

Geothermal Leasing

DNR has held a total of three geothermal lease sales, all for areas along the southern flanks of Mount Spurr, located about 40 miles northwest of Tyonek. The first two sales, held in 1983 and 1986, did not result in any development. In 2006, amid renewed interest in Alaska's geothermal resource potential, DNR received requests from industry to make Mt. Spurr available for geothermal leasing again. On September 10, 2008, DNR held the Mount Spurr Geothermal Lease Sale No. 3, and received 20 bids on all 16 available tracts, generating \$3,527,073.34 in bonus bids.

DNR has also received interest in geothermal resource development on Augustine Island, located in lower Cook Inlet. DNR is currently in the process of evaluating the area. A finding to determine whether it is in the state's best interest to offer the area for geothermal leasing is expected to be completed in 2011.

The increasing interest in geothermal resources is further evidenced by two additional exploration projects taking place on private land, one on the Alaska Peninsula near Naknek, and one currently underway in the Aleutians at Akutan.

Geothermal leasing procedures are set out in 11 AAC 84.700 through .950. For areas of known geothermal potential, the commissioner may designate a proposed geothermal disposal area comprised of individual tracts of not more than 2,560 acres, and invites public comment on the proposed area, and applications for the tracts during a specified time period. After reviewing available geologic information and the response to the call for applications, the commissioner determines whether to offer the tracts for competitive leasing, or issue noncompetitive geothermal prospecting permits. Noncompetitive prospecting permits may be issued for tracts receiving only one application; tracts receiving two or more applications must be leased competitively. A decision that the lease sale is in the best interests of the state of Alaska, or "Best Interest Finding," is required before the lease sale can occur.

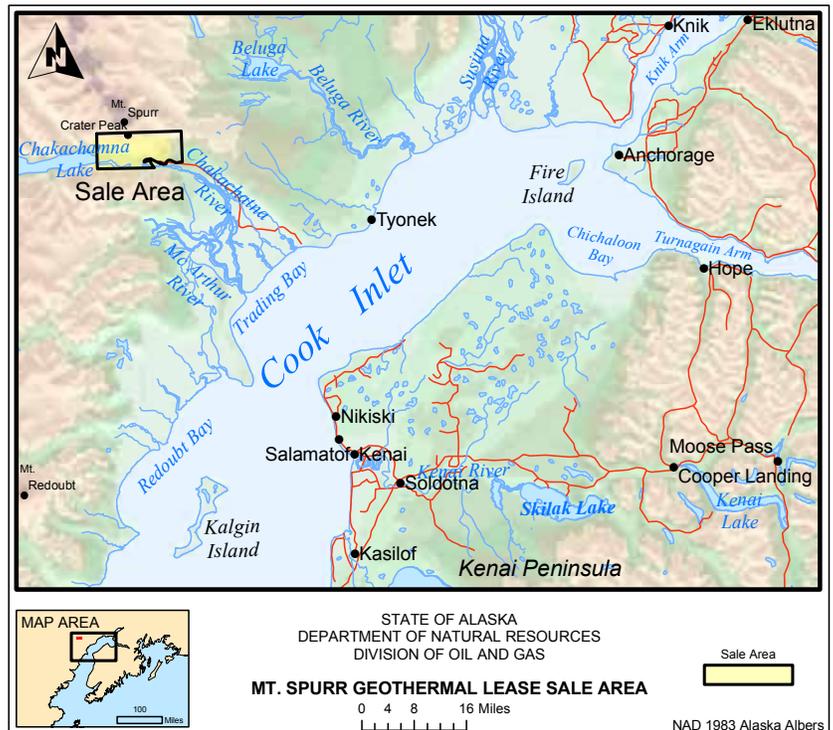
The competitive geothermal lease sale process is conducted in the same manner as for oil and gas lease sales,

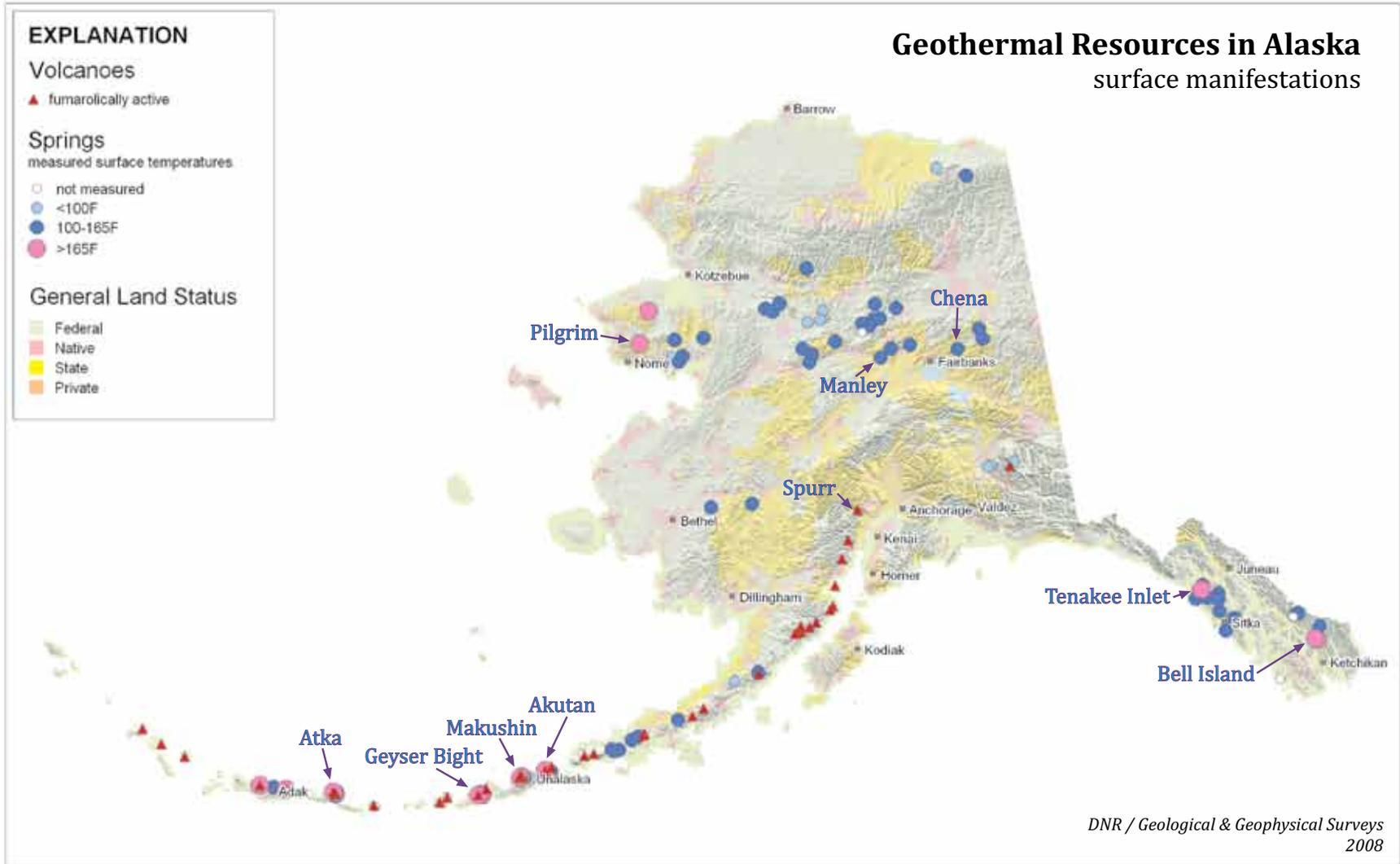
which consist of a public opening and reading of sealed bonus bids. The highest qualified bidder per acre on a tract is awarded the lease.

Geothermal leases are issued for a primary term of ten years, with one five year extension possible if the lessee has begun operations necessary to drill a geothermal well. Geothermal lease extension requirements are set out in 11 AAC 84.745. Once commercial production has begun, leases will be extended for the duration of commercial production. Annual lease rentals are \$3 per acre, and the state's royalty rate is 1.75 percent of the gross revenues derived from the production, sale, or use of geothermal resources under the lease during the first 10 years immediately following the date the geothermal resources first generates gross income, and 3.5 percent of the gross revenues derived from the production, sale or use of geothermal resources under the lease after that first 10 year period.

For more information on the state's geothermal leasing program, please see the division's web page at

<http://www.dog.dnr.state.ak.us/oil/products/publications/geothermal/geothermal.html>





Data from: Motyka, R.J., Moorman, M.A., and Liss, S.A., 1983, Geothermal resources of Alaska: Alaska Division of Geological & Geophysical Surveys Miscellaneous Publication 8, 1 sheet, scale 1:2,500,000.
<http://www.dggs.dnr.state.ak.us/pubs/pubs?reqtype=citation&ID=671>

Mt. Spurr Geothermal Lease Sale No. 3



Sale Results Summary Mt. Spurr Geothermal Lease Sale No. 3

Date of Sale: 9/10/2008
Bidding Method: Cash Bonus Bid, Fixed Royalty

Final Report
9/19/2008

Total Tracts Sold: 16
Total Acres Sold: 36,057.13
Min Bid Per Acre: \$1.00
Royalty %: 10.00000%

Highest Bid: \$1,529,400.00
Tract Number: 3
Submitted By: Ormat Nevada Inc.

Total Number of Valid Bids: 20
Total High Bonus Bids: \$3,527,073.34
Total Exposed (Sum Of All Valid Bids): \$3,570,069.44
Average High Bonus Bid Per Acre: \$90.44

Highest Bid/Acre: \$600.00
Tract Number: 3
Submitted By: Ormat Nevada Inc.

| Bidder Company or Group Name | Number of Tracts Bid | Total of All Bids | Number of Tracts Won | Total of High Bids |
|--|----------------------|-------------------|----------------------|--------------------|
| ORMAT NEVADA INC. 100.00000% | 16 | \$3,522,816.93 | 15 | \$3,522,066.24 |
| ICELAND AMERICA ENERGY INC. 100.00000% | 3 | \$42,245.41 | 0 | 0 |
| Chad Attermann 100.00000% | 1 | \$5,007.10 | 1 | \$5,007.10 |

The royalty rate is 10.0% of the gross revenues derived from the production, sale or use of geothermal resources under the lease.

Active Geothermal Leases

| Location | ADL | Lessee | Acres | Effective Date | Expires |
|-----------|-----------------|-------------------|-----------|----------------|------------|
| Mt. Spurr | 391354 - 391368 | Ormat Nevada Inc. | 35,806.90 | 11/1/2008 | 10/31/2018 |
| Mt. Spurr | 391369 | Chad Attermann | 250.23 | 11/1/2008 | 10/31/2018 |

