natural gas, landfill gas should not belong to the mineral estate because it was never part of the “native gas” in the reservoir. Case law in Texas has developed a distinction between “native” natural gas in the reservoir and “extraneous” natural gas produced elsewhere, then injected into a depleted reservoir or other non-porous geological structure (*Lone Star Gas Co. v. Murbison*, 353 S.W.2d 870 at 879). Once natural gas has been produced from a reservoir the first time, it changes from real property to personal property. Therefore, the owner of the produced gas does not lose title to it by storing it in a well-defined storage facility, even if such a facility is a depleted oil-and-gas reservoir. The producer of such

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natural gas does not owe royalties to the gas royalty interest owner on gas that had been produced elsewhere, injected into a reservoir for storage, and then extracted.

Similarly, landfill gas cannot be considered “native” gas because it does not come from a geographic reservoir on or under the land, nor could it have been captured by drilling into any preexisting reservoir. Thus, even though it is arguable that landfill gas has been “created” on the same tract of land, it should be considered “extraneous” to any gas that might be found in the reservoirs on the land, which belongs to the mineral estate. In that sense, landfill gas, presumably not having been injected into a reservoir, should be even less likely than “re-injected gas” to be considered part of the mineral estate, because there was no commingling of the gas from the different estates. Therefore, landfill gas, being “extraneous” to whatever gas exists in the mineral estate, is outside of the contemplated grant or reservation of minerals that created the mineral estate, and the landfill owner’s interest in the landfill gas should be unaffected by the conveyance creating the mineral estate.

### Statutes and Policy

Statutes and regulations governing the safe venting and flaring of landfill gas are typically aimed at the owners and operators of the landfill, and do not mention the owner of the mineral estate. This implies that the state considers the owner of the landfill (presumably the surface owner or licensee) to be the owner of the gas, rather than the mineral estate owner or his or her lessee. It would appear to be somewhat inequitable that, after not having shared in the environmental, health and safety regulatory burdens that have been traditionally placed upon landfill operators in regards to landfill gas, and the costs to install the landfill gas collection system, the mineral estate owner should be considered the owner of landfill gas now that it has been shown to be commercially valuable.

Explicit policy statements in a Texas statute concerning the harnessing of landfill gas can realistically only be realized by recognizing the landfill owner/operator as the owner of the landfill gas. In the Texas Utilities Code, the

legislature clearly stated its intent “that by Jan. 1, 2015, an additional 5,000 megawatts of generating capacity from renewable energy technologies will have been installed in this state (Texas Utilities Code Annotated § 39.904(a), (d) (Vernon 2002)).” The term “renewable energy technologies” is defined to include landfill gas production and utilization in generating electricity.

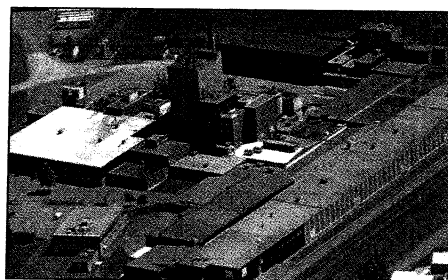
The Texas legislature’s intent to develop landfill gas, however, clearly depends upon the involvement of the landfill owners and operators. It would be unlikely that a landfill owner would invest money and undertake other risks for the extraction of landfill gas if it did not expect to maintain an ownership interest in the landfill gas once it was “produced.” If the landfill owner or operator knew it would receive no revenue from collecting the landfill gas, landfill owners and operators would be economically better off flaring the gas in accordance with existing guidelines, rather than financing the construction of collection systems.

When lawmakers make an explicit declaration of public policy in a statute, the statute at issue should be interpreted to give effect to such policy. Therefore, the economic reality that the landfill owner must be considered the owner of the landfill gas cannot be ignored in the interpretation of these statutes.

As the country struggles to develop new sources of renewable energy and reduce its reliance on foreign oil, the potential of landfill gas must be realized. For this to happen, the question of who owns the landfill gas has to be settled in favor of the landfill operator. As this article has discussed, this is the only logical conclusion that can be reached. **BIO**

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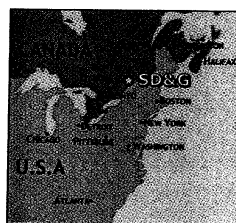
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