

Introduced 4/7/71
Referred: Resources

1 IN THE SENATE

BY MERDES, PALMER AND THOMAS

2 SENATE BILL NO. 212

3 IN THE LEGISLATURE OF THE STATE OF ALASKA
4 SEVENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to geothermal resources."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 * Section 1. AS 38.05 is amended by adding a new section to read:

9 Sec. 38.05.181. GEOTHERMAL RESOURCES. (a) PURPOSE. The legis-
10 lature finds and declares that

11 (1) the people of Alaska have an interest in the develop-
12 ment of the state's geothermal resources potential for

13 (A) use in the generation of electrical power that
14 may reduce the state's dependence on fossil fuel power plants
15 that seriously pollute the atmosphere in a number of areas;

16 (B) the production of geothermal steam that may pro-
17 vide central heat for urban areas close to geothermal areas;

18 (C) the production of valuable minerals and other by-
19 products associated with geothermal steam and accompanying brines;
20 and

21 (D) the distillation of fresh water;

22 (2) the State of Alaska, through the Department of Natural
23 Resources and its division of lands, should exercise its authority
24 to encourage the exploration for, discovery and production of, geo-
25 thermal resources in the public interest to

26 (A) encourage maximum economic recovery of this poten-
27 tially important natural resource and prevent its waste;

28 (B) ensure that the exploration for, and production of,
29 geothermal resources, and the disposal of wastes therefrom, are

1 carried on in a way that will safeguard life, health, property,
2 public welfare and the environment; and

3 (C) preserve the state's natural, scenic values es-
4 pecially in those areas where geothermal resources are or may be
5 found; although the need to develop new sources of energy rapidly
6 is becoming urgent, every effort also must be made to protect
7 those hot springs and geysers that are among nature's scenic
8 wonders.

9 (b) LAND SURVEY AND CLASSIFICATION. (1) Because of the absence
10 of detailed geothermal mapping and the limited geochemical, geological
11 or geophysical knowledge of the state's geothermal resources that is
12 available, a survey of geothermal resources shall be included in the
13 complete geological survey of the state authorized by AS 41.07.020, and
14 a statement of the progress of the geothermal resources survey shall
15 be contained in the annual report required by that section.

16 (2) The classification of known geothermal resources areas,
17 each of which shall contain at least one well capable of producing
18 geothermal resources in commercial quantities, shall be made by the
19 commissioner upon recommendations of the director, the state geologist
20 or the United States Geological Survey, under AS 41.07.040.

21 (3) Within 125 days after the effective date of this sec-
22 tion, the commissioner shall publish a statement of all lands which
23 were included within any known geothermal resources areas on the
24 effective date of the section. He shall also publish from time to
25 time his determination of other known geothermal resources areas
26 specifying in each case the date the lands were included in the area.

27 (c) AUTHORITY. (1) Under the provisions of this section and
28 subject to secs. 135 - 145 of this chapter, where applicable and not
29 in conflict with this section, the commissioner may issue prospecting

1 permits and leases for the exploration, discovery, development, utiliza-
2 tion, extraction and removal of geothermal resources in or from state
3 lands administered by him.

4 (2) Rights to develop and utilize geothermal resources
5 underlying lands owned by the State of Alaska may be acquired solely
6 in accordance with the provisions of this section.

7 (3) The commissioner shall prescribe those regu-
8 tions he considers appropriate to carry out the provisions of this
9 section. The regulations may include, without limitation, provisions
10 for

11 (A) the prevention of waste,

12 (B) development and conservation of geothermal and
13 other natural resources,

14 (C) the protection of the public interest,

15 (D) assignment, segregation, extension of terms,
16 relinquishment of leases, development contracts, unitization,
17 pooling, and drilling agreements,

18 (E) compensatory royalty agreements, suspension of
19 operations or production, and suspension or reduction of rentals
20 or royalties,

21 (F) the filing of surety bonds to assure compliance
22 with the terms of the lease and to protect surface use and
23 resources,

24 (G) use of the surface by a lessee or permittee of
25 the lands embraced in his lease or permit,

26 (H) the maintenance by the lessee of an active develop-
27 ment program, and

28 (I) protection of water quality and other environmental
29 qualities.

1 (d) ELIGIBILITY. Prospecting permits and leases under this sec-
2 tion may be issued only to or held by

3 (1) persons or associations of persons who are citizens
4 of the United States or who have declared their intention of becoming
5 such, or who are citizens of any country, dependency, colony, or
6 province, the laws, customs, and regulations of which permit the
7 grant of similar or like privileges to citizens of the United States;

8 (2) any corporation or corporations organized and existing
9 under and by virtue of the laws of the United States or of any state,
10 territory or the District of Columbia; or any corporation or corpora-
11 tions 90 per cent or more of the shares of which are owned by persons
12 eligible to hold a lease or permit under (1) or (3) of this subsection;
13 or any corporation or corporations 90 per cent or more of the shares
14 of which are owned either by a corporation eligible to hold a lease
15 or permit hereunder, or by any combination of such eligible persons
16 or corporations, or both, or governmental units, including, without
17 limitation, municipalities or boroughs;

18 (3) any alien person entitled thereto by virtue of a treaty
19 between the United States and the nation or country of which the alien
20 person is a citizen or subject;

21 (4) in every case of joint bidding, the names of all persons,
22 firms, or corporations interested in a particular joint bid shall be
23 specified.

24 (e) LAND ADMINISTRATION. (1) Administration of this section
25 shall be under the principal of multiple use of public lands and
26 resources, and insofar as feasible, shall allow coexistence of other
27 permits or leases of the same lands for deposits of other minerals
28 under this chapter, and the existence of permits or leases issued
29 under this section does not preclude other uses of the areas covered

1 by them. However, operations under other permits or leases or other
2 uses may not unreasonably interfere with or endanger operations under
3 a permit or lease issued under this section, nor may operations under
4 permits or leases issued under this section unreasonably interfere
5 with or endanger operations under any permit or lease issued under
6 any other law. Nor may this section be construed as superseding the
7 authority which the head of a state department or agency has with
8 respect to the management, protection, and utilization of the state
9 lands and resources under his jurisdiction. The commissioner may
10 prescribe by rules and regulations those conditions he considers
11 necessary for the protection of other resources.

12 (2) If the commissioner determines independently or on
13 advice of the director, the state geologist or the United States
14 Geological Survey that the production, use, or conversion of geothermal
15 steam is susceptible of producing a valuable byproduct, including
16 commercially demineralized water for beneficial uses in accordance
17 with applicable state water laws the commissioner shall require sub-
18 stantial beneficial production or use of these byproducts unless, in
19 individual circumstances he modifies or waives this requirement in the
20 interest of conservation of natural resources or for other reasons
21 satisfactory to him. However, the production or use of those byproducts
22 are subject to the rights of the holders of preexisting leases, claims,
23 or permits covering the same land or the same minerals, if any.

24 (3) For the purpose of properly conserving the natural re-
25 sources of any geothermal resources areas, or any part of them, the
26 lessees may unite with each other or with others in collectively
27 adopting and operating under a cooperative or unit plan of development
28 or operation of the geothermal resources lands. The commissioner
29 may, with the consent of the holders of leases involved, establish,

1 alter, change, and revoke any drilling and production requirements
2 of these leases, permit apportionment of production, and may make
3 those regulations with reference to these leases, with like consent
4 on the part of the lessees, in connection with the institution and
5 operation of any cooperative or unit plan, as the commissioner con-
6 sidered necessary or proper to secure the proper protection of the
7 interests of the state.

8 (4) Any person engaged in the production of geothermal
9 resources under a lease issued by the commissioner may commingle geo-
10 thermal resources from any two or more wells without regard to whether
11 the wells are located on the lands for which the lease was issued
12 or elsewhere. However, the lessee shall install and maintain meters
13 or other measuring devices satisfactory to the commissioner to measure
14 the amount of geothermal resources produced from lands for which
15 leases were issued by the commissioner.

16 (f) STATE LANDS: LIMITATIONS, EXCLUSIONS. Leases or permits for
17 lands withdrawn or acquired in aid of the functions of the Department
18 of Natural Resources may be issued only under those reasonable terms
19 and conditions that the commissioner may prescribe by regulation to
20 insure adequate utilization of the land or its waters for the purposes
21 for which they were withdrawn or acquired. However, leases or permits
22 under this section may not be issued for

23 (1) lands administered as state parks, recreation or wilder-
24 ness areas, or

25 (2) lands in a fish hatchery, wildlife refuge, wildlife
26 range, game range, wildlife management area, waterfowl production
27 area, or for land acquired or reserved for the protection and conserva-
28 tion of fish and wildlife that are threatened with extinction.

29 (g) UNKNOWN LAND; PROSPECTING PERMITS. (1) Subject to the pro-

1 visions of (c) of this section, the commissioner shall issue a prospect-
2 ing permit to the first qualified applicant under this section and
3 those regulations as he may prescribe for lands which have not been
4 classified as known geothermal resources areas, upon the payment to
5 the commissioner of not less than \$1 an acre for each acre of land
6 included in the permit, in accordance with (k)(1)(C) of this section. An
7 application for a permit shall be denied if, before the issuance of
8 the permit, the land is classified or reclassified as known geothermal
9 resources land under (b)(2) of this section.

10 (2) A permit gives the permittee the exclusive right for
11 a period of three years to prospect for geothermal resources upon
12 land included within the permit. The commissioner may, in his discre-
13 tion, extend the primary term of a permit for a period not exceeding
14 two years, except that the combination of the primary term and
15 extension of a permit may not exceed a total of five years. The
16 commissioner may amend or terminate a permit issued by it within the
17 primary term period or within the extension, if any, with the consent
18 of the permittee.

19 (3) Upon the classification of any of the land included
20 within a permit issued under this section as known geothermal resources
21 land areas, the permittee is entitled to a lease for this land in
22 accordance with (h) of this section. The classification of this land
23 shall be made in accordance with (b)(2) of this section. The terms
24 of the lease shall include the royalties and other terms contained
25 in (j), (k) and (l) of this section on the effective date of the lease.

26 (h) KNOWN AREAS: LEASES. (1) If the land to be leased under
27 this section is within a known geothermal resources area and no
28 prospecting permit thereon has been issued, this land shall be leased
29 to the highest responsible qualified bidder under this section and those

1 regulations the commission may prescribe for notice to the public of
2 terms and conditions of the sale, conduct of the sale, receipt of
3 bid, and awarding of the lease, and bidding shall be by competitive
4 bid, oral or sealed at the discretion of the commissioner, under regu-
5 lations he promulgates, and on the basis of a cash bonus, net profit,
6 or other single biddable factor.

7 (2) In leasing land under this section, the commissioner
8 may prescribe a development program. In prescribing the program,
9 the commissioner shall consider all applicable economic factors,
10 including market conditions and the cost of drilling for, producing,
11 processing and utilizing of geothermal resources.

12 (i) CONVERSION OF LEASES, PERMITS. Notwithstanding any other
13 provisions of this section, at any time within 180 days following the
14 effective date of this section,

15 (1) with respect to all land which was subject to valid
16 leases or permits issued under secs. 135 - 180 of this chapter or to
17 existing mining claims located on or before the effective date of this
18 section, the lessees or permittees or claimants or their successors
19 in interest who are qualified to hold geothermal leases may convert
20 their leases or permits or claims to geothermal leases covering the
21 same land;

22 (2) where there are conflicting claims, leases, or permits
23 embracing the same land, the person who first was issued a lease or
24 permit, or who first recorded the mining claim is entitled to first
25 consideration;

26 (3) with respect to all land which was on the effective
27 date of this section, the subject of applications for leases or permits
28 under secs. 135 - 180 of this chapter, the applicants may convert
29 their applications to applications for geothermal leases having

1 priorities dating from the time of filing of such applications under
2 this chapter.

3 (4) no person may convert mineral leases, permits, applica-
4 tions therefor, or mining claims for more than 10,240 acres;

5 (5) the conversion of leases, permits, and mining claims
6 and applications for leases and permits shall be accomplished in
7 accordance with regulations promulgated by the commissioner; no right
8 to conversion to a geothermal lease accrues to a person under this
9 section unless the person shows to the reasonable satisfaction of the
10 commissioner that substantial expenditures for the exploration,
11 development, or production of geothermal steam or other resources
12 have been made by the applicant who is seeking conversion, on the land
13 for which a lease is sought or on adjoining, adjacent, or nearby
14 federal or state land;

15 (6) with respect to land within a known geothermal resources
16 area and which are subject to a right to conversion to a geothermal
17 lease, the land shall be leased by competitive bidding, except that,
18 the competitive geothermal lease shall be issued to the person
19 owning the right to conversion to a geothermal lease if he makes
20 payment of an amount equal to the highest bona fide bid for the competi-
21 tive geothermal lease, plus the rental for the first year, within 30
22 days after he receives written notice from the commissioner of the
23 amount of the highest bid.

24 (j) ACREAGE, LIMITATIONS. (1) An application for a prospecting
25 permit or lease shall not be made for less than 640 acres nor more
26 than 2,560 acres and shall embrace a reasonably compact area. However,
27 a permit or lease may be issued for a parcel less than 640 acres if
28 that parcel is isolated from or not contiguous with other parcels of
29 land available for permit or lease under this section, or if the land

1 is irregularly subdivided.

2 (2) Prospecting permits or leases for land beneath lakes
3 and rivers, and below the mean high tide level of tide and submerged
4 land, may be issued for not less than 640 acres nor more than 5,760
5 acres and shall embrace a reasonably compact area, except that a permit
6 or lease may be issued for a parcel less than 640 acres if such parcel
7 is isolated from or not contiguous with other parcels of land available
8 for permit or lease under this section.

9 (3) Except as otherwise provided in this section, no person,
10 association or corporation may take, hold, own, or control at one time,
11 whether acquired directly from the commissioner under this section or
12 otherwise, any direct or indirect interest in state geothermal leases
13 exceeding 25,600 acres, including leases acquired under the provisions
14 of (1) of this section.

15 (4) At any time after 15 years from the effective date of
16 this section the commissioner, after public hearings, may increase this
17 maximum holding by regulation, not to exceed 51,200 acres.

18 (5) Subject to the other provisions of this section, the
19 permittee or lessee shall be entitled to use as much of the surface
20 of the land covered by his geothermal lease or permit as may be found
21 by the commissioner to be reasonably necessary for the exploration,
22 production, utilization, and conservation of geothermal resources.
23 However, any well drilled for the discovery and production of geothermal
24 resources, which is located within 300 feet of an outer boundary of the
25 parcel of land on which the well is situated or within 300 feet of a
26 public road, street or highway dedicated before the commencement of
27 drilling of the well, is a public nuisance. Where several contiguous
28 parcels of land in one or different ownerships are operated as a
29 single geothermal resources lease or operating unit, the term "outer

1 boundary" means the outer boundary line of the land included in the
2 lease or unit. In determining the contiguity of any of these parcels
3 of land, no street, road or alley lying within the lease or unit is
4 considered to interrupt that contiguity.

5 (k) ROYALTIES AND RENTALS. (1) Each permit or lease issued
6 under this section shall provide for

7 (A) a royalty of not less than 10 per cent nor more
8 than 15 per cent of the gross revenue, exclusive of charges, approved
9 by the commissioner made or incurred with respect to transmission
10 or other services or processes, received from the sale of steam,
11 brines, from which no minerals have been extracted, and associated
12 gases at the point of delivery to the purchaser of them;

13 (B) a royalty of not less than two per cent nor more
14 than 10 per cent of the gross revenue received from the sale of
15 mineral products or chemical compounds recovered from geothermal
16 fluids in the first marketable form as to each mineral product
17 or chemical compound for the primary term of the lease;

18 (C) an annual rental payable in advance of not less
19 than \$1 an acre or fraction of an acre for each year of a permit
20 or lease;

21 (D) if, after the discovery of geothermal resources in
22 commercial quantities, the total royalties due to the state during
23 any calendar year do not equal or exceed a sum equal to \$2 an
24 acre for each acre or fraction of an acre then included in the
25 permit or lease, the permittee or the lessee shall, within 60
26 days after the end of the year, pay whatever sum is necessary to
27 equal a minimum royalty of \$2 an acre.

28 (2) The royalties specified in this section are subject to
29 renegotiation under (m) of this section based upon recommendations of

1 the director and the renegotiations are not limited by the maximum
2 royalties specified in (1)(A) and (B) of this subsection.

3 (3) Royalty payments shall be made under (1)(A) and (B) of
4 this subsection for all geothermal resources used by the permittee or
5 lessee and not sold, with the gross revenue from them to be determined
6 as though the geothermal resources had been sold to a third person at
7 the then prevailing market price in the same market area and under
8 the same marketing conditions; however, no royalties need be paid for
9 steam used by the permittee or lessee in the production of any geo-
10 thermal mineral products or chemical compounds recovered from geothermal
11 fluids in first marketable form subject to the payment of royalties
12 under (1)(A) or (B) of this subsection.

13 (4) For the purpose of determining royalties under this
14 subsection the value of any geothermal steam and byproduct used by
15 the lessee and not sold and reasonably susceptible of sale shall be
16 determined by the commissioner who shall consider the cost of explora-
17 tion and production and the economic value of the resource in terms
18 of its ultimate utilization.

19 (5) Upon request of the commissioner, other state departments
20 and agencies shall furnish him with any relevant data then in their
21 possession or knowledge concerning or having bearing upon fair and
22 adequate charges to be made for geothermal steam produced or to be
23 produced for conversion to electric power or other purposes. Data
24 given to a department or agency as confidential under law may not be
25 furnished in a way which identifies or tends to identify the business
26 entity whose activities are the subject of the data or the person or
27 persons who furnished the information.

28 (6) The commissioner independently or upon the advice of the
29 director, may waive, suspend, or reduce the rental or minimum royalty

1 for the land included in any permit or lease, or any portion of it,
2 and waive, suspend, alter or amend the operating requirements contained
3 in the lease or regulations promulgated under this section affecting
4 operations of the lease or permit, in the interests of conservation,
5 and to encourage the greatest ultimate recovery of geothermal re-
6 sources if he determines that that action is necessary or beneficial
7 to promote development or finds that the permit or lease cannot be
8 successfully operated under the permit or lease terms or under the
9 regulations.

10 (1) TERM OF LEASES. (1) Leases under this section shall be
11 for a primary term of 10 years. If geothermal resources are produced
12 or utilized in commercial quantities within this term, the lease shall
13 continue for as long as geothermal steam or other byproducts are pro-
14 duced or utilized in commercial quantities, but the continuation may
15 not exceed an additional 40 years.

16 (2) If, at the end of that 40 years, steam or other geo-
17 thermal resources are in commercial quantities and the land is not
18 needed for other purposes, the lessee has a preferential right to a
19 renewal of the lease for a second 40-year term in accordance with the
20 terms and conditions as the commissioner considers appropriate; but
21 in any event a lease may not exceed a cumulative total of primary and
22 subsequent terms of 99 years.

23 (3) A lease for land on which, or for which under an ap-
24 proved cooperative or unit plan of development or operation, actual
25 drilling operations were started before the end of its primary term
26 and are being diligently prosecuted at that time shall be extended for
27 five years and as long thereafter, but not more than 35 years, as
28 geothermal resources are produced or utilized in commercial quantities.
29 If at the end of the extended term, steam or other resources are being

1 produced or utilized in commercial quantities and the land is not
2 needed for other purposes, the lessee has a preferential right to a
3 renewal of the lease for a second term in accordance with this section
4 and those terms and conditions the commissioner considers appropriate.

5 (4) For purposes of (1) of this subsection, production or
6 utilization of geothermal resources in commercial quantities includes
7 the completion of one or more wells producing or capable of producing
8 geothermal resources in commercial quantities and a bona fide sale
9 of geothermal resources for delivery to or utilization by a facility
10 or facilities not yet installed but scheduled for installation not
11 later than 15 years from the date of commencement of the primary term
12 of the lease.

13 (5) Leases which have extended by reasons of production, or
14 which have produced geothermal resources and have been determined by
15 the commissioner to be incapable of further commercial production and
16 utilization of geothermal resources may be further extended for a
17 period of not more than five years from the date of that determination
18 but only for as long as one or more valuable byproducts are produced in
19 commercial quantities. If the byproducts are leasable under this
20 chapter and the leasehold is primarily valuable for the production of
21 these byproducts, the lessee is entitled to convert his geothermal
22 lease to a mineral lease under, and subject to all the terms and condi-
23 tions of, this chapter upon application at any time before expiration
24 of the lease extension by reason of byproduct production. The lessee
25 is entitled to locate under the mining laws all minerals which are not
26 leasable and which would constitute a byproduct if commercial produc-
27 tion or utilization of geothermal resources continued. The lessee in
28 order to acquire the rights granted him by this section shall complete
29 the location of mineral claims within 90 days after the termination of

1 the lease for geothermal resources.

2 (m) READJUSTMENT OF LEASE TERMS, CONDITIONS. (1) Except as
3 otherwise provided the commissioner may readjust the terms and condi-
4 tions of any lease issued under this section at not less than 10-year
5 intervals beginning 10 years after the date the geothermal resources
6 are produced, as determined by the commissioner. Each lease issued
7 under this section shall provide for that readjustment. The commissioner
8 shall give notice of any proposed readjustment of terms and conditions,
9 and, unless the lessee files with the commissioner objection to the
10 proposed terms or relinquishes the lease within 30 days after receipt
11 of the notice, the lessee conclusively shall be considered to have
12 agreed to those terms and conditions. If the lessee files objections,
13 and no agreement can be reached between the commissioner and the lessee
14 within a period of not less than 60 days, the lease may be terminated
15 by either party.

16 (2) The commissioner may readjust the rentals and royalties
17 of any geothermal lease issued under this section at not less than 20-
18 year intervals beginning 35 years after the date geothermal resources
19 are produced, as determined by the commissioner. In the event of any
20 readjustment neither the rental nor royalty may be increased by more
21 than 50 per cent over the rental or royalty paid during the preceding
22 period, and in no event may the royalty payable exceed 22 1/2 per cent.
23 Each geothermal lease issued under this section shall provide for that
24 readjustment. The commissioner shall give notice of any proposed
25 readjustment of rentals and royalties, and, unless the lessee files
26 with the commissioner objection to the proposed rentals and royalties
27 or relinquishes the lease within 30 days after receipt of the notice,
28 the lessee conclusively shall be considered to have agreed to those
29 terms and conditions. If the lessee files objections, and no agreement

1 can be reached between the commissioner and the lessee within a period
2 of not less than 60 days, the lease may be terminated by either party.

3 (n) RIGHTS OF LANDOWNERS TO PERMITS OR LEASES. In case of an
4 application for a permit or lease covering land which has been sold
5 by the state, subject to a reservation by the state of the geothermal
6 resources in them by anyone other than the owner of that land, the
7 owner has six months from the date of service of notice on the owner
8 of the application within which to file his application for a permit
9 or lease. The notice shall be served by the applicant together with a
10 copy of the application. If the owner exercises his rights and is a
11 qualified person, his application shall be granted but subject to all
12 the other provisions of this section. If the owner fails to exercise
13 the rights granted by this section, then the owner's rights under it shall
14 immediately cease and terminate and the original applicant shall be
15 permitted to proceed with his application. If the lands subject to
16 classification are classified as within a known geothermal resource
17 area, then, after the commissioner has determined the highest competi-
18 tive bid on it the owner may within 10 days after notification by the
19 commissioner submit a bid identical to the highest acceptable bid,
20 in which case the commissioner shall issue a lease to the surface land-
21 owner. If the surface landowner does not file a bid within that period
22 of time, the commissioner may proceed with the award of the bid to
23 other than the surface landowner.

24 (o) TERMINATION OF PERMITS OR LEASES. (1) A permit or lease
25 may be terminated by the commissioner, lessee or permittee only under
26 the provisions of this section, or under the terms of the lease or
27 permit or both. The commissioner shall insert in every permit or
28 lease issued under this section appropriate provisions for its cancella-
29 tion in accordance with the provisions of this section.

1 (2) The commissioner reserves the authority to cancel any
2 prospecting permit or lease upon which a commercially valuable deposit
3 of geothermal resources has not been discovered in paying quantities
4 upon failure of the permittee or lessee (after 30 days written notice
5 and demand for performance) to exercise diligence and care in the
6 prosecution of the prospecting or development work in accordance with
7 the terms and conditions of the permit or lease. After discovery of
8 a commercially valuable deposit of geothermal resources on lands subject
9 to any permit or lease issued under this section, the permit or lease
10 may be forfeited and canceled only upon failure of the lessee after
11 90 days written notice and demand to comply with any of the provisions
12 of the permit or lease or of the regulations applicable to it and in
13 force at the date of the permit or lease. However, in the event of a
14 cancellation the permittee or lessee under any geothermal resource
15 permit or lease may retain under the permit or lease all drilling or
16 producing wells as to which no default exists, together with a parcel
17 of land surrounding each well and the rights-of-way through the land
18 under permit or lease, that may be reasonably necessary to enable the
19 permittee or lessee to drill and operate the retained well or wells.
20 In the event of the cancellation of a permit or lease the permittee
21 or lessee has a reasonable time within which to remove all property,
22 equipment and facilities owned or used by the permittee or lessee in
23 connection with operations under the permit or lease.

24 (3) If there is no well on the leased lands capable of
25 producing geothermal resources in commercial quantities, the failure
26 to pay rental on or before the anniversary date terminates the lease by
27 operation of law. However, whenever the commissioner discovers that
28 the rental payment due under a lease is paid timely but the amount
29 of the payment is deficient because of an error or other reason and

1 the deficiency is nominal, as determined by the commissioner under
2 regulations promulgated by him, he shall notify the lessee of the
3 deficiency and the lease shall not automatically terminate unless the
4 lessee fails to pay the deficiency within the period prescribed in
5 the notice. If a lease has been terminated automatically by operation
6 of law under this paragraph for failure to pay rental timely and it is
7 shown to the satisfaction of the commissioner that the failure to pay
8 rental timely and it is shown to the satisfaction of the commissioner
9 that the failure to pay timely the lease rental was justifiable or
10 not due to a lack of reasonable diligence, he in his judgment may
11 reinstate the lease if

12 (A) a petition for reinstatement, together with the
13 required rental, is filed with the commissioner, and

14 (B) no valid lease has been issued affecting any of
15 the lands in the terminated lease before the filing of the petition
16 for reinstatement.

17 (4) A permit or lease issued under this section may be
18 assigned, transferred, or sublet as provided for by law, or under regu-
19 lations promulgated by the commissioner.

20 (5) The holder of a geothermal lease or permit at any time
21 may make and file in the appropriate land office a written relinquish-
22 ment or quit claim of all rights under the lease or permit or of any
23 legal subdivision of the area covered by the lease or permit. The
24 relinquishment is effective as of the date of its filing. Thereupon
25 the lessee or permittee is released of all obligations accruing under
26 the lease or permit with respect to the land relinquished, but no
27 relinquishment releases the lessee or permittee, or his surety or
28 bond, from liability for breach of any obligation of the lease or
29 permit, other than an obligation to drill, accrued at the date of

1 the relinquishment, or from the continued obligation, in accordance
2 with the applicable lease or permit, terms and regulations,

3 (A) to make payment of all accrued rentals and royalties,

4 (B) to place all wells on the relinquished lands in
5 condition for suspension or abandonment, and

6 (C) to protect or restore substantially the surface
7 and surface resources.

8 (6) The commissioner, upon application by the lessee or
9 permittee, may authorize the lessee or permittee to suspend operations
10 and production on a producing lease or permit and he may, on his own
11 motion in the interest of conservation suspend operations on any
12 lease or permit but in either case he may extend the lease term for
13 the period of any suspension, and he may waive, suspend, or reduce
14 the rental or royalty required in the lease or permit.

15 (7) Leases or permits may be terminated by the commissioner
16 for any violation of the regulations or lease or permit terms, or of this
17 section after 30 days notice provided that the violation is not
18 corrected within the notice period, or in the event the violation is
19 of a nature that it cannot be corrected within the notice period then
20 provided that lessee or permittee has not started in good faith
21 within the notice period to correct the violation and thereafter to
22 proceed diligently to correct the violation. The lessee or permittee
23 is entitled to a hearing on the matter of the claimed violation or
24 proposed termination of lease or permit if request for a hearing is
25 made to the commissioner within the 30-day period after notice. The
26 period for correction of violation or commencement to correct the
27 violation of regulations or of lease terms or of this section shall be
28 extended to 30 days after the commissioner's decision after the hearing
29 if the commissioner finds that a violation exists.

1 (p) CONSERVATION; PREVENTION OF WASTE, POLLUTION. (1) All
2 leases or permits under this section are subject to the condition
3 that the lessee or permittee will, in conducting his exploration,
4 development and production operations, use all reasonable precautions
5 to protect the environment and to prevent pollution of the state's
6 waters and waste of geothermal resources developed in the land leased
7 or granted for prospecting under a permit.

8 (2) With the approval of the commissioner, a permittee or
9 lessee may drill special wells, convert producing wells or reactive
10 and convert abandoned wells for the sole purpose of reinjecting geo-
11 thermal resources of their residue.

12 (3) The owner or operator of a geothermal well on land
13 producing or reasonably presumed to contain geothermal resources
14 shall properly construct the well in accordance with methods approved
15 by the commissioner. The owner or operator shall make every reasonable
16 effort to prevent damage to life, health, property and natural re-
17 sources, to protect the geothermal resources deposits from damage or
18 waste, to shut out detrimental substances from underground strata
19 containing water suitable for irrigation or domestic purposes and from
20 surface water suitable for these purposes, and to prevent the infil-
21 tration of detrimental substances into these strata and into surface
22 water.

23 (4) The commissioner shall require those tests of remedial
24 work of the owner or operator of a geothermal well that in his judg-
25 ment are necessary to prevent damage to life, health, property, and
26 natural resources, to protect geothermal resources deposits from damage
27 or waste, or to prevent the pollution of the state's waters by the
28 infiltration of detrimental substances into underground or surface
29 water suitable for irrigation or domestic purposes, for the best

1 interests of the neighboring property owners and the public. To this
2 end he may request the assistance of the Department of Health and
3 Welfare under AS 46.05.

4 (5) Any act by a lessee or permittee, or by an owner or
5 operator of a geothermal well, that pollutes the state's waters in
6 violation of AS 46.05 shall be punished in accordance with AS 46.05.-
7 210.

8 (6) Subject to (n)(7) of this section, leases or permits
9 may be cancelled by the commissioner for any persistent, repeated
10 violations of the Water Pollution Control Act (AS 46.05). On recommenda-
11 tion of the director, the commissioner shall request the district at-
12 torney in the judicial district where the alleged violation occurs,
13 or the attorney general, to bring an action to enjoin the acts pro-
14 hibited by AS 46.05, or to impose the penalties authorized by AS 46.-
15 05.210. Nothing in this paragraph precludes the imposition of both
16 injunctive relief, the criminal penalties, and cancellation of the
17 lease or permit, or any combination of these remedies, that the com-
18 missioner or the court consider appropriate.

19 (q) DEFINITIONS. In this section

20 (1) "byproduct" means any mineral or minerals (exclusive
21 of oil, hydrocarbon gas, helium or other hydrocarbon substances)
22 which are found in solution or in association with geothermal resources
23 and which have a value of less than 75 per cent of the value of the
24 geothermal resource or are not, because of quantity, quality, or
25 technical difficulties in extraction and production, of sufficient
26 value to warrant extraction and production by themselves;

27 (2) "commissioner" means the commissioner of the Department
28 of Natural Resources;

29 (3) "department" means the Department of Natural Resources;

1 (4) "director" means the director of the division of lands
2 in the Department of Natural Resources;

3 (5) "division" means the division of lands in the Department
4 of Natural Resources;

5 (6) "geothermal resources" means the natural heat of the
6 earth, the energy, in whatever form, below the surface of the earth
7 present in, resulting from, or created by, or which may be extracted
8 from, the natural heat, and all minerals in solution or other products
9 obtained from naturally heated fluids, brines, associated gases, and
10 steam, in whatever form, found below the surface of the earth, ex-
11 clusive of oil, hydrocarbon gas, helium or other hydrocarbon sub-
12 stances, but including, specifically:

13 (A) all products of geothermal processes, embracing
14 indigenous steam, hot water and hot brines;

15 (B) steam and other gases, hot water and hot brines
16 resulting from water, gas, or other fluids artificially intro-
17 duced into geothermal formations;

18 (C) heat or other associated energy found in geo-
19 thermal formations; and

20 (D) any byproduct derived from them;

21 (7) "geothermal area" means a surface area which is under-
22 laid, or reasonably appears, to be underlaid by geothermal resources;

23 (8) "known geothermal resources area" means an area in
24 which the geology, nearby discoveries, competitive interests, or
25 other indicia would, in the opinion of the commissioner, engender
26 a belief in men who are experienced in the subject matter that the
27 prospects for extraction of geothermal resources are good enough to
28 warrant expenditures of money for that purpose;

29 (9) "lease" means a geothermal lease issued under this

1 section;

2 (10) "operator" means any person drilling, maintaining,
3 operating, pumping, or in control of any well; "owner" includes
4 "operator" when any well is operated or has been operated or is about
5 to be operated by any person other than the owner; "operator" includes
6 "owner" when any well is or has been or is about to be operated under
7 the direction of the owner;

8 (11) "permit" means a prospecting permit issued under this
9 section;

10 (12) "person" includes any individual, firm, association,
11 corporation or any other group or combination acting as a unit;

12 (13) "well" means any well for the discovery of geothermal
13 resources or any well on land producing geothermal resources or
14 reasonably presumed to contain geothermal resources, or any special
15 well, converted producing well or reactivated or converted abandoned
16 well employed for reinjecting geothermal resources or their residue.

17 (r) CONSTRUCTION. This section shall operate prospectively and
18 shall be liberally construed to meet its objectives, and the commis-
19 sioner and director have all the powers necessary to carry out the
20 purposes of this section.

21 (s) SHORT TITLE. This section may be cited as the Geothermal
22 Resources Act of 1971.

23 * Sec. 2. AS 38.05.135 is amended to read:

24 Sec. 38.05.135. GENERALLY. Except as otherwise provided, valu-
25 able minerals deposits in lands belonging to the state shall be open
26 to exploration, development, and the extraction of minerals. All lands,
27 together with tide, submerged, or shorelands, to which the state holds
28 title or to which the state may become entitled, may be obtained by
29 permit or lease for the purpose of exploration, development, and the

1 extraction of minerals. Except as specifically limited by secs. 135 -
2 181 [180] of this chapter, lands may be withheld from lease application
3 on a first-come, first-served basis, and offered only on a competi-
4 tive bid basis when determined by the commissioner to be in the best
5 interests of the state. In unproven areas the commissioner may offer
6 additional incentives, including a reduction of royalty to a minimum
7 of five per cent in the case of oil and gas, and other terms in
8 granting permit or lease for exploration and development whenever it
9 appears to be in the best interests of the state to do so.

10 * Sec. 3. AS 38.05.140(a) is amended to read:

11 (a) No person may take or hold coal leases or permits during the
12 life of coal leases on state lands exceeding an aggregate of 46,080
13 acres, except that a person may apply for coal leases or permits
14 for acreage in addition to 46,080 acres, not exceeding a total of
15 5,120 additional acres of state land. The additional area applied
16 for shall be in multiples of 40 acres and the application shall contain
17 a statement that the granting of a lease for additional lands is
18 necessary for the person to carry on business economically and is in
19 the public interest. On the filing of the application, the coal
20 deposits in the lands covered by the application shall be temporarily
21 set aside and withdrawn from all other forms of disposal provided
22 under secs. 135 - 181 [180] of this chapter.

23 * Sec. 4. AS 38.05.140(d) is amended to read:

24 (d) The commissioner, for the purpose of encouraging the greatest
25 ultimate recovery of coal, oil, gas, oil shale, phosphate, sodium,
26 potassium, [AND] sulphur, and geothermal resources and in the interest
27 of conservation of natural resources, after public hearing, or, when
28 the state's title to land beneath navigable waters has been legally
29 challenged by the United States and litigation initiated, may waive,

1 suspend, refund, or reduce the rental, or minimum royalty, or reduce
2 the royalty on an entire leasehold, or on any tract or portion of a
3 leasehold segregated for royalty purposes, whenever in his judgment
4 it is necessary to do so in order to promote development, or whenever
5 in his judgment the lease cannot be successfully operated under its
6 terms. If the commissioner, in the interest of conservation, directs
7 or assents to the suspension of operations and production under a
8 lease granted, the payment of acreage rental or of minimum royalty
9 prescribed by the lease may be suspended during the period of sus-
10 pension of operations and production. The term of the lease shall be
11 extended by adding the period of suspension to the lease.

12 * Sec. 5. AS 38.05.145(a) is amended to read:

13 (a) Deposits of coal, phosphates, oil shale, sodium, potassium,
14 oil, gas, geothermal resources and state lands containing these
15 deposits are subject to disposition under rules and regulations,
16 recommended by the director and adopted by the commissioner, and the
17 provisions of secs. 145 - 181 [180] of this chapter. In applying
18 the acreage limitations the commissioner may apply the rule of approxi-
19 mation. The uses of the rule of approximation made before March 31,
20 1960, by the commissioner are ratified.

21 * Sec. 6. AS 38.05.145(b) is amended to read:

22 (b) If the state selects or otherwise acquires land other than
23 shorelands, title to which was in the federal government and which,
24 at the effective date of the selection or acquisition, is subject to
25 a valid existing offer for a noncompetitive United States oil and gas
26 lease, or application for a prospecting permit or noncompetitive
27 mining lease, for coal, phosphates, sulphur, oil shale, sodium, or
28 potassium under the federal act of February 25, 1920 (41 Stat. 437
29 as amended), for a noncompetitive United States geothermal lease,

1 or application for a prospecting permit or noncompetitive lease under
2 the federal act of December 24, 1970 (84 Stat. 1566). The [THE]
3 offeror or applicant for the federal permit or lease, if a qualified
4 applicant hereunder, shall be considered the first qualified applicant
5 for a state noncompetitive oil and gas lease, prospecting permit, or
6 noncompetitive mining lease and is entitled to a state noncompetitive
7 lease or permit upon compliance with the provisions of the regulations
8 covering applications within 60 days after receipt of written notice
9 from the commissioner of selection or acquisition. These priorities
10 are not effective if the land covered by the federal offers or appli-
11 cations is classified by the commissioner as competitive land within
12 90 days after the selection of the land is finally approved by the
13 Secretary of the Interior or the land is otherwise acquired.

14 * Sec. 7. AS 38.05.182 is amended to read:

15 Sec. 38.05.182. ROYALTY ON NATURAL RESOURCES. Any royalty pro-
16 vided for in secs. 135 - 181 [180] of this chapter may be taken in
17 kind rather than in money at the discretion of the commissioner if he
18 determines that the taking in kind would be in the best interest of
19 the state.
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