Since 1965, The Petroleum Abstracts (PA) Service at The University of Tulsa has developed and maintained an Exploration & Production thesaurus used to index and classify the technical articles abstracted by the service. Originally the Exploration & Production Thesaurus, the taxonomy consisted of words and terms representing technical concepts important to the industry. In 1970, the Geographic Thesaurus was created that contained terms describing sedimentary basins, named geologic features and geographic areas. The taxonomy also contains company names and specific chemical names.

The terms are interrelated on the concept-oriented (faceted) principle, with the taxonomy containing eleven facet headings. Most terms in the taxonomy are classified into a hierarchy of concepts and numerous cross references are included to aid the indexer and searcher in finding the proper term to describe a particular concept. In addition, many synonyms are structured to point the way to preferred terms. The taxonomy is updated daily by a team of engineers and earth scientists.

The main categories covered include alternate fuels and energy sources; business and economics; drilling; geochemistry; geology; geophysics; health, safety and environment; pipelining, shipping and storage; production of oil and gas; reservoir engineering and recovery methods; science and engineering; well completion and servicing; and well logging and surveying.

For many years, the taxonomy was published as a series of books and hard copy lists. In 2003, the taxonomy was developed into the Bricks Web based system that provides the user with a number of tools useful in locating specific terms. There are currently some 70,000 terms and identified synonyms contained in the Bricks system maintained by PA.

Terms are currently limited to a maximum length of 26 characters, including spaces between words. For longer terms, abbreviations are required. Under each entry term, the following information is displayed: whether the term is valid or invalid, indexible or non-indexible, autopostable or non-autopostable, the entry date by month and year, and the number of times the term has been used in the Petroleum Abstracts database.

Under each entry term, one or more of the following entries may also be found:

- Complete spelling of an abbreviated entry term.
- SN (Scope Note) entries are used to restrict the scope of an index term or to define its meaning, to indicate previous (now invalid) scope notes, to tell when the term was first available for indexing, to show what terms were used previously to describe this concept, and to indicate changes in hierarchical relationships.
- US (Use) entries indicate the valid term used for indexing instead of the entry term.
PLS (Plus) indicates the second term of a two-term synonym; used with the USE statement.

UF (Used For) indicates an invalid term that is directed to the valid term under which it is listed.

WTH (With) indicates the second term of a two-term synonym; used with the UF statement.

NT (Narrow Term) designates a term which is a more specific subdivision of the entry term.

BT (Broad Term) designates one or more hierarchically related terms, of which the concept is a logical subdivision.

SA (See Also) usually designates terms that are related in meaning but not directly connected in a vertical hierarchical relationship. It may be used also to show terms of alternate or opposite meaning.

Bricks display example of a valid E&P term:

VISCOSOUS OIL RECOVERY

valid: yes
index: yes
autopost: yes
entered: 4/1965
used: 11038/6397

UF HEAVY OIL RECOVERY

BT OIL RECOVERY
  RECOVERY
    PHYSICAL OPERATION
    PROCESS

SA COLD PRODUCTION
SA IN SITU COMBUSTION
SA OIL MINING
SA OIL SAND
SA TAR SAND OIL RECOVERY
SA THERMAL RECOVERY
SA THERMIT STIMULATION
SA UNCONVENTIONAL OIL RECOVRY
SA VISCOSITY REDUCING
SA VISCOUS CRUDE OIL

Historical Notes:
BT (67---) OIL RECOVERY
Bricks display example of an invalid term:

**HEAVY OIL RECOVERY**

valid: no  
index: no  
apopost: no  
entered: 1/1965  
used: /

**US VISCIOUS OIL RECOVERY**

Bricks display example of Geographic valid term:

**RED SEA**

valid: yes  
index: yes  
apopost: yes  
entered: 2/1965  
used: 1410/764

**UF RED SEA AREA**  
**UF RED SEA BASIN**

**NT ALBATROSS DEEP**  
**NT AQABA GULF**  
**NT ATLANTIS II DEEP**  
**NT BAB EL MANDEB STRAITS**  
**NT CHAIN DEEP**  
**NT DAHLAK ARCHIPELAGO**  
**NT DISCOVERY DEEP**  
**NT KEBRIT DEEP**  
**NT NEREUS DEEP**  
**NT PORT SUDAN DEEP**  
**NT SARSO ISLAND**  
**NT SUAKIN DEEP**  
**NT VALDIVIA DEEP**

**BT SEAS AND OCEANS**  
**WORLD**

**SA FARASAN ISLANDS**  
**SA GREAT RIFT VALLEY**  
**SA MERSA ALEM AREA**  
**SA ZULA GULF**

Historical Notes:  
**ADDED FEBRUARY 1965**
Position

For the last 43 years PA has developed a thesaurus of terms representing technical concepts of the Petroleum Exploration and Production industry. The terms in the thesaurus have been selected based on abstracting and indexing more than 900,000 articles selected from a diverse body of technical literature including 300 journals, 250 conference proceedings, patent gazettes and full-text patents, government documents and reports, dissertations, books, maps and other sources. This thesaurus reflects the efforts of engineers, earth scientists and information professionals and should be a valuable tool in the development of Semantic Web Technologies for the Oil and Gas Industry.

Reference