

MINUTE ITEM

12. APPLICATION FOR PROSPECTING PERMIT ON SOVEREIGN LANDS IN IMPERIAL COUNTY, R. W. CYPHER - W.O. 3325, P.R.C. 2548.1.

Following presentation of Calendar Item 33 attached, the applicant, R. W. Cypher, appeared personally before the Commission, at the request of Commissioner Carr, and gave a brief explanation of the sources and use of geothermal steam and its future possibilities.

UPON MOTION DULY MADE AND UNANIMOUSLY CARRIED, THE FOLLOWING RESOLUTION WAS ADOPTED:

PURSUANT TO SECTION 6891 OF THE PUBLIC RESOURCES CODE, THE EXECUTIVE OFFICER IS AUTHORIZED TO ISSUE TO R. W. CYPHER A TWO-YEAR PROSPECTING PERMIT AUTHORIZING PROSPECTING FOR GEOTHERMAL STEAM, AND ALL MINERALS OTHER THAN OIL AND GAS, AND WATER FOR FORTY ACRES OF SOVEREIGN LAND IN THE SE $\frac{1}{4}$ OF THE SE $\frac{1}{4}$ OF SECTION 1., T. 11 S., R. 13 E., S.B.B.& M., IMPERIAL COUNTY, SUBJECT TO THE CONDITIONS INCLUDED IN EXHIBITS "A", "B" AND "C" ATTACHED HERETO AND HEREBY MADE A PART HEREOF, WITH ROYALTY PAYABLE:

1. UNDER ANY PROSPECTING PERMIT ISSUED, 20 PERCENT OF THE GROSS VALUE OF ANY MINERALS AND GEOTHERMAL STEAM SECURED BY HIM FROM THE LANDS EMBRACED WITHIN THE PERMIT AND SOLD OR OTHERWISE DISPOSED OF OR HELD BY THE PERMITTEE FOR SALE OR OTHER DISPOSITION;
2. UNDER ANY PREFERENTIAL LEASE ISSUED UPON THE DISCOVERY OF GEOTHERMAL STEAM, VALUABLE DEPOSITS OF MINERALS, AND WATER TO BE DETERMINED AS FOLLOWS:

A. UPON ANY AND ALL MINERALS PRODUCED AND EXTRACTED AND SOLD FROM SAID PREMISES:

1. FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS

$$R = 3.00 + 0.01 (C - 20.00)^2$$

2. FOR NONPRECIOUS METALLIC MINERALS

$$R = 3.00 + 0.37 (C - 60.00)$$

3. FOR NONMETALLIC MINERALS

$$R = 0.40 + 0.05 (C - 8.00)$$

WHERE R = ROYALTY IN DOLLARS AND CENTS PER TON OF ORE

C = WEIGHTED AVERAGE OF GROSS SALES PRICE OF ORE SOLD DETERMINED ON A QUARTERLY BASIS DURING THE FIRST YEAR IN WHICH SALES OCCUR. THEREAFTER, THE WEIGHTED AVERAGE DETERMINED BY GROSS SALES PRICE OF ORE SOLD DURING THE PREVIOUS YEAR IN WHICH SALES OCCUR.

~~THE MINIMUM ROYALTY UNDER ANY LEASE ISSUED PURSUANT TO THIS PERMIT SHALL BE:~~

1. FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS: \$3.00 PER TON.
2. FOR NONPRECIOUS METALLIC MINERALS: \$3.00 PER TON.
3. FOR NONMETALLIC MINERALS: \$0.40 PER TON.

THE MAXIMUM ROYALTY FOR GOLD, SILVER, OTHER PRECIOUS MINERALS, AND RADIOACTIVE MINERALS SHALL NOT EXCEED 50 PERCENT OF THE AVERAGE GROSS SALES PRICE OF THE ORE.

THE MAXIMUM ROYALTY FOR ALL NONPRECIOUS METALLIC AND NON-METALLIC MINERALS SHALL NOT EXCEED 25 PERCENT OF THE AVERAGE GROSS SALES PRICE OF THE ORE.

B. UPON ALL ELECTRIC ENERGY AND SALABLE WATER PRODUCED FROM MINERAL WATERS EXTRACTED FROM SAID LEASE PREMISES:

1. A FIXED MINIMUM PAYMENT OF $12\frac{1}{2}$ PERCENT OF THE GROSS SALES VALUE OF ALL ELECTRIC POWER AND WATER PRODUCED.
2. AN ADDITIONAL SUM OF $33\frac{1}{3}$ PERCENT OF THE NET PROFIT DERIVED FROM ALL THE OPERATIONS ON STATE LANDS LESS THE MINIMUM PAYMENT.

Attachment
Calendar Item 33 (7 pages)

APPLICATION FOR PROSPECTING PERMIT ON SOVEREIGN LANDS IN IMPERIAL COUNTY,
R. W. CYPHER - W.O. 3325.

An application has been received from R. W. Cypher of Long Beach for a permit to prospect for geothermal steam, all minerals other than oil and gas, and mineral waters on 40 acres of sovereign land in the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 14, T. 11 S., R. 13 E., S.B.B. & M., Imperial County.

Section 6891 of the Public Resources Code provides for the issuance to a qualified applicant of a prospecting permit for lands which are not known mineral lands. In the course of drilling exploratory wells for the production of oil and gas in this general area, large quantities of superheated mineralized water were encountered at depths of less than 1,000 feet. No oil or gas zones were penetrated. The area is believed to be underlain by molten magma which provides heat to the subterranean waters.

The applicant proposes to prospect for geothermal steam to be used to produce electric energy, and as a by-product of this operation some minerals and fresh water may be produced. The proposed operation is based on the premise that large amounts of superheated ground and magmatic water may be developed by drilling wells. Upon reaching the surface the superheated water will flash into steam, dissolved minerals in solution will be precipitated, thermal energy can be converted into electric energy through generators, and the exhaust steam can be condensed into water suitable for domestic use. Similar operations for the development of electric power are reported to have proved successful at the geysers near Santa Rosa, California, and in Italy.

In the event that the proposed operations prove to be successful, the Board of Directors of the Imperial Irrigation District has agreed to purchase not to exceed 10,000 kilowatts of electric energy at the price of $\frac{1}{2}$ mills per kilowatt hour delivered at a proposed generating plant on any lease held by the applicant in this vicinity.

The feasibility of isolating individual mineral salts from the precipitate deposited upon vaporization of the superheated mineral water can be determined only after the operation has been commenced. The sale of domestic water in this area should present no problem.

A field reconnaissance of the area has determined that the lands sought are not known to contain commercially valuable deposits of minerals. The statutory filing fee of \$5 has been paid and the permit fee of \$40 has been deposited by the applicant.

The office of the Attorney General has advised that, under the authority of Public Resources Code Section 6891, the Commission may issue a prospecting permit for the exploration of mineral waters from the subject lands.

CALENDAR ITEM 33. (CONTD.)

IT IS RECOMMENDED THAT, PURSUANT TO SECTION 6891 OF THE PUBLIC RESOURCES CODE, THE COMMISSION AUTHORIZE THE EXECUTIVE OFFICER TO ISSUE TO R. W. CYPHER A TWO-YEAR PROSPECTING PERMIT AUTHORIZING PROSPECTING FOR GEOTHERMAL STEAM, AND ALL MINERALS OTHER THAN OIL AND GAS, AND WATER FOR FORTY ACRES OF SOVEREIGN LAND IN THE SE $\frac{1}{4}$ OF THE SE $\frac{1}{4}$ OF SECTION 14, T. 11 S., R. 13 E., S.B.B.& M., IMPERIAL COUNTY, SUBJECT TO THE CONDITIONS INCLUDED IN EXHIBITS "A", "B" AND "C" ATTACHED HERETO AND HEREBY MADE A PART HEREOF, WITH ROYALTY PAYABLE:

1. UNDER ANY PROSPECTING PERMIT ISSUED, 20 PERCENT OF THE GROSS VALUE OF ANY MINERALS AND GEOTHERMAL STEAM SECURED BY HIM FROM THE LANDS EMBRACED WITHIN THE PERMIT AND SOLD OR OTHERWISE DISPOSED OF OR HELD BY THE PERMITTEE FOR SALE OR OTHER DISPOSITION;
2. UNDER ANY PREFERENTIAL LEASE ISSUED UPON THE DISCOVERY OF GEOTHERMAL STEAM, VALUABLE DEPOSITS OF MINERALS, AND WATER TO BE DETERMINED AS FOLLOWS:

A. UPON ANY AND ALL MINERALS PRODUCED AND EXTRACTED AND SOLD FROM SAID PREMISES:

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CALENDAR ITEM 33. (CONTD.)

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THE MAXIMUM ROYALTY FOR ALL NONPRECIOUS METALLIC AND NON-METALLIC MINERALS SHALL NOT EXCEED 25 PERCENT OF THE AVERAGE GROSS SALES PRICE OF THE ORE.

- B. UPON ALL ELECTRIC ENERGY AND SALABLE WATER PRODUCED FROM MINERAL WATERS EXTRACTED FROM SAID LEASE PREMISES:
1. A FIXED MINIMUM PAYMENT OF $12\frac{1}{2}$ PERCENT OF THE GROSS SALES VALUE OF ALL ELECTRIC POWER AND WATER PRODUCED.
 2. AN ADDITIONAL SUM OF $33\frac{1}{3}$ PERCENT OF THE NET PROFIT DERIVED FROM ALL THE OPERATIONS ON STATE LANDS LESS THE MINIMUM PAYMENT.

Attachments

Exhibits "A", "B" and "C" (4 pages)

EXHIBIT "A"

1. The State Lands Commission by issuing the requested prospecting permit is in no way purporting to fix the amount of mineral water that the Permittee may bring to the surface, which quantities are subject to other applicable provisions of the law.
2. The State shall have the right to determine the spacing of wells and the rate of drilling and rate of production of such wells so as to prevent the waste of superheated water and promote the maximum economic recovery of superheated water from and the conservation of reservoir energy in each zone or separate underground source of supply of superheated water covered in whole or in part by this lease.
3. The Permittee shall use all reasonable precautions to prevent waste of natural resources and energies, including oil and gas, in the leased lands or the entrance of water through wells drilled to any oil or gas, fresh water or carbon dioxide bearing strata to the destruction or injury of such deposits.
4. The Permittee shall file promptly with the State Lands Commission copies of all logs, including electric logs, surveys, drilling records, well histories, core records and related information as measured and recorded for the wells drilled by the Permittee into the permitted lands. The Permittee does hereby waive any statutory limitations upon the use by the State or a duly authorized employee of the State of any information filed with the Division of Oil and Gas of the Department of Natural Resources by the Permittee in connection with this permit. Any and all information filed by the Permittee with the said Division of Oil and Gas in connection with this permit shall be available at all times for the confidential use of the State for the purpose of enforcing compliance with the terms, covenants, and conditions of this lease and rules and regulations now promulgated by the State, but shall not be open to inspection by any person except members, officers, or employees of the State Lands Commission or Division and persons performing any function or work assigned to them by said Commission or Division, except upon the written consent of the Permittee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is reasonably necessary for the administration of the functions, responsibilities, and duties vested in the Commission by law, including but not limited to functions, responsibilities, and duties arising in connection with any litigations relating to this permit or to the rights, duties, and obligations arising hereunder.
5. With respect to damage to any reservoir underlying the demised premises and loss of oil, gas or other hydrocarbon substances, superheated water, or carbon dioxide gas therein or therefrom, Permittee shall be liable to the State for such damage and loss to the extent that such damage and loss is caused by the negligence of or the breach of any provision of this lease or noncompliance with any applicable statutes or rules and regulations by the Permittee or its employees, servants, agents or

EXHIBIT "A" (CONTD.)

contractors, provided that nothing herein shall diminish any other rights or remedies which the State may have in connection with any such negligence or breach.

6. In the event any well has been, is or shall be completed on other than State lands, with any part of its producing interval within six hundred (600) feet from the exterior boundary of this lease, and if such well is capable of producing superheated waters in commercial quantities, provided Permittee is not drilling or has not heretofore drilled an offset well thereto on the permitted lands, then the State may notify the Permittee in writing to drill an offset well thereto, and within one hundred twenty (120) days from the date of such notice, the Permittee shall commence operations for the drilling of an offset well on the leased lands to the same zone as that zone from which such well is producing, or is capable of producing, superheated waters. For the purpose of this section an offset well shall mean a well the producing interval of which is situated at a location in the leased lands not more than one hundred (100) feet from the point on the boundary of the lease nearest to the producing interval of the well to be offset.
7. An electric log, gamma ray neutron log or logs, and temperature survey shall be made of all formations penetrated to the drilled depth of each well or to such depth as is feasible. At least one oriented core or dipmeter record shall be made during the drilling of the first well to each zone if it is mechanically practicable to do so, or during the drilling of the earliest subsequent well in which it is mechanically practicable to make such core or record. True and correct copies of all logs, surveys, paleontological reports, dipmeter records, oriented core records, rock core records, drill records and well histories and all other drilling tests and production data taken by Permittee or his agents shall be immediately available to the representatives of the State, and said representatives shall also have ready access to all rock cores and samples which may be obtained during the drilling of each well.
8. The Permittee shall comply with all valid laws of the United States and of the State of California and with all valid ordinances of cities and counties applicable to the Permittee's operations hereunder, including without limitation by reason of the specification thereof the Permittee's compliance with Division 3 of the Public Resources Code, Statutes of California. The Permittee further agrees without limitation by reason of the specifications thereof to comply with all provisions of Division 6 of the Public Resources Code, Statutes of California, applicable to the Permittee's operations hereunder, and with all rules and regulations of the State Lands Commission applicable to the Permittee's operations hereunder in effect at the date of the issuance of this permit.

EXHIBIT "A" (CONTD.)

9. The Permittee shall furnish to the State detailed drawings of all pipelines attached in any manner to the said wells and report any changes or additions promptly, and shall gauge all water and measure all steam.
10. The Permittee shall furnish a bond in favor of the State of California in the penal sum of \$10,000 to guarantee the faithful performance by the Permittee of the terms and covenants and observance of the conditions of this permit, and of the provisions of the rules and regulations of the State Lands Commission.
11. The Permittee may use superheated water from Lessee's wells drilled into the leased lands for drilling and production purposes only, to the extent such use is necessary for operations of said wells. Such superheated water, so used, shall not be included in computing, for royalty purposes, the total production of superheated water removed or sold from the leased lands during the month.

EXHIBIT "B"

"Gross Sales Value" shall be determined by multiplying the contract sales price of electricity and water by the quantity produced.

EXHIBIT "C"

"Development and Operating Costs" to be allowed in determining net profit for the purposes of this lease shall include only the ordinary and necessary expenses incurred by the Lessee which are properly allocable in accordance with generally accepted accounting principles to the cost of production of electric energy, and water from the lease premises, including development costs of steam wells.