

# Geothermal XML Product Data Services

## Query Parameters and Options

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### About

Several XML data services are currently available from OSTI collections. This service searches Geothermal Technologies Legacy data.

The examples provided in this document were copied from XML results in Microsoft Internet Explorer. Results may appear slightly different in other browser windows.

### Getting Started

The Geothermal XML product data service is available from the URL listed below.

<i>Data Service Name</i>	<i>XML Data Service URL</i>
Geothermal Technologies Legacy Collection Data	<a href="http://www.osti.gov/geoxml/">http://www.osti.gov/geoxml/</a>

The default number of records returned per page is 100 and the maximum number of records returned per page is 3000.

This service accepts the parameters discussed below.

### Using the XML Data Services

The parameters for each service are: `?CriteriaKeyword=` where `CriteriaKeyword` is replaced by one of the criteria keywords listed below. A blank query will return the entire result set for the given XML Service.

**Please note that criteria keywords are case-sensitive and must be entered as shown in the table below.**

<i>Criteria Keyword</i>	<i>Data/Field Searched</i>
searchFor	by all metadata fields and full text

FullText	by document full text only
Biblio	by all bibliographic metadata fields (Title, Author, Subject, etc.) only
Author	by author/creators
Title	by document titles
Language	by document publication language
Country	by document publication country
Subject	by document keywords/subject
Identifier	by document identifying numbers (e.g., report
SponsorOrg	by Sponsoring Organization (e.g. USDOE)
ResearchOrg	by Originating Research Organization
Type	by publication type (e.g., Book, Technical Report, Dataset etc.)
PubDateFrom	limit results to documents published after the specified date (in MM/DD/YYYY format)
PubDateTo	limit results to documents published before the specified date (in MM/DD/YYYY format)
EntryDateFrom	limit results to documents entering or being updated after the specified date (in MM/DD/YYYY format)
EntryDateTo	limit results to documents entering or being updated before the specified date (in MM/DD/YYYY format)

### Example

The URL for a search on “geodesy” in all fields of Geothermal data would be:

<http://www.osti.gov/geoxml/?searchFor=geodesy>

The results would look similar to the example records below.

```

<?xml version="1.0" encoding="UTF-8"?>
- <rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:dcq="http://purl.org/dc/terms/" xmlns:dc="http://purl.org/dc/elements/1.1/">
  - <records end="71" start="1" morepages="false" count="71" queryid="1">
    - <record rownumber="1">
      <dc:ostiId>5332692</dc:ostiId>
      <dc:identifier>5332692</dc:identifier>
      <dc:title>Foundations of geophysics. [College textbook]</dc:title>
      <dc:authors>Scheidegger, A.E.</dc:authors>
      <dc:pubDate>1976-01-01</dc:pubDate>
      <dc:language>English</dc:language>
      <dc:dateEntry>2006-08-24</dc:dateEntry>
      <dc:resourceType>Book</dc:resourceType>
      <dc:citation>http://www.osti.gov/scitech/biblio/5332692</dc:citation>
      <dc:subject>58 GEOSCIENCES; 15 GEOTHERMAL ENERGY; GEOPHYSICS; REVIEWS;
        GEODESY; GEOLOGY; GEOPHYSICAL SURVEYS; GRAVITY SURVEYS; HYDROLOGY;
        METEOROLOGY; OCEANOGRAPHY; SEISMOLOGY; TECTONICS; DOCUMENT
        TYPES</dc:subject>
    </record>
    - <record rownumber="2">
      <dc:ostiId>20215607</dc:ostiId>
      <dc:identifier>20215607</dc:identifier>
      <dc:title>Volume strain within the Geysers geothermal field</dc:title>
      <dc:authors>Mossop, Antony [Department of Geophysics, Stanford University, Stanford,
        California (United States)]; Segall, Paul [Department of Geophysics, Stanford
        University, Stanford, California (United States)]</dc:authors>
      <dc:pubDate>1999-12-10</dc:pubDate>
      <dc:language>English</dc:language>
      <dc:dateEntry>2010-06-03</dc:dateEntry>
      <dc:resourceType>Journal Article</dc:resourceType>
      <dc:citation>http://www.osti.gov/scitech/biblio/20215607</dc:citation>
      <dc:subject>58 GEOSCIENCES; 15 GEOTHERMAL ENERGY; GEYSERS GEOTHERMAL FIELD;
        GEOTHERMAL ENERGY; STRAINS; GEODESY; GEOPHYSICAL SURVEYS; EARTHQUAKES;
        SEISMICITY; STRAIN RATE; MECHANICAL PROPERTIES; EXPERIMENTAL DATA;
        THEORETICAL DATA</dc:subject>
    </record>
  </records>
</rdf:RDF>

```

## Additional Search Option

The Geothermal XML service has an additional search option that applies only to this particular data service.

<i>Additional Criteria Keywords</i>	<i>Search Option Selected</i>	<i>XML Service</i>
collection	Specifies the type of collection to search: "L" indicates GEOTHERMAL TECHNOLOGIES LEGACY COLLECTION DATA ONLY	Only applies to the <b>Geothermal XML Data Service</b>

## Wildcards

Queries using wildcard operators can be performed. The asterisk (\*) is used to search for words with spelling variations or contain a specified pattern of characters.

## Example

The following URL will return all the items with “sustain” and any words with “sustain” as a stem in the title of Geothermal data.

[http://www.osti.gov/geoxml/?Title=sustain\\*](http://www.osti.gov/geoxml/?Title=sustain*)

The following truncated results are returned.

```
<dc:title>Sustainable development of geothermal fields in the Pannonian basin - a case study</dc:title>

<dc:title>Geothermal sustainability, heat utilization, and the advanced binary technology solution</dc:title>

<dc:title>IEA Task V: Sustainability of geothermal energy utilization</dc:title>

<dc:title>Turning community wastes into sustainable energy</dc:title>
```

## Multiple Search Terms

Multiple search terms and terms that require spaces can be separated by the plus symbol (+) or using the Boolean AND operator.

### Example

The URL for a search for “sustainable” and “development” in the Geothermal Technologies Legacy Collection would be:

<http://www.osti.gov/geoxml/?searchFor=sustainable+development>

or:

<http://www.osti.gov/geoxml/?searchFor=sustainable%20AND%20development>

The characters, %20, must be added before and after the AND operator.

The following truncated results are returned.

```
- <record rownumber="3">
  <dc:ostiId>472112</dc:ostiId>
  <dc:identifier>CONF-960124--</dc:identifier>
  <dc:title>Sustainable development of geothermal fields in the Pannonian basin - a case study</dc:title>
  <dc:authors>Panu, D.; Mitrofan, H. [FORADEX S.A., Bucharest (Romania)]; Serbu, V. [DATA EXPERT S.R.L., Bucharest (Romania)]</dc:authors>
  <dc:pubDate>1996-12-31</dc:pubDate>
  <dc:language>English</dc:language>
  <dc:dateEntry>2006-08-24</dc:dateEntry>
  <dc:resourceType>Conference</dc:resourceType>
  <dc:citation>http://www.osti.gov/scitech/biblio/472112</dc:citation>
  <dc:subject>15 GEOTHERMAL ENERGY; EUROPE; GEOTHERMAL RESOURCES; GEOTHERMAL FIELDS; RESOURCE DEVELOPMENT; RESERVOIR PRESSURE; RESERVOIR ENGINEERING</dc:subject>
</record>
```

Searches using the Boolean OR operator can also be performed, retrieving records with one search term or the other.

### Example

The URL for a search for “sustainable” or “development” in the Geothermal Technologies Legacy Collection would be:

<http://www.osti.gov/geoxml/?searchFor=sustainable%20OR%20development>

Like the AND operator, the characters, %20, must be added before and after the OR operator.

### Exact Phrase Search

Exact phrases can be searched by surrounding the search terms in double quotation marks (“ ”).

### Example

The following URL searches records containing the exact phrase “sustainable development” in the title of Geothermal Technologies Legacy Collection data.

[http://www.osti.gov/geoxml/?Title="sustainable development"](http://www.osti.gov/geoxml/?Title=\)

The following truncated Title is returned.

`<dc:title>Sustainable development of geothermal fields in the Pannonian basin - a case study</dc:title>`

### Search Options

The default number of results per page is 100 and the maximum number of records returned per page is 3000.

The following table lists various search options that can be used to sort results.

<b><i>Additional Criteria Keywords</i></b>	<b><i>Search</i></b>
SortBy	Sort results by a field name. Valid field names include: publication_date, screators, stitle, date_entry, ssponsor_org, sresearch_org, and relv (relevance score). By default, searches are sorted by relevance.
SortOrder	Selects the direction of the sort, either ASC (ascending) or DESC (decending)
query_id	Indicates the ID of a query previously performed in a browser session.
nrows	Indicates the number of records desired per page of results.
page	Request a particular page of search results. The first page of results is returned by default.

One or more search options may be specified in the URL. Specify each as with search criteria, separated by ampersands (“&”). The number of desired results per page and an option to request additional pages of information may also be specified.

## Sorting

Results may be sorted by a number of specifications including: `publication_date`, `creator`, `title`, `date_entry`, and `relv` (relevance). Results can be sorted either in ascending (ASC) or descending (DESC) order. Results are sorted in descending order by default.

### Example

The URL for a Geothermal Technologies Legacy Collection data search for the exact phrase “sustainable development” in the full text field sorted by the date of publication would be:

[http://www.osti.gov/geoxml/?FullText="sustainable\\_development"&SortBy=publication\\_date](http://www.osti.gov/geoxml/?FullText=)

By default, results are sorted by relevance. While relevance sorting is helpful in some circumstances, sorting results by publication date might be more helpful in most other situations. This ensures the results viewed first are the most up-to-date records.

## Requesting Additional Pages

By default, a search request returns the first page of results if additional pages are available. The page search option can return multiple pages of search results. The maximum records per page returned are 3000; to access additional records use the page parameter. **Please note that the page count begins at zero (0).**

### Example

The second page of results for a search on plasma can be obtained with the following URL.

<http://www.osti.gov/geoxml/?searchFor=plasma&page=2>

The number of records (count), starting record, and end record are found near the top of the XML results.

```
<records end="200" start="101" morepages="true" count="413">
```

The “morepages” tag indicates whether or not additional pages for a specific search are available. If additional pages are available, then the tag reads: `morepages="true"`. If additional pages are not available, then the tag reads: `morepages="false"`.

## Additional Formats

Results may be returned in Comma-Separated Values (CSV) format by using the “format” parameter.

### Example

The URL for a Geothermal Technologies Legacy Collection data search for the exact phrase “sustainable development” in the full text field returned in CSV format would be:

[http://www.osti.gov/geoxml/?FullText="sustainable\\_development"&format=csv](http://www.osti.gov/geoxml/?FullText=)