Elements of Geothermal Leases

Part I

By Kevin Talkington
THE PURVEYORS OF ALL THINGS PARCEL DATA (IN CALIFORNIA)
58 counties. 13 Million Parcels.

All of California. Up to Date. Online.

Looking for California property data and California parcel maps? ParcelQuest is the sole provider of the most current California property data available online. With complete data, up-to-date maps, flexible searching and robust reporting, ParcelQuest makes it easy to get your job done quickly and accurately.
How current is ParcelQuest’s Data?

ParcelQuest has been working with California's county assessors for decades. In most counties (44), ParcelQuest receives updates on a **DAILY** basis. In addition to standardizing county assessor data in order to make it available to individuals and government agencies, ParcelQuest also helps the county assessors' offices with their own internal needs.
With ParcelQuest’s Online product, you can...

- Identify owners and property profiles
- See parcel boundaries & APN maps
- Generate profiles, sales comps, recorded docs and more
- Produce mailing lists and reports

ParcelQuest is perfect for...

- Realtors, appraisers, government agencies, engineers, surveyors, and more!
- Those requiring broad content from tax assessors, tax recorders, FEMA, USDA & others
Use ParcelQuest to **Locate Owners & Property Profiles**

ParcelQuest’s Online product starts with the assessors' data and complements it with all the information you need from other official government sources. The result? A complete picture of every property without compromising the integrity of the original assessor data.
Use ParcelQuest to **View & Edit Parcel Maps**

ParcelQuest Online’s assessor parcel maps are the clearest available. Even tiny lot dimensions are legible. All maps are included — assessor map pages, book index maps and county-wide index maps — giving you the big picture options you need. You can also zoom, pan and customize maps!
Use ParcelQuest to **See Street, Aerial Maps, & Visual Layers**

See your search results on an aerial photo or street map, and get additional information about your property in context. PQ Online also offers many other visual layers which you can use to customize and enhance maps with additional visual information - from boundary lines to topography to fire hazard severity.
What about ParcelQuest G.I.S?

ParcelQuest’s GIS files and data sets are continually updated to reflect accurate county assessor data for all 58 counties in California. The data is standardized and updated the GIS parcel layers are realigned constantly, using our own in-house drafting staff. This means that our files are an accurate reflection of the latest parcel boundaries and assessor information, including ownership, assessments, sales and property characteristics.
Elements of a Geothermal Lease

- Where did the terms and provisions of the geothermal lease and agreement come from?
- Joseph Aidlin drafted the Magma Power Company geothermal lease for the Geysers Development Company lands signed February 9, 1955. It is still in effect today, almost 60 years later.
Elements of a Geothermal Lease

- Date, Parties
- Consideration
- Legal Description
- Easements & Rights of Way on adjoining lands
- Granting Provisions
- Definitions
- Primary Term
- Rental Provision
- Royalty
- Unitization
- Protections for the Lessor
- Slant Wells
Elements of a Geothermal Lease

**Lease Date**

– The date it is signed by the Lessor, or
– The date it is signed by the Lessee, or
– Some other agreed upon date.

**Parties**

– Lessor (e.g. Sam and Betsy Smith, as Trustees of the Sam and Betsy Smith Family Trust dated 1/2/2003)
– Lessee (e.g. Geysers Power Company, LLC, a Delaware limited liability company)
Elements of a Geothermal Lease

- Consideration (usually it’s money!)
Elements of a Geothermal Lease

• **Legal Description**
  
  – Usually it should match what’s on the inception deed
  – Verify that the description covers all of the land
  – Do not depend on an Assessor’s Parcel Number, but the Assessor sometimes requires the number be included with the description

**Tools:**

– Master Title Plat/Leaseable Resources Plat (BLM)
– Assessor’s Parcel Map
– Record of Survey Map
Elements of a Geothermal Lease

• Easements & Rights of Way, etc. on Adjoining Lands

– This may be your only means of access!
Elements of a Geothermal Lease

• Granting Provisions
  – **Sole and exclusive right** to explore for and if found develop the geothermal resource
  – Produce, extract, remove, convert to electrical energy and sell hot water, steam, and thermal energy and extractable minerals
  – To use the surface of the leased land for wells, power plants, pipelines, etc., etc., etc.
Elements of a Geothermal Lease

• Definitions (for complex terms)

- Hot water, steam, and thermal energy
- Extractable Minerals
- Leased Substances
- Geothermal Resources
- Power Potential
- Sufficient Power Potential
- Commercial
- Direct Utilization
Elements of a Geothermal Lease

- Primary Term

- This lease shall last for a term of ____ years from and after the date hereof and for so long thereafter as Leased Substances be produced in Commercial quantities, etc.
Elements of a Geothermal Lease

- Drilling at the end of the Primary Term to extend the lease term
  - Must provide language that keeps lease in force even though the Primary Term has expired.
  - If drilling results in a well capable of producing in commercial quantities, lease should provide that you then have a specific period of time, perhaps 5 years, to enter into a bona fide contract for the sale of steam or electricity.
  - The annual rental payment can convert to an advance royalty and continue to get paid annually.
Elements of a Geothermal Lease

• Annual Rental

- Also known as the Delay Rental clause, it keeps the lease in force and effect until a well is drilled or the land is unitized with other lands that have a well or wells capable of producing. The amount is usually some dollar amount multiplied by the number of acres in the lease.
Elements of a Geothermal Lease

• Royalty!
Elements of a Geothermal Lease

• Unitization
  - When multiple leases overlie a reservoir that you have scientific data to support, you can combine them into a unit or pool. Production from the unit is typically shared based on the acreage of the lease as it bears to the acreage of the unit (it does not matter on which lease the wells are drilled).
Elements of a Geothermal Lease

• Protections for the Lessor

Examples:
- No well shall be drilled within 500 feet of any residence or barn w/o lessor consent
- Lessee shall fence all sump holes and upon abandonment level them
- Lessee shall remove all debris and leave the premises used in operations in a clean and sanitary condition.
- Protection against liens arising from operations
- Maintain adequate Workmen’s Compensation Insurance
- Protect against damages of every kind and character arising from operations
Elements of a Geothermal Lease

• Slant Well Provision

  - Want to be able to go through one lease into another downhole while drilling.
  - Sometimes you might get production from more than one lease in a single well, such a well is known as a “split well”.


Well Planning
Proposed Aidlin 10 Fork well track
In purple - projected to 9000' Subsea

Real-Time Drilling Assessment
23 December 2013 Actual Aidlin FK2 RD2 well track
In green - projected to 9000' Subsea

Greenstone (green) Serpentine (purple) Graywacke (pink) Chert (rust) Schist (orange)
Steam Entries are red disks; scaled by pressure increase