

**TULSA (Petroleum Abstracts for Subscribers)/  
TULSA2 (Petroleum Abstracts for Non-Subscribers)**



- |                         |   |  |   |
|-------------------------|---|--|---|
| <b>Subject Coverage</b> | <ul style="list-style-type: none"> <li>• Alternate Fuels and Energy Sources</li> <li>• Drilling</li> <li>• Ecology and Pollution Geochemistry</li> <li>• Geology</li> <li>• Geophysics</li> </ul> | <ul style="list-style-type: none"> <li>• Mineral Commodities</li> <li>• Petroleum Exploration, Production, and Development</li> <li>• Pipelining and Storage</li> <li>• Production of Oil and Gas</li> </ul> | <ul style="list-style-type: none"> <li>• Reservoir Engineering and Recovery Methods</li> <li>• Supplemental Technology</li> <li>• Well Completion and Services</li> <li>• Well Logging</li> </ul> |
|-------------------------|---|--|---|

**File Type** Bibliographic

- Access**
- TULSA – Available only to Petroleum Abstracts Subscribers.
  - TULSA2 – For Petroleum Abstracts non-subscribers

- Features**
- |                                       |   |                       |                                     |                                      |
|---------------------------------------|---|-----------------------|-------------------------------------|--------------------------------------|
| Thesauri                              | Controlled Term (/CT)                                   |                       |                                     |                                      |
|                                       | International Patent Classification (/IPC)              |                       |                                     |                                      |
| <a href="#">Alerts (SDIs)</a>         | Weekly and Monthly (Weekly is the default) (TULSA only) |                       |                                     |                                      |
| <a href="#">CAS Registry Numbers®</a> | <input checked="" type="checkbox"/>                     | Page Images           | <input type="checkbox"/>            | STN AnaVist <input type="checkbox"/> |
| <a href="#">Keep &amp; Share</a>      | <input checked="" type="checkbox"/>                     | <a href="#">SLART</a> | <input checked="" type="checkbox"/> | STN Easy <input type="checkbox"/>    |
| Learning Database                     | <input type="checkbox"/>                                | Structures            | <input type="checkbox"/>            | STN Viewer <input type="checkbox"/>  |

- Record Content**
- Bibliographic information
  - Abstract (TULSA only)
  - Indexing Terms
  - Chemical Names

**File Size** More than 1.0 million records (1/11)

**Coverage** 1965-present

**Updates** Weekly

**Language** English

**Database Producer**

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The University of Tulsa  
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**Sources**

- Conferences
  - Government Reports
  - Journals
  - Monographs
  - Patents
  - Theses
- 

**User Aids**

Petroleum Abstract Bulletin No. / Corresponding TULSA AN on STN:

[http://www.stn-international.de/tulsa\\_an\\_pdf.html](http://www.stn-international.de/tulsa_an_pdf.html)

or

[http://www.stn-international.de/tulsa\\_an\\_xls.html](http://www.stn-international.de/tulsa_an_xls.html)

- Online Helps (HELP DIRECTORY lists all help messages available)
  - STNGUIDE
- 

**Clusters**

- ALLBIB
  - AUTHORS
  - CASRNS
  - CHEMISTRY
  - CORPSOURCE
  - ENGINEERING
  - ENVIRONMENT
  - FUELS
  - GEOSCIENCE
  - HPATENTS
  - PATENTS
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## Search and Display Field Codes

The fields that allow left truncation in this file are indicated by an asterisk (\*).

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index * (contains single words from the title (TI), abstract (AB), chemical name (CN), controlled term (CT), and subject heading (SH) fields, as well as CAS Registry Numbers)	None (or /BI)	S RESCUE S OFFSHORE INSTALLATION# S SODIUM (L) SULFATE S 64-19-7 S 51-92-3Q S ?STRUCT?	AB, CT, RN, SH, TI
Abstract * <b>(6)</b>	/AB	S COST/AB S ?SHORE?/AB S (?SHORE?(S)?STRUCT?)/AB	AB
Accession Number	/AN	S 2006:9998/AN S 1998:10004/AN	AN
Application Country (code and text)	/AC	S FR/AC S GERMANY/AC	AI
Application Date <b>(1)</b>	/AD	S GB/AC AND 20050601-20060531/AD	AI
Application Number <b>(2)</b>	/AP	S GB 1994-9426255/AP S 1994GB-9426255/AP	AI
Application Year <b>(1)</b>	/AY	S AY>=2003	AI
Author (includes inventor)	/AU	S LINDSEY J?/AU	AU
Chemical Name	/CN	S 1,2-PROPANEDIOL/CN	RN
Classification Code <b>(3)</b>	/CC	S WELL SURVEYING/CC	CC
Controlled Term <b>(4)</b> (includes major terms and subject headings)	/CT	S TAX/CT S SEISMIC ENERGY+BT/CT S *FAULT PATTERN/CT	CT, SH
Controlled Word (contains single words from the controlled term (CT) and subject heading (SH) fields)	/CW	S SURFACT?/CW S CRITICAL MICELLE/CW	CT, SH
Corporate Source <b>(3)</b> (includes patent assignee)	/CS	S SERV? EQUIP?/CS	CS
Cross reference	/CR	S 100086/CR	CR
Document Number (Petroleum Abstracts accession number)	/DN	S 273659/DN	DN
Document Type (code and text)	/DT (or /TC)	S L1 AND P/DT S L1 AND PATENT/DT	DT
Entry Date <b>(1)</b>	/ED (or /UP)	S 20000100-20000300/ED	ED
Field Availability	/FA	S CN/FA AND L5	Not displayed
International Patent Classifications <b>(1,4)</b>	/IPC	S A01B/IPC	IPC
International Patent Classification (includes ICM and ICS) <b>(5)</b>	/IC	S P16J/IC S P16J015/IC S P16J015-10/IC	IC
International Patent Classification, Main <b>(5)</b>	/ICM	S H05K007/ICM	ICM
International Patent Classification, Secondary	/ICS	S F01B031/ICS	ICS
International Standard (Document) Number (contains ISBN and ISSN)	/ISN	S 3-936418-04-7/ISN S 0920-4105/ISN	ISN, SO
Inventor	/IN	S IRVINE R L/IN	AU, IN
Journal Title	/JT	S J PETROL SCI ENG/JT	JT, SO

## Search and Display Field Codes (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Language (code and text)	/LA	S DE/LA	LA
Meeting Title	/MT	S (ALTERNAT? ENERGY AND MIAMI)/MT	MT, SO
Number of Report	/NR	S SPE-10006/NR	NR, SO
Patent Assignee (3)	/PA	S PECHORA RES/PA	CS, PA
Patent Country (code and text)	/PC	S GB/PC	PI
Patent Kind Code	/PK	S USB1/PK	PI
Patent Number (2)	/PN	S EP100099/PN	PI
Patent Number/Kind Code	/PNK	S EP100099/PNK	PNK
Priority Application Country (code and text)	/PRC	S PORTUGAL/PRC	PRAI
Priority Application Date (1)	/PRD	S 19951210/PRD	PRAI
Priority Application Number (2)	/PRN	S 1976PL-0192149/PRN	PRAI
Priority Application Year (2)	/PRY	S 2001-2005/PRY	PRAI
Publication Date (1)	/PD	S 20040111/PD S PD>=19990600 S OCT 31,1999-DEC 31, 1999/PD	PI, SO
Publication Year (1)	/PY	S PY>=2004	PY
Source (contains journal title, collation information (volume, issue, pages, number of references), number of report, publication date, meeting information (title, location, date), publisher, publisher location, ISSN, ISBN, patent information, application information, priority information, information patent classifications, pages, and claims)	/SO	S (PETROL AND V 48)/SO S (SPE AND MTG)/SO AND 1995-1996/PY	SO
Subject Heading	/SH	S STRATIGRAPHIC MAPPING/SH	SH
Title *	/TI	S WELL CEMENT/TI S ?DRILL?/TI	TI
Update Date	/UP	S 20100106/UP	ED

(1) Numeric search field that may be searched with numeric operators or ranges.

(2) Either STN format or Derwent format may be used.

(3) Search with implied (S) proximity is available in this field.

(4) There is an online thesaurus associated with this field.

(5) Available only for pre-2006 patent records

(6) TULSA only.

## Super Search Fields

Enter a super search code to execute a search in one or more fields that may contain the desired information. Super search fields facilitate crossfile and multifile searching. EXPAND may not be used with super search fields. Use EXPAND with the individual field codes instead.

Search Field Name	Search Code	Fields Searched	Search Examples	Display Codes
Patent Application and Patent Priority Number (1)	/APPS	/AP, /PRN	S US1970-25003/APPS	AI, PRAI
Patent Countries	/PCS	/PC	S DE/PCS	PI
Patent Numbers (1)	/PATS	/PN	S EP536950/PATS	PI

(1) Either STN format or Derwent format may be used.

## Limiting Search Codes

Search results may be restricted to the following search area in the TULSA File. Only an L-number for an answer set created in TULSA may be limited.

Search Field Name	Search Code	Search Examples
Major descriptor	/MAJOR (1)	S L1/MAJ

(1) The code may be abbreviated to the first three letters.

## Controlled Term (/CT) Thesaurus

There is an exploration and production and geographic term thesaurus available in the Controlled Term (/CT) field. All Relationship Codes can be used with either the SEARCH or EXPAND command.

Relationship Code	Content	Example
ALL	All associated terms (BT, SELF, NOTE, USE, USE+, UF, UF+, NT, RT)	E PIPELINE+ALL/CT
BT	Broader Terms (BT, SELF, NOTE)	S COLNETT BASIN+BT/CT
HIE	Hierarchy terms (all Broader and Narrower Terms) (BT, SELF, NOTE, NT)	E SUBATOMIC PARTICLE+HIE/CT
KT	Keyword Terms (Multiword phrases containing the term) (SELF, KT)	E POWER+KT/CT
NOTE	Notes (SELF, NOTE)	E RESERVOIR BOUNDARY+NOTE/CT
NT	Narrower Terms (SELF, NOTE, NT)	E DEPOSIT+NT/CT
PFT	All Preferred and Forbidden Terms (SELF, UF, UF+, USE, USE+)	E LAND TOPOLOGY+PFT/CT
RT	Related Terms (SELF, RT)	E CLAY CHEMISTRY+RT/CT
STD	All Broader, Narrower, and Related Terms (BT, SELF, NOTE, NT, RT)	E FUEL+STD/CT
UF	Used For terms (Forbidden Terms) (SELF, UF, UF+)	E ABANDONMENT+UF/CT
USE	Use terms (Preferred Terms) (SELF, USE, USE+)	E CROSS FRACTURE+USE/CT

## International Patent Classification (/IPC) Thesaurus

The following Relationship Codes may be used with the EXPAND and SEARCH commands in the /IPC field:

Relationship Code	Description	Example
ALL	All associated terms	E A63B0023-04+ALL/IPC
ADV	Advanced level IPC codes	E A63B0023-00+ADV/IPC
BRO	Complete class	E B015+BRO/IPC
BT	Broader term	E B01B0001-02+BT/IPC
COR	Core level IPC codes	E B01B0001-02+CORE/IPC
ED	Complete title of the SELF term and IPC manual edition	
HIE	Hierarchy terms (all broader and narrower terms)	E A61Q0001-00+HIE/IPC
INDEX	Complete title of the SELF term	E E21D+INDEX/IPC
KT	Keyword term	E BOREHOLIST+KT/IPC
NEXT	Next classification	E E21D+NEXT/IPC
NT	Narrower term	E E21B0043-00+NT/IPC
PREV	Previous classification	E G01N0001-08+PREV/IPC
RT	Related term	E E10M0113-10+RT/IPC
TI	Complete title of the SELF term and Broader Terms	E C10M0113-10+TI/IPC

## DISPLAY and PRINT Formats

Any combination of display formats listed below may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI AU, D L1 1-5 TI, AU. The fields are displayed in the order requested.

Hit-term highlighting is available in all fields. Highlighting must be on during SEARCH to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AB AI (AP) AN (1) AU CC (1) CR CS CT (1) DN DT (TC) ED IC (IPC) (1) ICM (1) ICS (1) IPC IN ISN (2) JT (2) LA MT (2) NR (2) PA PI (PN, PATS) PRAI (PRN) PY (2) RN (CN) (1) SH (1) SO TI (1) UP	Abstract Application Information Accession Number Author or Inventor Classification Code Cross reference Corporate Source or Patent Assignee Controlled Term (includes SH) Document Number (Petroleum Abstracts accession number) Document Type Entry Date International Patent Classification (ICM and ICS) IPC, Main IPC, Secondary International Patent Classification Inventor International Standard (Document) Number (ISBN or ISSN) Journal Title Language Meeting Title Number of Report Patent Assignee Patent Information Priority Information Publication Year CAS Registry Number and Chemical Name Subject Heading Source Title Update Date	D L4 1-4 AB D L1 3 AI PI D AN 1,3-5 D 1-3,7,8 AU D CC 1- D CR 1-5 D L3 CS 3 D 1 3 6,8 CT D DN D DT D ED D L8 IC 1-3 D 1,4 ICM D ICS D IPC D IN PA D ISN 3 4 D JT D TI LA D L3 MT D NR D L3 4 PA PI D PI D PRAI D PY D RN D SH D SO D TI 1-10 D UP
ABS ALL APPS CBIB BIB DALL IALL IBIB IND (1) SCAN (1,3) TRIAL (TRI, SAM) (1) XML	AB AN, DN, CR, TI, AU, IN, CS, PA, PI, AI, PRAI, SO, DT, LA, ED, AB, IC (ICM, ICS), IPC, CC, SH, CT, RN AI, PRAI AN, DN, compressed bibliographic information AN, DN, CR, TI, AU, IN, CS, PA, PI, AI, PRAI, SO, DT, LA, ED (BIB is the default) ALL, delimited for post-processing ALL, indented with text labels BIB, indented with text labels IC (ICM, ICS), IPC, CC, SH, CT, RN TI, IC (ICM, ICS), IPC, CC, SH, CT, RN (random display without answer numbers) DN, TI, IC (ICM, ICS), IPC, CC, SH, CT, RN XML version of ALL format	D ABS D 1-5 ALL  D APPS 5-10 D CBIB AB D  D DALL D IALL D IBIB D 10 20 IND D SCAN  D TRIAL TOTAL  D XML
HIT KWIC OCC (1)	Fields containing hit terms Hit terms plus 20 words on either side (Key-Word-In-Context) Number of occurrences of hit terms and fields in which they occur	D HIT D KWIC NOH D OCC

(1) No online display fee for this format.

(2) Custom display only.

(3) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

## SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y	N
Accession Number	AN	Y	N
Application Country	AC	Y (3)	Y
Application Date	AD	Y	Y
Application Information	AI	Y (4)	Y
Application Number	AP	Y	Y
Application and Priority Numbers	APPS	Y (5)	N
Application Year	AY	Y (3)	Y
Author/Inventor	AU	Y	Y
CAS Registry Number	RN	Y (2)	N
CAS Registry Number and Chemical Name	CHEM	Y (2)	N
Chemical Name	CN	Y	N
	NAME	Y (2)	N
Citation	CIT	Y (3,6)	N
Classification Code	CC	Y	Y
Controlled Term	CT	Y	N
Corporate Source/Patent Assignee	CS	Y	Y
Cross Reference	CR	Y (7)	N
Document Number (Petroleum Abstracts accession number)	DN	Y	Y
Document Type	DT	Y	Y
Entry Date	ED	Y	N
International Patent Classification, Main and Secondary	IC	Y	Y
International Patent Classifications	IPC	Y	Y
International Standard Book Number	ISBN	N	Y
International Standard (Document) Number	ISN	Y (8)	N
International Standard Serial Number	ISSN	N	Y
IPC, Main	ICM	Y	Y
IPC, Secondary	ICS	Y	Y
Journal Title	JT	Y	Y
Language	LA	Y	Y
Meeting Title	MT	Y	Y
Number of Report	NR	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
Patent Country	PC	Y (3)	Y
	PCS	Y (3)	N
Patent Information	PI	Y (9)	Y
Patent Kind Code	PK	Y	Y
Patent Number	PN	Y	Y
	PATS	Y	N
Patent Number/Kind Code	PNK	Y	N
Priority Application Country	PRC	Y (3)	Y
Priority Application Date	PRD	Y	Y
Priority Application Information	PRAI	Y (10)	Y

**SELECT, ANALYZE, and SORT Fields (cont'd)**

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Priority Application Number	PRN	Y	Y
Priority Application Year	PRY	Y (3)	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Source	SO	Y (11)	N
Subject Heading	SH	Y	N
Title	TI	Y (default)	Y
Treatment Code	TC	Y	Y
Update Date	UP	Y	N

- (1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT CT.
- (2) Appends /BI to the terms created by SELECT.
- (3) SELECT HIT and ANALYZE HIT are not valid with this field.
- (4) Selects or analyzes Application Number with /AP appended to the terms created by SELECT.
- (5) Selects or analyzes AP and PRN with /APPS appended to the terms created by SELECT.
- (6) Extracts first author, publication year, and first page with a truncation symbol appended and with /RE appended to the terms created by SELECT.
- (7) Appends /DN to the terms created by SELECT.
- (8) Selects or analyzes ISSN or ISBN with /ISN appended to the terms created by SELECT.
- (9) Selects or analyzes patent number with /PN appended to the terms created by SELECT.
- (10) Selects or analyzes priority application number with /PRN appended to the terms created by SELECT.
- (11) Selects or analyzes ISBN or ISSN with /SO appended to the terms created by SELECT.

**Sample Records****DISPLAY BIB**

AN 2009:18293 TULSA2  
 DN 1001721  
 CR 925749  
 TI [R] MAGNOLIA DEEPWATER EXPERIENCE - FRAC PACKING LONG, PERFORATED  
 INTERVALS IN UNCONSOLIDATED SILT RESERVOIRS  
 AU EATON, L F; REINHARDT, W R; BENNETT, J S; BLAKE, K; MORALES, H  
 CS CONOCOPHILLIPS; DEVON ENERGY CORP; SCHLUMBERGER  
 SO SPE DRILLING & COMPLETION v.24, no.1, pp.169-180, March 2009. (ISSN:  
 1064-6671; SPE-105541; 8 refs) SRLA# 925,749  
 DT Conference Article; Conference  
 LA English  
 ED Entered STN: 1 Jul 2009  
 Last Updated on STN: 1 Jul 2009

**DISPLAY IALL**

ACCESSION NUMBER: 2010:1802 TULSA  
DOCUMENT NUMBER: 1022141  
TITLE: SUBSEA TEST APPARATUS, ASSEMBLY AND METHOD  
INVENTOR: OVERFIELD, T M  
PATENT ASSIGNEE: ZETECHTICS LTD  
PATENT INFO.: WO--2009106826 A2 20090903  
APPLN. INFO.: 2009WO-000900532 20090225  
PRIORITY INFO.: 2008GB-000803459 20080226  
SOURCE: World 2009/106,826A2, p. 9/3/2009, f. 2/25/2009 (Appl. 0,900,532), pr. Gr. Brit. 2/26/2008 (Appl. 0,803,459) (E21B-0033/035; E21B-0033/038). (42 pp)  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 13 Jan 2010  
Last Updated on STN: 13 Jan 2010

**ABSTRACT:**

Subsea test apparatus comprises: a connector for mating with a corresponding connector of subsea apparatus to provide at least one of electrical, optical, and fluid connection between the test apparatus and the subsea apparatus; measuring means connected to the test apparatus's connector and operable underwater in a measurement mode; a power supply arranged to power the measuring means; and disconnection means for disconnecting the test apparatus's connector from a mated subsea apparatus's connector. The measuring means, in said measurement mode, is arranged to perform at least one measurement, via the mated connectors, on connected subsea apparatus, and the test apparatus further comprises indicating means operable underwater and arranged to provide an indication of a result of the or each measurement.

**INT. PATENT CLASS.:**

IPC: E21B0033-38; E21B0033-35  
CLASSIFICATION: SCIENCE & ENGINEERING  
SUBJECT HEADING: \*NONDESTRUCTIVE TESTING  
CONTROLLED TERM: \*ELECTRIC POWER SOURCE; \*ELECTRICAL EQUIPMENT; \*ENERGY SOURCE; \*INSTRUMENT; \*OFFSHORE EQUIPMENT; \*OPTICAL INSTRUMENT; \*PIPE TESTING; \*TESTING; \*UNDERWATER COUPLING; (P) WORLD; CHART; CONNECTION; CONNECTOR; CONTROL; DATA PRESENTATION; DIAGRAM; DISCONNECTING; ELECTRICAL CONDUCTIVITY; ELECTRICAL PROPERTY; ENGLISH; FIBER; FIELD TESTING; FITTING; FLOWLINE; INSPECTING; MEASURING; OFFSHORE PRODUCING STRUCTR; OFFSHORE STRUCTURE; OPTICAL FIBER; PATENT; PHYSICAL PROPERTY; PIPELINE; REMOTE CONTROL; RESISTIVITY; SCIENCE & ENGINEERING; SUBSEA PRODUCTION SYSTEM; TRANSPORTATION; UMBILICAL; UNDERWATER PIPELINE; UNDERWATER WELLHEAD; UNMANNED VEHICLE; VEHICLE; VISUAL AID; WAVEGUIDE; WELLHEAD; ZETECHTICS LTD

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