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A COMPARISON OF THE LANDOWNER'S RIGHTS TO PETROLEUM IN FRANCE AND LOUISIANA

Harry S. Sachse*

Petroleum is a thing of such great importance and of such a unique character that it has been the subject of new legislation and of new rights wherever it has been found. It is the object of this paper to compare the rights of landowners to petroleum beneath their lands in France and in Louisiana.¹

THE NATURE OF THE LANDOWNER'S RIGHT TO PETROLEUM IN LOUISIANA

After being settled by the French and conquered by the Spanish, Louisiana became an American Territory in 1803. In 1808, the territorial legislature adopted "A Digest of the Civil Law Actually in Effect in the Territory of Orleans," which was, in fact, the first Civil Code of Louisiana. It was partly original and partly Spanish but much of it was taken from the preliminary projects of the Code Napoleon. In 1825 after the territory had become a state the legislature adopted a new Civil Code which borrowed much more heavily from the Code Napoleon, which was by then celebrated throughout the world.

The Code Napoleon and all of the Louisiana Codes, including the revision of 1870, provided that:

"Perfect ownership gives the right to enjoy and dispose of a thing in the most absolute manner, provided it is not used in any way prohibited by law.

"No one can be constrained to cede his property unless for some purpose of public utility and on consideration of an equitable and previous indemnity."²

These articles establish in general the powers enjoyed by the

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1. By *petroleum* is understood all liquid and gaseous hydrocarbons.

2. LA. CIVIL CODE arts. 491, 497 (1870); LA. CIVIL CODE arts. 483, 489 (1825); LA. CIVIL CODE ch. 1, tit. 2, arts. 1, 2 (1808); FRENCH CIVIL CODE arts. 544, 545.

owner of a thing, but do not establish the extent of the thing owned. Article 9, Chapter I, Title II of the Digest of 1808 provided:

“The ownership of the soil carries with it the ownership of that which is above it and under it. The owner may make upon it all the plantations and constructions which he thinks proper, save the exceptions established under the title of servitudes and real services.

“He may construct below the soil all manner of works and pits which he thinks proper and draw from them all the profits that they can produce subject to the modifications resulting from the regulations of police.”

This article, which states in so many words that ownership of the surface of land includes all that is under it, differs in one important respect from the corresponding article of the Code Napoleon.³ The Digest of 1808 limited the rights of the surface owner only by the regulations of police. The article of the Code Napoleon contained an additional limitation as to “modifications resulting from the laws and regulations relative to mines.” In 1808, there were neither mines nor mineral laws in Louisiana. Thus, this limitation was meaningless and was not included. For the same reasons one does not find in the Digest of 1808 an article equivalent to Article 598 of the Code Napoleon which regulates the rights of the usufructuary to the products of mines and quarries.

In the Code of 1825, a curious change was made. Article 497, the former Article 9, was made substantially identical to Article 552 of the Code Napoleon. That is to say, the right of the surface proprietor to the sub-surface was limited not only by the regulations of police but also by the “Laws and Regulations Relative to Mines.” In the projet of the Code of 1825, the redactors commented: “The only amendment in this article is relative to that which is said on mines of which our Code did not speak.” This reference to a nonexistent law of mines was retained in Article 505 of the Revised Civil Code of 1870.

The Code of 1825 also added an article (Article 545, now Article 552) tracking the language of the Code Napoleon which gives a usufructuary the right to exploit mines and quarries already in exploitation. The Code of 1825 did not, however,

3. FRENCH CIVIL CODE art. 552.

contain the Code Napoleon's reference to the necessity of obtaining the permission of the state for such exploitation. The redactors made no comment on this new article. It is known that the redactors contemplated a commercial code which has never been adopted. From these two articles, one must suppose that they also contemplated mineral legislation outside of the Civil Code in the event that a mineral industry should develop. Such legislation existed in France at that time.

Oil was discovered in Pennsylvania in 1859 and soon afterwards in many other states. As early as 1870 a question of an infraction of the terms of a mineral lease was presented to the Supreme Court of Louisiana in *Escoubas v. Louisiana Petroleum & Coal Co.*⁴ But petroleum was not produced in Louisiana until 1901 and it was in 1913 that the Supreme Court of Louisiana first ruled on the nature of the landowner's right to petroleum.⁵ Despite the warning of future problems given by the *Escoubas* case and despite the obvious and intentional inadequacy of the Civil Code in mineral matters, the Louisiana legislature gave the courts no assistance regarding the juridical nature of interests in petroleum or the legal forms under which the exploration and exploitation of petroleum could be made. The entire matter was left to judicial interpretation of statutes never designed to regulate the matters at issue.

In this period of dormancy in Louisiana, there was a lively development of petroleum law in Pennsylvania, Ohio, Indiana, New Jersey, and several other petroleum-producing states. It is not surprising to find that this development outside of Louisiana had an important effect on Louisiana mineral law. Two conclusions of this early petroleum law were of paramount importance: first, that the rights to petroleum were private and not public; and, secondly, that these private rights might not go as far as ownership.

The government of the United States, contrary to the governments of European nations, never claimed a proprietary right to petroleum or solid minerals found under private property. Similarly, the states, although they have often taxed the right

4. 22 La. Ann. 280 (1870).

5. *Wadkins v. Atlanta & Shreveport Oil & Gas Co.* (1913). This case was not officially published because, during a delay for rehearing, the case was compromised by the parties. 150 La. 756, 770, 91 So. 307, 212 (1922).

Curiously, despite an important development of salt and sulphur mines, no body of legislation or jurisprudence had been developed in relation to such activities.

to extract minerals or the value of minerals extracted from the ground and have regulated the exploration and exploitation of petroleum, have never claimed a proprietary right to petroleum under private property. This is without doubt attributable to the American repugnance to governmental ownership of basic industry, an aversion which was even stronger in the formative period of petroleum law than now. Private rights to petroleum seem unusual to Europeans but the development of such rights was fostered by nineteenth century conditions in America.

Even though petroleum had a great value in the nineteenth century as a source of illumination and for the production of carbon, that value was without the national importance that petroleum gained during the First World War when the internal combustion engine became a tool of warfare. Petroleum was discovered in the United States during a period of economic laissez-faire and governmental weakness. The federal government lacked the political power to claim ownership of petroleum under private property. The states, on the other hand, without international obligations and before the period of social welfare legislation and of federal income tax, having sufficient powers of taxation, had no reason to claim the ownership of minerals which at that time in any event would have been politically impossible. It is beyond the limits of this paper to do more than indicate some of the conditions that led to a tacit acceptance of the view that petroleum is not part of the public domain. This was implicitly recognized without being the subject of legislation or jurisprudential decision. The point is important because the legal analyses of many of the early cases if delivered in a different political situation could have led to a conclusion that oil and gas are not susceptible of private ownership and thus are at the disposition of the state.

The common law which was the fundamental law of all the early petroleum states recognized, as did the French law, in principle, that the surface proprietor is the proprietor of all above and below the surface. It further recognized his ownership of all the minerals under his land and his right to dispose of them in creating a separate estate in a mine, or to contract liberally for the exploitation of the minerals.⁶ A mineral lease was the habitual way of providing for exploitation.

6. 1, SNYDER, MINES AND MINING § 7 (1902). See also 36 AM. JUR., *Mines and minerals*, 284, 285, 297 (1941). With certain exceptions, particularly as to gold and silver mines.

The judges of the first American cases ruling on the rights to petroleum were impressed by the difference between petroleum and solid minerals. It was recognized that a well drilled in one tract of land may be able to drain petroleum from beneath an adjoining tract, and that it would be very difficult, if not impossible, to know the source of the petroleum extracted. Additionally, it was generally thought that petroleum flowed in underground rivers, as is often the case with water. The courts, mindful of the difference between petroleum and solid minerals, searched for a juridical guide beyond the law of traditional mining. One guide was found in an analogy with flowing springs of water and water wells. The English case of *Acton v. Blundell* had established that a surface owner could drill a water well on his property which dried the well of his neighbor without owing reparation to the neighbor for the damage done.⁷ This case was often cited in American mineral cases.⁸

A second and more curious analogy was made to wild animals—animals *ferae naturae*. The analogy was first made by the Supreme Court of Pennsylvania, which stated that:

“Water and oil and still more strongly gas, may be classified by themselves, if the analogy is not too fanciful, as minerals *ferae naturae*. In common with animals, and unlike other minerals, they have the power and tendency to escape without the volition of the owner. Their ‘fugitive and wandering existence within the limits of a particular tract was uncertain’ . . . They belong to the owner of the land, and are part of it, so long as they are on or in it, and are subject to his control; but when they escape, and go into other land, or come under another’s control, the title of the former owner is gone. Possession of the land, therefore, is not necessarily possession of the gas. If an adjoining, or even a distant, owner, drills his own land, and taps your gas, so that it comes into his well and under his control, it is no longer yours, but his.”⁹

The result of the two analogies was a theory usually referred to as that of nonownership, the principle of which was that the

7. *Acton v. Blundell*, 12 M. & W. 324, 152 Eng. Rep. 1223 (Ex. 1843). The same result is had in France. See 1 PLANIOL, TRAITÉ ÉLÉMENTAIRE DE DROIT CIVIL n° 3124 (5th ed. 1950) [hereinafter cited as PLANIOL].

8. 1 WILLIAMS & MEYERS, OIL AND GAS LAW 36 (1959).

9. *Westmoreland & Cambria Natural Gas Co. v. DeWitt*, 130 Pa. 235, 249, 18 Atl. 724, 725 (1889).

landowner is not the owner of the petroleum under his land as it is a fugacious thing and not subject to ownership, but that he has the exclusive right to prospect and drill wells on his land and to retain all the petroleum that he can extract through such wells, whether it is drawn from the subsurface of his land or his neighbors'. He can dispose of his right so to do in any manner he wishes, perpetually or otherwise.

With the discovery that petroleum is less fugacious than had been previously thought, and that it usually rests trapped in reservoirs until the reservoirs are tapped by man,¹⁰ many states, finding less reason to distinguish petroleum from solid minerals and finding the analogies to wild animals and to springs of water too remote, classified petroleum with solid minerals as an estate that may be owned separately from the soil. This classification was called the theory of ownership or ownership in place. Despite the new classification the conclusion of the principle of nonownership that one may draw all the oil he can from wells on his land without indemnification to his neighbors was retained. This concept, common to the two theories, was called the rule of capture. Since both theories incorporate this important rule, one can see that the difference between the two theories is more a question of form and terminology than of substance.

The states classifying petroleum with solid minerals justified the rule of capture in a fashion similar to that of the following decision of a Texas court:

"We do not regard it as an open question in this state that gas and oil in place are minerals and realty, subject to ownership, severance, and sale while imbedded in the sands or rocks beneath the earth's surface, in like manner and to the same extent as is coal or any other solid mineral.

"The objection lacks substantial foundation that gas or oil in a certain tract of land cannot be owned in place, because subject to appropriation, without the consent of the owner of the tract, through drainage from wells on adjacent land. If the owners of adjacent lands have the right to appropriate, without liability, the gas and oil underlying their neighbor's land, then their neighbor has the correlative right to appropriate, through like methods of drainage, the gas and

10. 1 WILLIAMS & MEYERS, *OIL AND GAS LAW* § 104 (1959).

oil underlying the tracts adjacent to this own . . . Ultimate injury from the net results of drainage, where proper diligence is used, is altogether too conjectural to form the basis for the denial of a right of property in that which is not only plainly as much realty as any other part of the earth's contents, but realty of the highest value to mankind and often worth far more than anything else on or beneath the surface within the proprietor's boundaries . . . We do not think that any distinction in principle lies between the title acquired under a grant of solid minerals and the title acquired under a grant in the same form of gas and oil."¹¹

In addition to the rule of ownership and of nonownership and outside of the rule of capture, a third thesis was expounded, the theory of correlative rights. Each surface proprietor above a petroleum reservoir is recognized to have a right to participate in the benefits of the reservoir. Thus, no single proprietor should be permitted to exhaust the reservoir or to extract more than his proper portion. This is the theory of *Ohio Oil Co. v. Indiana* in which the United States Supreme Court in 1900 upheld one of the early conservation laws which had been attacked as a deprivation of private property. The Court stated:

"[A]s to gas and oil, the surface proprietors within the gas field all have the right to reduce to possession the gas and oil beneath. They could not be absolutely deprived of this right which belongs to them without the taking of private property. But there is a coequal right in them all to take from a common source of supply, the two substances which in the nature of things are united though separate. It follows from the essence of their right and from the situation of the things as to which it can be exerted, that the use by one of his power to seek to convert a part of the common fund to actual possession may result in an undue proportion being attributed to one of the possessors of the right to the detriment of the others, or by waste by one or more to the annihilation of the rights of the remainder. Hence it is that the legislative power, from the peculiar nature of the right and objects upon which it is to be exerted, can be manifested for the purpose of protecting all the collective owners, by securing a just distribution, to arise from the enjoyment, by them, of their privilege to reduce to possession, and to reach

11. *Stephens County v. Mid-Kansas Oil & Gas Co.*, 113 Tex. 160, 167, 254 S.W. 290, 292 (1923).

the like end by preventing waste Viewed, then, as a statute to protect or to prevent the waste of the common property of the surface owners, the law of the State of Indiana which is here attacked because it is asserted that it divested private property without due compensation, in substance, is a statute protecting private property and preventing it from being taken by one of the common owners without regard to the enjoyment of the others."¹²

Despite the language that petroleum reservoirs are the common property of the surface owners, the Ohio case was generally misinterpreted as a recognition of the theory of non-ownership. The validity of conservation legislation was thus erroneously assumed to be dependent upon the theory of non-ownership which was thereby preserved for some time against the erosive effects of new geological discoveries and the dissent of the Supreme Courts of several states. The rule of capture was not yet to be abolished.

Such was the mineral law known by the Louisiana judges at the time of the discovery of petroleum in Louisiana. Louisiana had no mineral code. The Civil Code gave only the most meager consideration to problems of mineral law, and no jurisprudence had been developed on the subject. The only guide readily available was the development in the common law states, but there the basic property law was alien and confusing to the Louisiana jurist.

The Louisiana courts accepted without question that the landowner has paramount rights to the petroleum under his surface. The first and most basic problem to be considered was whether a landowner could dispose of the petroleum under his land permanently, creating a separate estate in minerals distinct from the surface ownership. In 1913, the question arose in the following now familiar context: a surface owner entered into an act purporting to convey all the minerals under his land, including petroleum, to an oil company. For more than ten years the oil company made no effort towards exploitation of the minerals. Then the company began drilling and the surface owner objected. His argument was that he had never been owner of the petroleum under his land because it was a thing without master. He urged that he only owned an exclusive right to search for the petroleum and to exploit it if he could find it, and it was this

12. *Ohio Oil Co. v. Indiana*, 177 U.S. 190, 209 (1900).

right and not the petroleum itself that the company had bought from him. Since the company had not exercised its right during ten years, the landowner maintained that the right had prescribed. The court decided for the landowner.¹³ The case was never reported as it was settled pending a rehearing and the question remained without a definitive solution until 1923 when the principle of the *Wadkins* case was confirmed in the case of *Frost-Johnson Lumber Co. v. Salling's Heirs*.¹⁴

All of the early Louisiana mineral cases fully recognized the rule of capture which was then well established in the common law states. In the *Wadkins* case, the Supreme Court of Louisiana had reported that there was nothing to the contrary in the French law, the law of springs of water being applicable to all liquid minerals. The first oil or gas well at that time was yet to be drilled in France. The court also accepted the geological conclusions that petroleum moves without human intervention over an extended area and that a well may produce petroleum drawn from an indefinite distance. From these two premises, the conclusion seemed to follow that petroleum is a thing without master, and not susceptible of private ownership before being extracted. This being so, a sale of the oil and gas under a tract of land could only be a sale of the right to look for and extract it. Being a right, and not the ownership of a thing, it would prescribe by non-usage during 10 years.¹⁵ The right was characterized as a servitude, but not without difficulty. Under the Louisiana Civil Code, servitudes are either praedial (charges imposed upon one estate for the benefit of another estate) or personal (charges imposed upon an estate for the benefit of an individual). Personal servitudes are limited by the Civil Code to the institutions of usufruct, use, and habitation, all of which terminate with the life of the person in whose favor they are

13. *Wadkins v. Atlanta & Shreveport Oil & Gas Co.* (1913).

14. 150 La. 756, 91 So. 207 (1922). In the interval there was a series of cases suggesting the position ultimately to be taken in the *Frost-Johnson* case. See *Higgins Oil & Fuel Co. v. Guaranty Oil Co.*, 145 La. 233, 82 So. 206 (1919); *Hanby v. Texas Co.*, 140 La. 189, 72 So. 933 (1916); *Saunders v. Busch-Everett Co.*, 138 La. 1049, 71 So. 153 (1916); *Strother v. Mangham*, 138 La. 437, 70 So. 426 (1915); *Elder v. Ellerbe*, 135 La. 990, 66 So. 337 (1914); *Cooke v. Gulf Refining Co.*, 135 La. 609, 65 So. 758 (1914); *Rives v. Gulf Refining Co.*, 133 La. 178, 62 So. 623 (1913).

15. LA. CIVIL CODE art. 3544 (1870): "In general, all personal actions, except those before enumerated, are prescribed by ten years." *Id.* art. 3546: "The right of usufruct, use and habitation and servitudes are lost by non-use for ten years." In France, the non-usage must be of thirty years. FRENCH CIVIL CODE arts. 617, 625, 2262.

established.¹⁶ Because of this limitation it is impractical to classify the right to petroleum as a personal servitude. The expenses involved in searching for and producing petroleum are too great for the right to produce petroleum to be governed by such an uncertain period as the life of a man. On the other hand, the right to oil and gas does not fit neatly into the definition of a praedial servitude, because there are not two separate estates involved in any normal meaning of the word.

Despite these difficulties, the Louisiana Supreme Court in the *Frost-Johnson* case declared the right to oil and gas to be a hereditary servitude imposed upon an estate for the benefit of an individual. As a servitude, it was declared to be lost by prescription if not exercised for ten years.

The court was not unanimous in rendering this decision. The dissenting judges criticized the opinion as being founded on the false geological premise that petroleum is fugative while in fact it is trapped in reservoirs where it rests indefinitely if no one drills a well by which it may escape.

As stated by Justice Provosty:

"Will it seriously be said that the system of laws which recognizes ownership in things so light of wing as birds and bees, and so fleet of movement as fish, and of so trifling value, denies ownership to a substance so infinitely less mobile as oil, and so valuable that its possession is now threatening to become the apple of discord between the nations of the earth."¹⁷

The minority further objected that the case is founded on a false application of the Civil Code. The argument was made that to find a servitude the subsurface should be considered the domi-

16. LA. CIVIL CODE art. 646 (1870): "All servitudes which affect lands may be divided into two kinds, personal and real.

"Personal servitudes are those attached to the person for whose benefit they are established, and terminate with his life. This kind of servitude is of three sorts: usufruct, use and habitation.

"Real servitudes, which are also called *praedial or landed servitudes*, are those which the owner of an estate enjoys on a neighboring estate for the benefit of his own estate.

"They are called *praedial or landed servitudes*, because, being established for the benefit of an estate, they are rather due to the estate than to the owner personally."

See FRENCH CIVIL CODE arts. 617, 625.

17. *Frost-Johnson Lumber Co. v. Salling's Heirs*, 150 La. 756, 803, 91 So. 207, 224 (1922).

nant estate and the surface the servient estate, owing to the subsurface whatever right of occupation or passage may be necessary for the exploitation of petroleum. The servitude, then, would be one which originates from the situation of the places and imprescriptible.¹⁸

Lastly, the minority judges objected that as petroleum is often the most valuable part of the estate, the owner of the estate should have the right to sell it perpetually if he so desires. They reasoned that if the Civil Code does not permit a sale of minerals it is simply because the problem was not posed at the time of its redaction and concluded that since the other states permit the sale of petroleum in perpetuity and such would be commercially useful in Louisiana, the court should declare its legality.

The context in which the question was posed shows that the court, in establishing the principle of servitude for mineral rights, may have thought primarily of finding a way of applying the prescription of ten years to a separation of ownership of the surface and subsurface. A certain inquietude concerning the perpetual sale of minerals was not without foundation. Oil companies in other states had speculated widely in purchasing perpetual mineral rights in undeveloped areas at low prices and without immediate plans for exploration. If there had been no petroleum development in a region, these mineral rights of an immense potential value could be bought cheaply from the landowners who were often uninformed farmers, not aware of the value of their rights. The necessity to begin exploration within ten years or lose the mineral lease would at least curb this practice, and would also free many landowners from improvident sales of their rights.

Additionally, a ten-year prescriptive period on mineral rights would encourage the oil companies to search for oil and begin exploitation as soon as possible, so as not to lose their rights. This necessity on the part of the oil company, together with the rule of capture which encouraged the landowner to exploit his land so that the oil would not be drawn from it by a neighbor, would create a system in which production of oil is encouraged to the benefit of the landowners of the state and the state itself. The ten-year prescriptive period would also serve to simplify

18. See also LA. CIVIL CODE art. 795 (1870): "Prescription for non-usage does not take place against natural or necessary servitudes, which originate from the situation of places." One does not find a corresponding article in the French Civil Code.

questions of ownership of mineral interests. It is often difficult enough to find the proper owners of a tract of land without having to look for the heirs of holders of fractional interests in minerals which might have been purchased years before as a speculation and forgotten long before production was actually obtained. Louisiana, situated in the midst of numerous common law states with complicated property laws, has always been careful to preserve the simplicity of its system of ownership.¹⁹

Following the *Frost-Johnson* case, the Supreme Court rigorously applied the prescription of ten years to mineral rights separated from the ownership of the land. The articles of the Civil Code governing servitudes have been applied with some modification and distortion to questions of petroleum rights,²⁰ but the court has been less faithful to the servitude theory when matters of prescriptibility have not been at issue. This was demonstrated in 1934 in the case of *Federal Land Bank v. Mulhern*.²¹

The surface owner had mortgaged his land to the Federal Land Bank under a mortgage that prohibited him from depreciating the value of the land. After granting the mortgage, the owner granted a mineral lease and the lessee began drilling operations. The Land Bank objected that granting the mineral lease depreciated the value of the land subject to the mortgage. The mortgagor's position was that since oil and gas under the land did not form a part of the land his lease could not depreciate the value of the land, a position which seemed sound in light of the *Frost-Johnson* case. The court held that while petroleum is not susceptible of ownership apart from the land before being separated from the land, it does form a part of the land itself and the owner, after agreeing in his mortgage not to depreciate the value of the land, had no right to allow the petroleum to be removed.²²

19. This care has led Louisiana to be more strict than France in certain matters regarding division of ownership of property. For example, in Louisiana but not in France payment of the purchase price cannot be made a suspensive condition in the sale of movables and for a long time, such a condition was also prohibited in the sale of immovables. See Comment, 2 LA. L. REV. 338 (1940).

20. For example, a mineral servitude is indivisible in the sense that the exercise of the servitude on one part of the land subject to the servitude preserves it on the entirety of the land. *Sample v. Whitaker*, 172 La. 722, 135 So. 38 (1931). The mineral servitude is extinguished when the dominant and servient estates are united in the same hand. *Arent v. Hunter*, 171 La. 1059, 133 So. 157 (1931).

21. *Federal Land Bank v. Mulhern*, 180 La. 627, 157 So. 370 (1934).

22. *Id.* at 634, 157 So. at 373: "While the owner of land does not own the fugitive minerals, such as oil and gas, beneath its surface, but only the right to reduce them to possession and ownership, and while such minerals are not sus-

During the period in which the court most uniformly stated that the surface owner is not the owner of the petroleum beneath his land, the rights of the surface owner to such petroleum were great and closely resembled ownership. The surface owner alone could search for or exploit petroleum, cede his rights to another or refuse to do any of these, and all of this could be done without the consent of the state and without regard to the rights of other parties. Further, the prescription of a mineral right separated from the land was more often to the advantage of the owner than to his disadvantage. In effect, the petroleum beneath his land was his so long as he could protect it from extraction by his neighbors.

The Roman jurists separated the attributes of ownership of a thing into the right to use it (*usus*), to enjoy its products (*fructus*), and to dispose of it (*abusus*). As a further analysis, later writers added the right to transmit the thing (*jus transmittendi*), and the right to prohibit its use (*jus prohibendi*).²³ In Louisiana, the surface owner had the full rights of *usus* and *fructus* of the minerals beneath his land. He had the right of *abusus* in that he could destroy the petroleum insofar as his physical means permitted. The real limitations were in the right to transmit and the right to prohibit use, for the property could only be transmitted for ten years without production or efforts in good faith to obtain production; and, if the landowner did not use his petroleum, the law did not protect him from drainage by his neighbor.

Protection from drainage could be costly and wasteful. It might be necessary for a landowner to drill wells near the boundaries of his land solely to protect the mineral pool from drainage by a neighbor's wells. The spectacle of two wells drilled nearly side by side and separated by a property line was not rare. The race to extract oil could be wasteful. To drill too many wells and produce petroleum too fast can reduce the pressure of a reservoir before it has a chance to drive the minerals to the surface and the maximum quantity of petroleum may thus not be obtained.

ceptible of ownership apart from the land (Frost-Johnson Lumber Co. v. Salling's Heirs, 150 La. 756 . . .), yet those minerals, while in place in the ground beneath the surface, unsevered, are real estate, a part of the land itself, a part of the realty, as much so as timber, coal, iron and salt A lease granted by the owner of land for the development of the property for oil and gas is, in a sense, a conveyance of the mineral rights, an alienation of a part of his interest in the land, a dismemberment of the realty."

23. POSTE, GAIUS, INSTITUTIONS 128 (4th ed. 1904).

In a similar fashion the owner of a gas well on the edge of an oil reservoir by producing gas of a low value can destroy the pressure for the entire reservoir and render much more valuable oil inexploitable for many other owners.

The rule of capture obviously led to waste. *Ohio Oil Co. v. Indiana* concerned an attempt in the nineteenth century by the government of Indiana to limit one of the most obvious sorts of wastefulness, the loss of pressure through open and abandoned wells. In 1906, Louisiana began to prohibit the same sort of wastefulness.²⁴ In 1924, the Louisiana legislature passed its first modern oil and gas conservation law.²⁵ This law prohibited wells from being placed within a certain distance of each other, established a common market for petroleum in the state, and provided for governmental determination of the amount of petroleum that could be taken from each well. The allowable amount depended upon the market for petroleum and, at least in principle, the perimeter the well could drain. With such a radical departure from the rule of capture under which a landowner could drill wherever he wished and extract as much petroleum as he wished, it is not surprising that the constitutionality of the statute was attacked. Its constitutionality was upheld by the state courts on the ground that oil and gas are not susceptible to private ownership until extracted and that, therefore, no one has the right to complain if he is not allowed to extract it. The federal courts then upheld the act on the additional ground that petroleum is an important natural resource and it is within the police power of the state to regulate its production.²⁶ The effect of the second case, which relied on certain language of *Ohio Oil Co. v. Indiana*, was to dispel the idea that conservation statutes could only be upheld under a theory of nonownership of petroleum. Obviously, the state should have the right to insure the orderly production of one of its most valuable resources whether that resource is susceptible of private ownership or not.

In 1940, a new comprehensive conservation statute was passed which established the regime of conservation presently in effect.²⁷ It deprives the landowner of much of his freedom in

24. See La. Acts 1906, No. 71, §§ 1-5; 1910, Nos. 172, 190. See also Comment, 16 TUL. L. REV. 199 (1941).

25. La. Acts 1924, No. 252.

26. The first reason was enunciated by the Supreme Court of Louisiana in *State v. Thrift Oil & Gas Co.*, 162 La. 165, 110 So. 188 (1926); the second by a federal district court in *Lilly v. Conservation Commissioner of Louisiana*, 29 F. Supp. 892 (E.D. La. 1939).

27. La. Acts 1940, No. 157, now LA. R.S. tit. 30 (1950).

the production of petroleum, but at the same time it to a great extent recognizes the surface owner as the owner of the petroleum beneath his land.²⁸ The courts of Louisiana have continued to speak of petroleum as not being susceptible of private ownership and have continued to classify the right to petroleum as a servitude, but the Conservation Act greatly limited the rule of capture which was the basis of the theory of nonownership and servitude.

The objectives of the act were threefold: To assure that the resources of the state would not be physically wasted; to prohibit economic waste caused by over-production; and to assure to each landowner his equitable part of the production of the common source of petroleum that may underlie his land and the land of others.²⁹ This third objective of the act is the very negation of the rule of capture and the recognition of the doctrine of correlative rights if not the ownership of petroleum in place.³⁰

The equitable part of the production is essentially:

"That part of the authorized production of the pool . . . which is substantially in the proportion that the quantity of recoverable oil and gas in the developed area of his tract or tracts in the pool bears to the recoverable oil and gas in the total developed area of the pool insofar as these amounts can be practically ascertained."³¹

This quantity is usually determined by a proportion between the superficial area the landowner owns over the pool and the amount of the production that may be obtained from the pool.

Thus, in Louisiana, as the United States Supreme Court had suggested in the *Ohio Oil* case, each landowner has a correlative right in the reservoir partially located beneath his land. Despite the possibility of extracting all the petroleum in the reservoir

28. LA. R.S. 30:9D (1950).

29. See La. Acts 1940, No. 157, §§ 2, 3, 9. See also DAGGETT, MINERAL RIGHTS IN LOUISIANA 406-494 (rev. ed. 1949).

30. The substance of the law and the operation of the Commission, if it thus may be simplified, is the following: No well may be drilled without the prior permission of the Commissioner. This permission will always be given unless the proposed well would be so close to an existing well or a well already authorized that the new well would not be useful to the exploration and exploitation of the reservoir. As wells are drilled, the Commissioner, with the aid of a public hearing at which all interested parties may appear and be heard, determines the area which can be drained by each well. Each landowner or holder of a mineral right is charged with a proportionate part of the cost of the unit well and receives a proportionate part of the production.

31. LA. R.S. 30:9D (1950).

by a well drilled on his land, he does not have a right to all the petroleum in the reservoir. He only has a right to the quantity of petroleum probably existing under his land before the reservoir is disturbed by man. Thus one must say that his right is not to extract by means of a well on his land all the petroleum that he can. He has only the right, as would be the case with a solid mineral, to extract the mineral, or at least a quantity equal to the mineral which is found under his land. This is the description of a right of ownership much more complete than that granted to the landowner in states that adopt the principle of ownership of oil reservoirs, but that lack a similar conservation statute, because not only is the ownership of the surface proprietor to the oil under his land recognized but it is protected by the state against anyone who should attempt to violate it. Under the conservation statute the landowner's rights of *usus and fructus* are limited but the *jus prohibendi* is returned to him.

The nature of the landowner's right, however, remains enigmatic. Under the present Conservation Act, the *ferae naturae* theory that petroleum is not susceptible of private ownership is hardly tenable. Yet all the prescriptive limitations of servitudes have been consistently applied to alienation of mineral rights. The courts of Louisiana have not acknowledged the contradiction between the regime of conservation and the principle of non-ownership. It is clear, however, that the landowner's right to petroleum beneath his land remains paramount; and here lies the great difference from the French law.

THE NATURE OF THE LANDOWNER'S RIGHT TO PETROLEUM IN FRANCE

Petroleum was produced in Alsace before the Franco-Prussian war, but as a result of the treaty of peace of 1871, France lost Alsace and its only oil field. They were not to be regained until the end of World War I. The Alsatian field had been largely exploited by pits and galleries of the type used in ordinary coal mines and the legal problems in connection with it were solved by reference to the laws governing ordinary mines.³² It was only after World War I that a general search for petroleum was begun in France and the necessity for special laws govern-

32. FEHR, LE RÉGIME JURIDIQUE DES RECHERCHES ET DE L'EXPLOITATION DES GISEMENTS, DE PÉTROLE EN DROIT COMPARÉ 15 (Thesis Rennes 1939) [hereinafter cited as FEHR]; Desprairies, *Evolution et principes de Droit Minier et des Hydrocarbures en France*, 1 DROIT SOCIAL 2 (1956).

ing rights to petroleum was felt. But oil and gas law in France has never really been separate from the general mineral law. The first article of the first petroleum legislation in France, the law of December 16, 1922, classified petroleum as a mineral subject to concession by the state. That is to say that, except for certain modifications, it was subjected to the laws governing classical mines. Thus, to understand the nature of the landowner's right to petroleum in France, it is essential to study the French law governing ordinary mines.

French mineral law antedates the Code Napoleon — and in studying it one discovers that the French have had no less difficulty in defining the nature of the right of the surface owner to minerals than have the Louisiana courts. But the history of French mineral law is concerned more with legislation than with jurisprudence. Of more importance, the primary question in France has not been to classify the paramount right the landowner has to the petroleum beneath his soil, but to determine what right, if any, he does have.

Before the French Revolution, a mine on royal land could be ceded by the King to an entrepreneur and the land retained by the Crown, ceded to the entrepreneur with the mine, or separately ceded to a third party. The mine constituted a separate estate. On private land, a mine was *prima facie* the property of the surface owner but he could dispose of the mine separately from his land.³³ From the fifteenth century, French royalty tried to exact a regalien right of one-tenth the production of mines and later to transform the exploitation of mines into a royal monopoly but without much success.³⁴ Thus, at the time of the French Revolution, mines were subject to private ownership and could constitute estates separate from the surface.

When the Ancien Regime was ended by the French Revolution, the duty of deciding what to do with mines fell upon the Constituent Assembly. The opinion of the assembly, as could be expected, was divided. Certain members wanted to attribute the ownership of mines to the surface owners. Others thought that mines should be owned by the first person to exploit them. Others would give the mines to the state. The question, obviously, was full of political implications. Mirabeau, the leader of the

33. SNYDER, MINES 5 (1902).

34. 1 PLANIOL, n° 3095.

element in favor of attributing ownership of the mines to the state, said:

"Society has not created an ownership of the soil except for its cultivation . . . one may only regard as property those objects of which society can guarantee the conservation . . . common interest and justice are the foundations of property, they do not require that mines be accessories to the surface. The interior of the earth is not susceptible of partition."³⁵

Earlier, Turgot had proposed that mines should be the property of their first exploiter, who would acquire them by occupation. Certain of the Constituent Assembly followed his views.³⁶ Mirabeau criticized this position as impracticable because of the impossibility of determining the extent of a mineral vein once it is discovered.³⁷ The majority were satisfied to follow the law of the Ancien Regime in declaring that a mine belongs to the proprietor of the surface and that he may dispose of it or not as he sees fit.

Two years after the fall of the Bastille and thirteen years before the promulgation of the Code Napoleon, the Constituent Assembly passed the law of 12 to 28 July, 1791, which was the first mineral legislation of modern France and the first of several compromises that would have to be made in the matter of mineral law. This law did not make a distinct determination of whether minerals under the surface of privately-owned land appertained to the state, the proprietor of the surface, or the dis-

35. FEBR 22: "*La société n'a fait une propriété du sol qu'a la charge de la culture. . . . On n'a pu regarder comme propriété que les objets dont la société pouvait garantir la conservation. . . . L'intérêt commune et al justice sont les fondements de la propriété, ils n'exigent pas que les mines soient les accessoires de la surface. L'intérieur de la terre n'est susceptible d'aucun partage.*"

36. *Ibid.*

37. How much will the person who discovers the mine own? Certainly he will only have that which he has found. This vein of one hundred fathoms is his. But if the vein has a thousand fathoms will the entire vein appertain to him when he has not found its entirety?

"*Quelle sera la propriété de celui qui aura le premier touché la mine? Il n'aura certainement que ce qu'il aura touché. Ce filon de cent toises est à lui. Mais si le filon a mille toises, le filon lu appartient-il en entier quoiqu'il ne l'ait pas trouvé en entier?*" *Id.* at 22.

The truth of Mirabeau's observation as to the difficulty of determining the extent of a vein is constantly illustrated at hearings before the Conservation Commission in Louisiana.

For a recent variation of Mirabeau's problem, see *Gueno v. Medlenka*, 238 La. 1081, 117 So.2d 817 (1960) and *King v. Buffington*, 240 La. 955, 126 So.2d 326 (1961). Under LA. CIVIL CODE art. 552 (1870), if one well has been drilled before the commencement of the usufruct, is it alone subject to the usufruct or may the usufructuary drill other wells to the same pool? To other pools? See *Comments*, 20 LA. L. REV. 773 (1960), 16 TUL. L. REV. 199 (1941).

coverer of the minerals. The law began by distinguishing between mines and open-faced mines for which new laws were established and quarries as to which no innovation was made. The extraction of sand, chalk, building stone, and the like continued to be exploitable by the surface owners without complication. The only provision concerning these was that for public works such as bridges, roads, and the like, these substances could be exploited by the state by giving indemnification to the surface owners for the value of the surface expropriated and the materials taken from the quarries or gravel pits.³⁸ This was clearly enough an attribution of ownership of gravel pits and quarries to the surface proprietors.

The regime established for mines and open-faced mines was more complicated. The first article of the law of 1791 decreed:

"Mines and open faced mines, whether metallic or non-metallic, such as asphalt, coal, and pyrite, are at the disposition of the nation, only in the sense that these substances cannot be exploited without its consent and supervision with the requirement of indemnification, according to rules to be prescribed, of the proprietors of the surface, who will moreover have the enjoyment of those mines which can be exploited either open faced or by pits and lights to the depth of 100 feet only."³⁹

The regime established for mines and not that established for quarries has become the law applicable to petroleum in France. No mine could be exploited without the permission of the state. This permission was termed a "concession"; and while the surface owner did not have an absolute right to obtain it, he did have a preference above all others.⁴⁰ However, he was required to show that he had the means to exploit the mine.⁴¹ If the surface owner did not have the means to exploit the mine or did not desire to exploit it, the concession could be given to some-

38. Law of 12-28 July, 1791, art. 2.

39. *Les mines et minières, tant métallique que non-métallique, ainsi que le bitume, charbons de terre ou de pierre et pyrites, sont à la disposition de la nation, en ce sens seulement que ces substances ne pourront être exploitées que de son consentement et sous sa surveillance, à la charge d'indemniser, d'après les règles qui seront prescrites, les propriétaires de la surface, qui jouiront en outre de celles de ces mines qui pourront être exploitées, ou a tranchée ouverte, ou avec fosse et lumière, jusqu'à cent pied de profondeur seulement.*

40. *Les propriétaires de la surface auront toujours la préférence et la liberté d'exploiter les mines qui pourraient se trouver dans leur fonds et la permission ne pourra leur en être refusé lorsqu'ils la demanderont.* Id. art. 3.

41. Law of 12-28 July, 1791, art. 11.

one else,⁴² but not until the surface owner had been given six months' notice.⁴³ If there was a delay of more than six months in beginning the exploitation after a concession had been granted, unless the state granted an extension, the concession would be lost.⁴⁴ Similarly, concessions could be lost by an unauthorized work stoppage of more than one year.⁴⁵

The first article of the law of 1791 provided an indemnification to the surface owner if someone else obtained a concession to minerals beneath his land. The indemnification was established at twice the value of the surface taken, but with no indemnification for the minerals extracted.

One can see that in passing the law of 1791 the French government wanted to assure the utilization of natural resources — thus the possibility of giving a concession to another if the surface owner did not exploit minerals in his land. But a frank solution of the problem of ownership of minerals was not made. The right of preference and the right of double indemnity recognized to the surface owner was not in accord with the ideas of Mirabeau that the state should own its mineral wealth. Yet, on the other hand, the absence of indemnification for minerals extracted was a recognition that the landowner's right of ownership was not perfect. Exploitation could not be undertaken without a concession from the state, but the concession was not a recognition of a right of ownership in the state. The state was the conduit by which the right of exploitation that the surface owner had not exercised was given to another. There is no provision in the law that the state was to be paid for the concession.

Despite the several limitations shown, the right of the surface owner under the law of 1791 remained paramount.⁴⁶ The most important limitation to his rights of ownership was the loss

42. "*Si le propriétaire superficiaire ne le demande pas elle pouvait être octroyée à un autre.*"

43. *Id.* art. 10.

44. *Id.* art. 14.

45. *Id.* art. 15.

46. See 1 PLANIOL n° 3095: "[I]t even gave him (the surface owner) a right of preference over all others to obtain this permission, when he asked for it. The right of the nation thus became purely nominal because it fragmented the ownership of mineral deposits. The Civil Code further aggravated the situation by recognizing to the landowners a limitless right."

"[O]n lui donnait même un droit de préférence sur tous les autres pour obtenir cette permission, quand il la demanderait. Le droit reconnu à la Nation devenait ainsi purement nominal, parce qu'il morcelait la propriété des gisements miniers. Le Code civil avait encore aggravé la situation en reconnaissant aux propriétaires un droit sans limite."

of the *jus prohibendi*, the right to do nothing with his resources and prohibit others from exploiting them.

Article 552 of the Code Napoleon (Article 505 of the Louisiana Civil Code) provides that the proprietor of the surface owns everything beneath the surface, *subject to the modifications made in the law of mines*. Thus, the Civil Code is subordinated to the previously existing mineral code. Despite this subordination, Planiol comments that the rights given the landowner in Article 552 of the Code Napoleon weakened the already feeble rights given to the state by the law of 1791 and aggravated the problems caused by multiple ownership of mineral veins.⁴⁷ One can see that the Code reinforced those who were opposed to government ownership of minerals by resolving the ambiguity left in the law of 1791 in favor of private ownership of minerals by the surface owner. Since Article 552 provided that ownership of the surface carries with it the ownership of all above and below, the surface proprietor is the proprietor of the minerals beneath his land, but they are "at the disposition of the nation only in the sense that these substances cannot be exploited without the consent of the nation and without its supervision."⁴⁸ The best explanation of the relationship between the Code Napoleon and the law of 1791 is perhaps that given by Portalis in his presentation of the articles of the Civil Code on ownership to the legislative body:

"We have presented the principle that ownership of the surface carries with it the ownership of all above and below it . . . one can understand that this ownership would be imperfect if the owner were not free to put to his profit all of the parts both exterior and interior of the land or estate which belongs to him, and if he were not the master of all the space that his domain encloses . . . however, as there are rights of property of such a nature that private interest may easily and frequently find itself in opposition to the general interest and the manner of using these properties, laws and regulations have been made to direct their usage. Such are the domains which consist of mines, forest, and of similar things, which have in all times been the subject of the attention of the legislature."⁴⁹

47. *Ibid.*

48. Law of 12-28 July, 1791, art. 1.

49. "Nous avons posé le principe que la propriété du sol emporte le propriété

One may imagine that the redactors were hesitant to make provisions concerning ownership of minerals in the Civil Code because of the almost certain conflict with laws of a public nature outside of the Civil Code. Perhaps it is because of this that one finds in the Code Napoleon only two references to mineral law, even including in that term the law of open-faced mines and quarries: Article 552 and Article 559 (which concerns the right of usufructuaries to opened mines).

France was at war and Napoleon feared that private ownership of minerals was hindering their exploitation. Thus, shortly after the Civil Code had reinforced the rights given landowners under the law of 1791, a governmental commission was appointed to study the desirability of writing a new mineral law. The Committee reported: "The opinion of your commission, sirs, is that it (the ownership of mines) should appertain to the state."⁵⁰ But Napoleon wanted to preserve at least in form the rights given the surface owner by Article 552 of the Code. At the same time he wanted to assure intervention of the state to obtain the maximum production of mines. The legal solution proposed to reconcile these two conflicting principles was his own. It was that "the discovery of a mine gives birth to a new property; an act of the sovereign thus becomes necessary for him who has made the discovery to be able to profit by it."⁵¹ This idea formed the basis of the new mineral law of 1810,⁵² which in its principles and in many of its details is in vigor today and is applicable to questions of petroleum.

The law of 1810 preserved the tripartite division of mines, open-faced mines, and quarries, and provided a new and detailed regulation only for mines. A concession was no longer principally an administrative authorization for the landowner to exploit

du dessus et du dessous . . . on comprend que la propriété serait imparfaite si le propriétaire n'était libre de mettre à profit pour son usage toutes les parties extérieures et intérieures du sol ou du fonds qui lui appartient, et s'il n'était le maître de tout l'espace que son domaine renferme . . . Cependant, comme il est des propriétés d'une telle nature que l'intérêt particulier peut se trouver facilement et fréquemment en opposition avec l'intérêt général dans la manière d'user de ces propriétés, on a fait des lois et règlements pour en diriger l'usage. Tels sont les domaines qui consistent en mines, en forêts, et en d'autres objets pareils, et qui ont dans tous les temps fixé l'attention du législateur." 2 FENET, RECUEIL COMPLET DES TRAVAUX PREPARATOIRES DU CODE CIVIL 124 (1836).

50. "L'opinion de votre Commission, Messieurs, est qu'elle (la propriété des mines) doit appartenir à L'Etat." FEHR at 23.

51. "La découverte d'une mine fait naître une propriété nouvelle; un acte du souverain devient donc nécessaire pour que celui qui a fait la découverte puisse en profiter." FEHR at 24, n. 1.

52. Law of April 21, 1810.

his land. Since the discovery of a mine created a new property, the surface owner had no right of preference whatsoever to obtain a concession.⁵³ The state had the right to cede the new property to whomever it found most capable of exploiting it.⁵⁴ The concession was made by the state in perpetuity and gratuitously.⁵⁵ The surface owner, without any priority to the concession, was without power to prevent its being granted even for a period of six months and, thus, was also without power to contract with anyone to exploit the minerals for him. Under this law, the discovery of minerals on one's land could very well be disconcerting rather than a subject of joy.

The law of 1810, in changing the character of a concession to exploit minerals and in creating a legal institution not known in the Civil Code, wisely provided the legal effect of an act of concession. The concession created a new, immovable property or estate,⁵⁶ which was separate from the superficial estate.⁵⁷ This new property was capable of being sold or mortgaged by the concessionaire: "as any other good."⁵⁸ It follows that a sale or mortgage of the surface did not carry with it a sale or mortgage of the concession.

The law of 1791 contained no provisions concerning the right to search for minerals. If the landowner did not wish to look for minerals no one could make him do so. But since the landowner was given a right of preference to the concession if minerals were found, he had a reason to search for minerals. Under the law of 1810 this reason was taken away. Thus, of necessity, the law of 1810 established a regime of exploration under which the surface owner had the right to explore his land for minerals without permission from the state, or to sell this right of exploration to another but, if neither he nor anyone working with his permission explored the land, anyone wishing to search for minerals could obtain a permit of exploration from the state even against the landowner's wish, but with the requirement that he indemnify him in advance for any damages that might be done to the surface.⁵⁹

The provision for indemnification at twice the value of the

53. *Id.* art. 15.

54. *Id.* art. 16.

55. *Id.* art. 7.

56. *Id.* art. 8.

57. *Id.* art. 19.

58. *Id.* art. 7: "*Comme tout autre bien.*"

59. *Id.* art. 10.

land taken, found in the law of 1791, was preserved and elaborated in the law of 1810. The concessionaire has the right to utilize all of the surface area that he finds necessary for his exploitation of the subsurface. If this occupation lasts less than a year, the concessionaire must pay the landowner twice the value of the net profit that the land would have produced during the time occupied.⁶⁰ If the occupation is prolonged more than a year or if the terrain, after the execution of the works required by the occupation is no longer proper for cultivation, the landowner can require that the concessionaire purchase the land from him at twice its value before its occupation by the concessionaire.⁶¹

At this point it would appear that the law of 1810 took from the surface owner any rights he may have had to minerals beneath his land and left him only the right to be well indemnified for the loss of the use of the surface. In practice, this was nearly true but, to avoid an open conflict with the rights given the surface owner in Article 552 of the Civil Code, Napoleon insisted that, in addition to indemnification for the loss of his surface, the surface owner should receive from the concessionaire indemnification for the minerals extracted.⁶² This indemnification, which would certainly indicate that the surface owner has a proprietary interest in the minerals beneath his land, was known as the *redevance tréfondière* or subsurface royalty. The royalty was fixed in the act of concession but at a figure so low that it had no real connection with the value of the minerals taken from the land. Moreover, it was most often calculated at a set figure per *hectare* per year and not by the quantity or the value of the mineral extracted.⁶³ This created in the law of 1810 an irreconcilable contradiction. If the surface owner had a right to indemnification for the minerals taken, why was this right not for a realistic indemnification? If he had no right to indemnification at all, if the discovery of a mine really created a new property to be disposed of by the state, why was he given any royalty? Moreover, with a fictitious royalty and no preference to a concession the subsurface rights given to the landowner in one phrase of Article 552 of the Code Napoleon were effectually taken away in the next.

The legal nature of the subsurface royalty is unique. It is

60. *Id.* art. 43.

61. *Id.* art. 44.

62. *Id.* art. 6.

63. FEHR at 28; ISAY, LE DROIT MINIER DES PRINCIPAUX ÉTATS CIVILISÉS 85 (French translation 1930).

classified as a real right that the lower estate owes to the upper estate. On this subject Planiol remarked:

"It offers remarkable characteristics: It is inseparable from the surface property, except by the act of the owner; it is included in a mortgage of the surface; it is seized and sold with it. Moreover, it is perpetual, although it is no longer permitted in the modern law to create perpetual rents. It is thus a veritable example of a *rente foncière*, the only one which survives; but it is of a modern creation, and the *old* law did not know it."⁶⁴

Between 1810 and 1919, the French government, without requiring payment for the concession, began to exact a tax from the concessionaire in the nature of a royalty which became more and more onerous.⁶⁵ Administrative changes slowly came about but a hundred years passed before there was a major change in the mineral law. This change came in 1919 when, at the end of the First World War, the law of 1810 was modified in respect to mines opened after the passage of the new law. The concession under the new law was granted contractually by the state to the mining company offering to pay the most. The duration of the concession was limited and, at its termination the mine passed in full ownership to the state. Also, under the amendments of 1919, the state itself was authorized to undertake the exploitation of mines.⁶⁶

The rights of the surface owner to minerals beneath his land were not significantly changed, but the language of the 1919 act justifies several theoretical observations. The new law used the word "return" for the transfer of mines to the state at the end of the concession.⁶⁷ Since this presupposes prior state ownership, it is in conformity with Napoleon's principle that the discovery of a mine creates a new property which appertains to the state until it is ceded by the state to another. An objection often made to the law of 1791 and also to the law of 1810 was that the state could, in effect, expropriate private land not for a public

64. 1 PLANIOL no 3102: "*Elle offre des caractères remarquables: elle est inséparable du fonds, si ce n'est par la volonté du propriétaire; elle est comprise dans l'hypothèque du sol; elle est saisie et vendue avec lui. De plus, elle est perpétuelle, bien qu'il ne soit plus permis, dans le droit moderne, de créer des rentes perpétuelles. C'est donc un véritable exemple de rente foncière, le seul qui survive: mais il est de création moderne, et le droit ancien l'a pas connu.*"

65. FEHR at 32, 36.

66. Law of September 9, 1919. See FEHR at 36.

67. Law of September 9, 1919, art. 1: "*reviendront.*"

usage but to give it to another private person. Under the law of 1919, since the mine at the end of the concession would belong to the state, this objection became less valid. But if the surface owner is considered as having any right to the minerals there is still an expropriation without sufficient indemnification. The law of 1919 classified the right of the concessionaire as a "real immovable right susceptible of mortgage," thus, as in the law of 1810, a separate estate.⁶⁸ But, inasmuch as the concession was no longer perpetual, it was difficult to consider the concessionaire as the owner of a separate estate.⁶⁹

After the changes of 1919, a petroleum law began to be created apart from the ordinary mineral law. Petroleum had long been exploited in Alsace but not by modern methods, and the law of mines had been applied to the exploitation without special legislation.⁷⁰ It was after the First World War when a systematic search for petroleum in the south of France and in Aquitaine was begun that the first legislation pertaining uniquely to petroleum exploration and exploitation was passed. This was the law of December 16, 1922. Without doubt the most fundamental effect of the law was to classify petroleum as a mineral, the exploitation of which required a concession from the state. The rights of landowners to petroleum became the same rights, extremely limited, clear in practice, irreconcilable in principle with the Civil Code, and internally inconsistent, that had been applied to solid minerals. The petroleum law of 1922 also established a new institution which was essential to the development of petroleum in France — the exclusive permit for exploration.⁷¹ This permit granted a right to explore and guaranteed the explorer the right to exploit any deposits he found. Such a permit would not be essential in the development of solid minerals where the great expense is in exploiting not prospecting; but in the petroleum industry the greatest expense is in prospecting, for the only effective way to search for oil is to drill a well. Without a guarantee of the right to benefit from a discovery of petroleum, one could not be expected to undertake the expenses of exploration.

The exclusive permit for exploration, important as it is to the petroleum industry, does not in any way alter the rights of

68. *Id.* art. 4: "*Droit réel immobilier susceptible de hypothèque.*"

69. See 1 PLANIOL n° 3805.

70. See note 31 *supra*.

71. Law of December 16, 1922, art. 2.

the surface owner to the petroleum beneath his soil. His rights to petroleum are the same as to any solid mineral subject to the regime of concession.

Other provisions relating to petroleum were passed in 1929,⁷² and 1938,⁷³ but also without any real effect on the rights left to the proprietor of the surface. In 1956, all the mineral legislation was organized into a single mineral code,⁷⁴ again without important modification to the rights of surface proprietors. The mineral code did, however, serve to organize the various mineral laws and to integrate the petroleum legislation.

LEGAL TECHNIQUES FOR THE EXPLORATION AND EXPLOITATION OF PETROLEUM IN LOUISIANA

In Louisiana, the surface owner has the right personally to prospect for petroleum and produce it. More often, however, he will lease this right to an oil company for a share of production. He may also sell his right either for a consideration in dollars or a royalty on future production.

As previously pointed out, the sale of petroleum or the sale of land with a reservation of petroleum is held to create a servitude on the land in favor of the person purchasing or keeping the mineral rights. The servitude may be limited in any manner the parties to it stipulate, except that the prescription of ten years *liberandi causa* cannot be avoided.⁷⁵ Ordinarily, however, the "sale" or "reservation" of minerals does not provide operating stipulations and its effect is left to the courts for interpretation. The rights of the holder of a mineral servitude are now fairly well established. The holder of the servitude has the exclusive right to drill for petroleum on the property subjected to the servitude and may drill his wells wherever he wishes, limited only by the conservation laws.⁷⁶ He may use the land for the exploration and exploitation of minerals without indemnification to the surface owner for damages he might cause the surface. His only duty in this regard is not to damage needlessly

72. Law of December 1, 1929. The disposition of an exclusive permit for exploration by act *entre vifs* was subordinated to a prior authorization by the Minister in charge of mines.

73. Decree Law of June 17, 1938, which provided in detail the obligations and rights of the holder of an exclusive permit for exploration.

74. Decree of August 16, 1956, modified and completed by the law of December 29, 1956, the decree of November 28, 1958, and the ordinance of December 10, 1958.

75. *Hightower v. Maritzky*, 194 La. 998, 195 So. 518 (1940).

76. *Patton v. Frost Lumber Industries*, 176 La. 916, 147 So. 33 (1933).

the property of the surface owner.⁷⁷ The servitude owner alone has the right to protect the petroleum deposits under the land on which he has a servitude if a neighboring proprietor drills a well and begins to drain the lands subjected to the servitude. All the production of every petroleum deposit found in the land subjected to his servitude belongs to the holder of the servitude, subject to whatever royalties he may have contracted to pay the landowner. The right to partake of the production of neighboring wells under a unitization agreement is his.

A mineral servitude is terminated by ten years non-usage despite any convention to the contrary.⁷⁸ To effect usage, the servitude holder must either produce petroleum or drill a well to a depth indicating a serious search for petroleum.⁷⁹ A servitude is considered a single servitude if it is made in a single act of sale and affects one contiguous property; since servitudes are indivisible, drilling one well on the entire property every ten years will hold the servitude.⁸⁰

The most common method of production is for the surface owner or the holder of a mineral servitude to lease the rights of exploration and exploitation to an oil company. For many years, a purported mineral lease was considered as establishing a mineral servitude,⁸¹ but since the case of *Gulf Refining Co. v. Glassell*,⁸² the two institutions have largely been kept separate. A mineral lease is a contract between a landowner or servitude holder and an oil company or broker, and the parties are free to write such terms as they see fit.⁸³ The obligations undertaken by a lessee are habitually more stringent than those of the holder of a servitude. It is an implied condition of every lease that the lessee will test every part of the land subject to it with reasonable diligence, or suffer a partial cancellation of the lease.⁸⁴

77. *Wemple v. Pasadena Petroleum Co.*, 147 La. 532, 85 So. 230 (1920).

78. *Bodcaw Lumber Co. v. Magnolia Petroleum Co.*, 167 La. 847, 120 So. 389 (1929).

79. *Louisiana Petroleum Co. v. Broussard*, 172 La. 613, 135 So. 1 (1931); *Lee v. Giaque*, 154 La. 491, 97 So. 669 (1923); *Baker v. Texas Co.*, 88 So. 2d 263 (La. App. 1st Cir. 1956).

80. *Lee v. Giaque*, 154 La. 491, 97 So. 669 (1923).

81. See *Arent v. Hunter*, 171 La. 1059, 133 So. 157 (1931); *Rives v. Gulf Refining Co.*, 133 La. 178, 62 So. 623 (1913).

82. 186 La. 190, 171 So. 846 (1936).

83. *Perkins v. Long-Bell Petroleum Co.*, 227 La. 1044, 81 So. 2d 389 (1955).

84. *Middleton v. California Co.*, 237 La. 1039, 112 So. 2d 704 (1959); *Wier v. Grubb*, 228 La. 254, 82 So. 2d 1 (1955); *Caldwell v. Alton Oil Co.*, 161 La. 139, 108 So. 314 (1926).

Further, it is production and not simply the drilling of the well that holds a mineral lease.⁸⁵

A chain of legislation, limited by strict judicial interpretation, has attempted to classify the mineral lease as a real right.⁸⁶ The result has been that the mineral lessee has the procedural remedies afforded the holder of a real right, but in no other sense is the lease considered a real right.⁸⁷ As is the case with the holder of a mineral servitude, the lessee has the right to participate in any distribution under the Conservation Act.⁸⁸

Customarily, a mineral lease provides three sorts of revenue for the lessor. He is given a bonus by the lessee for making the lease. He receives a small rental during the "primary term" of the lease, that is, during the period before drilling is commenced. When and if petroleum is found, the lessor receives a portion of the production from the well (usually 1/8th, but sometimes as much as 1/4th) without obligation to contribute to the expenses of exploration or exploitation. The remaining portion goes to the lessee for his expenses and profits.

The possible duration of a mineral lease is not well established in Louisiana law. If there is production, it is clear that the lease lasts as long as production and for a certain time thereafter, which is usually established in the lease itself.⁸⁹ How long a lease may be maintained without production or how long it may be maintained after production has ceased is less clear. The argument has been made that the principle of the *Frost-Johnson* case is not just that a sale of minerals creates a servitude which prescribes in ten years, but the broader concept that any right to petroleum should not remain separated from the ownership of the land for more than ten years without being exercised.⁹⁰

Reagan v. Murphy clearly holds that the articles of the Civil

85. *Perkins v. Long-Bell Petroleum Co.*, 227 La. 1044, 81 So.2d 389 (1955).

86. La. Acts 1938, No. 205; *Tyson v. Surf Oil Co.*, 195 La. 248, 196 So. 336 (1940); LA. R.S. 9:1105 (1950); *Reagan v. Murphy*, 235 La. 529, 105 So.2d 210 (1958).

87. *Reagan v. Murphy*, 235 La. 529, 105 So.2d 210 (1958). See also Yianopoulos, *Real Rights in Louisiana and Comparative Law: Part I*, 23 LA. L. REV. 161, 199 (1963).

88. See, e.g., *Louisiana Gas Lands v. Burrow*, 197 La. 275, 1 So.2d 518 (1941).

89. *Sam George Fur Co. v. Arkansas-Louisiana Pipeline Co.*, 177 La. 284, 148 So. 51 (1933).

90. See DAGGETT, *MINERAL RIGHTS IN LOUISIANA* 154 (rev. ed. 1949). See also the dissent of Judge Tate in *Reagan v. Murphy*, 235 La. 529, 543, 105 So.2d 210, 215 (1958).

Code pertaining to the prescription of real rights are inapplicable to leases. However, in the *Reagan* case, there had been production on some of the land subject to the lease and whether a clause in a lease could provide for the preservation of the mineral rights for more than ten years without production may still be open to some uncertainty.

When a servitude or lease terminates, the full right to explore for and exploit petroleum returns to the person who is then proprietor of the surface.

LEGAL TECHNIQUES FOR THE EXPLORATION AND EXPLOITATION OF PETROLEUM IN FRANCE

The general law of mines, and the law pertaining exclusively to petroleum, are incorporated in the French Mineral Code of 1956. The concession, limited in duration and granted contractually by the state to the petroleum company that shows itself most able to do the work and offers the highest royalty to the state, is the fundamental legal institution for the exploitation of petroleum in France. Exploration is ordinarily accomplished through the exclusive permit for exploration which in the Code of 1956 is called the "Permit H" (for hydro-carbon).⁹¹ A permit for exploitation, which is a limited concession, was established in 1927,⁹² and has also been retained in the new Mineral Code.⁹³

A "Permit H" gives to its holder "the right to effectuate within its perimeter works for exploration, notably by geophysical prospection or drilling, to the exclusion of all other persons, including the owners of the surface."⁹⁴ The permit is granted by decree of the Conseil d'Etat for a duration of five years and can be renewed twice, but at the cost of reducing the perimeter by half.⁹⁵ The half that must be released may be chosen by the *permissionnaire*. The "Permit H" carries with it the absolute right to obtain a concession. Thus, no one can obtain a "Permit H" without first showing that he has both the technical and financial capacity successfully to carry on the exploration and exploit the territory if petroleum is discovered. The prospective *permissionnaire* must present to the state a program of development which he intends to follow. He must also show the minimum financial resource that he intends to con-

91. MINERAL CODE OF 1956, art. 9.

92. Law of June 28, 1927.

93. MINERAL CODE OF 1956, art. 21.

94. *Id.* art. 9.

95. *Id.* art. 10.

secrete to the project. Similarly, he must obligate himself to request a title of exploitation which may be either a permit for exploitation or a concession if he finds an exploitable petroleum deposit.⁹⁶

The juridicial nature of the "Permit H" is not entirely clear. Its holder may transfer it contractually in whole or in part, but the transaction is valid only if it is ratified by the state within six months after the transfer.⁹⁷ There are no provisions in the Code as to whether the permit is heritable or whether it is subject to seizure. Reasoning by analogy, it would appear that it is both hereditary and capable of being seized, but the rights of the new recipient would be dependent upon ratification by the state. The question of heritability would seldom arise, because the permit is usually given to a corporation. A situation in which a permit could be seized can easily be imagined, but its occurrence would be somewhat limited by the power of the Conseil d'Etat to annul a permit if there is any default in the execution of its terms.⁹⁸

The nature of a concession has already been considered and it is not necessary to go over it again in detail. The Mineral Code provides that the extent of a concession is determined by the act creating it.⁹⁹ It is limited by a perimeter defined on the surface and vertical lines indefinitely prolonged in depth tangent to the perimeter.¹⁰⁰ A concession for petroleum production is limited to fifty years.¹⁰¹ A *cahier des charges*, or pamphlet containing the conditions of the concession, is made part of each concession and largely conforms with a standard *cahier des charges* established by the government for the exploitation of petroleum. The entire *cahier des charges*, particularly the provisions as to the royalty due the government, is subject to negotiation. However, the royalty due the landowner, the "*redevance tréfoncière*," is established in the standard *cahier des charges*

96. *Id.* art. 14.

97. *Id.* art. 17.

98. *Id.* art. 15.

99. *Id.* art. 28.

100. *Ibid.*

101. *Id.* art. 29: "The duration of concessions of liquid or gaseous hydrocarbons is limited to fifty years. The duration of concessions of other substances is without limit." ("*La durée des concessions d'hydrocarbures liquides ou gazeux est limitée a cinquante ans. La durée des concessions d'autres substances est illimitée.*") There is some doubt as to whether the second phrase was intended as a modification of the law of 1919 which limited concessions of all minerals or if it simply declared that concessions issued before 1919 remained perpetual but that others might be limited.

published by the government, and is apparently not subject to negotiation.¹⁰²

A permit for exploitation, as distinguished from a concession, only applies when the cumulative production of a reservoir has not passed 300,000 barrels.¹⁰³ Once that measure is passed, the holder of the permit must demand a concession, under which his obligations will be more burdensome than they were under the permit for exploitation. But a "*redevance tréfondière*" for the benefit of a landowner is payable in both.¹⁰⁴ The maximum duration of a permit for exploitation is five years, but it can be twice prolonged five years.¹⁰⁵ Oddly enough, the Mineral Code provides that the permit for exploitation does not confer on its holder any preference whatsoever in obtaining a concession.¹⁰⁶ However, it would appear that a petroleum company entering into exploration under a "Permit H" and then finding a small reservoir and obtaining a permit for exploitation and later increasing production beyond 300,000 barrels would certainly maintain the exclusive right to a concession granted by the "Permit H."

The permit for exploitation is classified as an immovable right, indivisible, not susceptible of being mortgaged, and inalienable by act *entre vifs* without the approval of the state.¹⁰⁷

In principle, nothing prevents the surface owner from exploring for petroleum under his land. His right to do so without permission from the state is provided in Articles 7 and 8 of the Mineral Code of 1956. But, if he makes such explorations without having obtained a "Permit H," and if he has the luck to find oil or gas, no law guarantees that he will be given a concession and, thus, the benefit of his efforts. The surface owner as a practical matter must apply for a "Permit H" as any stranger would, and without any preference for obtaining it.¹⁰⁸

Since the royalty owed the surface owner is computed by surface area and is not dependent on the amount of production

102. *Id.* art. 30.

103. *Id.* art. 61.

104. *Id.* art. 56.

105. *Id.* art. 53.

106. *Id.* art. 60.

107. *Id.* arts. 55-58.

108. Thus, in French law whether a person is owner, usufructuary, naked owner, or a stranger to a tract of land has no bearing on his rights to minerals subject to concession. To find an analogy in French law to these and other problems of Louisiana mineral law, it is necessary to look to the French law concerning minerals not subject to concession, gravel pits, and the like.

or even whether there is production, the problem of the division of the production of a common pool between numerous surface owners or lessees should not arise. But it is entirely possible that this problem could arise between two concessionaries of contiguous concessions overlying a common pool. A solution has not been envisaged by the Mineral Code.

It is necessary to remember, in speaking of questions of petroleum law in France, that the government itself operates several petroleum companies.¹⁰⁹ The Aquitainian Oil Fields, the greatest oil producing region in metropolitan France, have been exclusively exploited by the state. The Mineral Code contains a provision that Aquitainian oil is reserved to the state "to the exclusion of all other persons either physical or corporate there including the proprietors of the surface."¹¹⁰

COMPARISON OF THE TWO SYSTEMS AND CRITIQUE

The most obvious difference between the landowner's right to petroleum under Louisiana law and under French law is that under Louisiana law he is the true beneficiary of the petroleum found under his land, while under French law he is not. Insofar as the rights of landowners are concerned the petroleum law of Louisiana resembles the French law of quarries and other mineral exploitations not subjected to the system of concession, but not French petroleum law.¹¹¹ The French petro-

109. Bureau de Recherche de Petrol, etc.

110. MINERAL CODE OF 1956, art. 197.

111. The French courts, like the courts of Louisiana, in regard to minerals not subject to concession have found it difficult to determine if a sale or a lease of minerals is a partial alienation of the soil creating a separate estate or only a right to extract minerals. In France, according to PLANIOL: "It is admitted that the sale of minerals is a sort of sale of movables or of a future thing. No text of the code has provided this hypothesis.

"The jurisprudence considers the session of a right of extraction as a sale of immovables, at least in regard to third persons, and requires that the sale be recorded . . . this is a solution difficult to justify. Certain decisions go so far as to say that there is a partial alienation of the soil . . . but this conception is hardly defensible because a diminution in the value or the mass of a tract of land is not an alienation of a part of the right to the land." See PLANIOL n° 2684.

The jurisprudence referred to is based on a decision of the Court of Appeals of Montpellier, October 23, 1922, D.1923.2.97.

"[T]he session of a right to exploit the minerals enclosed in a parcel of land constitutes in the first place a session of an immovable, comporting a partial alienation of the soil."

Ripert criticized this case. (Note Ripert S.1923.2.1.): "It does not appear possible to us to say that there is a partial alienation of the soil, because materially the session does not affect the soil, but certain mineral veins, which can be separated one from the other by bands of soil, and because juridically, this temporary right comporting a determinate usage of the tract of land, hardly resembles a right of ownership. In reality the purchaser of minerals has in view, not the

leum law, despite its formal recognition of the rights of the surface proprietor to minerals, resembles above all the systems by which American governments, federal or state, exploit petroleum found on lands forming part of the public domain. That is to say, one pays the state for permission to explore for petroleum, one gives the state a royalty on all petroleum found and is obliged to develop the land properly or lose the concession or lease.¹¹² The role of the surface owner in French mineral law is reduced to insignificance.

The subject matter of a law, without dictating the solutions to be provided, does, to some extent, dictate the problems to be resolved. Thus it is not surprising to find certain similarities in French and Louisiana petroleum law. Although less apparent than the differences these similarities should not be ignored, especially as they point to basic issues of petroleum law.

Both French and Louisiana petroleum laws concern three parties: the proprietor of the surface, the exploiter, and the state. The laws must concern the proprietor of the surface because exploration for petroleum and its exploitation require the occupation of some superficial area and the superficial owner should at least be reimbursed for the loss of the use of his land. Moreover, in jurisdictions with private law based on either the civil law or the common law, the right of the surface owner to the products of his soil is at some point recognized. Thus, a petroleum law in such a jurisdiction should in some fashion regulate the rights of the proprietor of the surface to the products extracted from his soil, as well as the use of the surface.

Someone must do the work of exploration and exploitation and, because of the costliness and difficulty of the work in-

land itself, but the materials that may be extracted from it, and it is for this reason that the sale of these materials has been classified as a sale of movables, a classification which it is useful to respect.

"We thus see only one possible explanation: The granting of a right to extract minerals constitutes a lease of the immovable, accompanied by a sale of future products . . . a sale of the right to extract minerals necessarily confers on its purchaser a certain right of usage of the land from which the minerals are taken. This session thus can be considered as importing a lease of a part of the immovable, surface or subsurface."

That the sale of minerals does not establish a servitude is shown by de Loynes in his Note on another case: "[T]he contract is not the constitution of a servitude for one does not there encounter a charge imposed on one estate to the profit of another such as is required by Article 686 of the Civil Code." Aix, 18 April 1907, under Reg. 23, May 1909, D.1910.1.489, note of de Loynes.

112. See 30 U.S.C. §§ 221(i)-236(a) (1940); LA. R.S. 30:121-36 (1950).

volved, it will usually be done by an expert. It is possible that this work be done by the government of the nation involved. In America this has not been done; in France it has. But, and this is recognized in both countries, there are established petroleum companies so well equipped to explore for and produce petroleum that inadequate exploitation would be risked if their services were not engaged.

Both laws concern the state for at least two reasons. A petroleum reservoir usually surpasses the boundaries of any one surface proprietor and bad management of petroleum development by one surface owner can uselessly limit the quantity of petroleum that can be extracted by the other owners, or increase the expense of extraction. Thus, it is natural that there should be either penal or administrative laws to regulate the methods of production. Inasmuch as great expertise is required in even estimating the limits of a pool and the best method of production may vary from one reservoir to another, depending upon its structure, the most logical method of insuring proper development of these reservoirs may be through an administrative body. The second reason is, of course, the extreme importance of petroleum to the economic and military power of a nation.

The French and Louisiana mineral laws also resemble each other in providing systems that encourage the rapid discovery of petroleum reservoirs. This aim can be achieved by providing a profit for the exploiter or by direct exploration and exploitation by the state. In Louisiana, exploration is encouraged by recognizing the surface owner's right to the petroleum beneath his soil. Since he can profit from the discovery of petroleum, it is to his advantage to engage oil companies to search for oil on his land. The oil company, in turn, having the possibility of an immense profit if a good reservoir is discovered, will pay the surface proprietor well for his rights either in cash or in a percentage of production. Thus, the surface owner and the oil companies are both encouraged to search for petroleum, and the function of the government is, above all, to see that the search and the consequent production are made in an orderly fashion and without too much waste.

In France, as in America, the discovery of new petroleum deposits is encouraged by providing a profit for the petroleum company. This profit, however, is divided with the state and

not with the surface proprietor who, without any right to real benefit from the production of petroleum on his land, does not interest himself in the exploitation of petroleum. Thus it is necessary to have laws which force the surface owner to permit others to enter his land and explore for and exploit petroleum.

Another principle common to both laws is that the explorer is assured the right to benefit from his discovery. Otherwise, why should he risk the capital necessary to explore for petroleum? This assurance is less important in matters of traditional mines where less expense is involved in exploration, but it is essential in petroleum law. Thus, we find the "Permit H" in French law which guarantees to its holder the right to exploit any petroleum deposit he finds. In Louisiana, the same right is granted the lessee or servitude holder.